

Delaware County Engineer's Office (DCEO)
Common Access Drive (CAD)
Review Checklist

Project Name: _____

Submittal Items included with Plans

- Yes No N/A Proper number of plan sets (4 sets of full size and 1 set of half size plans)
- Yes No N/A Completed CAD plan review checklist provided
- Yes No N/A Plan review fees
- Yes No N/A Existing Topo Survey – Can be incorporated into the Plan Sheet(s)
- Yes No N/A Drainage and/or R/W Conveyance Instruments, Metes and Bounds Descriptions, and associated Exhibits provided (If applicable)?
- Yes No N/A Stormwater Management Report with all the various calculations and predevelopment and post-development tributary maps (See Article IV, Section 403 E)
- Yes No N/A For proposed improvements to existing County/Township Road including roadway, shoulder and ditch improvements, additional plan sheets and a cost estimate are required (see separate road widening checklist in the Appendix).
- Yes No N/A Evidence of review and approval from the local fire department provided with the plans? (approval letter, comments, etc.)
- Yes No N/A Environmental documents, Corps of Engineers permits, and other permits
- Yes No N/A Final Engineer's Estimate (for publicly inspected items only)

Note: The County shall contact the plans submitter if the above items have not been submitted with the plans. Failure to submit the items may result in delay or halting of the review process. Also, a copy of this completed checklist shall be submitted to the County Engineer with plans submittal.

Title Sheet

- Yes No N/A Name of Subdivision
 - Yes No N/A Location by Range, Township, Quarter-Township, Farm Lot, (U.S.M. Lands) and/or Virginia Military Survey Name and Number
 - Yes No N/A North Arrow
 - Yes No N/A A clearly legible location map showing the location of the project with respect to the nearest road intersection
 - Yes No N/A Written and graphical (bar) scale
 - Yes No N/A Name, address, and telephone number of the Design Engineer preparing the plan
 - Yes No N/A Signature Line for the County Engineer
 - Yes No N/A Signature Line for the County Sanitary Engineer (if applicable)
 - Yes No N/A Signature Line for Del-Co Water (if applicable)
- Note: DO NOT PROVIDE SIGNATURE LINES FOR THE COUNTY COMMISSIONERS ON THE TITLE SHEET**
- Yes No N/A Applicable Delaware County and ODOT Standard Drawings referenced by Drawing Number
 - Yes No N/A Index of Sheets
 - Yes No N/A Index Map (Showing lot layout)
 - Yes No N/A Benchmark list (referenced to USGS datum), Elevations, Designations and Locations
 - Yes No N/A Owner/Developer's Name, Address, Telephone and Fax Numbers
 - Yes No N/A Utility Owners, Addresses and Phone Numbers
 - Yes No N/A County Engineer Disclaimer Paragraph: "The Delaware County Engineer's signature on this plan signify only concurrence with the general purpose and location of the proposed improvements with respect to improvements within the right-of-way, storm water management, erosion and sediment control. All technical details remain the responsibility of the Professional Engineer who

- Yes No N/A prepared and certified these plans.”
- Yes No N/A Consultant’s Certification Paragraph: “This is to certify that good engineering practices have been utilized in the design of this project and that all of the minimum standards as delineated in the Delaware County Design, Construction and Surveying Standards Manual have been met, including those standards greater than minimum where, in my opinion, they are needed to protect the safety of the public. Any variances to the above standards are consistent with sound engineering practices and are not detrimental to the public safety and convenience. These variances have been listed herein and have been approved by the Delaware County Engineer.”
- Yes No N/A Stamp and Signature of the Design Engineer licensed in the State of Ohio
- Yes No N/A Site Data including Total Area and Total Impervious Area
- Yes No N/A Change Order (revisions) table
- Yes No N/A Variance Table
- Yes No N/A All required environmental documents, Army Corps permits and ODNR permits submitted before final plan approval. (Article 401 A)
- Yes No N/A If final plan resubmittal, written response included that addresses previous comments and identifies additions/deletions made to plans since previous submittal (Article 401 A)

General

- Yes No N/A Intersection Sight Distance Diagram showing adequate intersection sight distance for the proposed entrance per the current ODOT L&D Manual. Have all trees and obstructions within the R/W and sight distance triangle been shown (and designated to be removed) on the diagram?
- Yes No N/A Show the Clear Zone Setback line for projects located on County and Township Roads according to Figures 600-1 and 600-2 of the ODOT Location and Design Manual, Volume 1. Provide additional utility easements if needed.
- Yes No N/A Maximum of 3 lots accessed by the CAD drive with a maximum of 2 more contiguous lots at the public road
- Yes No N/A Any lot in the CAD subdivision contiguous to a public road directly accessing the public road? (Prohibited) Does the CAD subdivision plat contain a notation incorporating this restriction?
- Yes No N/A If plat is also submitted, is CAD and utility easement acreage incorporated into one or more of the lots it serves? (Required)
- Yes No N/A Is the CAD labeled on the plat as “Common Access Driveway (CAD) - Ingress/Egress and Utility Easement”?
- Yes No N/A Has road widening and/or a ditch setback been addressed at an existing County/Township road? (Please refer to the Road Widening checklist for further requirements)
- Yes No N/A Have drainage easements for road widening and/or a ditch setback been addressed?
- Yes No N/A Are existing utilities shown in area of road widening and/or a ditch setback? Have the utilities been called out to be relocated? Have easements been provided for utility relocation or future needs?
- Yes No N/A Is the CAD easement 60 feet (minimum) to permit driveway construction, roadside drainage and utility service infrastructure?
- Yes No N/A Does the minimum cross-section of the CAD include compacted subsoil and a minimum of 10 inches compacted aggregate base?
- Yes No N/A Are nearby existing adjacent and opposing driveways shown?
- Yes No N/A Have provisions for the drainage of the subgrade along the length of the CAD been provided?
- Yes No N/A Is adequate drainage provided along the sides of the CAD driveway by either enclosed storm sewers or by grassy ditches with a maximum side slope of 3:1.
- Yes No N/A Is the minimum ditch gradient 0.5%?
- Yes No N/A Are any above ground utility structures placed within the drainage areas or installed in a manner that interferes with surface or subsurface drainage? (Not permitted)
- Yes No N/A Is CAD drive at least 12 feet wide? Are passing lanes of 6’ wide and 35 feet in length provided every 350 feet or less? Distance from public road to first passing area must be less than 350 feet.
- Yes No N/A “T”, “hammerhead” or cul-de-sac turnaround shall be provided at CAD Driveway terminus or other approved location as required?
- Yes No N/A Maximum gradient along CAD Driveway of 10%? (Required)

- Yes No N/A All trees shown within 16 feet horizontally and 20 feet vertically from the centerline of CAD Drive? Have they been labeled on the plans to be removed?
- Yes No N/A Does CAD have safe and adequate access, maneuvering and use by fire and safety vehicles?
- Yes No N/A Township Fire Department contacted regarding site access/approval letter. Did they request fire hydrants or anything else?
- Yes No N/A Lot address with an approved reflective sign at each driveway needs to be shown on the final CAD plans. Plan note is acceptable.
- Yes No N/A Is a pole sign called out to be located at the CAD intersection with the public or private road (can be integrated into a common mailbox structure), located outside the public R/W and say "Private Drive". Sign to meet the size requirements of Regional Planning.
- Yes No N/A Approval Letter provided from the County Health Department? (If any onsite treatment regardless of lot acreage since CADs are Subdivisions)
- Yes No N/A Is the 100-year flood routing shown?
- Yes No N/A Existing and proposed contours (or proposed spot elevations) shown?
- Yes No N/A Show and Label any FEMA designated Floodway and 100-year Flood Plain.
- Yes No N/A Floodway Note provided?
- Yes No N/A Elevation of finished floors above 100-year flood elevation (minimum of 1' above 100-yr Flood preferred).
- Yes No N/A Proposed grading or spot elevations called out by each house location? Drains away from house?
- Yes No N/A Are leach fields, mound systems, or other approved on-site system shown on the plans for the lots and existing adjacent lots? Is storm water routed anywhere near existing or proposed leach fields or mound systems, potentially creating problems for owners or adjacent owners?
- Yes No N/A General Notes (See Supplemental Specifications for notes)

Other Plan & Detail Content

- Yes No N/A Has a Master Grading Plan been provided that complies with Art. IV, Section 403 C?
- Yes No N/A Two-foot contour lines of the development area; one-foot levels if onsite sewage treatment; less frequent contour spacing may be acceptable when required by the terrain (12% slopes or greater). Use of County Auditor's website (DALIS) is acceptable for existing topography.
- Yes No N/A Show and Label all Existing and Proposed R/W, Easements (including type), and No-Build Zones
- Yes No N/A Show and Label Centerline, Edge of Pavement (or Back of Curb) and R/W of all adjacent streets.
- Yes No N/A Show and Label all Proposed and/or Existing Ingress/Egress, or Cross Access Easements
- Yes No N/A North Arrow and Scale
- Yes No N/A Typical Pavement Section (within R/W) provided? See Table 801 for required pavement buildup.
- Yes No N/A Spot elevations (minimum of 2, 3 preferred) for area of the proposed driveway radius.
- Yes No N/A Label Adjacent Property Names, Lot Numbers and Road Names
- Yes No N/A Existing and proposed utilities shown?
- Yes No N/A Size, Slope, Length, and Type of Proposed and Existing Storm Sewers
- Yes No N/A Trees or Landscape Features in R/W? (Not acceptable)
- Yes No N/A Size, Type, and Slope of Existing and Proposed Storm Sewers [maybe done with profiles]
- Yes No N/A Critical Year Storm for Drive Pipes (10-year) used? Have drive pipes been sized for all drives and shown on the plans?
- Yes No N/A Ditch Direction of Flow and Slope shown?
- Yes No N/A Storm Sewer Profiles shown (must meet County Standards if within R/W)
- Yes No N/A If high voltage power lines on site, has the power company had the chance to review the site plans?

Erosion & Sediment Control Plan

- Yes No N/A Inlet Protection Locations
- Yes No N/A Silt Fence Locations
- Yes No N/A Check Dam Locations
- Yes No N/A Erosion Control Standard Details
- Yes No N/A General Notes (See Supplemental Specifications/Appendix for notes)

Existing Topographic Survey – May be included on the Plan Sheet(s)

- Yes No N/A Show all Existing Features including Structures, Trees, Metes & Bounds, Topography, and Utilities
- Yes No N/A Note which existing structures are to be removed
- Yes No N/A Benchmark used, referenced to NAV Datum 1929 or 1988
- Yes No N/A Legend/Abbreviations
- Yes No N/A Additional Surveying Notes

Stormwater Management Calculations

- Yes No N/A Signature and Stamp of Engineer
- Yes No N/A Plan with tributary areas defined and tributary acreages labeled including offsite tributaries (Art. IV, Section 401 A).
- Yes No N/A Pre-Development and Post- Development Maps provided (Art. IV, Section 403 E)?
- Yes No N/A Calculations agree with Plan?
- Yes No N/A Written Explanation/Summary/Narrative provided
- Yes No N/A Water quantity addressed?
- Yes No N/A Water quality addressed?
- Yes No N/A Calculations and frequencies provided according to Table 901 and Art. IV, Section 403?
- Yes No N/A Calculations of the predevelopment peak flows from the delineated drainage areas for the 1, 2, 5, 10, 25, 50, and 100-year frequency, 24 hour storms. List the peak flows on the map.
- Yes No N/A Ditch flowline elevations provided? Foreslope and backslope rates (e.g. 4:1, 3:1) (Art. IV, Section 403 B)
- Yes No N/A Drainage maintenance requirements shall be addressed for any storm water running through the site. Contact the Delaware County Soil and Water Conservation District. (See Art. IV, Section 401 A)
- Yes No N/A If Drainage Maintenance is required, then a cost estimate is required (See Art. IV, Section 404)
- Yes No N/A Is the overall stormwater management for the CAD acceptable? Does it adversely impact property owners downstream?
- Yes No N/A Is an adequate outlet provided?
- Yes No N/A Identification of the existing drainage outlet(s) for the site including size, material type, and condition of any storm sewer or culverts shall be shown. This information shall be based on an onsite investigation and observations of the outlet(s), (e.g., videotape, photographs, etc.).
- Yes No N/A An analysis of the capacity of the drainage outlet(s) for the site and a determination of the adequacy of the outlet(s) under the predevelopment conditions

Permits

- Yes No N/A Permit Fees paid? Plans must be forwarded to DCEO Permit Department for required permits (i.e. Driveway, etc.). See Art. IV, Section 404.
- Yes No N/A Has a DESC permit been obtained? (Required)

Plat See the Subdivision Regulations of Delaware County located on Delaware County Regional Planning Commission’s Website for plat requirements CADs:
http://www.dcrpc.org/online_forms/FinalChecklist07.pdf

- Yes No N/A Design Certification Letter provided that has signed and sealed by Ohio Registered Professional Engineer? For certification requirements, see the Subdivision Regulations of Delaware County located on Delaware County Regional Planning Commission’s Website located at:
http://www.dcrpc.org/DOWNLOADS/app_forms.htm

- Yes No N/A Any lot in the CAD subdivision contiguous to a public road directly accessing the public road? (Prohibited) Does the CAD subdivision plat shall contain a notation incorporating this restriction?

For County Engineer Use only

- Yes No N/A Notify Permit Department for Fees and Initial Title Sheet Mylar before signing
- Yes No N/A Have Storm Water Department DESC permit approval and initial Title Sheet Mylar before signing

Comments:

Comment Disclaimer:

The County Engineer Reserves The Right To Make Any Additional Comments At Any Time Up To The Actual Approval Of This Project. See the Delaware County Standards for other items not addressed on this list.

Approved Disapproved

Reviewed by: _____

Date: _____

Write letter to: _____

Delaware County Composition Requirements for Driveways (within R/W only)

	Curb & Gutter	Open Ditch
Residential	6" concrete	11" 304
		6" 304 2" 404
Common Access Drive	8" concrete	9" 304 2" 404
Commercial	8" concrete	7" concrete 1 1/2" 404 w/ Tack Coat (407)
		9 1/2" 301 1 1/2" 402 1 1/2" 404
		8" Concrete