



Modular Classrooms Additions | Project Overview

Current practice for assessing suitability of modular classrooms

The main items for consideration for adding modulares to a school are as follows;

1. SITE REVIEW & CONSIDERATIONS

- 1) Placement to be close to existing exit of the school
- 2) Location must be free of physical obstructions (ie large trees, playground equipment, electrical transformers, retaining walls, etc.)
- 3) Conflict with playfields / sports fields
- 4) Location and setbacks from property lines
- 5) Location of existing school windows
- 6) Existing site grades – steel grades will eliminate possible placement
- 7) Proximity to street – large numbers of portables will require fire lane access
- 8) Site Drainage – do not want to adversely affect current site drainage.

2. BUILDING CODE & CITY BYLAW CONSIDERATIONS:

- 1) Increased school capacity may require additional washroom fixtures
- 2) Increased capacity may require additional parking stalls
- 3) A minimum distance of 6 metres (20 feet) between school and modulares is required
- 4) Increased distance may be required if large amount of windows in both school and modulares are exposed across from each other.
- 5) Development Permit process may require additional site items such as loading zones, fencing, additional trees / or replacements, bike stalls, etc.
- 6) Requirement for fire lane access when larger than 600 sq.m. (approx..)
- 7) Location of fire hydrant within 90m if group of portables exceeds 600 sq.m.

3. CONSTRUCTION PHASE - SCOPE OF WORK FOR MODULAR ADDITIONS

- 1) Development Permit & Building Permits
- 2) Site preparation – strip organics, sod & add gravel, regrading may be required.
- 3) Steel screw pile foundations
- 4) Building Mover to move the modular to the site
- 5) Installation of perimeter skirting below modulares
- 6) Add stairs both ends and ramp

- 7) Add all services including gas, power, data cabling, phone line, fire alarm wiring, p.a. either with a trench or through a connecting corridor
- 8) Some may have water and drain lines
- 9) There may be a connecting corridor that will require it's own services for light and heating.
- 10) Some modifications may be required to school entry area if a corridor is added.
- 11) Work inside the school to install the services
- 12) Toilet additions may be needed.

4. CONSTRUCTION PHASE - SCOPE OF WORK FOR MODULAR RELOCATIONS

- 1) If the project is moving an existing modular from one school site to another there will be a range of work required at the donor site to remediate the site and building after the units is removed. These costs can be significant in some situations.
- 2) Refurbishing an existing Portable may be required to upgrade roofing, furnace, flooring, exterior siding, etc.

5. COSTS (site conditions can add wide variance to project costs)

- 1) New Modus Modulars – for 2 unit addition:

a. A unit with corridor =	\$170,000
b. B unit (no corridor) =	\$140,000
c. Install 2 unit addition = approx.	\$200,000
d. Consultants fees, permits	<u>\$ 18,000</u>
Total for 2 modulars	\$528,000
e. Add connecting corridor	\$100,000
f. Add air conditioning	\$ 13,000
g. Add sinks connected to school	\$ 25,000
h. Repair to donor site for move	\$ 40,000 (will be a wide range)

6. TIMELINES – commencing from provincial approval

- 1) Design (initial site review and code review) and do Development Permit drawings 3 weeks
- 2) Apply for DP & do construction drawings 8 weeks
- 3) Apply for BP and Tender project & AI approval 3 weeks
- 4) Project in construction phase 8 weeks
- 5) Add if there is a connecting corridor 3 weeks

Total time to Occupancy of modulars 25 weeks

Note: timelines are influenced by –

- a. Modus schedule for constructing the units
- b. Number of modular units added to the site
- c. Site complexity and constraints
- d. Time of year
- e. How busy the construction industry is



- f. If there is a connecting corridor or not
- g. Availability of the building mover (normally only one is available)
- h. Availability of screw pile contractor
- i. Number of projects concurrent in Design Services and staff resources
- j. If washroom or parking additions are required

Design Services, Calgary Board of Education