



# SUBMITTAL REQUIREMENTS FOR PLAT IMPROVEMENTS

The Plat Improvement process involves the review and approval of detailed final engineering drawings and information related to an approved preliminary plat such as grading, roadways, sewer, water, other utilities, and storm drainage improvements. These improvements shall be constructed in accordance with the approved preliminary plat design and conditions, City Standards and requirements of the City Engineer. The applicant/developer shall install all plat improvements prior to recording of the final plat and prior to the issuance of a building permit. Prior to the commencement of plat improvements, including clearing and grading, all requisite permits shall be obtained and a pre-construction conference conducted with City staff and all contractors and subcontractors for the project. Construction of plat improvements requires monitoring by a State of Washington licensed civil engineer experienced in soils geology and mechanics (hereinafter referred to as the "geotechnical engineer") hired by the applicant.

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## APPLICATION ACCEPTANCE

Development Services accepts applications Monday, Tuesday, Thursday, and Friday, between the hours of 8:00AM and 4:00PM, and Wednesday between the hours of 10:00AM and 4:00PM.

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## FEES

Any and all services performed by City employees in plan review and field inspection related to construction of plat improvements, clearing and grading, will be charged to the developer at the current hourly rate. An initial application fee deposit for the total of 10 hours of review and inspection shall be submitted with the plat improvement application. See current Fee Schedule for hourly rate.

Services performed by outside consultants retained by the City to evaluate any phase of plat design or construction shall be charged to the developer at actual cost.

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## REVIEW PROCESS

Once Plat Improvement plans have been accepted and are determined by the Development Engineer to be sufficiently complete for initial review, the City Engineer, Development Engineer and other appropriate staff will make a decision to approve, conditionally approve, deny or return the plans for correction and resubmission.

Note: The applicant/agent bears the responsibility for the accuracy and completeness of all information provided with or affecting the submittal materials. Incomplete applications will result in delays.

# Minimum Requirements

## Application Submittal Materials

### Document Description

- Approved Preliminary Plat .....One (1) Copy
- Preliminary Plat Conditions of Approval .....One (1) Copy
- Geotechnical Report .....One (1) Copy
- Construction Mitigation Description,.....Four (4) Copies written narrative, that includes:
  - Proposed construction dates (begin and end dates),
  - Proposed hauling/transportation routes,
  - Measures to be implemented to minimize dust, impacts to traffic and transportation, erosion, mud, noise, and other impacts,
  - Any special hours proposed for construction or hauling. Normal hours are 7AM to 10PM Monday through Friday and 9AM to 10PM Saturday, Sunday and holidays,
  - Proposed staging areas, and
  - Location of construction crew parking.

**Important Note:**  
All plans must comply with current Endangered Species Act (ESA) requirements.

**Prior to any site work commencing, the applicant must submit photographs or video of site frontage and all streets within ¼ mile of the site to document the pavement condition. The burden of proof rests with the applicant to prove that any public facility damage was a preexisting condition or was caused by another party. Any damage to public facilities deemed the responsibility of the applicant as determined by the City Engineer shall be restored at the applicant's cost. Restoration of damaged public facilities may delay issuance of occupancy permits and/or final plat filing.**

Plans: .....Four (4) Copies

- Utilities
- Clearing and Grading
- Erosion/Sediment Control
- Site Restoration
- Storm Drainage Control
- Roadway Improvements
- Other plans may be required for special circumstances unique to your site. (Demolition, watercourse improvements, slope alterations etc.)

Note: See Next Page for detailed information.

**The application shall include the following:**

**General requirements for ALL submitted plan sets:**

- ❑ Cover sheet or first sheet with the following information:
  - Vicinity Map and North arrow
  - Legal description and tax lot number
  - Datum and benchmark reference
  - Developer's name, address, and telephone number
  - Legend
- ❑ 22"X34" standard sheet size
- ❑ Graphic scale of 1 inch = 40 feet (horizontal) and 1 inch = 5 feet (vertical) for private improvements
- ❑ Property limits of the site with dimensions (preferably metes and bounds)
- ❑ Existing topography in 2-foot contour intervals (screened) set to the City of Mercer Island datum and survey points
- ❑ General notes and details of the construction
- ❑ Professional engineers stamp, dated and signed by a civil engineer licensed in the state of Washington.

The applicant has the option of merging plans in the following combinations:

- Water and Sewer Plan
- Storm and Road Plan
- Clearing, Grading and Temporary Erosion Control Plan

Existing and new improvements unrelated to the subject of the plan should be shown "screened".

Further combination of plans shall require prior authorization by the development engineer prior to submittal.

# Plan Specifications

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## 1. Detailed Utilities Plan and Profile(s): Provide four (4) copies of the plan showing the following:

- ❑ Existing topography, limits of pavement, and structures (screened).
- ❑ Existing and future easements indicating private or public grantees.
- ❑ Detailed plan of sanitary sewer construction including:
  - size, length, slope, and type of pipe,
  - location, size, and depth or elevation of any cleanouts or manholes,
  - location and design depth of stub outs provided,
  - typical trench backfill section,
  - public sewer mains shall include a profile of the construction, and
  - connection to existing sewer system.
- ❑ Detailed plan of water main construction including:
  - location of new and existing water meters with meter sizes and service line size from meter to public main,
  - connection to existing water main, and
  - public water main extensions shall include location, size, length, and type of pipe as well as specific callouts for size and type of fittings, adapters, appurtenances, and blocking.

All new construction shall be referenced off the construction centerline of the access road (station and offset).

- ❑ The construction centerline intersection with the public road (if applicable) shall be referenced from the public right of way centerline establishment or other City monumentation.
- ❑ Proposed building pad limits and lowest finished floor elevation.

**All storm water, water and sewer facilities, lines, equipment, hookups or appurtenances utilizing or related to lines greater than 8 inches in diameter may require the completion of a SEPA environmental check list and threshold determination prior to a grading permit being issued. WAC 197-11-800 (24b)**

## 2. Detailed Clearing and Grading Plan: Provide four (4) copies of plans showing:

- ❑ Dimensions of all property lines, easements, and abutting streets,
- ❑ Location and dimension of all on-site structures and the location of any structures within twenty five feet (25') of the subject property or which may be affected by the proposed work,
- ❑ Accurate existing contour lines drawn at two foot (2') or less, intervals showing existing ground and details of terrain and area drainage to include surrounding off-site contours within twenty-five feet (25') of the site, (screened),
- ❑ Finished contours drawn at two foot (2') intervals as a result of proposed site grading,

- ❑ Location of any watercourses, including natural drainage systems, perennial and intermittent streams and the presence of bordering vegetation; delineate the twenty-five foot (25') watercourse corridor<sup>1</sup>,
- ❑ Location of all critical slope areas and the ten foot (10') setback from the top and toe of the critical slope,
- ❑ Setback areas and any areas not to be disturbed,
- ❑ Finished contours drawn at two foot (2') intervals as a result of proposed site grading, clearly indicate limits of clearing,
- ❑ Proposed drainage channels and related construction with associated underground storm lines sized and connections shown,
- ❑ Location of all significant trees, clearly indicate whether they are to be removed or saved,
- ❑ The limits of clearing and grading,
- ❑ Location of temporary soil stockpiles, and
- ❑ General notes addressing the following (may be listed on cover sheet):
  - Areas in square feet of the entire property,
  - Areas of work in square feet,
  - The number of cubic yards of earthwork to be added, removed, and relocated,
  - Type and location of fill origin, and destination of any soil to be removed from site, including the foundation areas, and
  - Finished floor elevation(s) of all structures, existing and proposed (if known).

**Any land fill or excavation of 100 cubic yards or greater throughout the total lifetime of the fill or excavation may require the completion of a SEPA environmental check list and threshold determination prior to a grading permit being issued. WAC197-11-800 (1) (v.)**

### 3. Erosion/Sediment Control

Provide four (4) copies of plans for temporary and permanent erosion control measures to be taken during and after construction. Plans should comply with the Washington State Department of Ecology 1992 Stormwater Management Manual for the Puget Sound Basin and applicable City of Mercer Island Ordinances. Off-site measures may be required to mitigate existing on-site problems or to prevent new problems from occurring. Plans must be site specific, prepared and stamped by a State of Washington licensed civil engineer.

### 4. Site Restoration Plan

Provide four (4) copies of plans showing the actions the applicant will implement to restore any and all portions of the site required to be left in, or returned to, and permanently maintained by the property owner in appropriate vegetation and/or ground cover. The plan shall contain a commitment to complete the restoration within a reasonable time period as specified after any site improvement work has been completed. The applicant shall specify terrain, vegetation, and trees, which will restore surface and groundwater filtration characteristics and retain characteristics compatible with the natural neighborhood environment.

### 5. Storm Drainage Control Plan Provide four (4) copies of a plan showing:

- ❑ Existing and proposed storm systems specifying all pipe (type, size, length, slope).

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<sup>1</sup> Watercourse Corridor – an area of land measured from the centerline of a watercourse on each side. The width of the corridor is 25 feet measured horizontally from centerline to the edge of the corridor. No grading or construction activity may occur within the Watercourse Corridor without Planning Commission approval.

- ❑ Existing and proposed structures (catch basin type, size, rim and invert elevations).
- ❑ Detention systems shall be designed in compliance with the Washington State Department of Ecology 1992 Stormwater Manual for the Puget Sound Basin as adopted by the City of Mercer Island.
- ❑ Details of control manhole, detention tank profile, water quality mitigation.
- ❑ Storm Drainage Report: Provide four (4) copies of a report stamped and signed by a State of Washington licensed civil engineer complying with the Washington State Department of Ecology 1992 Stormwater Manual for the Puget Sound Basin as adopted by the City of Mercer Island. Runoff quantity mitigation is required when more than 500 square feet of net new impervious area is produced. Water quality mitigation is required when more than 5,000 square feet of new impervious area subject to vehicular traffic is produced. At least a Level 1 off-site analysis prepared in accordance with the City-adopted manual will be required with this initial project submittal (unless waived in writing by the City Engineer).

**Installation of impervious underground tanks, having a capacity of more than 10,000 gallons may require the completion of a SEPA environmental check list and threshold determination prior to a grading permit being issued. WAC 197-11-800 (2g)**

## 6. Roadway Improvement Plans and Profiles

**Private Roads:** Submit 4 copies of plans showing the following:

- ❑ Limits of new and existing access easement.
- ❑ Construction centerline referenced to the public right of way centerline establishment or other City monumentation.
- ❑ Horizontal and vertical alignment of the road. Indicate how alignment of the new road will match existing public street with a relatively level landing that will provide adequate sight distance for safe ingress and egress (28 feet inside radius, 45 feet outside radius required for fire department access.).
- ❑ All existing topography and improvements (screened) and proposed private improvements and public improvements to be dedicated to the public including, but not limited to, curbs, gutters, sidewalks, median islands, street trees, fire hydrants, utility poles, refuse areas, free-standing lighting fixtures, water and sewer mains, manholes, water meters, retaining walls or rockeries, catch basins, storm drains, drainage ditches, utility junction boxes, public utility transformers, etc., along the full extent of the property. Indicate type, size and horizontal and vertical locations.
- ❑ New construction referenced to the construction centerline (station and offset).
- ❑ Typical road section showing: pavement (thickness, type), top and base course (size, type and thickness), subgrade compaction, transverse pavement slope, typical cut/fill side slope grades to catch point with existing grade, easement limits relative to road centerline.

**Public roads:** Submit 4 copies of plans (*20 scale*) and *profile (1 inch = 20 feet-(horizontal) 1 inch = 5 feet (vertical))* showing the following:

- ❑ Limits of new and existing right of way.
- ❑ Construction centerline referenced to the Section breakdown, public right of way centerline establishment or other City monumentation.
- ❑ Horizontal and vertical alignment of the new road. Indicate how it will match the existing road for at least fifty feet (50') beyond the limits of the new construction.
- ❑ Existing topography and improvements (screened) extending at least fifty feet (50') beyond the limits of the new construction along the right of way. All existing and proposed private

improvements and public improvements to be dedicated to the public including, but not limited to, curbs, gutters, sidewalks, median islands, street trees, fire hydrants, utility poles, refuse areas, free-standing lighting fixtures, water and sewer mains, manholes, water meters, retaining walls or rockeries, catch basins, storm drains, drainage ditches, utility junction boxes, public utility transformers, etc., along the full extent of the right of way. Indicate type, size and horizontal and vertical locations.

- ❑ New construction referenced to the construction centerline (station and offset).
- ❑ Typical road section showing: pavement (thickness, type), top and base course (size, type and thickness), subgrade compaction, transverse pavement slope, curb (type and size), sidewalk or trail (width, section thickness, material), typical cut/fill side slope grades to catch point with existing grade, right of way limits relative to road and or construction centerline.
- ❑ Channelization and Signing Plan.
- ❑ Drainage, Grading, and Erosion Control Plan.
- ❑ Street Lighting and Conduit Plan.

# Pre-Construction Requirements

**Prior to the commencement of construction, including clearing and grading, the following shall occur:**

1. All requisite permits shall be obtained;
2. A pre-construction conference shall be held with the Developer, and all contractors and subcontractors for the project. Contact the City's Development Engineer to schedule the meeting a minimum of 48 hours prior notice of the proposed meeting date. The Building Official, Fire Marshal, Development Engineer and other City Staff may also attend and place conditions on the developer during the meeting.
3. The Developer shall submit to the City, a detailed construction schedule which itemizes all activities and clearly defines who is responsible for all of the proposed construction. The schedule will also show who will provide for the necessary inspections within the approved construction season of April 1 through October 1. Failure to comply with the provisions of the approved construction schedule or to construct improvements in accordance with the plans and specifications approved by the City Engineer and the Code Official, may result in the issuance of a "Stop Work" order, removal of the work accomplished, or other measures deemed appropriate by the City. This is necessary to ensure quality construction and protect public safety;
4. Proposed Traffic Control Plan, reviewed and approved by the Transportation Planner.
5. Baseline videotapes or photos of existing road, access easements and right of way within ¼ mile of the site should be submitted to the City showing pre-construction conditions. The burden of proof rests with the applicant to prove that any public facility damage was a pre-existing condition or was caused by another party. Any damage to public facilities deemed the responsibility of the applicant as determined by the City Engineer shall be restored at the applicant's cost. Restoration of damaged public facilities may delay issuance of occupancy permits and/or final plat approval.

6. The detailed Erosion/Sedimentation Control and Site Restoration Plans, reviewed and approved by the City, specifies the minimum materials and facilities to be installed and maintained by the property owner or his agent prior to, during, and following all land alteration such as clearing, grading, excavation, filling and trenching. The Plan, materials and facilities shall be modified as required by the City to ensure that complete storm water and/or ground water runoff, erosion, and siltation control are provided. It shall be the responsibility of the contractor, and the Developer or his assignee to provide and maintain such facilities and any additional facilities necessary to prevent erosion and siltation at all times during the project. Exposed soil surfaces shall be expeditiously stabilized by seeding, mulching, sodding, jute-matting, burlapping, riprap or other means approved by the City.

7. A Land Clearing Permit shall be approved by the Code Official pursuant to Chapter 17.08, MICC. All trees to be removed shall have been tagged by the property owner or his designee, and the Code Official shall have field inspected and approved said tagging prior to the removal of vegetation. The Code Official shall have the authority to approve the location of improvements or building within the approved Building Pad on any or all individual lots during the Land Clearing Permit application process in order to save as much vegetation as possible.

8. Prior to beginning construction, the Developer or his assignee(s) shall submit a Certificate of Insurance to the City as proof of liability insurance coverage. Said certificate shall be in an amount and form acceptable to the City Engineer or Code Official. The insurance shall be Comprehensive General Bodily Injury (including Automobile) and Comprehensive General Bodily Injury Damage Liability (including Automobile) insurance, with no deductible amount, for bodily injury including death, and for damage to or destruction of public and/or private property on each and every occurrence. The City of Mercer Island, its officers, agents and employees shall be listed as additional named insured on the policy(s). The policy(s) shall remain in full force throughout the construction period;

9. The Developer or his assignee(s) shall provide, to the City Engineer, a Hold Harmless Agreement. Said Agreement shall be in a recordable form acceptable to the City Engineer, and shall bear the signatures of all property owners and those responsible for the development of the subject property. Said Agreement shall be notarized, and shall indemnify and hold harmless the City of Mercer Island, its agents, and employees, from and against all claims, damages, losses and expenses, including attorney's fees arising out of or resulting from the construction. Said Agreement shall further provide that the property owner shall after reasonable notice, defend and pay the expense of defending any suit brought against the City, its agents or assigns as a result of the issuance of City construction permits and/or any construction undertaken.

10. A statement, in substantially the following form signed by the Developer's geotechnical engineer, shall be included on the construction plans:

*I have reviewed the construction plans prepared by \_\_\_\_ dated \_\_\_\_ for conformance with the geotechnical evaluation and recommendations contained within my geotechnical report dated \_\_\_\_\_. It is my opinion that the recommendations presented in my soil report have been incorporated into the above referenced plans in accordance with my intent.*

*I do certify that our firm:*

- 1. Has been retained by the property owner to monitor the construction for compliance with the recommendations and implementation measures contained in my geotechnical report;*
- 2. Will, if deemed necessary by the City, provide, in a timely manner, additional construction recommendations and suggested construction modifications; and*
- 3. Will promptly submit monitoring information and any recommendations to the City Engineer and Code Official for review.*

## Construction Requirements – General

1. Open space, landscaping, parking, trails, utilities and street improvements shall be installed pursuant to plans approved by the City in accordance with the approved construction schedule.

2. All construction shall conform to the Standards and Specifications of the City of Mercer Island, conditions of permits issued, and the geotechnical evaluation recommendations and construction plans accepted by the City.

3. The season for clearing, grading, and the construction of utilities, storm drainage facilities, roadways and retaining walls shall not begin until April 1, and shall end by October 1 of any year, unless otherwise approved by the Code Official and City Engineer.

4. All improvements shall be accomplished to save as much natural vegetation as possible.

5. The type of equipment to be used for land clearing and roadway and utilities construction shall be defined at the Pre-Construction conference with the City. The necessary development and street use permits shall be obtained prior to moving equipment onto the site.

6. The Code Official and/or City Engineer may require that certain improvements be hand dug.

7. The City may require that specific clearing, grading, excavation, or sensitive construction work be evaluated and detailed by a State of Washington geotechnical engineer. As a condition for completion of the work, the City may require that the Engineer be present during the work to monitor and review site conditions, and to recommend that special construction techniques or mitigating measure be taken. All costs associated with the preparation of the evaluation and the Engineer's monitoring shall be borne by the Developer.

8. Following plat improvement construction, the geotechnical engineer shall submit a letter to the City containing the following statements:

*This construction has been completed substantially in accordance with recommendations contained within the geotechnical investigation and evaluation report and made in connection with our on-site monitoring of the activities. Owner directed deviations from these recommendations have*

*resulted in conditions for which responsibility has been assumed by the property owner. The conditions, the risks, and on-going responsibilities associated with each are summarized below:*

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9. Following the Plat improvement construction, the project Civil Engineer shall submit a letter to the City containing the following statement:

*This construction has been completed substantially in accordance with recommendations contained within the storm drainage technical information report, approved plan set, and our on-site monitoring of the activities.*

10. The City Engineer, Code Official, or authorized designee shall monitor construction as deemed appropriate and when permit inspections are required. At any time, additional design drawings and/or evaluation and monitoring by a geotechnical engineer may be required to detail or provide for corrections to the work. Evaluation and/or monitoring by the geotechnical engineer is required for this project with copies of written reports provided to the City. All costs associated with the installation of improvements, (including the monitoring and evaluation of construction activity by the City and consultants, and the completion of any required additions or corrections to the design or installation of the improvements) shall be borne by the Developer, property owner or assignee.

11. All damage to adjacent properties or public rights-of-way resulting from construction (e.g., siltation, mud, water, runoff, roadway damage caused by construction equipment or hauling) shall be expeditiously mitigated and repaired by the contractor, developer or the subject property owners at the owners expense. Failure to mitigate and repair said damage, or to comply with the accepted construction plans, the permits issued by the City, or the City requirement for corrective action shall be cause for the issuance of a "Stop Work" order, foreclosure on the plat bond, and/or other measures deemed appropriate by the City Engineer or Code Official to ensure quality construction and protect public safety.

## Construction Requirements – Local

1. If a developer wishes to defer certain on-site or off-site improvements, (i.e. landscaping, stormwater detention, curbs or sidewalks), written application with full and complete engineering drawings shall be submitted to the City Engineer. The applicant shall state the reasons why such delay is necessary. If approval is granted, security in the form of a cash bond, assignment of funds, certified check or other type of security acceptable to the City shall be furnished to the City of Mercer Island in an amount equal to a minimum of 150 percent of the estimated cost of the required improvements. The City Engineer must accept and establish the bond amount. Such security shall list the exact work that shall be performed by the applicant and shall specify that all of the deferred improvements shall be completed within the time specified by the City Engineer, and if no time is so specified, then not later than one year. All plat improvements shall be installed prior to the issuance of a building permit for residential construction. Requests to concurrently complete plat improvements with building construction permits must be made in writing for review and approved by the Development Services Director after consultation with City Engineer, Development Engineer and Building Official. Damages to adjacent property or public right-of-ways, roadways or facilities by construction activities shall be repaired at the expense of the Developer.

2. Plat improvements, including roadways, water, sewer and storm drainage facilities shall be constructed in accordance with City Standards and the requirements of the City Engineer. Construction of Plat improvements requires design by a State of Washington licensed geotechnical engineer. The Engineer shall be required to monitor the construction, erosion control, site stabilization measures and provide inspection reports to the City Engineer that document all of the work performed and instructions provided to govern the work.

3. The Developer shall submit as-built photomylar drawings surveyed by a Washington State Licensed Professional Land Surveyor of all utility lines, storm drain stubs, water service lines, and detailed side sewer stubs or connections to the municipal sewage collection system for each lot prior to final inspection. As-Built plan should be provided in AutoCAD release A format on disk to be incorporated into the City's As-Built maps.

4. Fire hydrants and fire flows shall be provided by the applicant in accordance with the requirements of Resolution 778, or as determined by the Fire Marshal. All roadways and driveway aprons shall be designed to accommodate fire truck loading and provide for emergency vehicle turnaround. The applicant may be required to upgrade an existing water main to provide fire flow if adequate flow and pressure are not available.

5. Developer and contractors shall be required to obtain a Right-of-Way permit for any activity occurring in street right-of-way and comply with all conditions of approval. A bill of sale for any improvements to be transferred to public ownership and maintenance shall be submitted to the City prior to final inspection of plat improvement.