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Sunnyside Cogeneration Associates

P.O. Box 10, East Carbon, Utah 84520 • (435) 888-4476 • Fax (435) 888-2538

September 12, 2005

Pamela Grubaugh-Littig
Utah Division of Oil Gas and Mining
1594 West North Temple, Suite 1210
PO Box 145801
Salt Lake City UT 84114-5801

Incoming
C/007/0035
Copy PAM

RE: Means Historical Cost Index

Dear Pam:

This letter and attachments are a follow up to your phone conversation with Rusty Netz, on September 12, 2005. The phone conversation pertained to the Means Historical Cost Index, which is currently being used by the Division for calculating bond escalation.

We are very concerned about the escalation rates used by the Division and their impact on our already strained industry. Fuel costs are out of control, impacting every commodity we use. For these reasons we have to look hard at all costs associated with our business. After review of the Means Historical Cost Index Rates with representatives from Reed RSMeans Construction Data, it is clear that the Construction Cost Index (CCI) weighted average is not the most appropriate index to use in this application. RSMeans and SCA believe a more suitable index would be the Division 2 "Site Construction" index, which more appropriately fits the requirements of reclamation.

The attachment is a report from Reed RSMeans Construction Data, which explains in great detail what comprises the Means Historical Cost Index. I believe you will come to the same conclusion, we at SCA have come to, once you have had time to review the report. It is important that we, the Division and Mine Operators, take a strong look at the cost index that is currently being used for figuring bond escalation values.

We would appreciate if you would review this report and contact us with your thoughts.

Should you have any questions, please contact Rusty Netz or myself at (435) 888-4476.

Thank You,

Michael J. Blakey
Agent For
Sunnyside Cogeneration Associates

RECEIVED
SEP 15 2005
DIV. OF OIL, GAS & MINING

Cc: Rusty Netz, SCA
Plant File

Reed Construction Data

August 26, 2005

Rusty Netz
Sunnyside Cogeneration Associates
#1 Power Plant Road
Sunnyside, Utah 84539

Dear Mr. Netz:

This is the response to your letter of July 25, 2005 regarding R.S. Means Construction Cost Indexes. I understand you are questioning the correct R.S. Means Index to use for site reclamation. As described in your letter the tasks performed during reclamation include, demolition and removal of all structures, backfill and grading (earthwork), erosion control and drainage reconstruction, distribution of borrow soils/top soils and scarification of soils, and revegetation of reclaimed areas.

WEIGHTED AVERAGE INDEX

Means Construction Cost Indexes (CCI) are used to compare costs from city to city, region to region and time period to time period; these indexes are published quarterly.

The weighted average calculated for the Means Construction Cost Indexes (CCI) that you have been using is based upon a composite model comprised of nine (9) buildings and 16 CSI MasterFormat Divisions (See page 2 of Attachment 1). The exact material, labor and equipment quantities are weighted in proportion to their expected use. These various material items, labor hours and equipment rental rates are thus combined to form a composite building.

For the purpose of ensuring the timeliness of the data, the components of the index for the composite model have been streamlined to consist of the following:

- Specific quantities of 66 key construction materials
- Specific labor hours for 21 building construction trades
- Specific days of rental for 6 pieces of construction equipment

The index information presented is organized according to the 16 Division Construction Specifications Institute MasterFormat 95. The 16 Divisions are listed on page 2 of Attachment 1.

RSMeans
63 Smiths Lane
Kingston, MA 02364
www.rsmeans.com

T: 781 422-5000
TF: 800 448-8182

A division of Reed Business Information

The index is presented in the 16 CSI MasterFormat Divisions and the Weighted Average for the composite building is shown at the bottom of the table. The CCI numbers shown on the table are a percentage ratio of the cost at a stated time and location to a national average cost of the same item or composite model at a base period. The base period is January 1, 1993.

The CCI publication lists indexes for 316 cities throughout the US. I understand Salt Lake City is the nearest city to your location. Attached is the January 2005 index for Salt Lake City. See Attachment 2.

DIVISION 2

Based on the description of the types of work associated with site reclamation listed above, it would be more accurate to follow Division 2 – Site Construction Index rather than the Weighted Average Index, which is comprised of all 16 divisions.

Division 2 – Site Construction Index is based upon a subset of the above materials, labor and equipment. The specific items are highlighted on attachment 3 and listed below:

Materials	Labor Trades	Equipment
Stone aggregate	quip. operator(med)	portable compressor
gravel	equip. operator(heavy)	backhoe(crawler)
asphaltic concrete	equipment oiler	bulldozer (crawler)
cast iron pipe	laborer	front end loader
welded wire fabric	skilled worker	electric welder
loam		truck crane
Washed sand		

SUMMARY

The 2005 index for Salt Lake City states that the cost for Division 2 – Site Construction in SLC is 116.5% times the national average in 1993 and the Weighted Average is 129.4% times the national average in 1993. It is apparent from the table below that the Weighted Average Index, based upon the composite model, increased at a much greater rate than the Division 2 Index during the entire period from 2001 to 2005.

Salt Lake City	2001	2002	2003	2004	2005
Division 2 – Site Construction Index	111.3	114.5	114.2	114.6	116.5
Weighted Average Index CCI	109.1	113.7	116	117.8	129.4

Reed Construction Data

As stated above the Weighted Average Index is comprised of the 66 materials, 20 labor trades and 6 pieces of equipment. See Attachment 3 for the complete list of 66 materials and 6 pieces of equipment. The escalation difference, especially in the period 2004 to 2005, is based on the rapid escalation of key construction materials contained in the Weighted Average Index such as structural steel, rebar, insulation, plywood, and gypsum.

As stated above the cost of the items in Division 2 – Site Construction, generally consisting of locally obtained materials, did not escalate as rapidly as other materials listed on Attachment 3.

Considering the materials, labor and equipment required for reclamation vs. total building construction, it is apparent that the Division 2 – Site Construction Index is more appropriate than the Weighted Average Index.

Please call me if you have any questions.

Sincerely,

Phillip R. Waier, P.E.
Principal Engineer

RSMeans
63 Smiths Lane
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ATTACHMENT 1

What you should know before you begin

Means Construction Cost Indexes (CCI) is an extremely useful tool to use when you want to compare costs from city to city, region to region, and time period to time period.

This publication contains average construction cost indexes for 316 major U.S. and Canadian cities. We chose the cities listed because they represent geographical areas with the densest population centers.

Keep in mind that a construction cost index number is a *percentage ratio* of a cost at a stated time to the national average cost of the same item at a base period. Note that the Base Period has been changed. It is now January 1, 1993.

In other words, these index figures represent relative construction *factors* (or, if you prefer, multipliers) for Material costs, Installation costs, as well as the weighted average for Total In Place costs for each CSI MasterFormat division.

- ***Note: Installation costs include both labor and equipment rental costs.***

On page 3 you'll find the 30 City Average: an average of construction cost indexes for 30 major U.S. cities. This also serves as a National Average.

As changes occur in local material prices, labor rates and equipment rental rates, the impact of these changes should be accurately measured by the change in the Construction Cost Index for each particular city (as compared to the 30 City Average).

Therefore, if you know (or have estimated) building costs in one city today, you can easily convert those costs to expected building costs in another city.

In addition, by using the Historical Construction Cost Index, you can easily convert known or estimated building costs in a city at a particular time to approximate building costs in another city for some other time.

Quick Calculations

Location Adjustment Using the City Cost Indexes:

$$\frac{\text{Index for City A}}{\text{Index for City B}} \times \text{Cost in City B} = \text{Cost in City A}$$

Time Adjustment Using the Historical Cost Index:

$$\frac{\text{Index for Year A}}{\text{Index for Year B}} \times \text{Cost in Year B} = \text{Cost in Year A}$$

Adjustment from the National Average:

$$\frac{\text{Index for City A}}{100} \times \text{National Average Cost} = \text{Cost in City A}$$

Since each of the other RSMeans publications contains many different items, any *one* item multiplied by the particular city index may give incorrect results. However, the larger the number of items compiled, the closer the results should be to actual costs for that particular city.

The City Cost Indexes for Canada are calculated using Canadian prices. Therefore, the Canadian indexes can be used to convert U.S. National Averages to local costs in Canadian dollars.

On the back cover be sure to see the table for the Average Construction Trade Labor Rates.

Means Construction Cost Indexes are published in January, April, July, and October every year so you will always have up-to-date figures at your fingertips. If you don't yet have a subscription, call (800) 334-3509. Single issues are also available.

How to use this publication

1. Compare costs from city to city.

In using the Means Indexes, remember that an index number is not a fixed number but a *ratio:* It's a percentage ratio of a building component's cost at any stated time to the cost of that same component at a base period. Put in the form of an equation:

$$\frac{\text{Cost at Stated Time}}{\text{Cost at Base Period}} \times 100 = \text{Index Number}$$

Therefore, when making cost comparisons between cities, do not subtract one city's index number from the index number of another city and read the result as a percentage difference. Instead, divide one city's index number by that of the other city. The resulting number may then be used as a multiplier to calculate cost differences from city to city.

The formula used to find cost differences between cities for the purpose of comparison is as follows:

$$\frac{\text{City A Index}}{\text{City B Index}} \times \text{City B Cost (Known)} = \text{City A Cost (Unknown)}$$

The city numbers used when comparing costs between cities must be taken from the same CCI issue, and must be applicable to the same time period.

If there are differences in time periods, you've got to make adjustments so that all indexes and costs relate to the same time period as the "known" cost.

In addition, you can use *Means CCI* to calculate and compare costs division by division between cities using the same basic formula. (Just be sure that you're comparing similar divisions.)

2. Compare a specific city's construction costs with the National Average.

When you're studying construction location feasibility, it's advisable to compare a prospective project's cost index with an index of the National Average cost.

For example, divide the weighted average index of construction costs of a specific city by that of the 30 City Average for the same period:

$$\frac{\text{City Index}}{\text{30 City Average Index}} = \%\text{ of National Average}$$

As a result, you get a ratio that indicates the relative cost of construction in that city in comparison with the National Average.

3. Update and adjust construction cost data based on a National Average.

Updating:

To update construction cost data from calendar quarter to quarter using *Means Construction Cost Indexes*, use this basic formula:

$$\frac{\text{Present Cost Index}}{\text{Last Quarter's Cost Index}} \times \text{Last Quarter's Cost} = \text{Current Cost}$$

This is particularly useful when you need to update a "bottom line" estimate that has been "on the shelf" for a couple of quarters.

Adjusting:

When you use a source of construction cost data which is based on a National Average (such as *Means Building Construction Cost Data*), it is necessary to adjust those costs to a specific location.

$$\frac{\text{City Index}}{\text{30 City Average Index}} \times \text{"Book" Cost Based on National Average Costs} = \text{City Cost (Unknown)}$$

ATTACHMENT 1

Combination updating and adjusting:

When you update and adjust complete or division estimates that were made using National Average cost data for the current year and a specific location, be sure to *calculate your cost multipliers on a January base.*

The reason for this is because January is the time period for which the nationally averaged costs (those costs which you've used to make your "book" estimate) were updated.

Follow these simple steps to update and adjust costs or estimates:

a. Divide your specific city's index by the January 30 city Average index number for the current year. This adjusts the index number to a base period of January of the current year.

$$\frac{\text{Specific City Index}}{\text{January 30 City Average Index}} = \text{Cost Factor}$$

b. Multiply your new cost factor by the "book" cost (National Average cost) for that division or weighted average.

Cost Factor x Book Cost = Adjusted Cost

What you might like to know about how we developed the Indexes

To create a reliable index, RSMeans researched the building type most often constructed in the United States and Canada. Because it was concluded that no one type of building completely represented the building construction industry, nine different types of buildings were combined to create a composite model.

The exact material, labor and equipment quantities are based on detailed analysis of these nine building types, then each quantity is weighted in proportion to expected usage. These various material items, labor hours, and equipment rental rates are thus combined to form a composite building representing as closely as possible the actual usage of materials, labor and equipment used in the North American Building Construction Industry.

The following structures were chosen to make up that composite model:

1. Factory, 1 story
2. Office, 2-4 story
3. Store, Retail
4. Town Hall, 2-3 story
5. High School, 2-3 story
6. Hospital, 4-8 story
7. Garage, Parking
8. Apartment, 1-3 story
9. Hotel/Motel, 2-3 story

For the purposes of ensuring the timeliness of the data, the components of the index for the composite model have been streamlined. They currently consist of:

- specific quantities of 66 commonly used construction materials;
- specific labor-hours for 21 building construction trades; and
- specific days of equipment rental for 6 types of construction equipment (normally used to install the 66 material items by the 21 trades).

A sophisticated computer program handles the updating of all costs for each city on a quarterly basis. Material and equipment price quotations are gathered quarterly from 316 cities in the United States and Canada. These prices and the latest negotiated labor wage rates for 21 different building trades are used to compile the quarterly update of the city cost index.

F.Y.I.: The CSI MasterFormat Divisions

1. General Requirements
2. Site Construction
3. Concrete
4. Masonry
5. Metals
6. Wood & Plastics
7. Thermal & Moisture Protection
8. Doors & Windows
9. Finishes
10. Specialties
11. Equipment
12. Furnishings
13. Special Construction
14. Conveying Systems
15. Mechanical
16. Electrical

The information presented in the indexes is organized according to the Construction Specifications Institute (CSI) MasterFormat. **The format has been updated from MF88 to MF95.**

What the CCI does *not* indicate

The weighted average for each city is a total of the components listed above weighted to reflect typical usage, but it does *not* include the productivity variations between trades or cities.

In addition, the indexes cannot take into consideration the following factors:

- managerial efficiency
- competitive conditions
- automation
- restrictive union practices
- local unique requirements
- regional variations due to specific building codes

Means Historical Cost Index

Date	2005	2004	2003	2002	2001	2000	1999	1998	1995	1990	1985	1980	1975	1970	1965	1960	1955	1950	1945	1940
Jan. 1	146.7	132.8	129.7	126.7	122.2	118.9	116.6	113.6	105.6	93.2	81.8	60.7	43.7	27.8	21.5	19.5	16.3	13.5	8.6	6.6
Apr. 1	**149.3**	139.0	130.2	127.2	122.5	119.7	116.8	114.1	106.1	93.6	82.0	61.5	43.6	28.3	21.6	19.6	16.5	13.6	8.7	6.7
July 1		143.7	132.0	128.7	125.1	120.9	117.6	115.1	107.6	94.3	82.6	62.9	44.8	28.7	21.7	19.7	16.6	13.7	8.8	6.9
Oct. 1		145.3	132.6	129.4	125.9	121.8	118.1	115.7	108.1	95.0	82.8	64.8	45.2	29.6	21.9	19.7	16.9	14.0	9.1	7.0

The Means Historical Cost Indexes have five basic uses. You can use them for any of the following:

- Estimating and comparing construction costs
  - . . . in the same city for different years
  - . . . in different cities for the same year
  - . . . in different cities for different years
- Comparing construction cost trends in any city with the National Average.
- Estimating replacement costs.

Key Formula:

$$\frac{\text{Present Index}}{\text{Former Index}} \times \text{Former Cost} = \text{Present Cost}$$

You may also use the Means Historical Construction Cost Indexes to forecast costs by averaging annual index changes over any number of past years and using this average to calculate future costs.

Means Construction Cost Indexes ©2005

ATTACHMENT 2

CSI DIV. NO.	JANUARY 1, 2005	TEXAS											
		LUBBOCK			ODESSA			SAN ANTONIO			WACO		
	ITEM	MAT.	INST.	TOTAL	MAT.	INST.	TOTAL	MAT.	INST.	TOTAL	MAT.	INST.	TOTAL
01590	EQUIPMENT RENTAL	.0	109.9	109.9	.0	98.4	98.4	.0	100.7	100.7	.0	98.4	98.4
02	SITE CONSTRUCTION	183.6	97.7	117.4	142.2	100.4	109.9	125.2	105.0	109.6	140.3	100.3	109.4
03100	CONCRETE FORMS & ACCESSORIES	138.4	62.3	72.6	139.0	59.3	70.0	132.9	84.0	90.7	140.0	60.6	71.4
03200	CONCRETE REINFORCEMENT	171.2	75.2	117.2	169.0	75.1	116.1	188.6	74.9	124.6	169.0	74.2	115.6
03300	CAST-IN-PLACE CONCRETE	138.3	68.0	108.0	138.0	62.3	105.4	117.9	96.8	108.8	124.6	73.6	102.6
03	CONCRETE	127.8	69.3	98.3	129.0	64.5	96.5	118.5	87.3	102.8	122.7	68.9	95.6
04	MASONRY	137.8	74.2	98.9	138.6	74.7	99.5	129.8	96.0	109.1	134.2	86.7	105.1
05	METALS	168.0	108.0	145.3	160.9	87.6	133.1	162.6	90.5	135.2	161.8	88.0	133.8
06	WOOD & PLASTICS	157.3	62.9	105.9	156.6	59.6	103.8	145.1	81.8	110.6	165.8	55.4	105.7
07	THERMAL & MOISTURE PROTECTION	122.3	72.3	99.1	134.1	65.8	102.3	129.8	91.9	112.2	134.9	71.0	105.2
08	DOORS & WINDOWS	136.4	64.6	119.3	121.6	62.2	107.5	127.3	81.6	116.4	114.1	57.8	100.7
09200	PLASTER & GYPSUM BOARD	167.9	61.8	94.6	166.6	58.6	92.0	169.3	81.5	108.7	166.6	54.3	89.0
095,098	CEILINGS & ACOUSTICAL TREATMENT	171.4	61.8	100.6	166.6	58.6	96.9	161.1	81.5	109.7	166.6	54.3	94.1
09600	FLOORING	128.5	58.8	112.1	138.8	58.0	119.8	117.0	80.7	108.5	180.1	53.9	150.4
097,099	WALL FINISHES, PAINTS & COATINGS	134.7	49.4	85.7	120.3	49.4	79.6	116.2	80.8	95.9	121.8	51.0	81.1
09	FINISHES	138.0	58.9	97.7	135.2	56.9	95.3	126.0	81.8	103.5	149.6	56.3	102.0
10 - 14	TOTAL DIV. 10000 - 14000	165.5	118.7	155.0	165.5	94.8	149.7	165.5	109.6	153.0	165.5	121.6	155.7
15	MECHANICAL	149.7	73.4	116.5	150.4	57.3	109.8	149.9	110.1	132.5	150.4	83.1	121.0
16	ELECTRICAL	223.0	55.4	113.8	226.5	51.6	112.5	233.5	75.3	130.4	226.5	81.0	131.7
01 - 16	WEIGHTED AVERAGE	153.6	74.7	115.5	150.3	67.7	110.5	148.2	92.4	121.3	150.1	79.6	116.1
	BASED ON 2005 PUBLICATION	**101.3**	**55.2**	**80.4**	**99.2**	**50.0**	**76.8**	**97.8**	**68.3**	**84.4**	**99.0**	**58.8**	**80.8**

CSI DIV. NO.	JANUARY 1, 2005	TEXAS			UTAH								
		WICHITA FALLS			LOGAN			OGDEN			PROVO		
	ITEM	MAT.	INST.	TOTAL	MAT.	INST.	TOTAL	MAT.	INST.	TOTAL	MAT.	INST.	TOTAL
01590	EQUIPMENT RENTAL	.0	98.4	98.4	.0	114.3	114.3	.0	114.3	114.3	.0	112.8	112.8
02	SITE CONSTRUCTION	141.3	99.9	109.4	127.9	118.0	120.3	111.6	118.0	116.5	123.0	115.7	117.3
03100	CONCRETE FORMS & ACCESSORIES	140.0	64.0	74.3	147.1	88.6	96.6	147.2	88.6	96.6	149.5	88.7	97.0
03200	CONCRETE REINFORCEMENT	169.0	75.9	116.6	194.0	111.3	147.5	202.6	111.3	151.2	209.9	111.3	154.4
03300	CAST-IN-PLACE CONCRETE	133.1	67.4	104.8	129.6	99.1	116.5	131.5	99.1	117.6	129.7	99.2	116.6
03	CONCRETE	126.7	68.6	97.4	159.7	96.7	127.9	145.8	96.7	121.1	159.7	96.7	127.9
04	MASONRY	134.8	88.9	106.7	167.7	90.2	120.2	158.0	90.2	116.5	175.8	90.2	123.4
05	METALS	161.7	90.1	134.5	167.4	100.7	142.1	168.2	100.7	142.6	164.5	100.8	140.4
06	WOOD & PLASTICS	165.8	62.7	109.6	142.7	86.4	112.0	142.7	86.4	112.0	145.2	86.4	113.2
07	THERMAL & MOISTURE PROTECTION	134.9	77.2	108.1	135.5	96.4	117.3	133.5	96.4	116.2	138.6	96.4	119.0
08	DOORS & WINDOWS	114.1	67.1	103.0	117.0	89.0	110.4	117.0	89.0	110.4	122.6	89.0	114.6
09200	PLASTER & GYPSUM BOARD	166.6	61.8	94.2	164.7	85.1	109.7	164.7	85.1	109.7	165.5	85.1	109.9
095,098	CEILINGS & ACOUSTICAL TREATMENT	166.6	61.8	98.9	186.6	85.1	121.0	186.6	85.1	121.0	186.6	85.1	121.0
09600	FLOORING	180.7	113.5	164.9	120.9	87.0	112.9	120.9	87.0	112.9	121.8	87.0	113.7
097,099	WALL FINISHES, PAINTS & COATINGS	124.0	80.8	99.2	128.3	69.7	94.6	128.3	69.7	94.6	128.3	88.9	105.7
09	FINISHES	149.9	74.4	111.4	136.7	85.0	110.3	135.2	85.0	109.6	137.6	87.2	111.9
10 - 14	TOTAL DIV. 10000 - 14000	165.5	96.2	150.0	165.5	113.2	153.8	165.5	113.2	153.8	165.5	113.2	153.8
15	MECHANICAL	150.4	78.0	118.8	150.4	108.1	132.0	150.4	108.1	132.0	150.4	108.2	132.0
16	ELECTRICAL	233.7	79.2	133.0	212.7	90.0	132.8	213.9	90.0	133.2	213.1	90.0	132.9
01 - 16	WEIGHTED AVERAGE	151.3	80.8	117.3	154.5	98.4	127.4	151.9	98.4	126.0	155.3	98.4	127.9
	BASED ON 2005 PUBLICATION	**99.8**	**59.7**	**81.6**	**101.9**	**72.7**	**88.7**	**100.2**	**72.7**	**87.7**	**102.5**	**72.7**	**89.0**

CSI DIV. NO.	JANUARY 1, 2005	UTAH			VERMONT						VIRGINIA		
		SALT LAKE CITY			BURLINGTON			RUTLAND			ALEXANDRIA		
	ITEM	MAT.	INST.	TOTAL	MAT.	INST.	TOTAL	MAT.	INST.	TOTAL	MAT.	INST.	TOTAL
01590	EQUIPMENT RENTAL	.0	114.2	114.2	.0	115.2	115.2	.0	115.2	115.2	.0	114.8	114.8
02	SITE CONSTRUCTION	111.6	117.9	116.5	112.7	115.9	115.2	112.8	115.9	115.2	160.6	100.6	114.4
03100	CONCRETE FORMS & ACCESSORIES	145.0	88.7	96.4	134.1	74.9	82.9	149.9	75.0	85.2	134.5	108.3	111.9
03200	CONCRETE REINFORCEMENT	197.8	111.3	149.2	192.1	77.2	127.4	192.1	77.2	127.5	149.6	116.2	130.8
03300	CAST-IN-PLACE CONCRETE	142.7	99.2	123.9	143.3	88.4	119.6	136.6	88.4	115.8	146.1	112.7	131.7
03	CONCRETE	172.2	96.7	134.1	150.9	80.5	115.4	148.8	80.6	114.4	149.2	112.3	130.6
04	MASONRY	182.8	90.2	126.1	139.2	89.8	109.0	122.0	89.8	102.3	120.7	108.0	112.9
05	METALS	173.4	100.8	145.9	171.2	88.0	139.6	168.4	88.1	137.9	170.8	126.2	153.9
06	WOOD & PLASTICS	143.0	86.4	112.1	144.3	72.5	105.2	165.0	72.5	114.6	155.2	109.1	130.1
07	THERMAL & MOISTURE PROTECTION	137.8	96.4	118.6	139.1	78.7	111.0	138.7	80.3	111.6	132.2	109.9	121.8
08	DOORS & WINDOWS	117.0	89.0	110.4	140.1	67.5	122.8	140.1	67.5	122.8	126.6	112.5	123.3
09200	PLASTER & GYPSUM BOARD	164.7	85.1	109.7	209.2	69.6	112.8	209.2	69.6	112.8	214.3	108.7	141.4
095,098	CEILINGS & ACOUSTICAL TREATMENT	184.8	85.1	120.4	172.0	69.6	105.8	172.0	69.6	105.8	185.6	108.7	135.9
09600	FLOORING	120.4	87.0	112.6	120.0	100.6	115.5	120.0	100.6	115.5	127.7	127.4	127.6
097,099	WALL FINISHES, PAINTS & COATINGS	128.3	88.9	105.7	115.0	57.7	82.1	115.0	57.7	82.1	153.0	122.5	135.5
09	FINISHES	135.3	87.2	110.8	137.9	76.9	106.8	137.7	76.9	106.7	142.6	113.0	127.6
10 - 14	TOTAL DIV. 10000 - 14000	165.5	113.2	153.8	165.5	140.4	159.9	165.5	140.4	159.9	165.5	138.2	159.4
15	MECHANICAL	150.7	108.2	132.1	150.4	100.3	128.6	150.4	100.4	128.6	150.4	130.8	141.8
16	ELECTRICAL	222.0	90.0	136.0	231.8	83.0	134.8	230.1	83.0	134.3	231.5	113.1	154.4
01 - 16	WEIGHTED AVERAGE	158.0	98.6	129.4	156.5	90.3	124.6	154.9	90.4	123.8	155.4	116.2	136.5
	BASED ON 2005 PUBLICATION	**104.2**	**72.9**	**90.0**	**103.2**	**66.7**	**86.7**	**102.2**	**66.8**	**86.1**	**102.5**	**85.9**	**95.0**

Listing of CCI Materials & Equipment - Attachment 3

	Code	Units	Description
			Equipment
1	AC60	month	375-450 CFM portable air compressor, diesel
3	BH15	month	1-1/2 CY hydrlic. excav.(backhoe) crawlr, diesel, CAT 345 or equal
3	BL27	month	300 HP crawler, tractor(bulldozer), diesel, CAT D8 or equal
4	FEL3	month	3-1/2 CY front end loader, wheeled, diesel, CAT 938 or equal
5	GW40	month	300 amp portable arc welder, diesel
6	TC40	month	40 ton truck crane, hydraulic, diesel
			Materials
7	CBF5	sf	Acoustical ceiling tile, mineral fiber, fissured, 5/8" thick, 2'X4', white, Armstrong # 755B or equal
8	ATFA	lf	Aluminum tube framing, mullion, anodized bronze, 24' lengths, 4-1/2" x 1-3/4"
9	BASP	ton	Hot mix asphaltic concrete, 3/4" stone, top mix (145 lbs./cf)
10	TOPD	cy	Loam, screened
11	CWVC	ea	Casement window, vinyl clad, double glazed, 2'W x 4'H, Anderson Permashield CW14 or equal
12	MCEM	bag	Masonry cement, ASTM C91, gray, 70 lb bag
13	SCBR	thousand	Face brick, hard, red, ASTM C216, modular , 8" x 2-2/3" x4"
14	BS08	ea	Concrete block, reg. weight, hollow, ASTM C90, 8" x 8" x 16, 2000 psi
15	SANW *	ton	Washed sand
16	CP24	lf	Reinforced concrete pipe, no gasket, Class 3, 24" diameter
17	PFP6	sf	Hollow core precast floor plank, 8" thick, 24' span
18	MF37	ea	Hollow metal frame, KD, 3'-0" x 7'-0" x 4-7/8", 16 ga, primed
19	MD37	ea	Hollow metal door, interior, 1-3/4"x3'-0"x7'-0", 18 ga.
20	HCD3	ea	Inter. flush particle core, wd door, birch face, unfin, 1-3/4" x 3' x7', drilled and mortised for hrdware
21	LSCY	ea	Cylindrcl lockset, hvy duty comm. grade, keyd, brush stainless finish, Schlage D series or equal
22	EN10	mlf	Electric wire, single copper conductors, THHN, #10 stranded
23	EMT3	clf	Conduit, 3/4" diameter, electric metallic tubing (EMT)
24	LFX4	ea	Lighting fixture, fluorescent, 2x4 lay in, troffer w/acrylic lens, 4-32W lamps, 120 V electronic ballast
25	NLLC	sy	Nylon level loop carpeting, 26 oz.
26	OAKF	sf	Strip oak flooring, unfinished, select, plain, red or white, 3/4" x 2-1/4"
27	VCT8	sf	Vinyl composition floor tile, 12" x 12" x 1/8" thick
28	SGB2	sf	Float glass, 1/4" thick, B quality, clear, 36" x 48" units
29	IGT2	sf	Insulating glass, 1" thick, double glazed with 1/4" thick annealed tinted glass, 36" x 48" units
30	DRY4	sf	Gypsum drywall, 1/2" thick, 4'x8' sheets, standard
31	SMST	lf	Metal studs, 20 ga., 3-5/8" galv., NLB
32	FIN3	sf	Fiberglass insulation, batt or blanket, Kraft facing, 3-1/2" thick, 15" wide, R-11
33	MT20	ea	20 hp motor 230/460V, 1800 RPM, class B, 1.15 service factor dripproof
34	TRDS	ea	Dry type transformer, 120/240 V sec, 480 V primary, single phase, nonventilated, 25 KVA
35	PB24	ea	Panelboard,NQOD, 120/208 volts, 3 phase,4 wire, 100 amp main lug only with 24 breakers
36	PLS4	sf	1/2" plywood, CDX, 4 ply, 4'x8' sheets
37	PI16	mbf	1" x 6" boards, #2 pine, S4S
38	PI24	mbf	2"x4" framing lumber, standard & better, local species, Kiln-dried
39	CSH1	square	Cedar shingles, No. 1 red, 16", 5" exposure
40	PBB6	sf	3/4" plyform, BB, class 1, OES
41	WHCG	ea	Water heater, comm. gas, 120 MBH, 114 GPH, 3 yr. warmty, Rheem Glassified 67 ga. or equal
42	WCLS	ea	Water closet, combo, round, 12" rough, white Am. Std. "Cadet II Water Saver" or equal
43	SHEW	ea	Sprinkler head, wet system, pendant, 165F, brass, 1/2" NPT, 1/2" orifice
44	HWBI	ea	Boiler, cast iron, hot water, 320MBH output, gas fired, insulated jacket, Standard controls
45	RSPW	ea	Railings, steel pipe, welded, 3 rail, 3'-6" high, 1-1/2" pipe, glavanzed, straight
46	CDF1	ea	Fabricated channel door frames, C10 x 10.3, 10'W x 10'H opening
47	STPN	riser	Stairs, steel pan, 3'-6" wide, painted, 20 risers, interior well rail, exterior wall rail
48	SPI2 *	sf	Sandwich panel, factory assembled, insulated, porcelain enamel finish on single face, 2" thick
49	CIP4	ea	4" cast iron soil pipe, service weight, single hub, 5' lengths
50	CTB4	lf	1/2" diameter copper tubing, type L, straight lengths, hard tempered
51	PVC2	lf	2" PVC pipe, Sch40, plain end
52	STP2	lf	2" steel pipe, A53, Sch40, black, T&C
53	ILBP	gallon	Interior latex paint, white, semi-gloss, in 5 gallon cans, Benjamin Moore Moorecraft Latex Satin Enamel #33301, Glidden #1416-0100, or equal
54	EOBP	gallon	Exterior latex paint, white, semi-gloss, in 5 gallon cans, Benjamin Moore Mooreglow Semi-Gloss Latex, 096 Series, Sherwin-Williams, A-100 or equal
55	SAG3	ton	3/4" crushed stone aggregate, washed
56	RMS3	cy	Ready mix concrete, 3000 psi

Listing of CCI Materials & Equipment - Attachment 3

	Code	Units	Description
57	GRBR	cy	**Gravel, bank run**
58	ASBK	keg/carton	Asphalt bulk, in 100 lb. kegs/carton
59	ASFL	roll	Asphalt felt, #15, 4 sq per roll, plain
60	EPDM	sf	EPDM roofing membrane, 45 mils, .28 psf, black
61	ISOB	sq	Polyisocyanurate roof insulation board, R-14.29, 2"thick
62	FSH2 *	square	Fiberglass shingles, 210-235#, 20 year, 12" x 36", GAF Sentinel or equal
63	WWF6	csf	**Welded wire fabric, ASTM A185, 6x6 - W1.4 x W1.4 (10 x 10)**
64	RBFB	cwt	Reinforcing steel, A615 grade 60 #5 bars, sheared, bent, and delivered
65	RTUG	ea	AC unit, roof top, multi zone, gas heat, elec. cool, 20 ton, 360 MBH, economizer, curb, std controls
66	STSP	ton	Steel sheet piling, ASTM A328, PZ27, 25' to 40' lengths
67	BJ40	ton	Open web joists, K series, span 30' to 50 ft. for bolted cross bridging
68	MD22	csf	Metal decking, for roof, 1-1/2" thick, 22 ga., wide rib, galvanized
69	SSFB	ton	Struct. steel, ASTM A 36, wide flange shapes, 2 story office bldg., beams and cols, field bolting
70	ALDW	lb	Sheet aluminum alloy, ductwork, 3003-H14, 48" x 96" or 48" x 120", .025
71	DCT4	cwt	Galv. sheet steel, ductwork, 24 ga., 48" x 96" or 48" x 120"
72	CWTG	sf	Ceramic wall tile, glazed, interior, standard grade, 4-1/4" x 4-1/4"