

TEARDOWN / INFILL GRADING CHECKLIST

**The following is a list of topics reviewed with the Detailed Grading Plan Process
Additionally included are commonly asked questions and answers pertaining to Detailed Grading Plans**

Eight (8) copies of a detailed grading plan must be submitted signed and sealed by an Illinois registered Professional Engineer and must include:

- North Arrow
 - Scale
 - City of Naperville Benchmarks (see our website at www.naperville.il.us)
 - Statement of release or no release for future FOIA requests.
 - **Existing spot grade elevations at the location where the building setback line intersects with the side property line.**
- 1. Driveways:**
- a. 3 types – Concrete, Bituminous or Brick Paver. No gravel drives.
 - b. Slopes – away from house, 2% minimum and 10% maximum. Driveway aprons do not exceed 6%.
 - c. 2 entrances are possible; look at City of Naperville Standard detail ‘Typical Residential Driveway Detail PVMT 9.’
 - d. Circular driveways are not permitted when the property frontage is less than 75 feet.
 - e. The minimum driveway width at the right-of-way is 9-feet and the maximum driveway width at the right-of-way is 20-feet; it can open up to 24 feet at the street, see ‘Typical Residential Driveway Detail PVMT 9.’
 - f. Driveway width at the garage should not be excessively wider than the doors.
 - g. Curb shall be added to driveways that are adjacent to a property line.
 - h. If subdivision lots, with approved master grading plans, do not have driveway locations that match the approved location, I separate letter is required from the engineer of record for that subdivision stating the relocation of the driveway is acceptable.
- 2. Property lines:**
- a. Slopes: 1.5%, allowed when detailed with specific grades called out, otherwise 2% minimum and 25% maximum, with 20% preferred when space allows.
 - b. If slopes are under 1.5%, **ordinance 01-14** shall be consulted for options in order to obtain the 1.5% minimum allowable slope, using dry wells and/or private storm sewers.
 - i. Inlets shall be called out for dry wells/infiltration trenches
 - ii. Dry wells/infiltration trenches shall extended across the property such that adjacent redevelopment may connect to the facility.
 - iii. Dry wells/infiltration trenches/proposed storm sewers/window wells shall be located outside of the 10-foot rear yard and 5-foot side yard easements that are required.
 - iv. Storm sewer connections to City storm sewer must be made at a structure. No blind connections are allowed.
 - c. Drainage swales must be completely contained on the subject property or there must be a master-grading plan submitted that calls for the swale to be located on the property line.
 - i. The top of foundation must be a minimum of 18” above the high water line or side yard swale water line, including top elevation of all window wells.
- 3. Off Street parking:**
- a. Off street parking is a difficult concept since it is hard to determine what this might be. Look for areas with driveway surface out of line with the drive which will allow for one or more than one car to park. Typically, this location will be aside a garage door or along a garage, possibly in a front yard. Turning around areas are typically OK. Use reason. No parking spaces will be allowed in the required front yard building setback.
- 4. Sidewalks:**
- a. Typically, the sidewalk should be 5 foot wide in the ROW on the City’s side.
 - b. The sidewalk shall be along all street frontages.
 - c. The contractor cannot install sidewalk from the ROW, adjacent to the curb!!! Check the Master Grading Plan. (i.e. no carriage walks are allowed) *If the property currently has carriage walks*, they will need to be moved a minimum of 3 feet from the back of the curb, with a minimum width of 4 feet.
 - d. The sidewalk shall go through the driveway; rather than, stopping at each side.
 - e. At intersections, use appropriate ramps. See City of Naperville Standard Detail ‘Curb Ramps Accessible to the Disabled PVMT 4’ and the IDOT standard detail 424001-03 (both sheets) with truncated domes. The City of Naperville does not allow the diamond/triangular layout on the IDOT detail.
 - f. If the sidewalk must be on private property, an easement for this must be available.
 - g. The sidewalk may be designed to save trees, unless the City Forester recommends tree removal.
- 5. Grading**
- a. **Due to height requirements, the existing elevations, at the property lines where the building setback intersects the side property lines shall be clearly called out on the plan. For corner lots, use the side of the house the front door is located on.**
 - b. 1-foot contours should be provided. If slopes are great and you need them, request them.
 - c. Grading should be uniform in review of the neighboring lots for consistency. (Elevations are appropriate)
 - d. Top of foundation cannot be more than 0.5 feet higher than the adjacent lots.
 - e. If there is a Master Grading Plan (most commonly in combination with a newer subdivision),
 - i. All perimeter points should be the same, including any drainage structures in the area.
 - ii. Top of foundation shall match
 - iii. Drainage structures rims shall match
- (Cont’d)

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- iv. Other items reviewed to consistency: floodplain, driveway locations, basement window locations, and low points for variable top of foundation, and any other specialty items.
 - f. See if the 5-foot easement is on each shared property line
 - g. See if the 10-foot easement is on the back property line
 - h. The top of foundation should be 0.5 feet higher than grading around the structure. The Master Grading Plan usually indicates this information. When grade adjacent to the foundation is more than a 6-inch (0.5-foot) difference, dropped siding must be called out
 - i. The grading should indicate neighboring grades.
 - j. Spot elevations for break points should be indicated.
 - k. Make sure the swales work properly.
 - l. Make sure the overflow route is shown.
 - m. Proposed retaining walls must be shown and the top and bottom of the wall must be called out.
 - n. Window wells, when applicable
 - i. The elevations of the top of the window wells must be shown, if applicable.
 - ii. The window wells may not encroach into any easements. The electrical department will determine the side of the property where a 5-foot easement will be required for service to the structure.
 - iii. Window wells may not be located adjacent to an overland flow route.
- 6. Erosion Control**
- a. Perimeter silt fence must be shown.
 - b. Tree protection must be shown for any trees to be saved in the construction area.
 - c. Tree removal permit is required for any tree removal in the R.O.W.
- 7. Proposed Utilities**
- a. Any storm sewer within the ROW must be reinforced concrete or ductile iron.
 - b. The proposed water service size must called out and shown how it will be connected. 1" minimum size, 1.25" size not allowed.
 - i. All new services must connect to the main and not the b-box
 - c. Any cleanouts shall be the 'Tee' type, located outside of the building, and easily accessible.
 - d. No open cuts are allowed in the street, except in special circumstances.
 - e. Existing and proposed water main/ service and sanitary sewer main/service, shall be shown on the plans.
 - f. Sanitary sewer clean- out location shall be shown on the plans. Clean-out shall be of the same size and material as the new sewer service pipe.
 - g. Plan shall show all existing utilities and structures. This includes all manholes, valve vaults, b-boxes, valve boxes, streetlights, etc.
 - h. All storm structures, private and public shall follow the City of Naperville Standard details.
 - i. All private storm sewers need to be 8" or greater PVC (SDR 26), RCP, or ductile iron.
 - j. Rear yard storm structures should be located within the required 10' rear yard easement.
 - k. Sump drain locations shall be shown, call out pipe drainage or connect to storm structure
 - l. The City may need to request a storm sewer be installed across the front of the property (Ord. 04-198). When this is the case, the City will provide size and invert elevations that will be required. **If this sewer is located on private property, an easement will be required.**
 - m. **All existing electrical poles/overhead wires and dimensions shall be shown on the plan. Required code clearances must be maintained.**
- 8. Double check**, are the following details incorporated into the design document, when applicable?
- a. Any new driveway, or parts of, requires the Typical Residential Driveway detail (PVMT9).
 - b. Any new public sidewalk requires the Sidewalk detail (PVMT 3).
 - c. Any silt fence requires the Typical Silt Fence Construction detail (MISC 6).
 - d. Any trees in the area of construction require the Recommended Practices for Trees to be Saved detail, Tree Protection detail, depending on the circumstance, may also require the Tree Augering detail MISC 7-9).
 - e. Any new drainage structures require their associated details.
 - f. All sump pump drains that will be directly connected to the storm sewer must connect to a storm structure and include the City's standard detail STORM 9, which show the required air gap.
- 9. Miscellaneous, useful information**
- a. Call 630-420-6082 to schedule inspections.
 - b. Any tree removals in the R.O.W. require a permit from DPW-Forestry.
 - c. Any property that is located adjacent to a river or creek, a DuPage County Permit will be required prior to City approval. This may include sections 3, 4 and/or 5 in the County Stormwater Submittal that can be found on the County's website. A county pre-application meeting will be required by the county for any projects they need to review, a conceptual idea of the site is required for discussion purposes at the meeting. . The county's review timeline varies on the number of special management areas that are affected. This permit may take a few months to obtain and the process should be started as soon as possible. As of April 1, 2005, the county requires a \$200 application fee that is required at the time of submittal to the county.
 - d. The dimensions of the home to the property lines shall be shown. The setbacks (front, sides, and rear) shall be shown or called out on the detailed grading plan.