



The Energy Efficiency and Sustainable Construction Standards for State Buildings in accordance with the Energy Efficiency and Sustainable Construction Act of 2008 provide a resource for state agencies, design professionals, contractors, and building operators. The Standards were developed by the 2008 Energy Efficiency and Sustainable Construction Task Force. The Task Force was authorized under Senate Bill 130 to develop policies, procedures and guidelines to provide more stringent energy efficiency requirements for future buildings that will be constructed by the State.

Please fill in the Standard Project Information Listed Below. All fields are required.

The Primary Contact must sign off each template after completion and is responsible for the accuracy of the information the templates contain.

Standard Information

Name & Location

Project Name	University of North Georgia Convocation Center
Project Number	J-266
Project Address 1	180 Alumni Dr.
Project Address 2	
Project City	Dahlonega
Project Zip Code	30533
Public/Private	Public

Application Status

Application Date	10-Apr-19
Certification Level Seeking	One Peach
Application Status	Click to Select*
Date Approved/Denied*	
Certification Level Achieved	Click to Select*
Required Fee	Click to Select*
Fee Status	Click to Select*

**edited by reviewer only*

Construction (Projected)

Start Date	October 18, 2016
End Date	March 16, 2018
Gross Square Footage**	103,982.00

***conditioned spaces only*

Responsible Agency

Agency Name	University of North Georgia
Address	290 Sunset Drive
City	Dahlonega
Zip Code	30533

Owner

Name	Bobby Cromer
Company/Organization	Georgia State Finance and Investment Commission
Phone	770-550-3690
Fax	
Email	Bobby.cromer@gsfic.ga.gov
Address 1	270 Washington Street SW
Address 2	
City	Atlanta
Zip Code	30334

Owner's Agent/ Responsible Party

Name	Ray Thompson
Company/Organization	Lord, Aeck and Sargent
Address 1	1175 Peachtree Street, NE
Address 2	
City	Atlanta
State	Georgia
Zip Code	30361
Phone	404-253-6705
Fax	404-253-6755
Email	rthompson@lordaacksargent.com

Credit Contact Information

Enter the contact information below for the professional responsible for completing each template listed.

If the Owner or Owner's Agent is responsible, type either "Owner" or "Owner's Agent" in the available name space to refer the reviewer to the information above.

Cr1: Commissioning

Name	Darren Draper
Company/Organization	Epsten Group
Address 1	399 Edgewood Avenue
Address 2	
City	Atlanta
State	Georgia
Zip Code	30312
Phone	404-577-0370
Fax	
Email	ddraper@epstengroup.com

Cr2: Water Use Reduction

Name	Wilson Dent
Company/Organization	NBP Engineers, Inc.
Address 1	316 Corporate Parkway
Address 2	
City	Macon
State	Georgia
Zip Code	31210
Phone	478-745-1691
Fax	
Email	wdent@nbpengeers.com

Cr3: Georgia Based Materials

Primary Contact	Jake Collins
Company/Organization	Juneau Construction Company
Address 1	3715 Northside Pkwy, NW
Address 2	Building 300, Suite 500
City	Atlanta
State	GA
Zip Code	30327
Phone	404287600
Fax	
Email	JCollins@juneaucc.com

Cr4: Energy Reduction

Primary Contact	NA
Company/Organization	NA
Address 1	NA
Address 2	NA
City	NA
State	NA
Zip Code	NA
Phone	NA
Fax	NA
Email	NA



Project Name

University of North Georgia Convocation Center

Project Number

J-266

This sheet is a reference for project performance. It will report completion and point totals upon completion of corresponding credit templates.

Project Achievements	
All Requirements	Complete
Total Points Earned	18

Credit Completion

Fundamental Commissioning	Complete
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Additional Commissioning (Incentive)	Complete
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Water-Use Reduction	Complete
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Georgia Based Materials & Products	Complete
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Points Earned

n/a	Fundamental Commissioning
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10	Additional Commissioning
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8	Water-Use Reduction
---	---------------------

0	Georgia Based Materials & Products
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0	Energy Cost Savings
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Point Breakdown

Project Certification Level

Level	Points Earned
1	12 to 30
2	31 to 50
3	51 to 70
4	71 to 100

Commissioning

Points	Performance
Required	Fundamental
10	Additional

Water Use Reduction

Points	% Achieved
Required	15%
2	25%
4	35%
6	45%
8	55%
10	65%
12	75%
14	85%
16	95%
20	100%

Georgia Based Materials & Products

Points	% Achieved
Required	10%
2	20%
4	30%
6	40%
8	50%
10	60%
12	70%
14	80%
16	90%
20	100%

Energy Cost Savings

Points	% Achieved
0	0%
5	5%
10	10%
15	15%
20	20%
25	25%
30	30%
35	35%
40	40%
45	45%
50	50%



Project Name _____ **0**

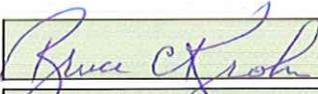
Project Number _____ **0**

The Additional Commissioning Checklist serves to verify compliance of the required tasks outlined in Section 1.2 - Commissioning Incentives in order to receive the allotted incentive points. Complete this checklist at the end of the construction phase for the project. The form must be submitted to the agency owner upon completion.

Complete? <small>Do not mark box yes until final documentation is received from CxA</small>	YES
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Commissioning Task	Party	Typical Time Frame	Completion Date	Party Sign Off
Conduct a commissioning design review prior to mid-construction documents	CxA	CxA will conduct a second design review at 50% to 95% of Construction Documents	5-Sep-16	B Krohn
Review contractor submittals applicable to systems being commissioned	CxA	During construction phase, CxA will review submittals for compliance with OPR and construction documents	6 Mar 17 to 1 May 17	B Krohn
Develop a systems manual for the commissioned systems	CxA	During construction phase, prior to occupancy	31-Aug-18	B Krohn
Verify that the requirements for training are completed	CxA	End of construction phase, prior to occupancy	15-Apr-18	B Krohn

I have complied with the Energy Efficiency and Sustainable Construction Standards for State Buildings requirements for additional commissioning.

	Signature of Responsible Team Member
Bruce Krohn	Printed Name
The Epsten Group	Organization
3-Apr-19	Date



Project Name _____ **0**

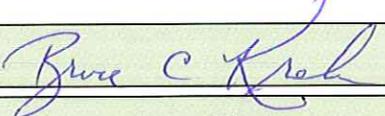
Project Number _____ **0**

The Commissioning Checklist serves to verify compliance with the requirements of Section 1.1: Commissioning Requirements. Complete this checklist at the end of the construction phase for the project. The form must be submitted to the agency owner at completion.

Complete? <small><i>Do not mark box yes until final documentation is received from CxA</i></small>	YES
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Commissioning Task	Party	Typical Time Frame	Completion Date	Party Sign Off
Prepare OPR	Owner	Prior to beginning Design Documents.	14-Jun-16	B Krohn
Prepare BOD	A/E Team	During the Design Phase.	10-May-16	B Krohn
Prepare a Cx Plan	CxA	During the Design Phase.	31-Jul-16	B Krohn
Incorporate Cx Requirements into Construction Documents	CxA	CxA will review existing project specifications and incorporate commissioning requirements.	31-Jul-16	B Krohn
Introduction and task assignment meeting, i.e. Cx kickoff	CxA	When all contractors have been selected. This meeting is to introduce everyone needed in the Cx process and define roles and responsibilities.	9-Feb-17	B Krohn
Verification of Installation	CxA	CxA will be walking the job periodically as the job progresses looking for system wide issues that may prove to be functional problems later.	2 Feb 2017 to 13 Aug 18	B Krohn
Completion of start-up test sheets	CxA	This should happen when the equipment begins to arrive on the job. It is the contractor's responsibility to properly fill them out and return to the CxA. Factory start-up sheets are preferable. If the contractor does not have anything to use, the CxA will supply the sheets for them.	13-Sep-17	B Krohn
Functional performance tests and verification of TAB Reports	CxA / Contractors	Require the participation of all sub contractors and CxA designated personnel. This should take place prior to the CO. If any problems arise during testing, some amount of time may be required to correct the problems and this should also be considered before CO date.	13 Sep 2017 to 18 Jun 2018	B Krohn
Summary (final) commissioning report	CxA	Provided by the CxA after substantial progress has been made with resolving the discrepancies and deficiencies identified during functional performance testing.	31-Aug-18	B Krohn

I have complied with the Energy Efficiency and Sustainable Construction Standards for State Buildings requirements for commissioning.

	Signature of Responsible Team Member
Bruce C Krohn	Printed Name
The Epsten Group	Organization
3-Apr-19	Date

Water Use Reduction Reference

The following table provides the water usage requirements of the Energy Policy Act of 1992.

Energy Policy Act of 1992 Requirements	
Fixture	Flow Rate
Water Closets	1.6 gal/flush
Urinals	1.0 gal/flush
Showerheads	2.5 gal/min.
Faucets	2.5 gal/min.
Replacement Aerators	2.5 gal/min.
Metering Faucets	0.25 gal/cycle

The following tables provide typical plumbing fixtures and fittings flow rates that may be specified to comply with the requirement.

All fixtures listed below are available in the Water Reduction template.

Flow Fixture Chart	
Fixture	Flow Rate
Conventional Faucet/Lavatory	2.5 gal/min.
Low-Flow Faucet/Lavatory	1.8 / 1.0 / 0.5 gal/min.
Conventional Showerhead	2.5 gal/min.
Low-Flow Showerhead	1.8 / 1.5 / 1.0 gal/min.
Conventional Kitchen Sink	2.5 gal/min.
Low-Flow Kitchen Sink	1.8 / 1.0 gal/min.
Hand Wash Fountain	0.5 gal/min.
Janitor Sink	2.5 gal/min.
Low-Flow Janitor Sink	1.8 gal/min.

Flush Fixture Chart	
Fixture	Flow Rate
Conventional Water Closet	1.6 gal/flush
High-Efficiency Toilet	1.2 gal/flush
Low-Flow Water Closet	1.1 gal/flush
Ultra Low-Flow Water Closet	0.8 gal/flush
Dual Flush Toilet	0.8 / 1.6 gal/flush
Composting Toilet	0.0 gal/flush
Conventional Urinal	1.0 gal/flush
High-Efficiency Urinal	0.5 gal/flush
Waterless Urinal	0.0 gal/flush

The following Tables contain the default values used for calculating water use. These values are pre-calculated in the electronic Water Use Reduction Template. Any fixtures added to the table that are not included in the charts above should adhere to these standard values.

The default value for annual work days is 250.

The default value for male and female occupants is 50%/50%. This value should be adjusted accordingly by the average sex of the occupants of the building.

Default Duration per Use by Fixture and Occupant Type			
Fixture	Full Time Occ.	Daily Visitors	Residents
Lavatory (seconds)	15	15	60
Shower (seconds)	300	300	480
Kitchen Sink (seconds)	15	n/a	60
Janitor Sink (seconds)	15	n/a	n/a
Water Closet (Female) (flush)	1	1	1
Water Closet (Male) (flush)	1	1	1
Urinal (Male) (flush)	1	1	1

Default Uses per Day by Fixture and Occupant Type			
Fixture	Full Time Occ.	Daily Visitors	Residents
Lavatory	3	0.5	5
Shower	0.1	0.1	1
Kitchen Sink	1	n/a	4
Janitor Sink	0.1	n/a	n/a
Water Closet (Female)	3	0.5	5
Water Closet (Male)	1	0.1	5
Urinal	2	0.4	0



Project Name **0**

Project Number **0**

Note: The Water-Use Reduction Checklist serves to verify compliance with the requirements of Section 2.1 – Water-Use Reduction Requirements. Utilize the following spreadsheets to determine water use reduction between baseline and proposed design alternatives. Complete this checklist at the end of the Design Document phase of the project. The form must be submitted to the agency owner upon completion.

If a fixture uses grey or recycled water; enter design flow rate as 0

Assumptions

Annual Work Days (Default of 250)	227	Total number of days annually that the space is occupied and in use.
Full Time Occupants	21	All full time and part time employees or staff.
Daily Visitors	837	Daily Average of all non regular building users.
Residents	0	Occupants who regularly reside in the building.
Total Daily Occupants	858	Sum of all occupant types
% Female (Default 50%)	50%	Percent of All Occupants that are Female
% Male (Default 50%)	50%	Percent of All Occupants that are Male

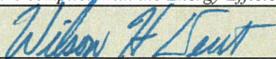
Water Use Reduction Worksheet

Flow Fixtures	Daily Uses	Flow Rate (GPM)			Occupant Type	Occupants	Water Use (Gal.)	
		Design	Baseline	Duration (Seconds)			Design	Baseline
Faucet/Lavatory								
Low-Flow Faucet/Lavatory (0.5 gpm)	3.0	0.5	2.5	15.0	Full Time Occupants	21	7.88	39.38
Low-Flow Faucet/Lavatory (0.5 gpm)	0.5	0.5	2.5	15.0	Daily Visitors	837	52.31	261.56
Additional Faucet	0.0	0.0	0.0	0.0	None	0	0.00	0.00
Not Listed? Enter Here	0.0		2.5		None	0	0.00	0.00
Not Listed? Enter Here	0.0		2.5		None	0	0.00	0.00
Showerheads								
Low-Flow Showerhead (1.5 gpm)	0.1	1.5	2.5	300.0	Full Time Occupants	21	15.75	26.25
Low-Flow Showerhead (1.5 gpm)	0.1	1.5	2.5	300.0	Daily Visitors	837	627.75	1,046.25
Additional Showerhead	0.0	0.0	0.0	0.0	None	0	0.00	0.00
Not Listed? Enter Here	0.0		2.5		None	0	0.00	0.00
Not Listed? Enter Here	0.0		2.5		None	0	0.00	0.00
Sinks								
Conventional Kitchen Sink	0.0	2.5	2.5	0.0	None	0	0.00	0.00
Additional Sink	0.0	0.0	0.0	0.0	None	0	0.00	0.00
Additional Sink	0.0	0.0	0.0	0.0	None	0	0.00	0.00
Low Flow Break Room Sink	1.0	1.5	2.5	15.0	Full Time Occupants	21	7.88	13.13
Not Listed? Enter Here	0.0		2.5		None	0	0.00	0.00
Janitor Sink								
Janitor Sink	0.1	2.5	2.5	15.0	Full Time Occupants	21	1.31	1.31
Additional Janitor Sink	0.0	0.0	0.0	0.0	None	0	0.00	0.00
Additional Janitor Sink	0.0	0.0	0.0	0.0	None	0	0.00	0.00
Not Listed? Enter Here	0.0		2.5		None	0	0.00	0.00
Not Listed? Enter Here	0.0		2.5		None	0	0.00	0.00

Flush Fixtures	Daily Uses	Flow Rate (GPF)		Duration (Flush)	Occupant Type	Occupants	Water Use (Gallons)	
		Design	Baseline				Design	Baseline
Water Closet (Female Occupants)								
Conventional Water Closet (F) (1.6 gpf)	0.0	1.6	1.6	0.0	None	0	0.00	0.00
Additional Water Closet (F)	0.0	0.0	0.0	0.0	None	0	0.00	0.00
Additional Water Closet (F)	0.0	0.0	0.0	0.0	None	0	0.00	0.00
Low Flow Water Closet (1.28 gpf)	3.0	1.3	2.5	1.0	Full Time Occupants	10.5	40.32	78.75
Low Flow Water Closet (1.28 gpf)	0.5	1.3	2.5	1.0	Daily Visitors	418.5	267.84	523.13
Water Closet (Male Occupants)								
Conventional Water Closet (M) (1.6 gpf)	0.0	1.6	1.6	0.0	None	0	0.00	0.00
Additional Water Closet (M)	0.0	0.0	0.0	0.0	None	0	0.00	0.00
Additional Water Closet (M)	0.0	0.0	0.0	0.0	None	0	0.00	0.00
Low Flow Water Closet (1.28 gpf)	1.0	1.3	2.5	1.0	Full Time Occupants	10.5	13.44	26.25
Low Flow Water Closet (1.28 gpf)	0.1	1.3	2.5	1.0	Daily Visitors	418.5	53.57	104.63
Urinal								
Conventional Urinal (1.0 gpf)	0.0	1.0	1.0	0.0	None	0	0.00	0.00
Additional Urinal	0.0	0.0	0.0	0.0	None	0	0.00	0.00
Additional Urinal	0.0	0.0	0.0	0.0	None	0	0.00	0.00
Pint Flush Urinal (0.125 gpf)	2.0	0.1	2.5	1.0	Full Time Occupants	10.5	2.63	52.50
Pint Flush Urinal (0.125 gpf)	0.4	0.1	2.5	1.0	Daily Visitors	418.5	20.93	418.50

	Design	Baseline
Total Daily Volume in Gallons	1111.59	2591.63
Annual Work Days	227	
Total Annual Volume	252331.61	588298.88
Total Annual Reduction in Gallons	335967.26	
Utility Rate	\$1.00	
Utility Unit (select from pulldown menu)	Gallons	
Annual \$ Saved*	\$335,967.26	
<i>*this is an estimate for internal use only and does not affect the requirement in any way.</i>		
Water Use Reduction (%)	57.1%	
Points Earned	8	

I have complied with the Energy Efficiency and Sustainable Construction Standards for State Buildings requirements for water-use reduction.



Signature of Responsible Team Member

Wilson H. Dent

Printed Name

NBP Engineers, Inc.

Organization

16-Mar-18

Date



Project Name **0**

Project Number **0**

The Georgia-based Materials & Products Checklist serves to verify compliance with the requirements of Section 3.1: Georgia-based Materials & Products Requirements. Complete this checklist at the end of the construction phase for the project. The form must be submitted to the agency owner at completion.

The general contractor shall track the materials and costs of each Georgia-based product used on the project and provide documentation to ensure compliance and obtain product data sheets. To comply, one of the three options below must be checked, "Yes" (Harvested, Extracted OR Manufactured in Georgia). Materials or Products entered into the table that do not meet the criteria will not be considered in the final calculation.

Select in the first box whether the project will use the Default Materials Value or Actual Materials Value to assess compliance with the 10% minimum guideline requirements.

Total Project Materials & Products Cost	
Data Calculation Method*	Default Materials Value
Total Project Materials & Products Cost	\$ 14,944,950.00
*Use The Data Calculation Method to determine the Total Project Cost and the cost of Materials & Products entered into the table. The method must be consistent for ALL calculations made.	
Default Materials Value : (Default Materials = Total Construction Cost * 0.45) Based on the total construction costs (hard costs for CSI Master Format 2004 excluding, Division 1)	
Actual Materials Value : Based on actual materials cost (excluding labor and equipment) (hard costs for CSI Master Format 2004 excluding Division 1)	

Georgia Based Materials & Products Worksheet

Material or Product	Manufacturer Name	Harvested in Georgia	Extracted in Georgia	Manufactured in Georgia	Total Material/Product Cost
Concrete (Building)	Thomas Concrete	No	Yes	Yes	391,639.43
Concrete Floor Hardening	PPG	No	No	Yes	7,515.00
CMU Masonry	Block USA	Yes	Yes	Yes	148,557.00
Ground Faced CMU	Adams	Yes	Yes	Yes	62,759.00
Reinforcing Steel	Nucor	No	No	Yes	42,880.00
Brick	Forterra	Yes	Yes	Yes	48,668.00
Precast	Miller-Mize	No	No	Yes	50,000.00
Metal Panels	Reynobond	No	No	Yes	113,099.00
Metal Panels	Pac-clad	No	No	Yes	96,901.00
Roofing	Georgia-Pacific	No	No	Yes	59,082.00
Metal Framing	Clark Dietrich	No	No	Yes	120,838.00
Gypsum Board & Sheathing	Gold Bond/Goergia Pacific	No	No	Yes	58,431.00
Sound Batt Insualtion	Roxul	No	No	Yes	7,925.00
Joint Compound	Ruco	No	No	Yes	6,917.00
Gypsum Board & Sheathing	Gold-bond/ Georgia Pacific	No	No	Yes	12,498.00
Static Carpet	Staticworx	No	No	Yes	2,100.00
Toilet Partitions	ASI	No	No	Yes	36,100.00
Aluminum Extrusion	Architectural Shade	No	No	Yes	2,800.00
Loading Dock Equipment	Advancedlifts	No	No	Yes	800.00
Ductwork	Silversheet	No	Yes	Yes	221,275.00
Motor Starter	AC Sales	Yes	Yes	Yes	5,864.00
Water Treatment	Tech Specialites	No	No	Yes	3,300.00
Mechanical Insulation	PCI	No	No	Yes	128,587.00
ABB	Borie Davis	Yes	Yes	Yes	20,150.00
Pre-insulation Piping	Theracor Process	No	No	Yes	16,750.00
Structural Fill	Vulcan	Yes	Yes	Yes	130,127.46
GAB	Trinity Paving	Yes	Yes	Yes	67,207.50
Concrete Drive	Thomas Concrete	Yes	Yes	Yes	29,412.00

