



PERMIT STATUS:       APPROVED                       NOT APPROVED

DATE:            [TODAY]

PERMIT #:    [PERMIT NUMBER]

RE:              [SITE ADDRESS]

ROUND OF REVIEW:     1<sup>ST</sup>             2<sup>ND</sup>             3<sup>RD</sup>             4<sup>TH</sup>

**THE FOLLOWING LIST INCLUDES REVIEW COMMENTS AND REQUIRED CORRECTIONS FOR THIS PROJECT. ALL ITEMS LISTED, REQUIRE CORRECTION AND RESUBMITTAL TO CITY HALL, 201 S. CORTEZ STREET.**

**DRAINAGE**

**GENERAL SUBMITTAL CHECKLIST**

Not  
App App N/A

Transmittal

- Transmittal on company letterhead
- Contact person and phone number for project
- Company and City of Prescott permit number (after initial submittal)
- Detailed list of items being submitted

Plan Submittal

- Plan Sheets shall be a minimum of 11" X 17" and a maximum of 24" X 36" paper in accordance with City of Prescott CADD standards and shall at a minimum include:
  - North arrow and scale (maximum Scale 1" = 200')
  - Vicinity Map on a smaller scale with north arrow
  - Right-of-way and/or easement lines of the site and its relationship to adjacent property and streets

- Dates of preparation and revisions
- Name, address and phone number of applicant
- Name, address and phone number of engineer
- Project address or address of parcels fronting the right-of-way, if applicable
- Assessor Parcel Number(s) of project or parcel number(s) of property fronting the right-of-way
- Plan set(s) shall be submitted on bond paper
- Plan set submittals and re-submittals shall be submitted to City Hall, 201 S Cortez Street
- A "Blue Stake" notification shall be noted on each sheet of the plans

All plans shall be oriented with north towards the top or right of each sheet, where practical. A north arrow and scale (both written and graphic) shall be provided on all sheets. All text shall read from the bottom and right of the sheet

Provide basis for both Horizontal and Vertical Control (NVAD 88 for Vertical Control and City of Prescott Coordinates for Horizontal) and Bench Mark Location

All supporting or supplement reports shall be bound letter size (8 1/2" X 11")

All larger maps included in the report shall be folded accordion style to letter size and put into pocket folders

Cover Page of all Reports shall include:

- Project Title
- Date Report Submitted and Revision Dates (COP File Number, once assigned)
- Name, address and phone number of client
- Name, address and phone number of engineering firm
- Seal/signature of the Arizona Registered Professional Civil Engineer responsible for preparing the report

Development Agreement

Easements

**DRAINAGE REPORTS (GENERAL) CHECKLIST**

Not  
App App N/A

Table of Contents

- List Section Headings and their Respective Page Numbers
- List of Tables with Page Numbers
- List of Figures with Page Numbers
- List of Attachments, Numbered

**Maps**

- Location Map
- Site Plan
- Show the conveyance system downstream to a point where the stormwater enters a channel, storm sewer line or other natural water body
- Flood Plains Map – For both designated and non-designated FEMA regulatory 100-year floodplains
- Soils Map from Natural Resources Conservation Service – with the site location clearly labeled as well as the watershed boundary

**Project Overview**

- Description of the existing and proposed land use, drainage patterns, natural watercourses, and drainage features
- Summary of any previous hydrologic/hydraulic studies or other information which pertain to the project or development
- Generally describe site improvements, & methods of mitigating stormwater runoff
- Master Plan – Name: \_\_\_\_\_
- CC&R including maintenance of easement

**DRAINAGE MASTER PLAN REPORT CONTENT CHECKLIST**

Not  
App App N/A

**Phasing**

- On-Site Improvements
- Off-Site Improvements
- Projections for Future Surrounding Developments and related Improvements
- Off-Site Analysis due to Density

- Master Plan Mapping
  - Synopsis of Phasing with Modeling Results
  - Each Phase is a Stand Alone Report

**DRAINAGE REPORT CONTENT CHECKLIST**

Not  
App App N/A

- Development Plan
  - Delineate Sub-basins and Show Sub-basin Acreage used in Hydraulic/Hydrologic Calculations
  - Plan Sheet or Graphic Depicting Sub-basins
  - Pre and Post Development Maps
  - Show directions and lengths of sheet flow, shallow concentrated flow, channel flow
  - Existing and proposed contours (2-foot maximum contour interval)
  - Show storage volumes, outlet pipe and weir invert elevations, and lengths for stormwater control facilities
  - Tabulate existing and proposed peak flows and volumes. Include all hydrologic and hydraulic computations for pipes, open channels and gutter flow
  - Show all existing and proposed easements and rights-of-way
- Downstream Analysis
  - Compute existing and proposed peak flows and volumes for the design storms at all discharge points both to and from the site and at downstream stormwater control structures. Discharge points should refer to labeled points shown on the Stormwater Plan
- Upstream analysis
- Hydrologic Analysis and Design
  - Hydrologic Analysis, existing and developed conditions
    - Tabulate acreage; imperviousness; impervious coefficients; length and grade of overland, pipe, and channel flow; other hydrologic parameters used in completing analyses

- Compute existing and developed peak flows for all sub-basins for the
  - 2 - year storm
  - 10 - year storm
  - 25 - year storm
  - 100 - year storm
  
- Detention/Retention Pond Design
  - Compute inflow and outflow hydrographs and peak flows and storage volumes
  - Tabulate existing and proposed peak flows and storage volumes
  - Show all hydrologic and hydraulic computations, equations, rating curves, stage/storage/discharge tables, and graphs necessary to show methodology and results
  
- Detention/Retention Pond Plan
  - Provide plan sheet of the control facility
  - Show basic measurements necessary to confirm storage volumes
  - Tabulate peak flow rates, storage volumes, and ponding elevations for all design storms

#### Hydraulic Analysis and Design

- Identify methodology used in completing analyses
- Compute and tabulate design flows and velocities and conveyance capacities for all systems within the development
- Include all hydraulic computations, equations, pipe flow tables, flow profiles, charts and nomographs
- Stormwater conveyance design storm shall include:
  - 2 - year storm
  - 10 - year storm
  - 25 - year storm
  - 100 - year storm

Development sites shall be designed to be able to pass a 100-year storm through the site

Summary and Conclusions

A brief summary of the analyses and conclusions presented in the report

A brief description of how the proposed development and/or public improvements will adhere to applicable stormwater detention and/or floodplain regulations and mitigate any impacts created by the development

Provide a listing of pertinent sources of analysis and design procedures used

Appendices

List of attachments

Provide an electronic copy of the all the hydrologic and hydraulic analysis Master Plan Report

**DRAINAGE PLAN CHECKLIST**

Not  
App App N/A

Consistent with City of Prescott CADD Standards

Legend

Street Names and Widths

Stationing

COP Standard Construction Notes

Quantities

COP General Notes

COP Standard Details

Special Details and Notes

Show Topography, including minimum and maximum contours

Show Both Plan and Profile

Show Existing & Proposed Utilities

Seal/signature of the Arizona Registered Professional Civil Engineer responsible for preparing the plans

Property boundary, lot lines, right-of-way, easements, and common areas with accurate bearings and distances

- FEMA floodplain and floodway locations, other known flood hazard areas, and the 100-year flood limits as defined by the project, if applicable
- Existing and proposed contours at 2' intervals
  - Spot elevations or 1' contour intervals where needed to depict the grading
- Culverts, catch basins, valley gutters, and other drainage structures on the street plan sheet(s)
- Profiles for all culverts, ditches, channels and storm sewers with stations, lengths, and invert elevations
- Typical section showing right-of-way, roadway section and all utility crossings and/or conflicts on the profile cross section with minimum clearance indicated
- Existing and proposed buildings or structures within the property and on adjoining lots within 100' of the property limits
- Finished floor and foundation elevations of all structures in FEMA Special Flood Hazard Areas
- Roof and lot drainage directions
- Paved and landscaped areas
- Location of all existing and proposed drainage facilities
- Detention basins including spillway location with the 2, 10, 25, and 100-year water surface elevation (WSE) along with 1 foot freeboard and associated outflow
- Detention facility design details with plan and profile, cross-sections and tabulated volume analysis
- Soils engineering or geological report recommendations incorporated in the plans and specifications
- Rock riprap size along with d50 and depth of riprap and other erosion control methods along with supporting documentation per the Drainage Criteria Manual
- Cut slopes and fill slopes with associated geotechnical recommendations
- Cut and fill quantities
- Limits of grading or disturbance
- Established benchmark of known elevation to which every other elevation is referenced
- Erosion and sedimentation plan sheet with reference to SWPPP and NOI when applicable