

CHAPTER 2
PLAN REQUIREMENTS

2.01 General Requirements:

- a) All plans for land improvements shall be prepared on standard twenty-four (24) inch by thirty-six (36) inch white prints having blue or black lines, shall be drawn to an engineering scale, and shall be neatly and accurately prepared. Where more than one sheet is required to show the entire site, match lines shall be provided.
- b) All plans that are submitted for Planning Commission review will consist of the following number of sets: 5 full size at 24-inch x 36-inch and 12 reduced size at 11-inch by 17-inch.
- c) Plans shall be prepared by a professional engineer, architect, planner, landscape architect, or land surveyor registered in the State of Michigan whose seal shall be affixed to the first sheet.
- d) Each sheet in a set of plans shall show the name and general description of the property; date; scale; north arrow; title of each sheet; and the name, address, and telephone number of the person or firm that prepared the sheet. Each sheet in a set shall be numbered consecutively, and shall have proper match lines or other keys to provide reasonable continuity and orientation.
- e) The first sheet in each set shall be the cover sheet and shall include, at a minimum: site and zoning data, sheet index, revision dates, area map, project name and Township identifying number for the project in lower right corner.
- f) The north arrow shall be displayed on the right side of the sheet and the plan shall be oriented so that north is either up or to the left.
- g) The scales throughout the set of plans shall be standard engineering scales and shall be consistent throughout.
- h) Combined preliminary and final site plans shall provide the information required in both Sections 2.02 and 2.03, herein.
- i) If a site is to be developed in two or more phases, the preliminary site plan or preliminary plat shall show the entire property in the development, its proposed layout, and the location of each phase. A preliminary and final site plan shall not be combined for a project that has two or more phases.
- j) For purposes of submittals under these standards, the requirements for site condominiums will be the same as for site plan review.
- k) All water, sanitary sewer, and storm drainage lines and appurtenances together with all streets, lot lines, and outlines of all existing and proposed buildings, shall be shown on one sheet in each final set of plans. These shall be provided at a scale of 1 inch = 100 feet for each development project, prior to the issuance of any construction permits for that project by Ann Arbor Township.

- l)** No applied shading or zipotone shall be used that obscures any lettering or other graphical information.
- m)** "Adjacent" when referring to property includes abutting property and property across the street.
- n)** "Roadway corridors" are defined as the entire area between fronting buildings on a public or private street.

2.02 Information Required for Preliminary Site Plans

- a)** Name of project clearly identified on cover sheet.
- b)** Legal description; lot line dimensions and bearings; tax parcel number(s); address of site.
- c)** Vicinity map.
- d)** Existing topography, at one foot contour intervals.
- e)** Centerline and right-of-way dimensions, and name of each street bordering the site for all existing and proposed streets.
- f)** Location of site, in relation to the nearest cross street or section corner for a metes and bounds parcel.
- g)** Location and type of natural features on or adjacent to the site, such as wetlands, watercourses, 100-year floodplains, woodlands, landmark trees, steep slopes, endangered species habitat and groundwater recharge areas. Fence rows and individual trees of 6-inch or larger caliper shall be shown when not located in a woods. When natural features exist on-site or adjacent to the site, a Natural Features Impact Statement as described in Chapter 18 is required.
- h)** Soils information, for sites utilizing on-site septic tanks and drain fields; location and extent of soils that are unbuildable in their natural state because of organic content or water table level, based on the Washtenaw County Soil Survey.
- i)** Name and address of each record property owner and developer; name and addresses of all adjacent property owners.
- j)** Zoning information:
 - 1)** zoning district of site and all adjacent property;
 - 2)** land use of site and adjacent property;
 - 3)** proposed use of site;
 - 4)** lot area, in acres and square feet, excluding existing road rights-of-way as well as that in proposed rights-of-way;

- 5) ground floor and total floor area to be constructed;
 - 6) ground floor coverage (ground floor area divided by net lot area);
 - 7) floor area ratio (total floor area divided by net lot area);
 - 8) number and types of dwelling units and density, for residential projects;
 - 9) building height, in feet and number of floors;
 - 10) number of buildings;
 - 11) required yards and transition strips (also delineated on the plan);
 - 12) number of parking spaces required and provided with supporting calculations;
 - 13) size of parking spaces and parking lot aisles;
 - 14) total impervious area and percentage of impervious area to total gross area;
 - 15) existing and proposed deed restrictions, if any.
- k) Location and outline of all existing development on the site, such as buildings, drives, parking areas, wells, septic tanks, drain fields, utilities, poles, ditches, underground storage tanks, etc.
 - l) Location, width, and purpose of existing easements.
 - m) Location of adjacent buildings, drives, and parking areas within 200 feet of common property lines.
 - n) Location and outline of all proposed development on the site, showing overall dimensions.
 - o) Proposed grading plan, at 1-foot contour intervals; off-site elevations within approximately 100 feet of each property line not bordered by a public street, to assist in determining proper grading and drainage.
 - p) Sanitary sewer service area map showing service areas on-site and upstream. This map should provide contours.
 - q) Areawide stormwater drainage map showing existing and proposed drainage courses and retention basins that are on-site or affect the site. This map should provide contours.
 - r) A storm drainage narrative clearly and concisely describing the intended method of designing the storm drainage systems, including drainage areas, existing and proposed; retention basin and discharge concepts; storm sewer and ditch design criteria, Washtenaw County Drain Commissioner

development criteria; and downstream capacity limitations. The narrative should be interspersed with all the appropriate associated computations. The narrative should be prepared on standard 8½-inch by 11-inch sheets dated, numbered, and titled. Maps of similar size portraying the concepts involved should also be included.

- s) A written review will be required from the Washtenaw County Drain Commissioner indicating the projects conformance to the WCDC standards. For Site plans not within the jurisdiction of the WCDC, a review of the stormwater management concepts shall be obtained from the WCDC.
- t) General proposed utility layout for sanitary sewer, water and stormwater systems.
- u) Areawide map showing vicinity setting, property ownership, drainage relationships, road network and utility systems on one sheet.
- v) Phase lines, for projects to be constructed in two or more phases. In phased projects, the zoning information required in Section 2.02j preceding, shall be provided for each phase and for the total site.
- w) A site analysis to evaluate the design and development potential of the site, to identify the nature and the effect of the design and development on the existing conditions of the site, and to determine the site's relation to neighboring properties as well as physical and natural features in the area. The analysis shall show a correlation of the principal characteristics of the developed site that will affect the layout and future use of the property. The site analysis will show what natural features will remain and what natural features will be removed. The analysis shall be in graphic form and may be supplemented by text.
- x) Location of trash storage areas.
- y) Site condominium projects shall submit a preliminary site plan containing the information required herein, to the extent applicable, in accordance with Section 11.23 of the Zoning Ordinance and shall include all land intended for the site condominium project. Where buildings or structures are not proposed at the time of review, the location and dimensions of lots, including required yards, shall be provided.
- 26) A completed State/County Environmental Permits Checklist for Non-Residential Projects as attached in Appendix A.

2.03 Information Required for Final Site Plans

- a) All information required for a preliminary site plan in Section 2.02 that is applicable to the property or phase of development covered by the final site plan.
- b) Professional seal of the preparer of the plan.
- c) Location and overall dimensions of existing structures and drives.

- d) Surface type and width of streets adjacent to site; surface elevations of existing street at the intersection of each proposed driveway or street.
- e) USGS based bench mark on the site.
- f) Existing utilities serving the site - location, size, inverts, fire hydrants, gatewells, manholes, and catch basins; location and elevations of ditches, culverts, and bridges adjacent to the site; location of utility poles and lines; location and size of natural gas lines and appurtenances.
- g) Proposed buildings or other structures - location; addresses; dimensions; distance between, by dimension; finished floor elevations; basement elevations; gradeline elevations; indication if it is a walkout or a viewout.
- h) Existing improvements to remain and to be removed.
- I) Proposed drives or streets - names; right-of-way or easement width; surface type and width, including typical cross sections; surface elevations; location and type of curbs, where proposed; expansion of existing street rights-of-way; length and width of turning lanes, where permitted; curve radii.
- j) Proposed parking areas - number and size of spaces; location of each space; type of surface, including typical cross sections; aisle width; angle of spaces; location of wheel stops and/or curbs, where applicable.
- k) Proposed loading areas - location; dimensions; surface type, including typical cross sections.
- l) Proposed sidewalks and pedestrian paths - location; width; surface type, including typical cross sections.
- m) Proposed open space and recreation areas - location, use, size, proposed improvements.
- n) Proposed fences or screens - location; height; type; typical details, including elevations and sections.
- o) Proposed outdoor trash storage - location; dimensions and typical details of the enclosure. If no outdoor trash storage is intended, the plan shall so state.
- p) Proposed central mailboxes if applicable, or, if individual boxes will be used, a note so stating.
- q) Proposed identification and advertising signs - location; dimensions and area; height, illumination; typical copy.
- r) Proposed traffic control signs - location, type.
- s) Proposed landscape plan - areas of new topsoil; areas of grass or other groundcover; location, type, and size of trees and shrubs; plant list showing botanical and common names and quantities.

- t) Proposed retaining walls - location; dimensions; materials of wall and fill; typical vertical sections; design calculations.
- u) Proposed outside lights, including street lights, if applicable - location; type; height; intensity; direction; typical details.
- v) Proposed water system - location, size, and material type of lines; location of fire hydrants and valves; profiles; location of meter room; water meter schematic; fire riser schematic.
- w) Proposed sanitary sewer system - location, size, and material type of lines; inverts; location of manholes; profiles; design basis.
- x) Proposed storm drainage system - location, dimensions, and calculations of stormwater retention areas; location, size, calculations, and material type of storm sewers; location and centerline elevations of swales or ditches; inverts; location of manholes and catch basins; direction of flow; drainage patterns; profiles of sewers, retention basins, culverts, swales, and ditches; design basis.
- y) Proposed interior plumbing plans - location, size, material type of lines; floor drains, roof drains and their respective interconnectivity; water lines, domestic and fire, size, valving, backflow prevention, cross connection prevention, meter location and access thereto; sanitary drains, chemical or biological spill prevention, monitoring manholes.
- z) Proposed electrical, telephone, and gas services; location of new utility poles, if applicable; location of underground lines and surface equipment; location and size of natural gas lines and appurtenances.
- aa) Location of proposed wells, septic tanks, and drain fields; location of other proposed underground tanks, where applicable.
- bb) Soil erosion control plan. However, this will be administered by the Washtenaw County Building Department.
- cc) Evidence of approval by:
 - Michigan Department of Environmental Quality - wetlands, lakes, streams, dams, floodplain
 - Washtenaw County Road Commission - right-of-way
 - Washtenaw County Drain Commissioner - drainage districts; development standards. For site plans not within the jurisdiction of the WCDC, a review of the stormwater management concepts shall be obtained from the WCDC.
 - Washtenaw County Health Department - wells, septic system
- dd) Proposed building and address numbers - locations, typical copy, dimensions.

- ee) Site condominium projects shall submit a final site plan containing the information required herein, to the extent applicable, for each phase of the development in accordance with Section 11.23 of the Zoning Ordinance.

2.04 Information Required for Preliminary Plats - Tentative Approval

- a) Subdivision name.
- b) Legal description, tax parcel numbers, and address of the property.
- c) Vicinity map.
- d) Scale, date, and north arrow.
- e) Name and address of proprietor, all other record owners, and preparer of the plat.
- f) Location of governmental jurisdictional boundaries where applicable.
- g) Names of adjacent subdivisions; location, name, right-of-way widths, surface type and width of adjoining streets; location, purpose, and width of easements adjacent to or connecting with the proposed subdivision; lot lines and dimensions of lots adjacent to the proposed subdivision; names and addresses of record owners of adjacent property.
- h) Existing topography at one foot contour intervals.
- I) Location, right-of-way width, surface type and width, and name of each proposed street.
- j) Location and outline of all existing development on the site, such as buildings, drives, parking areas, wells, septic tanks, drain fields, utilities, poles, ditches, underground storage tanks, etc.
- k) Location, width, and purpose of existing easements.
- l) Location of adjacent buildings, drives, and parking areas within 200 feet of common property lines.
- m) Location and type of natural features on or adjacent to the site, such as wetlands, watercourses, 100-year floodplains, woodlands, landmark trees, steep slopes, endangered species habitat and groundwater recharge areas. Fence rows and individual trees of 6-inch or larger caliper shall be shown when not located in a woods. When natural features exist on-site or adjacent to the site, a Natural Features Impact Statement as described in Chapter 18 is required.
- n) Soils information, for sites utilizing on-site septic tanks and drain fields; location and extent of soils that are unbuildable in their natural state because of organic content or water table level, based on the Washtenaw County Soil Survey.

- o)** Zoning information:
 - 1) zoning district of site and all adjacent property;
 - 2) land use of site and adjacent property;
 - 3) proposed use of site;
 - 4) lot area, in acres and square feet, excluding existing road rights-of-way as well as that in proposed rights-of-way;
 - 5) ground floor and total floor area to be constructed;
 - 6) ground floor coverage (ground floor area divided by net lot area);
 - 7) floor area ratio (total floor area divided by net lot area);
 - 8) number and types of dwelling units and density, for residential projects;
 - 9) building height, in feet and number of floors;
 - 10) number of buildings;
 - 11) required yards and transition strips (also delineated on the plan);
 - 12) number of parking spaces required and provided with supporting calculations;
 - 13) size of parking spaces and parking lot aisles;
 - 14) total impervious area and percentage of impervious area to total gross area;
 - 15) existing and proposed deed restrictions, if any.
- p)** Lot lines, dimensions, lot areas, lot numbers, and required setbacks for each proposed lot.
- q)** Lands to be dedicated to or reserved for common or public use.
- r)** Location and size of existing water, sanitary sewer, and storm sewer lines and appurtenances; location of proposed points of connection; inverts; location of existing utility poles and lines; location of natural gas lines; location and description of on-site facilities to serve the entire subdivision.
- s)** Location and description of all proposed uses.
- t)** Phase lines; development summary by phase.
- u)** Location, width, and purpose of proposed easements.

- v) Location, width, and type of proposed sidewalks.
- w) Proposed grading plan, at 1-foot contour intervals; off-site elevations within approximately 100 feet of each property line not bordered by a public street, to assist in determining proper grading and drainage.
- x) Sanitary sewer service area map showing service areas on-site and upstream. This map should provide contours.
- y) Areawide stormwater drainage map showing existing and proposed drainage courses and retention basins that are on-site or affect the site. This map should provide contours.
- z) A storm drainage narrative clearly and concisely describing the intended method of designing the storm drainage systems, including drainage areas, existing and proposed; retention basin and discharge concepts; storm sewer and ditch design criteria, Washtenaw County Drain Commissioner development criteria; and downstream capacity limitations. The narrative should be interspersed with all the appropriate associated computations. The narrative should be prepared on standard 8½-inch by 11-inch sheets dated, numbered, and titled. Maps of similar size portraying the concepts involved should also be included.
- aa) A written review will be required from the Washtenaw County Drain Commissioner indicating the projects conformance to the WCDC standards. For site plans not within the jurisdiction of the WCDC, a review of the stormwater management concepts shall be obtained from the WCDC.
- bb) General proposed utility layout for sanitary sewer, water and stormwater systems.
- cc) Area wide map showing vicinity setting, property ownership, drainage relationships, road network and utility systems on one sheet.
- dd) A site analysis to evaluate the design and development potential of the site, to identify the nature and the effect of the design and development on the existing conditions of the site, and to determine the site's relation to neighboring properties as well as physical and natural features in the area. The analysis shall show a correlation of the principal characteristics of the developed site that will affect the layout and future use of the property. The site analysis will show what natural features will remain and what natural features will be removed. The analysis shall be in graphic form and may be supplemented by text.
- ee) Location of proposed street lights.
- ff) For non-residential plats, a completed State/County Environmental Permits Checklist for Non-Residential Projects as attached in Appendix 1.

2.05 Information Required for Preliminary Plat - Final Approval

- a) Copies of approvals of each County and State agency required to review the plat.
- b) All information required for the preliminary plat that was filed for tentative approval.
- c) All applicable information contained in Section 2.03 preceding.
- d) Description of changes made in the plat after the Township Board's tentative approval of the preliminary plat.
- e) Proof that all required fees have been paid.
- f) Proposed finished floor elevations for each lot.
- g) Proposed restrictive covenants.
- h) Street lights, if required - location, height; details of poles and fixtures.

2.06 Information Required for Final Plat

- a) One reproducible copy of the final plat on dimensionally stable film, showing thereon all information required by the Subdivision Control Act, and four paper prints thereof.
- b) All required signatures on the plat.
- c) List of, and the proprietor's engineer's certificates of, all improvements that were required by Ann Arbor Township and were completed prior to application for final plat approval by the Township Board.
- d) List and detailed cost estimates of all improvements required by Ann Arbor Township that will be completed after the Township Board approves the final plat as well as a performance guarantee for the same.
- e) 10 copies of a completed subdivision agreement and required deposits.