CITY OF AUSTIN Development SERVICES DEPARTMENT

Building a Better and Safer Austin Together

Major Drainage and Regional Detention Projects Application Instructions

DevelopmentATX.com | Phone: 311 (or 512-974-2000 outside Austin)
For submittal and fee information, see austintexas.gov/digitaldevelopment

The following information outlines the Application Instructions and Submittal Requirements necessary to obtain a major drainage and regional detention site plan permit within the City of Austin jurisdiction (full-purpose and limited-purpose city limits, and extraterritorial jurisdiction ETJ). The regulatory requirements and procedures for approval are defined in Volume III, Chapter 25 of the City of Austin Land Development Code (LDC). Chapter 25 was adopted by City Council in order to protect the health, safety, and welfare of the Austin community.

Additional information about the major drainage and regional detention site plan permitting process and code requirements can be obtained prior to submitting a major drainage and regional detention site plan application by visiting http://austintexas.gov/digitaldevelopment.

The City of Austin encourages people considering site development to request a Development Assessment to determine design requirements, project feasibility, and permitting requirements. For information, please see Major Drainage and Regional Detention Projects Overview and Review Procedures at http://www.austintexas.gov/page/land-use-applications#site.

Application Instructions

The application must be complete and accurate prior to submittal. Please refer to the descriptions below to ensure all information is entered correctly. To access the application, please see Major Drainage and Regional Detention Projects Application at http://www.austintexas.gov/page/land-use-applications#site. Note that the application is a fillable PDF, and must first be SAVED TO COMPUTER to be completed.

All information is required (if applicable).

Section 1: Project Information

Project Name
Provide the name of the proposed project.

Project Street Address (or range)
Provide the street address of the project, or range of addresses for all streets abutting the property. For assistance, call: (512) 974-2797; or email: addressing@austintexas.gov.
—OR—
If project cannot be defined, provide the distance and directions from nearest intersection.

Legal Description or Subdivision Reference

The property description shall accurately describe only that area for which a site plan approval is being requested. This description shall be either by legal description, or by block and lot of a recorded subdivision, including plat book and page.

Legal Description such as:

- East 50 feet of Lot 1, Block A, Austin Subdivision
- One acre out of the Santiago Del Valle Grant, as recorded in Volume 1, Page 1, of Travis County Deed Records

Deed Reference

The volume, document number, and page numbers of the deed conveying the property to the present owner and the total size of the property conveyed shall be shown. This information is on your deed, or is available from your title company, through the Travis Central Appraisal District website at http://www.traviscad.org/property_search.html, or the Travis County Clerk's Office at 5501 Airport Boulevard. Williamson County information is available on the Williamson Central Appraisal District website at http://www.wcad.org/.

Tax Parcel Number(s)

These numbers may be found on the tax plats or tax certificates you are providing. The Intake Center or Document Sales Window can assist you with these numbers.

Section 2: Applicant/Agent Information

Provide all contact information. If an agent is designated, this is considered the "Applicant" and will be the primary contact. If the agent changes, your Case Manager should be notified.

Section 3: Owner Information

Provide all contact information if the owner is not the applicant. The current owner must sign the application or attach a written authorization for the agent. If there is more than one owner, attach additional owner information to application. Be sure all signatures are legible and address information is correct.

Section 4: Engineer Information

Provide all engineer contact information, if applicable.

Section 5: Other Professional/Trade Information

Provide all professional and/or trade contact information, if applicable. Examples include general contractor, electrical contractor, landscape architect, etc.

Section 6: Property Attributes

To determine the following information, refer to the GIS Viewer on the Development website at http://www.austintexas.gov/GIS/DevelopmentWebMap/:

- Watershed
- Watershed Classification
- Edwards Aquifer Recharge Zone
- Land Development Jurisdiction

Current Watershed Protection Regulations

In order to determine if your project is not subject to current watershed regulations, you must also submit your Chapter 245 Determination form with this application.

Development Assessment (refer to Major Drainage and Regional Detention Projects Overview and Review Procedures at http://www.austintexas.gov/page/land-use-applications#site for more information)
If you have received a Development Assessment, indicate the file number and the Intake Center will apply the credit associated with the assessment to your application fee. The assessment credit is void if not used within six months.

Small Project
Your project may qualify as a small project if all conditions required by Land Development Code 25-5-3 are met. Small projects have reduced fees, shorter review times, and do not require notification.

Section 7: Site Area Information

Site Area
Indicate the site area in acres or square feet.

Zoning Chart
Complete the chart, indicating the zoning (within the City limits), existing and proposed uses, and area of each tract. If there is only one tract, refer to it as Tract 1.

Utility or Storm Sewer Length
Indicate the length of the project in linear feet.

Section 8: Related Cases

Provide the file numbers which relate to applications on this property that have been filed in the past.

Section 9: Land Use Site Plan Data – as applicable

Consult with the Development Assistance Center (DAC) to determine the following information:

- Compatibility Standards (triggered if the site is adjacent to or across the street from a property as occupied by an SF-5 or more restrictive use or within 540 feet of SF-5 or more restrictive zoning)
- Combining District/Overlay Zone

Section 10: Waiver/Variance/Etc. – as applicable

Indicate all waivers, variances, or alternatives that are being pursued in this application. Identifying the need for these in the beginning of the process may help prevent delays.

Variances
When requesting a variance, please include in the Engineer's Summary Letter a description of the variance and justification, and the applicable ordinance and section from which you are requesting a variance.

Section 11: Submittal Verification

Ensure all information entered in the application is complete and accurate before signing.

Section 12: Inspection Authorization

Provide permission for inspection of the property as part of the application process.

Section 13: Acknowledgement Form concerning subdivision plat note/deed restrictions

The applicant should carefully check the subdivision plat note/deed restrictions records before signing the Acknowledgment Form. Plat notes are shown on the face of the subdivision plat. Plats are available at the City or the Courthouse. Deed restrictions are recorded at the Courthouse, if you do not have them in your possession.

Submittal Requirements

In addition to completing the Major Drainage and Regional Detention Projects Application, the following information will be required to complete the site plan permitting process. For details, refer to the complete Exhibits on the pages that follow. For submittal information, please see http://austintexas.gov/digitaldevelopment.

Exhibit I: Engineer's Summary Letter

Exhibit II: Construction Site Plan Requirements

A complete set of construction plans, which includes the information required for issuance of the development permit, must be submitted. *Note that approval of the permit does not automatically authorize construction*. As a minimum, the plans shall include all the information shown in Exhibit II and as indicated below:

1. Cover Sheet
2. Grading/Tree and Natural Area Protection
3. Erosion/Sedimentation Control
4. Drainage
5. Slope Map*
6. Special Watershed*
7. Construction Details

* If applicable

Exhibit III: General Construction Notes for Drainage and Erosion/Sedimentation Control Plans

Exhibit IV: Environmental Requirements

Exhibit V: Irrevocable Letter of Credit for Erosion and Sedimentation Controls

Exhibit VI: Revisions/Corrections Table

Exhibit VII: Electronic Submittal ***

Exhibit VIII: Owner's Detention Ponding Release Letter

*** **PLEASE NOTE —** Exhibit VII is a fillable form that can be completed electronically. To ensure your information is saved, click here to Save this document to your computer, then open your copy and continue.

Additional Requirements

1. **Application Fee**

   Fee schedules are available at http://austintexas.gov/digitaldevelopment.

2. **Tax Certificate**
   Tax certificates can be obtained from:
   - Hays County: Hays County Tax Assessor Office, 102 N. LBJ Dr., San Marcos
   - Travis County: Courthouse Annex, 5501 Airport Blvd., Austin
   - Williamson County: Williamson County Tax Assessor/Collector Office, 904 S. Main St., Georgetown

   The tax certificate should indicate that there are no taxes owed.

3. **Location Map**
   Provide a location map on a separate sheet that clearly indicates the precise location of the tract (not required on small projects).

4. **Letter of Credit Information**
   The applicant must submit an Engineer's Cost Estimate for all proposed erosion and sedimentation controls, and for permanent restoration of disturbed areas. When the Case Manager has approved this information, the applicant will be requested to submit a formal Letter of Credit (see Exhibit V: Irrevocable Letter of Credit for Erosion and Sedimentation Controls), or any other form of fiscal surety which has been approved by the Fiscal Officer. The Letter of Credit must be submitted and approved before the site plan can be released.

Additional Items Required Only for Projects Subject to the Requirements of Current Watershed Protection Regulations

1. **Engineer's Report**
   a) A drainage study addressing the design criteria set forth in the Drainage Criteria Manual.
      - Demonstrate compliance with the City of Austin Drainage Criteria Manual and applicable ordinances in the results of the study, including hydrographs and peak values.
      - Include supporting calculations for elevation volume – discharge tables and other hydraulic formulae used in the drainage study.
      - Provide full hydrographs, with peak values shown on the construction plans.
      - Show all variances to the City of Austin Drainage Criteria Manual and all other policies.

   b) The land area calculated in acres for each slope class and each water quality zone within the development.
   c) An erosion/sedimentation control plan consistent with the requirements of LDC Chapter 25-7 and Section 25-8-233.
   d) A vegetative description delineating ground cover types, defining the cover-types by general species composition and range of tree diameters. The vegetative description shall be accompanied by an aerial photograph at a scale of 1"=400’. A Mylar overlay accompanying the photograph shall show approximate locations and identities of all trees and definable groups of trees with crown diameters equal to or greater than 40 feet and showing the approximate locations and identities of any other significant plant material.
   e) An engineer's seal, signature, and statement certifying that the plan is complete, correct, and in compliance with LDC Chapters 25-7 and 25-8, along with the Engineer's Summary Letter.

2. **Archaeologist's report,** if required by applicable watershed regulations

3. **An Environmental Assessment,** for projects located in Water Supply Rural or Water Supply Suburban Watersheds, including:
   a) A hydrogeological element which: Generally describes the topography, soils, and geology of the site; and identifies faults, fractures, sinkholes, springs and other significant recharge features on the site.
   b) A vegetative element which includes:
      - Either a survey of all trees with a diameter of eight inches (8") or more measured four and one-half (4.5) feet above natural grade level, or a set of 9"x9" aerial photographs providing complete, stereo coverage of the area, photographed at an appropriate time of year, at a scale of approximately 1"=400';
      - A demonstration that the design of the plan has been accomplished to preserve to the greatest extent reasonable any significant trees and vegetation on the site and to provide maximum erosion control and overland flow benefits from such vegetation. This demonstration will supplant the vegetative description required in 1d above, and must be shown on a plan with the following information:
         i) street locations, lot lines, and all other improvements;
         ii) existing topography;
         iii) a delineation of ground cover-types with an index defining the cover-types by general species composition and range of tree diameters;
         iv) a delineation of all definable trees with crown diameters equal to or greater than 40 feet;
         v) in lieu of iii and iv above, the locations, diameters and types (species) of all trees 8" diameter and larger.
   c) A wastewater element, where applicable, which:
      - Includes calculations of drainfield or wastewater irrigation areas as required by LDC Chapters 25-7 and 25-8.
      - Provides environmental justification for sewer line locations in Critical Water Quality Zones, where applicable, and describes construction techniques and standards for wastewater lines.
      - Describes alternative wastewater disposal systems to be used over the Edwards Aquifer Recharge Zone.
      - Discusses any proposed on-site collection and treatment systems, their treatment levels, and impacts on receiving watercourses, including the Edwards Aquifer, as required by LDC Chapters 25-7 and 25-8.
   d) Identification of any Critical Environmental Features or Environmentally Sensitive Areas as required by LDC Chapters 25-7 and 25-8 and proposed means for protection of such areas.
   e) Environmental justification for spoil disposal locations or roadway alignments, as required in LDC Chapter 25-7 and Sections 25-8-235, 25-8-236, and 25-8-237.
   f) Methods proposed to achieve overland flow, and justification to use enclosed storm sewers, where proposed.
   g) Spoil disposal sites shall not be located within the 100-year floodplain or on slopes greater than 15% gradient unless the Director of the Watershed Protection Department finds that a necessary public benefit is derived from the use of the spoil. [LDC 25-7 and 25-8-236(a)]
   h) Basins in the Edwards Aquifer Recharge Zone which drain residential areas with up to 40% impervious cover may be designed to recharge the groundwater. Applicants shall identify any opportunities for such recharge on the plan submitted under LDC Chapter 25-7 and Section 25-8-223. The recharge basins shall include sedimentation/filtration and shall be designed according to Public Works and Transportation Department guidelines. Approval shall be by the Watershed Protection Department.

Exhibit I: Engineer's Summary Letter

No construction plans will be accepted unless accompanied by a summary letter signed and sealed by the same registered Texas professional engineer who sealed the construction plans.

The summary letter should describe the proposed development and might include, but not limited to, the following:

- Acreage on which the major drainage or detention facility is to be constructed or improved
- Watershed in which project is located
- Type of development and location in which the facility is to be constructed including, if applicable, name of subdivision in which project will be located
- Explanation of any proposed project phasing
- Methods to be used for handling stormwater runoff – i.e., drainage easements, channels, storm sewers, detention, water quality control methods, etc.
- Indication of a desire to participate in the Regional Stormwater Management Program
- Effect the proposed development will have on existing and future drainage systems in the area and on the natural and traditional character of the land and waterways
- The summary letter should also address the following sections of the City of Austin Land Development Code (LDC):
    - For all projects: 25-1, and 25-7 and 25-8 (unless exempt)
    - For site projects: 25-5 (for projects exempt from 25-7 and 25-8)
    - For subdivision projects: 25-9
- If an applicant believes a project should be exempt from the Watershed Protection Regulations (LDC Chapters 25-7 and 25-8), the reason for such an exemption must be justified in writing
- Include variance request with a description of the variance and justification, and the applicable ordinance and section

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Exhibit II: Construction Site Plan Requirements

A. COVER SHEET - Show the following:

— Date of submittal
— Project title
— Property owner(s) name, address, telephone number
— Designer(s) company, name, address, telephone number (include same for Planner, Architect, Landscape Architect, and Engineer if applicable)
— Project street address if available; in the case of channels, there probably will not be an address
— Name of watershed and classification
— State if subject to or exempt from the Watershed Protection Regulations and state justification
— Legal description of property by lot, block and subdivision name, or by metes and bounds, if recorded, indicate the book and page number
— Site location map that clearly indicates the precise location of the tract (as related to major streets or highways in the vicinity)
— Related Case No(s): _____ (Zoning/Subdivision, etc.)
— Revision/Correction Table as shown in Exhibit VI Revision/Corrections
— Texas Department of Transportation (TxDOT) stationing, if project is located adjacent to a road that is state maintained, and will either access the TxDOT right-of-way or will go under a bridge on the state right-of-way
— List of all waivers and variances granted from Design Criteria and/or City of Austin Land Development Code

- Number each sheet submitted and indicate the total number of sheets on each sheet (e.g. 2 of 4). Number the cover sheet as #1. Sheet numbers must be consecutive whole numbers with no letter or decimal suffixes such as A, B, C or .1, .2, .3.
- Provide an index of site plan sheets on the cover sheet.

NOTES

— Show the following note:
  - Contractor shall notify the City's Transportation Department 48 hours prior to starting construction or clearing operations.
  - Contractor shall call Texas 811 (811 or 1-800-344-8377) for utility locations prior to any work in City easements or street right-of-ways.

"Release of this application does not constitute a verification of all data, information and calculations supplied by the applicant. The engineer of record is solely responsible for the completeness, accuracy and adequacy of his/her submittal, whether or not the application is reviewed for code compliance by City engineers."

When applicable, add the following certification to the cover sheet (DCM 8.3.4.B.3):
"I [name of professional engineer] Texas license number [number] certify that the design of the dam in this set of plans can safely pass 75 percent of the Probable Maximum Flood based on the hydrologic, hydraulic, structural and geotechnical analysis using standard accepted engineering practices."

APPROVAL BLOCKS

☐ Approval Block for TxDOT, if part of the project is within Texas Department of Transportation R.O.W. (The engineering coordinator will contact TxDOT for approval.)

Approved by: _____ _____
Texas Department of Transportation Date

☐ Approval Block for Development Services Department

Approved by: _____ _____
Director, Development Services Department Date

Permit Number: _____ _____
Site Plan/Site Development Permit Number Date

B. GENERAL CONSTRUCTION NOTES

— All construction shall be in accordance with the City of Austin Standard Specifications.
— Design Procedures are in complete compliance with the City of Austin Drainage Criteria Manual;
– OR –
Design procedures are in general compliance with the City of Austin Drainage Criteria Manual and Environmental Criteria Manual. It shall be the responsibility of the engineer to denote all waivers and non-compliance.
— A minimum of two existing benchmarks tied to City of Austin grid should be shown on the plans. In addition two permanent benchmarks per subdivision shall be installed in each subdivision to include description, location, and elevation. Tie to City of Austin standards when possible.
— Cast bronze survey markers shall be placed in concrete in permanent, accessible locations at the time of construction. The locations of the markers shall be indicated on the construction plans. A minimum of one marker shall be placed for each 20 acres of the project. Reference will be placed on the marker by Public Works Department at the time of the pre-construction conference.
— Prior to beginning construction, the owner or authorized representative shall convene a Pre-Construction Conference between the City of Austin, consulting engineer, contractor, County Engineer (if appropriate), and any other affected parties. Notify the City's Site and Subdivision Inspection Division at (512) 974-6360 or 974-7034, at least 48 hours prior to the time of the conference and 48 hours prior to the beginning of construction.
— The contractor shall give the City a minimum of 48-hour notice before beginning each phase of construction – call Site and Subdivision Inspection Division at 974-6360 or 974-7034.
— Barricades, built to City of Austin Standard Specifications, shall be constructed on all dead-end streets and as necessary during construction to maintain job safety. (Streets, etc. may be listed in addition to or instead of note.)
— If blasting is planned by the contractor, a blasting permit must be secured prior to commencement of any blasting.
— Any existing pavement, curbs, and/or sidewalks damaged or removed will be repaired by the contractor at his expense before acceptance of the subdivision.
— The location of any water and/or wastewater lines shown on the plans must be verified by Austin Water Utility.
— All storm sewer pipes to be Class III RCP unless noted otherwise.

— Call Texas 811 (811 or 1-800-344-8377) 48 hours BEFORE you dig.

C. BASE INFORMATION

The BASE INFORMATION listed below shall be included on the following sheets: Grading/Tree and Natural Area Protection Plan, Erosion/Sedimentation Control Plan, Drainage, Slope Map, and Special Watershed Sheet. For efficiency, the BASE INFORMATION can be drafted on a single sheet and reproduced for each sheet. All other information on the specific sheets can then be added to the BASE INFORMATION.

— Project title
— North arrow
— Engineering scale shall be 1"=10', 1"=20', 1"=30', or 1"=40'; if the project is too large, a larger scale may be used
— Designer(s) company, name, address, and telephone number
* Seal and signature of the engineer preparing plans, and the date the plans were signed by the engineer
— Boundary lines with bearings and dimensions
— City limit line, when located in or near the site
— Street address if available
— Show the existing (natural) and proposed topography of the site and land located within 100 feet of the site, at two-foot elevation intervals
— Existing and proposed streets, alleys and private drives adjacent to and within property including median cuts; existing, dedicated right-of-way should be indicated next to street name; proposed right-of-way and all pavement widths
— All existing and future dedicated easements (drainage, access, conservation, electrical, gas, including temporary construction easements); provide recording data
— Location of all proposed structures
— Limits of construction, including access drives
— The existing improvements adjacent to the project
— The centerline of existing creeks, rivers, or channels and their 100-year floodplain; if there is no 100-year floodplain, state accordingly
— Other case numbers if applicable
— All proposed impervious cover, including existing, that will remain

* Not required for small projects

Show the following note:

"All responsibility for the adequacy of these plans remains with the engineer / architect / landscape architect (as applies) who prepared them. In reviewing these plans, the City of Austin must rely on the adequacy of the work of the design engineer / architect / landscape architect."

☐ Signature block on right side of all inside sheets

Reviewed by: _____ _____

Director, Development Services Department Date

D. DRAINAGE – EXISTING SITE AND DRAINAGE CONDITIONS

In addition to the Base Information, sufficient information to reflect the existing conditions just prior to the proposed development are to be shown, but not limited to the following:

* Legible engineer's seal, signature, and date
- Drainage area map including contributing drainage areas for entire regional project
- Drainage area maps for the off-site contributing areas passing through site
- Existing impervious cover, including buildings
- Surrounding information: structures, drainage release points, etc.
- Direction, location, and quantity of peak 25- and 100-year flood flows from off site in existing conditions
- Indicate 25- and 100-year flows from off site in existing condition
- Delineation of the fully developed 25- and 100-year floodplains, as calculated in the Austin Drainage Criteria Manual or, if applicable, a note stating that no 25- or 100-year floodplain exists on the site (Note that most FEMA maps are not current and are not calculated for future full development.)
- Existing storm sewer systems on site or adjacent streets
- Delineation of the centerline of waterways, lakes, and the average water surface elevation of lakes, ponds, and streams
- Locations of all rock outcrops, sink holes, point recharge features, springs, canyon rimrocks, etc.
- Provide hydrographs for existing condition 10-, 25- and 100-year storms (2-year also for Shoal Creek); include enough cross sections to encompass entire project – continue downstream to beyond any nearby confluences
- Contours at two-foot intervals
- Critical Water Quality and Buffer Zones, if site is crossed by or adjacent to a waterway

* Not required for small projects

E. DRAINAGE – DEVELOPED SITE AND DRAINAGE CONDITIONS

Sufficient information to reflect the developed site conditions is to be shown, but not limited to, the following:

- Developed drainage areas with two-foot contours
- Curbs, retaining walls, and other structures
- Overflow points and control elevations
- Construction details for control devices, curbs, walls, channel, swales, etc.
- Direction of flow from building roofs/gutters
- Pass through flow rates, if any
- Shade-in limits of ponding at overflow elevation and give cubic feet of storage at the maximum storage elevation
- Overflow points and control elevations for overflow structures
- Amount, action and direction of unrestricted flow from site, if any, with supporting calculations

* Storm drainage profiles and plans (swales, channels, pipes, culverts, spillways, etc.) including % grade, HGL25, HGL100, Q25, Q100, V25, V100, depth of flow for 25- and 100-year storms, and Manning's Roughness coefficients (N-values)
* Hydrographs of the 10-, 25- and 100-year storms for proposed conditions (2-year also for Shoal Creek); include routing through detention ponds; include same analysis not addressed for existing conditions
* Hydrologic summary of existing and proposed conditions for all areas in tabular form:
    a) Drainage area

b) Time of concentration
c) Distance of flow where the time of concentration is measured
d) C10, C25 and C100 value if a form of Rational Method is used; % impervious cover and conveyance factor if Austin Standard Method is used
e) Q10, Q25, and Q100 peak discharge values

— Calculations and formulas for discharge or control structures (for 2-, 5-, 10-, 25-, 50- and 100-year storms), pipes, inlets, etc. Discharge pipes should not be less than six inches. In the event that less than six inches must be used, every effort should be made to mitigate the "clogging" potential. Discharge across the right-of-way to the street gutter, or bar ditch, is allowable, provided a storm sewer tie-on is not available within 300 feet. Direction of flow must be at an angle less than 45 degrees with the curb line. Discharge across a sidewalk area will not be allowed. A channel section can be used under the sidewalk area, provided it is covered and the outlet device utilizes sheet flow methods.
— Table of 25-year water surface elevation, volume, and peak discharge rates of ponding area(s) for the chosen depths
— Attach a separate release letter for ponding depth greater than eight (8) inches in parking areas (see Exhibit VIII: Owner's Detention Ponding Release Letter). Ponding depth is limited to eight (8) inches in parking lots unless a release of liability is furnished by the owner and appropriate notice signs are posted on site.
    - Depth which may create a hazard to life or public safety is not permitted unless adequate safeguards are provided; i.e., guard rails, etc. The maximum depth is limited to 12 inches for the 100-year storm condition.

* Not required for small projects

Provide the following general notes on the Drainage Sheet:

- Upon completion of the proposed site improvements, and prior to the release by the Development Services Department, the Design Engineer shall certify in writing that the proposed detention facility was constructed in conformity to the approved plans.
- Contractor shall notify the City's Site and Subdivision Inspection Division at (512) 974-6360 or (512) 974-7034 48 hours prior to starting construction or clearing operations.
- Sequence of construction.
- Contractor shall call Texas 811 (811 or 1-800-344-8377) for utility locations prior to any work in City easements or street right-of-ways.

F. CONSTRUCTION DETAILS (use City of Austin Standard Specifications and Details for all work in the Right-of-Way and Easements) - Show the following:

* Legible professional engineer's seal and signature
— Required structural walls, manholes, lift stations, junction vaults, etc.; show adequate dimensions, layout details, and general notes adjacent to all details
— Hydrological data, hydrograph data, HEC-2 runs, control outlet calculations, etc.
— Manhole or junction box detail
— Pipe end riprap or headwall details
— Channel lining
— Construction plans and details for proposed reinforced concrete box culverts, bridges and related structures may be adaptations of the Texas Department of Transportation (TxDOT) standards
— Traffic/pedestrian railing and fencing details
— Retaining wall construction drawings in accordance with Transportation Criteria Manual (TCM) 11.3.14

— Other details as needed for construction

* Not required for small projects

Show the following note on all sheets:
"All responsibility for the adequacy of these plans remains with the engineer who prepared them. In reviewing these plans, the City of Austin must rely on the adequacy of the work of the design engineer."

☐ Signature block on right-hand side

Reviewed by: _____ _____
Director, Development Services Department Date

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Exhibit III: General Construction Notes for Drainage and Erosion/Sedimentation Control Plans

1. All responsibility for the adequacy of these plans remains with the engineer who prepared them. In reviewing these plans, the City of Austin must rely on the adequacy of the work of the design engineer.
2. Contractor shall call Texas 811 (811 or 1-800-344-8377) for utility locations prior to any work in a City easement or street right-of-way.
3. Contractor shall notify the City of Austin – Site & Subdivision Division to submit required documentation, pay Construction Inspection Fees, and to schedule the required Site and Subdivision Pre-Construction Meeting. This meeting must be held prior to any construction activities within the R.O.W. or public easements. Please visit http://austintexas.gov/page/commercial-site-and-subdivision-inspections for a list of submittal requirements, information concerning fees, and contact information.
4. For slopes or trenches greater than five feet in depth, a note must be added to the General Construction Notes stating: "All construction operations shall be accomplished in accordance with applicable regulations of the U.S. Occupational Safety and Health Administration." Copies of OSHA standards may be purchased from the Government Printing Office; information and related reference materials may be purchased from OSHA, 611 East 6th Street, Austin Texas.
5. All site work must also comply with Environmental requirements.

Developer Information

_____ _____

Owner Phone #

_____

Owner Address

_____ _____

Owner's representative responsible for plan alterations Phone #

_____ _____

Person or firm responsible for erosion/sedimentation control maintenance Phone #

_____ _____

Person or firm responsible for tree/natural area protection maintenance Phone #

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Exhibit IV: Environmental Requirements

The table below establishes submittal requirements for all environmental ordinances. Certain requirements may be waived by the Director of the Watershed Protection Department if they are determined by the Director to not be applicable.

A professional engineer's seal, signature, and statement certifying that the plan is complete, correct, and in compliance with the City of Austin Land Development Code (LDC) are required for all projects, except those designated by the Development Services Department as small projects.

* Water Supply refers to Water Supply Rural and Water Supply Suburban watershed classifications (excluding the Barton Creek Watershed and Barton Springs Contributing Zone). If the property is located over the South Edwards Aquifer Recharge Zone, or is within the Contributing Area to the South Edwards Aquifer Recharge Zone, refer to requirements for the Barton Springs Zone.

	Urban	**Suburban**	**Water Supply***	**Barton Springs Zone**
1. Project Report – For sites over 25 acres, submit a project report which contains the following information (may be included in the Engineer's Report):				
An introduction providing project acreage, watershed and classification, description of proposed development, and description of project phasing, if phasing is proposed	**X**	**X**	**X**	**X**
An explanation of and documentation for any special exception or waiver claimed pursuant to LDC 25-8-25, 25-8-212	**X**	**X**	**X**	**X**
Drainage area map showing: • Location of all waterways within the tract or that impact the tract which have a drainage area of 64 acres or more • Location of the 100-year floodplain • Area and acreage of upstream drainage (LDC 25-8-92, 25-8-261, 25-8-262)	**X**	**X**	**X**	**X**
Discussion of the following issues, if applicable to the project: • Proposed and existing drainage patterns • Proposed method of treating both quantity and quality of stormwater run-off (LDC 25-8-211, 25-8-213, 25-8-215; 25-7-61, 25-7-65)	**X**	**X**	**X**	**X**
Proposed extent of floodplain modification, if applicable (LCD 25-8-92, 25-8-261, 25-8-262; ECM 1.7.0)	**X**	**X**	**X**	**X**
Critical Environmental Features within the project and known features within 150 feet of the project (LDC 25-8-281, 25-8-282)	**X**	**X**	**X**	**X**
Discussion of all proposed variances. Provide letter of variance request addressing proposed Findings of Fact as shown in Appendix U of the Environmental Criteria Manual (ECM). (LDC 25-8-41 through 43)	**X**	**X**	**X**	**X**
Requests for consideration of alternatives to the requirements of ECM, including any written requests for consideration of an alternative innovative water quality control which differs from the standards of the ECM, and information to demonstrate that the proposed control provides an equivalent level of water quality as the standard controls in the ECM (LDC 25-8-151)	**X**	**X**	**X**	**X**
Description and location of any known Underground Storage Tanks within the project boundary (CCA 6-2-33)	**X**	**X**	**X**	**X**

	Urban	Suburban	Water Supply*	Barton Springs Zone
Irrevocable letter of credit for erosion and sedimentation controls based on standard City of Austin costs found in ECM Appendix S-1 (ECM 1.2.1)	**X**	**X**	**X**	**X**
Explanation of spoil disposal locations or driveway alignments (LDC 25-8-341, 25-8-342, 25-8-343, and 25-8-481)	**X**	**X**	**X**	**X**
Existing and proposed drainage patterns	**X**	**X**	**X**	**X**
Proposed cut and fill greater than four feet (LDC 25-8-341, 25-8-342)		**X**	**X**	**X**
Proposed impervious cover and net site area information in the format as found in ECM Appendix Q-1 and Q-2 (LDC 25-8-394, 25-8-424, 25-8-454, 25-8-481)		**X**	**X**	**X**
Transfer of Development Information using the format in Appendix Q-3 of the ECM (LDC 25-8-395, 25-8-425, 25-8-455, 25-8-484)		**X**	**X**	**X**
For projects receiving approval subject to Ordinance No. 920903-D (the SOS Ordinance), LDC 25-8-514 requires water quality controls and/or other on-site pollution prevention and assimilation techniques so that no increase occurs in the respective average annual pollutant load of suspended solids, total phosphorous, total nitrogen, chemical oxygen demand, biochemical oxygen demand, total lead, cadmium, fecal coliform, fecal streptococci, volatile organic compounds, total organic carbon, pesticides, and herbicides from the site (see ECM 1.6.9). To demonstrate compliance with these requirements, the applicant must submit the following additional information in the Engineering Report: • The methodology and water quality control strategy proposed to achieve the target pollutant load reductions (see ECM 1.6.9) • Calculations illustrating the target pollutant loads expected for the proposed development with an accompanying explanation of how these figures were derived (LDC 25-8-511 through 523, ECM 1.6.9) • Calculations illustrating expected pollutant load reductions for the controls proposed with an accompanying explanation of how these figures were derived (LDC 25-8-511 through 523, ECM 1.6.9) • Special conditions approved by the City for installation or maintenance of proposed water quality controls used to achieve the target pollutant load reductions (LDC 25-8-511 through 523, ECM 1.6.9)				**X**

	Urban	Suburban	Water Supply*	Barton Springs Zone
For projects receiving approval subject to Ordinance No. 941205-A (the amended Composite Ordinance), LDC Section 25-8-213 requires water quality controls and/or other on-site pollution prevention and assimilation techniques so that the post-development stormwater concentrations of total suspended solids, total phosphorus and total nitrogen and total organic carbon in stormwater leaving the development site water quality controls must be no greater than the background stormwater concentrations specified in LDC 25-8-213(D). In addition, LDC 25-8-511 through 523 requires that multifamily and commercial controls be monitored to verify that discharges do not exceed the concentrations. This section establishes reductions required, and sets maximum discharge concentrations. To demonstrate compliance with these requirements, the applicant must submit the following additional information in the Engineering Report: • The methodology and water quality control strategy proposed to achieve the target pollutant concentration reductions (see ECM 1.6.8) • Calculations illustrating the target pollutant concentrations expected for the proposed development with an accompanying explanation of how these figures were derived (ECM 1.6.8) • Calculations illustrating expected pollutant concentration reductions for the controls proposed with an accompanying explanation of how these figures were derived (ECM 1.6.8) • Special conditions approved by the City for installation or maintenance of proposed water quality controls used to achieve the target pollutant concentration reductions (ECM 1.6.8) • For commercial sites, pollution reduction measures required by LDC 25-8-213, including use of xeriscape with a fertilizer reduction element and spill control/maintenance plan for hydrocarbons (ECM 1.6.8)				**X**
2. Cover Sheet – Provide a cover sheet which contains the following information:				
Name of project	**X**	**X**	**X**	**X**
Watershed name and classification	**X**	**X**	**X**	**X**
Application submittal date	**X**	**X**	**X**	**X**
Subject water quality ordinance	**X**	**X**	**X**	**X**
Statement whether site is located over Edwards Aquifer Recharge Zone	**X**	**X**	**X**	**X**
Statement whether an operating permit for water quality controls is required, and the level of operating permit				**X**
3. Erosion/Sedimentation Control and Tree Protection Plan – This plan must be on a separate page labeled "Erosion/Sedimentation Control and Tree Protection Plan." This plan must be a topographic map with two-foot contour intervals, at a scale of 1"=50 feet or less, and sealed by a Professional Engineer (LDC 25-8-152). For large projects, Development Assistance Center may waive the requirement for a 1"=100' scale, and may allow a smaller scale to be submitted. Symbols used to show controls must be clear and distinctive. The plan must contain the following information:				
Location and type of all proposed temporary erosion controls on a plan view with existing topographic information (LDC 25-8-181 through 184, ECM 1.4.0)	**X**	**X**	**X**	**X**
Contributing drainage area information for all erosion controls (ECM 1.4.0)	**X**	**X**	**X**	**X**
Location and type of all permanent erosion and sedimentation controls, existing and proposed permanent water quality and detention controls and flood controls (LDC 25-8-181 through 184, ECM 1.4.0)	**X**	**X**	**X**	**X**
Existing and proposed grade(s)	**X**	**X**	**X**	**X**

	Urban	Suburban	Water Supply*	Barton Springs Zone
Finished floor elevation(s)	X	X	X	X
All proposed development including all utilities proposed to be part of site development permit (LDC 25-8-181 through 184, ECM 1.4.0)	X	X	X	X
Contractor staging area(s) and vehicular use area(s) (ECM 1.4.0)	X	X	X	X
Temporary and permanent spoils storage areas specifying size, time of use, and ultimate restoration schedules (LDC 25-8-343, ECM 1.4.0)	X	X	X	X
All waterways within the tract or which impact the tract and the location of the 2-, 25- and 100-year floodplains and the area of upstream drainage (LDC 25-8-92, 25-8-261, 25-8-262)	X	X	X	X
Location of Critical Water Quality Zone (CWQZ) (LDC 25-8-92, 25-8-261, 25-8-262)	X	X	X	X
The delineation of Water Quality Transition Zone, Upland Zone, as applicable (LDC 25-8-93, 25-8-393, 25-8-423, 25-8-453, 25-8-483)		X	X	X
All proposed floodplain improvements (LDC 25-8-92, 25-8-261, 25-8-262, ECM 1.7.0)	X	X	X	X
Location of all known Underground Storage Tanks	X	X	X	X
Location of all Critical Environmental Features and their required setbacks (LDC 25-8-281, 25-8-282)	X	X	X	X
Detailed sequence of construction containing: • Which phases of construction will be done at which time • Specific erosion/sedimentation controls and tree protection measures for each phase of the development • The pre-construction meeting • Phasing for projects over 25 acres (May be located on general notes sheet.) (LDC 25-8-181 through 184, ECM 1.4.0)	X	X	X	X
Detailed sequence of construction containing: • The information found in Appendix P-4 in the Environmental Criteria Manual (May be located on general notes sheet.) (LDC 25-8-181 through 184, ECM 1.4.0)				X
Areas of cut and/or fill greater than four feet (LDC 25-8-341, 25-8-342)		X	X	X
Downstream buffer zones as required by LDC 25-8-454			X	X
Location of all wastewater irrigation areas, such as wastewater treatment plants and subsurface irrigation fields, if applicable (LDC 25-8-361)		X	X	X
Limit of construction line encompassing all areas to be disturbed, enclosing all areas of natural vegetation on the site which are to be left undisturbed (ECM 1.4.0)	X	X	X	X
Specific locations where special slope stabilization techniques are to be utilized and the extent of slope stabilization to take place and the technique used (May be located on general notes sheet.) (ECM 1.4.0)	X	X	X	X
• Restoration plans for all disturbed areas on the site in accordance with requirements of ECM 1.4.1(D)	X	X	X	X
City of Austin Standard Erosion Control Notes as found in Appendix P-1 in the Environmental Criteria Manual (May be located on general notes sheet.) (ECM 1.4.0)	X	X	X	X
• Additional Erosion Control Notes for Barton Springs Contributing Zone found in ECM Appendix P-3 (May be located on general notes sheet.) (LDC 25-8-181 through 184)				X

	Urban	Suburban	Water Supply*	Barton Springs Zone
A survey of all trees eight (8) inches in diameter and larger. Trees are to be represented by circles using the formula of one foot of radius for every one inch of trunk diameter. Unbroken circles indicate trees which are to remain. Dashed circles indicate trees proposed for removal. (LDC Chapter 25-8, Subchapter B, Article I, ECM 3.1.0 through 3.6.1)	X	X	X	X
For projects located within designated Hill Country Roadway Corridor Areas, a survey for trees six (6) inches in diameter and greater for individual trees and down to two (2) inches in diameter for tree clusters with 3 or more trunks within 10' of each other (LDC 25-2-981, 25-2-1021 through 1026, ECM 3.3.4)	X	X	X	X
Additional areas to be considered for credit in the reduction of parking requirements should be highlighted using cross hatching or similar graphic method	X	X	X	X
The erosion control plan must show all water quality controls and associated appurtenances to scale (LDC 25-8-181 through 184)	X	X	X	X
Location of tree protection fencing (ECM 3.4.5)	X	X	X	X
City of Austin Standard Notes for Trees and Natural Area Protection as found in ECM Appendix P-2 (May be located on general notes sheet.) (ECM 3.4.5)	X	X	X	X
4. Water Quality/Drainage Plan				
In Urban Watersheds, payment of a fee to the City of Austin in lieu of construction of a water quality pond is allowed. This fee is collected by the City of Austin and used to construct off-site water quality ponds. The form to calculate the fee is located in Appendix T in the Environmental Criteria Manual. If payment of the fee is proposed, submit the form to the environmental reviewer with the information required to determine the fee. (LDC 25-8-214)	X			
A. Water Quality Plan and Drainage Area Map: If construction of an on-site water quality control is proposed, a water quality plan containing information on water quality controls and 2-year detention shall be submitted. The plan shall consist of an overall plan view of the proposed project and shall contain, at a minimum, the information listed below. Additional information may be necessary to demonstrate compliance with code requirements. (LDC 25-8-211, 25-8-213, 25-8-215; 25-7-61, 25-7-65)	X	X	X	X
The plan must be a topographic map with two-foot contour intervals, at a scale of 1"=100 feet or less, and shall be sealed by a Professional Engineer	X	X	X	X
Drainage area to each water quality control and size of drainage acres (ECM 1.6.0)	X	X	X	X
All proposed development on the site	X	X	X	X
The proposed site grading including: • Arrows indicating the direction of flow • Arrows indicating the direction of roof run-off • Stormwater lines and inlets • Method used to divert stormwater around site • Creeks, open drainageways within subdivision	X	X	X	X
The location of existing and proposed water quality and detention basins	X	X	X	X
Location of discharge from water quality and detention basins (ECM 1.4, 1.6.5)	X	X	X	X
Location of maintenance access for drainage structures (ECM 1.6.5 D.5)	X	X	X	X

	Urban	Suburban	Water Supply*	Barton Springs Zone
Drainage and water quality easements (ECM 1.6.5)	X	X	X	X
Location of all CWQZ, and/or WQTZ, and the 100-year floodplain adjacent to the water quality control, and flood surface elevation of the waterways (LDC 25-8-92, 25-8-261, 25-8-262)	X	X	X	X
Water Quality calculations table as found in ECM Appendix R	X	X	X	X
Demonstrate that 2-year detention is not required, or provide calculations for 2-year detention pursuant to LDC 25-7-61, as amended, including (ECM 1.6.8.2): • Pre-development stormwater run-off flow rates • Developed stormwater run-off flow rates • Discharge flow rates of detention pond(s) • Volume required in detention basin • Maximum water surface elevation for the 2-year storm • Detail on outflow device used for detention pond • Detention pond detail with dimensions and elevations as needed for construction • Other information as necessary to demonstrate compliance with the applicable ordinance	X	X	X	X
B. Water Quality Control Plan(s): This sheet or sheets should consist of a plan view and details of each proposed control. The information contained on this sheet should include:	X	X	X	X
Plan view of water quality control at scale of 1"=20' (scale may be altered upon request), with dimensions, elevations including the splitter, riser, and gabion if applicable. Show proposed and existing grade within this area. (ECM 1.6.5)	X	X	X	X
Clearly show the following information in plan view or cross-section (ECM 1.6.5): • Slopes provided in sedimentation pond • Water quality elevation • Top of sand elevation • Top of berm • Bottom of pond elevations	X	X	X	X
Water surface elevation in receiving drainage system or waterway (ECM 1.6.5)	X	X	X	X
Location for liner, if applicable (ECM 1.6.5)	X	X	X	X
Underdrain spacing and cleanouts (ECM 1.6.5)	X	X	X	X
Landscape screening, maintenance access, maintenance staging area (LDC 25-2-1006, ECM 1.6.5)	X	X	X	X
Splitter box detail with dimensions (ECM 1.6.5)	X	X	X	X
Riser detail with orifice size, trash rack, gravel and filter fabric shown and specified (ECM 1.6.5)	X	X	X	X
Gabion detail with top elevation specified, and gabion specifications, if applicable (ECM 1.6.5)	X	X	X	X
Sand detail and specifications (ECM 1.6.5)	X	X	X	X
Liner specifications, if applicable (ECM 1.6.5)	X	X	X	X
Geotextile membrane specifications (ECM 1.6.5)	X	X	X	X
Fence specifications, if applicable (ECM 1.6.5)	X	X	X	X
Bollard and chain detail, if applicable (ECM 1.6.5)	X	X	X	X
The location of proposed water quality controls, as described in the Project Report, which are necessary to meet the pollutant reduction requirements, indicating whether or not the design is a structural control				X

	Urban	Suburban	Water Supply*	Barton Springs Zone
Details of proposed water quality controls referenced specifically to the water quality methodology contained in the Water Quality Report (These details may be provided on a separate plan sheet, if necessary, with appropriate references and cross-sections provided on the Water Quality Control Plan.) (ECM 1.6.8, 9)				**X**
Impervious cover calculations based on net site area, and within the drainage area to the control (ECM 1.6.8, 9)				**X**
Specific notes that address the following requirements: • Pollution prevention measures proposed to satisfy requirements of LDC 25-8-213 or 25-8-514 and the appropriate enforcement mechanisms used (covenants, restrictions, etc.) • Special conditions required as a result of a "limited adjustment" approved by the City Council, if applicable (May be located on general notes sheet.) (ECM 1.6.8, 9)				**X**
5. Landscape Plan (only for projects within the City's zoning jurisdiction or in any areas where Section 25-8-601 is in effect by contractual agreement)				
Location, diameter, type and crown size of all existing trees 8" in diameter or larger on the site or any critical root zones that extend on to the site (LDC 25-2-1003 through 1007; ECM 2.4, 3.3)	**X**	**X**	**X**	**X**
Solid circle depicting critical root zones for trees to be preserved; dashed circle depicting critical root zone of trees to be removed (include 2" and 6" trees if used as credit) (LDC 25-2-1003 through 1007; ECM 2.4, 3.3)	**X**	**X**	**X**	**X**
Landscape islands, peninsulas, or medians (LDC 25-2-1003 through 1007, ECM 2.4.2)	**X**	**X**	**X**	**X**
Graphic delineation of the street yard (LDC 25-2-1003 through 1007, ECM 2.4.1)	**X**	**X**	**X**	**X**
Method of buffering (LDC 25-2-1003 through 1007, ECM 2.4.3)	**X**	**X**	**X**	**X**
Compatibility screening if to be accomplished with vegetation (LDC 25-2-1064, 25-2-1066)	**X**	**X**	**X**	**X**
Method and location of protective barriers (i.e. curbs, bollards, wheel stops, etc.) (LDC 25-2-983, 25-2-1008, ECM 2.4.5)	**X**	**X**	**X**	**X**
Irrigation notes as per Appendix O of ECM (LDC 25-2-983, 25-2-1008)	**X**	**X**	**X**	**X**
Specific location, species, size (height and caliper) and quantities of new trees (ECM 2.4)	**X**	**X**	**X**	**X**
Specific location, species, container size and spacing of new shrubs, ground covers, and grasses (ECM 2.4)	**X**	**X**	**X**	**X**
Planting details for and/or specifications for installation of new plant materials (LDC 25-2-1003 through 1007)	**X**	**X**	**X**	**X**
Landscape calculations as per ECM Appendix C	**X**	**X**	**X**	**X**
Specific location, species, and size and caliper inches required of replacement trees (if required). Graphically distinguish from other required trees. (ECM 3.5.4)	**X**	**X**	**X**	**X**
The seal and certification of a professional landscape architect or architect (required for projects 1 acre or more), or an engineer or full-time building designer (only for projects less than 1 acre) that the plan meets the requirements of Chapter 25-2, Subchapter C, Article 9 of the LDC	**X**	**X**	**X**	**X**
Alternative compliance letter if applicable (Appendix E of ECM) (LDC 25-2-1001, ECM 2.4.5)	**X**	**X**	**X**	**X**

	Urban	Suburban	Water Supply*	Barton Springs Zone
For projects subject to Waterfront Overlay District requirements, show the following on the plan: • Ten-foot wide medians between parking bays with appropriate vegetation as required in ECM 2.8.2 • Method of screening as required in ECM 2.8.3	**X**	**X**	**X**	**X**
For projects subject to Hill Country Roadway and Southwest Parkway Corridor requirements, provide the following information on the plan: • Graphic delineation and methods used to insure that the highway vegetative buffer and 40% of site will remain as undisturbed natural area (LDC 25-2-981, 25-2-1021 through 1026, ECM 2.7.2) • Ten-foot wide medians between parking bays containing native vegetative massing (LDC 25-2-981, 25-2-1021 through 1026, ECM 2.7.2) • Methods to provide revegetation of disturbed natural areas, if necessary (ECM 2.7.2) • Methods used to provide screening of parking areas, water quality basins, and visible areas of cut (LDC 25-2-1006, 25-2-1027, ECM 2.7.2, 2.9.2) • Calculations as per Appendix B of the Environmental Criteria Manual			**X**	**X**
6. Slope and Topographic Map – Submit a slope and topographic map drawn at the same scale as the erosion control and tree protection plan for all sites. The plan shall depict slopes of 0-15%, 15-25%, 25-35%, and over 35%. Slopes shall be calculated based on two-foot contour intervals. Include the following information on the slope map (if there are no slopes greater than 15%, all required information below may be shown on the Erosion/Sedimentation Control Plan):				
All development or improvements to the site, including adequate building sites exclusive of any required setbacks and easements, assuming an impervious cover limits in Chapter 25-8 of the LDC		**X**	**X**	**X**
Net Site Area information, using the format in Appendix Q-1 of the Environmental Criteria Manual. Impervious cover shall include both existing and proposed, given in acreage and as a percent of the Net Site Area. (LDC 25-8-394, 25-8-454, 25-8-481)		**X**	**X**	**X**
Calculations of land area in acres for each slope class and each water quality zone within the development. The location, type, acreage, and percentage of impervious cover, including both existing and proposed for each slope category and the totals, using the format in Appendix Q-2 in the Environmental Criteria Manual. (LDC 25-8-301 through 303)		**X**	**X**	**X**
The location of proposed temporary and permanent spoil disposal sites (LDC 25-8-343)		**X**	**X**	**X**
Transfer of Development Rights information, as calculated in Appendix Q-3 in the Environmental Criteria Manual (LDC 25-8-395, 25-8-455, 25-8-484)		**X**	**X**	**X**
Location of all septic drainfields and wastewater irrigation areas (LDC 25-8-361)		**X**	**X**	**X**
Downstream buffer areas (LDC 25-8-454, 25-8-481)			**X**	**X**

	Urban	Suburban	Water Supply*	Barton Springs Zone
7. Environmental Resource Inventory (ERI) Report				
A. Vegetative Element • A tree survey as specified in ECM 3.3, LDC 25-8-121 through 124 • A vegetative survey for all commercial and multifamily sites which shows approximate location of and identifies all significant vegetation on the site as described in ECM 1.3.2 (LDC 25-8-121 through 124) • A discussion explaining how the design of the plan preserves, to the greatest extent reasonable, any significant trees and vegetation on the site and provides maximum erosion control and overland flow benefits from the vegetation as described in ECM 1.3.2 (LDC 25-8-121 through 124)	**X**	**X**	**X**	**X**
B. Geologic Element • Description of all Critical Environmental Features, as defined by the LDC, with a reference to the topographic map which identifies their location and proposed means for protection of such areas (LDC 25-8-281, 25-8-282, 25-8-121 through 124) • General description of topography, soils, and geology of the site as described in ECM 1.3.1 (LDC 25-8-121 through 124) • Discussion explaining how the proposed drainage patterns will protect the quality and quantity of recharge points described in ECM 1.3.1, as required by LDC 25-8-281, 25-8-282, and 25-8-121 through 124	**X**	**X**	**X**	**X**
C. Wastewater Element • Environmental justification for sewer line locations in Critical Water Quality Zones, if applicable, and a description of the construction techniques and standards for proposed wastewater lines as described in ECM 1.7.7 (LDC 25-8-121 through 124, 25-8-361) • Present alternatives for tunneling, micro-boring, or optional alignments outside the Critical Water Quality Zone and compare environmental constraints of each alternative as indicated in ECM 1.3.3 (LDC 25-8-121 through 124, 25-8-361) • A description of alternative wastewater disposal systems to be used over the Edwards Aquifer Recharge Zone, if applicable (LDC 25-8-121 through 124, 25-8-361, ECM 1.11) • A description of any proposed on-site collection and treatment systems, treatment levels, and impacts on receiving watercourses, including the Edwards Aquifer, if applicable (LDC 25-8-121 through 124, 25-8-361, ECM 1.11) • Information on proposed on-site wastewater treatment levels and status of Texas Commission on Environmental Quality Permit, if requirements are different from City requirements (LDC 25-8-121 through 124, 25-8-361, ECM 1.11) • Information on the soils in accordance with ECM 1.11 (LDC 25-8-121 through 124, 25-8-361) • Calculations to demonstrate that the wastewater irrigation limitations of LDC 25-8-361 have been met, if applicable	**X**	**X**	**X**	**X**

	Urban	Suburban	Water Supply*	Barton Springs Zone
9. Endangered Species Notice – If the property is located within the areas identified by the City as potential habitat, and the project is not exempt from the endangered species notice requirement pursuant to LDC 25-8-696, provide notice to the applicable agencies:				
Provide notice of the application to the: • United States Fish and Wildlife Service • Texas Parks and Wildlife Department • Balcones Canyon Conservation Plan Coordinating Committee Secretary The notice must include a statement that the development could cause the loss of endangered species habitat.			**X**	**X**

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Exhibit V: Irrevocable Letter of Credit for Erosion and Sediment Controls

Following is an example of a letter of credit for all proposed erosion and sedimentation controls, and for permanent restoration of disturbed areas.

LETTER OF CREDIT NO. _____

TO: The City of Austin Date: _____

We have established this date a commitment to lend in the total amount of $ _____ to our Customer, _____. We have made this commitment with the understanding that the City of Austin, Development Services Department can draw any part or all of the total amount when and if the Director of Development Services Department determines it is necessary in order for the completion of the "Project" as defined by Site Plan/Site Development Permit Number: _____, located at _____ . We also understand and agree that the only requirements necessary for drawing any part or all of the total amount of this credit is a letter of request from the City of Austin, signed by the Director of Development Services Department, stating that the City of Austin considers such a drawing on this credit amount necessary. No further substantiation of the necessity of the draw is required by this credit.

Request for the draw of funds under this credit must be received prior to the expiration of three years following the date of this credit and we agree to honor all requests within five days of presentation.

We further state and agree that this credit is irrevocable prior to the expiration date unless all parties, including for all purposes, the City of Austin, consent to such a revocation in writing.

_____
Authorized Officer's Signature

_____
Financial Institution

_____
Mailing Address

_____
City, State, and Zip Code

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Exhibit VI: Revisions / Corrections

Number	Description	Revise (R) Add (A) Void (V) Sheet No.s	Total # Sheets in Plan Set	Net Change Imp. Cover (sq. ft.)	Total Site Imp. Cover (sq. ft.) / %	City of Austin Approval - Date	Date Imaged

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Exhibit VII: Electronic Submittal

The following requirements become effective for any plans submitted after January 1, 2010.

1. **In an effort to:**
   - Improve geographic information system (GIS) data;
   - Improve the efficiency of GIS data creation; and
   - Provide a more comprehensive view of existing and proposed infrastructure;

   Provide a base file in *.dgn, *.dwg, or *.dxf, format of existing and proposed improvements listed in the following table, and specify layer name or number. File shall be referenced to the Texas Central State Plane (NAD83, survey feet) projection, and elevation data shall be referenced to the NAVD88 (feet) datum. Grid coordinates are recommended for alignment with City of Austin GIS data.

   Is the file in (check one):

   ☐ Grid coordinates

   ☐ Surface coordinates

   Average projection scale factor/Average combined factor (10 digits min.):

   _____

   — Electronic seals shall be provided or excluded in accordance with Texas Board of Professional Engineers Rules and Texas Board of Architectural Examiners Rules.
   — CADD files that contain more base layers than listed below are encouraged but are not required. CADD files may be locked or read-only.
   — Electronic files shall be submitted on a USB flash drive. The flash drive will be copied at Intake and returned to you.

   The following layers are required at the time of first formal submittal:

Description	☒ **if n/a**	**Layer Name and/or Number (please specify)**
Site boundaries		
Existing lot lines or legal tract boundaries		
Limits of Construction		

The following base files are required prior to site plan release:

Description	☒ if n/a	Layer Name and/or Number (please specify)
Site boundaries		
Existing lot lines or legal tract boundaries		
Limits of Construction		
Easements		
Utilities (lines and appurtenances)		
Stormwater drainage system lines and appurtenances [1]		
Water Quality and Detention Facilities [2]		
Trees (location, size, and species) [3]		
Critical environmental features and buffers as depicted on plans		
Roadway Infrastructure (pavement lines, poles, luminaires, and appurtenances) [4]		
Sidewalks		
Open Space [5]		
Building Footprints		
Floodplain Delineation (existing & proposed as depicted on plan)		
Legend (may be in separate file)		

1: Location of pipes, culverts, flumes and channels (Centerlines are preferred but pipe ODs and channel grading are acceptable). Appurtenances depicted with symbols per plan for inlets, manholes, flumes, bridge inlets, headwalls, wet wells for storm discharge pumps, etc. Station lines and numbers.

2: Delineation of detention, sedimentation, filtration and wet ponds (delineation of 100-year surface, WQ volume elevation, or permanent pool elevation is preferred, but walls and grading lines are acceptable), gabion, splitter box, wet wells for storm discharge pumps, headwalls, any outflow structure, vegetative filter strip areas, stormwater re-irrigation areas.

3: COGO point data preferred, but tree number & legend acceptable.

4: Edge of pavement, curb and gutter lines as depicted on plans, luminaires, poles, pullboxes, signal poles, and signal cabinets.

5: Delineation of open space as required on the site plan or subdivision. Only open spaces on the ground are required. Above ground spaces such as balconies are not required.

2. **Provide an electronic copy of the following in *.pdf format** with the following recommended file name convention at the time of first formal submittal:

Description	Recommended File Name
Engineer's report	[Case_Number]_Eng_report.pdf
Drainage report (if applicable)	[Case_Number]_Drg_report.pdf
Engineer's summary letter	[Case_Number]_Eng_summary.pdf
All sheets in Site Plan	[Case_Number]~U[Update #]_[sheet_#].pdf
Application package (i.e. application, tax certificate(s), waiver request(s), etc.)	[Case_Number]_Application.pdf

3. **Provide electronic files for drainage model.** Resubmittal of drainage model is required for any modification.

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Exhibit VIII: Owner's Detention Ponding Release Letter

Following is an example of a release letter for detention ponding in parking areas exceeding the allowable eight-inch average, or 12-inch maximum depth. A note on the construction plans cannot replace the required release letter.

City of Austin
Development Services Department
P. O. Box 1088
Austin, Texas 78767-8835

Attn: Case Manager

Re: Acknowledgment of Ponding Depth

Project Name: _____

Address: _____

Site Plan/Site Development Permit No: _____

Gentlemen:

This letter shall serve as notification that the undersigned property owner is aware that a portion of the proposed parking lot serving this site is to be used as a detention pond area and the depth of water can reach _____ inches in a 100-year design storm.

Acknowledging this, the undersigned relieves the City of Austin and the design engineer of any liability which may occur as a result of this detention design.

_____
Signature of Owner

_____
Title

_____
Date

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