

**NORTHBROOK DEPARTMENT OF DEVELOPMENT & PLANNING
ENGINEERING SUBMITTAL GUIDELINES FOR:
COMMERCIAL DEVELOPMENT**

Revised: FALL 2011



This handout has been prepared by Engineering review staff to assist owners, design professionals and contractors with our Department's minimum project submittal requirements. The following information for the project is requested to ensure compliance with the Village's Standards and Specifications for Public and Private Improvements:

- A **Site Plan** drawn at a specified scale on plan sheets **no larger than on 24" X 36"** delineating the proposed improvements, existing conditions, north arrow, name & address of project site and the name, address & phone number of plan preparer. The Site Plan shall also include all drainage & utility easements on the subject property, building setback lines and addresses for the subject property & all adjacent properties.
- A **Utility Plan** identifying all proposed & existing utilities (water, sanitary, storm, gas, electric, etc.) located on the subject property and within the public right-of-way. Storm sewer pipe and the appropriate drainage structures will be necessary for all parking lot improvement projects.
- **Stormwater Detention** in accordance with the Village's requirements (Illinois Bulletin 70 100-Year Rainfall Event for the Northeast Sectional zone) shall be provided for all pervious areas that will become impervious as a result of the proposed improvements. Detention routing table and volumetric calculations will be required for the proposed design and at the completion of the project ("As-Built"). If the increase in impervious area is small, a fee in lieu of detention may be considered.
- A **Paving/Geometric Plan**. The pavement section for the parking lot shall have a minimum structural number (Sn) of 2.16 consisting of 1-1/2" bituminous surface and 1-1/2" bituminous binder courses over a 3.5" BAM base. All main and circulation aisles shall consist of 1-1/2" bituminous surface and 1-1/2" bituminous binder courses over a 4" BAM base. Loading/truck docks and fire lane pavement areas shall consist of either a 8" PCC (reinforced with 6X6 wire mesh) surface over a 4" CA-6 base, or 1-1/2" bituminous surface and 1-1/2" bituminous binder courses over a 7" BAM base. All pavement striping, signage, handicap parking designations/details and traffic flow patterns will also need to be included on this plan. The width of the handicap parking stall needs to be 16' and all remaining parking spaces need to be a minimum 9' in width. The depth of all parking stalls (minimum 18.5' with 1.5' overhang for perimeter and 20' for interior) and the width of all aisles (minimum 24' for two-way traffic) needs to also be included. The stall width and depth dimensions are 8.5' and 18' respectively for all spaces (interior and perimeter) in the Industrial Zoning Districts and Underwriters Laboratory. You may contact the Zoning Administrator @ 847/272-5050; Ext. 4248 for any questions regarding parking lot dimensions, setbacks, etc.
- A **Grading Plan** containing existing & proposed elevation contours at minimum 1' intervals and extending at least 25' into the adjacent properties. The high water level for the stormwater management design and any critical water entry elevations for the subject & adjacent properties shall also be included along with all on-site and off-site overflow routes identified. The elevation & description of the benchmark (NGVD'29 Datum) utilized and the top of foundation and finished grade elevations for the subject property and all adjacent properties will also be required.
- A **Soil Erosion & Control Plan** containing all applicable general notes, details, limits of the silt control fencing, staked straw bales/filter fabric for all open grated drainage structures, etc. in accordance with the Illinois Procedures and Standards For Urban Soil Erosion and Sedimentation Control and Village specifications.
- **Concrete Curbing**, either 6" barrier (B6) or combination curb & gutter (B6.12) must be constructed around the perimeter of the parking lot. The curb shall have two continuous #4 bars interrupted only at expansion joints and two #6 bars at each expansion joint.
- A **Landscape/Tree Preservation Plan** identifying all existing mature trees (6", or greater in diameter within the public right-of-way and on the subject property, including any landmark) and proposed plantings by size, number, type and location on the subject site. The necessary tree preservation measures must be specified.
- A current **Plat of Survey** for the subject property containing all existing, types and proposed easements.

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- An exterior **Lighting Plan** showing the locations of all existing & proposed exterior lights, pole & foundation details and all conduit runs (galvanized under paved areas, PVC Schedule 40 elsewhere with a min. bury of 27"). Manufacturers catalog cuts and photometrics for the heads must also be provided. For building and pole mounted lights, the "sharp cut-off" style should be used. The photometrics for the proposed lighting should be plotted on a site plan to ensure that a minimum illumination of 0.5 fc for any portion of a paved area is maintained with a maximum spillage of 0.50 fc (may be reduced if warranted by special conditions) at the property lines. The Development & Planning Department must also be contacted at 847/272-5050; Ext. 4241 with regards to the Electrical Permit submittal requirements and scheduling of inspections.
- **General Notes** for the site work construction (Storm Sewer, Water Main, Sanitary Sewer, MWRDGC, IEPA, Earthwork, Paving, Restoration, etc.) will also need to be provided on one of the required plan drawings, or on a separate drawing.
- The **Driveway Apron** shall consist of either 8" PCC (reinforced with 6X6 wire mesh) surface over a 6" CA-6 base or 1-1/2" bituminous surface and 1-1/2" bituminous binder courses over a 7" BAM base.
- If applicable, include a General Note to specify that **any disturbed Village street will be restored** as follows: Bituminous Pavements; 2" Bituminous Surface Course and 8" BAM or Concrete Pavements; 7" PCC Class "SI" with #6 dowel bars @ 30" O.C. into the adjacent pavement.
- Include a General Note to specify that **all excavated soil/materials** not to be used for backfill & final grading will be immediately removed from the site. No on-site stockpiling of excavated materials will be allowed, with the exception of reusable topsoil.
- Include a General Note that specifies **all disturbed parkway lawn areas** within the public right-of-way and/or any easement will be restored with 6" of pulverized topsoil/sod (watered as required to sustain growth) and all damaged portions of public sidewalk are to be replaced with 5" PCC Class SI over a 3" CA-6 base. All restoration work must be completed within five days of disturbance, weather permitting.
- Verify if either a **MWRDGC and/or an IEPA Permit** will be required for the proposed project and provide the Engineering Division with copies of the Permit and all correspondence with said agencies, if applicable.
- Include a General Note to specify that all paving and underground contractors must be **Licensed** with the Village of Northbrook.
- Include a General Note to specify that the Contractor must contact the Development & Planning Department @ 847/272-5050; Ext. 4241 at least 48 hours in advance to **schedule inspections** for all proposed utility and grading work.
- Provide a **Construction Cost Estimate** for all Civil Engineering site improvements for the Development & Planning Department to establish determine review/inspection fees.
- Domestic water service is to be tee'd from the combined fire/domestic service after it enters the building. The proposed domestic side will require a compound water meter designed to register wide flow ranges where varying flow rates are typical. A locking by-pass will be required to allow servicing the meter without disrupting water supply. Proper backflow protection will be required and configured so the by-pass line is protected while in use. The remote wire for domestic water meter reading devices must be encased in conduit.

Please be advised that the Village of Northbrook is not responsible in either determining or confirming what other permitting authorities (ie. MWRD, CCHD, IDOT, IEPA, IDNR, USACOE, FPDCC, etc) may warrant in regards to the proposed improvement. This is the sole responsibility of the permittee. In addition, it must be understood that the approval by such outside permitting authority may be contingent upon Village approval of the subject permit.

You may contact the Jim Baxa at 847/664-4056 if there are any questions regarding the described requirements.