

APPENDIX B UNIFORMAT II, Level-3 ELEMENT DESCRIPTIONS—List of Inclusions and Exclusions

The following lists show what items are included and excluded at Level 3 in the 1997 version of the ASTM Standard Classification for Building Elements and Related Sitework. Note that the listings of inclusions and exclusions are not intended to be an exhaustive listing. Rather, they provide a general outline of what to expect in each element consistent with the selection criteria outlined in section 2.2. Exclusions are listed to help users find items quickly. For example, a user might place exterior load bearing walls under B2010 Exterior Walls or B1010 Floor Construction. UNIFORMAT II puts them under B2010 Exterior Walls based on technical judgment and current practice. Putting under B1010 Floor Construction a cross-reference to B2010 Exterior Walls directs the person who looks first under Floor Construction to the appropriate element, Exterior Walls.

B.1 Description of Building Elements

A 10 Foundations	
A 1010 Standard Foundations	
<u>Includes</u>	<u>Excludes</u>
<ul style="list-style-type: none"> • wall & column foundations • foundation walls up to level of top of slab on grade • pile caps • backfill & compaction • footings & bases • perimeter insulation • perimeter drainage • anchor plates • dewatering 	<ul style="list-style-type: none"> • general excavation to reduce levels (see section G 1030, Site Earthwork) • excavation for basements (see section A 2010, Basement Excavation) • basement walls (see section A 2020, Basement Walls) • under-slab drainage and insulation (see section A 1030, Slab on Grade)

A 1020 Special Foundations	
<u>Includes</u>	<u>Excludes</u>
<ul style="list-style-type: none"> • piling • caissons • underpinning • dewatering • raft foundations 	<ul style="list-style-type: none"> • pile caps (see section A 1010, Standard Foundations) • rock excavation (unless associated with Special Foundations) (see section A 1010, Standard Foundations & section A 2010,

- grade beams
- any other special foundation conditions

Basement Excavation)

A 1030 Slab on Grade

Includes

- standard
- structural
- inclined slabs on grade
- trenches
- pits
- bases
- under-slab drainage
- under-slab insulation

Excludes

- applied floor finishes (see section C 3020, Floor Finishes)
- hardeners & sealers to the slab (see section C 3020, Floor Finishes)

A 20 Basement Construction

A 2010 Basement Excavation

Includes

- additional excavation required for construction of basement
- backfill & compaction
- excavation support system

Excludes

- general grading to reduce levels over site (see section G 1030, Site Earthwork)

A 2020 Basement Walls

Includes

- basement wall construction
- moisture protection

Excludes

- walls above grade that enclose basements (see section B 2010, Exterior Walls)
- perimeter drainage (see section A 1010, Standard Foundations)

B 10 Superstructure

B 1010 Floor Construction

Includes

- floor structural frame
- interior structural walls

Excludes

- exterior load bearing walls (see section B 2010, Exterior Walls)

- floor slabs & decks
- inclined & stepped floors
- expansion & contraction joints
- balcony construction
- suspended ramps
- exterior stairs and fire escapes
- other floor construction (e.g., catwalks, space frames, etc.)
- applied & suspended ceiling & floor finishes (see section C 3020, Floor Finishes & section C 3030, Ceiling Finishes)
- stair construction (see section C 2010, Stair Construction)
- balcony walls & railings (see section B 2010, Exterior Walls)

B 1020 Roof Construction

Includes

- roof structural frame
- structural interior walls supporting roof
- roof decks, slabs & sheathing
- canopies
- other roof construction

Excludes

- roof coverings (see section B 3010, Roof Coverings)
- skylights & roof openings (see section B 3020 Openings)
- stair construction (see section C 2010, Stair Construction)

B 20 Enclosure

B 2010 Exterior Walls

Includes

- exterior wall construction with facing materials, exterior applied finishes,
- back-up construction, framing, wallboard, parapets, insulation & vapor retarders, sheathing, wallboard
- exterior load-bearing wall construction
- exterior louvers & screens
- exterior sun control devices
- balcony walls & railings
- exterior soffits

Excludes

- applied finishes to interior faces of exterior walls (see section C 3010, Wall Finishes)
- columns and beams in exterior walls (see section B 10, Superstructure)
- venetian blinds (see section E 20, Furnishings)
- other interior sun control devices (see section E 20, Furnishings)
- roof eaves and eaves soffits (see section B 3010, Roof Coverings)
- glazed curtain walls (see section B 2020, Windows)

B 2020 Exterior Windows**Includes**

- windows
- storefronts
- curtain walls
- exterior painting of windows
- wall opening elements such as lintels, sills, flashings, etc.

Excludes

- window treatments (see section E 20, Furnishings)

B 2030 Exterior Doors**Includes**

- personnel doors
- revolving doors
- overhead doors
- other doors (e.g., hanger doors, blast-resistant doors, etc.)

B 30 Roofing**B 3010 Roof Coverings****Includes**

- roofing membranes
- traffic coatings
- waterproof membranes below paving
- expansion joints
- vapor retarder¹
- roof & deck insulation
- roof fill
- flashings & trim
- gutters & downspouts
- eaves & eaves soffits

Excludes

- roof openings (see section B 3020, Roof Openings)
- roof drains (see section D 2040, Rain Water Drainage)
- parapets (see section B 2010, Exterior Walls)

¹ A vapor retarder was formerly referred to as a vapor barrier.

B 3020 Roof Openings

Includes

- skylights
- area glazing
- roof hatches
- gravity roof ventilators
- smoke vents

Excludes

- powered & ducted ventilators (see section D 3040, Distribution Systems)

C 10 Interior Construction

C 1010 Partitions

Includes

- fixed partitions
- demountable partitions
- retractable & movable partitions
- operable partitions
- interior balustrades & screens
- interior window & storefronts
- Though not in standard, C1010 includes field constructed toilet partitions

Excludes

- stair balustrades (see section C 2010, Stair Construction)
- interior load bearing & shear walls (see section B 10, Superstructure)
- applied wall finishes (see section C 3010, Wall Finishes)
- Fabricated toilet partitions (see section C1030, Fittings)

C 1020 Interior Doors

Includes

- standard swinging doors
- glazed doors
- sliding & folding doors
- fire doors
- other doors
- door frames
- door hardware
- door opening elements
- door painting & staining
- hatches & access doors

Excludes

- vault doors (see section E 10, Equipment)
- operable partitions (see section C 1010, Partitions)

C 1030 Fittings**Includes**

- chalk & tack boards
- identifying devices
- lockers
- toilet & bath accessories
- storage shelving
- handrails & ornamental metals
- fabricated toilet partitions
- fabricated compartments and cubicles
- closet specialties

Excludes

- equipment (see section E 10, Equipment)
- furniture (see section E 20, Furnishings)
- special construction (see section F 10, Special Construction)
- fire extinguishers (see section D 4030, Fire Protection Specialties)
- manufactured case work (see section E 20, Furnishings)

C 20 Stairs**C 2010 Stair Construction****Includes**

- stair treads, risers and landings
- handrails and balustrades

Excludes

- steps in structural slabs (see section B 1010, Floor Construction)

C 2020 Stair Finishes**Includes**

- finishes to treads, risers, landings & soffits
- finishes to handrails & balustrades

C 30 Interior Finishes**C 3010 Wall Finishes****Includes**

- concrete wall finishes
- wall plastering
- wallboard
- tile & terrazzo
- painting
- wallcoverings
- acoustic wall treatment
- other coatings & finishings

Excludes

- wallboard integral to interior walls & partitions (see section C 1010, Partitions, B2010, Exterior walls)

C 3020 Floor Finishes**Includes**

- floor toppings and traffic membranes
- hardeners & sealers
- tile, terrazzo, wood & resilient flooring
- carpeting
- masonry & stone flooring
- other flooring (e.g., conductive, armored)
- painting & staining
- access pedestal flooring

Excludes

- stair finishes (see section C 2020, Stair Finishes)

C 3030 Ceiling Finishes**Includes**

- exposed concrete finishes
- plaster ceiling finishes
- wallboard ceiling finishes
- acoustic ceiling tiles & panels
- painting & staining
- metal strip ceilings
- other ceilings
- all suspended systems

Excludes

- finishes to stair soffits (see section C 2020, Stair Finishes)
- finishes to exterior soffits (see section B 2010, Exterior Walls)

D 10 Conveying**D 1010 Elevators and Lifts****Includes**

- passenger elevators
- freight elevators
- people lifts
- wheel chair lifts

Excludes

- elevator pits (see section A 1030, Slab on Grade)

D 1020 Escalators and Moving Walks**Includes**

- escalators
- moving walks

D 1090 Other Conveying Systems

Includes

- hoist & cranes
- conveyors
- dumbwaiters
- pneumatic tube systems
- linen, trash & mail chutes
- turntables
- operable scaffolding
- transportation systems (for example baggage handling and aircraft loading systems)

D 20 Plumbing

D 2010 Plumbing Fixtures

Includes

- water closets
- urinals
- lavatories
- sinks
- showers
- bathtubs
- drinking fountains
- bidets

Excludes

- domestic hot water heaters (see section D 2020, Domestic Water)
- hose bibbs (see section D 2020, Domestic Water)
- other equipment (see section D 2090, Other Plumbing Systems)

D 2020 Domestic Water Distribution

Includes

- pipes & fittings
- valves, hydrants & hose bibbs
- water heaters
- domestic water supply equipment
- insulation

Excludes

- plumbing fixtures (see section D 2010, Plumbing Fixtures)

D 2030 Sanitary Waste

Includes

- waste pipe & fittings
- vent pipe & fittings
- floor drains
- sanitary waste equipment
- insulation

D 2040 Rain Water Drainage

Includes

- pipe & fittings
- roof drains
- insulation

Excludes

- gutters & downspouts (see section B 3010, Roof Coverings)

D 2090 Other Plumbing Systems

Includes

- other piping systems
- gas distribution
- acid waste systems
- pool equipment
- fountain piping systems & devices

D 30 HVAC

D 3010 Energy Supply

Includes

- oil, gas, & coal supply
- steam, hot & chilled water supply
- solar energy supply
- wind energy supply

Excludes

- electrical energy supply systems (see section D 5090, Other Electrical Systems, and section D 5010, Service & Distribution)

D 3020 Heat Generating Systems

Includes

- boilers, including electric
- piping and fittings adjacent to boilers
- primary pumps
- auxiliary equipment
- equipment & piping insulation

Excludes

- electric space unit heaters & baseboard, fuel fired unit heaters, furnaces (see section D 3050, Terminal & Package Units)
- controls & instrumentation (see section D 3060, Controls & Instrumentation)

D 3030 Cooling Generating Systems

Includes

- chillers
- cooling towers & evaporative coolers
- condensing units
- piping & fittings
- primary pumps
- direct expansion systems
- equipment & piping insulation

Excludes

- secondary chilled water pumps (see section D 3040, Distribution Systems)
- distribution piping (see section D 3040, Distribution Systems)
- controls & instrumentation (see section D 3060, Controls & Instrumentation)

D 3040 Distribution Systems

Includes

- supply & return air systems, including air handling units with coils (electric included), filters, ductwork, & associated devices such as VAV boxes, duct heaters, induction units & grilles
- ventilation & exhaust systems
- steam, hot water, glycol & chilled water distribution
- associated terminal devices including convectors, fan-coil units, & induction units, but not water & steam unit heaters
- heat recovery equipment
- auxiliary equipment such as secondary pumps, heat exchangers, sound attenuation, & vibration isolation
- piping, duct, & equipment insulation

Excludes

- electric, gas, or oil fired unit heaters (see section D 3050, Terminal & Package Units)
- furnaces (gas or oil) (see section D 3050, Terminal & Package Units)
- floor, ceiling, & rooftop package units (see section D 3050, Terminal & Package Units)
- controls & instrumentation (see section D 3060, Controls & Instrumentation)

D 3050 Terminal and Package Units

Includes

- electric baseboard
- electric or fossil fuel fired unit heaters, unit ventilators, & radiant heaters
- window or through-the-wall air conditioners, with or without heating of any type
- reverse-cycle, water- or air-cooled, terminal heat pumps
- wall sleeves where required
- electric or fossil fuel fired air-handling units or furnaces
- self-contained, air- or water-cooled, floor, ceiling, & rooftop air conditioners, & heat pumps
- ductwork and accessories, including flue stacks
- factory-integrated controls

Excludes

- piping & accessories (see section D 3040, Distribution Systems)
- hydronic or steam convectors, fan-coil units (see section D 3040, Distribution Systems)
- cooling towers, remote air-cooled condensers, evaporative coolers (see section D 3030, Cooling Generation Systems)
- air-handling units with only hydronic heating or steam coils (see section D 3040, Distribution Systems)
- air-handling units with chilled water or direct expansion cooling coils (see section D 3040, Distribution Systems)

D 3060 Controls and Instrumentation

Includes

- heating generating systems
- cooling generating systems
- heating/cooling air handling units
- exhaust & ventilating systems
- terminal devices
- energy monitoring & control
- building automation systems

Excludes

- factory-installed controls, when an integral part of terminal & package units (see section D 3050, Terminal & Package Units)

D 3070 Systems Testing and Balancing

Includes

- piping systems testing & balancing
- air systems testing & balancing

D3090 Other HVAC Systems and Equipment

Includes

- special cooling systems and devices
- special humidity control
- dust and fume collectors
- air curtains
- air purifiers
- paint spray booth ventilation systems
- general construction items associated with mechanical systems

D 40 Fire Protection

D 4010 Sprinklers

Includes

- water supply equipment
- piping valves & fittings
- sprinkler heads & release devices

D 4020 Standpipes

Includes

- water supply equipment
- piping valves & fittings
- cabinets & hoses

D 4030 Fire Protection Specialties

Includes

- fire extinguishers
- fire extinguisher cabinets

D 4090 Other Fire Protection Systems

Includes

- carbon dioxide systems
- clean agent systems
- foam generating systems
- dry chemical systems
- exhaust hood systems

D 50 Electrical

D 5010 Electrical Service and Distribution

Includes

- primary transformers
- secondary transformers
- main switchboard
- interior distribution transformers
- branch circuit panels
- enclosed circuit breakers
- motor control centers
- conduit and wiring to circuit panels

Excludes

- outdoor transformers (see section G 4010, Electrical Distribution)
- emergency power (see section D 5090, Other Electrical Systems)
- branch wiring (see section D 5020, Lighting & Branch Wiring)

D 5020 Lighting and Branch Wiring

Includes

- branch wiring & devices for lighting fixtures
- lighting fixtures
- branch wiring for devices & equipment connections
- devices
- exterior building lighting

Excludes

- underfloor raceways (see section D 5090, Other Electrical Systems)
- exterior site lighting (see section G 4020, Site Lighting)

D 5030 Communications and Security

Includes

- fire alarm systems

Excludes

- other electrical systems (see section D 5090, Other Electrical Systems)

- call systems
- telephone systems
- local area networks
- public address & music systems
- intercommunication systems & paging
- clock & program systems
- television systems
- security systems

D 5090 Other Electrical Systems
--

Includes

Excludes

- | | |
|---|--|
| <ul style="list-style-type: none"> • emergency generators • UPS • emergency lighting systems • power factor correction • lightning & grounding protection systems • raceway systems • power generation systems | <ul style="list-style-type: none"> • electric baseboard (see section D 3050, Terminal & Package Units) • electric coils & duct heaters (see section D 3040, Distribution Systems) • building automation & energy monitoring systems (see section D 3060, Controls & Instrumentation) • communications & security systems (see section D 5030, Communications & Security) |
|---|--|

E 10 Equipment

E 1010 Commercial Equipment

Includes

- security and vault equipment
- teller and service equipment
- registration equipment
- checkroom equipment
- mercantile equipment
- commercial laundry and dry cleaning equipment
- vending equipment
- office equipment

E 1020 Institutional Equipment

Includes

- ecclesiastical equipment
- library equipment
- theater and stage equipment
- instrumental equipment
- audio-visual equipment
- detention equipment
- laboratory equipment
- medical equipment
- mortuary equipment

E 1030 Vehicular Equipment

Includes

- vehicular service equipment
- parking control equipment
- loading dock equipment

E 1090 Other Equipment

Includes

- maintenance equipment
- solid waste handling equipment
- food service equipment
- residential equipment
- unit kitchens
- darkroom equipment
- athletic, recreational, and therapeutic equipment
- planetarium equipment
- observatory equipment
- agricultural equipment

E 20 Furnishings

E 2010 Fixed Furnishings

Includes

- fixed artwork
- fixed casework
- window treatment
- fixed floor grilles and mats
- fixed multiple seating
- fixed interior landscaping

E 2020 Movable Furnishings

Includes

- movable artwork
- furniture and accessories
- movable rugs and mats
- movable multiple seating
- movable interior landscaping

F 10 Special Construction

F 1010 Special Structures

Includes

- air-supported structures
- pre-engineered structures
- other special structures

Excludes

- solar & wind energy supply (see section D 3010, Energy Supply)

F 1020 Integrated Construction

Includes

- integrated assemblies
- special purpose rooms
- other integrated construction

F 1030 Special Construction Systems

Includes

- sound, vibration, and seismic construction
- radiation protection
- special security systems
- other special construction systems

F 1040 Special facilities

Includes

- aquatic facilities
- ice rinks
- site constructed incinerators
- kennels and animal shelters
- liquid and gas storage tanks
- other special facilities

F 1050 Special Controls and Instrumentation

Includes

- recording instrumentation
- building automation systems
- other special controls and instrumentation

F 20 Selective Building Demolition

F 2010 Building Elements Demolition

Includes

- demolition of existing building components

Excludes

- site demolition (see section G 1020, Site Demolition & Relocations)

F 2020 Hazardous Components Abatement

Includes

- removal or encapsulation of hazardous building materials & components

B.2 Description of Building-Related Sitework

The following lists show what items are included and excluded in the sitework classification at Level 3. Note again that the numbers are for the purpose of organizing the report and are not classification numbers for the elements.

G 10 Site Preparation

G 1010 Site Clearing

Includes

- clearing & grubbing
- tree removal & thinning

G 1020 Site Demolition and Relocations

Includes

- complete building demolition
- demolition of site components
- relocation of buildings & utilities

Excludes

- selective demolition within building (see section F 20, Selective Building Demolition)

G 1030 Site Earthwork

Includes

- grading, excavating & fill to modify site contours
- soil stabilization & treatment
- site watering
- site shoring
- embankments

Excludes

- building excavation for foundations and basements (see section A 10, Foundations & section A 20, Basement Construction)

G 1040 Hazardous Waste Remediation

Includes

- removal & restoration of contaminated soil

G 20 Site Improvement

G 2010 Roadways

Includes

- paving sub-base
- paving & surfacing
- curbs & gutters
- rails & barriers
- painted lines
- markings & signage

G 2020 Parking Lots

Includes

- parking lot paving & surfacing
- curbs, rails & barriers
 - parking booths & equipment
 - markings & signage

G 2030 Pedestrian Paving	
---------------------------------	--

Includes

- paving & surfacing
- exterior steps

Excludes

- waterproof membranes under terrace & plaza paving (see section G 3010, Roof Coverings)

G 2040 Site Development

Includes

- fences & gates
- retaining walls
- terrace & perimeter walls
- signs
- site furnishings
- fountains, pools, & watercourses
- playing fields
- flagpoles
- miscellaneous structures
- site equipment (for example car wash, banking system and theatre equipment located on the site)

Excludes

- signs (see section G 2010, Roadways & section G 2020, Parking Lots)

G 2050 Landscaping

Includes

- fine grading & soil preparation
- top soil & planting beds
- seeding & sodding
- planting
- planters
- other landscape features
- irrigation systems

Excludes

- interior planters & planting (see section E 20, Furnishings)
- site grading (see section G 1030, Site Earthwork)

G 30 Site Mechanical Utilities

G 3010 Water Supply

Includes

- potable & non-potable water systems
- well systems
- fire protection systems
- pumping stations
- water storage

Excludes

- irrigation systems (see section G 2050, Landscaping)

G 3020 Sanitary Sewer

Includes

- piping
- manholes
- septic tanks
- lift stations
- package waste water treatment plants

G 3030 Storm Sewer

Includes

- piping
- manholes
- catch basins
- lift stations
- retention ponds
- ditches & culverts

G 3040 Heating Distribution

Includes

- steam supply
- condensate return
- hot water supply systems

Excludes

- Service tunnels (see section G 9090, Service and Pedestrian Tunnels)

G 3050 Cooling Distribution

Includes

- chilled water piping
- wells for cooling
- pumping stations
- cooling towers on site

Excludes

- service tunnels (see section G 9090, Service and Pedestrian Tunnels)

G 3060 Fuel Distribution

Includes

- piping
- equipment
- storage tanks

G3090 Other Site Mechanical Utilities

Includes

- industrial waste systems
- POL (Petroleum Oil & Lubricants) distribution systems

G 40 Site Electrical Utilities**G 4010 Electrical Distribution****Includes**

- substations
- overhead power distribution
- underground power distribution
- ductbanks
- grounding

G 4020 Site Lighting**Includes**

- fixtures & transformers
- poles
- wiring conduits & ductbanks
- controls
- grounding

G 4030 Site Communications and Security**Includes**

- overhead & underground communications
- site security & alarm systems
- ductbanks
- grounding

G 4040 Other Site Electrical Utilities**Includes**

- cathodic protection
- emergency power generation

G 90 Other Site Construction

G 9010 Service and Pedestrian Tunnels
--

Includes

- constructed service and pedestrian tunnels
- prefabricated service tunnels & trench boxes

G 9090 Other Site Systems

Includes

- snow melting systems