

Drainage Report Checklist

Item (a) –General Location and Description of Project Area

- ✓ **NA**
- Location
- Streets and roadways
- Named Regulatory Watercourses and facilities
- Named Region Watersheds¹
- Names of existing or approved developments or plats
- Evidence of coordination with TxDOT for agencies to TxDOT ROW²
- Evidence of coordination with Brazos County discharge guidelines³

Item (b) - Description of Project Area Property

- ✓ **NA**
- Current and future total acreage of Project Area
- Name of property owner(s) and land developer(s) and applicant
- Land cover characteristics
- Primary and secondary system watercourses
- General description of proposed project



Project Name	
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Item (c) - Drainage Watershed (s) and Study Area(s)

- ✓ **NA**
- Regulatory Watershed Description
- Reference to Named Regulatory Watercourse planning studies
- General existing land use characteristics of the Regulatory watershed and the applicable Reach(s) thereof
- Drainage Basin(s) (sub-Watershed) Description
- Impact of development on conveyance pathways
- Description of historic drainage patterns
- Clear delineation of all existing contributing drainage areas and conveyance pathways (both above and on site)
- Clear delineation of all proposed drainage areas and conveyance pathways (on site and downstream)
- General location and size of proposed detention/retention facilities
- Identification and review of capacity limitations

Item (d) - Drainage System Design

- ✓ **NA**
- Explanation of the content of tables, charts, figures, or drawings
- Drainage problems and proposed solutions at specific design points
- Identification of access ways for maintenance of all proposed stormflow management features, whether to be privately held or conveyed via platting to the City

¹ Appendix B- BCS Untied Drainage Guidelines.

² Section 4, Page 4- BCS United Drainage Guidelines.

³ Section 4, Page 3- BCS United Drainage Guidelines.

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Item (e)-Drainage Design Criteria

- ✓ **NA**
- The range of anticipated design storm flows and how flow will be accommodated. Include assumptions and hydrologic parameters
- Location and type of all collection and conveyance facilities
- Identification of earlier drainage studies
- Demonstration of how conditions above the project area will affect the drainage design
- Explanation of how existing and proposed topo constraints will impact stormflow management plans
- Determination of design rainfall
- Runoff calculation method
- Detention discharge and storage calculation method
- Design storm recurrence intervals
- Capacity of various existing and proposed conveyance systems
- Detention/retention outlet type
- Show curb inlet, grate inlet, and detention outlet performance under clogged conditions
- Identification and explanation of any drainage facility design criteria not presented

Item (f) – Conclusions

- ✓ **NA**
- Statements of compliance with the BCS Unified Drainage Design Guidelines
- Effectiveness of existing and proposed drainage improvements for controlling discharges of the 2-year 10-year, 25-year, and 100-year storms
- Reference all criteria, master plans, and technical information
- Statement on compliance with TxDOT drainage policy (if applicable and/or if met)

Item (g) Appendices (where applicable)

- ✓ **NA**
- Land use assumptions regarding adjacent properties
- Detailed calculations and assumptions used (including, but not limited to: time of concentration, curve number, coefficients etc.)
- Soil classifications (USGS soil map), if applicable
- Minor and major storm runoff at specific design-points
- Runoff computations at specific design points for both existing and ultimate development of all Design Drainage Areas
- Hydrographs at critical design points
- Culvert capacities
- Storm sewer capacity
- Street capacity
- Storm inlet capacity including inlet control rating at connection to storm sewer
- Open channel design
- Detention area/volume capacity and outlet capacity calculations
- Detention stage/storage and stage/discharge curve calculations
- Evidence of coordination with TxDOT regarding adjacencies to TxDOT ROW⁴
- Municipal Approvals and Permits
- Non-Municipal Permits- Include copies of referenced drainage reports
- Copies of any referenced tables, figures, or data used from other reports.
- Technical Design Summary



⁴ Section 4, Page 3- BCS United Drainage Guidelines.

Drainage Drawing Checklist

Item (h) - General Location Map

- ✓ **NA**
- Drainage flows entering and leaving
- Identify construction along drainage ways
- Illustrate general drainage flow within entire Drainage Study Area
- Names of existing or approved developments or plats
- Draw at a scale of between 1' = 500' and 1" = 2000'

Item (i) - Floodplain Information

- ✓ **NA**
- Copies of existing 100-year floodplain maps

Item (j) - Drainage Plan Maps(s)

Complete Drainage Study Area boundary including:

- ✓ **NA**
- Above-Project Areas and how stormwater flows from them to the Project Area
- Conveyance Pathways draining the Project Area, and Pathway Areas

Entire Project Area to include:

- ✓ **NA**
- Existing / proposed contours at max. intervals of two feet
- Property lines and easements with purposes noted
- Existing and proposed streets and highways including ROW lines
- Material, size, shape, slope, and location of existing drainage facilities, roadside ditches, drainage ways, gutter flow directions, and culverts
- Boundaries of all Design Drainage Areas
- Proposed type of street flow and directions

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Item (j) - Cont'd

- ✓ **NA**
- Plan and profile of proposed storm sewers and open drainage ways, including inlets, manholes, culverts, junction structures, and other appurtenances
- Proposed outfall point(s) for runoff
- Routing and accumulation of stormflow at various critical points
- Path(s) chosen for computation of time-of-concentration
- Location of detention/retention storage facilities and outlet works
- Location and elevations of all documented floodplains affecting the properties proposed for land development
- Location and elevations of all existing and proposed utilities affected by or affecting the drainage design
- Routing of any drainage that must flow through the development project from Above-Project areas
- Finished floor elevations of existing structures in flood plains adjacent to Primary or Secondary watercourses
- Existing 100-year water surface elevations for each lot or building site in flood plains adjacent to primary or secondary watercourses
- Notation about any off-project features influencing the proposed land development

