

CONSTRUCTION AGREEMENT

Lee County, a political subdivision of the State of Florida, by and through its Board of County Commissioners (the "County"), hereby contracts with Legacy Building Solutions, Inc. (the "Contractor") of 19500 Co. Rd. 142 South Haven, MN 55382, whose federal tax identification number is 27-2435695, a Minnesota corporation authorized to perform all Work in the State of Florida in connection with the County's Procurement No. SS180295MKP (the "Project"). The Work is set forth in the Plans and Specifications prepared by CDM Smith, Inc., the "Design Professional," and other Contract Documents hereafter specified (the "Work").

The County and the Contractor, for the consideration herein set forth, agree as follows:

Section 1. Definitions.

Wherever used in the Contract Documents, the following terms have the meanings indicated which are applicable to both the singular and plural thereof:

- A. Agreement – The written Contract between County and Contractor covering the Work and other Contract Documents that are attached to or referred to in the Agreement. All such documents shall be deemed to be a part of the Agreement for all purposes.
- B. Allowance – A funding amount budgeted for a certain item of Work with details that are not yet determined at the time of contracting.
- C. As-Built – The "as built" drawings for the Project. A revised set of Drawings submitted by Contractor upon Substantial Completion of the Project with certified survey data. They reflect all changes made in the Drawings during the Construction process, and show the exact dimensions, geometry, and location of all elements of the Work completed under the Agreement.
- D. Bonds – Performance and Payment Bonds and other instruments of security.
- E. Change Order – A written order to the Contractor signed by the County, issued after execution of the Contract, authorizing a change in the Work or an adjustment in the Contract Amount or the Contract Time. The Contract Amount and the Contract Time may be changed only by a Change Order. A Change Order signed by the Contractor indicates its agreement therewith, including the adjustment in the Contract Amount or the Contract Time.
- F. Commencement Date – The date established in the Notice to Proceed for the start of the Work.
- G. Construction – The process of performing the Work and the final end product of that process. This term may also refer to portions of the final end product.

The terms construct and constructing and other similar variations of those terms also refer to Construction as defined herein. The term Construction shall not be deemed to include the performance of Design Professional services.

- H. Contract Amount – The amount specified in Section 4 of the Agreement. The Contract Amount may be changed from time to time pursuant to the terms and conditions of this Agreement.
- I. Contract Documents – The documents as listed under Section 2 of the Agreement.
- J. Contract Time – The time stated in the approved Project Schedule to achieve Substantial Completion, and to finally complete the Work so that it is ready for final payment in accordance with the terms of this Agreement.
- K. Contractor – The individual or entity with whom County has entered into Contract with as indicated in the Agreement.
- L. County – The Board of County Commissioners of Lee County, Florida, a political subdivision of the State of Florida, its successors and assigns.
- M. Defective – An adjective which when modifying the terms Construction or Work refers to Construction or Work that is delayed, unsatisfactory, faulty or deficient, in that it does not conform to the Contract Documents, or does not meet the requirements of any inspection, reference standard, test, or approval referred to in the Contract Documents, or has been damaged prior to County's final payment (unless responsibility for the protection thereof has been assumed by County as of the time of damage pursuant to the terms and conditions of the Contract Documents).
- N. Design Professional – A duly licensed individual or entity designated by County to perform or furnish specified architectural or engineering services in connection with the Work.
- O. Drawings – Those portions of the Contract Documents prepared by or for Design Professional and approved by County consisting of drawings, diagrams, illustrations, schedules and other data which show the scope, extent, and character of the Work.
- P. Effective Date – The date indicated in the Agreement on which it becomes effective, but if no such date is indicated, it means the date on which the Agreement is signed and delivered by the last of the two parties to sign and deliver.
- Q. Field Directive Change Orders – A written order making a minor amendment to the Agreement, which is signed by the Contractor and approved in accordance

with County policies and procedures. An amendment is minor if it does not change: (i) the scope of the Project, (ii) the amount of the purchase or compensation, or (iii) the time for execution or completion of the Contract.

- R. Final Completion – The time at which all Construction and all Work has been fully, finally, and properly completed in accordance with the Contract Documents and all other duties, responsibilities, and obligations have been performed, as verified by the County with tests, inspections, or otherwise, so as to entitle the Contractor to submit a Bill or Invoice for final payment in accordance with Section 26 of this Agreement. Final Completion occurs when the Project is accepted by the County as evidenced by a letter of Final Completion signed by the Design Professional, the Contractor and the County. The terms “finally complete” and “finally completed” also refer to Final Completion.
- S. Invoice or Bill – The form which is to be used by Contractor in requesting progress or final payments and which is to be accompanied by such supporting documentation as is required by the Contract Documents.
- T. Laws and Regulations – Any and all applicable laws rules, regulations, ordinances, codes and orders of any and all governmental bodies, agencies, authorities and courts having jurisdiction.
- U. Liquidated Damages – Damages, usually in the form of monetary payment, agreed to by the parties to a contract which are due and payable as damages in the event of a breach of all or part of such contract. Liquidated Damages may be applied on a daily basis for as long as the breach is in effect.
- V. Notice of Intended Decision – A document signed by the County Director of Procurement Management or designee providing notice to the public of its intent to award a formal solicitation.
- W. Notice to Proceed – A written notice issued by the County to the Contractor, authorizing the Contractor to commence Work on the Project. The Notice to Proceed shall include the Commencement Date on which the Contract Time begins to run.
- X. Project – The entire undertaking of the County, identified by County as indicated in the Exhibits of the Agreement, of which the Construction to be provided under the Contract Documents may be the whole, or a part as may be indicated elsewhere in the Contract Documents.
- Y. Record Drawings – The certified Record Drawings from the Design Professional. A revised set of Drawings that reflect all changes made in the Specifications and Drawings during the Construction process.

- Z. Schedule of Values – A schedule, prepared by Contractor and accepted by County, which divides the Work into various major components, units, or divisions and which assigns a portion of the Contract Amount to each of such components, units or divisions.
- AA. Shop Drawings – Diagrams, schedules, drawings, and other types of data prepared specifically by the Contractor, and requiring approval from the Design Professional, to demonstrate how the Work will be implemented by the Contractor.
- BB. Site – The real property or other areas designated in the Contract Documents as being furnished by County for the performance of the Construction, storage, or access.
- CC. Specifications – Those portions of the Contract Documents which are organized into divisions, sections, and articles pertaining to, but not limited to, materials, style, workmanship, fabrication, dimensions, colors, warranties, finishes, quality, manufacturer, grade and operational data of all components to be provided by the Contractor as applied to the Construction and incorporated into the Project with certain administrative details applicable thereto.
- DD. Subcontractor – A person, firm, partnership, corporation, or entity who has a direct contract with the Contractor to perform any of the Work at the Site. The term Subcontractor does not include those whose sole purpose is that of a Supplier of materials, but a Supplier of materials shall be classified as a Subcontractor if it enters into any agreement, whether written or verbal, for the installation of said materials. The term Subcontractor means a Subcontractor or its authorized representative.
- EE. Submittal – A written or graphic document prepared by or for Contractor which is required by the Contract Documents to be submitted to County by Contractor. Submittals may include, but are not necessarily limited to Drawings, Specifications, progress schedules, Shop Drawings, samples, cash flow projections, and Schedules of Values. Submittals other than Drawings and Specifications are not Contract Documents.
- FF. Substantial Completion – The time at which the Construction has progressed and the Work has been completed to the point where it is sufficiently complete, in accordance with the Contract Documents, so that the Construction can be effectively and efficiently utilized for the purposes for which it is intended without any material impairment of function for a pre-described period of time. If applicable, a temporary certificate of occupancy or compliance issued by the building official is required concurrent with or prior to issuance of a certificate of Substantial Completion. The terms “substantially complete” and “substantially completed” refer to Substantial Completion. The term Substantial

Completion may be used in the Contract Documents in reference to a particular portion of the Construction, in which case the term will be applied as defined above only to that portion of the Construction, otherwise it shall be deemed to refer to the total Construction.

- GG. Supplier – A manufacturer, fabricator, distributor, materialmen or vendor.
- HH. Surety – The surety company or individual that is bound by Contract bond with and for the Contractor who is primarily liable, and is responsible for Contractor's acceptable performance of the Project and payment of all debts pertaining to the Contract Documents in accordance with Section 255.05, Florida Statutes.
- II. Work – All labor, materials, equipment and incidentals required to fully, finally and properly complete the Construction and otherwise fully, finally and properly comply with all terms and conditions of the Contract Documents.

Section 2. Contract Documents.

A. The Contract Documents consist of this Agreement, the Exhibits described in Section 36 hereof, Change Orders, Field Directive Change Orders, Work authorizations and amendments relating thereto. All of the foregoing Contract Documents are incorporated by reference and made a part of this Agreement (all of said documents including the Agreement sometimes being referred to herein as the "Contract Documents" or "Contract" and sometimes as the "Agreement"). A copy of the Contract Documents shall be maintained by Contractor at the Project Site at all times during the performance of the Work.

B. The Design Professional is the initial interpreter of the Contract Documents but is not the judge between the County and the Contractor. The County reserves the right to make final decisions considering the Design Professional's recommendations or interpretations of the Contract Documents. The Design Professional does not have authority to obligate or commit the County to fund additional expenditures or approve extensions of time over the approved Contract Time or Amount. However, the Design Professional's interpretation as to the intent of his design shall be final and not subject to interpretation by the County's staff.

C. Any Work that may be reasonably inferred from the Specifications or Drawings as being required to produce the intended result shall be supplied whether or not it is specifically called for. In case of any inconsistency or conflict among the provisions of the Agreement and any other terms and conditions of any documents comprising the Contract Documents, the provisions of the Agreement shall control. Concerning the Contract Documents, the order of precedence shall be as follows: (1) Change Orders; (2) the Agreement, including amendments and Exhibits; (3) Field Directive Change Orders; (4) the solicitation documents, including any addenda. The Contract Documents listed above represent the entire and integrated Agreement between the parties hereto, and supersede prior negotiations, representations, or agreements, either written or oral.

D. Work, materials or equipment described in words which have a well-known technical or trade meaning, shall be deemed to refer to such recognized standards.

E. The County shall furnish to the Contractor up to five (5) sets of the Contract Documents as are reasonably necessary for execution of the Work. Additional copies of the Contract Documents shall be furnished, upon request, at the cost of reproduction.

F. The Contractor agrees to bind specifically every Subcontractor to the applicable terms and conditions of the Contract Documents for the benefit of the County.

G. Construction services provided by Contractor for the Project shall be under the general direction of Michael Avoglia, or their successor, who shall act as the County's representative during the term of this Agreement. If the County's representative is not a County employee, then County's representative is not authorized to issue changes to the Contract Amount, Contract Time, or Scope of Work without express approval by the Department Director, County Manager, or Board of County Commissioners.

H. The County's representative, within the authority conferred by the Board of County Commissioners, shall initiate written Change Orders, and notification to the Contractor of any and all changes approved by the County in the Contractor's: (1) compensation; (2) time and/or schedule of service delivery; (3) and any amendment (s) or other change(s) relative to the Work pursuant to this Contract or Change Orders pertaining thereto. Following County approval, the County's representative shall coordinate issuance of any such documents. The County's representative shall be responsible for acting on the County's behalf to administer, coordinate, interpret and otherwise manage the contractual provisions and requirements set forth in this Contract or any amendments, or Change Orders issued hereunder.

I. Neither the Contractor nor any Subcontractor, Supplier, or other person or organization performing or furnishing any of the Work under a direct or indirect contract with the County shall have or acquire any title to or ownership rights to any of the Drawings, Specifications or other documents (or copies of any thereof) prepared by or bearing the seal of the Design Professional; and they shall not reuse any of them on extensions of the Project or any other project without written consent of the County or their Design Professional and the specific written verification or adaptation by the Design Professional.

Section 3. Scope of Work.

A. The Contractor agrees to furnish and pay for all management, supervision, financing, labor, materials, tools, transportation, fuel, supplies, utilities, equipment and services of every kind and type necessary to diligently, timely, and fully perform and complete, in a good and workmanlike manner, the Work required by Exhibit A, titled Scope of Work.

B. All materials and equipment shall be applied, installed, connected, erected, used, cleaned and conditioned in accordance with the instructions of the applicable manufacturers, fabricator or processors except as otherwise provided in the Contract Documents.

C. The Contractor shall be responsible for coordinating its activities under this Agreement with the activities of projects occurring at adjacent sites so as to most efficiently achieve the goals of each project.

Section 4. Contract Amount.

A. In consideration of the faithful performance by the Contractor of the covenants in this Agreement to the full satisfaction and acceptance of the County, the County agrees to pay, or cause to be paid, to Contractor the following Contract Amount in accordance with the terms of this Agreement: \$619,496.00 or in words: Six Hundred Nineteen Thousand, Four Hundred Ninety-Six Dollars and Zero Cents.

B. Where the Contract Documents provide that all or part of the Work is to be billed by unit prices, the Contract Amount will be deemed to include for all Work an amount equal to the sum of the established unit prices for each separately identified item of Work times the estimated quantity of each item as indicated in the Agreement. The estimated quantities of items of Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Amount. Each unit price shall be deemed to include an amount considered by the Contractor to be adequate to cover the Contractor's overhead and profit for each separately identified item. The unit price of an item of Work shall be subject to revaluation and adjustment under the following conditions, and in accordance with the provisions of this Agreement:

B1. If the total cost of a particular item of Work amounts to 5% or more of the Contract Price and the variation in the quantity of that particular item of Work performed by the Contractor differs by more than 15% from the estimated quantity of such item indicated in the Agreement; and,

B2. If there is no corresponding adjustment with respect to any other item of Work; and

B3. If the Contractor believes that it has incurred additional expense as a result thereof; or

B4. If the County believes that the quantity variation entitles it to an adjustment in the unit price, either the County or the Contractor may make a claim for an adjustment in the Contract Amount if the parties are unable to agree as to the effect of any such variations in the quantity of Unit Price Work performed.

C. If the Contract Amount includes an Allowance, the Contractor shall cause the Work covered by the Allowance to be done for such sums within the limits of the Allowance as the County may approve. The Contractor agrees that the Contract Amount includes such sums as they deem proper for costs and any profit on account of any Allowances. No demands for an additional sum for overhead or profit will be allowed.

D. Any agreed upon changes to the Contract Amount must be accomplished by an approved, written Change Order in the form attached to this Agreement.

Section 5. Bonds.

A. The Contractor shall provide Performance and Payment Bonds, in the form prescribed in the Exhibits to the Agreement, in the amount of 100% of the Contract Amount, the costs of which are to be paid by Contractor. If the Contract is increased by a Change Order, it shall be the Contractor's responsibility to ensure that the Performance and Payment Bonds are amended accordingly and a copy of the amendment recorded by the Lee County Clerk of Court and forwarded to the County. The Performance and Payment Bonds shall be underwritten by a Surety authorized to do business in the State of Florida and otherwise acceptable to the County; provided, however, the Surety shall be rated as "B+" or better as to general policy holders rating as reported in the most current Best Key Rating Guide, published by A.M. Best Company, Inc.

B. Attorneys-in-Fact who sign Bonds for County projects must file with such Bond a certified copy of their Power of Attorney to sign such Bond. All agents of Surety companies must list their name, address, and telephone number on all Bonds. The life of all Bonds provided to the County shall extend twelve (12) months beyond the date of final payment and shall contain a waiver of alternation to the terms of the Contract, extensions of time and/or forbearance on the part of the County. The Surety must have fulfilled all of its obligations on all other Bonds previously provided to the County. The Surety must have a minimum underwriting limitation of \$5,000,000 published in the latest edition of the Federal Register for Federal Bonds (U.S. Dept. of Treasury).

C. If the Surety for any Bond furnished by Contractor is declared bankrupt, becomes insolvent, its right to do business is terminated in the State of Florida, or it ceases to meet the requirements imposed by the Contract Documents, the Contractor shall, within five (5) calendar days thereafter, substitute another Bond and Surety, both of which shall be subject to the County's approval.

D. If the Contractor cannot obtain another Bond and Surety within five (5) calendar days, the County may accept and the Contractor shall submit an irrevocable letter of credit drawn on a Lee County, Florida bank until the Bond and Surety can be obtained.

Section 6. Contract Time and Liquidated Damages

A. Time is of the essence in the performance of the Work under this Agreement. The Commencement Date is established in the Notice to Proceed to be issued by the County, and the Contractor must begin the Work within the number of days specified by the Notice to Proceed. Written Notice to Proceed is contingent upon and will be done subsequent to the Contractor fully satisfying the County's stated insurance and Bond submittal requirements. No Work shall be performed at the Project Site prior to the Commencement Date. Any Work performed by the Contractor prior to the Commencement Date shall be at the sole risk of the Contractor. The Work shall be Substantially Completed within 120 calendar days from the Commencement Date. The date of Substantial Completion of the Work (or designated portions thereof) is the date certified by the Design Professional when Construction is sufficiently complete, in accordance with the Contract Documents, so the County can occupy or utilize the Work (or designated portions thereof) for the use for which it is intended. The Work shall be fully completed and ready for final acceptance by the County within 150 calendar days from the Commencement Date and that time period shall be the Contract Time.

B. The County and the Contractor recognize that, since time is of the essence for this Agreement, the County will suffer financial loss if the Work is not Substantially Completed within the time specified above, as said time may be adjusted as provided for herein. Should the Contractor fail to Substantially Complete the Work within the time period noted above, the County shall be entitled to assess, as Liquidated Damages, but not as a penalty, \$1,500.00 for each calendar day thereafter until Substantial Completion is achieved. The Work shall be deemed to be Substantially Completed on the date the Design Professional issues a Substantial Completion Certificate pursuant to the terms hereof. The Contractor hereby expressly waives and relinquishes any right which it may have to seek to characterize the above noted Liquidated Damages as a penalty, which the parties agree represents a fair and reasonable estimate of the County's actual damages at the time of contracting if the Contractor fails to Substantially Complete the Work in a timely manner.

C. When any period of time is referenced by days herein, it shall be computed to exclude the first day and include the last day of such period. All days shall mean calendar day and not business day.

D. Any agreed upon changes to the Contract Time must be accomplished by an approved, written Change Order in the form attached to this Agreement.

Section 7. Intent of Contract Documents

A. It is the intent of the Contract Documents to describe a functionally complete Project (or portion thereof) to be constructed in accordance with the Contract Documents. Any work, materials or equipment that may reasonably be inferred from the Contract Documents as being required to produce the intended result shall be supplied whether or not specifically called for. When words which have a well-known technical or trade meaning are used to describe Work, materials or equipment, such words shall be

interpreted in accordance with that meaning. Reference to standard specifications, manuals or codes of any technical society, organization or association or to the Laws or Regulations of any governmental authority having jurisdiction over the Project, whether such reference be specific or by implication, shall mean the latest standard specification, manual, code, Law and Regulation in effect at the time the Work is performed, except as may be otherwise specifically stated herein.

B. If before or during the performance of the Work, Contractor discovers a conflict, error or discrepancy in the Contract Documents, Contractor immediately shall report same to Design Professional and County in writing and before proceeding with the Work affected thereby shall obtain a written interpretation or clarification from the Design Professional. If required, a Field Directive Change Order or Change Order will be issued pursuant to Section 16 of this Agreement. If the Contractor performs any Construction activity knowing it involves a recognized error, inconsistency or omission in the Contract Documents without such notice to the Design Professional and County, the Contractor shall assume responsibility for such performance and shall share in costs associated with any corrections. Contractor shall take field measurements and verify field conditions and shall carefully compare such field measurements and conditions and other information known to Contractor with the Contract Documents before commencing any portion of the Work.

C. Drawings are intended to show general arrangements, design and extent of Work and are not intended to serve as Shop Drawings. Specifications are separated into divisions for convenience of reference only and shall not be interpreted as establishing divisions for the Work, trades, subcontracts, or extent of any part of the Work. In the event of a discrepancy between or among the Drawings, Specifications or other Contract Document provisions, Contractor shall be required to comply with the provision which is the more restrictive or stringent requirement upon the Contractor, as determined by the Design Professional. Unless otherwise specifically mentioned, all anchors, bolts, screws, fittings, fillers, hardware, accessories, trim and other parts required in connection with any portion of the Work to make a complete, serviceable, finished and first quality installation shall be furnished and installed as part of the Work, whether or not called for by the Contract Documents.

Section 8. Investigation and Utilities

A. Contractor shall have the sole responsibility of satisfying itself concerning the nature and location of the Work and the general and local conditions, and particularly, but without limitation, with respect to the following: those affecting transportation, access, disposal, handling and storage of materials; availability and quality of labor; water, sewer, and electric power; availability and condition of roads; Work area; living facilities; climatic conditions and seasons; physical conditions at the Project Site and the Project area as a whole; topography and ground surface conditions; nature and quantity of the surface materials to be encountered; subsurface conditions; equipment and facilities needed preliminary to and during performance of the Work; and all other costs associated with such performance. The failure of Contractor to acquaint itself with any applicable

conditions shall not relieve Contractor from any of its responsibilities to perform under the Contract Documents, nor shall it be considered the basis for any claim for additional time or compensation.

B. Contractor shall locate all existing roadways, railways, drainage facilities and utility services above, upon, or under the Project Site, said roadways, railways, drainage facilities and utilities (surface and subsurface) being referred to in this Subsection 8.B. as the "Utilities." Contractor shall contact the owners of all Utilities to determine the necessity for relocating or temporarily interrupting any Utilities during the Construction of the Project. Contractor shall schedule and coordinate its Work around any such relocation or temporary service interruption. Contractor shall be responsible for properly shoring, supporting and protecting all Utilities at all times during the course of the Work. Relocation or shutdown of County facilities must be requested by the Contractor in writing a minimum of ten (10) calendar days prior to the proposed Work. The County shall have the final decision with respect to whether the relocation or shutdown is required and when the relocation or shutdown of facilities may take place. The Work may need to be performed at night or on weekends to minimize the interruption of service or to meet the operational needs of the County's facilities.

Section 9. Schedule

A. The Contractor, within ten (10) calendar days after the effective date of the Agreement, shall prepare and submit to the County and Design Professional, for their review and approval, a progress schedule for the Project (herein "Progress Schedule"). The Progress Schedule shall relate to all Work required by the Contract Documents and shall provide for expeditious and practicable execution of the Work within the Contract Time. The Progress Schedule shall indicate the dates for starting and completing the various stages of the Work.

B. The Progress Schedule shall be updated monthly by the Contractor. All monthly updates to the Progress Schedule shall be subject to the County's and Design Professional's review and approval. Contractor shall submit the updates to the Progress Schedule with its monthly applications for payment noted below. The County's and the Design Professional's review and approval of the submitted Progress Schedule updates shall be a condition precedent to the County's obligation to pay Contractor.

Section 10. Progress Payments

A. Contractor agrees and understands that funding limitations exist and that the expenditure of funds must be spread over the duration of the Project at regular intervals based on the Contract Amount and Progress Schedule. Accordingly, prior to submitting its first monthly application for payment, Contractor shall submit to the County and the Design Professional, for their review and approval, a Schedule of Values based upon the Contract Amount, listing the major elements of the Work and the dollar value for each element. After its approval by the County and Design Professional, this Schedule of Values shall be used as the basis for the Contractor's monthly applications for payment.

This schedule shall be updated and submitted each month to the Design Professional along with a completed and notarized copy of the application for payment form. No voluntary acceleration or early completion of the Work shall modify the time of payments to Contractor as set forth in the approved Schedule of Values.

B. Prior to submitting its first monthly application for payment, Contractor shall submit to the County and the Design Professional a complete list of all its proposed Subcontractors and materialmen, showing the Work and materials involved and the dollar amount of each proposed subcontract and purchase order. The first application for payment shall be submitted no earlier than thirty (30) calendar days after the Commencement Date.

C. If payment is requested on the basis of materials and equipment not incorporated into the Project, but delivered and suitably stored at the Site or at another location agreed to by the County in writing, the application for payment shall also be accompanied by a Bill of sale, Invoice or other documentation warranting that the County has received the materials and equipment free and clear of all liens, charges, security interests and encumbrances, together with evidence that the materials and equipment are covered by appropriate property insurance and other arrangements to protect the County's interest therein, all of which shall be subject to the County's satisfaction.

D. Contractor shall submit two (2) copies of its monthly application for payment to the Design Professional on or before the 25th day of each month for Work performed during the previous month. Invoices received after the 25th day of each month shall be considered for payment as part of the next month's application. Within ten (10) calendar days after receipt of each application for payment, the Design Professional shall either:

D.1 indicate his/her approval of the requested payment;

D.2 indicate his/her approval of only a portion of the requested payment, stating in writing his/her reasons therefore; or

D.3 return the application for payment to the Contractor indicating, in writing, the reason for refusing to approve payment and the action necessary to make the payment request proper.

In the event of a total denial and return of the application for payment by the Design Professional, the Contractor may make the necessary corrections and resubmit the application for payment. The County shall, within thirty (30) calendar days after County approval of an application for payment, pay the Contractor the amounts so approved. Provided, however, in no event shall the County be obligated to pay any amount greater than that portion of the application for payment approved by the Design Professional.

E. The County shall initially retain ten percent (10%) of the gross amount of each monthly payment request or ten percent (10%) of the portion thereof approved by the Design Professional for payment, whichever is less. After 50% of the services are

completed, the County will reduce the retainage to five percent (5%) of each subsequent progress payment. Such sums shall be accumulated and released to Contractor with final payment.

For purposes of determining 50% completion, stored material and general job costs such as mobilization, Bonds, insurance, field office costs and like costs shall be excluded. Additionally, for purposes of this determination, each major discipline (electrical and instrumentation, structural, and mechanical) must independently achieve 50% completion in order for the Project services to be deemed 50% complete.

F. Monthly payments to Contractor shall in no way imply or constitute approval or acceptance of Contractor's Work.

G. Each application for payment shall be accompanied by a Release and Affidavit in the form attached to this Agreement, showing that all materials, labor, equipment and other bills associated with that portion of the Work for which payment is being requested have been paid in full. The County shall not be required to make payment until and unless these affidavits are furnished by the Contractor.

Section 11. Payments Withheld

A. The Design Professional or the County may decline to approve any application for payment, or portions thereof, because of subsequently discovered evidence or subsequent inspections. The Design Professional or the County may nullify the whole or any part of any approval for payment previously issued and the County may withhold any payments otherwise due Contractor under this Agreement or any other agreement between the County and Contractor, to such extent as may be necessary in the County's opinion to protect it from loss because of:

A.1 Defective Work not remedied;

A.2 Third party claims filed or reasonable evidence indicating probable filing of such claims;

A.3 Failure of Contractor to make payment properly to Subcontractors or for labor, materials or equipment;

A.4 Reasonable doubt that the Work can be completed for the unpaid balance of the Contract Amount;

A.5 Reasonable indication that the Work will not be completed within the Contract Time;

A.6 Unsatisfactory prosecution of the Work by the Contractor;

A.7 Failure to provide accurate and current Record Drawings; or

A.8 Any other material breach of the Contract Documents.

B. If these conditions in Subsection 11.A are not remedied or removed, the County may, after three (3) calendar days' written notice, rectify the same at Contractor's expense. The County also may offset against any sums due Contractor the amount of any Liquidated or unliquidated obligations of Contractor to the County, whether relating to or arising out of this Agreement or any other agreement between Contractor and the County.

Section 12. Final Payment

A. The County shall make final payment to Contractor within thirty (30) calendar days after the Work is finally inspected and accepted by both the County and the Design Professional in accordance with Section 26.B. herein, provided that Contractor first, and as an explicit condition precedent to the accrual of Contractor's right to final payment, shall have furnished the County with a properly executed and notarized copy of the Release and Affidavit, as well as a duly executed copy of the Surety's consent to final payment and such other documentation that may be required by the Contract Documents and the County.

A1. If liquidated damages are to be deducted from the final payment, the County shall so notify the Contractor in writing at least seven (7) calendar days prior to the County's submittal of the invoice to the Clerk of Court for payment.

A2. The Contractor shall submit to the County with the final payment documents a DBE Participation Certification, indicating all DBE Subcontractor(s) and amount(s) utilized for the project. If the Contractor did not utilize the DBE firm(s) listed on the Bid Proposal, a letter of justification shall be submitted along with the DBE Participation Certification.

B. Contractor's acceptance of final payment shall constitute a full waiver of any and all claims by Contractor against the County arising out of this Agreement or otherwise relating to the Project, except those previously made in writing and identified by Contractor as unsettled at the time of the final application for payment. Neither the acceptance of the Work nor payment by the County shall be deemed to be a waiver of the County's right to enforce any obligations of Contractor hereunder or to the recovery of damages for Defective Work not discovered by the Design Professional or the County at the time of final inspection.

Section 13. Submittals and Substitutions

A. Contractor shall carefully examine the Contract Documents for all requirements for approval of materials to be submitted such as a Schedule of Values, safety manual, Shop Drawings, data, test results, schedules and samples. Contractor

shall submit all such materials at its own expense and in such form as required by the Contract Documents in sufficient time to prevent any delay in the delivery of such materials and the installation thereof.

B. Shop Drawings And Samples –

B1. After checking and verifying all field measurements, the Contractor shall submit to the Design Professional for approval, in accordance with the acceptable schedule of Shop Drawing submission, five (5) copies (or at the option of the Design Professional, one (1) reproducible copy) of all Shop Drawings, which shall have been checked by and stamped with the approval of the Contractor and identified as the Design Professional may require. The data shown on the Shop Drawings shall be complete with respect to dimensions, design criteria, materials of construction and the like to enable the Design Professional to review the information as required. The Contractor shall also submit to the Design Professional for approval with such promptness as to cause no delay in the Work, all samples required by the Contract Documents. All samples shall be checked by and stamped with the approval of the Contractor prior to submission and identified clearly as to material, manufacturer, any pertinent numbers and the use for which intended.

B2. At the time of each submission, the Contractor shall, in writing, call the Design Professional's attention to any deviations that the Shop Drawing or sample may have from the requirements of the Contract Documents and, in addition, shall cause a specific notation to be made on each Shop Drawing submitted for review and approval of each such variation.

B3. The Design Professional shall review and approve with reasonable promptness Shop Drawings and samples, but its review and approval shall be only for conformance with the design concept of the Project and for compliance with the information given in the Contract Documents. As such, the approval of a separate item shall not indicate approval of the assembly in which the item functions. The Contractor shall make any corrections required by the Design Professional and will return the required number of corrected copies of Shop Drawings and re-submit new samples until approved. All costs incurred by the County for the review of a Shop Drawing in excess of two (2) reviews shall be the Contractor's responsibility. The Contractor's stamp of approval on any Shop Drawing or sample shall constitute a representation to the Design Professional that the Contractor has either determined and verified all quantities, dimensions, field construction criteria, materials, catalog numbers and similar data or he assumes full responsibility for doing so, and that he has reviewed or coordinated each Shop Drawing or sample with the requirements of the Work and the Contract Documents.

B4. The Design Professional's approval of Shop Drawings or samples shall not relieve the Contractor from his responsibility for any deviations from the requirements of the Contract Documents, unless the Contractor has, in writing,

called the Design Professional's attention to such deviation at the time of submission and the County and the Design Professional have given written approval to the specific deviation. Any approval by the Design Professional also does not relieve the Contractor from responsibility for errors or omissions in the Shop Drawings.

C. Substitutions –

C1. Whenever materials or equipment are specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, the naming of the item is intended to establish the type, function and quality required. Unless the name is followed by words indicating that no substitution is permitted, materials or equipment of other Suppliers may be accepted by the County if sufficient information is submitted by Contractor to allow the County to determine that the material or equipment proposed is equivalent or better than to that named. Requests for review of substitute items of material and equipment will not be accepted by the County from anyone other than Contractor and all such requests must be submitted by Contractor to Design Professional.

C2. If Contractor wishes to furnish or use a substitute item of material or equipment, Contractor shall make application to the Design Professional for acceptance thereof, certifying that the proposed substitute shall perform adequately the functions and achieve the results called for by the general design, be similar and of equal substance to that specified and be suited to the same use as that specified. The application shall state that the evaluation and acceptance of the proposed substitute will not prejudice Contractor's achievement of Substantial Completion on time, whether or not acceptance of the substitute for use in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with the County for the Project) to adapt the design to the proposed substitute and whether or not incorporation or use of the substitute in connection with the Work is subject to payment of any license fee or royalty. All variations of the proposed substitute from that specified will be identified in the application and available maintenance, repair and replacement service shall be indicated. The application also shall contain an itemized estimate of all costs that will result, directly or indirectly, from acceptance of such substitute, including costs for redesign and claims of other contractors affected by the resulting change, all of which shall be considered by the Design Professional in evaluating the proposed substitute. The Design Professional may require Contractor to furnish, at Contractor's expense, additional data about the proposed substitute.

C3. If a specific means, method, technique, sequence or procedure of construction is indicated in or required by the Contract Documents, Contractor may furnish or utilize a substitute means, method, sequence, technique or procedure of construction acceptable to the Design Professional, if Contractor submits

sufficient information to allow the Design Professional to determine that the substitute proposed is equivalent to that indicated or required by the Contract Documents. The procedures for submission to and review by the Design Professional shall be the same as those provided herein for substitute materials and equipment.

C4. The Design Professional shall be allowed a reasonable time within which to evaluate each proposed substitute. The Design Professional shall be the sole judge of acceptability, and no substitute will be ordered, installed or utilized without the Design Professional's and the County's prior written acceptance which shall be evidenced by either a Change Order or an approved Shop Drawing. The County may require Contractor to furnish, at Contractor's expense, a special performance guarantee or other Surety with respect to any substitute. The Design Professional will record time required by the Design Professional and the Design Professional's consultants in evaluating substitutions proposed by Contractor and making changes in the Contract Documents occasioned thereby. Whether or not the County accepts a proposed substitute, Contractor shall reimburse the County for the charges of the Design Professional and the Design Professional's consultants for evaluating each proposed substitute, or such charges may be deducted from an application for payment, at the County's sole discretion.

Section 14. Daily Reports, Record Drawings and Meetings

A. Unless waived in writing by the County, Contractor shall complete and submit to Design Professional on a weekly basis a typed daily log of the Contractor's Work for the preceding week in a format approved by the Design Professional and the County. The daily log shall document all activities of Contractor at the Project Site including, but not limited to, the following:

- A.1. Weather conditions showing the high and low temperatures during work hours, the amount of precipitation received on the Project Site, and any other weather conditions which adversely affect the Work;
- A.2. Soil conditions which adversely affect the Work;
- A.3. The hours of operation by Contractor's and Subcontractor's personnel;
- A.4. The number of Contractor's and Subcontractor's personnel present and working at the Project Site, by subcontract and trade;
- A.5. All equipment present at the Project Site, description of equipment use and designation of time equipment was used (specifically indicating any down time);
- A.6. Description of Work being performed at the Project Site;

- A.7. Any unusual or special occurrences at the Project Site;
- A.8. Materials received at the Project Site;
- A.9. A list of all visitors to the Project Site; and
- A.10. Any problems that might impact either the cost or quality of the Work or the time of performance.

The daily log shall not constitute nor take the place of any notice required to be given by Contractor to the County or Design Professional pursuant to the Contract Documents.

B. Contractor shall maintain in a safe place at the Project Site one record copy of the Contract Documents, including, but not limited to, all Drawings, Specifications, addenda, amendments, Change Orders, Field Directive Change Orders, Work authorizations, approved Shop Drawings, as well as all written interpretations and clarifications issued by the Design Professional, in good order and annotated to show all changes made during Construction. The annotated Drawings shall be continuously updated by the Contractor throughout the prosecution of the Work to accurately reflect all Field Directive Changes that are made to adapt the Work to field conditions, changes resulting from Change Orders, Field Directive Change Orders, and all concealed and buried installations of piping, conduit and utility services. All buried and concealed items, both inside and outside the Project Site, shall be accurately located on the annotated Drawings as to depth and in relationship to not less than two (2) permanent features (e.g. interior or exterior wall faces). The annotated Drawings shall be clean and all changes, corrections and dimensions shall be given in a neat and legible manner in a contrasting color. The annotated Drawings, together with all approved samples and a counterpart of all approved Shop Drawings, shall be available to Design Professional and the County for reference. Current and accurate annotated Drawings shall be submitted with each application for payment. Failure to provide current and accurate annotated Drawings shall be reason for rejecting the application for payment. Upon completion of the Work and as a condition precedent to Contractor's entitlement to final payment, the Record Drawings, samples and Shop Drawings shall be delivered to Design Professional by Contractor for the County.

C. The Contractor shall submit to the Design Professional one complete set of all recorded changes made during Construction entitled "As-Built", and dated. Submittals shall be made in accordance with the above and shall be submitted at the time of Substantial Completion.

D. Certified "as-built" information, which the Contractor must show on marked-up copies of the design drawings, prints, and other materials as specified above, shall include both authorized and unauthorized changes and any modifications to material types from that specified in the bid plans and Specifications. As a prerequisite to any payments, the Contractor shall make available to the Design Professional all "as-built" information pertinent to the design drawings each month prior to his submission of a

monthly application for payment. The Contractor shall also obtain "as-built" cross-sections of the roadway, ditches, channels, and other drainage ways as shown in the Contract Documents at intervals not to exceed 100 ft. The Contractor shall set benchmarks on or within 100 ft. of each control structure constructed as part of the Project. A complete description including elevation and location of each control structure benchmark shall be provided to the Design Professional as part of the "as-built" information. The elevation shall be clearly and permanently indicated on each benchmark.

E. "As-built" dimensions and elevations shall be obtained by a Professional Land Surveyor registered in the State of Florida pursuant to Chapter 472, Florida Statutes. The "as-built" drawings shall be signed and sealed by the Contractor's Professional Land Surveyor in accordance with Section 472.025, Florida Statutes.

F. All pertinent surveyors' field survey notes containing the "as-built" data shall be sealed and submitted to the Design Professional for review and acceptance prior to authorization of the final payment.

G. "As-built" data shall be secured and the accuracy of measurements shall be 0.01 ft.

H. All sub-surface improvements considered part of the Work as shown in the Contract Documents shall be "as-built" by the Contractor prior to backfilling.

I. Contractor shall keep all records and supporting documentation, which concern or relate to the Work hereunder, for a minimum of ten (10) years from the date of termination of this Agreement or the date the Project is completed, whichever is later. The County, or any duly authorized agents or representatives of the County, shall have the right to audit, inspect and copy all such records and documentation as often as they deem necessary during the period of this Agreement and during the five (5) year period noted above; provided, however, such activity shall be conducted only during normal business hours.

J. In addition to other requirements provided herein, Contractor shall comply with public records laws embodied in Chapter 119, Florida Statutes, and specifically shall:

J.1. Keep and maintain public records required by the County in order to perform the Scope of Services identified herein.

J.2. Upon request from the County provide the County with any requested public records or allow the requested records to be inspected or copied within a reasonable time by the County.

J.3. Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the Agreement term and thereafter if the Contractor does not transfer all records to the County.

J.4. Transfer, at no cost, to County all public records in possession of the Contractor upon termination of this Agreement and destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. All records stored electronically must be provided to the County, upon request from the County, in a format that is compatible with the information technology systems of the County. If the Contractor keeps and maintains public records upon the conclusion of this Agreement, the Contractor shall meet all applicable requirements for retaining public records that would apply to the County.

K. If Contractor does not comply with a public records request, the County shall treat that omission as a breach of this Agreement and enforce the Contract provisions accordingly. Additionally, if the Contractor fails to provide records when requested, the Contractor may be subject to penalties under Section 119.10, Florida Statutes, and reasonable costs of enforcement, including attorney fees.

IF THE CONTRACTOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE CONTRACTOR'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS AGREEMENT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT 239-533-2221, 2115 SECOND STREET, FORT MYERS, FL 33901, publicrecords@leegov.com; <http://www.leegov.com/publicrecords>.

Section 15. Contract Time and Extensions

A. Contractor shall diligently pursue the completion of the Work and coordinate the Work being done on the Project by its Subcontractors and materialmen, as well as coordinating its Work with all work of others at the Project Site, so that its Work or the work of others shall not be delayed or impaired by any act or omission by Contractor. Contractor shall be solely responsible for all construction means, methods, techniques, sequences, and procedures, as well as coordination of all portions of the Work under the Contract Documents, and the coordination of the County's Suppliers and contractors as set forth in Paragraph 18.B. herein.

B. Should Contractor be obstructed or delayed in the prosecution of or completion of the Work as a result of unforeseeable causes beyond the control of Contractor, and not due to its fault or neglect, including but not restricted to acts of God or of the public enemy, acts of government, fires, floods, epidemics, quarantine regulation, strikes or lockouts, Contractor shall notify the County in writing within forty-eight (48) hours after the commencement of such delay, stating the cause or causes thereof, or be deemed to have waived any right which Contractor may have had to request a time extension.

C. No interruption, interference, inefficiency, suspension or delay in the commencement or progress of the Work from any cause whatever, including those for which the County may be responsible, in whole or in part, shall relieve Contractor of its

duty to perform or give rise to any right to damages or additional compensation from the County. Contractor expressly acknowledges and agrees that it shall receive no damages for delay. Contractor's sole remedy, if any, against the County will be the right to seek an extension to the Contract Time; provided, however, the granting of any such time extension shall not be a condition precedent to the aforementioned "no damage for delay" provision. This paragraph shall expressly apply to claims for early completion, as well as to claims based on late completion.

Section 16. Changes in the Work

A. The County shall have the right, at any time during the progress of the Work, to increase or decrease the Work. Promptly after being notified of a change, Contractor shall submit an itemized estimate of any cost or time increases or savings it foresees as a result of the change. Except in an emergency endangering life or property, or as expressly set forth herein, no addition or changes to the Work shall be made except upon written order of the County as set forth in this Section, and the County shall not be liable to the Contractor for any increased compensation without such written order. No officer, employee or agent of the County is authorized to direct any extra or changed Work orally.

B. A Change Order, in the form attached in Exhibit F to this Agreement, shall be issued and executed promptly after an agreement is reached between Contractor and the County concerning the requested changes. Contractor shall promptly perform changes authorized by duly executed Change Orders. The Contract Amount and Contract Time shall be adjusted in the Change Order in the manner as the County and Contractor shall mutually agree.

C. If the County and Contractor are unable to agree on a Field Directive Change Order or Change Order for the requested change, Contractor shall, nevertheless, promptly perform the change as directed by the County in a written Field Directive Change Order. In that event, the Contract Amount and Contract Time shall be adjusted as directed by the County. If Contractor disagrees with the County's adjustment determination, Contractor must make a claim pursuant to Section 17 of this Agreement or else be deemed to have waived any claim on this matter it might otherwise have had.

D. In the event a requested change results in an increase to the Contract Amount, the amount of the increase shall be limited to the Contractor's reasonable direct labor and material costs and reasonable actual equipment costs as a result of the change (including Allowance for labor burden costs) plus a maximum ten percent (10%) markup for all overhead and profit. However, where the Work involved is covered by unit prices contained in the Contract Documents or subsequently agreed upon, those unit prices shall be applied to the quantities of the items involved.

D1. In the event such changed Work is performed by a Subcontractor, a maximum ten percent (10%) markup for all overhead and profit for all Subcontractors' and sub-subcontractors' direct labor and material costs and actual equipment costs shall be permitted, with a maximum five percent (5%) markup thereon by the Contractor for all of

its overhead and profit, for a total maximum markup of fifteen percent (15%). All compensation due Contractor and any Subcontractor or sub-subcontractor for field and home office overhead is included in the markups noted above.

E. The County shall have the right to conduct an audit of Contractor's books and records to verify the accuracy of the Contractor's claim with respect to Contractor's costs associated with any Change Order.

F. The Design Professional shall have authority to order minor changes in the Work not involving an adjustment to the Contract Amount or an extension to the Contract Time and not inconsistent with the intent of the Contract Documents. Such changes may be effected by Field Directive Change Order or by other written order. Such changes shall be binding on the Contractor.

Section 17. Claims and Disputes

A. In the event of a dispute or claim arising out of this Agreement, the Contractor shall notify the County and Design Professional in writing within forty eight (48) hours after the first day of the event giving rise to such claim or dispute or else the Contractor shall be deemed to have waived the claim or dispute. Written supporting data shall be submitted to the County and Design Professional within fifteen (15) calendar days after the occurrence of the event, unless the County grants additional time in writing, or else the Contractor shall be deemed to have waived the claim or dispute.

B. In the event of a dispute or claim arising out of this Agreement, the parties agree first to try in good faith to settle the dispute by direct discussion. If this is unsuccessful, the parties may enter into mediation in Lee County, Florida, with the parties sharing equally in the cost of such mediation.

C. In the event mediation, if attempted, is unsuccessful in resolving a dispute, the parties may proceed to litigation as set forth below.

D. Any dispute, action or proceeding arising out of or related to this Agreement shall be exclusively commenced in the state courts of Lee County, Florida, or where proper subject matter jurisdiction exists, in the United States District Court for the Middle District of Florida. Each party irrevocably submits and waives any objections to the exclusive personal jurisdiction and venue of such courts, including any objection based on forum non conveniens.

E. This Agreement and the rights and obligations of the parties shall be governed by the laws of the State of Florida without regard to its conflict of laws principles.

F. The Contractor shall proceed diligently with its performance as directed by the County, regardless of any pending claim, action, suit or administrative proceeding, unless otherwise agreed to by the County in writing. The County shall continue to make payments in accordance with the Contract Documents during the pendency of any claim.

Section 18. Other Work

A. The County may perform other work related to the Project at the Site by the County's own forces, have other work performed by utility owners or let other direct contracts. If the fact that such other work is to be performed is not noted in the Contract Documents, forty-eight (48) hours' written notice thereof will be given to Contractor prior to starting any such other work. If Contractor believes that such performance will involve additional expense to Contractor or require additional time, Contractor shall send written notice of that fact to the County and Design Professional within forty-eight (48) hours of being notified of the other work. If the Contractor fails to send the above required forty-eight (48) hour notice, the Contractor shall be deemed to have waived any rights it otherwise may have had to seek an extension to the Contract Time or adjustment to the Contract Amount.

B. Contractor shall afford each utility owner and other contractor who is a party to such a direct contract (or the County, if the County is performing the additional work with the County's employees) proper and safe access to the Site and a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such work and shall properly connect and coordinate its Work with theirs. Contractor shall do all cutting, fitting and patching of the Work that may be required to make its several parts come together properly and integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating or otherwise altering their work and shall only cut or alter their work with the written consent of the Design Professional and the others whose work will be affected. The duties and responsibilities of Contractor under this paragraph are for the benefit of such utility owners and other contractors to the extent that there are comparable provisions for the benefit of Contractor in said direct contracts between the County and such utility owners and other contractors.

C. If any part of Contractor's Work depends for proper execution or results upon the work of any other contractor or utility owner (or the County), Contractor shall inspect and promptly report to Design Professional in writing any delays, defects or deficiencies in such work that render it unavailable or unsuitable for such proper execution and results. Contractor's failure to report shall constitute an acceptance of the other work as fit and proper for integration with Contractor's Work.

Section 19. Indemnification and Insurance

A. Contractor agrees to save harmless, indemnify, and defend or, at the option of the County, pay the cost of defense, on behalf of the County, the County's employees and representatives from any and all claims, losses, penalties, demands, judgments, and costs of suit, including attorneys' fees and paralegals' fees, for any expense, damage or liability incurred by any of them, whether in negligence, gross negligence, strict liability, or for personal injury, death, property damage, direct or consequential damages, or economic loss, arising directly or indirectly on account of or in connection with the Work performed by Contractor under this Agreement or by any person, firm or corporation to

whom any portion of the Work is subcontracted by Contractor or resulting from the use by Contractor, or by any one for whom Contractor is legally liable, of any materials, tools, machinery or other property of the County. This provision is intended to apply even if the injury or damage is caused in whole or in part by any act, omission or default of the County or Design Professional or their consultants, agents, officers and employees. The County and Contractor agree the first \$100.00 of the Contract Amount paid by the County to Contractor shall be given as separate consideration for this indemnification, and any other indemnification of the County by Contractor provided for within the Contract Documents, the sufficiency of such separate consideration being acknowledged by Contractor by Contractor's execution of the Agreement.

The Contractor's obligation under this provision shall not be limited in any way by the agreed upon Contract Amount as shown in this Contract or the Contractor's limit of, or lack of, sufficient insurance protection.

B. Contractor shall obtain and carry, at all times during its performance under the Contract Documents, insurance of the types and in the amounts set forth in the Insurance Requirements attached to this Agreement. All insurance policies shall be from responsible companies duly authorized to do business in the State of Florida and/or responsible risk retention group insurance companies which are registered with the State of Florida. Prior to execution of the Agreement, Contractor shall provide the County with properly executed Certificates of Insurance to evidence Contractor's compliance with the insurance requirements of the Contract Documents. Said Certificates of Insurance shall be on forms approved by the County. The Certificates of Insurance shall be personally, manually signed by the authorized representatives of the insurance company/companies shown on the Certificates of Insurance, with proof that they are authorized representatives thereof. In addition, certified, true and exact copies of all insurance policies required hereunder shall be provided to the County, on a timely basis, when requested by the County.

C. The Certificates of Insurance and required insurance policies shall contain provisions that thirty (30) calendar days prior written notice by registered or certified mail shall be given to the County of any cancellation, intent not to renew, or reduction in the policies or coverages, except in the application of the aggregate limits provisions. In the event of a reduction in the aggregate limit of any policy, Contractor shall immediately take steps to have the aggregate limit reinstated to the full extent permitted under such policy.

D. To the extent multiple insurance coverage and/or County's self-insured retention may apply, any and all insurance coverage purchased by Contractor and its Subcontractors identifying the County as an additional named insured shall be primary. The acceptance by the County of any Certificate of Insurance does not constitute approval or agreement by the County that the insurance requirements have been satisfied or that the insurance policy shown on the Certificate of Insurance is in compliance with the requirements of the Contract Documents. No Work shall commence at the Project Site unless and until the required Certificates of Insurance are received by the County.

E. The Contractor will be fully responsible for all acts and omissions of his Subcontractors and of persons directly or indirectly employed by them and of persons for whose acts they may be liable to the same extent that they are employed by him. Nothing in the Contract Documents shall create any contractual relationship between any Subcontractor and the County. The County may, upon request, furnish to any Subcontractor, to the extent practicable, evidence of amounts paid to the Contractor on account of specific Work done.

F. Contractor shall require each of its Subcontractors to procure and maintain, until the completion of the Subcontractor's work, insurance of the types and to the limits specified in the Insurance Requirements attached to this Agreement, unless such insurance requirements for the Subcontractor are expressly waived in writing by the County. All liability insurance policies, other than professional liability, workers' compensation, employer's liability and business auto liability policies, obtained by Contractor to meet the requirements of the Contract Documents shall name the County and Design Professional as additional insureds. If any insurance provided pursuant to the Contract Documents expires prior to the completion of the Work, renewal Certificates of Insurance and, if requested by the County, certified, true copies of the renewal policies, shall be furnished by Contractor within thirty (30) calendar days prior to the date of expiration.

G. Should at any time the Contractor not maintain the insurance coverages required herein, the County may terminate the Agreement or at its sole discretion shall be authorized to purchase such coverages and charge the Contractor for such coverages purchased. The County shall be under no obligation to purchase such insurance, nor shall it be responsible for the coverages purchased or the insurance company or companies used. The decision of the County to purchase such insurance coverages shall in no way be construed to be a waiver of any of its rights under the Contract Documents.

H. Contractor shall submit to Design Professional a copy of all accident reports arising out of any injuries to its employees or those of any firm or individual to whom it may have subcontracted a portion of the Work, or any personal injuries or property damages arising or alleged to have arisen on account of any Work by Contractor under the Contract Documents.

Section 20. Compliance with Laws and Regulations

A. Contractor agrees to comply, at its own expense, with all Laws and Regulations, including federal, state and local laws, codes, statutes, ordinances, rules, regulations and requirements applicable to the Project, including but not limited to those dealing with taxation, workers' compensation, equal employment and safety. If Contractor observes that the Contract Documents are at variance therewith, it shall promptly notify the County and Design Professional in writing.

Section 21. Cleanup and Protections

A. Contractor agrees to keep the Project Site clean at all times of debris, rubbish and waste materials arising out of the Work. At the completion of the Work, Contractor shall remove all debris, rubbish and waste materials from and about the Project Site, as well as all tools, appliances, construction equipment and machinery and surplus materials, and shall leave the Project Site clean and ready for occupancy by the County.

B. Any existing surface or subsurface improvements, including, but not limited to, pavements, curbs, sidewalks, pipes, utilities, footings, structures, trees and shrubbery, not indicated in the Contract Documents to be removed or altered, shall be protected by Contractor from damage during the prosecution of the Work. Any such improvements so damaged shall be restored by Contractor to the condition equal to that existing at the time of Contractor's commencement of the Work and the Contractor shall bear the cost of any such restorations.

C. If the Contractor fails to clean up as provided in the Contract Documents, the County may do so and the cost thereof shall be deducted from the final payment due the Contractor.

Section 22. Assignment

A. Contractor shall not assign this Agreement or any part thereof, without the prior consent in writing of the County. The provisions of this agreement shall inure to the benefit of and be binding upon the respective successors and assignees of the parties hereto. Contractor will not sell, transfer, assign, license, franchise, restructure, alter or change its corporate structure or otherwise part with possession or mortgage, charge or encumber any right or obligation under this agreement without the proposed assigned and/or party restructuring, altering or changing its corporate structure agreeing in writing with the non-assigning party to observe and perform the terms, conditions and restrictions on the part of the assigning party to this agreement whether express or implied as if the proposed assignee and/or restructuring, altering or changing its corporate structure was an original contracting party to this agreement.

Section 23. Permits, Licenses and Taxes

A. Pursuant to Section 218.80, Florida Statutes, the County will pay for all County permits and fees, including license fees, permit fees, impact fees or inspection fees applicable to the Work. Contractor is not responsible for paying for permits issued by the County wherein the Work is to be performed, but is responsible for acquiring all other permits. The County may require the Contractor to deliver internal budget transfer documents to applicable County agencies when the Contractor is acquiring permits.

B. All permits, fees, royalties, claims, and licenses necessary for the prosecution of the Work, which are not issued by the County, shall be acquired and paid for by the Contractor. The Contractor and his sureties, together with his officers, agents,

and employees, shall protect and hold the County harmless against any and all demands made for such fees or claims brought or made by holder of any invention or patent.

C. The Contractor shall be fully responsible for the execution and adherence to all directives, instructions, conditions, special conditions, and limiting conditions contained in permits specifically issued for the Work and which pertain to or affect the construction phase of this project, and shall be solely responsible for issuance of any Notices required thereby.

Section 24. Termination for Default

A. Contractor shall be considered in material default of the Agreement and such default shall be considered cause for the County to terminate the Agreement, in whole or in part, as further set forth in this Section, if Contractor: (1) fails to begin the Work under the Contract Documents within the time specified herein; or (2) fails to properly and timely perform the Work as directed by the County or the Design Professional or as provided for in the approved Progress Schedule; or (3) performs the Work unsuitably or neglects or refuses to remove materials or to correct or replace such Work as may be rejected as unacceptable or unsuitable; or (4) discontinues the prosecution of the Work; or (5) fails to resume Work which has been suspended within a reasonable time after being notified to do so; or (6) becomes insolvent or is declared bankrupt, or commits any act of bankruptcy; or (7) allows any final judgment to stand against it unsatisfied for more than ten (10) calendar days; or (8) makes an assignment for the benefit of creditors; or (9) fails to obey any applicable codes, Laws and Regulations with respect to the Work; or (10) materially breaches any other provision of the Contract Documents.

B. The County shall notify Contractor in writing of Contractor's default(s). If the County determines that Contractor has not remedied and cured the default(s) within seven (7) calendar days following receipt by Contractor of said written notice, then the County, at its option, without releasing or waiving its rights and remedies against the Contractor's sureties and without prejudice to any other right or remedy it may be entitled to hereunder or by law, may terminate Contractor's right to proceed under the Agreement, in whole or in part, and take possession of all or any portion of the Work and any materials, tools, equipment, and appliances of Contractor used during the commission of the Work, take assignments of any of Contractor's subcontracts and purchase orders, and complete all or any portion of Contractor's Work by whatever means, method or agency which the County, in its sole discretion, may choose.

C. If the County deems any of the foregoing remedies necessary, Contractor agrees that it shall not be entitled to receive any further payments hereunder until after the Project is completed. All monies expended and all of the costs, losses, damages and extra expenses, including all management, administrative and other overhead and other direct and indirect expenses (including Design Professional and attorneys' fees) or damages incurred by the County incident to such completion, shall be deducted from the Contract Amount, and if such expenditures exceed the unpaid balance of the Contract

Amount, Contractor agrees to pay promptly to the County on demand the full amount of such excess, including costs of collection, attorney's fees (including appeals) and interest thereon at the maximum legal rate of interest until paid. If the unpaid balance of the Contract Amount exceeds all such costs, expenditures and damages incurred by the County to complete the Work, such excess shall be paid to the Contractor. The amount to be paid to the Contractor or the County, as the case may be, shall be approved by the Design Professional, upon application, and this obligation for payment shall survive termination of the Agreement.

D. The liability of Contractor hereunder shall extend to and include the full amount of any and all sums paid, expenses and losses incurred, damages sustained, and obligations assumed by the County in good faith under the belief that such payments or assumptions were necessary or required, in completing the Work and providing labor, materials, equipment, supplies, and other items therefore or re-letting the Work, and in settlement, discharge or compromise of any claims, demands, suits, and judgments pertaining to or arising out of the Work hereunder.

E. If, after notice of termination of Contractor's right to proceed pursuant to this Section, it is determined for any reason that Contractor was not in default, or that its default was excusable, or that the County is not entitled to the remedies against Contractor provided herein, then Contractor's remedies against the County shall be the same as and limited to those afforded Contractor under Section 25 below.

Section 25. Termination for Convenience and Right of Suspension

A. The County shall have the right to terminate this Agreement without cause upon seven (7) calendar days' written notice to Contractor. In the event of such termination for convenience, Contractor's recovery against the County shall be limited to that portion of the Contract Amount earned through the date of termination, together with any retainage withheld and actual termination expenses incurred, but Contractor shall not be entitled to any other or further recovery against the County, including, but not limited to, damages or any anticipated profit on portions of the Work not performed.

B. The County shall have the right to suspend all or any portions of the Work upon giving Contractor not less than two (2) calendar days' prior written notice of such suspension. If all or any portion of the Work is so suspended, Contractor's sole and exclusive remedy shall be to seek an extension of time to its schedule in accordance with the procedures set forth in the Contract Documents. In no event shall the Contractor be entitled to any additional compensation or damages. Provided, however, if the ordered suspension exceeds ninety (90) calendar days, the Contractor shall have the right to terminate the Agreement with respect to that portion of the Work which is subject to the ordered suspension.

Section 26. Completion

A. When the entire Work (or any portion thereof designated in writing by the County) is ready for its intended use, Contractor shall notify the County and Design Professional in writing that the entire Work (or such designated portion) is Substantially Complete and request that Design Professional issue a Certificate of Substantial Completion (or Certificate of Partial Substantial Completion). Within a reasonable time thereafter, the County, Contractor and Design Professional shall perform an inspection of the Work (or designated portion thereof) to determine the status of completion. If the County and Design Professional do not consider the Work (or designated portion) Substantially Complete, Design Professional shall notify Contractor in writing giving the reasons therefor. If the County and Design Professional consider the Work (or designated portion) Substantially Complete, Design Professional shall prepare and deliver to Contractor a Certificate of Substantial Completion (or Certificate of Partial Substantial Completion) which shall fix the date of Substantial Completion for the entire Work (or designated portion thereof) and include a tentative punch list of items to be completed or corrected by Contractor before final payment. The County shall have the right to exclude Contractor from the Work and Project Site (or designated portion thereof) after the date of Substantial Completion, but the County shall allow Contractor reasonable access to complete or correct items on the tentative punch list. The risk of loss, injury, or destruction of the Project and Work performed thereon shall be on the Contractor until the Certificate of Substantial Completion (or Partial Substantial Completion) is approved by the Design Professional. Title to the Project and Work shall pass to the County when the Certificate of Substantial Completion (or Partial Substantial Completion) is approved by the Design Professional.

B. Upon receipt of written certification by Contractor that the Work is completed in accordance with the Contract Documents and is ready for final inspection and acceptance and upon receipt of a final application for payment, Design Professional will make such inspection and, if he/she finds the Work acceptable and fully performed under the Contract Documents, he/she shall promptly issue a final Certificate for Payment, recommending that, on the basis of his/her observations and inspections, and the Contractor's certification that the Work has been completed in accordance with the terms and conditions of the Contract Documents, that the entire balance found to be due Contractor is due and payable. Neither the final payment nor the retainage shall become due and payable until Contractor submits: (1) the Release and Affidavit in the form attached, (2) consent of Surety to final payment, (3) if required by the County, other data establishing payment or satisfaction of all obligations, such as receipts, releases and waivers of liens, arising out of the Contract Documents, to the extent and in such form as may be designated by the County, and (4) all required As-Builts, Shop Drawings, and other submittals. The County reserves the right to inspect the Work and make an independent determination as to the Work's acceptability, even though the Design Professional may have issued his/her recommendations. Unless and until the County is completely satisfied, neither the final payment nor the retainage shall become due and payable.

C. Prior to final payment, the Design Professional may request the Contractor to permit the use of a specified part of the Project which the County believes it may use

without significant interference with construction of the other parts of the Project. If the Contractor agrees, he will certify to the Design Professional that said part of the Project is Substantially Complete and request the Design Professional to issue a Certificate of Substantial Completion for that part of the Project. Within fourteen (14) calendar days thereafter, the Design Professional and the Contractor will make an inspection of that part of the Project to determine its status of completion. If the County considers that part of the Project to be Substantially Complete, the Design Professional will deliver to the Contractor a certificate to that effect, fixing the date of Substantial Completion as to that part of the Project, and listing the punch list of items to be completed or corrected before final payment and fixing the responsibility between the County and the Contractor for maintenance, heat and utilities as to that part of the Project. The County shall have the right to exclude the Contractor from any part of the Project which is so certified to be Substantially Complete but the County will allow the Contractor reasonable access to complete or correct items on the punch list.

D. Upon Final Completion of the Project, the County's project manager shall prepare a Contractor Performance Evaluation and forward it to the Contractor for review, comment and signature.

E. Upon receipt of the Contractor Performance Evaluation, the Contractor has seven (7) calendar days to review, comment, sign and return the form to the County. If the evaluation has not been received back from the Contractor within the allotted days, the County will assume the Contractor fully agrees with and has no comments with respect to the evaluation. The evaluation will then be placed on file with the County's Department of Procurement Management.

Section 27. Warranty

A. Contractor shall obtain and assign to the County all express warranties given to Contractor or any Subcontractors by any materialmen supplying materials, equipment or fixtures to be incorporated into the Project.

B. Contractor warrants to the County that any materials and equipment furnished under the Contract Documents shall be new unless otherwise specified, and that all Work shall be of good quality, free from all defects and in conformance with the Contract Documents. Contractor further warrants to the County that all materials and equipment furnished under the Contract Documents shall be applied, installed, connected, erected, used, cleaned and conditioned in accordance with the instructions of the applicable manufacturers, fabricators, Suppliers or processors except as otherwise provided for in the Contract Documents. If, within one (1) year after Final Completion, any Work is found to be Defective or not in conformance with the Contract Documents, Contractor shall correct it promptly after receipt of written notice from the County. Contractor shall also be responsible for and pay for replacement or repair of adjacent materials or Work which may be damaged as a result of such replacement or repair.

These warranties are in addition to those express or implied warranties to which the County is entitled as a matter of law.

C. The Contractor warrants and guarantees that title to all Work, materials and equipment covered by an application for progress payment, whether incorporated in the Project or not, will be passed to the County prior to the next application for progress payment, free and clear of all liens, claims, security interest and encumbrances; and that no Work, materials or equipment covered by an Application for Payment will have been acquired by the Contractor or by any other person performing the Work at the site or furnishing materials and equipment for the Project subject to an agreement under which an interest therein or encumbrance thereon is retained by the seller or otherwise imposed by the Contractor or such other person.

Section 28. Tests and Inspections.

A. The County, Design Professional, their respective representatives, agents and employees, and governmental agencies with jurisdiction over the Project shall have access at all times to the Work, whether the Work is being performed on or off of the Project Site, for their observation, inspection and testing. Contractor shall provide proper, safe conditions for such access. Contractor shall provide Design Professional with timely notice of readiness of the Work for all required inspections, tests or approvals.

B. If the Contract Documents or any codes, Laws and Regulations of any public authority having jurisdiction over the Project requires any portion of the Work to be specifically inspected, tested or approved, Contractor shall assume full responsibility therefore, pay all costs in connection therewith and furnish Design Professional the required certificates of inspection, testing or approval. When any portion of the Work subject to inspection is ready for such, the Contractor shall provide the Design Professional forty-eight (48) hours' notice prior to the inspection. All inspections, tests or approvals shall be performed in a manner and by organizations acceptable to the Design Professional and the County.

C. If any Work that is to be inspected, tested or approved is covered without written concurrence from the Design Professional, such Work must, if requested by Design Professional, be uncovered for observation. Such uncovering shall be at Contractor's expense unless Contractor has given Design Professional timely notice of Contractor's intention to cover the same and Design Professional has not acted with reasonable promptness to respond to such notice. If any Work is covered contrary to written directions from Design Professional, such Work must, if requested by Design Professional, be uncovered for Design Professional's observation and be replaced at Contractor's sole expense.

D. The County shall charge to Contractor and may deduct from any payments due Contractor all engineering and inspection expenses incurred by the County in connection with any overtime Work. Such overtime Work consisting of any Work during

the Construction period beyond the regular eight (8) hour day and for any Work performed on Saturday, Sunday or holidays recognized by Lee County, Florida.

E. Project field testing of materials required by the specifications or the Design Professional shall be provided by and at the expense of the County. The Contractor shall coordinate and schedule the required testing. The Contractor shall pay for all retests when the initial test result reveals that the materials failed to meet the requirements of the specifications. The Contractor shall notify the Design Professional seven (7) calendar days prior to conducting any test so the Design Professional may be present. The Design Professional shall have the right to require all materials to be submitted to tests prior to incorporation in the Work. In some instances, it may be expedient to perform these tests at the source of supply, and for this reason, it is required that the Contractor furnish the Design Professional with the information concerning the location of his source before incorporating material into the Work. This does not in any way obligate the Design Professional to perform tests for acceptance of material and does not relieve the Contractor of his responsibility to furnish satisfactory material. The Contractor shall furnish manufacturer's certificates of compliance with these specifications covering manufactured items incorporated in the Work.

F. Neither observations nor other actions by the Design Professional nor inspections, tests or approvals by others shall relieve Contractor from Contractor's obligations to perform the Work in accordance with the Contract Documents.

Section 29. Defective Work

A. Work not conforming to the requirements of the Contract Documents in the sole judgment of the Design Professional shall be deemed Defective Work. If required by the County or Design Professional, Contractor shall, as directed, either correct all Defective Work, whether or not fabricated, installed or completed, or if the Defective Work has been rejected by the County or Design Professional, remove it from the Site and replace it with conforming Work. Contractor shall bear all direct, indirect and consequential costs of such correction or removal (including, but not limited to fees and charges of engineers, architects, attorneys and other professionals) made necessary thereby, and shall hold the County harmless for same.

B. If the County or Design Professional consider it necessary or advisable that covered Work be observed by Design Professional or inspected or tested by others, Contractor, at the County's or Design Professional's request, shall uncover, expose or otherwise make available for observation, inspection or tests as the County or Design Professional may require, that portion of the Work in question, furnishing all necessary labor, material and equipment. If it is found that such Work is Defective, Contractor shall bear all direct, indirect and consequential costs of such uncovering, exposure, observation, inspection and testing and of satisfactory reconstruction (including, but not limited to, fees and charges of engineers, architects, attorneys and other professionals), and the County shall be entitled to an appropriate decrease in the Contract Amount. If,

however, such Work is not found to be Defective, Contractor shall be allowed an increase in the Contract Amount and/or an extension to the Contract Time, directly attributable to such uncovering, exposure, observation, inspection, testing and reconstruction.

C. If any portion of the Work is Defective, or Contractor fails to supply sufficient skilled workers with suitable materials or equipment, or fails to finish or perform the Work in such a way that the completed Work will conform to the Contract Documents, the County or Design Professional may order Contractor to stop the Work, or any portion thereof, until the cause for such stop in the Work has been eliminated; however, this right of the County and Design Professional to stop the Work shall not give rise to any duty on the part of the County or Design Professional to exercise this right for the benefit of Contractor or any other party.

D. Should the County determine, in its sole opinion, that it is in the County's best interest to accept Defective Work, the County may do so. Contractor shall bear all direct, indirect and consequential costs attributable to the County's evaluation of and determination to accept Defective Work. If such determination is rendered prior to final payment, a Change Order shall be executed evidencing such acceptance of such Defective Work, incorporating the necessary revisions in the Contract Documents and reflecting an appropriate decrease in the Contract Amount. If the County accepts such Defective Work after final payment, Contractor shall promptly pay the County an appropriate amount to adequately compensate the County for its acceptance of the Defective Work.

E. If Contractor fails, within a reasonable time after the written notice from the County or Design Professional, to correct Defective Work or to remove and replace rejected Defective Work as required by Design Professional or the County, or if Contractor fails to perform the Work in accordance with the Contract Documents, or if Contractor fails to comply with any of the provisions of the Contract Documents, the County may, after seven (7) calendar days' written notice to Contractor, correct and remedy any such deficiency. To the extent necessary to complete corrective and remedial action, the County may exclude Contractor from any or all of the Project Site, take possession of all or any part of the Work, and suspend Contractor's services related thereto, take possession of Contractor's tools, appliances, construction equipment and machinery at the Project Site and incorporate in the Work all materials and equipment stored at the Project Site or for which the County has paid Contractor but which are stored elsewhere. Contractor shall allow the County, Design Professional and their respective representatives, agents, and employees such access to the Project Site as may be necessary to enable the County to exercise the rights and remedies under this paragraph. All direct, indirect and consequential costs of the County in exercising such rights and remedies shall be charged against Contractor, and a Change Order shall be issued, incorporating the necessary revisions to the Contract Documents, including an appropriate decrease to the Contract Amount. Such direct, indirect and consequential costs shall include, but not be limited to, fees and charges of engineers, architects, attorneys and other professionals, all court costs and all costs of repair and replacement of work of others destroyed or damaged by correction, removal or replacement of

Contractor's Defective Work. At the discretion of the County, Contractor may not be allowed an extension of the Contract Time because of any delay in performance of the Work attributable to the exercise by the County of the County's rights and remedies hereunder.

Section 30. Supervision and Superintendents

A. Contractor shall plan, organize, supervise, schedule, monitor, direct and control the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. Contractor shall be responsible to see that the finished Work complies accurately with the Contract Documents. Contractor shall keep on the Work at all times during its progress a competent resident superintendent, who shall not be replaced without prior written notice to the County and Design Professional except under extraordinary circumstances. The superintendent shall be Contractor's representative at the Project Site and shall have authority to act on behalf of Contractor. All communications given to the superintendent shall be as binding as if given to the Contractor. The County shall have the right to direct Contractor to remove and replace its Project superintendent, with or without cause.

Section 31. Protection of Work

A. Contractor shall fully protect the Work from loss or damage and shall bear the cost of any such loss or damage until final payment has been made. If Contractor or any one for whom Contractor is legally liable is responsible for any loss or damage to the Work, or other work or materials of the County or the County's separate contractors, Contractor shall be charged with the same, and any monies necessary to replace such loss or damage shall be deducted from any amounts due Contractor.

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

C. Contractor shall not disturb any benchmark established by the Design Professional with respect to the Project. If Contractor, or its Subcontractors, agents or anyone for whom Contractor is legally liable, disturbs the Design Professional's benchmarks, Contractor shall immediately notify the County and Design Professional. The Design Professional shall reestablish the benchmarks and Contractor shall be liable for all costs incurred by the County associated therewith.

Section 32. Emergencies

A. In the event of an emergency affecting the safety or protection of persons or the Work or property at the Project Site or adjacent thereto, Contractor, without special instruction or authorization from the County or Design Professional, is obligated to act to

prevent threatened damage, injury or loss. Contractor shall give Design Professional written notice within forty-eight (48) hours after the occurrence of the emergency, if Contractor believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby. If the Design Professional determines that a change in the Contract Documents is required because of the action taken in response to an emergency, a Change Order shall be issued to document the consequences of the changes or variations. If Contractor fails to provide the forty-eight (48) hour written notice noted above, the Contractor shall be deemed to have waived any right it otherwise may have had to seek an adjustment to the Contract Amount or an extension to the Contract Time.

Section 33. Use of Premises

A. The County will furnish, as indicated in the Contract Documents and not later than the date when needed by the Contractor, the lands which entail the Project Site upon which the Work is to be done, rights-of-way for access thereto, and such other lands which are designated for the use of the Contractor. The Contractor shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment unless designated otherwise.

B. The Contractor shall be responsible for staging and storing equipment or materials. Contractor shall confine all construction equipment, the storage of materials and equipment and the operations of workers to the Project Site and land and areas identified in and permitted by the Contract Documents and other lands and areas permitted by law, rights-of-way, permits and easements, and shall not unreasonably encumber the Project Site with construction equipment or other material or equipment. Contractor shall assume full responsibility for any damage to any such land or area, or to the owner or occupant thereof, or any land or areas contiguous thereto, resulting from the performance of the Work.

Section 34. Safety

A. Contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:

A.1. All employees on the Work and other persons and/or organizations who may be affected thereby;

A.2. All the Work and materials and equipment to be incorporated therein, whether in storage on or off the Project Site; and

A.3. Other property on Project Site or adjacent thereto, including trees, shrubs, walks, pavements, roadways, structures, utilities and any underground structures

or improvements not designated for removal, relocation or replacement in the Contract Documents.

B. Contractor shall comply with all applicable codes, Laws and Regulations of any public body having jurisdiction for the safety of persons or property or to protect them from damage, injury or loss. Contractor shall erect and maintain all necessary safeguards for such safety and protection. Contractor shall notify owners of adjacent property and of underground structures and improvements and utility owners when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation or replacement of their property. Contractor's duties and responsibilities for the safety and protection of the Work shall continue until such time as the Work is completed and final acceptance of same by the County has occurred.

C. Contractor shall designate a responsible representative at the Project Site whose duty shall be the prevention of accidents. This person shall be Contractor's superintendent unless otherwise designated in writing by Contractor to the County. County shall have the right to direct Contractor to remove and replace this individual, with or without cause.

Section 35. Project Meetings

A. Prior to the commencement of Work, the Contractor shall attend a preconstruction conference with the Design Professional and others as appropriate to discuss the Progress Schedule, procedures for handling Shop Drawings and other Submittals, and for processing applications for payment, and to establish a working understanding among the parties as to the Work. During the prosecution of the Work, the Contractor shall attend any and all meetings convened by the Design Professional or the County with respect to the Project, when directed to do so by the County or Design Professional. Contractor shall have its Subcontractors and Suppliers attend all such meetings (including the preconstruction conference) as may be directed by the County or Design Professional.

Section 36. Exhibits Incorporated.

The following documents are expressly agreed to be incorporated by reference and made a part of this Agreement:

- A. Scope of Work
- B. Plans and Project Specifications
- C. Public Construction Performance and Payment Bond
- D. Insurance requirements, including Certificates of Insurance
- E. Form of Release and Affidavit
- F. Change Order Form

Section 37. Notices.

A. All notices required or made pursuant to this Agreement by the Contractor to the County shall be in writing and delivered by hand or by United States Postal Service, first class mail, postage pre-paid, return receipt requested, or by courier, addressed to the following:

Roger Desjarlais
Lee County Manager
P.O. Box 398
Fort Myers, FL 33902

With copies addressed to each of the following:

Michael Avoglia, Project Manager, P.O. Box 398, Fort Myers, FL 33902

Mary G. Tucker, Procurement Management Director, P.O. Box 398, Fort Myers, FL 33902

Pamela Keyes, Department of Utilities Director, P.O. Box 398, Fort Myers, FL 33902

B. All notices required or made pursuant to this Agreement by the County to Contractor shall be made in writing and shall be delivered by hand or by United States Postal Service, first class mail, postage pre-paid, return receipt requested, or by courier, addressed to the following:

Legacy Building Solutions, Inc.
Attention: Mr. Paul Smith
19500 Co Rd. 142 South Haven, MN 55382
Telephone: 320-258-0500 Fax: 877-259-1528

C. Either party may change its above noted address by giving written notice to the other party in accordance with the requirements of this Section.

Section 38. Modification.

No modification or change to the Agreement shall be valid or binding upon the parties unless in writing and executed by the appropriate parties intended to be bound by it.

Section 39. Successors and Assigns.

Subject to other provisions hereof, the Agreement shall be binding upon and shall inure to the benefit of the successors and assigns of the parties to the Agreement.

Section 40. No Waiver.

The failure of the County to enforce, at any time or for any period of time, any one or more of the provisions of the Agreement shall not be construed to be, and shall not be, a waiver of any such provision or provisions or of its right thereafter to enforce each and every such provision.

Section 41. Anti-Discrimination

A. The Contractor for itself, its successors in interest, and assignees, as part of the consideration thereof covenant and agree that: (1) in the furnishing of services to the County hereunder, no person on the grounds of race, religion, color, age, sex, national origin, handicap or marital status shall be excluded from participation in, denied the benefits of, or otherwise be subjected to discrimination; and (2) it shall not discriminate against any employee or applicant for employment because of race, religion, color, age, sex, national origin, handicap or marital status.

B. The Contractor shall make affirmative efforts to insure that applicants are employed and that employees are treated during employment without regard to their race, religion, color, age, sex, national origin, handicap or marital status. Such action shall include, but not be limited to, acts of employment, upgrading, demotion or transfer; recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeships.

C. Contractor agrees to post in a conspicuous place, available to employees and applicants for employment, notices setting forth the provisions of this anti-discrimination clause.

D. Contractor shall provide all information and reports required by relevant regulations and/or applicable directives. In addition, the Contractor shall permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the County to be pertinent to ascertain compliance. The Contractor shall maintain and make available relevant data showing the extent to which members of minority groups are beneficiaries under any contracts related to the Project.

E. Where any information required of the Contractor is in the exclusive possession of another who fails or refuses to furnish this information, the Contractor shall so certify to the County its efforts made toward obtaining said information. The Contractor shall remain obligated under this paragraph until the expiration of three (3) years after the termination of the Contract.

F. In the event of breach of any of the above anti-discrimination covenants, the County shall have the right to impose sanctions as it may determine to be appropriate, including withholding payment to the Contractor or canceling, terminating or suspending

the Contract, in whole or in part. Additionally, the Contractor may be declared ineligible for further County contracts by rule, regulation or order of the Board of County Commissioners of Lee County, or as otherwise provided by law.

G. The Contractor shall send to each labor union or representative of workers with which the Contractor has a collective bargaining agreement or other contract of understanding, a notice informing the labor union or worker's representative of the Contractor's commitments under the Contract, and shall post copies of the notice in conspicuous places available to the employees and the applicants for employment.

H. The Contractor will include the provisions in every sub-contract under the Contract to insure its provisions will be binding upon each Subcontractor. The Contractor will take such action with respect to any Subcontractor, as the County may direct, as a means of enforcing such provisions, including sanctions for non-compliance.

Section 42. Federal Requirements

A. In the event this Project is funded in whole or in part from any granting agency or source, the specific terms, regulations and requirements governing the disbursement of those funds are incorporated by reference and made a part of the Contract Documents.

Section 43. Entire Agreement.

Each of the parties hereto agrees and represents that the Agreement comprises the full and entire agreement between the parties affecting the Work contemplated, and no other agreement or understanding of any nature concerning the same has been entered into or will be recognized, and that all negotiations, acts, Work performed, or payments made prior to the execution hereof shall be deemed merged in, integrated and superseded by the Agreement.

Section 44. Severability.

Should any provision of the Agreement be determined by a court to be unenforceable, such a determination shall not affect the validity or enforceability of any other section or part thereof.

IN WITNESS WHEREOF, the parties have executed this Agreement on the date(s) indicated below.

WITNESS:

Signed By: _____

Print Name: _____

CONTRACTOR: Legacy Building Solutions, Inc.

Signed By: _____

Print Name: _____

Title: _____

Date: _____

OWNER: LEE COUNTY

BOARD OF COUNTY COMMISSIONERS
OF LEE COUNTY, FLORIDA

BY: _____

CHAIR

DATE: _____

ATTEST:

CLERK OF THE CIRCUIT COURT
Linda Doggett, Clerk

BY: _____

APPROVED AS TO FORM FOR THE
RELIANCE OF LEE COUNTY ONLY:

BY: _____

OFFICE OF THE COUNTY ATTORNEY

2018 NOV 8 PM 12:55

EXHIBIT A
SCOPE OF WORK

Contractor shall perform repairs and frame replacement on Buildings 7 and 8 of the Lee County Compost Facility at 5500 Church Road, Felda FL. 33930.

The Repair Tasks shall include:

- Building 7 and 8: Replace Kickers and Brackets on End Walls on 1 end of each building – 2 total
- Building 7: Replace ½ of Steel Frames, Roof Fabric, and 1 complete End Wall
- Building 8: Replace ½ of Steel Frames, Roof Fabric, and 1 complete End Wall
- Building 7 and 8: Replace 1 End Wall Fabric each
- Freight to site for components
- Testing and identification of any damage to foundation concrete, column baseplates, and any anchor bolts or hardware
- Completion of repairs resulting from bolt, anchor, or foundation testing within the budgeted allowance
- All testing and repair work necessary to satisfy engineers recertification of the structure (backup documentation required for payment under the pay item allowance)
- Contractor shall place disposal materials into bins provided by the County
- On-site Building and foundation certification and inspection after repairs have been completed.

All exterior fabric carries a 25-year pro-rated warranty on Legacy Building Solutions Exxotec Elite 27 oz PVC Fabric to be used for all fabric.

All work shall adhere to the manufacturer's specifications and must be performed in accordance to Exhibit B, Plans and Project Specifications.

Contractor shall certify that all repairs made to the structures have brought the building/foundation unit back into a condition meeting or exceeding the original permitted design requirements

Contractor shall be responsible for:

- Evaluating all necessary repair work.
- Establishing a fix (establishing & proposing all testing methods & parameters for the repair work necessary to satisfy the recertification, (any and all repairs necessary for repairing damages to the foundation concrete, anchor bolts & hardware, interface between the foundation, anchors and building column baseplate, & building structure and all components)
- Certifying the repair work with a signed and sealed letter report and certification upon completion of repairs (building/foundation unit back into a condition meeting or exceeding the original permitted design requirements (per the referenced design documents).



Exhibit B
Plans and Project Specifications

Condition Assessment Report

101 Southhall Lane, Suite 200
Maitland, Florida 32751
(407) 660-2552

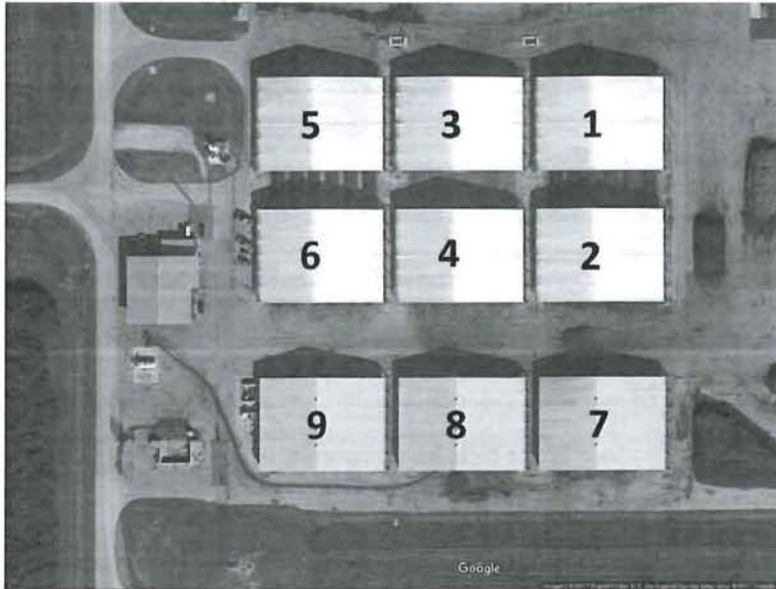
Project:	Lee County Solid Waste Biosolids Composting Facility Canopy Structures	Client:	Lee County FL
Job No.	55618-222946	Date:	December 21, 2017
Conducted By:	Robert Nystrom, P.E.		
Subject:	Post Hurricane Irma Solid Waste Biosolids Composting Canopy Condition Assessment (Final)		

Hurricane Irma passed through Lee and Hendry counties on September 10th, 2017. The purpose of this memo is to provide an assessment of the hurricane damage to the nine biosolids composting structures at the Lee/Hendry County Regional Solid Waste Disposal Facility and provide recommendations for repair and/or replacement.

A site visit was performed approximately two weeks after the hurricane by CDM Smith, on September 25-26, 2017. The primary purpose of the site visit was to perform a visual condition assessment considering the damage to these canopies caused by hurricane Irma. Additional objectives were to: meet with the two canopy manufacturer representatives, photograph and document the damage to the various structures, and gather information needed to make recommendations for next steps.

There are currently a total of 9 pre-engineered canopies at the Lee/Hendry County Regional Solid Waste Disposal Facility off Felda Church Road. All 9 canopies have gable roofs and fabric coverings on the roofs and top portions of the gable end walls. Per as-built drawings and documentation, the first 6 (Buildings 1-6) were constructed in 2009/2010 and were designed by Shelter Structures, Inc.

The final 3 structures (Buildings 7-9) were designed and constructed in 2014/2015 by Legacy Building Solutions. See aerial view below for numbering



Google, (n.d.).[Google Maps aerial view of portion of Lee County Solid Waste Authority]. Retrieved October 18, 2017, from <http://goo.gl/mZsTLx>, Canopy numbers overlaid.

While individual canopies will be addressed, generally it is noted no ground heave or recently cracked asphalt around the column supports was observed around any of the building foundations, thus there were no indications the foundations themselves had been displaced. Due to the wind damage, none of the building are currently suitable for their intended use. It is recognized that various relatively minor (though structurally required) internal building components such as brackets, tabs, braces, kickers, cables, etc. that are damaged will be required to be replaced on all structures.

Shelter Structures, Inc Buildings:

The structures designated "Building 1" through "Building 6" were designed by Shelter Structures, Inc. These buildings utilize an arched frame steel truss system for the main span with diagonal galvanized steel aircraft cables in the roof as well as between four of the six bays for the wind bracing. The record drawings and calculations provided, indicate the structures were designed to withstand a 3 second wind gust of 120 MPH* with the covers on, and 140 MPH* with the covers removed. The foundations are continuous 4' wide by 3' deep concrete strip. The columns (vertical trusses) are each supported at the foundation with 6 (six) 1¼" diameter anchor bolts. The fabric covering on all 6 structures has been torn off. Under the design wind speed of 120 MPH*, the cover was not intended to tear off or be removed.

**The Shelter Structures, Inc. buildings were designed under a previous building code utilizing an earlier standard (ASCE 7-05 used for wind design). The Legacy Building Solutions structures were designed to a newer building code and utilized ASCE 7-10 for wind loading. The ASCE 7 standard changed how wind speeds were considered between these editions. For comparison purposes, the wind speeds on the Shelter Structures Inc. structures convert to an equivalent loading under the current design code, ASCE 7-10 of 150 MPH (3 second gust) with cover on and 175 MPH (3 second gust) with cover off.*

Buildings 1 & 2

Buildings 1&2 both experienced significant structural failure as a result of the hurricane force winds. There are a variety of failures at the foundation level described below. There are also numerous failures in the trusses away from the foundation level, in the purlins, K-braces, etc. Both buildings 1 and 2 racked toward the north. (See Figure 1.)



Figure 1: Building 2, East elevation

The truss system failures observed at the foundation level are as follows:

1. Tube sidewall buckling (Figure 2)



Figure 2: Building 1, Tube sidewall buckling

2. Tube wall rupture (Figure 3)



Figure 3: Building 1, Tube wall tear out

3. Weld failure (Figure 4)



Figure 4: Building 1, Welded joint failure

4. Deformation of baseplate (Figure 5)



Figure 5: Building 1, Yielding of baseplate

5. Diagonal tension cable failure (rope clips did not hold) (Figure 6)



Figure 6: Building 2, Wind bracing cable failure

Additionally, some corrosion unrelated to the hurricane was found inside of the members that had experienced tube wall tearing. (See figure 7.) The owner is encouraged to review their warranty information as it relates to corrosion inside the tubes as this may be considered a defect. This information should be used when considering Buildings 3 through 6.



Figure 7: Building 1, Corrosion inside tube

Buildings 1&2 have sustained sufficient damage, such that repair is unlikely to be a reasonable financial option. It is recommended that these two structures be replaced with new structures,

designed to meet the 6th edition of the Florida Building Code (Effective December 31st, 2017). The existing foundations and anchor bolts must be checked against the new reactions and new Florida Building Code. A foundation engineer shall determine if their reuse is appropriate.

Building 3, 4 & 5

The damage to these buildings was less than that at Buildings 1 and 2. As mentioned before, the fabric covering has been torn off, however, the truss frames do not appear damaged, with a single exception noted next. Building 3 has one damaged truss at the southeast corner, where it appears the truss deflected and impacted a bollard yielding the wall of the hollow structural steel tube forming part of the truss (Figure 8). The remainder of the truss appears intact and undamaged. All cables must be checked and properly tensioned. The horizontal and vertical plumbness of all components must be checked/adjusted. All connections must be checked and documented (photographed). Recertification of the structures and foundations by the metal building manufacturer (or their delegate engineer) to the original design code is recommended.

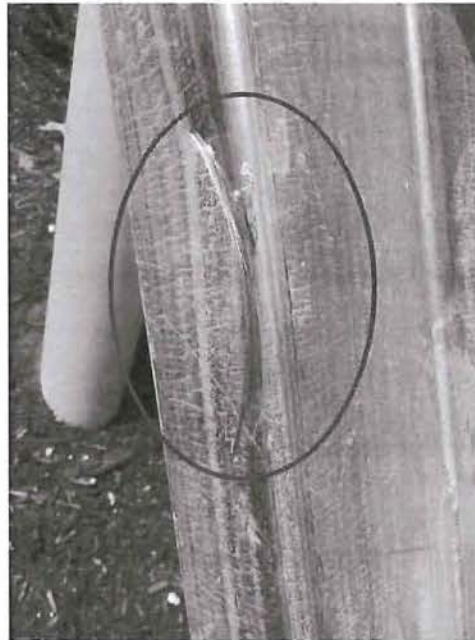


Figure 8: Building 3, Damaged truss after impact with bollard

Building 6:

The damage to Building 6 is different from those previously mentioned in that half of the support structure was significantly damaged, yet the building remains standing. The 7 supporting trusses on the east side experienced structural yielding of portions of the tube trusses. The failed trusses were damaged to a lesser degree than those in buildings 1 and 2, but had similar failures: tube wall buckling (Figure 9), tube wall rupture (Figure 10), and wind bracing cable failure. One of the anchor bolt connections at the southeast corner of the building is loose and may be moved with only hand pressure. An adjacent anchor bolt is bent. It is unknown if this anchor bolt was bent prior to the wind event. Undamaged portions of the frame may be able to be reused, based on the manufacturers analysis. All damaged portions must be replaced. All cables must be checked and tensioned. The horizontal and vertical plumbness of all components checked/adjusted. All connections must be checked and documented (photographed). Recertification of the structure and foundation by the metal building manufacturer (or their delegate engineer) to the original design code is recommended.



Figure 9: Building 6, Tube wall buckling



Figure 10: Building 6, Tube wall rupture

Legacy Building Solutions Buildings:

The structures designated “Building 7” through “Building 9” were designed and constructed by Legacy Building Solutions. These buildings utilize custom wide flange shapes making up portal frames and utilize bolted moment connections in the roof. This building design also uses cables for lateral stability in the roof and walls. In this design, all the bays are diagonally braced.

Documentation indicates these three structures were designed to withstand a 3 second wind gust of 150 MPH (Ultimate) with the covers on. A separate value with the cover removed was not provided as the covering was considered a permanent aspect of the structure. The column foundations are isolated footings 12’ square and 12” below grade, with 18” square pedestals projecting above grade for the column connections. The height of the pedestal projection above grade varies from at grade on the north side, to approximately 12” above the asphalt on the south side. The columns are each supported at the foundation with 4 (four) 1” diameter anchor bolts. The fabric covering on Buildings 7 & 8 remain intact, portions of the covering on the collapsed structure (Building 9) have failed.

Building 7 & 8

Buildings 7 & 8 currently remain standing and they have experienced very similar failures throughout the structures. Generally, the hurricane force winds caused:

1. Yielding due to flexure in some of the bolted moment connections in the main frames. (Figure 11) The deflection of this connection is leading to a noticeable kink in the roof and endwall. (Figure 12) The manufacturer should provide a recommendation for repair or replacement.

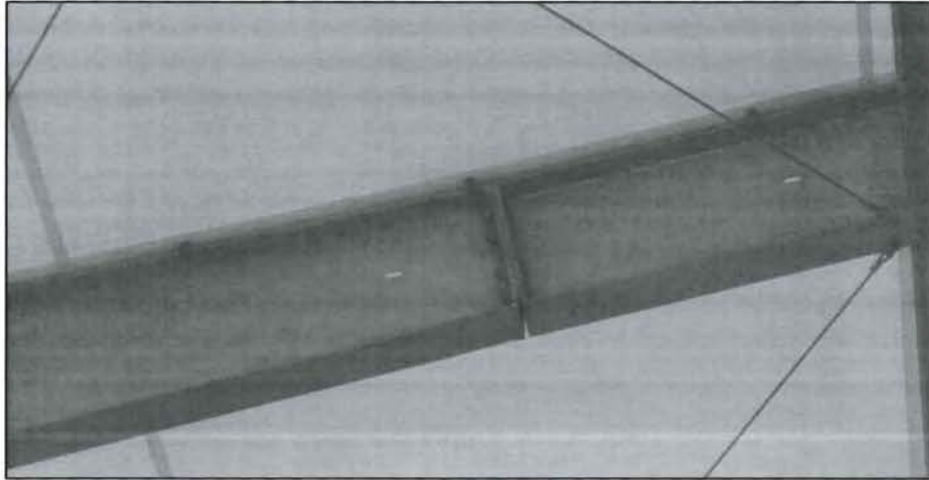


Figure 11: Building 7, Failed moment connection

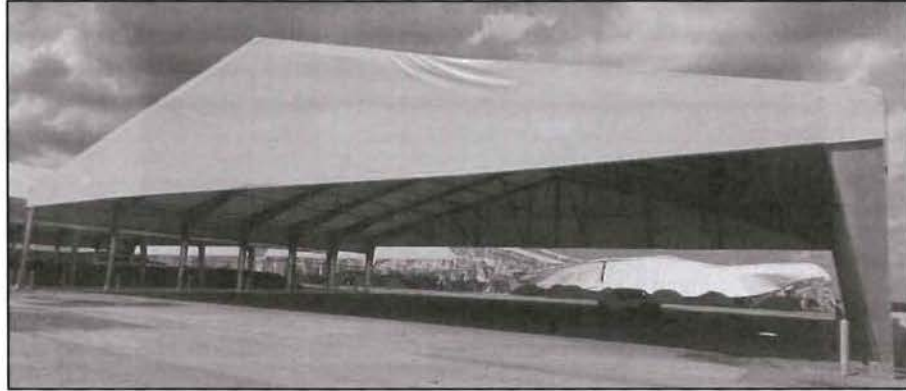


Figure 12: Building 7, Distorsion in canopy roof

2. Uplift/lateral loading caused various failures at the anchor bolts, from snapping in half (Figure 13) to deforming the threads (Figure 14). It was observed that many, if not all, of the nuts on the anchor bolts on these canopies were loose. This fact could indicate there are further issues with the anchor bolts themselves. The anchor bolts should be tested and a foundation engineer consulted for repair of the concrete/new anchor bolts if required.



Figure 13: Building 7, Fracturing of anchor bolt

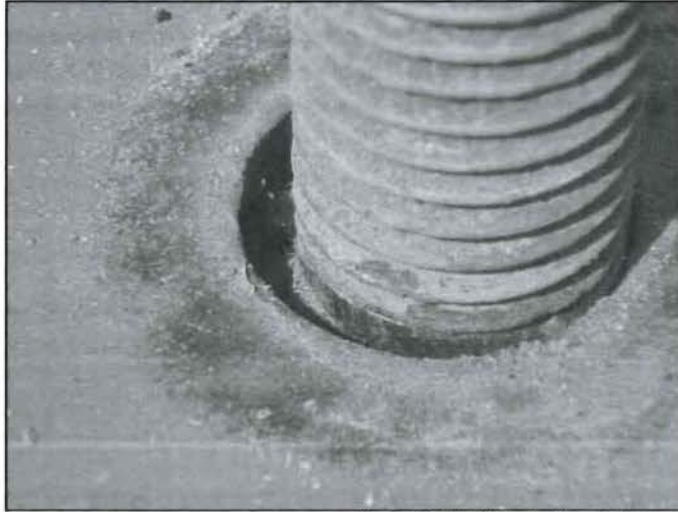


Figure 14: Building 7, Thread damage

3. Rolled baseplate edges & bent anchor bolts (Figure 15)



Figure 15: Building 7, Rolled Base plate edge

4. Spalled concrete pedestals (Figure 16)



Figure 16: Building 7, Spalled concrete at column pedestal

5. There are several nuts/bolts that have been found under canopies 7 and 8. It is not immediately clear where in the roofs these pieces have come from. (Figure 17 is representative of them but not all the pieces.)



Figure 17: Building 8, Loose bolts

Similar to Buildings 3-6, Buildings 7 & 8 also experienced a loosening of the tension cables used for lateral (wind) bracing that must be tightened. Additionally, all cables must be checked and properly tensioned. The horizontal and vertical plumbness of all components must be checked/adjusted. All connections must be checked and documented (photographed) with bolts replaced where necessary. Repair of the damaged foundations is required. Recertification of the structures and foundations by the metal building manufacturer (and/or their delegate engineer) to the original design code after repair is recommended.

Building 9

Building 9 experienced a structural failure to the extent that a large portion of it is laying on the ground. A hinge formed at the same joint in the roof on this building as it did in Buildings 7 and 8. The difference in building 9 is that the joint completely failed, while these connections yielded and held in place in Buildings 7 and 8. Most likely, with the release of the moment in the beam, the roof became two cantilevers and both sides of the canopy rotated toward the interior. This rotation lead to significant issues at the foundation. These issues are:

1. Snapping of the anchor bolts (Figure 18)

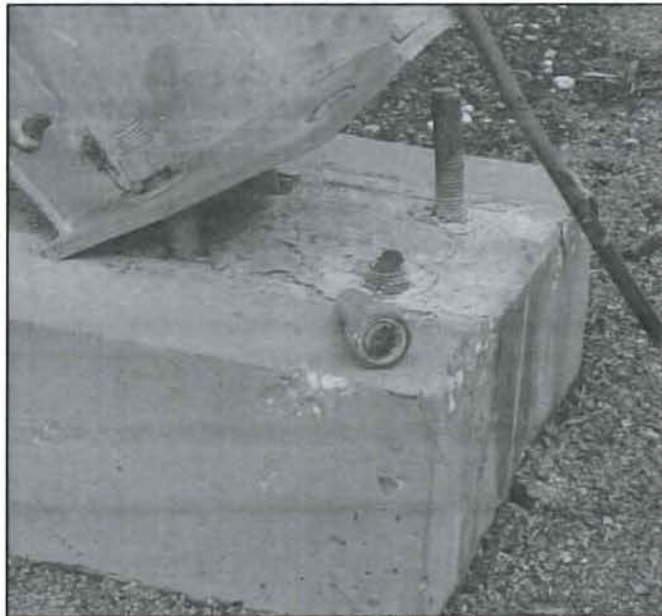


Figure 18: Building 9, Fracture of anchor bolt

2. Stripping of the anchor bolts/stripping of the nuts (Figure 19)



Figure 19: Building 9, Threads stripped from anchor bolt

3. Bending of anchor bolts (Figure 20)



Figure 20: Building 9, Flexure of anchor bolt

4. Bending of column base plates (Figure 21)

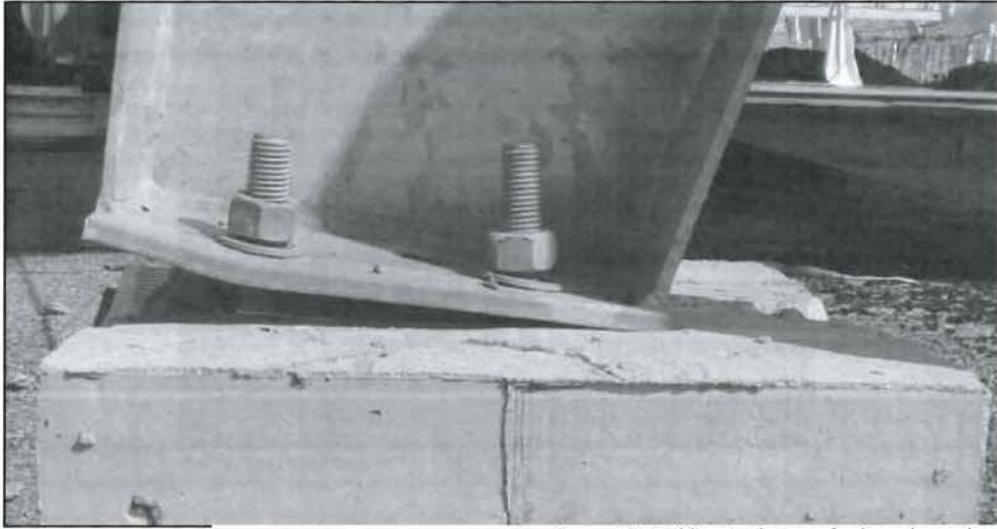


Figure 21: Building 9, Flexure of column base plate

5. Cracking of the concrete pedestals due to column rotation (Figure 22)

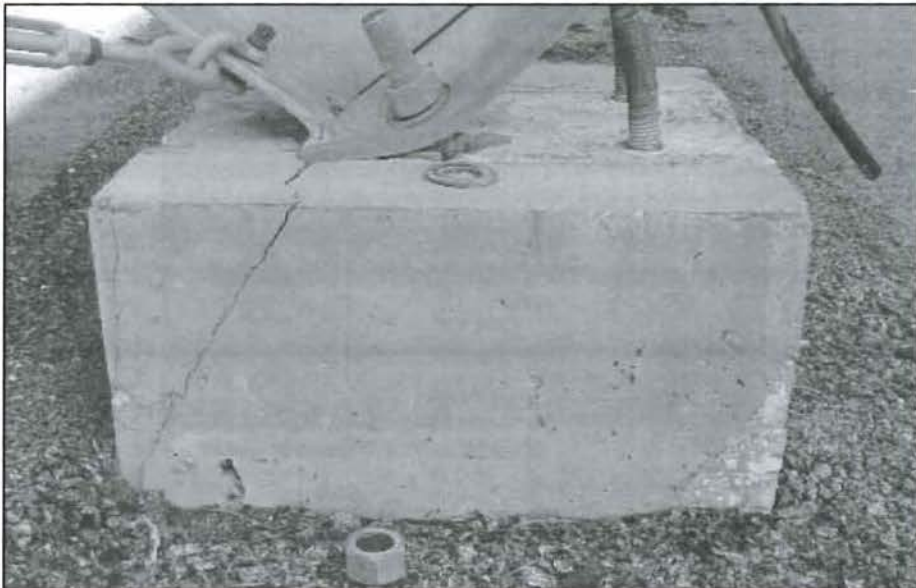


Figure 22: Building 9, Cracking of concrete pedestal

6. Gouging of the concrete pedestals due to column rotation. (Figure 23)



Figure 23: Building 9, Gouging of the concrete pedestal

Building 9 has sustained sufficient damage such that repair is unlikely to be a reasonable financial option. It is recommended this structure be replaced with new structure which meets the 6th edition of the Florida Building Code. Due to the extensive damage to the foundation pedestals and anchor bolts, it is not recommended to reuse them. The existing footings (under the asphalt) may be of sufficient strength; a foundation engineer shall determine if their reuse is appropriate when considering the new building reactions and new edition of the Florida Building Code.

Additional Observation for Legacy Systems Structures:

There are many columns that do not have full bearing of the base plate. It is likely this condition has contributed to the bent base plates, and spalled concrete of the pedestals. It is recommended that the building manufacturer consider grouting the voids under the columns to provide a uniform bearing surface. (Figures 24&25)



Figure 24: Building 7, Non uniform bearing

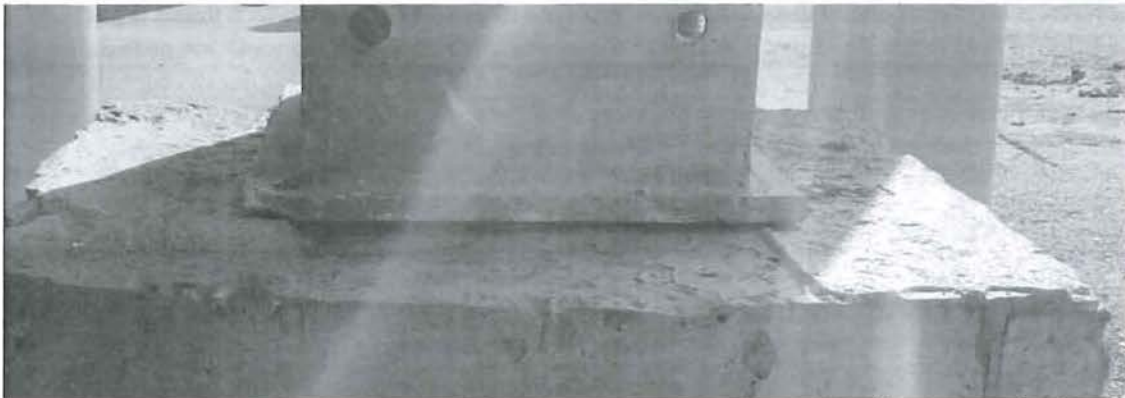


Figure 245: Building 8, Non uniform bearing

Table 1 - Recommended Minimum Requirements for Building Recertification/Replacement:									
	Building Number								
Recommendation	1	2	3	4	5	6	7	8	9
Building to be completely removed and replaced	X	X							X
Replace or repair all damaged structural members.			X	X	X	X	X	X	
Horizontal and vertical plumbness of all components checked and adjusted.			X	X	X	X	X	X	
All connections checked/adjusted to manufacturer requirements and photographed for record.			X	X	X	X	X	X	
All existing cable braces checked/adjusted to manufacturer requirements and photographed for record.			X	X	X	X	X	X	
All modifications to the structures must, at a minimum, bring the structure back to the original design capacity. Temporary repairs that do not meet this requirement are not recommended.			X	X	X	X	X	X	
Cracked/spalled concrete foundations must be repaired or replaced per the manufacturer.							X	X	X
The capacity of the anchor bolts must be verified through testing or other acceptable means prior to reuse						X	X	X	X
Install new covering			X	X	X	X	X		
The manufacturer must recertify the structure and foundations for use. The manufacturer may hire a third party for the certification, if desired.	X	X	X	X	X	X	X	X	X

Table 1 above is considered the minimum recommended for reuse. The metal building manufacturers may propose additional repairs.

Observed Non-Building Damage:

Between Building 4 and Building 6 there is a concrete column supporting electrical panels. The bottom of this column has cracked and the reinforcing steel is exposed. It is recommended that this damage be fixed before corrosion further reduces the capacity of the column. (Figure 26)



Figure 26: Damaged concrete column

Structural Analysis

For

162'-0" x 120'-6" Compost Storage Building foundation

in

Felda, Florida

Prepared for

Thalle Construction

Hillsborough, North Carolina

4/2/2014



**Legacy Building Solutions, Inc.
19500 County Road 142
South Haven, MN 55382
PH: (320) 259 – 7126
F: (320) 259 – 0087**

3/28/2014

DesCalc.out

13-xxx_HendryCounty Reactions, Anchor Bolts, & Base Plates:12/27/13 12:43pm

Frame Line	Col Line	-----Foundation_Loads(k)-----						-----		-----		
		Max_Pos_Val			Max_Neg_Val			Anc._Bolt	Diam	Base_Plate		
		Id	Horz	Vert	Id	Horz	Vert	No.		Width	Len	Thick
1*	A	1	23.0	24.3	2	-31.4	-34.1	4	1.000	8.00	13.00	0.500
		1	23.0	24.3								
1*	J	3	31.4	-34.1	1	-23.0	24.3	4	1.000	8.00	13.00	0.500
		1	-23.0	24.3	3	31.4	-34.1					
2*	A	1	30.0	31.5	2	-29.6	-31.9	4	1.000	8.00	13.00	0.500
		1	30.0	31.5	4	-20.4	-37.5					
2*	J	3	29.6	-31.9	1	-30.0	31.5	4	1.000	8.00	13.00	0.500
		1	-30.0	31.5	5	20.4	-37.5					

1* Frame Lines:1 7

2* Frame Lines:2 3 4 5 6

LOAD COMBINATIONS:

Id Combination

- 1 Dead+Collateral+Live
- 2 0.6Dead+0.6Wind_Left1
- 3 0.6Dead+0.6Wind_Right1
- 4 0.6Dead+0.6Wind_Long1
- 5 0.6Dead+0.6Wind_Long2

13-xxx_HendryCounty Bracing Reactions Report:

12/27/13

12:43pm

BUILDING BRACING REACTIONS:

---Wall-- Loc Line	Col Line	-----Reactions(k)-----				Panel_Shear(lb/ft)	
		---Wind---		---Seismic---		Wind	Seismic
		Horz	Vert	Horz	Vert		
L_EW 1	Rigid Frame At Endwall						
F_SW J	1 ,2	8.21	8.50	0.25	0.26		
	2 ,3	8.21	8.50	0.25	0.26		
	3 ,4	8.21	8.50	0.25	0.26		
	4 ,5	8.21	8.50	0.25	0.26		
	5 ,6	8.21	8.50	0.25	0.26		
	6 ,7	8.21	8.50	0.25	0.26		
R_EW 7	Rigid Frame At Endwall						
B_SW A	7 ,6	8.21	8.50	0.25	0.26		
	6 ,5	8.21	8.50	0.25	0.26		
	5 ,4	8.21	8.50	0.25	0.26		
	4 ,3	8.21	8.50	0.25	0.26		
	3 ,2	8.21	8.50	0.25	0.26		
	2 ,1	8.21	8.50	0.25	0.26		

13-xxx_HendryCounty Additional Reactions Report:

12/27/13

12:43pm

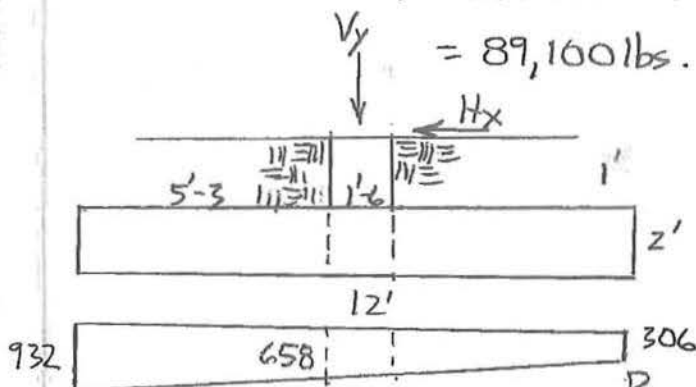
(Check footing)

L.C. #1 DL+CL+LL

$$H_x = 30k \quad V_y = 31.5k \quad (\text{Sec Sh. \#1})$$

$$M = 30,000 \times (2' + 1') = 90,000 \text{ ft.-lb.}$$

$$P = 31500 + 12' \times 12' \times 2' \times 150 + 12' \times 12' \times 1' \times 100 = 89,100 \text{ lbs.}$$



$$\frac{P}{12' \times 12'} \pm \frac{M}{\frac{1}{6}(12)(12)^2} = \begin{matrix} + 932 \text{ PSF} \\ + 306 \text{ PSF} \end{matrix}$$

619 313

$$M_{\max} = 11,585 \text{ ft.-lbs.}$$

$$M_u = 1.6 M = 18,537 \text{ ft.-lb}$$

$$p = \frac{.44}{12 \times 20} = .0018$$

$$M_u = 38,746 \text{ ft.-lb} \geq 18,537 \therefore \text{O.K.}$$

\therefore USE A 12'x12'x2' FTG. W/

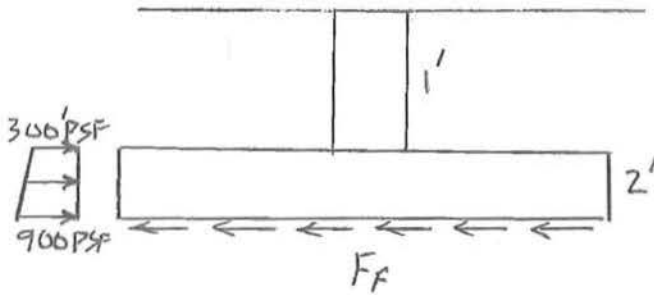
#6 BARS at 12" O.C. E.W. (T+B)

(Check Sliding)

$$H_x = 30,000 \text{ lbs.}$$

$$H_{\text{RESIST}} = \overset{F_f}{89,100 \times .40} + \overset{P_p}{600 \times 2' \times 12'}$$

$$= 50,040 \text{ lbs.}$$



$$F.S. = \frac{50040}{30000} = 1.67$$

(Check uplift)

$$L.C. \#4 \quad .6DL + .6WLLONG1$$

$$V_y = 37,500 \text{ lbs.} \uparrow$$

$$F.S. = \frac{57600}{37500} = 1.54 \therefore \text{O.K.}$$

Pier Design

4

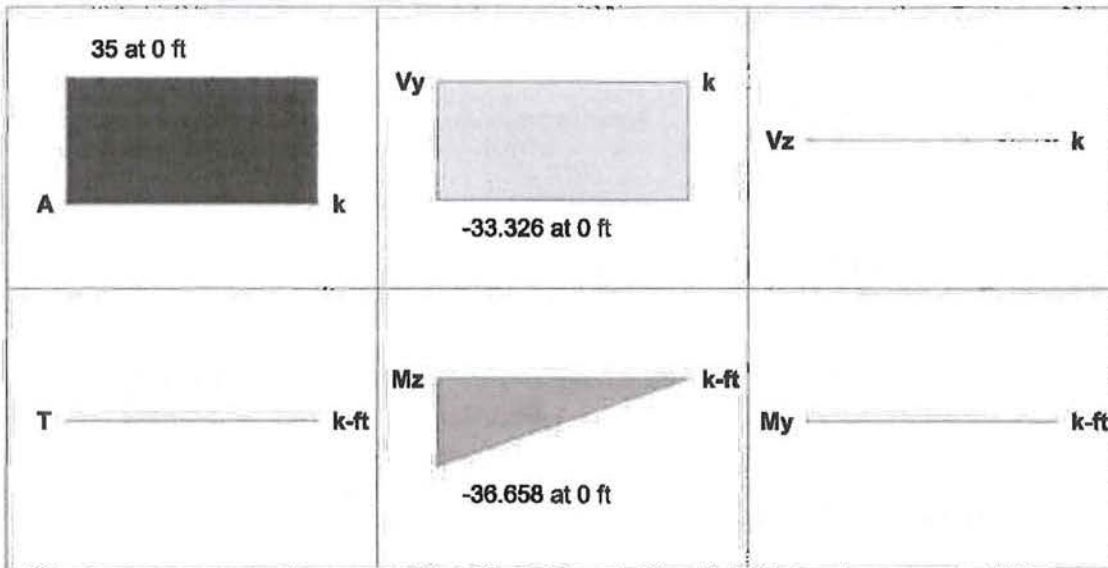
Column: **M1**

DL+CL+LL

Shape: **CRECT18X18**
Material: **Conc4000NW**
Length: **1.1 ft**
I Joint: **N1**
J Joint: **N2**

Concrete Stress Block: **Rectangular**
Cracked Sections Used: **Yes**
Cracked 'I' Factor: **.70**
Effective 'I': **6123.6 in⁴**
Biaxial Bending Solution: **Exact Integration**

Code Check: **0.699 (shear)**
Report Based On 97 Sections

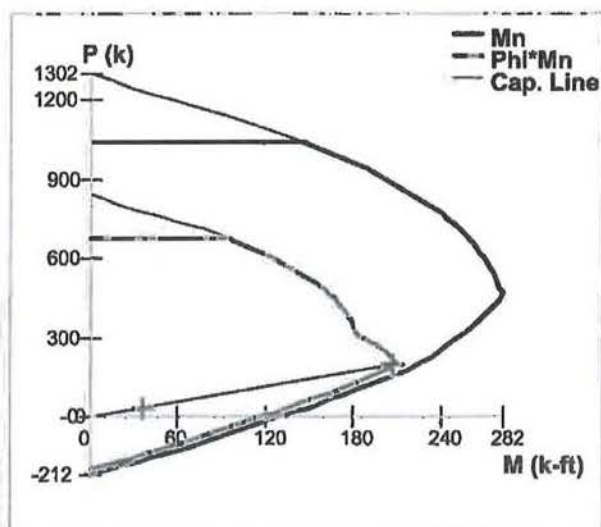


Column Design does not consider any Torsional Moments

ACI 318-08 Code Check

Gov LC	1	Bending Check	0.177	Shear Check	0.699 (y)
Gov Pu	35 k	Location	0 ft	Location	0 ft
phi*Pn	198.136 k	Gov Muy	0 k-ft	Gov Vuy	33.326 k
Phi eff.	.9	Gov Muz	-36.658 k-ft	Gov Vuz	0 k
		phi*Mny		phi*Vny	47.697 k
		phi*Mnz	207.524 k-ft	phi*Vnz	47.697 k
Tension Bar Fy	60 ksi	Concrete Weight	.145 k/ft ³	Bar Cover	2 in
Shear Bar Fy	60 ksi	λ	1	Sway yy	No
F'c	4 ksi	E Concrete	3644 ksi	Sway zz	No
Flex. Rebar Set	ASTM A615	Shear Rebar Set	ASTM A615		

Column Interaction Diagram



Span Information

Span	Span Length (ft)	I-Face Dist. (in)	J-Face Dist. (in)
1	0 - 1.1	0	0

Column Steel

Span	Main Bars	UC Max	Gov LC	Loc (ft)	Pu (k)	Muy (k-ft)	Muz (k-ft)
1	8 #6	0.177	1	0 ft	35	0	-36.658

Axial Span Results

Span	Phi_eff	Pn (k)	Po (k)	Rho Gross	As Prvd (in^2)
1	.9	220.151	1301.641	.0109	3.534

Bending Span Results

Span	ecc. y (ft)	ecc. z (ft)	NA y-y (ft)	NA z-z (ft)	Mny (k-ft)	Mnz (k-ft)	Mnoy (k-ft)	Mnoz (k-ft)
1	-1.047	0	.282			230.582		

Shear Steel

Span	Region (ft)	Bars Provided
1	0 - 1.1	2 #3 @7in
	-	
	-	
	-	

y-Dir Shear Span Results

Span	Region (ft)	Vny (k)	Vcy (k)	Vsy (k)	Asy Req'd (in^2)	As Prvd (in^2)
1	0 - 1.1	63.596	34.722	28.874	.011	.032
	-	0	0	0	0	0
	-	0	0	0	0	0
	-	0	0	0	0	0

z-Dir Shear Span Results

Span	Region (ft)	Vnz (k)	Vcz (k)	Vsz (k)	Asz Req'd (in^2)	As Prvd (in^2)
1	0 - 1.1	63.596	34.722	28.874	0	.032
	-	0	0	0	0	0
	-	0	0	0	0	0
	-	0	0	0	0	0

Rebar Detailing

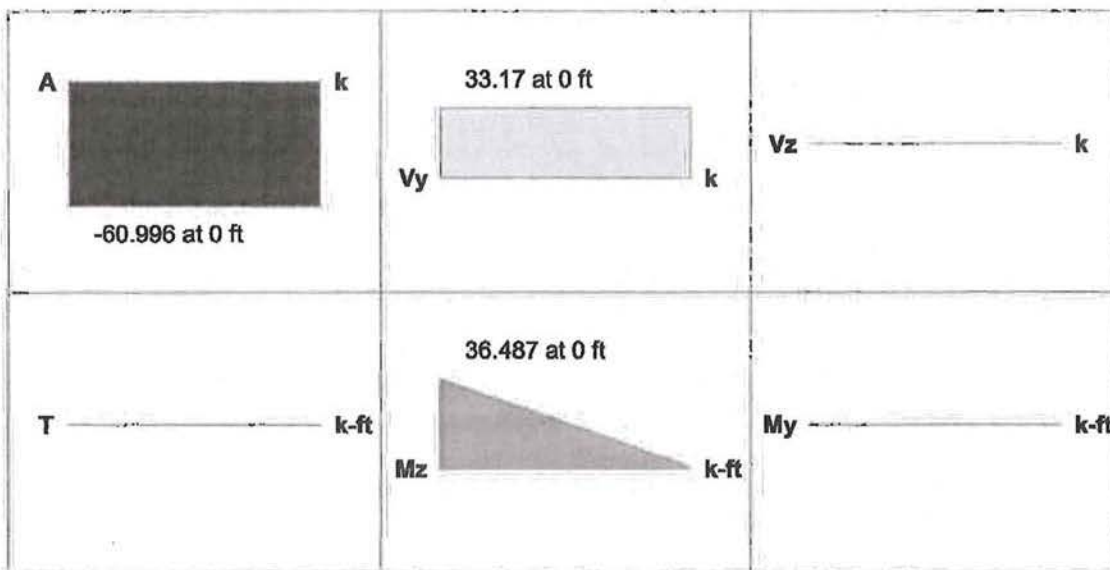
6DL+6WLLDNG1

Column: **M1**

Shape: **CRECT18X18**
Material: **Conc4000NW**
Length: **1.1 ft**
I Joint: **N1**
J Joint: **N2**

Concrete Stress Block: **Rectangular**
Cracked Sections Used: **Yes**
Cracked 'I' Factor: **.70**
Effective 'I': **6123.6 in⁴**
Biaxial Bending Solution: **Exact Integration**

Code Check: **0.875 (shear)**
Report Based On 97 Sections

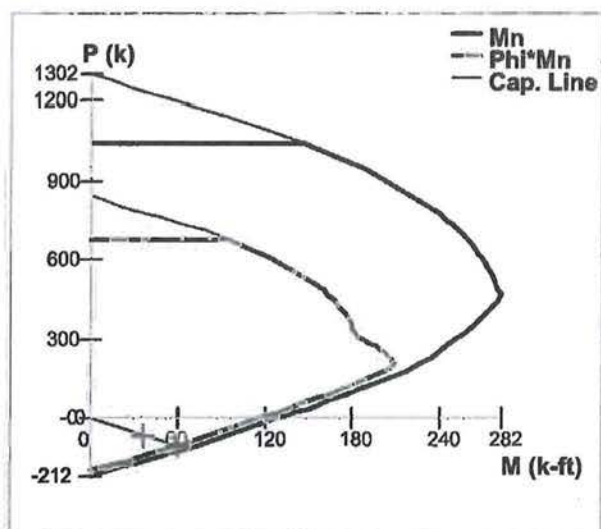


Column Design does not consider any Torsional Moments

ACI 318-08 Code Check

Gov LC	2	Bending Check	0.604	Shear Check	0.875 (y)
Gov Pu	-60.996 k	Location	0 ft	Location	0 ft
phi*Pn	-100.936 k	Gov Muy	0 k-ft	Gov Vuy	33.17 k
Phi eff.	.9	Gov Muz	36.487 k-ft	Gov Vuz	0 k
		phi*Mny		phi*Vny	37.897 k
		phi*Mnz	60.379 k-ft	phi*Vnz	37.897 k
Tension Bar Fy	60 ksi	Concrete Weight	.145 k/ft ³	Bar Cover	2 in
Shear Bar Fy	60 ksi	λ	1	Sway yy	No
F'c	4 ksi	E_Concrete	3644 ksi	Sway zz	No
Flex. Rebar Set	ASTM A615	Shear Rebar Set	ASTM A615		

Column Interaction Diagram



Span Information

Span	Span Length (ft)	I-Face Dist. (in)	J-Face Dist. (in)
1	0 - 1.1	0	0

Column Steel

Span	Main Bars	UC Max	Gov LC	Loc (ft)	Pu (k)	Muy (k-ft)	Muz (k-ft)
1	8 #6	0.604	2	0 ft	-60.996	0	36.487

Axial Span Results

Span	Phi_eff	Pn (k)	Po (k)	Rho Gross	As Prvd (in^2)
1	.9	-112.151	-212.058	.0109	3.534

Bending Span Results

Span	ecc. y (ft)	ecc. z (ft)	NA y-y (ft)	NA z-z (ft)	Mny (k-ft)	Mnz (k-ft)	Mnoy (k-ft)	Mnoz (k-ft)
1	-.598	0	-.607			67.087		

Shear Steel

Span	Region (ft)	Bars Provided
1	0 - 1.1	4 #3 @4in
	-	
	-	
	-	

y-Dir Shear Span Results

Span	Region (ft)	Vny (k)	Vcy (k)	Vsy (k)	Asy Req'd (in^2)	As Prvd (in^2)
1	0 - 1.1	50.529	0	50.529	.048	.055
	-	0	0	0	0	0
	-	0	0	0	0	0
	-	0	0	0	0	0

z-Dir Shear Span Results

Span	Region (ft)	Vnz (k)	Vcz (k)	Vsz (k)	Asz Req'd (in^2)	As Prvd (in^2)
1	0 - 1.1	50.529	0	50.529	0	.055
	-	0	0	0	0	0
	-	0	0	0	0	0
	-	0	0	0	0	0

Rebar Detailing

Structural Analysis

For

162'-0" x 120'-6" Compost Storage Building

in

Felda, Florida

Prepared for

Thalle Construction

Hillsborough, North Carolina

4/2/2014

Muhammad Almahayni, PE
9501 N. Rodney Parham RD, Suite K
Little Rock, AR 72227
501-660-4000 www.EzFoundations.com

JUN 25 2014



Legacy Building Solutions, Inc.
19500 County Road 142
South Haven, MN 55382
PH: (320) 259 - 7126
F: (320) 259 - 0087

3/28/2014

DesCalo.out

Page 1

Legacy Bldg. Solutions

S. Haven, MN

STRUCTURAL DESIGN CALCULATIONS
FOR
Legacy Bldg. Solution
Street
City, State

Hendry 162x120 11-27-13

Felda, FL 33930
13-xxx_HendryCounty_FINAL_12-2

BUILDING LAYOUT

Width (ft)= 162.0
Length (ft)= 120.7
Eave Height (ft)= 22.3/ 22.3
Roof Slope (rise/12)= 3.00/ 3.00

BUILDING LOADS

Roof Dead Load (psf)= 2.0
Wall Dead Load
Left Endwall (psf)= 2.0
Right Endwall (psf)= 2.0
Front Sidewall (psf)= 2.0
Back Sidewall (psf)= 2.0
Roof Live Load (psf)= 20.0
Frame Live Load (psf)= 12.0
Collateral Load (psf)= 3.0
Wind Speed (mph)= 150.0
Wind Code = FBC 10 (IBC 12)
Closed/Open = C
Exposure = C
Internal Wind Coeff = -0.18, +0.18
Importance - Wind = 1.00
Importance - Seismic = 1.00
Seismic Design Category= A
Seismic Coeff (Fa*Sa) = 0.09

Designer : TAB
Detailer :

12/27/13

13-xxx_HendryCounty Design Loads For Building Components: 12/27/13 12:43pm

FRONT SIDEWALL:

BASIC LOADS:

			-----Edge_Strip_Ratio-----			
Basic	Wind_Load_Ratio	Zone	Col/			
Wind	Deflect	Factor	Width	Girt	Panel	Jamb
48.7	0.33	0.60	12.07	1.07	1.00	1.07

WIND PRESSURE/SUCTION:

Wind	Wind	Wind	
Press	Suct	Long	
46.2	-50.6		.. Girt/Header
57.4	-62.3		.. Panel
46.2	-50.6		.. Jamb
73.0	-48.7		.. Parapet

BACK SIDEWALL:

BASIC LOADS:

			-----Edge_Strip_Ratio-----			
Basic	Wind_Load_Ratio	Zone	Col/			
Wind	Deflect	Factor	Width	Girt	Panel	Jamb
48.7	0.33	0.60	12.07	1.07	1.00	1.07

WIND PRESSURE/SUCTION:

Wind	Wind	Wind	
Press	Suct	Long	
46.2	-50.6		.. Girt/Header
57.4	-62.3		.. Panel
46.2	-50.6		.. Jamb
73.0	-48.7		.. Parapet

LEFT ENDWALL:

BASIC LOADS:

								-----Edge_Strip_Ratio-----			
Dead	Coll	Live	Snow	Rain	Basic	Wind_Load_Ratio	Zone	Col/			
Load	Load	Load	Load	Load	Wind	Deflect	Factor	Width	Girt	Panel	Jamb
0.0	0.0	0.0	0.0	0.0	0.0	0.33	0.60	12.07	1.07	1.00	1.07

BASIC LOADS AT EAVE:

Seis	Seis	Seis	---
Dead	Girt	Load	Wind Seismic
2.00	0.00	0.00	0.00

WIND PRESSURE/SUCTION:

Wind	Wind	
Press	Suct	
0.0	0.0	.. Column
0.0	0.0	.. Girt/Header
0.0	0.0	.. Jamb
0.0	0.0	.. Panel
0.0	0.0	.. Parapet
73.0	-48.7	.. Transverse bracing, Facia/Parapet

WIND COEFFICIENTS:

Column/Rafter		Rafter		Column/Brace		Long	Surface
Surf	Wind_1	Wind_2	Wind_2	Wind_2	Long	Wind	Friction
Id	Left	Right	Left	Right	Left	Right	
1	0.53	-0.73	0.89	-0.37	0.60	-0.82	-0.63
2	-1.24	-0.80	-0.88	-0.44	-1.24	-0.80	-0.87
3	-0.80	-1.24	-0.44	-0.88	-0.80	-1.24	-0.55
4	-0.73	0.53	-0.37	0.89	-0.82	0.60	-0.63

COLUMN & BRACING DESIGN LOADS:

Load	---Live---	---Add_Snow---	Wind_1	Wind_2	Long_Wind	Column_Wind	Long	Tran	Aux_Load
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[illegible]

RAFTER DESIGN LOADS:

Load	--Add_Snow--								Wind_1		Wind_2		Long	Aux_Load		
No	Id	Dead	Coll	Live	Snow	Drift	Slide	Rain	Left	Right	Left	Right	Wind	Seis	Id	Coef
43	1	1.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00
	2	1.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00
	3	1.00	1.00	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00
	4	1.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00
	5	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00
	6	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.60	0.00	0.00	0.00	0.00	0.00	0	0.00
	7	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60	0.00	0.00	0.00	0.00	0	0.00
	8	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60	0.00	0.00	0.00	0	0.00
	9	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60	0.00	0.00	0	0.00
	10	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60	0.00	0	0.00
	11	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00
	12	1.00	1.00	0.75	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0.00	0	0.00
	13	1.00	1.00	0.75	0.00	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0	0.00
	14	1.00	1.00	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0	0.00
	15	1.00	1.00	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0	0.00
	16	1.00	1.00	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.45	0.00	0	0.00
	17	1.00	1.00	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00
	18	1.00	1.00	0.00	0.75	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0.00	0	0.00
	19	1.00	1.00	0.00	0.75	0.75	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0.00	0	0.00
	20	1.00	1.00	0.00	0.75	0.00	0.75	0.00	0.45	0.00	0.00	0.00	0.00	0.00	0	0.00

[illegible]

STEPPED LOAD COEFFICIENTS:

No.	Basic Load	Location Use	Id	No. Step	Locate	Coef	Locate	Coef	Locate	Coef
	WINDL1	-	2	2	55.63	1.00	83.49	0.64		
	WINDR1	-	3	2	27.87	0.64	83.49	1.00		
	WINDL2	R	2	2	55.63	1.00	83.49	0.50		
	WINDR2	R	3	2	27.87	0.50	83.49	1.00		
	WINDL2	C	2	2	55.63	1.00	83.49	0.64		
	WINDR2	C	3	2	27.87	0.64	83.49	1.00		

RIGHT ENDWALL:

BASIC LOADS:

								---Edge_Strip_Ratio---			
Dead	Coll	Live	Snow	Rain	Basic	Wind_Load_Ratio	Zone	Col/			
Load	Load	Load	Load	Load	Wind	Deflect	Factor	Width	Girt	Panel	Jamb
0.0	0.0	0.0	0.0	0.0	0.0	0.33	0.60	12.07	1.07	1.00	1.07

BASIC LOADS AT EAVE:

Seis	Seis	Seis	---Torsion---	
Dead	Girt	Load	Wind	Seismic
2.00	0.00	0.00	0.00	0.00

WIND PRESSURE/SUCTION:

Wind Press	Wind Suct	
0.0	0.0	.. Column
0.0	0.0	.. Girt/Header
0.0	0.0	.. Jamb
0.0	0.0	.. Panel
0.0	0.0	.. Parapet
73.0	-48.7	.. Transverse bracing, Facia/Parapet

WIND COEFFICIENTS:

Surf	Column/Rafter		Rafter		Column/Brace		Long	Surface
	Wind 1	Wind 2	Wind 2	Wind 2	Wind 2	Wind 2		
1	0.53	-0.73	0.89	-0.37	0.60	-0.82	-0.63	0.00
2	-1.24	-0.80	-0.88	-0.44	-1.24	-0.80	-0.87	0.00
3	-0.80	-1.24	-0.44	-0.88	-0.80	-1.24	-0.55	0.00
4	-0.73	0.53	-0.37	0.89	-0.82	0.60	-0.63	0.00

COLUMN & BRACING DESIGN LOADS:

[illegible]

[illegible]

RAFTER DESIGN LOADS:

Load						--Add_Snow--			Wind_1		Wind_2		Long	Aux_Load		
No	Id	Dead	Coll	Live	Snow	Drift	Slide	Rain	Left	Right	Left	Right	Wind	Seis	Id	Coef
43	1	1.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00
	2	1.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00
	3	1.00	1.00	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00
	4	1.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00
	5	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00
	6	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.60	0.00	0.00	0.00	0.00	0.00	0	0.00
	7	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60	0.00	0.00	0.00	0.00	0	0.00
	8	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60	0.00	0.00	0.00	0	0.00
	9	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60	0.00	0.00	0	0.00
	10	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60	0.00	0	0.00
	11	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00
	12	1.00	1.00	0.75	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0.00	0	0.00
	13	1.00	1.00	0.75	0.00	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0	0.00
	14	1.00	1.00	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0	0.00
	15	1.00	1.00	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0	0.00
	16	1.00	1.00	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.45	0.00	0	0.00
	17	1.00	1.00	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00
	18	1.00	1.00	0.00	0.75	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0.00	0	0.00
	19	1.00	1.00	0.00	0.75	0.75	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0.00	0	0.00
	20	1.00	1.00	0.00	0.75	0.00	0.75	0.00	0.45	0.00	0.00	0.00	0.00	0.00	0	0.00
	21	1.00	1.00	0.00	0.75	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0	0.00
	22	1.00	1.00	0.00	0.75	0.75	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0	0.00
	23	1.00	1.00	0.00	0.75	0.00	0.75	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0	0.00
	24	1.00	1.00	0.00	0.75	0.00	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0	0.00
	25	1.00	1.00	0.00	0.75	0.75	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0	0.00

26	1.00	1.00	0.00	0.75	0.00	0.75	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0	0.00
27	1.00	1.00	0.00	0.75	0.00	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0	0.00
28	1.00	1.00	0.00	0.75	0.75	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0	0.00
29	1.00	1.00	0.00	0.75	0.00	0.75	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0	0.00
30	1.00	1.00	0.00	0.75	0.00	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0	0.00
31	1.00	1.00	0.00	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00
32	1.00	1.00	0.00	0.75	0.75	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0	0.00
33	1.00	1.00	0.00	0.75	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00
34	1.00	1.00	0.00	0.75	0.00	0.75	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0	0.00
35	1.00	1.00	0.00	0.75	0.00	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00
36	1.01	1.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.70	0	0.00	0.00
37	1.01	1.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.70	0	0.00	0.00
38	1.01	1.01	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0	0.00	0.00
39	1.01	1.01	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.52	0	0.00	0.00
40	1.01	1.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0	0.00	0.00
41	1.01	1.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.52	0	0.00	0.00
42	0.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.70	0	0.00	0.00
43	0.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.70	0	0.00	0.00

STEPPED LOAD COEFFICIENTS:

No.	Basic Load	Location Use	Id	No. Step	Locate	Coef	Locate	Coef	Locate	Coef
	WINDL1	-	2	2	55.63	1.00	83.49	0.64		
	WINDR1	-	3	2	27.87	0.64	83.49	1.00		
	WINDL2	R	2	2	55.63	1.00	83.49	0.50		
	WINDR2	R	3	2	27.87	0.50	83.49	1.00		
	WINDL2	C	2	2	55.63	1.00	83.49	0.64		
	WINDR2	C	3	2	27.87	0.64	83.49	1.00		

ROOFDES:

BASIC LOADS:

Dead Load	Coll Load	Live Load	Snow Load	Rain Load	Basic Wind Load	Wind Deflect	Ratio Factor	Surface Friction	Seis Factor	% Snow
2.0	3.0	20.0	0.0	0.0	48.7	0.33	0.60	0.00	1.000	0.00

WIND PRESSURE/SUCTION:

Wind Press	Wind Suct	Wind Suct_Roof	
23.4	-47.7		.. Purlins
0.0	-107		.. Gable Extensions
33.1	-52.6		.. Panels
19.5	-14.1	-33.6	.. Long Bracing, Building
29.7	-20.9		.. Long Bracing, Wall Edge Zone
73.0	-48.7	38.9	.. Long Bracing, Facia/Parapet

EDGE & CORNER ZONE WIND:

Wind Id	Surf Id	No. Zone	Id	Width	Length	--Purlin-- Press	Suct	---Panel--- Press	Suct
1	2	9	1	0.00	0.00	1.00	1.00	1.00	1.00
			3	0.00	12.07	1.00	1.41	1.00	1.73
			4	12.07	0.00	1.00	1.41	1.00	1.73
			5	0.00	12.07	1.00	1.41	1.00	1.73
			6	12.07	0.00	1.00	1.41	1.00	1.73
			7	12.07	12.07	1.00	2.22	1.00	2.57
			8	12.07	12.07	1.00	2.22	1.00	2.57
			9	12.07	12.07	1.00	2.22	1.00	2.57
			10	12.07	12.07	1.00	2.22	1.00	2.57
	3	9	1	0.00	0.00	1.00	1.00	1.00	1.00
			3	0.00	12.07	1.00	1.41	1.00	1.73
			4	12.07	0.00	1.00	1.41	1.00	1.73
			5	0.00	12.07	1.00	1.41	1.00	1.73
			6	12.07	0.00	1.00	1.41	1.00	1.73
			7	12.07	12.07	1.00	2.22	1.00	2.57
			8	12.07	12.07	1.00	2.22	1.00	2.57
			9	12.07	12.07	1.00	2.22	1.00	2.57
			10	12.07	12.07	1.00	2.22	1.00	2.57
2	2	1	1	0.00	0.00	1.00	1.00	1.00	1.00
	3	1	1	0.00	0.00	1.00	1.00	1.00	1.00

EDGE & CORNER ZONE WIND: LONGITUDINAL

Wind Id	Surf Id	No. Zone	Id	Width	Length	Purlin Suct
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1	2	1	1	0.00	0.00	1.00
	3	1	1	0.00	0.00	1.00
2	2	1	1	0.00	0.00	1.00
	3	1	1	0.00	0.00	1.00

PURLIN DESIGN LOADS:

Surf		--Load--				--Add_Snow--				Wind	Wind	Aux_Load	
Id	No.	Id	Dead	Coll	Live	Snow	Drift	Slide	Rain	Press	Suct	Id	Coef
2	9	1	1.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00
		2	1.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0	0.00
		3	1.00	1.00	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0	0.00
		4	1.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00	0	0.00
		5	1.00	1.00	0.75	0.00	0.00	0.00	0.00	0.45	0.00	0	0.00
		6	1.00	1.00	0.00	0.75	0.00	0.00	0.00	0.45	0.00	0	0.00
		7	1.00	1.00	0.00	0.75	0.75	0.00	0.00	0.45	0.00	0	0.00
		8	1.00	1.00	0.00	0.75	0.00	0.75	0.00	0.45	0.00	0	0.00
		9	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60	0	0.00
3	9	1	1.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00
		2	1.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0	0.00
		3	1.00	1.00	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0	0.00
		4	1.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00	0	0.00
		5	1.00	1.00	0.75	0.00	0.00	0.00	0.00	0.45	0.00	0	0.00
		6	1.00	1.00	0.00	0.75	0.00	0.00	0.00	0.45	0.00	0	0.00
		7	1.00	1.00	0.00	0.75	0.75	0.00	0.00	0.45	0.00	0	0.00
		8	1.00	1.00	0.00	0.75	0.00	0.75	0.00	0.45	0.00	0	0.00
		9	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60	0	0.00

BRACING DESIGN LOADS:

--Load--				--Add Snow--					Wind	Wind	Sels	Aux_Load	
No.	Id	Dead	Coll	Live	Snow	Drift	Slide	Rain	Press	Suct	Load	Id	Coef
14	1	1.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.60	0.00	0	0.00
	2	1.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00
	3	1.00	1.00	0.00	1.00	1.00	0.00	0.00	0.00	0.60	0.00	0	0.00
	4	1.00	1.00	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0	0.00
	5	1.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00	0.60	0.00	0	0.00
	6	1.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0	0.00
	7	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60	0.00	0	0.00
	8	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00
	9	1.01	1.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.70	0	0.00
	10	1.01	1.01	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0	0.00
	11	1.01	1.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0	0.00
	12	1.01	1.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0	0.00
	13	1.01	1.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0	0.00
	14	0.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.70	0	0.00

RIGID FRAME #1:

BASIC LOADS:

Dead	Coll	Live	Snow	Rain	Basic Wind	Defl Ratio	Temperature Change
2.0	3.0	12.0	0.0	0.0	48.7	0.33	0

BASIC LOADS AT EAVE:

[illegible]

WIND COEFFICIENTS:

Surf	--Wind_1---		--Wind_2---		Long_wind		Surface
Id	Left	Right	Left	Right	1	2	Friction
1	0.54	-0.73	0.90	-0.37	-0.63	-0.63	0.00
2	-1.25	-0.80	-0.89	-0.44	-0.87	-0.55	0.00
3	-0.80	-1.25	-0.44	-0.89	-0.55	-0.87	0.00
4	-0.73	0.54	-0.37	0.90	-0.63	-0.63	0.00

DESIGN LOADS:

[illegible]

13-xxx_HendryCounty Reactions, Anchor Bolts, & Base Plates:12/27/13 12:43pm

Frame Line	Col Line	Foundation Loads(k)						Anc. Bolt No. Diam		Base Plate		
		Max_Pos_Val Id	Horz	Vert	Max_Neg_Val Id	Horz	Vert			Width	Len	Thick
1*	A	1	23.0	24.3	2	-31.4	-34.1	4	1.000	8.00	13.00	0.500
		1	23.0	24.3								
1*	J	3	31.4	-34.1	1	-23.0	24.3	4	1.000	8.00	13.00	0.500
		1	-23.0	24.3	3	31.4	-34.1					
2*	A	1	30.0	31.5	2	-29.6	-31.9	4	1.000	8.00	13.00	0.500
		1	30.0	31.5	4	-20.4	-37.5					
2*	J	3	29.6	-31.9	1	-30.0	31.5	4	1.000	8.00	13.00	0.500
		1	-30.0	31.5	5	20.4	-37.5					

1* Frame Lines:1 7
2* Frame Lines:2 3 4 5 6

LOAD COMBINATIONS:

Id Combination

- 1 Dead+Collateral+Live
- 2 0.6Dead+0.6Wind_Left1
- 3 0.6Dead+0.6Wind_Right1
- 4 0.6Dead+0.6Wind_Long1
- 5 0.6Dead+0.6Wind_Long2

13-xxx_HendryCounty Bracing Reactions Report: 12/27/13 12:43pm

BUILDING BRACING REACTIONS:

		-----Reactions(k)-----					
---Wall---	Col	---Wind---		--Seismic--		Panel_Shear(lb/ft)	
Loc Line	Line	Horz	Vert	Horz	Vert	Wind	Seismic

L_EW 1	Rigid Frame At Endwall						
F_SW J	1 ,2	8.21	8.50	0.25	0.26		
	2 ,3	8.21	8.50	0.25	0.26		
	3 ,4	8.21	8.50	0.25	0.26		
	4 ,5	8.21	8.50	0.25	0.26		
	5 ,6	8.21	8.50	0.25	0.26		
	6 ,7	8.21	8.50	0.25	0.26		
R_EW 7	Rigid Frame At Endwall						
B_SW A	7 ,6	8.21	8.50	0.25	0.26		
	6 ,5	8.21	8.50	0.25	0.26		
	5 ,4	8.21	8.50	0.25	0.26		
	4 ,3	8.21	8.50	0.25	0.26		
	3 ,2	8.21	8.50	0.25	0.26		
	2 ,1	8.21	8.50	0.25	0.26		

13-xxx_HendryCounty Additional Reactions Report: 12/27/13 12:43pm

Rigid Frame Column Reactions(k)

Frame Line	Col Line	---Dead---		Collateral		---Live---		Wind_Left1		Wind_Right1	
		Horz	Vert	Horz	Vert	Horz	Vert	Horz	Vert	Horz	Vert
1*	A	5.0	5.9	3.7	3.8	14.3	14.6	-57.3	-62.8	-41.1	-49.6
1*	J	-5.0	5.9	-3.7	3.8	-14.3	14.6	41.2	-49.6	57.3	-62.8
2*	A	6.0	7.1	4.9	5.0	19.1	19.4	-55.3	-60.2	-40.4	-49.7
2*	J	-6.0	7.1	-4.9	5.0	-19.1	19.4	40.4	-49.7	55.3	-60.2

Frame Line	Col Line	Wind_Left2		Wind_Right2		Wind_Long1		Wind_Long2		-Seis_Left-	
		Horz	Vert	Horz	Vert	Horz	Vert	Horz	Vert	Horz	Vert
1*	A	-41.4	-41.5	-25.2	-28.3	-30.0	-54.3	-34.8	-46.7	-0.2	-0.1
1*	J	25.2	-28.4	41.4	-41.5	34.8	-46.7	30.0	-54.3	-0.2	0.1
2*	A	-34.0	-31.9	-19.1	-21.4	-40.0	-69.6	-46.3	-59.4	-0.2	-0.1
2*	J	19.1	-21.4	34.0	-31.9	46.3	-59.4	40.0	-69.6	-0.2	0.1

Frame Line	Col Line	-Seis_Right		-Seis_Long-	
		Horz	Vert	Horz	Vert
1*	A	0.2	0.1	0.0	-0.8
1*	J	0.2	-0.1	0.0	-0.8
2*	A	0.2	0.1	0.0	-0.8
2*	J	0.2	-0.1	0.0	-0.8

1* Frame Lines:1 7
2* Frame Lines:2 3 4 5 6

Endwall Column Reactions(k)

13-xxx HendryCounty Seismic Design Report:

12/27/13

12:43pm

Building Data

Code = IBC 12
Length = 120.67
Width = 162.00
Left Eave Height = 22.25
Right Eave Height = 22.25

Seismic Formula

Base Shear, V = $0.667 * I_e * F_a * S_s * W / R$
Vmin = $0.044 * S_d * I_e * W$
Vmax = $S_d * I_e * W / (T * R)$
T(Moment_Frame) = 0.335
T(Braced_Frame) = 0.205
Shear Force, E = $\Omega * \rho * V$

Note: Applied load is seismic force multiplied by load combination

Fa*Ss = 0.090
Zone/Design Category = A
Ie = 1.000
S1 = 0.025
Sd1 = 0.040
Sds = 0.060

Seismic Dead Load, W

Roof Dead+Collateral = 5.00 (psf)

Frame	Dead	=	2.00 (psf)	
Roof	Total	=	7.00 (psf)	, Weight= 136.84 (k)
L_EW	Dead	=	2.00 (psf)	, Weight= 5.24 (k)
F_SW	Dead	=	2.00 (psf)	, Weight= 2.68 (k)
R_EW	Dead	=	2.00 (psf)	, Weight= 5.24 (k)
B_SW	Dead	=	2.00 (psf)	, Weight= 2.68 (k)

Total = 152.70 (k)

Seismic Forces

Roof Bracing

R = 3.00, Rho= 1.00, Omega= 3.00
 Cs = 0.0199
 W = 147.33 (k)
 Force, V = 2.93 (k)
 Force, E = 8.81 (k)

Sidewall Bracing

Front
 R = 3.00, Rho= 1.00, Omega= 3.00
 Cs = 0.0199
 W = 76.35 (k)
 Force, V = 1.52 (k)
 Force, E = 4.57 (k)
Back
 R = 3.00, Rho= 1.00, Omega= 3.00
 Cs = 0.0199
 W = 76.34 (k)
 Force, V = 1.52 (k)
 Force, E = 4.57 (k)

Rigid Frames

R = 3.00, Rho= 1.00, Omega= 1.00
 Cs = 0.0199
Frame 1
 W = 23.12 (k)
 Force, V = 0.46 (k)
 Force, E = 0.46 (k)
Frame 2
 W = 23.12 (k)
 Force, V = 0.46 (k)
 Force, E = 0.46 (k)

End Plates

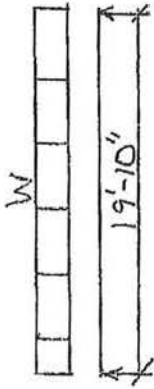
Frame R = 3.00, Omega= 3.00

Total Base Shear

Longitudinal
 Force, V = 3.04 (k)
Transverse
 Force, V = 3.22 (k)

EC-3

(Endwall Col. Design)



$$W = 50.6 \times 20'-0 = 1012 \text{ lbs/ft}$$

$$M = 49.7 \text{ K-ft. (See Sht. #15)}$$

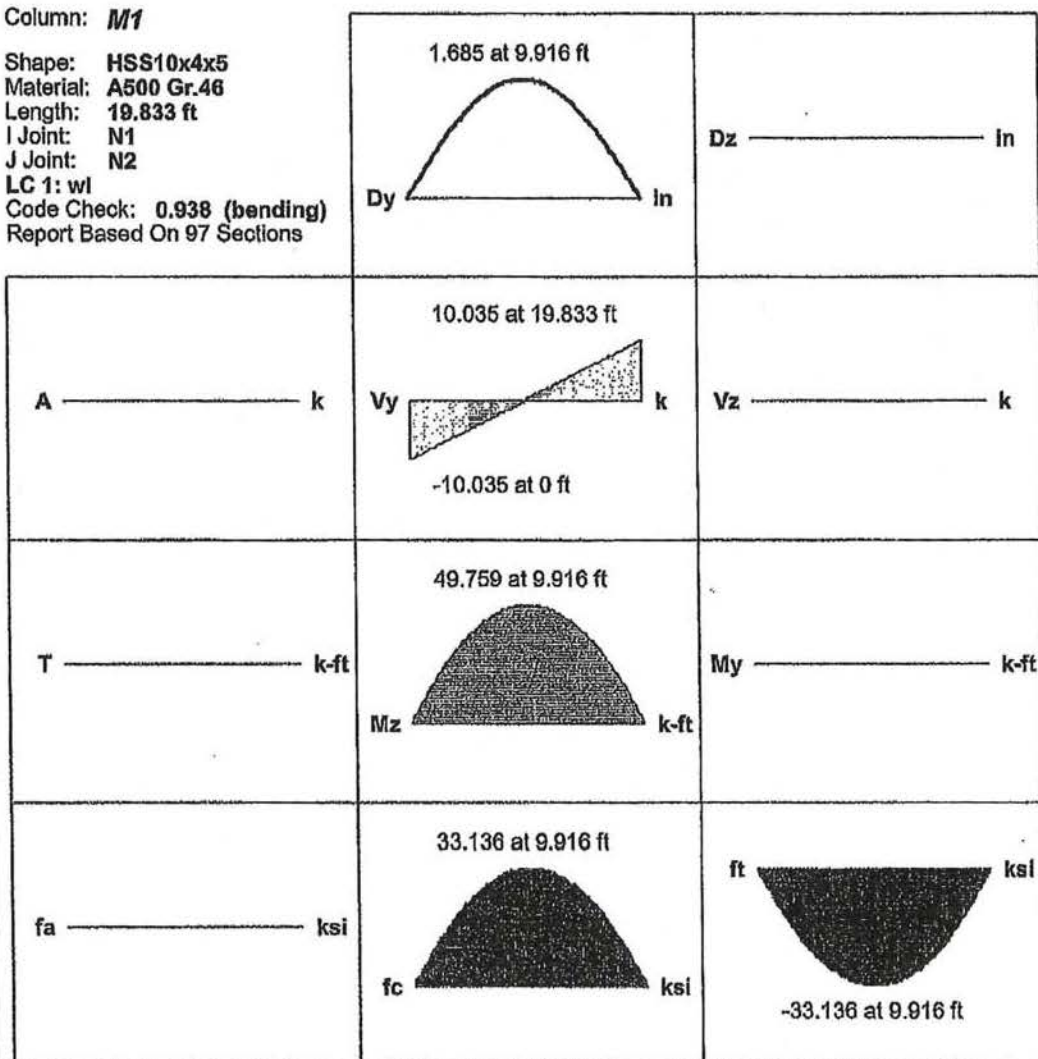
$$U.C. = .938 \leq 1.0 \therefore \text{O.K.}$$

$$\Delta = 1.685" = 4/141 \therefore \text{O.K.}$$

\therefore USE A HSS 10x4x $\frac{5}{16}$ " COL.

Column: **M1**Shape: **HSS10x4x5**Material: **A500 Gr.46**Length: **19.833 ft**I Joint: **N1**J Joint: **N2**LC 1: **wl**Code Check: **0.938 (bending)**

Report Based On 97 Sections

**AISC 14th(360-10): ASD Code Check****Direct Analysis Method**

Max Bending Check **0.938**
 Location **9.916 ft**
 Equation **H1-1b**

Max Shear Check **0.114 (y)**
 Location **19.833 ft**
 Max Defl Ratio **L/141**

Bending Flange **Compact**
 Bending Web **Compact**

Compression Flange **Non-Slender**
 Compression Web **Non-Slender**

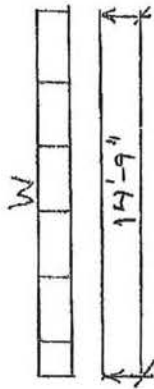
Fy **46 ksi**
 Pnc/om **56.257 k**
 Pnt/om **209.066 k**
 Mny/om **26.192 k-ft**
 Mnz/om **53.024 k-ft**
 Vny/om **87.79 k**
 Vnz/om **30.078 k**
 Tn/om **28.734 k-ft**
 Cb **1.136**

Lb y-y **19.833 ft**
 KL/r z-z **142.404**
69.076

L Comp Flange **19.833 ft**
 Warp Length **NC**
 L-torque **19.833 ft**
 Tau_b **1 ***

EC-2

(Endwall Col. Design)



$$W = 50.6 \times 20'-0 = 1012 \text{ lbs/ft}$$

$$M = 27.5 \text{ K-ft (See Sht. #17)}$$

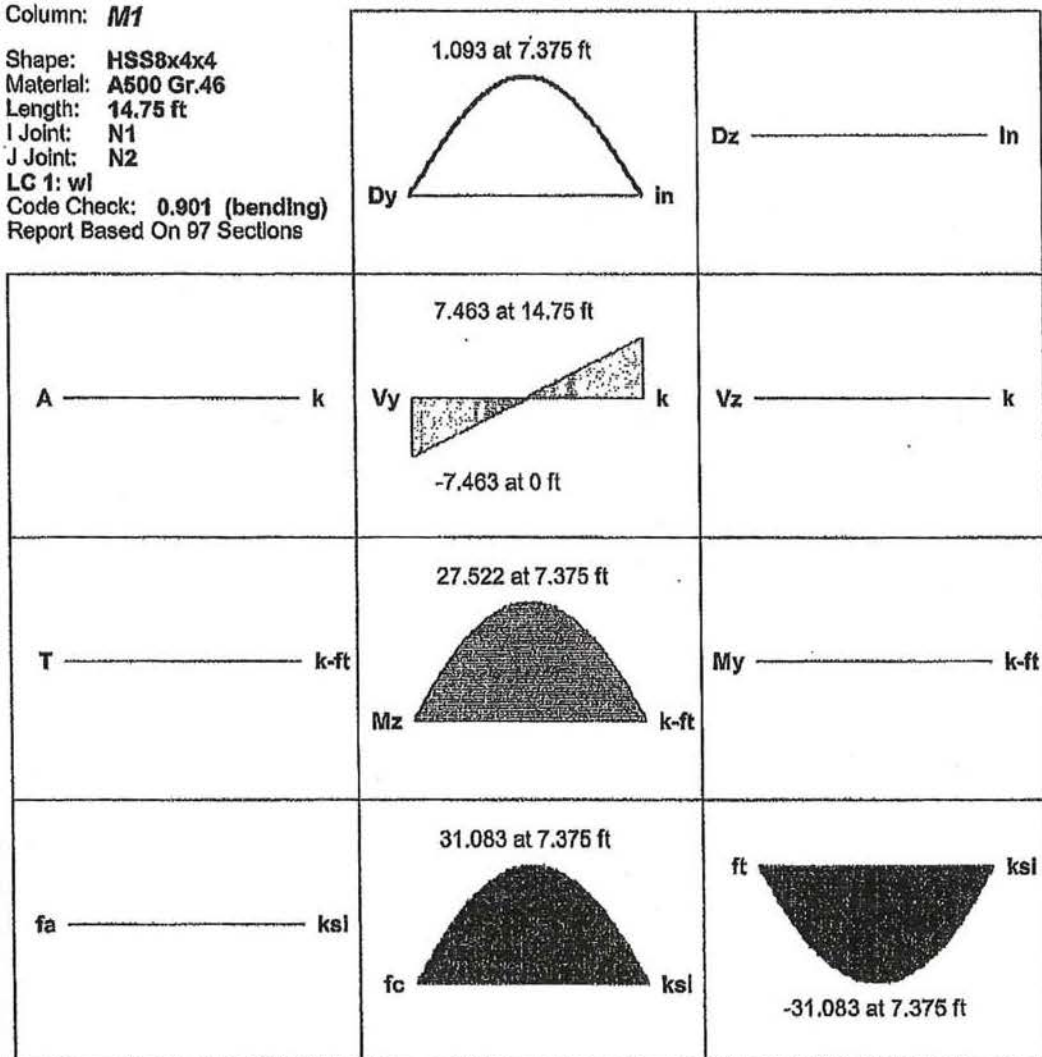
$$U.C. = .90 \leq 1.0 \therefore \text{O.K.}$$

$$\Delta = 1.09'' = L/162 \therefore \text{O.K.}$$

\therefore USE A HSS 8x4x1/4" COL.

Column: **M1**Shape: **HSS8x4x4**Material: **A500 Gr.46**Length: **14.75 ft**I Joint: **N1**J Joint: **N2**LC 1: **wl**Code Check: **0.901 (bending)**

Report Based On 97 Sections

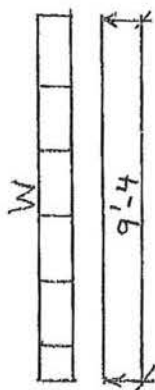
**AISC 14th(360-10): ASD Code Check****Direct Analysis Method**

Max Bending Check	0.901	Max Shear Check	0.133 (y)
Location	7.375 ft	Location	0 ft
Equation	H1-1b	Max Defl Ratio	L/162
Bending Flange	Compact	Compression Flange	Non-Slender
Bending Web	Compact	Compression Web	Non-Slender

Fy	46 ksi	Lb	y-y	z-z
Pnc/om	67.038 k	KL/r	14.75 ft	14.75 ft
Pnt/om	144.335 k		106.772	62.15
Mny/om	17.777 k-ft	L Comp Flange	14.75 ft	
Mnz/om	30.529 k-ft	Warp Length	NC	
Vny/om	56.229 k	L-torque	14.75 ft	
Vnz/om	25.423 k	Tau_b	1	
Tn/om	18.711 k-ft			
Cb	1.136			

EC-1

(Endwall Col. Design)



$$W = 50.6 \times 20'-0 = 1012 \text{ lbs/ft}$$

$$M = 11.02 \text{ K-ft (See Sht. \# 19)}$$

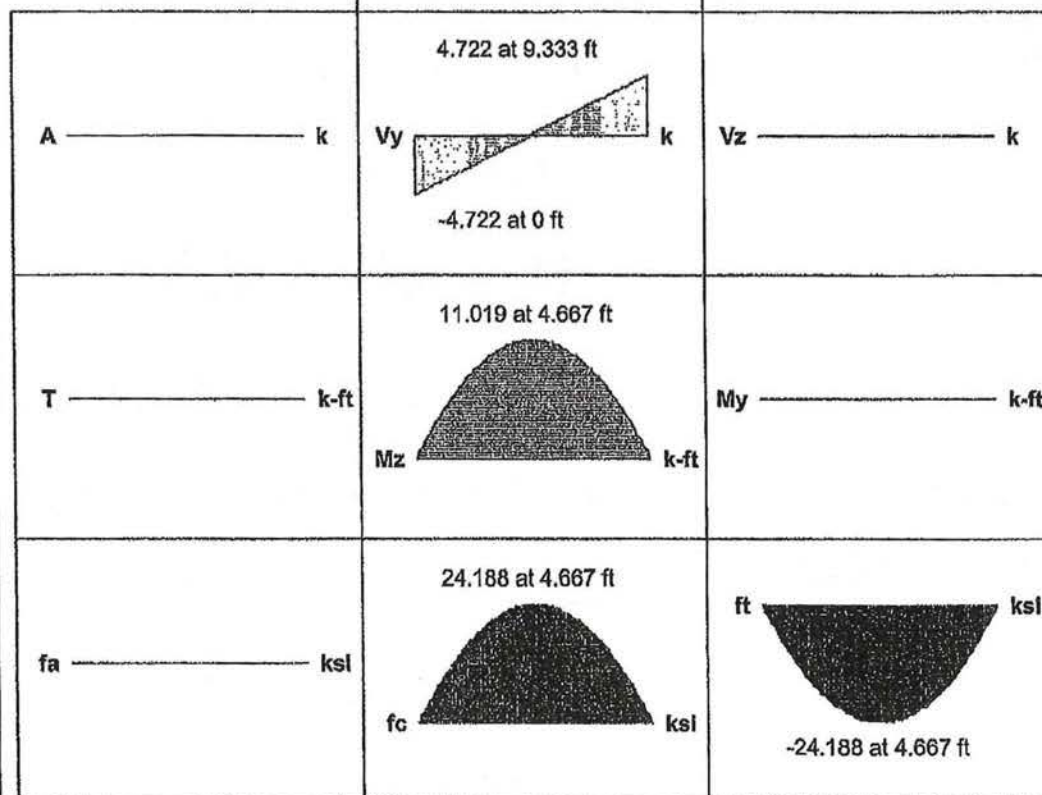
$$U.C = .73 \leq 1.0 \therefore \text{O.K.}$$

$$\Delta = .45'' = \frac{1}{247} \therefore \text{O.K.}$$

\therefore USE A HSS $6 \times 4 \times \frac{3}{16}$ COL

Column: **M1**Shape: **HSS6x4x3**Material: **A500 Gr.46**Length: **9.333 ft**I Joint: **N1**J Joint: **N2**LC 1: **wl**Code Check: **0.727 (bending)**

Report Based On 97 Sections

**AISC 14th(360-10): ASD Code Check****Direct Analysis Method**

Max Bending Check **0.727**
 Location **4.667 ft**
 Equation **H1-1b**

Max Shear Check **0.150 (y)**
 Location **0 ft**
 Max Defl Ratio **L/247**

Bending Flange **Compact**
 Bending Web **Compact**

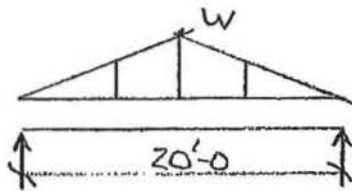
Compression Flange **Non-Slender**
 Compression Web **Non-Slender**

Fy **46 ksi**
 Pnc/om **65.874 k**
 Pnt/om **90.347 k**
 Mny/om **10.799 k-ft**
 Mnz/om **15.15 k-ft**
 Vny/om **31.506 k**
 Vnz/om **20.003 k**
 Tn/om **10.655 k-ft**
 Cb **1.136**

Lb **9.333 ft**
 KL/r **68.531**
 y-y **9.333 ft**
 z-z **9.333 ft**

L Comp Flange **9.333 ft**
 Warp Length **NC**
 L-torque **9.333 ft**
 Tau_b **1**

(Endwall Horizontals)



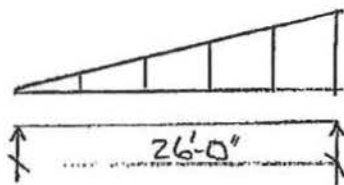
$$W = 50.6 \times 10' = 506 \text{ lbs/ft}$$

$$M = 16.87 \text{ k-ft. (See Sht. #21)}$$

$$U.C. = .60 \leq 1.0 \therefore \text{O.K.}$$

$$\Delta = 1.18'' = L/203 \therefore \text{O.K.}$$

\therefore USE A HSS $8 \times 4 \times 1/4$



$$W = 50.6 \times 9'4\frac{1}{2} = 236 \text{ lbs/ft}$$

$$M = 9.32 \text{ k-ft (See Sht. #22)}$$

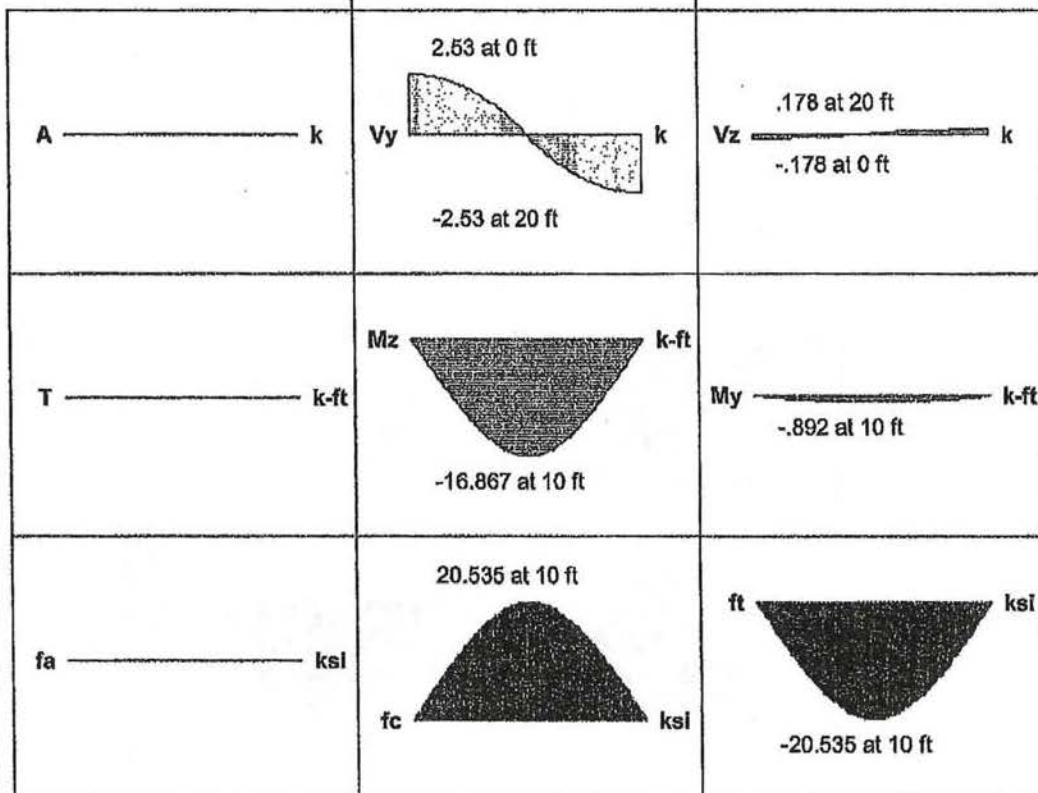
$$U.C. = .39 \leq 1.0 \therefore \text{O.K.}$$

$$\Delta = 1.12'' = L/278 \therefore \text{O.K.}$$

\therefore USE A HSS $8 \times 4 \times 1/4$

Beam: **M1**Shape: **HSS8x4**Material: **A500 Gr.46**Length: **20 ft**I Joint: **N1**J Joint: **N2**LC 1: **DL+LL**Code Check: **0.603 (bending)**

Report Based On 97 Sections

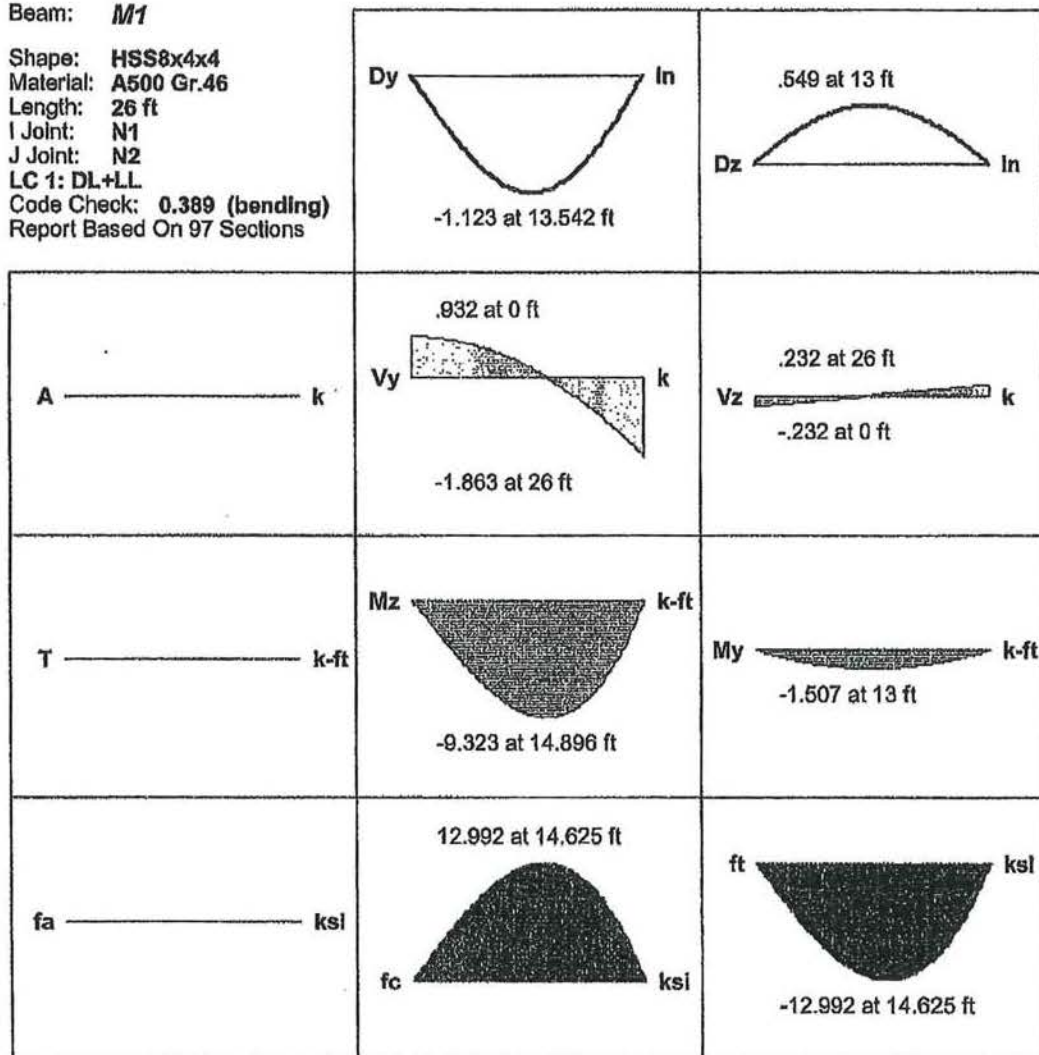
**AISC 14th(360-10): ASD Code Check****Direct Analysis Method**Max Bending Check **0.603**Location **10 ft**Equation **H1-1b**Bending Flange **Compact**Bending Web **Compact**Max Shear Check **0.045 (y)**Location **0 ft**Max Defl Ratio **L/203**Compression Flange **Non-Slender**Compression Web **Non-Slender**Fy **46 ksi**Pnc/om **37.577 k**Pnt/om **144.335 k**Mny/om **17.777 k-ft**Mnz/om **30.529 k-ft**Vny/om **56.229 k**Vnz/om **25.423 k**Tn/om **18.711 k-ft**Cb **1.176**Lb **20 ft**KL/r **144.776**L Comp Flange **20 ft**Warp Length **NC**L-torque **20 ft**Tau_b **1**

z-z

20 ft**84.272**

Beam: **M1**Shape: **HSS8x4x4**Material: **A500 Gr.46**Length: **26 ft**I Joint: **N1**J Joint: **N2**LC 1: **DL+LL**Code Check: **0.389 (bending)**

Report Based On 97 Sections

**AISC 14th(360-10): ASD Code Check****Direct Analysis Method**Max Bending Check **0.389**Location **14.625 ft**Equation **H1-1b**Bending Flange **Compact**Bending Web **Compact**Max Shear Check **0.033 (y)**Location **26 ft**Max Defl Ratio **L/278**Compression Flange **Non-Slender**Compression Web **Non-Slender**Fy **46 ksi**Pnc/om **22.235 k**Pnt/om **144.335 k**Mny/om **17.777 k-ft**Mnz/om **30.529 k-ft**Vny/om **56.229 k**Vnz/om **25.423 k**Tn/om **18.711 k-ft**Cb **1.159**

Lb

KL/r

y-y

26 ft

188.208

z-z

26 ft

109.553

L Comp Flange

Warp Length

L-torque

Tau_b

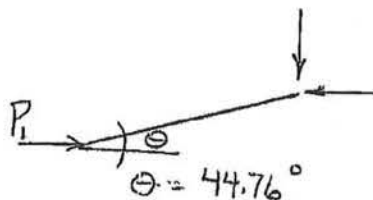
26 ft

NC

26 ft

1

(Endwall Kicker Design)

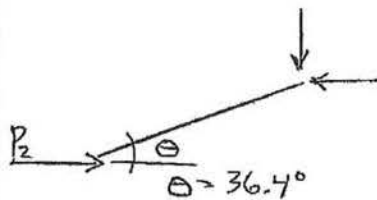


$$L_U = 28'-2" \quad \text{Sht. \#15}$$

$$P_1 = 10035 \times .60 = 6021 \text{ lbs.} \quad F_c = 8480 \text{ lbs.}$$

$$P_{ALL} = 15,329 \text{ lbs.}$$

USE A HSS 5" x 5" x 3/16" KICKER

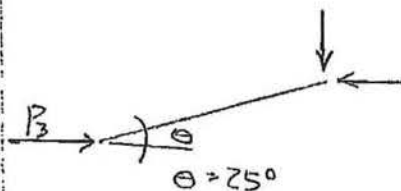


$$L_U = 24'-7" \quad \text{See Sht. \#17}$$

$$P_1 = 7463 \times .6 = 4478 \text{ lbs.} \quad F_c = 5563 \text{ lbs.}$$

$$P_{ALL} = 9813 \text{ lbs.}$$

USE A HSS 4" x 4" x 3/16" KICKER



$$L_U = 22'-0" \quad \text{Sht. \#19}$$

$$P_3 = 4722 \times .6 = 2833 \text{ lbs.} \quad F_c = 3126 \text{ lbs.}$$

$$P_{ALL} = 7862 \text{ lbs.}$$

USE A HSS 3 1/2" x 3 1/2" x 3/16" KICKER

(Purlin calculations at braced bay)

Maximum eave force at sidewall due to wind = 6.20k (See Sht. # 25) ← *WIND CONTROLS*

Maximum eave force at sidewall due to seismic = 0.54k (See Sht. # 25)

Fabric force

lowest purlin space

Total force on end braced bay purlin = 6200 + 100 x (11' - 9 3/8"/2) = 6789 lbs.

Eave Strut: HSS4x4x14ga, $F_y=46\text{ksi}$, $r=1.605\text{in.}$, $A=1.10\text{in}^2$

$$L/r = 240/r = 149.53$$

$$F_e = [(\pi)^2 \times E] / (L/r)^2 = 12,801\text{psi} \leq .44F_y$$

$$F_{cr} = .877F_e = 11,226\text{psi}$$

$$P_n/\phi_c = (F_{cr} \times A) / 1.67 = 7394\text{lbs.} \geq 6789\text{lbs.}$$

Therefore, USE HSS4x4x14ga purlins at all braced bays

3/29/2014

RoofDes.out

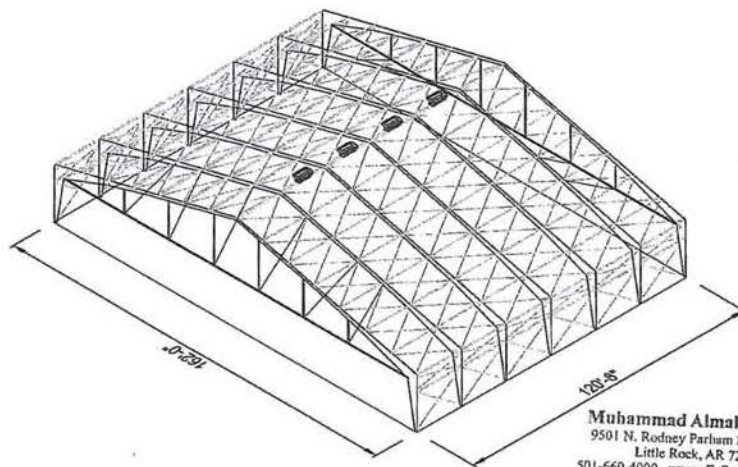
Page 25

13-xxx_HendryCounty Eave Strut, Longitudinal Load (Wall= 2) 12/27/13 12:43pm

Wall Id	Bay Id	Eave Part	Bay Width	Axial Wind	Calc Seis	Axial Limit	Axial Ratio	Max KL/r
2	1	18K9	20.33	0.00	0.00	0.10	0.01	999
- Added Purlin Strut ----								
2	1	T4X10	20.33	(6.20)	(0.54)	16.21	0.38	154
2	2	18K9	20.00	0.00	0.00	0.10	0.01	999
- Added Purlin Strut ----								
2	2	T4X10	20.00	5.69	0.54	16.21	0.35	154
2	3	18K9	20.00	0.00	0.00	0.10	0.01	999
- Added Purlin Strut ----								
2	3	T4X10	20.00	5.19	0.53	16.21	0.32	154
2	4	18K9	20.00	0.00	0.00	0.10	0.01	999
- Added Purlin Strut ----								
2	4	T4X10	20.00	5.19	0.53	16.21	0.32	154
2	5	18K9	20.00	0.00	0.00	0.10	0.01	999
- Added Purlin Strut ----								
2	5	T4X10	20.00	5.69	0.54	16.21	0.35	154
2	6	18K9	20.33	0.00	0.00	0.10	0.01	999
- Added Purlin Strut ----								
2	6	T4X10	20.33	6.20	0.54	16.21	0.38	154

LEE COUNTY 162'-0"x120'-8"

5500 CHURCH RD
FELDA, FL 33930



Muhammad Almahayni, PE
9501 N. Rodney Parham RD, Suite K
Little Rock, AR 72227
501-560-4000 www.EzFoundations.com

ABBREVIATION LEGEND			
MARK	DESCRIPTION	MARK	DESCRIPTION
P	PURLIN	ITS	INCLUSIVE TENSION SYSTEM
CB	CABLE BRACE	EC	END WALL COLUMN
S	SUPPORT PURLIN	G	GIRT
FB	FLANGE BRACE	DJ	DOOR JAMB
SP	SPLICE PLATE	DH	DOOR HEADER
EB	EAVE BEAM	VF	VENT FRAME

S0	INDEX & COVER PAGES
	S0.0 - SHEET INDEX
	S0.1 - BUILDING SPECS.
	S0.2 - ANCHOR BOLT REACTIONS
	S0.3 - 3D VIEW 1
	S0.4 - 3D VIEW 2
S1	ANCHOR BOLT LAYOUT
	S1.0 - ANCHOR BOLT PLAN
S2	RIGID FRAME SECTIONS
	S2.1 - RIGID FRAME PROFILE: FRAME LINES 1 & 7 @ BAYS 1 & 6
	S2.2 - RIGID FRAME PROFILE: FRAME LINES 2 - 6 @ BAYS 1 - 5
	S2.6 - PURLIN CONNECTION DETAILS
S3	RIGID FRAME LAYOUT
	S3.0 - ROOF FRAMING PLAN
	S3.1 - SIDE WALL FRAMING PLAN
S4	END WALL FRAMING
	S4.0 - END WALL FRAMING PLAN FRAMELINE 1 & 7
	S4.4 - ENDWALL DETAILS



JUN 25 2014

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LEE COUNTY
162'-0"x120'-8"
FELDA, FL

Legacy Building Solutions
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South Haven, MN 55850
p. 320-253-7126

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PATENT PENDING

SHEET INDEX

DESIGNED BY: DATE:
△ APPROVAL DATE: 5-15-2014
△ DWG DESIGNER: 5-15-2014
△

Project: 1602, 1603, 16-01
Site: 5-15-2014
Drawn by: JT
Checked by:

Sheet Number:

S0.0

BUILDING LOADS / DESCRIPTION:

WIDTH: 162 LENGTH: 120.67 HEIGHT: 22.25 / 22.25
(BUILDING DIMENSIONS ARE NOMINAL. REFER TO PLANS).

THIS STRUCTURE IS DESIGNED UTILIZING THE LOADS INDICATED AND APPLIED AS REQUIRED BY: IBC 12 / FBC10

THE CONTRACTOR IS TO CONFIRM THAT THESE LOADS COMPLY WITH THE REQUIREMENTS OF THE LOCAL BUILDING DEPARTMENT.

ROOF DEAD LOAD:	2.000	PSF (ROOF PANELS & PURLINS)
COLLATERAL LOAD:	3	PSF
ROOF LIVE LOAD:	20.00	PSF
ROOF SNOW LOAD:	0	PSF
GROUND SNOW LOAD:	0	PSF
BASIC WIND SPEED:	150	MPH
SEISMIC ZONE:	A	
IMPORTANCE FACTORS:		
SNOW LOAD	1.000	
SEISMIC LOAD	1.00	

LEGACY BUILDING SOLUTIONS(LBS) FOLLOWS THE GUIDELINES OUTLINED IN THE AISC AND MBMA CODES OF STANDARD PRACTICE. LBS STANDARD PRODUCT SPECIFICATIONS, DESIGN, FABRICATION, AND QUALITY CRITERIA SHALL GOVERN ALL WORK UNLESS STIPULATED OTHERWISE IN CONTRACT DOCUMENTS. IN CASE OF DISCREPANCIES BETWEEN LBS STRUCTURAL PLANS AND PLANS FOR OTHER TRADES LBS PLANS SHALL GOVERN.

IT IS THE RESPONSIBILITY OF THE BUILDER TO OBTAIN APPROVALS AND PERMITS FROM ALL GOVERNING AGENCIES AND JURISDICTIONS AS REQUIRED. APPROVAL OF LBS DRAWINGS CONSTITUTES THE ACCEPTANCE OF LBS INTERPRETATION OF THE CONTRACT PURCHASE ORDER. UNLESS SPECIFIC DESIGN CRITERIA CONCERNING INTERFACE DESIGN AND DETAILS ARE FURNISHED AS PART OF THE CONTRACT, LBS DESIGN ASSUMPTIONS SHALL GOVERN.

LBS ENGINEERS ARE NOT PROJECT ENGINEERS OR ENGINEER OF RECORD FOR THE OVERALL PROJECT. LBS ENGINEERING SUPPLY SEALED ENGINEERING DESIGN DATA AND DRAWINGS FOR LBS SUPPLIED MATERIAL AS PART OF THE OVERALL PROJECT FOR USE BY OTHERS TO OBTAIN PERMITS, APPROVALS, AND COORDINATE WITH OTHER TRADES. THE BUILDER OR A/E FIRM ARE RESPONSIBLE FOR THE OVERALL PROJECT COORDINATION INCLUDING COORDINATION WITH APPROPRIATE INSPECTION AND TESTING AGENCIES. ALL INTERFACE AND/OR COMPATIBILITY OF ANY MATERIALS NOT FURNISHED BY LBS ARE TO BE CONSIDERED AND COORDINATED BY THE BUILDER OR A/E FIRM.

GENERAL

THE GENERAL CONTRACTOR AND/OR ERECTOR IS SOLELY RESPONSIBLE FOR ACCURATE, QUALITY WORKMANSHIP IN ERECTING THIS BUILDING IN CONFORMANCE WITH THIS DRAWING. DETAILS REFERENCED IN THIS DRAWING AND INDUSTRY STANDARDS PERTAINING TO PROPER ERECTION INCLUDING THE USE OF TEMPORARY BRACING.

LBS IS NOT RESPONSIBLE FOR ANY ERRORS OMISSIONS OR DAMAGE INCURRED IN THE ERECTION OF OF THE COMPONENTS IN THIS DRAWING, NOR THE INSPECTION OF THE ERECTED COMPONENTS TO DETERMINE THE SAME.

THIS CERTIFICATION AND ENGINEERING SEAL APPLIES ONLY TO PRODUCTS DESIGNED AND FABRICATED BY LBS OR ITS AFFILIATE COMPANIES FOR THE LOADING CONDITIONS DESIGNATED ON THESE DRAWINGS. CONCRETE FOUNDATIONS, STEEL COMPONENTS BY OTHERS AND ERECTION SUPERVISION ARE NOT THE RESPONSIBILITIES OF LBS OR THE CERTIFYING ENGINEER.

ERECTION

THE ERECTOR MUST PROVIDE SAFE WORKING CONDITIONS AND PRACTICES CONFORMING TO ALL SAFETY REGULATIONS. ALL LIFTING DEVICES ARE TO BE DESIGNED TO LIFT THE VARIOUS BUILDING COMPONENTS. SLINGS AND SPREADER BARS ARE TO BE USED TO PREVENT PERMANENT DEFORMATION OF ALL STRUCTURAL COMPONENTS.

ERECTION MUST START AT A BRACED BAY. ERECT AND TEMPORARILY SUPPORT RIGID FRAMES. USE TEMPORARY BRACING AS REQUIRED TO ENSURE STABILITY OF THE FRAMES. INSTALL PURLINS AND CROSS BRACING. PLUMB AND SQUARE RIGID FRAMES IN ACCORDANCE WITH CSA S16-1 AND OSHA 29 CFR PART 1926-SAFETY STANDARD FOR STEEL ERECTION.

ENSURE ALL PURLINS REMAIN PARALLEL AND ALL STRUCTURAL FRAMING MEMBERS ARE PLUMB LEVEL AND ALIGNED.

FIELD MODIFICATIONS

MODIFICATIONS TO THIS BUILDING FROM DETAILS AND INSTRUCTIONS CONTAINED TON THESE DRAWINGS MUST BE APPROVED IN WRITING BY LBS/LM BUILDING ENGINEERS. THIS INCLUDES, BUT IS NOT LIMITED TO, REMOVAL OF ROOF OR WALL COVERING, REMOVING OR MOVING STRUCTURAL PURLINS OR SUPPORTS, REMOVING OR MOVING STRUCTURAL CROSS BRACING OR FLANGE BRACING, OR CORRECTION OF FABRICATION ERRORS, ETC. THE OWNER/ERECTOR SHALL NOT IMPOSE LOADS TO THIS STRUCTURE BEYOND WHAT IS SPECIFIED FOR THIS BUILDING IN THE CONTRACT DOCUMENTS. LBS ACCEPTS NO RESPONSIBILITY FOR THE CONSEQUENCES OF ANY UNAUTHORIZED ADDITIONS, ALTERATIONS, OR ADDED LOADS TO THIS STRUCTURE

IT IS THE RESPONSIBILITY OF THE ERECTOR TO ENSURE THE PROPER BOLT TIGHTNESS IN ACCORDANCE WITH APPLICABLE REGULATIONS. SEE RCSC SPECIFICATION FOR STRUCTURAL JOINTS USING A325 OR A490 BOLTS. SEE TABLE 4.1 FOR SUMMARY OF CONNECTIONS. TABLES 8.1 AND 8.2 FOR INSTALLATION REQUIREMENTS AND SECTIONS 9.1-3 FOR DETAIL INSPECTION REQUIREMENTS.

A325 BOLTS IN PRIMARY FRAMING AND BRACING CONNECTIONS MAY BE "SNUG TIGHT" EXCEPT AS FOLLOWS: 1) PRETENSION A325 BOLTS IF BUILDING SUPPORTS A CRANE GREATER THAN 5 TON CAPACITY. 2) PRETENSION A325 BOLTS IF BUILDING SUPPORTS MACHINERY THAT CREATES VIBRATION, IMPACT, OR STRESS REVERSALS ON CONNECTIONS. 3) PRETENSION A325 BOLTS IF LOCATED IN HIGH SEISMIC AREAS. FOR IBC BASED CODES; HIGH SEISMIC IS DESIGN CATEGORY D, E OR F. SEE CODES AND LOADS SECTION OF NOTES.

ALL A490 BOLTS SHALL BE PRE-TENSIONED JOINTS

ALL OTHER HEX BOLTS SHALL CONFORM TO SAE GR.5 OR EQUAL U.N.O.

IN CANADA, ALL A325 AND A490 BOLTS SHALL BE "PRE-TENSIONED", EXCEPT FOR SECONDARY MEMBERS.

SECONDARY MEMBERS ARE ALWAYS SNUG TIGHT, UNLESS INDICATED OTHERWISE IN ERECTION DRAWING DETAILS.

FOUNDATION

FOUNDATION MUST BE LEVEL, SQUARE AND SMOOTH. ANCHOR BOLTS MUST BE PLACED AS SHOWN ON DRAWINGS

ANCHOR BOLTS

ANCHOR DIAMETERS, LENGTHS, AND PROJECTIONS TO BE DETERMINED BY FOUNDATION ENGINEER
ANCHOR BOLT PROJECTIONS BASED ON NO GROUT ARE 2 1/2" MIN TO 4" MAX.

SEAMAN CORPORATION STYLE 8028 ARCHITECTURAL FABRIC	
BASE FABRIC TYPE	POLYESTER
BASE FABRIC WEIGHT	7.5 oz/yd²
FINISHED COAT WEIGHT ASTM D151	28 oz/yd² ±2-4 oz/yd²
TONGUE TEAR ASTM D151	275/77XLB
TRIANGULAR TEAR ASTM D453	500XLB
GRAB TENSILE ASTM D151	750-700LB
STRETCH TENSILE ASTM D151 PROCEDURE B	610/516 LB _Y /IN
ADHESION ASTM D151 DIELECTRIC WELD	10LB _Y /IN
HYDROSTATIC RESISTANCE ASTM D151 PROCEDURE A	500 PSI
DEAD LOAD ASTM D151	260 LB _Y @ 100CM TEMP. 133 LB _Y @ 160F F
LOW TEMP. ASTM D2138	PAGE @ -40° F

FLAME RESISTANCE	
MEETS NFPA 701, UL-C-800, ASTM D610 (2 SECOND FLAMEOUT)	
REGISTERED BY CALIFORNIA FIRE MARSHAL (NO. F-0307)	
ASTM E84-FLAME SPREAD INDEX-00, SMOKE DEVELOPMENT RATED <450	

TOP FINISH		TS-238 PVDF
DC17 TRANS-WHITE	LIGHT TRANSMISSION	USABLE LIFE COLOR RETENTION
	10%	GOOD

MATERIAL SPECIFICATIONS
3 PLATE WELDED SECTIONS
A529, A572, A1011
MISC. STEEL SHAPES
A36
MISC. STEEL SHAPES
A529, A572, A588, A709, A992
COLD FORMED MEMBERS
ASTM A1003, A653
HSS MEMBERS
A500 GRADE B

GRADE 55
GRADE 36
GRADE 50
GRADE 50
48 KSI

COATINGS OF STRUCTURAL PLATES ARE DONE HDG TO A NOMINAL COATING. ZINC WEIGHT OF 2.0 oz/ft² (3.9 ml) OR EQUIVALENT TO ASTM A123
COATINGS OF TUBES ARE HDG TO A NOMINAL COATING. ZINC WEIGHT OF 2.0 oz/ft² (3.9 ml) OR EQUIVALENT TO ASTM A123

DIAGONAL BRACING

CROSS CABLES - 3/4" TYP U.N.O.
CROSS CABLE AND CROSS CABLE ACCESSORIES ARE TO BE GALVANIZED.

ALUMINUM EXTRUSION ALLOY 6066A T5, HARDNESS ROCKWELL E (83-88), TENSILE STRENGTH (ULTIMATE 38KSI, YIELD 31KSI) AND ELONGATION 7%

ROOF PLAN NOTES

USE OF BOLTS SPECIFIED IN DRAWING DETAILS IS REQUIRED FOR ALL CONNECTIONS
CABLE ROD AND PURLIN BRACING ARE INTEGRAL PARTS OF THE STRUCTURAL SYSTEM AND SHOULD BE PROPERLY INSTALLED PRIOR TO ERECTION OF ROOF FABRIC AND END PANELS. REMOVAL OR ALTERATION OF ANY BRACING WITHOUT PRIOR AUTHORIZATION FROM LBS ENGINEERING IS PROHIBITED

MATERIAL STORAGE

HDG, ALUMINIZED, AND COLORED MATERIALS ARE SUBJECT TO CORROSION AND DISCOLORATION IF THEY ARE IMPROPERLY STORED. SHORT TERM SITE STORAGE OF STEEL COMPONENTS MAY BE TOLERATED PROVIDED CARE IS TAKEN TO KEEP MATERIALS DRY AT ALL TIMES. IF STEEL IS STORED OUTSIDE PROPER DRAINAGE MUST BE PROVIDED. IN ADDITION STEEL SHOULD NEVER BE STORED IN DIRECT CONTACT WITH GROUND AND SHOULD BE SET ON BLOCKING AT ALL TIMES

FABRIC/LINER NOTES

EXTERIOR FABRIC IS AN INTEGRAL PART OF THE BUILDING ENVELOPE. REMOVAL OR ALTERATION WITHOUT PRIOR AUTHORIZATION IS PROHIBITED. ALL TEARS MUST BE REPAIRED IMMEDIATELY TO AVOID WARRANTY ISSUES



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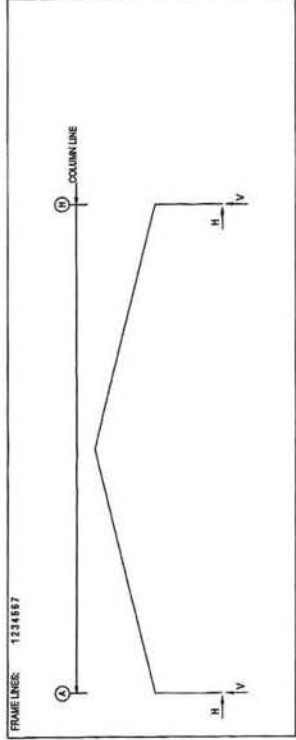
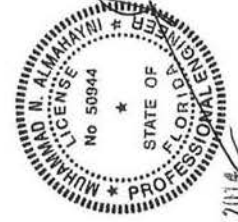
BUILDING SPECS.

DATE:	5/5/2014
APPROVAL:	5/5/2014
DESIGN:	5/5/2014
REVISION:	

Project: 162'x120'x8'
Date: 5/5/2014
Drawn: J
Checked: J

Sheet Number:

S0.1



RIGID FRAME: MAXIMUM REACTIONS, ANCHOR BOLTS, & BASE PLATES

Frame Line	Col Line	Load ID	Load	Reactions (k)	Height (ft)	Base Plate (in)	Base Width (in)	Base Length (in)
1*	A	1	23.0	24.3	2	-34.1	4	1,000
1*	H	1	23.0	24.3	1	-32.2	34.3	34.1
1*	Frame Line	1	23.0	24.3	3	34.1	34.1	34.1

RIGID FRAME: MAXIMUM REACTIONS, ANCHOR BOLTS, & BASE PLATES

Frame Line	Col Line	Load ID	Load	Reactions (k)	Height (ft)	Base Plate (in)	Base Width (in)	Base Length (in)
2*	A	1	30.0	31.5	2	-37.5	4	1,000
2*	H	1	30.0	31.5	1	-35.0	35.0	35.0
2*	Frame Line	1	30.0	31.5	6	35.0	35.0	35.0

RIGID FRAME: BASIC COLUMN REACTIONS (k)

Frame Line	Col Line	Load ID	Load	Reactions (k)	Height (ft)	Base Plate (in)	Base Width (in)	Base Length (in)
1*	A	1	23.0	24.3	2	-34.1	4	1,000
1*	H	1	23.0	24.3	1	-32.2	34.3	34.1
1*	Frame Line	1	23.0	24.3	3	34.1	34.1	34.1

NOTES FOR REACTIONS

Building reactions are based on the following building data:

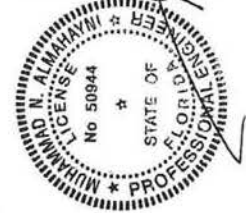
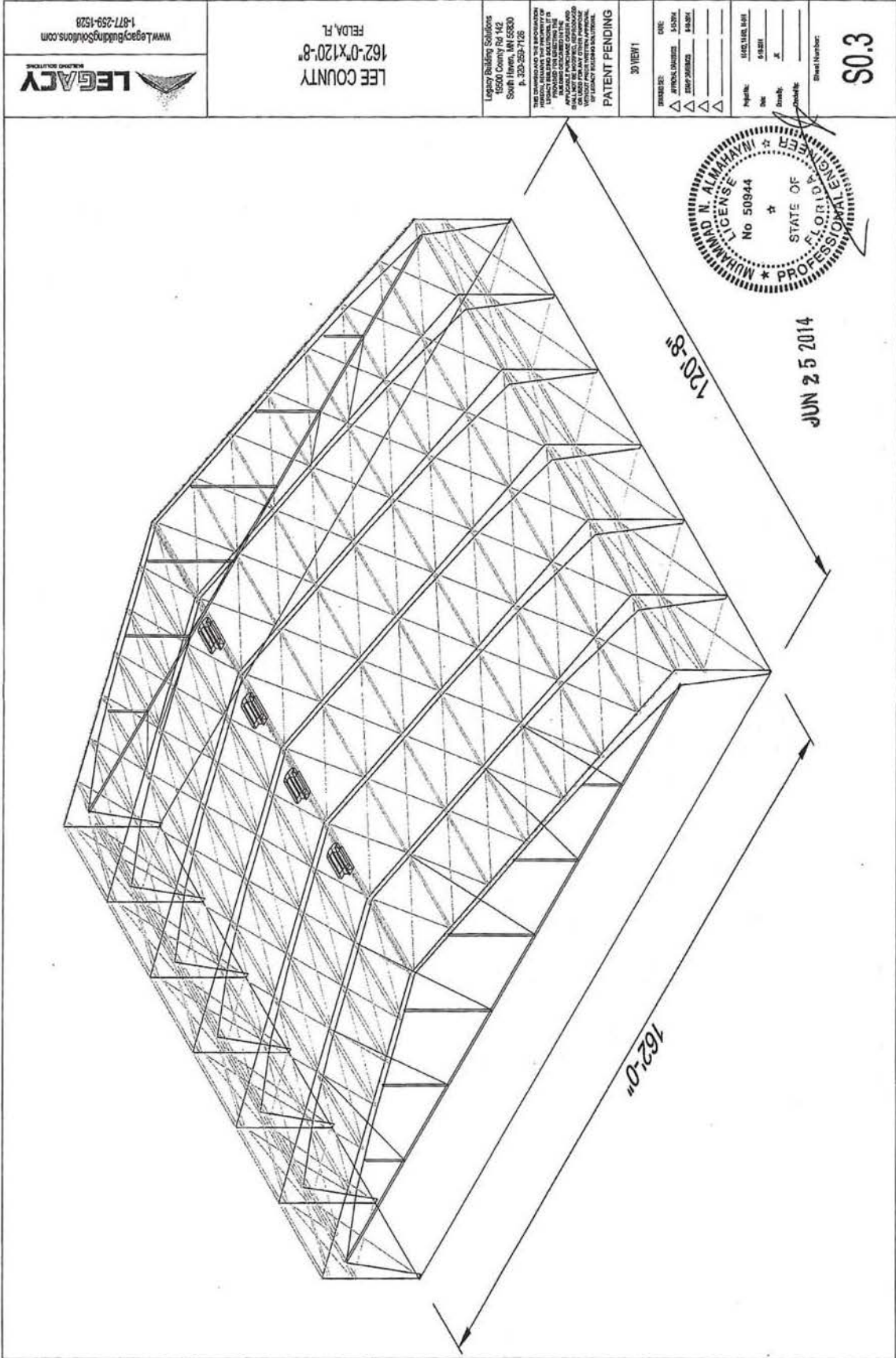
1	Dead Load (k)	120.0
2	Live Load (k)	22.2/22.3
3	Wind Load (k)	1.0
4	Seismic Load (k)	2.0
5	Other Load (k)	3.0
6	Frame Line (k)	12.0
7	Wind Speed (mph)	100.0
8	Seismic Zone	4
9	Seismic Coef (F/F _{0.5})	0.09

ANCHOR BOLT SUMMARY

Qty	Location	Size	Type	ASST	3.00	2.50
1	Frame	1"	ASST	3.00	2.50	

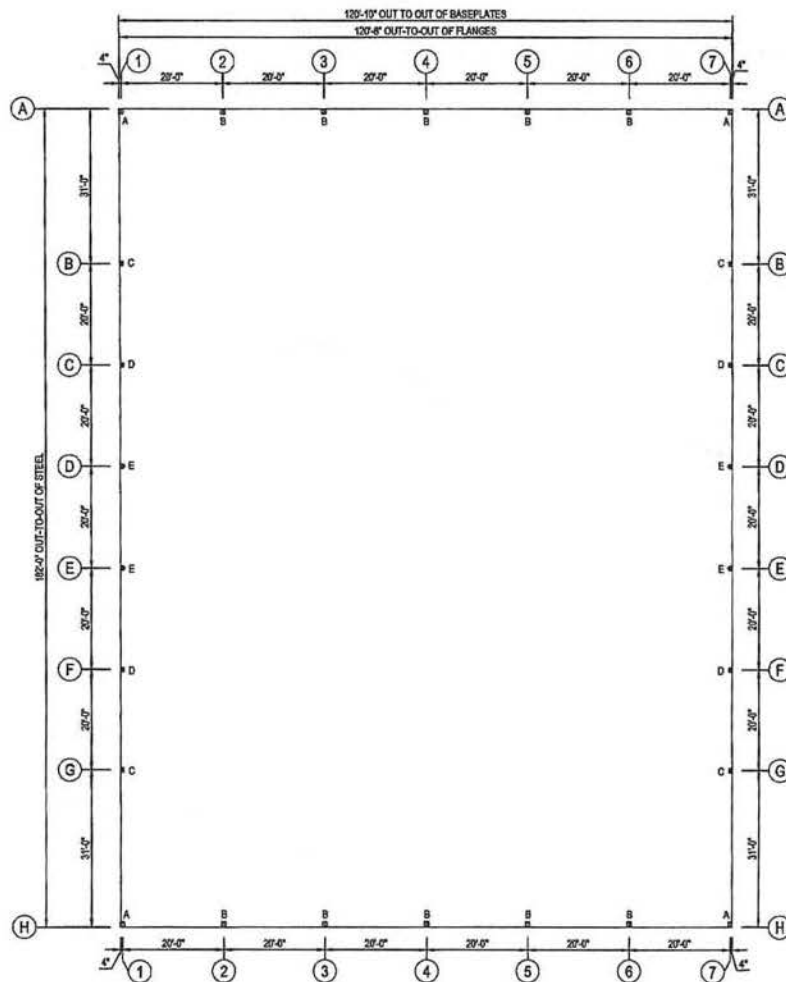
BUILDING BRACING REACTIONS

Line	Use	Col Line	Load ID	Load	Reactions (k)	Height (ft)	Base Plate (in)	Base Width (in)	Base Length (in)
1	Left Frame At End	1	1	23.0	24.3	2	-34.1	4	1,000
1	Right Frame At End	1	1	23.0	24.3	1	-32.2	34.3	34.1
1	Frame Line	1	1	23.0	24.3	3	34.1	34.1	34.1

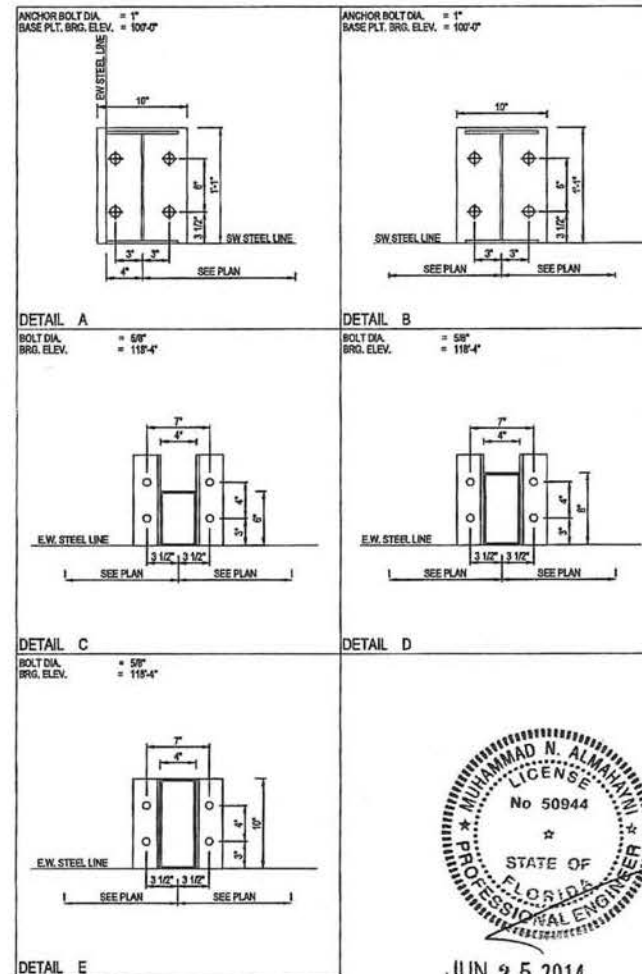


JUN 25 2014

LEGACY www.LegacyBuildingSolutions.com 1-877-259-1528		LEE COUNTY FLDA, FL 162'-0"x120'-8"		Legacy Building Solutions 15500 County Rd 142 South Haven, MI 49688 P. 330-259-7126		PATENT PENDING <small>THIS DOCUMENT AND THE INFORMATION CONTAINED HEREIN ARE THE PROPERTY OF LEGACY BUILDING SOLUTIONS, LLC. NO PART OF THIS DOCUMENT OR THE INFORMATION CONTAINED HEREIN MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF LEGACY BUILDING SOLUTIONS, LLC.</small>		30 NEW DATE: _____ APPROVAL: _____ DESIGN: _____ REVISION: _____		LEGACY BUILDING SOLUTIONS, LLC No. 50944 State: FL City: _____ County: _____ Zip: _____ Email: _____ Phone: _____ Fax: _____ Mobile: _____ Street Number: _____		S0.3
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1 BASE PLATE LAYOUT
ALL BASE PLATES @ ELEV. 100'-0" U.N.O.



JUN 25 2014



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PATENT PENDING

ANCHOR BOLT PLAN

DESIGNED BY:	DATE:
APPROVAL DATES:	1-13-2014
CHIEF ENGINEER:	1-13-2014
DATE:	5-15-2014
DESIGNER:	JL
CHECKED BY:	

Sheet Number:

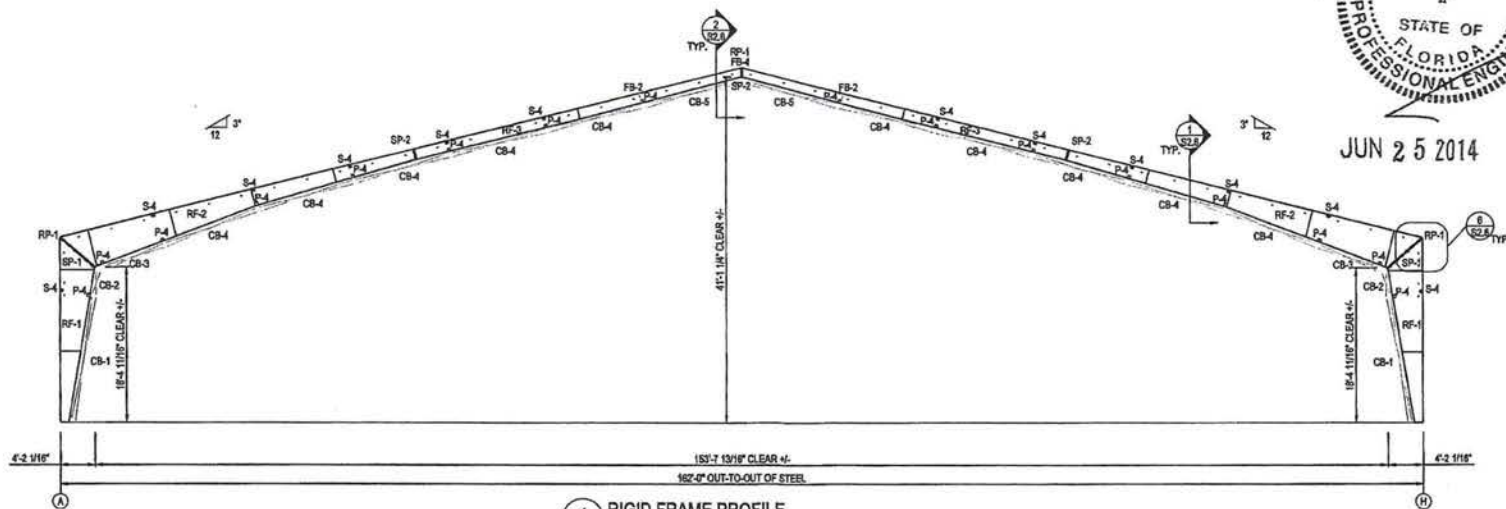
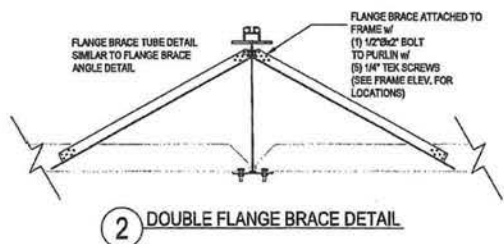
S1.0

SPICE BOLT TABLE						
MARK	QTY	TOP	BOT	INT	TYPE	DIA
SP-1	2	2	2	12	A325	1.000
SP-2	2	2	2	4	A325	1.000

* ALL A325 BOLTS TO RECEIVE (2) WASHERS

FRAME WEIGHT TABLE			
RF-1	1057.1	(x2)	2114.2
RF-2	1812.7	(x2)	3625.4
RF-3	955.4	(x2)	1910.8
TOTAL	3825.2	(x2)	7650.4

MEMBER TABLE		
RIGID FRAME ELEVATIONS		
MARK	PART	LENGTH
P-4	HSS 4x4x14ga	19'-11 1/16"
RP-1	4" ROUND x 11ga	19'-10"
S-4	HSS 4x4x14ga	19'-6"
CB-1	3/8" CBL	294"
CB-2	3/8" CBL	238"
CB-3	3/8" CBL	250"
CB-4	3/8" CBL	272"
CB-5	3/8" CBL	274"
FB-2	HSS1.5x1.5x14ga	6'-0"
FB-4	L1.5x1.5x1/8"	3'-0"



1 RIGID FRAME PROFILE
FRAME LINES 1 & 7 @ BAYS 1 & 6



JUN 25 2014



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PATENT PENDING

RIGID FRAME PROFILE
FRAME LINES 1 & 7 @ BAYS 1 & 6

DESIGNED BY: DATE: 5-15-2014
APPROVED BY: 5-15-2014
CHECKED BY: 5-15-2014
DRAWN BY: JF
DATE: 5-15-2014

Project No: 1602, 1603, 1604
Date: 5-15-2014
Drawn By: JF
Checked By: JF

Sheet Number:

S2.1

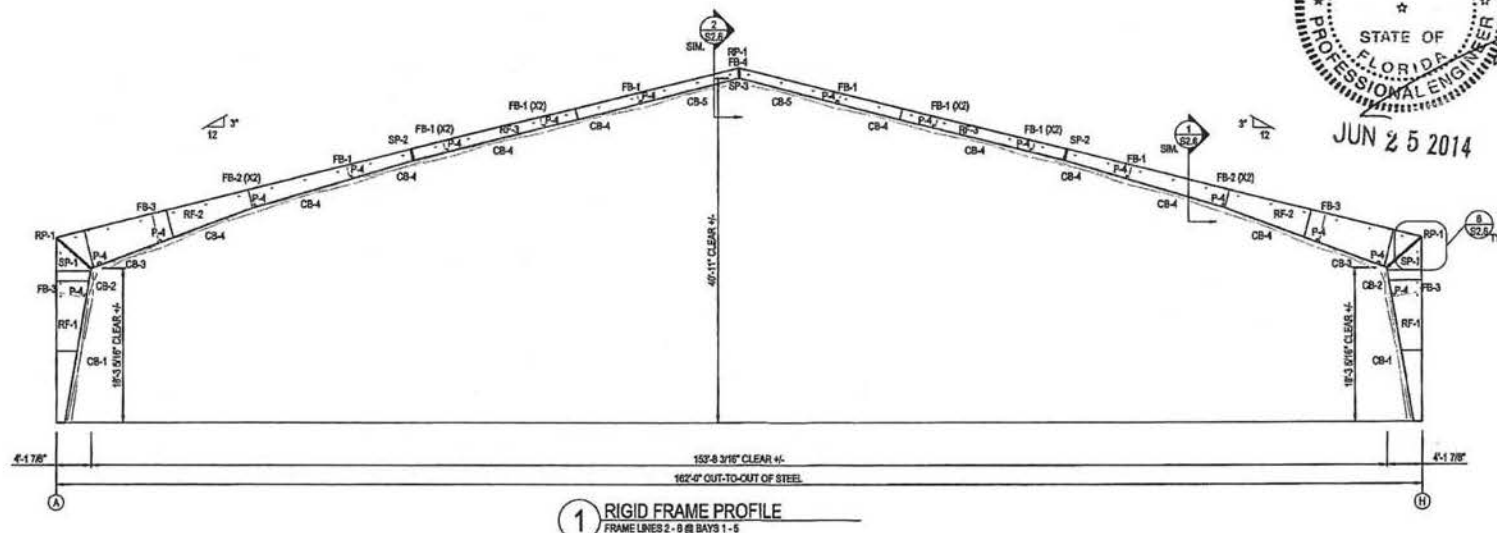
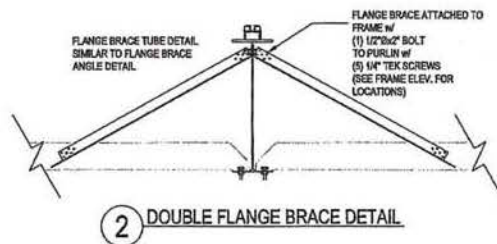
SPICE BOLT TABLE						
MARK	QTY			TYPE	DIA	LENGTH
SP-1	2	2	12	A325	1.000	3.25
SP-2	2	2	4	A325	1.000	3.25
SP-3	2	2	4	A325	0.750	3.00

* ALL A325 BOLTS TO RECEIVE (2) WASHERS

FRAME WEIGHT TABLE			
RF-4	1118.2	(x2)	2236.4
RF-5	1972.1	(x2)	3944.2
RF-6	1055.7	(x2)	2111.4
TOTAL 4146.0 (x2) 8292.0			

MEMBER TABLE RIGID FRAME ELEVATIONS		
MARK	PART	LENGTH
P-4	HSS 4x4x14ga	19'-11 1/16"
RP-1	4" ROUND x 11ga	19'-10"
CB-1	3/8" CBL	294"
CB-2	3/8" CBL	238"
CB-3	3/8" CBL	250"
CB-4	3/8" CBL	272"
CB-5	3/8" CBL	274"
FB-1	L1.5x1.5x1/8"	3'-0"
FB-2	HSS1.5x1.5x14ga	6'-0"
FB-3	L2.5x2.5x3/16"	7'-0"
FB-4	L1.5x1.5x1/8"	3'-0"

X2 = DOUBLE FLANGE BRACE. SEE DETAIL



LEE COUNTY
162'-0\"/>

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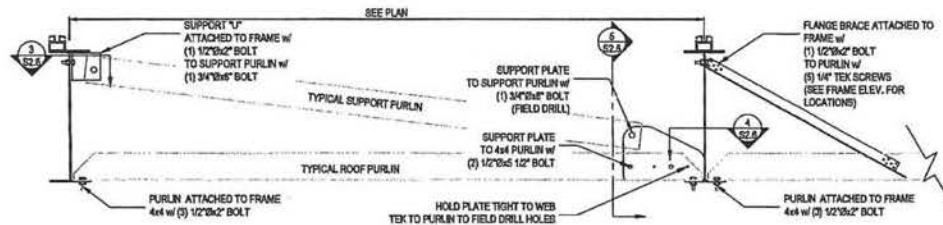
RIGID FRAME PROFILE:
FRAME LINES 2 - 9 @ BAYS 1 - 5

DESCRIPTION	DATE
APPROVALS	3/15/2014
STAMP	3/15/2014

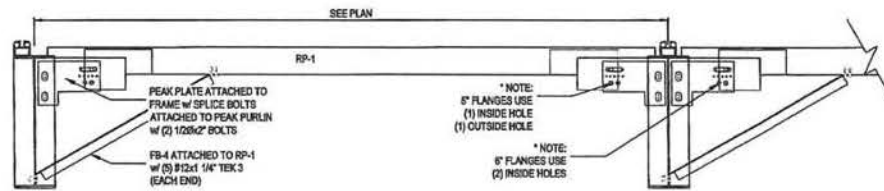
Project No: 1420, 1421, 1422
Date: 8/9/2014
Drawn by: JF
Checked by:

Sheet Number:

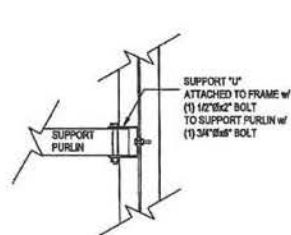
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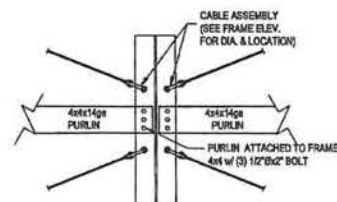
1 TYPICAL PURLIN BRACE DETAIL



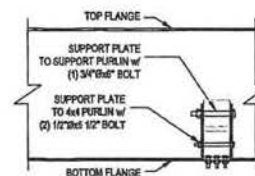
2 TYPICAL RP-1 BRACE DETAIL



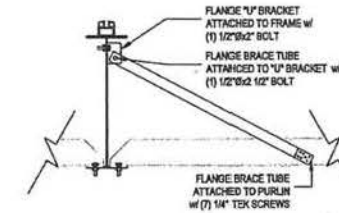
3 SUPPORT "U" SECTION DETAIL



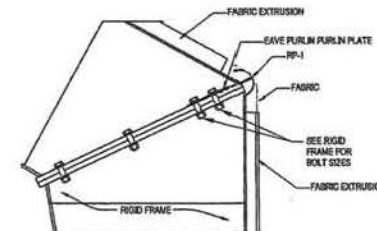
4 PURLIN ATTACHMENT DETAIL



5 SUPPORT PURLIN SECTION



6 FLANGE BRACE TUBE DETAIL



6 EAVE PURLIN DETAIL
N.T.S.



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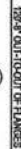
PURLIN CONNECTION DETAILS

DESIGNED BY:	DATE:
APPROVED BY:	5/5/2014
SEAL NUMBER:	6/18/2014

Project No.: 1602, 1402, 1421
Date: 5/5/2014
Drawn By: JE
Checked By:

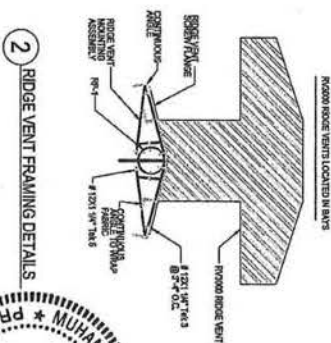
Sheet Number:

S2.6



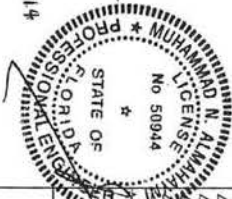
MEMBER TABLE ROOF PLAN (CABLES ONLY)		
MARK	PART	LENGTH
CB-3	3/8" CBL	250"
CB-4	3/8" CBL	272"
CB-5	3/8" CBL	274"

MEMBER TABLE		
RIGID FRAME ELEVATIONS		
MARK	PART	LENGTH
P-4	HSS 6x6x14ga	19'-4 1/8"
RP-1	4" ROUND x 11ga	19'-6"
S-4	HSS 6x6x14ga	19'-6"
FB-1	L1.5x1.5x14ga	3'-0"
FB-2	HSS1.5x1.5x14ga	6'-0"
FB-3	12.5x12.5x16ga	7'-0"
FB-4	L1.5x1.5x16"	3'-0"
K-1	HSS 3.5x3.5x11ga	T.B.D.
K-2	HSS 4x4x16ga	T.B.D.
K-3	HSS 5x6x316	T.B.D.



2 RIDGE VENT FRAMING DETAILS

JUN 25 7 1994



LEE COUNTY
162'-0"x120'-8"
FELDA, FL



www.LegacyBuildingSolutions.com
1-877-259-1528

Legacy Building Solutions
15900 County Rd 142
South Haven, MN 55330
P. 320-259-7126

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ROOF FRAMING PLAN

1. **Product:**

2. **Quantity:**

3. **Price:**

4. **Total:**

5. **Notes:**

— 100 —

1466

1000

Edward M. Byrne

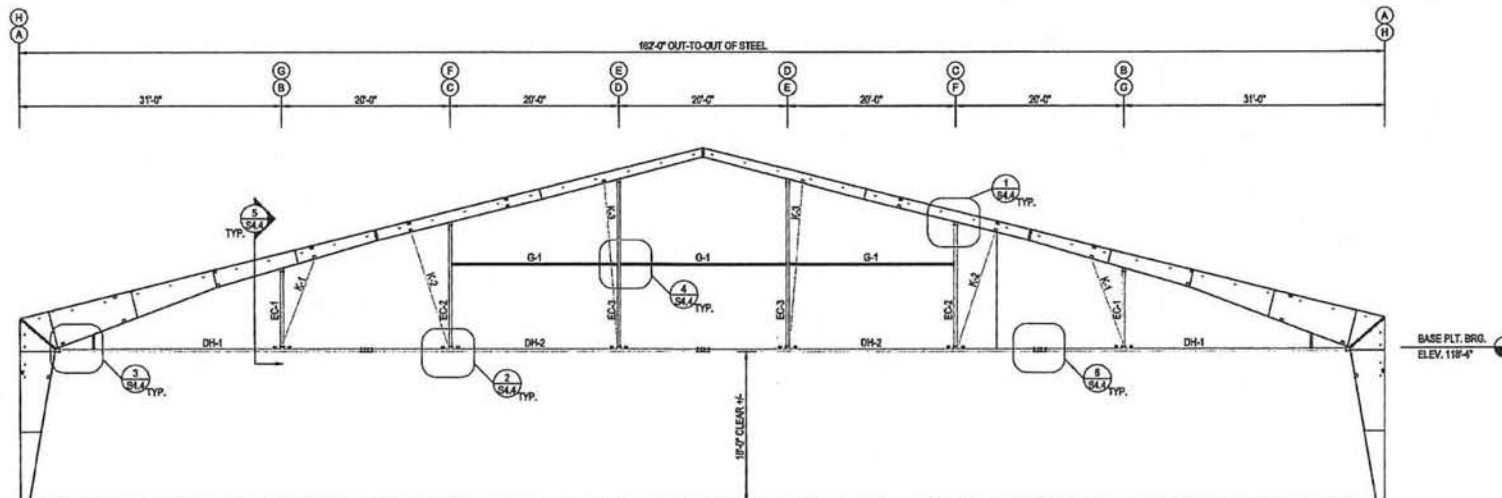
S3.0

BOLT TABLE FRAME LINE 1 & 7 * ALL A325 BOLTS TO RECEIVE (2) WASHERS			
LOCATION	QUAN	DIA	LENGTH
EC-1 To Rigid Frame	4	3/4"	2"
	2	3/4"	6"
EC-1 To Anchor Clip	2	3/4"	6"
EC-2 To Rigid Frame	4	3/4"	2"
	2	3/4"	6"
EC-2 To Anchor Clip	2	3/4"	6"
EC-3 To Rigid Frame	4	3/4"	2"
	2	3/4"	6"
EC-3 To Anchor Clip	2	3/4"	6"

MEMBER TABLE FRAME LINE 1 & 7		
MARK	PART	LENGTH
EC-1	HSS6x4x3/16"	9'-11 11/16"
EC-2	HSS8x4x1/4"	14'-7 11/16"
EC-3	HSS10x4x5/16"	19'-9 1/8"
G-1	HSS2.5x2.5x11ga	C.T.F.
VF-1	6x14	C.T.F.
DH-1	HSS 8x4x1/4	36'-7 3/8"
DH-2	HSS 8x4x1/4	39'-11 3/4"
K-1	HSS 3.5x3.5x3/16"	T.B.D.
K-2	HSS 4x4x3/16	T.B.D.
K-3	HSS 5x5x3/16	T.B.D.



JUN 25 2014



1 END WALL FRAMING PLAN
FRAME LINE 1 & 7

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PATENT PENDING

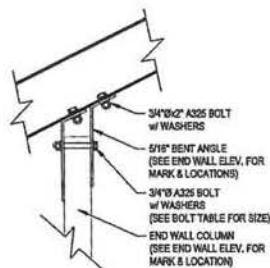
END WALL FRAMING PLAN
FRAME LINE 1 & 7

DRAWING SET: DATE:
APPROVAL: 5/5/2014
REVISIONS: 4/9/2014
DATE: 5/5/2014
BY: JF
CHECKED BY: _____

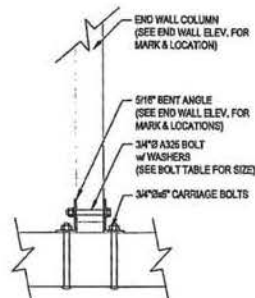
Project: 1622 160L VICH
Date: 5/5/2014
By: JF
Checked By: _____

Sheet Number:

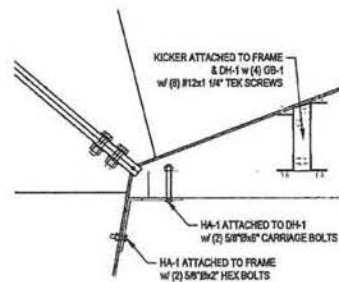
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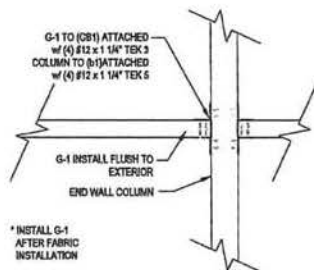
1 COLUMN TOP ATTACHMENT



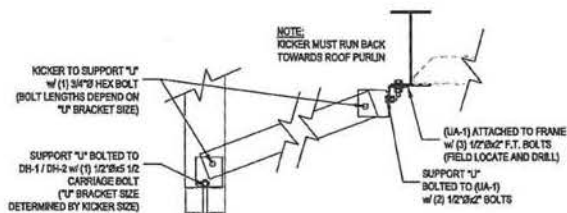
2 COLUMN BOTTOM ATTACHMENT



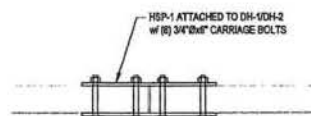
3 HEADER ANGLE CONNECTION



4 ENDWALL GIRT ATTACHMENT DETAIL



5 KICKER CONNECTION DETAIL



6 SPLICE PLATE CONNECTION



JUN 25 2014

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PATENT PENDING

ENDWALL DETAILS

REVISION SET	DATE
△ APPROVAL REVISIONS	6-13-2014
△ SHOP REVISIONS	6-13-2014
△	
△	

Project No.: 1402, 1402, 1401
Date: 6-13-2014
Drawn By: JE
Checked By:

Sheet Number:

S4.4

**LEE/HENDRY COUNTY REGIONAL
SOLID WASTE DISPOSAL FACILITY
COMPOSTING FACILITY EXPANSION
AND ASH MONOFILL EXPANSION**

**CONFORMED BIDDING AND CONSTRUCTION
CONTRACT DOCUMENTS AND
TECHNICAL SPECIFICATIONS**

Project No. 12345-007-01

Owner:

LEE COUNTY SOLID WASTE DIVISION
10500 Buckingham Road
Fort Myers, Florida 33905

Engineer:

JONES EDMUNDS & ASSOCIATES, INC.
730 NE Waldo Road
Gainesville, Florida 32641

Certificate of Authorization #1841

January 2014

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DIVISION 0—BIDDING AND CONTRACTING REQUIREMENTS

PART A	REQUEST FOR BIDS
PART B	LEGAL NOTICE TO BIDDERS
PART C	INSTRUCTIONS TO BIDDERS
PART D	OFFICIAL BID FORM
PART E	CONSTRUCTION CONTRACT
PART F	GENERAL CONDITIONS
PART G	SUPPLEMENTARY CONDITIONS

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01300	CONTRACT ADMINISTRATION
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01350	ENVIRONMENTAL PROTECTION PROCEDURES
01450	TESTING AND TESTING LABORATORY SERVICES
01500	TEMPORARY FACILITIES AND CONTROLS
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-------	--------------------

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-------	---------------------------------------

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16520	EXTERIOR LIGHTING

BID SCHEDULE

B-140001

Item	Description	Lump Sum/ Unit Price	Bidder's Quantity	Unit	Unit Cost (\$)	Extended Cost (\$)
General						
1	Mobilization and Demobilization	LS	1	EA		\$0.00
2	Environmental Protection	LS	1	EA		\$0.00
3	Construction Surveying and Record Drawings	LS	1	EA		\$0.00
4	Clearing, Grubbing, and Stripping	LS	1	EA		\$0.00
5	Earthwork – Remove and Replace Unsuitable Soil	UP	5,000	CY	\$10.00	\$50,000.00
6	Stormwater System	LS	1	EA		\$0.00
7	Seeding and Sodding	LS	1	EA		\$0.00
			SUB TOTAL			\$50,000.00
Part 1 – Composting Facility Expansion						
8	Excavation to Fill	LS		CY		\$0.00
9	Excavation to Stockpile	LS		CY		\$0.00
10	Building 6 Push-Wall Modifications	LS	1	EA		\$0.00
11	Unpaved Roads and Parking Area	LS		SY		\$0.00
12	Paved Areas	LS		SY		\$0.00
13	Paved Processing Area	LS		SY		\$0.00
14	Composting Buildings	LS	3	EA		\$0.00
15	Maintenance Building	LS	1	EA		\$0.00
16	Compost Storage Building	LS	1	EA		\$0.00
17	Equipment Wash and Metal Shed	LS	1	EA		\$0.00
18	Water Service Improvements	LS	1	EA		\$0.00
19	Pump Station and Yard Piping (Sanitary)	LS	1	EA		\$0.00
20	Equipment and Electrical	LS	1	EA		\$0.00
21	Remove and Repair Asphalt Pavement	UP	100	SY		\$0.00
22	Diesel Tank	LS	1	EA		\$175,000.00
			SUB TOTAL			\$175,000.00

Abbreviations: CY – cubic yard, EA – each, LS – lump sum, SF – square foot, SY – square yard, UP – unit price

*** Refer to the Section 01200, Measurement and Payment for detailed explanation of bid items.

Item	Description	Lump Sum/ Unit Price	Bidder's Quantity	Unit	Unit Cost (\$)	Extended Cost (\$)
Part 2 - Ash Monofill Expansion						
23	Dewatering	LS	1	EA		\$0.00
24	Groundwater Monitoring Wells	LS	1	EA		\$0.00
25	Earthwork – Subgrade Excavation and Fill	LS		CY		\$0.00
26	Earthwork – Subgrade Fill from Stockpile	LS		CY		\$0.00
27	Geosynthetic Clay Liner	LS		SF		\$0.00
28	Secondary Geomembrane	LS		SF		\$0.00
29	Secondary Geocomposite	LS		SF		\$0.00
30	Primary Geomembrane	LS		SF		\$0.00
31	Primary Geocomposite	LS		SF		\$0.00
32	Leachate Collection and Leak Detection Trench	LS		LF		\$0.00
33	Drainage Soil	LS		CY		\$0.00
34	Protective Soil	LS		CY		\$0.00
35	Leachate Collection and Leak Detection Sumps and Piping	LS	3	EA		\$0.00
36	Leachate Pump Stations	LS	3	EA		\$0.00
37	Leachate Force Main	LS		LF		\$0.00
38	Unpaved Site Roads	LS		SY		\$0.00
Allowances						
39	Support Equipment	LS	1	EA		\$1,100,000
					SUB TOTAL	\$1,100,000
Total Contract Amount						\$1,325,000.00

Abbreviations: CY – cubic yard, EA – each, LS – lump sum, SF – square foot, SY – square yard, UP – unit price

*** Refer to the Section 01200, Measurement and Payment for detailed explanation of bid items.

DIVISION 0

**BIDDING AND
CONTRACTING REQUIREMENTS**

**PART G
SUPPLEMENTARY CONDITIONS**

These Supplementary Conditions amend or supplement the Construction Contract (Part E), General Conditions of the Construction Contract (Part F), and other provisions of the Contract Documents. All provisions that are not so amended or supplemented remain in full force and effect.

The terms used in these Supplementary Conditions will have the meanings indicated in the General Conditions. Additional terms used in these Supplemental Conditions have the meanings indicated below, which are applicable to both the singular and plural thereof.

The address system used in these Supplementary Conditions is the same as the address system used in the General Conditions with the prefix changed to "SC".

PART E – LEE COUNTY CONSTRUCTION CONTRACT

ARTICLE 5 TIME OF COMMENCEMENT AND SUBSTANTIAL COMPLETION

Delete paragraph 5.4 in its entirety and insert the following in its place:

SC-5.4 The COUNTY and CONTRACTOR recognize that time is of the essence of this agreement and that the COUNTY will suffer financial loss if the work is not completed within the times specified in 5.2 and 5.3 above, plus any extensions thereof allowed by Change Order. They also recognize the delays, expense, and difficulties involved in proving in a legal proceeding the actual loss suffered by the COUNTY if the work is not completed on time. Accordingly, instead of requiring any such proof, COUNTY and CONTRACTOR agree that as Liquidated Damages for delay (but not as a penalty) the sums provided in the table below per day shall be deducted from monies due the CONTRACTOR or paid by the CONTRACTOR to the COUNTY for each calendar day that expires after the time specified for Substantial Completion and the project fails to reach Substantial Completion.

Table 1: Schedule of Liquidated Damages		
Milestone	Calendar Days from Notice-to-Proceed to Completion of the Corresponding Milestone	Amount of Liquidated Damages
Substantial Completion of Composting Facility Curing Area paving	90 days	\$ 2,700/day
Substantial Completion of Composting Facility Expansion	210 days	\$ 1,500/day

Table 1: Schedule of Liquidated Damages		
Milestone	Calendar Days from Notice-to-Proceed to Completion of the Corresponding Milestone	Amount of Liquidated Damages
Final Completion of Composting Facility Expansion	245 days	\$ 1,500/day
Substantial Completion of Ash Monofill	245 days	\$ 2,700/day
Final Completion of Ash Monofill	275 days	\$ 1,500/day

Refer to Specification Section 01770, Project Closeout for a detailed list of the items required for Substantial and Final Completion. If Substantial Completion of the Ash Monofill has not occurred by the time of Final Completion, then liquidated damages of \$2,700 per day will continue until the CONTRACTOR reaches Substantial Completion at which time liquidated damages of \$1,500 per day will begin. If more than one milestone is not met at the same time, then the higher amount but not both of the liquidated damage amounts will be assessed. Liquidated damages shall be assessed on each milestone until that milestone has been completed and approved by the OWNER.

The COUNTY shall have the right to deduct all damages due from the final payment request as well as retainage. However, prior to deducting liquidated damages, the COUNTY shall give the CONTRACTOR seven (7) calendar days notice prior to submitting the adjusted amount due to the Clerk for payment.

PART F – LEE COUNTY CONSTRUCTION CONTRACT GENERAL CONDITIONS

ARTICLE 2 DEFINITIONS

Amend the definitions to include:

CONSULTANT is Jones Edmunds & Associates, Inc.

OWNER is Lee County.

PROJECT MANAGER is the Lee County Solid Waste Division.

OWNER's REPRESENTATIVE

Lee County Solid Waste Division – Composting Facility
Waste Management, Inc. – Ash Monofill

ARTICLE 4 INTERPRETATION INTENT, AMENDING, AND REUSE OF
CONTRACT DOCUMENTS

Add the following after paragraph 4.1:

The following is a list of the documents that comprise the complete
Construction Documents:

BIDDING AND CONSTRUCTION CONTRACT DOCUMENTS AND
TECHNICAL SPECIFICATIONS

Division 0—Bidding and Contracting Requirements

Part A	Request For Bids
Part B	Legal Notice to Bidders
Part C	Instructions to Bidders
Part D	Official Bid Form
Part E	Construction Contract
Part F	General Conditions
Part G	Supplementary Conditions

Division 1—General Requirements

01000	Project Requirements
01100	Summary of Work
01200	Measurement and Payment
01300	Contract Administration
01330	Submittals and Acceptance
01350	Environmental Protection Procedures
01450	Testing and Testing Laboratory Services
01500	Temporary Facilities and Controls
01520	Field Offices
01600	Materials and Equipment
01650	Delivery, Storage, and Handling
01740	Final Cleaning
01770	Project Closeout
01780	Warranties and Bonds
01785	Record Documents
01800	Health and Safety Plan
01830	Operations and Maintenance Manuals And Training
01900	Permits

Division 2—Site Construction

02070	Geocomposite
02071	Geomembrane (Hdpe)
02072	Geosynthetic Clay Liner
02074	Geotextile

02230	Site Preparation
02240	Dewatering
02300	Earthwork
02370	Erosion and Sedimentation Control
02526	Groundwater Monitoring Well Construction and Well Abandonment
02530	Pipework, Gravity Sewers
02630	Storm Drainage
02700	Paving
02920	Seeding and Sodding

Division 3—Concrete

03100	Concrete Formwork
03200	Concrete Reinforcement
03250	Concrete Joints and Joint Accessories
03300	Cast-In-Place Concrete
03360	Concrete Finishes
03600	Grout

Division 5—Metals

05500	Metal Fabrications
-------	--------------------

Division 7—Thermal and Moisture Protection

07900	Joint Fillers, Sealants, and Caulking
-------	---------------------------------------

Division 8—Doors and Windows

08110	Steel Doors and Frames
08330	Overhead Coiling Doors
08510	Steel Windows
08710	Hardware
08800	Glass and Glazing
08910	Metal Wall Louvers

Division 9—Finishes

09260	Gypsum Wallboard System
09511	Acoustical Panel Ceilings
09651	Resilient Tile Flooring
09670	Seamless Flooring
09720	Decorative Fiberglass Reinforced Wall Panel
09900	Painting and Coating

Division 10—Specialties

- 10155 Toilet Compartments
- 10801 Toilet and Bath Accessories

Division 11—Equipment

- 11170 Support Equipment
- 11300 Leachate Pumps
- 11350 High-Density Cross-Linked Polyethylene Storage Tanks
- 11540 End-Suction Centrifugal Pumps

Division 13—Special Construction

- 13120 Pre-Engineered Metal Building
- 13125 Pre-Engineered Fabric Cover Building
- 13300 Package Lift Station

Division 15—Mechanical

- 15053 Common Work Results for HVAC
- 15055 Piping Systems—General
- 15081 Plumbing Insulation
- 15083 HVAC Insulation
- 15110 Manual, Check, and Process Valves
- 15112 Backflow Preventers
- 15120 Hydraulically-Operated Control Valves
- 15125 Piping Appurtenances
- 15145 Domestic Water Piping Specialties
- 15146 High-Density Polyethylene (HDPE) Pipe
- 15150 Sanitary Waste and Vent Piping
- 15155 Ductile Iron Pipe and Fittings
- 15183 Refrigerant Piping
- 15250 Small-Diameter Piping
- 15291 Polyvinyl Chloride (PVC) Pressure Pipe and Fittings
- 15410 Plumbing Fixtures
- 15815 Metal Ducts
- 15820 Duct Accessories
- 15838 Power Ventilators
- 15855 Diffusers, Registers, and Grilles
- 15950 Testing, Adjusting, and Balancing (HVAC)

Division 16—Electrical

- 16080 Electrical Testing
- 16401 Low-Voltage Electrical Work—General Requirements
- 16520 Exterior Lighting

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G4	General Notes
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C1	Overall Site Plan
C2	Existing Conditions
C3	Coordinate Table
C4	Site and Grading and Drainage Plan
C5	Site and Grading and Drainage Plan
C6	Coordinate and Dimension Plan
C7	Coordinate and Dimension Plan
C8	Typical Sections
C9	Typical Sections
C10	Curing Road Plan and Profile
C11	Composting Access Road Plan and Profile
C12	West Maintenance Access Road
C13	East Maintenance Access Road Plan
C14	Curing Road Cross Sections
C15	Composting Access Road Cross Sections
C16	Sections
C17	Sections
C18	Sections, Details, and Drainage Structure Summary
C19	Civil Details
C20	Civil Details
C21	Civil Details
C22	Civil Details
C23	Civil Details
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A3	Maintenance Building Office Toilet Accessories
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S3	Maintenance Building Elevations and Sections

Part 1 – Composting Facility Expansion	
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S5	Compost Storage Elevations and Sections
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S9	Details
S10	Details
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P2B	Maintenance Building and Equipment Wash Area Plumbing Plans
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E3	Electrical One-Line Diagram
E4	Electrical Maintenance Building Plans
E5	Electrical Grounding and Lightning Plan - Maintenance Building
E6	Electrical Composting Building Plan and Section
E7	Electrical Schedules and Details

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E9	Electrical Details
E10	Equipment Wash Pump Station One-Line Diagram

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G3	General Notes
G4	Coordinate Tables
Civil	
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C2	Topographic Survey
C3	Demolition and Ground Water Monitoring Plan
C4	Leachate Collection System Grading Plan
C5	Primary Liner Plan
C6	Protective Soil Cover Plan
C7	Leachate Collection System Sections
C8	Leachate Collection System Sections
C9	Landfill Sections
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ARTICLE 5 AVAILABILITY OF LANDS: PHYSICAL CONDITION: REFERENCE POINTS

Add the following after paragraph 5.2:

The following is a list of documents available to the CONTRACTOR upon request to the PROJECT MANAGER. This document includes reports and permits for the project.

Investigations and Studies

1. “Geotechnical/Hydrogeological Study, Proposed Lee/Hendry County Landfill Site, Hendry County, Florida.” Jammal & Associates, Inc. July 9, 1990.
2. “Geotechnical Report, Lee/Hendry County Joint Landfill Site, Hendry County Florida.” Professional Service Industries, Inc. (PSI), Jammal Division; dated December 14, 1993.
3. “Subsurface Soil Exploration, Lee/Hendry Landfill, Hendry County, Florida.” March 15, 2007. Ardaman & Associates, Inc.
4. “Soil Survey of Hendry County, Florida.” United States Department of Agriculture Soil Conservation Service, 1990.
5. “Test Boring Field Reports” January 28, 2013. Jones Edmunds & Associates, Inc. Gainesville, Florida. Prepared by Thomas R. Brown, PG.
6. “Report of Geotechnical Engineering Services Lee/Hendry Ash Monofill

Expansion Hendry County, Florida.” March 21, 2013. Ardaman & Associates, Inc. Fort Myers, Florida. Signed and sealed by Gary A. Drew, PE.

7. “Report of Geotechnical Engineering Services Lee/Hendry Ash Monofill Expansion Hendry County, Florida.” April 15, 2013. Ardaman & Associates, Inc. Fort Myers, Florida. Signed and sealed by Gary A. Drew, PE.
8. “Available Stockpiled Materials”, by Jones Edmunds dated November 2013.

Permit Applications

1. “Lee/Hendry County Regional Solid Waste Disposal Facility Ash Monofill Expansion Substantial Modification for Construction and Operation Minor Modification,” May 2013.
2. “Lee/Hendry County Regional Solid Waste Disposal Facility Ash Monofill Expansion Substantial Modification for Construction and Operation Minor Modification Response to FDEP Request for Additional Information,” July 2013.
3. “Permit Renewal Application for Lee County Composting Facility, FLA658189,” May 2013
4. “Lee/Hendry County Regional Solid Waste Disposal Facility Ash Monofill Expansion Dewatering Permit Application,” SFWMD. (pending)

Permits

1. FDEP Solid Waste Permit No. 0130719-016-SC
2. FDEP Domestic Wastewater Biosolids Treatment Facility Permit No. FLA658189 (File Number FLA658180-003-DW1S), issued August 9, 2013.
3. SFWMD Dewatering Permit No. (pending)

ARTICLE 6 BONDS AND INSURANCE

Delete paragraph 6.3.1.4.1 in its entirety and insert the following in its place:

SC-6.3.1.4.1 The amount of the bond shall automatically be reduced from 100% of the contract price to 60% upon final completion of the Composting Facility Expansion and to 40% upon final completion and acceptance of the entire project by the COUNTY.

Add the following new paragraph immediately after paragraph 6.13:

SC-6.13 Additional Insureds include the respective officers, partners, directors, employees, agents, consultants, and subconsultants of the following firms and municipal government(s):

- a) Lee County
- b) Jones Edmunds & Associates, Inc. (Engineer)

ARTICLE 7 CONTRACTOR'S RESPONSIBILITIES

Delete paragraph 7.12.1 in its entirety and insert the following in its place:

SC-7.12.1 Pursuant to the requirements of F.S. 218.80, the County permits and fees required to be obtained and paid for the CONTRACTOR are listed in Section 01900. Section 01900 also includes the Florida Department of Environmental Protection and South Florida Water Management District available permits and that may be required as determined by the CONTRACTOR. This is a disclosure of permits and fees required by Lee County for this project and does not relieve the CONTRACTOR of its responsibility to obtain and pay for permits required by other governmental entities as specified elsewhere in this document.

The CONTRACTOR shall provide for and obtain a Construction Generic Permit (CGP) for this work (under NPDES-must submit an NOI) as well as develop a SWPPP (to be developed before NOI submittal) The CONTRACTOR shall install the necessary silt fence or other erosion and sedimentation controls (E&S) and BMPs upon start of the construction. The CONTRACTOR shall designate or hire a qualified individual to perform the CGP permit weekly (and after every rain > 0.5 inches) inspections and maintain the E&S controls and BMPs. The fee to the South Florida Water Management District (SFWMD) for the permits should not exceed \$1,000.

The CONTRACTOR is to abide by and follow all conditions of the SFWMD permit and all other project permits.

The OWNER has applied for a Dewatering Permit from the SFWMD for dewatering operations for the project. This permit (when issued) and permit application are available to the CONTRACTOR for review. The information and methods provided in the permit application and referenced as part of the permit was provided by the OWNER to complete the permit and does not represent the means and methods of dewatering to be used by the CONTRACTOR. As specified in the Contract Documents, the CONTRACTOR shall determine the Dewatering Plan and modify or use the SFWMD permit issued as appropriate.

Add the following new paragraph immediately after paragraph 7.14:

SC-7.14 Contractor License Requirements

At the time of the opening of this bid the CONTRACTOR must have a current active Florida Contractor's License, "CGC Certified General Contractor" or "RGC Registered General Contractor," from the Construction Industry Licensing Board. The CONTRACTOR must hold such license and such license must be current and active throughout the term of this contract/project. Upon the request of the PROJECT MANAGER or the OWNER, the CONTRACTOR shall submit a copy of the required license within 24 hours of the request. The CONTRACTOR'S failure to submit such evidence of licensure may be sufficient reason to determine, at the OWNER'S option, that the CONTRACTOR is non-responsive. The CONTRACTOR shall be responsible for ensuring that all SUBCONTRACTORS are properly licensed for the duration of the contract and all costs associated with such ensurance shall be borne by the CONTRACTOR.

This Contract will only be awarded to a Florida licensed, registered General Contractor with a minimum of five (5) years experience in building and facilities construction. Facilities construction shall include at least 3 projects in 5 years. The Contractor shall also have a minimum of five (5) years experience in building synthetically lined landfill construction. Experience must include construction of landfill cells either as an earthwork contractor responsible for grading the subgrade and placing soils above the liner system or as a geosynthetic installer including geomembrane placement. Experience must include at least 3 separate projects within the last 5 years with a total lined area of at least 1,000,000 square feet. At the time of bid review by the PROJECT MANAGER and CONSULTANT, bidders, upon request, shall submit to the PROJECT MANAGER a reference list of completed and current project of same or similar work. The reference list shall include the following information as a minimum:

Project:
Owner:
Contact:
Telephone no.:
Size of landfill cell
Amount of work in dollars:

The above requirement does not relieve the CONTRACTOR of specific conditions for individual work items listed in the technical specifications. For example, Section 02071 paragraph 1.03.A requires the geomembrane installer to have installed a minimum of 1 million square feet on at least three previous projects. The CONTRACTOR will be required to submit a list of SUBCONTRACTORS and SUPPLIERS for those portions of the work that require specific qualifying experience along with a statement detailing how the requirements are met as part of project submittals. If the OWNER, after due investigation, has reasonable objection to any proposed SUBCONTRACTOR or SUPPLIER, the OWNER may require CONTRACTOR to submit a substitute, without an increase in the Bid price.

Delete paragraph 7.16 in its entirety and insert the following in its place:

SC-7.16 Record Drawings

The OWNER shall provide at the pre-construction conference a reproducible set of Drawings. The CONTRACTOR shall be responsible for maintaining at the CONSULTANT'S field office a set of annotated Drawings in good and legible condition, to be continuously marked up, reflecting as-built conditions in accordance with the below stated requirements. The CONTRACTOR shall keep at the SITE and in good order one annotated copy of the Contract Documents and the Shop Drawings. These documents shall be annotated on a continuing basis to show all changes made during the construction process. These shall be available to the CONSULTANT and the PROJECT MANAGER during the entire duration of the PROJECT. The CONTRACTOR shall provide record drawings in accordance with Division 1 Specifications.

These annotated drawings shall be reviewed by the OWNER'S inspector for accuracy and compliance with the minimum requirements at least monthly prior to acceptance of the CONTRACTOR'S Application for Payment. The Application shall be rejected if the annotated drawings do not meet the requirements of this Section. The CONTRACTOR shall submit, for completion of the Ash Monofill Expansion and no later than when the Application for Final Payment is submitted or thirty days after completion of specified construction, whichever comes first, a reproducible set of "Record Drawings", and one (1) blue-line copy, which shall be of good quality and condition equal to that of the original Contract Drawings, each sheet of which shall be signed by the CONTRACTOR'S Project Superintendent (including all changes in the annotated Drawings).

The PROJECT MANAGER shall not accept Final Completion of the Ash Monofill or the Application for Final Payment until the Record Drawings are approved for conformance to the minimum requirements.

The OWNER'S acceptance of the CONTRACTOR'S Record Drawings does not relieve the CONTRACTOR of the sole responsibility for the accuracy or completeness of the Record Drawings. Record Drawings shall conform to the following minimum requirements:

- A. All deviations must be highlighted on the record drawings using a "cloud." If any revisions to the original plans require a Change Order, the "cloud" shall include the Change Order number.
- B. "As-Built" Drawings shall be all components built as part of the Work and including the annotated Drawings required above. Substantial Completion will not be accepted until the OWNER has approved the annotated Drawings.

The CONTRACTOR is to include clear photographs of the project activities with date stamp as the work progresses. The photos are to include all underground structures prior to being buried. The photos are in addition to the Record Drawing requirements of 7.16.

ARTICLE 12 CHANGE OF CONTRACT TIME

Add the following new paragraph immediately after paragraph 12.5:

- SC-12.6 The CONTRACTOR is allowed to request an extension of time for items of construction which require long lead times to complete, order, manufacture, or test. The extension of time and waiver of liquidated damages during the period of the requested extension shall be granted by the PROJECT MANAGER and OWNER only for those items and will not include other portions of the Work which are not directly impacted or require the completion of the item for which an extension is requested. Therefore, all other portions of the Work shall proceed as scheduled and shall be subject to the liquidated damages set forth in the Contract Documents and this section.

DIVISION 1
GENERAL REQUIREMENTS

SECTION 01000
PROJECT REQUIREMENTS

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. The Work to be done consists of the furnishing of all labor, materials, and equipment and the performance of all Work included in this Contract. The summary of the Work is presented in Section 01100, Summary of Work.
- B. Work Included:
1. The Contractor shall furnish all labor, superintendence, materials, light, heat, fuel, water, tools, appliances, equipment, supplies, and means of construction necessary for proper performance and completion of the Work. The Contractor shall obtain and pay for all necessary local building permits. The Contractor shall perform and complete the Work in the manner best calculated to promote rapid construction consistent with safety of life and property and to the satisfaction of the Engineer and in strict accordance with the Contract Documents. The Contractor shall coordinate the work schedule to accommodate existing operations of the landfill and composting facility. The Contractor shall pay for the professional services of a quality control testing laboratory and surveying by an independent party. The Contractor shall clean up the Work and maintain it during and after construction, until accepted, and shall do all Work and pay all costs incidental thereto. He shall repair or restore all structures and property that may be damaged or disturbed during performance of the Work. The Contractor shall also order equipment on behalf of the Owner as described in Section 01200, Measurement and Payment.
 2. The cost of incidental work described in these Project Requirements for which there are no specific Contract Items shall be considered as part of the general cost of doing the Work and shall be included in the prices for the various Contract Items. No additional payment will be made therefore.
 3. The Contractor shall provide and maintain such modern plant, tools, and equipment as may be necessary, in the opinion of the Engineer, to perform in a satisfactory and acceptable manner all the Work required by this Contract. Only equipment of established reputation and proven efficiency shall be used. The Contractor shall be solely responsible for the adequacy

of his workmanship, materials, and equipment, prior approval of the Engineer notwithstanding.

C. Utility Installations and Structures:

Utility installations and structures shall be understood to include all poles, monitoring wells, force mains, tracks, pipes, wires, conduits, vaults, manholes, and all other appurtenances and facilities pertaining thereto whether owned or controlled by the Owner, other governmental bodies, or privately owned by individuals, firms, or corporations used to serve the public with transportation, traffic control, gas, electricity, telephone, sewerage, drainage, water, or other public or private property which may be affected by the Work shall be deemed included hereunder.

1. The Contract Documents contain data relative to existing utility installations and structures above and below the ground surface. These data are not guaranteed as to their completeness or accuracy and it is the responsibility of the Contractor to make his own investigations to inform himself fully of the character, condition, and extent of all such installations and structures as may be encountered and as may affect the construction operations.
2. The Contractor shall protect all utility installations and structures from damage during the Work. Access across any buried utility installation or structure shall be made to avoid any damage to these facilities. All required protective devices and construction shall be provided by the Contractor at his expense. All existing utilities damaged by the Contractor shall be repaired by the Contractor, at his expense. No separate payment shall be made for such protection or repairs to utility installations or structures.
3. Utility installations or structures owned or controlled by the Owner or other governmental body which are shown on the Drawings to be removed, relocated, replaced, or rebuilt by the Contractor shall be considered as a part of the general cost of doing the Work and shall be included in the prices bid for the various Contract Items. No separate payment shall be made therefor.
4. At all times in performance of the Work the Contractor shall employ acceptable methods and exercise reasonable care and skill so as to avoid unnecessary delay, injury, damage, or destruction of utility installations and structures and shall at all times in the performance of the Work avoid unnecessary interference with or interruption of utility services and cooperate fully with the owners thereof to that end.

5. The Contractor shall give written notice to the Owner and other governmental utility departments and other owners of utilities of the location of his proposed construction operations at least 48-hours in advance of breaking ground in any area or on any unit of the Work.
6. The maintenance, repair, removal, relocation, or rebuilding of utility installations and structures, when accomplished by the Contractor as herein provided, shall be done by methods approved by the owners of such utilities.

1.02 RELATED WORK (NOT USED)

1.03 SUBMITTALS (NOT USED)

1.04 WORK SEQUENCE

- A. The Contractor must sequence work to accommodate existing operations of both the Ash Monofill and the Composting Facility. Specifically, the Contractor shall:
 1. Order equipment and supplies with long lead times within 14 days of the approved submittals. Such equipment and supplies may include the compost turner, structural steel, and geosynthetics.
 2. Make the Composting Facility Expansion Curing Area pavement (excluding reasonable area required to facilitate construction of the Compost Storage Building area) the top construction priority to allow Owner's composting operations to continue uninterrupted during construction. Once the Curing Area is determined to be Substantially Complete, the Curing Area will be turned over to the Owner so that the Owner may use the Curing Area for ongoing operations including relocating compost materials and equipment. The Contractor shall allow up to 2 weeks for the Owner to move materials and equipment from the area of the proposed Composting Buildings and Maintenance Building to the Curing Area. The warranty period for the Substantially Completed Curing Area will not commence until final completion of the Compost Facility Expansion project.
 3. Begin dewatering operations for the Ash Monofill Expansion within 30 days of the Notice to Proceed.
 4. Follow the Soil Management Plan to minimize double-handling of soil.
 5. Cover the Geosynthetic Clay Liner (GCL) with Geomembrane as GCL installation proceeds.

6. Complete Protective Soil installation before dewatering is ceased.

1.05 REFERENCE STANDARDS (NOT USED)

1.06 QUALITY ASSURANCE (NOT USED)

1.07 WARRANTIES

- A. Warranties shall be in accordance with General Conditions, Supplementary Conditions, and Specification Section 01780, Warranties and Bonds.

1.08 DELIVERY, STORAGE, AND HANDLING

- A. The Contractor shall adhere to the requirements specified in Section 01650, Delivery, Storage, and Handling, for storing and protecting the items specified in this Section.

1.09 QUALIFICATIONS (NOT USED)

1.10 DRAWINGS AND PROJECT MANUAL

- A. Drawings: When obtaining data and information from the Drawings, figures shall be used in preference to scaled dimensions and large-scale drawings in preference to small-scale drawings.
- B. Supplementary Drawings:
 - 1. When, in the opinion of the Engineer, it becomes necessary to explain more fully the Work to be done or to illustrate the Work further or to show any changes which may be required, the Engineer will prepare drawings known as Supplementary Drawings, with specifications pertaining to such Drawings, and the Contractor will be furnished one complete set of reproducible black line prints (24 inches by 36 inches) and one reproducible copy of the specifications.
 - 2. The Supplementary Drawings shall be binding upon the Contractor with the same force as the Contract Drawings. Where such Supplementary Drawings require either less or more than the estimated quantities of Work, credit to the Owner or compensation therefor to the Contractor shall be subject to the terms of the Agreement.

C. Contractor to Check Drawings and Data:

1. The Contractor shall verify all dimensions, quantities, and details shown on the Drawings, Supplementary Drawings, Schedules, Specifications, or other data received from the Engineer, and shall notify the Engineer of all errors, omissions, conflicts, and discrepancies found therein. Failure to discover or correct errors, conflicts, or discrepancies shall not relieve the Contractor of full responsibility for unsatisfactory work, faulty construction, or improper operation resulting therefrom, nor from rectifying such conditions at his own expense. He will not be allowed to take advantage of any errors or omissions, as full instructions will be furnished by the Engineer should such errors or omissions be discovered.
2. All schedules are given for the convenience of the Engineer and the Contractor and are not guaranteed to be complete. The Contractor shall assume all responsibility for the making of estimates of the size, kind, and quality of materials and equipment included in Work to be done under the Contract.

D. Specifications: The Technical Specifications each consist of three parts: General, Products, and Execution. The General part of a Specification contains General Requirements which govern the Work. The Products and Execution parts modify and supplement the General Requirements by detailed requirements for the Work and shall always govern whenever there appears to be a conflict.

E. Intent:

1. All Work called for in the Specifications applicable to this Contract, but not shown on the Drawings in their present form, or vice versa, shall be of like effect as if shown or mentioned in both. Work not specified in either the Drawings or in the Specifications but involved in carrying out their intent or in the complete and proper execution of the Work is required and shall be performed by the Contractor as though it were specifically delineated or described.
2. The apparent silence of the Specifications as to any detail or the apparent omission from them of a detailed description concerning any work to be done and materials to be furnished shall be regarded as meaning that only the best general practice is to prevail and that only material and workmanship of the best quality is to be used. The interpretation of these Specifications shall be made upon that basis.

1.11 MATERIALS AND EQUIPMENT

A. Manufacturer:

1. All transactions with the manufacturers or subcontractors shall be through the Contractor, unless the Contractor shall request and at the Engineer's option that the manufacturer or subcontractor deal directly with the Engineer. Any such transactions shall not in any way release the Contractor from his full responsibility under this Contract. The Owner, at his discretion, may make direct purchases of the materials.
2. If the Owner chooses to make direct purchases for materials, the Owner will issue purchase orders and process payment for invoices for designated materials. The Contractor shall prepare and be responsible for all quantities, descriptions, specifications, guarantees, payment schedules, etc., and all other required information to be included in the Owner issued purchase orders.
3. The Contractor shall be responsible for coordinating and scheduling with subcontractors, Owner, and material/equipment suppliers for all Direct Material Purchases. The Contractor shall be responsible for providing all necessary information to the Owner for the Owner to issue purchase orders in a timely manner and consistent with the project schedule. The Contractor and its subcontractors shall be responsible for expediting, receiving, unloading, storing, protecting, handling, etc. all Direct Material Purchases as if the material and equipment had been purchased by the Contractor or its subcontractors. All direct purchases will be performed in accordance with 212.08(6), FS, and Rule 12A-1.094, FAC.
4. Any two or more pieces of material or equipment of the same kind, type, or classification, and being used for identical types of service, shall be made by the same manufacturer.

B. Delivery:

1. The Contractor shall deliver materials in ample quantities to ensure the most speedy and uninterrupted progress of the Work so as to complete the Work within the allotted time.
2. The Contractor shall also coordinate deliveries in order to avoid delay in or impediment of the progress of the work of any related Contractor.

C. Tools and Accessories:

1. Unless otherwise stated in the Contract Documents, the Contractor shall furnish with each type, kind, or size of equipment, one complete set of suitably marked high-grade special tools and appliances which may be needed to adjust, operate, maintain, or repair the equipment. Such tools and appliances shall be furnished in approved painted steel cases, properly labeled, and equipped with good-grade cylinder locks and duplicate keys.
2. Spare parts shall be furnished as specified herein and as recommended by the manufacturer necessary for the operation of the equipment, not including materials required for routine maintenance.
3. Each piece of equipment shall be provided with a substantial nameplate, securely fastened in place, and clearly inscribed with the manufacturer's name, year of manufacture, serial number, weight, and principal rate data.

D. Service of Manufacturer's Engineer:

1. The Contract Prices for equipment shall include the cost of furnishing a competent and experienced engineer or superintendent who shall represent the manufacturer and shall help the Contractor, when required, install, adjust, test, and place in operation the equipment in conformity with the Contract Documents.
2. After the equipment is commissioned, the Contractor shall make all adjustments and tests required by the Engineer for acceptance testing and shall instruct such personnel as may be designated by the Owner in the proper operation and maintenance of such equipment.

1.12 INSPECTION AND TESTING

A. General:

1. For tests specified to be made by the Contractor, the testing personnel shall make the necessary inspections and tests, and the reports thereof shall be in such form as will facilitate checking to determine compliance with the Contract Documents. Five copies of the reports shall be submitted and authoritative certification thereof must be furnished to the Engineer as a prerequisite for the acceptance of any material or equipment. Electronic reports will be considered in lieu of paper copies, but the Contractor shall assume that five copies will be provided for bidding purposes. Electronic reports shall be smaller than 10 MB in file size to be submitted by email.

Emailed reports shall indicate the submittal number and report description in the email subject line.

2. If, in the making of any test of any material or equipment, the Engineer ascertains that the material or equipment does not comply with the Contract Documents, the Contractor will be notified thereof and he will be directed to refrain from delivering said material or equipment, or to remove it promptly from the site or from the Work and replace it with acceptable material without cost to the Owner.
3. Tests of electrical and mechanical equipment and appliances shall be conducted in accordance with the recognized test codes of the ANSI, ASME, or the IEEE, except as may otherwise be stated herein.
4. The Contractor shall be fully responsible for the proper operation of equipment during testing and instruction periods and shall neither have nor make any claim for damage which may occur to equipment before the time when the Owner formally takes over the operation thereof.

B. Costs:

1. The Contractor shall provide all inspection and testing of materials furnished under this Contract, unless otherwise expressly specified.
2. The Contractor shall bear the cost of shop and field tests of equipment and of certain other tests specifically called for in the Contract Documents, and such costs shall be deemed to be included in the Contract Price.
3. The Owner may test materials and equipment submitted by the Contractor as the equivalent to those specifically named in the Contract for compliance. The Contractor shall reimburse the Owner for the expenditures incurred in making such tests of materials and equipment which are rejected for non-compliance.

C. Certificate of Manufacture:

1. The Contractor shall furnish the Engineer with authoritative evidence in the form of a certificate of manufacture that the materials to be used in the Work have been manufactured and tested in conformity with the Contract Documents.
2. These certificates shall be notarized and shall include copies of the results of physical tests and chemical analyses, where necessary, that have been made directly on the product or on similar products of the manufacturer.

D. Shop Tests:

1. Each piece of equipment for which pressure, duty, capacity, rating, efficiency, performance, function, or special requirements are specified shall be tested in the shop of the maker in a manner which shall conclusively prove that its characteristics comply fully with the requirements of the Contract Documents.
2. Five copies of the manufacturer's actual test data and interpreted results thereof, accompanied by a certificate of authenticity sworn to by a responsible official of the manufacturing company and/or independent laboratory, shall be submitted to the Engineer for approval.
3. The Contractor shall bear the cost of shop tests and of furnishing manufacturer's preliminary and shop test data of operating equipment.

E. Start-up Tests:

1. As soon as conditions permit, the Contractor shall furnish all labor, materials, and instruments and shall make start-up tests of equipment.
2. If the start-up tests disclose any equipment furnished under this Contract which does not comply with the requirements of the Contract Documents, the Contractor shall, before demonstration tests, make all changes, adjustments, and replacements required. The furnishing contractor shall assist in the start-up tests as applicable.

F. Demonstration Tests:

1. Before the Contractor's request for a Substantial Completion inspection, all equipment and piping installed under this Contract shall be subjected to demonstration tests as specified or required to prove compliance with the Contract Documents.
2. The Contractor shall furnish labor, fuel, energy, water, and all other materials, equipment, and instruments necessary for all demonstration tests at no additional cost to the Owner. The Contractor shall assist in the demonstration tests as applicable.

1.13 LINES AND GRADES

A. Grade:

1. All work under this Contract shall be constructed in accordance with the lines and grades shown on the Drawings or as given by the Engineer. The full responsibility for keeping alignment and grade shall rest upon the Contractor.
2. The Engineer will establish bench marks and provide coordination points. Reference marks for lines and grades as the Work progresses will be located by the Contractor to cause as little inconvenience to the prosecution of the Work as possible. The Contractor shall place excavation and other materials so as to cause no inconvenience in the use of the reference marks provided. He shall remove any obstructions he places contrary to this provision.

B. Surveys:

1. At his own expense the Contractor shall furnish and maintain stakes and other such materials.
2. The Contractor shall check such reference marks by such means as he may deem necessary and, before using them, shall call the Engineer's attention to any inaccuracies.
3. At his own expense the Contractor shall establish all working or construction lines and grades as required from the reference marks set by the Engineer and shall be solely responsible for the accuracy of these lines and grades. He shall, however, be subject to check and review by the Engineer.

C. Safeguarding Marks:

1. The Contractor shall safeguard all points, stakes, grade marks, monuments, and bench marks made or established on the Work, bear the cost of re-establishing them if disturbed, and bear the entire expense of rectifying work improperly installed due to not maintaining or protecting or to removing without authorization such established points, stakes, and marks.
2. The Contractor shall safeguard all existing and known property corners, monuments, and marks adjacent to but not related to the Work and shall bear the cost of re-establishing them if they are disturbed or destroyed.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 01100
SUMMARY OF WORK

PART 1 GENERAL

1.01 SCOPE OF WORK

Unless otherwise expressly provided in the Contract Documents, the Work must be performed in accordance with best modern practice, with materials and workmanship of the highest quality to the satisfaction of the Owner.

A. The Project title is Composting Facility Expansion and Ash Monofill Expansion.

B. The Work of this Project generally includes:

1. Grading including excavation and earthfill for the expansion of the Composting Facility Expansion and Ash Monofill Expansion.
2. Paving working areas and road with asphalt and/or with aggregate base.
3. Fabricating and erecting three fabric-covered buildings, a maintenance building, and storage building for the Composting Facility Expansion.
4. Installing geosynthetics for the Ash Monofill Expansion including:
 - a. Geosynthetic clay layer.
 - b. Secondary geomembrane.
 - c. Secondary geocomposite.
 - d. Primary geomembrane.
 - e. Primary geocomposite.
5. Piping and backfilling the leachate collection system.
6. Installing Drainage Soil and Protective Soil.
7. Installing three pump stations and leachate force main.

C. The Specification divisions and Drawings are an integrated part of the Contract Documents and, as such, will not stand alone if used independently as individual sections, divisions, or drawing sheets. The Drawings and Specifications establish minimum standards of quality for this project. They do not purport to cover all details entering into the design and construction of materials and equipment.

1.02 RELATED WORK (NOT USED)

1.03 SUBMITTALS (NOT USED)

1.04 WORK SEQUENCE (NOT USED)

1.05 REFERENCE STANDARDS

Reference standards and recommended practices referred to herein shall be the latest revision of any such document in effect at the bid time. The following documents are a part of this Section. Where this Specification section differs from these documents, the requirements of this section shall apply.

- A. American Association of State Highway and Transportation Officials (AASHTO) Formerly (AASHO)
- B. American Concrete Institute (ACI)
- C. American Institute of Steel Construction (AISC)
- D. American Iron and Steel Institute (AISI)
- E. American National Standards Institute (ANSI)
- F. American Standards Association (ASA)
- G. American Society of Mechanical Engineers (ASME)
- H. American Society of Testing and Material (ASTM)
- I. American Water Works Association (AWWA)
- J. American Welding Society (AWS)
- K. Anti-Friction Bearing Manufacturer's Association (AFBMA)
- L. Building Officials and Code Administrators International, Inc. (BOCA)
- M. Construction Specifications Institute (CSI)
- N. Federal Specification (FS)
- O. Florida Department of Transportation (FDOT) Standard Specifications for Road and Bridge Construction, Latest English Edition (Standard Specifications)
- P. FDOT Roadway and Traffic Design Standards Latest English Edition (FDOT Index)
- Q. Geosynthetics Institute (GSI)
- R. National Bureau of Standards (NBS)
- S. National Electrical Manufacturer's Association (NEMA)
- T. National Fire Protection Association (NFPA)
- U. Portland Cement Association (PCA)
- V. Occupational Safety and Health Act (Public Law 91-596), U.S. Department of Labor (OSHA)
- W. Steel Structures Painting Council (SSPC)
- X. Southern Standard Building Code (SSBC)
- Y. Underwriters' Laboratories, Inc. (UL)
- Z. United States of America Standards Institute (USASI)
- AA. Regulations of Florida Industrial Commission Regarding Safety

- BB. All local, state, county, or municipal building codes requirements of the Owner's Insurance

1.06 QUALITY ASSURANCE (NOT USED)

1.07 WARRANTIES

- A. Warranties shall be in accordance with General Conditions, Supplementary Conditions, and Specification Section 01780, Warranties and Bonds.

1.08 DELIVERY, STORAGE, AND HANDLING

- A. The Contractor shall adhere to the requirements specified in Section 01650, Delivery, Storage, and Handling, for storing and protecting the items specified in this Section.

1.09 QUALIFICATIONS (NOT USED)

1.10 GENERAL REQUIREMENTS

- A. Unless otherwise specified on the Construction Drawings or Specifications, all work and the quality of materials shall conform to the referenced sections of the Florida Department of Transportation (FDOT) *Standard Specifications for Road and Bridge Construction, Supplementary Specifications, and Roadway and Traffic Design Standards*. The Contractor shall retain on the job site copies of these standard FDOT documents. The basis of payment shall conform to Section 01200, Measurement and Payment, of the General Requirements.

1.11 WORKING HOURS

- A. Allowable work times shall be Monday through Saturday from 6:00 a.m. to 8:00 p.m., except legal holidays (e.g., Christmas Day, New Year's Day, Independence Day, and Thanksgiving Day). This work time schedule is limited to no more than 50 hours per week and 10 hours per day. The Contractor shall submit notice to the Engineer for approval, 48 hours before the actual work beginning, to request to work outside the hours above or on holidays. Legal County holiday work shall be limited to 8 hours maximum on such days. If the work performed outside the work times prescribed above is to regain the schedule, then the Contractor shall be responsible for all costs incurred by the Owner including but not limited to the costs for the Owner's, Engineer, and CQA representative.

1.12 REIMBURSEMENT FEES

- A. The following rates shall be applied as the Owner's reimbursement of the Engineer's fee to be paid by the Contractor for expenses defined in Part G, Supplementary Conditions.

1.	Senior Field Representative (Construction):	\$85
2.	Senior Construction Administrator:	\$120
3.	Engineering Consultant (Senior Project Manager):	\$170
4.	Administrative Assistant:	\$65

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 01200
MEASUREMENT AND PAYMENT

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. This section covers methods of measurement and payment for items of work under this Contract.
- B. The total Contract Price shall cover all work required by the Contract Documents. All cost in connection with the proper and successful completion of the work, including furnishing all materials, equipment, and tools and performing all necessary labor and supervision to fully complete the work, shall be included in the unit price and lump-sum Bid prices. All work not specifically set forth as a pay item in the Bid Form or Bid Schedule shall be considered a subsidiary/ancillary obligation of the Contractor and all costs in connection with these subsidiary/ancillary obligations shall be included in the Bid(s) to provide a complete and functional Project.

1.02 RELATED WORK (NOT USED)

1.03 SUBMITTALS (NOT USED)

1.04 WORK SEQUENCE (NOT USED)

1.05 REFERENCE STANDARDS (NOT USED)

1.06 QUALITY ASSURANCE (NOT USED)

1.07 WARRANTIES

- A. Warranties shall be in accordance with General Conditions, Supplementary Conditions, and Specification Section 01780, Warranties and Bonds.

1.08 DELIVERY, STORAGE, AND HANDLING

- A. The Contractor shall adhere to the requirements specified in Section 01650, Delivery, Storage, and Handling, for storing and protecting the items specified in this Section.

1.09 QUALIFICATIONS (NOT USED)

1.10 MATERIAL PURCHASES

- A. The Contractor shall not pay sales tax on equipment, machinery, or materials purchased for the Ash Monofill Expansion construction in accordance with Florida Department of Revenue Tax Information Publication #98(A)1-27 (<http://dor.myflorida.com/dor/tips/tip98a127.html>) exemption to Florida Statute 212.051. The Contractor shall be provided with a tax exemption authorization form (sample of the form is provided as Attachment 1 of this section) from the Owner or Owner's Representative for the project that allows the Contractor to purchase material without taxes from vendors and subcontractors. The Contractor must sign a certificate stating that the equipment, machinery, or materials to be exempted are required to meet such law or permit condition. This exemption excludes solid waste collection vehicles, compactors, graders, or other earthmoving equipment. The exemption includes the materials purchases required for Bid Items 27 through 37.
- B. To exempt the qualifying purchase(s), the Owner or Owner's Representative will provide a certificate of exemption to the Contractor. The Contractor shall issue its own certificate to its subcontractors or to the vendor along with a copy of the certificate provided by the Owner or Owner's Representative. This process continues from subcontractors to sub-subcontractors until the actual purchase order is issued to the vendor or supplier for the qualifying equipment, machinery, or materials. When extending a certificate for this exemption, the Contractor shall not include another business entity's Certificate of Registration number (sales tax number) or Direct Pay Certificate number. A Certificate of Registration number or Direct Pay Certificate number may be used only by the business entity to which it was assigned. To support this exemption, the Owner, Owner's Representative, Contractor, and subcontractors shall retain all documents and records that could be used to support this exemption. These documents include but are not limited to:
1. Photocopies of certificates.
 2. Purchase orders.
 3. Invoices.
 4. Depreciation schedules.
 5. Chart of accounts.
 6. Permits.

1.11 BID FORM

- A. The official Bid Form is provided in Part D in the Contract Documents.

1.12 EXCAVATION, TRENCHING, AND CLEARING

- A. Except where otherwise specified, the unit price or lump-sum price bid for each item of work which involves excavation, trenching, clearing, grubbing, or disposal of cleared and grubbed materials shall include all costs for such work. No direct payment shall be made for clearing, grubbing, disposal of cleared or grubbed materials, excavation, trenching, disposal of surplus excavated material, handling water (and groundwater) and purchasing and hauling of required fill material. All excavation and trenching shall be unclassified as to materials which may be encountered; in addition, trenches shall be unclassified as to depth, unless otherwise stated.

1.13 LUMP SUM

- A. For lump-sum items, payments shall be made to the Contractor in accordance with an accepted Progress Schedule of Values on the basis of actual work completed and accepted by the Owner at the final completion of the Project.

1.14 UNIT PRICE

- A. For unit price items, payment shall be made based on the actual amount of work accepted by the Owner and for the actual amount of materials in place at the final completion of the Project, as confirmed by the final measurements.
- B. After the work is completed and before final payment is made, the Engineer will make final measurements, with all required assistance from the Contractor, to determine the quantities of various items of work accepted as the basis for the final unit price payment.

1.15 PAYMENT FOR INCREASED OR DECREASED QUANTITIES

- A. When alterations in the quantities of unit price work not requiring a Change Order(s), as herein provided for, are ordered and performed, the Contractor shall accept payment in full at the Contract unit price multiplied by the actual quantities of work constructed and accepted by the Owner at the completion of the project.
- B. The actual percentage of each lump sum bid item completed by the Contractor and accepted by the Owner at the final completion of the Project will be paid to the Contractor.

1.16 DELETED ITEMS

- A. Should any items contained in the Bid Schedule(s) be found unnecessary for the proper completion of the work contracted, the Engineer may eliminate such items from the Contract. This action shall in no way invalidate the Contract and no financial allowance or compensating payment for anticipated profit, overhead, etc., will be made for items so eliminated in making final payment to the Contractor.

1.17 PARTIAL PAYMENTS

- A. Partial payments shall be made monthly as the work progresses. Partial payment shall be made subject to the provisions of the General and Supplementary Conditions.

1.18 PAYMENT FOR STORED MATERIAL DELIVERED TO THE PROJECT

- A. When requested by the Contractor and at the discretion of the Owner, payment may be made for all or part of the value of acceptable materials and equipment to be incorporated into bid items, which have not been used, and which have been delivered to the construction site or placed in storage places acceptable to the Owner. The Contractor shall provide receipts for all stored material items requested for reimbursement which clearly identify the stored material item, where it is to be constructed, the unit cost of the item, as well as the total cost of the delivered item(s), the quantity of the item, the brand name of the item, and the supplier. Note that there are additional documentation requirements and storage requirements within the Contract Documents that must also be met before the Contractor can be reimbursed for these stored materials.
- B. No payment shall be made for fuels, supplies, installation or connection hardware, lumber, false work, or other similar materials or on temporary structures or other work (items) of any kind which are not a permanent part of the Contract. Items having a value of less than \$2,500 shall not be compensated for as a stored material item.

1.19 FINAL PAYMENT

- A. If requested by the Engineer, the Contractor shall field verify all quantities in dispute by using visual observation, taped measurements, or other methods designated by the Engineer. The field verification shall be made in the presence of the Engineer and agreed to by both the Engineer and the Contractor. The Engineer will prepare a final adjusting Change Order which will adjust the final quantities of the project Bid Schedule to reflect the actual work accepted by the Owner and for which the Contractor will be compensated.

1.20 SCHEDULE OF VALUES

- A. A schedule of values for the lump-sum bid items and some of the unit price bid items as required by the Engineer shall be submitted and accepted before the first pay request is approved by the Engineer. The schedule of values shall be based on the prices bid in the Bid Schedule(s). Prices bid in the Bid Schedule(s) cannot be changed in the schedule of values; they can only be broken down into more detail so that the Engineer can more accurately review and approve the Contractor's pay application for the completed work.

1.21 MISCELLANEOUS CONSTRUCTION ITEMS

- A. The Contractor shall take all precautions necessary to protect existing utilities, roads, and miscellaneous items from damage during construction.
- B. The Contractor shall repair, relocate, or replace existing utilities, roadways, and miscellaneous items to pre-construction conditions.
- C. All repairs, relocations, and replacements necessary are considered incidental to the work and will be at the Contractor's cost, with no cost to the Owner.
- D. The unit-price bid items and lump-sum bid items for all pipe items shall constitute full compensation for furnishing, laying, jointing, and testing of pipe; dewatering; excavation and backfill; and cleanup. All pipe lines, including but not limited to sewer lines, concentrate disposal lines, water lines, force mains and gravity sewer lines, which are to be paid for per linear foot in the Bid Schedule, will be measured for payment only on a horizontal plane after installation, unless otherwise noted.
- E. The Contractor shall have the Engineer observe and document the installation of each underground fitting on the project. If the installation of any fitting is not confirmed and documented by the Engineer, it shall not be paid for by the Owner.

PART 2 PAY ITEM DESCRIPTIONS

2.01 BID

The descriptions provided in the following Paragraphs are to be used by the Bidder in preparing the Bid Schedule(s). They generally indicate how the major workscope items and their respective costs are to be separated into the line items listed in the Bid Schedule(s). These descriptions are not fully representative nor all inclusive of the work required to complete the project in accordance with the Contract Documents. It is the Bidder's responsibility to include all required costs within the most appropriate line item(s).

GENERAL

General bid items include work that is related to both the Composting Facility Expansion and the Ash Monofill Expansion.

Item 1. Mobilization and Demobilization—This item shall include and cover the costs for construction, preparatory operations including movement of personnel and equipment to and from the site, field offices, sanitary facilities, project administration and management, insurance, bonds, Owner and Engineer indemnification, temporary utilities, permits related to construction, and all other similar activities and facilities necessary for executing this project. This item also includes all costs for establishing, maintaining, and monitoring a complete and comprehensive site health and safety program during the execution of the Contract that complies with all local, state, and federal safety guidelines and laws. This item shall not exceed 5% of the total contract amount excluding Item 39, Support Equipment. This item is lump sum. The Contractor will be paid 40% of this item upon completion of mobilization and 10% upon demobilization; the remainder will be paid on a prorated basis equally over the remaining scheduled construction duration.

Item 2. Environmental Protection—This item includes all costs for providing and implementing a comprehensive environmental protection program for the project site and areas affected by the construction as shown on the Drawings and stated in the Specifications. This includes providing all labor, equipment, and materials necessary to prevent environmental damage to the soil, water, and air in conformance with all local, state, and federal laws. Examples include control of stormwater, erodible soils, noise, dust, pollutants, trash, waste, pumping discharge, and any other substance or activity that may adversely impact the environment. This cost includes permitting fees if necessary, monitoring, maintenance, and restoration of the site. This item is lump sum. The Contractor will be paid 50% of this item upon environmental protection plan(s) approval and establishing environmental protection, and the remainder will be paid on a prorated basis equally over the remaining construction duration.

Item 3. Construction Surveying and Record Drawings—This item includes all labor, equipment, materials, and services necessary to perform construction surveying and record drawings. The construction surveying includes but is not limited to establishing vertical control, horizontal control, rights-of-way locations, property boundary location, and conservation easements; staking out and re-staking construction; and performing record surveying throughout the construction duration. The Record Drawings shall be in accordance with the Contract Documents, including but not limited to updating the electronic copy of the drawings, identifying items that were revised during the project or addenda, having all drawings signed and sealed by a Florida-licensed professional engineer or professional surveyor and mapper, and providing signed-and-sealed paper copies of the Record Drawings. This item is lump sum. The Contractor will be paid a maximum of 80% of this item before providing Record Drawings in accordance with the Specifications. Once the Record Drawings have been determined to be

complete according to the Specification requirements, the entire unit price will be paid to the Contractor.

Item 4. Clearing, Grubbing, and Stripping—This item shall include all labor, equipment, materials, and services necessary to clear and grub the limits of construction, including clearing vegetation, grubbing soil, loading, hauling, and unloading material at location designated by Owner. This item also includes stripping 12 inches of soil over the Ash Monofill Expansion project area, loading, hauling, unloading, and stockpiling soil in an on-site area designated by the Owner. This item is lump sum.

Item 5. Earthwork – Remove and Replace Unsuitable Soil—This item shall include all labor, equipment, materials, and services associated with excavating, removing, and replacing unsuitable soil, including loading, hauling, testing, stockpiling in an on-site area designated by the Owner, backfilling, and all related work as shown on the Drawings and stated in the Specifications. Unsuitable soil removal will be paid on a unit price basis \$10.00 per cubic yard. Bids shall be based on an assumed unsuitable soil removal of 5,000 cubic yards. Measurement and Payment will be based on the surveyed stockpile volume.

Item 6. Stormwater System—This item includes all work needed to furnish and install drainage structures, drainage RCP pipe, mitered end sections, concrete ditch pavement, and riprap with filter fabric for ditch lining; construct ditches; and plug existing drainage pipe. The work includes all excavation, except the volume included in the item for grading work on the project; all backfill material and compaction for drainage improvements; and furnishing and installing all appurtenances, fittings, and fasteners to complete the work. The Owner has approximately 400 feet of 8-foot-by-36-inch RCP available for use on site. Materials available from the Owner will not be paid for under this item, except for appurtenances needed to complete the work. Measurement and Payment will be on a percent of total contract amount earned.

Item 7. Seeding and Sodding—This item includes all labor, equipment, materials, and services required to furnish and install sod in all disturbed areas within the limits of construction that are not paved or lined for the Ash Monofill and seed all areas disturbed outside the limits of construction as shown on the Drawings and stated in the Specifications. This item shall include top soil preparation, fertilizer, water, and mowing until established as required in the Contract Documents. This item is lump sum.

PART 1—COMPOSTING FACILITY EXPANSION

Item 8. Excavation to Fill—This item shall include all labor, equipment, materials, and services necessary for the earthwork to excavate and construct embankment. The work includes excavating, loading, hauling for material placement, placing, compacting, maintaining, testing, and protecting the complete earthwork. All earthwork not explicitly covered in other items is included in this item. This item is lump sum. Partial payments will be paid based on the percentage of completed and approved pavement.

Item 9. Excavation to Stockpile—This item shall include all labor, equipment, materials, and services necessary for excavating and stockpiling soil. The work includes excavating, hauling for stockpiling, and stockpiling in an area designated by the Owner. This item is lump sum. Partial payments will be paid based on the percentage of completed and approved pavement.

Item 10. Building 6 Push-Wall Modifications—This item shall include all labor, equipment, materials, and services necessary for demolishing and removing portions of the existing concrete push-wall in Compost Building 6 as shown in the drawings. This item is lump sum. Partial payments will be paid based on the percentage of completed.

Item 11. Unpaved Roads and Parking Area—This item includes all labor, equipment, materials, and services necessary to construct stabilized subgrade and limerock base for the Parking Area and unpaved roadways as shown on the Drawings and stated in the Specifications. This item is lump sum. Partial payments will be paid based on the percentage of completed and approved work.

Item 12. Paved Areas—This item shall include all labor, equipment, materials, and services necessary to construct paved areas including the Curing Area and paved roadways (except for the Processing Area). The work includes constructing stabilized subgrade and reworking the base, base, and asphaltic concrete for all paved areas. This item includes pavement restoration for the construction of utilities and foundation and pavement repair as shown on the Drawings and stated in the Specifications. This item is lump sum. Partial payments will be paid based on the percentage of completed and approved pavement.

Item 13. Paved Processing Area—This item shall include all labor, equipment, materials, and services necessary to construct the paved Processing Area. The work includes constructing stabilized subgrade and reworking base, base, and asphaltic concrete for all paved areas as shown on the Drawings and stated in the Specifications. This item is lump sum. Partial payments will be paid based on the percentage of completed and approved pavement.

Item 14. Composting Buildings—This item shall include all labor, equipment, materials, and services necessary to design and construct three pre-engineered fabric-covered composting buildings including providing signed-and-sealed foundation plans, foundations, signed-and-sealed building plans, earthwork for foundations, building framework, fabric covering, and all appurtenances to complete the work. This item includes all work necessary to construct canopy shelters at new control panels, existing control panels, and the existing Main Distribution Panel. This item is lump sum. Partial payments for this item will be paid based on the schedule of values provided by the Contractor. Payments will be based on material stored on site and percent of installation complete.

Item 15. Maintenance Building—This item shall include all labor, equipment, materials, and services necessary to design and construct a pre-engineered metal building including earthwork for foundations, foundations, signed-and-sealed building plans, metal framing, wall and roof

systems, and all accessories and appurtenances to complete the work. This item includes structural design and developing specifications for anchor bolts, anchor bolt patterns, and depths in foundation concrete. The work includes water and sewer service and fixtures within 5 feet of the building footprint. This item is lump sum. Partial payments for this item will be paid based on the schedule of values provided by the Contractor. Payments will be based on material stored on site and percent of installation complete.

Item 16. Compost Storage Building—This item shall include all labor, equipment, materials, and services necessary to construct a pre-engineered metal building including earthwork for foundations, foundation and wall system, signed-and-sealed building plans, metal framing, roof, design and installation of a removable screen wall panel system, and all accessories and appurtenances to complete the work. This item includes structural design and developing specifications for anchor bolts, anchor bolt patterns, and depths in foundation concrete. Partial payments for this item will be paid based on the schedule of values provided by the Contractor. Payments will be based on material stored on site and percent of installation complete.

Item 17. Equipment Wash and Metal Shed—This item shall include all labor, equipment, materials, and services necessary to construct an equipment wash area and pre-engineered metal shed including structural fill, foundation and wall system, signed-and-sealed building plans, metal framing, roof, and all accessories and appurtenances to complete the work. The work includes water and sewer service and fixtures within 5 feet of the building footprint. This item is lump sum. Partial payments for this item will be paid based on the schedule of values provided by the Contractor. Payments will be based on material stored on site and percent of installation complete.

Item 18. Water Service Improvements—This item shall include all labor, equipment, materials, and services necessary to construct water service improvements and includes water tanks; pumps; water lines; retro-fits on the existing system; concrete slabs for the work in this item; and all valves, fittings, and appurtenances. The work includes earthwork for utilities and subgrade preparation for concrete slabs. This item is lump sum. Partial payments for this item will be paid based on the percentage of completed and approved work.

Item 19. Pump Station and Yard Piping (Sanitary)—This item shall include all labor, equipment, materials, and services necessary to construct a sewer drain system and lift station; connection to the existing septic system; modifications to the septic system necessary for the connection; a pump station at the Equipment Wash Area; piping, cleanouts, an oil separator sump, and concrete slabs for the lift station and pump station; connection to the existing wetwell at the Leachate Master Pump Station; and all valves, fittings, and appurtenances. The work includes earthwork for utilities and subgrade preparation for concrete slabs. This item is lump sum. Partial payments for this item will be paid based on the percentage of completed and approved work.

Item 20. Equipment and Electrical—This item shall include all labor, equipment, materials, and services necessary to complete all work within the limits of construction necessary to furnish

electricity, lighting, powered coil door, and high-volume low-speed fans including conduits and control panels. This item is lump sum. Partial payments for this item will be paid based on the percentage of completed and approved work.

Item 21. Remove and Repair Asphalt Pavement—This item shall include all labor, equipment, materials, and services necessary to repair existing asphalt pavement at locations that the Engineer directs the Contractor to repair. The work includes removing any existing asphalt pavement and unsuitable base, constructing stabilized subgrade, reworking base and/or constructing base, and paving with asphaltic concrete. This item is unit price based on 100 square yards of repair. Partial payments for this item will be paid based on the units of asphalt removed and repaired.

Item 22. Diesel Tank—This item shall include all labor, equipment, materials, and services necessary to design, permit, and construct an 8,000-gallon double-walled diesel tank manufactured by ConVault, Inc., including dispensers and control system to the Owner's specifications. This item also includes designing and constructing the foundation, earthwork for foundation, providing electrical service and site modifications for the fuel tank system, including but not limited to foundations and shielding from vehicles and equipment. The design shall be approved by the Owner. Before the equipment order is placed, the final specification, including any modifications, shall be approved by the Owner. This item also includes modifications to the existing diesel tank including dispensers and controls. This item will be paid based on approved cost estimate prepared after bid. For the purposes of bid use an allowance of \$175,000.

PART 2—ASH MONOFILL EXPANSION

Item 23. Dewatering—This item includes all labor, equipment, materials, and services necessary to design and implement a dewatering system for constructing the Ash Monofill Expansion including developing a plan, constructing, and operating the dewatering and recharge systems within the limits of construction as shown on the Drawings and stated in the Specifications until the Protective Cover is installed and approved in accordance with the Owner's dewatering permit. The Owner will obtain a dewatering permit from the South Florida Water Management District. The seasonal high groundwater table is assumed to be at 30 feet NGVD, approximately at the ground surface within the Ash Monofill Project area. This item is lump sum. The Contractor shall be paid 40% of this item upon installing and starting up an approved dewatering system and 10% upon removing dewatering equipment. The remainder shall be paid on a prorated equally over the construction time until dewatering ceases when the Protective Cover installation is complete.

Item 24. Groundwater Monitoring Wells—This item includes all labor, equipment, materials, and services required to abandon existing groundwater monitoring wells before construction and furnishing and installing the groundwater monitoring wells after the Ash Monofill Expansion construction and all related work are complete as shown on the Drawings and stated in the Specifications. This item shall include supplying, installing, constructing, and developing the monitoring wells; drilling; surveying; permitting; and providing concrete pads, bollards, and

signage. This item is lump sum. Partial payment for this item shall be 40% for well abandonment and 60% for the completion of the monitoring well and installation and development.

Item 25. Earthwork – Subgrade Excavation and Fill—This item shall include all labor, equipment, materials, and services related to earthwork necessary to excavate and construct the Ash Monofill subgrade. The work includes excavating, hauling for material placement, placing, compacting, testing, and maintaining and protecting the complete earthwork. All earthwork not explicitly covered in other items is included in this item such as excavating the anchor trench. This item is lump sum. Partial payments will be paid based on the percentage of completed and approved pavement.

Item 26. Earthwork – Subgrade Fill from Stockpile—This item shall include all labor, equipment, materials, and services necessary for Subgrade Fill from Stockpile for the Ash Monofill Expansion. The work includes excavating, loading, hauling for material placement, placing, compacting, testing, maintaining, and protecting the complete earthwork. This item is lump sum. Partial payments will be paid based on the percentage of completed and approved pavement.

Item 27. Geosynthetic Clay Liner—This item includes all labor, equipment, materials, and services necessary to furnish and install the Geosynthetic Clay Liner (GCL) as shown on the Drawings and stated in the Specifications. The Contractor shall be paid for this item on a lump sum basis of the final, in-place GCL, and the quantity of GCL required for testing, anchor trenches, overlap, and waste shall be incidental to this work. Partial payments will be paid based on percentage of area of GCL approved for overlying Secondary Geomembrane placement.

Item 28. Secondary Geomembrane—This item includes all work labor, equipment, materials, and services necessary to furnish and install the secondary geomembrane as shown on the Drawings and stated in the Specifications. The Contractor shall be paid for this item on a lump sum basis of the final in-place Secondary Geomembrane, and the quantity of Secondary Geomembrane required for testing, anchor trenches, overlap, and waste shall be incidental to this work. Partial payments will be paid based on percentage of area of the Secondary Geomembrane approved for overlying Secondary Geocomposite placement.

Item 29. Secondary Geocomposite—This item includes all labor, equipment, materials, and services necessary to furnish and install the Secondary Geocomposite as shown on the Drawings and stated in the Specifications. The Contractor shall be paid for this item on a lump-sum basis of the final in-place Secondary Geocomposite, and the quantity of Secondary Geocomposite required for testing anchor trenches, overlap, and waste shall be incidental to this work. Partial payments will be paid based on the percentage of area of the Secondary Geocomposite approved for overlying Primary Geomembrane placement.

Item 30. Primary Geomembrane—This item includes all labor, equipment, materials, and services necessary to furnish and install the Primary Geomembrane as shown on the Drawings and stated in the Specifications. The Contractor shall be paid for this item on a lump-sum basis

of the final in-place Primary Geomembrane, and the quantity of Primary Geomembrane required for anchor trenches, overlap, and waste shall be incidental to this work. Partial payments will be paid based on the percentage of area of the Primary Geomembrane approved for overlying Primary Geocomposite placement.

Item 31. Primary Geocomposite—This item includes all labor, equipment, materials, and services necessary to furnish and install the Primary Geocomposite as shown on the Drawings and stated in the Specifications. The Contractor shall be paid for this item on a lump-sum basis of the final in-place Primary Geocomposite, and the quantity of Primary Geocomposite required for testing, anchor trenches, overlap, and waste shall be incidental to this work. Partial payments will be paid based on the percentage of area of the Primary Geocomposite approved for overlying Drainage Soil layer placement.

Item 32. Leachate Collection and Leak Detection Trench—This item shall include all labor, equipment, materials, and services necessary for the leachate collection and leak detection trenches, including additional geocomposite, trench gravel, perforated HDPE pipe, solid-walled HDPE pipe, and clean-outs on east side of the Ash Monofill (including concrete), and geotextile including purchasing, loading, hauling, installing boots, welding, video-inspecting, pipe-testing, and seaming as shown on the Drawings and stated in the Specifications. The quantity of geocomposite and geotextile required for overlap and waste shall be incidental to this work. This item is lump sum. Partial payments will be paid based on the linear feet of trench completed and approved. The Owner has 300 cubic yards of gravel available on site that shall be used.

Item 33. Drainage Soil—This item shall include all labor, equipment, materials, and services relating to installing the Drainage Soil with material provided by the Owner, including but not limited to excavating from the stockpile and loading, hauling, installing, and grading the Drainage Soil and all related work, including QC testing, reworking and retesting, correcting wind and stormwater effects, and all related work as shown on the Drawings and stated in the Specifications. This item is lump sum. Partial payments will be paid based on the area covered with 12 inches of Drainage Soil.

Item 34. Protective Soil—This item shall include all labor, equipment, materials, and services relating to installing Protective Soil layer with soil and crushed glass materials provided by the Owner. The work includes but is not limited to excavating from the stockpile, loading, hauling, installing, and grading the Protective Soil and all related work, including QC testing, reworking and retesting, correcting wind and stormwater effects, and all related work as shown on the Drawings and stated in the Specifications. The Contractor shall use all crushed glass provided on site by the Owner before using soil. This item includes installing edge of liner markers. This item is lump sum. Partial payments will be paid based on the area covered with Protective Soil.

Item 35. Leachate Collection and Leak Detection Sumps and Piping—This item shall include all labor, equipment, materials, and services necessary supplying, loading, transporting, unloading, fabricating, installing the leachate collection and leak detection sumps, including additional geocomposite, trench gravel, leachate riser pipes, cleanout riser pipes, and geotextile,

including purchasing, loading, hauling, installing boots, welding, video-inspecting, pipe-testing, and seaming as shown on the Drawings and stated in the Specifications. This item is lump sum. Partial payments will be paid based on the percentage of completed and approved work.

Item 36. Leachate Pump Stations—This item shall include all labor, equipment, materials, and services associated with supplying, loading, transporting, unloading, fabricating, and installing the leachate pump stations including retaining walls, concrete slabs, concrete containment curbs, bollards, piping, fittings, control panels, appurtenances, and all related work as shown on the Drawings and stated in the Specifications. This item also includes furnishing and installing the leachate removal pumping systems and associated work, including but not limited to pumps, discharge line, pull cable, connection to blind flange adaptor, control panel, junction boxes, power transfer switch, electrical power to control panel, electrical services, conduit installation, valves, meters, level sensors, piping, stormwater sump, stormwater sump pump, testing, startup, training, and all related work as shown on the Drawings and stated in the Specifications. This item is lump sum. Partial payments for this item will be paid based on the percentage of completed and approved work. The maximum amount paid will be 80% of the lump sum until the pumps are demonstrated to be fully functional and accepted by the Owner.

Item 37. Leachate Force Main—This item shall include all labor, equipment, materials, and services necessary to supply, install, and construct the double-walled leachate force main, including excavating and backfilling the trench, pipe testing, connecting to existing leachate main, providing fittings and appurtenances, installing cleanouts and leak detection systems, and all work as shown on the Drawings and stated in the Specifications. This item is lump sum. Partial payments for this item will be paid based on the percentage of completed and approved work.

Item 38. Unpaved Site Roads—This item includes all labor, equipment, materials, and services necessary to construct stabilized subgrade and limerock base for the access road between the Ash Monofill and Class III Landfill, the Ash Monofill cell access road, and the pump station access as shown on the Drawings and stated in the Specifications. This item is lump sum. Partial payments will be paid based on the percentage of completed and approved work.

2.02 ALLOWANCES

Item 39. Support Equipment—This item shall include all labor, equipment, materials, and services necessary to provide the following equipment. This item includes the equipment of the noted models, which is currently advertised and produced with all of the manufacturer's standard features. Before the equipment orders are placed, the final specifications, including any modifications, shall be approved by the Owner. This equipment shall be delivered to the facility indicated below. The allowance for this equipment is \$1,100,000.

- Backhus Windrow Turner Model 21.65 (Composting Facility)
- Volvo L110G Wheel Loader (Composting Facility)
- Volvo L110G Wheel Loader (C & D Recycling Facility at the Lee/Hendry County Resource Recovery Facility near Fort Myers, Florida)

END OF SECTION

ATTACHMENT 1



Lee County
SOUTHWEST FLORIDA

LANDFILL OR DISPOSAL FACILITY CERTIFICATE

The undersigned hereby declares that all equipment, machinery, or materials purchased (or leased) from (Insert CONTRACTOR's or VENDOR's Name) will be incorporated into and/or become a component part of the landfill or construction of the Ash Monofill Expansion project at the Lee/Hendry County Regional Solid Waste Disposal Facility located at 5500 South Church Road, Felda, Florida, County of Hendry, and will be primarily used for the monitoring, prevention, abatement, or control of pollution or contaminants. Further, the undersigned declares that the items listed are required by a law implemented by the Florida Department of Environmental Protection (FDEP) or required under the condition of a permit issued by FDEP.

I understand that any person furnishing a false certificate to a vendor for the purpose of evading payment of any tax imposed under Chapter 212, Florida Statutes, shall be subject to the penalty set forth in Section 212.085, Florida Statutes, and as otherwise provided by law.

This certification relieves the vendor from the responsibility of collecting tax on exempt amounts. The Department looks solely to the purchaser for recovery of tax if the purchaser was not entitled to the exemption.

Purchasing Company:

By: _____

Title: _____

Date: _____

References:
Florida Dept of Revenue TIP #98(A)1-27

SECTION 01300
CONTRACT ADMINISTRATION

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. This Section sets forth some of the general project requirements.

1.02 RELATED WORK

- A. Section 01330, Submittals and Acceptance.

1.03 SUBMITTALS

- A. Submittals shall be in accordance with General Conditions, Supplementary Conditions, Specification Section 01330, Submittals and Acceptance.

1.04 WORK SEQUENCE (NOT USED)

1.05 REFERENCE STANDARDS (NOT USED)

1.06 QUALITY ASSURANCE (NOT USED)

1.07 WARRANTIES

- A. Warranties shall be in accordance with General Conditions, Supplementary Conditions, and Specification Section 01780, Warranties and Bonds.

1.08 DELIVERY, STORAGE, AND HANDLING

- A. The Contractor shall adhere to the requirements specified in Section 01650, Delivery, Storage, and Handling, for storing and protecting the items specified in this Section.

1.09 QUALIFICATIONS (NOT USED)

1.10 FORMAT

- A. The Contractor shall prepare schedules as a time scale logic diagram and bar chart unless otherwise approved by the Engineer. Each major and minor portion of work or operation shall be clearly identified and tied by logical sequence to the

shop drawing schedule and schedule of values. All schedules shall be prepared and submitted on 11-inch-by-17-inch paper.

1.11 SCHEDULE CONTENT

- A. The Contractor shall show the complete sequence of construction by activity, with dates for beginning and completion of each element of construction and provide sub-schedules to define critical portions of the entire schedule. Schedules shall also show accumulated percentage of completion of each item and total percentage of work completed as of the first day of each month.

1.12 REVISIONS TO SCHEDULES

- A. The Contractor shall indicate the progress of each activity to the date of submittal and the projected completion date of each activity. Revised schedules shall identify activities modified since previous submittal, major changes in scope, and other identifiable changes. The Contractor shall also provide a narrative report to define problem areas, anticipated delays, and impact on schedule. The Contractor shall also report corrective action taken or proposed and its effect, including the effect of schedule changes on other contractors.

1.13 PROGRESS MEETINGS

- A. The Owner and Engineer will organize and conduct progress meeting at least once a month to discuss the progress of the Work. The Contractor and any subcontractors the Contractor deems necessary shall attend these meetings. At the Engineer's discretion, the frequency of the meetings may be increased if the progress of the Work is not satisfactory or if coordination problems should arise.

1.14 RECORD DOCUMENTS

- A. Record documents shall be in accordance with General Conditions, Supplementary Conditions, and Specification Section 01785, Record Documents.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.01 GENERAL

- A. The Contractor shall employ a competent photographer to take construction record photographs during the Work.

3.02 REQUIRED PHOTOGRAPHS

- A. Provide photographs of at least 36 views of the Project sites taken before any construction and 24 views before each scheduled Application for Payment. Photographs should reflect work on the two parts of the project.
- B. Provide up to 36 additional photographs of views randomly selected by the Owner's and the Contractor's representative taken before any construction and before each scheduled Application for Payment. A CD of all pictures shall be submitted.
- C. Provide at least four aerial photographs of views each of the two project sites before each scheduled Application for Payment. Aerial photographs shall generally be taken looking at the project site for each cardinal direction (north, south, east, and west).
- D. In addition to other photos, a narrated video, digital format, recording of at least 1 hour shall be taken before construction and at the time of Substantial Completion.
- E. In addition to the photos accompanying the Application for Payment, the Contractor shall provide photographs to be taken for unusual conditions during construction. The photographs shall show pertinent physical features of construction. A CD of all pictures shall be submitted.
- F. All discs shall be labeled with the Project name and number, date, and pertinent information.

END OF SECTION

SECTION 01330
SUBMITTALS AND ACCEPTANCE

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. The Contractor shall submit documentation that describes the Work to be performed under the Contract as required in this Section. This documentation will be for the Engineer and Owner's review and use. The documentation furnished by the Contractor must enable the Engineer and Owner to verify the Contractor's performance and compliance with Contract requirements. The documentation shall cover all services and deliverables required and secured by the Contract Documents.

1.02 RELATED WORK

- A. The Contractor shall prepare documentation and submittals required by other sections of the Contract. The format of documents and submittals required by other sections shall conform to the requirements of this Section.
1. General Conditions.
 2. Supplementary Conditions.
 3. Section 01785, Record Documents.
 4. Section 01830, Operations and Maintenance Manuals and Training.
 5. All Sections and Divisions that require submittal of documents.

1.03 SUBMITTALS

- A. General—The Contractor shall submit the following:
1. Project documentation: For the Engineer and Owner's internal use and shall include all information that will be essential for the facility's operations, maintenance, training, and repair of equipment and facilities supplied by the Contractor. The Contractor shall submit all documentation necessary to ascertain compliance with technical/contractual provisions.
 2. Plans: Written documentation of how the Contractor is to proceed including:
 - a. Health and Safety Plan, Section 01800.
 - b. Environmental Protection Plan, Section 01350 and Section 02370.

- c. Manufacturer's Quality Control Plan, Section 02070, Section 02071, Section 02072, and Section 02074.
 - d. Construction Quality Control Plan, Section 02070, Section 02071, Section 02072, and Section 02074.
 - e. Soil Management Plan, Section 02300.
 - f. Construction Quality Control Plan, Section 02300.
 - g. Drainage Soil and Protective Soil Installation Plan, Section 02300.
 - h. Dewatering Plan, Section 02240.
- 3. Shop drawings: Drawings, schedules, diagrams, warrant, and other data prepared specifically for this Contract by the Contractor or through the Contractor by way of subcontractor, manufacturer, supplier, distributor, or other lower-tier contractor to illustrate a portion of the Work.
 - 4. Product data: Preprinted materials such as illustrations, standard schedules, performance charts, instructions, brochures, diagrams, manufacturer's descriptive literature, catalog data, and other data to illustrate a portion of the Work, but not prepared exclusively for this Contract.
 - 5. Samples: Physical examples of products, materials, equipment, assemblies, or workmanship that are physically identical to portions of the Work, illustrating portions of work, or establishing standards for evaluating appearance of finished work or both.
 - 6. Administrative submittals: Data presented for reviews and acceptance to ensure that administrative requirements of the project are adequately met but not to ensure directly that work is in accordance with the design concept and in compliance with Contract Documents.
 - 7. Required Copies: All submittals shall have a minimum of 8 copies distributed in the following way:
 - (1) 2—Owner
 - (2) 4—Jones Edmunds
 - (3) 2—Returned.

Electronic submittals will be considered in lieu of paper copies, but the Contractor shall assume 8 copies will be provided for bidding purposes. Electronic submittals shall be smaller than 10 MB in file size to be

submitted by email. Emailed submittals shall indicate the submittal number and submittal description in the email subject line.

B. Coordination

1. Submittals and schedules shall be checked and coordinated with the Work of all trades involved before they are submitted and shall bear the Contractor's stamp of approval as evidence of such checking and coordination. Drawings or schedules submitted without this stamp of approval shall be returned to the Contractor for resubmission.
2. The Contractor must also coordinate the schedule with Owner and Operator so as not to interfere with ongoing landfill and composting facilities.

C. Start of Work

1. Within 30 calendar days after the notice to proceed for the project, the Contractor shall submit to the Engineer a Contract Data Requirements List that defines all data to be submitted under this Contract. Included in this list shall be the names of all proposed manufacturers furnishing specified items to the extent known. Review of this list by the Engineer shall in no way relieve the Contractor from providing materials, equipment, systems, and structures fully in accordance with the Specifications.

D. General Requirements

1. The Contractor shall prepare, assemble, and submit all documents as described herein. The Contractor shall submit certification that the documents prepared conform to the Contract requirements and will result in a complete and operable project. The Engineer and Owner shall review the Contractor's documents for conformance to the Contract requirements and may comment on the documents.
2. The Contractor shall approve and certify all project documents. The Contractor's failure to certify the documents or failure to provide documents that demonstrate conformance to the Contract requirements are grounds for rejection. The Contractor shall be responsible for and bear all costs for proceeding with any part of the Work that fails to meet the Contract requirements.
3. Submittal of documents for the Engineer's review shall in no way relieve the Contractor of full responsibility for providing a complete, safe,