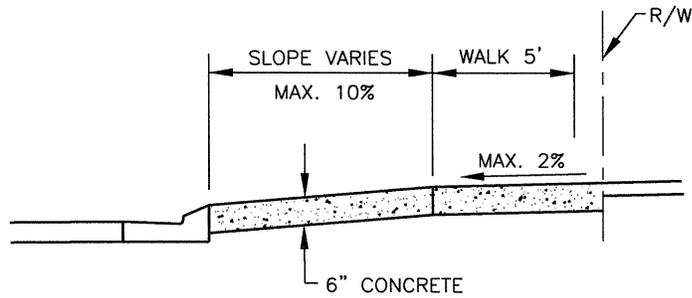
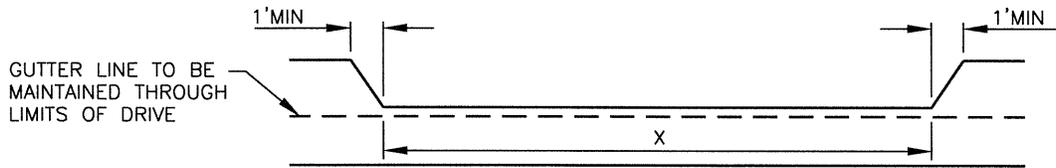


PLAN



SECTION A-A



SECTION B-B

**NOTE:**

1. WHEN A NEW DRIVE IS CONSTRUCTED ON A STREET WITH EXISTING VERTICAL CURB, THE EXISTING CURB SHALL BE DEPRESSED IN ACCORDANCE WITH THE STANDARD DETAIL FOR EXISTING CURB ON SHEET II-1A. EXISTING ROLLED CURB MAY REMAIN IN PLACE.
2. WHEN A DRIVE IS CONSTRUCTED WITHIN THE LIMITS OF NEW ROAD CONSTRUCTION, THE CURB SHALL BE DEPRESSED IN ACCORDANCE WITH THE STANDARD DETAIL FOR NEW CURB ON SHEET II-1A. ROLLED CURB & GUTTER TYPE "A" DOES NOT REQUIRE DEPRESSION.
3. A DRIVEWAY PERMIT SHALL BE OBTAINED FROM CITY ENGINEERS OFFICE FOR ALL DRIVEWAY CONSTRUCTION.

PREPARED BY: DLZ INDIANA, LLC



*Brian K. Arterbery*  
1/15/08

APPROVED/REVISED BY THE BOARD OF PUBLIC WORKS & SAFETY  
EFFECTIVE DATE: APRIL 2007



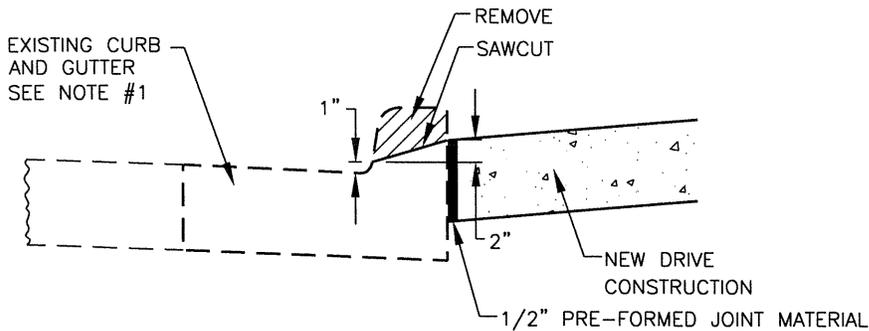
CITY OF MISHAWAKA, INDIANA

ITEM	REVISION	APPROVED DATE
△	REVISED NOTES	1-15-08

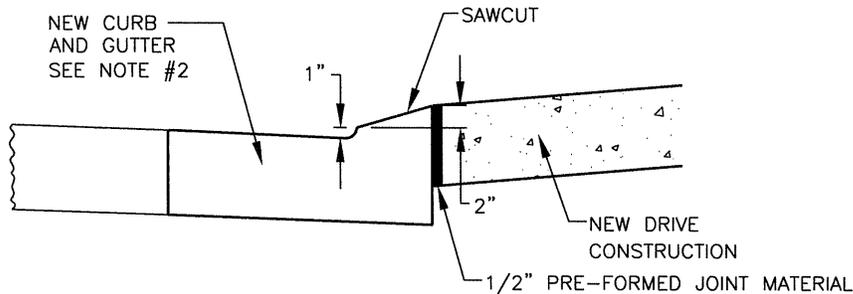
ENGINEERING STANDARDS

RESIDENTIAL DRIVEWAY  
APPROACH

SHT. NO.  
II-1



EXISTING VERTICAL CURB DEPRESSED  
FOR NEW DRIVE CONSTRUCTION



DEPRESSED CURB  
FOR NEW DRIVE CONSTRUCTION

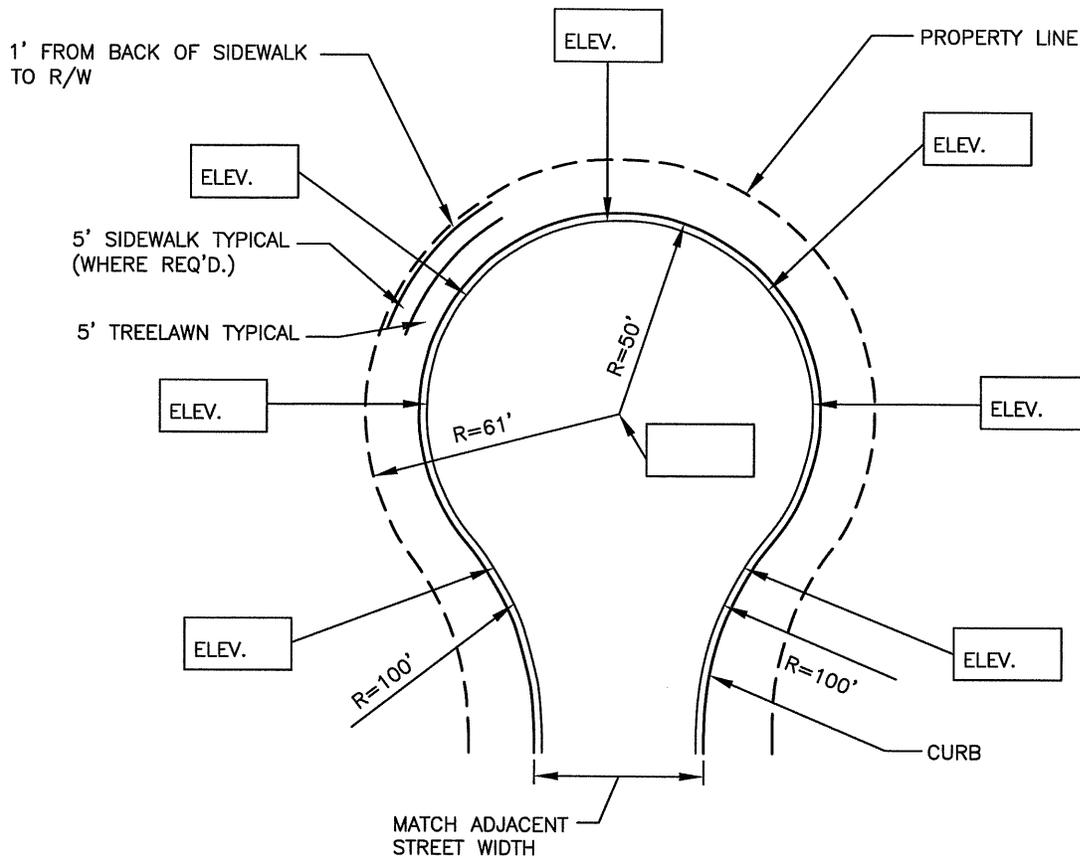
**NOTES:**

1. WHEN DEPRESSING EXISTING VERTICAL CURB, THE GUTTER PAN SHALL NOT BE REMOVED.
2. NEW VERTICAL CURB SHALL BE DEPRESSED FOR ALL DRIVES WITHIN THE LIMITS OF NEW ROAD CONSTRUCTION. THE DEPRESSED CURB SHALL BE CONSTRUCTED INTEGRAL WITH ADJACENT CURB IN ORDER TO MAINTAIN A CONSISTENT GUTTER LINE THROUGH THE DRIVE.

PREPARED BY: DLZ INDIANA, LLC

*B. K. Arterbery*  
1/15/08

APPROVED/REVISED BY THE BOARD OF PUBLIC WORKS & SAFETY EFFECTIVE DATE: APRIL 2007				CITY OF MISHAWAKA, INDIANA	
ITEM	REVISION	APPROVED DATE		ENGINEERING STANDARDS	
	REVISED NOTES	1-15-08	DRIVE CONSTRUCTION WITH DEPRESSED CURB		SHT. NO. 11-1A



**NOTES:**

1. PAVEMENT SECTIONS AND STREETS WIDTHS (PAVEMENTS AND RIGHT OF WAY) SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS ON SHEET IV-1.
2. MAXIMUM CUL-DE-SAC STREET LENGTH ALLOWED IS 600 FEET, DEFINED TO THE CENTER OF THE CUL-DE-SAC.
3. OFFSET TYPE CUL-DE-SAC ALLOWED, WITH SAME MINIMUM DIMENSIONS.
4. CUL-DE-SACS WITH MINIMUM DIMENSIONS WILL NOT BE ALLOWED TO CONTAIN ISLANDS, LANDSCAPED, CURBED OR OTHERWISE.
5. TRAFFIC CONTROL SIGNING, AS NECESSARY, WILL BE IN ACCORDANCE WITH THE INDIANA MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
6. PAVEMENT MATERIALS (CONCRETE OR ASPHALT) SHALL BE THE SAME AS THE REMAINDER OF THE STREET.
7. PARKING WILL NOT BE PERMITTED ON ANY CUL-DE-SAC.
8. WARNING SIGNS SHALL BE POSTED AT ENTRANCE TO STREET, INDICATING NO OUTLET.
9. DETAIL SHALL BE IDENTIFIED BY STREET NAME.
10. ELEVATIONS PROVIDED SHALL BE PROPOSED FLOW LINE OF GUTTER.
11. ONE DETAIL SHALL BE PROVIDED FOR EACH CUL-DE-SAC.
12. SCALE SHALL BE 1"=40' OR LARGER.

PREPARED BY: DLZ INDIANA, LLC

*Brian K. Arterbery*  
4/23/07

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CITY OF MISHAWAKA, INDIANA

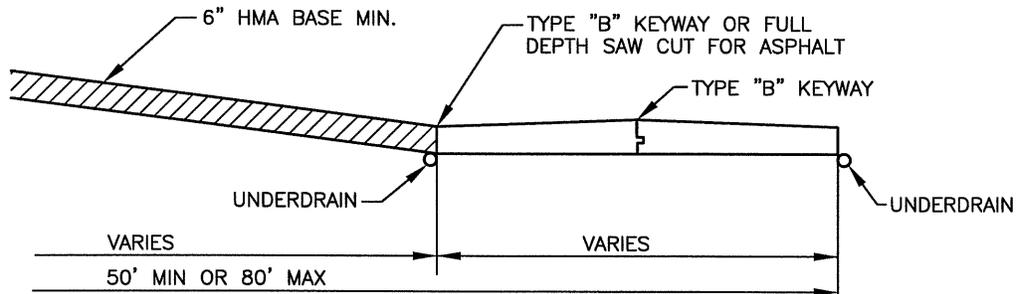
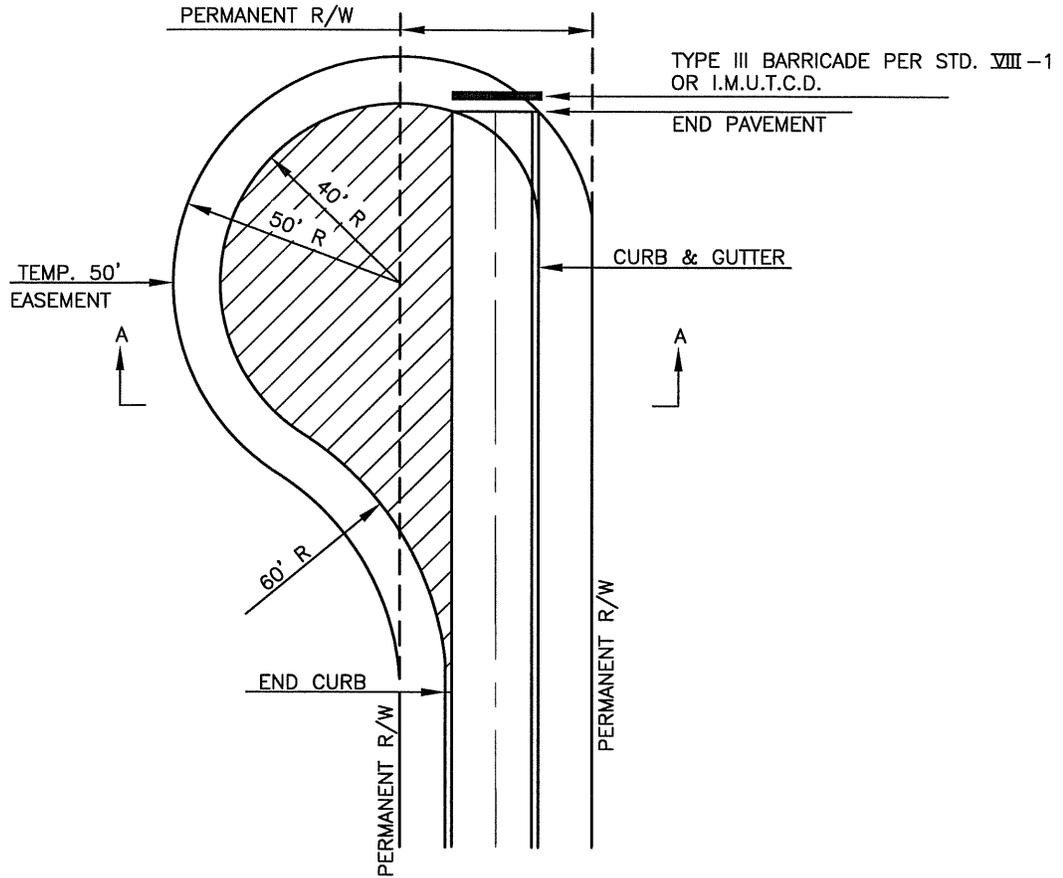
ENGINEERING STANDARDS

CUL-DE-SAC DETAILS

SHT. NO.

11-2

ITEM	REVISION	APPROVED DATE



SECTION A-A

**REQUIREMENTS:**

TEMPORARY CUL-DE-SAC SHALL BE REQUIRED ON DEAD AND STREETS THAT WILL NOT BE EXTENDED TO A PERMANENT CUL-DE-SAC PRIOR TO NOVEMBER OF THE CURRENT YEAR.

PREPARED BY: DLZ INDIANA, LLC



*Brian K. Arterbery*  
4/23/07

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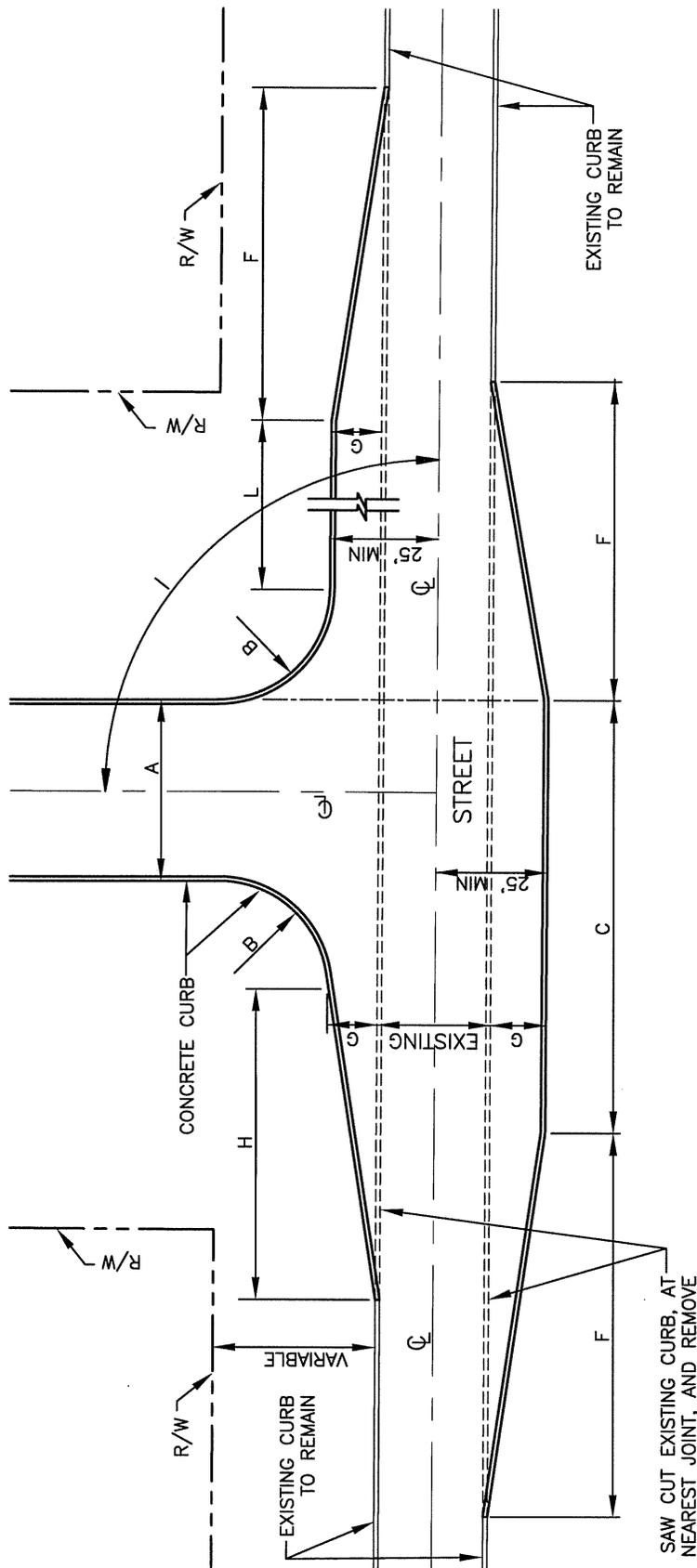
CITY OF MISHAWAKA, INDIANA

ENGINEERING STANDARDS

TEMPORARY  
CUL-DE-SAC DETAIL

SHT. NO.  
11-2A

ITEM	REVISION	APPROVED DATE



**LEGEND**

- A= CITY ENGINEERING STANDARDS, SHEET IV-1
- B= 20' MINIMUM RADIUS
- C= 100' MINIMUM
- F= 1:10 TAPER-130' MINIMUM, SEE TABLE BELOW
- G= 12' MINIMUM
- H= 1:5 TAPER-50' MINIMUM, SEE TABLE BELOW
- I= 75' MINIMUM-105' MAXIMUM
- L= 120' MINIMUM

**PUBLIC STREET APPROACH DETAIL**

**NOTE:**  
WHEN "I" IS OTHER THAN 90" "B" (EDGE RADIUS)  
SHALL BE APPROVED BY THE CITY ENGINEER.

DESIGN SPEED	F + L
30	250 FEET
40	370 FEET
50	500 FEET

SAW CUT EXISTING CURB AT NEAREST JOINT, AND REMOVE

PREPARED BY: DLZ INDIANA, LLC



*B. K. Arterbery*  
4/23/07

APPROVED/REVISED BY THE BOARD OF PUBLIC WORKS & SAFETY  
EFFECTIVE DATE: APRIL 2007



CITY OF MISHAWAKA, INDIANA

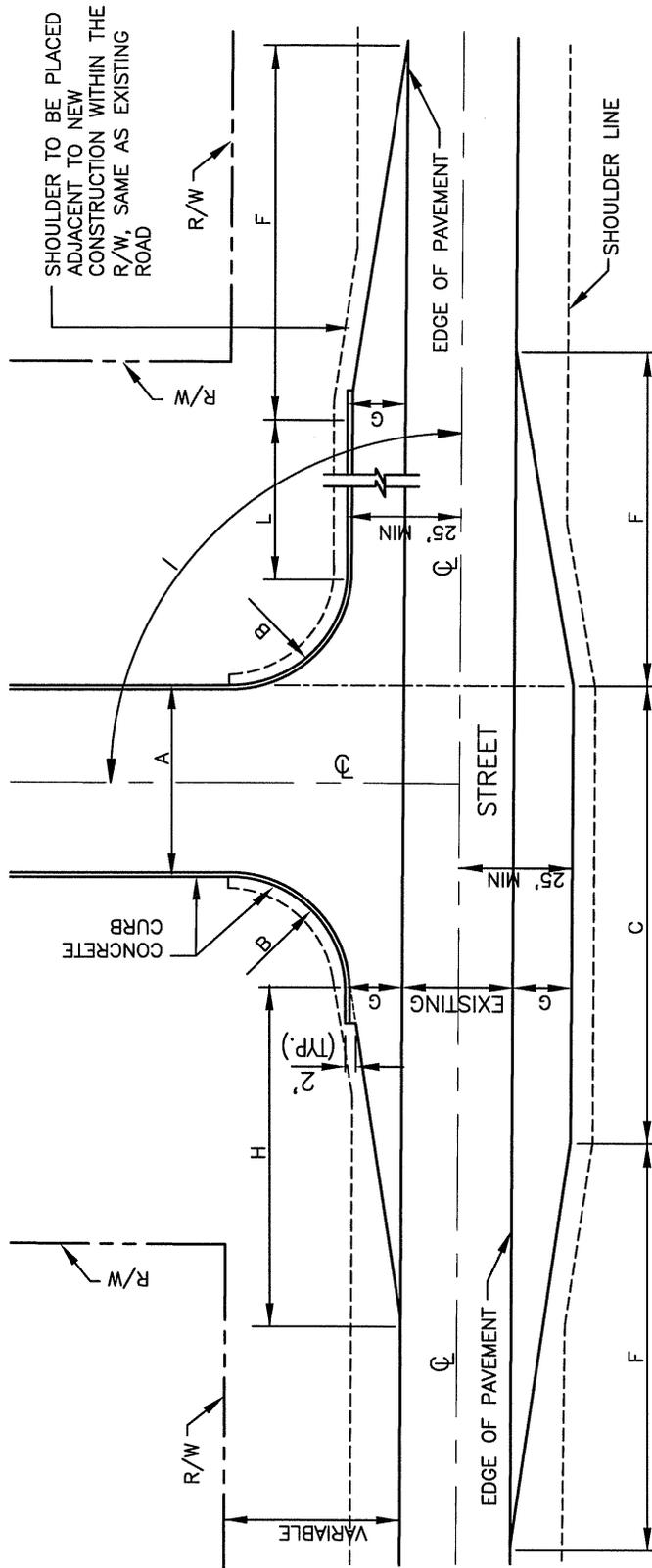
ENGINEERING STANDARDS

PUBLIC STREET APPROACH

SHT. NO.

11-3

ITEM	REVISION	APPROVED DATE



**PUBLIC STREET APPROACH DETAIL WITH SHOULDERS**

**LEGEND**

- A= CITY ENGINEERING STANDARDS, SHEET IV-1
- B= 20' MINIMUM RADIUS
- C= 100' MINIMUM
- F= 1:10 TAPER-130' MINIMUM, SEE TABLE BELOW
- G= 12' MINIMUM
- H= 1.5 TAPER-50' MINIMUM, SEE TABLE BELOW
- I= 75' MINIMUM-105' MAXIMUM
- L= 120' MINIMUM

**NOTE:**  
WHEN "I" IS OTHER THAN 90° "B" (EDGE RADI)  
SHALL BE APPROVED BY THE CITY ENGINEER.

DESIGN SPEED	F + L
30	250 FEET
40	370 FEET
50	500 FEET

PREPARED BY: DLZ INDIANA, LLC



*B. K. Arterbery*  
4/23/07

APPROVED/REVISED BY THE BOARD OF PUBLIC WORKS & SAFETY  
EFFECTIVE DATE: APRIL 2007

ITEM	REVISION	APPROVED DATE

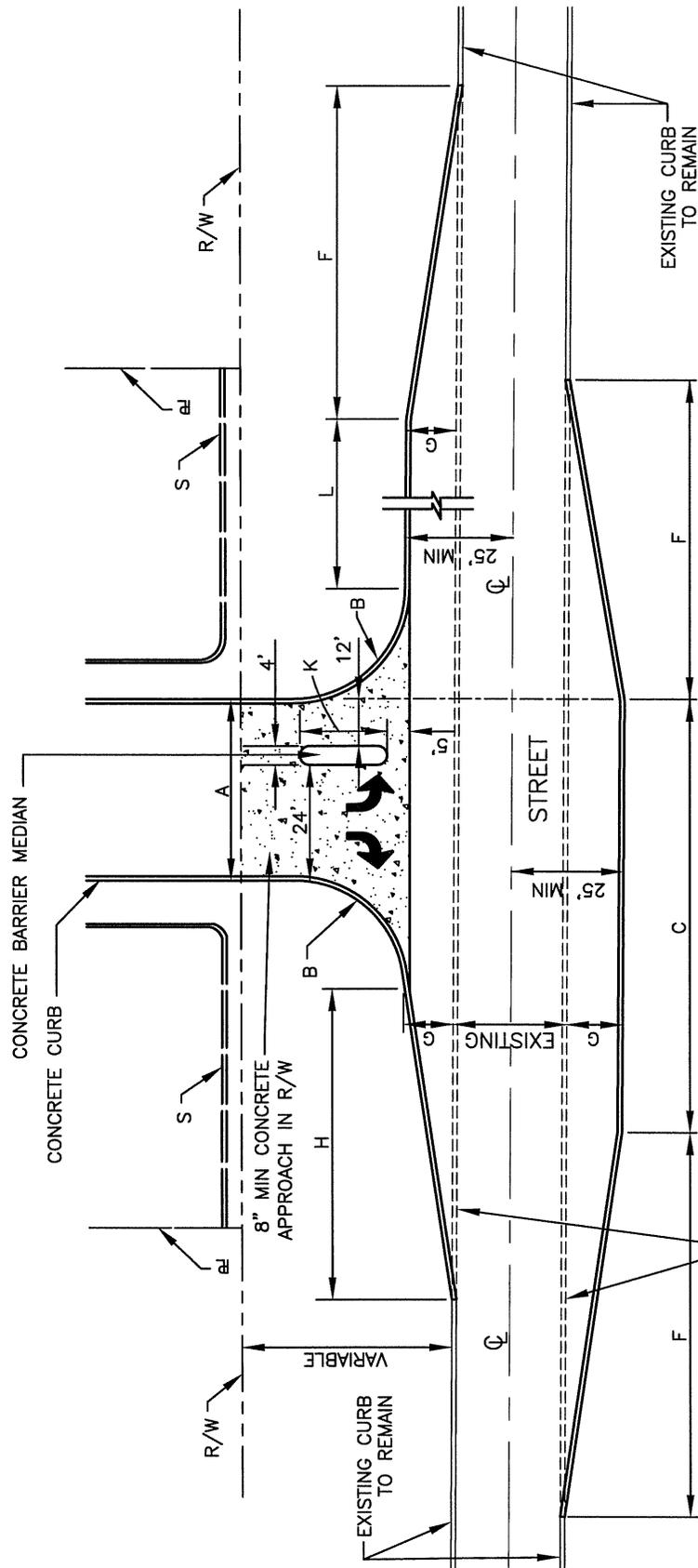


CITY OF MISHAWAKA, INDIANA

ENGINEERING STANDARDS

PUBLIC STREET APPROACH WITH SHOULDERS

SHT. NO.  
**11-3A**



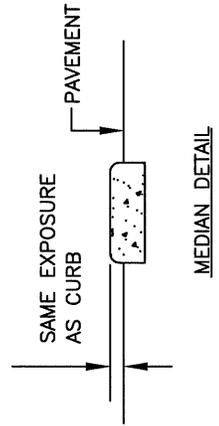
SAW CUT EXISTING CURB, AT NEAREST JOINT, AND REMOVE

COMMERCIAL DRIVE APPROACH DETAIL  
TYPE I (MEDIAN)

LEGEND

- A= 40' MINIMUM RADIUS
- B= 20' MINIMUM
- C= 100' MINIMUM TAPER-130' MINIMUM, SEE TABLE BELOW
- F= 12' MINIMUM
- G= 1:5 TAPER-50' MINIMUM, SEE TABLE BELOW
- H= 20' MINIMUM BARRIER MEDIAN
- K= 120' MINIMUM BARRIERS
- S=

DESIGN SPEED	F + L
30	250 FEET
40	370 FEET
50	500 FEET



PREPARED BY: DLZ INDIANA, LLC



*B. K. Arterbery*  
4/23/07

APPROVED/REVISED BY THE BOARD OF PUBLIC WORKS & SAFETY  
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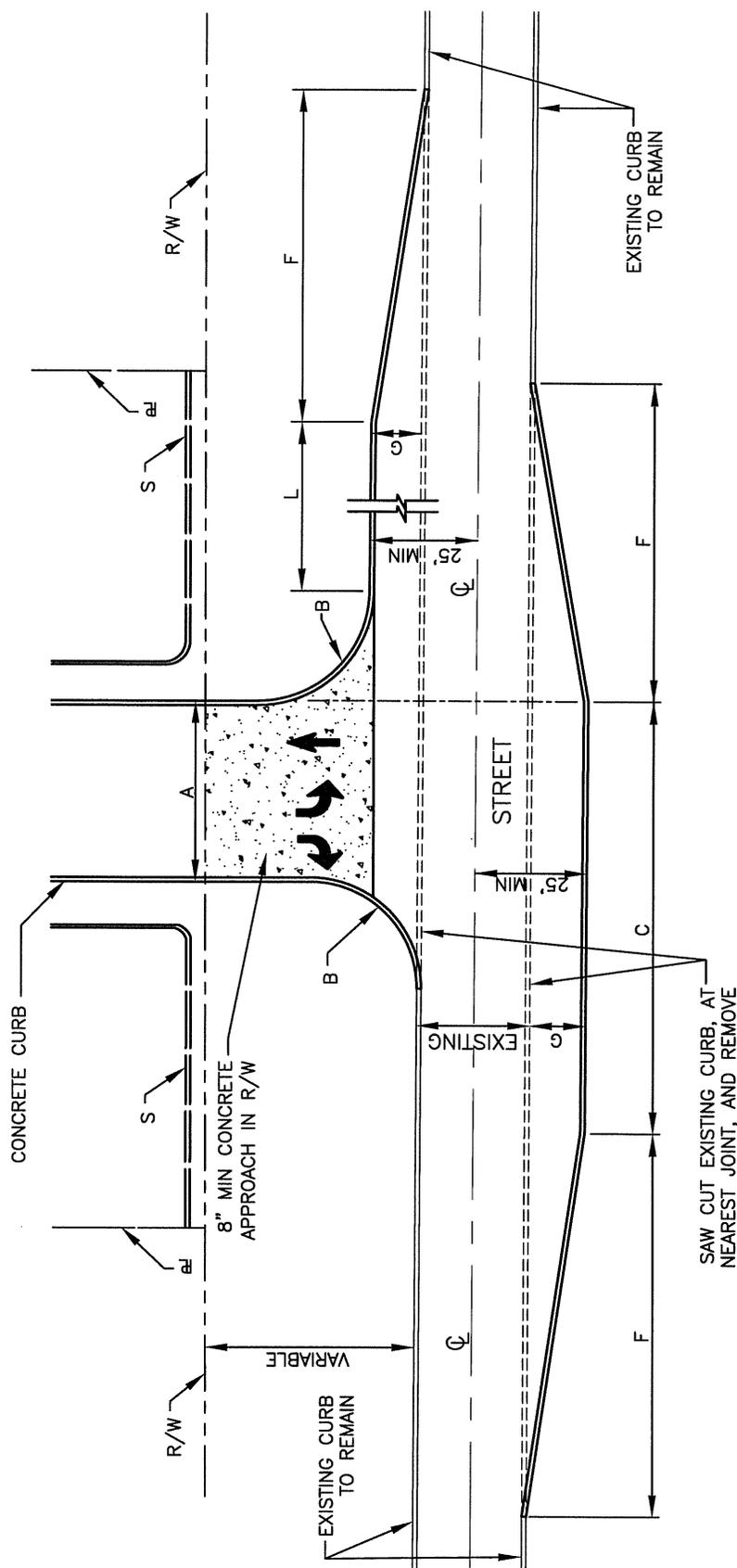


CITY OF MISHAWAKA, INDIANA

ENGINEERING STANDARDS

COMMERCIAL DRIVE  
APPROACH TYPE I

SHT. NO.  
11-4



**LEGEND**

- A= 38'
- B= 20' MINIMUM RADIUS
- C= 100' MINIMUM
- F= 1:10 TAPER-130' MINIMUM, SEE TABLE BELOW
- G= 12' MINIMUM
- L= 120' MINIMUM
- S= BARRIERS

DESIGN SPEED	F + L
30	250 FEET
40	370 FEET
50	500 FEET

COMMERCIAL DRIVE APPROACH DETAIL  
TYPE IA

PREPARED BY: DLZ INDIANA, LLC

*Brian K. Arterbery*  
4/23/07

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EFFECTIVE DATE: APRIL 2007

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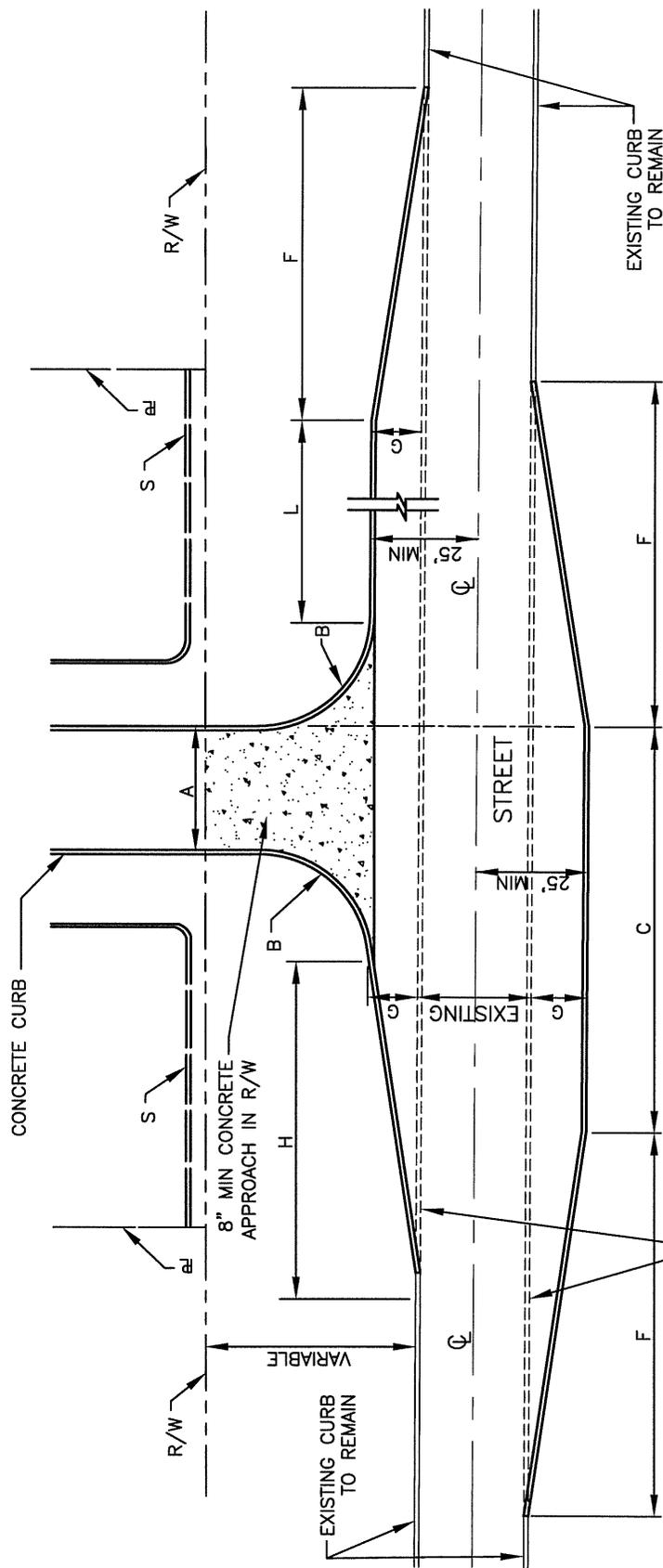


CITY OF MISHAWAKA, INDIANA

ENGINEERING STANDARDS

COMMERCIAL DRIVE  
APPROACH TYPE IA

SHT. NO.  
11-4A



**LEGEND**

- A= 24' MINIMUM RADIUS
- B= 20' MINIMUM RADIUS
- C= 100' MINIMUM
- F= 1:10 TAPER--130' MINIMUM, SEE TABLE BELOW
- G= 12' MINIMUM
- H= 1:5 TAPER--50' MINIMUM, SEE TABLE BELOW
- L= 120' MINIMUM
- S= BARRIERS

DESIGN SPEED	F + L
30	250 FEET
40	370 FEET
50	500 FEET

**COMMERCIAL DRIVE APPROACH DETAIL  
TYPE II**

SAW CUT EXISTING CURB, AT NEAREST JOINT, AND REMOVE

PREPARED BY: DLZ INDIANA, LLC

*Brian K. Arterberry*  
4/23/07

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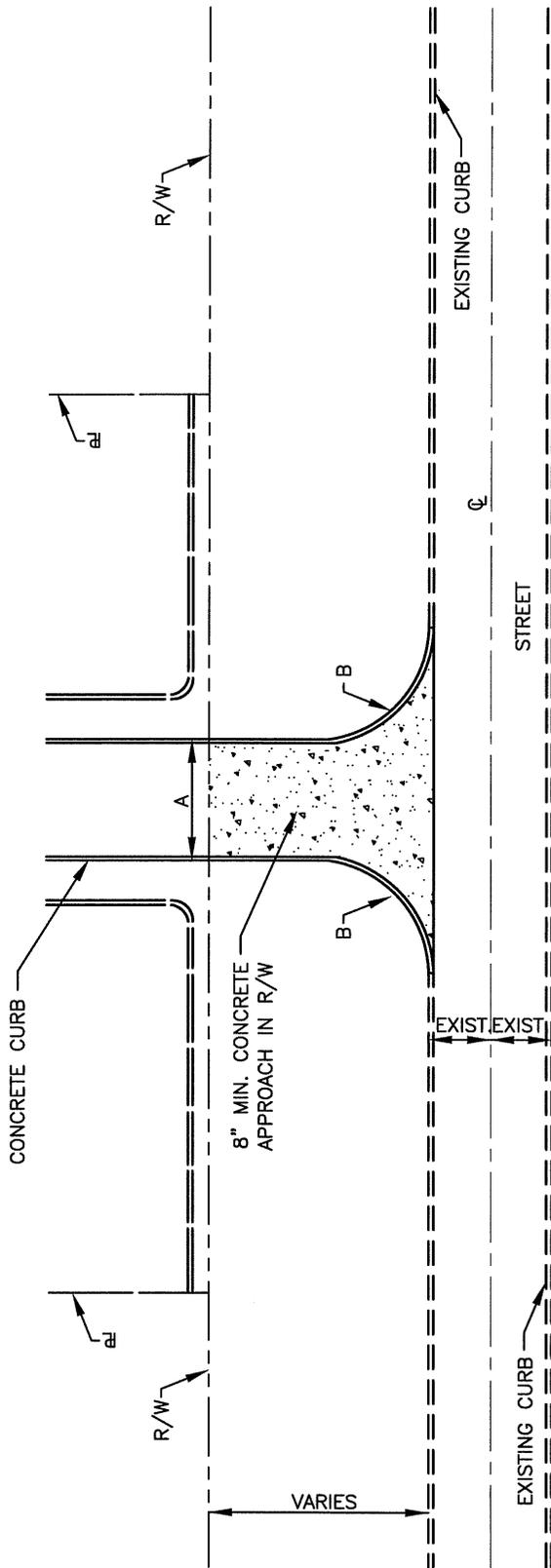


CITY OF MISHAWAKA, INDIANA

ENGINEERING STANDARDS

COMMERCIAL DRIVE  
APPROACH TYPE II

SHT. NO.  
11-5



**LEGEND**

- A= 24'
- B= 20' MINIMUM RADIUS

**COMMERCIAL DRIVE APPROACH DETAIL  
TYPE III**

PREPARED BY: DLZ INDIANA, LLC



*B. K. Arterbery*  
4/23/07

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CITY OF MISHAWAKA, INDIANA

ENGINEERING STANDARDS

COMMERCIAL DRIVE  
APPROACH TYPE III

SHT. NO.  
11-6