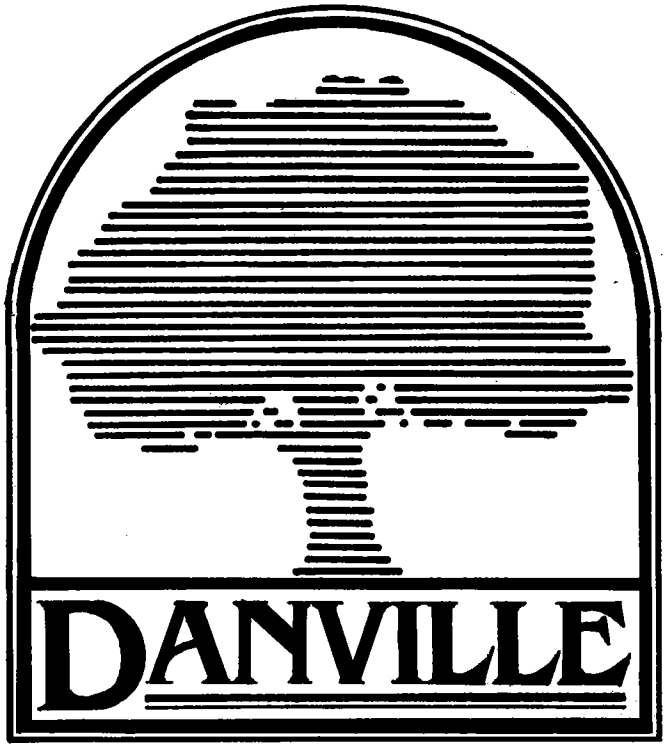


STANDARD PLANS

MARCH 1989

DEVELOPMENT SERVICES DEPARTMENT
510 La Gonda Way

MARCH 1989

TOWN OF DANVILLE STANDARD PLANS

PLAN NO.	STREET STANDARDS
101	Major Street Sections
102	Minor Street Sections
103	Width Alternatives Common Driveways/Residential
104	Width Alternatives Parking & Vehicular Lanes/Residential (Public/Private Streets) (2 shts.)
105	Typical Concrete Curbs
106	Typical Asphalt Dike
107	Typical Diveway
108	Pedestrian Ramp For The Handicapped
109	Sidewalk Drains
110	Sidewalk Doweling Details
111	Back Of Curb Flow Diverter
112	Valley Gutter
113	Street Barricade
114	Trench Backfill
115	Survey Monument
116	Sight Clearance At Intersections
117	Stop Sign Location
118	Street Name Sign Location
119	Typical Subdivision Signing Plan
120	Fire Hydrant Location
121	Street Name Sign Detail

MARCH 1989

TOWN OF DANVILLE STANDARD PLANS

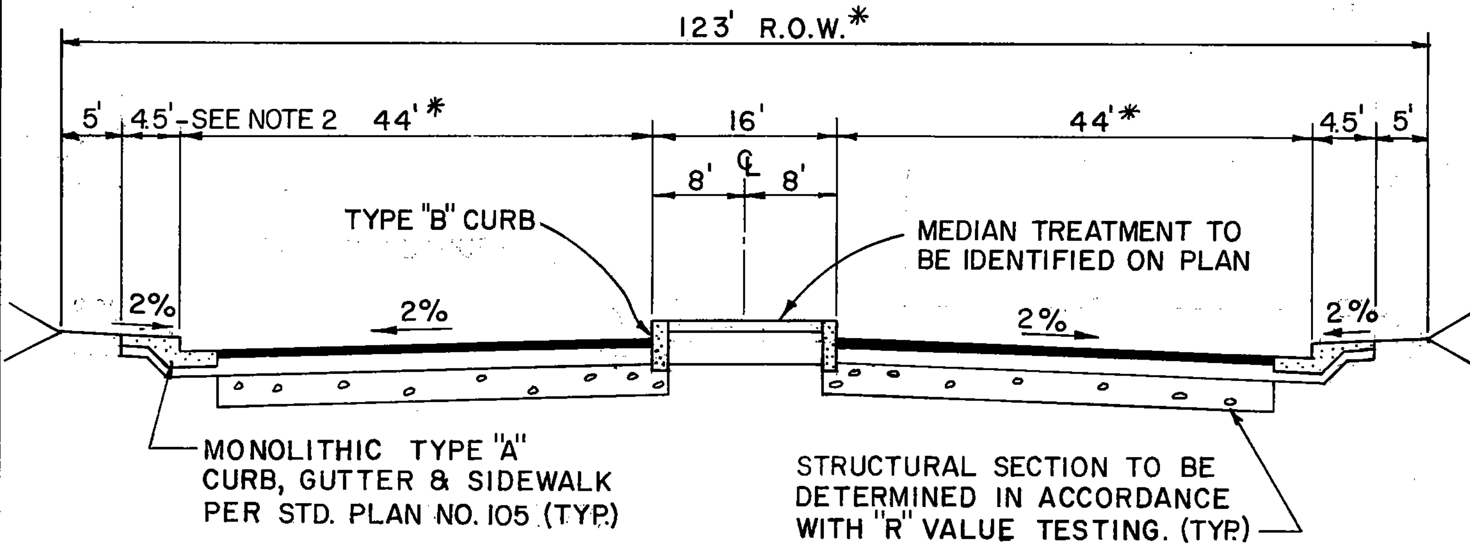
PLAN NO.	STORM DRAIN
201	Type "A" Inlet (2 shts.)
202	Type "B" Inlet (2 shts.)
203	Type "C" Inlet (2 shts.)
204	Precast Manhole & Type "I" Base
205	Type "II" Manhole Base (2 shts.)
206	Type "III" Manhole Base (3 shts.)
207	Manhole Frame and Cover
208	Type "A" & "L" Headwalls (3 shts.)
209	Standard Rock Riprap Pipe Spillway For Earth Channel
210	Hydrology and Hydraulics Criteria Summary (2 shts.)
210A	Sample Hydrology Calculation Form
210B	Runoff Factor ADjustment (3 shts.)

MISCELLANEOUS

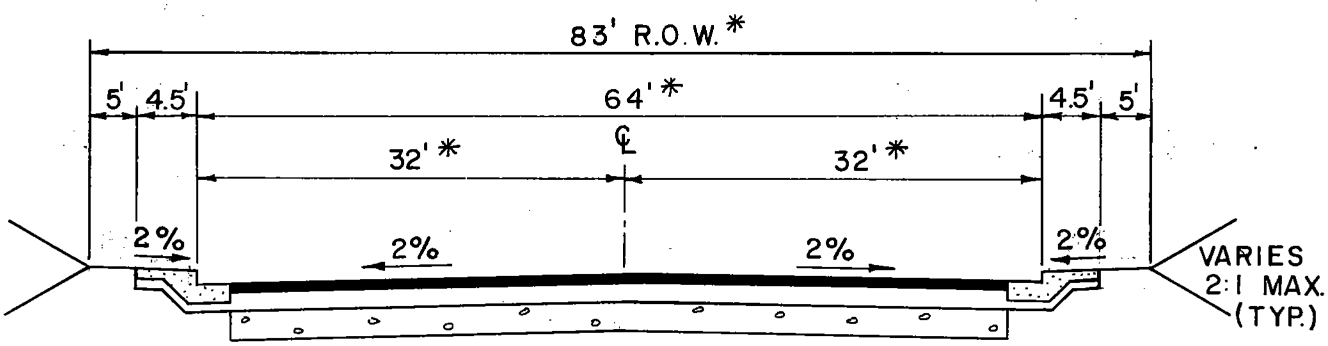
301	Standard Drafting Symbols (2 shts.)
302	Mailbox Standards

DANVILLE

STANDARD PLAN



MAJOR ARTERIAL - 123' R.O.W.



MAJOR COLLECTOR - 83' R.O.W.

NOTES

* 1. WHEN BICYCLE LANES ARE REQUIRED WITHIN VEHICULAR WAY, ADD 10' TO CURB TO CURB WIDTH AND R/W. (ALLOWS TWO 5' WIDE BIKE LANES.)

2. SIDEWALK WIDTH VARIES, DEPENDING UPON COMMERCIAL/RESIDENTIAL.

No.	Rev.	By
1	R.O.W. 10' EXTENDED	KD. 1/89

Scale: NOT TO SCALE

Drawn By B.C. Checked By MZ

MAJOR STREET SECTIONS

Approved By [signature]
CITY ENGINEER RCE 31870

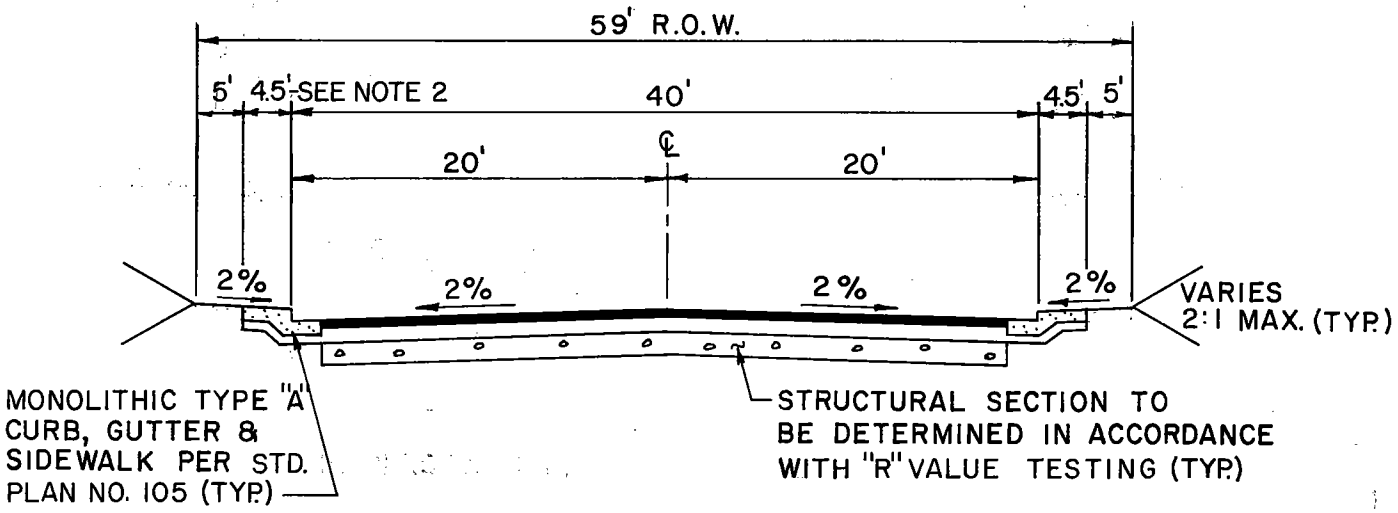
6/09/87
DATE

101

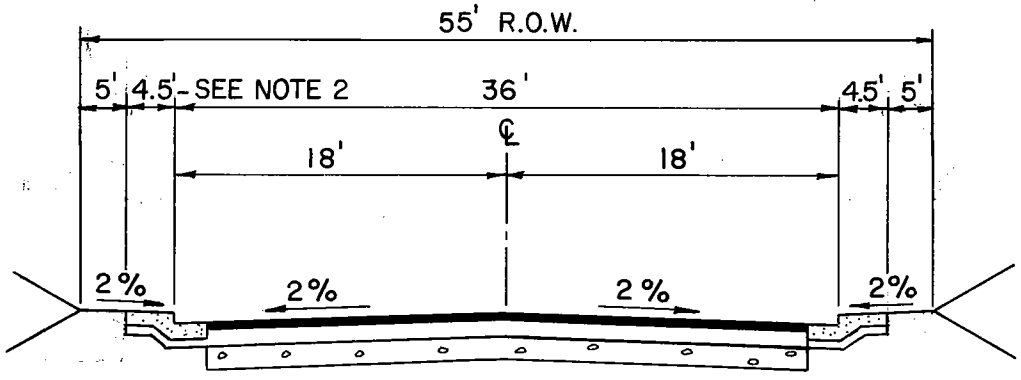
Sht. 1 of 1

DANVILLE

STANDARD PLAN



NEIGHBORHOOD COLLECTOR - 59' R.O.W.



LOCAL STREET - 55' R.O.W.

NOTES

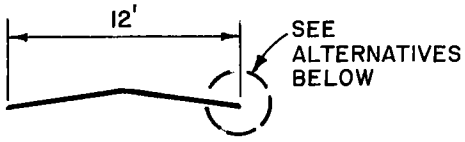
1. WHEN BICYCLE LANES ARE REQUIRED WITHIN VEHICULAR WAY, ADD 8' TO CURB TO CURB WIDTH AND R/W. (ALLOWS TWO 4' WIDE BIKE LANES.)
2. SIDEWALK WIDTH VARIES, DEPENDING UPON COMMERCIAL/RESIDENTIAL.

No.	Rev.	By
1	R.O.W. ID' EXTENDED	K.D. 1/89

Scale NOT TO SCALE	**Drawn By** B.C. **Checked By** MZ	
MINOR STREET SECTIONS	**Approved By** _____ **CITY ENGINEER RCE 31870** 6/09/87 **DATE**	102 Sht. 1 of 1

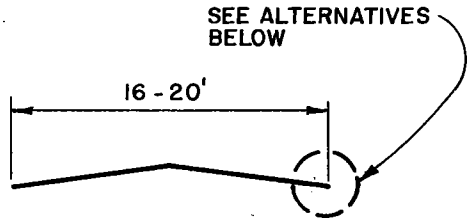
DANVILLE

STANDARD PLAN



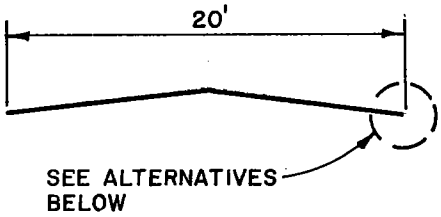
MAY BE MODIFIED DEPENDING ON GARAGE CAPACITY & LENGTH OF DRIVEWAY.

COMMON DRIVEWAY
(1 UNIT)

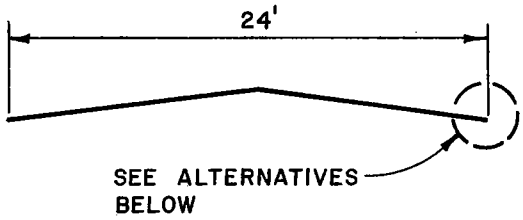


DRIVEWAY WIDTHS THAT ARE LESS THAN 19' REQUIRE A USE PERMIT.

COMMON DRIVEWAY
(2-4 UNITS)



COMMON DRIVEWAY
(5-10 UNITS)



COMMON DRIVEWAY
(11-20 UNITS)

NOTES

1. COMMON DRIVEWAYS ARE TO BE USED PRIMARILY FOR ENTRANCES TO PARKING AREAS FROM A PUBLIC OR PRIVATE STREET. THEY ARE NOT A SUBSTITUTE FOR A STREET WHICH FUNCTIONS AS A CIRCULATION ELEMENT TO A DEVELOPMENT.
2. NO PARKING ALLOWED ON DRIVEWAY.
3. TWO WAY TRAVEL LANES - NO ONE WAY LOOPS.

ALTERNATIVES

1. CONCRETE CURB
2. A.C. DIKE
3. WOOD - FORM BOARD (RESIDENTIAL ONLY)

No.	Rev.	By
1	#2 & #3, TO DIKE	K.D. 1/89

Scale NOT TO SCALE

Drawn By B.C. Checked By MZ

WIDTH ALTERNATIVES
COMMON DRIVEWAYS
RESIDENTIAL

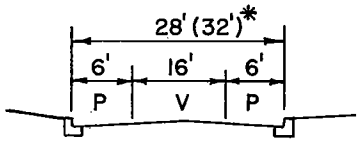
Approved By _____
CITY ENGINEER RCE 31870

6/09/87
DATE

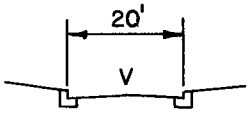
103
Sht. 1 of 1

DANVILLE

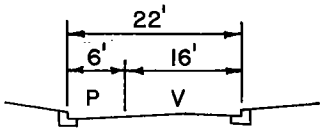
STANDARD PLAN



PARKING BOTH SIDES



NO PARKING

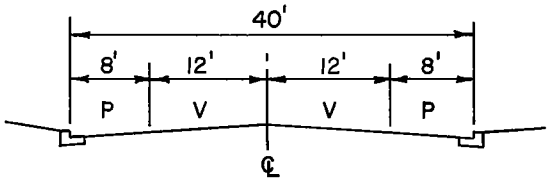


PARKING ONE SIDE

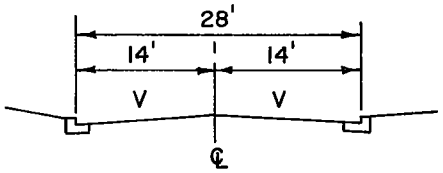
* MAY BE REQUIRED BY THE FIRE DEPT. DEPENDING ON LENGTH OF STREET.

ONE WAY LOOP

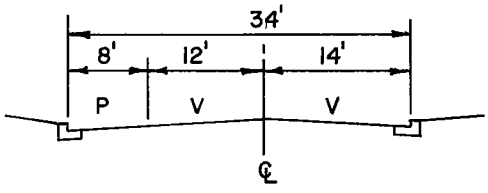
(1 to 15 UNITS)



PARKING BOTH SIDES



NO PARKING



PARKING ONE SIDE

LEGEND

P = PARKING

V = VEHICLES

℄ CENTER LINE

COLLECTOR STREETS

(81 to 300 UNITS, & COMMERCIAL)

No.	Rev.	By

Scale NOT TO SCALE

Drawn By B.C. Checked By MZ

WIDTH ALTERNATIVES

PARKING & VEHICULAR LANES
RESIDENTIAL (PUBLIC/PRIVATE STREETS)

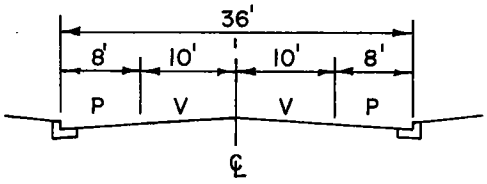
Approved By _____
CITY ENGINEER RCE 31870

6/09/87
DATE

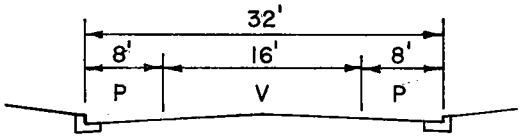
104a
Sht. 1 of 2

DANVILLE

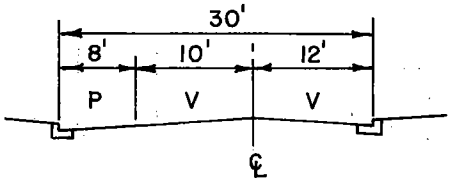
STANDARD PLAN



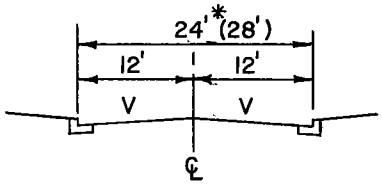
PARKING BOTH SIDES



2 WAY TRAFFIC
PARKING BOTH SIDES
PRIVATE STREET ONLY



PARKING ONE SIDE



NO PARKING
* PRIVATE STREET ONLY

LEGEND

P = PARKING
V = VEHICLES
℄ = CENTER LINE

CUL-DE-SAC, LANE, PLACE, MINOR STS.

(1 to 80 UNITS)

No.	Rev.	By

Scale NOT TO SCALE

Drawn By B.C. Checked By MZ

WIDTH ALTERNATIVES
PARKING & VEHICULAR LANES
RESIDENTIAL (PUBLIC/PRIVATE STREETS)

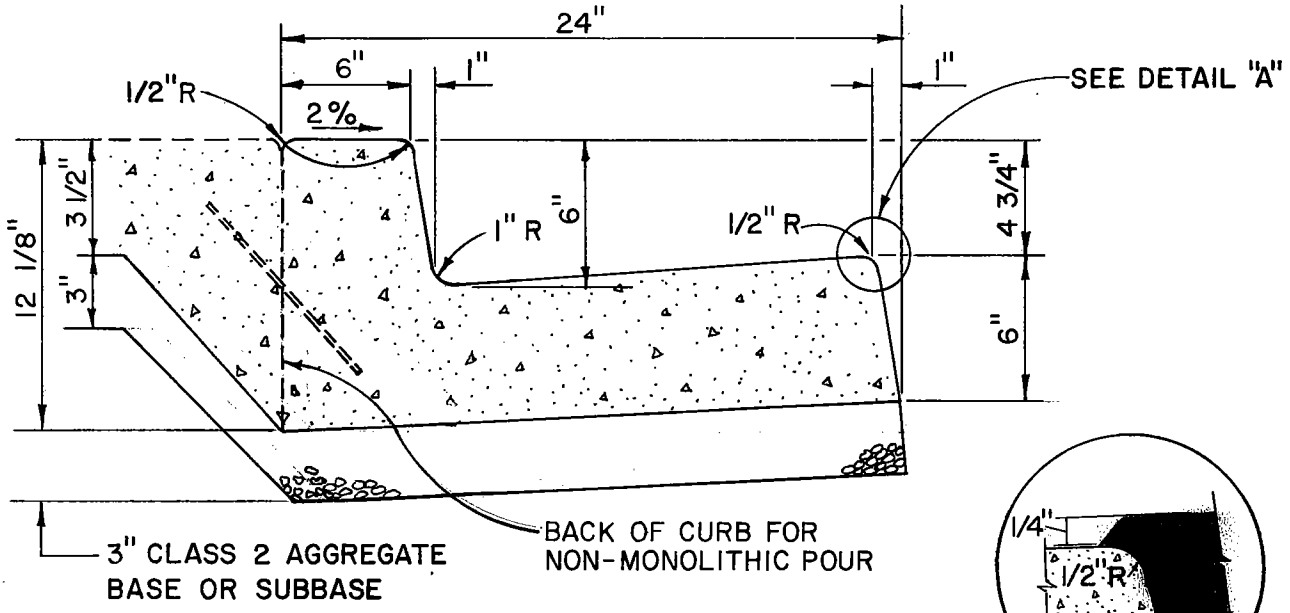
Approved By _____
CITY ENGINEER RCE 31870

6/09/87
DATE

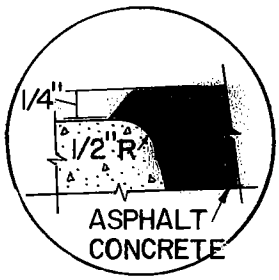
104b
Sht. 2 of 2

DANVILLE

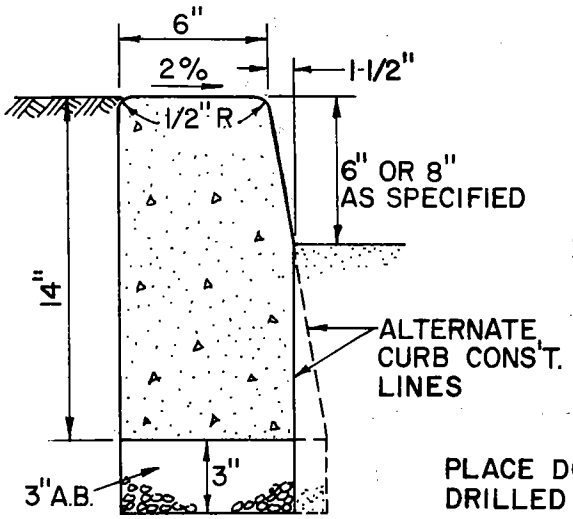
STANDARD PLAN



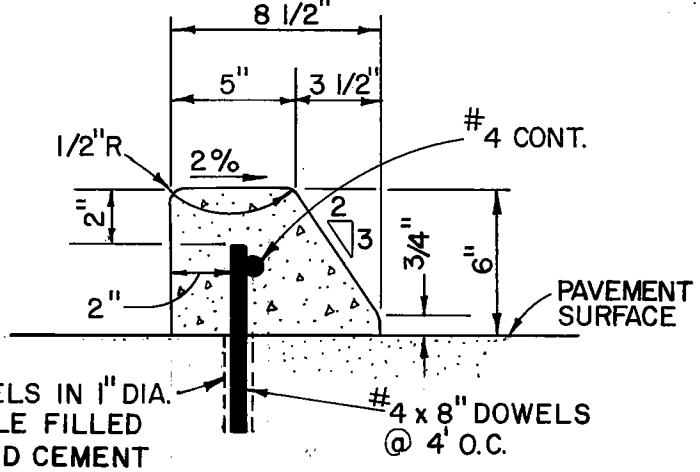
TYPE "A"



DETAIL A



TYPE "B"



TYPE "C"

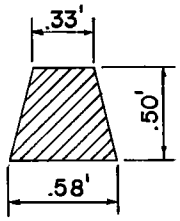
1. CONCRETE TO BE CLASS "B"
2. CURBS SHALL BE BACKFILLED (COMPACTED) PRIOR TO FINISH SUBGRADE.
3. THE RELATIVE COMPACTION OF MATERIAL BELOW ALL CURB, GUTTER & SIDEWALK SHALL NOT BE LESS THAN 90%.

No.	Rev.	By
1	RADIUS SYM. & SQ'ED	1/89

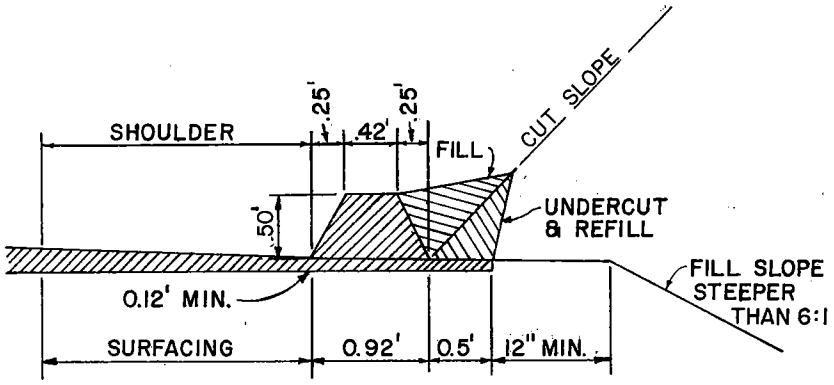
Scale NOT TO SCALE	Drawn By B.C. Checked By MZ	
TYPICAL CONCRETE CURBS	Approved By _____ CITY ENGINEER RCE 31870	6/09/87 DATE
		105 Sht. 1 of 1

DANVILLE

STANDARD PLAN



0.5' DIKE - MODIFIED SECTION



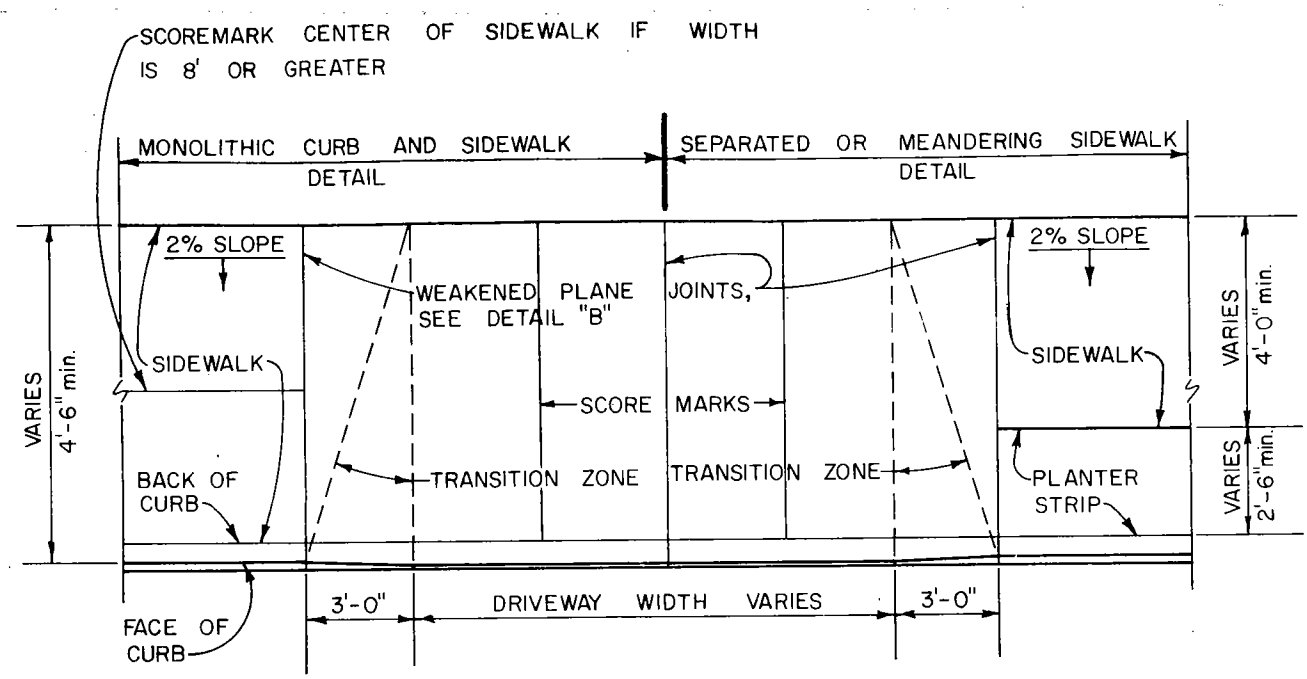
ASPHALT CONCRETE DIKES

No.	Rev.	By
1	50' ADDED DIKE/CURB	1/89

Scale NOT TO SCALE	Drawn By B.C. Checked By MZ	
TYPICAL ASPHALT DIKE	Approved By _____ CITY ENGINEER RCE 31870	6/09/87 DATE
		106 Sht. 1 of 1

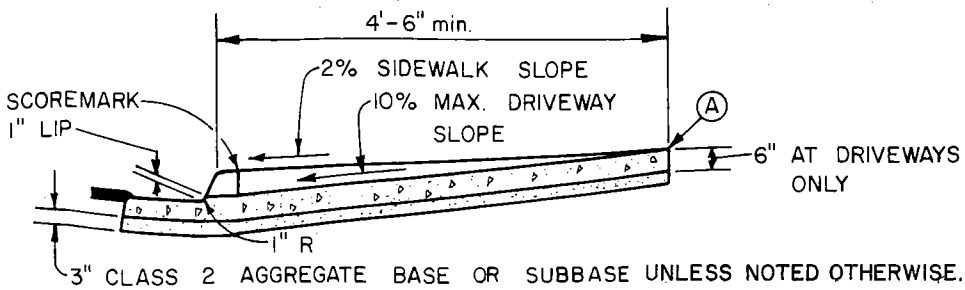
DANVILLE

STANDARD PLAN

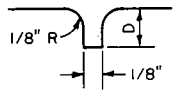


TYPICAL DRIVEWAY

(GUTTER NOT SHOWN)



POINT (A) TO BE ON A 2% SLOPE FROM TOP OF CURB UNLESS OTHERWISE APPROVED.



D= 1" FOR WEAKENED PLANE JOINTS
D= 1/4" FOR SCORE MARKS
JOINTS SHALL BE FORMED BY USE OF PLASTIC INSERTS

SCOREMARKS AND WEAKENED PLANE JOINTS DETAIL "B"

SECTION

NOTE

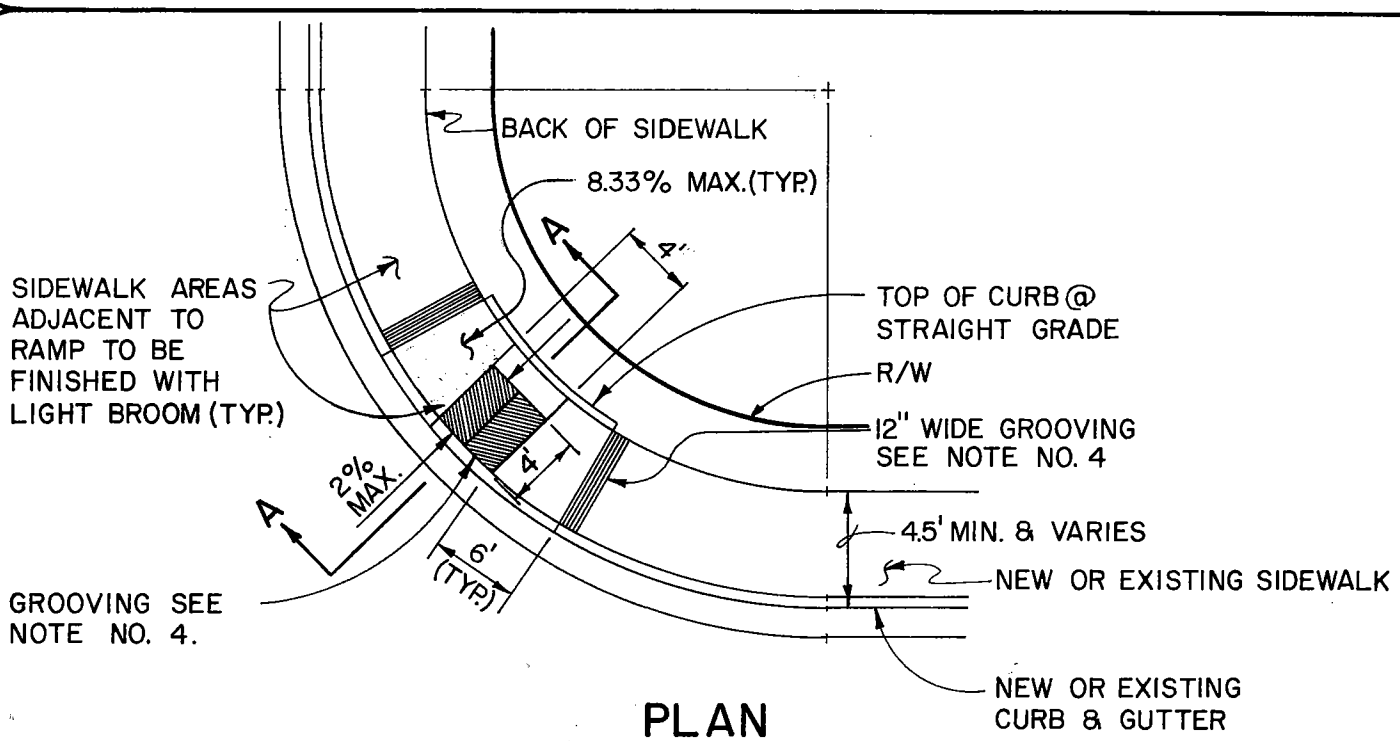
1. ALL CONCRETE TO BE CLASS B.

No.	Rev.	By

Scale NOT TO SCALE	Drawn By B.C. Checked By MZ	
TYPICAL DRIVEWAY	Approved By _____ CITY ENGINEER RCE 31870	6/09/87 DATE
		107 Sht. 1 of 1

DANVILLE

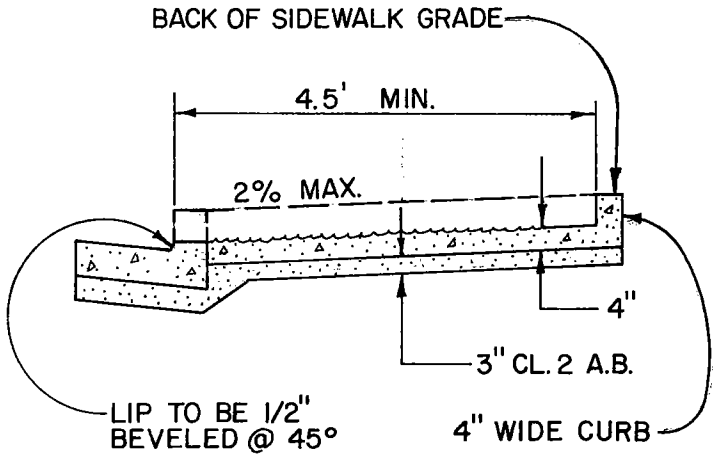
STANDARD PLAN



PLAN

NOTES

1. FINISH - ALL EDGES, CORNERS AND ENDS SHALL HAVE 1/2" RADIUS.
2. SCORING - EVENLY SPACED BOTH WAYS, FULL 1/4" DEEP, EVEN AND STRAIGHT.
3. ALL CONCRETE FLATWORK FOR CURB RAMPS MIN. 4" THICK.
4. THE RAMP SHALL HAVE A 12" WIDE BORDER WITH 1/4" GROOVES APPROX. 3/4" O.C.
5. RAMP SHALL BE GROOVED IN A HERRINGBONE PATTERN WITH 1/4" GROOVE APPROXIMATELY 1 1/2" O.C. GROOVES SHOULD BE ALIGNED PARALLEL TO CROSSWALK STRIPES TO DIRECT BLIND PEDESTRIANS INTO APPROPRIATE CROSSWALK.
6. LOCATE RAMP IN MIDDLE OF RETURN OR AS DIRECTED BY THE CITY ENGINEER.
7. THE RELATIVE COMPACTION OF MATERIAL BELOW ALL CURB, GUTTER & SIDEWALK SHALL NOT BE LESS THAN 90%.
8. SPECIAL SITUATIONS SHALL BE SUBJECT TO APPROVAL BY THE CITY ENGINEER.



SECTION A - A

No.	Rev.	By
1	R/W ADDED	1/89
2	NEW TITLE	5.15.93

Scale NOT TO SCALE

Drawn By B.C. Checked By MZ

CURB RAMP

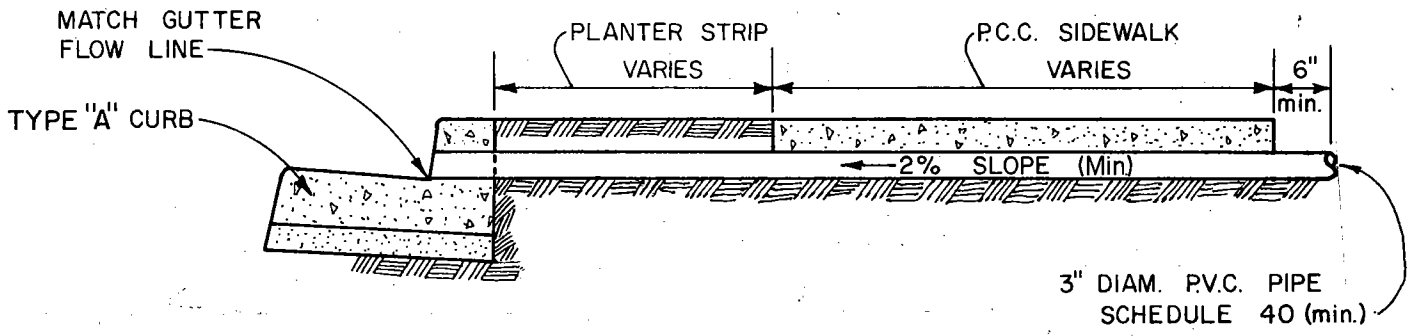
Approved By _____ 6/09/87
CITY ENGINEER RCE 31870 DATE

108

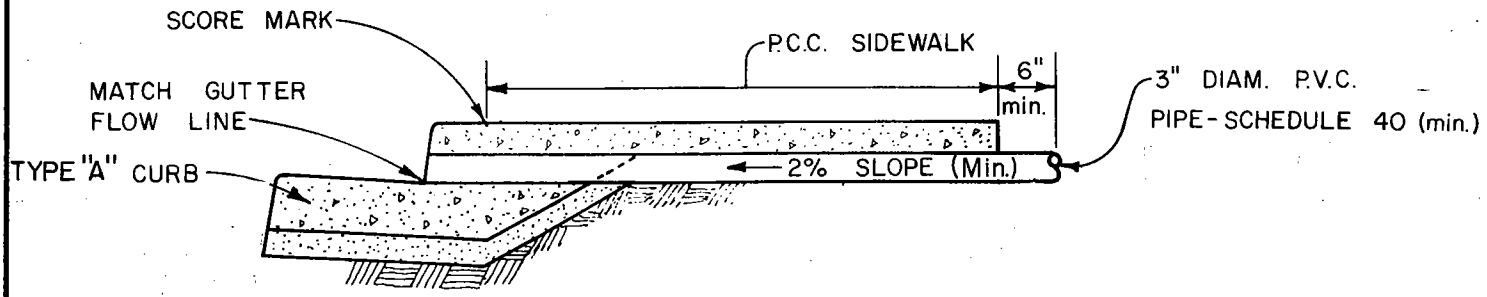
Sht. 1 of 1

DANVILLE

STANDARD PLAN



SIDEWALK DRAIN FOR SEPARATED SIDEWALK



SIDEWALK DRAIN FOR MONOLITHIC CURB AND SIDEWALK

NOTES

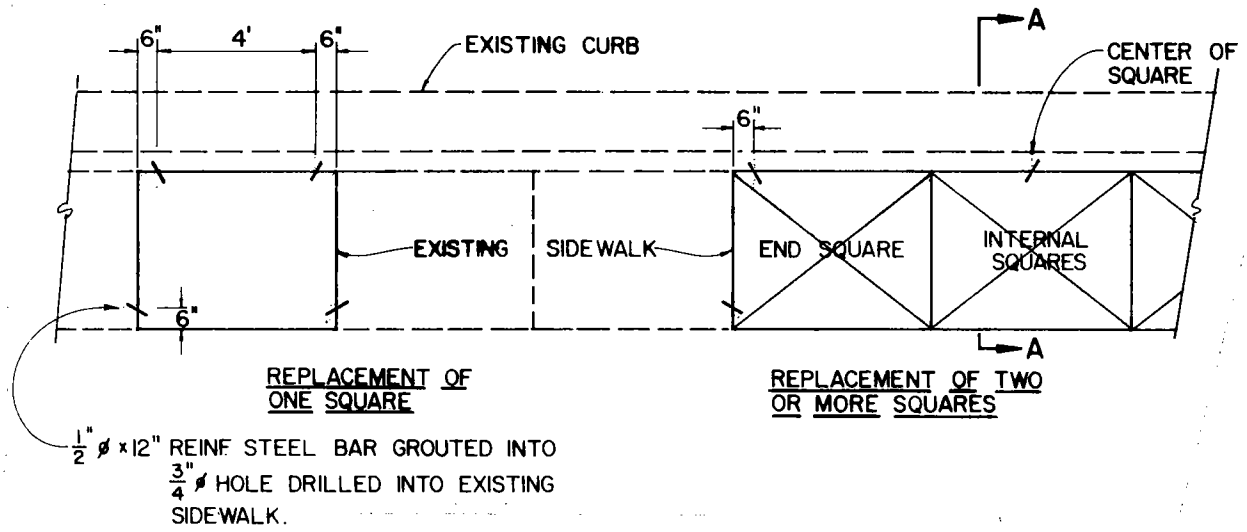
1. SIDEWALK DRAIN SHALL BE INSTALLED AT WEAKENED PLANE JOINTS.
2. SIDEWALK DRAIN SHALL BE INSTALLED ON THE LOW SIDE OF THE DRIVEWAY OR LOT WHERE APPLICABLE.

No.	Rev.	By

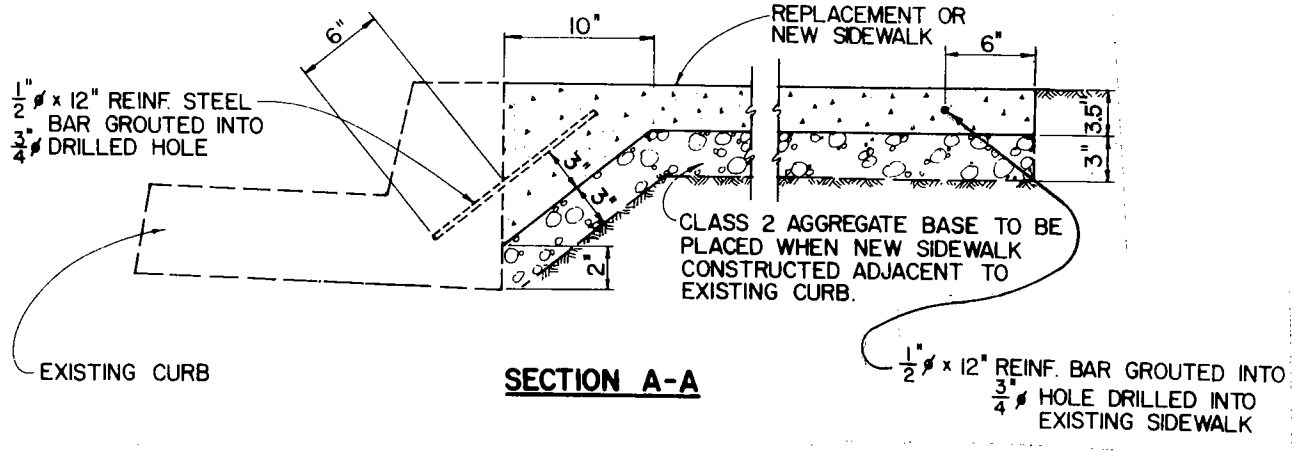
Scale NOT TO SCALE	Drawn By B.C. Checked By MZ	
SIDEWALK DRAINS	Approved By _____ CITY ENGINEER RCE 31870	6/09/87 DATE
		109 Sht. 1 of 1

DANVILLE

STANDARD PLAN



TYPICAL DOWEL INSTALLATION



SECTION A-A

NOTE:

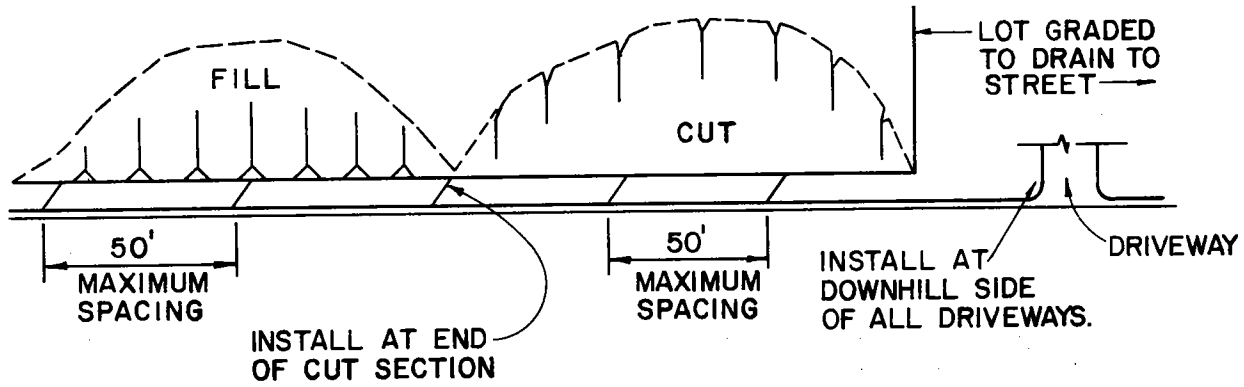
1. DOWELS TO BE PLACED AT A 30° ANGLE TO THE PERPENDICULAR.

No.	Rev.	By

Scale NOT TO SCALE	**Drawn By** B.C. **Checked By** MZ	
SIDEWALK DOWELING DETAILS	**Approved By** _____ CITY ENGINEER RCE 31870 — 6/09/87 DATE	110 Sht. 1 of 1

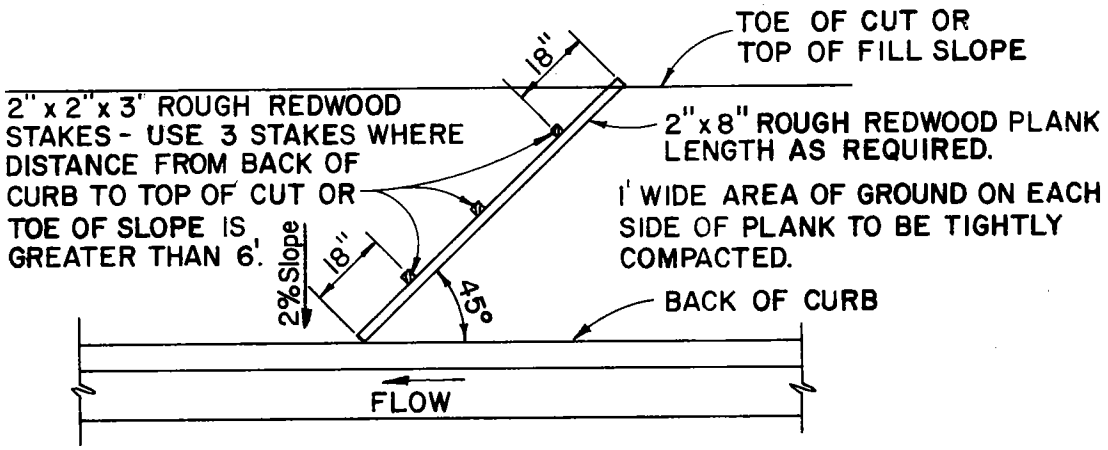
DANVILLE

STANDARD PLAN

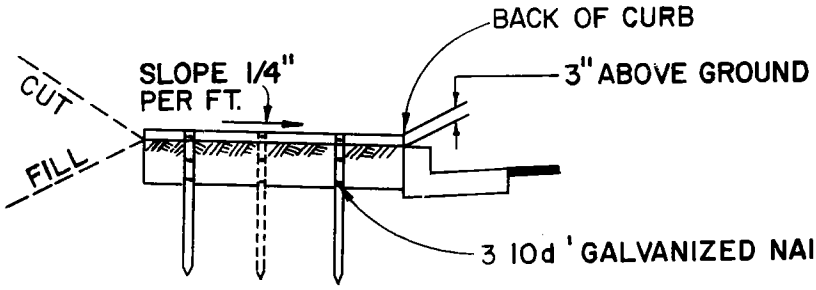


PLAN SHOWING LOCATION OF DIVERTERS

TO BE INSTALLED ON STREETS WHERE SLOPE EQUALS OR EXCEEDS 5%



PLAN



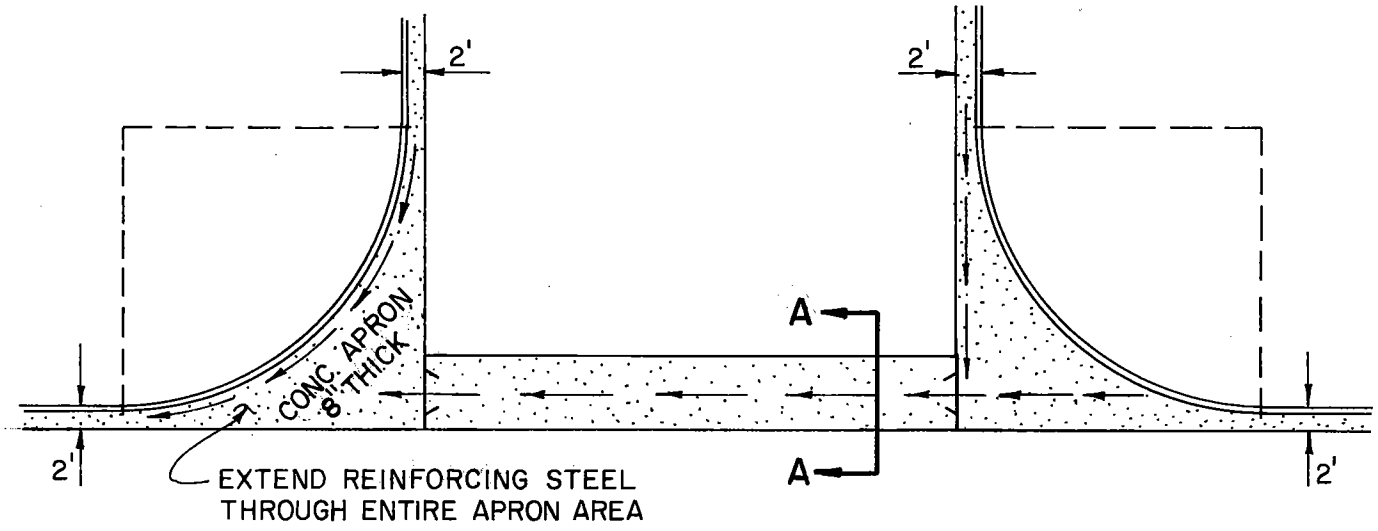
ELEVATION

No.	Rev.	By

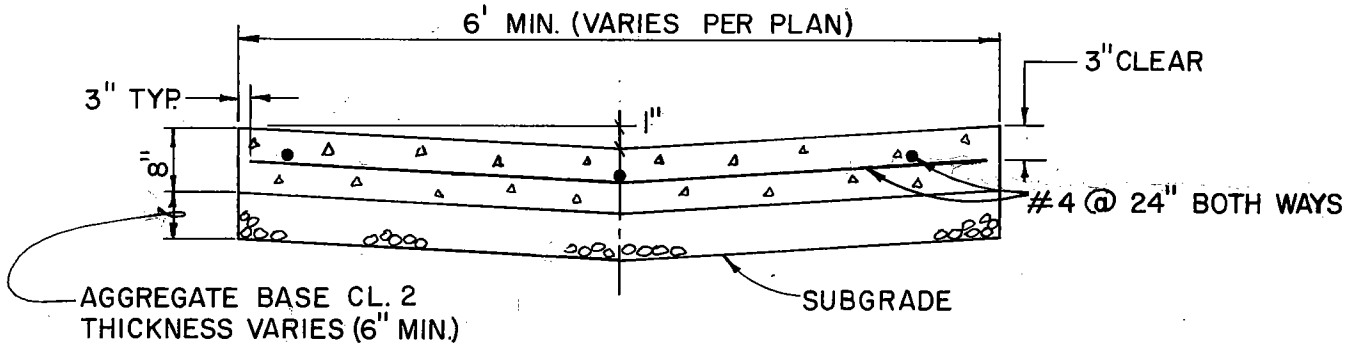
Scale NOT TO SCALE	Drawn By B.C. Checked By MZ	
BACK-OF-CURB FLOW DIVERTER	Approved By _____ CITY ENGINEER RCE 31870	6/09/87 DATE
		III Sht. 1 of 1

DANVILLE

STANDARD PLAN



PLAN



SECTION A - A

NOTE

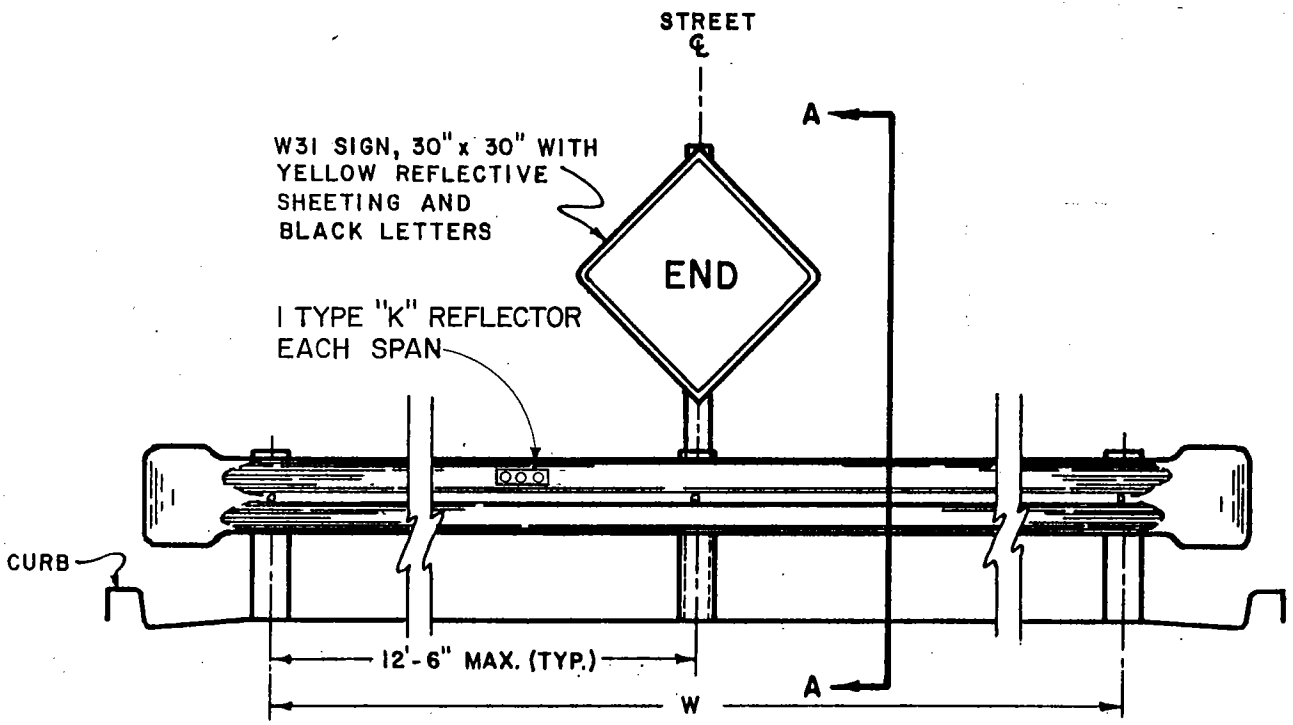
1. VALLEY GUTTERS TO BE USED ONLY WHERE SPECIFICALLY APPROVED.

No.	Rev.	By
1	2% Decline Deleted	1/89

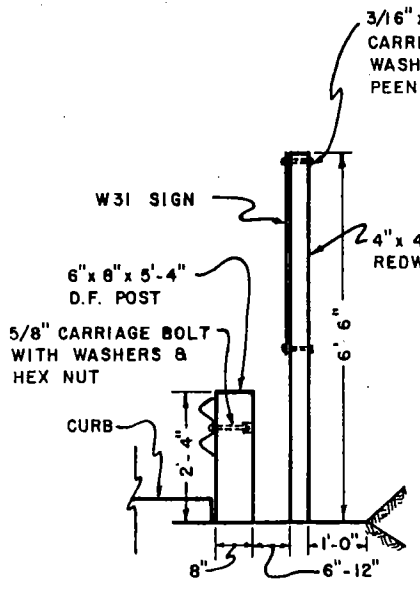
Scale NOT TO SCALE	Drawn By B.C. Checked By MZ	
VALLEY GUTTER	Approved By CITY ENGINEER RCE 31870 — DATE 6/09/87	112 Sht. 1 of 1

DANVILLE

STANDARD PLAN



STREET BARRICADE



SECTION A-A

ROAD WIDTH	W	NO. POSTS
36'	25'-0"	3
40'	37'-6"	4
64'	50'-0"	5

NOTES

1. POSTS & METAL BEAM GUARD RAILING TO BE TREATED WITH PRESERVATIVE AND MARKED IN ACCORDANCE WITH SECTION 83 OF THE CURRENT CALTRANS STANDARD SPECIFICATIONS.

No.	Rev.	By

Scale NOT TO SCALE

Drawn By B.C. Checked By MZ

STREET BARRICADE

Approved By _____

CITY ENGINEER RCE 31870

6/09/87

DATE

113

Sht. 1 of 1

DANVILLE

STANDARD PLAN

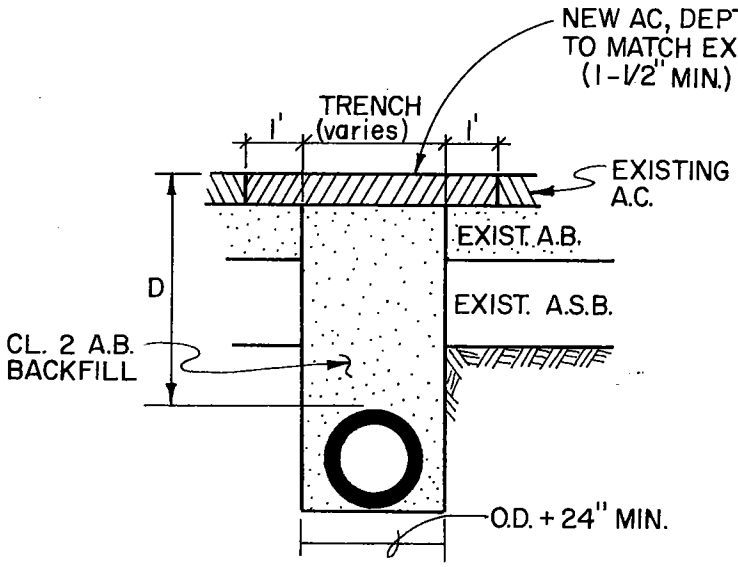


FIGURE 1
D = 18" or GREATER

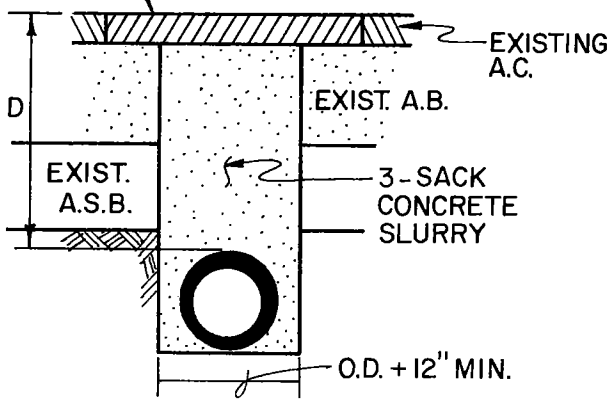


FIGURE 2
D = LESS THAN 18"

NOTES

1. ASPHALT OR CONCRETE STREETS SHALL BE OVERCUT ONE FOOT GREATER ON EACH SIDE THAN THE TRENCH WIDTH. (FIGURE 1)
2. REMOVE TO PROPER DEPTH, INSTALL UTILITY AND BACKFILL.
3. CONTRACTOR MAY BE REQUIRED TO PLACE SAND BEDDING MATERIAL ON THE TRENCH FLOOR DEPENDING ON SOIL CONDITION AND TYPE OF PIPE USED.
4. COMPACTION- THE RELATIVE COMPACTION OF ALL TRENCH BACKFILL AS FOLLOWS: AB/ASB = 95% NATIVE = 90%
5. NO JETTING IS ALLOWED UNDER ANY PAVED ROADWAY OR WITHIN A DISTANCE OF FOUR FT. FROM THE EDGE OF EXISTING PAVEMENT. BACKFILL SHALL BE COMPACTED BY IMPACT, VIBRATION OR ANY COMBINATION OF THESE. JETTING WILL BE ALLOWED ONLY WHEN MORE THAN FOUR FT. FROM THE PAVEMENT & WHEN THE BACKFILL AND TRENCH ARE SUITABLE FOR JETTING AND SHALL BE SUPPLEMENTED WITH MECHANICAL COMPACTION IN FOUR FT. MAXIMUM LAYERS.

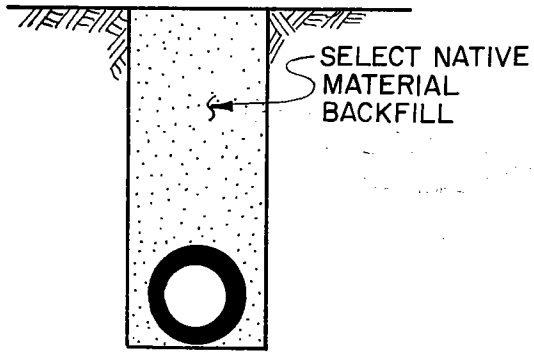


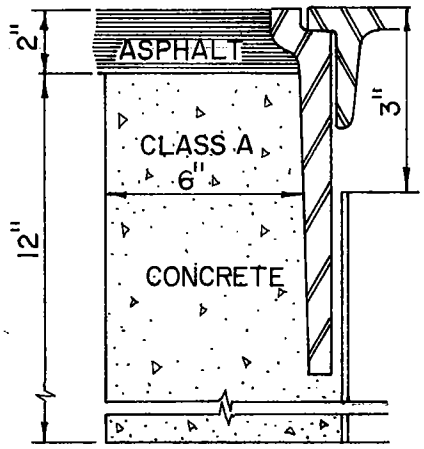
FIGURE 3
NON PAVEMENT
AREAS

No.	Rev.	By

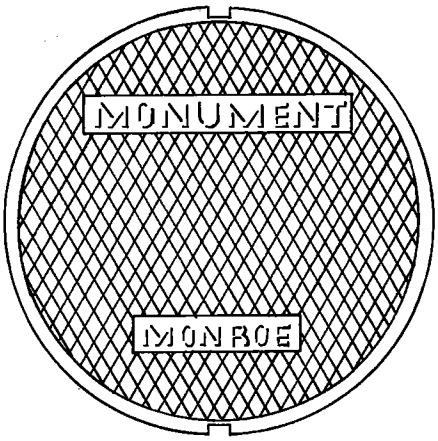
Scale NOT TO SCALE	Drawn By B.C. Checked By MZ	
TRENCH BACKFILL	Approved By _____ CITY ENGINEER RCE 31870	6/09/87 DATE
		114 Sht. 1 of 1

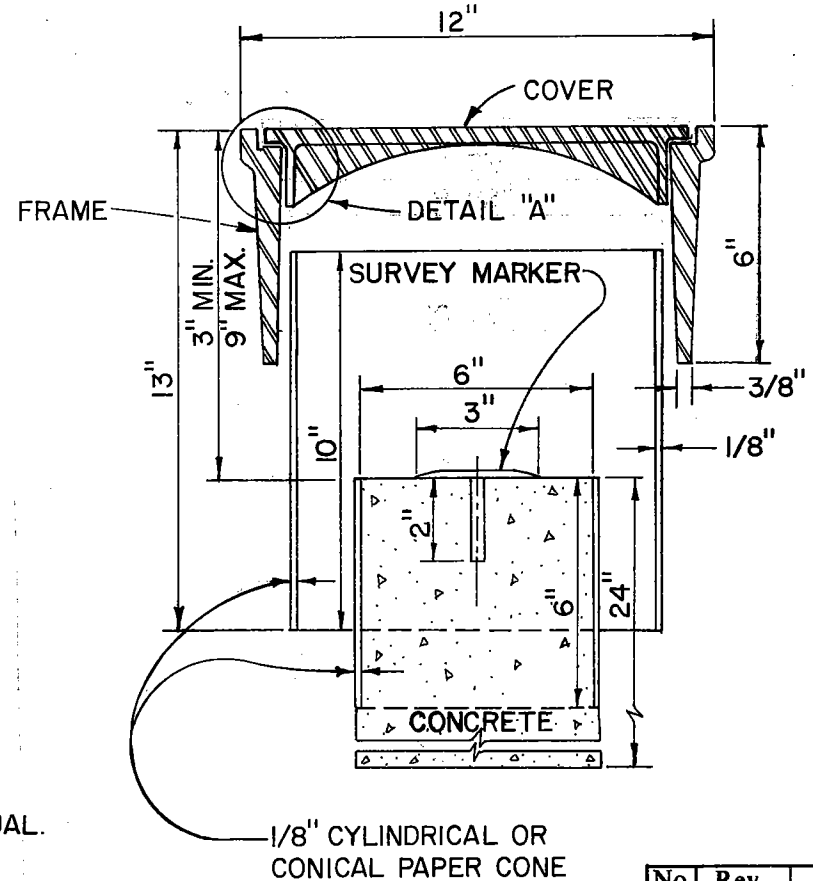
DANVILLE

STANDARD PLAN



DETAIL "A"





NOTES

1. SURVEY MARKER TO BE "LIETZ" #8134-08 OR 8134-18 OR APPROVED EQUAL.
2. FRAME TO BE "MONROE" CASTING #9279 OR APPROVED EQUAL.
3. COVER TO BE "MONROE" CASTING MARKED "MONUMENT" #9277M OR APPROVED EQUAL.
4. WHERE OVERLAY IS REQUIRED USE RISER RING "MONROE" CASTING #9278 OR APPROVED EQUAL.

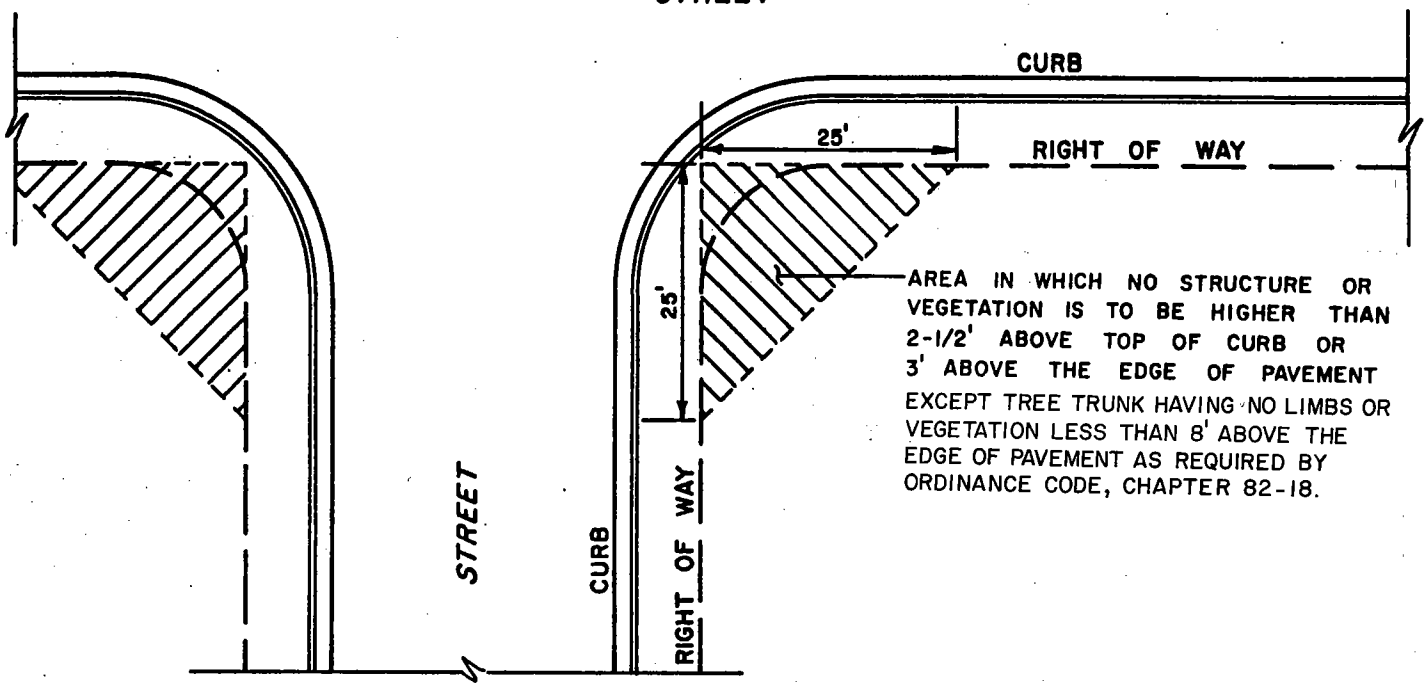
No.	Rev.	By

Scale NOT TO SCALE	Drawn By B.C. Checked By MZ	
SURVEY MONUMENT	Approved By _____ CITY ENGINEER RCE 31870	6/09/87 DATE
		115 Sht. 1 of 1

DANVILLE

STANDARD PLAN

TYPICAL STREET INTERSECTION

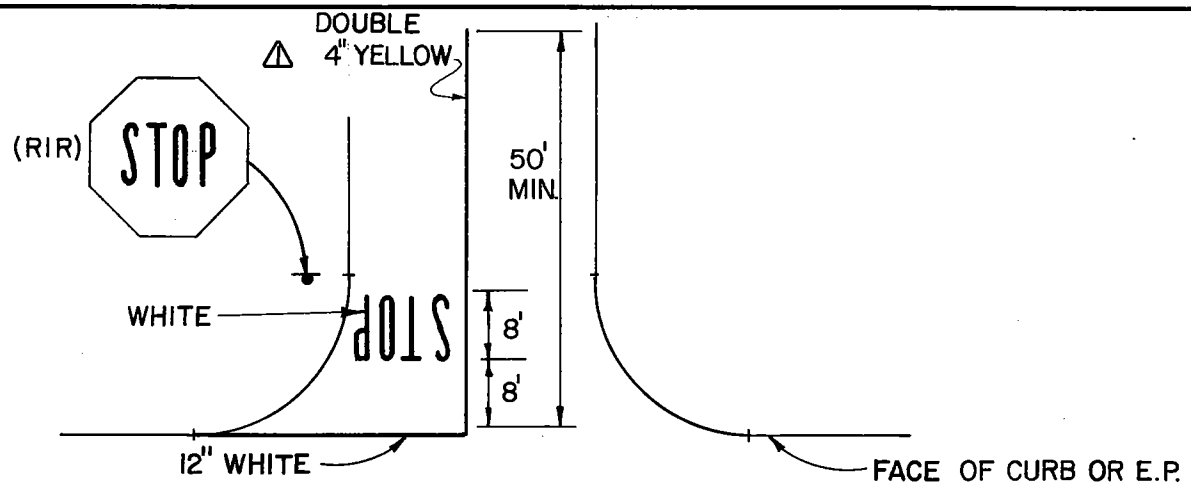


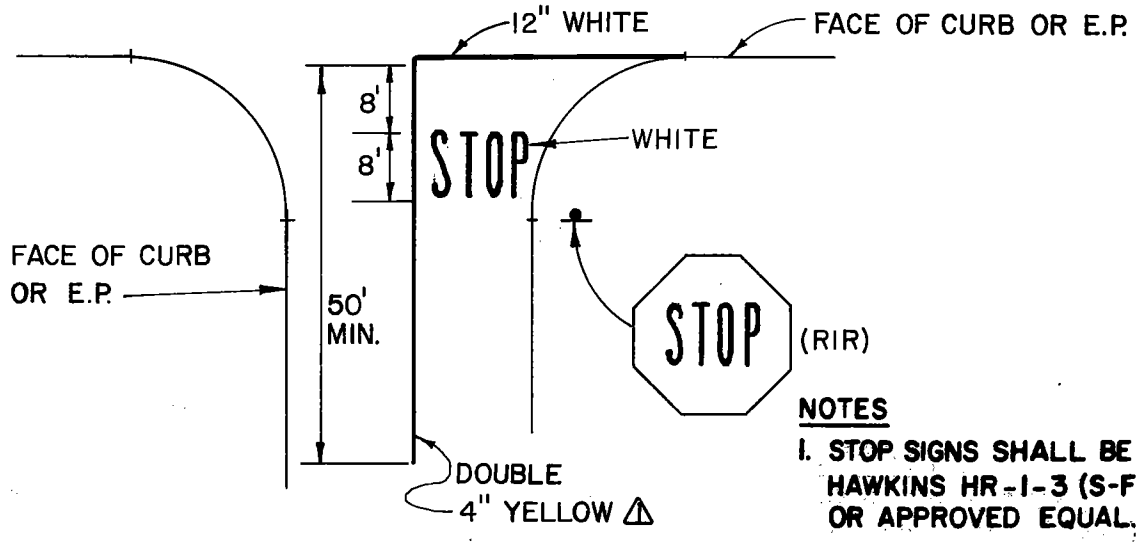
No.	Rev.	By

Scale NOT TO SCALE	Drawn By B.C. Checked By MZ	
SIGHT CLEARANCE AT INTERSECTION	Approved By _____ CITY ENGINEER RCE 31870	6/09/87 DATE
		116 Sht. 1 of 1

DANVILLE

STANDARD PLAN





NOTES

1. STOP SIGNS SHALL BE HAWKINS & HAWKINS HR-1-3 (S-F) 30" x 30" OR APPROVED EQUAL.
2. STREET-SIDE EDGE OF SIGN SHALL BE NOT LESS THAN 24" FROM FACE OF CURB.
3. ⚠ ALL PAVEMENT MARKINGS TO BE REFLECTIVE PAINT OR THERMO-PLASTIC AS SPECIFIED.
4. FOR POLE TYPE & INSTALLATION DETAIL, SEE CC 3051.

No.	Rev.	By
1	1-90	KMD

Scale NOT TO SCALE

Drawn By B.C. Checked By MZ

STOP SIGN LOCATION

Approved By _____
CITY ENGINEER RCE 31870

6/09/87
DATE

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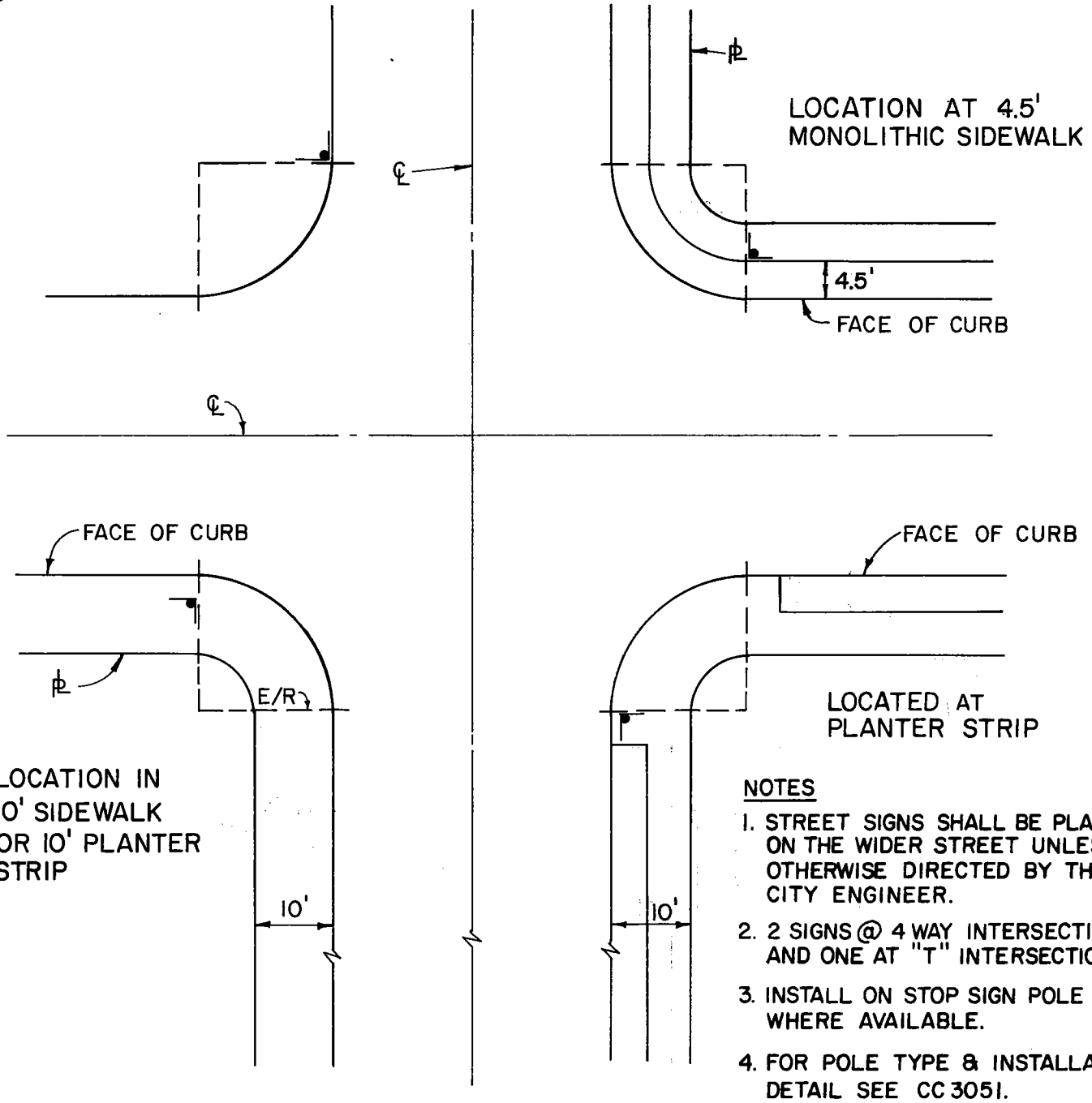
Sht. 1 of 1

DANVILLE

STANDARD PLAN



NOTES

1. STREET SIGNS SHALL BE PLACED ON THE WIDER STREET UNLESS * OTHERWISE DIRECTED BY THE CITY ENGINEER.
2. 2 SIGNS @ 4 WAY INTERSECTION, AND ONE AT "T" INTERSECTION.
3. INSTALL ON STOP SIGN POLE WHERE AVAILABLE.
4. FOR POLE TYPE & INSTALLATION DETAIL SEE CC 3051.

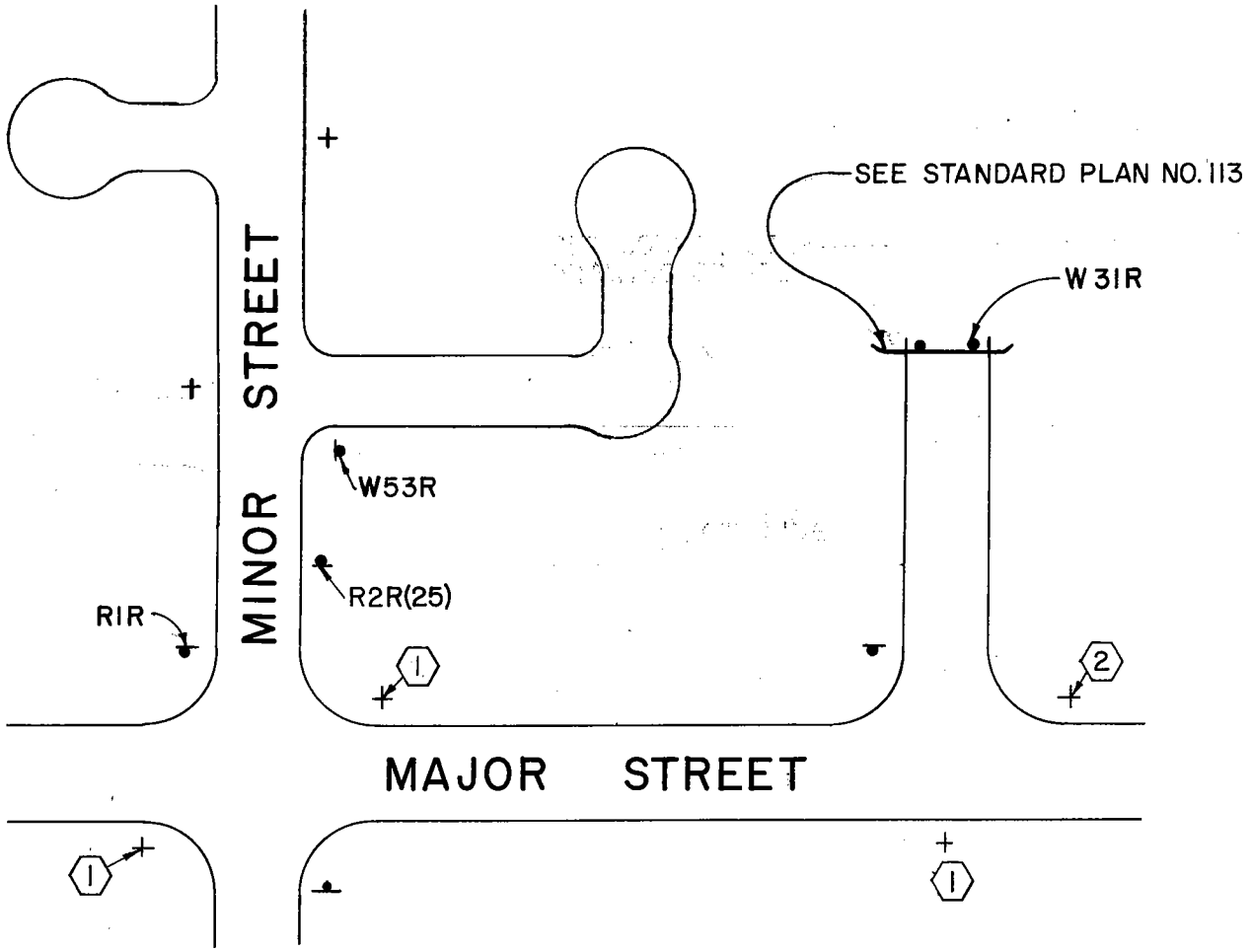
* AT THE RETURN CLOSEST TO APPROACHING TRAFFIC.

No.	Rev.	By
1	CHG. (END) FORMAT	1/89

Scale: NOT TO SCALE	Drawn By B.C. Checked By MZ	
STREET NAME SIGN LOCATION	Approved By CITY ENGINEER RCE 31870 — DATE 6/09/87	118 Sht. 1 of 1

DANVILLE

STANDARD PLAN



NOTES

1. FOR FOUR WAY INTERSECTIONS- TWO STREET NAME SIGNS.
2. FOR "T" INTERSECTIONS- ONE STREET NAME SIGN.
3. SIGNS SHOULD BE INSTALLED AT ECR'S, BCR'S, & LOT LINES WHERE POSSIBLE.

LEGEND

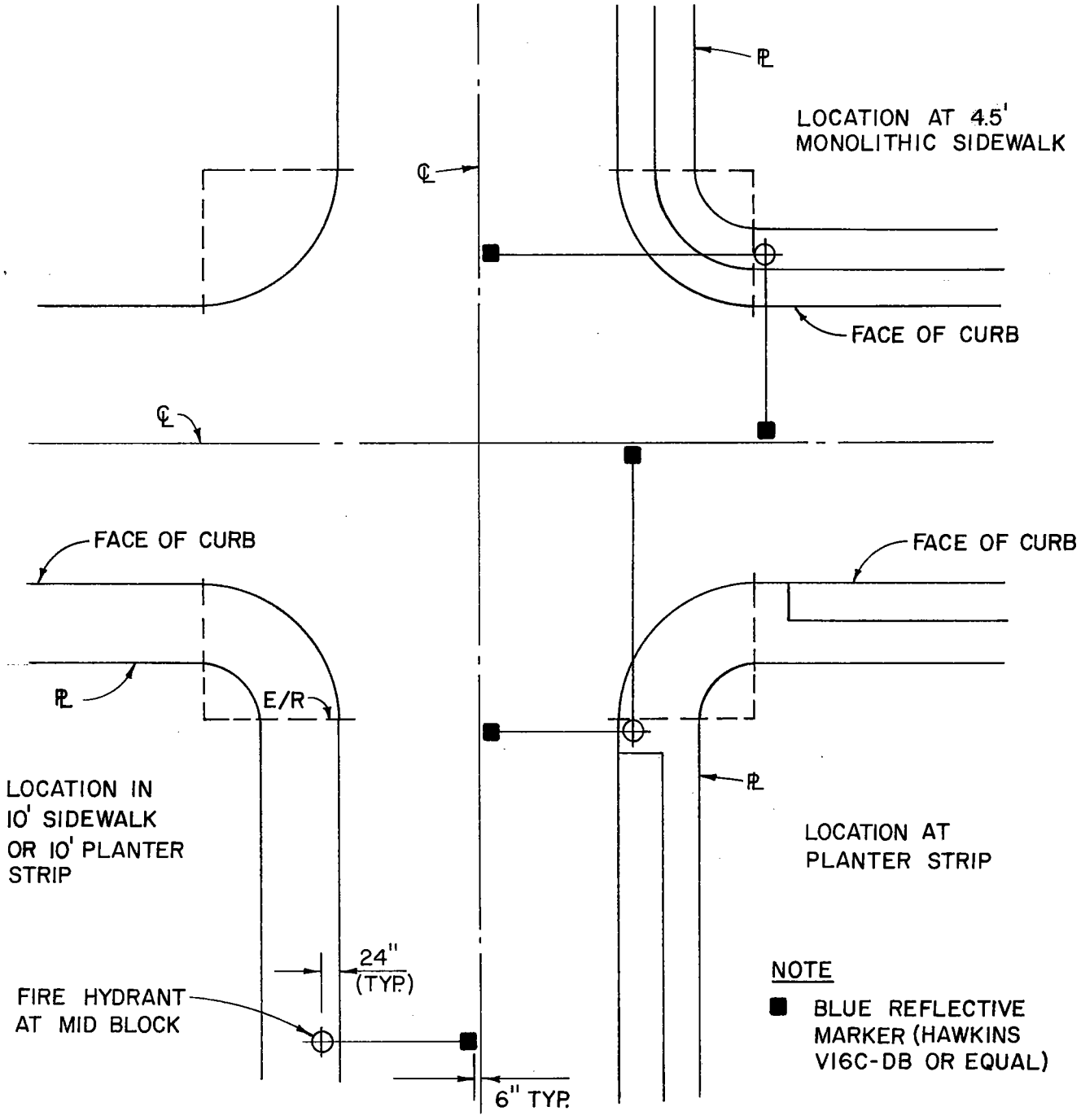
- TRAFFIC SIGN
- + STREET NAME SIGN
- (1) PREFERRED LOCATION
- (2) ALTERNATE LOCATION

No.	Rev.	By
1	CHG TO S.P. #113	1/89

Scale NOT TO SCALE	Drawn By B.C. Checked By MZ	
TYPICAL SUBDIVISION SIGNING PLAN	Approved By _____ CITY ENGINEER RCE 31870 — 6/09/87 DATE	119 Sht. 1 of 1

DANVILLE

STANDARD PLAN



NOTE

■ BLUE REFLECTIVE MARKER (HAWKINS V16C-DB OR EQUAL)

No.	Rev.	By
1	CHG FROM EW TO BT	1/89

Scale NOT TO SCALE

Drawn By B.C. Checked By MZ

FIRE HYDRANT LOCATION

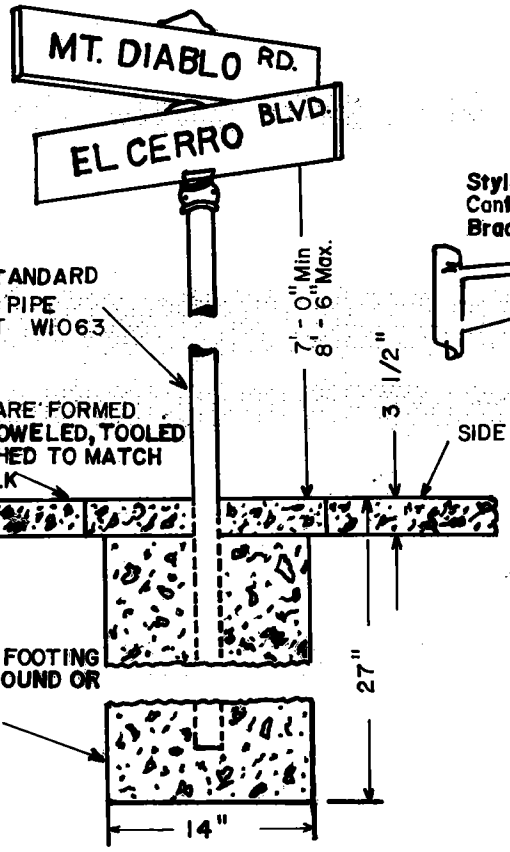
Approved By _____
CITY ENGINEER RCE 31870

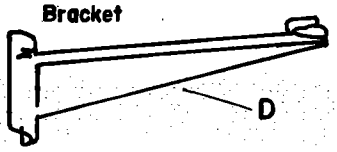
6/09/87
DATE

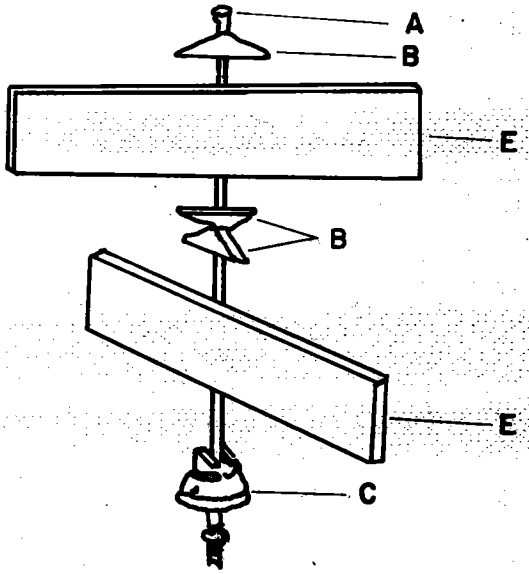
120
Sht. 1 of 1

DANVILLE

STANDARD PLAN







A. 5/8" X 15" CADMIUM PLATED CARRIAGE BOLT.

B. CAST ALUMINUM TOP & CROSS SADDLE (ZUMAR PART SN9-1) OR SIMILAR.

C. CAST ALUMINUM POST CAP, FOR 2" PIPE, WITH THREE 3/8" ALLEN HEAD SET SCREWS. (ZUMAR PART SN9-2) OR SIMILAR.

D. CANTILEVER ARM BRACKET, FOR ELECTOLIER, ATTACHED WITH TWO 3/4" STAINLESS STEEL BANDS (ZUMAR PART ZI-KC-500) OR SIMILAR.

E. SIGN BLANKS (ANODIZED ALUMINUM EXTRUSION OF 6063-T4 ALLOY), 1" w x 6" or 9" h VARIOUS LENGTHS.

OLDTOWN AREA: 6" TALL SIGNS. BLACK LETTERS, ALL CAPS. ON WHITE BACKGROUND.

RESIDENTAL: (OTHER THAN OLDTOWN): 6" SIGN. BLAIR-HOUSE GREEN LETTERS ON WHITE BACKGROUND. ALL CAPS, LENGTH VARIES.

ARTERIALS: 9" TALL SIGNS. BLAIR-HOUSE GREEN LETTERS ON WHITE BACKGROUND. ALL CAPS, LENGTH VARIES.

THE FORMULATION OF BLAIR-HOUSE GREEN:

a. THREE (3) QUARTS Kem-Lustral Dark Green, #F65G1
b. ONE (1) QUART Kem-Lustral Gloss Black, # F65B1
c. EIGHT (8) OUNCES Black Tint.

No.	Rev.	By

Scale NOT TO SCALE | Drawn By K.D | Checked By

STREET NAME SIGN DETIAL

Approved By John Misenko RCE 27127 Asst Engr 5/9/89
FOR CITY ENGINEER RCE 31870 DATE

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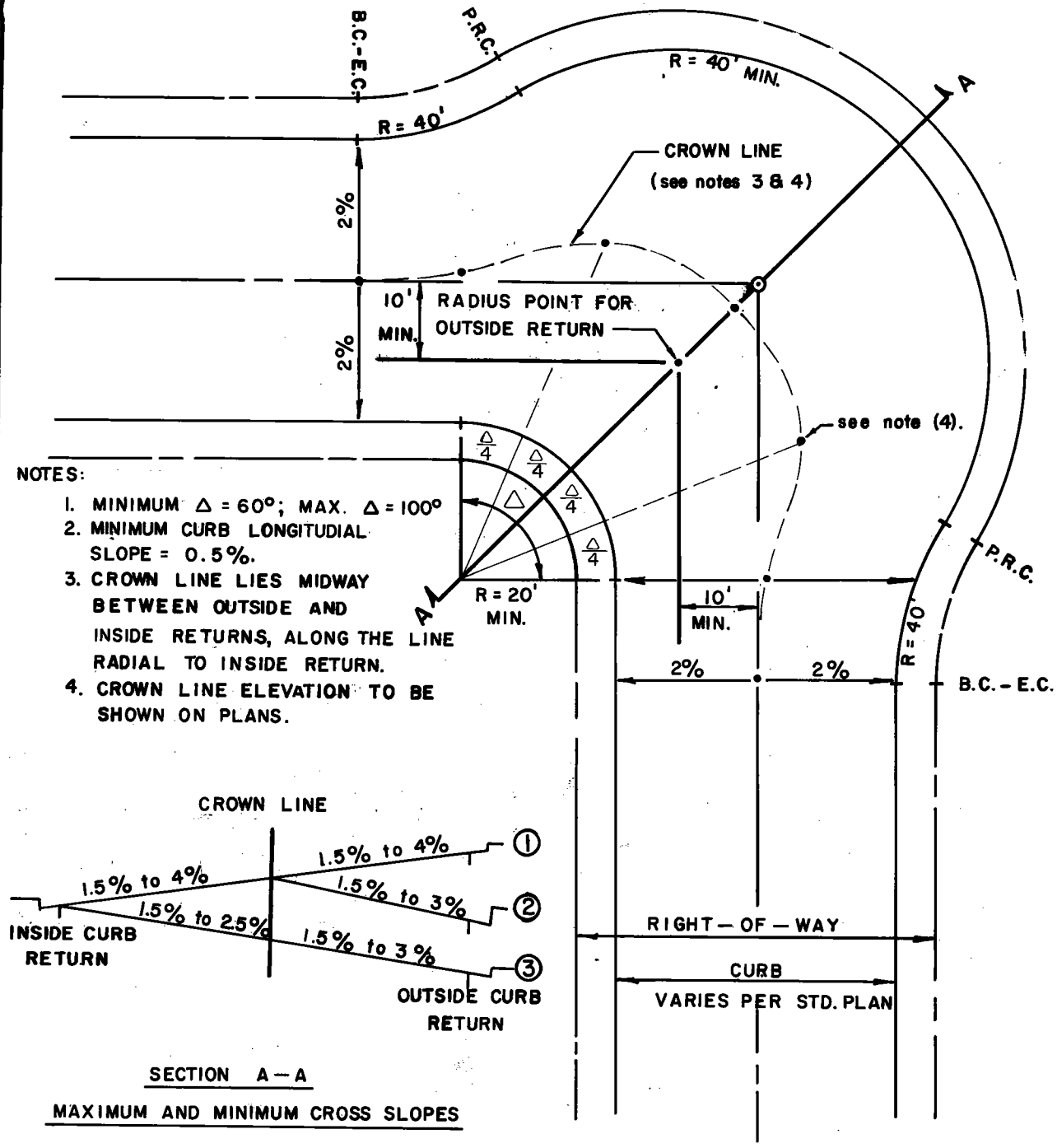
1 of 1

DANVILLE

STANDARD PLAN



NOTES:

1. MINIMUM Δ = 60°; MAX. Δ = 100°
2. MINIMUM CURB LONGITUDIAL SLOPE = 0.5%.
3. CROWN LINE LIES MIDWAY BETWEEN OUTSIDE AND INSIDE RETURNS, ALONG THE LINE RADIAL TO INSIDE RETURN.
4. CROWN LINE ELEVATION TO BE SHOWN ON PLANS.

SECTION A — A

MAXIMUM AND MINIMUM CROSS SLOPES

TYPICAL KNUCKLE DETAIL

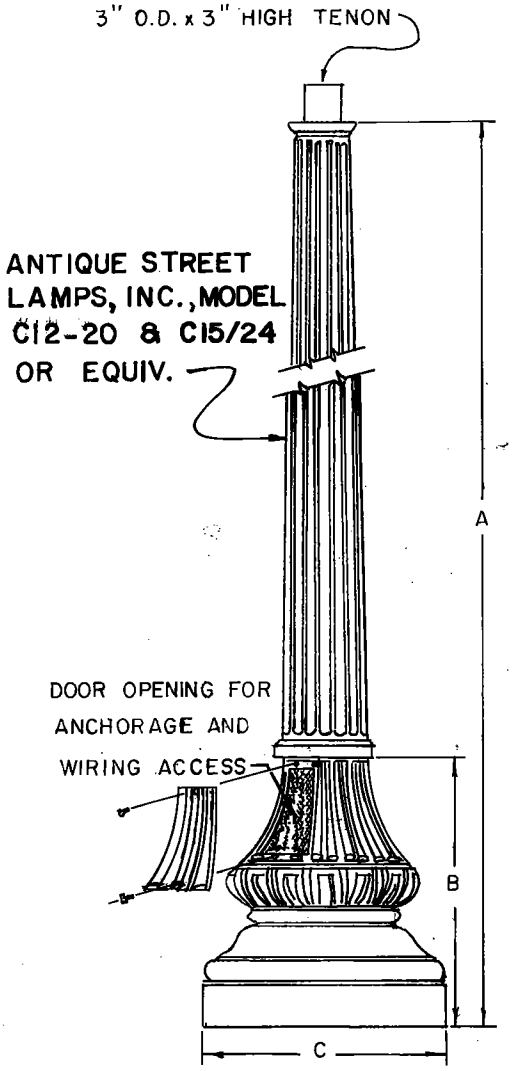
No.	Rev.	By

Scale NOT TO SCALE	Drawn By RS Checked By	
	Approved By	122
	CITY ENGINEER RCE 31870 4-5-91 DATE	

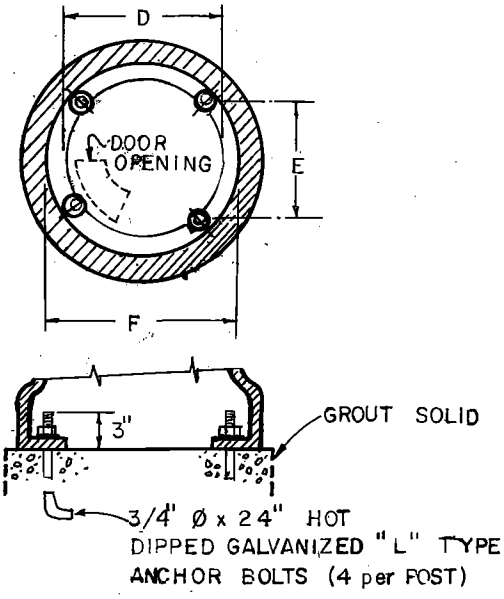
EXP 12-92

DANVILLE

STANDARD PLAN



NOTE: POLE PLACEMENT LOCATION PER OLD TOWN BEAUTIFICATION PLAN. PAINT PER TOWN STD. DRWG. NO. 125.



BASE PLATE ANCHORAGE DETAIL

POLE TYPE	POLE DATA A HEIGHT	B	C BASE WIDTH	WEIGHT	BASE PLATE DATA D DIA. OF OPENING	E	F BOLT CIRCLE	LUMINAIRE POLE ASSEMBLY
C12-20	12'-0"	22"	20"	321 LBS	12" DIA.	10.63"	15" DIA.	SINGLE
C15/24	14'-6"	22"	24"	475 LBS	14" DIA.	12"	17" DIA.	DOUBLE

NOTE: WEIGHT FIGURE FOR MODEL C15/24 INCLUDES DOUBLE LUMINAIRE ASSEMBLY

No.	Rev.	By
1	4/94	MB

Scale NOT TO SCALE	Drawn By R.S. Checked By MB	
ANTIQUE POLES	Approved By CITY ENGINEER RCE 31870 4-19-94 DATE	123

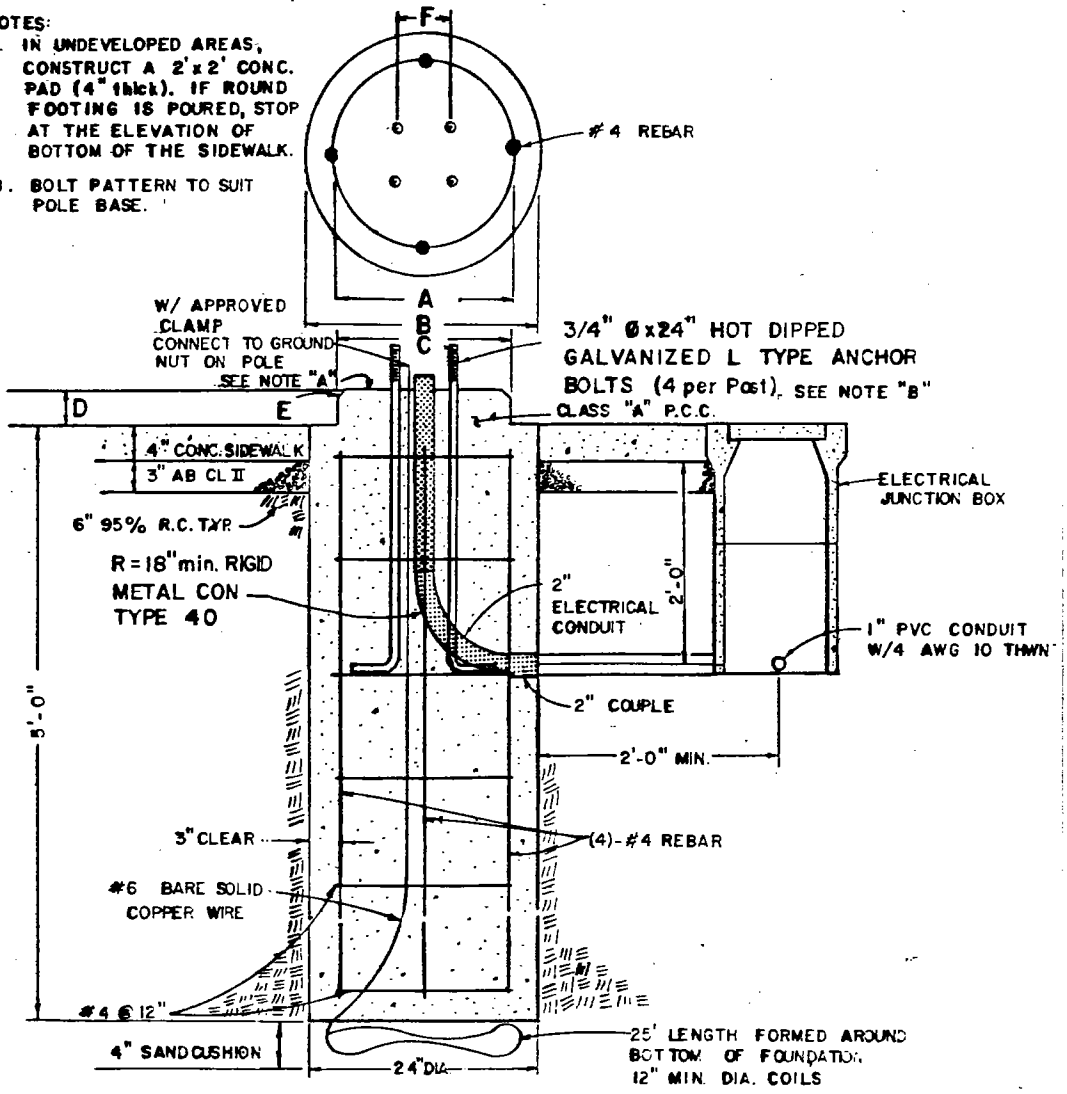
DANVILLE

STANDARD PLAN

DATA CHART

	C12-20	C15/24
A)	16" DIA.	16" DIA.
B)	24" DIA.	24" DIA.
C)	12" DIA.	14" DIA.
D)	3.5"	3.5"
E)	3/4" CHAMFER	-
F)	15" DIA. BOLT CIR.	17" DIA. BOLT CIR.

NOTES:
A. IN UNDEVELOPED AREAS, CONSTRUCT A 2'x2' CONC. PAD (4" thick). IF ROUND FOOTING IS POURED, STOP AT THE ELEVATION OF BOTTOM OF THE SIDEWALK.
B. BOLT PATTERN TO SUIT POLE BASE.



ELECTROLIER BASE FOR STREET LIGHTS

No.	Rev.	By
1	11/94	H.P.

Scale NOT TO SCALE

Drawn By R.S. Checked By MS

LIGHT POLE: ANCHORAGE

Approved By Steven C. Lake
CITY ENGINEER RCE 31870

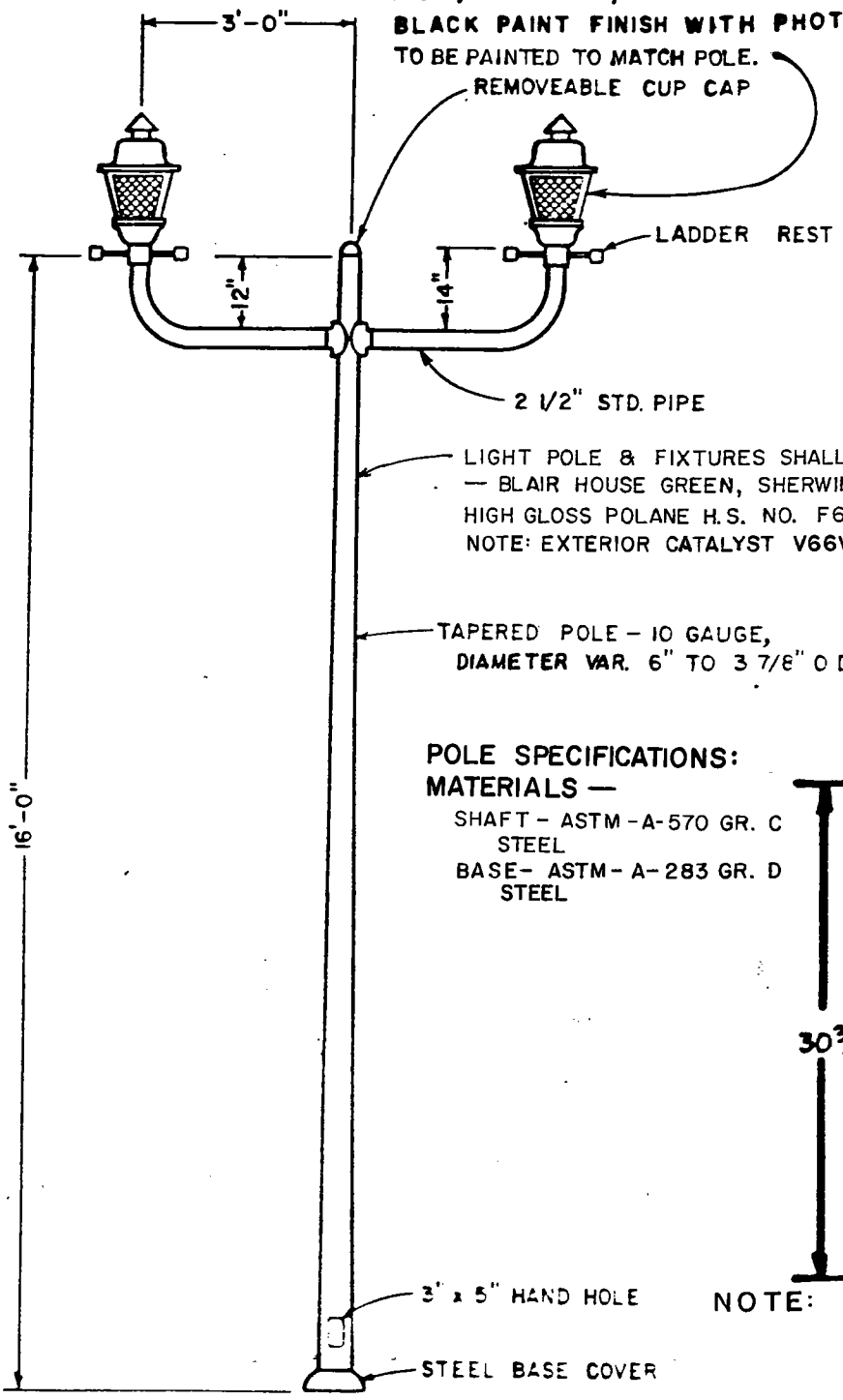
4-19-91
DATE

124

DANVILLE

STANDARD PLAN

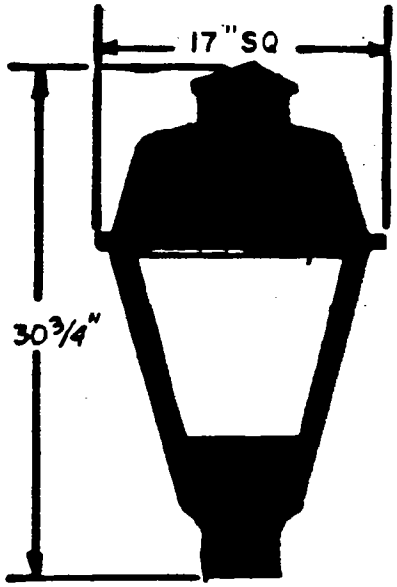
FIXTURE - MCGRAW EDISON CO. # UTR 3292-120RV-BK, 120V, 100W HPS, PRISMATIC CLEAR ACRYLIC LENS, BLACK PAINT FINISH WITH PHOTO CELL, (OR EQUIVALENT). TO BE PAINTED TO MATCH POLE.



LIGHT POLE & FIXTURES SHALL BE PAINTED WITH 2 COATS, "WILLIAMSBURG" — BLAIR HOUSE GREEN, SHERWIN WILLIAMS (MARTIN - SENOUR), HIGH GLOSS POLANE H.S. NO. F63HXG1240-8127
NOTE: EXTERIOR CATALYST V66V29 MUST BE USED.

TAPERED POLE - 10 GAUGE, DIAMETER VAR. 6" TO 3 7/8" O.D.

POLE SPECIFICATIONS:
MATERIALS —
SHAFT - ASTM-A-570 GR. C STEEL
BASE - ASTM-A-283 GR. D STEEL



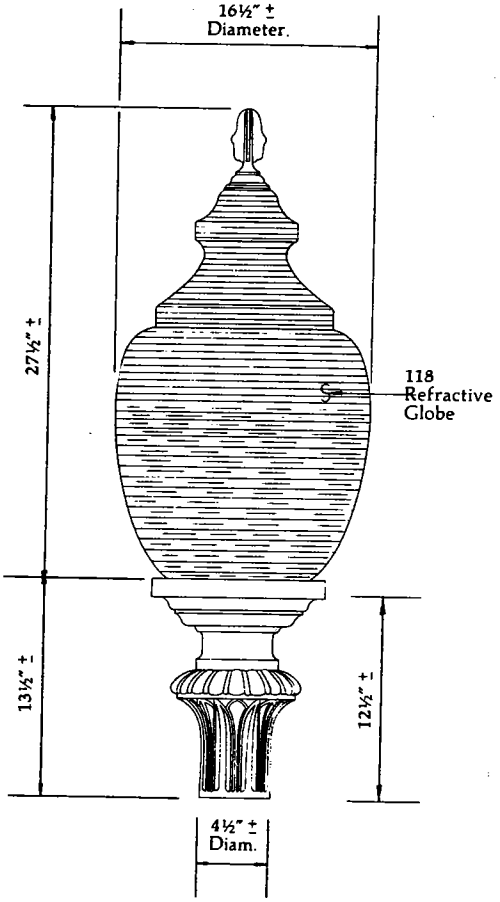
NOTE: POLE PLACEMENT LOCATION PER OLD TOWN BEAUTIFICATION PLAN

No.	Rev.	By

Scale NOT TO SCALE	Drawn By RS Checked By MS	
TRADITIONAIRE DOUBLE LUMINAIRE	Approved By Steven C. Lake CITY ENGINEER RCE 31870 — 4-19-91 DATE	**125**

DANVILLE

STANDARD PLAN



WASHINGTON
CASING

WASHINGTON- 118 REFRACTIVE GLOBE W/ REFLECTOR & HOUSESIDE SHIELD AND FINIAL, TYPICAL FOR C12-20 & C15/24 TYPE POLES.

MANUFACTURER: SPRING CITY ELECTRICAL MFG. CO.

LUMINAIRE SPECS.

VOLTAGE: 120

DISTRIBUTION: ASYMMETRIC — TYPE III

WATTAGE: C12-20 = HPS/70
C15/24 = HPS/100

LAMP: HIGH PRESSURE SODIUM

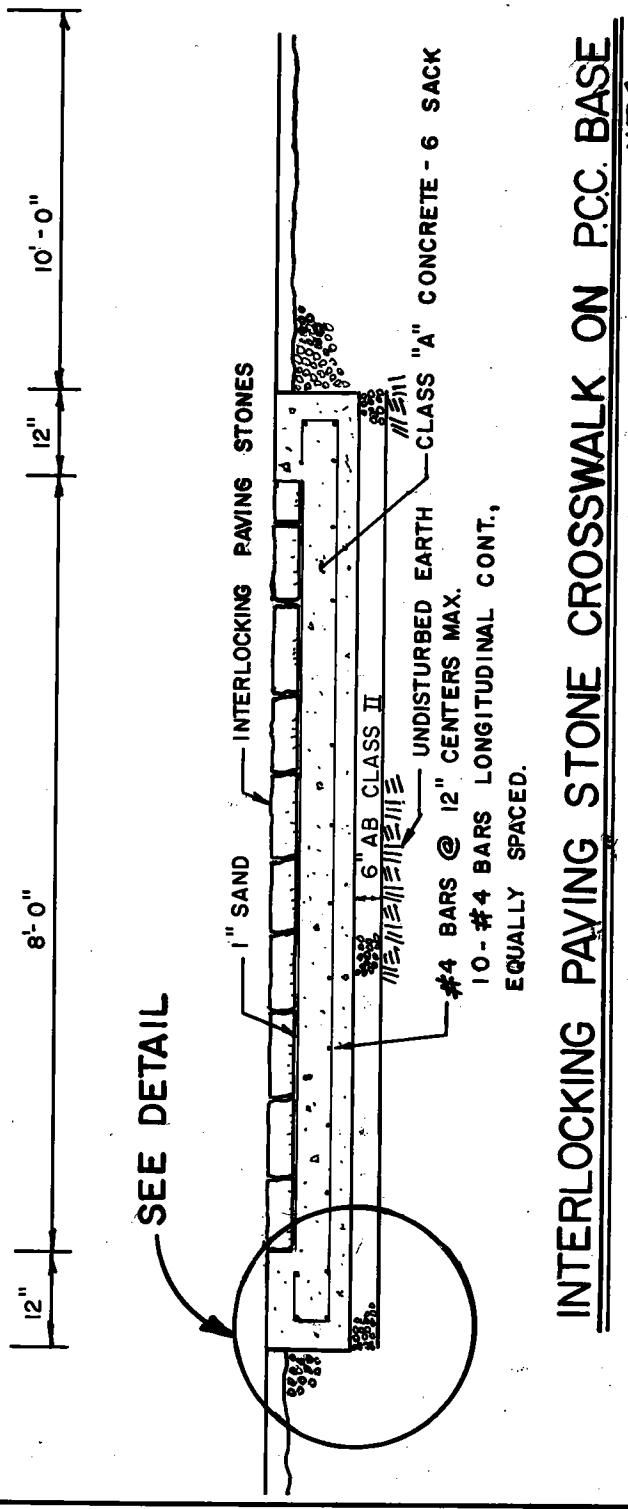
WEIGHT: 60 LBS.

No.	Rev.	By
1	11/94	H.P.

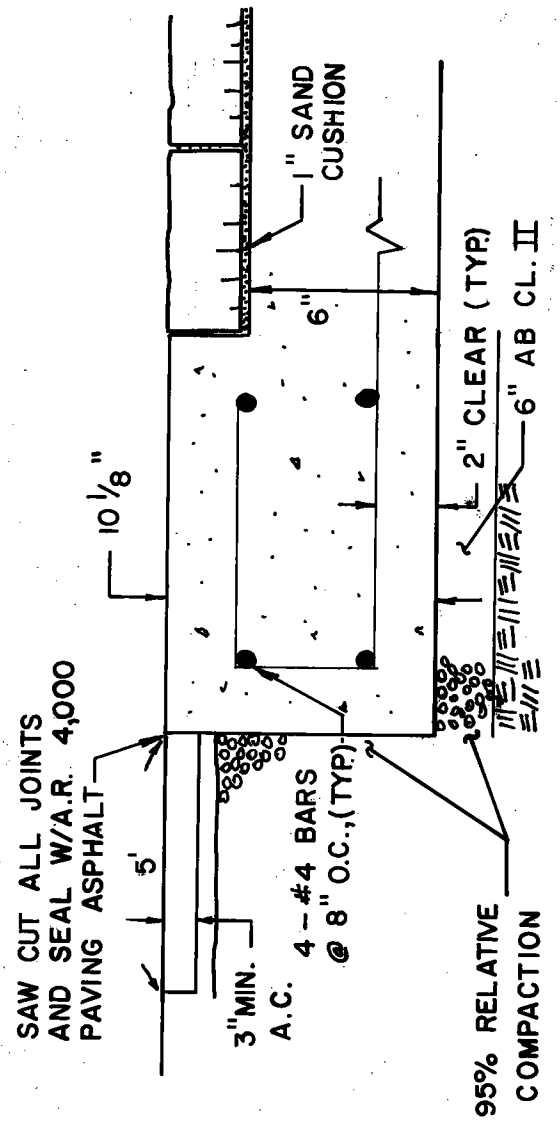
Scale NOT TO SCALE	Drawn By RS Checked By WAS	
WASHINGTON LUMINAIRE	Approved By Steven C. Lake 4-19-91 CITY ENGINEER RCE 31870 DATE	**126**

DANVILLE

STANDARD PLAN



INTERLOCKING PAVING STONE CROSSWALK ON P.C.C. BASE
N.T.S.



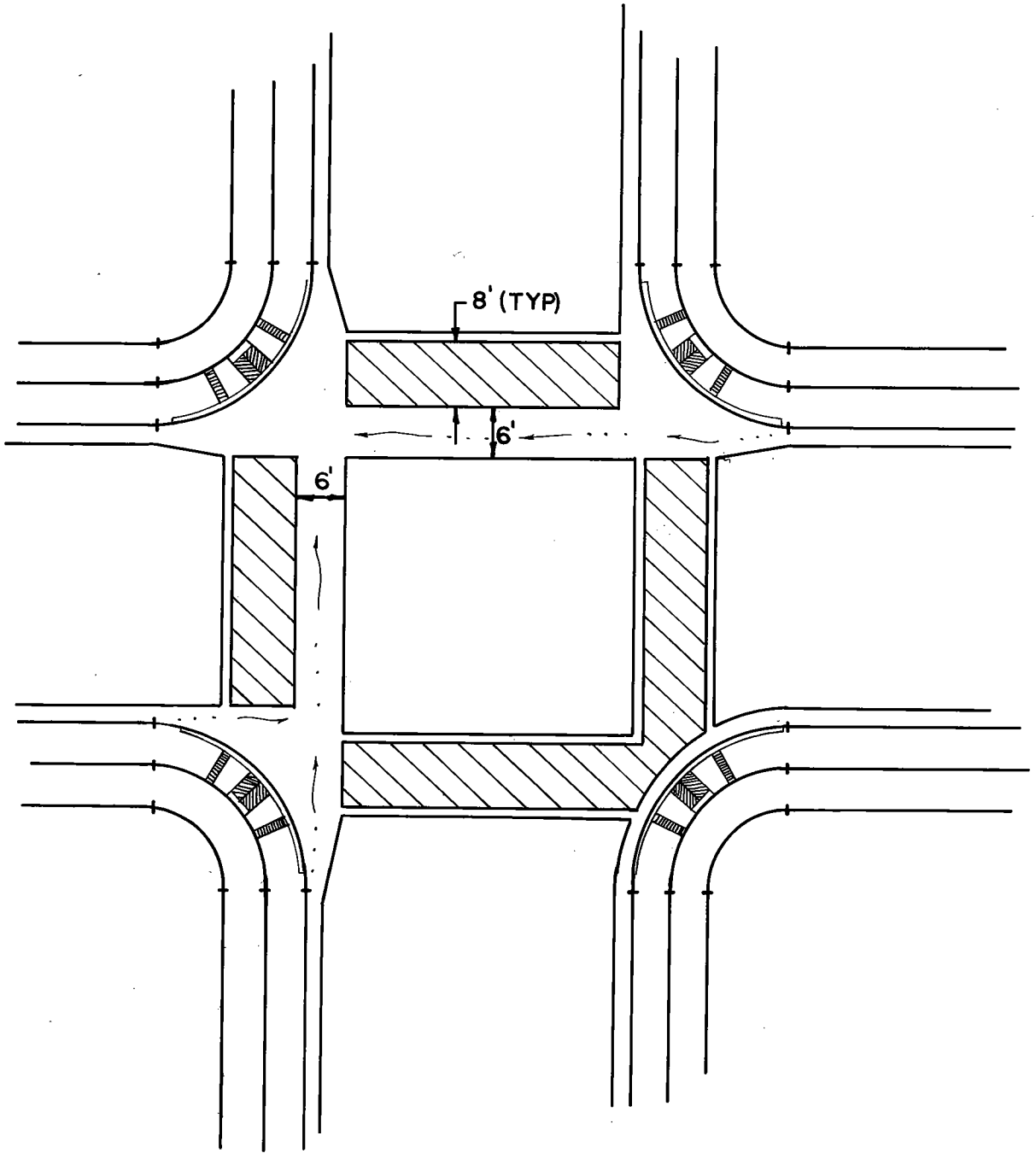
DETAIL
N.T.S.

No.	Rev.	By

Scale NOT TO SCALE	Drawn By R.S. Checked By MB	
CROSSWALK PAVERS	Approved By Steven Blake CITY ENGINEER RCE 31870 4-17-96 DATE	127

DANVILLE

STANDARD PLAN



PAVER LAYOUT AT INTERSECTION

NOTE: TYP. LAYOUT FOR CROSSDRAINS

0' 20'

No.	Rev.	By

Scale: 1" = 20'

Drawn By RS Checked By WS

Approved By

CITY ENGINEER RCE 31870 DATE 4-17-91

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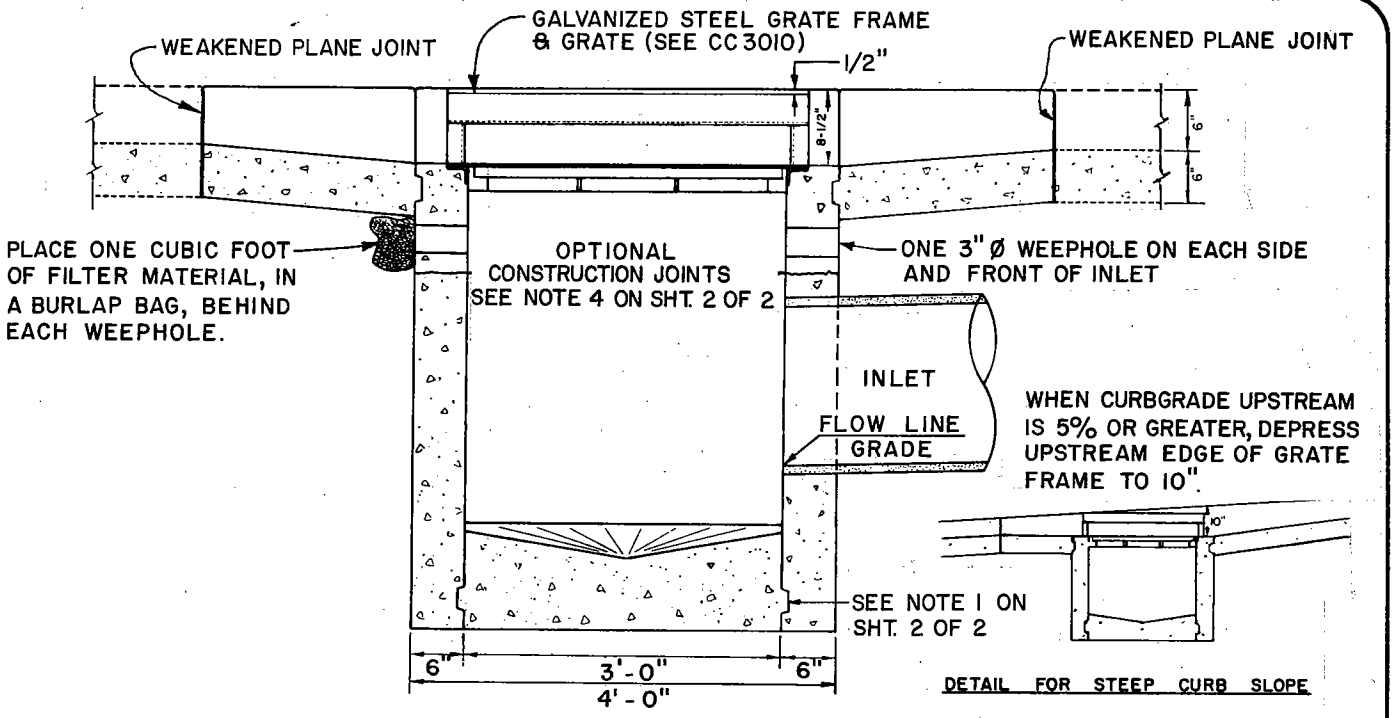
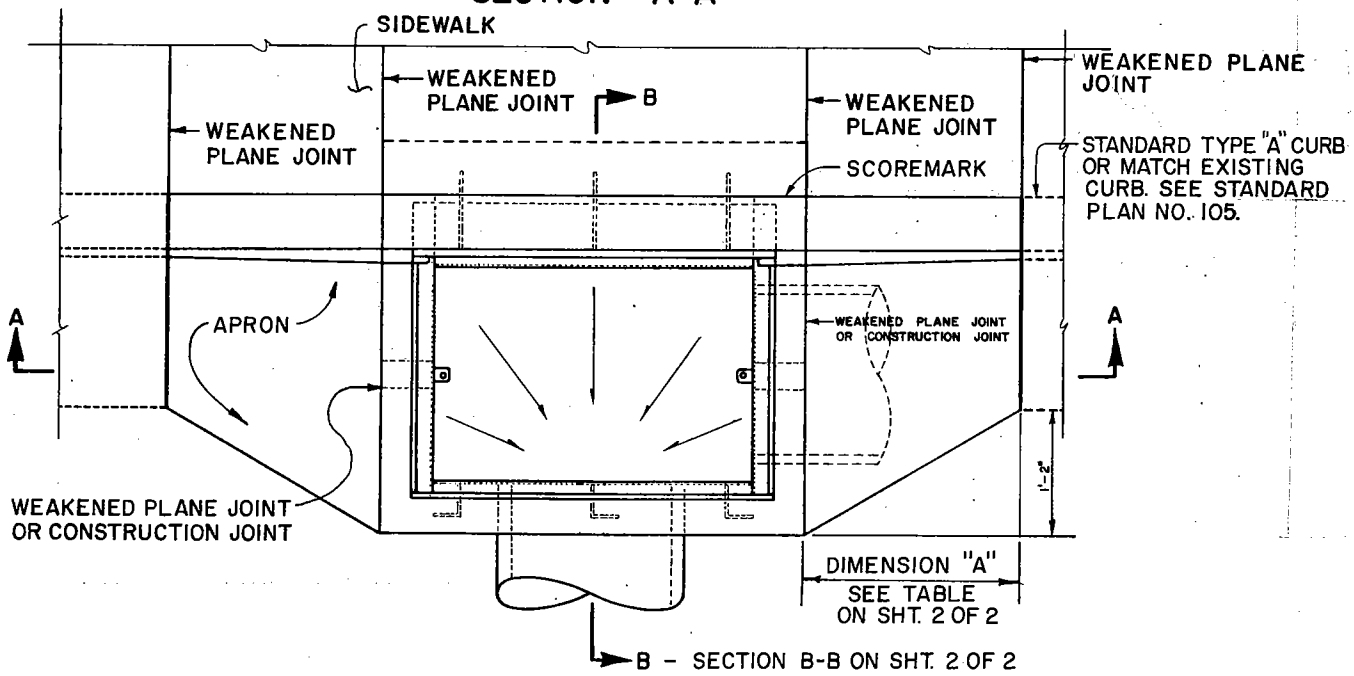
DANVILLE

STANDARD PLAN



SECTION A-A



PLAN
GRATE NOT SHOWN

No.	Rev.	By

Scale NOT TO SCALE

Drawn By B.C. Checked By MZ

TYPE "A" INLET

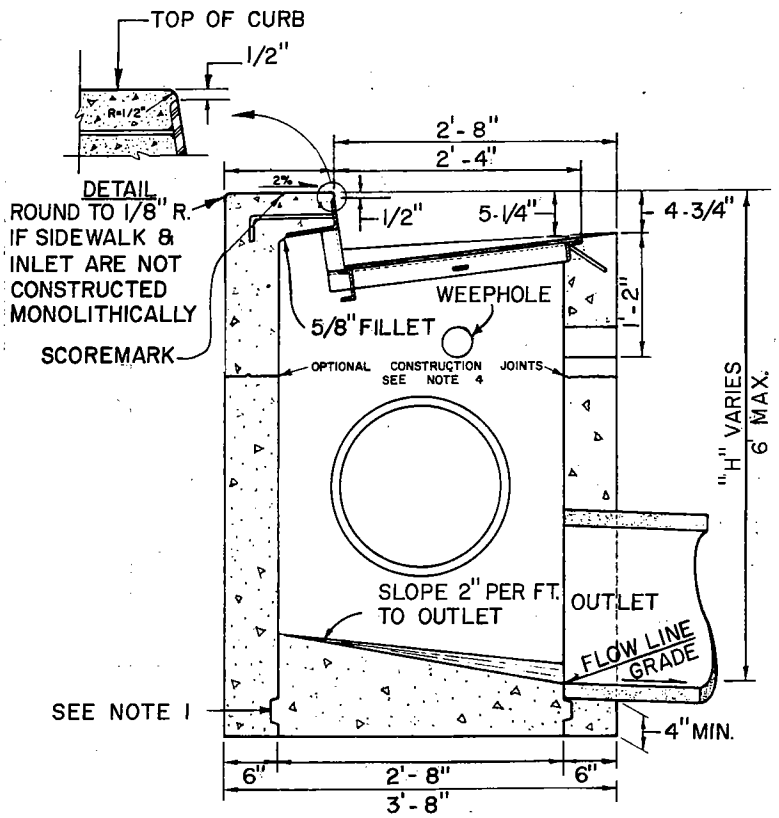
Approved By _____
CITY ENGINEER RCE 31870

6/09/87
DATE

201a
Sht. 1 of 2

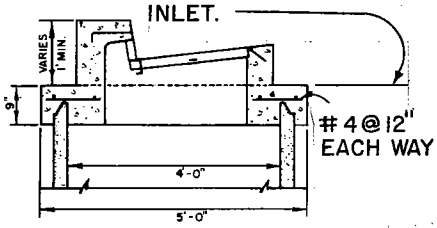
DANVILLE

STANDARD PLAN



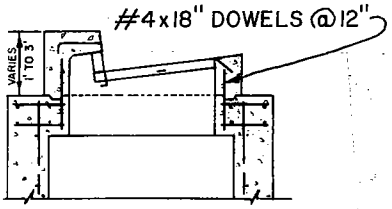
SECTION B-B
GRATE NOT SHOWN

ALL DIMENSIONS ABOVE THIS LINE ARE IDENTICAL TO A TYPE 'A' STANDARD INLET.



SECTION OF
TYPE "A" OPENING
ON PRECAST MANHOLE BARREL

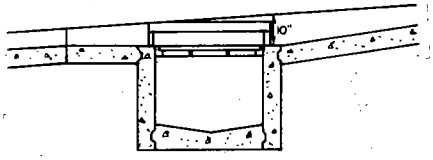
REFER TO STANDARD PLAN NO. 204



SECTION OF
TYPE "A" OPENING
ON MANHOLE BASE

REFER TO STANDARD PLAN NO. 205

WHEN CURBGRADE UPSTREAM IS 5% OR GREATER, DEPRESS UPSTREAM EDGE OF GRATE FRAME TO 10"



DETAIL FOR STEEP CURB SLOPE

NOTES

1. CONSTRUCTION JOINTS ARE OPTIONAL WHERE SHOWN. OTHER LOCATIONS ARE SUBJECT TO THE APPROVAL OF THE CITY ENGINEER. KEY DIMENSIONS - 3/4" x 2 1/2".
2. WHEN DIMENSION "H" EXCEEDS 6', USE MANHOLE WITH A TYPE "A" INLET OPENING ON TOP.
3. INLET AND OUTLET PIPES SHALL NOT INTERCEPT A BOX THROUGH A CORNER. IF THE PIPE IS TOO LARGE OR IF THE SKEW ANGLE IS TOO GREAT TO PERMIT THE OPENING TO BE MADE IN A SINGLE WALL, USE A MANHOLE BASE WITH A TYPE "A" INLET OPENING ON TOP.
4. CONSTRUCTION JOINTS SHOWN ARE PERMITTED WHEN TOP PORTION OF INLET IS TO BE CONSTRUCTED MONOLITHICALLY WITH CURB AND SIDEWALK, IN WHICH CASE THE FOLLOWING SHALL APPLY:
   a. CONCRETE ABOVE CONSTRUCTION JOINT SHALL BE CLASS B (5 SACKS PER CU. YD.)
   b. CONCRETE BELOW CONSTRUCTION JOINT SHALL BE CLASS A (6 SACKS PER CU. YD.)
   c. CONSTRUCTION JOINT SHALL BE LOCATED AT PAVEMENT SUBGRADE.

   WHEN INLET IS CONSTRUCTED AS A SINGLE UNIT, ALL CONCRETE SHALL BE CLASS A.

DIMENSION "A"		
UPSTREAM CURBGRADE	"A" UPSTREAM	"A" DOWNSTREAM
2% AND LESS	2'	2'
3%	3'	2'
4%	4'	2'
5%	5'	2'
6%	6'	2'
7%	7'	1'
8%	8'	1'
9%	9'	1'
10% AND GREATER	10'	2'

No.	Rev.	By
1	corrected width #	1/89

Scale NOT TO SCALE

Drawn By B.C. Checked By MZ

TYPE "A" INLET

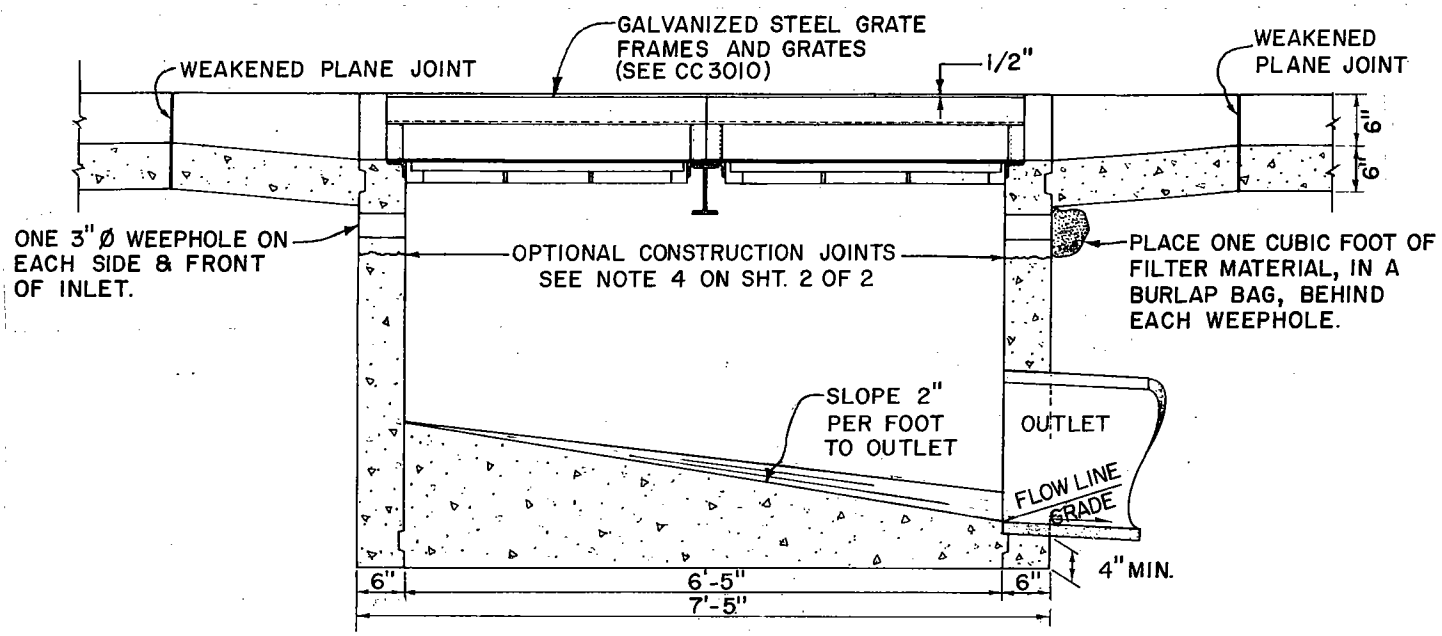
Approved By _____
CITY ENGINEER RCE 31870

6/09/87
DATE

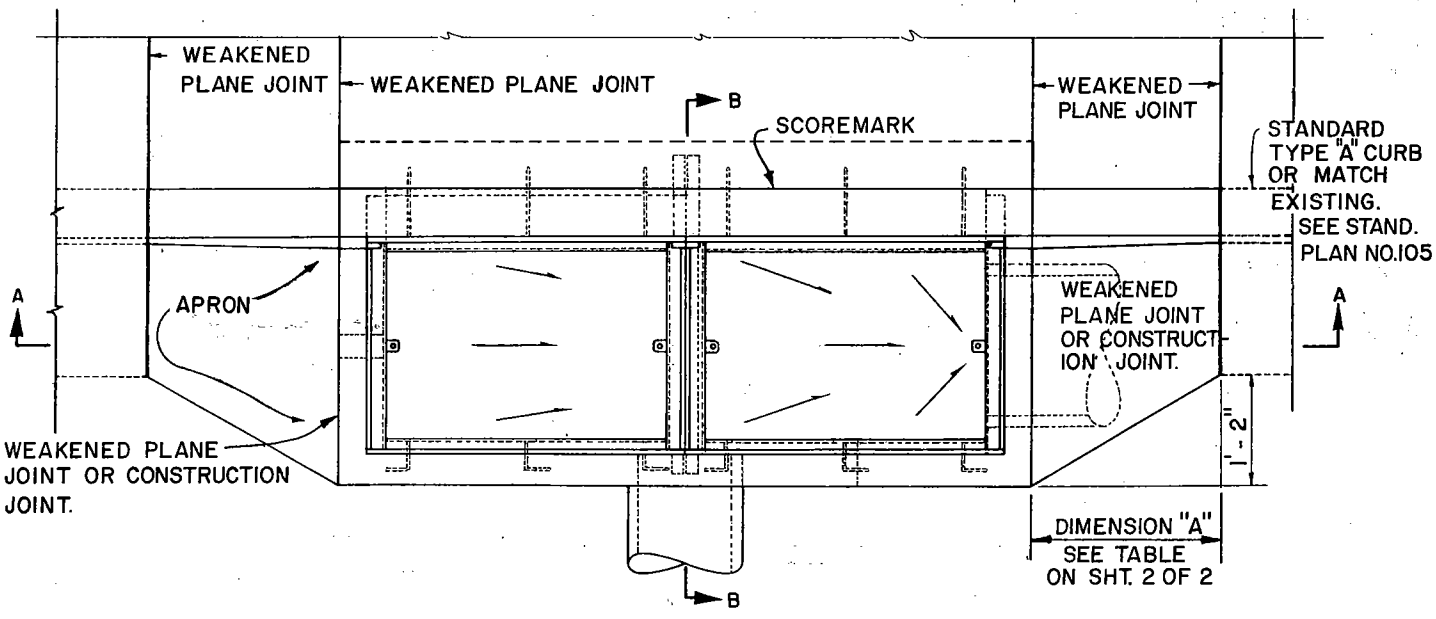
201b
Sht. 2 of 2

DANVILLE

STANDARD PLAN



SECTION A-A



PLAN

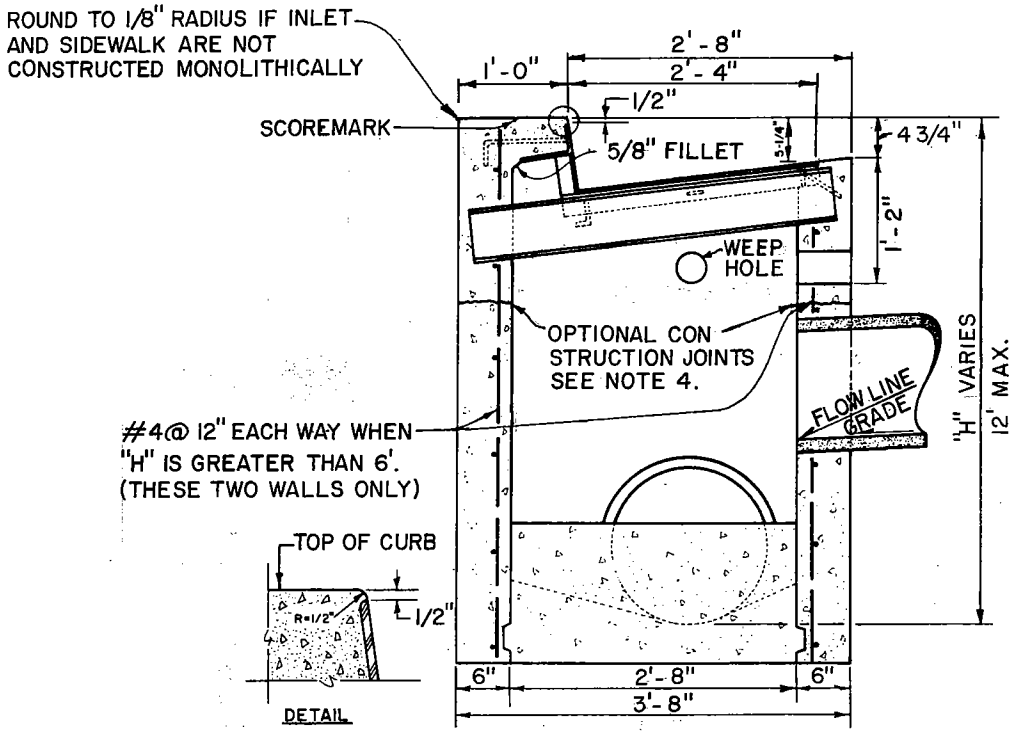
GRATE NOT SHOWN

No.	Rev.	By
1	CHG PLAN #'S TO 105	* 1/89

Scale NOT TO SCALE	Drawn By B.C. Checked By MZ	
TYPE "B" INLET	Approved By _____ CITY ENGINEER RCE 31870 — 6/09/87 DATE	202a Sht. 1 of 2

DANVILLE

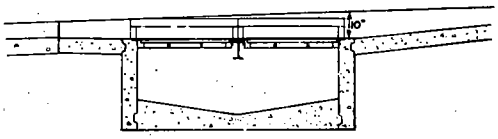
STANDARD PLAN



SECTION B-B

GRATE NOT SHOWN

WHEN CURBGRADE UPSTREAM IS 5% OR GREATER, DEPRESS UPSTREAM EDGE OF GRATE FRAMES TO 10".



DETAIL FOR STEEP CURB SLOPE

NOTES

1. CONSTRUCTION JOINTS ARE OPTIONAL WHERE SHOWN. OTHER LOCATIONS ARE SUBJECT TO THE APPROVAL OF THE CITY ENGINEER. KEY DIMENSIONS - 3/4" x 2 1/2".
2. CLEARANCE SHALL BE 1-1/2" FOR ALL REINFORCING STEEL.
3. THE TWO GRATE FRAMES SHALL BE SECURELY CLAMPED TO THE I BEAM DURING THE PLACEMENT OF CONCRETE.
4. CONSTRUCTION JOINTS SHOWN ARE PERMITTED WHEN TOP PORTION OF INLET IS TO BE CONSTRUCTED MONOLITHICALLY WITH CURB AND SIDEWALK, IN WHICH CASE THE FOLLOWING SHALL APPLY:
   a. CONCRETE ABOVE CONSTRUCTION JOINT SHALL BE CLASS B (5 SACKS PER CU. YD.)
   b. CONCRETE BELOW CONSTRUCTION JOINT SHALL BE CLASS A (6 SACKS PER CU. YD.)
   c. CONSTRUCTION JOINT SHALL BE LOCATED AT PAVEMENT SUBGRADE.

   WHEN INLET IS CONSTRUCTED AS A SINGLE UNIT, ALL CONCRETE SHALL BE CLASS A.

DIMENSION "A"		
UPSTREAM CURBGRADE	"A" UPSTREAM	"A" DOWNSTREAM
2% AND LESS	2'	2'
3%	3'	2'
4%	4'	2'
5%	5'	2'
6%	6'	2'
7%	7'	1'
8%	8'	1'
9%	9'	1'
10% AND GREATER	10'	2'

No.	Rev.	By
1	ADD WIDTH & VARIES MAX. 12'	1/89

Scale NOT TO SCALE

Drawn By B.C. Checked By MZ

TYPE "B" INLET

Approved By

CITY ENGINEER RCE 31870

6/09/87

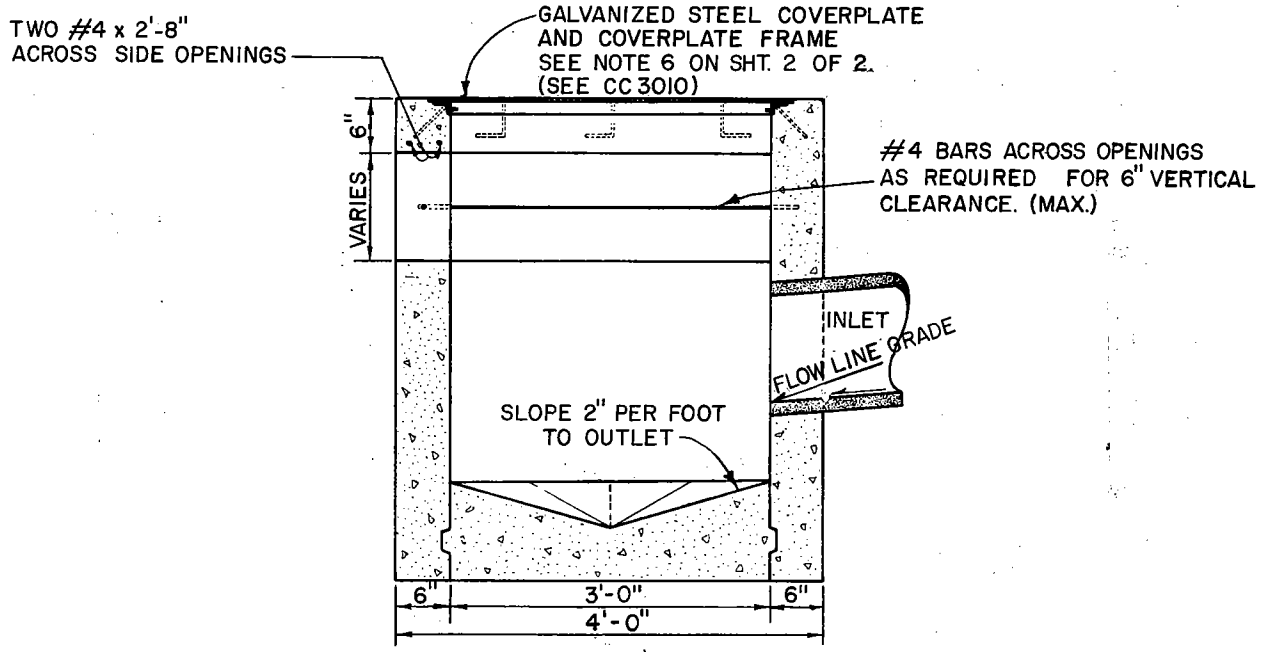
DATE

202b

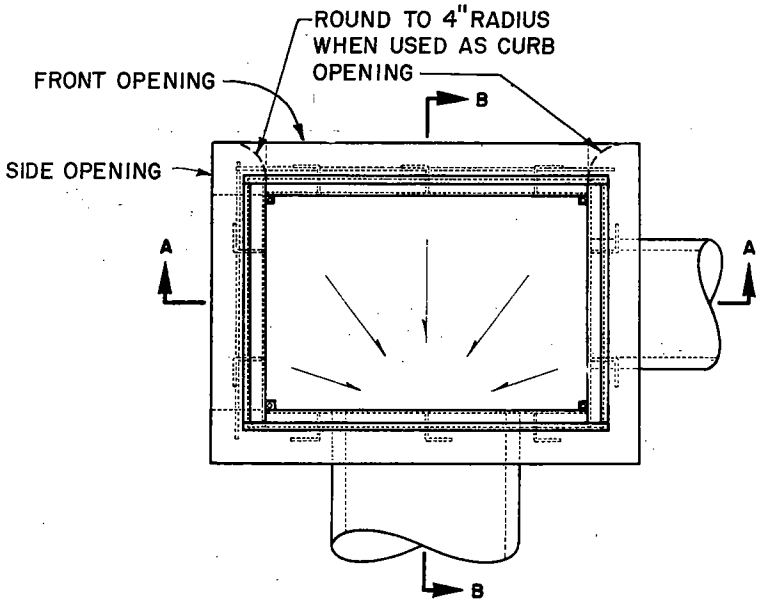
Sht. 2 of 2

DANVILLE

STANDARD PLAN



SECTION A-A



PLAN

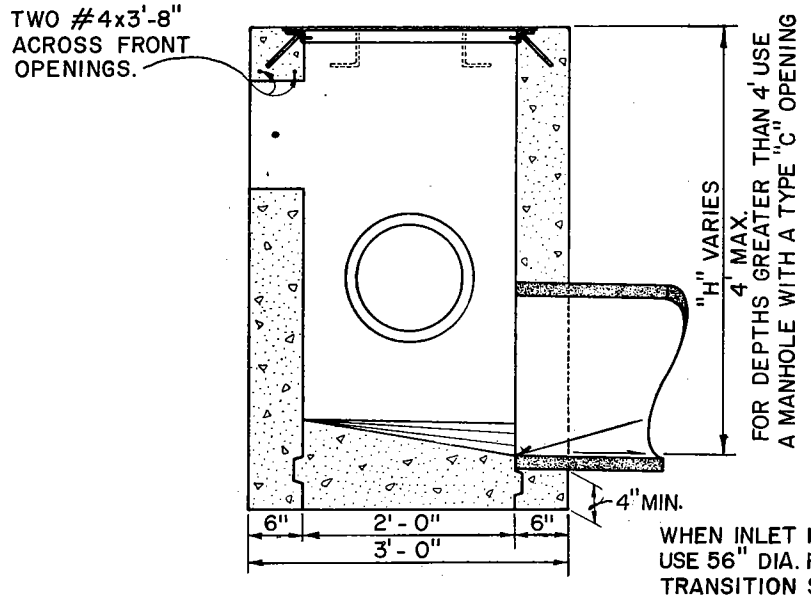
COVERPLATE NOT SHOWN

No.	Rev.	By

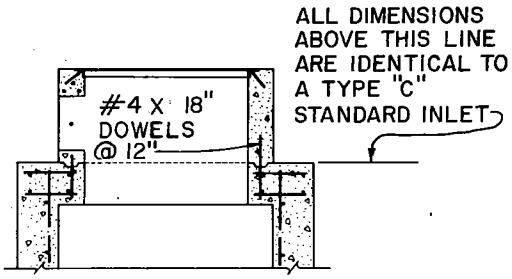
Scale NOT TO SCALE	Drawn By B.C. Checked By MZ	
TYPE "C" INLET	Approved By Steve Hale CITY ENGINEER RCE 31870 — 6/09/87 DATE	203a Sht. 1 of 2

DANVILLE

STANDARD PLAN

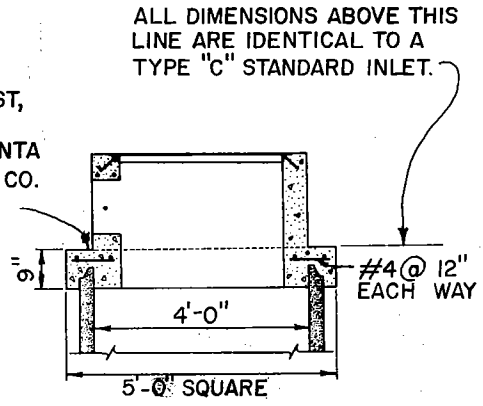


SECTION B-B

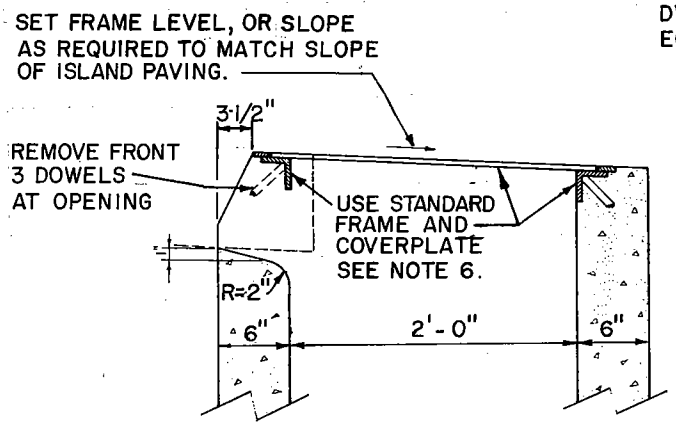


SECTION OF
TYPE "C" OPENING
ON MANHOLE BASE

WHEN INLET IS PRECAST, USE 56" DIA. PRECAST TRANSITION SLAB, SANTA ROSA CAST PRODUCTS CO. DWG. NO. B46CC3 OR EQUIVALENT



SECTION OF
TYPE "C" OPENING
ON PRECAST MANHOLE BARREL



SECTION B-B
CURB OPENING MODIFICATION

NOTES:

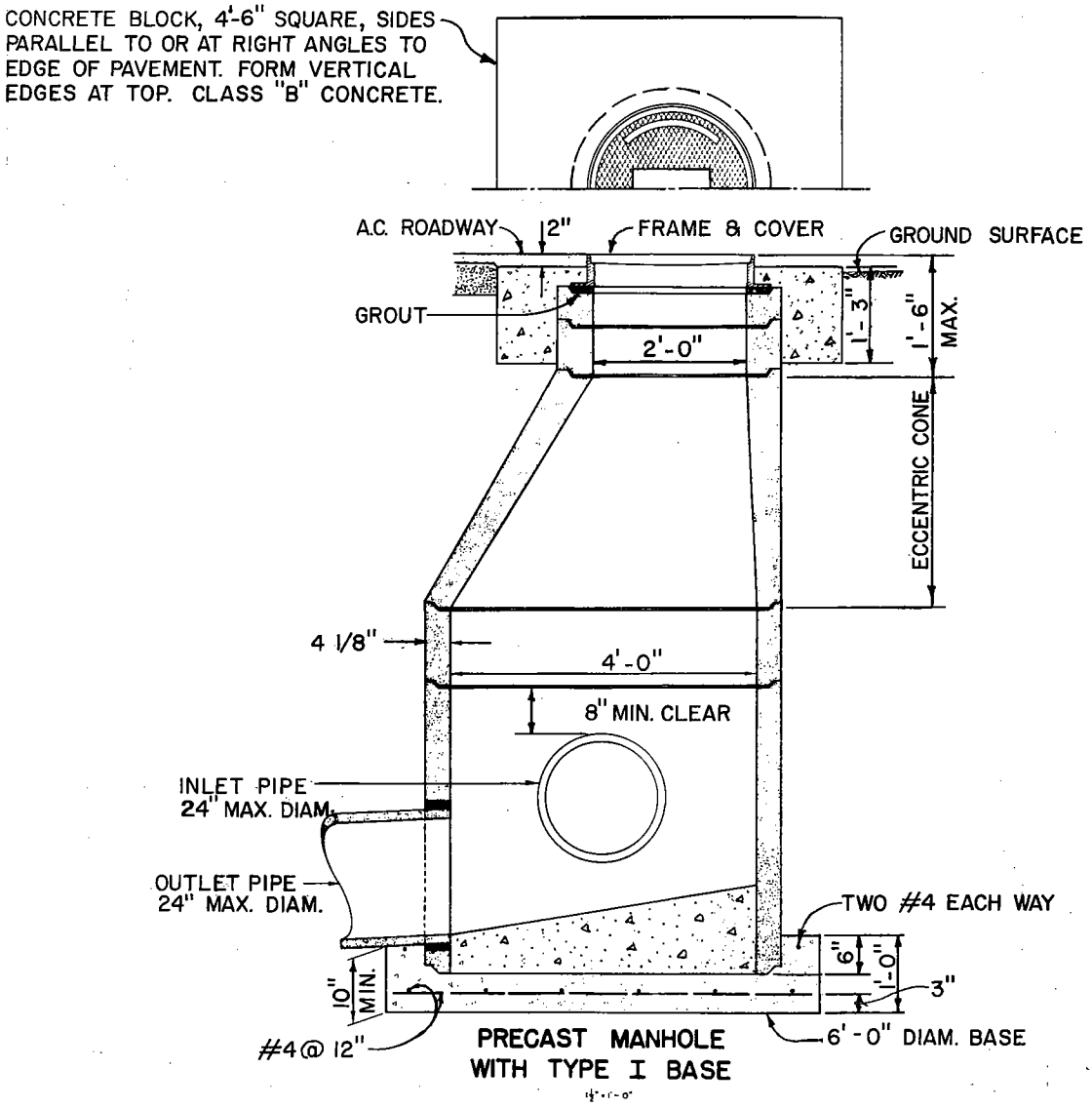
1. CONSTRUCTION JOINTS ARE OPTIONAL WHERE SHOWN. OTHER LOCATIONS ARE SUBJECT TO THE APPROVAL OF THE ENGINEER. KEY DIMENSIONS — 3/4" x 2-1/2".
2. CLEARANCE SHALL BE 1-1/2" FOR ALL REINFORCING STEEL.
3. INLET AND OUTLET PIPES SHALL NOT INTERCEPT A BOX THROUGH A CORNER. IF THE PIPE IS TOO LARGE OR THE SKEW ANGLE IS TOO GREAT TO PERMIT THE OPENING TO BE MADE IN A SINGLE WALL, USE A MANHOLE BASE WITH A TYPE "C" INLET OPENING ON TOP.
4. WHEN DIMENSION "H" EXCEEDS 4', USE A MANHOLE WITH A TYPE "C" INLET OPENING ON TOP.
5. LOCATION AND SIZE OF OPENINGS TO BE AS SHOWN ON PLANS OR AS OTHERWISE DETERMINED BY ENGINEER.
6. ALL INLETS SHALL BE CONSTRUCTED WITH GRATE UNLESS THE INLET IS TO BE IN PEDESTRIAN AREA, THEN A COVER SHALL BE USED.
7. PRECAST INLET, CONFORMING TO SANTA ROSA CAST PRODUCTS CO. DRAWING NO. B46CC1, OR EQUIVALENT, CAN BE SUBSTITUTED FOR CAST-IN-PLACE INLET.

No.	Rev.	By
1	CHG @ 40 X; ADD →	4/89

Scale NOT TO SCALE	Drawn By B.C. Checked By MZ	
TYPE "C" INLET	Approved By _____ CITY ENGINEER RCE 31870 — DATE 6/09/87	203b Sht. 2 of 2

DANVILLE

STANDARD PLAN



NOTES:

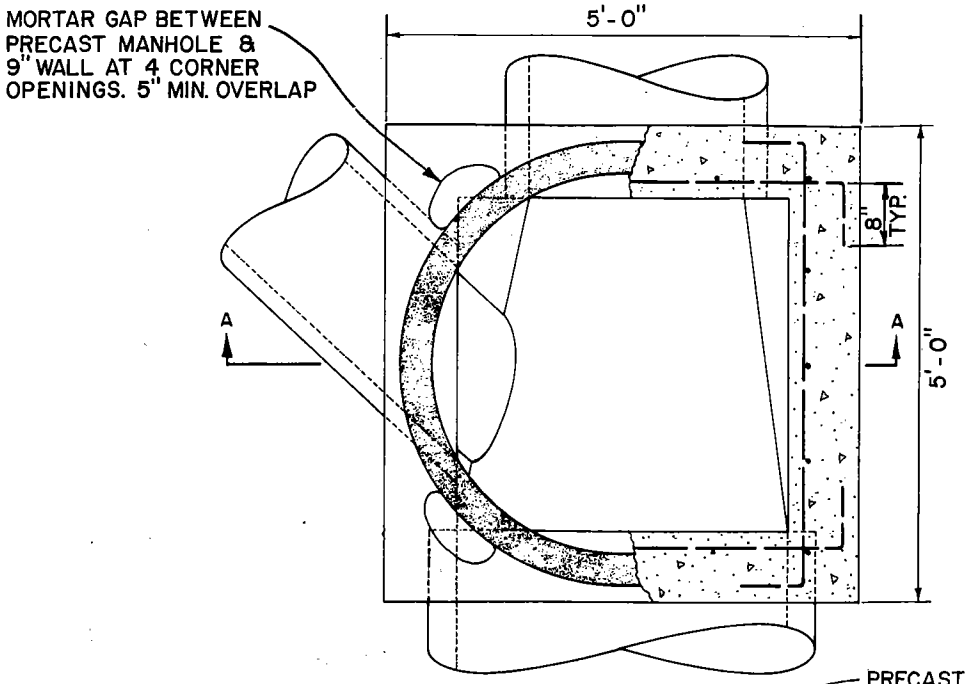
1. ALL REINFORCED CONCRETE SHALL BE CLASS "A".
2. ALL CONCRETE JOINTS SHALL BE CLEANED, WETTED, AND MORTARED PRIOR TO SETTING NEXT SECTION. JOINTS SHALL THEN BE PATCHED, TROWELED, AND BRUSHED SMOOTH.
3. TYPE I MANHOLE BASES ARE FOR USE WITH PIPES TO 24" IN DIAMETER AND WHERE THERE IS SUFFICIENT COVER TO USE MINIMUM LENGTH MANHOLE BARREL, ECCENTRIC CONE, AND COVER FRAME. TYPE II MANHOLE BASES STANDARD PLAN NO. 205 ARE FOR USE WITH PIPES TO 42" IN DIAMETER. TYPE III MANHOLE BASES STANDARD PLAN NO. 206 ARE FOR USE WITH PIPES TO 60" IN DIAMETER. MANHOLE BASES FOR PIPES LARGER THAN 60" IN DIAMETER SHALL REQUIRE A SPECIAL DESIGN.
4. USE OF EXTENSION RINGS IS LIMITED BY 18" MANHOLE THROAT LENGTH.
5. FRAME AND EXTENSION RINGS MUST BE SECURED BY PAVEMENT OR CONCRETE BLOCK.
6. MANHOLE COVER FRAME SHALL BE ADJUSTED TO CONFORM TO GRADE AND CROSS-SLOPE OF PAVEMENT.
7. FOR DETAILS OF MANHOLE FRAME AND COVER, SEE STANDARD PLAN NO. 207.

No.	Rev.	By

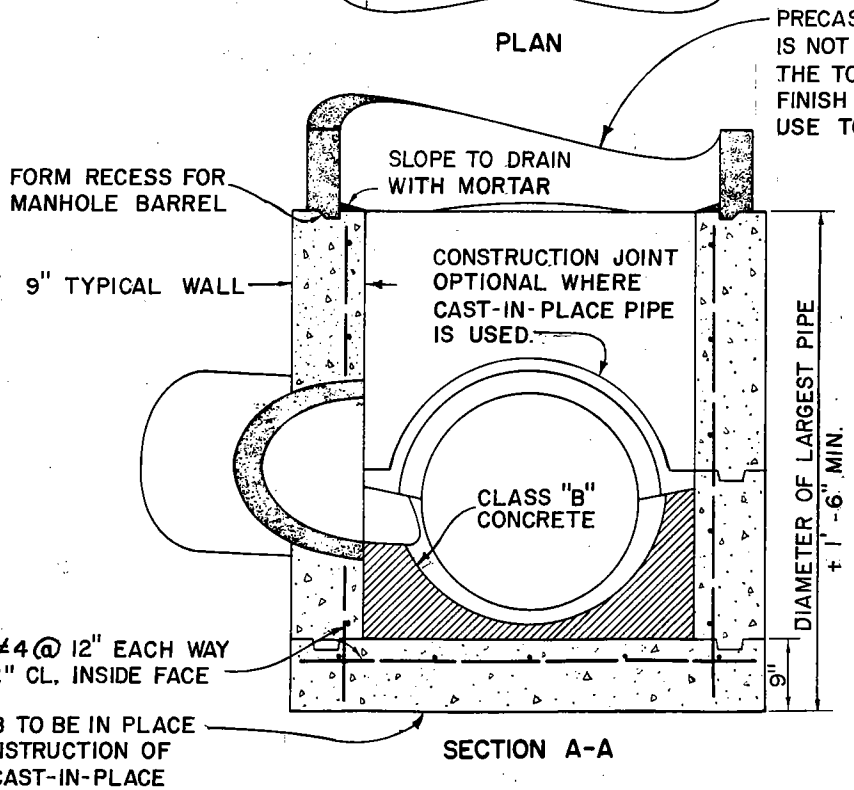
Scale NOT TO SCALE	Drawn By B.C. Checked By MZ	
PRECAST MANHOLE WITH TYPE I BASE	Approved By Steven C. Lake CITY ENGINEER RCE 31870 — DATE 6/09/87	204 Sht. 1 of 1

DANVILLE

STANDARD PLAN



PLAN



SECTION A-A

No.	Rev.	By
1	CHG TYP. WALL TO 9"	1/89

Scale NOT TO SCALE

Drawn By B.C. Checked By MZ

TYPE "II" MANHOLE BASE

Approved By

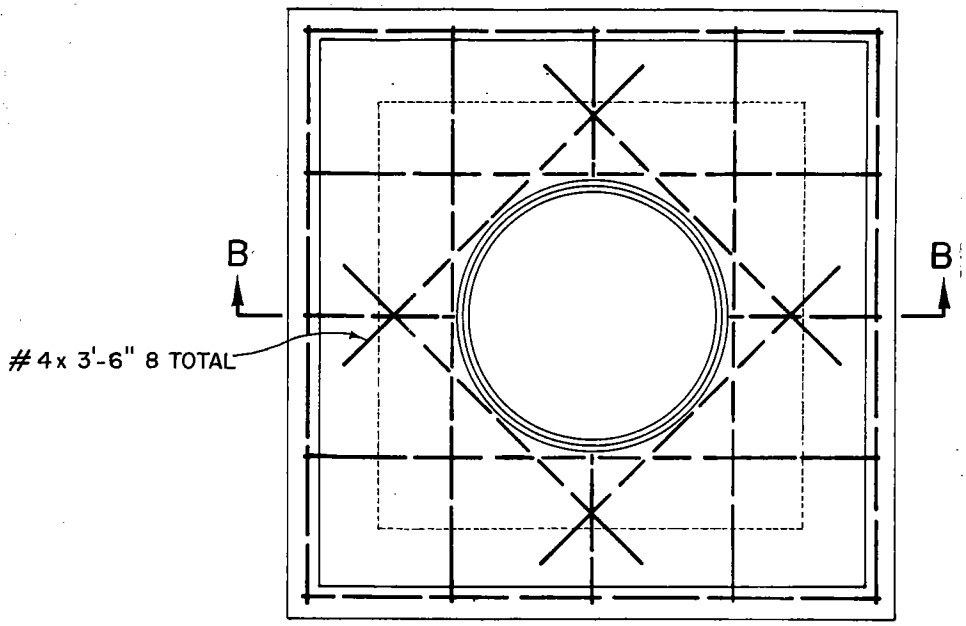
CITY ENGINEER RCE 31870

6/09/87
DATE

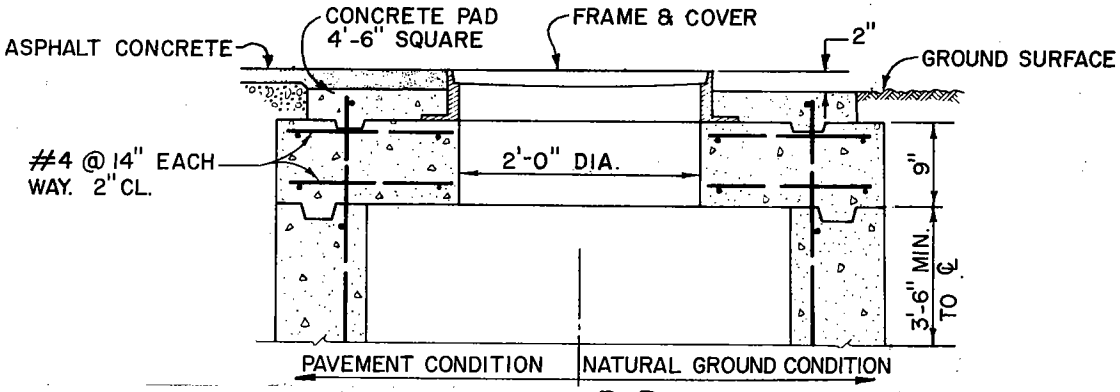
205a
Sht. 1 of 2

DANVILLE

STANDARD PLAN



PLAN



SECTION B-B

TOP SLAB

1. ALL REINFORCED CONCRETE SHALL BE CLASS "A".
2. CONSTRUCTION JOINTS ARE OPTIONAL WHERE SHOWN. OTHER LOCATIONS ARE SUBJECT TO THE APPROVAL OF THE ENGINEER. KEY DIMENSIONS ARE $1\frac{1}{2}$" x $3\frac{1}{2}$".
3. INLET AND OUTLET PIPES SHALL NOT INTERCEPT A MANHOLE BASE THROUGH A CORNER. IF THE SKEW ANGLE IS TOO GREAT TO PERMIT THE OPENING TO BE MADE IN A SINGLE WALL, USE A TYPE "III" MANHOLE BASE. STD. PLAN 206.
4. TYPE "I" MANHOLE BASES STD. PLAN 204 ARE FOR USE WITH PIPES TO 24" IN DIAMETER AND WHERE THERE IS SUFFICIENT COVER TO USE A MINIMUM LENGTH MANHOLE BARREL, ECCENTRIC CONE, AND COVER FRAME. TYPE "II" MANHOLE BASES ARE FOR PIPES TO 42" IN DIAMETER. TYPE "III" MANHOLE BASES ARE FOR USE WITH PIPES TO 60" IN DIAMETER. MANHOLE BASES FOR PIPES LARGER THAN 60" IN DIAMETER SHALL REQUIRE A SPECIAL DESIGN.
5. FOR DETAILS OF PRECAST MANHOLE, SEE STD. PLAN 204.
6. FOR DETAILS OF MANHOLE FRAME AND COVER, SEE STD. PLAN 207.

USE TOP SLAB:

1. WHERE THERE IS NOT SUFFICIENT CLEARANCE BETWEEN THE TOP OF THE MANHOLE BASE AND FINISH GRADE FOR A PRECAST SECTION AND MANHOLE COVER FRAME.
2. WHEN PLACING A TYPE "A" OR TYPE "C" INLET OPENING ON A TYPE "II" MANHOLE BASE. THE OPENING IN THE SLAB SHALL CONFORM TO THE INSIDE DIMENSIONS OF THE INLET TO BE USED.

No.	Rev.	By

Scale NOT TO SCALE

Drawn By B.C. Checked By MZ

TYPE "II" MANHOLE BASE

Approved By

CITY ENGINEER RCE 31870

6/09/87

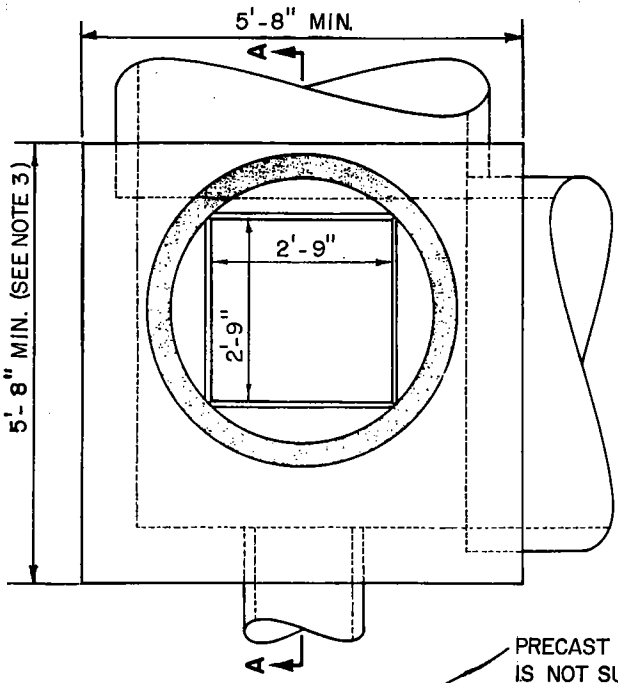
DATE

205b

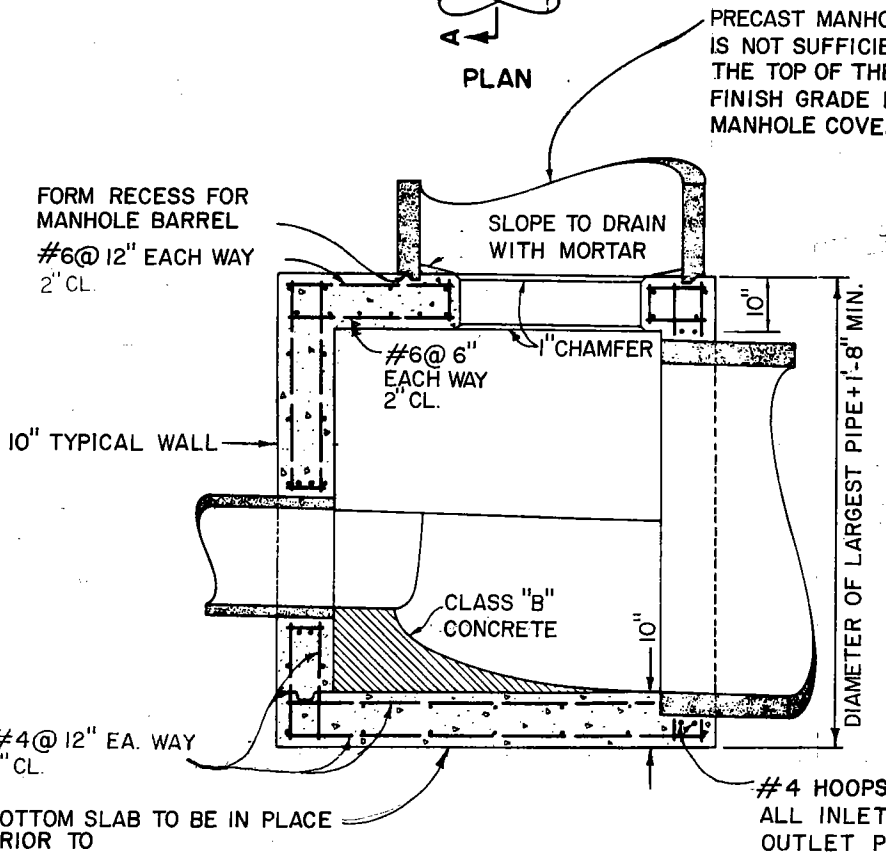
Sht. 2 of 2

DANVILLE

STANDARD PLAN



PLAN

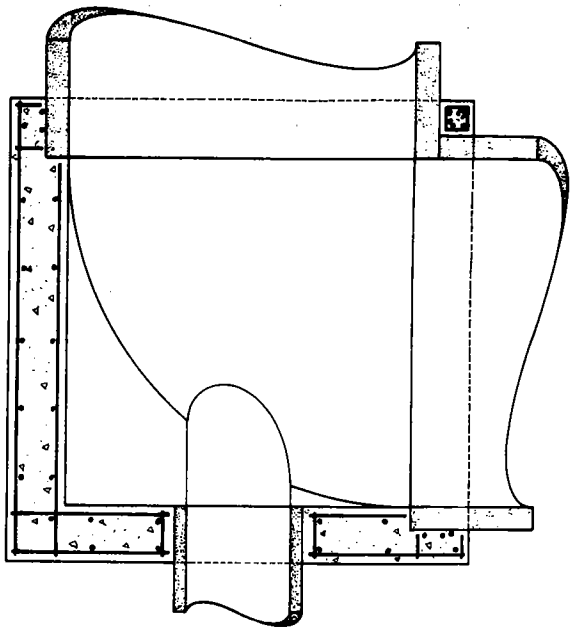


No.	Rev.	By
1	ADD 2" CL.	1/89

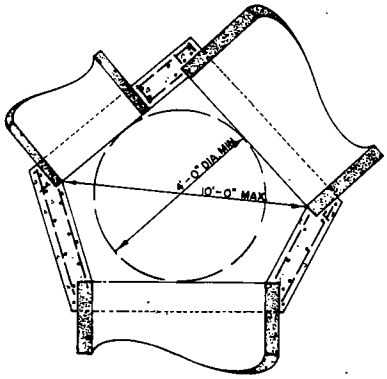
Scale NOT TO SCALE	Drawn By B.C. Checked By MZ	
TYPE "III" MANHOLE BASE	Approved By _____ CITY ENGINEER RCE 31870 — 6/09/87 DATE	206a Sht. 1 of 3

DANVILLE

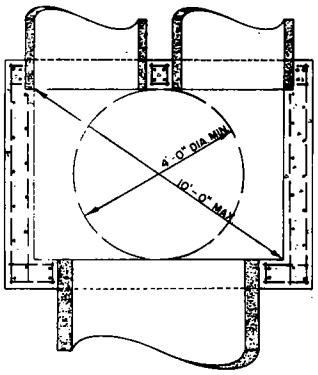
STANDARD PLAN



PLAN SECTION



PLAN SECTION
NO SCALE



PLAN SECTION
NO SCALE

SPECIAL APPLICATIONS OF TYPE "III" MANHOLE BASES

WHEN UNUSUAL CIRCUMSTANCES, SUCH AS EXCESSIVE SKEW OR PARALLEL PIPES, PREVENT THE USE OF A NORMAL TYPE "III" MANHOLE BASE, THE WALLS MAY BE LENGTHENED OR RELOCATED TO ACCOMODATE THE PIPES, PROVIDING THE FOLLOWING CRITERIA ARE MET :

1. THE INSIDE DIMENSIONS OF THE BASE SHALL BE SUCH THAT A FOUR FOOT DIAMETER CIRCLE WILL LAY FLAT ON THE FLOOR, AS SHOWN.
2. THE MAXIMUM DISTANCE BETWEEN ANY TWO INSIDE CORNERS SHALL BE 10'-0", AS SHOWN.
3. REINFORCEMENT AND FLOOR, WALL, AND TOP THICKNESS SHALL REMAIN THE SAME AS FOR A NORMAL TYPE "III" MANHOLE BASE.
4. NO PIPE SHALL EXCEED 60" INSIDE DIAMETER.

IF ANY ONE OF THESE CRITERIA CANNOT BE MET, A SPECIAL DESIGN WILL BE REQUIRED.

No.	Rev.	By

Scale NOT TO SCALE

Drawn By B.C. Checked By MZ

TYPE "III" MANHOLE BASE

Approved By

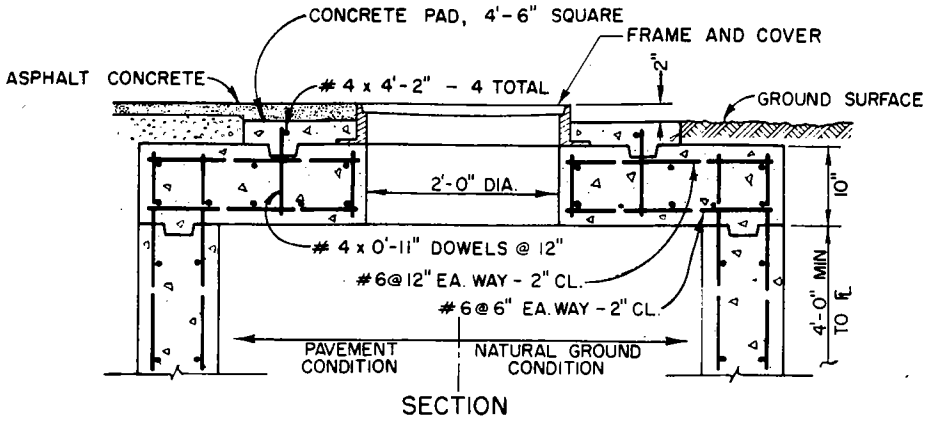
CITY ENGINEER RCE 31870

6/09/87
DATE

206b
Sht. 2 of 3

DANVILLE

STANDARD PLAN



TOP SLAB

USE TOP SLAB:

1. WHERE THERE IS NOT SUFFICIENT CLEARANCE BETWEEN THE TOP OF THE MANHOLE BASE AND FINISH GRADE FOR A PRECAST SECTION AND MANHOLE COVER FRAME.
2. WHEN PLACING A TYPE "A" OR TYPE "C" INLET OPENING ON A TYPE "III" MANHOLE BASE. THE OPENING IN THE TOP SLAB SHALL CONFORM TO THE INSIDE DIMENSIONS OF THE INLET TO BE USED.

NOTES:

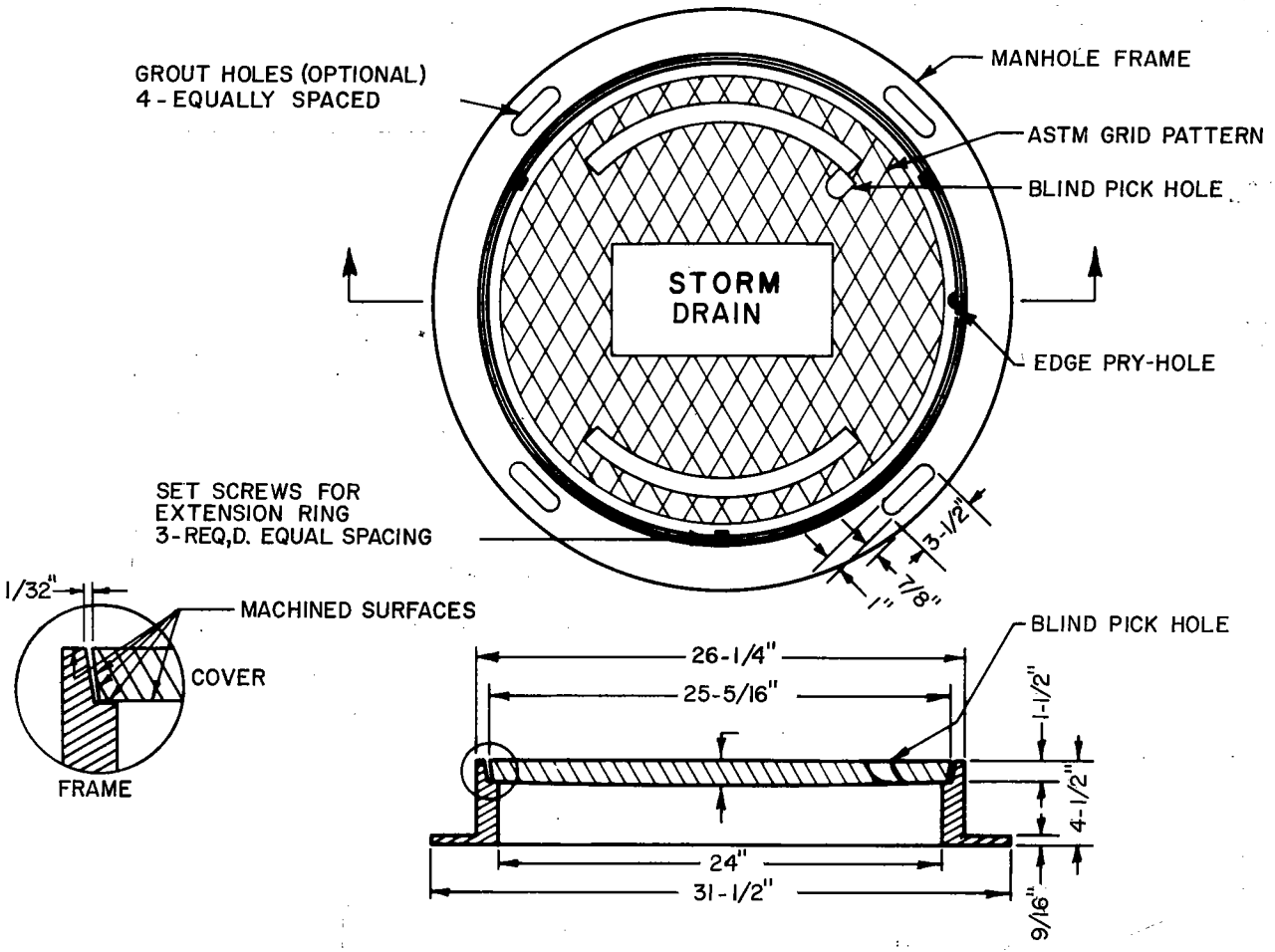
1. ALL REINFORCED CONCRETE SHALL BE CLASS "A".
2. CONSTRUCTION JOINTS ARE OPTIONAL WHERE SHOWN. OTHER LOCATIONS ARE SUBJECT TO THE APPROVAL OF THE ENGINEER. KEY DIMENSIONS ARE $1\frac{1}{2}$" x $3\frac{1}{2}$".
3. INLET AND OUTLET PIPES SHALL NOT INTERCEPT A MANHOLE BASE THROUGH A CORNER. IF THE SKEW ANGLE IS TOO GREAT TO PERMIT THE OPENING TO BE MADE IN A SINGLE WALL, THE WALL MAY BE LENGTHENED OR RELOCATED AS EXPLAINED ON SHT. 2 OF 3.
4. TYPE "I" MANHOLE BASES STANDARD PLAN 204 ARE FOR USE WITH PIPES TO 24" IN DIAMETER AND WHERE THERE IS SUFFICIENT COVER TO USE A MINIMUM LENGTH MANHOLE BARREL, ECCENTRIC CONE, AND COVER FRAME. TYPE "II" MANHOLE BASES ARE FOR PIPES TO 42" IN DIAMETER. TYPE "III" MANHOLE BASES ARE FOR PIPES TO 60" IN DIAMETER. MANHOLE BASES FOR PIPES LARGER THAN 60" IN DIAMETER SHALL REQUIRE A SPECIAL DESIGN.
5. FOR DETAILS OF PRECAST MANHOLE, SEE STANDARD PLAN 204.
6. FOR DETAILS OF MANHOLE FRAME AND COVER, SEE STANDARD PLAN 207.

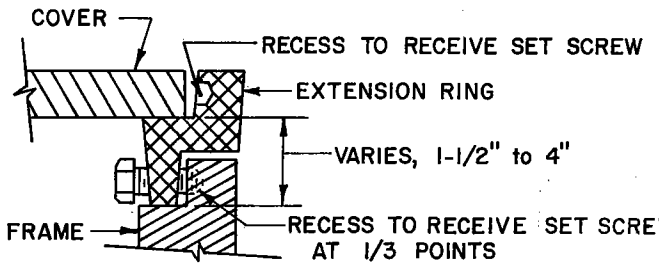
No.	Rev.	By

Scale NOT TO SCALE	Drawn By B.C. Checked By MZ	
TYPE "III" MANHOLE BASE	Approved By Steven C. Jakes CITY ENGINEER RCE 31870 — 6/09/87 DATE	206c Sht. 3 of 3

DANVILLE

STANDARD PLAN





TYPICAL CAST IRON EXTENSION RING

NOTES

1. MANHOLE FRAME AND COVER SHALL BE PHOENIX IRON WORKS(OAKLAND) MODEL P-1090 OR PINKERTON FOUNDRY(LODI) MODEL A-640 OR APPROVED EQUAL.

No.	Rev.	By
1	ADD → IN. SIGN	1/89

Scale NOT TO SCALE

Drawn By B.C. Checked By MZ

MANHOLE FRAME & COVER

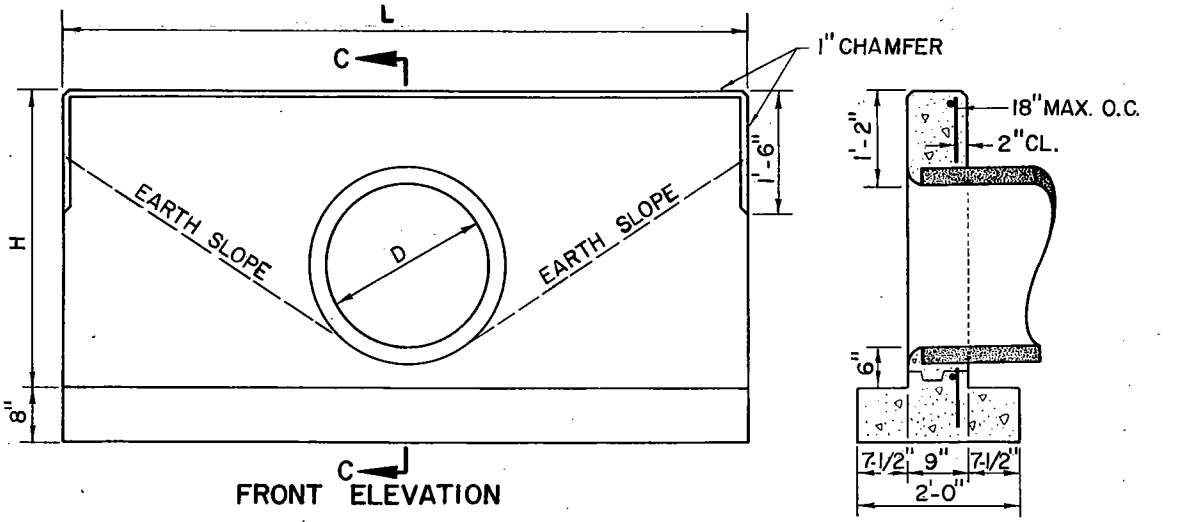
Approved By Steven C. Lake
CITY ENGINEER RCE 31870

6/09/87
DATE

207
Sht. 1 of 1

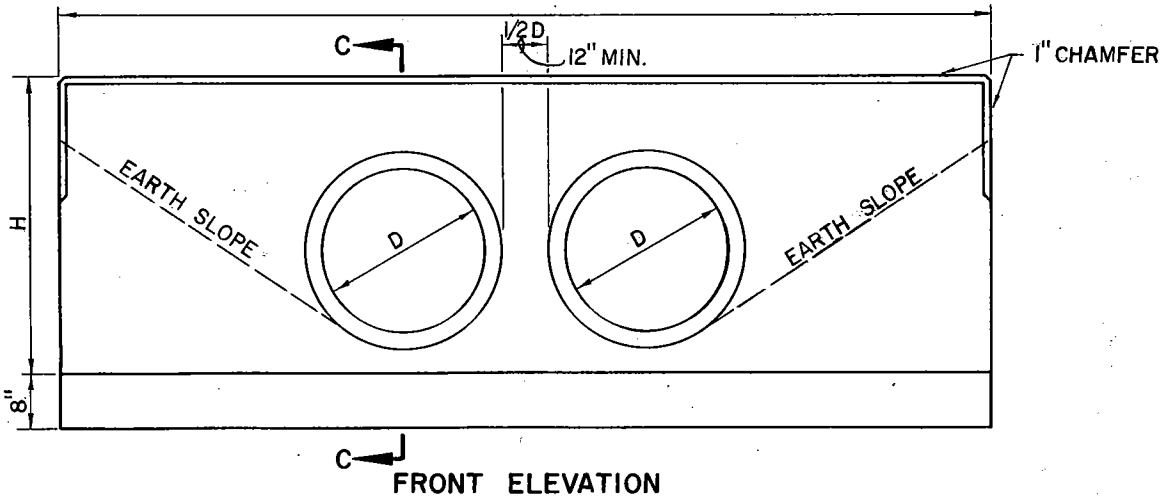
DANVILLE

STANDARD PLAN



FRONT ELEVATION

SINGLE HEADWALL



FRONT ELEVATION

DOUBLE HEADWALL

TYPE "A" HEADWALL

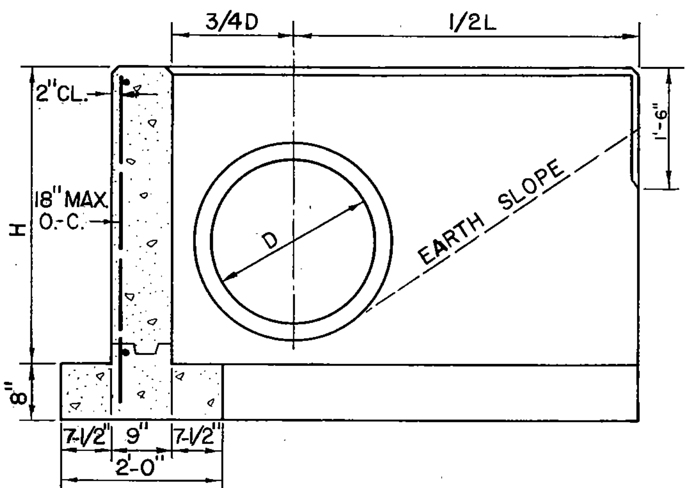
SEE NOTES AND HEADWALL DATA ON SHEET 3 OF 3.

No.	Rev.	By

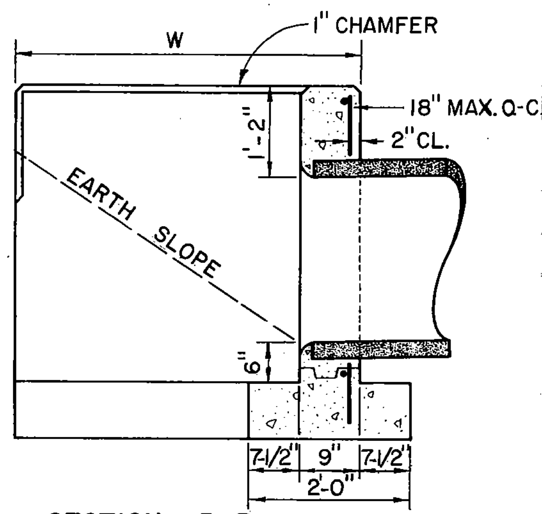
Scale NOT TO SCALE	Drawn By B.C Checked By MZ	
TYPE "A" HEADWALL	Approved By Steven C. Fehr CITY ENGINEER RCE 31870 — 6/09/87 DATE	208a Sht. 1 of 3

DANVILLE

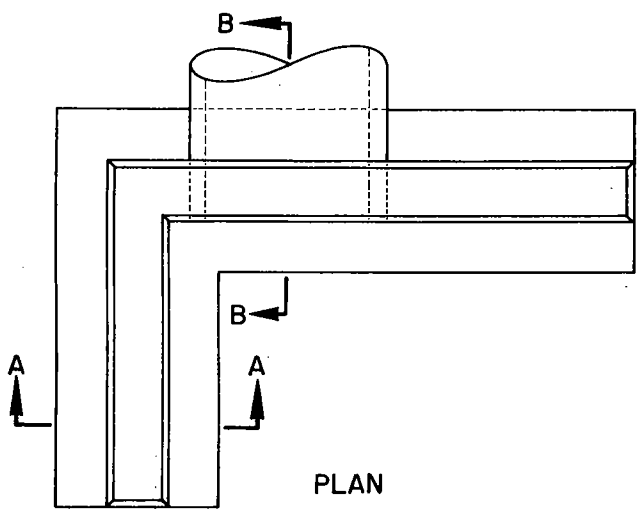
STANDARD PLAN



SECTION A-A



SECTION B-B



PLAN

TYPE "L" HEADWALL

SEE NOTES AND HEADWALL DATA
ON SHEET 3 OF 3.

No.	Rev.	By
1	CHG. (C.C.) TD. (C.C.)	[illegible]

Scale NOT TO SCALE	**Drawn By** B.C. **Checked By** MZ	
TYPE "L" HEADWALL	**Approved By** [signature] 6/09/87 CITY ENGINEER RCE 31870 DATE	**208b** **Sht.** 2 **of** 3

DANVILLE

STANDARD PLAN

TYPE "A" HEADWALL DATA					
D	H	SINGLE		DOUBLE	
		L	VERT. BARS	L	VERT. BARS
12"	2'-8"	5'-0"	4	7'-0"	6
15"	2'-11"	6'-0"	6	8'-6"	8
18"	3'-2"	7'-0"	6	9'-6"	8
21"	3'-5"	7'-6"	6	10'-6"	8
24"	3'-8"	8'-6"	6	11'-6"	8
27"	3'-11"	9'-6"	6	13'-0"	8
30"	4'-2"	10'-0"	8	14'-0"	9
33"	4'-5"	11'-0"	8	15'-0"	9
36"	4'-8"	12'-0"	8	16'-6"	9
39"	4'-11"	12'-6"	8	17'-6"	9
42"	5'-2"	13'-6"	8	18'-6"	9
45"	5'-5"	14'-6"	10	20'-0"	12
48"	5'-8"	15'-0"	10	21'-0"	12

TYPE "L" HEADWALL DATA							
D	H	$\frac{L}{2}$	W				
			2'-0" TO 3'-4"	3'-5" TO 4'-10"	4'-11" TO 6'-4"	6'-5" TO 7'-10"	7'-11" TO 9'-4"
			VERT. BARS	VERT. BARS	VERT. BARS	VERT. BARS	VERT. BARS
12"	2'-8"	2'-6"	6	7	8	9	10
15"	2'-11"	3'-0"	7	8	9	10	11
18"	3'-2"	3'-6"	7	8	9	10	11
21"	3'-5"	3'-9"	7	8	9	10	11
24"	3'-8"	4'-3"	7	8	9	10	11
27"	3'-11"	4'-9"	7	8	9	10	11
30"	4'-2"	5'-0"	8	9	10	11	12
33"	4'-5"	5'-6"	8	9	10	11	12
36"	4'-8"	6'-0"	8	9	10	11	12
39"	4'-11"	6'-3"	8	9	10	11	12
42"	5'-2"	6'-9"	8	9	10	11	12
45"	5'-5"	7'-3"	9	10	11	12	13
48"	5'-8"	7'-6"	9	10	11	12	13

NOTES:

1. ON HEADWALLS CONSTRUCTED AT A SKEW ANGLE TO THE PIPE ℄, THE DIMENSION "L" SHALL BE INCREASED BY AN AMOUNT EQUAL TO THE INCREASE IN THE HORIZONTAL DIAMETER OF THE OPENING DUE TO THE SKEW ANGLE. QUANTITIES GIVEN IN TABLES ABOVE DO NOT ALLOW FOR INCREASES DUE TO SKEW.
2. ALL REINFORCED CONCRETE SHALL BE CLASS "A".
3. CONSTRUCTION JOINTS ARE OPTIONAL WHERE SHOWN. OTHER LOCATIONS ARE SUBJECT TO THE APPROVAL OF THE ENGINEER. KEY DIMENSIONS ARE $1\frac{1}{2}$" x $3\frac{1}{2}$".
4. ALL REINFORCING STEEL SHALL BE NO. 4 BARS.

No.	Rev.	By

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Drawn By B.C. Checked By MZ

TYPE "A" & "L" HEADWALL DATA

Approved By

CITY ENGINEER RCE 31870

6/09/87
DATE

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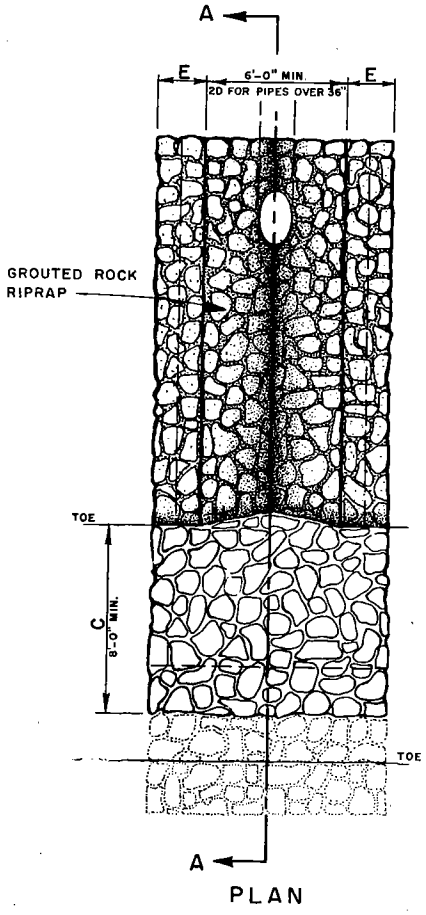
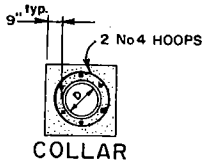
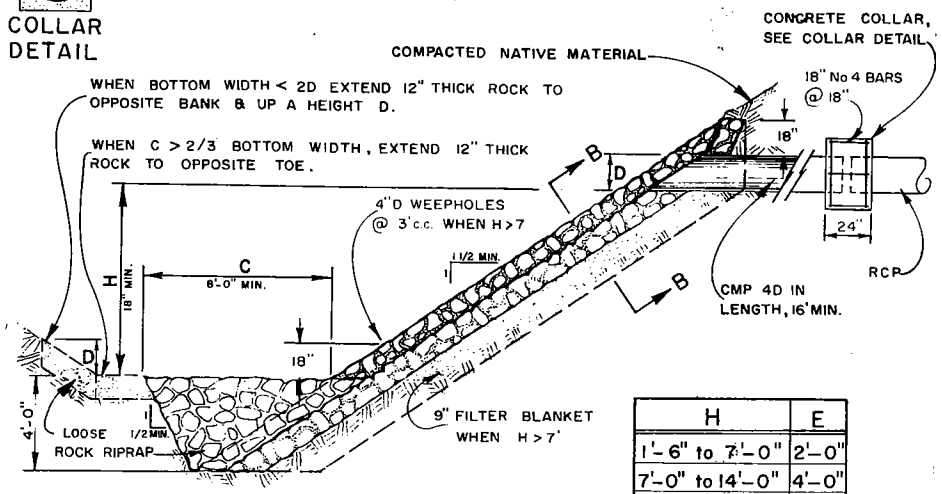
Sht. 3 of 3

DANVILLE

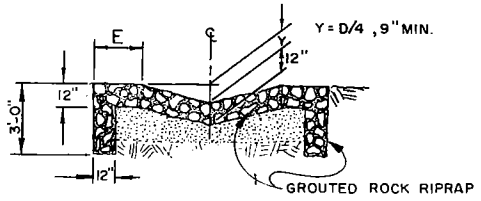
STANDARD PLAN







H	E
1'-6" to 7'-0"	2'-0"
7'-0" to 14'-0"	4'-0"
14'-0" to 20'-0"	6'-0"
Over 20'	8'-0"



NOTES

1. REINFORCED CONCRETE, CLASS B, WITH No.4 BARS @ 18" EACH WAY MAY BE SUBSTITUTED FOR GROUTED ROCK RIPRAP. (12" THICK).
2. GROUTED AND LOOSE ROCK RIPRAP SHALL CONFORM TO THE COUNTY ORDINANCE SPECIFICATIONS.
3. FOR PIPES WITH FLAPGATES SEE C.C.C.F.C.D. DWG B-55.
4. FILTER MATERIAL SHALL CONFORM TO THE COUNTY ORDINANCE SPECIFICATIONS.

No.	Rev.	By

Scale NOT TO SCALE

Drawn By B.C. Checked By MZ

STANDARD ROCK RIPRAP PIPE SPILLWAY FOR EARTH CHANNEL

Approved By _____
CITY ENGINEER RCE 31870

6/09/87
DATE

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Sht. 1 of 1

DANVILLE

STANDARD PLAN

HYDROLOGY AND HYDRAULICS CRITERIA SUMMARY

1. The overall watershed shall be broken down into smaller areas which contribute to local points of concentration. The boundaries shall be established based upon local topographic boundaries such as ridges, streets, existing drainage systems, etc, using good engineering practice.

2. Use Contra Costa County Flood Control Drawing B-166 to determine the average seasonal rainfall for the whole watershed in inches.

3. Select storm frequency based on size of watershed, such as, 10-year for an area less than one square mile, 25-year for an area larger than one but less than four square miles, and 50-year for an area larger than four square miles.

4. Select storm duration: use 3-hour storm if there is no detention basin involved.

5. Determine initial time of concentration. Initial time of concentration Tc will seldom be less than 3 minutes or more than 20 minutes.

   a. Undeveloped Watersheds

$$Tc = \sqrt[2.14]{\frac{2Ln}{\sqrt[3]{S}}}$$

L = Length in feet (max. 400 feet)
S = Slope in decimal form
n = Retardance coefficient
Tc= Time of concentration (min.)

Retardance Coefficient (n)

Surface	(n)
Smooth imprevious	0.02
Smooth bare packed soil	0.10
Poor grass cultivated row crops	
Moderately rough bare surface	0.20
Pasture or average grass	0.40
Deciduous timberland	0.60
Conifer timberland, decidous	
Timberland with deep forest	
Litter or dense grass	0.80

No.	Rev.	By

Scale NOT TO SCALE | Drawn By K.D. Checked By PK

HYDROLOGY AND HYDRAULIC CRITERIA SUMMARY

Approved By _____ CITY ENGINEER RCE 31870

3-13-69 DATE

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DANVILLE

STANDARD PLAN

b. Developed watersheds

Land Use	Runoff Coefficient (C)	Time of Concentration (min.) (Roof to gutter)
R-6	0.50 - 0.70	3 - 5
R-10	0.45 - 0.60	5 - 7
R-20	0.40 - 0.50	6 - 8
R-40	0.35 - 0.45	8 - 10
Apartments	0.60 - 0.80	3 - 10
Business	0.70 - 0.95	3 - 8
Industrial	0.60 - 0.90	3 - 10
Open	0.20 - 0.40	
Streets		
Asphalt	0.75 - 0.95	
Concrete	0.80 - 0.95	
Drive walks	0.80 - 0.95	
Roofs	0.75 - 0.95	

6. a. For areas up to 200 acres use the Rational Method to determine the peak flow rate Q

Q = CIA

Q = Flow rate (cubic feet per second)

C = Runoff coefficient *

I = Intensity (inches/hours)

A = Area (Arces)

Tc = Roof to gutter + overland flow (overland flow not to exceed 400 feet.)

* For sloped area use modified runoff coefficient C' (see page 210b). The modified runoff coefficient (C') will never exceed 0.80 when calculations are based on land use. When calculations are based on type of surface the basic runoff coefficient (C) shall be determined in accordance with sound engineering practice, and will often exceed 0.80.

b. For areas larger than 200 acres use the unit hydrograph method.

7. Use Contra Costa County Flood Control drawings B-158 to B-162 for Intensities (I).

8. All hydrology calculation using the Rational Method shall be entered in the format shown on sheet 210a. All hydrology and hydraulic calculations shall be accompanied by a detailed hydrology map showing all relevant information. (Same information shown on sheet 210A.)

9. The Town uses Mannings' equation to calculate friction losses, and the pressure-momentum method and energy equations to calculate major junction or section losses.

10. The elevation of the HGL shall be at least 1.25 feet below the top of any inlet grate or manhole.

No	Rev.	By

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Drawn By K.D Checked By PK

HYDROLOGY AND HYDRAULICS CRITERIA SUMMARY

Approved By _____ 3-10-89

CITY ENGINEER RCE 31870 DATE

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No.	Rev.	By

Scale NOT TO SCALE

SAMPLE HYDROLOGY CALCULATION FORM

Drawn By K.D. Checked By PK

Approved By [signature]

CITY ENGINEER RCE 31870 3-13-89 DATE

210 A

Sht. 1 of 1

DANVILLE

REFERENCES: ____________

INITIAL Tc: ____________

DRAINAGE STUDY OF ____________

ROOF TO GUTTER TIME ________ BY ________ DATE ________ √BY ________ DATE ________

SHEET NO. ____ OF ____
AREA OF TRACT ________
NO. OF LOTS ________

PT OF CONC.	AREA DESIG.	INCREMENT ΔA ACRES	INCREMENT C	INCREMENT ΔAC ACRES	ACCUMULATED ΣA ACRES	ACCUMULATED ΣAC ACRES	TIME OF CONC. MIN.	RAINFALL INTENSITY (In. / hr.) I	RAINFALL INTENSITY (In. / hr.) I		RUNOFF Q=CIAK (cfs) Q	RUNOFF Q=CIAK (cfs) Q	DESIGN FLOW DEPTH (Feet)	DESIGN Conduit SIZE (Inches)	DESIGN S_F/S_O SLOPE	DESIGN L= LENGTH (feet)	DESIGN V_F/V_O (fps)	DESIGN TIME IN SECT.	MINIMUM CURB DATA $H_F = S_f \times L$ (feet)	MINIMUM CURB DATA STRUC. JUNCT. LOSS (feet)	MINIMUM CURB DATA ELEV. HGL (feet)	MINIMUM CURB DATA INV ELEV.	MINIMUM CURB DATA MIN. TC (HGL+)	MINIMUM CURB DATA TC RIM or TG

SAMPLE

DANVILLE

STANDARD PLAN

RUNOFF FACTOR SLOPE AND INTENSITY ADJUSTMENT CHART PG 2 OF 3

C = Initial Runoff Factor
C+Cs = Runoff Factor + Slope Adjustment
C` = Design Runoff Factor

To determine C` begin with the initial runoff factor C in the upper left of the chart. Draw a line to the right until you meet a ground slope greater than the average ground slope of the incremental drainage area. Next draw a line down until you reach a rainfall intensity greater than your design intensity. Next draw a line to the left to find your design runoff factor C`

BEGIN BELOW	C + Cs .40	.41	.42	.43	.44	.45	.46	.47	.48	.49	.50	.51	.52	.53	.54	.55	.56	.57	.58	.59	.60	
.20	31	33	35	37	39	41	43	45	----	----	----	----	----	----	----	----	----	----	----	----	end	S
.30	17	19	21	23	25	27	29	32	34	36	39	41	44	45	----	----	----	----	----	----	end	L
.40	2	4	5	7	9	11	13	15	17	20	22	25	27	30	33	36	39	42	45	----	end	O
C .50	----	----	----	----	----	----	----	----	----	----	2	4	6	9	11	14	17	20	24	27	31	P
.60	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	2	E
.70	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	next	
.80	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	next	%
.40	.00	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	
.41	.68	.00	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	
.42	.93	.69	.00	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	
.43	1.14	.94	.69	.00	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	
.44	1.33	1.15	.95	.70	.00	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	
.45	1.51	1.35	1.17	.97	.71	.00	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	
C` .46	1.70	1.54	1.37	1.19	.98	.72	.00	----	----	----	----	----	----	----	----	----	----	----	----	----	----	I
= .47	1.88	1.73	1.56	1.39	1.20	.99	.73	.00	----	----	----	----	----	----	----	----	----	----	----	----	----	N
C .48	2.08	1.92	1.76	1.59	1.41	1.22	1.01	.74	.00	----	----	----	----	----	----	----	----	----	----	----	----	T
+ .49	2.28	2.12	1.95	1.79	1.62	1.44	1.24	1.02	.75	.00	----	----	----	----	----	----	----	----	----	----	----	E
Cs .50	2.49	2.32	2.16	1.99	1.82	1.65	1.46	1.26	1.04	.76	.00	----	----	----	----	----	----	----	----	----	----	N
+ .51	2.71	2.54	2.37	2.20	2.03	1.86	1.68	1.49	1.28	1.05	.77	.00	----	----	----	----	----	----	----	----	----	S
Ci .52	2.96	2.78	2.60	2.43	2.25	2.08	1.90	1.71	1.51	1.31	1.07	.78	.00	----	----	----	----	----	----	----	----	I
.53	3.22	3.04	2.85	2.67	2.49	2.31	2.12	1.94	1.74	1.54	1.33	1.09	.79	.00	----	----	----	----	----	----	----	T
.54	3.52	3.32	3.12	2.93	2.74	2.55	2.36	2.17	1.98	1.78	1.58	1.36	1.11	.81	.00	----	----	----	----	----	----	Y
.55	3.84	3.63	3.42	3.22	3.01	2.82	2.62	2.42	2.22	2.03	1.82	1.61	1.38	1.13	.82	.00	----	----	----	----	----	
.56	4.21	3.98	3.75	3.53	3.32	3.11	2.90	2.69	2.49	2.28	2.08	1.86	1.65	1.41	1.15	.84	.00	----	----	----	----	I
.57	4.63	4.38	4.13	3.89	3.66	3.43	3.21	2.99	2.77	2.56	2.35	2.13	1.91	1.68	1.44	1.18	.85	.00	----	----	----	N
.58	5.12	4.84	4.56	4.30	4.04	3.79	3.55	3.32	3.09	2.86	2.64	2.41	2.19	1.96	1.73	1.48	1.20	.87	.00	----	----	/
.59	5.69	5.37	5.06	4.77	4.49	4.21	3.95	3.69	3.44	3.20	2.96	2.72	2.49	2.25	2.02	1.77	1.51	1.23	.89	.00	----	H
.60	6.37	6.01	5.66	5.32	5.00	4.70	4.40	4.12	3.84	3.58	3.32	3.06	2.82	2.57	2.32	2.08	1.82	1.55	1.26	.91	.00	R
.61	7.20	6.77	6.37	5.99	5.62	5.27	4.94	4.62	4.31	4.02	3.73	3.45	3.18	2.92	2.66	2.40	2.14	1.88	1.60	1.29	.93	
.62	8.22	7.72	7.25	6.80	6.37	5.97	5.58	5.22	4.87	4.53	4.21	3.90	3.61	3.32	3.04	2.76	2.49	2.21	1.94	1.65	1.33	
.63	9.51	8.91	8.34	7.81	7.30	6.82	6.37	5.94	5.54	5.15	4.79	4.44	4.10	3.78	3.47	3.17	2.87	2.58	2.29	2.00	1.70	
.64	****	****	9.75	9.09	8.48	7.90	7.36	6.85	6.37	5.92	5.49	5.08	4.70	4.33	3.98	3.64	3.32	3.00	2.69	2.39	2.08	
.65	****	****	****	****	****	9.31	8.64	8.02	7.43	6.89	6.37	5.89	5.43	5.00	4.60	4.21	3.84	3.49	3.15	2.82	2.49	
.66	****	****	****	****	****	****	****	9.55	8.83	8.15	7.51	6.92	6.37	5.86	5.37	4.92	4.49	4.08	3.69	3.32	2.96	
.67	****	****	****	****	****	****	****	****	****	9.85	9.05	8.30	7.61	6.97	6.37	5.82	5.30	4.81	4.36	3.93	3.52	
.68	****	****	****	****	****	****	****	****	****	****	****	****	9.31	8.48	7.72	7.02	6.37	5.77	5.22	4.70	4.21	
.69	****	****	****	****	****	****	****	****	****	****	****	****	****	****	9.62	8.70	7.85	7.08	6.37	5.72	5.12	
.70	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	8.97	8.02	7.15	6.37	
.71	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	9.31	8.22	
.72	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	
.73	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	
.74	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	
.75	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	
.76	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	
.77	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	
.78	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	
.79	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	
.80	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	

No.	Rev.	By

Scale NOT TO SCALE

Drawn By K.D. Checked By PK

RUNOFF FACTOR ADJUSTMENT

Approved By _____
CITY ENGINEER RCE 31870

3-13-89
DATE

210b
2 of 3

DANVILLE

STANDARD PLAN

RUNOFF FACTOR SLOPE AND INTENSITY ADJUSTMENT CHART PG 3 OF 3

C = Initial Runoff Factor
C+Cs = Runoff Factor + Slope Adjustment
C` = Design Runoff Factor

To determine C` begin with the initial runoff factor C in the upper left of the chart. Draw a line to the right until you meet a ground slope greater than the average ground slope of the incremental drainage area. Next draw a line down until you reach a rainfall intensity greater than your design intensity. Next draw a line to the left to find your design runoff factor C`

BEGIN BELOW	C + Cs .60	.61	.62	.63	.64	.65	.66	.67	.68	.69	.70	.71	.72	.73	.74	.75	.76	.77	.78	.79	.80	
.20	45	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	end	S
.30	45	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	end	L
.40	45	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	end	O
C .50	31	35	39	43	45	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	end	P
.60	2	5	9	13	17	22	27	33	39	45	----	----	----	----	----	----	----	----	----	----	end	E
.70	----	----	----	----	----	----	----	----	----	----	2	9	17	27	39	45	----	----	----	----	end	
.80	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	2	%
.60	.00	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	
.61	.93	.00	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	
.62	1.33	.95	.00	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	
.63	1.70	1.37	.98	.00	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	
.64	2.08	1.76	1.41	1.01	.00	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	
.65	2.49	2.16	1.82	1.46	1.04	.00	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	
C` .66	2.96	2.60	2.25	1.90	1.51	1.07	.00	----	----	----	----	----	----	----	----	----	----	----	----	----	----	I
= .67	3.52	3.12	2.74	2.36	1.98	1.58	1.11	.00	----	----	----	----	----	----	----	----	----	----	----	----	----	N
C .68	4.21	3.75	3.32	2.90	2.49	2.08	1.65	1.15	.00	----	----	----	----	----	----	----	----	----	----	----	----	T
+ .69	5.12	4.56	4.04	3.55	3.09	2.64	2.19	1.73	1.20	.00	----	----	----	----	----	----	----	----	----	----	----	E
Cs .70	6.37	5.66	5.00	4.40	3.84	3.32	2.82	2.32	1.82	1.26	.00	----	----	----	----	----	----	----	----	----	----	N
+ .71	8.22	7.25	6.37	5.58	4.87	4.21	3.61	3.04	2.49	1.94	1.33	.00	----	----	----	----	----	----	----	----	----	S
Ci .72	****	9.75	8.48	7.36	6.37	5.49	4.70	3.98	3.32	2.69	2.08	1.41	.00	----	----	----	----	----	----	----	----	I
.73	****	****	****	****	8.83	7.51	6.37	5.37	4.49	3.69	2.96	2.25	1.51	.00	----	----	----	----	----	----	----	T
.74	****	****	****	****	****	****	9.31	7.72	6.37	5.22	4.21	3.32	2.49	1.65	.00	----	----	----	----	----	----	Y
.75	****	****	****	****	****	****	****	****	****	8.02	6.37	5.00	3.84	2.82	1.82	.00	----	----	----	----	----	
.76	****	****	****	****	****	****	****	****	****	****	8.48	6.37	4.70	3.32	2.08	.00	----	----	----	----	----	I
.77	****	****	****	****	****	****	****	****	****	****	****	****	9.31	6.37	4.21	2.49	.00	----	----	----	----	N
.78	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	6.37	3.32	.00	----	----	----	/
.79	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	6.37	.00	----	----	H
.80	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	.00	----	----	R

No.	Rev.	By

Scale: NOT TO SCALE

Drawn By: K.D. Checked By PK

RUNOFF FACTOR ADJUSTMENT

Approved By: _____ 3-13-89

CITY ENGINEER RCE 31870 DATE

210b

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DANVILLE

STANDARD PLAN

LEGEND

PROPOSED	EXISTING	DESCRIPTION
		Property Line
℄	℄	Center Line
		Limit of Work Line
A A		Match Line
	Town of Danville / *Contra Costa County*	City Limit Line
Shade Outline		Edge of Pavement
		Curb and Gutter
		Sidewalk
		Driveway
		Paving Conform
		City Survey Monument
		Fire Hydrant
RI	RI	Street Sign (w/abbr. symbol)
		Guard Rail
		Standard City Barricade
		Fence (Type)
		Key to Revision
UP UP	UP UP	Wheelchair Ramp

No.	Rev.	By
1	SYMBOLS CHG. TO DASH.	MWA 1/89

Scale NOT TO SCALE

Drawn By MWA Checked By _____

DRAFTING SYMBOLS

Approved By _____
CITY ENGINEER RCE 31870

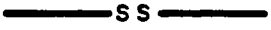
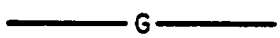
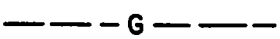
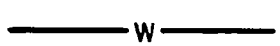
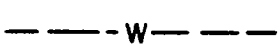
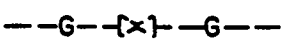
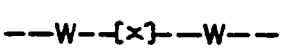
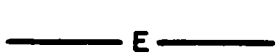
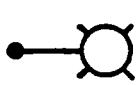
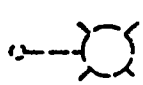
1-17-89
DATE

301 a
Sht 1 of 2

DANVILLE

STANDARD PLAN

LEGEND

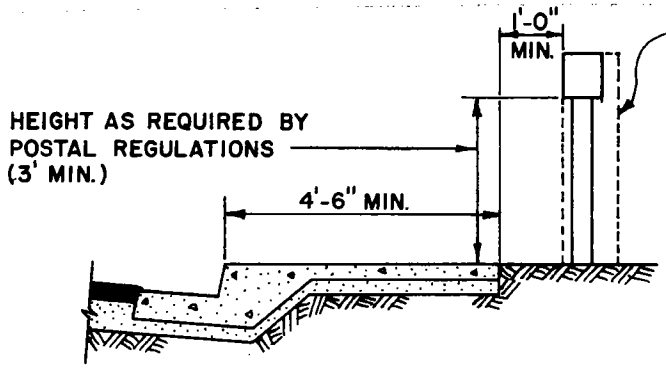
PROPOSED	EXISTING	DESCRIPTION
		Sanitary Sewer
		Storm Drain
		Sanitary Manhole
		Storm Manhole
		Standard Inlet
		Gas Line
		Water Line
		Telephone Facilities
		Cable Television
		Joint Trench
		Water Meter
		Gas Valve
		Water Valve
		Electrical Conduit
		Pull Box
		Utility Pole
		Electrolier

No.	Rev.	By
1	SYMBOL CHANGE	

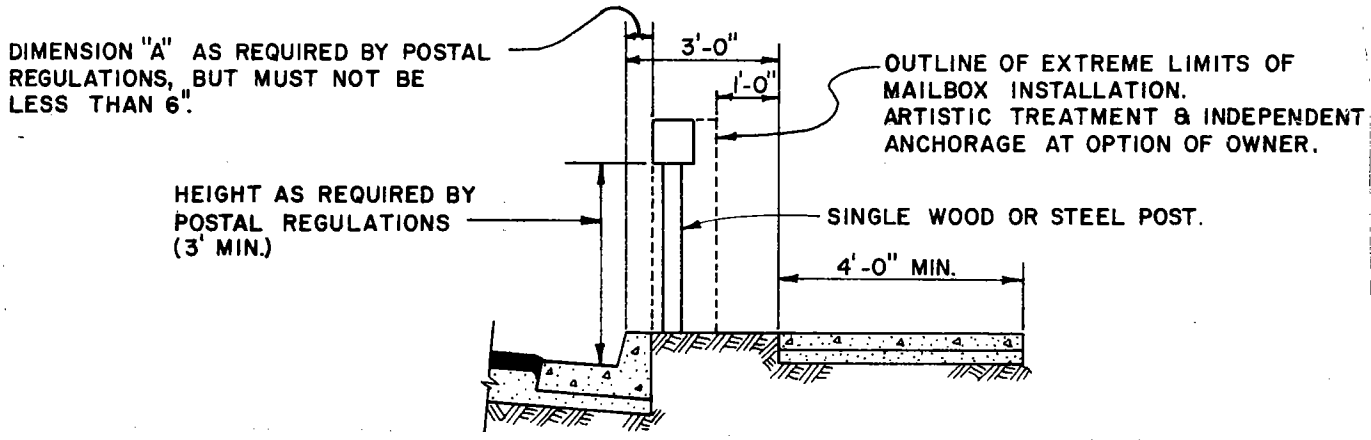
Scale NOT TO SCALE	Drawn By _____ Checked By _____	
DRAFTING SYMBOLS	Approved By _____ CITY ENGINEER RCE 31870 _____ DATE 1-17-69	301 b Sht 2 of 2

DANVILLE

STANDARD PLAN



MAILBOX LOCATION
(MONOLITHIC CURB & SIDEWALK)



MAILBOX LOCATION
(OPEN PARKWAY AREA)

NOTES

1. ENCROACHMENT PERMIT IS REQUIRED IF MAILBOX IS TO BE INSTALLED IN EXISTING SIDEWALK, OR IF INSTALLATION REQUIRES MODIFICATION OF DIMENSIONS SHOWN ON THIS PLAN, WHICH ARE BASED ON A STANDARD RESIDENTIAL MAILBOX.
2. MAILBOX STANDARD SHALL NOT BE INSTALLED WITHIN 3FT. OF THE EDGE OF A STREET STORM DRAIN INLET.
3. SEE STANDARD PLAN 103 & 105 FOR SIDEWALK & CURB DETAILS.

No.	Rev.	By

Scale NOT TO SCALE

Drawn By B.C. Checked By MZ

MAILBOX STANDARDS

Approved By _____
CITY ENGINEER RCE 31870

6/09/87
DATE

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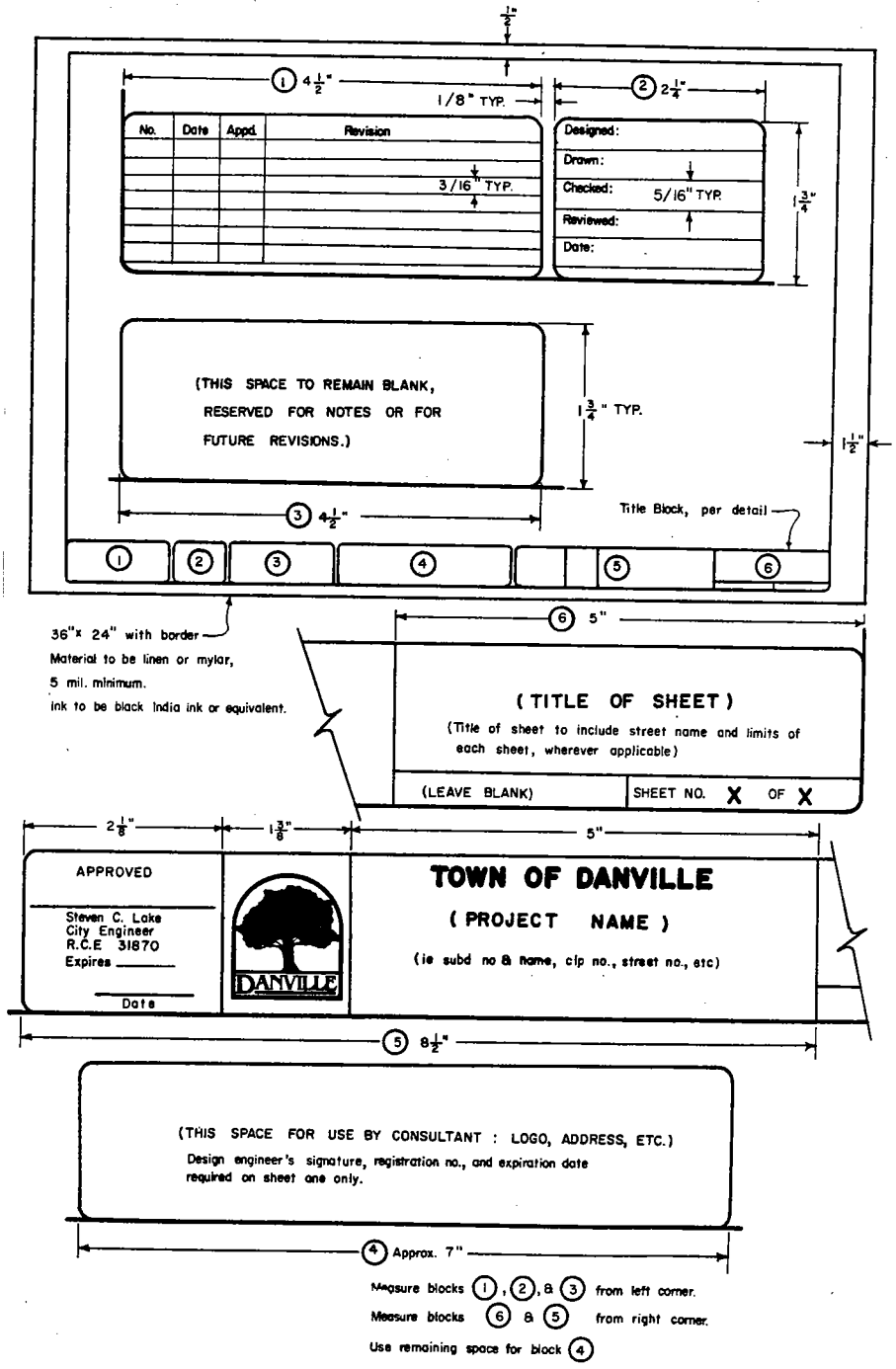
Sht. 1 of 1

DANVILLE

STANDARD PLAN



No.	Rev.	By

SCALE NOT TO SCALE	DRAWN BY C.S. CHECKED BY M.Z.	
TITLE BLOCK	Appoved By CITY ENGINEER RCE 31870 — DATE 3-21-08	303 Sht. 1 of 1