

Planning for School Construction on Occupied Sites

first of a two-part series

By Greg Stack, Jubany-NAC | Architecture

Have you ever received a call from an irate principal complaining that power service has been cut off to their building due to construction? How about calls from parents worried about student safety? These occurrences can largely be avoided through careful pre-planning.

Building schools on occupied sites is a reality most districts must face. Whether it is remodeling, replacement or additions, school sites occupied by students will be an increasing phenomenon as the state continues to improve its school building stock. All too often architects leave the coordination of occupied construction to the contractor or program manager, but the time to begin the discussion of how meaningful teaching and learning will continue during construction is during the design phase. In this article, and another appearing in the next issue, the architect will show how planning in the design phase can make for a better project experience for all stakeholders. First the architect will examine consid-

erations for building on an occupied site, while in the future the architect will examine construction in an occupied building.

Building on an Occupied Site

Effective planning for building on an occupied site starts with the original school design. The best designs take into consideration that change will happen and incorporate flexibility to accommodate future modifications. The architect ensures that areas for additions are reserved and clearly identified on the drawings, and that utilities are routed around the addition areas and stubbed out for future buildings. The architect also encourages owners to keep track of future addition locations and avoid placing items such as relocatables in those areas. Even with good planning, additions sometimes must be placed in awkward locations, making the planning of educational delivery during construction all the more important.

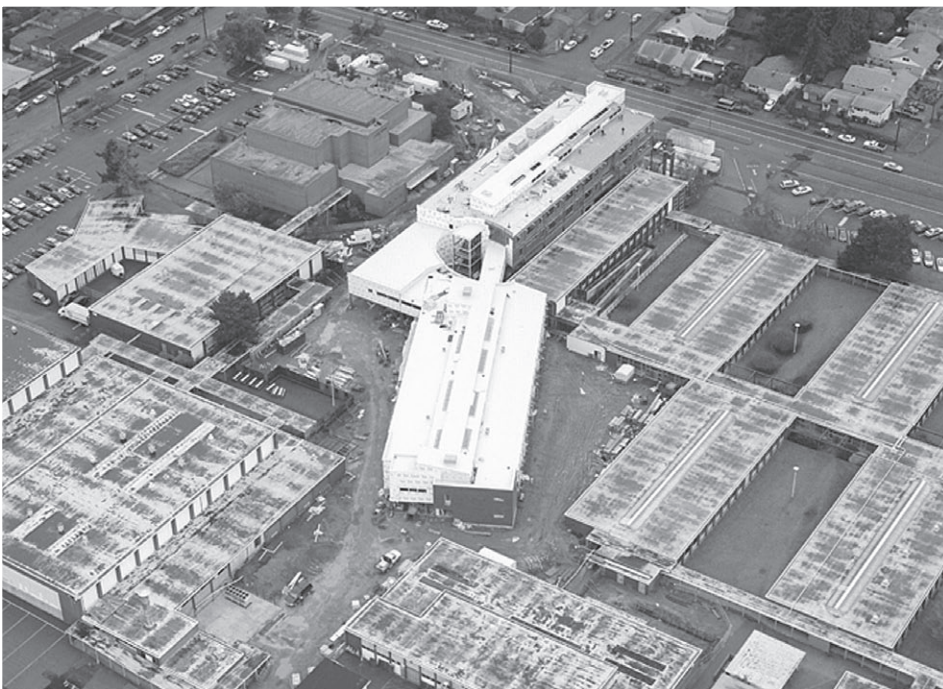
A robust communications plan is the single most important factor in building on an occupied site. This plan is designed to tell the building users the “what, when and where” of the process; what will be done to the site, when it will be done, and where it will occur. The plan must communicate to administrators, teachers, custodians, students, parents, neighbors, outside users, and police and fire services. The plan must also inform the contractors of their responsibilities. The architect has found that the plan must be complete enough to address concerns and give direction, yet flexible enough to allow for inevitable changes. A comprehensive communications plan should reach out in several ways with the goal of building trust between the users and the school district.

Planning for site access during construction should encompass:

- Safety and security
- Student access
- Construction access
- Adult access
- Utilities and services
- Construction timing


Safety and security of building users are paramount in occupied school construction. This can be ensured by arranging construction zones so users do not cross construction traffic. When this is not possible the architect requires through the documents that construction vehicles passing through user zones be accompanied by “walkers” front and rear to guide vehicles. Fences and gates should be used to separate construction activities from users, and designated pathways provided to keep users separated from construction traffic. Construction access must be as convenient as possible. Separate construction

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site. The plan establishes trust between the design/builder team and the stakeholder/users of the project. The plan covers the what, when and where of the project and addresses the key issues of safety, access, timing, utilities and service. A comprehensive approach makes for a successful project.

In a future issue, the architect will be discussing critical considerations for building in an occupied school building. 

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entrances are ideal, but if not possible, construction access should be as direct as possible to reduce conflicts with users.

Utilities should be considered very early in the planning process. Building “out of sequence” to accommodate future utilities or providing temporary utilities may be required. Planning for utility relocations and disruptions is also important. Having a good set of as-built drawings from previous projects helps; however, incurring the extra expense of exploratory excavation during the design phase will pay off with less disruption to users and the contractor.

The specifications should limit the construction period each day and spell out the procedures for variance from these hours. The spec should require the contractor to coordinate with the school if particularly noisy or dusty activities are anticipated to take place. When staff and neighbors are informed about the time work will be occurring they are less likely to object.

Finally, coordinating with police and fire responders as well as utilities that might have on-site easements is an essential part of advanced planning. Fire lanes and ambulance access must be maintained and utility companies that often have their own schedules and work rules must be part of early planning.

A robust communications plan is vital to success when building on an occupied