

LOWER SWATARA TOWNSHIP
Code Department
1499 Spring Garden Drive
Middletown, PA. 17057
(717) 939-9377

Uniform Construction Code (UCC)
CONSTRUCTION DOCUMENTS
PLAN REVIEW SUBMITTAL

PROJECT INFORMATION:

Project Name: _____
Address: _____

Contact Person: _____ Phone Number: _____
Email Address _____ Fax Number: _____

This list of construction document requirements should be used in the preparation of the plans and specifications for new buildings/structures, additions and renovation projects located within Lower Swatara Township. Provide the following as applicable to help facilitate the permit review and approval process. For alterations, show compliance with either Chapter 34 of the International Building Code or the International Existing Building Code.

Deferred drawings: Provide list of any deferred submittal. Deferred drawings per P.A UCC 403.43 (k).

Code Analysis: The following must be provided to perform a plan review.

N/A___ Yes___	Year Code Design	N/A___ Yes___	Construction Type
N/A___ Yes___	Square footage of work area	N/A___ Yes___	Sprinkle Design
N/A___ Yes___	Occupancy Classification	N/A___ Yes___	Occupant load of work area
N/A___ Yes___	Allowable Height and Area		

SITE PLANS: (Land Development plan may be submitted with all the required information. If not included on the land development plan, a detailed plan of the accessible route required)

N/A___ Yes___	Street cut permit required for work to take place on Township roadways.
N/A___ Yes___	Site plans shall be prepared to scale (not less than 1"= 100'), with legend, north arrow, and site location map.
N/A___ Yes___	Correct street address, zoning district, adjacent land uses and zoning districts. Identify all property lines and rights-of-way, with distance from property lines and adjacent buildings.
N/A___ Yes___	Show all parking spaces, widths and length.
N/A___ Yes___	Accessible route showing curb cuts, ramps, walks, widths, lengths, running and cross slopes from parking to building entrance.
N/A___ Yes___	All easement, flood zones, required buffers, screening landscaping, existing and proposed driveway entrances.
N/A___ Yes___	Existing and proposed utilities (gas, water, sewer, etc.).
N/A___ Yes___	Existing and proposed finish grades and elevations required for construction.

ARCHITECTURAL PLANS:

N/A ___ Yes ___	Architectural floor plans of each floor. All pages shall be minimum 24" x 36" in size, maximum 36"x 42", drawn to a scale of not less than 1/8"= 1'.
N/A ___ Yes ___	Details, sections, dimensions and elevations of proposed construction.
N/A ___ Yes ___	Allowable building area and area increase calculations.
N/A ___ Yes ___	Actual building area with the square footage of each floor and the building height.
N/A ___ Yes ___	Special detailed requirements based on use and occupancy including: covered mall buildings, high-rise buildings, atriums, and other special use and occupancy spaces or buildings.
N/A ___ Yes ___	Identify the names and uses of each room.
N/A ___ Yes ___	Occupant load for each location and include computations.
N/A ___ Yes ___	Capacity of egress components including the egress width (inch/occupant) for the stairways and other egress components.
N/A ___ Yes ___	General means of egress, travel distance, spacing of exits and the occupant load of the exit served.
N/A ___ Yes ___	Identify all fire resistant walls showing type of assembly and fire rating. Provide UL numbers and detail. Include all smoke and draft barriers.
N/A ___ Yes ___	All penetrations of fire rated construction should be per manufactures specs. Show opening protection and damper ratings. Specifications may be required to be provided.
N/A ___ Yes ___	Exterior walls opening protection, vertical fire spread protection and parapets.
N/A ___ Yes ___	Interior finishes including smoke development, flame spread, decorations and trim.
N/A ___ Yes ___	Door schedule(s), including size, type, rating (if required) and hardware.
N/A ___ Yes ___	Glazing schedules, including sloped glazing and skylights, and safety glazing.

BUILDING DESIGN DATA SUMMARY

DESIGN: (Check all that apply)

- Single Use Occupancy or Mixed Use Occupancy (non-separated uses) – **Design Option 1**
- Mixed Use Occupancy (separated uses) – **Design Option 2**
- Unlimited Area Building Fire Alarm & Detection System
- Mezzanine(s) Alternative Automatic Fire-extinguishing System
- Automatic Sprinkler System per NFPA 13 Standpipe System per NFPA 14

Total Frontage (F) - Building perimeter which fronts on a public way or open space having 20 feet open minimum width (feet).

Perimeter (P) - Perimeter of entire building (feet)

Minimum Width (W)- Width of public way or open space (feet). W must be at least 20 feet and the quantity divided by 30 shall not exceed 1.0.

Allowable Building Area (A_t) - Tabular area per floor in accordance with Table 503 (square feet)

Frontage Increase (I_f) - Area increase due to frontage. $I_f = 100(F/P - 0.25)W/30$

Automatic Sprinklers Increase (I_s) - Area increase due to sprinkler protection (200% for multistory buildings and 300% for single-story buildings)

Adjusted Building Area

Increase (A_a) - Areas limited by Table 503 shall be permitted to be increased due to frontage (I_f) and automatic sprinkler system protection (I_s) in accordance with the

following equation: $A_a = A_t + (A_t I_f / 100) + (A_t I_s / 100)$

Design Option 1 – Single Use Occupancy or Mixed Use Occupancy (508.3 non-separated uses):

Use/Occupancy Classification (Section 302) _____
 Type of Construction (Section 602) _____
 Allowable Building Area (per floor, Table 503) _____
 Adjusted Building Area Increase (sq. ft.) _____
 Actual Building Area (sq. ft.) _____
 Actual Building height _____ feet _____ stories
 Adjusted Building Height _____ feet _____ stories

Design Option 2 – Mixed Use Occupancy (separated uses): In each story, the building area shall be such that the sum of the ratios of the floor area of each use shall not exceed one. (Section 508.4.2)

<u>Story</u>	<u>Use</u>	<u>Actual Floor Area</u> (sq. ft.)	<u>Story</u>	<u>Use</u>	<u>Actual Floor Area</u> (sq. ft.)
1 st	_____	_____	3 rd	_____	_____
	_____	_____		_____	_____
	_____	_____		_____	_____
2 nd	_____	_____	4 th	_____	_____
	_____	_____		_____	_____
	_____	_____		_____	_____

STRUCTURAL PLANS:

- N/A ___ Yes ___ List type of special inspections and testing requirements.
- N/A ___ Yes ___ Structural design calculations. Structural plans shall be signed, sealed and dated by a Pennsylvania registered Architect and/or Engineer responsible for the design.
- N/A ___ Yes ___ Soils and foundation information including soil investigations/reports and soil.
- N/A ___ Yes ___ Uniformly distributed floor live design loads for the floor area use, any live load reduction, roof live loads, snow loads, wind design loads and all concentrated loads.
- N/A ___ Yes ___ Flood design loads, if applicable, including flood hazard area zone and elevation of the structure.
- N/A ___ Yes ___ Footing and foundation detail, dimensions. Show depth of footings, foundation water/damp proofing, and reinforcing steel showing dimensions of bar, spacing and lapping.
- N/A ___ Yes ___ Structural materials for concrete including plain and reinforced concrete design construction standard specified, minimum concrete strength, any hot and cold weather curing procedure, seismic design and slab provisions.
- N/A ___ Yes ___ Show beams, joists, girders, rafters/truss layout and fastening/connection detail. For steel show structural steel sizes, steel framing gauges, sizes and connections.
For wood show species of wood, sizes and design strength.

ACCESSIBILITY PLANS: Buildings and facilities shall be designed and constructed to be accessible in accordance with the IBC 2009, Chapter 11 & Appendix E and ICC A117.1 – 2003 ANSI Standards. Please note only the states Accessibility Advisory Board can grant a variance for relief from the code relating to accessibility.

- N/A ___ Yes ___ Plumbing elements and facilities required to be accessible by the scoping provisions, including drinking fountains and water coolers, toilet and bathing rooms, water closets and toilet compartments, urinals, lavatories and sinks, bathtubs, show compartments, grab bars, seats, and laundry equipment.

- N/A ___ Yes ___ Built-in furnishings and equipment required to be accessible by the scoping provisions, including seating at tables, counters, and work surfaces, benches, checkout and service counters and storage facilities
- N/A ___ Yes ___ Communication elements and features required to be accessible by the scoping provisions, including alarms, signs, telephones, detectable warnings, assistive listening systems, and automatic teller machines (ATM's) and fare machines.
- N/A ___ Yes ___ Clearances at doorways and maneuvering clearances at furnishings or fixtures.

FIRE PROTECTION PLANS:

- N/A ___ Yes ___ Automatic sprinkler system(s) with hydraulic calculations and catalog cuts for NFPA 13 system components, including water flow test, hose connections and sprinkler monitoring and alarms.
- N/A ___ Yes ___ Provide commodity class and height of rack storage.
- N/A ___ Yes ___ Alternative automatic fire-extinguishing system(s) details, including the installation, wet-chemical systems, dry-chemical systems, foam systems, carbon dioxide systems, halon systems, clean-agent systems, and commercial cooking systems, if applicable.
- N/A ___ Yes ___ Class I wet standpipe system(s) details, including the installation standards, building height, stages greater than 1,000 sq. ft., hose connections and locations, cabinets, dry standpipes, and valve supervision.
- N/A ___ Yes ___ Show sprinkle head layout including room identifications, dimensions, walls, ceilings and soffits or any other obstructions.
- N/A ___ Yes ___ Portable fire extinguisher(s) locations.
- N/A ___ Yes ___ Fire alarm and detection system(s) construction details to include, but not be limited to: a floor plan which indicates the use of all rooms; locations of alarm initiating and notification appliances; alarm control and trouble signaling equipment; annunciation; power connection; battery calculations; conductor type and sizes; voltage drop calculations; manufacturers, model numbers and listing information for equipment, devices and materials; details of ceiling height and construction; and the interface of fire safety control functions.
- N/A ___ Yes ___ Smoke control system(s) design requirements and submit analysis supporting the type(s) of smoke control systems be installed. Show smoke barriers, pressurization method, airflow method, exhaust method, equipment/power, detection and control, smokeproof enclosures, if required.
- N/A ___ Yes ___ Knox box order forms available upon request.

PLUMBING PLANS:

- N/A ___ Yes ___ Construction documents with riser diagrams, site plan, and water calculations and specifications.
- N/A ___ Yes ___ Change of use, additions and new buildings will require a sewer permit from Lower Swatara Township Sewer Authority. Required to be obtained prior to building permit.
- N/A ___ Yes ___ Fixtures and the number provided for male and female occupants based on the occupant load. If mixed use occupancy, show the number of fixtures provided for each use.
- N/A ___ Yes ___ Toilet/bathing room layouts. Drinking fountain locations.
- N/A ___ Yes ___ Water supply and distribution for the hot water system, including hot water requirements, tempered water for accessible hand washing facilities, return circulation, and thermal expansion control.
- N/A ___ Yes ___ Water supply and distribution design, including burial depth, water service separation, system design, maximum flow, pressure boosters, and water hammer.

- N/A ___ Yes ___ Water supply and distribution valves, including full open, shutoff, access, and backflow prevention.
- N/A ___ Yes ___ Procedure/specifications for disinfection of potable system.
- N/A ___ Yes ___ Drainage system construction details for fixture traps, trap seals, drain and waste, stacks, horizontal branches, building drain and sanitary sewer lateral, cleanouts, indirect waste, and special waste, including the drainage piping in food service areas, venting of fixtures, vent stacks and vent installation.
- N/A ___ Yes ___ Storm drainage construction details, including area rainfall rate, showing square footage of roofing, the design for cleanouts, drain sizes and area served, secondary roof drains and scupper locations.
- N/A ___ Yes ___ Piping material, support and installation, including the hanger/support schedule, corrosion protection, stress and strain, annular space, footing and foundation protection, fastener penetration, waterproofing of openings, flood proofing, penetration protection, support intervals, base of stacks, anchorage, bracing and seismic support, if applicable.
- N/A ___ Yes ___ Show the construction details for interceptors, including grease traps and interceptors, venting, access, and food waste grinders and supporting information for sizing.
- N/A ___ Yes ___ Compliance with the Energy Conservation Code should be shown for water heating.

MECHANICAL PLANS:

- N/A ___ Yes ___ Submit construction documents, equipment installation and locations, hazardous location installation, outdoor installation, piping support and condensate disposal.
- N/A ___ Yes ___ Show the mechanical ventilation outdoor air requirements per room occupancy classification, including the square foot area, occupant load, required outdoor air (cfm/person), and actual outdoor air (cfm) provided.
- N/A ___ Yes ___ Provide duct sizes, layout, plenums, insulation R values, damper locations, smoke detection and location, and fire damper locations and ratings.
- N/A ___ Yes ___ Show the contaminant exhaust systems, smoke control systems, and roof vents.
Connection/direct-vent, combustion air ducts, including opening obstructions, location and protection.
- N/A ___ Yes ___ Show the combustion air for gas-fired appliances, including inside air, outdoor air, combined use of inside and outdoor air, and any engineered combustion air supply, direct-vent, mechanical combustion air supply, louvers and grills and combustion air ducts.
- N/A ___ Yes ___ Show construction details for chimneys and vents, showing termination and required clearances from intakes and openings.
- N/A ___ Yes ___ Details for any boilers, water heaters and pressure vessels or appliance used.
- N/A ___ Yes ___ Details for fuel-gas piping materials, installation, sizing, gas shutoff valves, and any other gas piping systems, including liquefied petroleum or compressed natural gas motor vehicle fuel dispensing stations, or supplemental and standby gas supply.
- N/A ___ Yes ___ Details for fuel oil piping and storage including, storage system, materials, joints and connections, fuel oil system installation, oil gauging, and fuel oil valves.
- N/A ___ Yes ___ Compliance with the Energy Conservation Code to be shown or provide alternative method documentation.

ELECTRICAL PLANS: Provide the following to assist an approved Township third party electrical agency. Provide plans and detail as necessary per the third party's request. Whichever third party reviews the plans should also perform the site inspections.

- N/A ___ Yes ___ Panel schedules with circuit and feeder loading, over current protection, and NEC load summaries for all new and/or affected panels and services (loading has to be evaluated by

highest phase): include fault current data, short circuit ratings and fault current protection coordination.

N/A ___ Yes ___

Single line riser diagram showing all new and/or affected services, feeders, wire sizes and insulation types, and conduit sizes and types.

N/A ___ Yes ___

Number of services and their physical locations, clearly indicate mains and characteristics.

N/A ___ Yes ___

Grounding electrode conductor size with new and/or affected services and transformers; where necessary provide details or notes on methods.

N/A ___ Yes ___

Physical locations of all new and/or affected panels and switchgear (indicate front).

N/A ___ Yes ___

Receptacle plans and lighting plans with circuitry.

N/A ___ Yes ___

Electrical plans for each affected floor, including the roof.

N/A ___ Yes ___

Wiring method(s), conduit sizes and types, termination temperature (60, 75, 90) requirements, conductor sizes and insulation types.

N/A ___ Yes ___

Design and/or operation for any of the following applicable life safety systems; emergency generators, smoke evacuation, shaft pressurization and relief, smoke detection, egress and emergency lighting, and fire alarms.

N/A ___ Yes ___

Special needs such as classified (hazardous), corrosive and patient care are treated. Provide detailed plan of classified areas, the classifications and how complied with (i.e. hangers, waste treatment and collection, flammable dusts, gasses or liquids, spray booths, vehicle servicing and parking, etc.).

N/A ___ Yes ___

HVAC nameplate data, including MCA and MOCP. List all other appliance and/or equipment (other than those which will be connected to a general use receptacle) with nameplate data (i.e., voltage, phasing, HP, KVA, FLA, RLA, etc.).

N/A ___ Yes ___

Motor horse power ratings, if not supplied elsewhere.

N/A ___ Yes ___

Penetrations of fire-rated construction must be per manufacturer's details. The details shall meet or exceed ratings of construction being penetrated. Penetration details shall be exactly as tested by an approved testing laboratory or agency and shall include their system numbers. New penetrations of existing fire-rated walls and assemblies shall be shown with appropriate designs.

N/A ___ Yes ___

Compliance with the Energy Conservation Code or alternative method required.