

# Streets and Drainage Site Plan Application Instructions

Building a Better and Safer Austin Together

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The following information outlines the Application Instructions and Submittal Requirements necessary to obtain a site plan permit for Streets and Drainage Projects including Capital Improvement Projects (CIP). 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 site plan permitting process and code requirements can be obtained prior to submitting a site plan application by contacting the Development Assistance Center (DAC) or by visiting the City of Austin's Development website at <u>http://www.austintexas.gov/development</u>.

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 Streets and Drainage Site Plan Overview and Review Procedures at <a href="http://www.austintexas.gov/page/land-use-applications#site">http://www.austintexas.gov/page/land-use-applications#site</a>.

# **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 Streets and Drainage Site Plan Application at <a href="http://www.austintexas.gov/page/land-use-applications#site">http://www.austintexas.gov/page/land-use-applications#site</a>. 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

<u>Project Name</u> 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: <u>addressing@austintexas.gov</u>. —OR—

If project cannot be defined, provide the distance and directions from nearest intersection.

### Description of Proposed Development

Provide a summary description of the proposed project, including number of buildings, ponds, number of units, etc.

# Legal Description or Subdivision Reference

The site plan will not be released unless it has been determined the tract is dedicated R.O.W or easement.

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 <a href="http://www.traviscad.org/property\_search.html">http://www.traviscad.org/property\_search.html</a>, or the Travis County Clerk's Office at 5501 Airport Boulevard. Williamson County information is available on the Williamson Central Appraisal District website at <a href="http://www.wcad.org/">http://www.wcad.org/</a>.

# 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.

# 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. Be sure all signatures are legible and address information is correct. For CIP projects, indicate the City of Austin as the owner. A staff member or the design engineer responsible for the project shall sign the application as the agent.

# **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**

S.M.A.R.T. Housing

S.M.A.R.T. Housing projects include a residential element meeting affordability requirements. A pre-certification letter from Neighborhood Housing and Community Development Department and subsequent pre-submittal meeting is required prior to the site plan application submittal. For more detailed information regarding submittal requirements, expedited timeframes, and discounted fees, please visit <u>http://www.austintexas.gov/department/housing-developer-assistance</u>.

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

- Smart Growth Zone/Drinking Water Protection Zone
- 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.

# School District

Provide the name of the school district that this project is located within.

### Principal Street Type (Full-Purpose only)

Please refer to Land Development Code 25-2, Subchapter E, to determine your project's street type.

### Neighborhood Plan (Full-Purpose only)

To determine whether this site is located within a neighborhood plan, please refer to the following webpage <a href="http://www.austintexas.gov/department/neighborhood-planning">http://www.austintexas.gov/department/neighborhood-planning</a>, and follow the link to "Neighborhood Planning Areas."

# Service Providers

Provide the name for each of the following:

- Electric Utility Provider
- Water Provider
- Wastewater Disposal Provider

<u>Development Assessment</u> (refer to Streets and Drainage Site Plan Overview and Review Procedures at <u>http://www.austintexas.gov/page/land-use-applications#site</u> 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:

- A storm sewer less than or equal to 30 inches in diameter located entirely within the public right-of-way or an easement,
- Construction of turning lanes from each side of a median on a divided arterial,
- Construction of intersection improvements or
- Widening of a public street to provide a deceleration lane where no additional right-of-way is required

Small projects have reduced fees, shorter review times, and do not require notification.

# Section 7: Site Area Information

# Site Area

Indicate the gross and net site area. See Section 25-1-21(44) of the Land Development Code for a definition of Gross Site Area, and Section 25-8-62 for a definition of Net Site Area.

# 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.

### Underground Storage Tanks

If underground storage tanks are existing or proposed, additional review will be required.

# 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 (Article 10 of Land Development Code 25-2-1051)
- Combining District/Overlay Zone
- Green Building Program Rating

# 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, a letter addressed to the Director should accompany the application. The letter shall include the project name, address of the site, description, justification, and appropriate LDC 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 Streets and Drainage Site Plan 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.

### Exhibit I: Site Plan Requirements

- A. Cover Sheet
- B. Base Information
- C. Drainage Area Map Sheets
- D. Street Plan
- E. Street Profile
- F. Drainage Plan
- G. Drainage Profile
- H. Detention Pond Plan
- I. Water Quality Plan
- J. Pavement Striping and Signs Plan
- K. Traffic Control Plan
- L. Geotechnical Report
- M. Construction Details
- N. Environmental Requirements

Exhibit II: Engineer's Summary Letter

Exhibit III: Owner's Detention Ponding Release Letter

Exhibit IV: Standard Site Plan and Construction Sequencing Notes

Exhibit V: Revisions/Corrections Table on Cover Sheet

Exhibit VI: Environmental Resource Inventory – Critical Environmental Feature Worksheet \*\*\*

Exhibit VII: Engineer's Drainage Report

Exhibit VIII: Electronic Submittal \*\*\*

\*\*\* **PLEASE NOTE** — Exhibits VI and VIII are fillable forms that can be completed electronically. To ensure your information is saved, <u>click here to Save</u> this document to your computer (note that Internet Explorer supports the "Save" button), then open your copy and continue.

The Tab key may be used to navigate to each field; Shift + Tab moves to the previous field. The Enter key activates links, emails, and buttons. Use the Up & Down Arrow keys to scroll through drop-down lists and check boxes, and hit Enter to make a selection.

# **Additional Requirements**

# 1. 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.

### 2. Location Map

Provide a location map on a separate sheet (not required on small projects).

# 3. Building, Demolition, and Relocation Permits

The applicant is responsible for requesting building, demolition, and relocation permits once the site plan is approved. However, the City's Historic Preservation Officer will review all proposed building demolitions and relocations prior to site plan approval.

If a building meets the City's historic criteria, the Historic Landmark Commission may initiate a historic zoning case on the property. Please contact the Historic Preservation Officer at (512) 974-2000 for additional information.

# **Exhibit I: Site Plan Requirements**

# A. COVER SHEET - Show the following:

- Date of submittal
- Project title and street address (CIP projects, one-half inch or larger letters)
- Name of Sponsoring Department
- Name of Consulting Engineering firm preparing plans, if applicable
- Designer(s) company name, address, telephone number (include same for Planner, Architect, Landscape Architect, Project Manager, and Engineer as applicable)
- Name of watershed and classification
- State if subject to or exempt from the Watershed Protection Regulations
- State if project is located within the Edwards Aquifer Recharge Zone
- Indicate by note if any part of the project is within a 100-year floodplain
- 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

— Related Case No(s): \_\_\_\_\_ (Zoning/Subdivision, etc.)

- Revision/Correction Table as shown in Exhibit V: Revision/Corrections
- List of all waivers and variances granted
- 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

- Standard Notes as required (see Exhibit IV: Standard Site Plan and Construction Sequencing Notes)
- Release Statement Note: "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."

# APPROVAL BLOCKS

Approval Block for TxDOT, if part of the project is within Texas Department of Transportation R.O.W.

Approved by: _		
T	exas Department of Transportation	Date
Approval Block	for Development Services Department	
Approved by: _		
C	Director, Development Services Department	Date
Permit Number:		
	Site Plan/Site Development Permit Number	Date
Other Approval	Blocks as applicable (AWU, County, Fire, EMS, etc.)	

# **B. BASE INFORMATION**

The following information shall be included on each sheet:

- Project title
- North arrow
- Engineering scale shall be 1"=10', 1"=20', 1"=30', or 1"=40'; an overall plan at a smaller scale must be provided for projects that require more than on sheet
- 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
- Leave a blank space (approval space) in the lower right-hand corner on each sheet
- Boundary lines with bearings and dimensions
- City limit line, when located in or near the site
- Legal address of the property
- Show the natural topography of the site and land located within 100 feet of the site, at two-foot elevation intervals; if the site is less than 2% slope, then spot elevations are required every 100'
- 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
- Location of all existing and proposed electric utility facilities on the site and adjacent right-ofways
- Exact locations and types of all utility lines, underground and overhead, existing and proposed
- Location of all proposed and existing structures to remain; indicate any demolitions by dashed footprint
- \* Not required for small projects
- Show limits of construction, including access drives
- Show location of parking lots and vehicle use areas, landscape islands, peninsulas, and medians; amenities, walls, fences, sidewalks, and all other land improvements
- Label all roadways, drives, overpasses, bridges, culverts, and decorative/pervious pavers and identify as designed to support the loads imposed by heavy fire department apparatus
- The locations, types and limits of existing site improvements to be retained (structures, parking lots, planted areas, etc.)
- The location of 25-year and 100-year floodplains, storm sewers, and easements and centerline of existing watercourses, drainage features
- Location of all existing and proposed fire hydrants, including all existing public fire hydrants located within 500 feet of the property boundaries with City of Austin service
- All frontage roads, intersections, entrance/exit ramps, and driveways abutting and adjacent to subject property within 300 feet of side property lines (or indicate that there are none)
- Texas Department of Transportation centerline stationing if driveway connection to a State highway is proposed
- All driveway dimensions and design specifications; dimension driveway widths, driveway curb return radii, and profiles of finished grades; number on site plan when there are several proposed driveway approaches
- Proposed operation of driveways on site plan (i.e. one-way or two-way operation), identifying and labeling all physical barriers to vehicular access

- Physical obstructions (utility poles, trees, storm sewer inlets, etc.) in right-of-way which could affect sidewalk/driveway locations
- Dimensions of vertical clearance within fire lanes, including tree limbs, for all driveways and internal circulation areas on site, where overhead clearance is restricted
- C. DRAINAGE AREA MAP SHEETS Show the following:
  - Drainage layout of project (scale: 1"=100') with north arrow to top or right of sheet and show limits of construction as a distinguishable line
  - Location of all existing drainage structures this project may adversely impact
  - Existing contours at two-foot minimal intervals
  - Individual drainage areas and upstream drainage areas based on improvements and final grading (distinguish existing and development drainage areas by heavy dashed lines for the existing)
  - Summary table of Q, C, I, A, Tc, and n factor for the 25- and 100-year storm events
  - Arrows indicating flow direction for all streets and lots
  - Summation of Q's at pertinent points (street intersections, inlets, passing inlets, headwalls, channel outfalls, control outlet structures, etc.)
  - All low and high points
  - All fill areas that would have a major impact on drainage or require a variance (usually done by shading)
  - Proposed drainage facilities (including but not limited to: the layout of storm sewer with line designation, size of lines, pond(s) and pond designation, outfalls and Q25 and Q100 shown for outfalls)
  - All existing and proposed drainage easements as per final plat or by separate instrument (with recording information shown)
  - Q25 and Q100 leaving proposed streets onto surrounding property and Q25, Q100 entering proposed streets from surrounding property
  - Existing and proposed 100-year floodplains for all waterways
  - Provide the following for each drainage area:
    - a) Runoff Calculations:
      - $t_c$  (time of concentration in minutes), A (drainage area), I25, C25, Q25, I100, C100, Q100
    - b) For inlet design provide an inlet flow calculation table (Table DCM 4.4.3): Clogging factor required Inlet type (i.e., 10 foot Type I or I-R) as per detail Y (depth of flow in gutter) a (gutter depression @ inlet throat) Q cap (inlet capacity) A (inlet area) t<sub>c</sub> (inlet) Composition "C" value used Q pass
      c) For storm sewer design:
      - t<sub>c</sub>, areas, composite "C" value (if a uniform time of concentration for the system is not used)
  - Clearly show limits of construction and match lines with station equations for storm sewer and channel "tie-ins" to existing or proposed
  - Legible professional engineer's seal, signature, and date of signing
  - All proposed waivers to City of Austin Drainage Criteria Manual and other policies

- Include drainage area map for detention ponds
- Summary tables and support calculations for hydrology, hydraulics, hydrographs, control outlet structures, etc. (either on this sheet or a separate sheet)
- D. STREET PLAN Show the following:
  - The street name and sheet number in the right corners
  - North arrow to top and right of sheets
  - Stationing south to north or west to east with street layout directly over the profile stationing
  - Scale: 1"=20', or 1"=40' for very large projects
  - Right-of-way and paving dimensions (face to face of curb)
  - Lot numbers, block numbers, and frontage dimensions (dimensions required only if approved/released final plat is not included with the review plans)
  - Street names within respective right-of-ways
  - Existing or proposed easements (with recording information) and intersecting right-of-ways
  - Sidewalks and assignments as per City of Austin and final plat requirements
  - Centerline "TIC" marks, every 50 feet
  - Drainage facilities within or intersecting right-of-ways and indicate stationing on both sides of inlets (show inlet type and label storm sewer lines – i.e. LINE "A", M.H., etc.)
  - Existing drainage facilities (with pipe sizes and material indicated) as dashed lines
  - Drainage flow arrows, high and low points
  - Match lines on street plan sheets and storm sewer plans for continuation of streets on other sheets
  - As a minimum, a 50-foot extension of proposed streets and show proposed tie-in to existing streets
  - Sheet numbers for intersecting streets, and show full intersection, provide dimensions, and give street names
  - Stations equation along CL (centerline) intersections of streets
  - Barricades if required
  - Plan view must transpose directly above profile stationing when possible (otherwise, center the midpoint of the curve on the sheet) (limits shown on the plan view must be the same as the limits shown on the profile)
  - Labeled asphalt valley gutter or concrete valley gutter (required if % grade <1.2%) at intersections where appropriate
  - Clearly show the beginning and ending of project
  - Limits of gutter depression by shading and showing stationing or dimensioning
  - Clearly show all PC, PT, CC, or PRC stations
  - All fill areas
  - Horizontal curves conforming to the most recent City of Austin Street Standards
  - Legible professional engineer's seal, signature, and date of signing
- E. STREET PROFILE Show the following:
  - Legend and scale (scale: H: 1"=20' and V: 1"=2')
  - Heavyweight lines at every 100-foot station
  - Heavyweight lines at every 2-foot vertical elevation line
  - Even elevation in right and left margins
  - Street profile for minimum of 150 feet beyond end of project (include property lines and proposed future grade and/or existing street grade)
  - Existing centerline, left and right right-of-way profiles

- Proposed centerline profiles a minimum of two line widths to stand out from other profile lines
- Proposed TC elevations (clearly identify right and left) (for curb splits)
- Identify and give elevations at all PC, PT, PRC, PCC, PVC, PVI, or PVT stations (show by circle or heavy dot)
- Vertical curves with the following information: curve length, PVI stations and elevation, tangent intercept, tangents and tangent grades (show elevations every 25 feet maximum along vertical curves)
- Curb returns PC, MID PT, PT, with tangent and grade past point of return
- Elevations every 50 feet (i.e. +00 and +50) along the street profile
- Maximum curb split of 2% (30' street = 0.60', 44' street = 0.88') if applicable
- Vertical curves conforming to latest City of Austin Street Standards
- Submit letter of understanding for street lighting in sag curves and confirmation of availability of fixed source lighting when applicable
- **F. DRAINAGE PLAN** (plan view must transpose directly above profile stationing) Show the following:
  - Contours, drainage features, and street layout and name, lot layout and lot and block numbers (where storm drainage occurs)
  - Indicate limits of 100-year floodplain for fully developed upstream conditions and denote FEMA 100-year floodplain if different from the fully developed condition
  - Drainage easements. Indicate recording information. (Show recording number or if by plat, indicate "by Plat")
  - Storm drainage facilities. Label and give sizes (i.e.: line "A-18" RCP, channel "B"-r' FB (Flat bottom), 2-10' x 6' MBC, etc.)
  - All horizontal PI, PC, PT, BEGIN and END stations and pipe and/or channel intersection equations
  - All inlets, Q at inlets, Q passing inlets, and flow lines
  - PI deflection angle in degrees
  - North arrow to top or right of sheet and show scale (scale: 1"=50")
  - Any storm sewer assignments off right-of-way or centerline
  - Channel and/or pipe riprap and type of headwalls (show erosion control measures dissipater blocks, rock riprap, etc.)
  - Beginning, end stations, for erosion control material used for channels (label type of material to be used – i.e. dry stacked or mortared rock, etc.)
  - Plan and profile for all channels in D.E. including but not limited to the following information:
    - Stationing at 50-foot intervals and PI
    - Existing centerline elevation
    - Proposed right and left top of bank elevations
    - Proposed flow line
    - Q25, Q100, V25, V100, HGL25, HGL100 for each segment of channel
    - This information should also indicate:
      - Bottom width
      - Side slopes
      - Concrete trickle or pilot channel
      - Height of channel lining if used
      - Maximum and minimum depth of channel
      - Mannings "n" valve used
      - Station to station section of typical channels/scale section

- Note 100-year overflow swales over pipe system (when used) and give typical detail
- Open channels with a minimum flat bottom width of six feet
- Legible professional engineer's seal and signature
- All waivers to City of Austin Drainage Criteria Manual and other policies
- Include space for City's stamp or signature block on right hand side of all inside sheets

# G. DRAINAGE PROFILE - Show the following:

- Scales: horizontal (same as Plan, Vertical: one-tenth of horizontal scale)
- Stationing proceeding from low end to high end from left to right for channels or storm sewer lines
- Existing ground profile at proposed channel locations
- Top of bank left and right, and fill areas for channels
- All stations and elevations at points of intersecting drainage lines, grade breaks, riprap, drop sections, toe of splash pads, toe of slope, beginning of slope, and beginning of riprap
- Q25, V25, HGL25, depth (d25), Q100, V100, HGL100, depth (d100), and Head losses (H), for each segment of channel
- Channel bottom width, side slopes, concrete trickle or pilot channel, height of channel lining if used, maximum and minimum depth of channel, Mannings "n" value used, and typical channels cross sections to scale
- Clearly show the beginning and end of construction and show stations for channels
- Flowline elevation every 50 feet maximum (i.e. 0+00, 0+50)
- TC elevations at inlets on storm sewer lines
- Grade of flow line (in %), and pipe sizes (label all pipes as RCP/Class for storm sewer lines)
- Q25, V25, HGL25, depth (d25), Q100, V100, HGL100, depth (d100), and Head losses (H), and df (when pipe is flowing full) for storm sewer lines
- Stations and elevations at PI, PC, PT, grade breaks, intersecting lines, and beginning and end
  of construction for storm sewer lines
- All riprap, headwalls, etc. at pipe ends
- Full channel section at pipe ends when appropriate
- Existing and finished ground line and fill areas at pipe centerline for storm sewer lines

# H. DETENTION POND PLAN - Show the following:

- Include drainage area map for detention ponds in plans
- Typical cross section(s) of ponds and section through the inlet and outlet structures. Show the 2/10/25/100-year WSELs
- Indicate pond bottom and side slopes and ramp slopes and top width of berms
- Summary table of supportive calculations for hydrology, hydraulics, control outlet structures, etc.
- Stage/Storage/Discharge Table (also indicate 2-, 10-, 25-, and 100-year storm)
- Indicate staging area, access drives (including Type II driveway approaches), ramps, gates, fences, perimeter access strips, signs, setbacks, and setback easements per DCM 1.2.4.E
- Construction details (including complete structural details) for the pond improvements
- Delineate easements with recording information
- Show all trees and utilities and other improvements within the pond area
- Add dam safety certification to cover sheet when applicable

### I. WATER QUALITY PLAN

— See detention ponds for overall requirements

- Pond plans and appropriate cross sections with existing and proposed grading
- Sizing of facility (ECM Appendix R tables)
- Stage/storage for each chamber and total
- Dimensioned construction details with grading elevations
- Splitter box details
- Construction details including City of Austin Standard Details and Criteria
- Liner details (also show protective and planting layer when applicable)
- Provide complete QA/QC plans for pond liners when required
- Irrigation field plans imposed on the tree plan for re-irrigation ponds
- Vegetative bench planting sheet for wet ponds
- Intake structure/wet wells and pump details and specs
- Make-up water plans
- J. PAVEMENT STRIPING AND SIGNS PLAN (to be reviewed and approved by Public Works Department and/or Transportation Department)
  - Sheet to be reasonable scale, show curb and gutter, driveways, sidewalks and accessibility routes within 150 feet of the project
  - All pavement striping and sign plans shall be in accordance with the Texas Manual of Uniform Traffic Control Devices and City of Austin (COA) standards
  - Sight distance analysis for stop signs
  - Stop signs, stop bars in relationship to sidewalk ramps
  - Assumption of any all-way stop or signal locations needs to be supported by warrant study as per the Texas Manual of Uniform Traffic Control Devices
  - Include warning signs as needed with advisory speed plates
  - Show speed limit signs in accordance with the assumed design speeds, with exception of the local streets which should be designed at 30 MPH and not posted
  - Show any proposed restricted parking areas
  - Non-standard pavement striping and signs details will need to be approved by the Directors of the Public Works and Transportation Departments
  - Show street name signs in accordance with COA standards

# K. TRAFFIC CONTROL PLAN

— A traffic control plan should be included in plan set

# L. GEOTECHNICAL REPORT

- Two copies of a geotechnical/soils report for review
- Report should include a pavement design recommendation
- Solid borings must extend at least five feet below the proposed base of the pavement design grade and should be spaced no more than 300 to 500 feet apart to ensure an accurate geological analysis, per Transportation Criteria Manual (TCM) Appendix A
- **M. CONSTRUCTION DETAILS** (use City of Austin Standard Specifications and Details for all work in the Right-of-Way and Easements) Show the following:
  - Manhole or junction box detail
  - Pipe end riprap or headwall details
  - Channel construction details and cross sections
  - 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
- If driveways are proposed, a City of Austin standard driveway detail shall be shown to be constructed

# N. 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
<ol> <li>Project Report – Submit a project report which contains the foll Report):</li> </ol>	owing inform	nation (may be in	ncluded in the	Engineer's
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
<ul> <li>Drainage area map showing:</li> <li>Location of all waterways within the tract or that impact the tract which have a drainage area of 64 acres or more</li> <li>Location of the 100-year floodplain</li> <li>Area and acreage of upstream drainage (LDC 25-8-92, 25-8-261, 25-8-262)</li> </ul>	x	X	x	x
<ul> <li>Discussion of the following issues, if applicable to the project:</li> <li>Proposed and existing drainage patterns</li> <li>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)</li> </ul>	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

	Urban	Suburban	Water Supply*	Barton Springs Zone
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
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) For C.I.P.s: in lieu of fiscal surety, a letter specifying the quantities of Erosion/Sedimentation controls (i.e. 200 feet of silt fence, 200 square yards of sod, etc.) and final completion date of revegetation is required prior to permit approval. This letter must be signed by a Public Works Department head or their designed.	X	X	X	X
Explanation of spoil disposal locations or driveway alignments	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
<ul> <li>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:</li> <li>The methodology and water quality control strategy proposed to achieve the target pollutant load reductions (see ECM 1.6.9)</li> <li>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)</li> <li>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)</li> <li>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)</li> </ul>				X

	Urban	Suburban	Water	Barton
			Supply	Zone
<ul> <li>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:</li> <li>The methodology and water quality control strategy proposed to achieve the target pollutant concentrations (see ECM 1.6.8)</li> <li>Calculations illustrating the target pollutant concentration reductions expected for the proposed development with an accompanying explanation of how these figures were derived (ECM 1.6.8)</li> <li>Calculations 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)</li> <li>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)</li> </ul>				X
2. Cover Sheet – Provide a cover sheet which contains the follow	ing information	): 		
Name of project	X	X	X	X
Watershed name and classification	X	X	X	Х
Application submittal date	X	X	X	X
Subject water quality ordinance	X	X	X	Х
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 – T "Erosion/Sedimentation Control and Tree Protection Plan." This pla intervals, at a scale of 1"=50 feet or less, and sealed by a Profession Development Assistance Center may waive the requirement for a r submitted. Symbols used to show controls must be clear and distin	his plan must an must be a t onal Engineer 1"=100' scale, active. The pla	be on a separa opographic ma (LDC 25-8-15 and may allow an must contain	ate page labele ap with two-foo 2). For large pr / a smaller sca n the following	d t contour ojects, le to be 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	Х

	Urban	Suburban	Water Supply*	Barton Springs Zone
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	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	Х	X	X	X
Location of all Critical Environmental Features and their required setbacks (LDC 25-8-281, 25-8-282)	Х	X	X	X
<ul> <li>Detailed sequence of construction containing:</li> <li>Which phases of construction will be done at which time</li> <li>Specific erosion/sedimentation controls and tree protection measures for each phase of the development</li> <li>The pre-construction meeting</li> <li>Phasing for projects over 25 acres</li> <li>(May be located on general notes sheet.) (LDC 25-8-181 through 184, ECM 1.4.0)</li> </ul>	x	X	X	x
<ul> <li>Detailed sequence of construction containing:</li> <li>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)</li> </ul>				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
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
<ul> <li>Restoration plans for all disturbed areas on the site in accordance with requirements of ECM 1.4.1(D)</li> </ul>	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
<ul> <li>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)</li> </ul>				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
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)	Х	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			
<b>A. Water Quality Plan and Drainage Area Map:</b> 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	Х	X	X	Х
<ul> <li>The proposed site grading including:</li> <li>Arrows indicating the direction of flow</li> <li>Arrows indicating the direction of roof run-off</li> <li>Stormwater lines and inlets</li> <li>Method used to divert stormwater around site</li> <li>Creeks, open drainageways within subdivision</li> </ul>	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
Drainage and water quality easements (ECM 1.6.5)	X	X	X	X

	Urban	Suburban	Water Supply*	Barton Springs Zone
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	Х
Demonstrate that 2-year detention is not required, or provide	Х	X	X	X
<ul> <li>calculations for 2-year detention pursuant to LDC 25-7-61, as amended, including (ECM 1.6.8.2):</li> <li>Pre-development stormwater run-off flow rates</li> <li>Developed stormwater run-off flow rates</li> <li>Discharge flow rates of detention pond(s)</li> <li>Volume required in detention basin</li> <li>Maximum water surface elevation for the 2-year storm</li> <li>Detail on outflow device used for detention pond</li> <li>Detention pond detail with dimensions and elevations as needed for construction</li> </ul>				
<ul> <li>Other information as necessary to demonstrate compliance</li> </ul>				
with the applicable ordinance				
<b>B. Water Quality Control Plan(s):</b> 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
<ul> <li>Clearly show the following information in plan view or cross-section (ECM 1.6.5):</li> <li>Slopes provided in sedimentation pond</li> <li>Water quality elevation</li> <li>Top of sand elevation</li> <li>Top of berm</li> <li>Bottom of pond elevations</li> </ul>	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)	Х	X	X	X
Underdrain spacing and cleanouts (FCM 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)	Х	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	Х	X	X
Liner specifications, if applicable (ECM 1.6.5)	X	X	X	X
Geotextile membrane specifications (ECM 1.6.5)	Х	X	X	X
Fence specifications, if applicable (ECM 1.6.5)	Х	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
<ul> <li>Specific notes that address the following requirements:</li> <li>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.)</li> <li>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)</li> </ul>				X
5. Landscape Plan (only for projects within the City's zoning jurisc	liction or in a	ny areas where	Section 25-8-6	601 is in
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)	Х	Х	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	Х	Х	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,	Х	X	Х	X
show the following on the plan:				
<ul> <li>Ten-foot wide medians between parking bays with</li> </ul>				
appropriate vegetation as required in ECM 2.8.2				
Method of screening as required in ECM 2.8.3				
For projects subject to Hill Country Roadway and Southwest			Х	X
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)				
<ul> <li>Ten-foot wide medians between parking bays containing</li> </ul>				
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				
<ol><li>Slope and Topographic Map – Submit a slope and topographi</li></ol>	c map drawn a	at the same sc	ale as the eros	ion control
and tree protection plan for all sites. The plan shall depict slopes o	f 0-15%, 15-25	5%, 25-35%, ar	nd over 35%. S	Slopes shall
be calculated based on two-foot contour intervals. Include the follow	wing information	on on the slope	map (if there	are no
slopes greater than 15%, all required information below may be sh	own on the Er	osion/Sedimen	tation Control I	Plan):
All development or improvements to the site, including adequate		X	Х	X
building sites exclusive of any required setbacks and easements,				
assuming an impervious cover limits in Chapter 25-8 of the LDC				
Net Site Area information, using the format in Appendix Q-1 of		X	Х	X
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)				
Calculations of land area in acres for each slope class and each		Х	Х	X
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)				
The location of proposed temporary and permanent spoil		X	Х	X
disposal sites (LDC 25-8-343)				
Transfer of Development Rights information, as calculated in		X	Х	X
Appendix Q-3 in the Environmental Criteria Manual (LDC 25-8-				
395, 25-8-455, 25-8-484)				
Location of all septic drainfields and wastewater irrigation areas		Х	Х	X
(LDC 25-8-361)				
Downstream buffer areas (LDC 25-8-454, 25-8-481)			Х	X

		Urban	Suburban	Water Supply*	Barton Springs
				Cuppiy	Zone
7.	Environmental Resource Inventory (ERI) Report		•		
Α.	Vegetative Element	Х	X	X	X
٠	A tree survey as specified in ECM 3.3, LDC 25-8-121 through				
	124				
٠	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				
	in ECM 1.3.2 (LDC 25.8.121 through 124)				
B	Geologic Element	X	x	x	x
•	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)				
•	Complete Critical Environmental Feature Worksheet (Exhibit				
	VI) in hard copy and electronic format (cd, diskette, or other				
	media) showing all rimrock, wetlands, recharge features,				
	seeps, and springs				
٠	General description of topography, soils, and geology of the				
	site as described in ECM 1.3.1 (LDC 25-8-121 through 124)				
٠	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-				
<u> </u>	202, and 25-6-121 through 124	v	v	v	v
•	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)				
٠	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)				
٠	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, il requirements are different from City requirements				
	(LDU 20-8-121 INFOUGH 124, 25-8-361, EUM 1.11)				
•	monnation on the solis in accordance with EGM 1.11 (LDC 25-8-121 through 124, 25 9, 261)				
	Calculations to demonstrate that the wastewater irrigation				
-	limitations of LDC 25-8-361 have been met, if applicable				

	Urban	Suburban	Water Supply*	Barton Springs Zone
<b>9. Endangered Species Notice –</b> If the property is located within the project is not exempt from the endangered species notice requires applicable agencies:	he areas identi irement pursua	ified by the City ant to LDC 25-8	y as potential ł 3-696, provide	nabitat, and notice to the
<ul> <li>Provide notice of the application to the:</li> <li>United States Fish and Wildlife Service</li> <li>Texas Parks and Wildlife Department</li> <li>Balcones Canyon Conservation Plan Coordinating Committee Secretary</li> <li>The notice must include a statement that the development could cause the loss of endangered species habitat.</li> </ul>			X	X

# **Exhibit II: 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. Summary letters for small projects do not require an engineer unless slopes or trenches exceed five feet (see City of Austin LDC Sec. 25-5-3).

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

- Acreage to be developed
- Watershed in which project is located
- Type of development
- Explanation of any proposed project phasing
- Methods to be used for handling stormwater runoff i.e., drainage easements, channels, curb inlets, storm sewers, detention, sedimentation and filtration ponds, water quality control methods, etc.
- 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
- Justification for exemption from the Watershed Protection Regulations
- Include variance request with a description of the variance and justification, and the applicable ordinance and section

# **Exhibit III: 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

# Exhibit IV: Standard Site Plan and Construction Sequencing Notes (if applicable)

### **GENERAL CONSTRUCTION NOTES**

- 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.
- 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 <u>http://austintexas.gov/page/commercial-site-and-subdivision-inspections</u> 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 stating: "All construction operations shall be accomplished in accordance with applicable regulations of the U.S. Occupational Safety and Health Administration." (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.
- 6. Upon completion of the proposed site improvements and prior to the following, the engineer shall certify in writing that the proposed drainage, filtration and detention facilities were constructed in conformance with the approved plans:
  - Release of the Certificate of Occupancy by the Development Services Department (inside the City limits); or
  - □ Installation of an electric or water meter (in the five-mile ETJ)

# SPECIAL CONSTRUCTION NOTES

- Blasting within the project area will not be allowed without a separate blasting permit.
- The contractor shall furnish, install and maintain barricades, warning signs, flashers, and other devices of the type and size as indicated in the latest edition of the Texas Manual on Uniform Traffic Control Devices, or as directed by the engineer.
- The contractor shall maintain at least one dust-free lane for traffic with flagmen during construction activities and two lanes at all other times. Access to contiguous private properties shall be maintained at all times.
- The estimated quantity for Standard Specifications Item No. 110S, Street Excavation, was calculated from the existing ground to the established line of the subgrade as shown in the typical roadway sections.
- All structural concrete shall be Class "A" (5 sack, 25-8-36100 PSI @ 28 days) and all reinforcing steel shall be grade sixty, unless otherwise noted.
- The contractor shall not dispose of surplus excavated material from the site without notifying Site and Subdivision Inspections, at (512) 974-2278, 48 hours prior to the removal. This notification shall include the disposal location and a copy of the permit issued to receive the material, if applicable.
- Utilities shown reflect the best information available at the time the project was surveyed. Utility relocation work has been or will be accomplished to clear the work space. These relocations

are not reflected on these drawings. For exact locations call Texas 811 (811 or 1-800-344-8377), 48 hours prior to beginning excavation.

- All storm sewer pipe shall be RCP, Class III, with Class B bedding, unless otherwise noted.
- Signs in the way of construction shall be removed and relocated as soon as possible. All traffic control signs, including stop and street-name signs, shall not be removed or relocated without the approval of the project inspector and the Austin Transportation Division. This work shall be subsidiary to other bid items.
- All site work must comply with the environmental requirements.
- The gabion baskets and tie wires shall be galvanized gray PVC coated and shall be installed with a filter fabric along the excavation surface in accordance with the manufacturer's recommendation.
- The contractor shall erect and maintain a filter fabric fence at locations shown on the plans and any other locations designated by the engineer. Payment will be made under Austin Standard Specifications item No. 620S filter fabric fence.
- At intersections which have valley drainage, the crown of the intersecting street shall culminate at a distance of 40 feet from the intersecting curb line unless otherwise noted.
- Any utility meters in the way of the construction will be relocated outside of the proposed construction area by the utility owner unless such work affecting those meters is included in the contract.
- Any areas to receive transition pavement shall be constructed with the same typical section as the adjacent new construction.
- Any existing sidewalks, curbs or driveways disturbed by the construction shall be removed and restored with surface materials equal to or better than the original.
- The removal of existing driveway pipe culverts, riprap and headwalls in the way of construction will not be paid for directly, but shall be subsidiary to other bid items.
- The rate of hydrated lime application used to determine the quantities for this project is by weight.
- In areas where existing curbs and gutters are to remain, the old paving and base must be removed and the new base and paving placed and compacted so as not to disturb existing curbs and gutters.

### **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 #

# AMERICANS WITH DISABILITIES ACT

The City of Austin has reviewed this plan for compliance with City development regulations only. The applicant, property owner, and occupant of the premises are responsible for determining whether the plan complies with all other laws, regulations, and restrictions which may be applicable to the property and its use.

# CONSTRUCTION SEQUENCING

- Call the City's Site and Subdivision Inspection Division, 48 hours prior to beginning any work. Call Texas 811 (811 or 1-800-344-8377) for utility locations and obtain permit for any work within City of Austin right-of-way
- 2. Install temporary erosion controls and tree protection fencing prior to any clearing and grubbing. Notify Development Services Department, Site and Subdivision Inspection Division, when installed.
- 3. Rough cut all required or necessary ponds. Either the permanent outlet structure or a temporary outlet must be constructed prior to development of any embankment or excavation that leads to ponding conditions. The outlet system must consist of a low-level outlet and an emergency overflow meeting the requirements of the Drainage Criteria Manual (Section 8.3) and/or the Environmental Criteria Manual (Section 1.4.2.K) as required. The outlet system shall be protected from erosion and shall be maintained throughout the course of construction until final restoration is achieved.
- 4. Deliver approved rough-cut sheets to the Site and Subdivision Inspection Division prior to clearing and grubbing.
- 5. Rough grade streets. No development of embankment will be permitted at this time.
- 6. Install all utilities to be located under the proposed pavement.
- 7. Deliver storm sewer cut sheets to the Site and Subdivision Inspection Division.
- 8. Begin installation of storm sewer lines. Upon completion, restore as much disturbed area as possible, particularly channels and large open areas.
- 9. Deliver final grade cut sheets to the Site and Subdivision Inspection Division.
- 10. Re-grade streets to sub-grade.
- 11. Insure that all underground utility crossings are completed. Lay first course base material on all streets.
- 12. Install curb and gutter.
- 13. Lay final base course on all streets.
- 14. Lay asphalt.
- 15. Complete all underground installations within the right-of-way
- 16. Complete final grading and restoration of detention, sedimentation/filtration ponds.
- 17. Complete permanent erosion control and restoration of site vegetation.
- 18. Remove and dispose of temporary erosion controls.
- 19. Complete any necessary final dress up of areas disturbed by Item 17.

### NOTE:

- Rough Grading only Steps 1 through 5 only
- Rough Grading and Utilities only Steps 1 through 8 only
- Full Site Development Permit Entire sequencing
- Clearing and grubbing under a site development permit, solely for the purpose of surveying and soil exploration, shall be a hand cutting or blade-up operation

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	

# **Exhibit V: Revisions / Corrections**

# Exhibit VI: Environmental Resource Inventory – Critical Environmental Feature Worksheet

1	Project Name:		5	Primary Contact Name:	
2	Project Address:		6	Phone Number:	
3	Site Visit Date:		7	Prepared By:	
4	Environmental Resource Inventory Date:		8	Email Address:	

9	FEATURE TYPE {Wetland,Rimrock, Bluffs,Recharge	FEATURE ID	FEATURE LONGITUDE (WGS 1984 in Meters)		FEATURE LATITUDE (WGS 1984 in Meters)		WETLAND DIMENSIONS (ft)		RIMROCK/BLUFF DIMENSIONS (ft)		RECHARGE FEATURE DIMENSIONS				Springs Est. Discharge
	Feature,Spring}	(eg 3-1)	coordinate	notation	coordinate	notation	Х	Y	Length	Avg Height	Х	Y	Z	Trend	cfs

City of Austin Use Only CASE NUMBER:



Please state the method of coordinate data collection and the approximate precision and accuracy of the points and the unit of measurement.

Method	Accuracy	
GPS	sub-meter	
Surveyed	meter	
Other	> 1 meter	

Professional Geologists apply seal below

# **Exhibit VII: Engineer's Drainage Report**

Two copies shall be submitted with the application and shall include the following:

- Legible professional engineer's seal and signature
- Clearly describe all variances/waivers to City of Austin ordinances and Drainage Criteria Manual and policies
- Source of flood plain information (calculations where applicable)
- Calculations supporting adequacy of existing and proposed on-site channels, storm drains, and drainage structures
- Calculations supporting adequacy of detention pond size
- Calculations for flood plain modifications and cross sections
- Summary assessment of impact on adjacent properties and drainage structures
- Calculations of existing and fully developed flows
- Calculations of off-site flows
- Calculations of capacity of drainage facilities on adjacent properties affecting hydraulic performance in the subdivision
- A final report reflecting all changes done during review must be submitted for the case file after all comments have been addressed
- Include an electronic copy of all models used within the report

# Exhibit VIII: 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	×	Layer Name and/or Number (please specify)
	if n/a	
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 <sup>2</sup>		
Trees (location, size, and species) <sup>3</sup>		
Critical environmental features and buffers		
as depicted on plans		
Roadway Infrastructure (pavement lines,		
poles, luminaires, and appurtenances) <sup>4</sup>		
Sidewalks		
Open Space <sup>5</sup>		
Building Footprints		
Floodplain Delineation (existing & proposed		
as depicted on plan)		
Legend (may be in separate file)		

- 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.
- <sup>4:</sup> Edge of pavement, curb and gutter lines as depicted on plans, luminaires, poles, pullboxes, signal poles, and signal cabinets.
- <sup>5:</sup> 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.