

THE BROAD DIMENSION

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tbd consultants

Construction Management Specialists

111 Pine Street, Suite 1315
 San Francisco, CA 94111
 (415) 981-9430 (San Francisco office)

1663 Eureka Road, Roseville, CA 95661
 (916) 742-1770 (Sacramento office)

9449 Balboa Avenue, Suite 270
 San Diego, CA 92123
 (619) 518-5648 (San Diego office)

8538 173rd Avenue NE, Redmond, WA 98052
 (206) 571-0128 (Seattle office)

2063 Grant Road, Los Altos, CA 94024
 (650) 386-1728 (South Bay office)

7083 Hollywood Blvd, 4th floor
 Los Angeles, CA 90028
 (424) 343-2652 (Los Angeles, CA, office)

www.TBDconsultants.com

LEEDing the Social Conscience

From its inception, the LEED rating system for environmentally friendly buildings has always been concerned with the welfare of the building's users, with points dealing with indoor air quality and emphasis on providing natural day-lighting, etc. Requirements for energy efficiency and the like have benefitted humanity as a whole by helping to protect the environment.



Now the USGBC (US Green Building Counsel) has moved up a notch, by introducing the concept of LEED points specifically tailored to foster Social Equity for all those involved with a building project. There are currently three credits available, the first geared towards anyone involved in the Project Team, be they members of the design team, the project owner, or part of the construction process. The second is related to those in the community that are affected by the building. This includes users of the building (staff or visitors of the facility) or those in

In this Edition:

LEEDing the Social Conscience	1
Cost vs. Technology Upgrades	2
Rollercoaster	4

the area surrounding the building. The last point relates to those involved in the Supply Chain, which can include those involved with the production and delivery of building material for construction.

The credit for 'Social Equity within the Project Team' encourages that staff receive at least prevailing wages, provides for ongoing training and development, and compliance with anti-corruption and child labor laws, etc.

The 'Social Equity within the Community' credit encourages the project team to reach out to the community to identify needs and concerns and to address them. Special effort at reaching the vulnerable, underprivileged and underrepresented is specifically encouraged. It aims to give everyone affected a voice, and ensure that everyone's needs are responded to.



The final credit, 'Social Equity within the Supply Chain', addresses the needs and concerns of those involved in the production of materials and products used within the building. That involves everyone involved in the mining or growing of materials, through their processing and fabrication, to the delivery of the finished product. Concerns addressed include working conditions, health and safety issues, and freedom from harassment, forced labor, and the like.

To substantiate compliance with a credit, LEED relies heavily (but not exclusively) on third party accreditations related to social equity, such as GRI (Global Reporting Initiative) and their Corporate Sustainability Reports, Enterprise Green Communities, SEED (Social Economic Environmental Design) Evaluator, and Supplier Codes of Conduct.

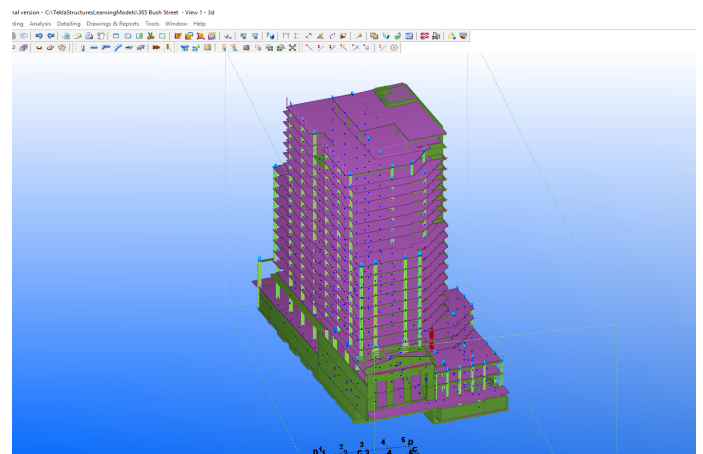
These Social Equity credits have been introduced through the LEED Pilot Credit Library, and are initially available for certification of new construction projects through the BD+C (Building Design and Construction) rating system, but the plan is to extend the credits to other categories as the credits become established.

Cost vs. Technology Upgrades

Cost estimating has come a long way since the paper and pencil days, but even with the new selection of software that is available today, modern takeoff software adoption has been slow. The argument that is often given is that it is just as easy to do the takeoff on an old software platform, digitizer or even by hand. While using old methods may save the time of learning new ones, it can be a shortsighted solution for projects that have a long-term timeline.

The construction industry has changed immensely in the past 10 years. With the advent of cloud computing, mobile computing, and overall advancements in the IT sector, we have seen big strides in how construction estimates are prepared. And yet, many companies, even Fortune 500 ones, often still use old methods.

One of the reasons for the slow software adoption rates could be summed up by the old saying "if it ain't broke, don't



fix it” and therefore any idea of continuous improvement gets neglected. When a company remains fixed and does not strive for continuous improvement, slowly but surely it will lose its competitive edge. Therefore, while it may be easier to do something quickly on outdated software, it will cost you in the future in lost time.

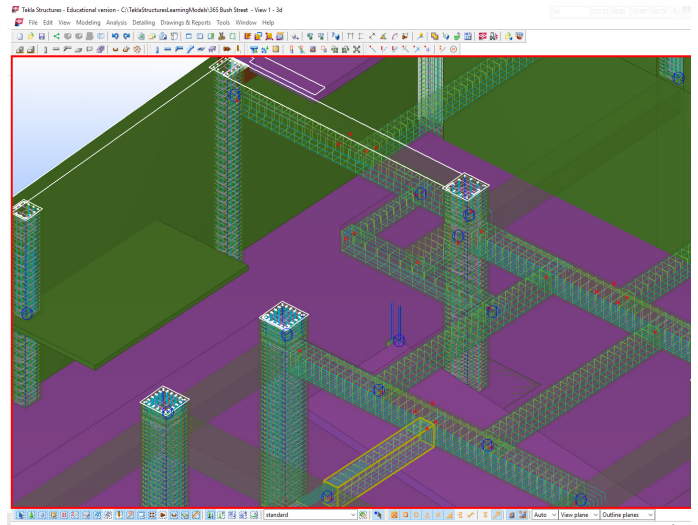
Time that could have been saved in the future by spending minor additional time in the present is time that is wasted. This is seen very often in the construction industry, and it can often be seen in change order reviews. For example, in the rebar industry many contractors will use 2D software to complete a takeoff and then transfer it to rebar estimating software. While this may be fine for rebar contractors, it will probably not give much useful information for a cost estimator trying to reconcile quantities and costs.

The cost consultant, most likely using similar 2D software such as On-Screen Takeoff, or Planswift, and exporting to Excel, can end up with an estimate format that is notably different from the contractor. Differing estimating format and takeoff methodology can result in countless hours spent reformatting estimates and takeoffs before the reconciliation process can even begin. This is where modern 3D takeoff software might be of advantage for the cost consultant because it alleviates the problem of takeoff and estimate formats in one go.

One example of 3D BIM software for rebar is Tekla Structures where an existing BIM model can be imported, and all rebar is detailed as specified in the drawings sets. The beauty of this software is not the detailing however, but the ability to dynamically change the takeoff and have the estimate updated in any format that is desired. In the 2D approach, every change that is made through the takeoff software has to be manually updated, extending the reconciliation time. Not only that, but with Tekla, the changes can be made on the fly during the reconciliation process, and updated numbers can be immediately available, thus saving perhaps days of back-and-forth email exchanges.

The biggest advantage however, is the fact that everything can be “seen”, and by that I mean the building and all its components are visible in three dimensions, and you can zoom in, hide/show rebar components, and isolate parts in many combinations. This is a big advantage during the reconciliation process, because now everyone can see what is being included.

Although software like Tekla is powerful, there is a learning curve and the software pricing can be steep. A company will have to evaluate whether the lost time justifies the cost of purchasing and training. Perhaps for smaller projects the lost time will not warrant such a purchase, but for larger, multi-million, or even billion dollar projects, such an investment can pay for itself many times over.



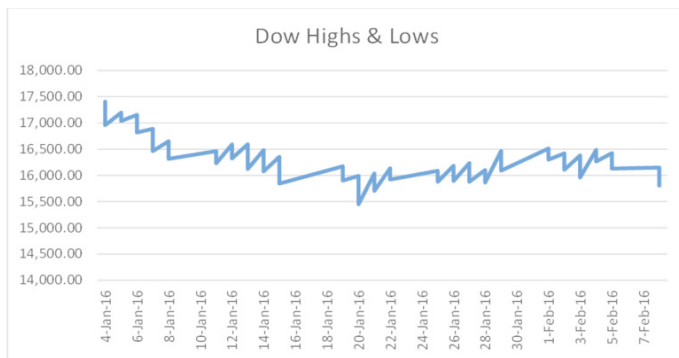
In regards to software, the tendency is to keep using the same programs year after year with no real plan to upgrade for the future, but short term gains can add up to long term losses. This way of operating a business can be dangerous because, not only can you eventually lose your competitive edge, but when it comes to finally upgrading, the capital cost and learning curve will be even steeper. Therefore the saying “If it ain’t broke, don’t fix it” should perhaps change to “If it ain’t broke, update it!” Technology advances are continuing in all spheres, and getting left behind can leave you in the same position as the high street bookstore (remember those?)

Simon Hovsepian, TBD Consultants

Rollercoaster

If the markets have left you feeling a bit queasy since the beginning of the year, it is understandable. It seemed as

if the Dow insisted on moving at least 300 points in one direction or the other, and sometimes both on the same day. What is going on?



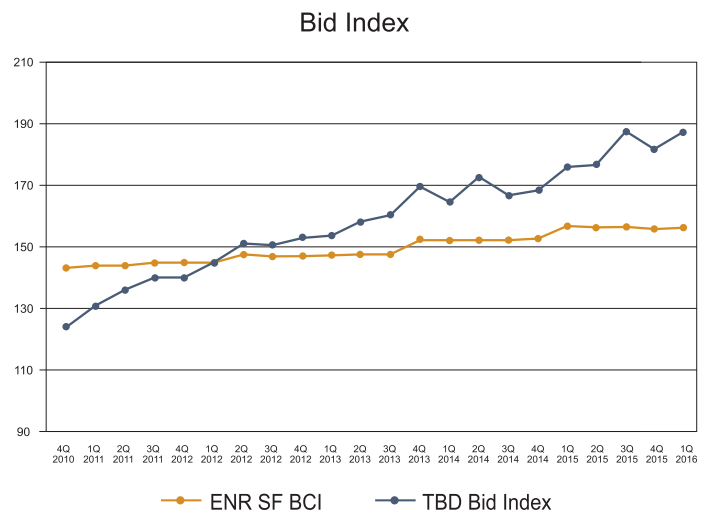
China has been mentioned a lot, and yes, their economy has been slowing down as the country transition to a more consumer-driven one, and people are realizing that the official figures from there might not always be as realistic as we would like. That downturn in the Chinese economy has been a major influence on commodities, because they are not using as much raw material now as they used to. The rate of growth in India, another big consumer, has also been dropping a bit.

The main commodity to affect the stock market has been oil, and the gyrations of the Dow and those of the price of a barrel of crude oil have been almost identical. If oil prices go up, so does the Dow, but since oil prices have generally been on a downward track, we find the stock markets are now (writing in mid-February) encroaching on bear market territory. We certainly no longer need to worry about when we will get a 'correction', because we have already past that 10% drop marker. Historically, low oil prices meant economic slowdown, and there is some of that worldwide, but this time we also have increased oil production (largely from shale) adding to the downward price spiral.

The US economy is actually doing well. Unemployment is now under 5% (which is normally considered to be full employment) and wages are finally seen to be rising. A report on CNN indicated that there are 5.6 million job opportunities available, but unfortunately, not necessarily the people with the skills to fill them. Also, big companies still have plenty of cash reserves.

One sector of the US market that has not been doing well recently is manufacturing, and that sector is technically

in recession, having declined for the past four months (October through January). A main cause of that has been the strength of the dollar, which has made US goods more expensive for overseas buyers, but despite that slowing the sector is in good shape. The oil industry has been suffering badly, for obvious reasons, and the dollar's strength is another factor pushing oil prices down.



The constant upheavals in the stock market is not helping the general public have confidence in the future, so unfortunately they are doing what they were told, and saving for a rainy day instead of blowing their money on goods and services. Since a major portion of the US GDP depends on domestic consumption, we need an irresponsible population ;-)

The stock market had got ahead of itself and voices had been calling for a correction, which we now have. But the economy is a different animal, and it is still plodding along. The market's antics are not encouraging the economy, but they also are not doing it serious damage. What we need is a period of stability to allow confidence to be rebuilt, but events worldwide do not seem to be allowing that to happen in the immediate future.

So the rollercoaster is likely to rumble on for a while. At least the probability of more interest hikes in the near future has diminished, but we know the economy is strong enough for the Fed to consider that possibility.

Geoff Canham, Editor