



Grading and Drainage Checklist

REQUIREMENTS FOR ALL SINGLE-FAMILY RESIDENCES, SPECIAL USE PERMITS (REGARDLESS OF VALUE), PROJECTS OF \$500,000 VALUE OR GREATER, AND 999 SQ. FT. OF ADDITIONAL IMPERVIOUS SURFACE*.

*Newly proposed impervious surfaces of 750 sq. ft. or greater may be subject to these requirements pending Engineering Department review.

- 1) **Completed checklist shall be submitted with each submittal.**
- 2) No development shall be permitted which causes an increased flow of surface water discharge from the subject site. On-site storm water retention shall be adequate to contain the volume of water required by the Town's Storm Drainage Design Manual (SDDM), current edition. (TC 5-10-8, B)
 Storm Drainage Design Manual:
<http://www.paradisevalleyaz.gov/DocumentCenter/View/5630/Storm-Drainage-Design-Manual-2018>
- 3) No development of property shall take place unless or until the developer or owner constructs either before, or simultaneously with development, sanitary sewer lines and a connection to private wastewater treatment or Town/City of Phoenix sanitary sewer in accordance with Town/City of Phoenix and Maricopa County Health Department standards - if the cost to extend the sanitary sewer main is 10% or less the value of the total improvements. (TC 5-10-8, C). For developments that require a sewer extension, an issued right-of-way permit including Town and County approved sewer main extension plans, Maricopa County Approval to Construct (ATC), and naming a licensed and insured contractor on the right-of-way permit to perform the sewer line work must be obtained prior to receiving an issued building permit.
- 4) Fire hydrant must be installed if an existing hydrant is not located within 400' of property line. (TC 5-10-8, D)
- 5) No development of property shall take place until the electrical and electronic wires are undergrounded from the property line to the electrical service panel. (TC 5-10-8, E)
- 6) No permit shall be issued until the developer grants half-street right-of-way to the Town in conformance with the Town's General Plan (if required). (TC 5-10-7, B)
- 7) No permit shall be issued until the developer grants a drainage easement and maintenance agreement for all watercourses on the property to the Town (if required). (TC 5-10-7, C)
- 8) No development of property shall take place unless or until the developer or owner constructs either before, or simultaneously with development, half-street improvements (if required). (TC 5-10-8, F)
- 9) Provide Drainage Report per Storm Drainage Design Manual. (SDDM, Section 6)
- 10) Permits. Provide the following documentation:
 - ___ Provide proof of US Army Corps 404 Permit and/or complete Town of Paradise Valley 404 Certification form signed by the Owner or Engineer of Record.
 - ___ Provide proof of ADEQ 401 Permit
 - ___ Provide copy of ADEQ NOI and maintain SWPPP onsite.
 - ___ Provide Maricopa County Dust Control Permit

11) Grading & Drainage Plan Cover Sheet must contain the following information:

___ All sheets must be signed and sealed by a Registered Civil Engineer in the State of Arizona.

___ Vicinity Map

___ Owner Information

___ Civil Engineer Information

___ Town of Paradise Valley General Notes

___ Engineer's Notes (as applicable)

___ Legend

___ Abbreviations

___ Utility Providers (including but not limited to)

a. Water

b. Sanitary Sewer

c. Electric

d. Telephone

e. Natural Gas

f. Cable TV

___ Blue Stake Contact Information

___ Earthwork Quantities (Cut, Fill & Net Cut/Fill)

___ Native Plants Statement. Provide statement stating that "All native plants impacted by construction shall be relocated on site. See Landscape Plan and Native Plant Inventory & Salvage Plan."

___ Drainage Statement (Civil Engineer shall confirm and provide the following)

a. Ultimate storm water outfall locations and elevations

b. Proposed development does not impact drainage conditions of adjoining lots

c. Retention is provided for the 100-year, 2-hour storm event per the Storm Water Drainage Design Manual

d. The lowest finish floor elevation of XXXX.XX is safe from inundation during a 100-year peak run-off event if constructed in accordance with the approved plans.

___ Flood Insurance Rate Map (FIRM) Data

___ Finished Floor Certification. Engineer shall certify that the finished floor elevation shown on the plan of XXXX.XX is a minimum of 12" above the 100-year storm elevation of XXXX.XX.

___ Site Data

a. Parcel Number (APN)

b. Property Address

c. Zoning Classification

d. Lot Area (S.F. & A.C.)

e. Construction Year

___ Legal Description

___ Benchmark Data (NAVD 88 DATUM)

___ Project Description (provide brief description of project)

___ Sheet Index

___ As-built Certification Signature Block

___ Town of Paradise Valley Approval Signature Block Including Language Below:

This set of plans has been reviewed for compliance with Town of Paradise Valley requirements prior to issuance of permit. The Town neither accepts nor assumes any liability for errors or omissions. This compliance approval shall not prevent the Town Engineer from requiring corrections of errors or omissions in the plans to be found in violation of laws and ordinances.

12) Grading & Drainage Plan Sheets must contain the following information:

___ All sheets must be signed and sealed by a Registered Civil Engineer in the State of Arizona.

___ North Arrow and Scale (1" =20')

___ Property and right-of-way lines

___ Existing spot elevations and/or contours (based on NAVD 88 Datum; no assumed elevations)

___ Proposed elevations and/or contours (based on NAVD 88 Datum; no assumed elevations)

___ Show Lowest Natural Grade (LNG) under the footprint of all structures

___ Finish Floor Elevation and Building Pad Elevation

a. The building pad shall not exceed two (2) feet in height above lowest natural grade (LNG) except where required to protect the building against flooding, in which case the pad shall be one (1) foot above the water surface elevation of the 100-year event.

___ Show washes in an undisturbed state except for modifications approved by the Town Engineer that are required to accommodate storm water. (SDDM, Section 3-6, A, 2)

___ Provide five (5) cross sections of washes equally spaced through the property. (SDDM, Section 3-6, A, 2)

___ Washes shall not be realigned except as approved by the Town Engineer and Community Development Director when necessary to accommodate storm water or to restore a disturbed wash to a more natural state. (SDDM, Section 3-6, A, 2)

___ A Drainage Easement and Maintenance Agreement shall be provided for all washes. (TC 5-10-7, C)

___ Building setback lines for all structures, sport courts, etc.

___ All existing and proposed improvements including buildings, ramada, pool, guest house, sport courts, driveways, etc.

___ Existing easements with recorded document information.

___ On-site retention with retention basins and calculations. (SDDM, Section 3)

___ 100-year peak discharge rate (CFS) at all entry and exit locations, and flow concentration points as identified in drainage report.

___ Proposed on-site storm water retention infrastructure, including storage facilities, design criteria/calculations, volume required, volume provided, and basin locations. Retention storage facilities shall be located to intercept flows generated for each on-site tributary area within the developed property to the maximum extent possible. (SDDM, Section 3)

- Show method of pool/spa backwash or specify type of filter (cartridge) that does not require backwashing.
 - Clearly identify all existing and proposed walls including top of wall, bottom of wall and adjacent grade elevations.
 - Clearly identify all drainage openings in walls.
 - Existing and proposed street width from the monument line, including any proposed saw cuts, asphalt, curbing, etc. If existing street is not centered on monument line, show full street width.
 - Location of all existing dry utilities, cabinets, pedestals, etc.
 - a. Existing and/or new utility cabinets and pedestals shall be located a minimum of 4' behind ultimate back of curb location.
 - Location of nearest fire hydrant and new fire hydrant. (if required)
 - Location of nearest sanitary sewer and/or new sewer plans. If new sewer is required, the sewer shall be approved by the Town and MCESD AOC shall be provided prior to final grading approval and/or Certificate of Occupancy.
 - a. Contact City of Phoenix for sewer main extension and reimbursement agreement requirements within their jurisdiction.
- 13) One (1) CD in Adobe Reader/PDF Format of the grading & drainage plan shall be submitted prior to permit being issued.
- 14) Native Plant Inventory Plan (including Palo Verdes, Saguaros, mesquites, ocotillos, barrel cacti, Christmas Tree cacti, Organ Pipe cacti, and Ironwoods) and Native Salvage Plan
- 15) Provide Grading and Drainage Stormwater Pollution Prevention Plan (SWPPP) providing the location and details of the following (SDDM Section 5-2):
- Area of Disturbance
 - ADEQ NOI Certificate # (provide hard copy of ADEQ NOI)
 - MCESD Dust Control Permit # (provide hard copy of permit)
 - Grading & Drainage Base Plan (show contours and flow arrows)
 - Stabilized Construction Entrance
 - Dust Control (include location of water source, meter, backflow prevention, etc.)
 - Sedimentation Control
 - Inlet Protection
 - Concrete/Washout Vessel
 - Dumpster/Trash Container
 - Paint/Solvent Washout Vessel
 - Hazardous Waste Containment Area
 - Other

Provide General Note:

1. No work of any kind may commence until all Storm Water Pollution BMPs are installed, inspected, and approved by the Town.

- 16) Provide Demolition Only Stormwater Pollution Prevention Plan (SWPPP) providing the location and details of the following (SDDM Section 5-2):
- Area of Disturbance (acres)

- ADEQ NOI Certificate # (provide hard copy of ADEQ NOI)
- MCESD Dust Control Permit # (provide hard copy of permit)
- Grading & Drainage Base Plan (show contours, and flow arrows)
- Stabilized Construction Entrance
- Dust Control (include location of water source, meter, backflow prevention, etc.)
- Sedimentation Control
- Inlet Protection
- Other

Provide General Note:

1. No work of any kind may commence until all Storm Water Pollution BMPs are installed, inspected, and approved by the Town.
 2. Sedimentation control devices (silt barriers) shall remain in place after demolition is complete. Sedimentation control devices shall be inspected monthly, after each rain event and maintained as needed to be kept in proper working order by permit Applicant and/or Owner.
 3. Sedimentation control device inspection log shall be maintained by Applicant and/or Owner and made available to the Town upon request.
- 17) All finished floor elevations must be certified by a Registered Civil Engineer in the State of Arizona, to be 12" above 100-year storm elevation
- 18) Effective January 5, 1991, Pool Enclosures shall comply with Section 5-11-1 of the Town Code of Ordinances.
- 19) Certain designated lots in the Town require a Fire Indemnity Agreement with the Town of Paradise Valley. Please call the Building Department at 480-348-3692 to verify if property is in designated area.
- 20) Items required prior to Final Grading Inspection approval:
- All landscaping shall be installed prior to final grading inspection regardless if it is installed by contractor or owner.
 - Finished Floor Elevation Certificate
 - Recorded Storm Drainage Facilities Agreement
 - One (1) CD in Adobe Reader/PDF Format of the grading & drainage as-built plans

Water and Sanitary Sewer Service Providers

Please contact the appropriate water and sanitary sewer service provider for specific requirements related to service extensions, connections, fire hydrant installations, septic tanks, etc.

Utility Services Website: <http://paradisevalleyaz.gov/510/Utility-Services>