



Meeting Agenda

Date: 9 March 2009
Project: Columbine Elementary School - BVSD
Meeting No: D.A.T. Meeting No. 1
Attendees: Refer to attached list

1. Introduction of the Design Advisory Team (DAT)

Members of the school and neighborhood communities have joined the Design Advisory Team to assist Bennett Wagner & Grody Architects (BWG), Rodwin Architecture (RA) and Boulder Valley School District (BVSD) designing the replacement school for Columbine Elementary School. The series of design Charrettes will be held in the school gymnasium and are open to the public. The list of DAT members is attached at the end of the meeting minutes.

The delivery method for this job will be CM/GC (Construction Manager/General Contractor). Adolfson & Peterson Construction (A & P) was chosen for this school due to their performance in Phase 1, their competitive fee structure, and the chance to get involvement early with accurate cost estimating capabilities.

2. The Design Process:

BWG explained the **various phases of the design and construction of schools**. The process officially starts with the first DAT session with development of Schematic Design, followed by Design Development, Construction Documents, Bidding, and Construction. Two phases of construction are anticipated to allow for the current program to remain in the school while the new building is built.

The **Schematic Design** phase is anticipated to last 10 weeks. The goals of this phase are:

- To investigate all the options of site and plan layouts meeting the educational program and the site constraints
- To select one that best suits the school functions and fits within the neighborhood constraints.
- To review building massing, material, and character of the school exterior
- To select one building elevation scheme which will be further developed during the following phase of the project.
- To price the project and compare to the budget established

The **Design Development** phase is anticipated to last 10 weeks. Based on the site plan, floor plans and building elevations selected during Schematic Design. If the project is over budget in Schematic Design, the design team will need to make decisions and adjustments at the beginning of this phase to meet the established budget. The architects and landscape architect, civil, structural, mechanical and electrical engineers will develop the design of the systems for the building. They will select systems that will best meet budgets, code requirements and sustainability goals set by the design team. The architects will present the design and the cost estimate to the DAT at the end of the phase for review. The DAT's role is essentially complete at the conclusion of this phase.

The **Construction Documents** phase is the development of all the documents the contractor will use to price, bid and build the projects. It takes about 12 weeks to complete. It includes drawings

Project: Columbine Elementary School
DAT Meeting No: 01
Page 2 of 6

and specifications. Bid Packages will be compiled by the CM/GC for the main trade packages, starting with civil and foundation work. These bid packages will be hard bid out to subcontractors and will be compared to accurate cost estimates prepared by Adolfson & Peterson. In some cases, if the cost to self perform the work by A & P is lower than the competitive bid, they will self perform the work.

Formation of a Guaranteed Maximum Price and subsequent Contract Awards takes about 8 weeks. Adolfson & Peterson (AP) will be involved in Schematic Design with costing and constructability issues and advise the design team.

Construction will be phased to allow the school to stay in operation during construction. This is to lessen any impact on learning due to relocation and not spend monies that could be used for facilities. The school district wants to limit the impact on the students. An added feature is construction of a school offers a wonderful learning opportunity for the students.

DAT Involvement

Tom Blahak, project manager for BVSD, reviewed the BVSD DAT Guidelines (revised January 2009) which was distributed to all DAT members. The DAT will be involved through the Design Development phase of the project.

3. Interactive Approach:

The design of a school is best done via an interactive approach involving teachers, administrators, parents and neighbors. The design team goal is to understand the program, clearly identifying the needs by listening to the teachers and administrators, and to seek inspiration for the building in the neighborhood and culture of the community. This is why the DAT meeting is so important and an integral part of the design process. It is also important that the DAT members be the conduit for flow of information both to and from the rest of the staff and the neighborhood.

4. **Design Schedule:** It takes about 8 months to complete the documents for construction, another 2 months to obtain a permit allowing the contractor to start construction. With the CM/GC process, initial meetings with the State Permitting office can occur early, attempting to lessen the lead time for a permit.
 - **Schematic Design (SD)** : 10 Weeks from 9 March to 18 May 2009
 - DAT Meeting 1 – 9 March 2009: review process, schedule, expectations and site constraints.
 - DAT Meeting 2 – 31 March 2009: review site and floor plan options.
 - DAT Meeting 3 – 14 April 2009: review refined floor plan and site plan.
 - DAT Meeting 4 – 28 April 2009: review massing and building elevation concepts.
 - DAT Meeting 5 – 12 May 2009: Schematic Design Presentation
Schematic Design Report completed on 26 May 2009. Preliminary pricing analysis from CM/GC.
 - **BVSD SD Review:** 2 weeks: 27 May to 10 June 2009
 - **Design Development:** 10 weeks from 10 June to 19 August 2009

Project: Columbine Elementary School
DAT Meeting No: 01
Page 3 of 6

- DAT Meeting 25 August 2009:
 - Review design of building and site.
 - Review costs
- **BVSD DD Review:** 2 weeks: 20 August to 3 September 2009
- **Construction Documents:** from 3 September to 10 December 2009

5. Goals and Dreams for Columbine Elementary School

BWG presented a slide show on school design, covering all the elements that need to be thought of for a good design, a great school and a building the community can be proud of and that supports the academic programs which will be defined at a later date.

The design team will strive to incorporate the goals outlined during the visioning process.

The visioning report will be posted as soon as possible on the BVSD web site reserved for this project for access and review by all DAT members. A few key goals from the visioning are:

- A building with interior spaces connected to the exterior and landscape.

- An abundance of natural daylight

- Individual control of heating/cooling and ventilation

- Efficient use of the exterior space as functional teaching environment limiting the need for additional building space.

Additional Goals discussed during the meeting:

- The playground is a key link of the school to the neighborhood. A state of the art playground "Learning Landscape" will be a great asset to the community beyond the school community, instilling a sense of pride and lowering the possibility of vandalism to the property.
- LEED certification is not critical to the DAT. They prefer to use the budget for additional building and site sustainable features rather than the cost of certification, although LEED best practices will be considered during design.
- The question was raised as to the reasoning for replacing the existing building versus renovation of the existing building. The architect pointed out:
 - The existing building is in very poor condition with an outdated and very inefficient mechanical system which would need to be totally replaced. To bring the existing system up to current code would be nearly as expensive as building a new school.
 - The existing building walls have no insulation and single pane windows which let the heat out.
 - Maintenance costs to operate Columbine are one of the highest in the district.
 - The school has been added onto over the years, creating a confusing layout and not allowing the public spaces of the school to be accessible to the neighborhood. The current layout does not meet the district's educational specifications. The multiple additions and masonry construction have created an inflexible layout. To bring the layout up to current specifications would be nearly as expensive as building a new school.
 - New technologies, upgrades to safety (fire sprinkling throughout), and security would be very cost prohibitive in the existing school.

Project: Columbine Elementary School
DAT Meeting No: 01
Page 4 of 6

- The costs allocated to the renovation would only “band-aid” the issues for a few years. The Capital Improvement Planning Committee (CIPC) originally determined the money is better spent to build a state-of-the-art learning facility, a new home for the neighborhood students and a new community center for the neighborhood.
- To complete the necessary renovations while keeping the school operational would require multiple construction phases which would lengthen the construction schedule and therefore the length of disruption to students.
- The architect and contractor should look at recycling as much of the building materials as possible.
- The gymnasium was requested to be larger, have drinking fountains and toilet rooms at close proximity.
- The gymnasium was requested to be accessible to the community. This amenity to the neighborhood is provided at a lot of schools and is desired at Columbine. A careful design of the floor plan should allow spaces such as the gymnasium, the cafeteria and the library/computer lab to be accessible after school hours without jeopardizing the overall security to the rest of the building and staff. More and more schools are open to the community, creating an added amenity to the neighborhood and providing greater use of the building after school hours making better use of the facility.
- Another sustainable aspect of designing a school is designing flexible spaces which can adapt to evolving programs without the need for major renovation and allow for a long life of the building and accommodating changes in teaching methodology.
- Both timeless and contextual architecture was requested. The desire is to build a “Boulder School” which has not been defined yet.
- Use of materials which will last but use a varied palette of material.
- The building, but also the design and construction of the school, should be used as a teaching tool. The architect should allow in the design process for the students to participate and express what would make their school a great learning environment.
- Design a whimsical place for children to learn in.
- Create a secured place without being overbearing
- Pay attention to acoustics
- Minimize operating costs
- Take advantage of the area in the 100 year flood plain with appropriate plants. This area could be used as teaching landscape. Permaculture could be introduced to the site. Linda Toukan has a lot of ideas that she will send to share with the landscape architect.
- The traffic around the school site at drop-off and pick-up is an issue to the neighbors. Although congestion is of a short time, several accidents have occurred. The district has hired a traffic engineer who is completing a report. The architects will be presenting site layout options to reduce traffic congestion in conjunction with the traffic engineer’s recommendations.
- The community is very adamant about the current amount of green space and does not want to see it reduced for more paved areas.
- Another traffic issue is weekend use of the park’s soccer fields. Cars park on surrounding streets.
- The construction budget of \$9.4 million will allow for the construction of a 53,000 sf building. This building will support a student enrollment of approximately 450. The

Project: Columbine Elementary School
DAT Meeting No: 01
Page 5 of 6

ultimate future build out of the building would be for 550 as enrollment necessitates. With classrooms built at approximately 900 sf to meet the educational specifications, the building would accommodate 3 rounds. Members of the team expressed concern that the school is currently configured in four rounds with small class sizes and the new school should be able to accommodate that configuration. Converting to 3 rounds in a 53,000 sf building would preclude the current small class size and focused differentiation portions of the current program. There also was a concern for maintaining classrooms similar in size to those in the current building configuration which are smaller than 900 sf. Doing so would allow for maintaining 4 rounds in a 53,000 sf building. Creating a space which is flexible enough to accommodate the current educational program as well as future programs is part of the design team's challenge.

6. Additional design Considerations:

Sustainability is a strong goal of the Design Team, the school district and the community. It will be achieved with:

- the selection of durable materials with high recycled content and low-off gassing
- natural materials connecting to the environment
- the day lighting of all classrooms and most spaces
- a high efficiency building envelope, mechanical and electrical systems for energy conservation
- a compact building massing to limit the exterior walls and roof surfaces but allow for enough windows for day lighting
- the conservation of the existing site by limiting the building footprint
- overall building flexibility for long life and loose fitting of the program

School boundaries: The district is not planning on changing the boundary for Columbine Elementary School.

7. Site Design Collaboration

Site Constraints:

- The 100-year flood plain limits the area for construction of the school
- The current bus access to the school is on 22nd Street. Only 5 buses access the school daily. It is not an issue for the neighbors along 22nd street. Students currently must cross an open field to get to the school from the buses.
- The parent drop off is on the west side of the site on Repplier. It is causing congestion on the street and accidents. The option to extend a parent drop-off lane on the school site could alleviate a lot of the congestion.

School Site Design Criteria:

- Separate vehicular from pedestrian traffic on site
- Separate parents drop off traffic from bus and staff parking on site.
- Review student, pedestrian, and bicycle routes to the school site and separate from vehicular routes.
- Proximity of bus lane to the school for student safety
- Direct access to playgrounds from the drop-off lanes
- Visible and accessible front entrance to the school

Review Options:

Project: Columbine Elementary School
DAT Meeting No: 01
Page 6 of 6

- The architect team will study several site options and present for feedback at the next DAT meeting.
- One option discussed is to link Replier to Forest via a driveway along the north limit of the site. It would allow for a better flow of parent cars off the neighborhood street and also provide access to the City soccer fields during the week-end, addressing the excessive parking on the neighborhood streets. Opinions were expressed both in favor of and opposed to alleviating on street parking with onsite parking.

8. Schedule Future DAT Meetings

The DAT meeting dates are listed under item 4 above. The meetings will take place from 5:30 to 7:30 PM in Columbine Elementary School gymnasium.