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February 20, 2015

Montana Tech

Project: ASC 2015- Sustainable Building & LEED Problem Statement

Subject: Final Scoring Detail

Dear Brandon,

Congratulations on competing in the ASC 2015 Sustainable Building & LEED Problem Statement, I hope you found the experience both educational and enjoyable. We understand how much effort goes into preparing for the competition every year and to your credit the level of preparation showed, the judges were extremely impressed with the level of competition this year:

Team	Score
University of Florida	78.08
Colorado State University	76.40
University of Washington	71.80
University of New Mexico	63.51

Attached is a scoring summary sheet detailing how well your team performed on: the prequalification, each of the five problems and the addendum. The median and average scores of each problem are given for comparison. The total median and average scores for the written portion of the problem statement are shown at the top of the sheet along with your team's total score. In the upper right of the sheet your team's rank against the other competitors is shown for both the written and oral portions of the competition. The last pages detail a breakdown of how the judges scored your team on each written problem.

The Skanska problem statement team enjoyed the competition this year and we hope to see you all back for next year's event. If you have any questions please feel free to contact me at Anthony.spinelli@skanska.com.

Very Truly,

Anthony J. Spinelli

Anthony J. Spinelli
Project Manager

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cc: ASC 2015 Problem Scoring

		Median Score	Average Score	Montana Tech
83	Totals	50.95	48.30	51.05

Prequalification 5

	Maximum Possible	Median Score	Average Score	Montana Tech
Number of AP on Team	1			0.25
Format	1			0.10
Sustainable Thoughts	1			0.50
Green Achievements	1			0.50
Page Count	1			1.00
Prequalification Totals		3.25	3.13	2.35

Rank Against Other Teams

Written Response:	Middle Third
Oral Presentation:	Bottom Third
Overall Score:	Middle Third

LEED Credit Comparison 10

	Maximum Possible	Median Score	Average Score	Montana Tech
Overall Project Review	3			1.95
Materials Category	2			1.50
Recommendation of Rating System	5			1.00
LEED Credit Comparison		4.45	4.86	4.45

On-Site Renewable 20

	Maximum Possible	Median Score	Average Score	Montana Tech
Solar Panel Design	12			9.00
Additional Renewable	6			4.00
Alternate Energy Sources	2			1.00
On-Site Renewable		14.00	13.03	14.00

Life Cycle Analysis 15

	Maximum Possible	Median Score	Average Score	Montana Tech
Annual Energy Use	2			1.50
Life Cycle Analysis	6.5			3.50
Subcontractor Selection	2			2.00
Incentives & Rebates	3.5			-
Fixture Recommendation	1			1.00
Life Cycle Analysis		10.00	9.50	8.00

Carbon Footprint 15

	Maximum Possible	Median Score	Average Score	Montana Tech
Bid Comparison	10			8.50
Local vs. Out of Town	5			3.50
Carbon Footprint		10.50	9.17	12.00

Water Collection and Use 15

	Maximum Possible	Median Score	Average Score	Montana Tech
Irrigation Consumption	6			5.00
Rain Water Collection	6			2.75
Cistern	3			1.25
Water Collection and Use		6.75	7.08	9.00

Addendum 3

	Maximum Possible	Median Score	Average Score	Montana Tech
Bonus Questions - Estimated Ridership 64000	1			1.00
Bonus Questions - Gallons Saved 11000 (27000)	1			0.50
Bonus Questions - Improve Ridership	1			0.75
Formatting	-5			(1.00)
Exceeded Page Count	-10			
Addendum Totals		2.00	1.53	1.25

Problem #1 - LEED 2009 vs. LEED v4 Assesment

10 Total Points Possible		MONTANA TECH
PART 1: Overall Project Review	3 Pts Possible	1.95
SS - 2009	0.2	0.1
WE - 2009	0.2	0.05
EA - 2009	0.2	0.15
MR - 2009	0.2	0.15
IEQ - 2009	0.2	0.05
IDP - 2009	0.2	0.2
RPC - 2009	0.2	0.2
LT - v4	0.2	0.1
SS - v4	0.2	0.1
WE - v4	0.2	0.15
EA - v4	0.2	0.05
MR - v4	0.2	0.2
IEQ - v4	0.2	0.05
Innovation - v4	0.2	0.2
RP - v4	0.2	0.2
Comments		
PART 2: Materials Category	2 Pts Possible	1.5
Credits of the future: do they mention all 3 credits and fully describe what each entails?	1	1
Did they research what needs to happen to accomplish credits of the future (EPDs, 3rd party certified products, "USGBC approved program")	0.25	0.1
Mention of MR credits being combined	0.75	0.4
Comments		The question did not ask what the credits mean it asked how they compare to the old version. What do the changes mean for the project (positive and negative)?
PART 3: Recommendation of Rating System	5 Pts Possible	1
Two or More Innovative Ideas	2	0
Are the innovative ideas realistic/attainable?	1	1
Were the innovative ideas explained well, easily understood?	1	0
Convincing	1	0
Comments		
	10	4.45

15 Total Points Possible

Problem # 2 - Life Cycle Sustainability Analysis - Lighting		Montana Tech
#1.a Correct light fixture take-off QTY	1	1
#1.b Use correct LA County power/cost formula (22.3)	0.5	0
#1.c Answer	0.5	0.5
#2.a Complete detailed life cycle analysis	3	2
#2.b Identify criteria and formaula used	3	1
#2.c Organization of answer/data	0.5	0.5
#3.a Select correct subcontractor	2	2
#4.a Quality of incentives/rebates (1 pt ea. - max of 3)	3	0
#4.b Organization of answer/findings	0.5	0
#5.a Correct selection of light fixture	1	1
	15	8

Did not provide alt. rebates

		15 Total Points Possible	Montana Tech
Problem #3 - 4th St. Station Carbon Footprint			
Part I #1	Takeoff of Concrete CY	1.5	1.5
Part I #2	Bid comparison / least expensive	2.5	2
Part I #3	Carbon Footprint of each supplier / lowest	4	3.5
Part I #4	Best value supplier	2	1.5
Part II #1	Carbon footprint of crew	2	1.5
Part II #2	Carbon footprint of crew - local	1.5	1
Part II #3	Carbon footprint of crew - carpool	1.5	1
	Total	15	12

Notes

Pt I # 3 - aggregate is from British Columbia

Pt II - did not account for return trip home

Summary at the end is inconsistent with Pt I # 2 and 4

15 Total Points Possible

Montana Tech

Problem #4 - Water Usage and Collection		
#1. a) Forumula	2	1
#1 b) ET_O	1	1
#1.c) Landscaped Areas	1	1
#1.d) Answer	1	1
#1.e) Organization	1	1
#2.a) Rainfall data by month	1	1
#2.b) Rainwater Collection Formula	1.5	0.5
#2.c) Collection Area	1.5	0.5
#2.d) Answer - Size of Cistern	1	0.25
#2.e) Organization	1	0.5
#3.a) Volume Calculation	0.5	0.25
#3.c) Graph/Method	1.5	0.5
#3.a) Answer & Organization	1	0.5
	15	9

Correct formulas and Ets by month

didn't calculate cistern volume correctly

20 Total Points Possible

			Montana Tech	
	Problem #5 - Onsite Renewable Energy			
#1.a	Correct quantities	2	2	
	Work is shown, correct equation is used	2	2	
	Marked up drawing is accurate and realistic	1	0	Not provided
#1.b	Work is shown and is correct	1	0.5	Need payback calculations, not clear
	Acknowledged factors other than initial cost	1	0.5	
	Narrative is clear and illustrates the rationale	2	1.5	
#1.c	i. Correct direction	1	1	
	ii. Correct angle	1	1	
	iii. Correct dates	0.5	0.25	
	iii. Correct angles	0.5	0.25	
#2a.	Product chosen, with cost and quantity	2	1.5	
#2.b.	cost of panel support structure	1	0.5	Calculations were not clear
#2.c	payback period, and cost assumptions	2	2	
#2.d	Projected cost of maintenance	1	0	
#3.a	Response is clear, concise, and realistic	0.5	0.25	
#3.b	Response is clear, concise, and realistic	0.5	0.25	
#3.c	Response is clear, concise, and realistic	0.5	0.25	
#3.d	Response is clear, concise, and realistic	0.5	0.25	
		20	14	