SECTION 3

GENERAL DESIGN STANDARDS

3 - 01 GENERAL REQUIREMENTS

The general construction requirements for the City shall be those contained in the WSDOT/APWA Plans and Specifications, current edition, except where supplemented or modified by the City. All plans and calculations shall be neat, uncluttered, legible, and in conformance with the requirements herein. Where applicable, shop drawings shall be submitted for review and approval prior to plan approval.

All plans and calculations shall be prepared, stamped, signed, and dated by a Washington State licensed professional civil engineer, unless waived by the city engineer. Qualifications must also be consistent with the stormwater manual as amended in BIMC 15.20 to meet site survey, soil report, and native vegetation cover survey requirements.

Property surveys shall be performed and stamped by a Washington State licensed professional land surveyor.

The applicable City of Bainbridge Island *Design and Construction Standards and Specifications* (DCS&S) shall be adhered to. It shall be the responsibility of the developer to obtain this information and pass it on to the Contractor for construction purposes. Failure to conform will be grounds for non-compliance to city requirements. A copy of DCS&S should be on-site during construction. Standard drawings and developer specifications are contained in this document.

Standard plans and details utilized shall be clearly referenced. Modified standard plans and details shall be noted and subject to approval by the City engineer.

3 - 02 GENERAL PLAN REQUIREMENTS

Detailed plans for construction shall be prepared on 24" x 36" reproducible mylar originals or high quality photo mylars. No stick-on type material will be allowed. Margins shall be set to provide for 1/2 scale 11" x 17" drawings.

Scale: On-site (private property):
Vertical 1 inch = 5 feet
Horizontal 1 inch = 50 feet (maximum)

On-site plans are generally only prepared on plan sheets. When cross-sections are required for GDESC plans and when profiles are required for on-site public sanitary sewer lines, the profile may be drawn on the plan sheets.

Scale: Off-site (within the public right-of-way):
Vertical 1 inch = 5 feet
Horizontal 1 inch = 40 feet

All off-site plans shall be on plan/profile sheets. Each sheet shall have the corresponding plan/profiles on the same sheet with aligned stationing. Any variation to the scale must be approved by the City in advance of plan submittal.

For some projects covering a large area or containing a large number of sheets, the City may require a "Key Map" page to be included. Such a "Key Map" page shall show the overall general location of proposed improvement, where each page or sheet number can be found and be at a horizontal scale of 1 inch = 100 feet.

If using AutoCAD, use the APWA convention for layering, colors and symbols.

All plans shall include the following requirements:

1. North shall be shown up or to the left on the plans, and in no case will north be shown in opposing directions on the same or connecting sheets.

2. A vicinity map shall be located on the drawing. The scale shall be 1 inch = 1000 feet and with an approximate one square mile with the project site approximately centered. A scale at least 1 inch long shall be drawn on the map. A North arrow shall be on the map. The site address shall be shown below the vicinity map.

3. City datum with city-established benchmark (BM) number and elevation. BM information is available from the city's right-of-way specialist.

4. A detailed description of the site, including lot number, quarter section, township and range, unless otherwise noted by the city engineer.

5. Current zoning of site and of adjacent properties.

6. Lot size(s) with perimeter distances and bearings of the site shown on the plan.

7. Project name in the title block.

8. Owner/developer name, address, and phone number in the title block.

9. Design engineer's name, address, and phone number in the title block.

10. All applicable existing and proposed appurtenances on the site and adjacent sites if publicly available.

11. Proposed and existing rights-of-way and easements shall be clearly identified and dimensioned. New public utility easements shall be a minimum of 20 feet in width. Utilities shall be centered in the easement. Show Kitsap County recording numbers for all existing easements.

12. All pertinent existing and finish elevations.

13. Minor hydraulic features such as seeps, springs, closed depression areas, swales, ditches, etc. Path of flow with arrows and elevations.

14. Major hydraulic features such as, streams, wetlands, water bodies, and classifications showing shoreline and wetland boundaries and buffers.

15. Limits and elevations of 100-Year Flood Plan, including delineation of the floodway and flood fringe, on or adjacent to the site

16 Geologic hazard areas and associated buffer requirements

17 Aquifer and wellhead protection areas on or adjacent to the site.

18. Topographic features that may function as stormwater storage, infiltration or conveyance.

3 - 03 GENERAL PLAN NOTES

The following applicable general notes shall be shown on the plans:

1. All workmanship and materials shall conform to the City's requirements and specifications.

2. Standard Specifications shall be the current APWA manual as modified by the City, including the city's standard drawings, specifications, and requirements.

3. A copy of these approved plans and applicable city developer specifications and drawings shall be on site during construction.

4. A pre-construction meeting shall be required prior to any on-site work for all public facility extension projects.

5. Prior to starting construction, the contractor shall call the Underground Utilities Location Center at 811 for utility locations (water, sanitary sewer, storm sewer, gas, power, telephone, and television).

6. During construction, the contractor shall be required to control on-site storm water runoff by using temporary or permanent drainage erosion/siltation control procedures.

7. Locations of existing utilities are approximate. Actual locations shall be field verified.

8. Existing pavement surfaces shall be saw cut full depth with straight, uniform edges 12 inches out from the edge of excavation if parallel to the roadway, and 30 inches out from the edge if perpendicular to the roadway. All joints between the new and existing pavement shall be painted with asphalt emulsion (CSS-1) and be constructed as specified in Standard Drawing 10-030 through 10-060.

9. The contractor shall install, replace, or relocate all signs, as shown on the plans or as affected by construction.

10. Power, cable, and telephone lines shall be in a trench with a minimum horizontal separation from other piped utilities (sewer, water, storm) of five feet.

11. During construction, all public streets adjacent to this project shall be kept clean of all material deposits resulting from on-site construction using BMPs in the SWMMWW as amended by BIMC 15.20.

12. Certified record drawings are required prior to project acceptance.

13. All required landscaping shall conform with the current City zoning ordinance.

14. For manhole and catch basin rim adjustment, maximum adjustment with brick or rims and castings shall be 16 inches without adding new sections.

15. All manholes and catch basins in public right-of-way or easements shall be adjusted before paving, and conform to the City's standards.

16. All connections of SDR 35 PVC pipe to manholes shall be made by using A/C x PVC sewer adapter gasket by Romac® or GPK Products Inc.

17. Bedding for PVC pipe shall be per Standard Drawing 10-050.

18. All pipe trench backfill in the public right-of-way shall be in accordance with the WSDOT/APWA Specifications, current edition, for pipe bedding and bank run gravel if proper compaction cannot be obtained using native soil.

19. Six-inch extruded curb or parking bumpers shall be required around all on-site paved areas, where parking will be adjacent to a street. A six-inch extruded curb may also be required between all abutting pavement and landscaped areas. Curb guts or grates may be incorporated to allow water to enter stormwater facilities and LID BMP's