



STATE OF DELAWARE
DEPARTMENT OF TRANSPORTATION
PO BOX 778
DOVER, DELAWARE 19903

JACK MARKELL
GOVERNOR

SHAILEN BHATT
SECRETARY

VIA OVERNIGHT DELIVERY

(302) 760-2030
FAX (302) 739-2254

March 1, 2013

Contract No. T201280102.02
STATEWIDE HOPPER RACKS
Statewide

Ladies and Gentlemen:

Enclosed is Addendum No. 1 for the referenced contract consisting of the following:

1. One (1) page, Questions and Answers, new, to be added to the Proposal.
2. One (1) page, Location Description, page iA, new, to be added to the Proposal. Please note the addition of Subletting of Contract clause.
3. One (1) CD containing Appendix A - Technical Specifications, revised, to be substituted for the CD previously issued.
4. One (1) page, List of Subcontractors, new, to be added to the bid document. Please insert this page before the Certification. There was a subcontractor category for Geotech Testing that has been removed as a result of changes to the specifications.
5. Two (2) sheets, Construction Plans, sheets 1 and 2, revised, to be substituted for the same sheets in the Plan Set.

Please note the revisions listed above and submit your bid based upon this information.

Sincerely,

A handwritten signature in black ink, appearing to read "Scott S. Gottfried", is written over a light blue circular stamp.

Scott S. Gottfried
Competitively Bid Contracts Coordinator
:ssg
Enclosures

Delaware Department of Transportation
QUESTIONS AND ANSWERS
T201280102.02
STATEWIDE HOPPER RACKS
Friday, March 01, 2013

Q #	Question	Answer
3	On breakout sheet 1 when asking for location no. 5 "Additional Base Hopper Rack Bay" and "Additional "C" Shaped Add On to Base Bay" do we include the Roof Systems on the add-on or just steel hopper racks? The unit price shown on the breakout sheet will affect the amount listed on the Bid Proposal form.	Just the racks. "Roof systems are not to be included in locations 4 and 5 of the breakout sheets but holes are to be drilled for future improvements"
2	Section 05 1200-Structural Steel Framing Subsection 1.7, Paragraph B. states that the Installers must be AISC-Certified Erector. I want to know if this can be modified to not be AISC-Certified Erector. We have performed this work for the State of Delaware in the past but are not AISC-Certified Erectors.	Addressed in Addendum No. 1.
1	Section 05 1200-Structural Steel Framing Subsection 1.7, Paragraph A. states that the Fabricators must be an AISC-Certified plant. I want to know if this can be modified to not be AISC-Certified Plant. Our supplier has performed this work for the State of Delaware in the past but is not AISC-Certified Plant.	Addressed in Addendum No. 1.

Contract No.T201280102.02

STATEWIDE HOPPER RACKS

LOCATION

These improvements are located STATEWIDE, more specifically shown on the Location Map(s) of the enclosed Plans.

DESCRIPTION

The improvements consist of furnishing all labor and materials for THE CONSTRUCTION OF NEW HOPPER RACKS FOR THE ST. GEORGES, BEAR, AND MAGNOLIA MAINTENANCE YARDS. THE WORK AT THE ST. GEORGES MAINTENANCE YARD CONSISTS OF THE INSTALLATION OF A NEW EIGHT BAY HOPPER RACK. IN ADDITION THE RELOCATION OF THE EXISTING FENCE, EARTHWORK TO REGRADE THE SITE, GABC, AND PAVEMENT ARE ALSO INCLUDED IN THE SCOPE OF WORK. THE WORK AT THE BEAR MAINTENANCE YARD CONSISTS OF THE INSTALLATION OF A NEW 12 BAY HOPPER RACK. IN ADDITION TO ANY PAVEMENT REPAIR NECESSARY DUE TO THE INSTALLATION OF THE HOPPER RACK. THE WORK AT THE MAGNOLIA MAINTENANCE YARD CONSISTS OF THE ADDITION OF TWO 12 BAY HOPPER RACKS WITH NO ROOF STRUCTURES ALONG WITH THE EARTHWORK, AND GABC., and other incidental construction in accordance with the location, notes and details shown on the plans and as directed by the Engineer.

COMPLETION DATE

All work on this contract must be complete within 90 Calendar Days . The Contract Time includes an allowance for 10 Weather Days

It is the Department's intent to issue a Notice to Proceed such that work starts on or about April 17, 2013

ELECTRONIC BIDDING

This project incorporates a newer version of the electronic bidding system, Expedite 5.9a. Bidders wishing to use the electronic bidding option will find the installation file on the plan holders bid file disk. The installation file and instructions are also available at: http://www.deldot.gov/information/business/bids/const_proj_bid_info.shtml.



PROSPECTIVE BIDDERS NOTE:

1. No retainage will be withheld on this contract.
2. The Department has adopted an External Complaint Procedure. The procedure can be viewed on our website at; <http://www.deldot.gov/information/business/>, or you may request a copy by calling (302) 760-2555.
3. Make note of the new version of Electronic Bidding software as noted above.
4. Appendix A - Technical Specifications are provided on a separate CD disc and shall be considered part of this proposal.
5. Prospective bidders are advised that there will be a mandatory pre-bid meeting for this contract on Tuesday, February 26, 2013 at 3:00 P.M. in the DeDOT Transportation Administration Center, 800 Bay Road, Dover, DE 19901.

SUBLETTING OF CONTRACT

For this contract only, the Contractor shall perform with its own organization work amounting to not less than **25%** of the total Contract bid price. This percentage of **25%** is to be used throughout the Standard Specification Section 108.01 Subletting of Contract.

LIST OF SUBCONTRACTORS

In accordance with 29 Del. C. S6962(d)10a., a Pre-Bid Meeting was held to select the subcontractor categories to be included in the bids for performing the work required for this contract. The List of Subcontractors must be completed and submitted with your bid.

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**STATE OF DELAWARE
CONSTRUCTION ITEMS UNITS OF MEASURE**

English Code	English Description	Multiply By	Metric Code	Metric Description	Suggested CEC Metric Code
ACRE	Acre	0.4047	ha	Hectare	HECTARE
BAG	Bag	N/A	Bag	Bag	BAG
C.F.	Cubic Foot	0.02832	m ³	Cubic Meter	M3
C.Y.	Cubic Yard	0.7646	m ³	Cubic Meter	M3
EA-DY	Each Day	N/A	EA-DY	Each Day	EA-DY
EA-MO	Each Month	N/A	EA-MO	Each Month	EA-MO
EA/NT	Each Night	N/A	EA-NT	Each Night	EA/NT
EACH	Each	N/A	EA	Each	EACH
GAL	Gallon	3.785	L	Liter	L
HOUR	Hour	N/A	h	Hour	HOUR
INCH	Inch	25.4	mm	Millimeter	MM
L.F.	Linear Foot	0.3048	m	Linear Meter	L.M.
L.S.	Lump Sum	N/A	L.S.	Lump Sum	L.S.
LA-MI	Lane Mile	1.609	LA-km	Lane-Kilometer	LA-KM
LB	Pound	0.4536	kg	Kilogram	KG
MFBM	Thousand Feet of Board Measure	2.3597	m ³	Cubic Meter	M3
MGAL	Thousand Gallons	3.785	kL	Kiloliter	KL
MILE	Mile	1.609	km	Kilometer	KM
S.F.	Square Foot	0.0929	m ²	Square Meter	M2
S.Y.	Square Yard	0.8361	m ²	Square Meter	M2
SY-IN	Square Yard-Inch	0.8495	m ² -25 mm	Square Meter-25 Millimeter	M2-25 MM
TON	Ton	.9072	t	Metric Ton (1000kg)	TON
N.A.*	Kip	4.448	kN	Kilonewton	N.A.*
N.A.*	Thousand Pounds per Square Inch	6.895	MPa	Megapascal	N.A.*

*Not used for units of measurement for payment.

THE STATE OF DELAWARE DEPARTMENT OF TRANSPORTATION

U.S. CUSTOMARY
UNITS



CONSTRUCTION PLANS FOR: STATEWIDE HOPPER RACKS

CONTRACT NUMBER: T201280102
COUNTY: VARIES AGREEMENT NUMBER 1307

CONSTRUCTION SPECIFICATIONS

CONSTRUCTION ON THIS SITE SHALL BE IN CONFORMANCE WITH THE DELAWARE DEPARTMENT OF TRANSPORTATION SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, DATED AUGUST 2001, WITH SPECIFICATION SECTIONS INDICATED BELOW:

DIVISION 03 - CONCRETE
033053 MISCELLANEOUS CAST-IN-PLACE CONCRETE - REFERENCE TO SECTION 602

DIVISION 31 - EARTHWORK
311000 SITE CLEARING - REFERENCE TO SECTIONS 201 & 262
312000 EARTH MOVING - REFERENCE TO SECTIONS 202, 207, 208, 209, 210, 250, 251, 252 & 268
312500 SOIL EROSION AND SEDIMENT CONTROL - REFERENCE SECTIONS 110, 251, 252, 266, & 268

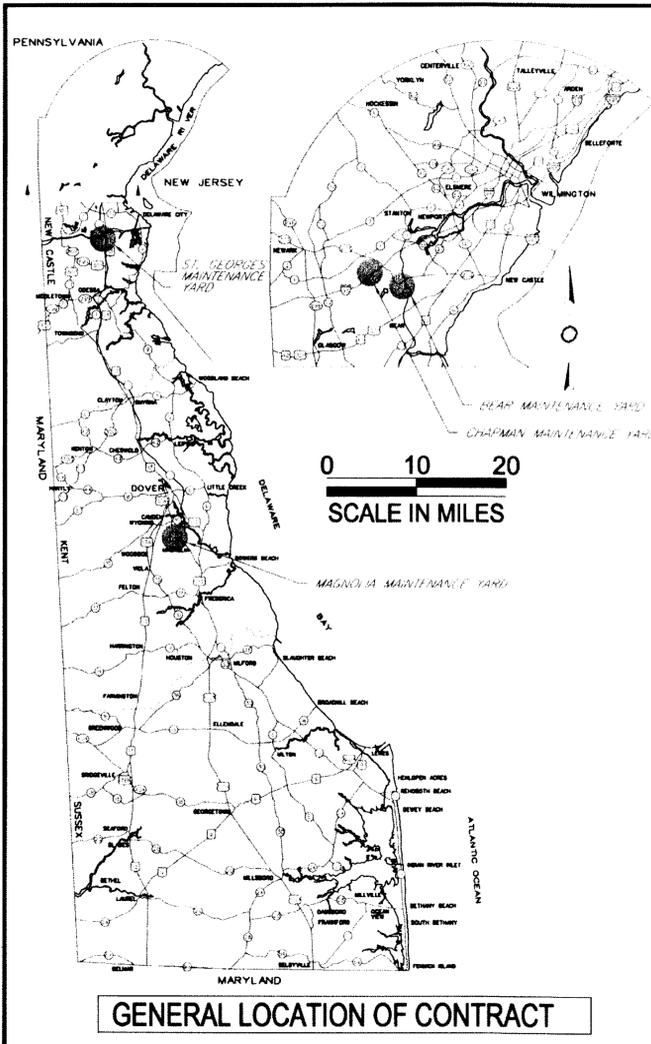
DIVISION 32 - EXTERIOR IMPROVEMENTS
321216 ASPHALT PAVING - REFERENCE TO SECTIONS 302 & 401
321313 CONCRETE PAVING - REFERENCE TO SECTIONS 301, 701 & 705
334100 STORM UTILITY DRAINAGE PIPING - REFERENCE TO SECTIONS 208 & 708

DESIGN DESIGNATION

FUNCTIONAL CLASS: _____	D.H.V. PROJECTED: _____	YEAR: _____
TYPE OF CONSTRUCTION: _____	DESIGN SPEED: _____ M.P.H.	
A.A.D.T. CURRENT: _____	YEAR: _____	TRUCKS: _____ %
A.A.D.T. PROJECTED: _____	YEAR: _____	DIRECTION OF DISTRIBUTION: _____ %

INDEX OF SHEETS

DRAWING No.	SHEET No.	TABLE OF CONTENTS
1 OF 7	1	TITLE SHEET
2 OF 7	2	HOPPER RACKS STRUCTURAL NOTES
3 OF 7	3	HOPPER RACKS STRUCTURAL FRAMING PLANS & TYPICAL DETAILS & SECTIONS
4 OF 7	4	HOPPER RACKS TYPICAL DETAILS & SECTIONS
5 OF 7	5	CANOPY PLANS & PLAN DETAILS
6 OF 7	6	CANOPY STRUCTURAL NOTES
7 OF 7	7	CANOPY SECTION & DETAILS



GENERAL LOCATION OF CONTRACT

RECOMMENDED

[Signature] 11/18/11
MAINTENANCE IMPROVEMENT ENGINEER DATE

[Signature] 11/18/11
ASSISTANT DIRECTOR STATEWIDE SUPPORT SERVICES DATE

[Signature] 11/18/11
DIRECTOR MAINTENANCE AND OPERATIONS DATE

RECOMMENDED AS TO PROCESS

[Signature]
CHIEF ENGINEER

DATE 1/4/12

RECOMMENDED

STORMWATER ENGINEER

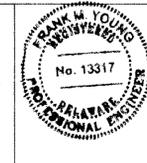
DATE _____ SEAL _____

PREPARED BY
ARCHITECT
BECKER MORGAN GROUP, INC.
309 S. GOVERNORS AVE.
DOVER, DE 19904
302.734.7950



[Signature]
RECOMMENDED DATE 8-31-11

PREPARED BY
STRUCTURAL ENGINEER
BAKER, INGRAM & ASSOC., INC.
1050 S. STATE ST.
DOVER, DE 19901
302.734.7400



[Signature]
RECOMMENDED DATE 8/31/11

TOTAL SHEETS: 7

APPROVED DESIGN EXCEPTIONS

DESIGN PARAMETER	REQUIRED	PROVIDED	DATE
N/A			

ADDENDA & REVISIONS

DESCRIPTION NAME & DATE

REMOVED GEOTECHNICAL TESTING REQUIREMENT FROM CONTRACTOR, SHEET 2, MSL, 2/28/2013

ASSOCIATED CONTRACTS

CONTRACT NO.	CONTRACT NAME

CONSTRUCTION PLANS

CONTRACT	COUNTY	F.A.P. NO.	SHEET NO.	TOTAL SHITS.
T201280102	X	X	2	7

STATEWIDE HOPPER RACKS & CANAL DISTRICT FUEL CANOPY

GENERAL NOTES

- THE NOTES ON THESE DRAWINGS ARE NOT INTENDED TO REPLACE SPECIFICATIONS. SEE SPECIFICATIONS FOR REQUIREMENTS IN ADDITION TO GENERAL NOTES. FOR INCONSISTENCIES BETWEEN THESE DRAWINGS AND THE SPECIFICATIONS, THE STRICTER REQUIREMENT SHALL APPLY, AND THE ENGINEER SHALL BE NOTIFIED PRIOR TO PROCEEDING WITH THE AFFECTED PORTION OF THE WORK.
- STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH JOB SPECIFICATIONS AND ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING, AND SITE DRAWINGS. CONSULT THESE DRAWINGS FOR LOCATIONS AND DIMENSIONS OF OPENINGS, CHASES, INSERTS, REGLETS, SLEEVES, DEPRESSIONS, AND OTHER DETAILS NOT SHOWN ON STRUCTURAL DRAWINGS. ALL DIMENSIONS AND CONDITIONS MUST BE VERIFIED IN THE FIELD. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH THE AFFECTED PART OF THE WORK.
- THE STRUCTURE IS DESIGNED TO BE SELF SUPPORTING AND STABLE AFTER THE BUILDING IS COMPLETE. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE ERECTION PROCEDURES AND SEQUENCE TO INSURE THE SAFETY OF THE BUILDING AND ITS COMPONENTS DURING ERECTION. THIS INCLUDES, BUT IS NOT LIMITED TO, THE ADDITION OF NECESSARY SHORING, SHEETING, TEMPORARY BRACING, GUYS OR TIEDOWNS. PROVIDE ALL SHORING AND BRACING REQUIRED TO STABILIZE AND PROTECT EXISTING AND ADJACENT STRUCTURES AND SYSTEMS DURING COURSE OF DEMOLITION AND CONSTRUCTION. SUCH MATERIAL SHALL REMAIN THE PROPERTY OF THE CONTRACTOR AFTER COMPLETION OF THE PROJECT.
- SECTIONS AND DETAILS SHOWN ON ANY STRUCTURAL DRAWINGS SHALL BE CONSIDERED TYPICAL FOR SIMILAR CONDITIONS.
- ALL APPLICABLE FEDERAL, STATE AND MUNICIPAL REGULATIONS SHALL BE FOLLOWED, INCLUDING THE FEDERAL DEPARTMENT OF LABOR OCCUPATIONAL SAFETY AND HEALTH ACT.
- ANY AND ALL MODIFICATIONS TO THE STRUCTURAL ELEMENTS INDICATED ON THESE DRAWINGS MUST BE APPROVED IN ADVANCE BY BAKER, INGRAM & ASSOCIATES.

DESIGN LOADS

- BUILDING CODE: INTERNATIONAL BUILDING CODE (2006 EDITION).
- DESIGN LIVE LOADS:

ROOF	30 PSF MIN. + DRIFT
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- SNOW LOADING IS BASED ON THE FOLLOWING. DRIFTING OR SLIDING SNOW LOADS HAVE BEEN CONSIDERED WHERE APPROPRIATE.

GROUND SNOW LEVEL	20 PSF
FLAT-ROOF SNOW LOAD	14 PSF
SNOW EXPOSURE FACTOR	1.0
SNOW THERMAL FACTOR	1.0
SNOW LOAD IMPORTANCE FACTOR	1.0
- WIND LOADING IS BASED ON THE FOLLOWING:

BASIC WIND SPEED	120 MPH
EXPOSURE CATEGORY	B
IMPORTANCE FACTOR	1.0
BUILDING CATEGORY	SIMPLE DIAPHRAGM, LOW-RISE, ENCLOSED RIGID STRUCTURE
INTERNAL PRESSURE COEFF.	±0.18
- DESIGN EARTHQUAKE LOADS ARE BASED ON IBC 2003.

SITE CLASS	D
SEISMIC IMPORTANCE FACTOR	1.0
SEISMIC USE GROUP	I
SPECTRAL RESPONSE ACCEL. (S _s)	0.150g
SPECTRAL RESPONSE ACCEL. (S ₁)	0.055g
SPECTRAL RESPONSE COEFF. (S _{DS})	0.160g
SPECTRAL RESPONSE COEFF. (S _{D1})	0.080g
RESPONSE MODIFICATION FACTOR (R)	6.0
SEISMIC DESIGN CATEGORY	B

FOUNDATION

- PRESUMPTIVE BEARING CAPACITY: 1500 PSF
~~CONTRACTOR, AT HIS EXPENSE,~~ ^(DELDOT) SHALL RETAIN THE SERVICES OF A GEOTECHNICAL ENGINEER LICENSED IN THE STATE WHERE THE PROJECT IS LOCATED, TO VERIFY THE SUITABILITY OF THE SUBGRADE FOR THE PROPOSED FOUNDATION SYSTEM & BUILDING.
- FOUNDATION DESIGN IS BASED ON SHALLOW SPREAD FOOTINGS BEARING ON SUITABLE NATURAL SOILS AND/OR NEW COMPACTED STRUCTURAL FILL.
- ALL ORGANIC MATERIALS, EXCESSIVELY SOFT OR LOOSE SOILS, TREES, ASPHALT, CONCRETE, DEBRIS AND OTHER DELETERIOUS MATERIALS SHOULD BE REMOVED WITHIN AND AT LEAST 5 FEET BEYOND THE BUILDING LIMIT. THE EXISTING ORGANIC SOIL SHOULD BE STRIPPED AND CAN BE STOCKPILED FOR REUSE IN LANDSCAPE AREAS. PROOF ROLL ALL SUBGRADES, UNDER THE OBSERVATION OF THE GEOTECHNICAL ENGINEER. UNSUITABLE AREAS SHALL BE REMOVED AND REPLACED AS DIRECTED BY THE GEOTECHNICAL ENGINEER. NO FILL FOR BUILDING SUPPORT SHALL BE PLACED UNTIL SUBGRADES AND FILL MATERIAL HAVE BEEN OBSERVED AND APPROVED BY THE GEOTECHNICAL ENGINEER.
- AREAS REQUIRING UNDERCUT AND FILL MATERIAL DUE TO THE PRESENCE OF UNSUITABLE MATERIAL SHALL BE BACKFILLED TO THE DESIGN FOOTING SUBGRADE WITH NEW COMPACTED STRUCTURAL FILL.

GRANULAR SOILS INCLUDING GW, GP, GM, SW, SP AND SM CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM (USCS). FURTHERMORE, THE MATERIAL TO BE UTILIZED AS STRUCTURAL FILL SHOULD HAVE A PLASTICITY INDEX (PI) LESS THAN 20.

A MATERIAL UTILIZED FOR STRUCTURAL FILL MUST BE APPROVED BY THE GEOTECHNICAL ENGINEER. IF THERE IS NOT SUFFICIENT FILL MATERIAL ON SITE, CONTRACTOR SHALL TRANSPORT APPROVED BORROW MATERIAL FROM AN OFF SITE SOURCE.
- COMPACTED STRUCTURAL FILL BENEATH ALL FOUNDATIONS AND SHALL BE PLACED IN LIFTS NOT EXCEEDING 8 INCHES IN LOOSE THICKNESS AND BE COMPACTED TO 95 PERCENT OF MAXIMUM DRY DENSITY PER ASTM D-1557, MODIFIED PROCTOR TEST.
- THE EXCAVATION FOR PLACEMENT OF COMPACTED STRUCTURAL FILL SHOULD EXTEND BEYOND THE EDGE OF FOOTINGS A MINIMUM DISTANCE EQUAL TO THE DEPTH OF FILL.
- EXTEND BOTTOM OF EXTERIOR FOOTINGS AT LEAST 3'-0" BELOW THE EXTERIOR FINISH GRADE FOR PROTECTION AGAINST FROST.
- ALL SUBGRADES AND UNDERCUTS SHALL BE APPROVED BY THE GEOTECHNICAL ENGINEER. SOILS EXPOSED AT THE BASES OF ALL APPROVED FOUNDATION EXCAVATIONS SHOULD BE PROTECTED AGAINST ANY DETRIMENTAL CHANGE IN CONDITION, SUCH AS DISTURBANCE FROM RAIN OR FROST. SURFACE RUNOFF SHOULD BE DRAINED AWAY FROM THE EXCAVATIONS AND NOT BE ALLOWED TO POND. FOUNDATION EXCAVATIONS SHOULD BE PROTECTED FROM RAINFALL OR FREEZING CONDITIONS. SLOPE FOOTING EXCAVATIONS AS REQUIRED FOR STABILITY AND SAFETY OR PROVIDE SHEETING OR SHORING IN ACCORDANCE WITH OSHA REQUIREMENTS. IN THE EVENT THAT THE CONTRACTOR DETERMINES THAT SHEETING AND SHORING IS REQUIRED FOR EXCAVATION, THE CONTRACTOR SHALL RETAIN THE SERVICES OF A REGISTERED PROFESSIONAL STRUCTURAL ENGINEER FOR DESIGN AND DOCUMENTATION OF ALL SHEETING AND SHORING REQUIRED FOR THE WORK.
- TESTING: CONTRACTOR TO PROVIDE SOIL TESTING SERVICES.

CONCRETE

- ALL CONCRETE WORK SHALL CONFORM TO ACI 318 (LATEST EDITION).
- CONCRETE COMPRESSIVE STRENGTH AT 28 DAYS SHALL BE:

FOOTINGS:	3000 PSI
PIERS:	4000 PSI

ALL CONC. TO BE NORMAL WEIGHT UNLESS NOTED OTHERWISE.

ALL EXTERIOR CONCRETE SHALL BE AIR-ENTRAINED (6 ±1)% PER ASTM C260.

MAXIMUM WATER/CEMENT RATIO =
0.50 FOR 3000 PSI CONC.
0.45 FOR 4000 PSI CONC.
- CONCRETE REINFORCING SHALL CONFORM TO THE FOLLOWING DESIGNATIONS:

CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH:	3 IN.
CONCRETE EXPOSED TO EARTH OR WEATHER:	NO. 6 THROUGH NO. 18 BARS: 2 IN. NO. 5 BAR AND SMALLER: 1½ IN.
- LAP DEFORMED BARS 40 DIA., UNO. HOOKS SHALL BE STANDARD HOOKS, UNO.
- CONCRETE PROTECTION FOR REINFORCEMENT (UNLESS NOTED OTHERWISE):

CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH:	3 IN.
CONCRETE EXPOSED TO EARTH OR WEATHER:	NO. 6 THROUGH NO. 18 BARS: 2 IN. NO. 5 BAR AND SMALLER: 1½ IN.
- WELDING OF REINFORCEMENT IS NOT PERMITTED UNLESS SPECIFICALLY INDICATED ON DRAWINGS. WELDING, WELDING ELECTRODES AND FLUXES SHALL CONFORM TO AWS D1.4-92, "STRUCTURAL WELDING CODE - REINFORCED STEEL". ELECTRODES SHALL HAVE A MINIMUM TENSILE STRENGTH OF 70 KSI. ASTM A706 BARS SHALL BE USED IN ALL WELDED APPLICATIONS.
- COMPLETE SHOP DRAWINGS AND SCHEDULES OF ALL REINFORCING STEEL SHALL BE PREPARED BY THE CONTRACTOR AND SUBMITTED TO THE ENGINEER FOR REVIEW. REFER TO SPECIFICATIONS.
- CONCRETE SHALL NOT BE PLACED IN WATER OR ON FROZEN GROUND.
- ANCHOR BOLTS SHALL CONFORM TO ASTM A36 UNLESS NOTED OTHERWISE. GALVANIZE ALL ANCHOR BOLTS.
- TESTING: CONTRACTOR TO PROVIDE CONCRETE TESTING SERVICES.

STRUCTURAL STEEL

- STRUCTURAL STEEL FABRICATION, ERECTION, AND CONNECTION DESIGN SHALL CONFORM TO AISC "SPECIFICATION FOR THE DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS" LATEST EDITION.
- STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING DESIGNATIONS:

STRUCTURAL STEEL WF SHAPES:	ASTM A992
STEEL BARS, ANGLES & PLATES:	ASTM A36, U.N.O.
SQUARE OR RECTANGULAR TUBING:	ASTM A500, GRADE B
- FIELD CONNECTIONS SHALL BE BOLTED USING ¾" DIAMETER ASTM A325N HIGH STRENGTH BOLTS (UNO).
- FULL DEPTH CONNECTIONS ARE TO BE USED ON ALL GIRDER AND BEAM CONNECTIONS TO COLUMNS. BOLTS TO BE AT 3" O.C. VERTICAL.
- PROVIDE A MINIMUM ¾" THICK FULL DEPTH THRU-PLATE FOR ALL PIPE AND TUBE COLUMN CONNECTIONS.
- DESIGN CONNECTIONS FOR THE MINIMUM SHEAR CAPACITIES NOTED IN THE AISC BEAM TABLES, OR FOR THE REACTIONS SHOWN ON THE DRAWINGS, WHICHEVER IS GREATER.
- ALL WELDING SHALL CONFORM TO AWS D1.1-LATEST EDITION. ELECTRODES SHALL BE E70XX.
- ALL ALUMINUM AND STEEL MEMBERS TO BE TREATED OR PROPERLY SEPARATED TO PREVENT GALVANIC AND CORROSIVE EFFECTS.
- SUBMIT ALL STEEL SHOP DRAWINGS FOR APPROVAL PRIOR TO ANY FABRICATION.
- STEEL FABRICATOR IS SOLELY RESPONSIBLE FOR SURVEYING AND VERIFICATION OF EXISTING CONDITIONS INCLUDING, BUT NOT LIMITED TO THE LOCATION, ELEVATION, AND DIMENSIONS OF EXISTING WALLS AND FRAMING.
- THERE SHALL BE NO FIELD CUTTING OF STRUCTURAL STEEL MEMBERS FOR THE WORK OF OTHER TRADES WITHOUT THE PRIOR APPROVAL OF THE DESIGN PROFESSIONAL.
- FABRICATE BEAMS WITH THE NATURAL CAMBER UP.
- ALL STEEL HOT DIPPED GALVANIZED AS INDICATED ON THE DRAWINGS.

WOOD TRUSSES

- COMPLY WITH TRUSS PLATE INSTITUTE (TPI) "DESIGN SPECIFICATIONS FOR METAL PLATE CONNECTED WOOD TRUSSES" (LATEST EDITION).
- ROOF TRUSS LAYOUT SHOWN IS CONCEPTUAL AND MUST BE VERIFIED BY THE TRUSS MANUFACTURER AND SHOWN ON SHOP DRAWINGS FOR APPROVAL. ANY REVISIONS TO THE TRUSS LAYOUT MAY AFFECT OTHER FRAMING AND THEREFORE MUST BE APPROVED BY BAKER, INGRAM & ASSOCIATES.
- CONNECTOR PLATES: ASTM A446, GRADE A, GALVANIZE PER ASTM A525 660.
- ALL TRUSSES SHALL BE ERECTED AND INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND AS RECOMMENDED BY "HIB-91: HANDLING, INSTALLING AND BRACING METAL PLATE CONNECTED WOOD TRUSSES" BY TPI.
- CONTRACTOR TO SUBMIT SEALED SHOP DRAWINGS FOR ALL TRUSS TYPES FOR ENGINEER'S APPROVAL PRIOR TO MANUFACTURING.
- EACH END OF EACH TRUSS SHALL BE ATTACHED TO SUPPORTING MEMBER WITH (4) 12d TOE NAILS PLUS A GALVANIZED STEEL HURRICANE ANCHORS (SIMPSON TS-18 OR EQUIVALENT). USE TWO AT EACH END OF ALL GIRDER TRUSSES.
- ROOF TRUSS MINIMUM DESIGN REQ'MTS:

TOP CHORD LIVE LOAD	30 PSF	FLOOR TRUSS MINIMUM DESIGN REQ'MTS:	TOP CHORD LIVE LOAD	40 PSF
TOP CHORD DEAD LOAD	10 PSF	TOP CHORD DEAD LOAD	10 PSF	
BOTTOM CHORD LIVE LOAD	0 PSF	BOTTOM CHORD LIVE LOAD	0 PSF	
BOTTOM CHORD DEAD LOAD	10 PSF	BOTTOM CHORD DEAD LOAD	10 PSF	
MAX. TOTAL LOAD DEFLECTION:	L/240	MAX. TOTAL LOAD DEFLECTION:	L/360	
MAX. LIVE LOAD DEFLECTION:	L/360	MAX. LIVE LOAD DEFLECTION:	L/480	
- GENERAL CONTRACTOR TO COORDINATE MECHANICAL EQUIPMENT LOADS AND LOCATIONS WITH THE TRUSS MANUFACTURER AS REQUIRED.



CONSTRUCTION PLANS		
DRAWING TITLE HOPPER RACKS STRUCTURAL NOTES		
DATE August 31, 2011	SCALE AS NOTED	DRAWING NO. 2 OF 7

STATES