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.
**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.
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 IN CONSTRUCTION PLANS.
2. DRAINAGE FACILITIES SHALL BE PROVIDED TO DEWATER RAISED MEDIAN AREAS.
3. TEN FEET (10') SHOULDERS AREAS MAY BE DESIGNATED AS A BIKE LANE AND EMERGENCY PARKING ONLY.
4. IRRIGATION SYSTEM IN MEDIAN AREA SHALL BE Drip OR BUBBLE SYSTEM.

SAY BERNARDO COUNTY ROAD DEPARTMENT

KEN MILLER
DIRECTOR OF TRANSPORTATION

MAJOR ARTERIAL
CHINO HILLS SPECIFIC PLAN AREA
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 DRAIN RAISED MEDIAN AREAS.
3. 10'-0" SHOULDER AREAS MAY BE DESIGNATED AS A BIKE LANE AND EMERGENCY
   PARKING ONLY.
NOTES:
1. STRUCTURAL SECTION OF ROADWAY SHALL BE DETERMINED FROM SOILS TESTS AND AS INDICATED ON CONSTRUCTION PLANS.
2. 8' SHOULDER AREAS MAY BE DESIGNATED AS A BIKE LANE AND EMERGENCY PARKING ONLY.
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 HIGHWAY
CHINO HILLS SPECIFIC PLAN AREA 102A
TYPICAL SECTION

LEVEL

ALTERNATE SIDEWALK
(IF SHOWN ON PLAN)

TYPICAL SECTION

TILT

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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

John R. Shane
COUNTY HIGHWAY ENGINEER

COLLECTOR STREET 103
TYPICAL SECTION
LEVEL

TYPICAL SECTION
TILT

<table>
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() 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.

SAN BERNARDINO COUNTY TRANS. DEPT.

REV. 11/49
KEN A. MILLER
Director of Transportation

INDUSTRIAL COLLECTOR 103b
NOTE
1. STRUCTURAL SECTION OF ROADWAY SHALL BE DETERMINED FROM SOILS TESTS AND AS 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 ELEVATED EITHER LEFT OR RIGHT 0.50' TO MATCH CROWN BREAK IN PAVING MACHINE.

SAN BERNARDINO COUNTY ROAD DEPARTMENT
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. 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

LOCAL STREET
(LESS THAN 1000 ADT)

JOHN R. SHONE
DIRECTOR OF TRANSPORTATION

DATE 10/26/94

104

A
NOTE:
1. LOCATION OF CROSS GUTTERS TO BE DETERMINED BY DRAINAGE PATTERN
2. X INDICATES POSITION OF SURVEY REFERENCE POINT (#10 ROUND HEAD BRASS SCREW, MINIMUM LENGTH 1/4") SET FLUSH WITH TOP OF CURB DURING CONSTRUCTION.
TYPICAL SECTION - FRONTAGE ROAD
DESKET, 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.10C.

SAN BERNARDINO COUNTY ROAD DEPARTMENT
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
M.A. Nicholas
COUNTY ENGINEER
FRONTAGE ROAD AND STREET 106a
FULL WIDTH CONSTRUCTION

COUNTY ROAD

FUTURE CURB LINE

EXISTING EDGE OF PAVEMENT

8" DIKE

FUTURE & EXISTING R/W LINE
EXISTING & HALF WIDTH CONSTRUCTION

HALF WIDTH CONSTRUCTION

NOTES:
1. SEE STANDARD NO. 112 FOR ROADWAY SECTIONS.

SAN BERNARDINO COUNTY ROAD DEPARTMENT

INTERSECTION DESIGN

M. A. Nicholas
COUNTY ENGINEER

DESERT ROAD
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.
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 WEAVENED PLANE JOINT

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

PATRICK J. MEAD
Director of Public Works

110
1 OF 2
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 ABRUPT 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

CO. OF SAN BENO, DEPT. OF PUBLIC WORKS

PATRICK J. MEAD
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 1:1,1.
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
M. A. Nicholas
COUNTY ENGINEER

HALF WIDTH
LOCAL STREET
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. 13 FOR ALIGNMENT AND IMPROVEMENT, AND STANDARD NUMBER 107 FOR INTERSECTION DESIGN.
2. CONSTRUCTION OUTSIDE R/W LINE SHALL REQUIRE SLOPE EASEMENTS.
THE OWNER WILL BE RESPONSIBLE FOR FURNISHING BARRICADES, WARNING DEVICES AND PAVING AS REQUIRED BY THE SAN BERNARDINO COUNTY ROAD DEPARTMENT.

REVERSE CURVE AT THE DIRECTION OF THE COUNTY ENGINEER. MINIMUM RADIUS EQUALS 500' FOR EACH CURVE.

TEMPORARY ROAD EASEMENT

FUTURE 40 FEET DEDICATION

40' DEDICATED AS A HALF WIDTH RIGHT OF WAY

SAN BERNARDINO COUNTY ROAD DEPARTMENT
M.A. Nicholas
COUNTY ENGINEER

HALF WIDTH DESERT ROAD

113
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

John R. Shaw
COUNTY HIGHWAY ENGINEER

GRADED ROAD 114
TYPICAL SECTION
WHERE REQUIRED FOR DRAINAGE PURPOSES

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
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

M. A. Nicholas
COUNTY ENGINEER

PAVED ROAD 114b
TYPICAL SECTION
HILLSIDE

NOTES:
2. Construction Outside R/W Line Shall Require Slope Easements.
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 VARY TO ALLOW MATCHING OF JOINTS IN ADJACENT EXISTING IMPROVEMENTS.

4. BURNING 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.
PLANT
- Survey reference point (\#1) Round Head Brass Screw, minimum length 1 1/4\" set flush at end of curb return during construction.

SECTION

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.
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.
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.
NOTES:
1. CROSS GUTTER SHALL BE CONSTRUCTED OF CLASS "B" CONCRETE.
2. THE STRAIGHT GRADE BETWEEN B.C.R.'S MAY BE ALTERED TO 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.
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. 0.8% Grade Min. on gutter of Bilb.
4. TILT SECTION SHALL CONFORM TO LOCAL STREET STANDARD NO. 104.
5. SIDEWALK AND PUBLIC UTILITIES EASEMENT AT THE OPTION OF THE OWNER, THIS AREA MAY BE DEDICATED AS ROAD RIGHT-OF-WAY.
6. X indicates position of survey reference point (W/2) round head brass screw minimum 120 in. 8d. 32d. screw with cap of flush with top of curb during construction.

CUL-DE-SAC 120
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 BULD.
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.
KEN A. MILLER
Director of Transportation

OFFSET CUL-DE-SAC

20A
NOTES:
1. MINIMUM 0.60% ON ALL HORIZONTAL CURVE GRADIENT.
2. SEE STANDARD NO. 04 FOR TYPICAL SECTION.
3. X INDICATES POSITION OF SURVEY REFERENCE POINT (#10 ROUND HEAD BRASS SCREW, MINIMUM LENGTH 1/4") SET FLUSH WITH TOP OF CURB DURING CONSTRUCTION.
NOTES:
1. MINIMUM 0.60% ON ALL HORIZONTAL CURVE GRADATIONS.
2. SEE STANDARD NO.1044 FOR TYPICAL SECTIONS.
   AND NOTES.
3. X INDICATES POSITION OF SURVEY REFERENCE POINT (# 10 Round Head Brass Screw, minimum
   length 1/4") set flush with top of curb during construction.
CONCRETE RIBBON

EDGE OF PAVEMENT

1/2" EXPANSION JOINT

SIDEWALK

9" THICKNESS

-1/2" EXPANSION JOINT

CURB & GUTTER

1/2" EXPANSION JOINT

DEPRESSED CURB (1" L.P.)

1/2" EXPANSION JOINT

STRAIGHT GRADE ON FLOW LINE FROM BACK OF SIDEWALK TO 1" ABOVE GUTTER.

PLAN

R/W

10'

-1/2" R

10'

3.0% MIN.

A.C. SURFACING

3.0% MIN.

TYPICAL SECTION

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

M. A. Nicholas
COUNTY ENGINEER

ALLEY 125
NOTES:
1. CUTOFF WALL SHALL BE CONSTRUCTED OF CLASS "B" CONCRETE.
2. CUTOFF WALL SHALL BE INSTALLED WHERE REQUIRED BY DRAINAGE CONDITIONS.
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 APPROACH WITH CURB
NOTES:

1. Driveway Approach Location Shall Be As Indicated In The S.B. County Transportation Department Road Planning & Design Manual And Per Standard No. 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.
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.
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. Surfacing Material Shall Be:
   a. Type B Asphalt Concrete Grade AR-40CO, 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.
NOTES:
Refer to Section 6.3 in S.B. Co. Transportation Dept. Road Planning & Design Manual
For number of access points permitted.
1 75' on Collector Roads, except 50' if Ult. A.D.T. is less than 3000.
2 May be increased 75' on Collector Roads & 50' on Local Streets to provide additional clearance for left turn storage.
3 Distance determined per Table 6-1, Page 6-3, in S.B. Co. Transportation Dept. Road Planning & Design Manual.

SAJERNARDINO COUNTY TRANS. DEPT.
RES. 3/1/89
KEN A. MILLER
Director of Transportation

DRIVEWAY SPACING 130
RESIDENTIAL DRIVEWAY

-2% SLOPE (7°F)
HORIZONTAL

6.5' Min. 4' 6.5' Min.

COMMERCIAL DRIVEWAY

-2% SLOPE (7°F)
HORIZONTAL

10.5' Min. 4' 20' Min.

SAN BERNARDINO COUNTY TRANS. DEPT.

KEN A. MILLER
Director of Transportation

131
NOTE: 2" OF AGGREGATE BASE REQUIRED ON GRADED ROADS.

PAVE WITH 3" PLANT MIX HAVING

HIGHWAY R.W.

FLANK

DIKE DIMENSIONS AND
LENGTH SHOWN ON
PLANS.

VERTICAL CURVE

CHANNEL BOTTOM WIDTH

CONC. CUTOFF WALL

PAVE WITH 3" R.M.S.

VARIES

RUBBLE SPLASH APRON OR EQUAL

SECTION A-A

0.00% SLOPE

CLASS "B" CONC.

12" THICK RUBBLE APRON OR "B" CLASS "B" CONC.

NOTES:
1. ALL CONCRETE TO BE CLASS "B".
2. L & A SHOWN ON PLANS, H = 3' MIN. 6' MAX.
3. DRAINAGE EASEMENT REQUIRED.
4. AREA SHOWN THUS \( \frac{h}{3} \) 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

M. A. Nicholas
COUNTY ENGINEER

CUTOFF WALL FOR
DRAINAGE CHANNEL 200
RIGHT OF WAY LINE

DRAINAGE EASEMENT OR FLOOD CONTROL EASEMENT

VARIIES

GRDED SHOULDER AREA

VARIIES SEE SECTION B-B

ROAD

GRDED SHOULDER AREA

PAVE Dike SLOPE WITH 3'-AC TO HEIGHT VARYING FROM X AT PT. X TO Y AT PT. Y.

WIDTH OF CHANNEL BOTTOM

PLAN

DIMENSION TO BE DETERMINED BY CHANNEL Q

SECTION B-B

SECTION C-C

SECTION F-F

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

SAN BERNARDINO COUNTY ROAD DEPARTMENT

M.A. Nicholas
COUNTY ENGINEER

CHANNEL CROSSING 2006
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.
NOTES:

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

SAN BERNARDINO COUNTY ROAD DEPARTMENT

M. A. Nicholas
COUNTY ENGINEER

CATCH BASIN
MOUNTAIN ROADS

202
Concrete cap on bond beam with No. 3 continuous.

Reinforcement in base shall be No. 3 bars 16" O.C. bent as vertical dowels.

Section A-A

Notes:
1. 8"x8"x16" 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.
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.
NOTES:

1. LOCAL DEPRESSION SHALL BE CONSTRUCTED OF CLASS B CONCRETE 9" THICK.
2. ELEVATIONS SHALL BE SHOWN ON CONSTRUCTION PLANS. THE OUTER EDGE OF THE LOCAL DEPRESSION SHALL CONFORM TO FINISHED STREET SURFACE.
3. SPECIAL DETAILS GOVERNING THE CONSTRUCTION ON A VERTICAL CURVE SHALL BE SHOWN ON CONSTRUCTION PLANS.
MATERIAL: CAST IRON (ASPHALT COATED OR GALVANIZED)

NOTES
1. SEATS OF FRAME AND COVER SHALL BE MACHINED TO PREVENT NOISE.
2. TOTAL WEIGHT OF FRAME AND COVER APPROX. 150 LBS.
3. MINIMUM CLEAR OPENING 22" DIAMETER. ALL OTHER DIMENSIONS ARE NOMINAL.

ALHAMBRA A-1530 OR EQUIVALENT
SAN BERNARDINO COUNTY ROAD DEPARTMENT
MANHOLE FRAME & COVER - PARKWAY

MANHOLE FRAME & COVER - PARKWAY

JOHN R. SHORE
COUNTY HIGHWAY ENGINEER
NOTES:
1. SEATS OF FRAME AND COVER SHALL BE MOUNTED TO PREVENT HOLE.
2. TOTAL WEIGHT OF FRAME AND COVERS - 300 LBS IN MAN
3. MATERIAL: CAST IRON (BRIGHTENED 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" MAN-HOLE 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
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 3' ON CENTER.
4. STEEL ANGLE SHALL BE BENT TO MATCH CURB ALIGNMENT.
NOTES:
1. STEPS – NONE REQUIRED WHERE "V" IS 3'-0" OR LESS. INSTALL ONE STEP 1'-0" ABOVE FLOOR WHEN "V" IS MORE THAN 3'-0" & LESS THAN 5'-0". WHERE "V" IS MORE THAN 5'-0" STEPS SHALL BE EVENLY SPACED @ 12" INTERVALS FROM 1'-0" ABOVE THE FLOOR TO WITHIN 1'-0" FROM THE TOP OF THE BOX. PLACE STEPS IN WALL WITHOUT PIPE OPENINGS AND UNDER MANHOLE.

SAN BERNARDINO COUNTY TRANS. DEPT.

KEN A. MILLER
Director of Transportation

GALVANIZED STEEL STEP

2068
NOTES:

1. STORM DRAIN CLEANOUT SHALL BE CONSTRUCTED OF CLASS 'A' CONCRETE.
2. D-ELAVANCE FROM I.O. OF PIPE TO CLEANOUT WALL SHALL BE 6" MIN.
3. APPROVED PRECAST CONCRETE MANHOLE SAWT RINGS WILL BE ACCEPTED IN LIEU OF CAST-IN-PLACE RINGS.

SAN BERNARDINO COUNTY TRANS. DEPT.

KEN A. MILLER
Director of Transportation
HEADWALL SHALL BE MONOLITHIC. LAP ALL BARS AT CORNERS 30 DIAMETERS IF NOT CONTINUOUS.

PLAN

REINFORCING DETAIL

ELEVATION

SELECTION A-A

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

SAN BERNARDINO COUNTY ROAD DEPARTMENT
DATE 8-8-25
M. A. Nicholas
COUNTY ENGINEER
HEADWALL
WING - TYPE
209
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.

SAX BEARNARD COUNTY ROAD DEPARTMENT

HEADWALL 'U'-TYPE 209A

M.A. Nicholas
COUNTY ENGINEER
NOTES:
1. CURVE OF RAIL TO BE TRAVELLED SMOOTH.
2. RACK TO TOP OF CURVE IS WITHIN THE INLET FLAT TYPE I.
3. STEEL FLAT CHRISTIAN TYPE OF FLAT TYPE I.
4. STEEL FLAT CHRISTIAN TYPE OF FLAT Type II.
5. FLAT TYPE I AND FLAT TYPE II TO BE PLUMB WITH
   HORIZONTAL STEEL AND Plum.
6. FLAT TYPE II SHOWN AS 3/8" WITH HEAD 3/4".
7. FLAT TYPE I SHOWN AS 1/2" WITH HEAD 3/8".
8. HORIZONTAL CURVES AT POINTS A AND B.
9. FLAT TYPE I AND FLAT TYPE II TO BE PARALLEL.

10. FLAT TYPE I AND FLAT TYPE II TO BE PARALLEL.

SAN BERNARDINO COUNTY TRANS. DEPT.

KEN A. MILLER
Director of Transportation

CURB OUTLET STRUCTURE

210
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.
1/4" Checkered Steel Plate (Gan)  
2 x 2 1/4" with 3/4" Weld to Face of Angle Only

SECTION A-A

1/2" x 6" Anchor Bar  
12" O.C.

SECTION B-B

4 Bars 18" O.C.

NOTES:
1. ALL CONCRETE TO BE CLASS "A"
2. ALL STEEL EXCEPT REINFORCING BARS SHALL BE GALVANIZED AFTER FABRICATION.
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 = 3/8" X 3/4" X 6' STEEL TENSION BAR
E = 5" 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.

SAN BERNARDINO COUNTY ROAD DEPARTMENT
M. A. Nicholas
COUNTY ENGINEER

RIGHT OF WAY
FENCE
300
1. All vertical cells containing reinforcing steel shall be filled with grout. In addition, where 6" blocks are used all cells without vertical reinforcing steel shall be filled with grout to top of bond beam at midheight of wall.

2. The block wall courses and footings may be built parallel with the street grade (7% max.) or stepped.

3. All walls shall be plumb.

4. Backfill shall be compacted to a minimum of 90%.

5. Footings shall be Class B concrete.

6. Concrete block shall be grade A unfs, conforming to ASTM designation No. C90.

7. Reinforcing steel, grout mortar, and Class B concrete shall conform to the standard specifications.

8. Eliminate mortar in all vertical joints in first course above finish grade.

9. 1/2" open joints extending through the entire height of the block wall shall be spaced at a maximum of 50'.

10. Eliminate mid-height bond beam in walls where H<4' or less.
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. C80.
7. REINFORCING STEEL, GROUT, MORTAR AND CLASS "A" CONCRETE SHALL CONFORM TO THE STANDARD SPECIFICATIONS. LWP 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

M. A. Nicholas
COUNTY ENGINEER

301a
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 B-1 OF THE COUNTY PLANNING & DESIGN STANDARDS MANUAL.
2. THE SIDEWALK ADJACENT TO THE BLOCK WALL SHALL BE TYPE "A" PER COUNTY STD. 199.
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.

PATRICK J. MEAD
Director of Public Works

BLOCKWALL LOCATION
AT INTERSECTION

302
A 1/8" x 1/2" CHROMIUM PLATED CARRIAGE BOLT.

B ORNAMENTAL TOP SHALL BE 1/4 GAGE ANODIZED ALUMINUM. CENTER CROSS SADDLE SHALL BE ONE PIECE CAST ANODIZED ALUMINUM.

C ONE PIECE 2" CAST ANODIZED ALUMINUM POST CAP WITH FOUR 3/8" STAINLESS STEEL ALLEN HEAD SET SCREWS.

D 2" x 8" STEEL POST 8'-12' LONG INSTALLED WITH A DRIVEN 2 1/2" x 8" STEEL BREAKAWAY BASE 3'-12' LONG AS PER COUNTY INSTALLATION STG. 3028.

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 1/2" CHROMIUM 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 3/8" STAINLESS STEEL ALLEN HEAD SET SCREWS.

MATERIAL: SIGN SHALL BE GREEN ANODIZED ALUMINUM EXTRUSION OF 6063-T6 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 OF FHWA TYPE II REFLECTIVE SHEETING.

SAN BERNARDINO COUNTY ROAD DEPARTMENT
M. A. Nichols
COUNTY ENGINEER

STREET MARKER 303
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.
2" SQ. STEEL POST, HOT DIPPED GALVANIZED, 1.25 OZ COATING (ASTM SPEC. A595).
POST SHALL BE PUNCHED WITH 1/4" DIA. HOLES TO ALLOW MOUNTING OF ALL CALIFORNIA STANDARD SIGNS.

DRIVE RIVETS OR BOLT IN CENTER OF POST, APPROX. 1" FROM TOP OF ANCHOR SLEEVE.
GROUND LINE

2-1/2" SQ. STEEL ANCHOR SLEEVE

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-250).
4. SIGNS SHALL BE INSTALLED IN ACCORDANCE WITH COUNTY STANDARD 303.
NOTES:

1. SEE STANDARD NO 303c FOR MARKER LOCATIONS.

2. POST SHALL BE 4' x 4' CONSTRUCTION HEART STRUCTURAL REDWOOD, 3.4 S. AND/or EQUVALENT 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 STEPENLED 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.
NOTES:
1. MARKER SHALL BE A CARBONITE ROADMARKER CONSISTING OF A CARBONITE POST WITH A 3"x12" FHWA TYPE III REFLECTIVE SHEETING REFLECTOR.
NOTES:

1. CLEARANCE MARKER (W-HORN) THREE 3 1/2" YELLOW CENTERMOUNT REFLECTORS.
2. GUIDE MARKERS ONE 3 1/2" 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 5" WHITE REFLECTOR.
4. ALL MATERIALS SHALL CONFORM TO STATE OF CALIFORNIA, STANDARD SPECIFICATIONS.
5. HOLES DIAMETERS APPLY TO DIMENSION AFTER ITEM IS PAINTED.

SAN BERNARDINO COUNTY ROAD DEPARTMENT

MARKERS 304 A

KEN A. MILLER
DIRECTOR OF TRANSPORTATION
# Section View

<table>
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<th>Width of Roadway</th>
<th>Number of Panels</th>
<th>Total Length of Panel</th>
</tr>
</thead>
<tbody>
<tr>
<td>20' Alley</td>
<td>2</td>
<td>18'</td>
</tr>
<tr>
<td>24'</td>
<td>1</td>
<td>24'</td>
</tr>
<tr>
<td>66'</td>
<td>5</td>
<td>42'</td>
</tr>
<tr>
<td>60'</td>
<td>7</td>
<td>39'</td>
</tr>
<tr>
<td>Desert Road</td>
<td>Varies</td>
<td>Varies</td>
</tr>
</tbody>
</table>

**Notes:**

1. Posts are to be chamfered 5' x 6' x 6' const. Heart Redwood, 54S. Two cross planks are to be 6' x 6' Douglas Fir construction grade.


3. All exposed wood surfaces shall be given 2 brush coats of flame-resistant exterior white paint conforming to State of California specification SS-2-06.

4. For R/W to Post connections, provide two each 5/8 carriage bolts with cut washers and nuts.

---

**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.
**Reflective Tape Detail**

**Notes:**

1. Post is to Be 6" x 6" x Varies, Timber S-45.
2. Three (3) Cross Panels To Be 2" x 8" x Varies, Timber S-45.
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).
5. 2" Square Steel Post And 2 1/2" Square Anchor Sleeve. (See Standard Detail 300B).
6. Use 3/8" Diameter x 4 1/2" Long Log 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-45 Weather Resistant.
9. All Dimensions Are Nominal Lumber Dimensions.

**Table:**

<table>
<thead>
<tr>
<th>Width Of Roadway</th>
<th>Number Of Panels</th>
<th>No. Of N2</th>
<th>Total Length Of Rails</th>
</tr>
</thead>
<tbody>
<tr>
<td>20' ALLEY</td>
<td>2</td>
<td>1</td>
<td>20' MAX</td>
</tr>
<tr>
<td>44'</td>
<td>3</td>
<td>2</td>
<td>90</td>
</tr>
<tr>
<td>46'</td>
<td>4</td>
<td>3</td>
<td>120</td>
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<td>44'</td>
<td>5</td>
<td>3</td>
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</tr>
<tr>
<td>42'</td>
<td>10</td>
<td>2</td>
<td>300</td>
</tr>
</tbody>
</table>

**Notes:** Rails Facing In Two Directions, Number Of Reflectorized Rails Should Be On Two Faces.
ROAD CLOSED

ROAD CLOSED

SECTION VIEW

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

ROAD CLOSURE BARRICADE

WORK ZONE

ROAD CLOSURE BARRICADE

SAN BERNARDINO COUNTY TRANS. DEPT.
KEN A. MILLER
Director of Transportation

ROAD CLOSURE BARRICADE 308C
SECTION VIEW

1. All timber shall be S4S.
2. White and orange painted stripes shall be reflectors per FHWA II (Engineering Grade Sheeting).
3. Traffic Control Devices shall be of high intensity meeting.
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 C3 mounted at the center of the assembly.
SECTION VIEW

NOTES:

1. All timber shall be S4S.
2. White and orange painted stripes shall be reflectorized per FMVSS 108 (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 nut, washers and nuts.
5. Advance construction signs are required.
6. For 5'-0" barricade, use only one C3A and CS mounted at the center of the assembly.

PLAN

SAN BERNARDINO COUNTY TRANS. DEPT.

KEN A. MILLER
Director of Transportation

PARTIAL ROAD CLOSURE SHEET 305E

BARRICADE WITH DETOUR
NOTE:

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 sheathing.

4. For rail to post connection, provide 2-3/8" Carriage Bolts with cut washers and nuts.

5. Advance construction signs are required.


7. For 5'-0" barricade, use only one C3A and N-2 mounted at the center of the assembly.

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SAN BERNARDINO COUNTY TRANS. DEPT.

KEN A. MILLER
Director of Transportation

PARTIAL ROAD CLOSURE BARRICADE

305-P
NOTES:
1. Post Shall Be 2" x 2" Square Steel In Accordance With Standard No. 303b.
Type N-1 Shall Be Yellow FHWA Type III Reflective Sheeting.
Type N-2 Shall Be Red FHWA Type III Reflective Sheeting.
CENTERLINE STRIPING

L01  Traffic is permitted to pass for both directions of travel

comings

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

comings

Centerline 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

comings

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

comings

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

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

SAN BERNARDINO COUNTY TRANS. DEPT.

NOT TO SCALE

PAT MEAD
Director of Public Works

STRIPING DETAILS  307
**CENTERLINE STRIPING**

**L05** Painted Median

Double Left Edgeline pattern for use on all-paved sections of streets and highways (normally used on local streets and highways).

**L05a** Painted Median

Double Left Edgeline pattern with pavement markers for use on all-paved sections of streets and highways.

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

SAN BERNARDINO COUNTY TRANS. DEPT.

PAT MEAD
Director of Public Works

STRIPPING DETAILS

307b
CENTERLINE STRIPING

L12
2 Lanes 1 Each Direction, No Passing

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

L12a
2 Lanes 1 Each Direction, No Passing

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

SAN BERNARDINO COUNTY TRANS. DEPT.

PAT MEAD
Director of Public Works

NOT TO SCALE

307c

STRIPING DETAILS
LANE LINE STRIPING

L26 Laneline Quarterstripe Pattern

Laneline pattern for use on multi-lane streets and highways (normally used on local streets and highways).

L26a Laneline Quarterstripe Pattern

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

EDGELINE STRIPING

L27 Right Edgeline

Right Edgeline pattern for use local streets and highways. It is generally dropped at the beginning of intersection tares on conventional highways.

SAN BERNARDINO COUNTY TRANS. DEPT.

PAT MEAD
Director of Public Works

STRIPPING DETAILS

307d
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

PATRICK J. MEAD
Director of Public Works

FIRE HYDRANT LOCATION 310
RECOMMENDED UTILITY LOCATION

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 3' FROM C.
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 SIDEWALK.

SAN BERNARDINO COUNTY ROAD DEPARTMENT
M. A. Nicholas
COUNTY ENGINEER

UNDERGROUND UTILITY LOCATION
MANHOLE APRON
PAVED ROAD

SAN BERNARDINO COUNTY TRANS. DEPT.

KEN A. MILLER
Director of Transportation

MANHOLE APRON
PAVED ROAD

06/30/95

CENTRAL 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.
NOTE: END OPENING MAILBOX NOT PERMITTED. FACE OF MAILBOX SHALL NOT EXTEND PAST TOP OF CURB LINE.
MULTIPLE MAILBOX TO BE FURNISHED BY U.S. POSTAL SERVICE.

NOTE: MAILBOX LOCATION, FOUNDATION, ANCHOR BOLTS, AND BOLT HOLES, SHALL CONFORM TO SPECIFICATIONS FURNISHED BY THE POSTMASTER.
MULTIPLE MAILBOX TO BE FURNISHED BY U.S. POSTAL SERVICE.

ANCHOR BOLTS FOUNDATION

EXISTING SIDEWALK

6'

VARIABLE

3'

4" THICK CONC SLAB

EXPANSION JOINT

NOTE: MAILBOX LOCATION, FOUNDATION, ANCHOR BOLTS, AND BOLT HOLES, SHALL CONFORM TO SPECIFICATIONS FURNISHED BY THE POST-MASTER. MAILBOX FOUNDATION AND SLAB TO BE A MONOLITHIC POUL.