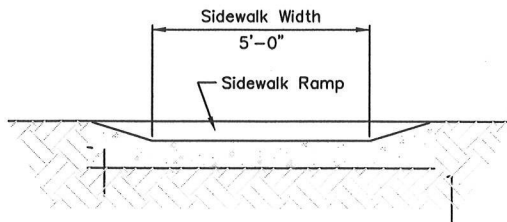
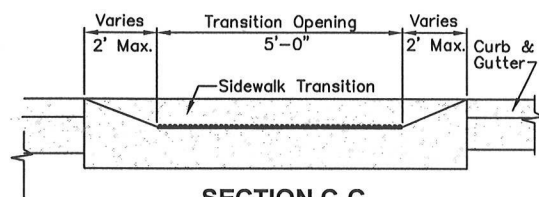


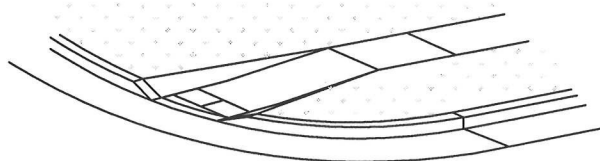
**SECTION A-A**



**SECTION B-B**



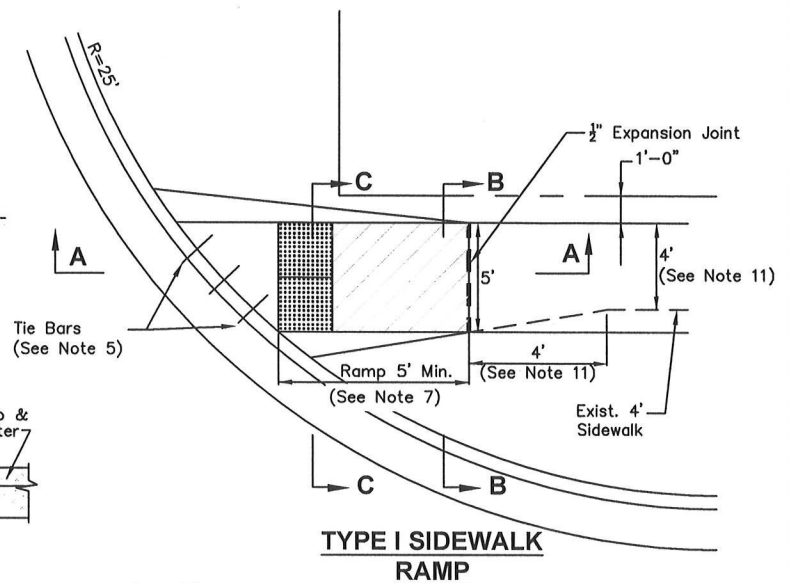
**SECTION C-C**



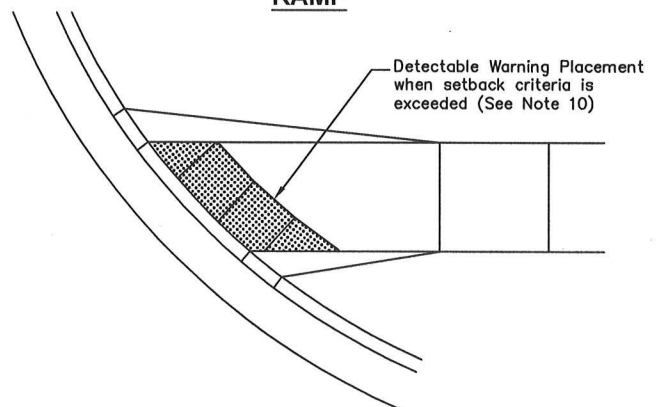
**3-D VIEW TYPE I  
SIDEWALK RAMP**

**Legend:**

Detectable Warning Surface

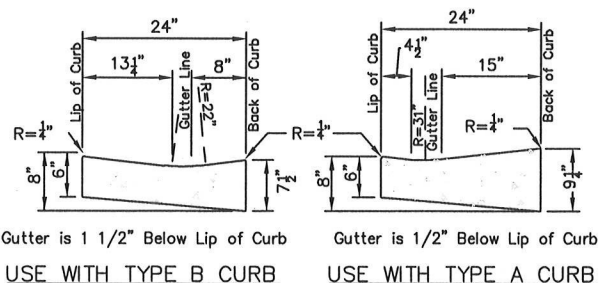


**TYPE I SIDEWALK  
RAMP**



**SIDEWALK & SIDEWALK RAMP NOTES:**

1. Curb depression location determined from the intersection of the extension of back of sidewalk and back of curb & gutter.
2. Concrete shall be KCMMB 4K
3. Longitudinal joint spacing to match width of sidewalk.
4. Expansion joints shall be placed between ramp and sidewalk and where sidewalk abuts driveways and similar structures, and 200' centers max.
5. Install 18" tie bars #4 epoxy coated @ 18" o.c.
6. Sidewalk Ramp shall be lengthened to provide ADA compliance slope but need not exceed 15'.
7. ADA maximum ramp slope = 1"/Ft. (1:12)  
ADA maximum cross slope = 2.0% (1:50)
8. The curb transitions shall be 2' in length.
9. The flares shall extend 7' beyond the transition area. The width of the flares will vary depending on the slope of the ramp.
10. If distance exceeds 5' from back of curb to leading edge of Detectable Warning, Detectable Warning panels shall be placed at the back of curb as shown.
11. Minimum width at back of ramp is 5'. Transition length is a minimum of 4' if width of existing sidewalk is 4'.



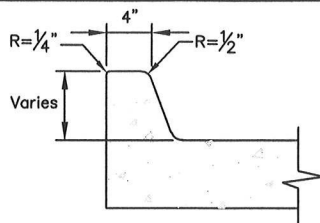
**STREET CURB DETAILS AT RAMP**

APPROVED:  
REVISED:

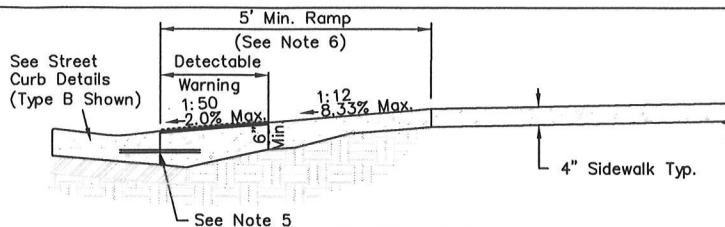


**TYPE I  
SIDEWALK RAMP**

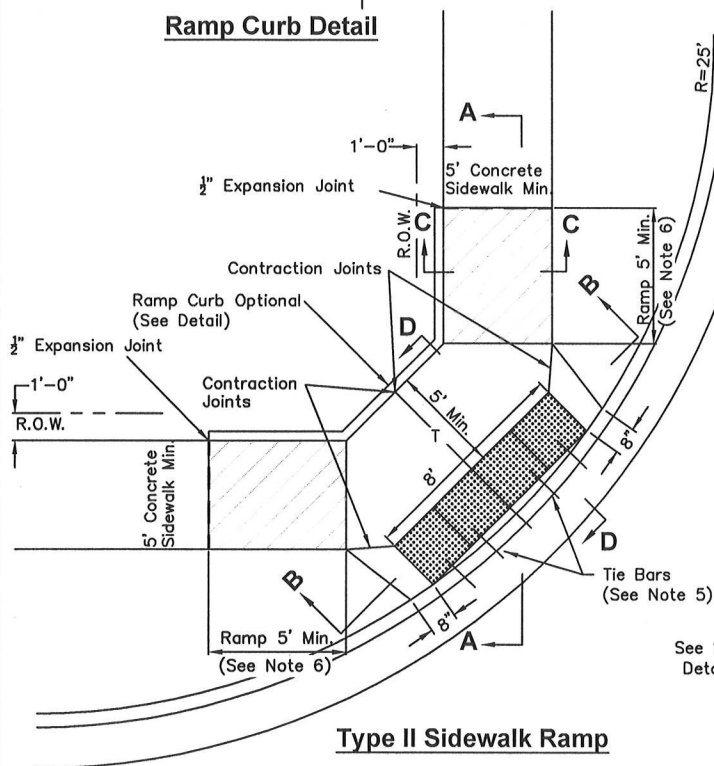
**STANDARD  
DETAIL  
21-10**



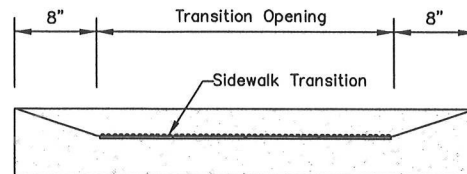
**Ramp Curb Detail**



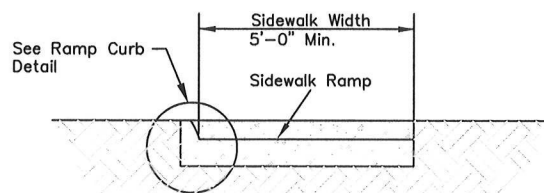
**Section A-A**



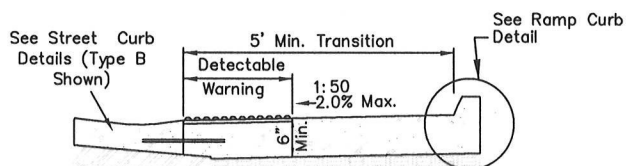
**Type II Sidewalk Ramp**



**Section B-B**



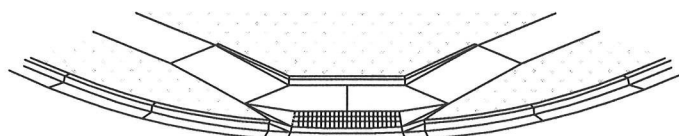
**Section C-C**



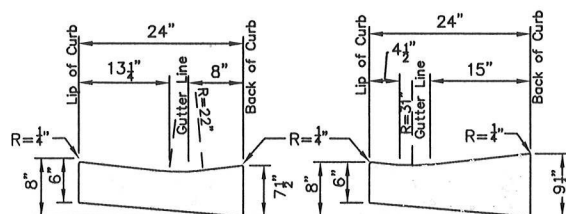
**Section D-D**

**Sidewalk & Sidewalk Ramp Notes:**

1. Curb depression location determined from the intersection of the extension of back of sidewalk and back of curb & gutter.
2. Concrete shall be KCMMB 4K.
3. Longitudinal joint spacing to match width of sidewalk.
4. Expansion joints shall be placed between ramp and sidewalk and where sidewalk abuts driveways and similar structures, and 200' centers max.
5. Transition area behind detectable warning panels shall match adjacent sidewalk width or 4' minimum. Install 18" tie bars #4 epoxy coated @ 18" o.c.
6. Sidewalk Ramp shall be lengthened to provide ADA compliance slope but need not exceed 15'.
7. ADA maximum ramp slope = 1"/Ft. (1:12)  
ADA maximum cross slope = 2.0% (1:50)
8. The curb transitions shall be 2' in length.



**3-D View Type II  
Sidewalk Ramp**



Gutter is 1 1/2" Below Lip of Curb    Gutter is 1/2" Below Lip of Curb  
Use With Type B Curb    Use With Type A Curb

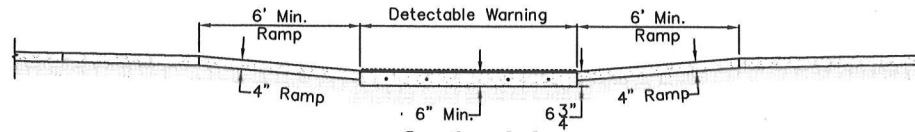
**Street Curb Details at Ramp**

|           |  |
|-----------|--|
| APPROVED: |  |
| REVISED:  |  |
|           |  |
|           |  |

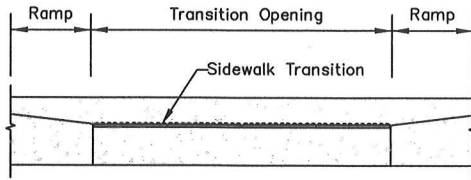


**TYPE II  
SIDEWALK RAMP**

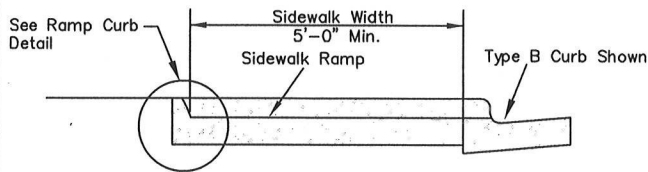
**STANDARD  
DETAIL  
21-10A**



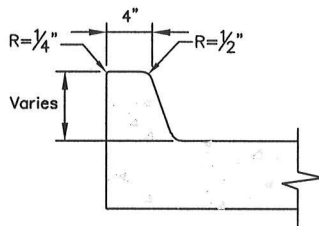
**Section A-A**



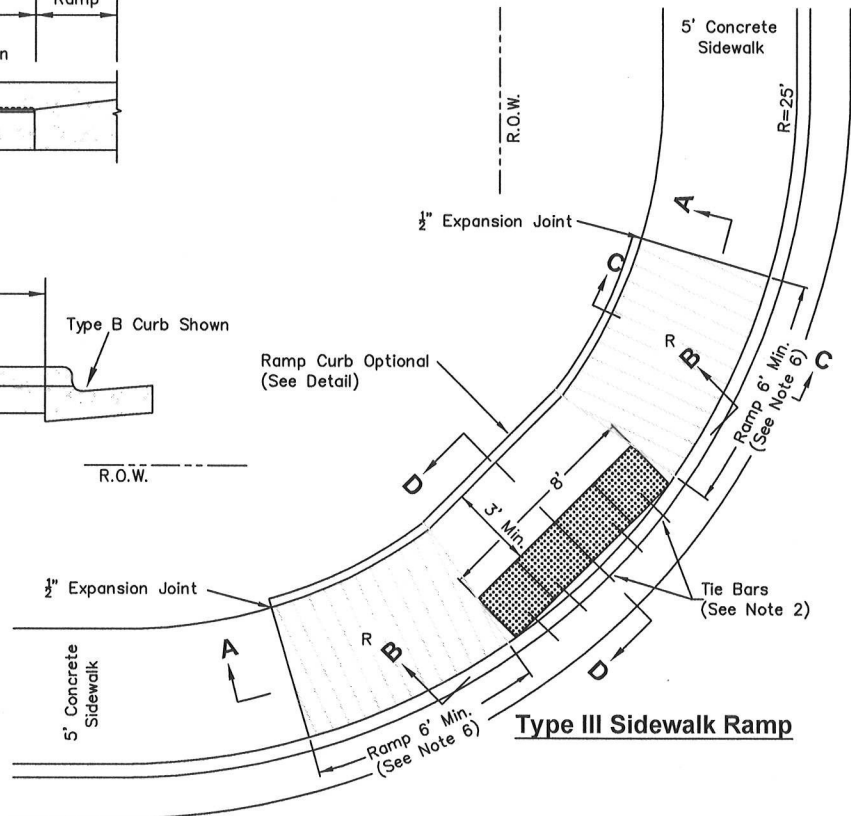
**Section B-B**



**Section C-C**

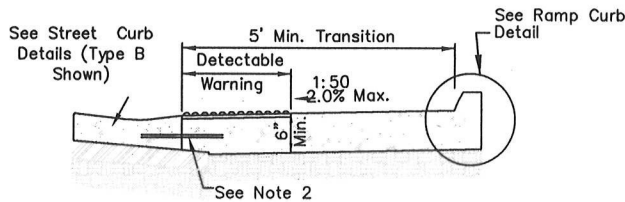


**Ramp Curb Detail**

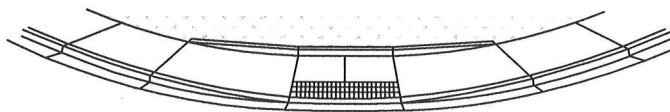


**Sidewalk & Sidewalk Ramp Notes:**

1. Concrete shall be KCMMB 4K.
2. Transition area behind detectable warning pavers shall match adjacent sidewalk width or 3' minimum. Install 18" tie bars #4 epoxy coated @ 18" O.C.
3. Sidewalk Ramp shall be lengthened to provide ADA compliance slope but need not exceed 15'.
4. Expansion joints shall be placed between ramp and sidewalk and where sidewalk abuts driveways and similar structures, and 200' centers max.
5. The curb transitions shall extend the entire length of ramp section.
6. ADA Maximum Ramp Slope = 8.3% (1:12)  
ADA Maximum Cross Slope = 2.0% (1:50)

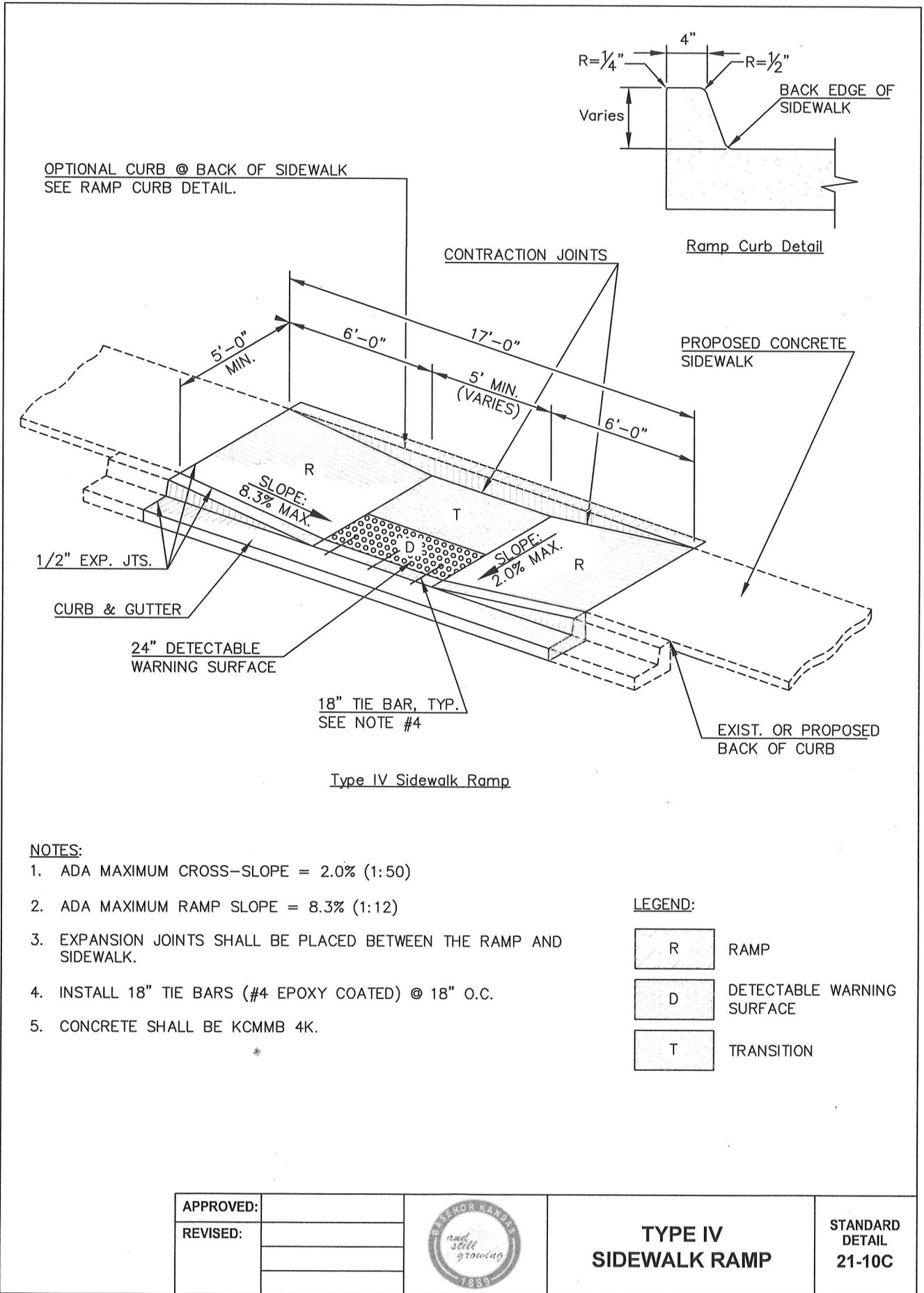


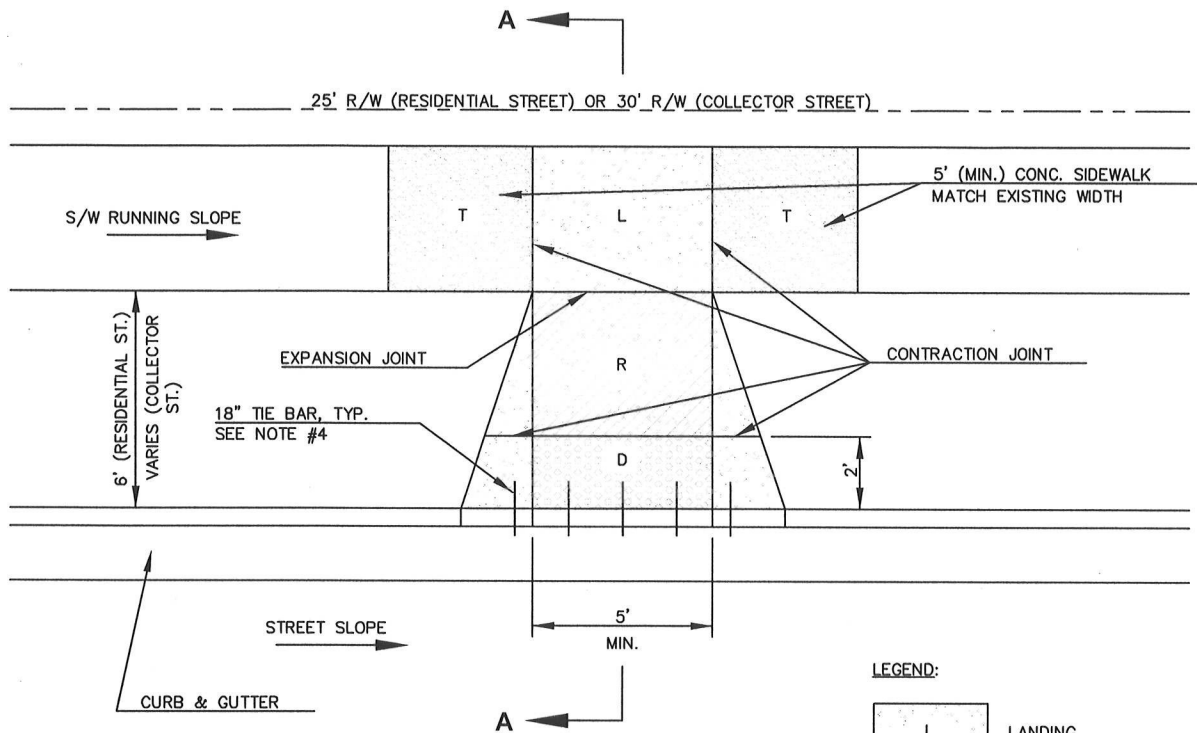
**Section D-D**



**3-D View Type III Sidewalk Ramp**

|           |  |  |                                   |                                       |
|-----------|--|--|-----------------------------------|---------------------------------------|
| APPROVED: |  |  | <b>TYPE III<br/>SIDEWALK RAMP</b> | <b>STANDARD<br/>DETAIL<br/>21-10B</b> |
| REVISED:  |  |  |                                   |                                       |
|           |  |  |                                   |                                       |
|           |  |  |                                   |                                       |





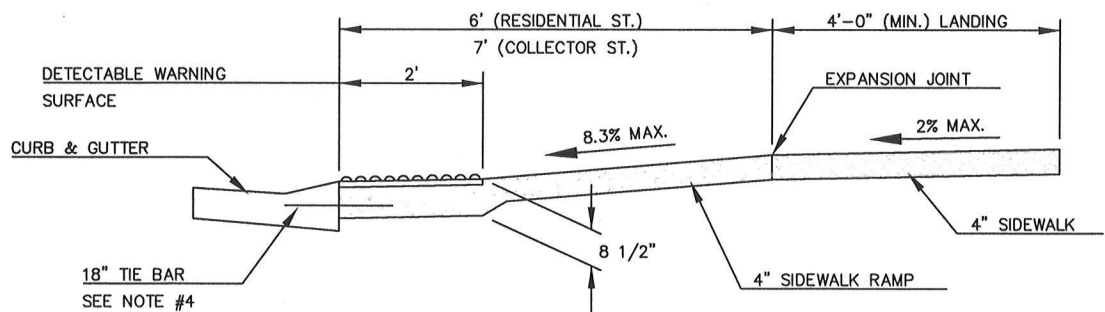
### MID-BLOCK RAMP DETAIL

#### NOTES:

1. RAMP CROSS SLOPE SHALL TRANSITION FROM STREET SLOPE TO 2% OR LESS AT LANDING
2. LANDING ELEVATION SHALL BE SET TO LIMIT MAXIMUM RAMP SLOPE @ 8.3% (1:12).
3. IF SIDEWALK RUNNING SLOPE IS 3% OR LESS, USE 1 SQUARE OF SIDEWALK ON EITHER SIDE OF THE LANDING TO TRANSITION FROM RUNNING SLOPE TO LANDING SLOPE.
4. INSTALL 18" TIE BARS (#4 EPOXY COATED) @ 18" O.C.
5. CONCRETE SHALL BE KCMMB 4K.
6. ADA MAXIMUM RAMP SLOPE IS 8.3% (1:12). ADA MAXIMUM CROSS SLOPE IS 2.0% (1:50).

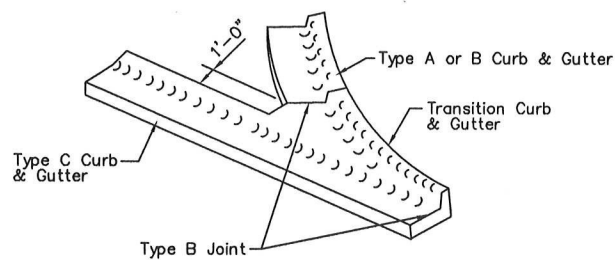
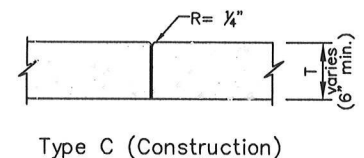
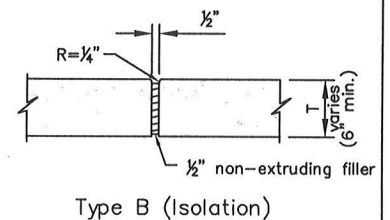
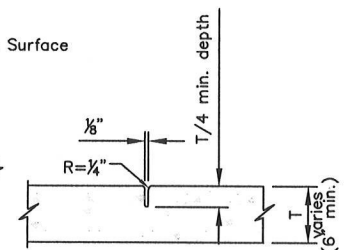
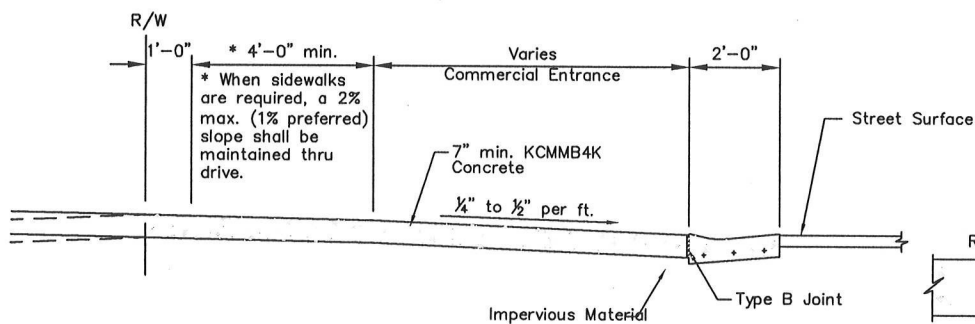
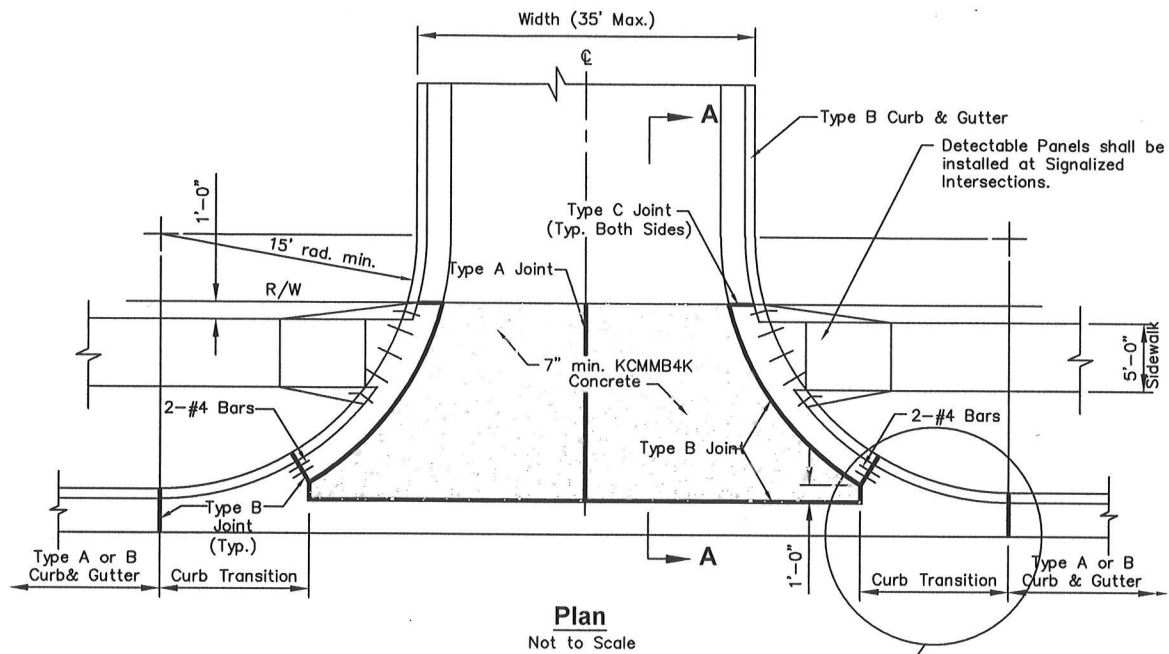
#### LEGEND:

|   |                            |
|---|----------------------------|
| L | LANDING                    |
| R | RAMP                       |
| D | DETECTABLE WARNING SURFACE |
| T | TRANSITION                 |



### SECTION A-A

|           |  |  |                                    |                                       |
|-----------|--|--|------------------------------------|---------------------------------------|
| APPROVED: |  |  | <b>MID-BLOCK<br/>SIDEWALK RAMP</b> | <b>STANDARD<br/>DETAIL<br/>21-10D</b> |
| REVISED:  |  |  |                                    |                                       |
|           |  |  |                                    |                                       |
|           |  |  |                                    |                                       |



\* KCMMB4K CONCRETE SHALL BE USED THROUGHOUT AND ADHERE TO CITY OF OLATHE TECHNICAL SPECIFICATIONS SECTION 2000 AND SECTION 2100.

#### JOINT DETAILS

Not to Scale

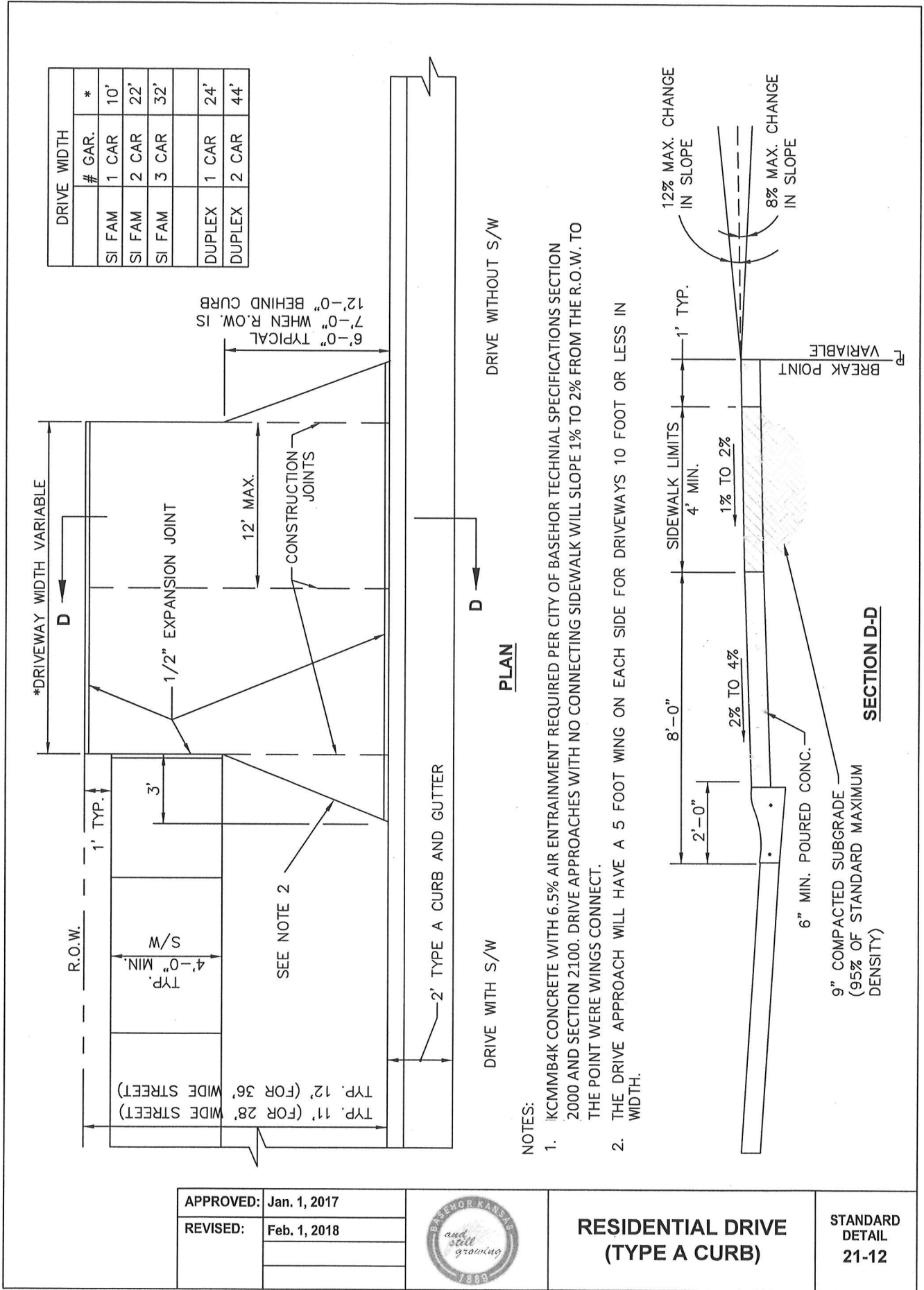
APPROVED: Jan. 1, 2017

REVISED: Feb. 1, 2018



COMMERCIAL &  
INDUSTRIAL  
ENTRANCE DRIVE

STANDARD  
DETAIL  
21-11

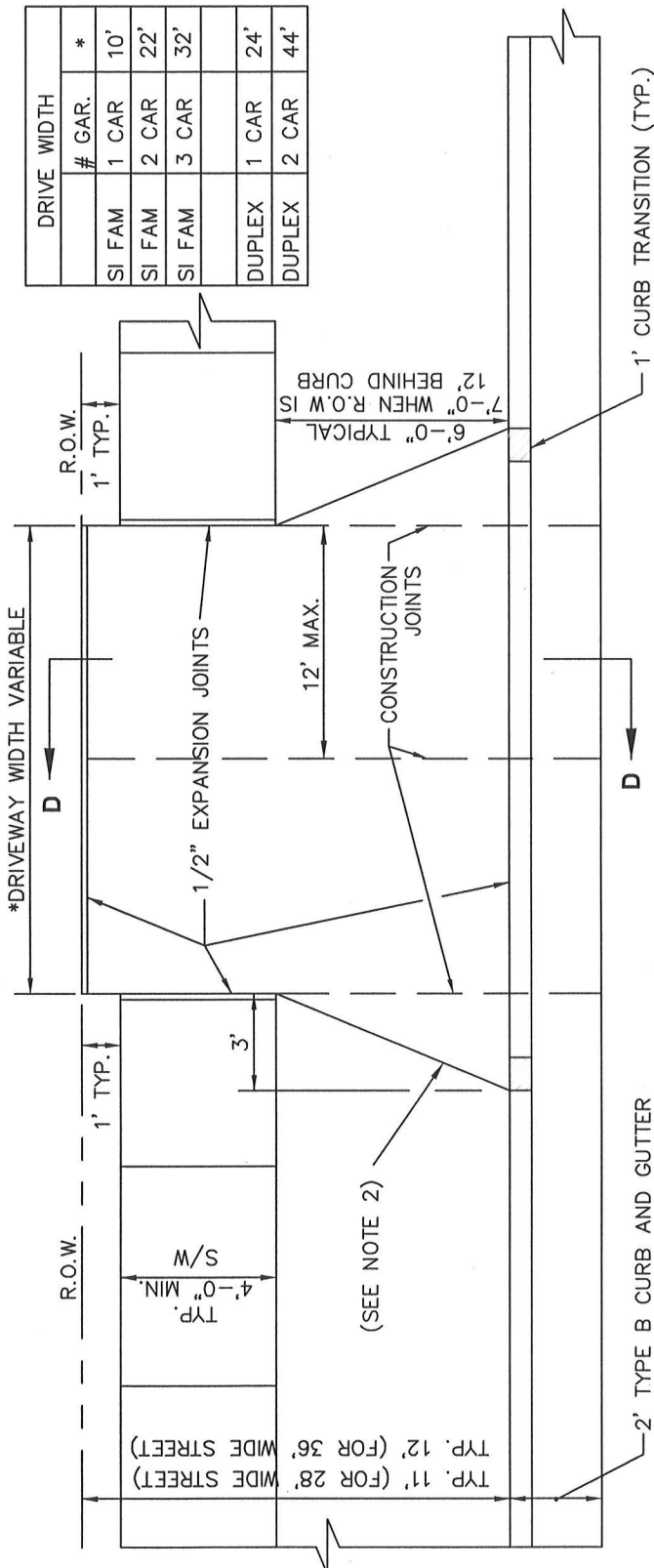


|           |              |
|-----------|--------------|
| APPROVED: | Jan. 1, 2017 |
| REVISED:  | Feb. 1, 2018 |
|           |              |
|           |              |



RESIDENTIAL DRIVE  
(TYPE A CURB)

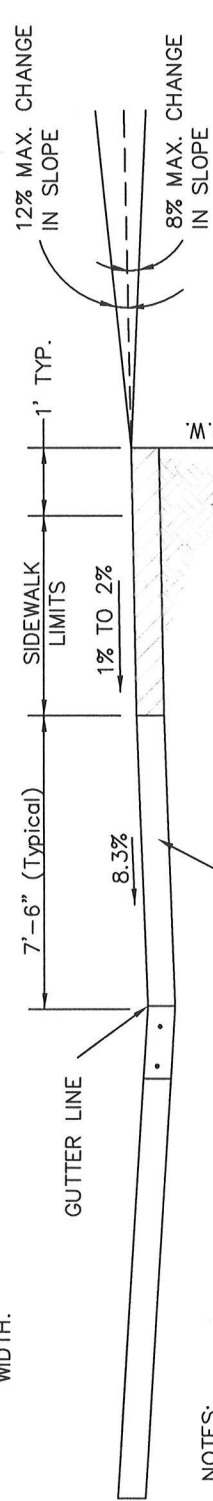
STANDARD  
DETAIL  
21-12



**PLAN**

**NOTES:**

- KCMMB4K CONCRETE WITH 6.5% AIR ENTRAINMENT REQUIRED PER CITY OF BASEHOR TECHNICAL SPECIFICATIONS SECTION 2000 AND SECTION 2100. DRIVE APPROACHES WITHOUT ADJACENT SIDEWALKS SHALL SLOPE 2% TO 4% FROM THE R.O.W. TO THE BACK OF THE CURB.
- THE DRIVE APPROACH WILL HAVE A 5 FOOT WING ON EACH SIDE FOR DRIVEWAYS 10 FOOT OR LESS IN WIDTH.
- DRIVEWAYS ALONG ARTERIAL ROADWAYS WILL HAVE A MINIMUM WIDTH OF 16' AT THE RIGHT OF WAY. WINGS WILL BE 5' IN WIDTH.



**NOTES:**

2 - #4 REBAR TO BE PLACED THROUGH GUTTER SECTION IF EXISTING CURB DID NOT REST ON ASPHALT BASE.

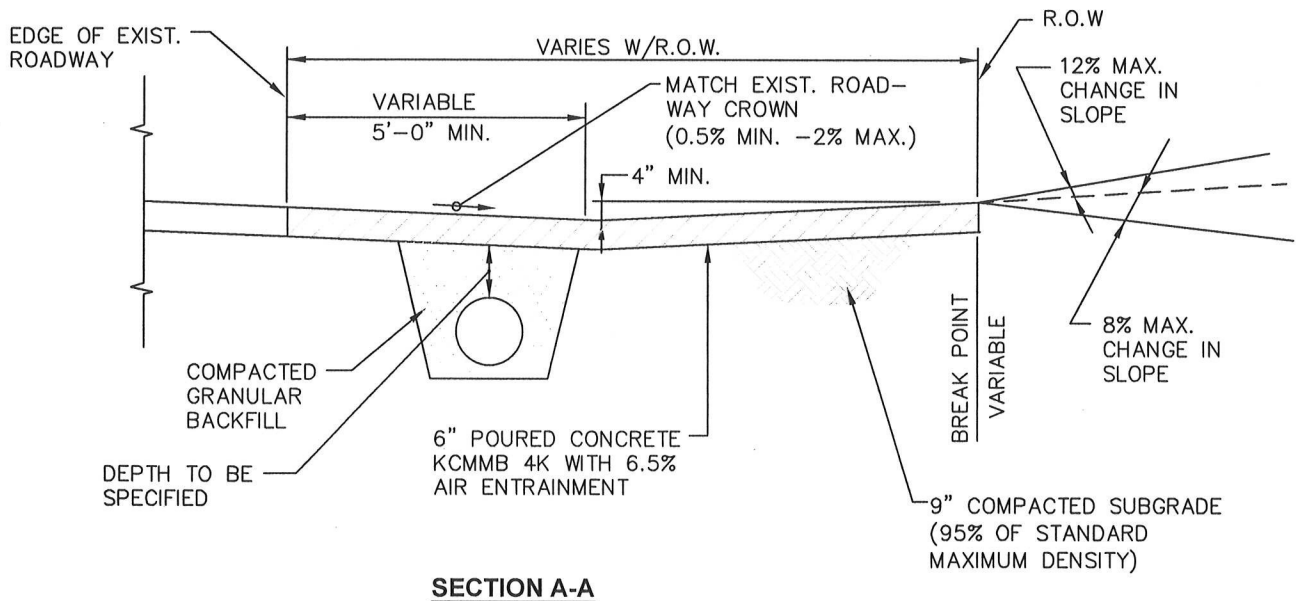
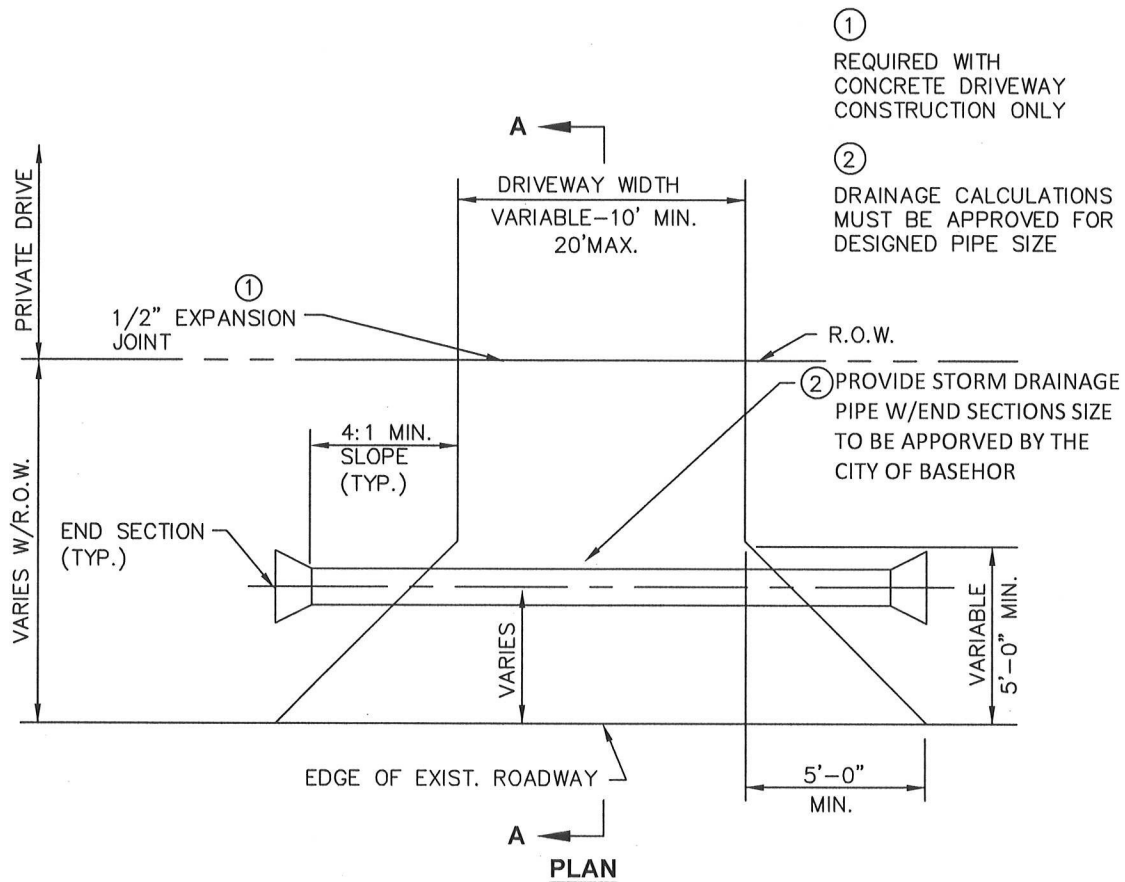
**SECTION D-D**

|           |              |
|-----------|--------------|
| APPROVED: | Jan. 1, 2017 |
| REVISED:  | Feb. 1, 2018 |



**RESIDENTIAL DRIVE  
(TYPE B CURB)**

STANDARD  
DETAIL  
21-13



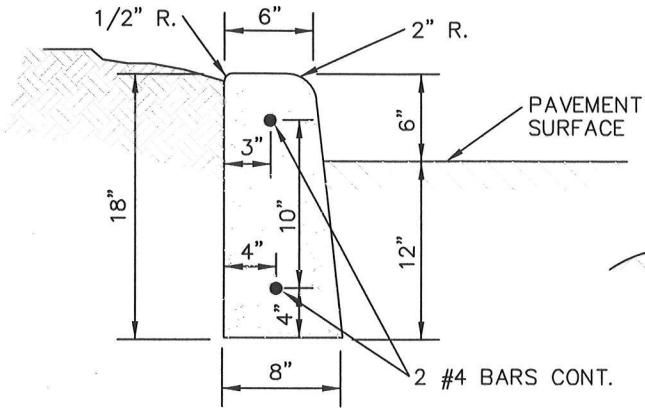
APPROVED: Jan. 1, 2017

REVISED: Feb. 1, 2018

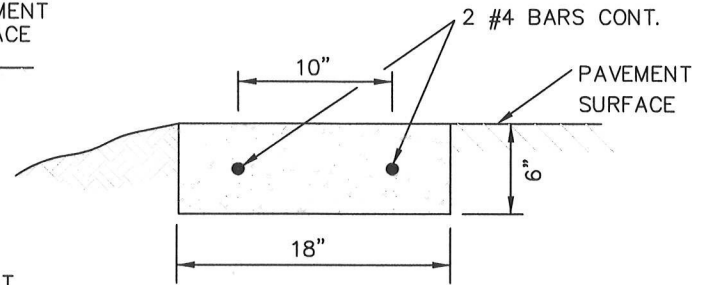


# **RESIDENTIAL DRIVE AT NON-CURBED STREET**

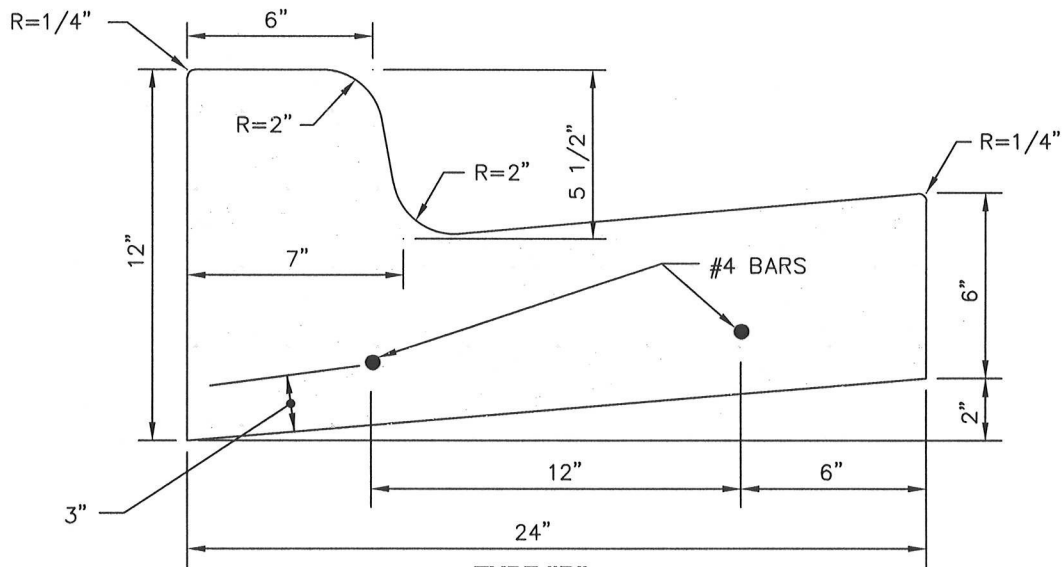
STANDARD  
DETAIL  
21-14



**TYPE "C"**



**TYPE "R" RIBBON CURB**



**TYPE "B"**

**NOTE:**

1. EXPANSION, CONTRACTION, OR CONSTRUCTION JOINTS ARE TO BE SAME AS NOTED ON TYPE "A" CURB AND GUTTER DETAIL.
2. ALL CURBS MUST BE CAST IN PLACE.
3. KCMMB4K CONCRETE SHALL BE USED THROUGHOUT AND ADHERE TO THE CITY OF BASEHOR TECHNICAL SPECIFICATIONS SECTION 2000 AND 2100

|           |  |
|-----------|--|
| APPROVED: |  |
| REVISED:  |  |
|           |  |
|           |  |



**PARKING LOT  
CONCRETE CURB**

**STANDARD  
DETAIL  
21-15**