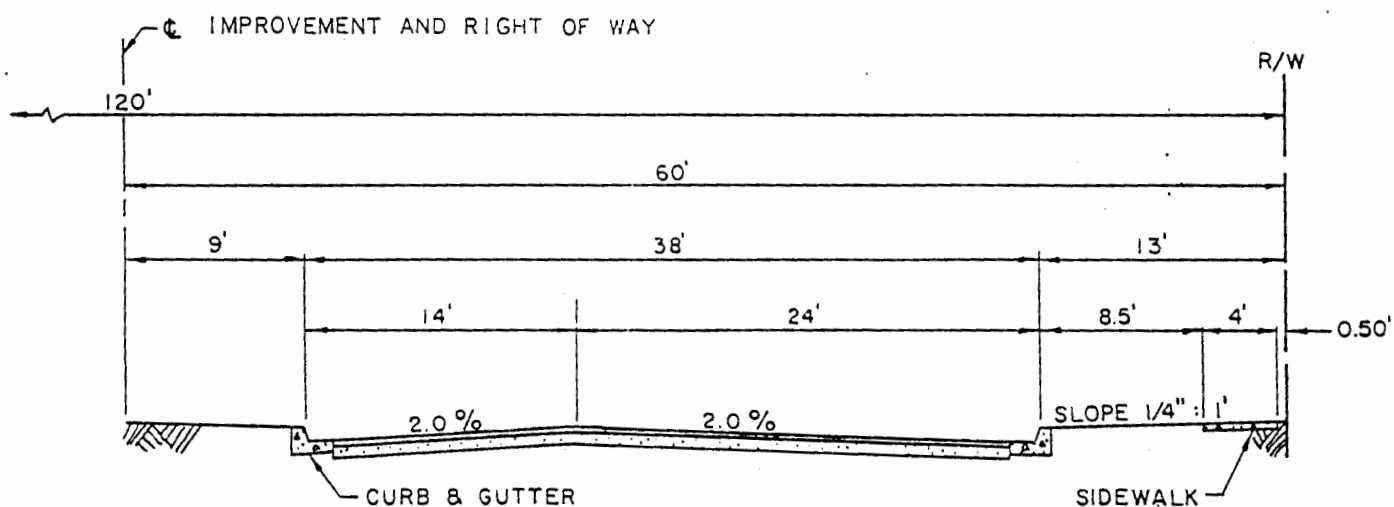


TYPICAL HALF SECTION



TYPICAL HALF SECTION

NOTES:

1. STRUCTURAL SECTION OF ROADWAY SHALL BE DETERMINED FROM SOILS TESTS AND SO INDICATED ON CONSTRUCTION PLANS.
2. CONSTRUCTION OUTSIDE R/W LINE SHALL REQUIRE SLOPE EASEMENTS.

SAN BERNARDINO COUNTY ROAD DEPARTMENT

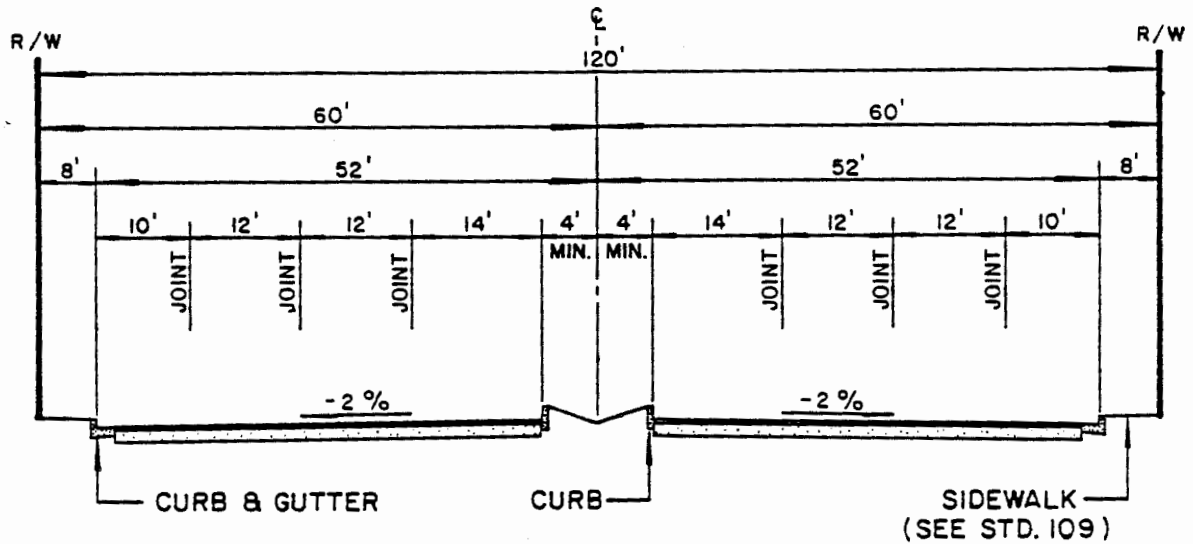
DATE: F.V.C. 6-63

R.I. 4-92

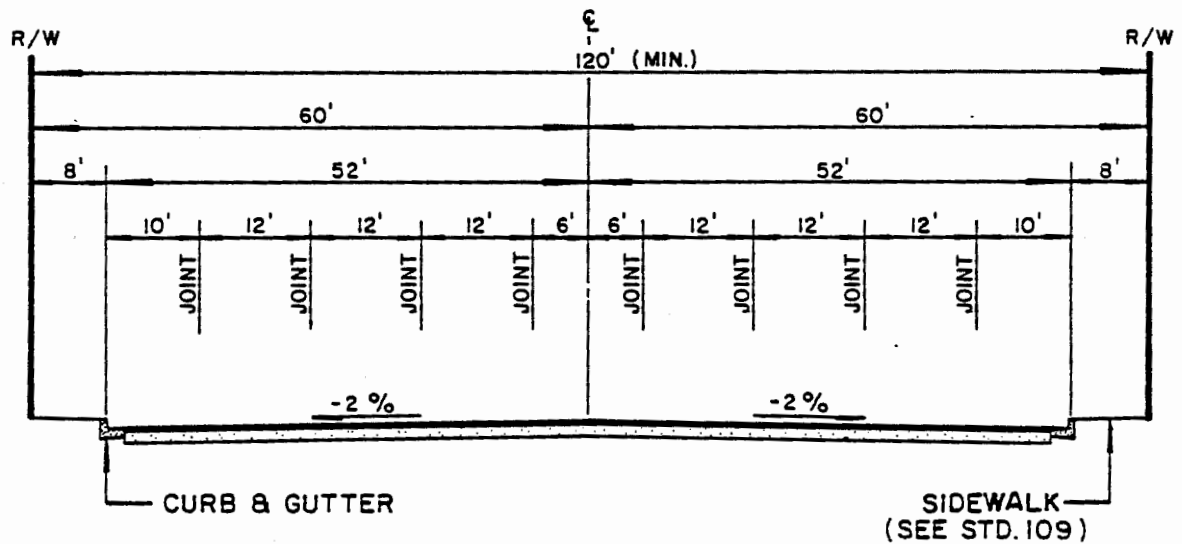
KEN A. MILLER  
Director of Transportation

MAJOR DIVIDED  
HIGHWAY

100



### TYPICAL SECTION WITH RAISED MEDIAN



### TYPICAL SECTION WITH CONTINUOUS LEFT TURN LANE

#### NOTES:

1. STRUCTURAL SECTION OF ROADWAY SHALL BE DETERMINED FROM SOILS TESTS AND SO INDICATED ON CONSTRUCTION PLANS.
2. DRAINAGE FACILITIES SHALL BE PROVIDED TO DEWATER RAISED MEDIAN AREAS.
3. 10' SHOULDER AREAS MAY BE DESIGNATED AS A BIKE LANE AND EMERGENCY PARKING ONLY.

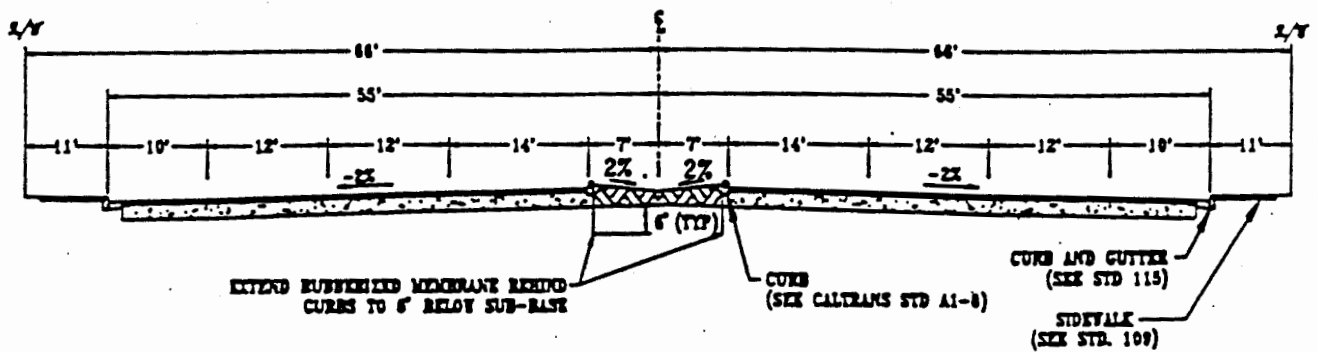
SAN BERNARDINO COUNTY TRANSPORTATION DEPARTMENT

DATE: 100 12 81

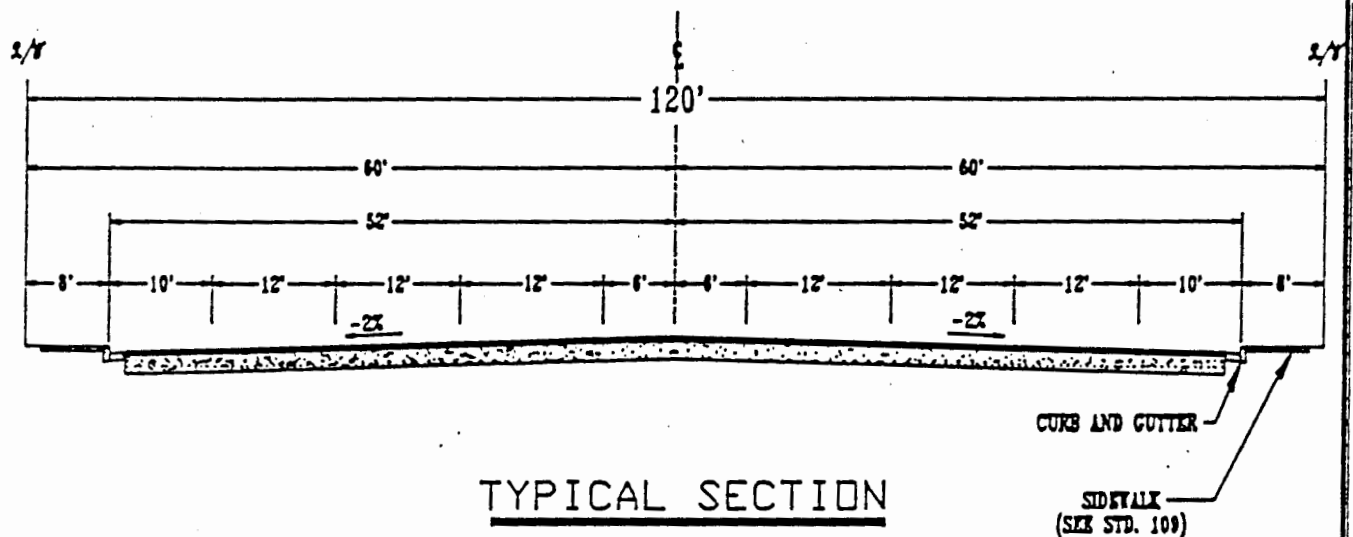
JOHN R. SHONE  
DIRECTOR OF TRANSPORTATION

MAJOR ARTERIAL

100  
A



**TYPICAL SECTION  
WITH RAISED MEDIAN**



**TYPICAL SECTION  
WITH CONTINUOUS LEFT TURN LANE**

**NOTES:**

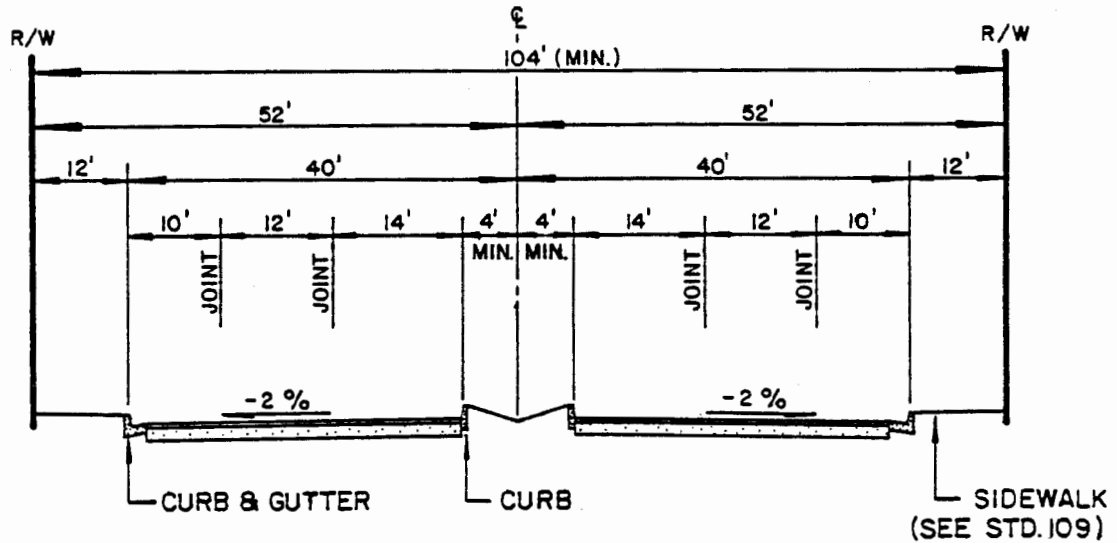
1. STRUCTURAL SECTION OF ROADWAY SHALL BE DETERMINED FROM SOILS TESTS AND SO INDICATED ON CONSTRUCTION PLANS.
2. DRAINAGE FACILITIES SHALL BE PROVIDED TO DEWATER RAISED MEDIAN AREAS.
3. TEN FEET (10') SHOULDER AREAS MAY BE DESIGNATED AS A BIKE LANE AND EMERGENCY PARKING ONLY.
4. IRRIGATION SYSTEM IN MEDIAN AREA SHALL BE DRIP OR BUBBLE SYSTEM.

SAN BERNARDINO COUNTY ROAD DEPARTMENT

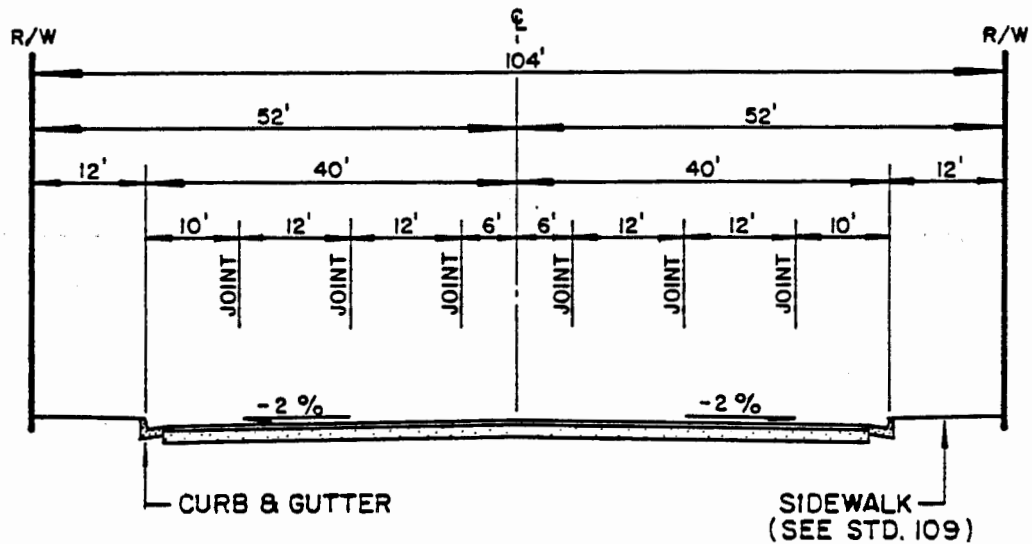
**KEN MILLER**  
DIRECTOR OF TRANSPORTATION

**MAJOR ARTERIAL**  
**CHINO HILLS SPECIFIC PLAN AREA**

**100B**



**TYPICAL SECTION  
WITH RAISED MEDIAN**



**TYPICAL SECTION  
WITH CONTINUOUS LEFT TURN LANE**

**NOTES:**

1. STRUCTURAL SECTION OF ROADWAY SHALL BE DETERMINED FROM SOILS TESTS AND SO INDICATED ON CONSTRUCTION PLANS.
2. DRAINAGE FACILITIES SHALL BE PROVIDED TO DEWATER RAISED MEDIAN AREAS.
3. 10' SHOULDER AREAS MAY BE DESIGNATED AS A BIKE LANE AND EMERGENCY PARKING ONLY.

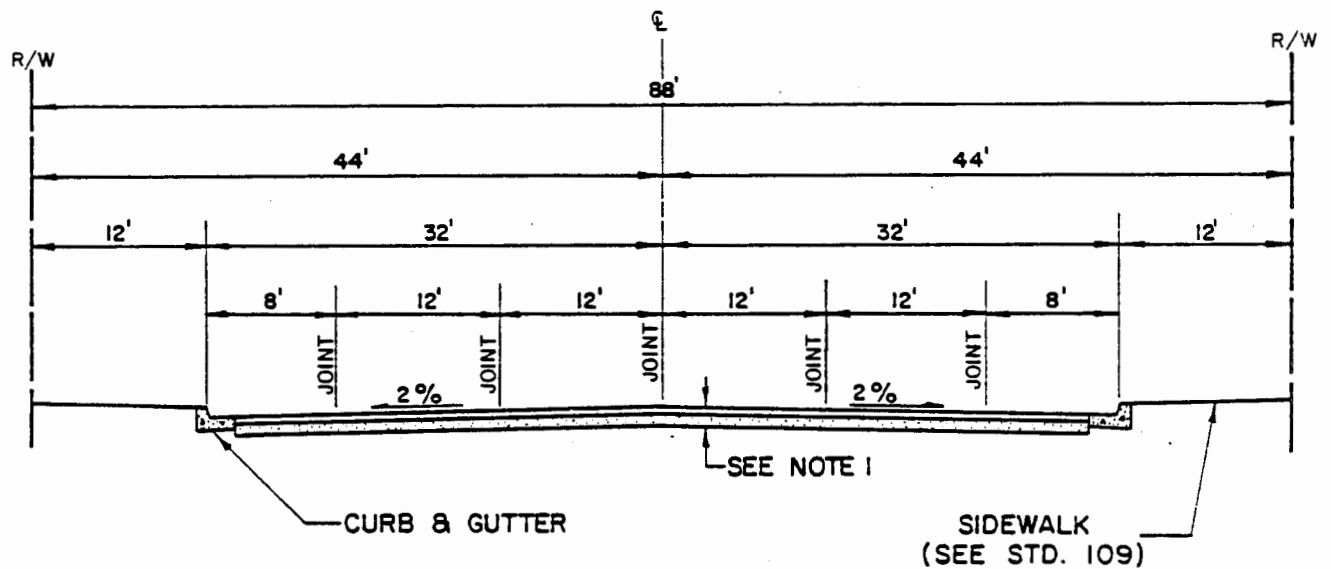
SAN BERNARDINO COUNTY TRANSPORTATION DEPARTMENT

DATE: 1G0 12 '81

*JOHN R. SHONE*  
DIRECTOR OF TRANSPORTATION

**MAJOR HIGHWAY**

**101**



### TYPICAL SECTION

#### NOTES:

1. STRUCTURAL SECTION OF ROADWAY SHALL BE DETERMINED FROM SOILS TESTS AND SO INDICATED ON CONSTRUCTION PLANS.
2. 8' SHOULDER AREAS MAY BE DESIGNATED AS A BIKE LANE AND EMERGENCY PARKING ONLY.

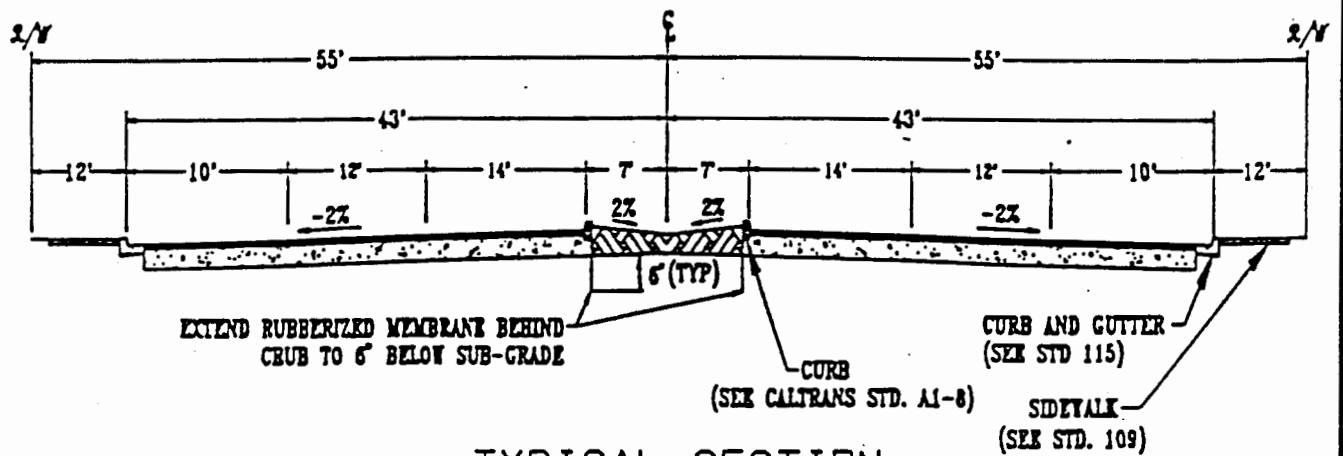
SAN BERNARDINO COUNTY TRANSPORTATION DEPARTMENT

DATE: *VRK 4 '77*  
*ADL 12 '81*

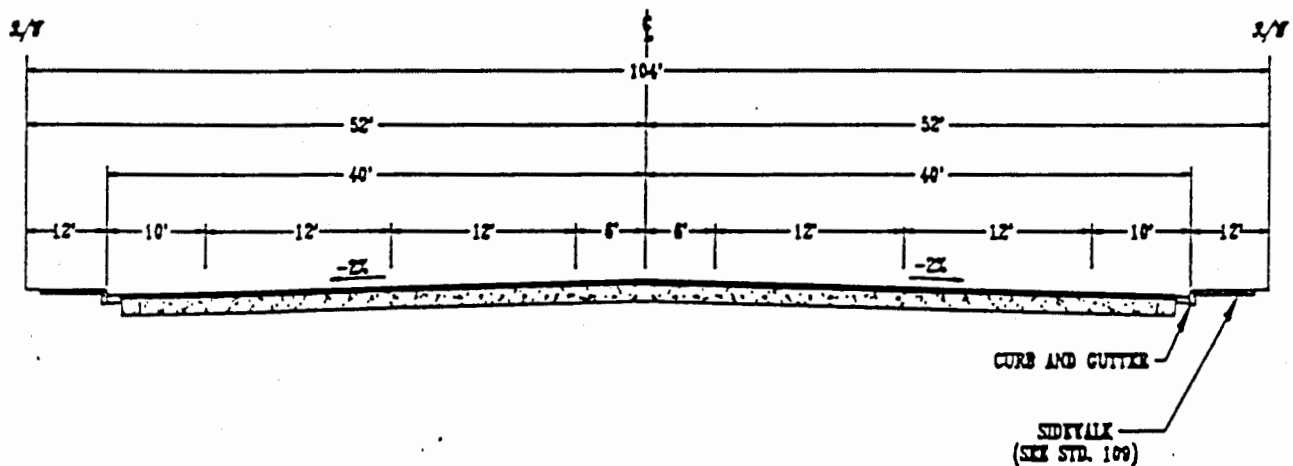
**JOHN R. SHONE**  
DIRECTOR OF TRANSPORTATION

SECONDARY HIGHWAY

102



**TYPICAL SECTION  
WITH RAISED MEDIAN**

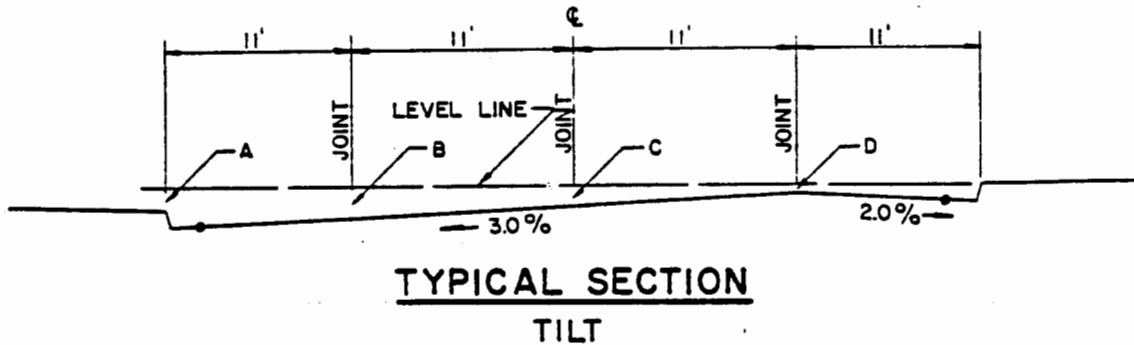
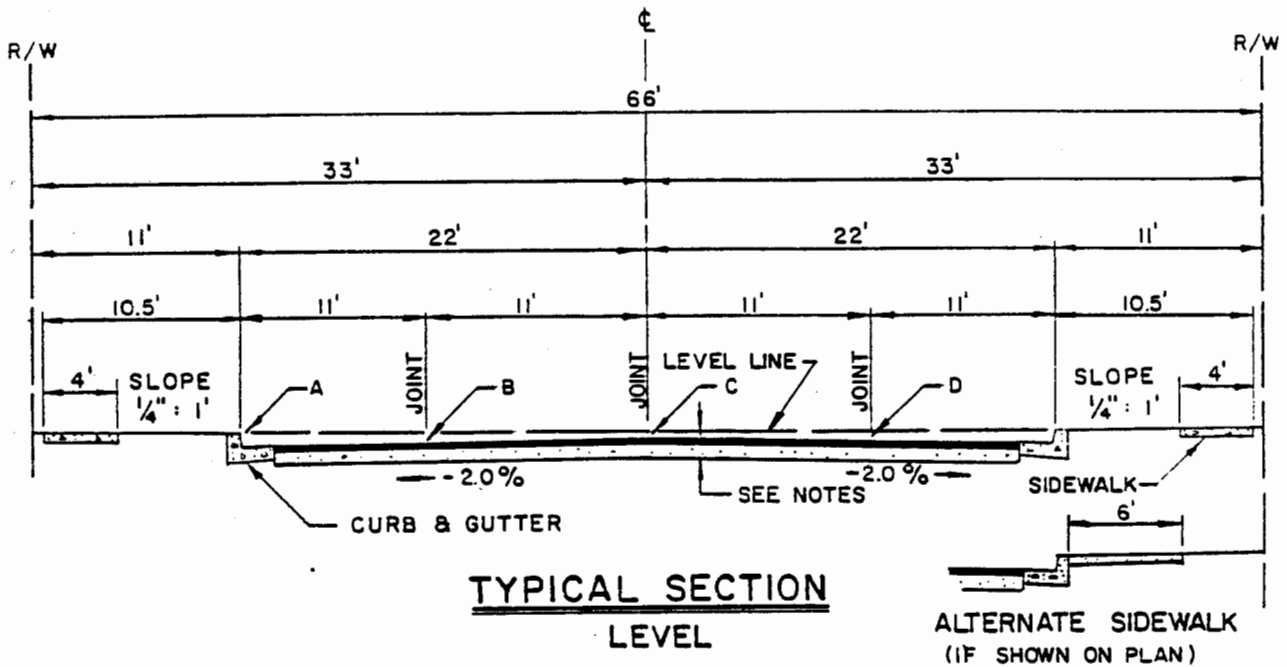


**TYPICAL SECTION  
WITH CONTINUOUS LEFT TURN LANE**

**NOTES:**

1. STRUCTURAL SECTION OF ROADWAY SHALL BE DETERMINED FROM SOILS TESTS AND SO INDICATED ON CONSTRUCTION PLANS.
2. DRAINAGE FACILITIES SHALL BE PROVIDED TO DEWATER RAISED MEDIAN AREAS.
3. TEN FEET (10') SHOULDER AREAS MAY BE DESIGNATED AS A BIKE LANE AND EMERGENCY PARKING ONLY.
4. IRRIGATION SYSTEM IN MEDIAN AREA SHALL BE DRIP OR BUBBLE SYSTEM.

|                                       |                            |   |             |
|---------------------------------------|----------------------------|---|-------------|
| SAN BERNARDINO COUNTY ROAD DEPARTMENT |                            | <b>MAJOR HIGHWAY</b><br><b>CHINO HILLS SPECIFIC PLAN AREA</b> | <b>102A</b> |
|                                       | <b>KEN MILLER</b>          |   |             |
|                                       | DIRECTOR OF TRANSPORTATION |   |             |
|                                       |                            |   |             |



|         |       | A     | B     | C       | D     |
|---------|-------|-------|-------|---------|-------|
| 8" CURB | LEVEL | 0.00' | 0.36' | 0.14'   | 0.36' |
|         | TILT  | 0.76' | 1.02' | 0.69'   | 0.36' |
| 6" CURB | LEVEL | 0.00' | 0.19' | (0.03') | 0.19' |
|         | TILT  | 0.76' | 0.85' | 0.52'   | 0.19' |

( ) INDICATES ABOVE LEVEL LINE

#### NOTE

1. STRUCTURAL SECTION OF ROADWAY SHALL BE DETERMINED FROM SOILS TESTS AND SO INDICATED ON CONSTRUCTION PLANS.
2. MINIMUM DESIGN PAVING THICKNESS SHALL BE 0.20' ASPHALT CONCRETE.
3. CONSTRUCTION OUTSIDE R/W WILL REQUIRE SLOPE EASEMENTS.

SAN BERNARDINO COUNTY ROAD DEPARTMENT

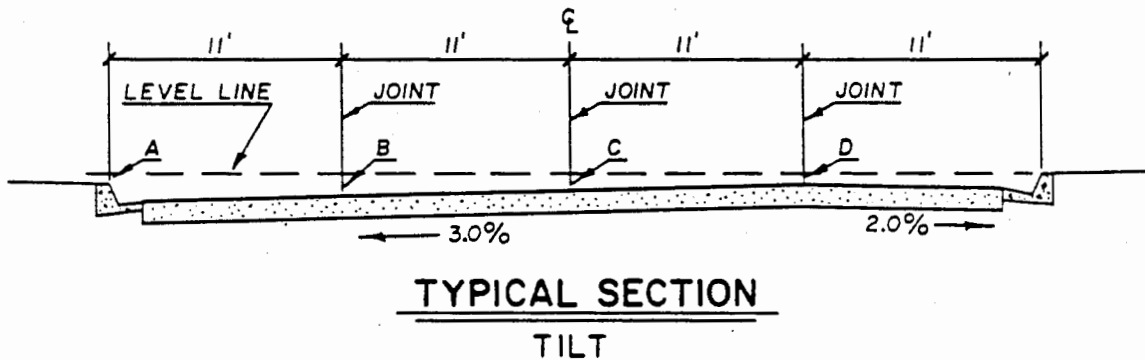
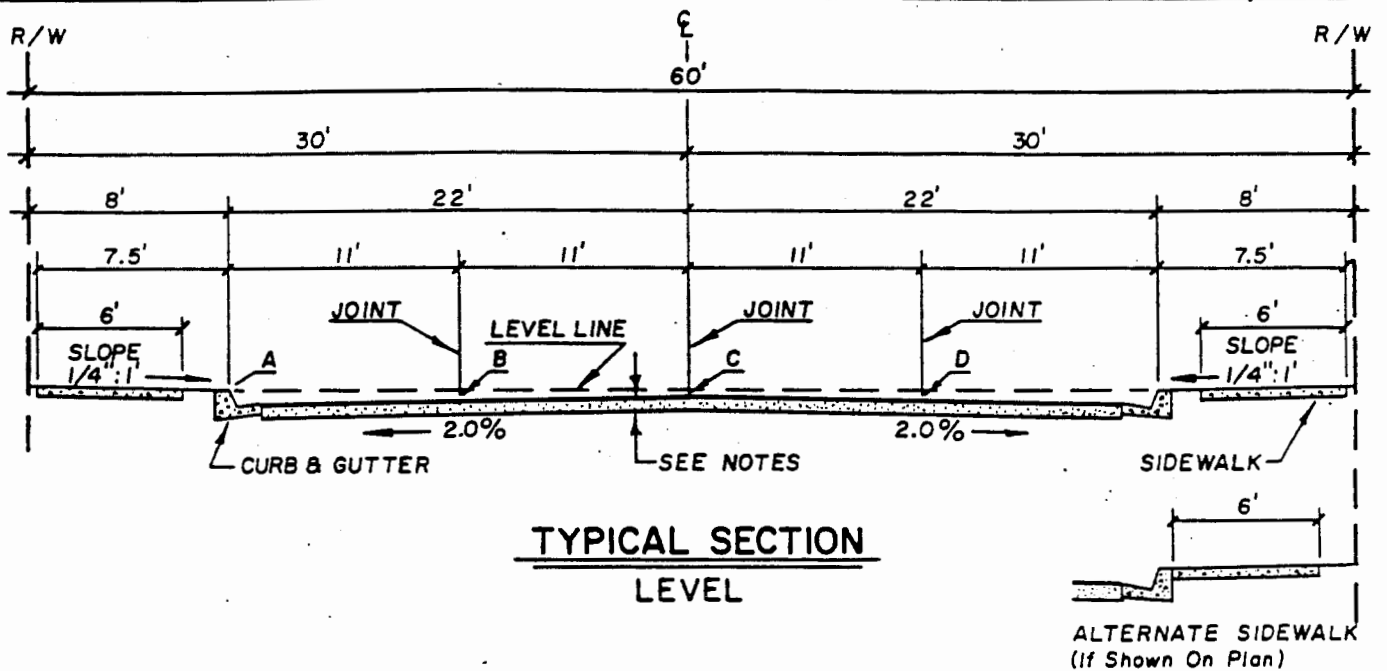
DATE: 3.V.C. 9-65

Rev. 5-74

*John R. Shone*  
COUNTY HIGHWAY ENGINEER

COLLECTOR STREET

103



| JOINT ELEVATIONS |       | A     | B     | C       | D     |
|------------------|-------|-------|-------|---------|-------|
| 8" CURB          | LEVEL | 0.00' | 0.36' | 0.14'   | 0.36' |
|                  | TILT  | 0.76' | 1.02' | 0.69'   | 0.36' |
| 6" CURB          | LEVEL | 0.00' | 0.19' | (0.03') | 0.19' |
|                  | TILT  | 0.76' | 0.85' | 0.52'   | 0.19' |

( ) Indicates Above Level Line.

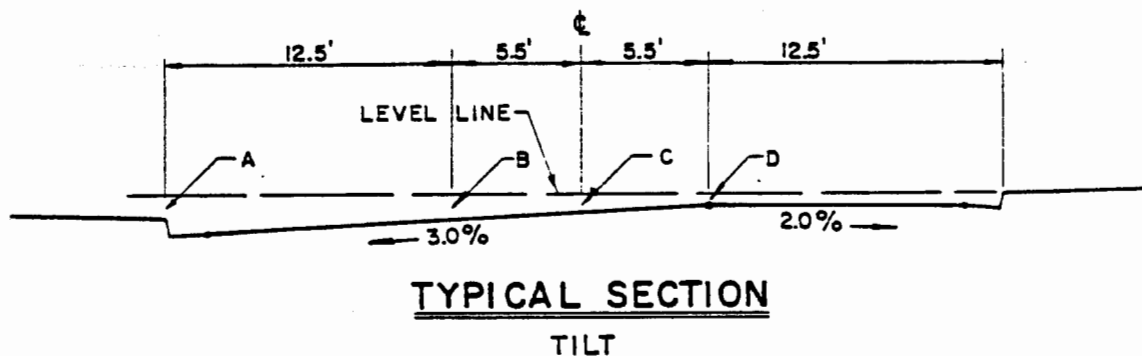
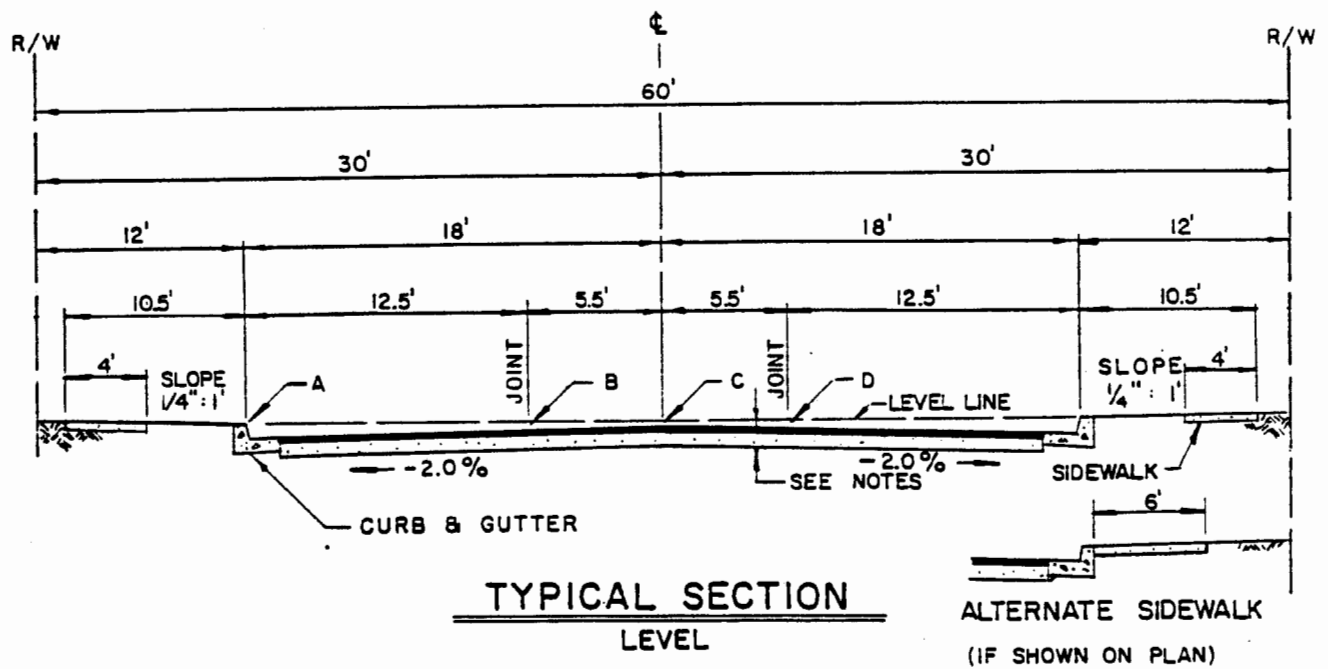
#### NOTES:

1. Structural Section Of Roadway Shall Be Determined From Soils Test, Traffic Index, Article IX Of The San Bernardino County Road Planning And Design Standards And Shall Be Approved By The County Transportation Department And So Indicated On Construction Plans.
2. Construction Outside R/W Will Require Slope Easements.

4-13-93 vhc

|                                    |   |                         |      |
|------------------------------------|---|-------------------------|------|
| SAN BERNARDINO COUNTY TRANS. DEPT. |   | INDUSTRIAL<br>COLLECTOR | 103b |
| REV. 3/1/94                        | KEN A. MILLER<br>Director of Transportation |                         |      |





|         |       | A     | B     | C     | D     |
|---------|-------|-------|-------|-------|-------|
| 8" CURB | LEVEL | 0.00' | 0.33' | 0.22' | 0.33' |
|         | TILT  | 0.44' | 0.66' | 0.50' | 0.33' |
| 6" CURB | LEVEL | 0.00  | 0.16' | 0.05' | 0.16' |
|         | TILT  | 0.44' | 0.49' | 0.33' | 0.16' |

**NOTE**

1. STRUCTURAL SECTION OF ROADWAY SHALL BE DETERMINED FROM SOILS TESTS AND SO INDICATED ON CONSTRUCTION PLANS.
2. MINIMUM DESIGN PAVING THICKNESS SHALL BE 0.20' ASPHALT CONCRETE.
3. CONSTRUCTION OUTSIDE R/W WILL REQUIRE SLOPE EASEMENTS
4. WHEN PREPARING SUBGRADE FOR PAVING, CENTERLINE CROWN ON THE "LEVEL SECTION" SHALL BE RELOCATED EITHER LEFT OR RIGHT 0.50' TO MATCH CROWN BREAK IN PAVING MACHINE.

SAN BERNARDINO COUNTY ROAD DEPARTMENT

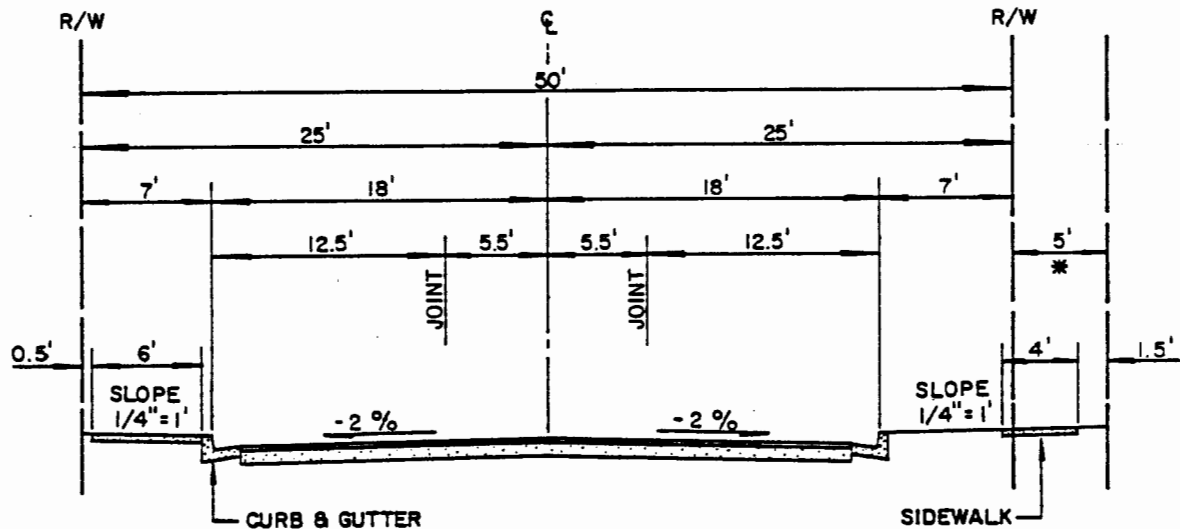
DATE: F.V.C. 9-69

Rev. 5-74

**John R. Shone**  
COUNTY HIGHWAY ENGINEER

**LOCAL STREET**

**104**



## TYPICAL SECTION

### NOTES:

1. THIS TYPICAL SECTION SHALL BE USED ONLY ON LOCAL STREETS SUCH AS CUL-DE-SACS, LOOPS AND STREETS THAT DO NOT CARRY THROUGH TYPE TRAFFIC. THE USE SHALL BE LIMITED TO STREETS WHICH ARE PROJECTED TO CARRY LESS THAN 1000 ADT UPON ULTIMATE DEVELOPMENT OF THE AREA.
2. STRUCTURAL SECTION OF ROADWAY SHALL BE DETERMINED FROM SOIL TESTS AND SO INDICATED ON CONSTRUCTION PLANS.
3. CONSTRUCTION OUTSIDE R/W LINE SHALL REQUIRE SLOPE EASEMENTS.
4. TILT SECTION SHALL CONFORM TO LOCAL STREET STANDARD NO. 104.
- \*. 5' WIDE SIDEWALK AND PUBLIC UTILITIES EASEMENT AT THE OPTION OF THE OWNER, THIS AREA MAY BE DEDICATED AS ROAD RIGHT-OF-WAY.

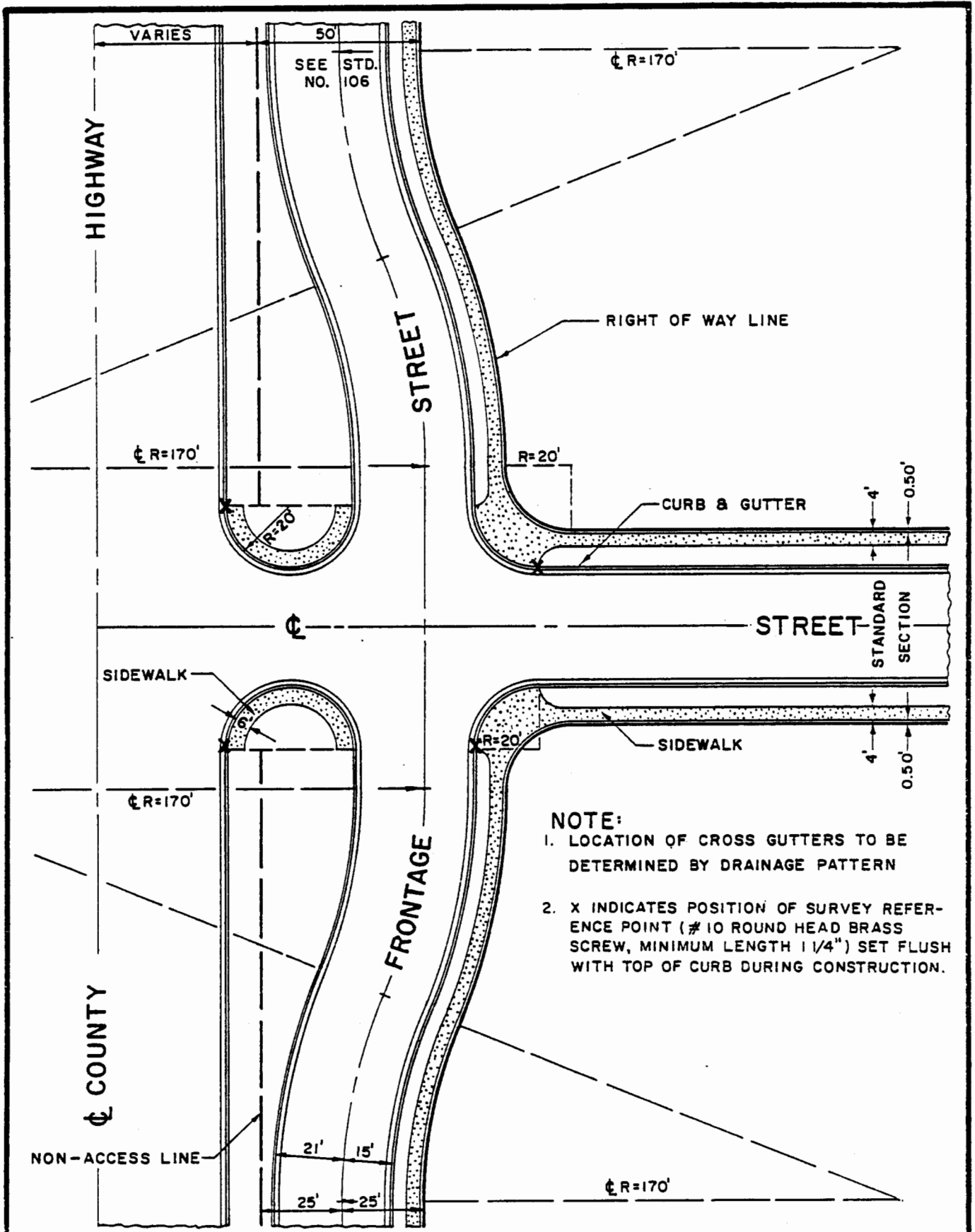
SAN BERNARDINO COUNTY TRANSPORTATION DEPARTMENT

DATE: 10/02/81

**JOHN R. SHONE**  
DIRECTOR OF TRANSPORTATION

**LOCAL STREET**  
(LESS THAN 1000 ADT)

**104**  
**A**



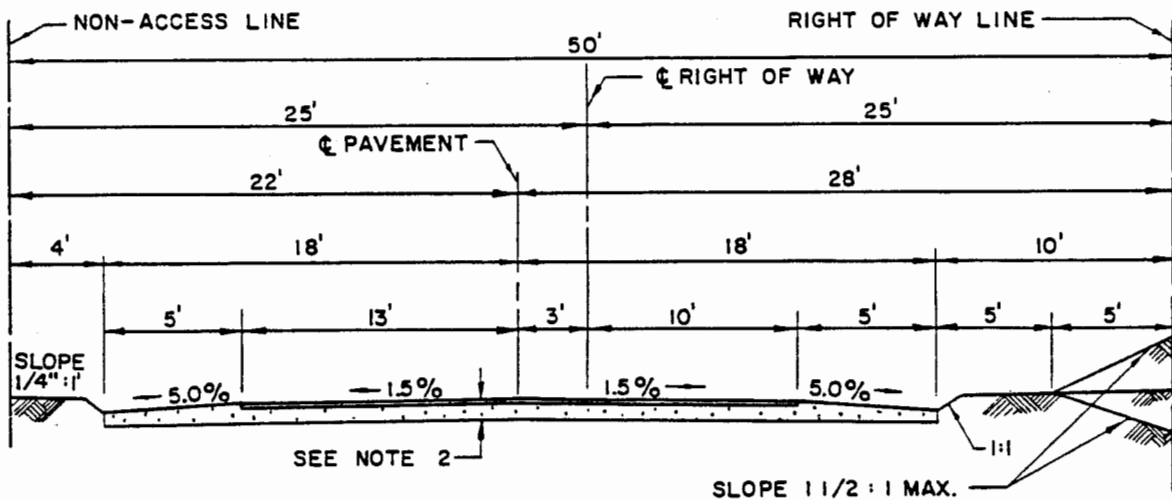
SAN BERNARDINO COUNTY ROAD DEPARTMENT

DATE: F.V.C. 6-63  
REV. VEH. 2-79

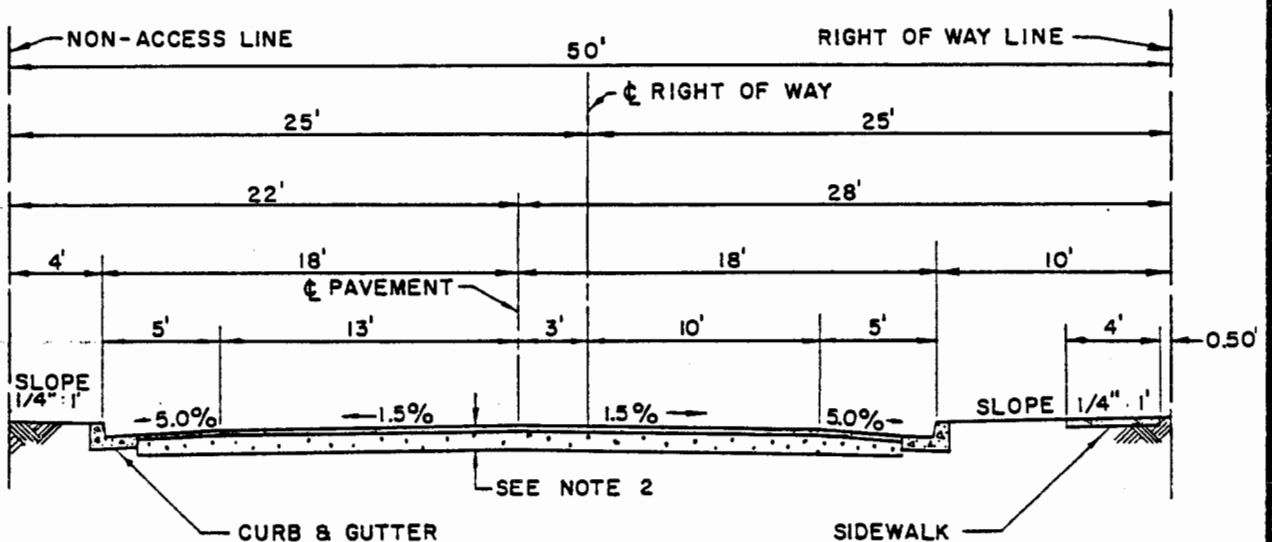
M. A. Nicholas  
COUNTY ENGINEER

INTERSECTION DESIGN  
FRONTAGE STREET

105



### TYPICAL SECTION - FRONTAGE ROAD DESERT, RESIDENTIAL, LOW DENSITY



### TYPICAL SECTION - FRONTAGE STREET RESIDENTIAL, COMMERCIAL, INDUSTRIAL

#### NOTES:

1. CONSTRUCTION OUTSIDE R/W LINE SHALL REQUIRE SLOPE EASEMENTS.
2. STRUCTURAL SECTION OF ROADWAY SHALL BE DETERMINED FROM SOILS TESTS AND SO INDICATED ON CONSTRUCTION PLANS.
3. TILT SECTIONS TO CONFORM TO LOCAL STREET SECTION, STD. NO. 104 OR TILT SECTION OF STD. NO. 100.

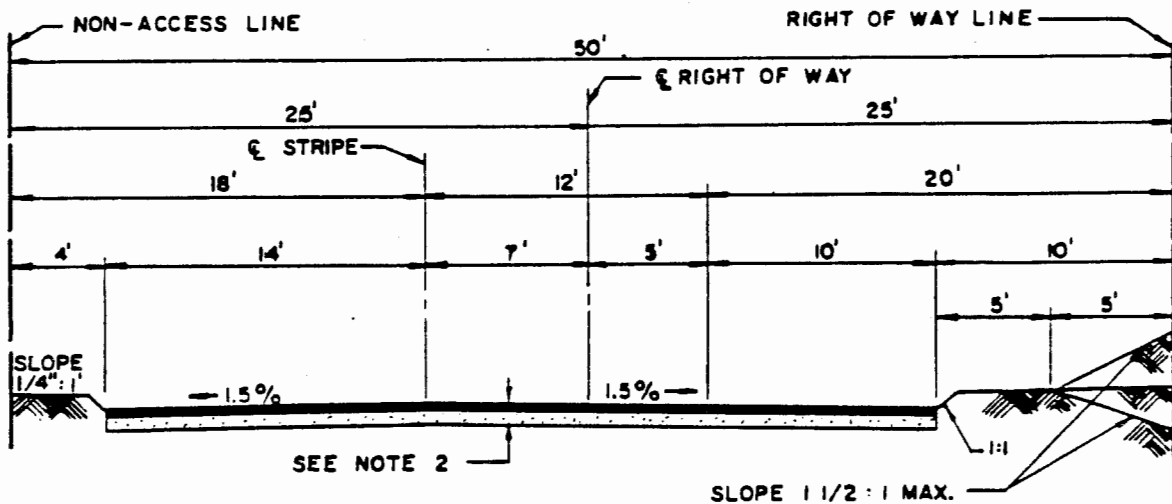
SAN BERNARDINO COUNTY ROAD DEPARTMENT

DATE: F.V.C. 4-65

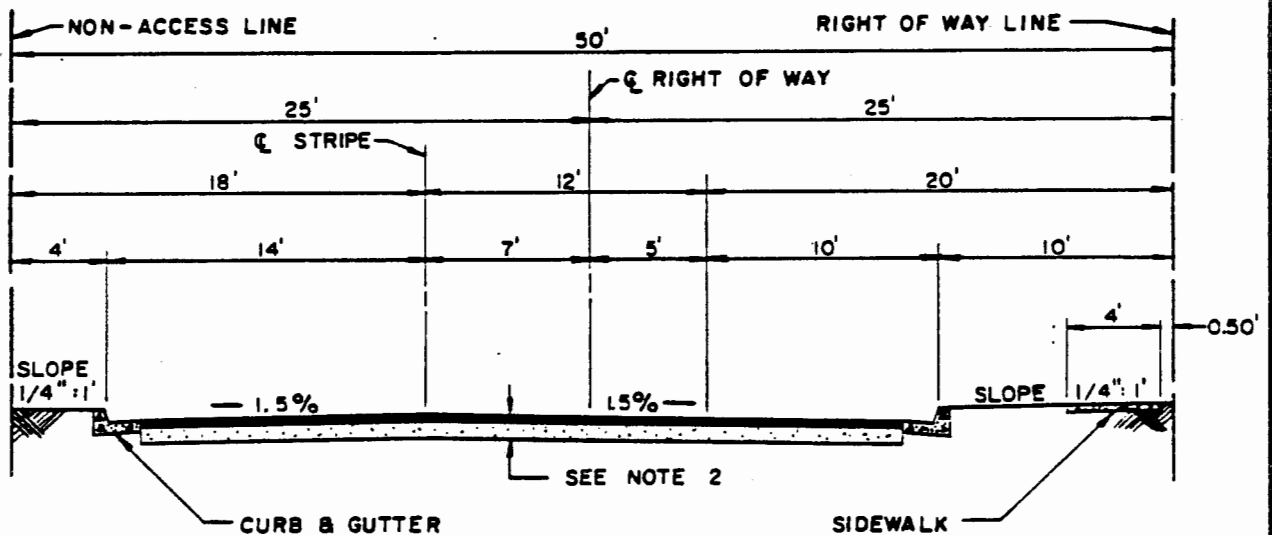
*M. A. Nicholas*  
COUNTY ENGINEER

FRONTAGE  
ROAD AND STREET

106



**TYPICAL SECTION - FRONTAGE ROAD**  
**DESERT, RESIDENTIAL, LOW DENSITY**



**TYPICAL SECTION - FRONTAGE STREET**  
**RESIDENTIAL, COMMERCIAL, INDUSTRIAL**

**NOTES:**

1. CONSTRUCTION OUTSIDE R/W LINE SHALL REQUIRE SLOPE EASEMENTS.
2. STRUCTURAL SECTION OF ROADWAY SHALL BE DETERMINED FROM SOILS TESTS AND SO INDICATED ON CONSTRUCTION PLANS.
3. TILT SECTIONS TO CONFORM TO LOCAL STREET SECTION, STD. NO. 104 OR TILT SECTION OF STD. NO. 100.

SAN BERNARDINO COUNTY ROAD DEPARTMENT

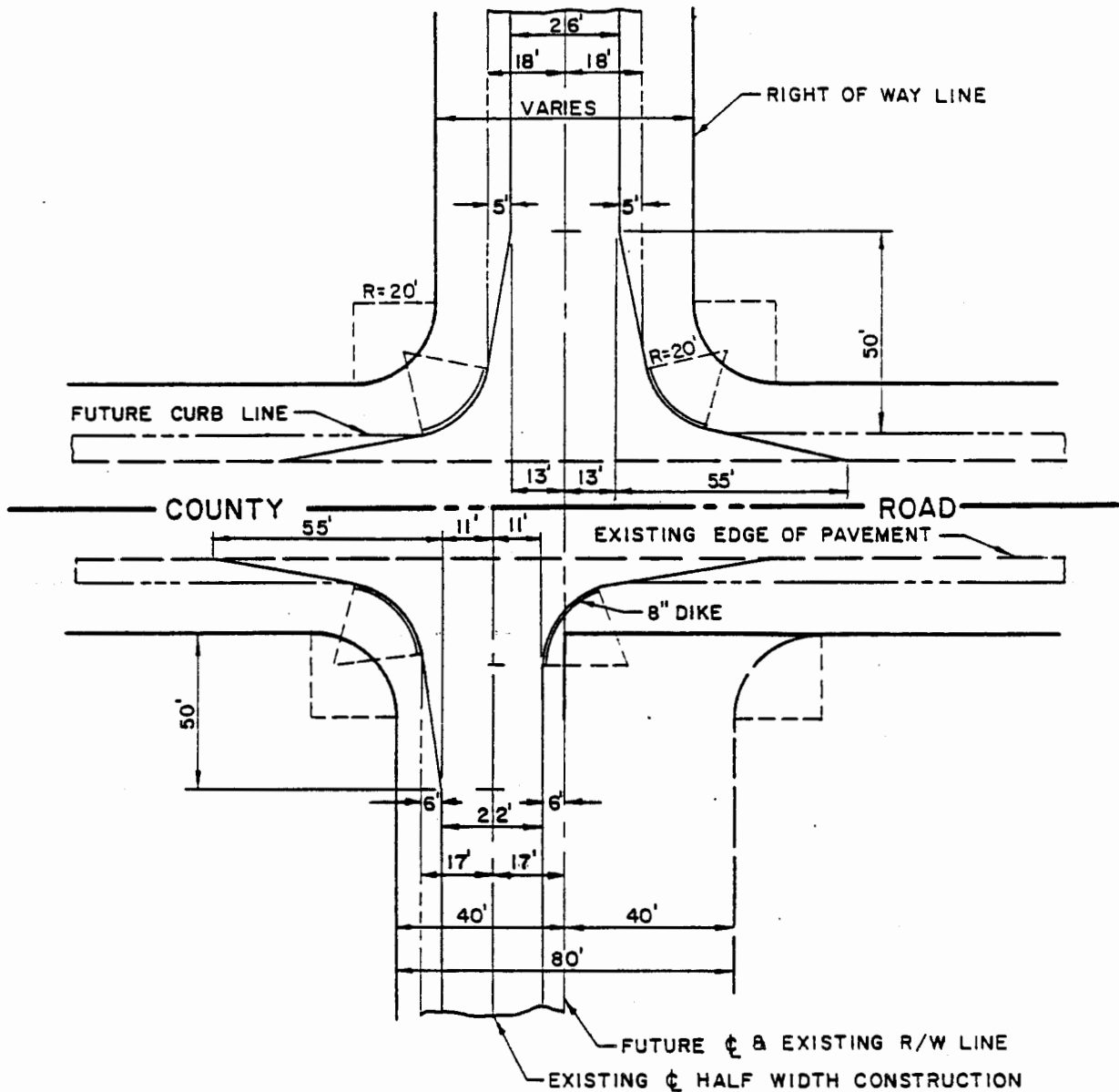
DATE: 1-69

M. A. Nicholas  
COUNTY ENGINEER

FRONTAGE  
ROAD AND STREET

106a

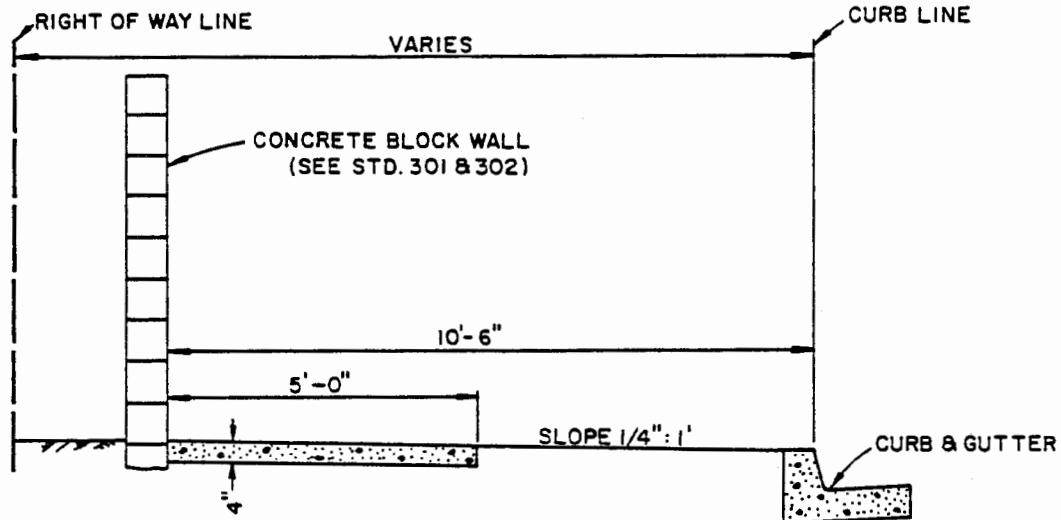
FULL WIDTH CONSTRUCTION



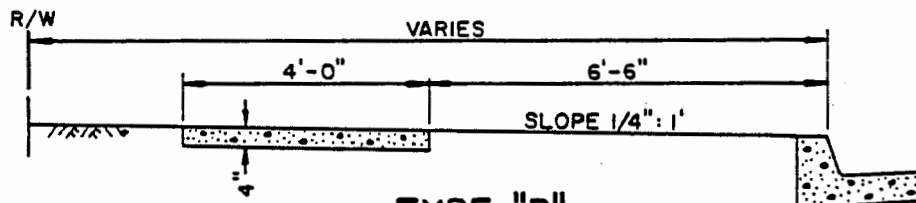
### HALF WIDTH CONSTRUCTION

NOTES :

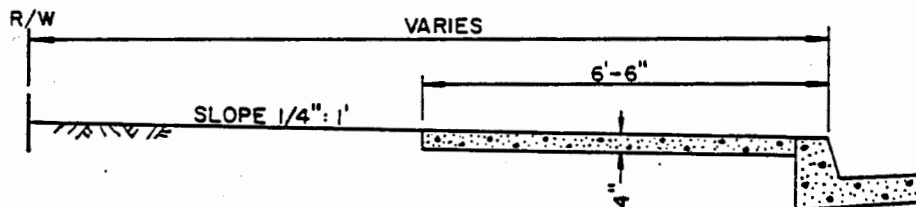
1. SEE STANDARD NO. 112 FOR ROADWAY SECTIONS.



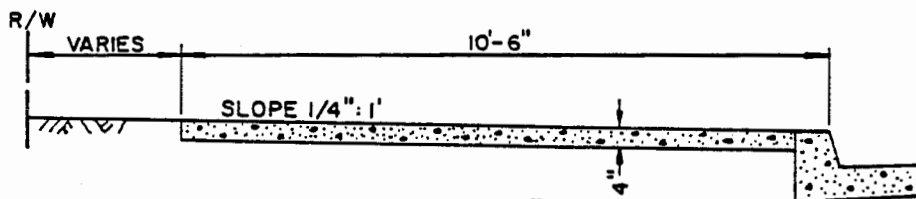
**TYPE "A"**



**TYPE "B"**



**TYPE "C"**



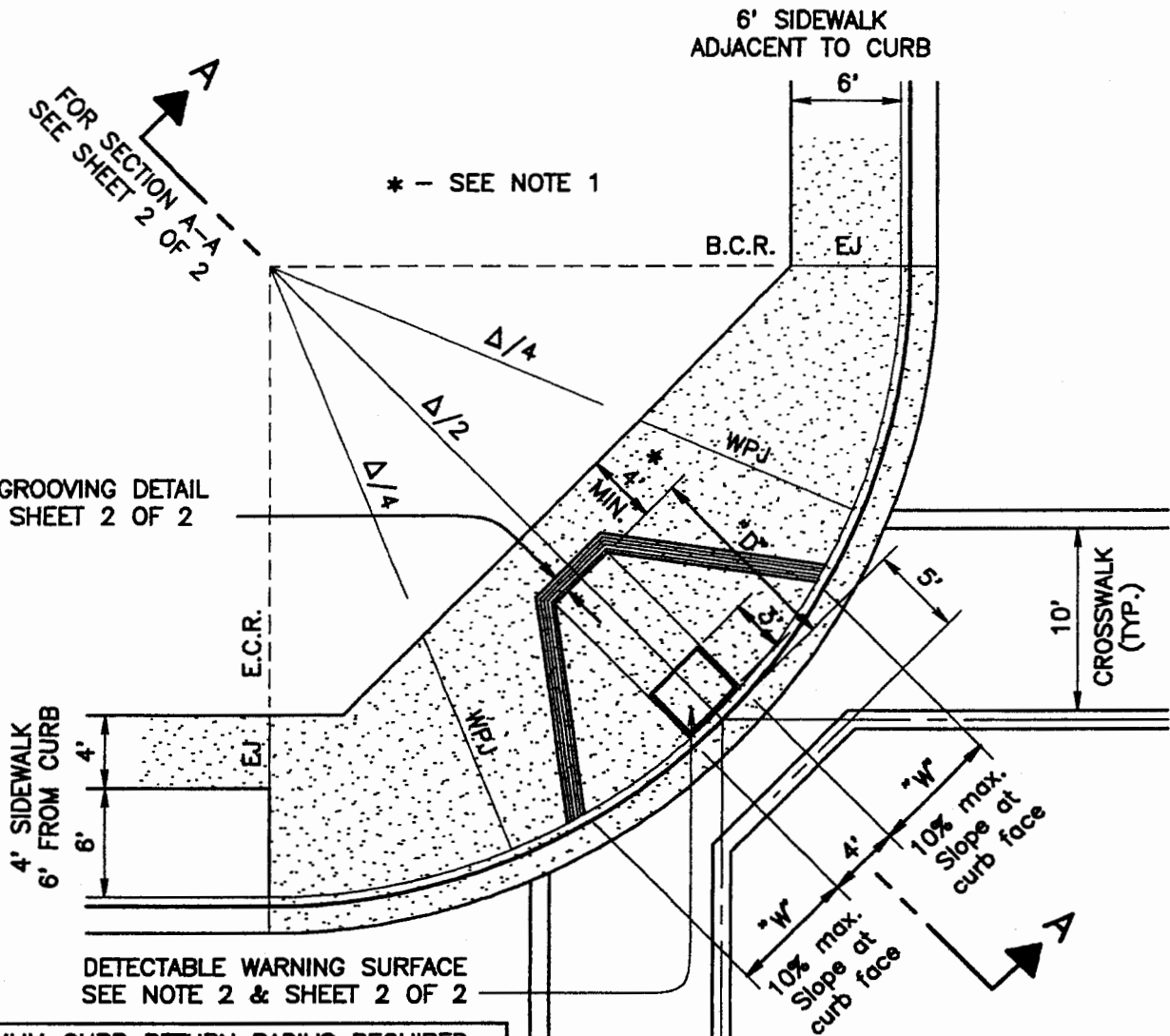
**TYPE "D"**

1. TYPE "C" SIDEWALKS ADJACENT TO CURB SHALL ONLY BE USED ON LOCAL AND COLLECTOR STREETS AND ONLY UPON APPROVAL OF THE TRANSPORTATION DEPT.
2. SIDEWALK SHALL BE CONSTRUCTED OF CLASS "B" CONCRETE.
3. WEAKENED PLANE JOINTS SHALL BE CONSTRUCTED ON 10' SPACING.
4. SCORING SIDEWALK WILL BE PERMITTED.
5. IN EXPANSIVE SOIL AREAS, REFER TO SECTION 73 OF THE COUNTY SPECIFICATIONS.

FOR SECTION A-A  
SEE SHEET 2 OF 2

\* - SEE NOTE 1

FOR GROOVING DETAIL  
SEE SHEET 2 OF 2



DETECTABLE WARNING SURFACE  
SEE NOTE 2 & SHEET 2 OF 2

| MINIMUM CURB RETURN RADIUS REQUIRED |        |
|-------------------------------------|--------|
| INTERSECTING STREETS:               | RADIUS |
| LOCAL STREET AND LOCAL STREET       | 20'    |
| LOCAL STREET AND COLLECTOR ST.      | 30'    |
| SECONDARY HWY. OR GREATER           | 35'    |
| SECONDARY HWY. OR GREATER           | 50'    |

< (RESIDENTIAL)  
< (COMMERCIAL/  
INDUSTRIAL)

| RAMP DIMENSION TABLE |         |         |
|----------------------|---------|---------|
|                      | 8" C.F. | 6" C.F. |
| "D"                  | 11'-0"  | 8'-0"   |
| "W"                  | 7'-0"   | 5'-0"   |
| C.F. = CURB FACE     |         |         |

#### NOTES:

1. SIDEWALK WIDTH SHALL BE 5' WHEN ADJACENT TO BLOCK WALL OR OTHER OBSTRUCTION. FOR BLOCK WALL LOCATION AT INTERSECTION SEE COUNTY STD. 302.
2. THE DETECTABLE WARNING SURFACE SHALL BE CONSTRUCTED BY CAST-IN-PLACE METHOD OR SHALL CONSIST OF A PREFABRICATED SURFACE, APPROVED BY THE COUNTY ENGINEER. A GLUE DOWN DETECTABLE WARNING SURFACE IS NOT ALLOWED.
3. FOR RIGHT-OF-WAY LOCATION SEE PROJECT PLANS.

WPJ INDICATES WEAKENED PLANE JOINT

EJ INDICATES 1/4" PREMOLDED EXPANSION JOINT FILLER PER ASTM DESIGNATION D 1751.

CO. OF SAN BDNO. DEPT. OF PUBLIC WORKS

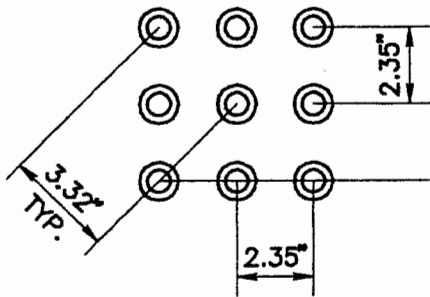
REVISED: DATE  
G.M. 12-05  
G.M. 3-06

PATRICK J. MEAD  
Director of Public Works

CURB RETURN  
WITH SIDEWALK RAMP

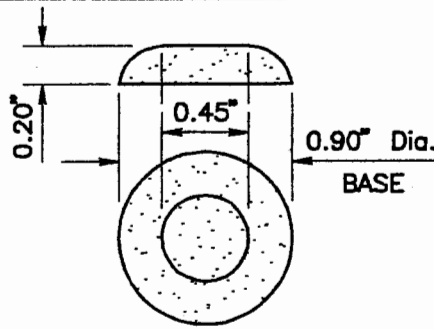
110  
1 OF 2





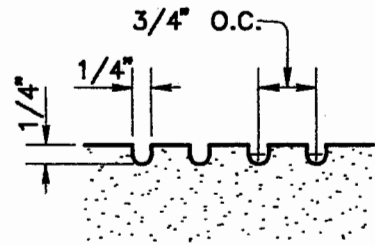
TRUNCATED  
DOME PATTERN

DETECTABLE WARNING SURFACE

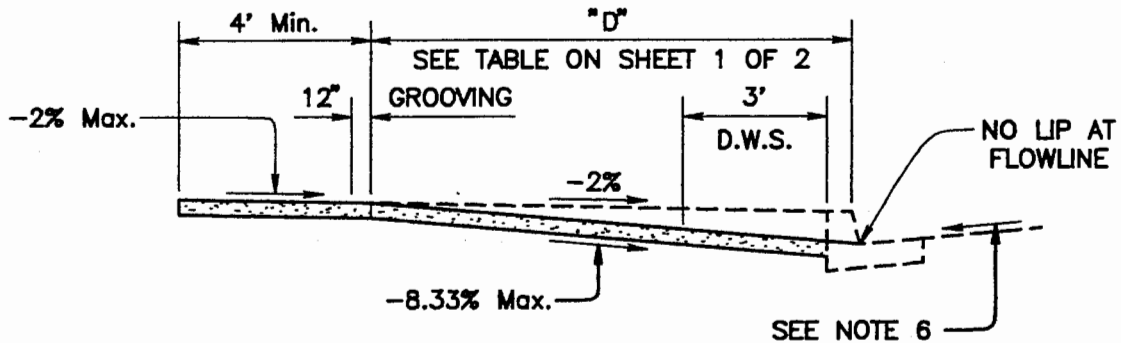


TRUNCATED  
DOME DETAIL

RAISED TRUNCATED DOME



GROOVING DETAIL



SECTION A-A

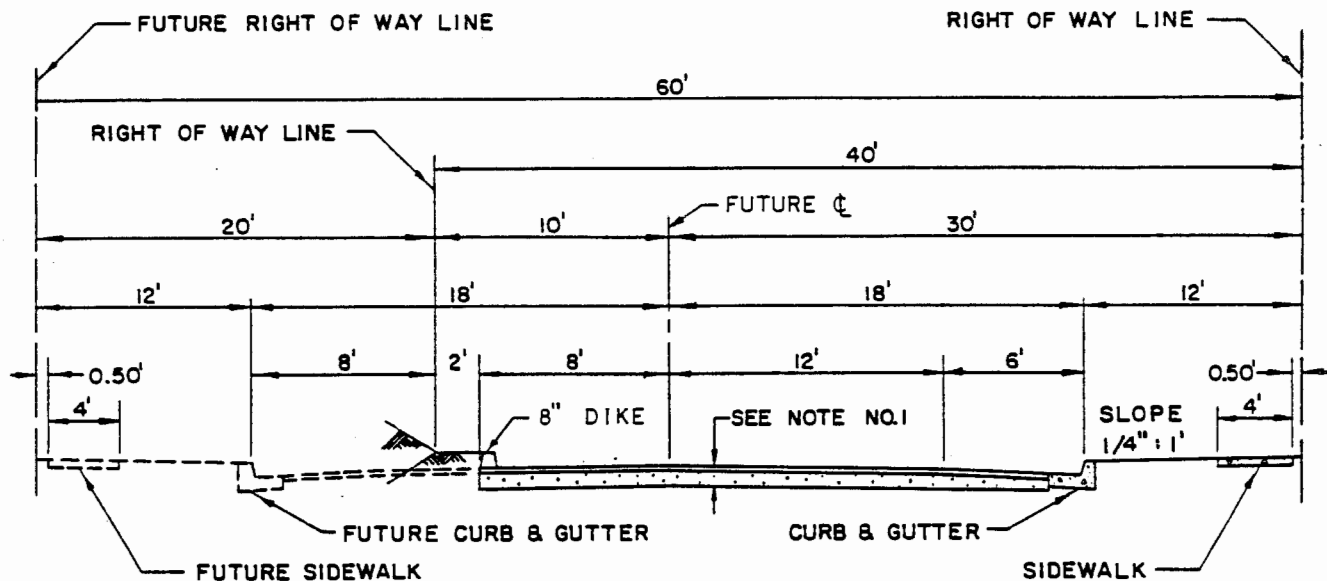
NOTES:

1. THE SIDEWALK AND RAMP THICKNESS SHALL BE 4" MINIMUM.
2. THE SIDEWALK RAMP SLOPE SHALL BE 8.33% MAXIMUM.
3. THE RAMP SHALL HAVE A 12" WIDE BORDER WITH 1/4" GROOVES AT 3/4" O.C. PER GROOVING DETAIL ON THIS DRAWING.
4. THE RAMP SHALL HAVE A TRANSVERSE BROOM FINISH TEXTURE ROUGHER THAN THE SURROUNDING SIDEWALK.
5. TRANSITIONS FROM RAMPS TO WALKS, GUTTERS OR STREETS SHALL BE FLUSH AND FREE OF ADRUPT CHANGES.
6. THE MAXIMUM SLOPE OF THE ROAD SURFACE IMMEDIATELY ADJACENT TO THE CURB RAMP SHALL NOT EXCEED 5 PERCENT WITHIN 4' OF THE RAMP.
7. THE EDGE OF THE DETECTABLE WARNING SURFACE NEAREST THE STREET SHALL BE BETWEEN 5" AND 8" FROM THE GUTTER FLOWLINE.
8. MODIFICATIONS TO LOCATION OR DIMENSIONS OF RAMP SHALL REQUIRE APPROVAL OF COUNTY ENGINEER AND SHALL BE SHOWN ON APPROVED PLANS.
9. UTILITY PULL BOXES, MANHOLES, VAULTS AND ALL OTHER UTILITY FACILITIES WITHIN THE BOUNDARIES OF THE CURB RAMP WILL BE RELOCATED OR ADJUSTED TO GRADE BY THE OWNER PRIOR TO, OR IN CONJUNCTION WITH, CURB RAMP CONSTRUCTION.

D.W.S. - DETECTABLE WARNING SURFACE

SEE TERRAMODEL FILE - N:\ M2201\ MISCODET.pro

|  |                          |               |               |
|--|--------------------------|---------------|---------------|
| CO. OF SAN BDNO. DEPT. OF PUBLIC WORKS |                          | SIDEWALK RAMP | 110<br>2 OF 2 |
| REVISED: DATE                          |                          |               |               |
| G.M. 12-05                             | PATRICK J. MEAD          |               |               |
| G.M. 3-06                              | Director of Public Works |               |               |



### TYPICAL SECTION

#### NOTES

1. STRUCTURAL SECTION OF ROADWAY SHALL BE DETERMINED FROM SOILS TESTS AND SO INDICATED ON CONSTRUCTION PLANS.
2. CUT AND FILL SLOPES SHALL BE NO STEEPER THAN  $1\frac{1}{2}:1$ .
3. CONSTRUCTION OUTSIDE R/W LINE SHALL REQUIRE SLOPE EASEMENTS
4. ALL SECTIONS SHALL CONFORM TO STANDARD NO. 104.
5. SLOPE REQUIREMENT MAY BE VARIED BY SUBMISSION OF SOILS REPORT.

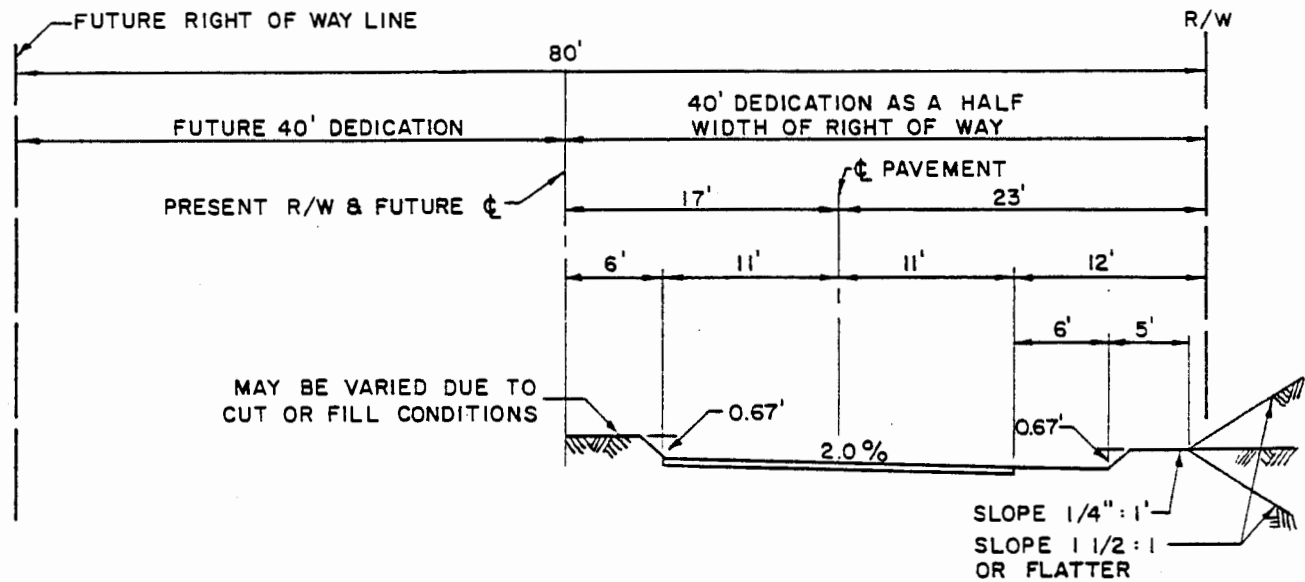
SAN BERNARDINO COUNTY ROAD DEPARTMENT

DATE: P.V.C. 5-65

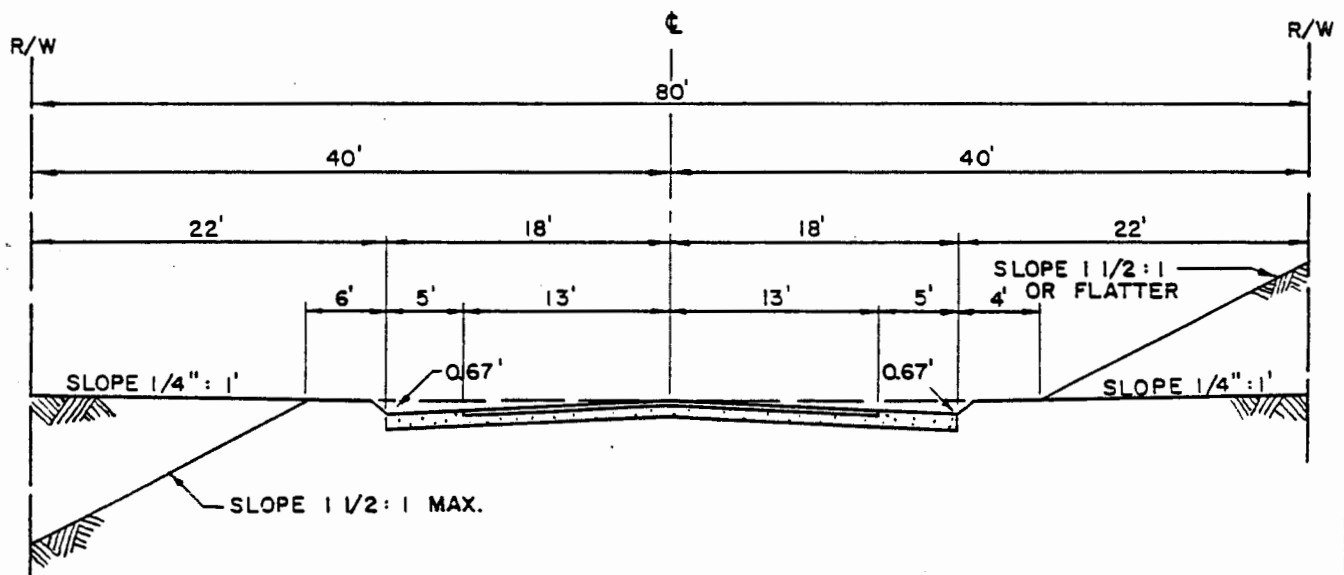
*M. A. Nicholas*  
COUNTY ENGINEER

HALF WIDTH  
LOCAL STREET

III



**TYPICAL SECTION  
HALF WIDTH CONSTRUCTION**



**TYPICAL SECTION  
ULTIMATE WIDTH**

**NOTES:**

1. FUTURE DEVELOPER TO RECONSTRUCT PAVEMENT TO STANDARD SECTION ON CENTERLINE OF FULL WIDTH RIGHT OF WAY. ROAD TO BE PAVED OR GRADED IN ACCORDANCE WITH STANDARD NO. 113 FOR ALIGNMENT AND IMPROVEMENT, AND STANDARD NUMBER 107 FOR INTERSECTION DESIGN.
2. CONSTRUCTION OUTSIDE R/W LINE SHALL REQUIRE SLOPE EASEMENTS.

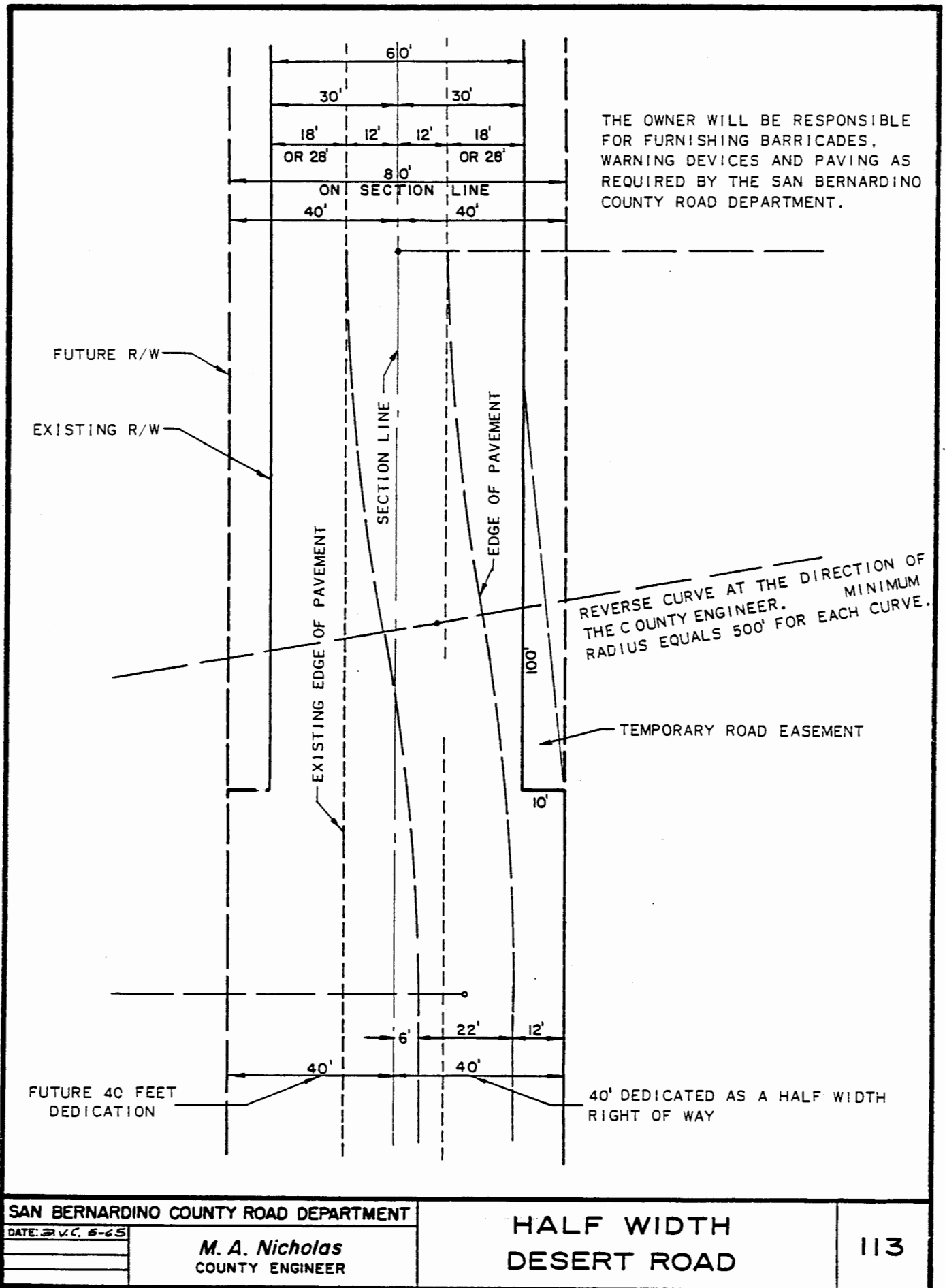
SAN BERNARDINO COUNTY ROAD DEPARTMENT

DATE: 3.11.05

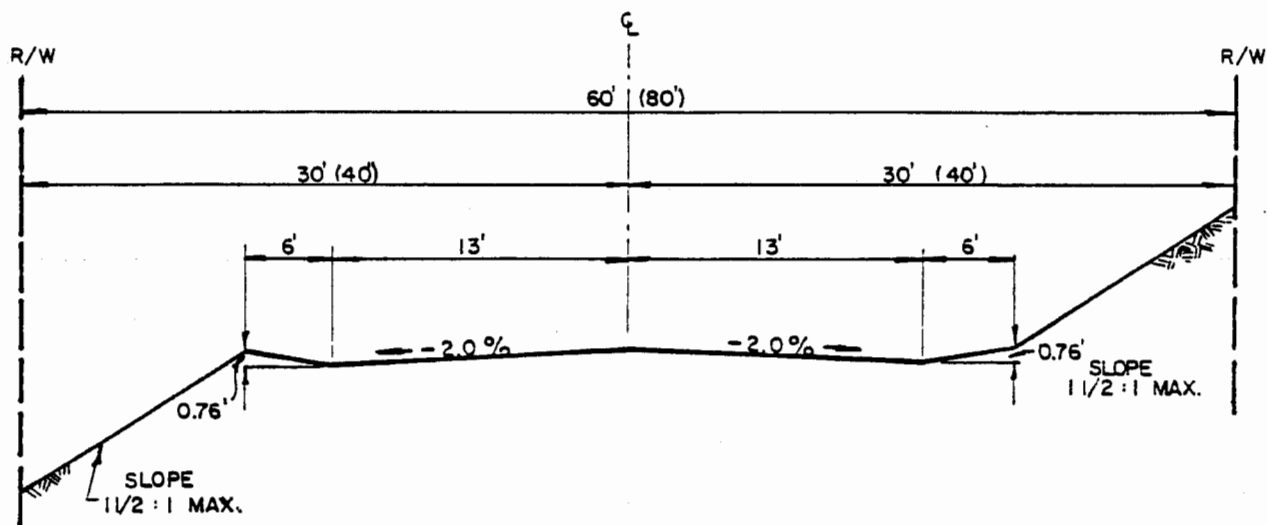
**M. A. Nicholas**  
COUNTY ENGINEER

**HALF WIDTH  
DESERT ROAD**

**112**



|                                       |  |                                   |                           |     |
|---------------------------------------|--|-----------------------------------|---------------------------|-----|
| SAN BERNARDINO COUNTY ROAD DEPARTMENT |  | M. A. Nicholas<br>COUNTY ENGINEER | HALF WIDTH<br>DESERT ROAD | 113 |
| DATE: DEC. 6-65                       |  |                                   |                           |     |



### TYPICAL SECTION

#### NOTES:

1. DRAINAGE IMPROVEMENTS TO BE PLACED WHERE REQUIRED BY PLAN.
2. EMBANKMENTS PLACED WITHIN AREA OF THE TRAVELLED WAY SHALL PROVIDE A STABLE ROADWAY.
3. PLANS SHALL INDICATE AREAS WHERE IMPORTED MATERIAL IS REQUIRED TO PROVIDE A STABLE ROADWAY.
4. CONSTRUCTION OUTSIDE R/W LINE SHALL REQUIRE SLOPE EASEMENTS.

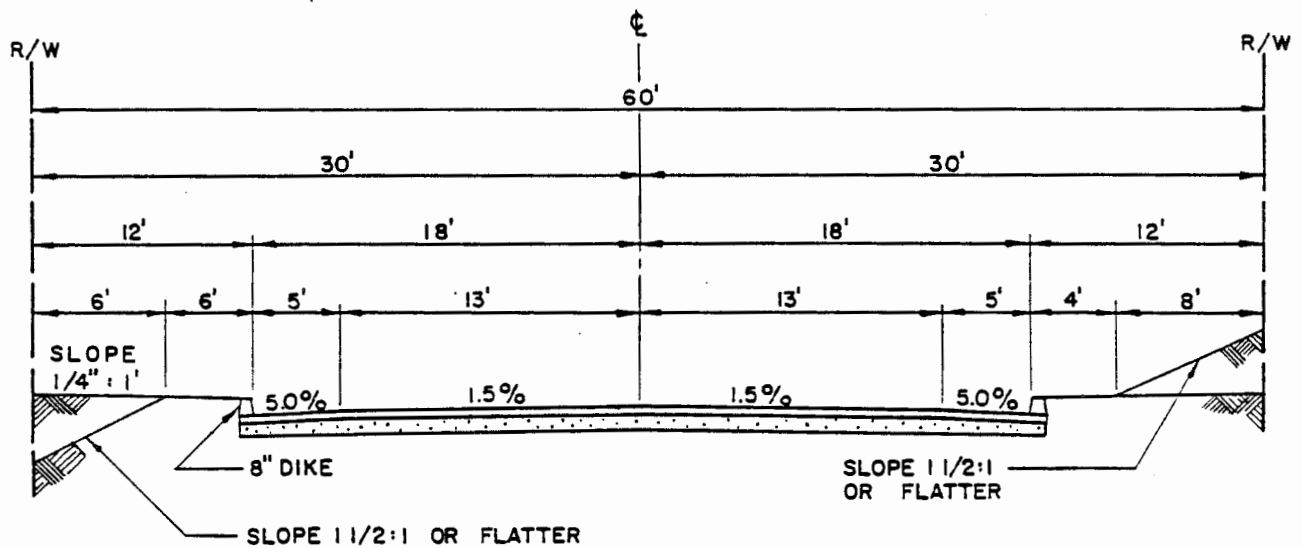
SAN BERNARDINO COUNTY ROAD DEPARTMENT

Rev. 5-74

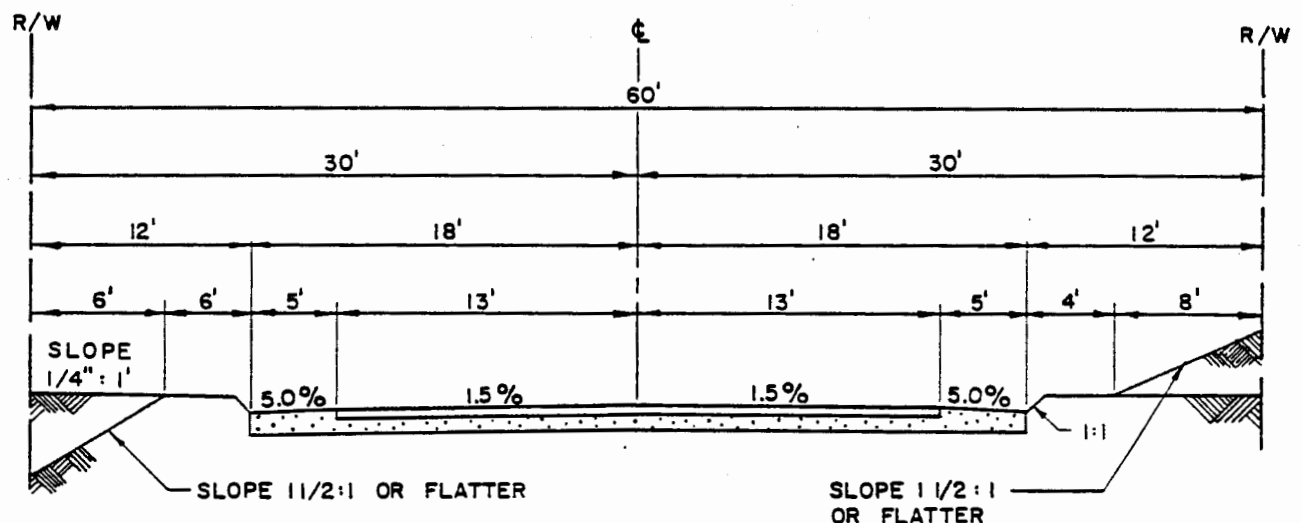
John R. Shone  
COUNTY HIGHWAY ENGINEER

GRADED ROAD

114



**TYPICAL SECTION**  
WHERE REQUIRED FOR DRAINAGE PURPOSES



**TYPICAL SECTION**

**NOTES:**

1. STRUCTURAL SECTION OF ROADWAY SHALL BE DETERMINED FROM SOILS TESTS AND SO INDICATED ON CONSTRUCTION PLANS.
2. CONSTRUCTION OUTSIDE R/W LINE SHALL REQUIRE SLOPE EASEMENTS.
3. SLOPE REQUIREMENT MAY BE VARIED BY SUBMISSION OF SOILS REPORT.

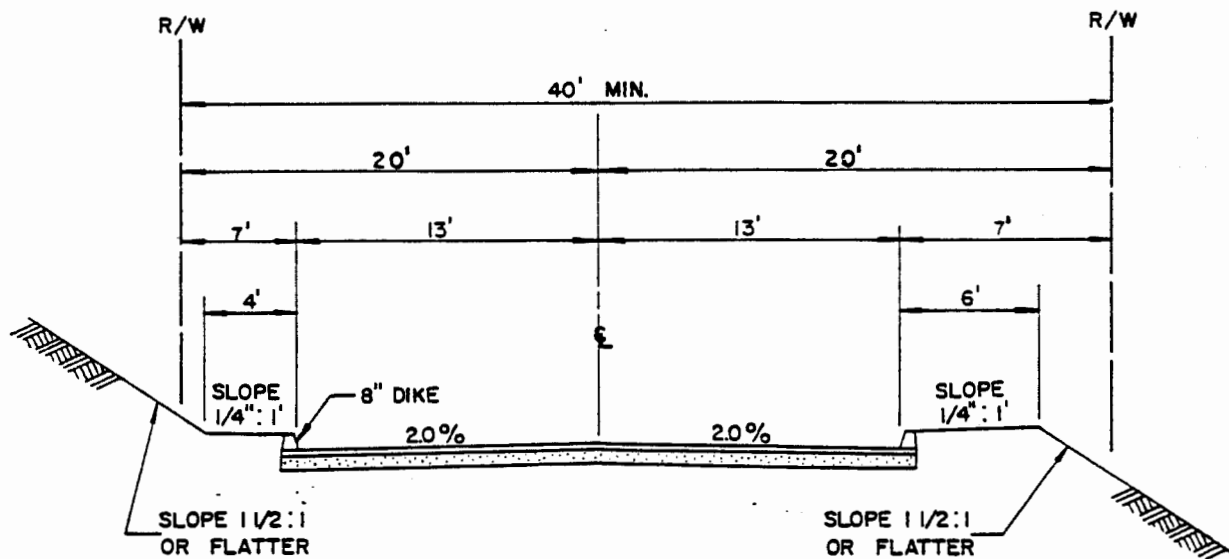
SAN BERNARDINO COUNTY ROAD DEPARTMENT

DATE: P.V.C. 5-68

*M. A. Nicholas*  
COUNTY ENGINEER

PAVED ROAD

114a



### TYPICAL SECTION MOUNTAIN AREAS

#### NOTES:

1. STRUCTURAL SECTION OF ROADWAY SHALL BE DETERMINED FROM SOILS TESTS AND SO INDICATED ON CONSTRUCTION PLANS.
2. CONSTRUCTION OUTSIDE R/W LINE SHALL REQUIRE SLOPE EASEMENTS.
3. SLOPE REQUIREMENT MAY BE VARIED BY SUBMISSION OF SOILS REPORT.

SAN BERNARDINO COUNTY ROAD DEPARTMENT

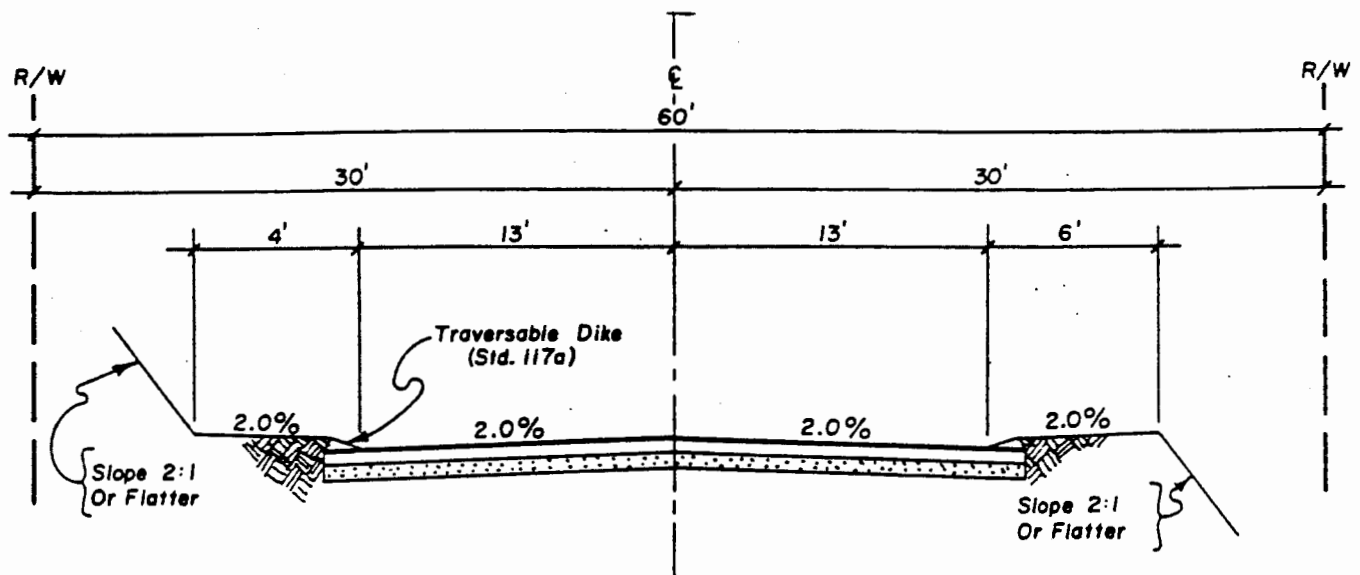
DATE: J.E.M. 9-65

P.P. 8-80

*M. A. Nicholas*  
COUNTY ENGINEER

PAVED ROAD

114b



### TYPICAL SECTION

HILLSIDE

#### NOTES:

1. Structural Section Of Roadway Shall Be Determined From Soils Test And So Indicated On Construction Plans.
2. Construction Outside R/W Line Shall Require Slope Easements.
3. Slope Requirement May Be Varied By Submission Of Soils Report.

SAN BERNARDINO COUNTY TRANS. DEPT.

REV. 3/1/94

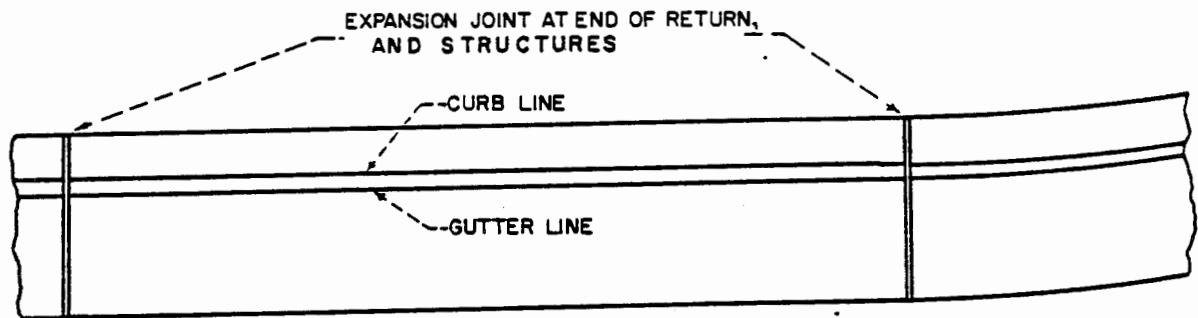
KEN A. MILLER  
Director of Transportation

HILLSIDE  
PAVED ROAD

3-31-93 vhc

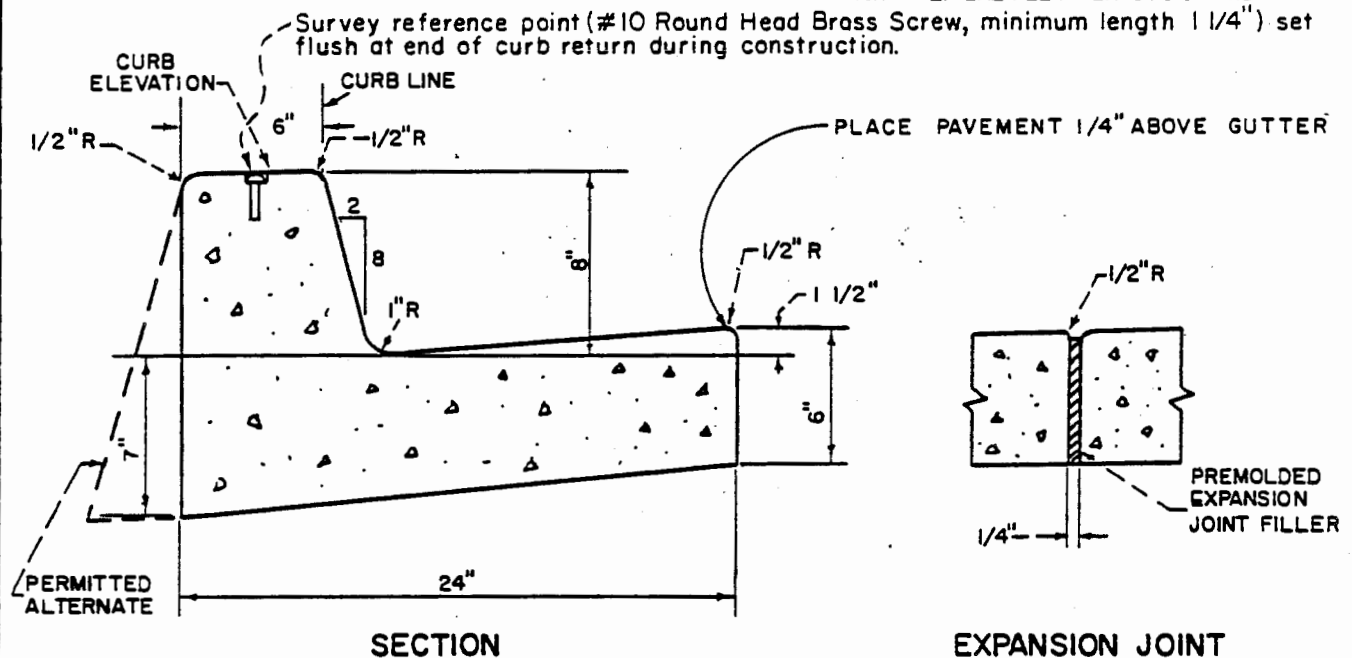
114c





### PLAN

0.0535 CUBIC YARDS PER LINEAL FOOT.  
18.7 LINEAL FEET PER CUBIC YARD.



### NOTES:

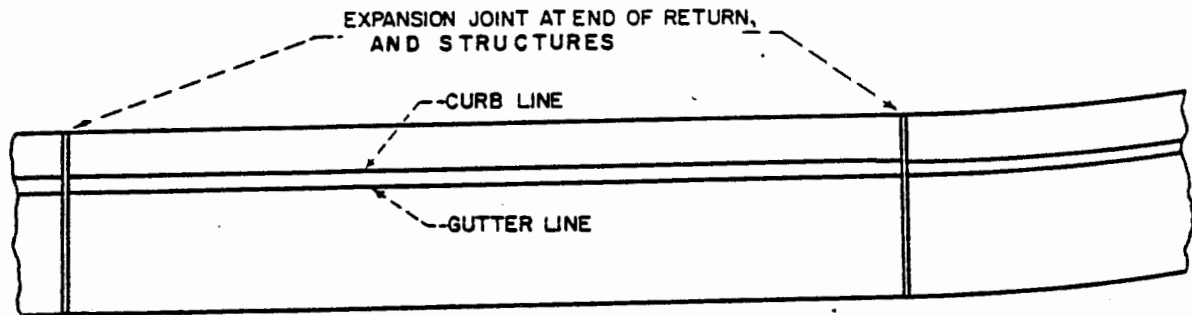
1. CURB AND GUTTER SHALL BE CONSTRUCTED MONOLITHICALLY OF CLASS "B" CONCRETE.
2. WIDTHS OF STANDARD STREET SECTIONS SHOWN ON PLANS ARE TO CURB LINE UNLESS OTHERWISE INDICATED.
3. WEAKENED PLANE JOINTS SHALL BE CONSTRUCTED AT 10-FOOT INTERVALS, EXCEPT THAT THE INTERVAL SHALL BE VARIED TO ALLOW MATCHING OF JOINTS IN ADJACENT EXISTING IMPROVEMENTS.
4. OILING COMPOUND SHALL BE SPRAYED UNIFORMLY ON EXPOSED SURFACES.
5. WHEN CURB AND GUTTER IS PLACED BY AN EXTRUSION MACHINE MINOR FINISHING MAY BE DONE TO PROVIDE AN ACCEPTABLE FINISH AND THE WEAKENED PLANE JOINTS MAY BE SAWCUT.

SAN BERNARDINO COUNTY ROAD DEPARTMENT  
REV. V.E.H. 3-74  
REV. V.E.H. 7-76  
Rev V.E.H. 2-79

John R. Shone  
COUNTY HIGHWAY ENGINEER

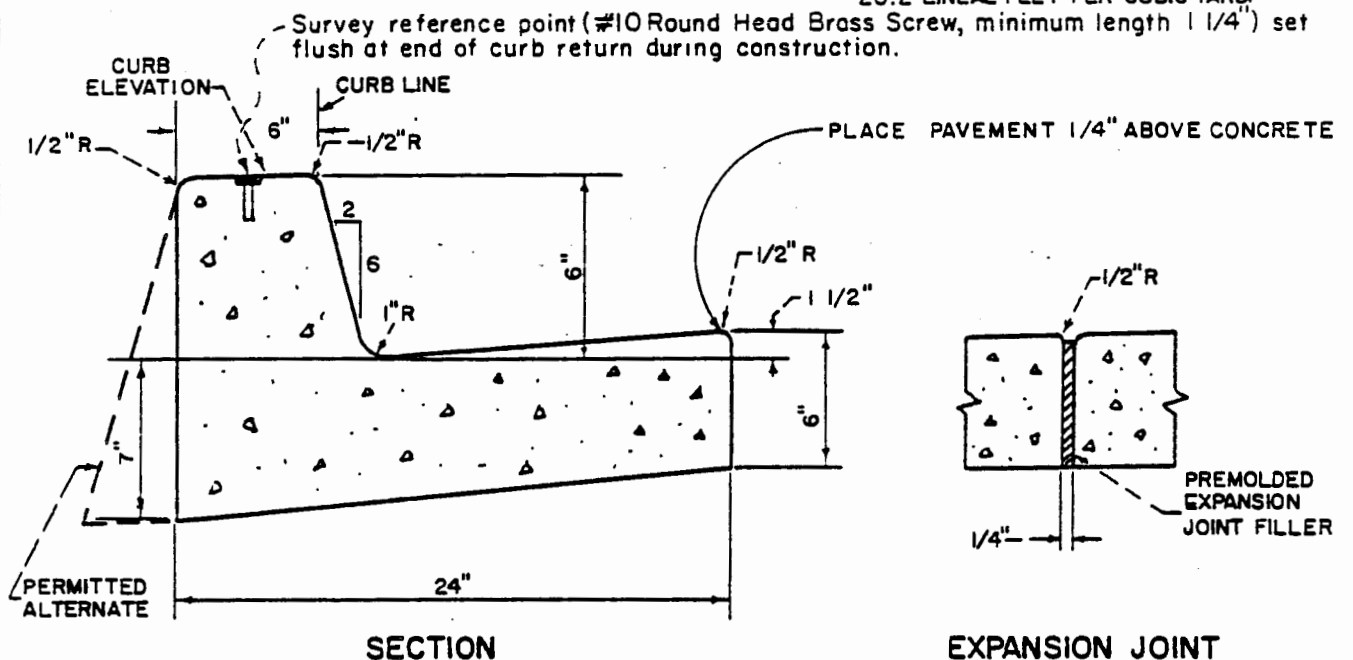
8"  
CURB AND GUTTER

115



### PLAN

0.0495 CUBIC YARDS PER LINEAL FOOT.  
20.2 LINEAL FEET PER CUBIC YARD.



### NOTES:

1. 6" CURB SHALL ONLY BE USED ON LOCAL STREETS WHERE DRAINAGE PERMITS.
2. CURB AND GUTTER SHALL BE CONSTRUCTED MONOLITHICALLY OF CLASS "B" CONCRETE.
3. WIDTHS OF STANDARD STREET SECTIONS SHOWN ON PLANS ARE TO CURB LINE UNLESS OTHERWISE INDICATED.
4. WEAKENED PLANE JOINTS SHALL BE CONSTRUCTED AT 10-FOOT INTERVALS, EXCEPT THAT THE INTERVAL SHALL BE VARIED TO ALLOW MATCHING OF JOINTS IN ADJACENT EXISTING IMPROVEMENTS.
5. CURING COMPOUND SHALL BE SPRAYED UNIFORMLY ON EXPOSED SURFACES.
6. WHEN CURB AND GUTTER IS PLACED BY AN EXTRUSION MACHINE MINOR FINISHING MAY BE DONE TO PROVIDE AN ACCEPTABLE FINISH AND THE WEAKENED PLANE JOINTS MAY BE SAWCUT.

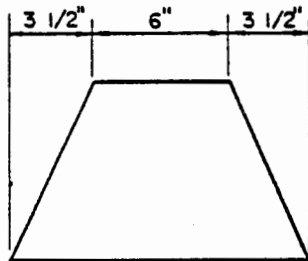
SAN BERNARDINO COUNTY TRANS. DEPARTMENT

APPR. 3-75  
Rev. VEH 2-79

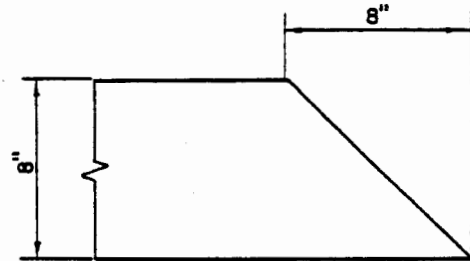
John R. Shone  
DIRECTOR OF TRANSPORTATION

6"  
CURB AND GUTTER

116



SECTION



END CUTOFF

8" DIKE

NOTES:

1. DIKE SHALL BE CONSTRUCTED OF TYPE B ASPHALT CONCRETE.
2. PAINT BINDER SHALL BE PLACED ON EXISTING ASPHALT CONCRETE PAVEMENT PRIOR TO THE INSTALLATION OF THE DIKE.

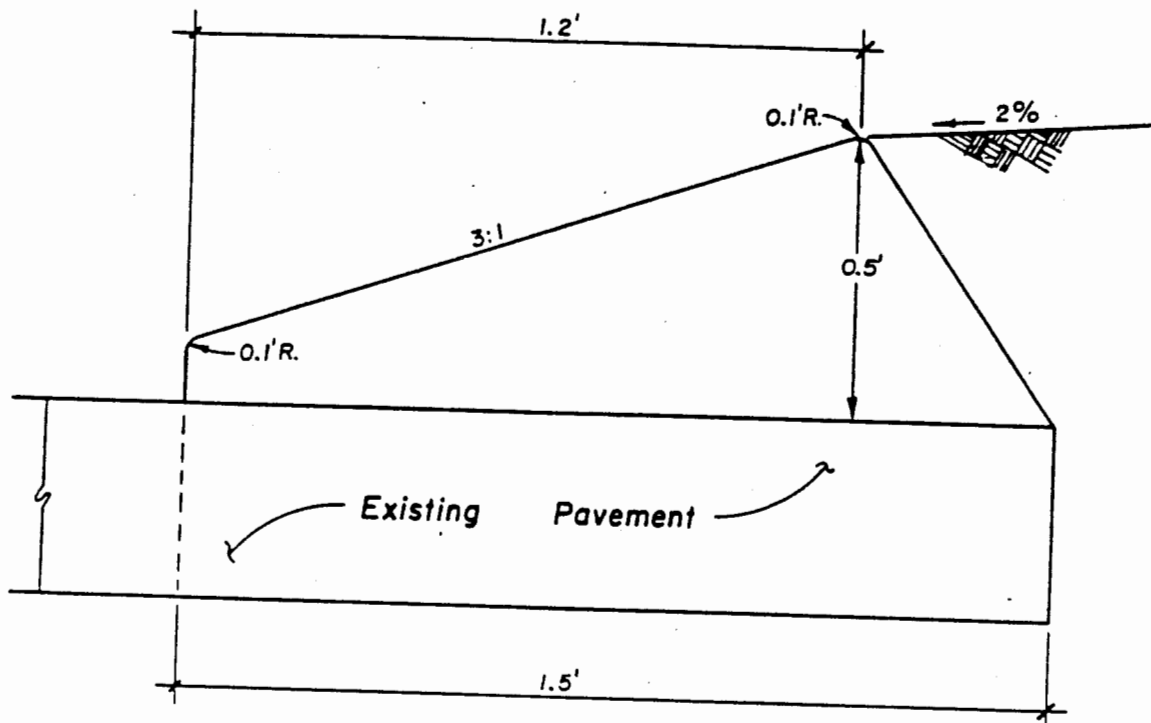
SAN BERNARDINO COUNTY ROAD DEPARTMENT

DATE: F.V.C. 6-65

*M. A. Nicholas*  
COUNTY ENGINEER

ASPHALT CONCRETE  
DIKE

117



### TYPICAL SECTION

#### NOTES:

1. Dike Shall Be Constructed Of Type B Asphalt Concrete.
2. Paint Binder Shall Be Placed On Existing Asphalt Concrete Pavement Prior To The Installation Of The Dike.

SAN BERNARDINO COUNTY TRAN. DEPT.

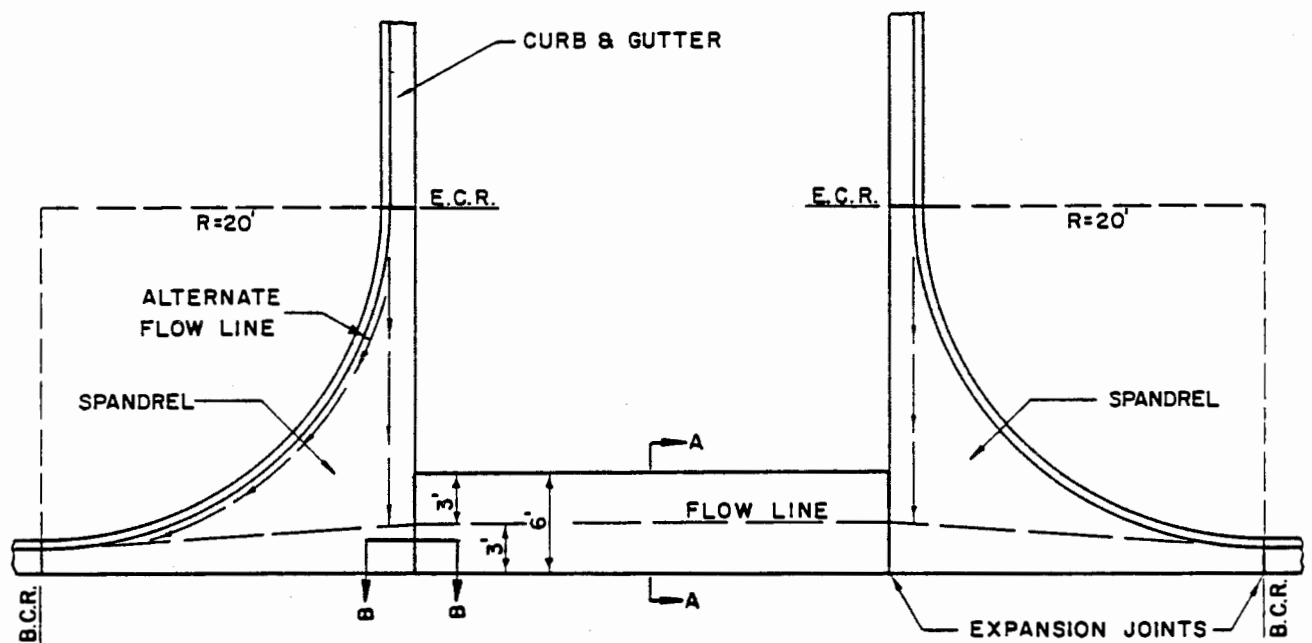
REV. 3/1/71

KEN A. MILLER  
Director of Transportation

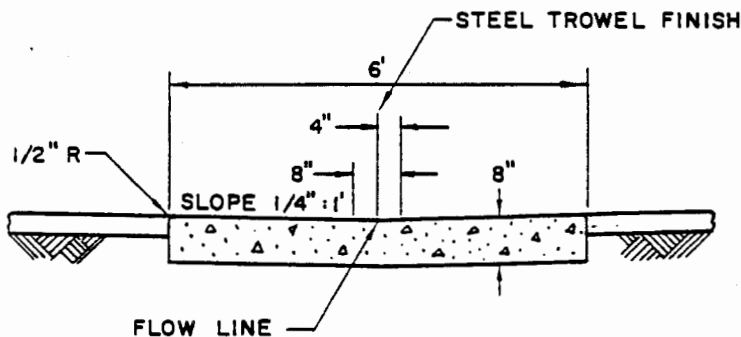
TRAVERSABLE DIKE

4-1-93 vhc

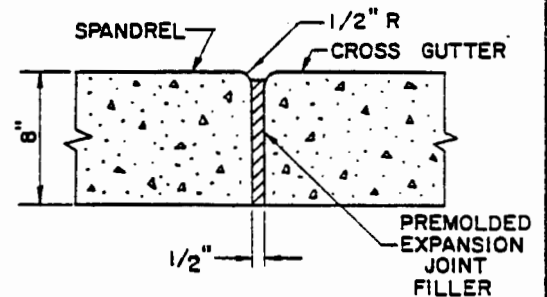
117a



PLAN



SECTION A-A



SECTION B-B

**NOTES:**

1. CROSS GUTTER SHALL BE CONSTRUCTED OF CLASS "B" CONCRETE.
2. THE STRAIGHT GRADE BETWEEN B.C.R.'S MAY BE ALTERED ON AN EXCESSIVE GRADE.
3. A 0.3' MINIMUM FALL IS REQUIRED BETWEEN E.C.R. AND CROSS GUTTER FLOWLINE.
4. SPANDREL SHALL BE 8" THICKNESS CLASS "B" CONCRETE.
5. VARIABLE CURB FACE ALLOWED FOR DRAINAGE PURPOSES.

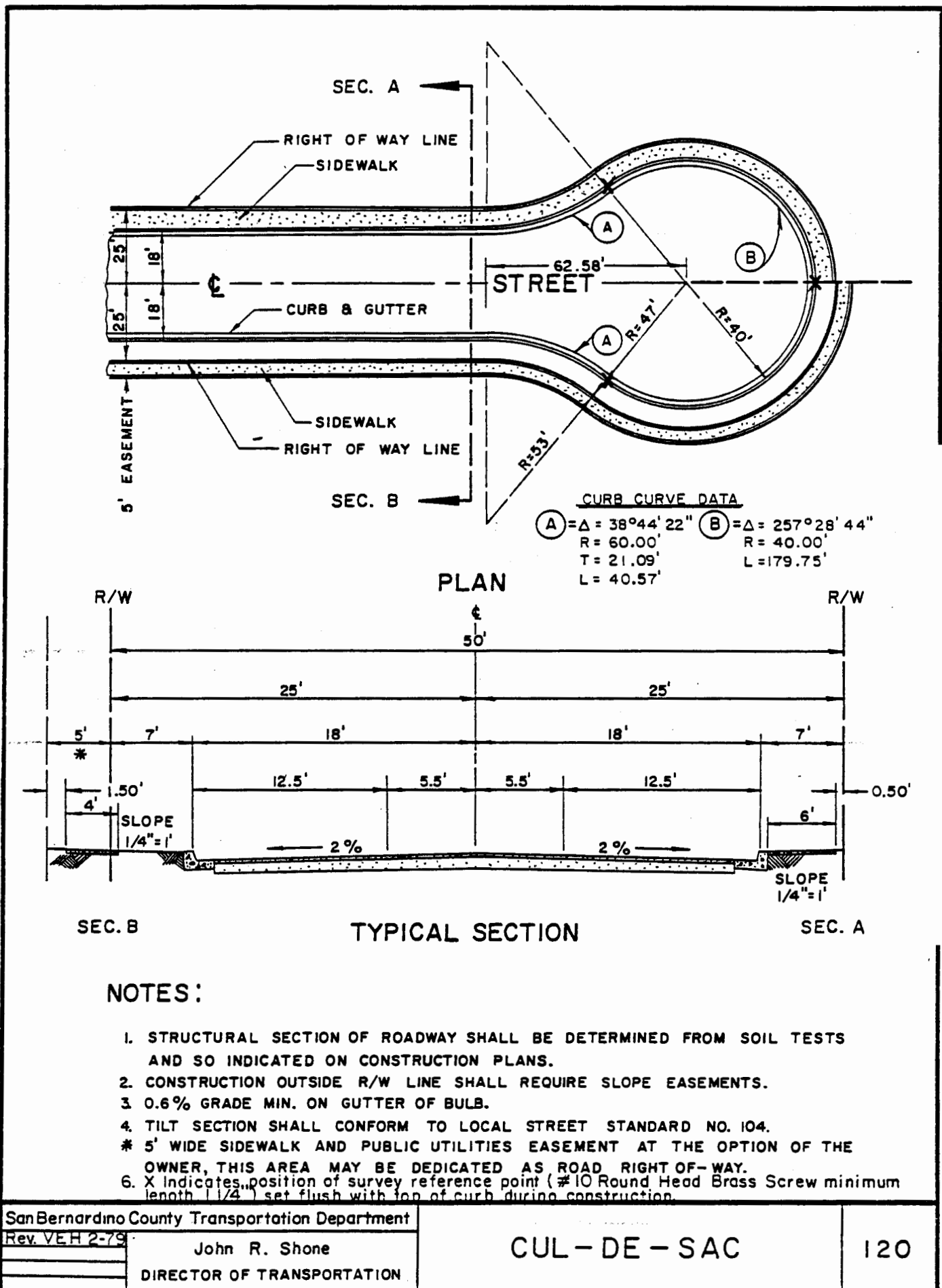
SAN BERNARDINO COUNTY ROAD DEPARTMENT

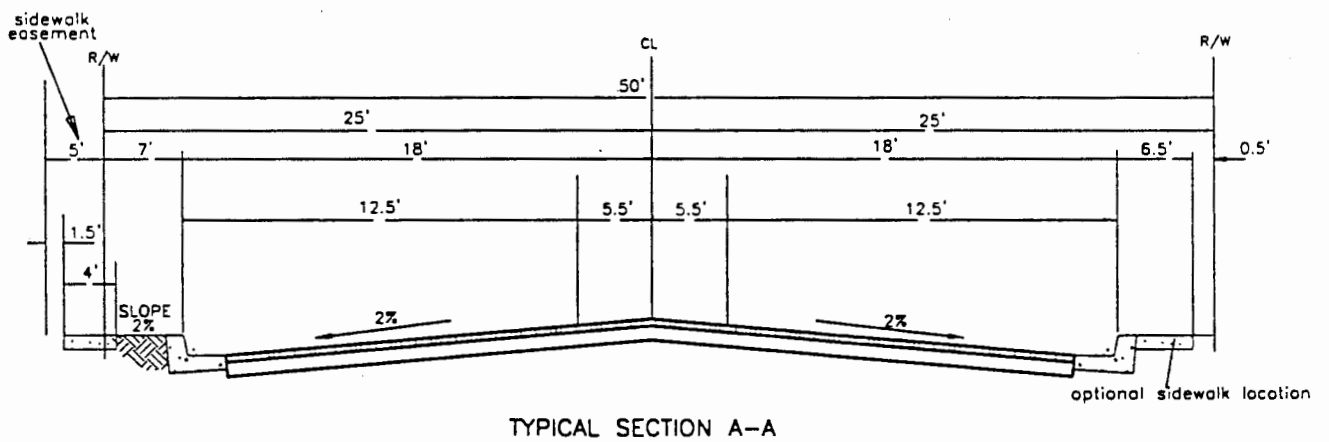
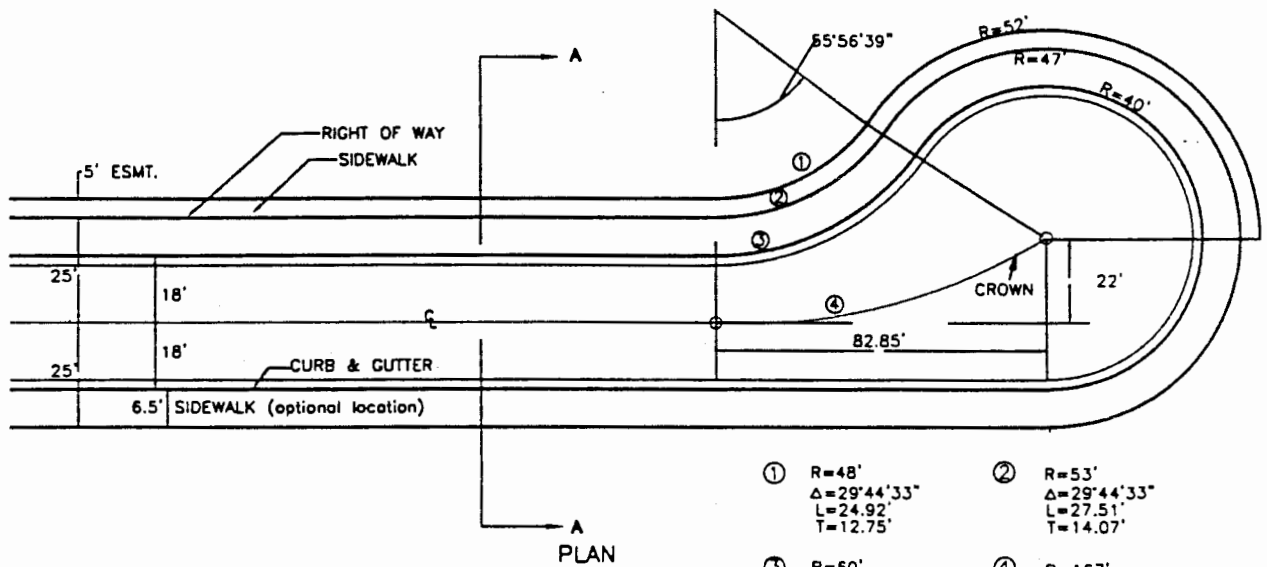
DATE: D.V.C. 4-69

M. A. Nicholas  
COUNTY ENGINEER

CROSS GUTTER

119

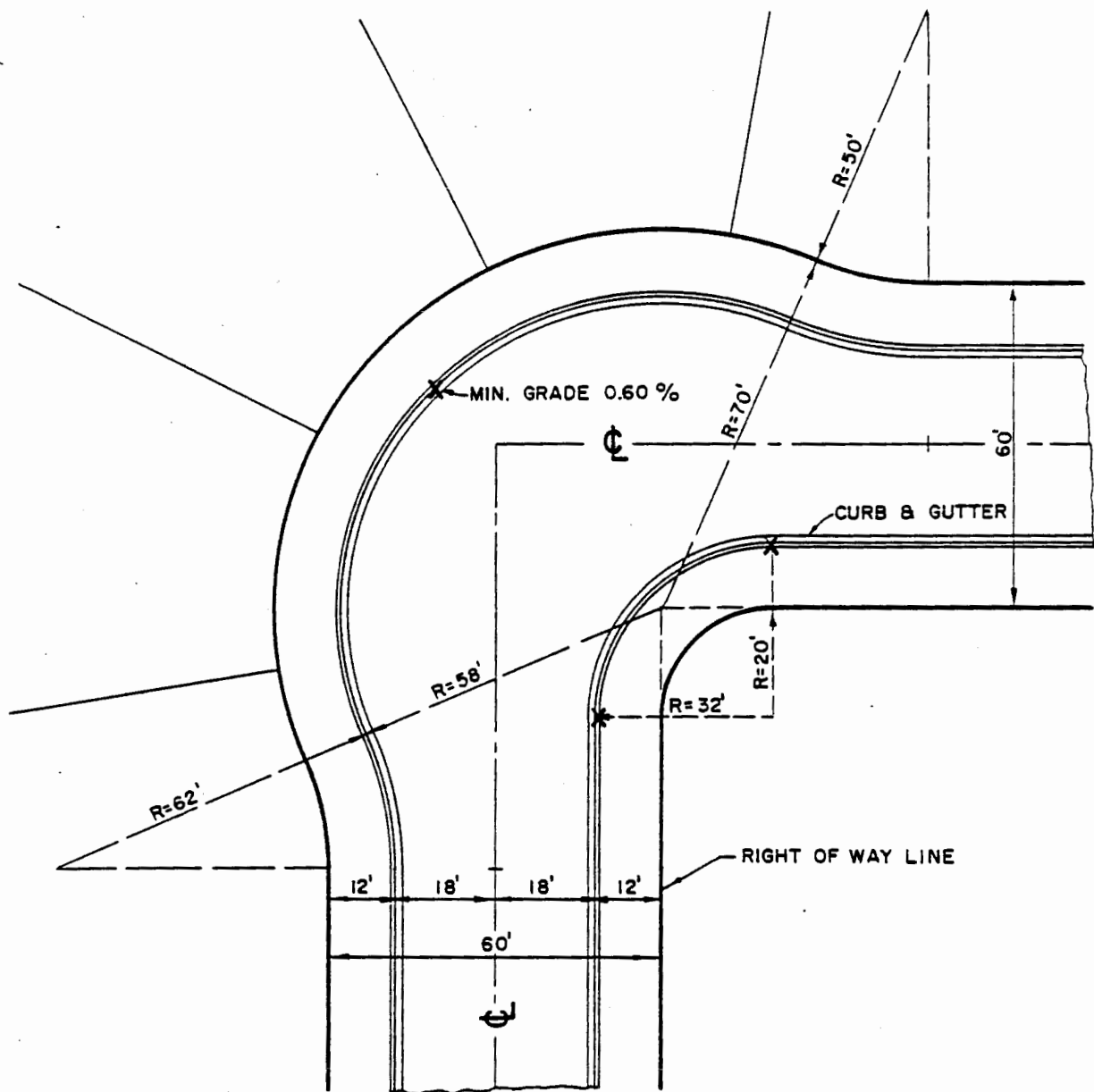




NOTES:

1. STRUCTURAL SECTION OF ROADWAY SHALL BE DETERMINED FROM SOIL TESTS AND SO INDICATED ON CONSTRUCTION PLANS.
2. CONSTRUCTION OUTSIDE R/W LINE SHALL REQUIRE SLOPE EASEMENTS.
3. 0.6% GRADE MIN. ON GUTTER OF BULB.
4. TILT SECTION SHALL CONFORM TO LOCAL STREET STANDARD NO.104.
5. SIDEWALK SHALL CONFORM TO LOCAL STREET STANDARD NO.109.
6. SIDEWALK AND PUBLIC UTILITIES EASEMENT AT THE OPTION OF THE OWNER, THIS AREA MAY BE DEDICATED AS ROAD RIGHT-OF-WAY.
7. X INDICATES POSITION OF SURVEY REFERENCE POINT (#10 ROUNDHEAD BRASS SCREW MINIMUM LENGTH 1.25" SET FLUSH WITH TOP OF CURB DURING CONSTRUCTION.

|                                    |                            |                   |      |
|------------------------------------|----------------------------|-------------------|------|
| SAN BERNARDINO COUNTY TRANS. DEPT. |                            | OFFSET CUL-DE-SAC | 120A |
|                                    | KEN A. MILLER              |                   |      |
|                                    | Director of Transportation |                   |      |
|                                    |                            |                   |      |



# PLAN

## NOTES:

1. MINIMUM 0.60% ON ALL HORIZONTAL CURVE GRADES.
2. SEE STANDARD NO. 104 FOR TYPICAL SECTION.
3. X Indicates position of survey reference point (#10 Round Head Brass Screw, minimum length 1 1/4") set flush with top of curb during construction.

SAN BERNARDINO COUNTY ROAD DEPARTMENT

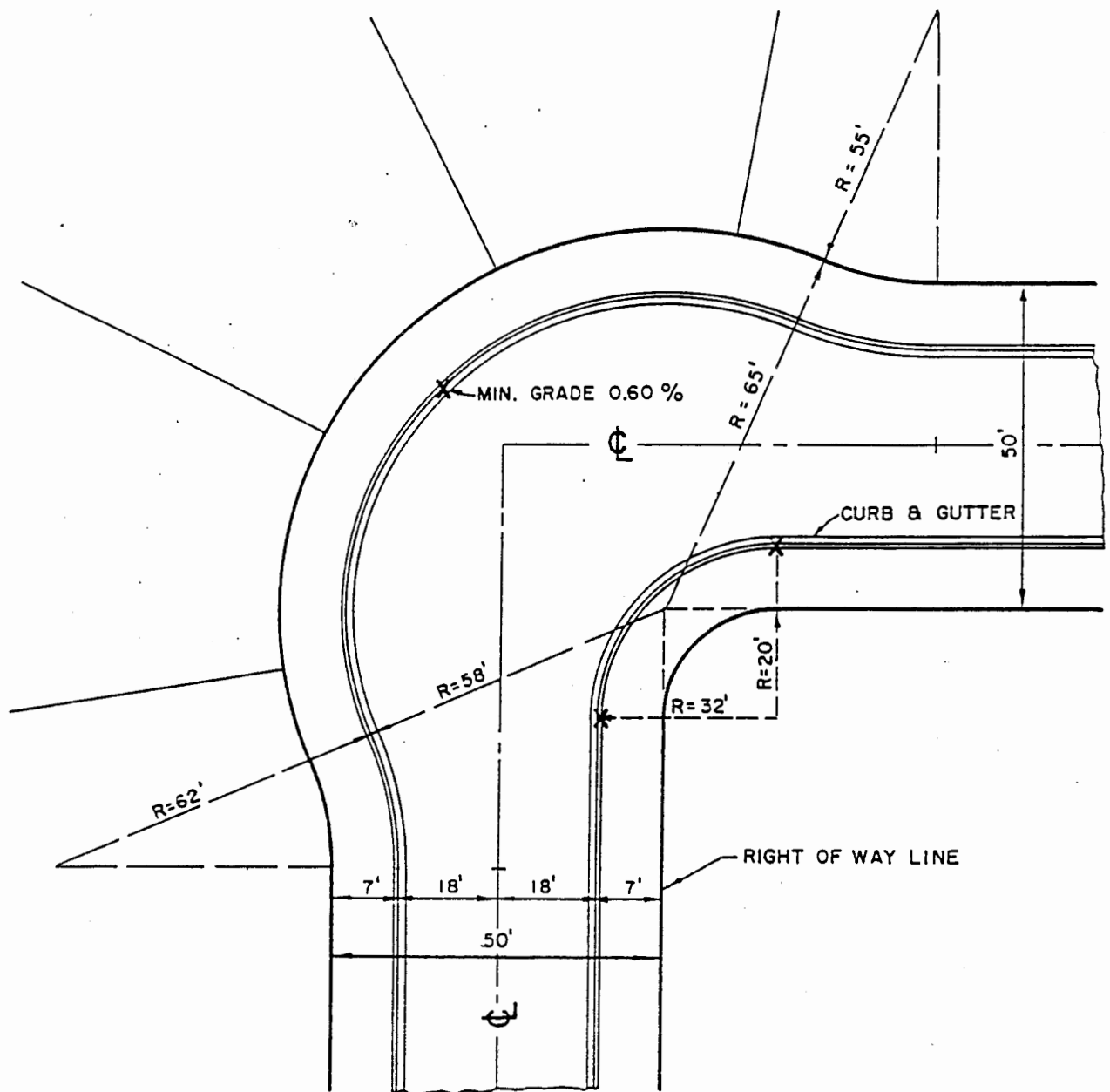
DATE: F.V.C. 4-65  
Rev. VFH 2-79

*M. A. Nicholas*  
COUNTY ENGINEER

INTERSECTION DESIGN  
"L" SHAPE

121





PLAN

NOTES:

1. MINIMUM 0.60% ON ALL HORIZONTAL CURVE GRADES.
2. SEE STANDARD NO.104A FOR TYPICAL SECTION, AND NOTES.
3. X Indicates position of survey reference point (#10 Round Head Brass Screw, minimum length 1 1/4") set flush with top of curb during construction.

SAN BERNARDINO COUNTY ROAD DEPARTMENT

DATE: F.V.C. 4-65

Rev. VEH 2-79

20 8-89

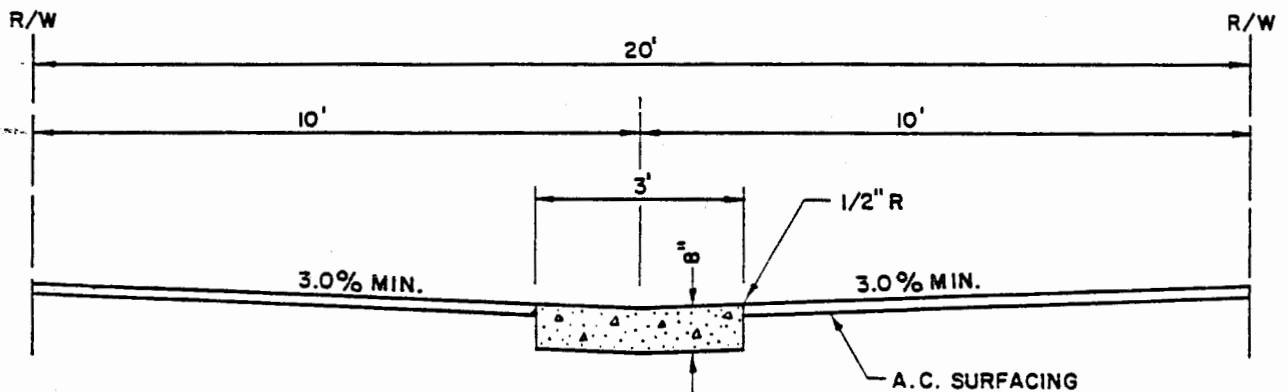
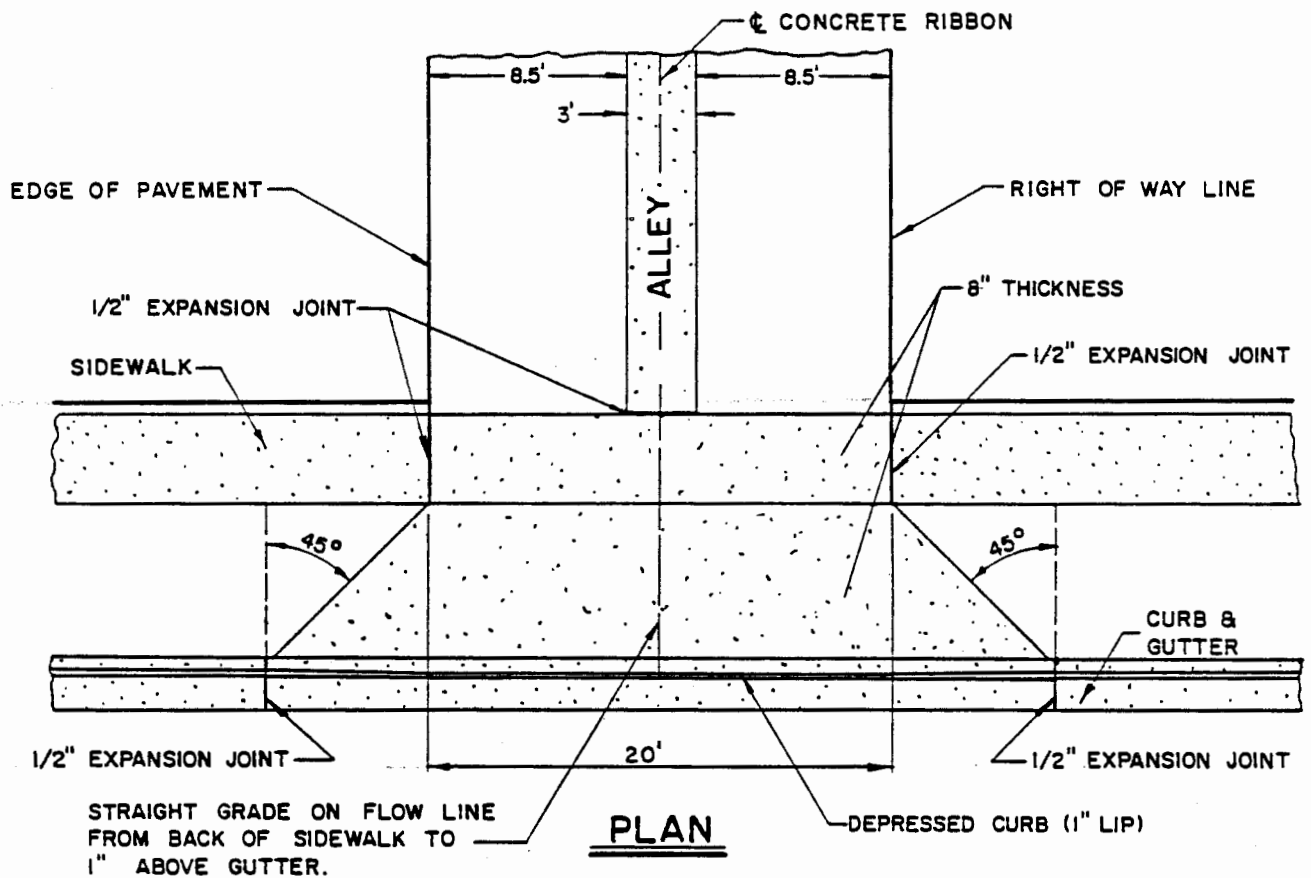
*Ken A. Miller*

DIRECTOR OF TRANSPORTATION

INTERSECTION DESIGN

"L" SHAPE 50' R/W

121A



#### NOTES:

1. CONCRETE RIBBON SHALL BE CONSTRUCTED OF CLASS "B" CONCRETE.
2. ASPHALT CONCRETE SHALL HAVE A MINIMUM THICKNESS OF TWO INCHES.

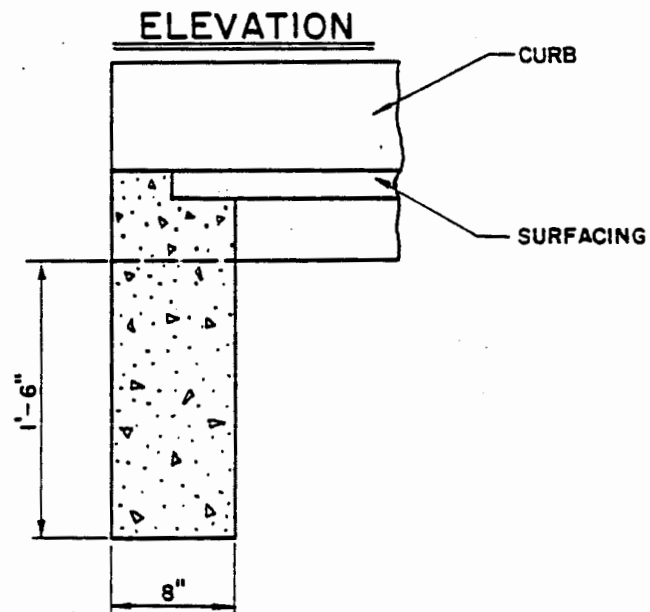
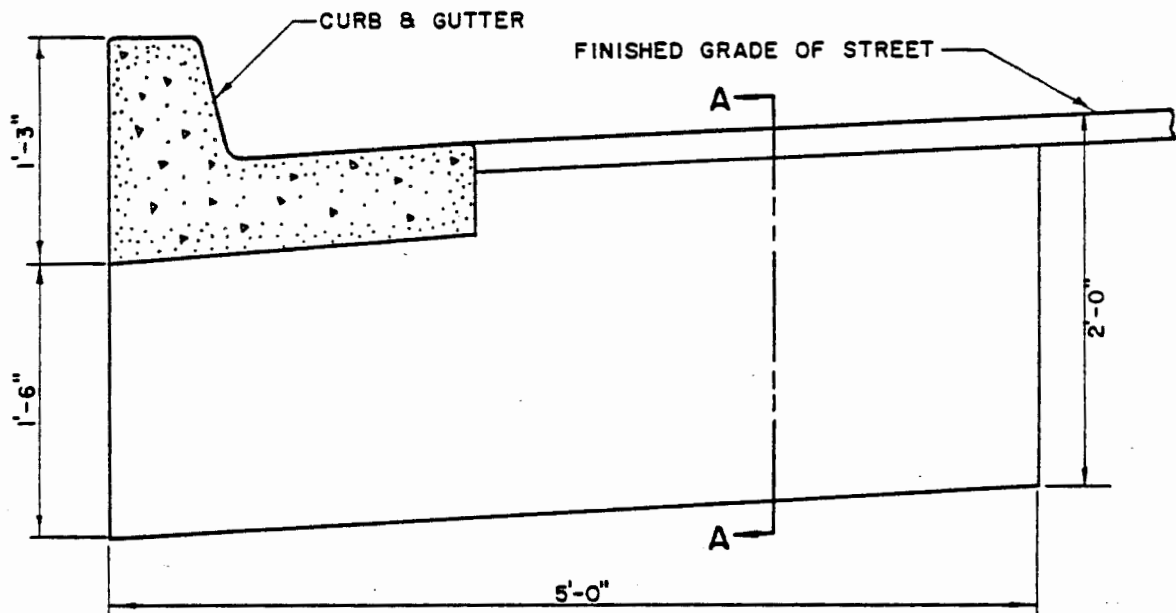
SAN BERNARDINO COUNTY ROAD DEPARTMENT

DATE: 3.V.C. 4-65

M. A. Nicholas  
COUNTY ENGINEER

ALLEY

125



### SECTION A-A

#### NOTES:

1. CUTOFF WALL SHALL BE CONSTRUCTED OF CLASS "B" CONCRETE.
2. CUTOFF WALL SHALL BE INSTALLED WHERE REQUIRED BY DRAINAGE CONDITIONS.

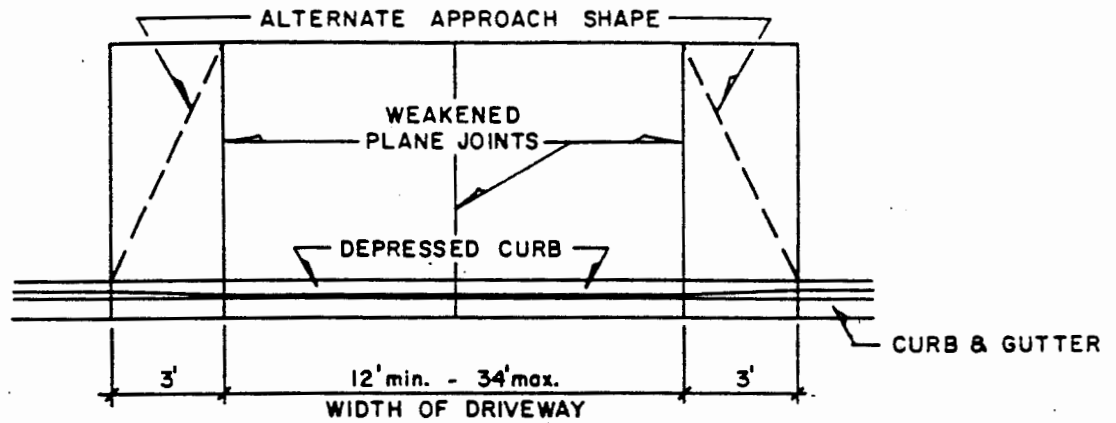
SAN BERNARDINO COUNTY ROAD DEPARTMENT

DATE: 2.11.65

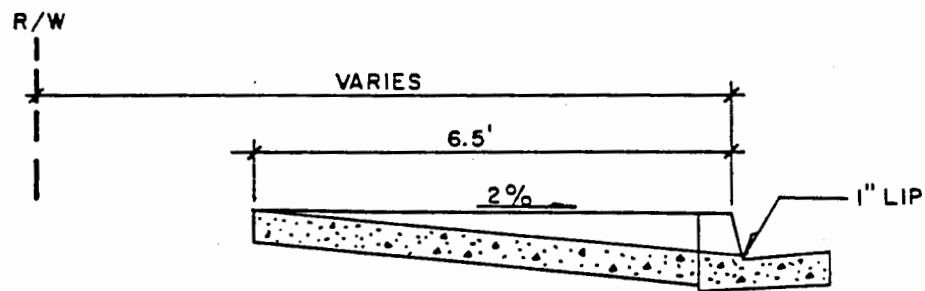
*M. A. Nicholas*  
COUNTY ENGINEER

**CURB  
CUT OFF WALL**

127



**PLAN**

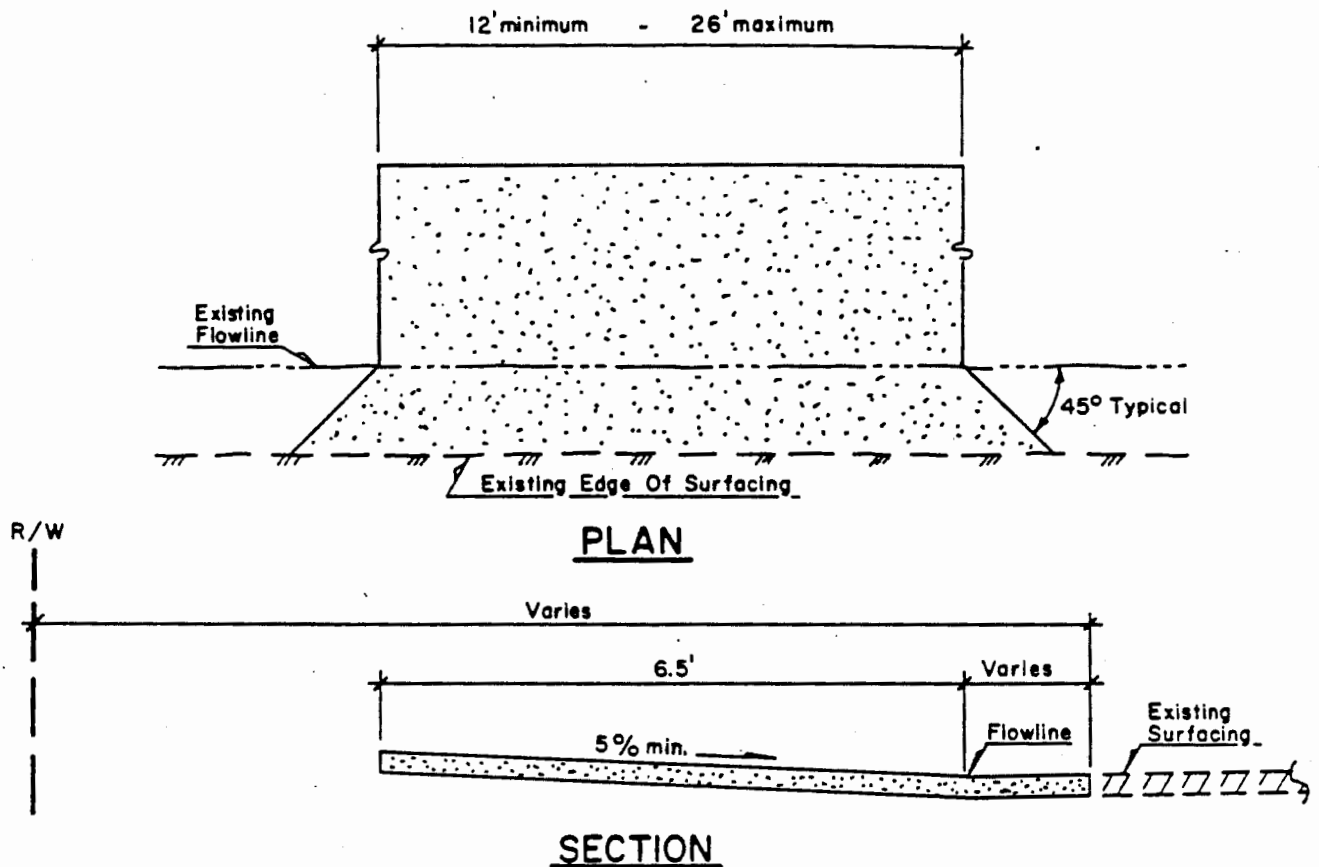


**SECTION**

**NOTES:**

1. Driveway Approach Location Shall Be As Indicated In The S.B. Co. Transportation Department Road Planning & Design Manual And Per Standard No.130.
2. To Construct A Depression In Existing Curb And Gutter:
  - a. Saw Cut And Remove For The Necessary Width.
  - b. Remove And Reconstruct To The Nearest Joint.
  - c. Horizontal Saw Cut And Remove Curb As Necessary.
3. An Approach Must Be Constructed With Each Curb Depression.
4. Surfacing Shall Be Portland Cement Concrete Class 'B' (5 Sack) 4" Thick And Have A Broom Finish.

|                                    |                            |  |     |
|------------------------------------|----------------------------|--|-----|
| SAN BERNARDINO COUNTY TRANS. DEPT. |                            | RESIDENTIAL DRIVEWAY<br>APPROACH WITH CURB | 128 |
| OCT. 1, 1993 v.h.c.                | KEN A. MILLER              |  |     |
| REV. 3/1/94                        | Director of Transportation |  |     |



**NOTES:**

1. Driveway Approach Location Shall Be As Indicated In The S.B. County Transportation Department Road Planning & Design Manual And Per Standard N<sup>o</sup> 130.
2. Surfacing Material Shall Be:
  - a. Type 'B' Asphalt Concrete Grade AR-4000, 1/2" Max. Med., 3" Thick.
  - b. In Areas Not Regularly Subjected To Snowplowing, Portland Cement Concrete Class 'B', 4" Thick May Be Used.
  - c. Unpaved, If The Roadway Is Unpaved.
3. Flowline Grade Shall Be Maintained.
4. Where Existing Berm Is Removed, The Approach Shall Be Constructed To An Elevation Equal In Height To Control Drainage.

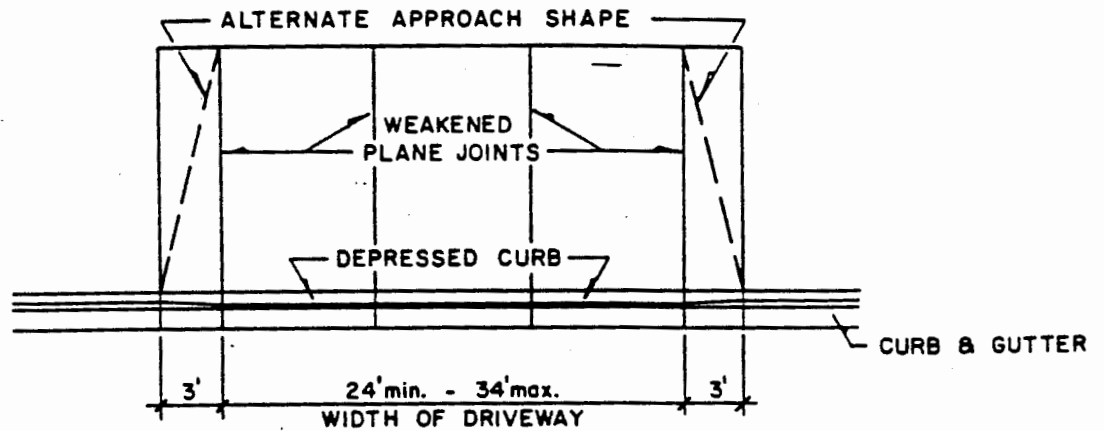
SAN BERNARDINO COUNTY TRANS. DEPT.

OCT. 4, 1993 v.h.c.  
REV 3/1/94

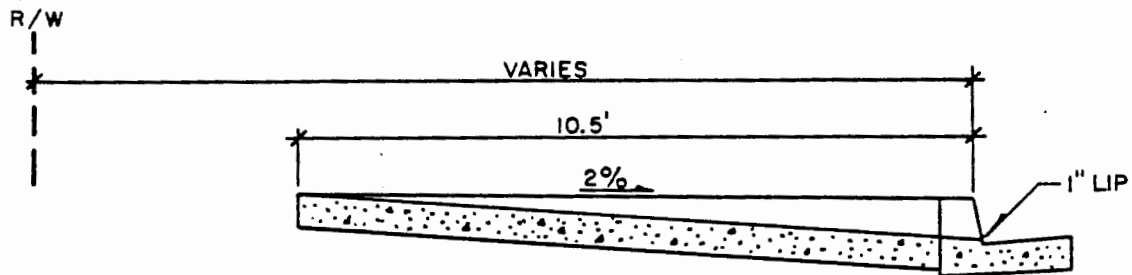
KEN A. MILLER  
Director of Transportation

**RESIDENTIAL DRIVEWAY  
APPROACH  
WITHOUT CURB**

**128a**



**PLAN**



**SECTION**

**NOTES:**

1. Driveway Approach Location Shall Be As Indicated In The S.B. Co. Transportation Department Road Planning & Design Manual And Per Standard No. 130.
2. To Construct A Depression In Existing Curb And Gutter:
  - a. Saw Cut And Remove For The Necessary Width.
  - b. Remove And Reconstruct To The Nearest Joint.
  - c. Horizontal Saw Cut And Remove Curb As Necessary.
3. An Approach Must Be Constructed With Each Curb Depression.
4. Surfacing Shall Be Portland Cement Concrete Class 'B' (5 Sack) 6" Thick And Have A Broom Finish.

10-1-93 vhc

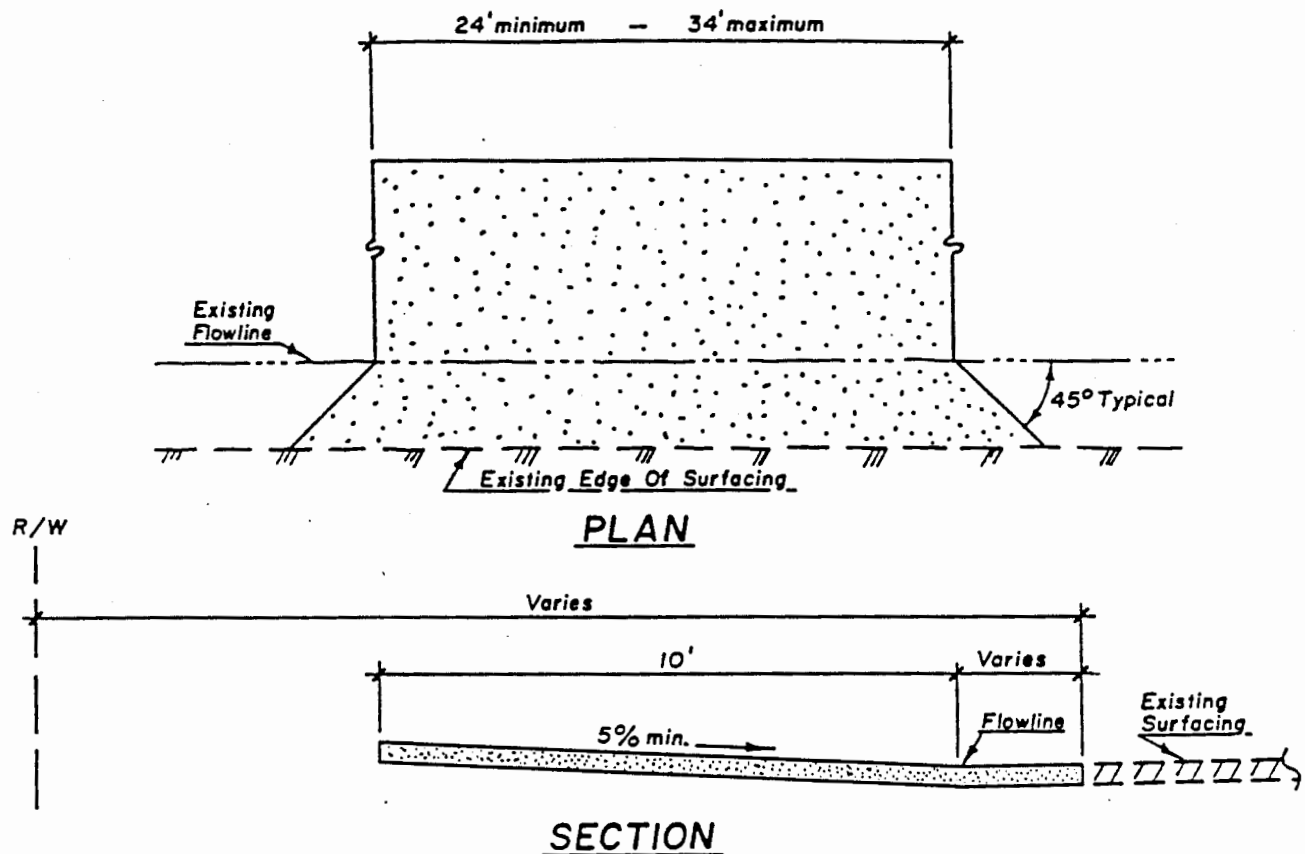
SAN BERNARDINO COUNTY TRANS. DEPT.

REV. 3/1/94

KEN A. MILLER  
Director of Transportation

**COMMERCIAL DRIVEWAY  
APPROACH WITH CURB**

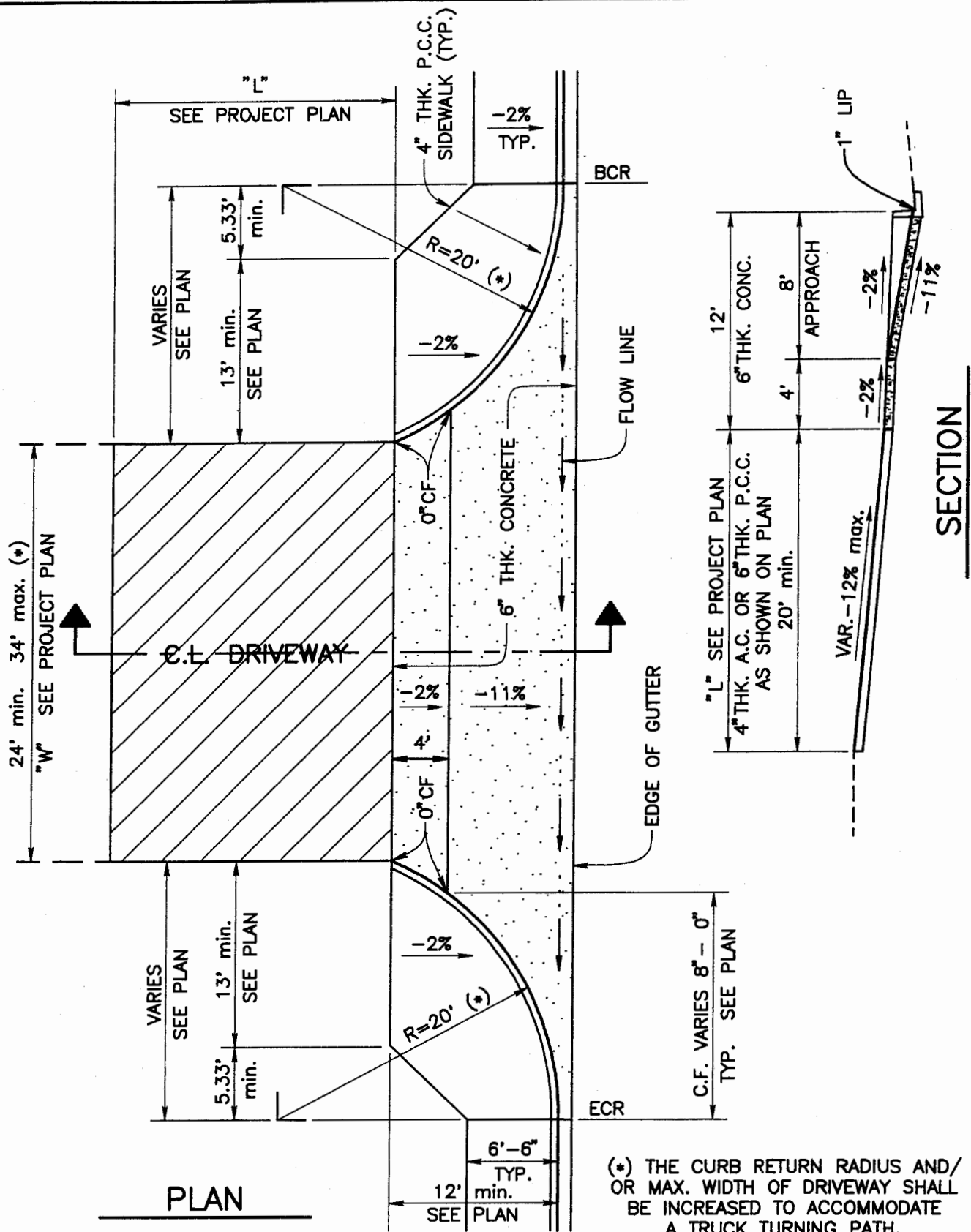
**129**



**NOTES:**

1. Driveway Approach Location Shall Be As Indicated In The S.B. Co. Transportation Department Road Planning & Design Manual And Per Standard N<sup>o</sup> 130.
2. Surfacing Material Shall Be:
  - a. Type B Asphalt Concrete Grade AR-4000, 1/2" Max. Med., 3" Thick.
  - b. In Areas Not Regularly Subjected To Snowplowing, Portland Cement Concrete Class B 6" Thick May Be Used.
  - c. Unpaved, If The Roadway Is Unpaved.
3. Flowline Grade Shall Be Maintained.
4. Where Existing Berm is Removed, The Approach Shall Be Constructed To An Elevation Equal In Height To Control Drainage.

|                                    |                            |   |      |
|------------------------------------|----------------------------|---|------|
| SAN BERNARDINO COUNTY TRANS. DEPT. |                            | COMMERCIAL DRIVEWAY<br>APPROACH<br>WITHOUT CURB | 129a |
| REV. 3/1/94                        | KEN A. MILLER              |   |      |
|                                    | Director of Transportation |   |      |
|                                    |                            |   |      |



NOTE: FOR GENERAL NOTES SEE COUNTY STANDARD 129

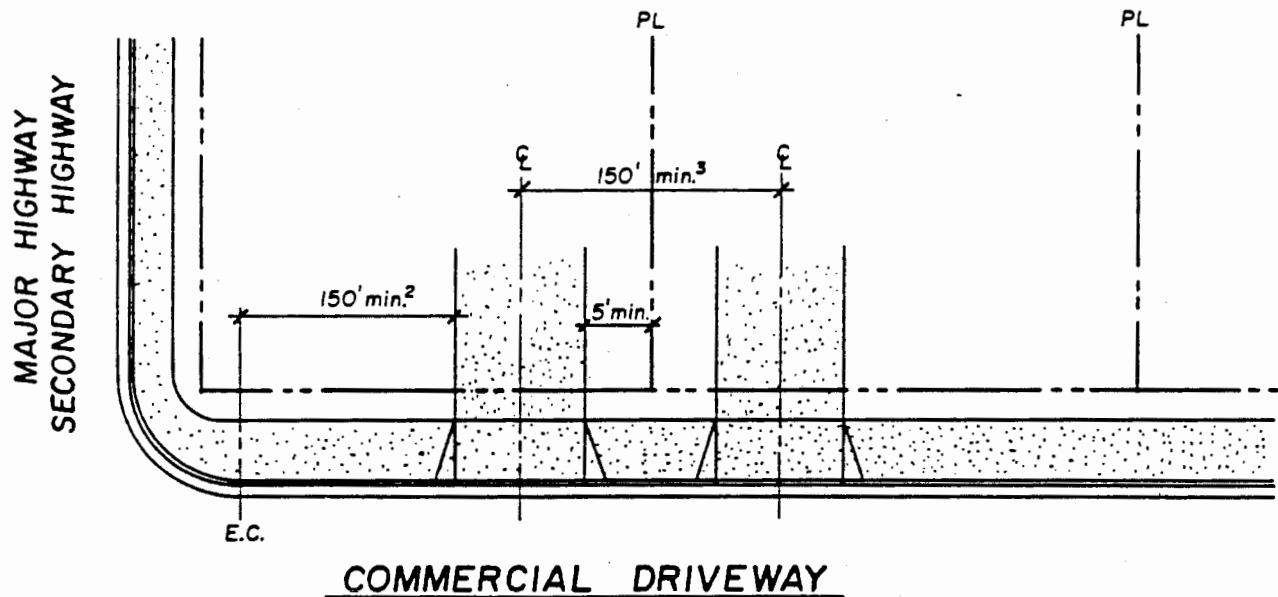
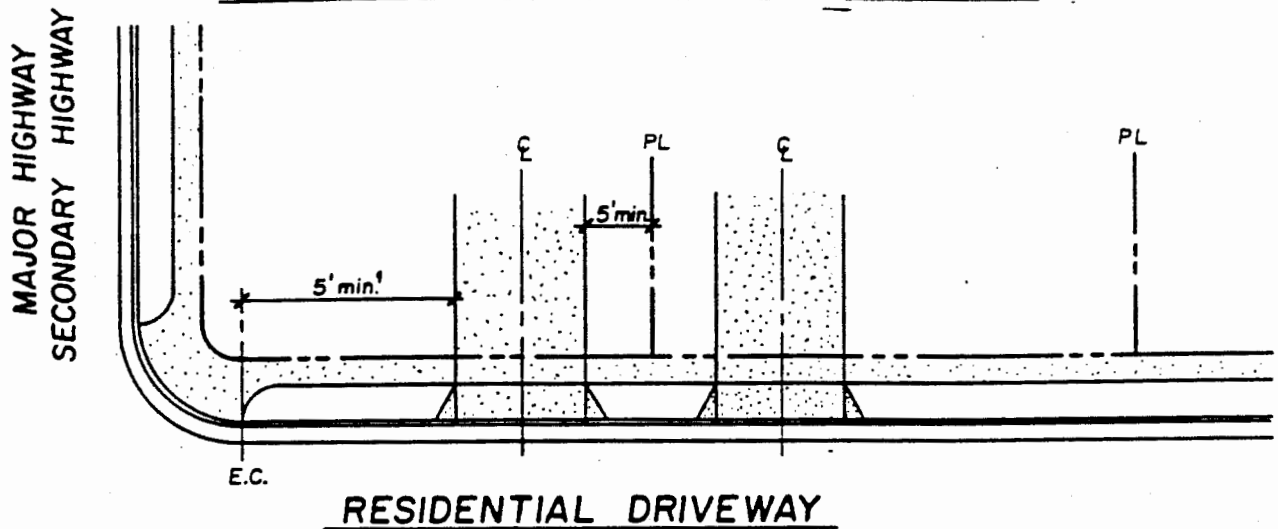
|   |  |
|---|--|
| CO. OF SAN BDNO. DEPT. OF PUBLIC WORKS      |  |
| REVISED: DATE                               |  |
| G.M. 12-05                                  |  |
| PATRICK J. MEAD<br>Director of Public Works |  |

COMMERCIAL DRIVEWAY  
WITH CURB RETURNS

129B



## LOCAL STREET - COLLECTOR ROAD



### NOTES:

Refer To Section 6.3 In S.B. Co. Transportation Dept. Road Planning & Design Manual For Number Of Access Points Permitted.

<sup>1</sup> 75' On Collector Roads, Except 50' If Ult. A.D.T. Is Less Than 3000.

<sup>2</sup> May Be Increased 75' On Collector Roads & 50' On Local Streets To Provide Additional Clearance For Left Turn Storage.

<sup>3</sup> Distance Determined Per Table 6-1, Page 6-3, In S.B. Co. Transportation Dept. Road Planning & Design Manual.

4-20-93 vhc

SAN BERNARDINO COUNTY TRANS. DEPT.

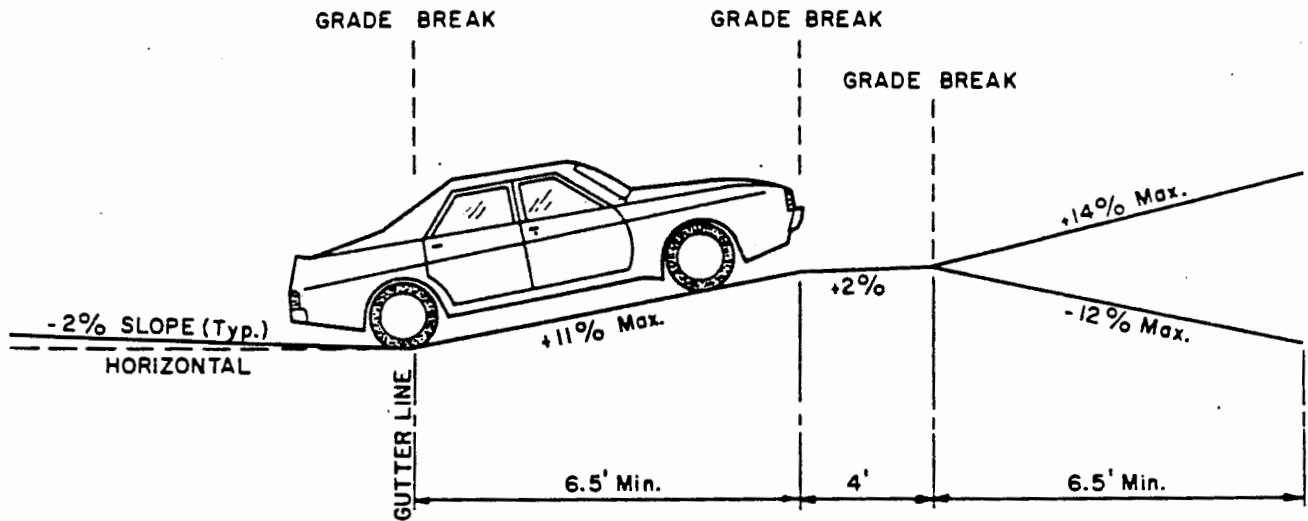
REV. 3/1/94

KEN A. MILLER  
Director of Transportation

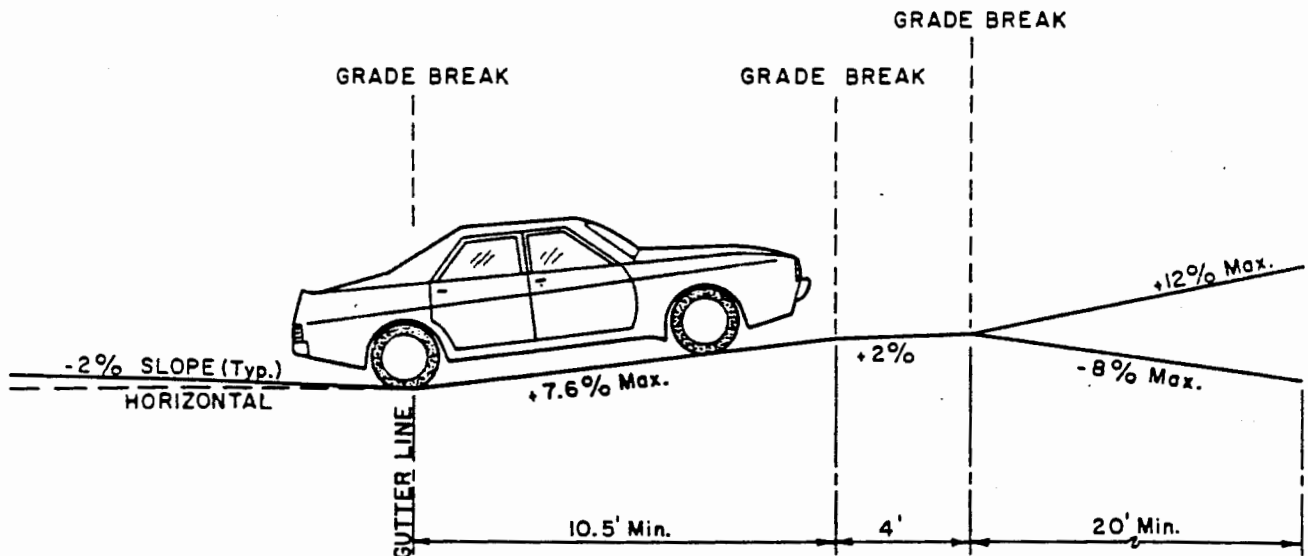
DRIVEWAY SPACING

130

## RESIDENTIAL DRIVEWAY



## COMMERCIAL DRIVEWAY



4-19-93 vhc

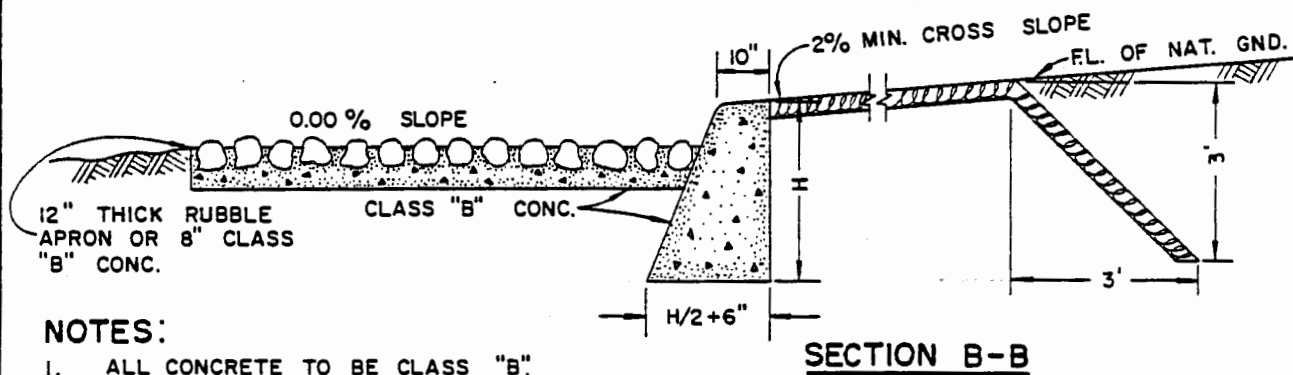
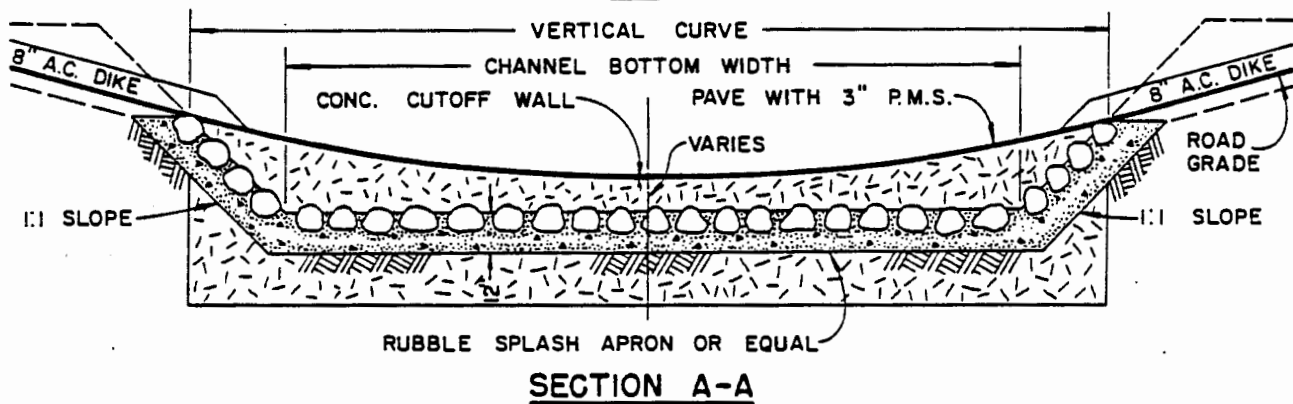
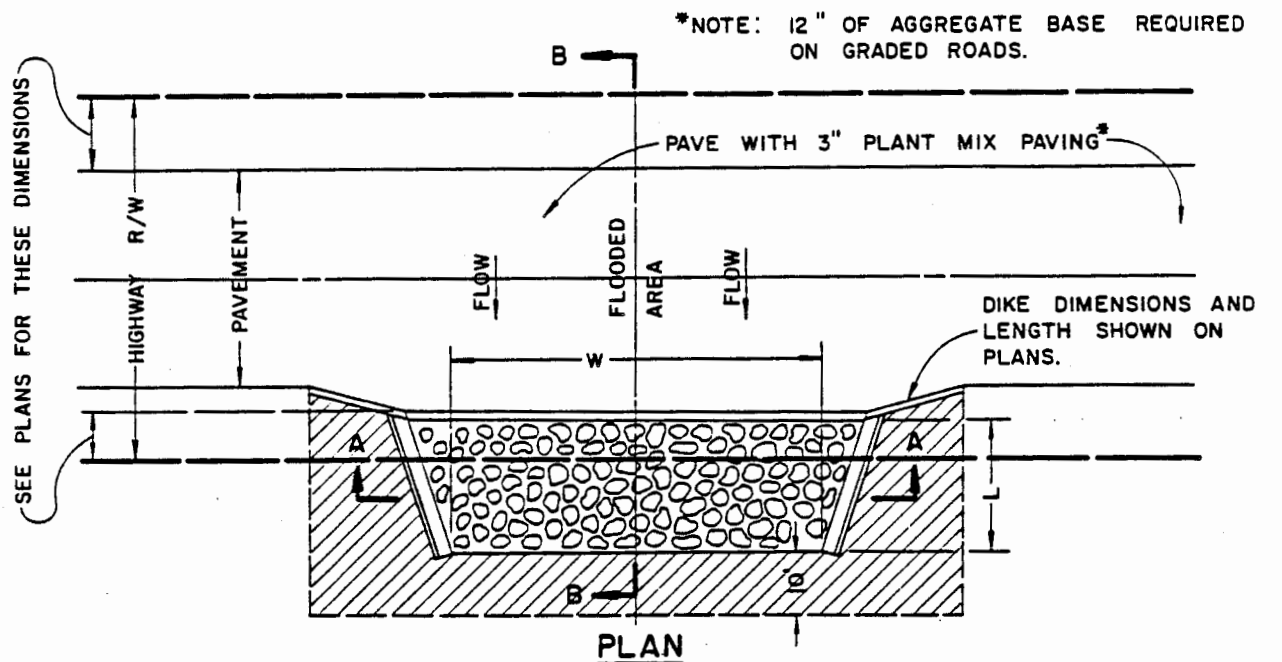
SAN BERNARDINO COUNTY TRANS. DEPT.

REV. 3/1/94

KEN A. MILLER  
Director of Transportation

DRIVEWAY GRADES

131



**NOTES:**

1. ALL CONCRETE TO BE CLASS "B".
2. L = SHOWN ON PLANS, H = 3' MIN., 6' MAX.
3. DRAINAGE EASEMENT REQUIRED.
4. AREA SHOWN THUS SHALL BE COMPACTED TO 90% RELATIVE DENSITY PER STANDARD SPECIFICATION 3.04.03.
5. REINFORCED BLOCK WALL AND FOOTING PERMITTED.

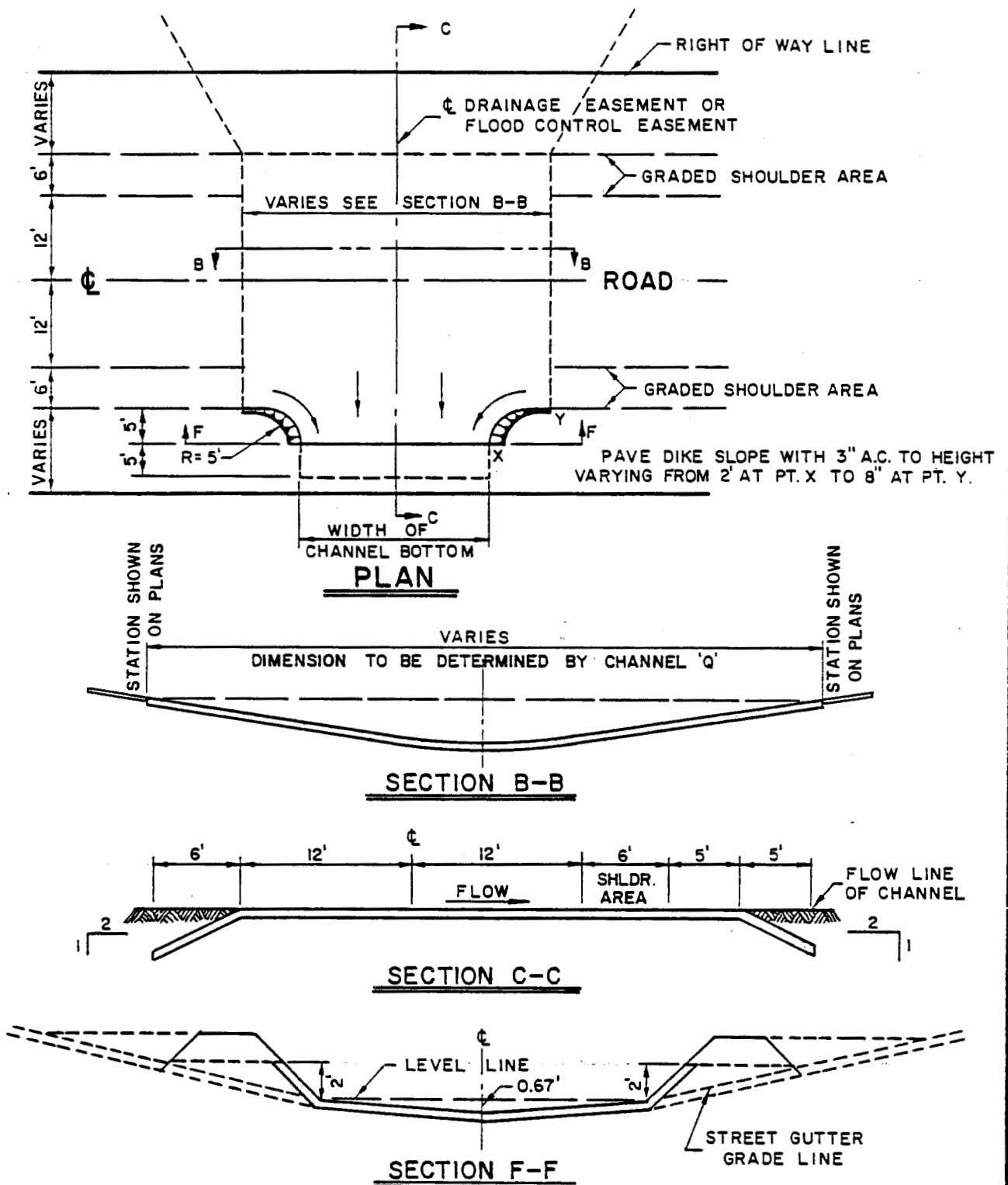
SAN BERNARDINO COUNTY ROAD DEPARTMENT

DATE: J.E.M. 7-66

*M. A. Nicholas*  
COUNTY ENGINEER

**CUTOFF WALL FOR  
DRAINAGE CHANNEL**

**200**



# **NOTE**

PAVEMENT SHALL BE CONSTRUCTED OF 3" MIN. THICK ASPHALT CONCRETE.

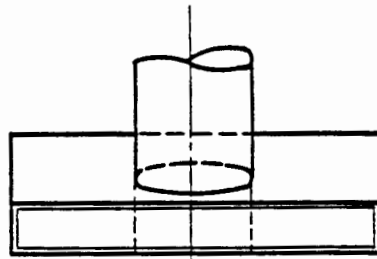
SAN BERNARDINO COUNTY ROAD DEPARTMENT

DATE: F.V.C. 7-65

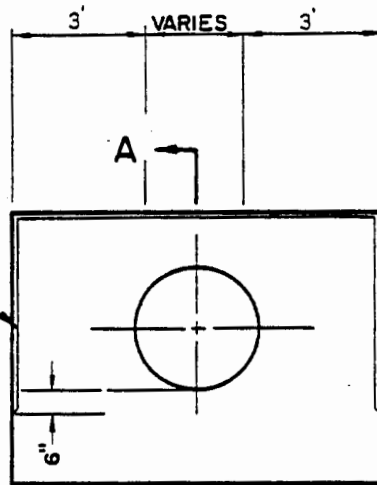
*M. A. Nicholas*  
COUNTY ENGINEER

**CHANNEL CROSSING**

**200a**

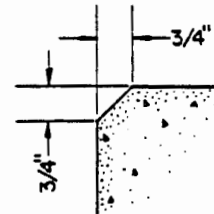


PLAN

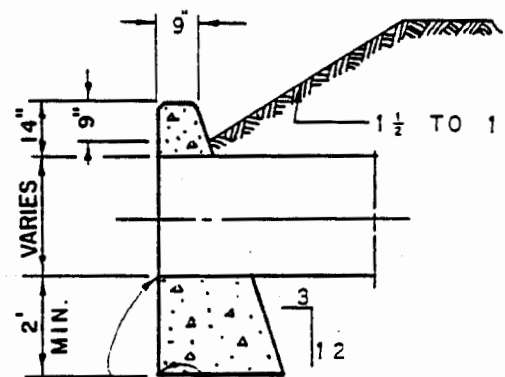


ELEVATION

CHAMFER



CHAMFER  
DETAIL



FOR ELEVATIONS  
SEE PROFILE

SECTION A-A

**NOTES:**

1. ALL CONCRETE SHALL BE CLASS B CONCRETE.
2. ALL EXPOSED CORNERS SHALL BE CHAMFERED 3/4".
3. DESIGN FEATURES SHALL CONTROL THE INSTALLATION OF THIS HEADWALL.

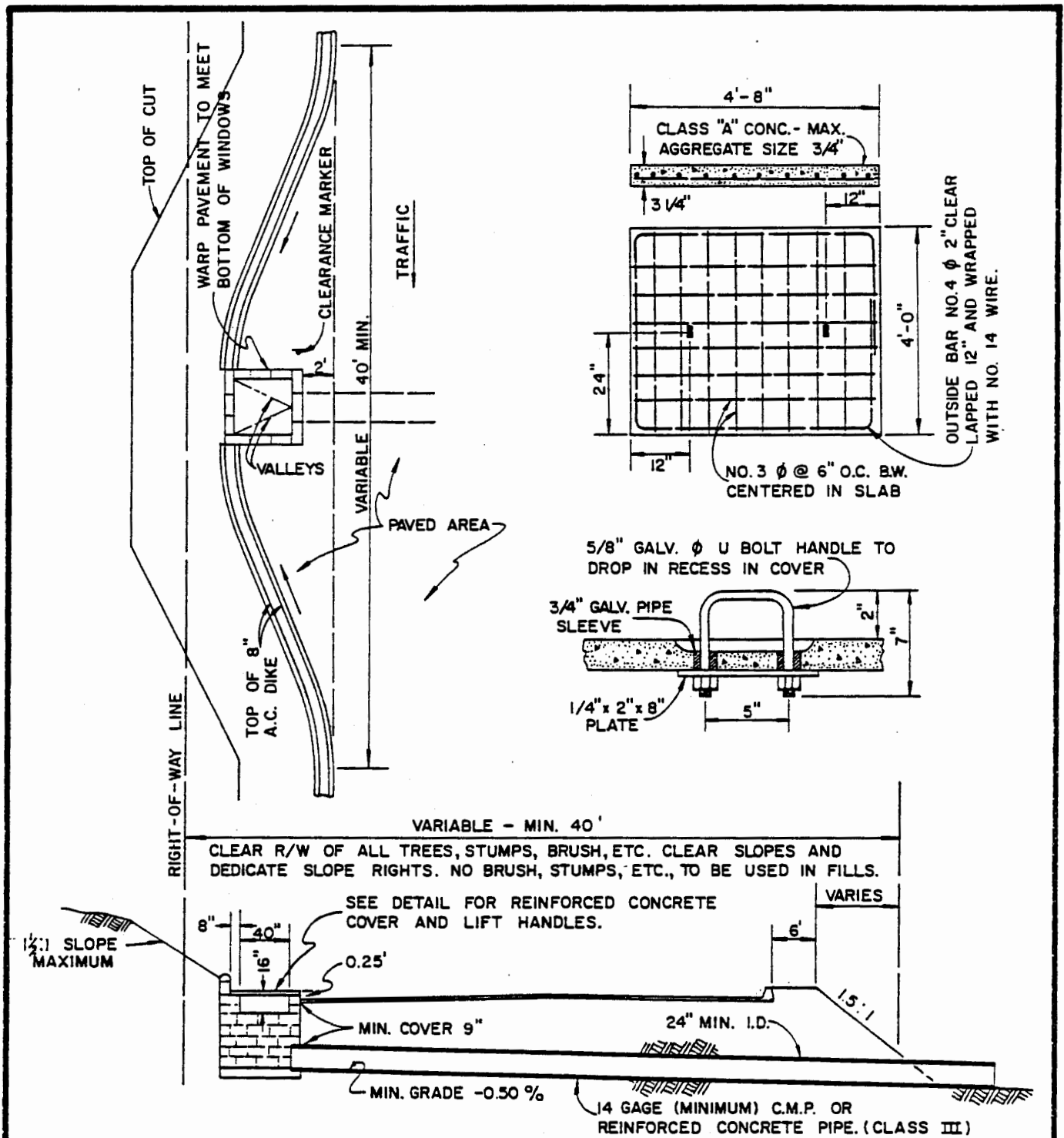
SAN BERNARDINO COUNTY ROAD DEPARTMENT

DATE: F.V.C. 7-65

*M. A. Nicholas*  
COUNTY ENGINEER

GRAVITY HEADWALL

201



# NOTES:

1. FOR CONSTRUCTION DETAILS OF CATCH BASIN SEE STD. NO. 202 A.

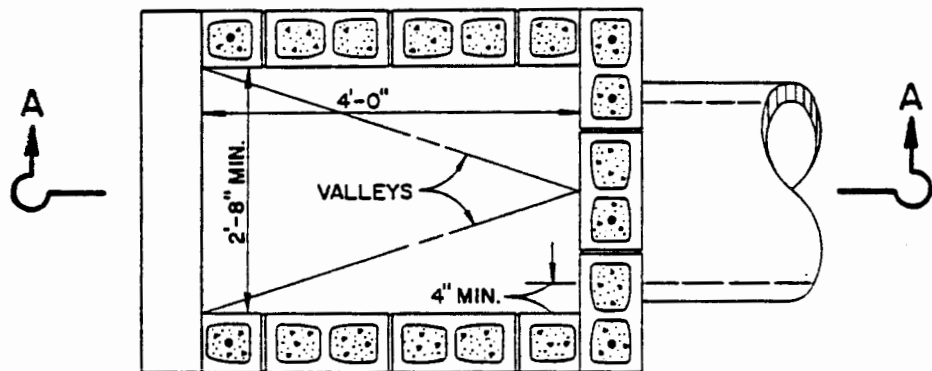
SAN BERNARDINO COUNTY ROAD DEPARTMENT

DATE: J.E.M. 7-65

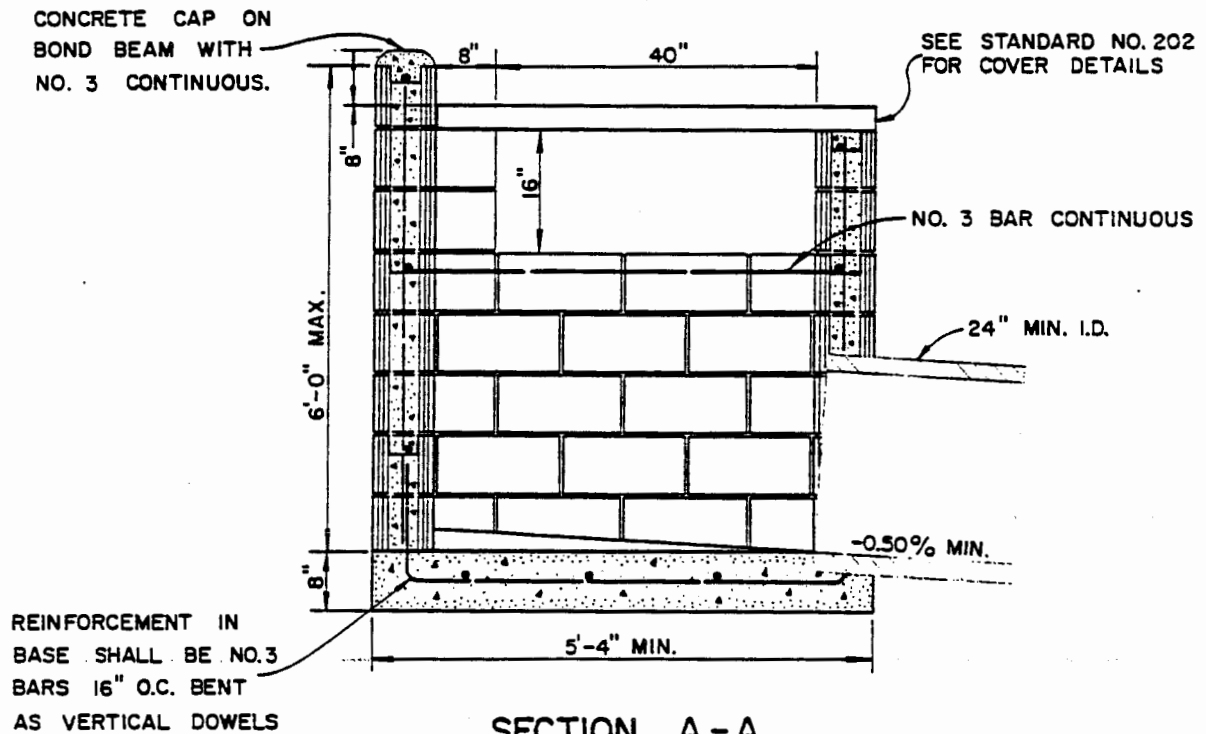
M. A. Nicholas  
COUNTY ENGINEER

CATCH BASIN  
MOUNTAIN ROADS

202



**PLAN**



**SECTION A-A**

**NOTES:**

1. 8" x 8" x 16" CONC. BLOCK WITH NO. 3 STEEL 16" O.C. VERTICAL AND 24" O.C. HORIZONTAL.
2. FILL ALL BLOCKS WITH GROUT.
3. BASE OF CATCH BASIN SHALL BE CONSTRUCTED WITH CLASS 'B' CONCRETE.
4. HORIZONTAL STEEL SHALL BE PLACED IN BOND BEAM BLOCKS.

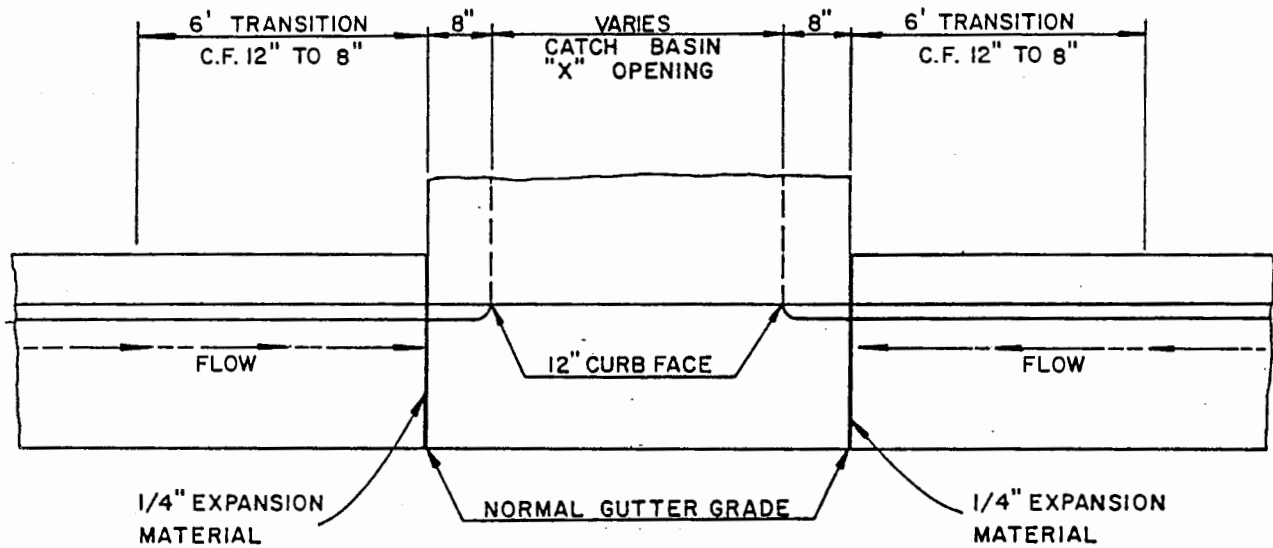
SAN BERNARDINO COUNTY ROAD DEPARTMENT

DATE: J.E.M. 10-65

*M. A. Nicholas*  
COUNTY ENGINEER

**CATCH BASIN  
MOUNTAIN ROADS**

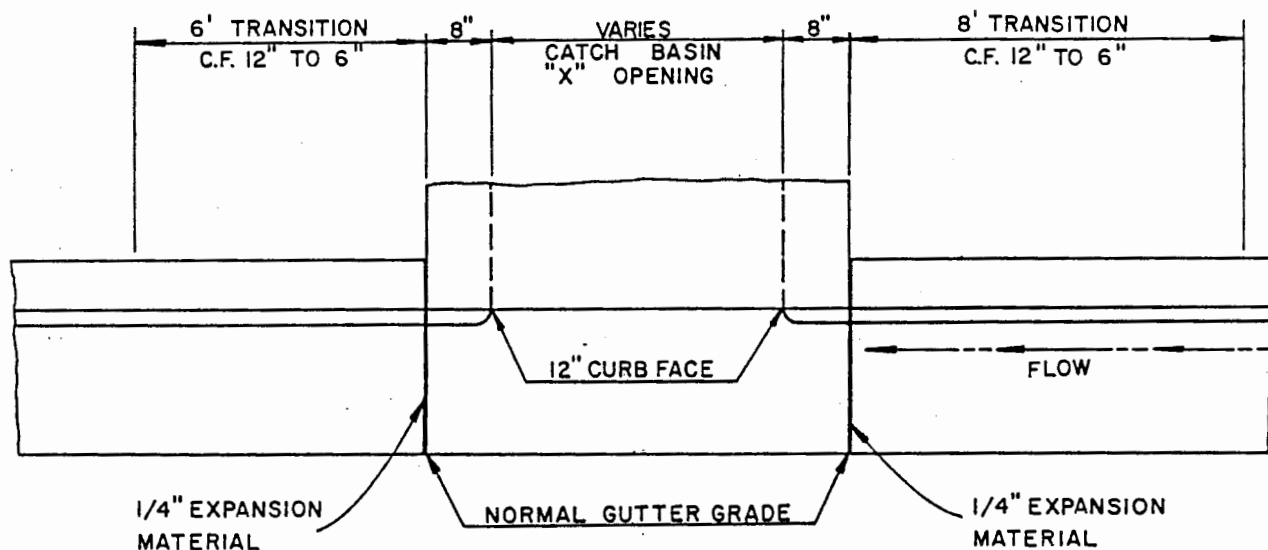
202 a



**NOTES:**

1. LOCAL DEPRESSION SHALL BE CONSTRUCTED OF CLASS B CONCRETE 6" THICK.
2. CURB AND GUTTER SHALL BE CONSTRUCTED PRIOR TO CONSTRUCTING TOP OF CATCH BASIN AND CURB TRANSITIONS.





**NOTES:**

1. LOCAL DEPRESSION SHALL BE CONSTRUCTED OF CLASS B CONCRETE 6" THICK.
2. CURB AND GUTTER SHALL BE CONSTRUCTED PRIOR TO CONSTRUCTING TOP OF CATCH BASIN AND CURB TRANSITIONS.

SAN BERNARDINO COUNTY TRANS. DEPARTMENT

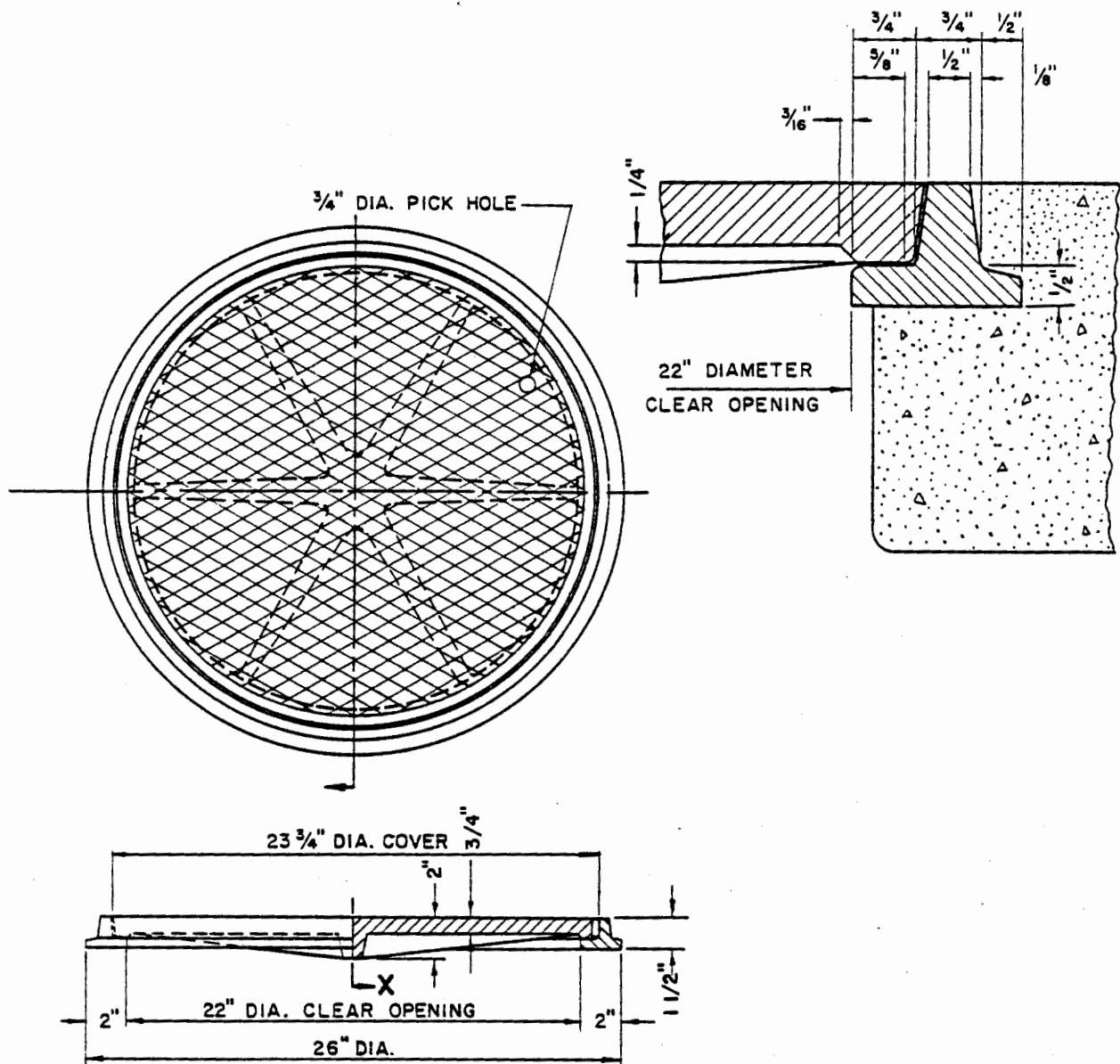
L.V.E. 12-74  
R.D. 8-89

*KEN A. Miller*  
Director of Transportation

**LOCAL DEPRESSION**

203 A.





### NOTES

1. SEATS OF FRAME AND COVER SHALL BE MACHINED TO PREVENT NOISE.
2. TOTAL WEIGHT OF FRAME AND COVER APPROX. 130 LBS.
3. MINIMUM CLEAR OPENING 22" DIAMETER. ALL OTHER DIMENSIONS ARE NOMINAL.

ALHAMBRA A-1530 OR EQUIVALENT

SAN BERNARDINO COUNTY ROAD DEPARTMENT

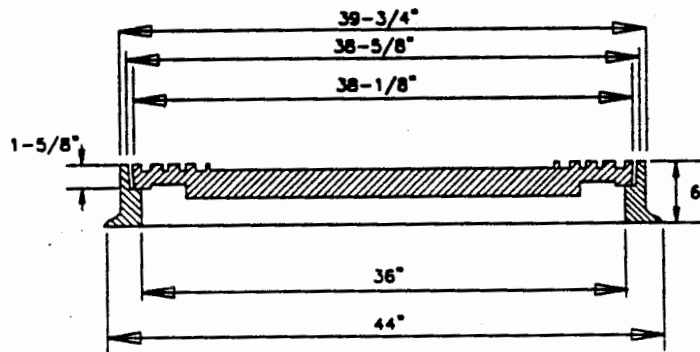
DATE: F.V.C. 7-65

L.J.F. 7-74

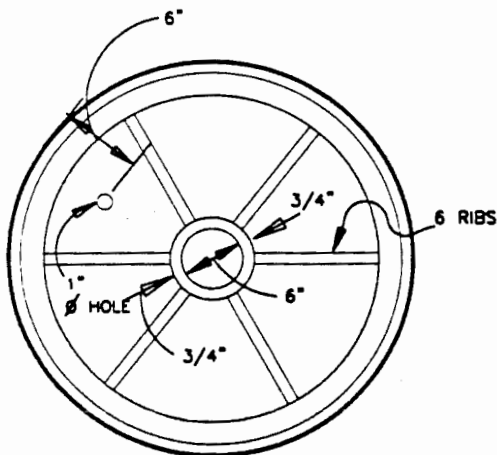
John R. Shone  
COUNTY HIGHWAY ENGINEER

MANHOLE FRAME &  
COVER-PARKWAY

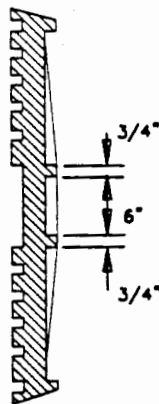
204



SECTION  
FRAME AND COVER

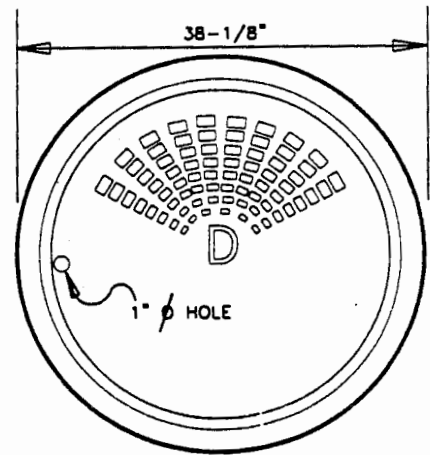


BOTTOM VIEW



SECTION

COVER



PLAN

NOTES:

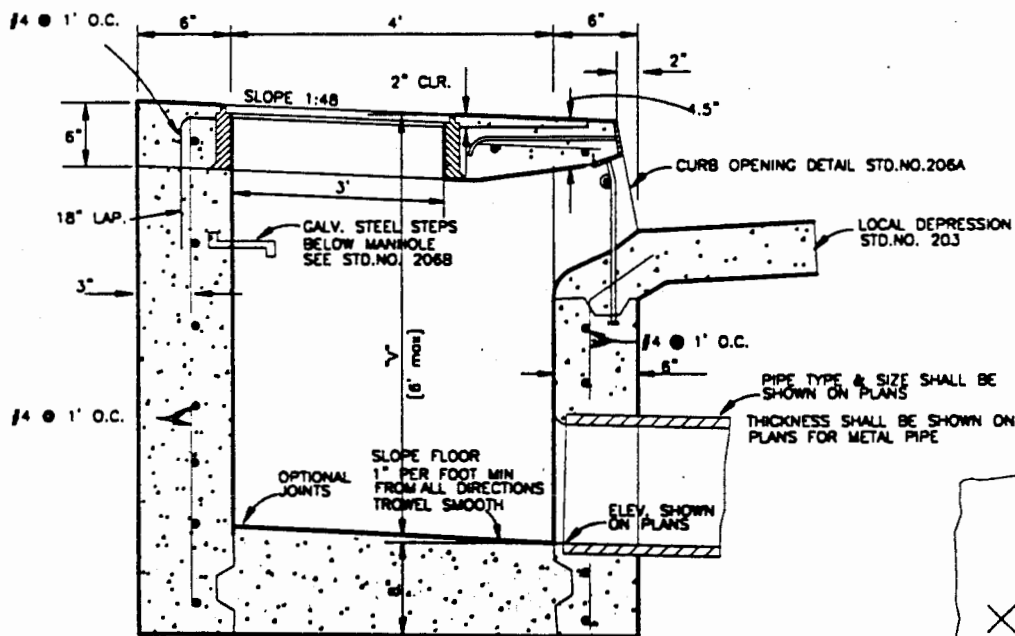
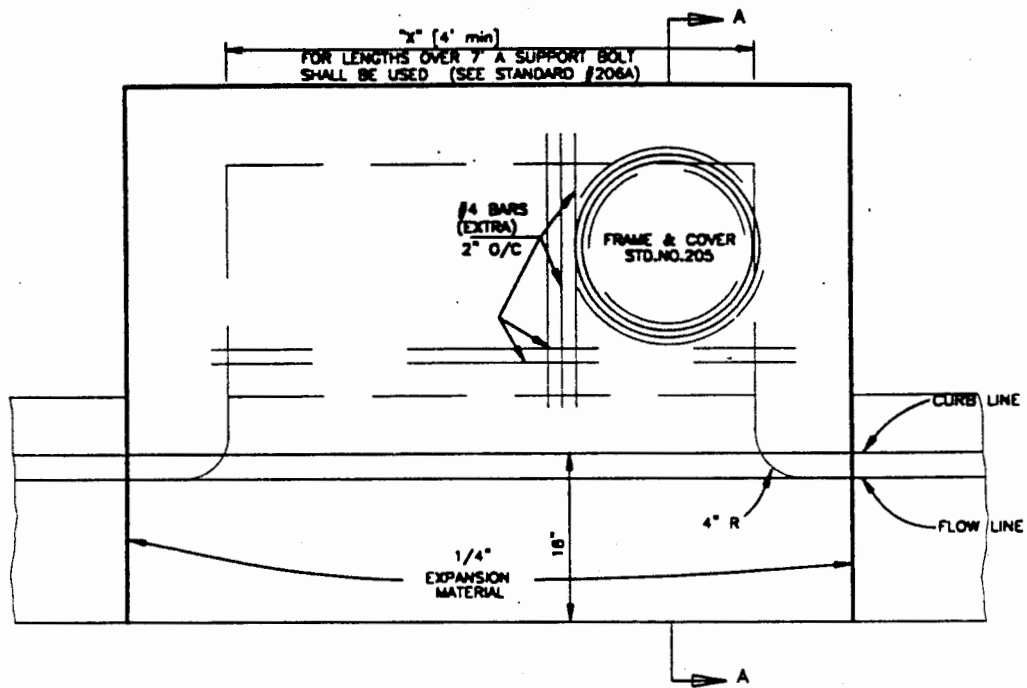
1. SEATS OF FRAME AND COVER SHALL BE MACHINED TO PREVENT NOISE.
2. TOTAL WEIGHT OF FRAME AND COVERS - 580 lbs MIN.
3. MATERIAL: CAST IRON (BITUMINOUS COATED).
4. SURFACE OF LETTERS SHALL BE FLUSH WITH FINISHED SURFACE OF COVER

SAN BERNARDINO COUNTY TRANS. DEPT.

KEN A. MILLER  
Director of Transportation

36" MANHOLE  
FRAME & COVER

205

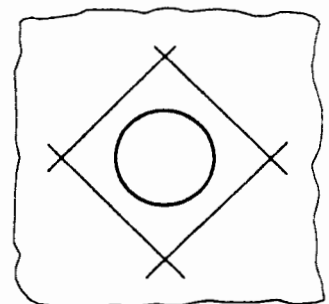


SECTION A-A

NOT TO SCALE

NOTES:

1. ALL REINFORCING SHALL BE #4 BARS @ 1' O.C. BOTH WAYS IN TOP SLAB AND WALLS.
2. CATCH BASIN SHALL BE CONSTRUCTED OF CLASS "A" CONCRETE.
3. CURB & GUTTER ADJOINING CATCH BASIN SHALL BE CONSTRUCTED PRIOR TO CONSTRUCTING TOP OF CATCH BASIN.

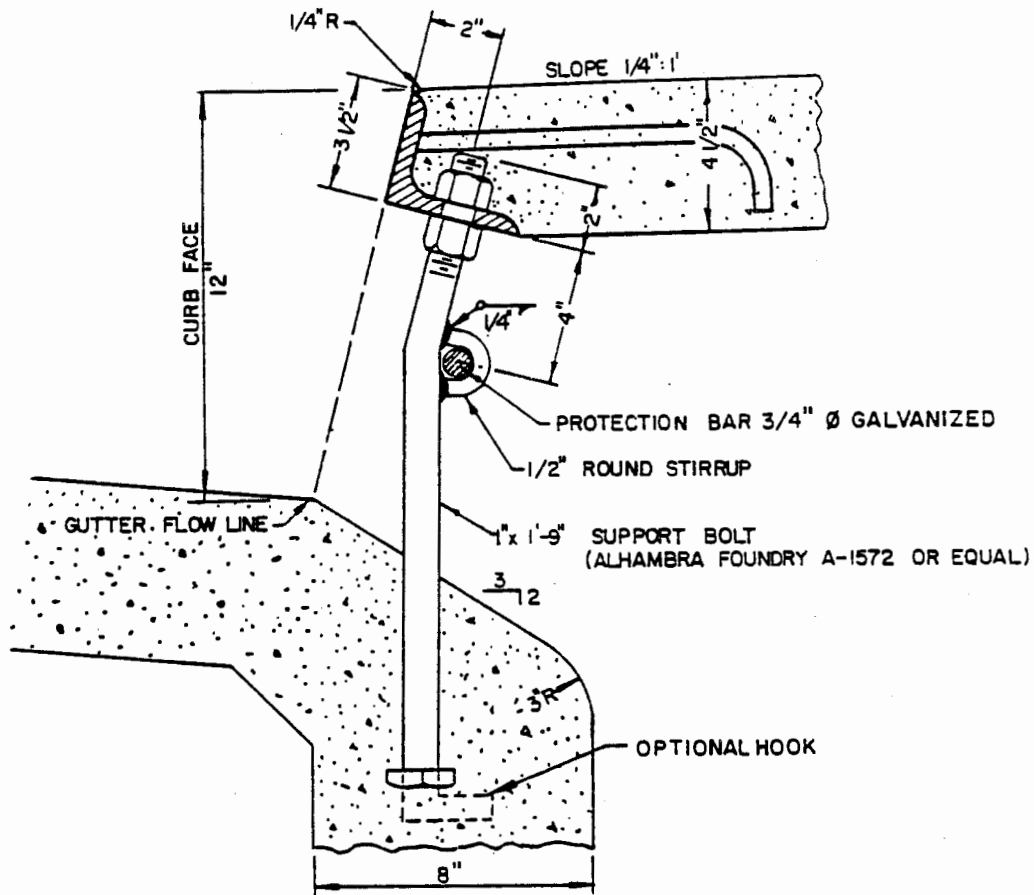


SAN BERNARDINO COUNTY TRANS. DEPT.

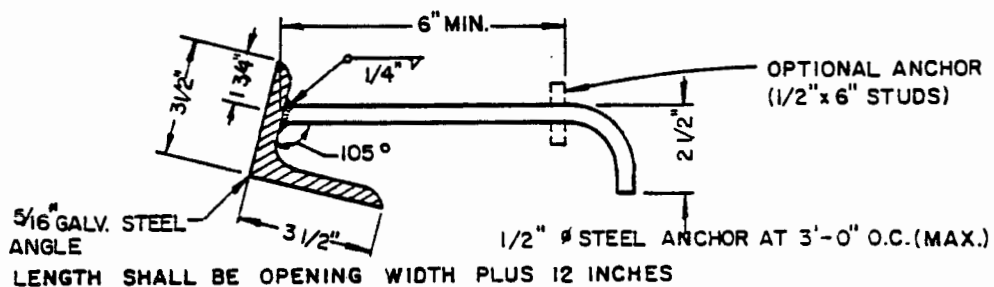
KEN A. MILLER  
Director of Transportation

TYPE "A"  
CATCH BASIN

206



### STEEL ANGLE & SUPPORT BOLT DETAIL



### STEEL ANGLE ANCHOR

#### NOTES:

1. A PLAIN ROUND GALVANIZED STEEL PROTECTION BAR 3/4" IN DIA. SHALL BE INSTALLED AND EMBEDDED 6" AT EACH END.
2. ALL EXPOSED METAL PARTS SHALL BE GALVANIZED. (EXCEPT FRAME AND COVER)
3. SUPPORT BOLTS SHALL BE UNIFORMLY SPACED BUT NOT TO EXCEED 7' ON CENTER.
4. STEEL ANGLE SHALL BE BENT TO MATCH CURB ALIGNMENT.

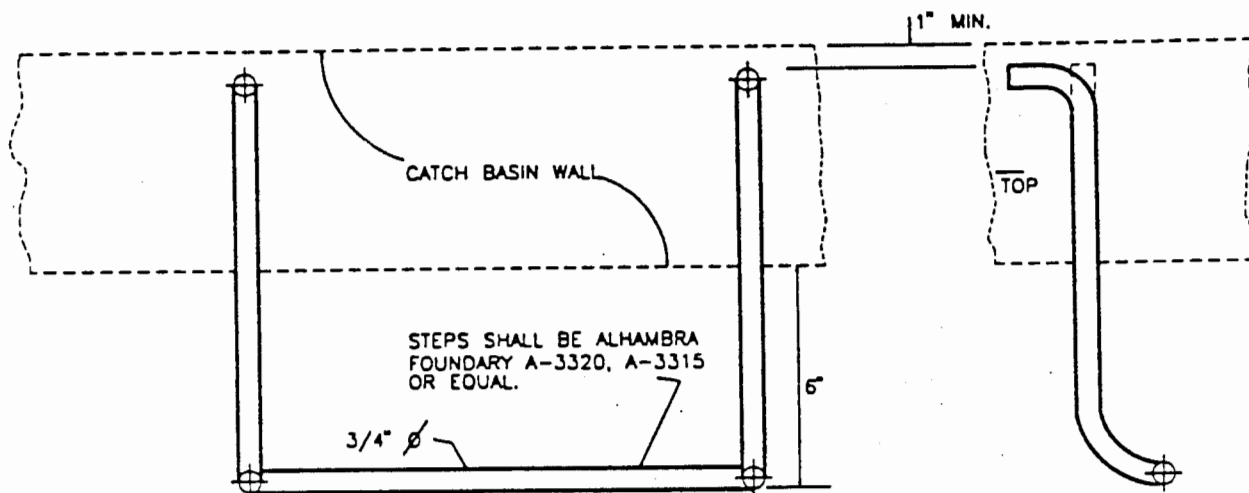
SAN BERNARDINO COUNTY TRANS. DEPT.

L.J.F. 12-74

John R. Shone  
Director of Transportation

CATCH BASIN  
OPENING

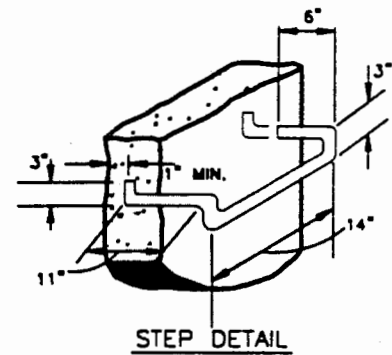
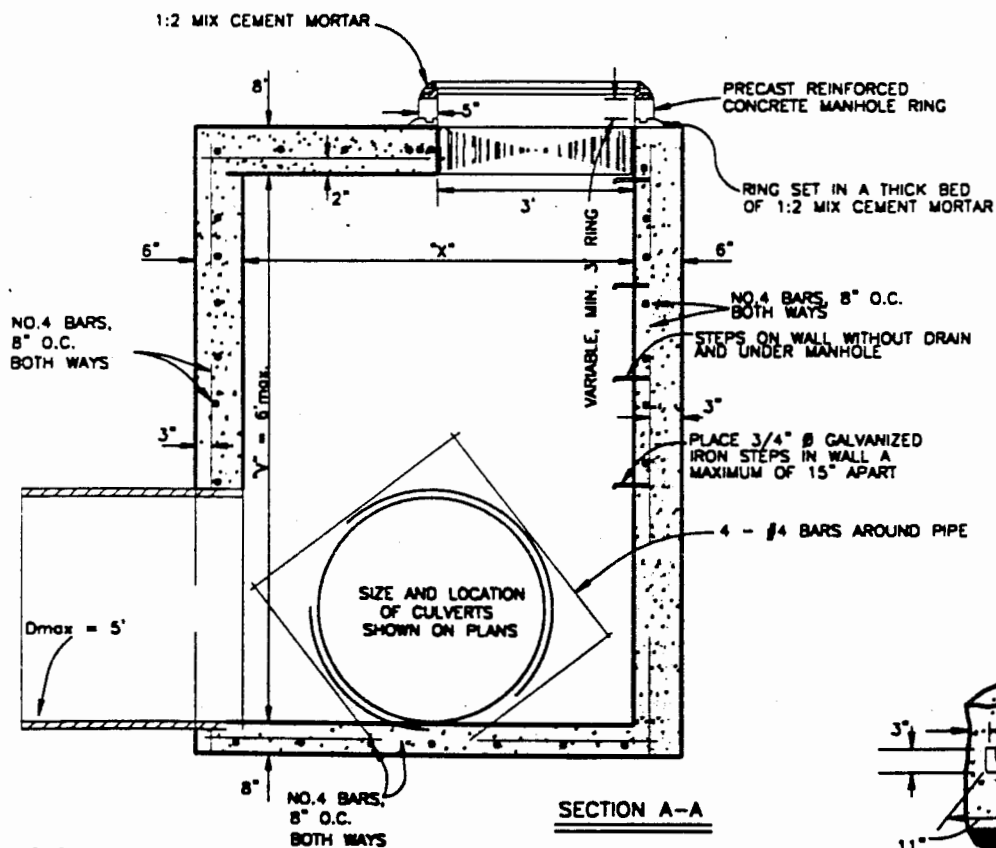
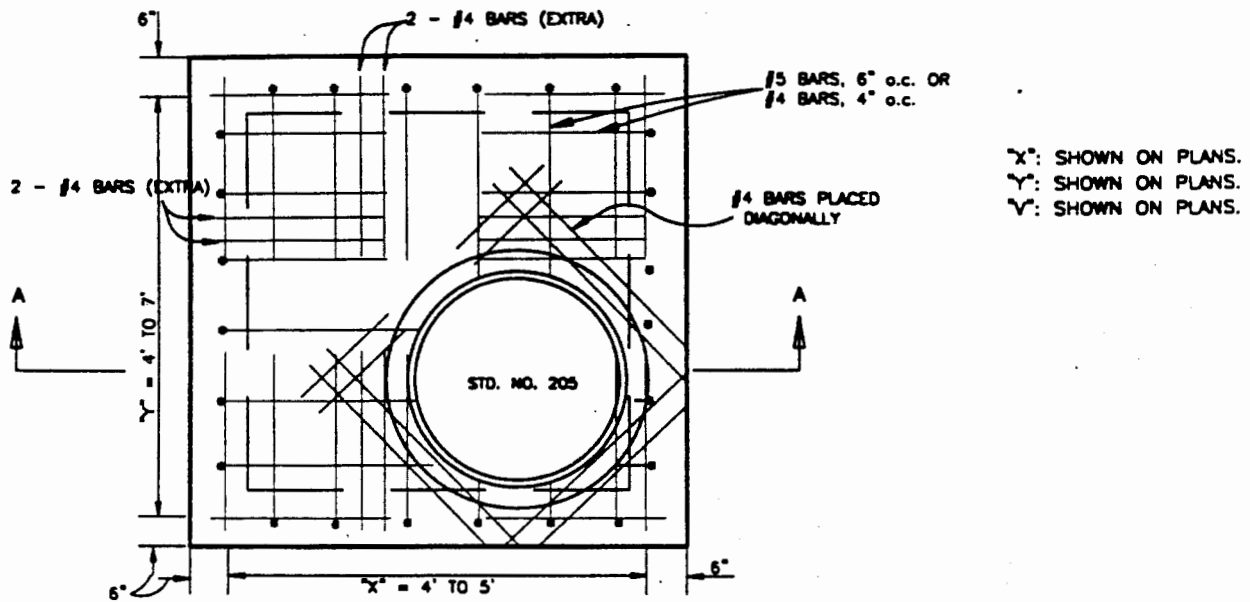
206a



NOTES:

1. STEPS - NONE REQUIRED WHERE "V" IS 3'-6" OR LESS. INSTALL ONE STEP 16"± ABOVE FLOOR WHEN "V" IS MORE THAN 3'-6" & LESS THAN 5'-0". WHERE "V" IS MORE THAN 5'-0" STEPS SHALL BE EVENLY SPACED @ 12"± INTERVALS FROM 16"± ABOVE THE FLOOR TO WITHIN 12"± FROM THE TOP OF THE BOX. PLACE STEPS IN WALL WITHOUT PIPE OPENINGS AND UNDER MANHOLE.

|                                    |                            |                       |      |
|------------------------------------|----------------------------|-----------------------|------|
| SAN BERNARDINO COUNTY TRANS. DEPT. |                            | GALVANIZED STEEL STEP | 206B |
|                                    | KEN A. MILLER              |                       |      |
|                                    | Director of Transportation |                       |      |
|                                    |                            |                       |      |
|                                    |                            |                       |      |



NOTES:

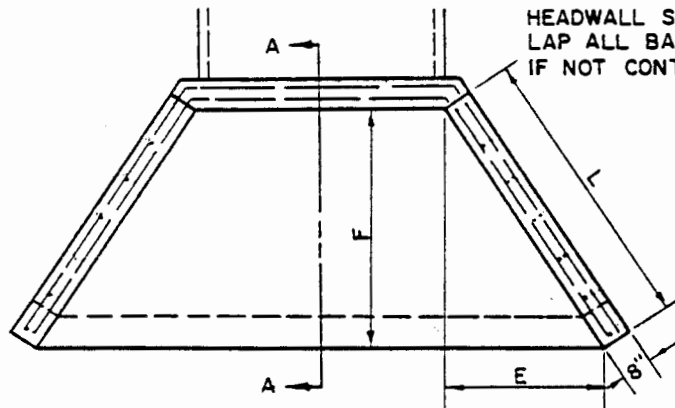
1. STORM DRAIN CLEANOUT SHALL BE CONSTRUCTED OF CLASS "A" CONCRETE.
2. CLEARANCE FROM I.D. OF PIPE TO CLEANOUT WALL SHALL BE 4" MIN.
3. APPROVED PRECAST CONCRETE MANHOLE SHAFT RINGS WILL BE ACCEPTED IN LIEU OF CAST-IN-PLACE SHAFT

SAN BERNARDINO COUNTY TRANS. DEPT.

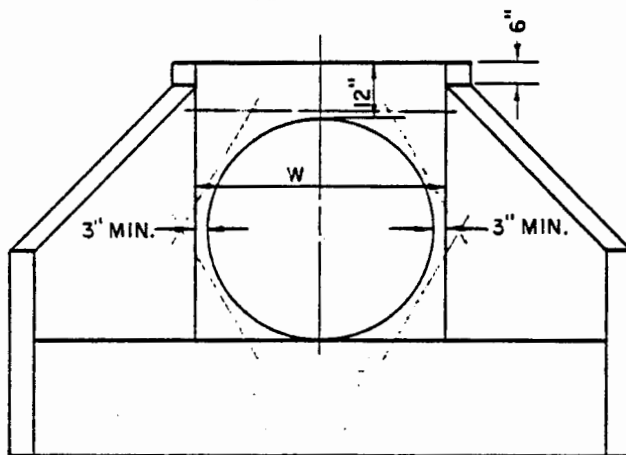
KEN A. MILLER  
Director of Transportation

STORM DRAIN CLEANOUT 208



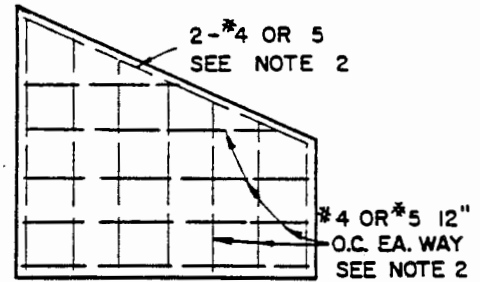


**PLAN**

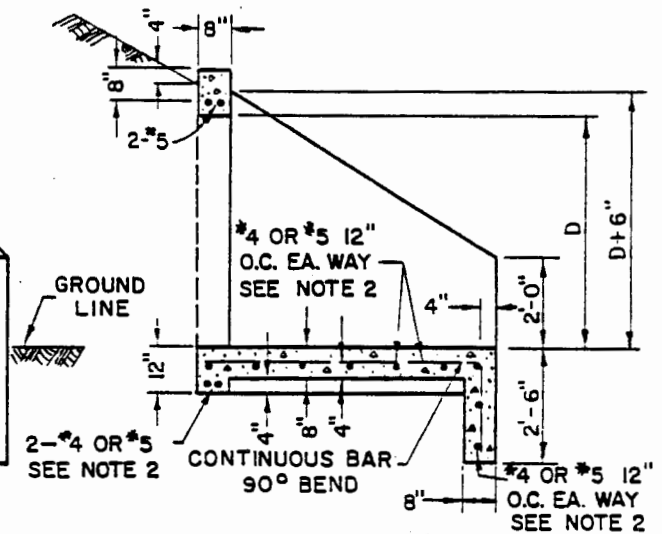


**ELEVATION**

HEADWALL SHALL BE MONOLITHIC.  
LAP ALL BARS AT CORNERS 30 DIAMETERS  
IF NOT CONTINUOUS.



**REINFORCING DETAIL**

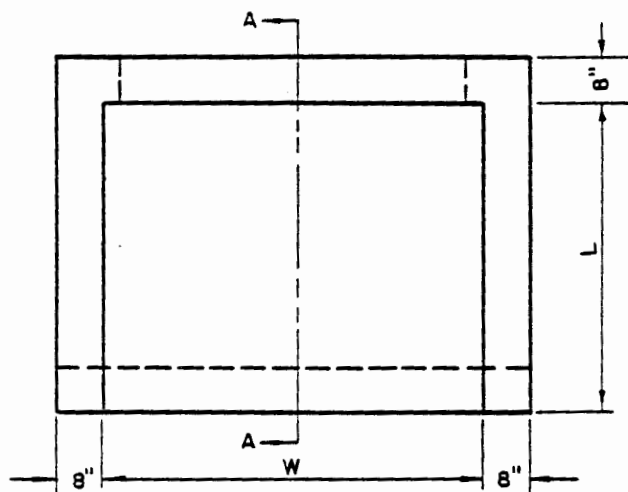


**SECTION A-A**

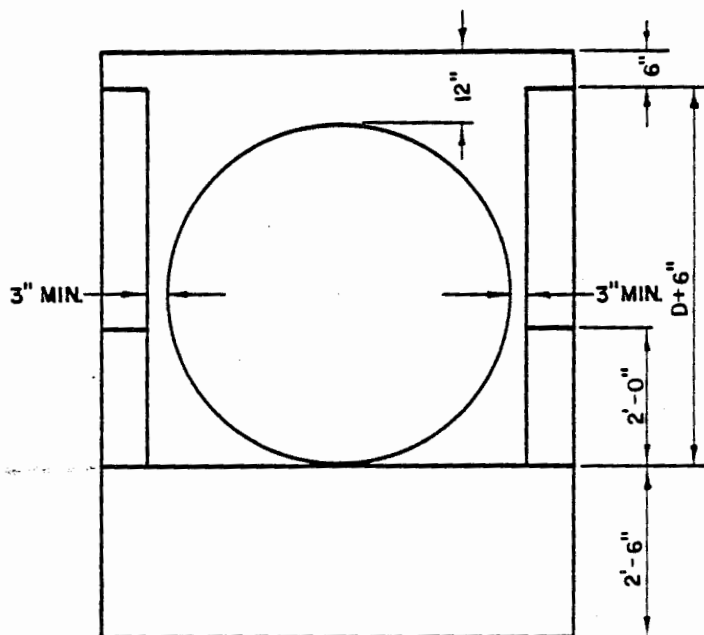
| DIMENSIONS |       |       |       |        |
|------------|-------|-------|-------|--------|
| PIPE DIAM. | L     | E     | F     | W      |
| 24"        | 4'-9" | 2'-8" | 4'-0" | 2'-6"  |
| 30"        | 5'-5" | 3'-0" | 4'-6" | 3'-0"  |
| 36"        | 6'-0" | 3'-4" | 5'-0" | 3'-8"  |
| 42"        | 6'-7" | 3'-8" | 5'-6" | 4'-2"  |
| 48"        | 7'-3" | 4'-0" | 6'-0" | 4'-10" |
| 54"        | 8'-2" | 4'-6" | 6'-9" | 5'-4"  |

**NOTES:**

1. HEADWALL SHALL BE CONSTRUCTED OF CLASS A CONCRETE.
2. REINFORCING STEEL SHALL BE NO. 4 BARS FOR "W" UP TO 60". ABOVE "W"=60" NO. 5 BARS SHALL BE USED. 2" MIN CLEARANCE, 30 DIAMETER LAP, ALL STEEL.
3. ADJACENT SLOPES SHALL BE  $1\frac{1}{2}$  TO 1 OR FLATTER.
4. MULTIPLE PIPES TO BE SET WITH LONGITUDINAL CENTERS  $1\frac{2}{3}$  DIAMETERS APART.
5. ALL EXPOSED CORNERS TO BE ROUNDED  $\frac{3}{4}$ " RADIUS.
6. W SHALL BE INCREASED WHEN MULTIPLE PIPES OR PIPES ON SKEW ARE USED.



PLAN



ELEVATION

| DIMENSIONS    |       |        |
|---------------|-------|--------|
| PIPE<br>DIAM. | L     | W      |
| 24"           | 4'-0" | 2'-6"  |
| 30"           | 4'-6" | 3'-0"  |
| 36"           | 5'-0" | 3'-8"  |
| 42"           | 5'-6" | 4'-2"  |
| 48"           | 6'-0" | 4'-10" |
| 54"           | 6'-9" | 5'-4"  |

**NOTES:**

1. REINFORCING STEEL IN WALLS AND BASE SHALL BE THE SAME AS STD. NO. 209.
2. NOTES SHALL BE THE SAME AS STD. NO. 209.
3. SECTION A-A IS THE SAME AS STD. NO. 209.

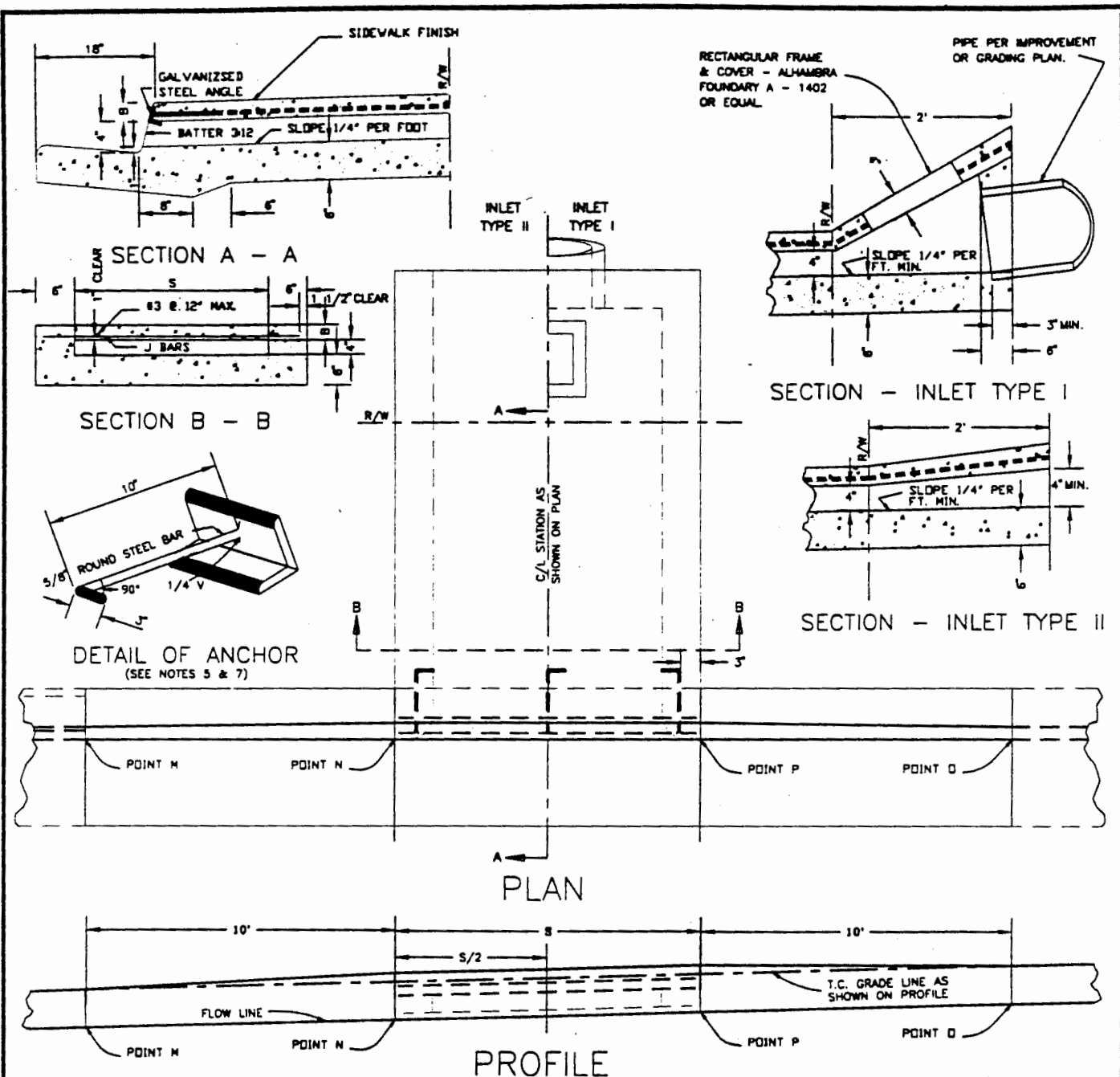
SAN BERNARDINO COUNTY ROAD DEPARTMENT

DATE: 3.11.65

*M. A. Nicholas*  
COUNTY ENGINEER

HEADWALL  
'U' - TYPE

209A



# NOTES:

- FLOOR OF BOX TO BE TROWELED SMOOTH.
- WHEN THE TOE OF SLOPE IS WITHIN THE R/W, INLET TYPE I BEGINS AT THE TOE, RATHER THAN AT THE R/W LINE.
- FOR OPEN DITCH APPROACH (TYPE II) THE 2" OR MORE IS FROM THE R/W LINE.
- TOP OF INLET STRUCTURE (TYPE I OR II) TO BE FLUSH WITH ADJACENT SIDEWALK WHERE PRACTICAL.
- A HEADED STEEL STUD 5/8" X 3/8" WITH HEAD 0.1" ATTACHED BY A FULL PENETRATION BUTT WELD MAY BE USED AS AN ALTERNATE ANCHOR.
- NORMAL CURB AT POINTS M AND Q. B + 5" AT POINTS N AND P.
- THE 3" LEG OF THE INTERIOR ANCHORS SHALL BE PARALLEL TO THE TOP OF SIDEWALK.

| S     | B  | GALVANIZED<br>STEEL ANGLE | ANCHOR | J BAR |         |        |
|-------|----|---------------------------|--------|-------|---------|--------|
|       |    |                           |        | SIZE  | SPACING | LENGTH |
| 1'-0" | 3" | 2 1/2" X 2" X 3/8"        | 2      | #3    | 7"      | 1'-9"  |
| 1'-6" | "  | "                         | "      | "     | "       | 2'-3"  |
| 2'-0" | "  | "                         | "      | "     | "       | 2'-9"  |
| 2'-6" | "  | "                         | "      | "     | "       | 3'-3"  |
| 3'-0" | "  | "                         | 3      | "     | "       | 3'-9"  |
| 3'-6" | "  | "                         | "      | "     | 6"      | 4'-3"  |
| 4'-0" | "  | "                         | "      | "     | 5"      | 4'-9"  |
| 4'-6" | 4" | 3 1/2" X 3" X 1/2"        | "      | "     | 6 1/2"  | 5'-3"  |
| 5'-0" | "  | "                         | "      | "     | 5"      | 5'-9"  |
| 5'-6" | "  | "                         | "      | "     | 4"      | 6'-3"  |
| 6'-0" | "  | "                         | "      | "     | 3 1/2"  | 6'-9"  |

STD5210

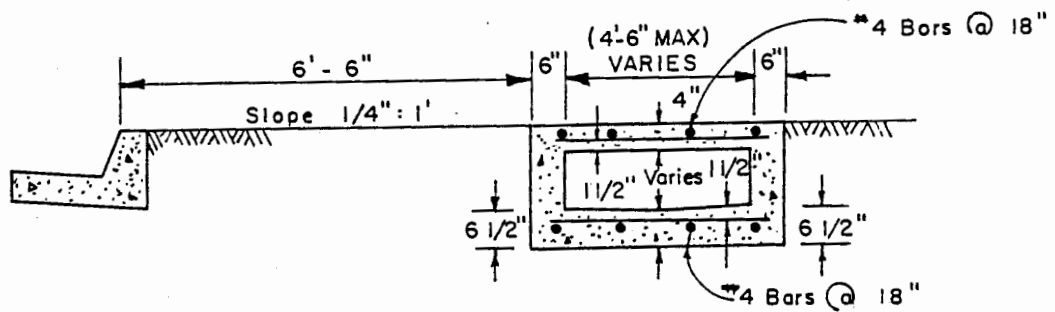
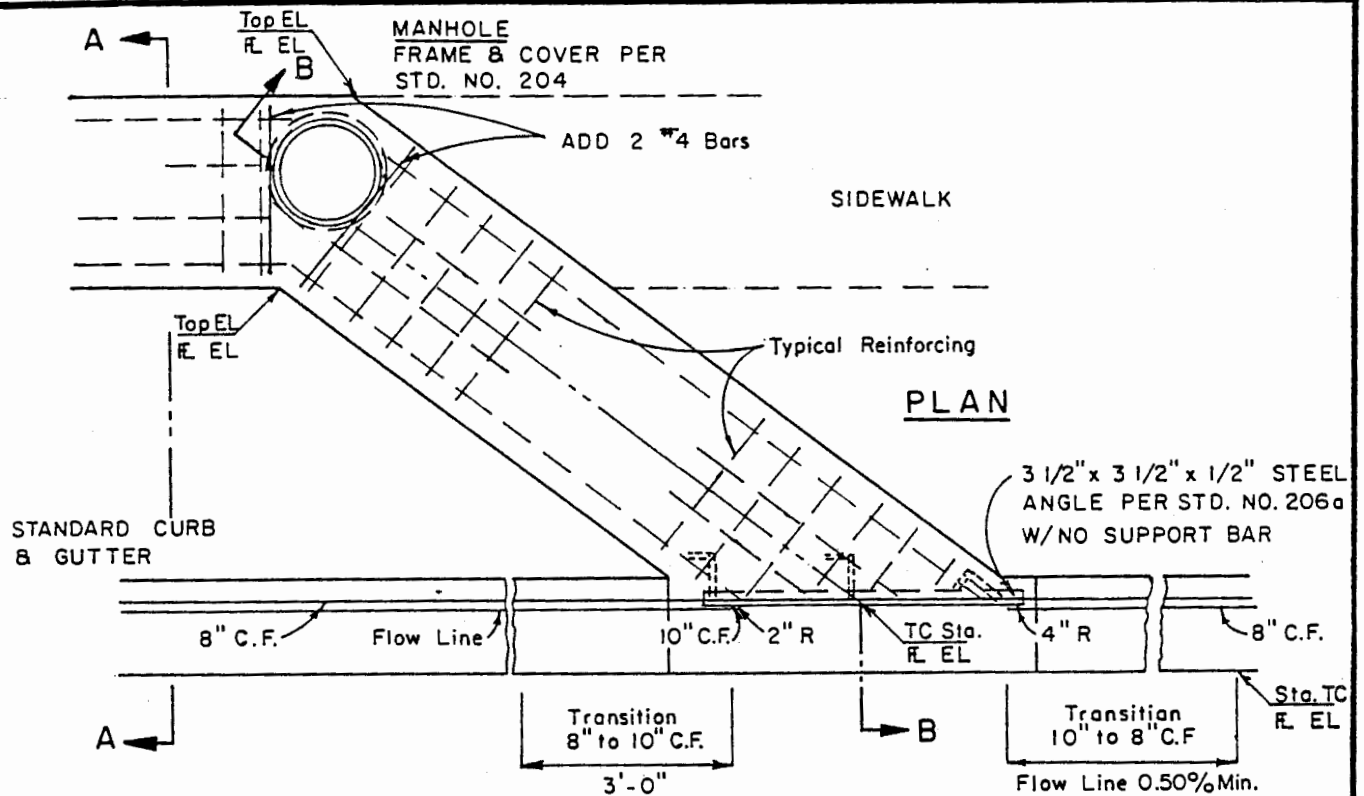
01/31/95

SAN BERNARDINO COUNTY TRANS. DEPT.

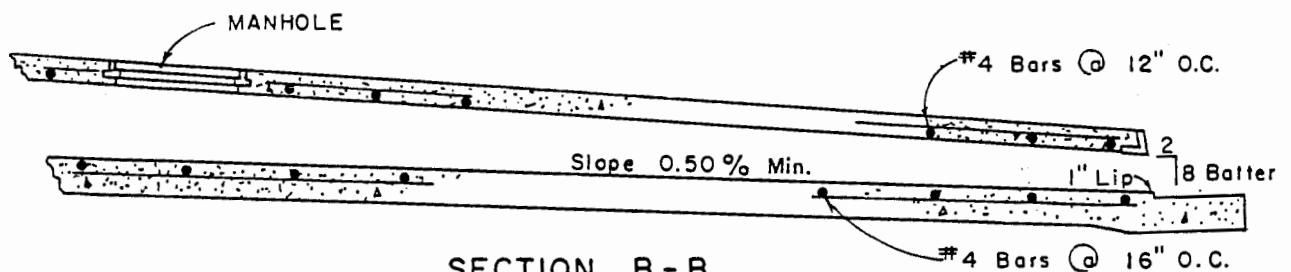
KEN A. MILLER  
Director of Transportation

CURB OUTLET  
STRUCTURE

210



SECTION A-A



SECTION B-B

NOTES :

1. CONCRETE SHALL BE CLASS "A"
2. FLOOR OF STRUCTURE SHALL BE GIVEN A STEEL TROWEL FINISH.
3. TOP OF BOX TO HAVE SIDEWALK FINISH.
4. ANCHORS SHALL BE SYMMETRICALLY SPACED AND NOT TO EXCEED 4' BETWEEN CENTERS, AND BE PLACED 4 1/2" FROM EACH END OF THE STEEL ANGLE, A MINIMUM OF 3 ANCHORS IS REQUIRED.

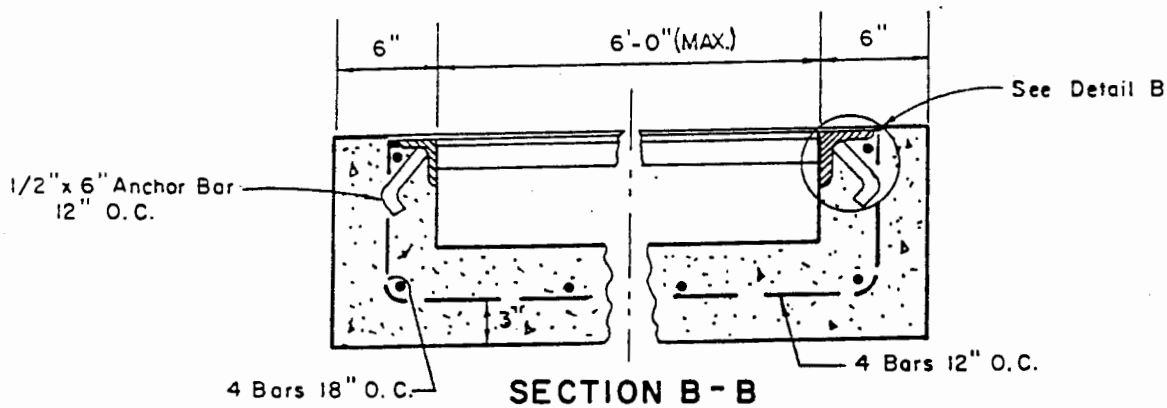
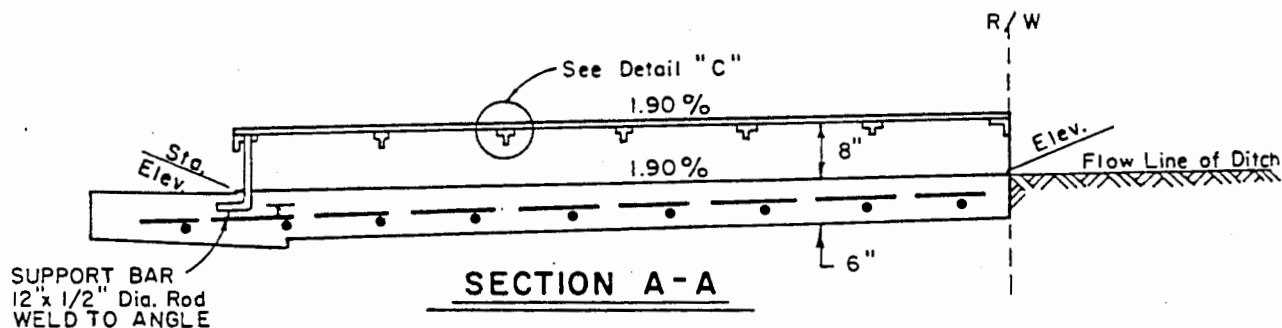
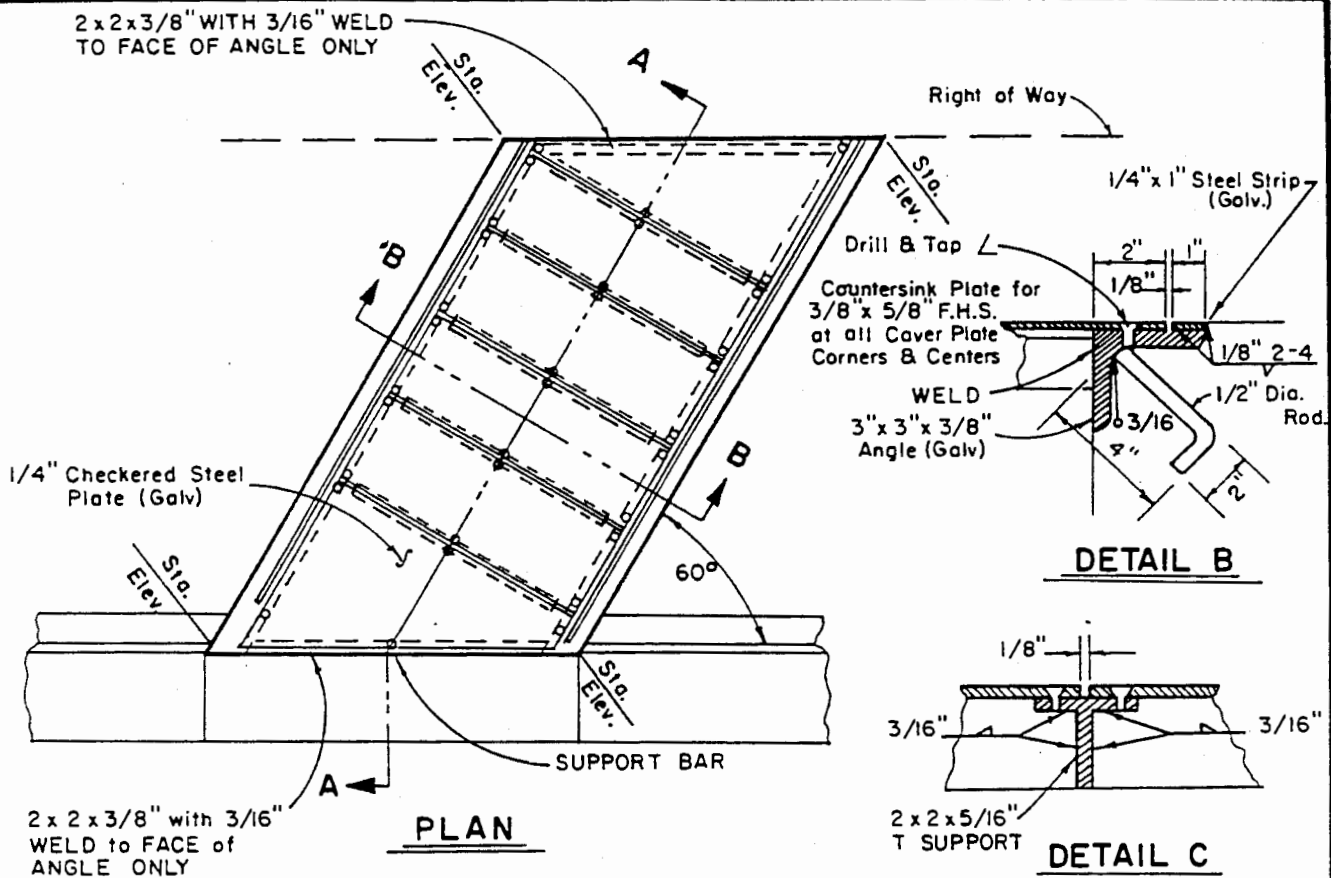
SAN BERNARDINO COUNTY TRANS. DEPT.

RD 8-89

KEN A. MILLER  
Director of Transportation

OUTLET STRUCTURE

210A



NOTES:

1. ALL CONCRETE TO BE CLASS "A"
2. ALL STEEL EXCEPT REINFORCING BARS SHALL BE GALVANIZED AFTER FABRICATION.

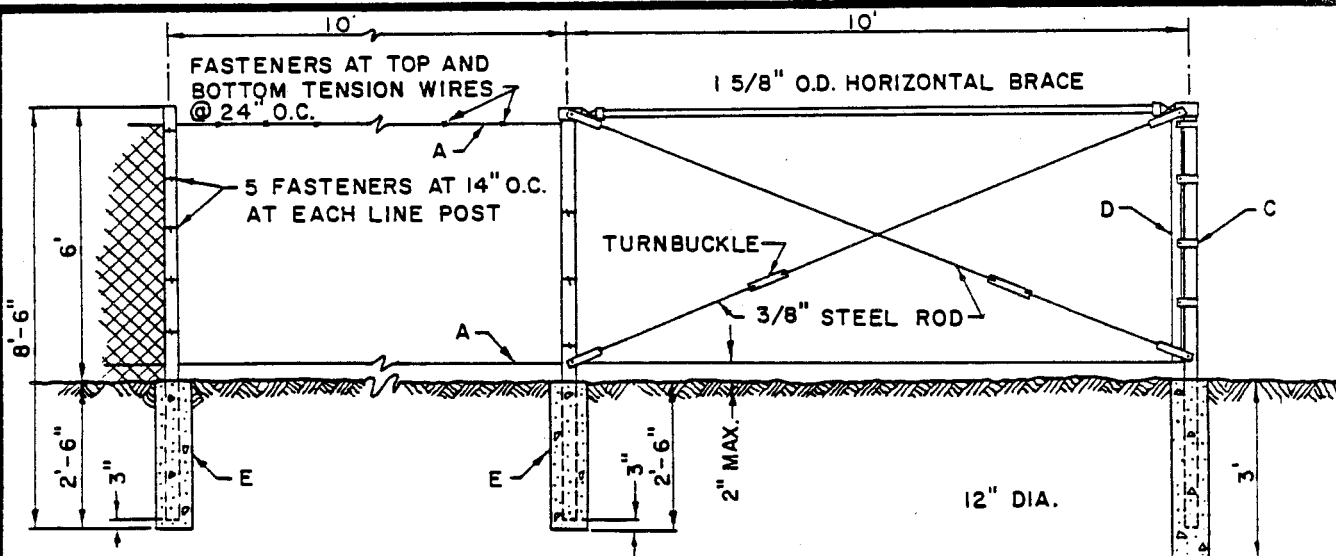
SAN BERNARDINO CO. TRANS. DEPT.

120 8-89

KEN A. MILLER  
Director of Transportation

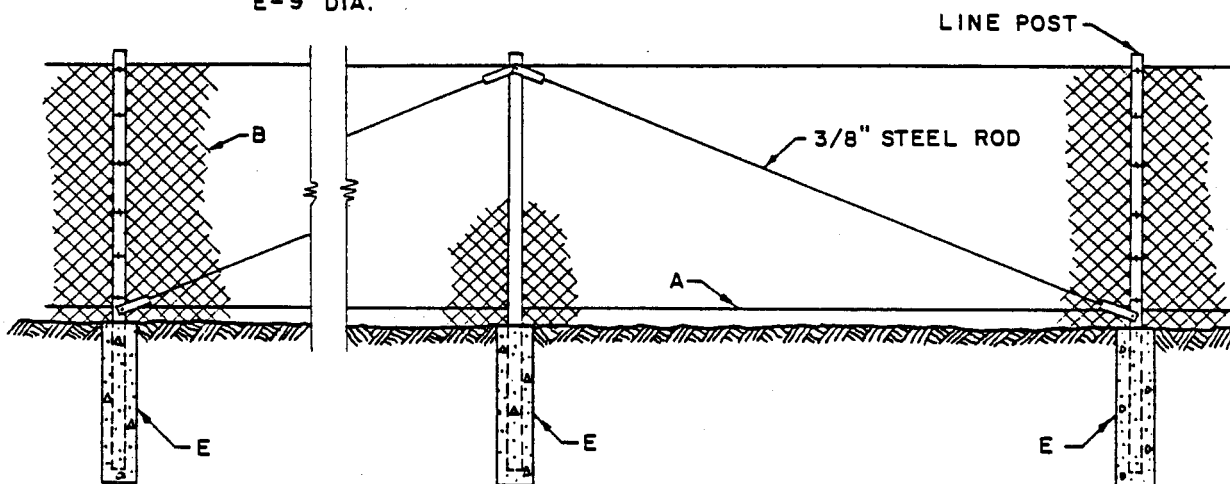
PARKWAY CULVERT  
W / STEEL PLATE COVER

211



### END BRACE

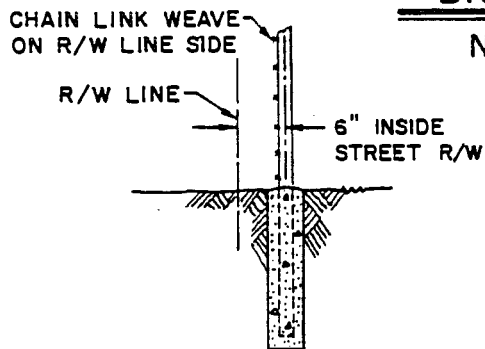
- A-TENSION WIRE NUMBER 10 GAGE MINIMUM  
 B-CHAIN LINK FENCE FABRIC NUMBER 9 GAGE MINIMUM  
 C-1/8" X 1" BAND AT 1' INTERVAL  
 D-3/16" X 3/4" X 6' STEEL TENSION BAR  
 E-9" DIA.



### BRACE EVERY 500'

#### NOTES:

1. EACH POST SHALL BE CAPPED WITH A MALLEABLE IRON POST CAP, EXCEPT WHERE BARBED WIRE IS TO BE USED. THEN EACH POST SHALL BE CAPPED WITH A GALVANIZED MALLEABLE IRON 3 STRAND BARBED WIRE ARM & CAP.
2. MATERIALS AND CONSTRUCTION OF FENCE SHALL CONFORM TO STATE OF CALIFORNIA, STANDARD SPECIFICATIONS, UNLESS SHOWN OTHERWISE.



### DETAIL

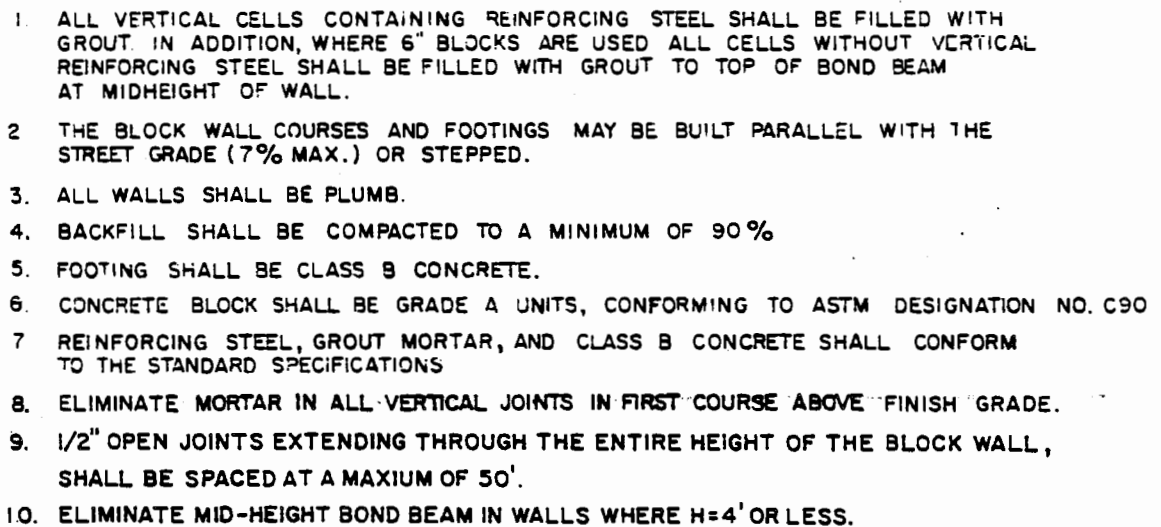
SAN BERNARDINO COUNTY ROAD DEPARTMENT

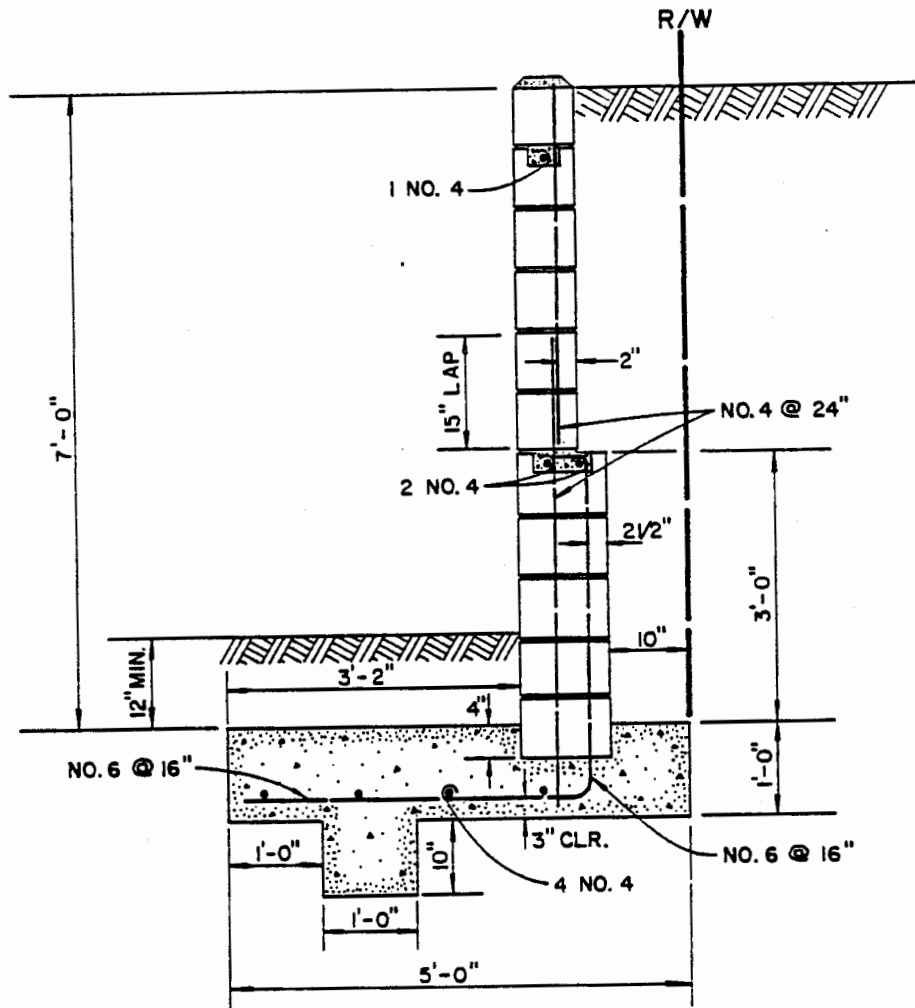
DATE: F.V.C. 7-63

M. A. Nicholas  
 COUNTY ENGINEER

RIGHT OF WAY  
 FENCE

300





#### NOTES:

1. ALL VERTICAL CELLS CONTAINING BAR STEEL SHALL BE FILLED WITH GROUT.
2. TOP OF WALL AND FOOTINGS SHALL BE STEPPED TO CONFORM WITH SLOPE OF GROUND.
3. ALL WALLS SHALL BE PLUMB AND ALL BLOCK COURSES SHALL BE LEVEL.
4. BACKFILL SHALL BE COMPACTED TO A MINIMUM OF 90% OF MAXIMUM DENSITY.
5. FOOTING SHALL BE CLASS 'A' CONCRETE.
6. CONCRETE BLOCK SHALL BE GRADE A UNITS, CONFORMING TO A.S.T.M. DESIGNATION NO. C90.
7. REINFORCING STEEL, GROUT, MORTAR AND CLASS 'A' CONCRETE SHALL CONFORM TO THE STANDARD SPECIFICATIONS. LAP STEEL 20 DIAMETERS.
8. MORTAR TO BE ELIMINATED FROM VERTICAL JOINTS OF ROW OF BLOCKS AT PARKWAY LEVEL.
9. THIS WALL SHALL BE USED WHERE A SCREENING WALL IS REQUIRED ON NON-ACCESS STREET AND THE POSSIBILITY OF BACKFILL ON PRIVATE LOT BY OWNER IS ACCOMPLISHED OR POSSIBLE.
10. DESIGN OF RETAINING WALLS UNDER OTHER CONDITIONS SHALL BE SUBMITTED TO THE COUNTY ENGINEER FOR APPROVAL.

SAN BERNARDINO COUNTY ROAD DEPARTMENT

DATE: J.E.M. 7-66

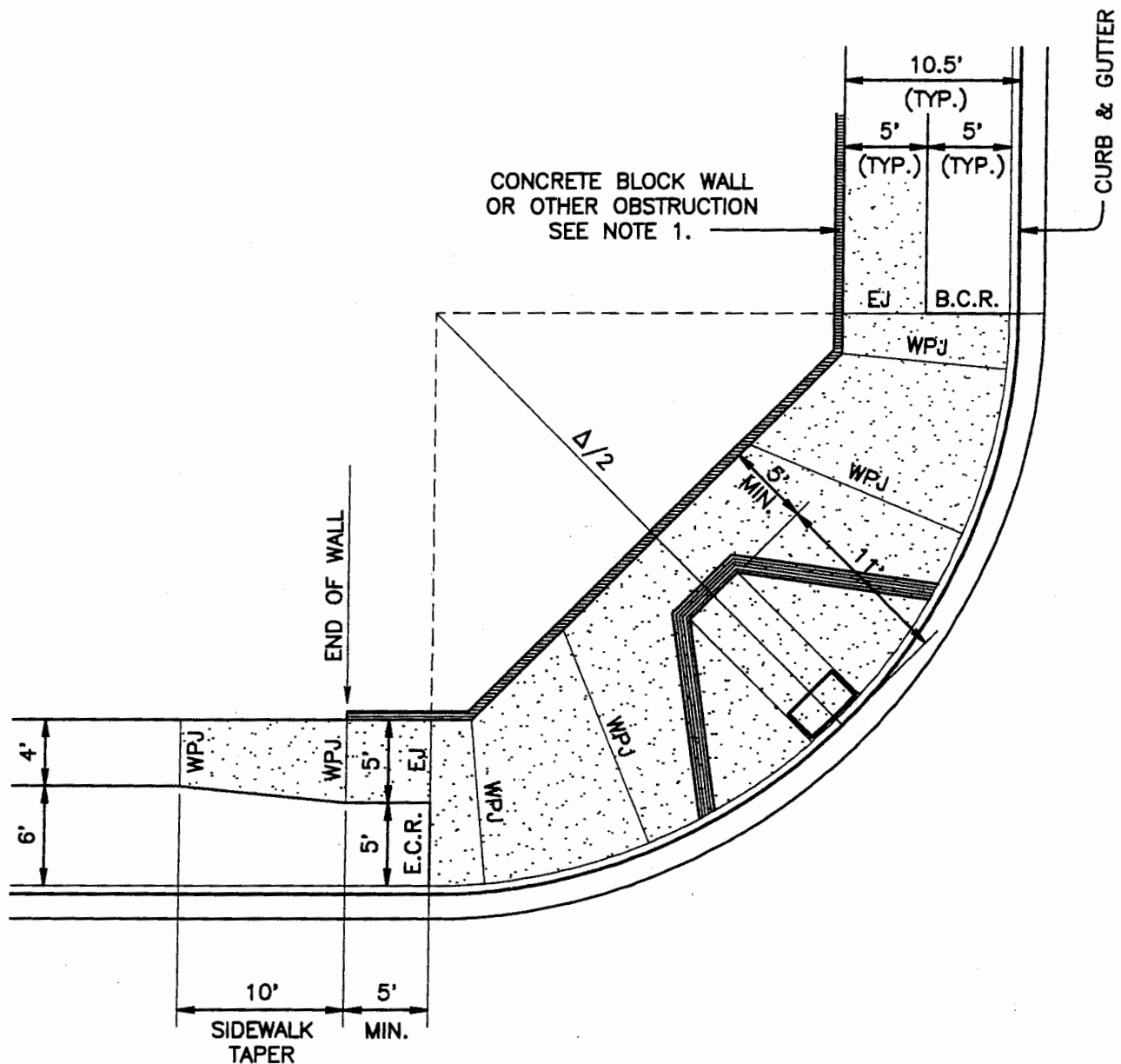
M. A. Nicholas  
COUNTY ENGINEER

RETAINING  
CONCRETE BLOCK WALL

301 a



SEE TERRAMODEL FILE - N:\M2201\ MISCDET.pro



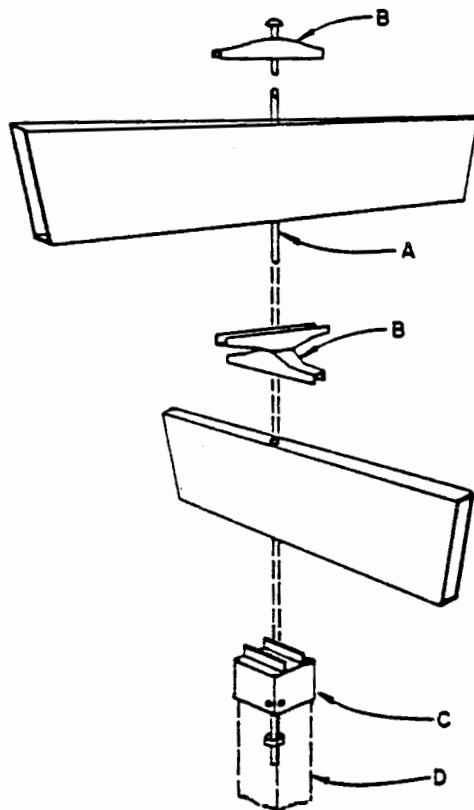
#### NOTES:

1. THE LOCATION & HEIGHT OF THE CONCRETE BLOCK WALL OR OTHER OBSTRUCTION MAY HAVE TO BE MODIFIED TO CONFORM TO THE REQUIREMENTS OF THE "CLEAR SIGHT TRIANGLE" AS SHOWN ON FIGURE 8-1 OF THE COUNTY PLANNING & DESIGN STANDARDS MANUAL.
2. THE SIDEWALK ADJACENT TO THE BLOCK WALL SHALL BE TYPE "A" PER COUNTY STD. 109
3. FOR RAMP & WEAKENED PLANE JOINT INFORMATION SEE CO. STD. 110.
4. REFER TO STREET IMPROVEMENT PLAN FOR RIGHT-OF-WAY LOCATION.

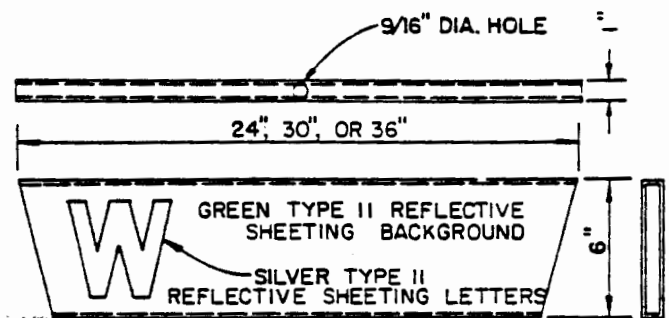
WPJ INDICATES WEAKENED PLANE JOINT.

EJ INDICATES 1/4" PREMOLDED EXPANSION JOINT MATERIAL.

|  |   |                                       |     |
|--|---|---------------------------------------|-----|
| CO. OF SAN BDNO. DEPT. OF PUBLIC WORKS |   | BLOCKWALL LOCATION<br>AT INTERSECTION | 302 |
| REVISED: DATE                          |   |                                       |     |
| G.M. 12-05                             | PATRICK J. MEAD<br>Director of Public Works |                                       |     |



### ASSEMBLY



- A  $\frac{3}{8}$ "X15" CADMIUM PLATED CARRIAGE BOLT.
- B ORNAMENTAL TOP SHALL BE 14 GAGE ANODIZED ALUMINUM. CENTER CROSS SADDLE SHALL BE ONE PIECE CAST ANODIZED ALUMINUM.
- C ONE PIECE 2" CAST ANODIZED ALUMINUM POST CAP WITH FOUR  $\frac{3}{8}$ " STAINLESS STEEL ALLEN HEAD SET SCREWS.
- D 2" SQ. STEEL POST 8'-12' LONG INSTALLED WITH A DRIVEN 2 1/2" SQ. STEEL BREAKAWAY BASE 3' LONG AS PER COUNTY INSTALLATION STD. 303b.

**DESIGN:** EACH FOUR-WAY UNIT SHALL CONSIST OF TWO DOUBLE FACE SIGNS WITH STREET NAMES MOUNTED AT RIGHT ANGLES WITH CENTER ROD ASSEMBLY.

**BRACKET ASSEMBLY:** THE POST CAP, ORNAMENT, AND CENTER ROD ASSEMBLY SHALL BE MADE TO MOUNT ON 2" SQ. GALVANIZED POST. THE CENTER ROD SHALL BE A  $\frac{3}{8}$ " CADMIUM PLATED CARRIAGE BOLT. HEAD OF BOLT SHALL FORM TOP OF ORNAMENT. BOLT SHALL EXTEND THROUGH SIGNS AND FASTEN WITH NUT INSIDE OF POST CAP. POST CAP SHALL BE DEEPLY GROOVED TO SECURELY HOLD SIGN FROM TWISTING AND SHALL BE SECURED TO THE PIPE WITH THREE  $\frac{3}{8}$ " STAINLESS STEEL ALLEN HEAD SET SCREWS.

**MATERIAL:** SIGN SHALL BE GREEN ANODIZED ALUMINUM EXTRUSION OF 6063T-4 ALLOY MATERIAL. ALL ANODIZING SHALL CONFORM WITH ALUMILITE SPECIFICATION #215-R1.

**FINISH:** SIGN FACES SHALL BE FHWA TYPE II REFLECTIVE SHEETING. THE TRANSPARENT SCREEN PROCESS COLOR SHALL BE AS RECOMMENDED BY THE REFLECTIVE SHEETING MANUFACTURER. APPLICATION OF THE REFLECTIVE SHEETING TO THE SIGN SHALL BE BY METHODS AS APPROVED BY THE REFLECTIVE SHEETING MANUFACTURER.

**LETTERING:** STREET NAMES SHALL BE 4" HIGH. EACH NAME SHALL BE INDIVIDUALLY LAID OUT TO FIT EITHER THE 24" OR 30" SPACE. THE LETTERS SHALL BE OF THE ROUNDED TYPE STYLE CONFORMING WITH THE STANDARD ALPHABET FOR HIGHWAY SIGNS DESIGNED BY THE U.S. PUBLIC ROADS ADMINISTRATION. LETTERS SHALL BE FHWA TYPE II REFLECTIVE SHEETING.

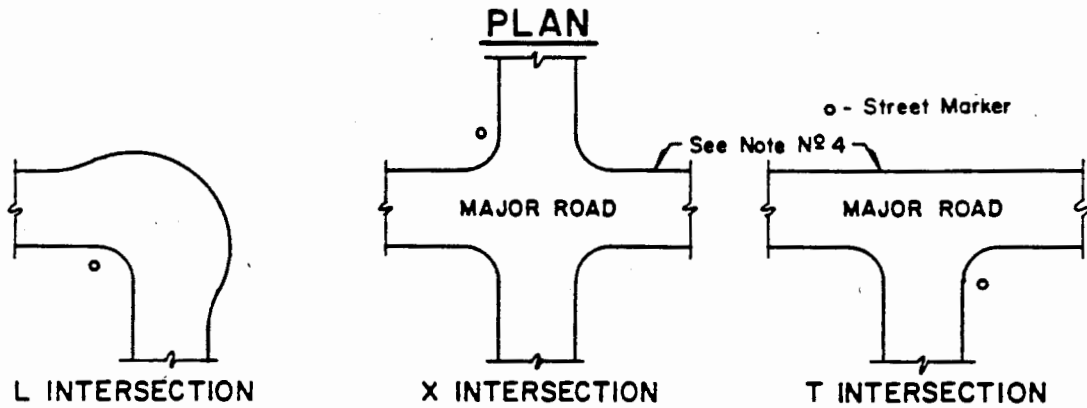
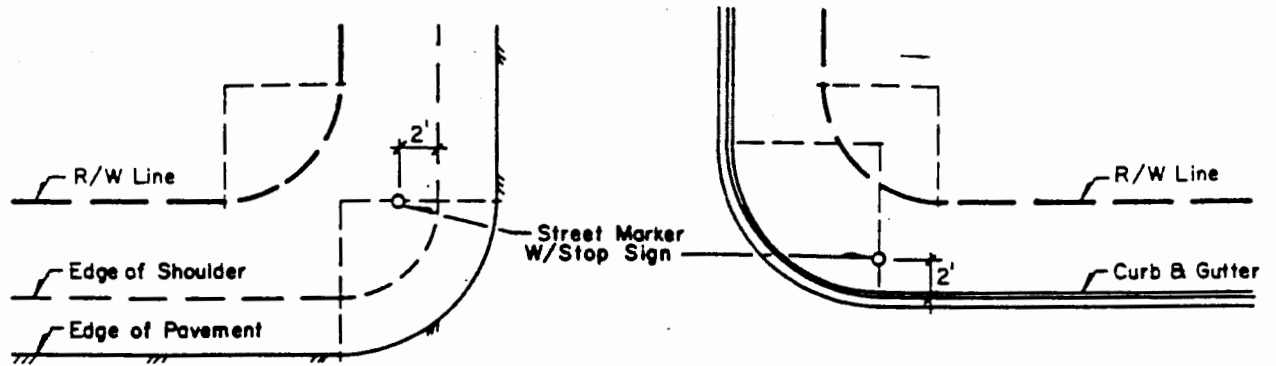
SAN BERNARDINO COUNTY ROAD DEPARTMENT

DATE: J.E.M. 11-65  
R.A.J. 10-81

M. A. Nicholas  
COUNTY ENGINEER

STREET MARKER

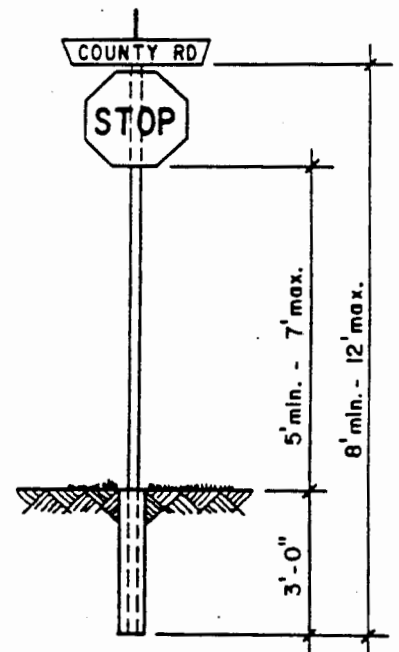
303



**TYPICAL LOCATION**

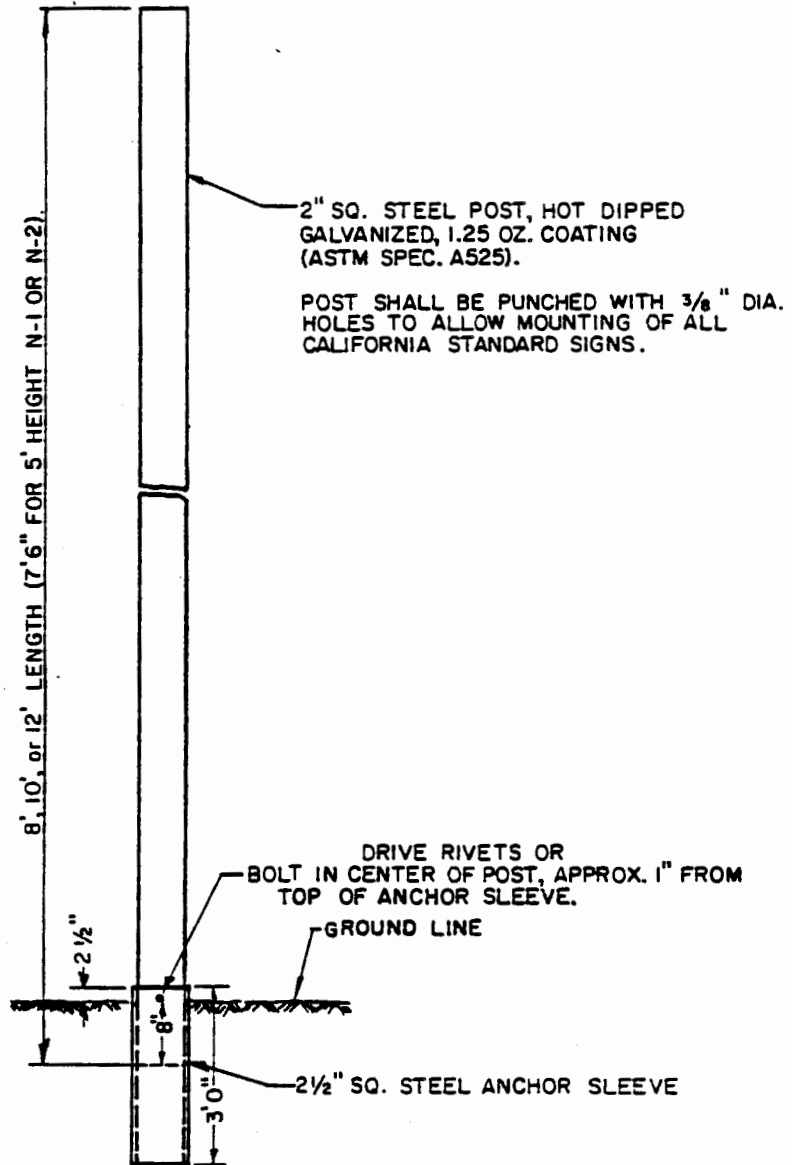
**NOTES:**

1. Marker To Be Set On County Right Of Way.
2. Location Of Marker Shown Is Approximate.
3. Markers To Be Visible For A Distance Of 150 Feet.
4. If Either Road Is Divided Into 4 Lanes Or More (Major Road), Additional Markers Will Be Required.
5. Street Markers Located At Major Roads Will Be Mounted On 12 Foot Posts To Accommodate A Stop Sign.



**ELEVATION**

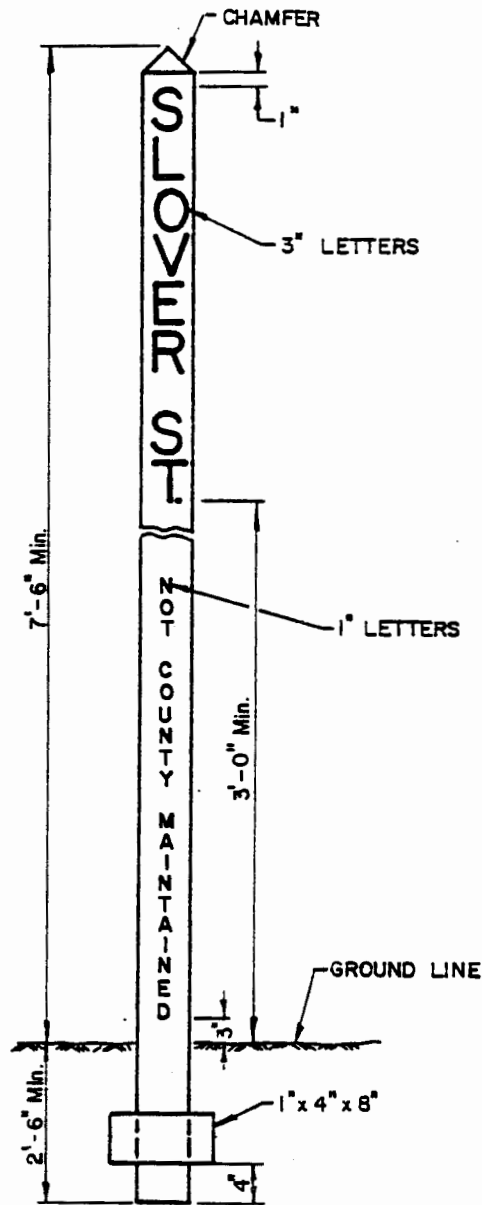
|                                    |   |               |      |
|------------------------------------|---|---------------|------|
| SAN BERNARDINO COUNTY TRANS. DEPT. |   | STREET MARKER | 303a |
| OCT. 5, 1993 v.h.c.                | KEN A. MILLER<br>Director of Transportation |               |      |
| REV. 3/1/94                        |   |               |      |
|                                    |   |               |      |



**NOTES:**

1. SEE STANDARD NO. 303a FOR MARKER LOCATIONS.
2. POST SHALL BE 2" SQ. STEEL AS SHOWN AND STATED.
3. ANCHOR SLEEVE SHALL BE 2 1/2" SQ. STEEL HOT DIPPED GALVANIZED AFTER FABRICATION (ASTM SPEC. A-123).
4. SIGNS SHALL BE INSTALLED IN ACCORDANCE WITH COUNTY STANDARD 303.

|                                       |                                   |                                    |       |
|---------------------------------------|-----------------------------------|------------------------------------|-------|
| SAN BERNARDINO COUNTY ROAD DEPARTMENT |                                   | STREET MARKER<br>POST INSTALLATION | 303 b |
| H.G. 1-71<br>R.O.L. 10-2              | M. A. Nicholas<br>COUNTY ENGINEER |                                    |       |



NOTES:

1. SEE STANDARD NO 303a FOR MARKER LOCATIONS.
2. POST SHALL BE 4" x 4" CONSTRUCTION HEART STRUCTURAL REDWOOD, S. 4 S. AND/OR EQUIVALENT AS APPROVED BY STANDARD SPECIFICATIONS.
3. ALL WOOD SURFACES SHALL BE GIVEN ONE COAT OF WOOD PRIMER AND TWO COATS OF ENAMEL; SIGN POST YELLOW, IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.
4. LETTERS SHALL BE STENCILED WITH BLACK PAINT ON ALL SIDES.
5. STREET NAME LETTERS SHALL BE 3" HIGH AND NOT COUNTY MAINTAINED LETTERS 1" HIGH ROUNDED TYPE STYLE CONFORMING WITH THE STANDARD ALPHABET FOR HIGHWAY SIGNS DESIGNED BY THE U.S. PUBLIC ROADS ADMINISTRATION.

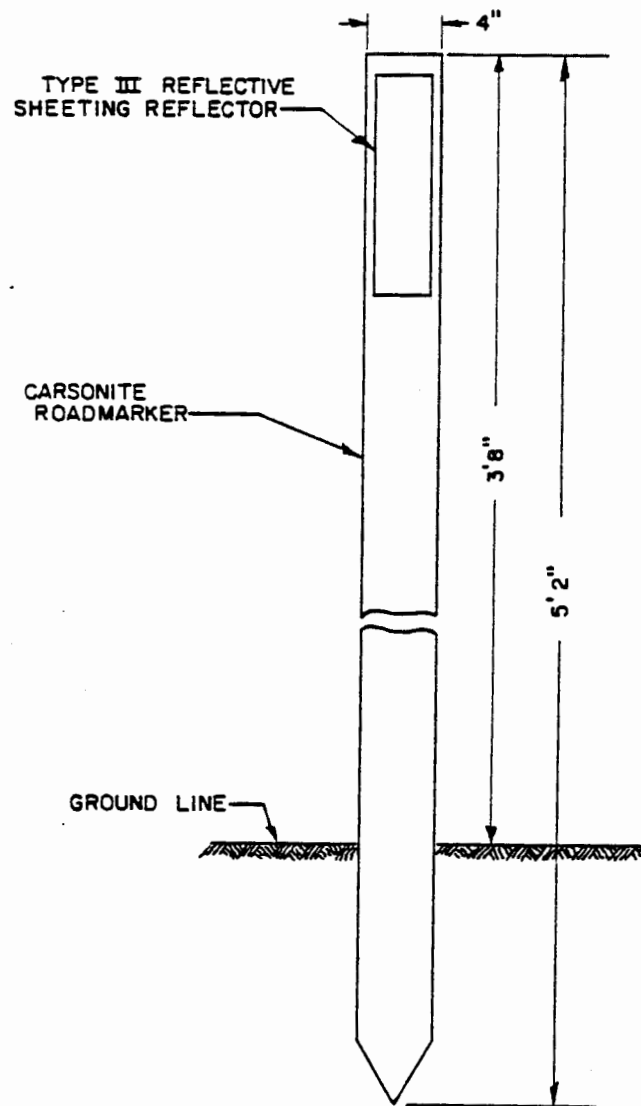
SAN BERNARDINO COUNTY ROAD DEPARTMENT

H.G. 1-71

M. A. Nicholas  
COUNTY ENGINEER

STREET MARKER  
DESERT ROAD - 2 1/2 ACRE

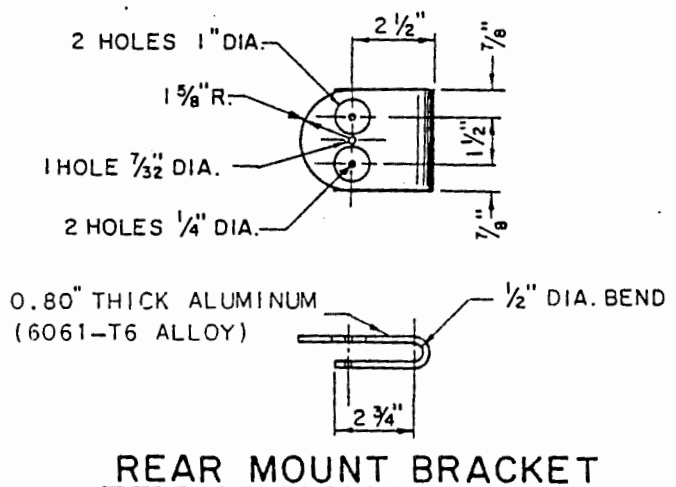
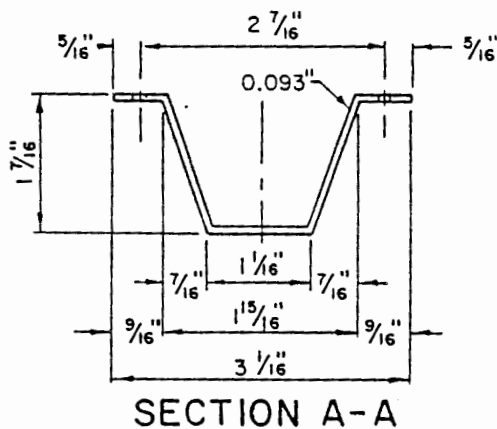
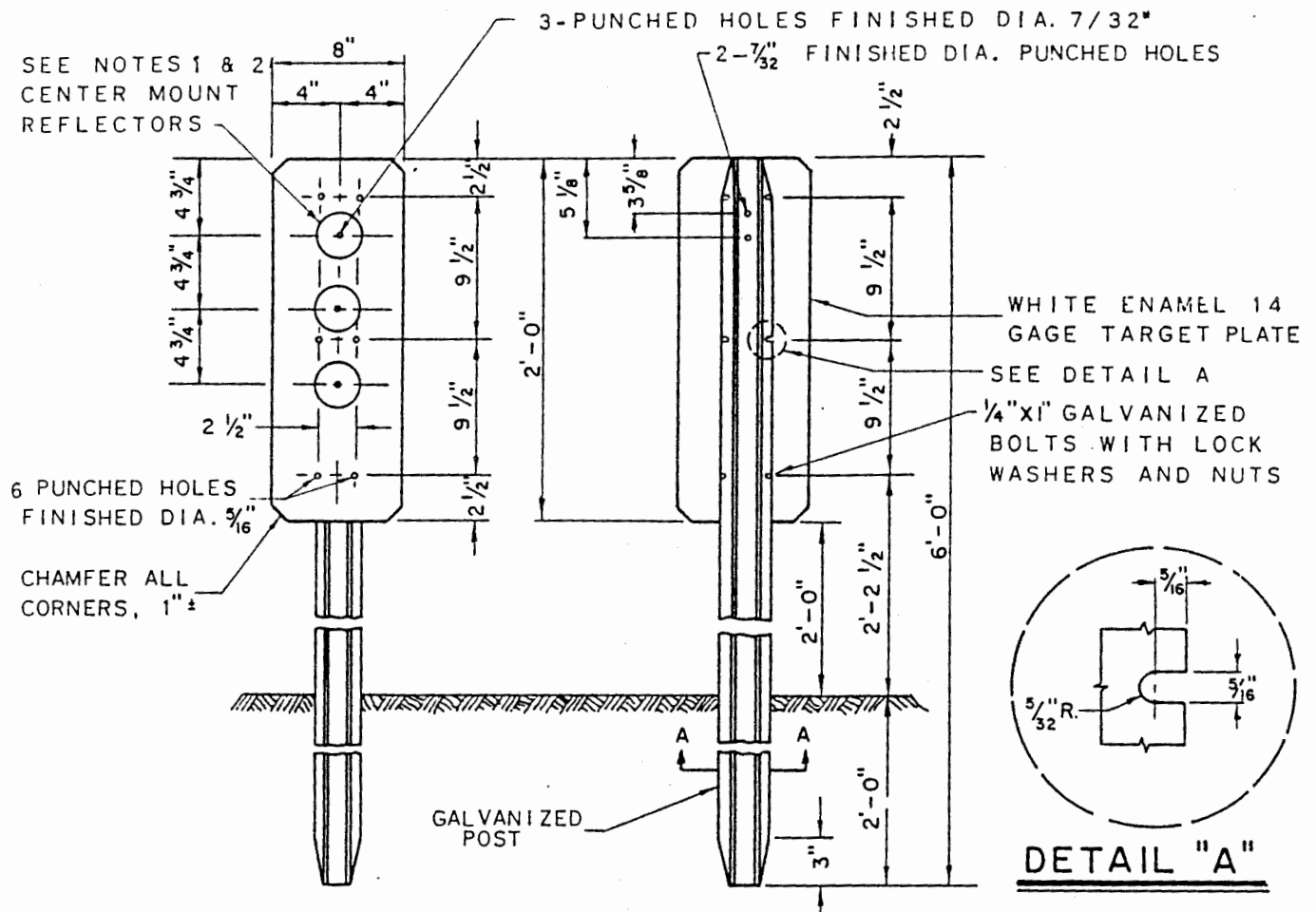
303c



**NOTES:**

- I. MARKER SHALL BE A CARSONITE ROADMARKER CONSISTING OF A CARSONITE POST WITH A 3"X12" FHWA TYPE III REFLECTIVE SHEETING REFLECTOR.

|                                       |                                   |         |     |
|---------------------------------------|-----------------------------------|---------|-----|
| SAN BERNARDINO COUNTY ROAD DEPARTMENT |                                   | MARKERS | 304 |
| DATE: F.V.C. 7-65                     | M. A. Nicholas<br>COUNTY ENGINEER |         |     |
| C.L.S. 10-81                          |                                   |         |     |
|                                       |                                   |         |     |
|                                       |                                   |         |     |



#### NOTES:

1. CLEARANCE MARKER (W-60R) THREE 3 1/4" YELLOW CENTERMOUNT REFLECTORS.
2. GUIDE MARKERS ONE 3 1/4" WHITE CENTERMOUNT REFLECTOR.
3. REAR MOUNT REFLECTOR BRACKET SHALL BE USED ON CURVES. BRACKET SHALL BE ATTACHED WITH 3/16" BLIND ALUMINUM RIVETS AND USED TO MOUNT A 3" WHITE REFLECTOR.
4. ALL MATERIALS SHALL CONFORM TO STATE OF CALIFORNIA, STANDARD SPECIFICATIONS
5. HOLE DIAMETERS APPLY TO DIMENSION AFTER ITEM IS PAINTED.

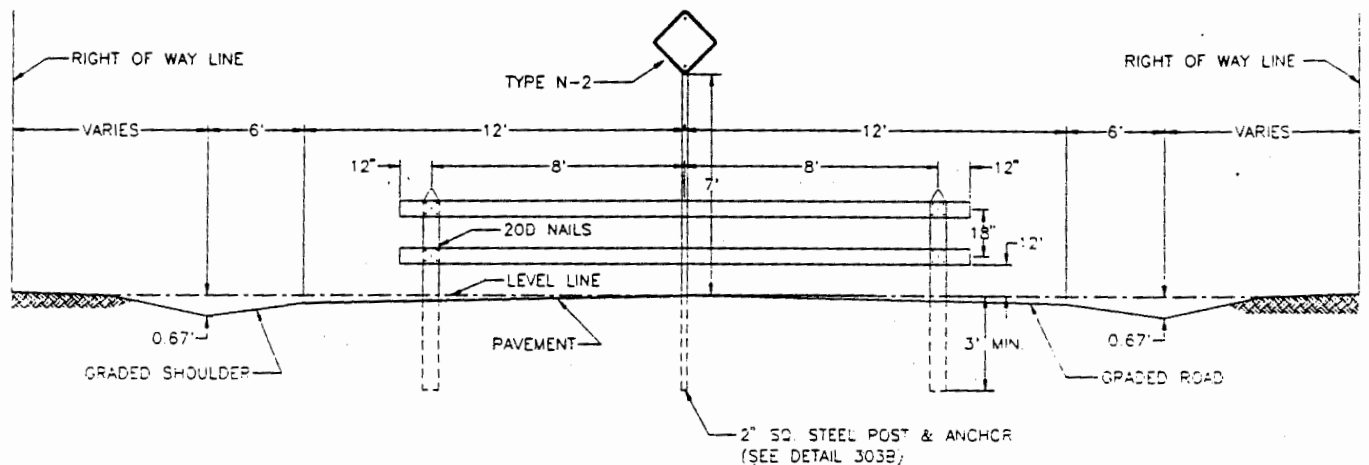
SAN BERNARDINO COUNTY ROAD DEPARTMENT

DATE: F.V.C. 7-65  
RJO 8-89

KEN A. MILLER  
DIRECTOR OF TRANSPORTATION

MARKERS

304 A



## SECTION VIEW

| WIDTH OF ROADWAY | NUMBER OF PANELS | TOTAL LENGTH OF PANELS |
|------------------|------------------|------------------------|
| 20' ALLEY        | 2                | 18'                    |
| 36'              | 4                | 34'                    |
| 44'              | 5                | 42'                    |
| 64'              | 7                | 58'                    |
| DESERT ROAD      | VARIES           | VARIES                 |

### NOTES:

1. POSTS ARE TO BE CHAMFERED 6" X 6" X 6' CONST. HEART REDWOOD, S4S. TWO CROSS PLANKS ARE TO BE 2" X 6" DOUGLAS FIR, CONSTRUCTION GRADE.
2. BARRICADE MATERIALS AND N-2 REFLECTOR SHALL CONFORM TO STATE OF CALIFORNIA STANDARD SPECIFICATIONS AND TO FHWA TYPE IIIA OR VISUAL IMPACT PERFORMANCE (VIP) REFLECTIVE SHEETING.
3. ALL EXPOSED WOOD SURFACES SHALL BE GIVEN 2 BRUSH COATS OF FUME-RESISTANT EXTERIOR WHITE PAINT CONFORMING TO STATE OF CALIFORNIA SPECIFICATION 58-G-06.
4. FOR RAIL TO POST CONNECTIONS, PROVIDE TWO EACH 3/8" CARRIAGE BOLTS WITH CUT WASHERS AND NUTS.

SD05\305

01/20/95

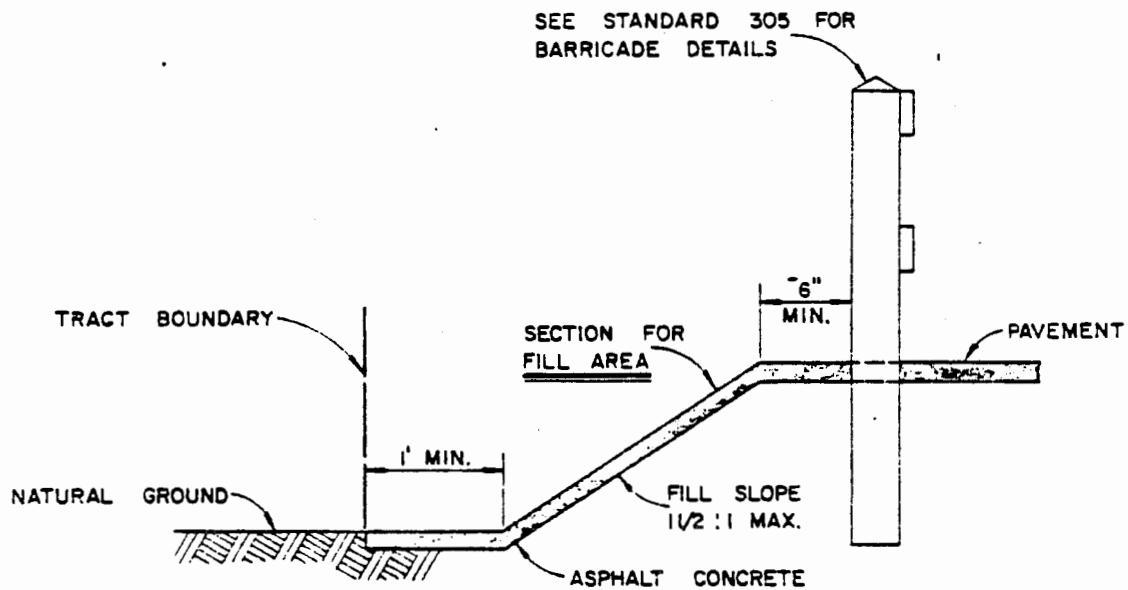
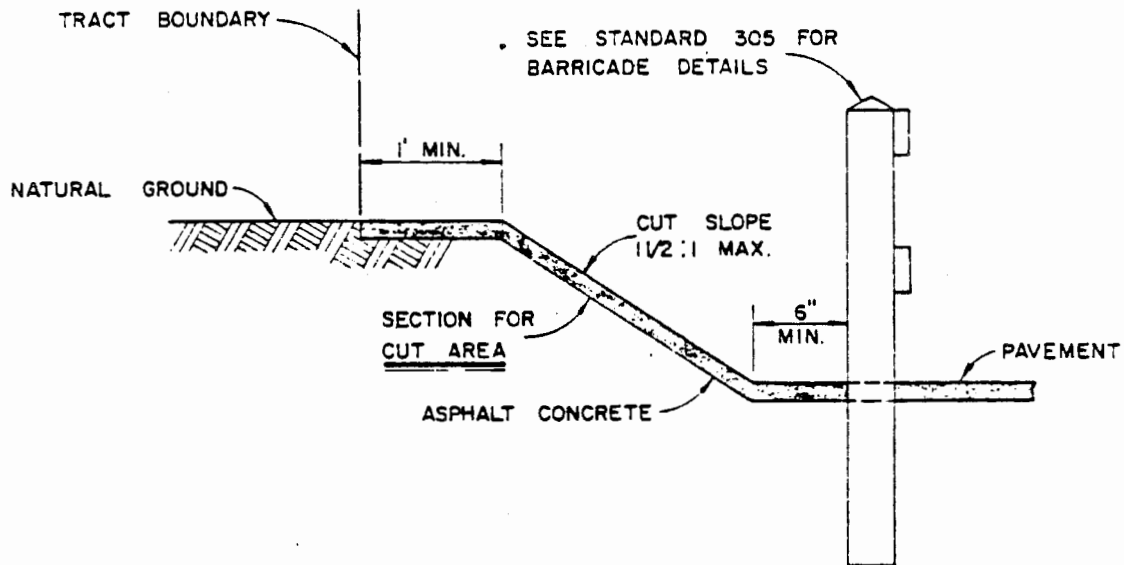
SAN BERNARDINO COUNTY TRANS. DEPT.

KEN A. MILLER  
Director of Transportation

BARRICADE  
URBAN AREA

305





**NOTES:**

1. ASPHALT CONCRETE SHALL BE MINIMUM 3 INCHES THICKNESS ON CUT OR FILL AREA.

SAN BERNARDINO COUNTY ROAD DEPARTMENT

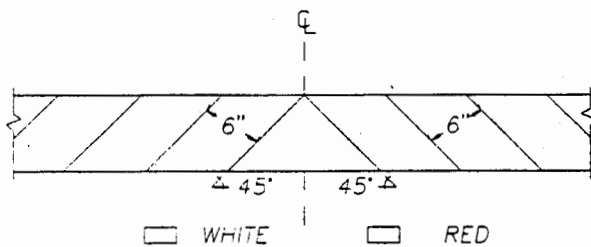
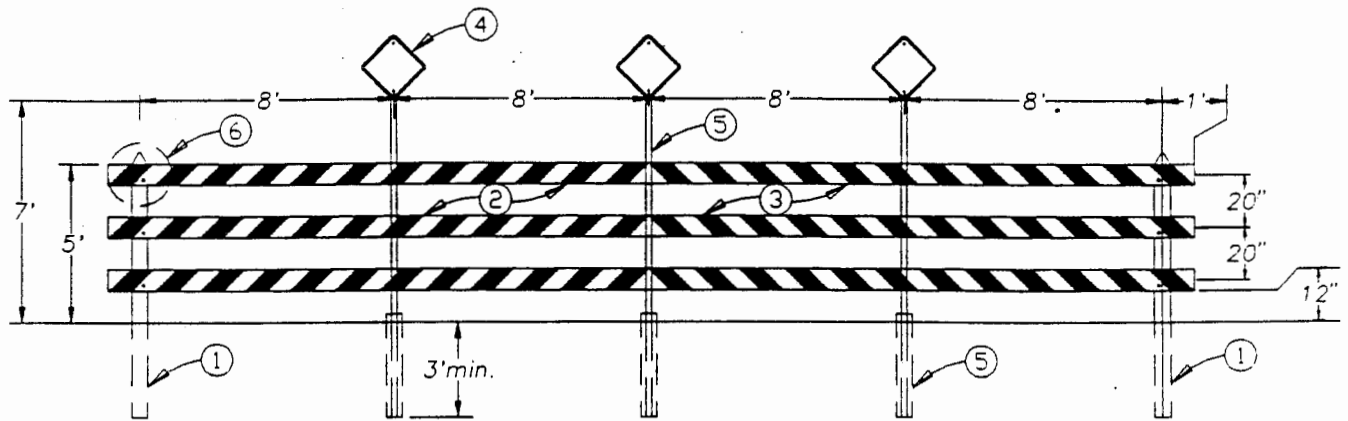
DATE: J.E.M. 10-65

R.A.T. 10-81

*M. A. Nicholas*  
COUNTY ENGINEER

END OF STREET  
TEMPORARY PAVEMENT

305a



| WIDTH OF ROADWAY | NUMBER OF PANELS | NO. OF N2 | TOTAL LENGTH OF RAILS |
|------------------|------------------|-----------|-----------------------|
| 20' ALLEY        | 2                | 1         | 20' MAX.              |
| 26'              | 3                | 2         | 26'                   |
| 36'              | 4                | 3         | 34'                   |
| 44'              | 5                | 3         | 42'                   |
| 64'              | 8                | 4         | 66'                   |
| 80'              | 10               | 4         | 82'                   |

### ③ REFLECTIVE TAPE DETAIL

NOTE: RAILS FACING IN TWO DIRECTIONS. NUMBER OF REFLECTORIZED RAILS SHOULD BE ON TWO FACES.

#### NOTES:

- ① - Post Is To Be 6" x 6" x Varies, Timber S.4S.
- ② - Three (3) Cross Panels To Be 2" x 8" x Varies, Timber S.4S.
- ③ - Reflective Tape Consists Of Reflective Diamond Grade Sheeting With High Tack Pressure Sensitive Adhesive, White And Red Tape With 6" Width. (See Detail Above)
- ④ - Object Marker Red Type N2 Sign Reflector Shall Conform To State Of California Standard Specification And To FHWA Type IIIA Or Visual Impact Performance (VIP) Reflective Sheeting. Use A Minimum Of Two (2) Signs (Similar To Standard Detail 306).
- ⑤ - 2" Square Steel Post And 2 1/2" Square Anchor Sleeve. (See Standard Detail 303B).
- ⑥ - Use 3/8" Diameter x 4 1/2" Long Lag Bolts (Galvanized) For Fastening Item 2 To Item 1. (Minimum 4 Bolts Per Connection).
- 7 - Rails Facing Traffic To Be ReflectORIZED.
- 8 - All Timber To Be S.4S Weather Resistant.
- 9 - All Dimensions are Nominal Lumber Dimensions.

STDS\305B

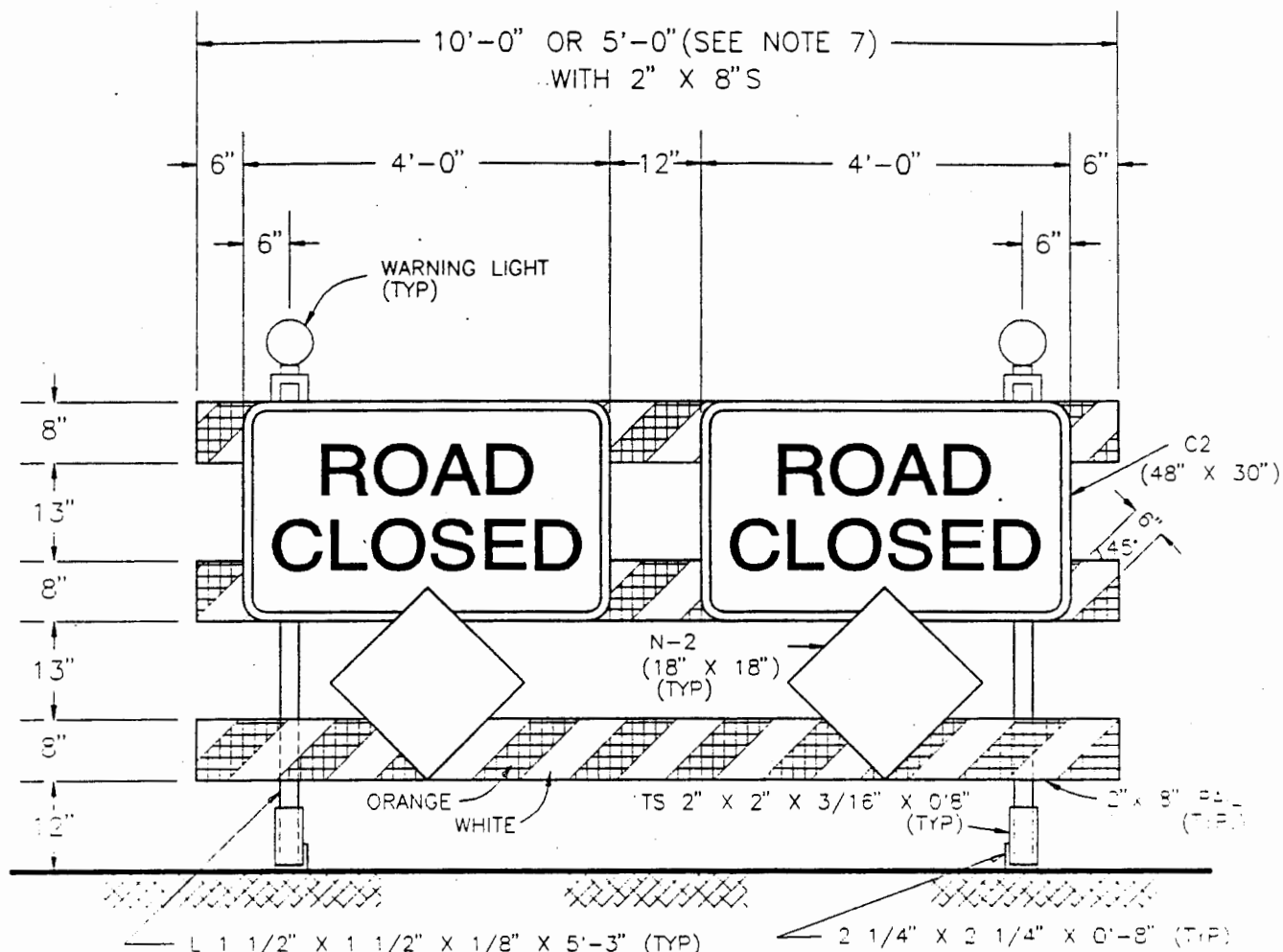
01/20/95

SAN BERNARDINO COUNTY TRANS. DEPT.

KEN A. MILLER  
Director of Transportation

BARRICADE  
RURAL AREA

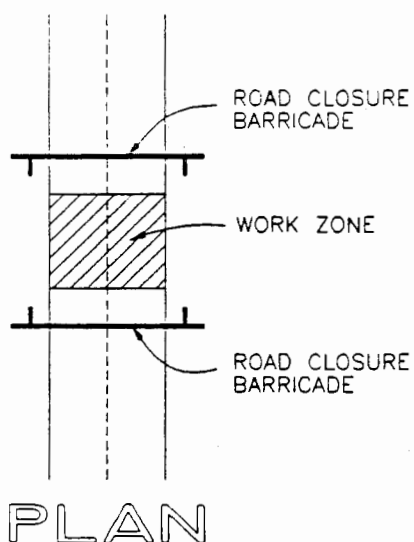
305B



## SECTION VIEW

### NOTES:

1. All timber shall be S4S.
2. White and orange painted stripes shall be reflectorized per FHWA II (Engineering Grade Sheeting).
3. Traffic Control Devices shall be of high intensity sheeting.
4. For rail to post connection, provide 2-3/8" Carriage Bolts with cut washers and nuts.
5. Advance construction signs are required.
6. Use N-2 with Visual Impact Performance (VIP) sheeting.
7. For 5'-0" barricade, use only one C-2 and N-2 mounted at the center of the assembly.



PLAN

STD5\305C

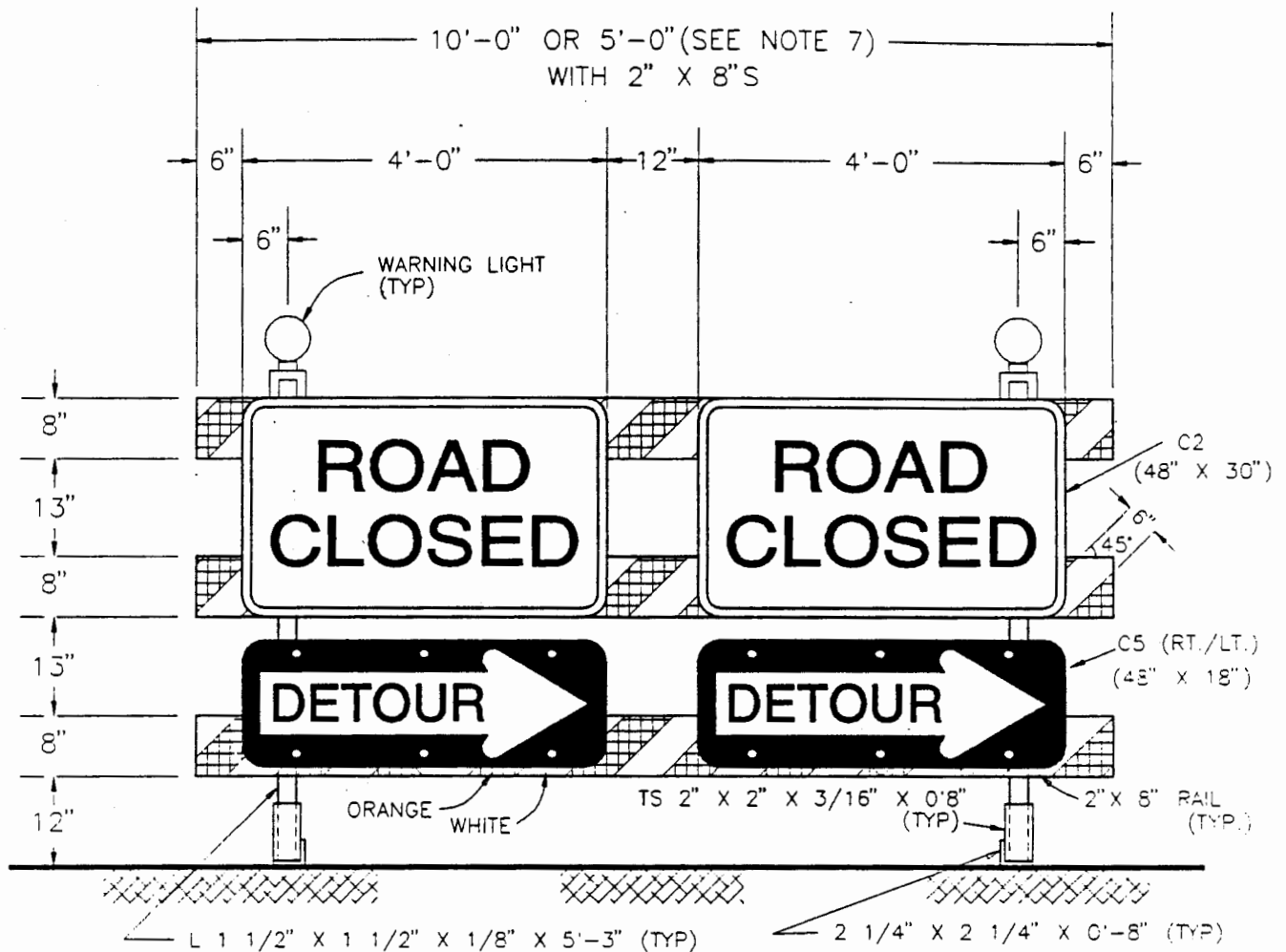
01/20/95

SAN BERNARDINO COUNTY TRANS. DEPT.

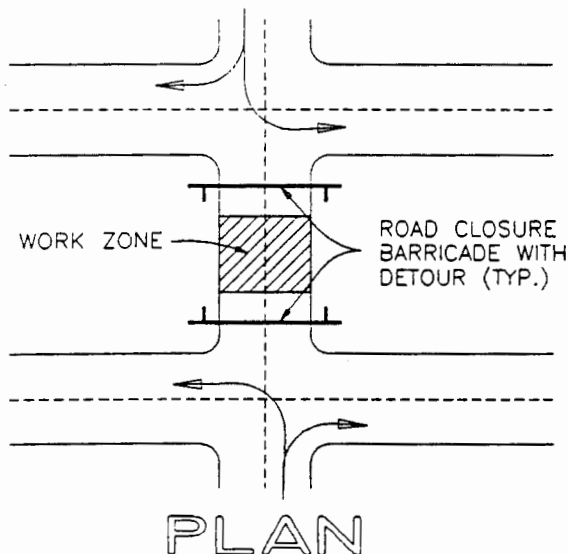
KEN A. MILLER  
Director of Transportation

ROAD CLOSURE BARRICADE

305C



## SECTION VIEW



### NOTES:

1. All timber shall be S4S.
2. White and orange pointed stripes shall be reflectorized per FHWA II (Engineering Grade Sheeting).
3. Traffic Control Devices shall be of high intensity sheeting.
4. For rail to post connection, provide 2-3/8" Carriage Bolts with cut washers and nuts.
5. Advance construction signs are required.
6. For 5'-0" barricade, use only one C2 and C5 mounted at the center of the assembly.

SDS\305D

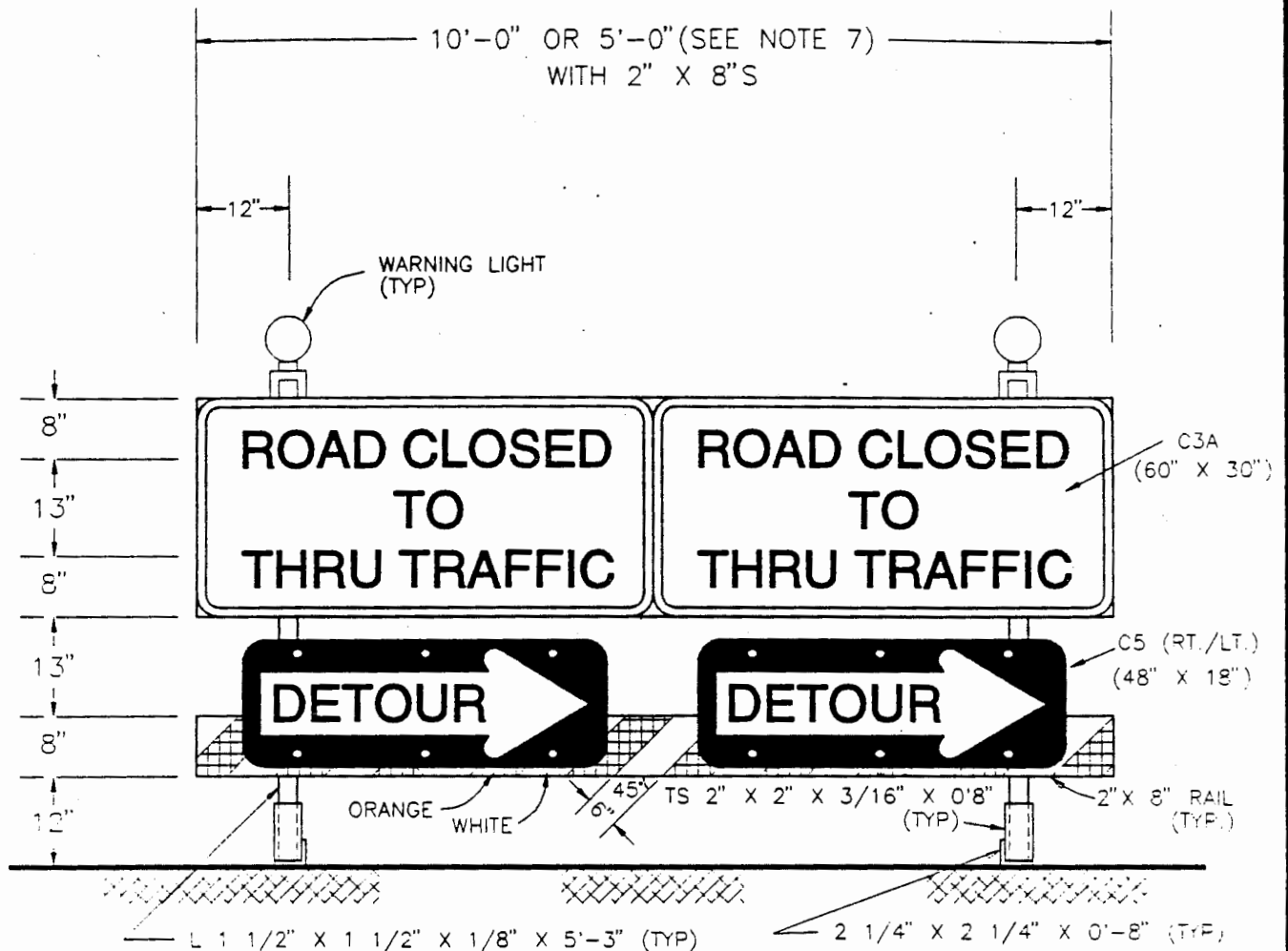
01/20/95

SAN BERNARDINO COUNTY TRANS. DEPT.

KEN A. MILLER  
Director of Transportation

ROAD CLOSURE BARRICADE  
WITH DETOUR

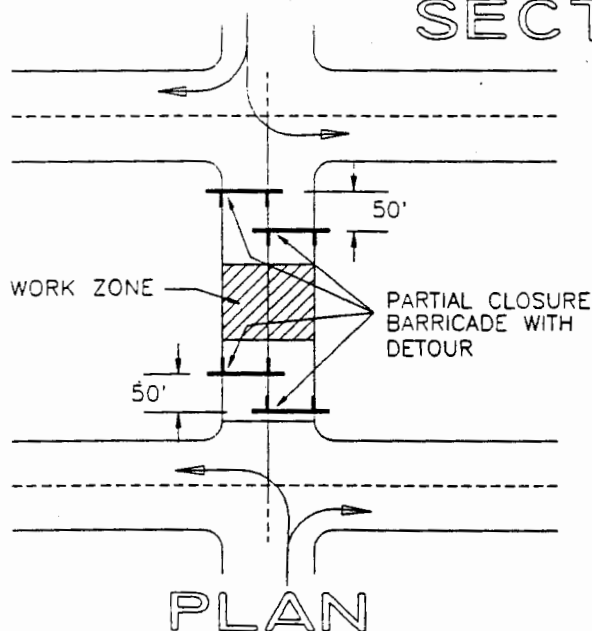
305D



## SECTION VIEW

### NOTES:

1. All timber shall be S4S.
2. White and orange painted stripes shall be reflectorized per FHWA II (Engineering Grade Sheeting).
3. Traffic Control Devices shall be of high intensity sheeting.
4. For rail to post connection, provide 2-3/8" Carriage Bolts with cut washers and nuts.
5. Advance construction signs are required.
6. For 5'-0" barrigade, use only one C3A and C5 mounted at the center of the assembly.



SDS\305E

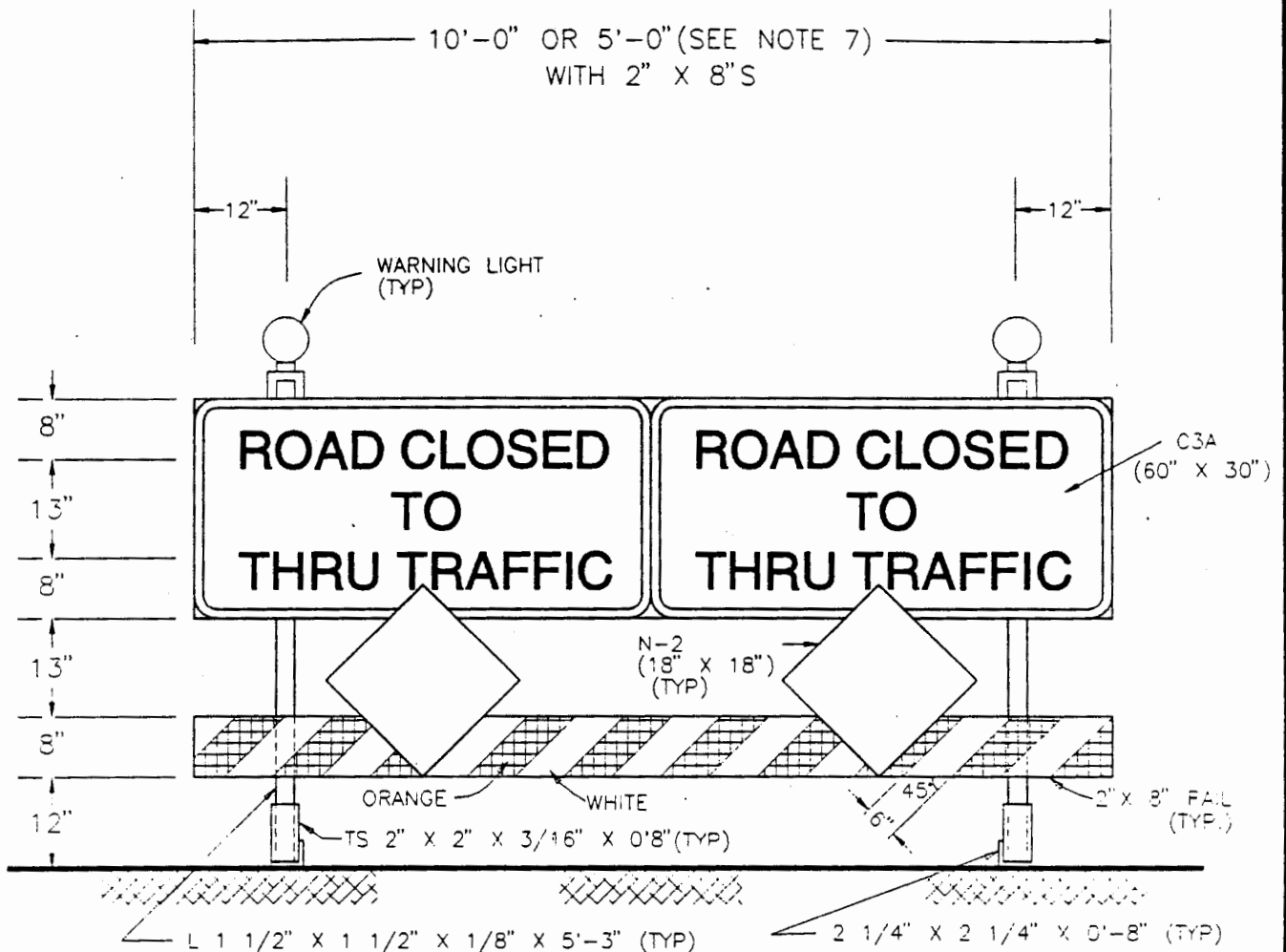
01/20/95

SAN BERNARDINO COUNTY TRANS. DEPT.

KEN A. MILLER  
Director of Transportation

PARTIAL ROAD CLOSURE  
BARRICADE WITH DETOUR

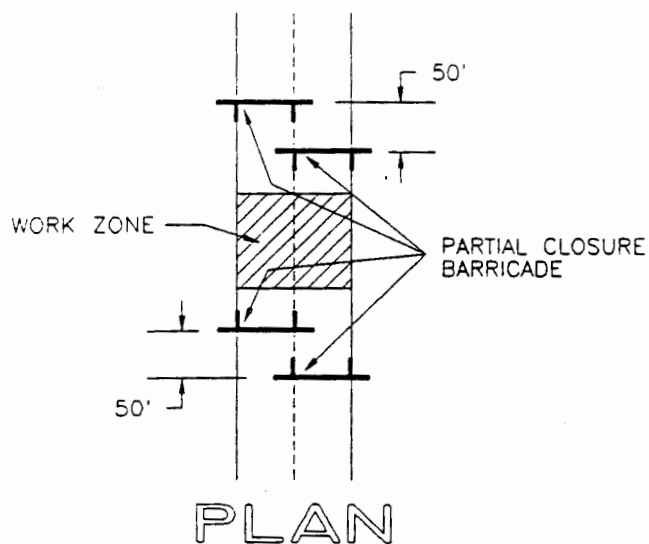
305E



## SECTION VIEW

### NOTES:

1. All timber shall be S4S.
2. White and orange painted stripes shall be reflectorized per FHWA II (Engineering Grade Sheeting).
3. Traffic Control Devices shall be of high intensity sheeting.
4. For rail to post connection, provide 2-3/8" Carriage Bolts with cut washers and nuts.
5. Advance construction signs are required.
6. Use N-2 Visual Impact Performance (VIP) sheeting.
7. For 5'-0" barricade, use only one C3A and N-2 mounted at the center of the assembly.



STD5\305F

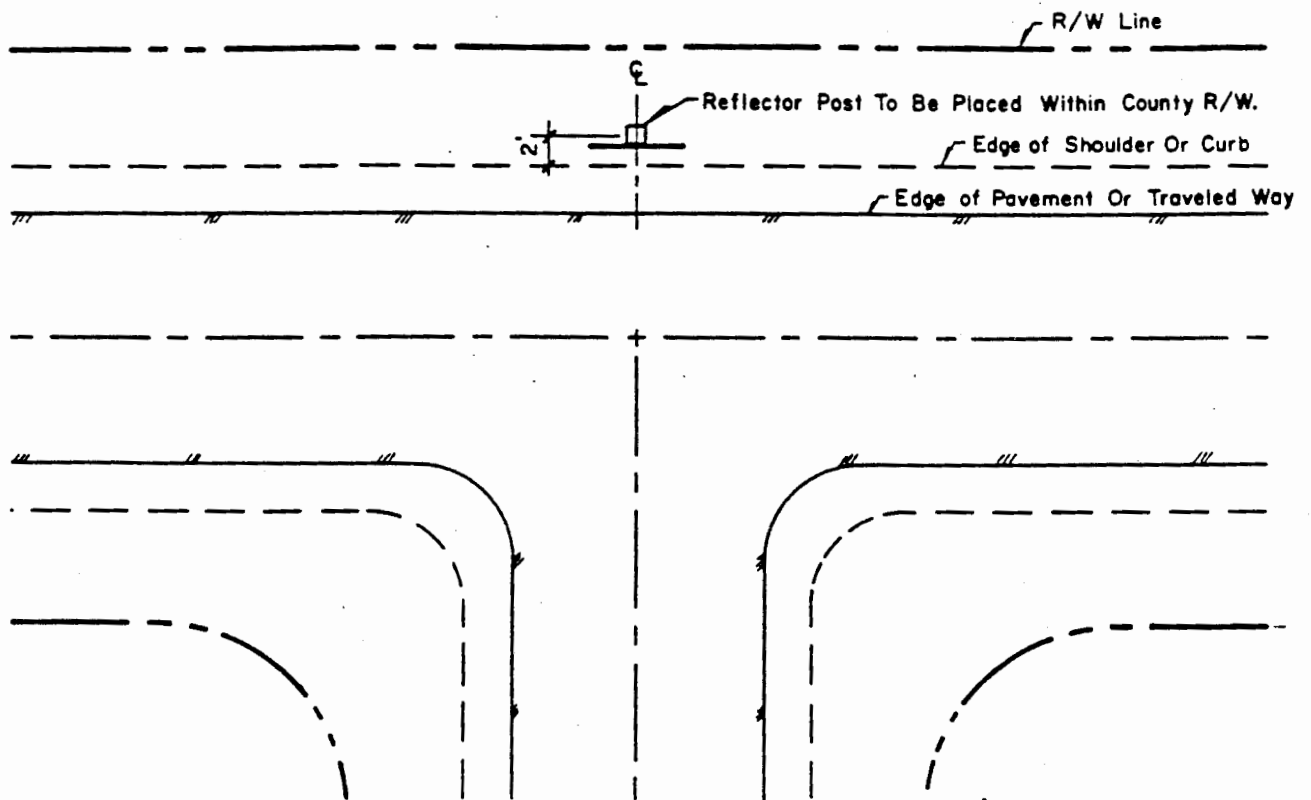
01/20/95

SAN BERNARDINO COUNTY TRANS. DEPT.

KEN A. MILLER  
Director of Transportation

PARTIAL ROAD  
CLOSURE BARRICADE

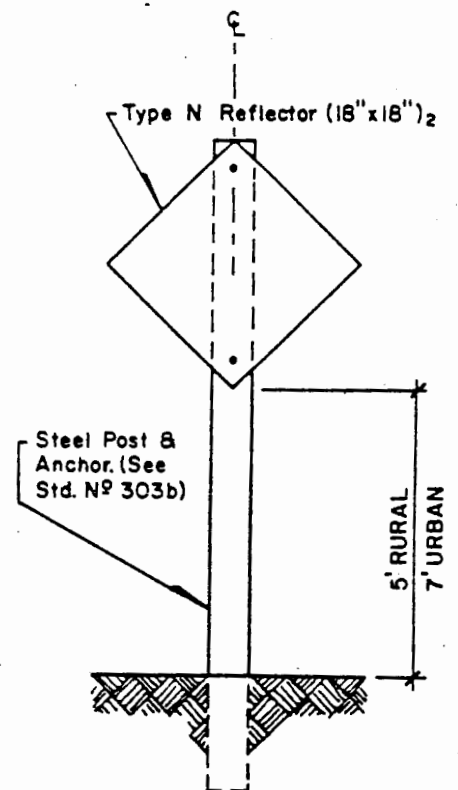
305F



**PLAN**

**NOTES:**

1. Post Shall Be 2" x 2" Square Steel In Accordance With Standard N° 303b.
2. Materials And Type N Reflector Shall Conform To State Of California, Standard Specifications.  
Type N-1 Shall Be Yellow FHWA Type III Reflective Sheeting.  
Type N-2 Shall Be Red FHWA Type III Reflective Sheeting.



**ELEVATION**

SAN BERNARDINO COUNTY TRANS. DEPT.

OCT. 6, 1993 v.h.c.

REV. 3/1/94

KEN A. MILLER

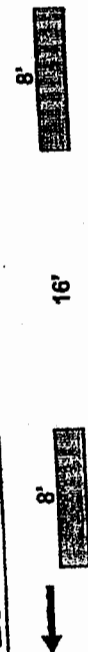
Director of Transportation

**POST WITH  
REFLECTOR**

**306**

# CENTERLINE STRIPING

**L01** Traffic is permitted to pass for both directions of travel



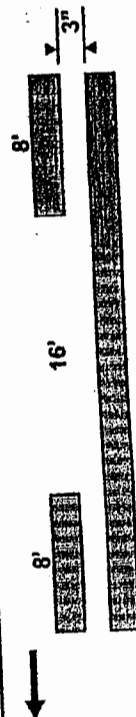
Centerline pattern for use on two-lane streets and highways (normally used on local streets and highways).

**L01a** Traffic is permitted to pass for both directions of travel



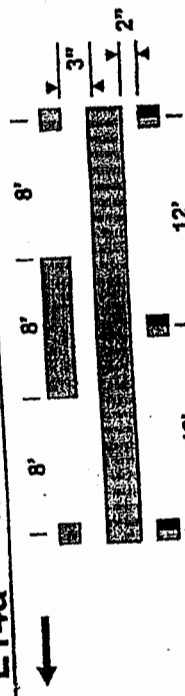
Centerline pattern with pavement markers for use on two-lane streets and highways.

**L14** Traffic is permitted to pass along dotted line and passing is prohibited along solid line



One direction no passing pattern for use on two-lane streets and highways (normally used on local streets and highways).

**L14a** Traffic is permitted to pass along dotted line and passing is prohibited along solid line



One direction no-passing pattern with pavement markers for use on two lane streets and highways.

Two-Way Yellow Reflective Markers

One-Way Yellow Reflective Markers

Direction of Travel

4" Yellow Stripe

SAN BERNARDINO COUNTY TRANS. DEPT.

NOT TO SCALE

PAT MEAD

Director of Public Works

STRIPING DETAILS

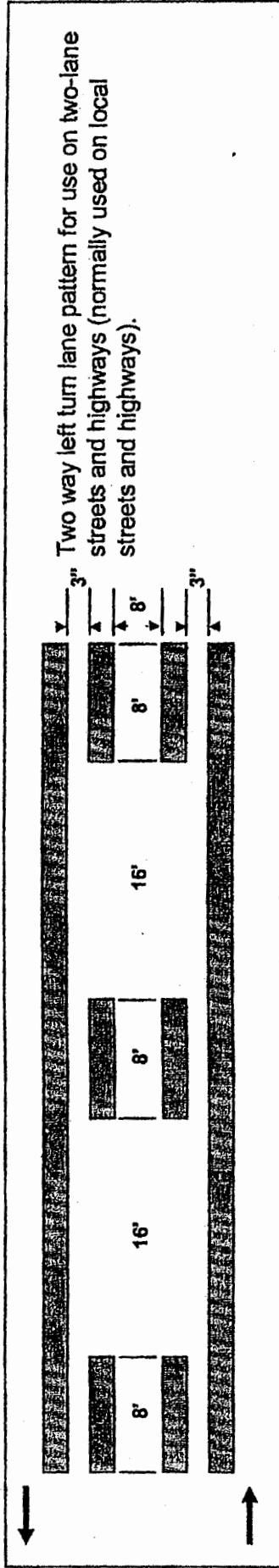
307



# CENTERLINE STRIPING

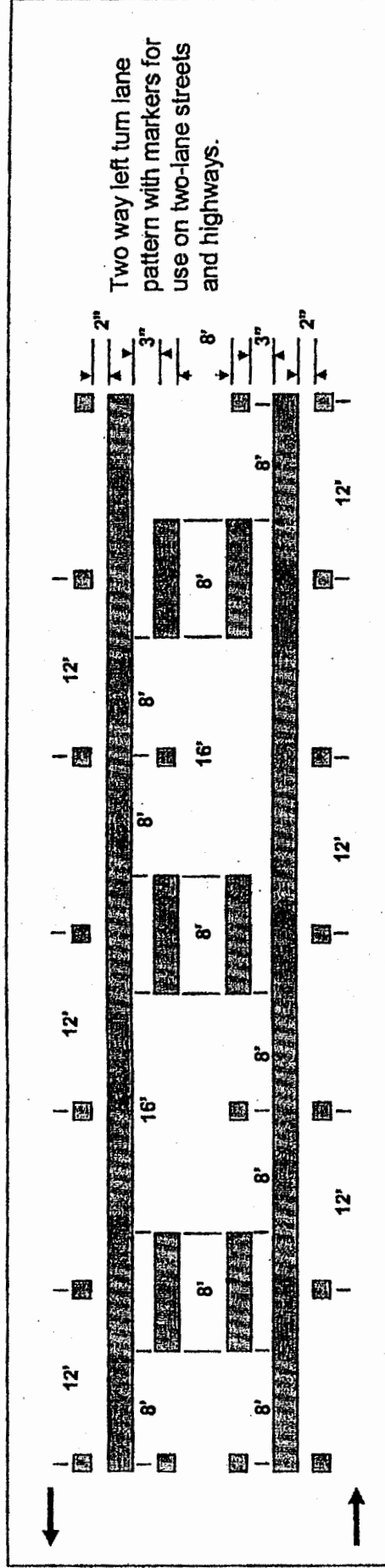
**L07**

4 Lanes Continuous Left-Turn Lane



**L07a**

4 Lanes Continuous Left-Turn Lane



Direction of Travel  4" Yellow Stripes  Two-Way Yellow Reflective Markers

SAN BERNARDINO COUNTY TRANS. DEPT.

NOT TO SCALE

PAT MEAD

Director of Public Works

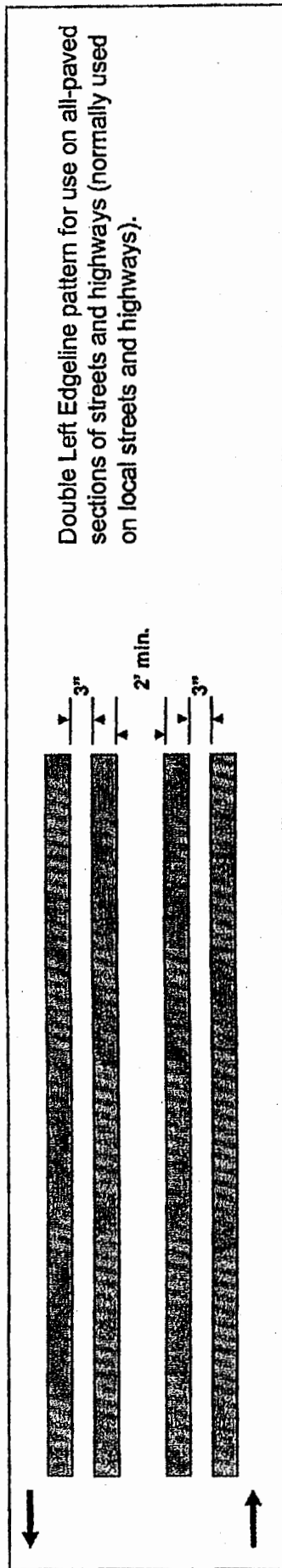
**STRIPING DETAILS**

**307a**

# CENTERLINE STRIPING

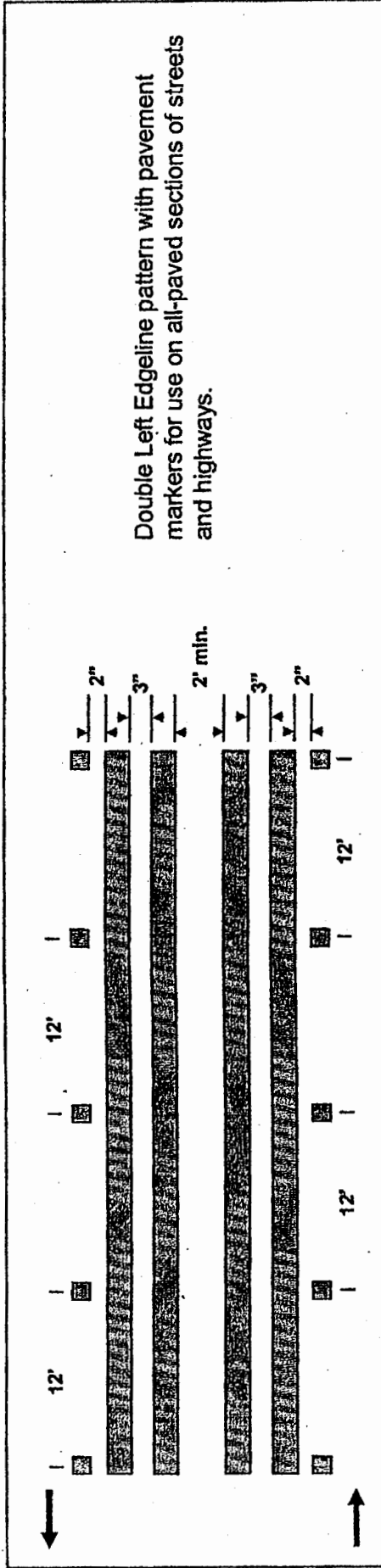
**L05**

Painted Median



**L05a**

Painted Median



Direction of Travel → 4" Yellow Stripes → Two-Way Yellow Reflective Markers

SAN BERNARDINO COUNTY TRANS. DEPT.

NOT TO SCALE

PAT MEAD

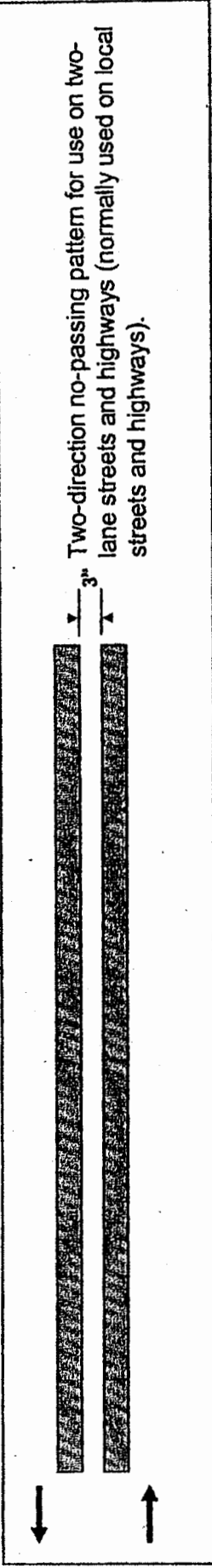
Director of Public Works

**STRIPING DETAILS**

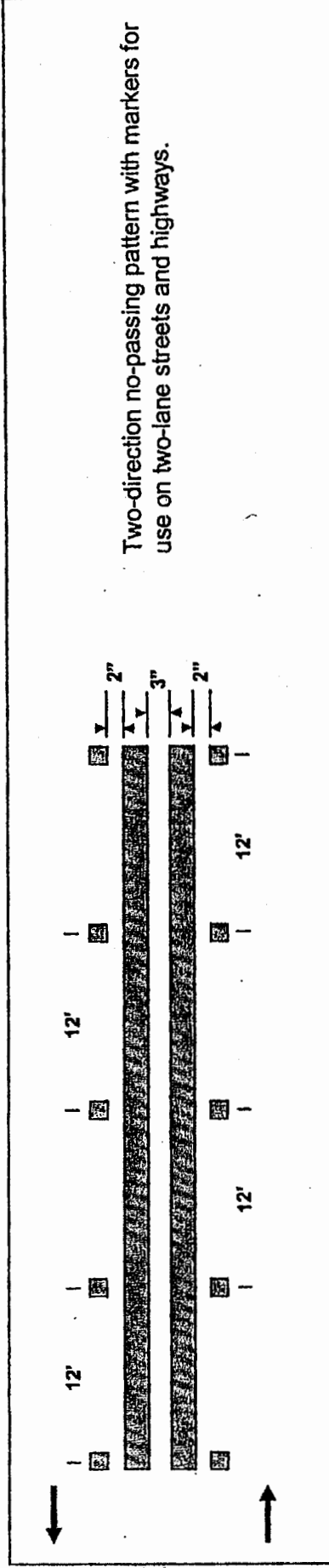
**307b**

# CENTERLINE STRIPING

**L12** 2 Lanes 1 Each Direction, No Passing



**L12a** 2 Lanes 1 Each Direction, No Passing



Direction of Travel   
 4" Yellow Stripe   
 Two-Way Yellow Reflective Markers

SAN BERNARDINO COUNTY TRANS. DEPT.

PAT MEAD

Director of Public Works

STRIPING DETAILS

307C

NOT TO SCALE

Revised 4/01/06

# LANELINE STRIPING

## L26 Laneline Quarterstripe Pattern

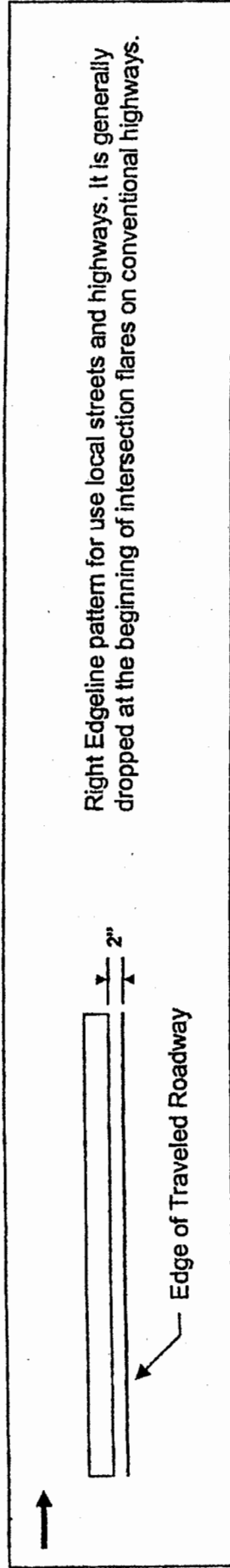


## L26a Laneline Quarterstripe Pattern



# EDGE LINE STRIPING

## L27 Right Edgeline



Direction of Travel ☐ 4" White Stripe ☐ One-Way White Reflective Markers

SAN BERNARDINO COUNTY TRANS. DEPT.

NOT TO SCALE

PAT MEAD

Director of Public Works

Revised 12/05

# STRIPING DETAILS

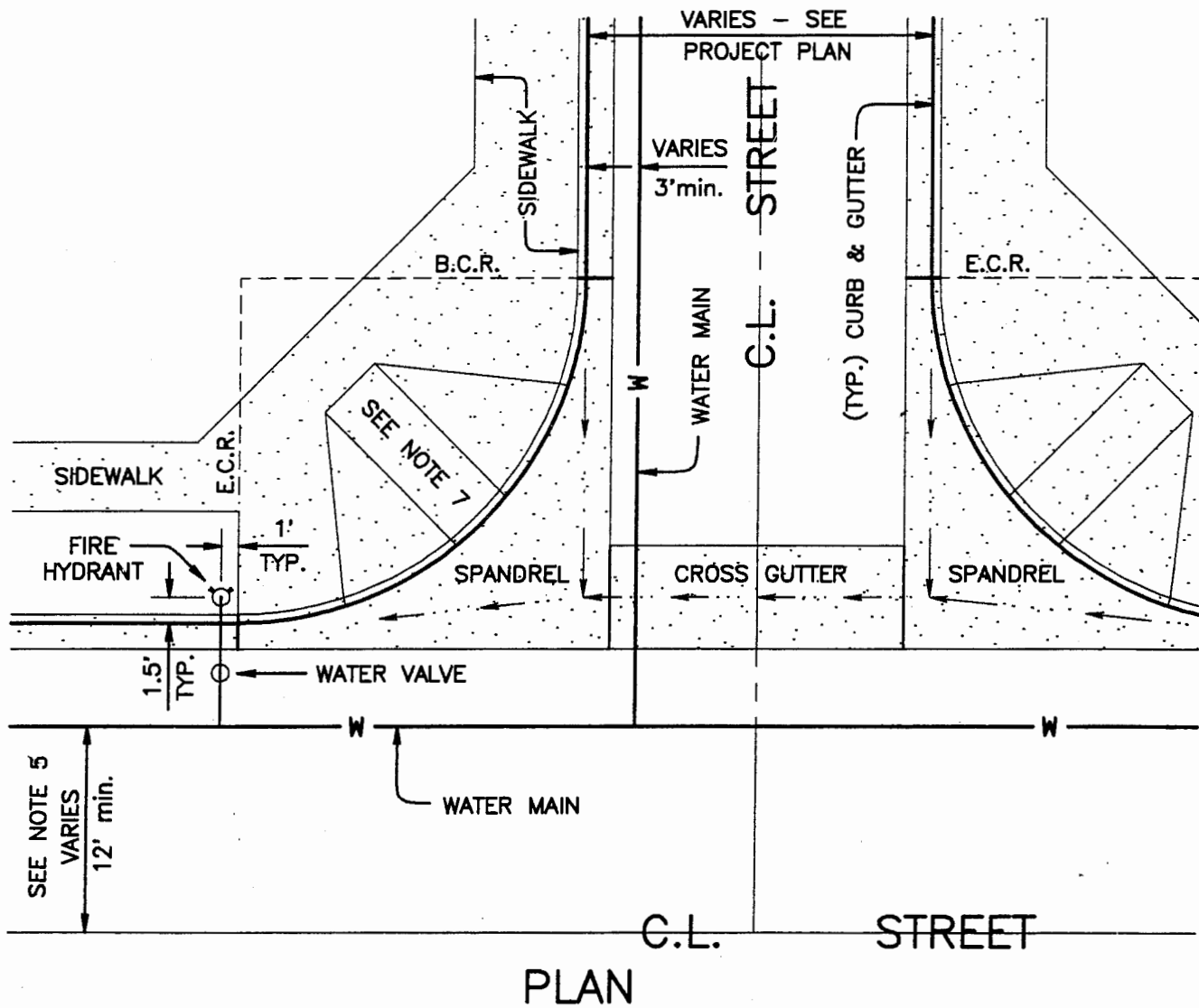
307d

REFER TO STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION,  
STANDARD PLAN MANUAL FOR CURRENT CONSTRUCTION & MATERIALS  
REQUIREMENTS.

|                                    |                            |                         |     |
|------------------------------------|----------------------------|-------------------------|-----|
| SAN BERNARDINO COUNTY TRANS. DEPT. |                            | METAL BEAM<br>GUARDRAIL | 308 |
|                                    | KEN A. MILLER              |                         |     |
|                                    | Director of Transportation |                         |     |
|                                    |                            |                         |     |

REFER TO STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION,  
STANDARD PLAN MANUAL FOR CURRENT CONSTRUCTION & MATERIALS  
REQUIREMENTS.

|                                    |                            |                          |     |
|------------------------------------|----------------------------|--------------------------|-----|
| SAN BERNARDINO COUNTY TRANS. DEPT. |                            | METAL PLATE<br>GUARDRAIL | 309 |
|                                    | KEN A. MILLER              |                          |     |
|                                    | Director of Transportation |                          |     |
|                                    |                            |                          |     |



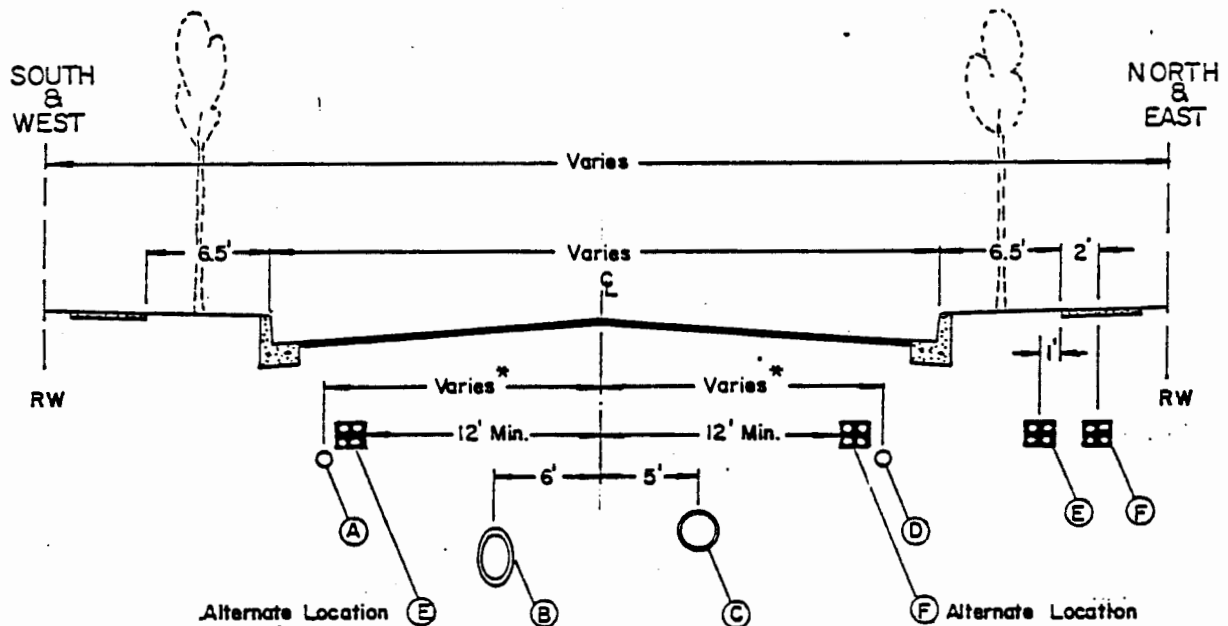
**NOTES:**

1. LOCATION OF WATER LINES AND VALVES SHALL BE SHOWN ON THE PROJECT PLANS.
2. HYDRANT TO BE SET PLUMB, WITH NOZZLE A MINIMUM OF EIGHTEEN ( 18" ) INCHES ABOVE GROUND LEVEL. WHEN HYDRANTS ARE PLACED BEFORE GRADING IS COMPLETED, THE FINAL GRADE LINE, AND ACCESSIBILITY SHOULD BE CONSIDERED.
3. NO OBSTRUCTIONS SUCH AS POLES, GUY LINES, ETC. SHOULD BE PLACED CLOSER THAN ( 5' ) FEET TO HYDRANT.
4. FOR SUBDIVISION IMPROVEMENT PLANS. SEE HEALTH DEPARTMENT STANDARDS, SECTION 7, DISTRIBUTION SYSTEMS, FOR MINIMUM DEPTH.
5. FOR RECOMMENDED UTILITY LOCATION SEE COUNTY STD. 311
6. FOR RIGHT-OF-WAY LOCATION SEE PROJECT PLANS.
7. FOR CURB RETURN RADIUS & SIDEWALK RAMP DETAILS SEE COUNTY STD. 110

B.C.R. - BEGIN CURB RETURN      E.C.R. - END CURB RETURN

|  |  |                       |     |
|--|--|-----------------------|-----|
| CO. OF SAN BDNO. DEPT. OF PUBLIC WORKS |  | FIRE HYDRANT LOCATION | 310 |
| REVISED: DATE                          | <b>PATRICK J. MEAD</b><br>Director of Public Works |                       |     |
| G.M. 12-05                             |  |                       |     |
|  |  |                       |     |
|  |  |                       |     |

## RECOMMENDED UTILITY LOCATION



| UTILITY            | MIN. COVER |
|--------------------|------------|
| (A) WATER          | 30"        |
| (B) STORM DRAIN    | Varies     |
| (C) SEWER          | Varies     |
| (D) GAS            | 30"        |
| (E) POWER          | 36"        |
| (F) TELEPHONE-CATV | 30"        |

### RECOMMENDED UTILITY INSTALLATION SCHEDULE

1. STORM DRAIN
2. SEWER
3. POWER & TELEPHONE
4. CURB & GUTTER
5. WATER
6. GAS
7. PAVING

#### NOTES:

1. WHERE ULTIMATE STREET IMPROVEMENTS ARE TO BE CONSTRUCTED, MINIMUM COVER OF UTILITY LINES MAY BE VARIED TO FACILITATE INSTALLATION.
2. THE UTILITY COMPANIES SHALL MAKE EVERY EFFORT TO LOCATE THEIR FACILITIES IN THE RECOMMENDED LOCATIONS, PARTICULARLY IN NEW SUBDIVISIONS.
3. EDISON & TELEPHONE UTILITIES MAY USE A COMMON TRENCH. ALTERNATE LOCATION MAY BE EITHER THE EDISON POSITION OR THE TELEPHONE POSITION.
- \* 4. VARIES 3' FROM THE CURB FACE TO 14' FROM CL
5. THE CENTER 24' OF THE STREET SHALL BE RESERVED FOR SEWER AND STORM DRAIN INSTALLATION.
6. SURFACE OF VAULT OR MANHOLE MUST MATCH PAVEMENT AND PARKWAY GRADES.
7. REPAIR OF TRENCHES AND REPLACEMENT OF PAVED SURFACING IN EXIST COUNTY ROADS SHALL BE IN ACCORDANCE WITH CURRENT "SPECIFICATIONS FOR TRENCH REPAIR."
8. WHENEVER POSSIBLE, MANHOLE COVERS SHALL NOT BE PLACED WITHIN THE SIDE-WALKS.

SAN BERNARDINO COUNTY ROAD DEPARTMENT

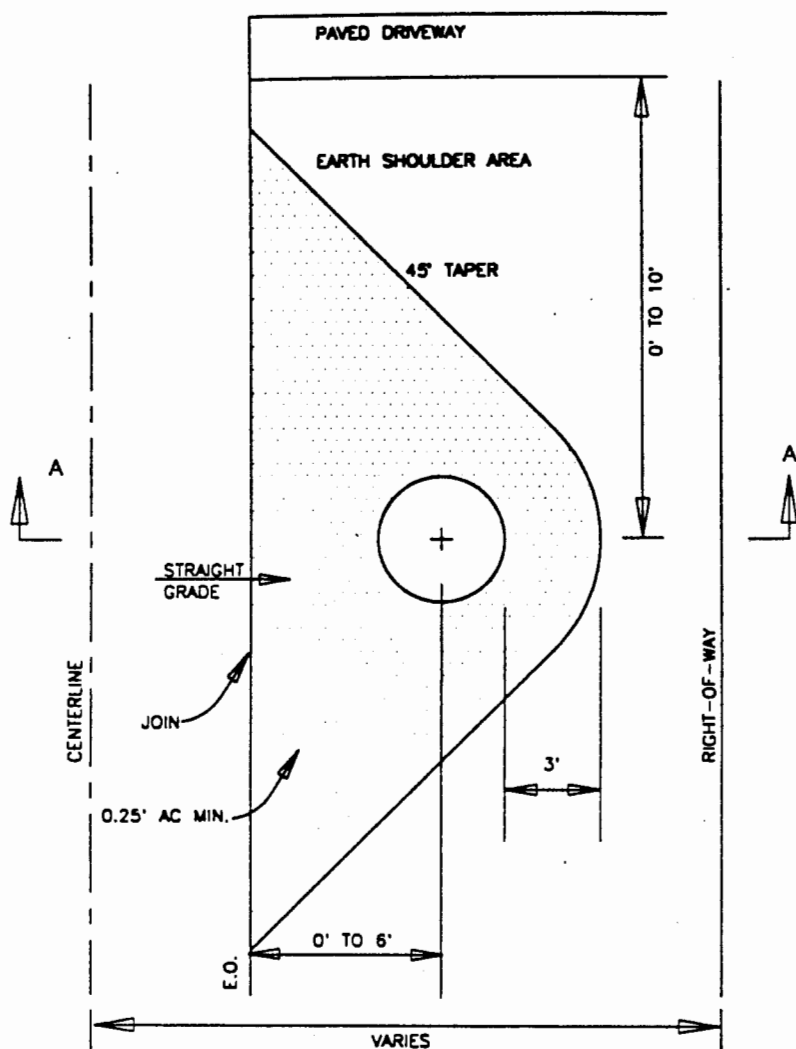
DATE: 7-17-72

M. A. Nicholas  
COUNTY ENGINEER

UNDERGROUND  
UTILITY LOCATION

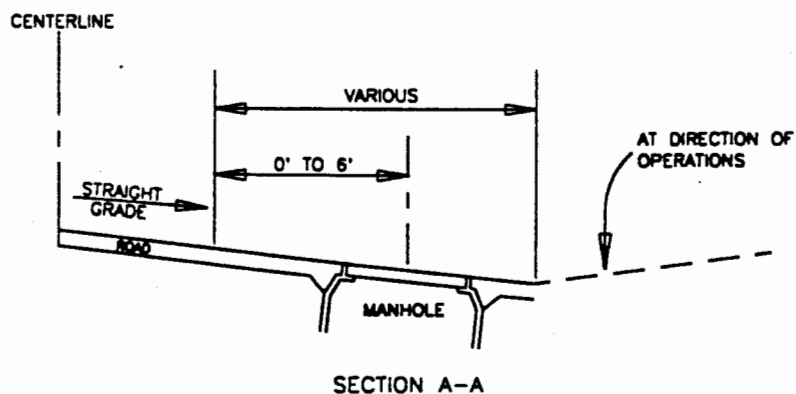
311





GENERAL NOTES:

1. MANHOLE SHALL BE SET TO EXISTING SHOULDER GRADE.
2. IF CENTER OF MANHOLE IS WITHIN 10' OF PAVED DRIVEWAY, NEW PAVING SHALL TIE INTO EXISTING DRIVEWAY.
3. IN THE MOUNTAIN AREA WHEN MANHOLES ARE ADJUSTED TO PAVEMENT GRADES, THEY SHALL BE 1/2 TO 3/4-INCH BELOW ADJACENT PAVEMENT SURFACE.



STD5\311-A

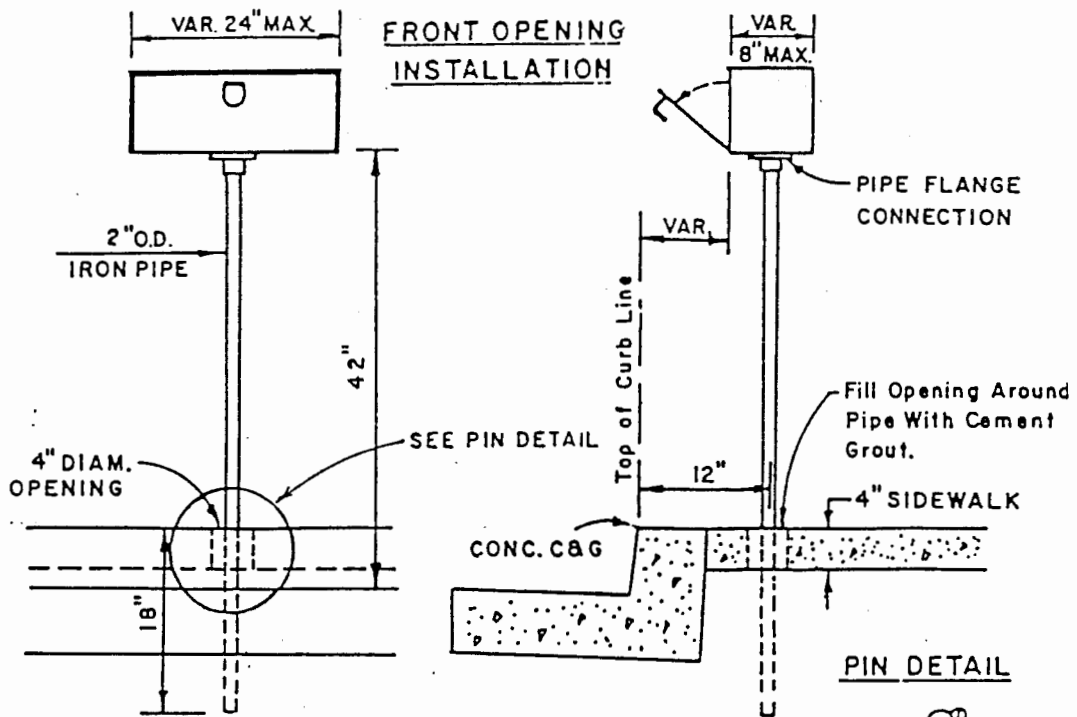
06/28/95

SAN BERNARDINO COUNTY TRANS. DEPT.

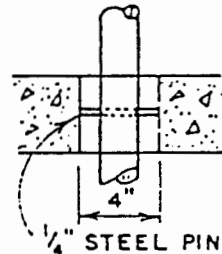
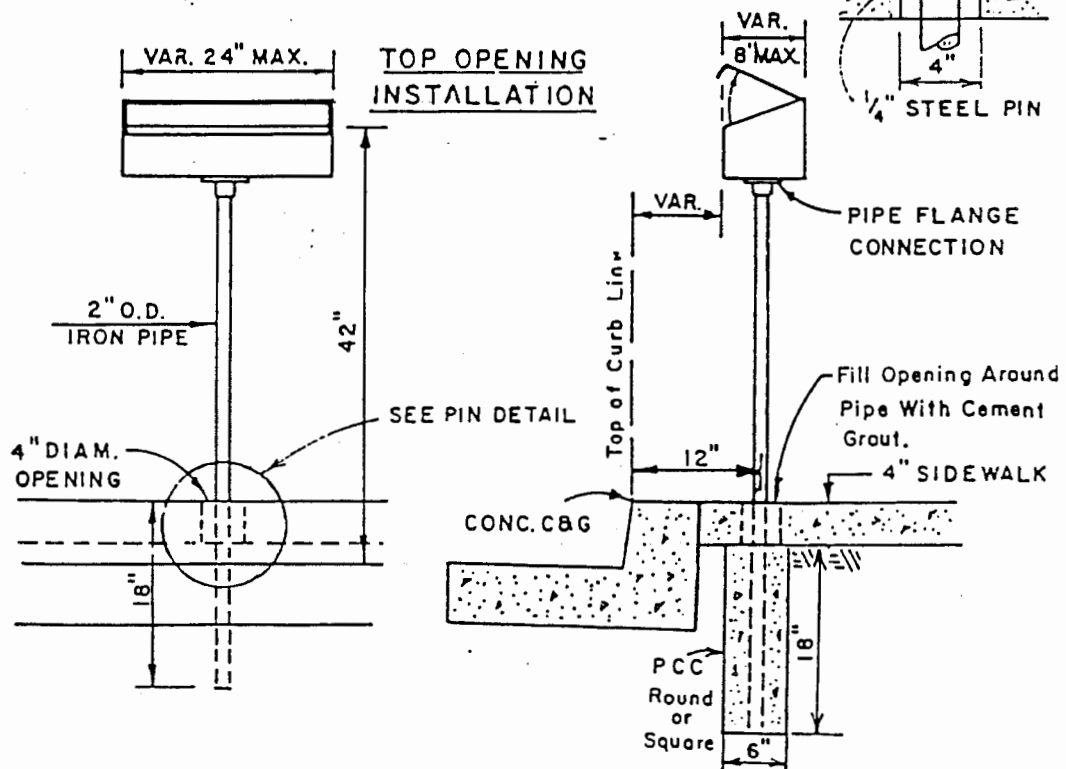
KEN A. MILLER  
Director of Transportation

MANHOLE APRON  
PAVED ROAD

311-A



NOTE: END OPENING MAILBOX NOT PERMITTED.  
FACE OF MAILBOX SHALL NOT EXTEND  
PAST TOP OF CURB LINE.



SAN BERNARDINO COUNTY ROAD DEPARTMENT

DATE:

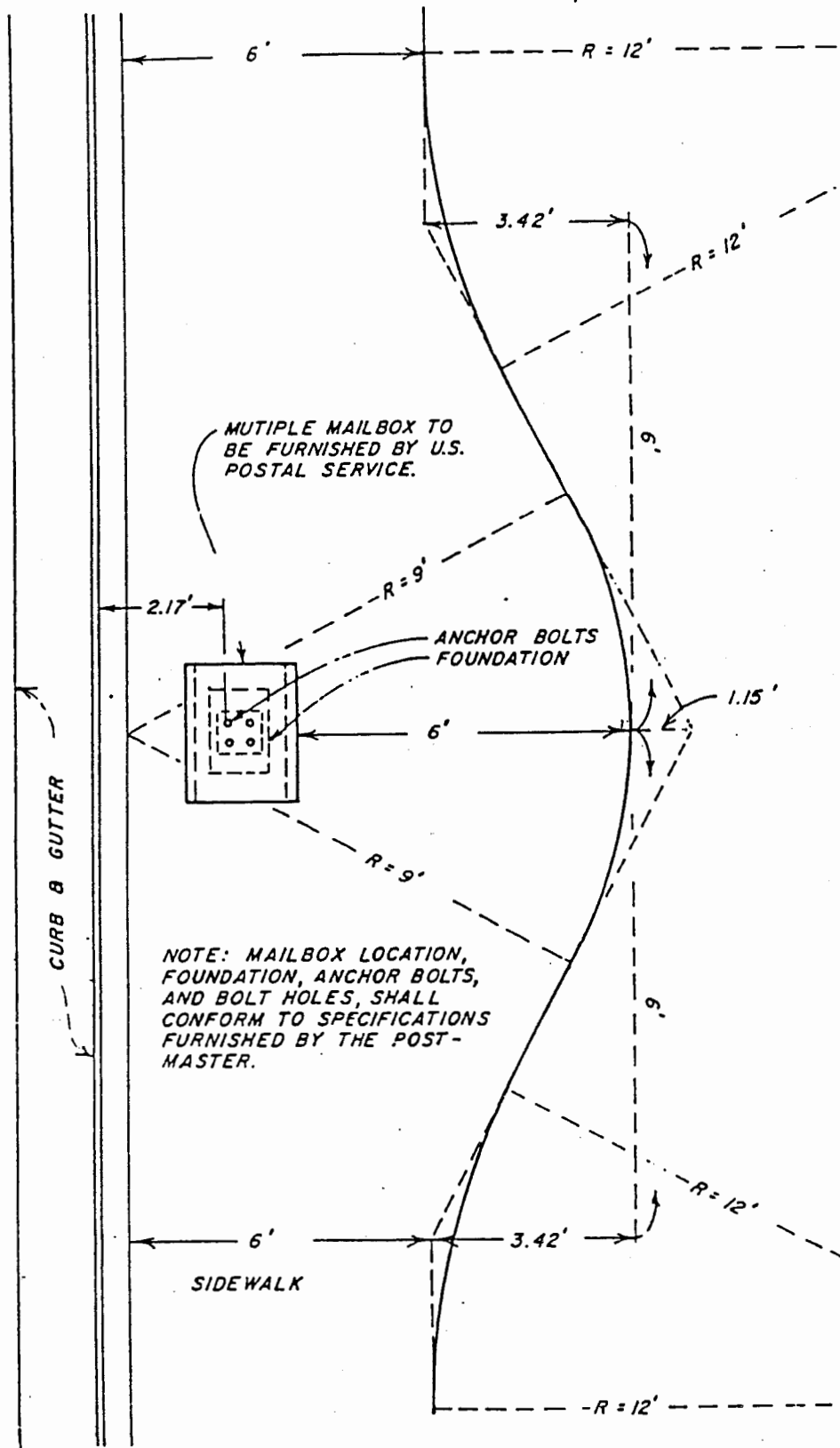
20.8.89

Ken A. Miller

DIRECTOR OF TRANSPORTATION

SINGLE MAILBOX  
INSTALLATION

312



SAN BERNARDINO COUNTY ROAD DEPARTMENT

DATE: 12-8-89

Ken A. Miller

DIRECTOR OF TRANSPORTATION

MULTIPLE MAILBOX INSTALLATION  
FOR  
NEW SIDEWALK

312 A.

