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ENGINEERING PLAN REVIEW CHECKLIST

Preliminary plat submittals, including all required documents, are to be submitted to the Planning Department. Please refer to the Preliminary Plat Application Checklist for submittal requirements. The following checklist details items that are reviewed by the Engineering Department for proposed plats and/or Commercial Site Plans. This list is not inclusive, and the developer is responsible to address all comments herein in writing.

Name of Project: _____

Date of Submittal: _____

Owner: _____

Review Conducted by: _____

Review Status: _____ **Approved** _____ **Denied Pending Revisions**

Approved By: _____ **Date:** _____

STORMWATER MANAGEMENT PLAN (HYDROLOGY REPORT)

Approved	Denied/ Pending	N/A	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Two signed and bound copies of the Stormwater Management Plan (Hydrology Report).
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Plan meets requirements of Water Resource Management Plan Developer’s Requirements handout and requirements of appropriate watershed management organization or watershed district.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Stormwater modeling shall use NOAA Atlas 14 precipitation data. The NRCS MSE 3 rainfall distribution shall be used for modeling.

Comments: _____

GEOTECHNICAL / SOILS REPORT

Approved	Denied/ Pending	N/A	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Two signed and bound geotechnical reports with recommendations.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	SCS soil types.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Seasonal High Water Mark (for each boring).
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Existing ground water level (each boring).
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Relate elevations to actual elevations, not assumed elevations.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Soil borings to a minimum depth of 25 feet with logs.

Comments: _____

REQUIRED ITEMS ON ALL PLAN SHEETS

Approved	Denied/ Pending	N/A	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Name, appropriate certification and signature of the plan preparer.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Date of preparation and revision(s), along with revision description.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Graphic scale no smaller than one inch to fifty feet (1" = 50').
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	North arrow, designated as true north.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A legend providing symbols and labels for each feature indicated on the plan sheets (on title sheet only is acceptable).
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Location and names of existing / platted streets and other public ways, railroads, parks, public open spaces, and right of ways and easements.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Location of delineated wetlands and the floodplain boundary (flood fringe and floodway areas).

Comments: _____

EXISTING CONDITIONS PLAN

Approved	Denied/ Pending	N/A	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Location of parks and public open spaces, buildings and structures with notation if proposed to be removed, existing easements, right of ways, and section and municipal boundary lines within the plat and to a distance of one hundred (100') feet beyond.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Location, and grades (where appropriate) of roadway centerlines, curb and gutter and width of existing streets (including type of surfacing), railroads, sanitary sewers, water mains, storm sewers, gas, telephone, electric, cable T.V., culverts, catch basins and manholes (including rim and invert elevations), hydrants, gate valves, trees, significant vegetation, trees, landscaping, water courses, lakes, marshes, wetlands, rock outcrops, and any other significant physical features within the plat and to a distance of one hundred (100') feet beyond. Include a note regarding the utility quality level (refer to CI/ASCE 38-02).
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Identify any existing wells and septic systems on the site. Septic systems/tanks shall be crushed and removed. Add notes existing wells shall be abandoned per Minnesota Department of Health requirements.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Contours at vertical intervals of not more than two (2') feet, except that where the horizontal contour interval is one hundred (100') feet or more, a one (1') foot vertical interval shall be shown.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Include note stating which firm completed the topo survey with date.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Elevation of all existing property lines adjacent to plat (field verified).

Comments: _____

GRADING, DRAINAGE, AND EROSION CONTROL PLAN

Approved	Denied/ Pending	N/A	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Show all erosion control measures as needed (silt fence, inlet protection, rock construction entrance, rip rap, etc).
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Show site corner at all intersections within and into / out of the site. Base upon most restrictive of Cases IIIA, IIIB, and IIIC in the MnDOT Road Design Manual, Chapter 5, Section 2.02 (assume vehicle on minor street is stopped). Make sure there are no obstructions greater than 2' in height (grading or landscaping) within this corner. Also show these on a landscape plan (if provided). Any city street that intersects with a County road shall meet the

			requirements of the Anoka County Highway Department.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Note on plan that developer is responsible for removing erosion control features upon establishment of permanent erosion control.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	This should also go on the preliminary plat. Table with the following areas provided: 1) Gross Residential Area; 2) Wetlands, Water Bodies and Non-Stormwater Ponds (including 16.5' buffer); 3) Public Parks / Open Spaces; 4) Arterial Road ROW (if any); 5) Floodplain (excluding 2 above); 6) Vehicle Maintenance Accesses; 7) Net Residential Area; 8) Total lots; 9) Total Units; 10) Net Density (units/acre); 11) Right of Way Area; 12) County Right of Way Area (if any); 13) Road Miles. Calculate areas to the nearest 0.1 acres. The Net Residential Area = 1-2-3-4-5-6
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Identify construction entrance locations and construction details.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Identify temporary erosion control measures to protect in-place and proposed storm sewer inlets. Add note stating inlet protection shall be removed by the contractor prior to winter freeze, and replaced in the spring if site stabilization is not achieved, or at the direction of the City Engineer.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Identify the location of the proposed plat as either in the Coon Creek Watershed District or the Lower Rum River Watershed Management Organization.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Locations and widths of right of ways, proposed trails, sidewalks, trail easements and drainage and utility easements.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Location of all delineated wetlands and the floodplain boundary (flood fringe and floodway areas). Any areas of wetland or flood plain proposed to be removed and/or revised must be indicated .
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	For lots without municipal sewer, show the location of designated building pad, including a minimum of 3,600 square feet of contiguous buildable land area.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	For lots served by municipal sewer, the first 110 feet of each lot shall be buildable. The 110-foot buildable area must be outside of the 16.5-foot wetland buffer, above the 100-year flood elevation, and outside of any drainage and utility easements. The minimum width shall be equal to the required width of the lot for that particular zoning district. All organic material shall be removed and backfilled with granular material with no more than 5% organic material by volume.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	For lots without municipal sewer, provide the location of two 5,000 square feet areas designated for the primary and secondary on-site septic drain field based on design criteria for a four (4) bedroom home and in compliance with Chapter 7080 as amended. These areas shall be indicated on the grading plan and the design specifications for the drain fields shall be submitted in a report at the time of the submittal of the preliminary plat.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The buildable area of lots without municipal sewer and water shall be required to have a finished grade of at least six (6') feet above the seasonal high water mark and shall also require the lowest floor to be a minimum of three (3') feet above the seasonal high water mark or two

			feet (2') above the designated or designed one hundred (100) year flood elevation, whichever is higher
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Proposed lots with municipal water and sewer shall provide a lowest floor at least three feet (3') above the seasonal high water mark or two feet (2') above the designated or designed one hundred (100) year flood elevation, whichever is higher.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Existing contours (dashed lines) and proposed contours (solid lines) at vertical intervals of not more than two feet (2'); except, that where the horizontal contour interval is one hundred feet (100') or more, a one-foot (1') vertical interval shall be shown.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Watercourses, lakes, delineated wetlands, wooded areas, rock outcrops, drainage tile, and other significant physical features shall be shown.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Minimum basement floor elevations of all proposed buildings shall be shown.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	For all ponds and wetlands, label NWL, NGWL, and 100- year HWL.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Show proposed storm sewer system, including outlet control structures with details.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Include a note indicating maximum slopes shall be four to one (4:1).
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Minimum grades in pervious areas should be 2%, particularly rear yards. If 2% cannot be achieved, it will be necessary to show intermediate proposed finish grade elevations which must be staked for final grading. Show drainage arrows to depict flow direction.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Two vehicle maintenance accesses for each ponding area with 20' easements, 10:1 maximum slope.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	On urban plats, a development plan identifying each lot shall show proposed elevations at all lot corners and intermediate proposed elevations along all lot lines or any additional location as deemed necessary by the Engineer and shall be submitted and accepted by the city prior to the issuance of building permits.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All proposed lots shall be shown in a table labeled "Lot by Lot Tabulation" containing Lot #, Block #, House Type, Top of Curb Elevation at Driveway, Garage Floor Elevation, Driveway Grade (%), Low Floor Elevation, Lookout Elevation, Lowest Opening Elevation, 100-Year HWL, Emergency Overflow Elevation, Seasonal High Water Mark. If some of these do not apply put N/A in the table.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A temporary 16.5-foot wetland buffer shall be shown adjacent to the delineated edge of all wetlands and the normal water level of all storm water ponds.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Show proposed location for mail box clusters. They shall be on one side of the street only and away from public utilities that are proposed on lot lines (hydrants, storm sewer, etc.)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Label Emergency Overflows for all low points in the street. Overflows between lots shall not be higher than 6 inches above the top of curb. If the street is being used, it shall be clearly labeled as such and water should be pooled no more than 6" above the top of curb at the low point in the roadway prior to having an overflow.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Need to identify Custom Grade (CG) lots where appropriate and label as such on all sheets where appropriate.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Label all proposed street grades, low point and high point stations and elevations, vertical curve lengths, label radii (20' min at intersections, 30' into cul de sac and at country roads).

Comments: _____

PRELIMINARY STREET AND UTILITY PLAN

Approved	Denied/ Pending	N/A	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Plan view of existing and proposed centerline grades of streets, storm sewers, drainage ditches and culverts; also sanitary sewers and water mains where required by the platting authority.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Locations and widths of proposed roadways, trails, sidewalks, right of way, and easements.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Upon completion of the first review, the City Engineer may, at their discretion, require a traffic impact study.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Label NWL and HWL for all ponding areas, with an outline of the HWL provided.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All water main shall be looped except for cul-de-sacs less than 250' if not practical.

Comments: _____

TREE PROTECTION PLAN

Approved	Denied/ Pending	N/A	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A Tree Protection Plan (which can be shown on the grading plan) shall be required showing all information as defined by the Tree Preservation Policy as adopted by the City Council.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	On areas of proposed tree protection, are the proposed grades going to stay the same (no cuts and fills) and no rapid grade changes, which may cause too much damage to saved trees and ultimately require removal instead of preservation?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are all the tree protection areas out of areas that would require

			removal, including critical easements and right of ways?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Identify areas of custom grading for tree protection.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is a symbol denoting suitable tree protection, such as orange silt fence or tree protection fence shown around the tree protection areas?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Does the design incorporate Low Impact Development (LID) concepts?

Comments: _____

LANDSCAPE PLAN (IF REQUIRED)

Approved	Denied/ Pending	N/A	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A landscaping plan showing proposed landscaping and/or screening from public roadways for double frontage lots, Planned Unit Developments, and urban lots that abut permanently rural areas, as required by City Code 11-3-1-F.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Does the Landscape Plan incorporate trees and shrubs from the list of recommended trees and shrubs in the City of Andover?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are the species native and/or suitable for this region?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Does the plan incorporate a variety of different species, taking diversity into consideration? Does the plan fit in with existing landscaping?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are the species suitable for tough, urban conditions?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Does the design allow for adequate spacing of plant material and are species placed in locations where they fit?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is the Landscape Plan layed out in a way which allows for easy maintenance?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are the planting details per City specifications?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is the plant material proposed to be planted outside of all easements, right of ways, and site triangles?

Comments: _____

OTHER ITEMS

Approved	Denied/ Pending	N/A	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	New plats and CSP's accessing county roads need to be submitted to the Anoka County Highway Department for review.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A sketch plan shall be required for all adjacent undeveloped land. Potential locations for future right-of-way and roadway extensions shall be provided.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Wetland delineation reports shall be forwarded to the Coon Creek Watershed District of Rum River Watershed Management Organization for review. A copy shall also be submitted to the City for our files.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Verify if a park is to be located within the plat.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Verify with Building Department that proposed street names match City's street grid naming convention.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Verify if a trail system is identified to be located within the plat.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	When the final plat is approved and recorded at the County, a digital copy of the plat (.dwg file) shall be submitted to the City.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	When the as-built grading plan is approved, a digital copy of the plan shall be submitted to the City. Must use Anoka County coordinates and Anoka County elevation datum.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Please review all City Codes for compliance.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	See comments on all plan sheets.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Additional comments pending further review.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Need to obtain the necessary permits from the DNR, US Army Corps of Engineers, Lower Rum River Watershed Management Organization (LRRWMO), Coon Creek Watershed District (CCWD), MPCA, MDH, Anoka County, and any other agency that are interested in the site. Copies of the permits need to be submitted to the City for our files.

Comments: _____

