



Illinois Department of Transportation

To:	Studies & Plans Squads	PPM 40-09
From:	D. L. Bayler	Revised: Scott Neihart
Subject:	Standards for Entrances	
Date:	November 15, 1996	Revision Date: April 1, 2016

PLAN PREPARATION MEMORANDUM 40-09

This Plan Preparation Memorandum should be reviewed and used with the applicable District CADD details. Variations from the District Cadd Details for entrances should be kept to a minimum to allow for consistency of entrance improvements throughout the District. Squad leaders should discuss details with the Project Engineer.

It is not always possible to complete the minimum radii within the right of way. If this is the case, use District Detail for "Entrances with Narrow ROW (Non & Commercial Urban)". If multiple unit vehicles regularly use the entrance, it may be necessary to obtain a temporary easement to complete (curbed) radii beyond the right of way.

Temporary easements should be taken only where needed to correct profile problems or to accommodate specific design vehicles. Taking of easements or temporary use permits and responsibility for construction should generally be according to the attached guidelines.

Where existing sidewalks are to remain and are compliant with PROWAG guidelines for width and cross slope, the driveway construction should terminate at the face of sidewalk nearer the curb.

In special cases, radii less than those shown may be used. Special cases include driveways immediately adjacent to property lines where the radius would encroach on adjacent property frontage, entrances beginning within the sideroad radius at a 5 foot offset from the pavement edge, adjacent to parking lanes, and other cases approved by the Project Engineer. Radii less than 5 feet should not be used.

Field Entrances: A 24' width and 30' radii affords minimal encroachment into the adjacent lanes, while not providing better geometrics/access than found on the typical Township Road approach. Field entrances on unmarked routes on our system with narrow right-of-way and low ADT that may not need the 30' radii, but those cases shall be addressed on an individual basis with input from the project engineer. Existing field entrances should be upgraded with our

program projects when the scope of work is 3R and includes reworking of the ditches with replacement of the entrance culverts. Projects that are 3P, SMART, or 3R without ditch work would not include upgrading of the field entrances. The scope of work should be discussed at the scoping field check. When the field entrances are upgraded, construct a 3' wide bituminous apron and include 6" thick aggregate surface course between the bituminous apron and the right-of-way line. The bituminous apron will not be needed if we have a 3' or wider bituminous shoulder. The maximum allowable width is 30' for a field entrance. A 30' width along with the 30' radii allows ample room for WB 50 movements. If we allow greater than a 30' width, we may have farmers parking in the entrance and loading trucks on the right-of-way. See Note (6) of the Standards For Entrances (Access Driveways) and applicable District CADD Details.

If existing access is to be reconstructed with a project, it shall be in accordance with the Bureau of Operations Policy on Permits for Access Driveways. If there is open frontage to a property, the designer will coordinate with the property owners during the design process to locate a proposed entrance or entrances at a location suitable to the property owners and in accordance with Access Policy. These entrances shall be constructed and financed with the Department's construction.

New access shall go through the permit process. This shall be done so that permit requirements and policies will be attached to the access for future record and purposes. The appropriate commercial or residential access policy shall be followed. *Regardless of the type of access, the new access shall be constructed and financed by the property owner.* It may be necessary for the property owner to hire a consultant to design the access as would typically be done with any access permit. The design details from the construction plans may be included in the permit. It may be possible for the property owner to have the entrance constructed by the State's contractor while they are on the construction project; however, the property owner shall make an arrangement with the contractor for payment that shall be completely independent of the Department's contract.

GUIDELINES FOR SELECTION OF DRIVEWAY GRADES

AND

USE OF TEMPORARY EASEMENTS/USE PERMITS

The following guidelines are for reconstruction of entrances and should be interpreted considering the scope of the particular job involved.

If an existing driveway grade is less than the maximum allowable as shown in the District 5 “Standards for Entrances”, then the new grade and acquisition of temporary easement or temporary use permit should be guided as follows:

First choice – Construct the driveway to the flattest grade feasible and economical within the existing right of way, provided that a grade no steeper than the maximum allowable is achieved.

Second choice – If a driveway grade flatter than the maximum allowable limit cannot be built on the right of way, take a temporary easement sufficient to construct a driveway no steeper than the maximum allowable limit. It is desirable to build flatter slopes for driveways and this may be done, provided it is feasible and economical.

Alternate – When the property owner will provide a temporary use permit at no cost to the State, the driveway grade may be constructed at a flatter grade than would be otherwise built but no flatter than the existing driveway. Again, feasibility and economics should be considered.

If an existing driveway is steeper than the maximum allowable as shown in the District 5 “Standards for Entrances”, then the new grade and acquisition of temporary easement or temporary-use permit should be guided as follows:

First choice – If possible, flatten the drive on the right of way to no steeper than the maximum allowable slope.

Second choice – Contact the owner, and if the owner will grant a temporary use permit, construct a driveway no steeper than the maximum allowable on the right of way and temporary use area.

Third choice – If the owner will not grant the temporary use permit, construct a driveway no steeper than the existing one and keep the new construction on the right of way.

Fourth choice – If the owner will not grant the temporary permit, and the existing slope cannot be matched on the right of way, take a temporary easement and construct a driveway no steeper than the existing on the right of way and temporary easement.

Driveway grades shall begin at the shoulder edge or at the back of gutter, curb, etc. Driveway grades shall not be extended to the edge of a traveled lane or parking lane.

In curb and gutter sections, driveways requiring negative grades should first have a rise of 30 mm (0.1') in 1.2 m (4') before breaking over. If a sidewalk crosses an entrance, the profile of the entrance shall match the cross slope and profile of the sidewalk at point of intersection.

Where driveways are being reconstructed, the designer should check for tailpipe or bumper dragging at the break over point. See Project Engineer.

Any betterment beyond what is listed herein shall be the responsibility of the property owner.

Date: November 15, 1996

STANDARDS FOR ENTRANCES (ACCESS DRIVEWAYS) (7)

Illinois Department of Transportation
District 5
(English)

<u>NONCOMMERCIAL</u>	<u>Min.</u>	<u>URBAN</u> <u>Desirable</u>	<u>Max.</u>	<u>Min.</u>	<u>RURAL</u> <u>Desirable</u>	<u>Max.</u>
Surface Width	12'	12' or 14' with with	24'	12' (6)	16'	24' (6)
Surface Radius	12'	15' or 12'	25'	15'	25'	40'
Shoulder Width	----	-----	----	1'	2'	----
Shoulder Slope (%)	----	-----	----	¼	½	¾
Grade Beyond (%)						
Shoulder (%) (5)(8)	0	2-5	8	0	2-5	10(1)
Side Slope	----	-----	----	4:1	6:1	10:1
Surface Type	6" PCC	6" PCC	----	6" Gran.	6" PCC or 6" Gran. & 2" Cl. I	
<u>COMMERCIAL</u>	<u>Min.</u>	<u>Desirable</u>	<u>Max.</u>	<u>Min.</u>	<u>Desirable</u>	<u>Max.</u>
Surface Width:						
1-lane, 1-way	14'	16'	24'	14'	16'	24'
2-lane, 2-way	24'	30'	35'	24'	30'	35'
Surface Radius	15'	30'-40'	----	20'	30' – 50'	----
Shoulder Width	----	-----	----	1'	3'	----
Shoulder Slope (%)	----	-----	----	¼	½	¾
Grade Beyond (%)						
Shoulder (%) (5)(8)	0	2-4	6	0	2-5	8-10(2)
Side Slope	----	-----	----	4:1	6:1	10:1
Surface Type	3" Bit. (3) on 8" Gran.	6" PCC (3) 8" PCC (4)	----	8" Gran & 3" Bit.(3)		6" PCC (3) 8" PCC (4)
	4" Bit.(4) on 8" Gran.			8" Gran & 4" Bit.(4)		

1. 10% is preferable maximum; 12% is allowable maximum.
2. 8" is preferable maximum; 10% is allowable maximum.
3. Car, pick-up truck and single unit delivery trucks only.
4. Appreciable volume of large truck traffic.
5. Sidewalk cross slope within driveway shall be less than 2.0%.
6. For "3R" improvements with entrance culvert replacement and earthwork reconstruct the field entrance to a 24' minimum width; 30' maximum and 30' minimum radius. Use 3' bituminous apron and 6" aggregate surface course to the right-of-way line. The bituminous apron will not be needed if there is a 3' or wider bituminous shoulder

For "3P", SMART, and "3R" improvements without entrance culvert replacement and earthwork, use the 20' min.-30' max. with 15' radius.
7. For 3R type work, the scope of entrance work may vary from minimal resurfacing of driveways (with a thickness up to that used on the mainline) to reconstruction to the above standards. The designer should confer with the project engineer if there are any questions as to the scope of work.
8. When a negative grade driveway occurs in an urban section, it should rise 0.1' in 4' prior to breaking over.