



Standard Classification for Building Construction Field Requirements, and Office Overhead & Profit¹

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1. Scope

1.1 This standard covers a classification for field requirements, office overhead, and profit for use in construction estimating. This classification is common to all forms of construction, and its components are an integral part of any construction cost estimate. The classification serves as a consistent reference for analysis, evaluation, and monitoring during the feasibility, planning, design, and construction phases of building. Used in conjunction with UNIFORMAT II and other elemental classifications, including Classification E2168, it also ensures consistency in the economic evaluation of construction work across time and from project to project. Through consistency in estimating and cost recording it enhances reporting at all stages in construction—from feasibility and planning through the preparation of working documents, construction, maintenance, rehabilitation, and disposal—and is a necessary part of the reporting process described in Practice E1804.

1.2 This classification applies to all construction work.

1.3 This classification is not based on permanent physical elements of construction (as defined and classified in Classification E1557). Rather, the classification items are major, non-permanent, cost components common to all construction work. They perform the same function and provide for similar needs regardless of the design, specification, construction method, or materials used in the physical construction.

2. Referenced Documents

2.1 *ASTM Standards*:²

E833 [Terminology of Building Economics](#)

E1557 [Classification for Building Elements and Related Sitework—UNIFORMAT II](#)

¹ This classification is under the jurisdiction of ASTM Committee E06 on Performance of Buildings and is the direct responsibility of Subcommittee E06.81 on Building Economics.

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² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

E1804 [Practice for Performing and Reporting Cost Analysis During the Design Phase of a Project](#)

E2168 [Classification for Allowance, Contingency, and Reserve Sums in Building Construction Estimating](#)

3. Terminology

3.1 *Definitions*—For definitions of terms used in this classification, refer to Terminology E833.

4. Significance and Use

4.1 This classification defines an integral part of any construction estimate and cost record. It classifies the non-permanent portion of construction activity that is essential to allow physical implementation of the required work to take place.

4.2 Used in conjunction with UNIFORMAT II, this classification provides for consistent and complete estimating of building construction work, especially during the design phase. The same considerations of consistent use and commonality to all work have been applied here.

4.3 This classification is sufficiently generic to allow its use in estimating all forms of construction work and through all stages of planning, design, use, and disposal. Additionally, it is appropriate for use in both elemental estimates and trade estimates.

5. Basis of Classification

5.1 All parts of the built environment are included.

5.2 *Criteria for the Classification*—The selected classification, the items to include within it, and within which parts of the classification to include them are based on the following criteria:

5.2.1 Applies to any construction type and shall not include physical elements of construction such as those defined in Classification E1557 and other elemental classifications.

5.2.2 Includes only items of a construction enabling, management, supervision, jurisdictional, financial, legal, liability, and client requirement nature necessary to the performance of the construction work.

5.2.3 Includes specifically those items of cost that by common understanding and usage are normally borne by a

general contractor or construction manager, and any other items required by terms of contract and normally specified within the general requirements and general conditions of contract.

5.2.4 Includes items with significant influence on cost and a high frequency of occurrence. Categories are defined in order to provide a framework for cost control. The decision as to where among the classification elements to include specific items will ultimately rely on professional judgment as to where professionals in current practice normally look for such items.

6. Description of Field Requirements — Individual Classification

6.1 *Classification of Field Requirements*—Table 1 presents the classification of field requirements. Comprising three hierarchical levels: Major Group Classification for Level 1, Group Classification for Level 2, and Individual Classifications for Level 3.

6.2 The following lists show what items are included in the recommended classification at Level 3. Note that the listings of inclusions are not intended to be an exhaustive listing. Rather, they provide a general outline of what to expect in this individual element consistent with the selection criteria outlined in 5.2.

6.3 *Field Requirements* (X 10):

6.3.1 *Bonds, Permits, Fees, and Insurances* (X 1005):

Includes:

6.3.1.1 Building permit.

6.3.1.2 Fire district permit.

6.3.1.3 Miscellaneous permits: street use, curb cuts, sidewalk use, parking meter use.

6.3.1.4 Utility connections: water, storm sewer, sanitary sewer, electric, gas, fire protection, others.

6.3.1.5 Bonds: bid bond, performance bond, payment bond, lien bond, maintenance bond, retainage bond, special bonds.

6.3.1.6 Insurance: public liability, builders risk, all-risk, hold harmless.

Excludes:

6.3.1.7 Permanent work included elsewhere within the physical elements of construction.

6.3.2 *Field/Site Set-Up and Accommodation* (X 1010):

Includes:

6.3.2.1 Access to site: temporary roads, storage, lay down and parking areas, traffic control.

6.3.2.2 Site setup: move in and out, mobilization, set-up, construction signs.

6.3.2.3 Site accommodations:

(1) Temporary buildings: offices, storage sheds, first aid, lunch room;

(2) Temporary labor camp: dormitories, kitchens, laundry, store, entertainment, temporary toilets and sanitary facilities, lighting, power, heating, ventilation and cooling;

(3) Telephone, facsimile, and data: service and monthly charges;

(4) Communication system: service and monthly charges;

(5) Computer and copy equipment: purchase, rental, usage, and maintenance;

(6) Stationery, copy/printing cost; and

(7) Office and first aid supplies.

Excludes:

6.3.2.4 Protection, barricades, enclosures (see 6.3.5, *Safety and Protection* (X 1025)).

6.3.3 *Management, Supervision, and Field Engineering* (X 1015):

Includes:

6.3.3.1 Project manager.

TABLE 1 Classification of Field Requirements, and Office Overhead & Profit, with Alpha-Numerical Designations

Level 1 Major Group Classification	Level 2 Group Classification	Level 3 Individual Classification
X Field Requirements and Overhead & Profit	X 10 Field Requirements	X 1005 Bonds, Permits, Fees, and Insurances
		X 1010 Field/Site Set-Up and Accommodation
		X 1015 Management, Supervision, and Field Engineering
		X 1020 Personnel Travel and Lodging
		X 1025 Safety and Protection
		X 1030 Construction Aids, Equipment, and Tools
		X 1035 Temporary Construction
		X 1040 Climactic and Environmental Requirements
		X 1045 Quality Control, Inspection, and Testing
		X 1050 Maintenance and Housekeeping
		X 1090 Other Contractual Requirements
X 20 Office Overhead & Profit		X 2010 Home Office Overhead
		X 2020 Profit

6.3.3.2 Superintendents: site, general, field.

6.3.3.3 Engineers: site, project, field, office, and safety.

6.3.3.4 Quantity surveyors.

6.3.3.5 Instrument and rodmen.

6.3.3.6 Office management: office managers, accountants, clerks and timekeepers, expeditors and warehouse assistants.

6.3.3.7 Mechanical and electrical superintendents.

6.3.3.8 Security during construction: guards, watchmen, alarms, and systems.

6.3.3.9 General purpose labor.

Excludes:

6.3.3.10 Home office personnel (see 7.3.1, *Home Office Overhead* (X 2010)).

6.3.4 *Personnel Travel and Lodging* (X 2010):

Includes:

6.3.4.1 Personnel transportation: air, ground, mileage, parking, and tips.

6.3.4.2 Lodging: hotel/motel, apartment.

6.3.4.3 *Per diem* or food, laundry, or clothing costs, or combination thereof.

6.3.4.4 Miscellaneous travel costs.

6.3.4.5 Health and welfare of personnel.

6.3.5 *Safety and Protection* (X 1025):

Includes:

6.3.5.1 Safety rails: perimeter, opening, stair.

6.3.5.2 Other miscellaneous safety devices and associated temporary construction.

6.3.5.3 Protection:

- (1) Enclosures: doors, windows, walls, roofs;
- (2) Erosion control: fences, barriers, straw bales;
- (3) Separation: dust partitions, air barriers;
- (4) Barricades: building, site, street, walks;
- (5) Enclosure: protected public walks;
- (6) Fences: temporary fences and gates; and
- (7) Fire protection: extinguishers, fire hose cabinets.

6.3.6 *Construction Aids, Equipment, and Tools* (X 1030):

Includes:

6.3.6.1 Vehicles: pick up truck, van/wagon, others.

6.3.6.2 Cranes: including foundation, assembly, and erection; electrical energy and service; tower extensions; boom moves; disassembly; demobilization; repairs and maintenance; and operator.

6.3.6.3 Hoists, material: including foundation, assembly, and erection; energy/fuel and service; hoist extensions; disassembly; demobilization; repairs and maintenance; and operator.

6.3.6.4 Hoists, personnel: including foundation, assembly, and erection; energy/fuel and service; hoist extensions; disassembly; demobilization; repairs and maintenance; and operator.

6.3.6.5 Scaffolding, platforms, swing staging.

6.3.6.6 Tools and equipment: including compressors/generators, pumps, saws, drills/hammers, miscellaneous tools, and equipment.

6.3.6.7 Miscellaneous rough hardware: including bolts, screens, nails, fasteners.

6.3.7 *Temporary Construction* (X 1035):

Includes:

6.3.7.1 Temporary construction: bridges, coffer dams, overpasses, runarounds, decking, traffic diversions.

6.3.7.2 Temporary utilities:

- (1) Water: service, distribution and usage charges;
- (2) Ice and drinking water: unit rental and service;
- (3) Sanitary sewers: temporary connections and lines;
- (4) Storm sewers: temporary connections and lines;
- (5) Dewatering: site/excavation;
- (6) Electric (power and lighting): service and distribution, energy cost and maintenance; and
- (7) Heating, ventilation, and cooling:
 - (a) Units: service, rental, maintenance, energy cost; and
 - (b) Temporary use of permanent system: beneficial occupancy charge, energy cost, system restoration, filters, inspection.

Excludes:

6.3.7.3 Temporary construction of a major nature normally designed or specified, or both, within the construction contract documents.

6.3.8 *Climatic and Environmental Requirements* (X 1040):

Includes:

6.3.8.1 Extreme climatic conditions: winter heat, summer cooling, premium for winter concrete and winter work, snow and ice clearing, tarpaulins, insulation mats, enclosures.

6.3.8.2 Temporary controls: noise, dust, water, pest, rodent, debris, pollution.

6.3.9 *Quality Control, Inspection, and Testing* (X 1045):

Includes:

6.3.9.1 Personnel: quality control, inspection, and testing.

6.3.9.2 Collection and laboratory testing: soil, steel, welding, concrete, piling, roofing, and other materials.

6.3.9.3 Sample mock ups.

6.3.10 *Maintenance and Housecleaning* (X 1050):

Includes:

6.3.10.1 Site clean up: continual and final.

6.3.10.2 Rubbish chutes: installation, use, and removal.

6.3.10.3 Debris: collection and removal.

6.3.10.4 Land fill charges.

6.3.10.5 Building cleanup: continual and final, floor and glass.

6.3.10.6 Protection: finished work and finished surfaces, material and equipment.

6.3.11 *Other Contractual Requirements* (X 1090):

Includes:

6.3.11.1 General contract conditions: plans, drawings, specifications, progress photography and reporting, shop drawings, product data and samples, “as built” drawings and specifications, signs, delay/contingency/risk analysis, wage upgrading, mobilize/demobilize, phasing/schedule analysis.

6.3.11.2 Obligations and restrictions imposed by employer:

- (1) Access, possession, and site use;
- (2) Limitations on working space;
- (3) Limitations on working hours;
- (4) Use and disposal of materials found on site;
- (5) Hoardings, fence screens, temporary roofs, temporary name boards, and advertising rights;
- (6) The maintenance of existing live drainage, water, gas, and other mains or power services on or over the site,

(7) Undertaking and delivery of work in a specific order of sections or phases, or both;

(8) Maintenance of specific temperature and humidity levels;

(9) Temporary accommodation and facilities for use by employer: including heat, light furniture, cleaning, and maintenance;

(10) Telephone, facsimile, and data service for use by employer: installation, rental, service, and maintenance;

(11) Ceremonies: ground breaking, opening; and

(12) Other obligations or restrictions.

Excludes:

6.3.11.3 Base cost of such necessary work included elsewhere in 6.3, *Field Requirements* (X 10), or permanent physical elements, or both.

7. Description of Office Overhead & Profit Individual Element

7.1 *Classification of Office Overhead & Profit*—Table 1 presents the classification of office overhead and profit. It comprises three hierarchical levels. Major Group Classification for Level 1, Group Classification for Level 2, and Individual Classifications for Level 3.

7.2 The following lists show what items are included in the recommended classification at Level 3. Note that the listings of inclusions are not intended to be an exhaustive listing. Rather, they provide a general outline of what to expect in this individual element consistent with the selection criteria outlined in 5.2.

7.3 *Office Overhead & Profit* (X 20):

7.3.1 *Home Office Overhead* (X 2010):

Includes:

7.3.1.1 That portion of the contractor's home office costs (corporate overhead) allocated to the construction contract.

7.3.1.2 Corporate overhead (home office costs) includes for example:

(1) Office: rental, purchase, tax considerations;

(2) Insurances: liability insurance, errors and omissions (if design/build), vehicle insurance, workers compensation (if not included in hourly rates);

(3) Office staff (not assigned to a specific project): owner, secretary, buyer, scheduler, estimator;

(4) Utilities;

(5) Transportation: purchase/lease company cars and trucks, maintenance and repairs;

(6) Marketing: production, printing, distribution, brochures, newsletters;

(7) Office equipment/supplies: computers, printers, facsimile, office furniture, stationery;

(8) Communications: telephone communication lines, telephones, pagers, radio communication systems, data communication lines and networks, LANS, WANS, Internet, intranet, extranet; and

(9) Financing: bank loans and other funding arrangements.

Excludes:

7.3.1.3 Field staff, field accommodations, and field costs specifically dedicated to the construction work (see 6.3, *Field Requirements* (X 10)).

7.3.2 *Profit* (X 2020):

Includes:

7.3.2.1 Any markup or profit included within a contractor's bid for undertaking the specified work.

Excludes:

7.3.2.2 Subcontractors mark-up, or profit normally included within their price for the permanent physical elements of construction.

8. Keywords

8.1 building economics; classification; construction element; construction estimating; construction field requirements; cost control; cost estimating; cost planning; elemental estimate; elemental format; general accounts; general conditions; general requirements; overhead; profit; trade estimate; UNIFORMAT II

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