CITY OF UPLAND

Standard Drawings

City of Upland
Index to Standard Drawings

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INSERT - TREE STAKING & PLANTING DETAIL

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INSERT - TREE WELLS DETAIL

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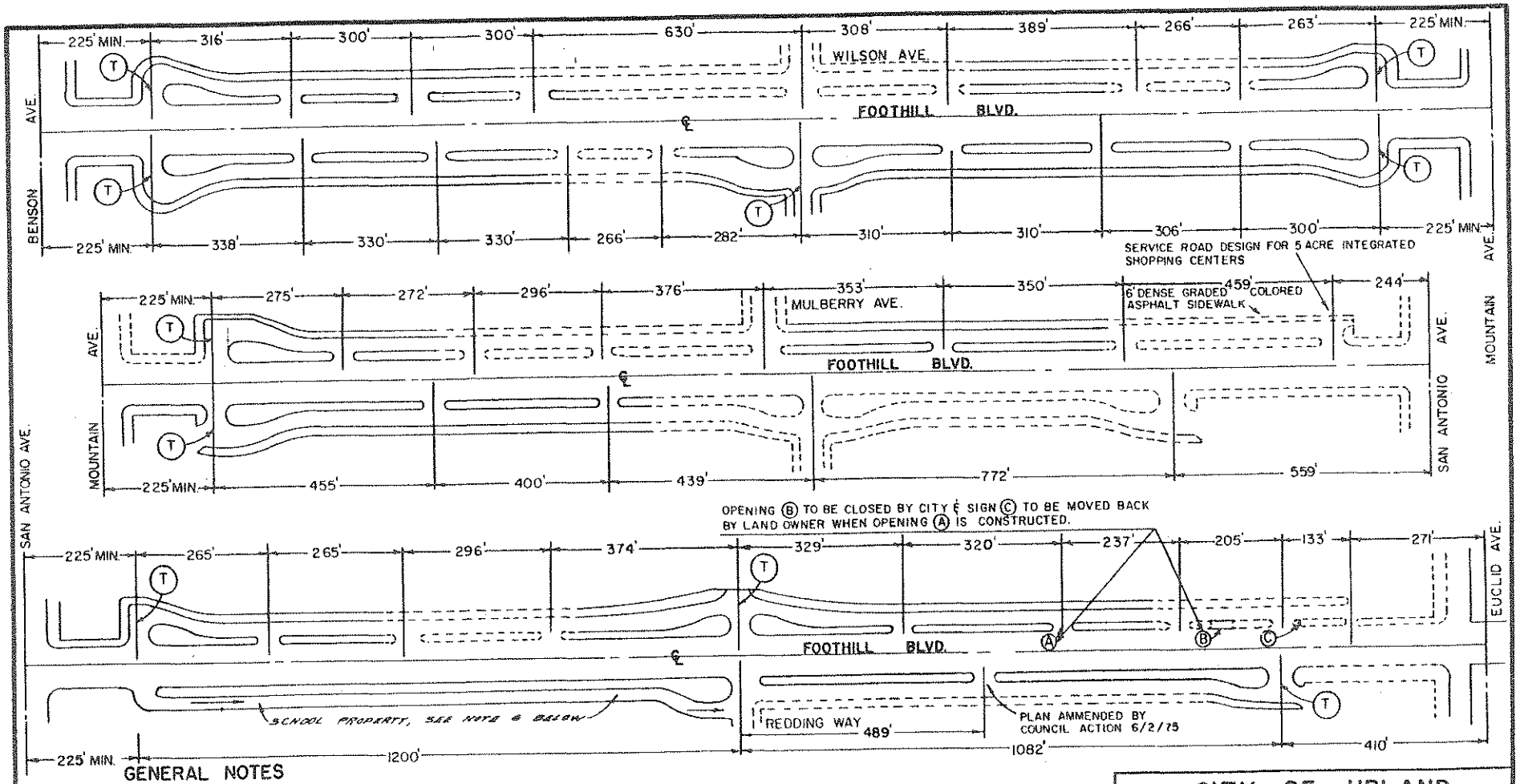


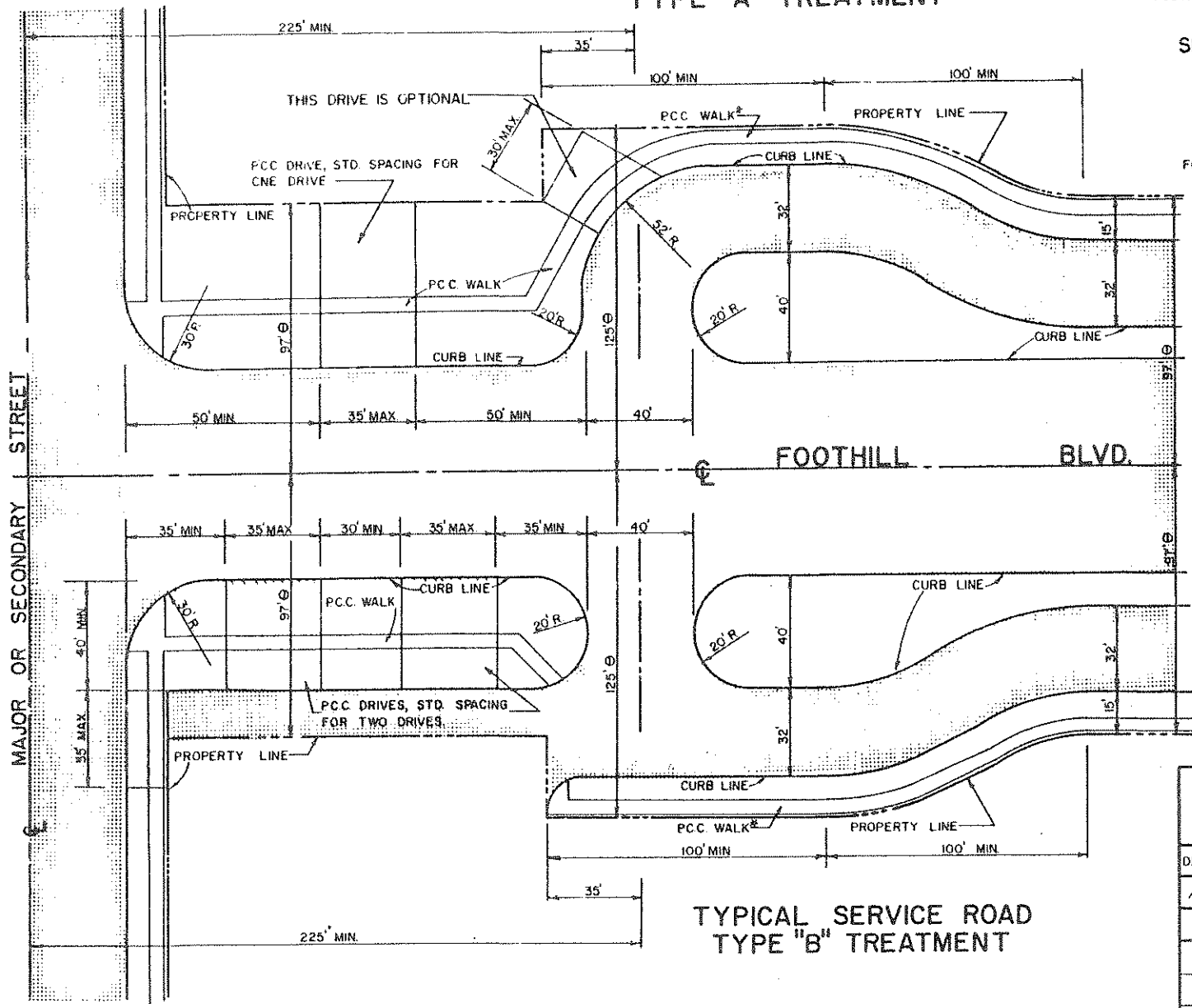
GENERAL NOTES

1. ALL PERMANENT SERVICE ROAD OPENINGS SHALL BE LOCATED AS SHOWN HEREON, EXCEPT FOR MINOR ADJUSTMENTS TO COINCIDE WITH PROPERTY LINES.
2. ALL FUTURE TERMINAL SERVICE ROAD OPENINGS, DESIGNATED HEREON BY THE LETTER "T", SHALL BE EITHER TYPE "A" OR TYPE "B" AS INDICATED ON FOOTHILL BOULEVARD SERVICE ROAD DETAILS, STANDARD DRAWING NO. CU-A-2.
3. THE MAXIMUM WIDTH OF ANY OPENING BETWEEN THE SERVICE ROAD AND FOOTHILL BLVD. SHALL BE 40 FEET.
4. DEDICATION OF ACCESS RIGHTS TO FOOTHILL BLVD SHALL BE INCLUDED IN THE DEED GRANTING SERVICE ROAD R/W TO THE CITY.
5. ALL SERVICE ROAD PLANS MUST BE SUBMITTED TO THE CALIFORNIA DIVISION OF HIGHWAYS FOR ENCROACHMENT PERMITS BEFORE CONSTRUCTION.
6. AS PERTAINS TO THESE PLANS, A 5 ACRE INTEGRATED SHOPPING CENTER SHALL BE DEFINED AS A DEVELOPMENT UNDER ONE OWNERSHIP OF 5 ACRES OR MORE HAVING 75% OR MORE OF ITS PARKING LOCATED BETWEEN THE SERVICE ROAD AND THE DEVELOPMENT STRUCTURES, WITH NORTH—SOUTH PARKING LOT ACCESS LANES.
7. SERVICE ROAD SHOWN ALONG SCHOOL PROPERTY SHALL BE OF SPECIAL DESIGN FOR ONE WAY TRAFFIC (22' FT. WIDE PVMT.); EXACT DESIGN TO BE SUBJECT TO APPROVAL BY THE CITY ENGINEER.

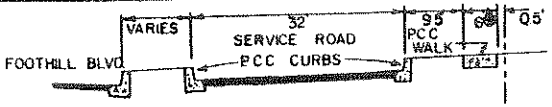
CITY OF UPLAND STANDARD DRAWING

DRAWN BY	DATE	PRECISE PLAN NO. 5
H.T.G.	11-18-64	FOOTHILL BLVD. SERVICE RDS.
REVISION BY	DATE	BENSON AVE. TO EUCLID AVE.
P.H.	1-21-65	APPROVED BY
B.F.	10-7-76	Fred C. Blanchard, CITY ENGINEER
		DRAWING NUMBER CU-A-1

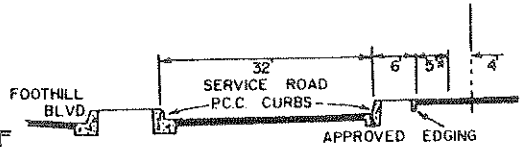
TYPICAL SERVICE ROAD TYPE "A" TREATMENT



TYPICAL SERVICE ROAD TYPE "B" TREATMENT



SERVICE ROAD & STANDARD SIDEWALK



SERVICE ROAD & SPECIAL SIDEWALK*

NOTES:

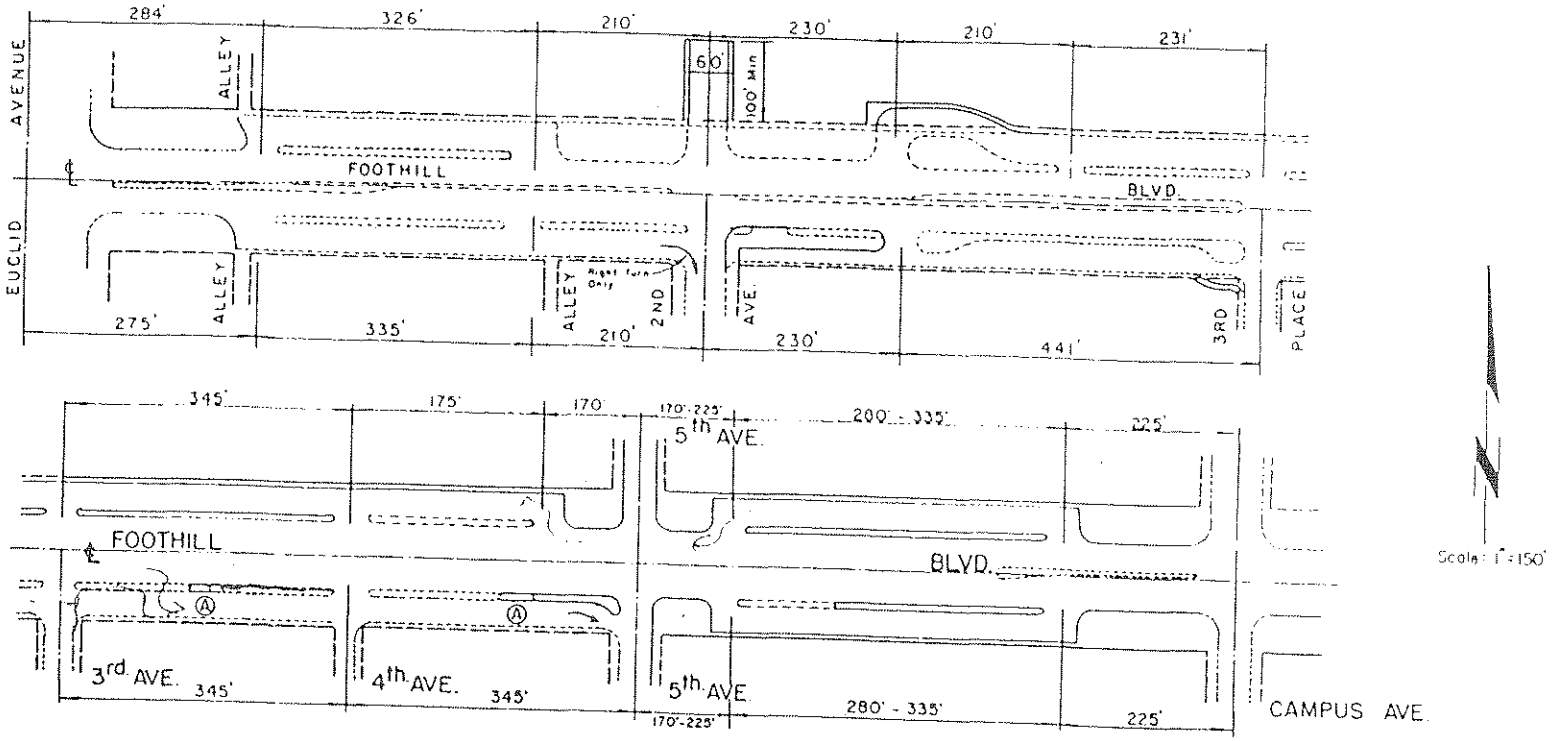
* SPECIAL GREEN COLORED, FINE GRADED ASPHALT MAY BE USED FOR SIDEWALK, AS SHOWN ABOVE, FOR A 5 ACRE INTEGRATED SHOPPING CENTER WHEN OFF-STREET PARKING IS PROVIDED ADJACENT TO THE SERVICE ROAD.

⊕ ADD 10 FEET TO THESE DIMENSIONS FOR SECTIONS BETWEEN MOUNTAIN AVE. & BENSON AVE.

⊕ 6 FOOT SIDEWALK WIDTHS SHALL BE CONSIDERED STANDARD.
5 FOOT SIDEWALK WIDTHS MAY BE USED UNDER SPECIAL CONDITIONS SUBJECT TO APPROVAL BY THE CITY ENGINEER.

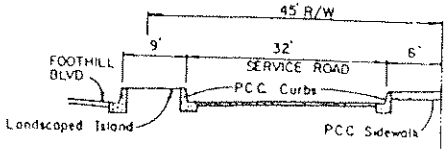
CITY OF UPLAND STANDARD DRAWING

DRAWN BY	DATE	PRECISE PLAN NO. 5 FOOTHILL BOULEVARD SERVICE ROAD DETAILS
H.T.G.	11-18-64	
REVISION BY	DATE	
		APPROVED BY Fred C. Blanchard CITY ENGINEER
		DRAWING NUMBER CU-A-2



GENERAL NOTES

1. All Permanent Service Road Openings Shall Be Located As Shown Hereon, Except For Minor Adjustments To Coincide With Property Lines.
2. The Maximum Width Of Any Opening Between The Service Road And Foothill Blvd. Shall Be 50 Feet.
3. Dedication Of Access Rights To Foothill Blvd. Shall Be Included In The Deed Granting Service Road R/W To The City.
4. All Service Road Plans Must Be Submitted To The California Division Of Highways For Encroachment Permits Before Construction



TYPICAL SECTION

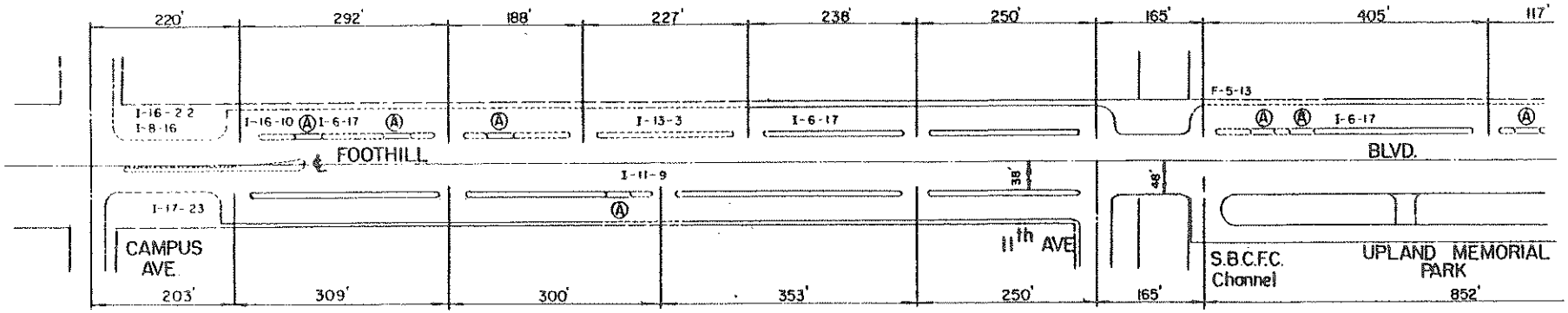
LEGEND

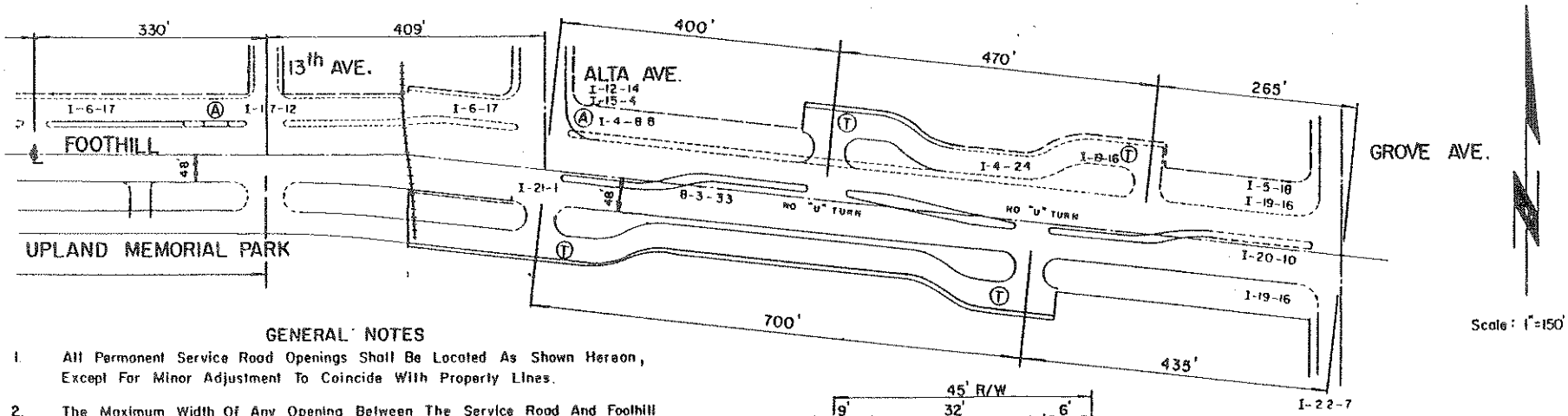
- Existing Curb
- Existing R/W
- Proposed Curb
- Proposed R/W
- Existing Opening
- Existing Opening To Be Closed Ⓐ
- Opening To Be Created In Existing Curb Ⓑ

PFL	6-5-69

CITY OF UPLAND STANDARD DRAWING

Drawn By	Date	PRECISE PLAN
jch	8-25-65	NO. 7
Revision By	Date	FOOTHILL BLVD SERVICE RDS EUCLID AVE TO CAMPUS AVE.
wah	1-6-66	Approved By
PPA #2	3-22-67	CITY ENGINEER
[illegible]	[illegible]	DRAWING NUMBER CU-A-3

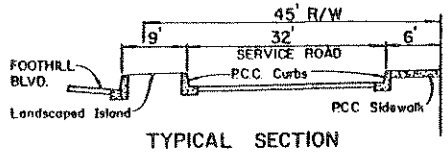




Scale: 1"=150'

GENERAL NOTES

1. All Permanent Service Road Openings Shall Be Located As Shown Hereon, Except For Minor Adjustment To Coincide With Property Lines.
2. The Maximum Width Of Any Opening Between The Service Road And Foothill Blvd. Shall Be 50 Feet.
3. Dedication Of Access Rights To Foothill Blvd. Shall Be Included In The Deed Granting Service Road R/W To The City.
4. All Service Road Plans Must Be Submitted To The California Division Of Highways For Encroachment Permits Before Construction.
5. Terminal Service Road Openings Designated Hereon By The Letter "T" Shall Be Either Type "A" Or Type "B" As Indicated On Foothill Boulevard Service Road Details, Standard Drawing No. CU-A-2.



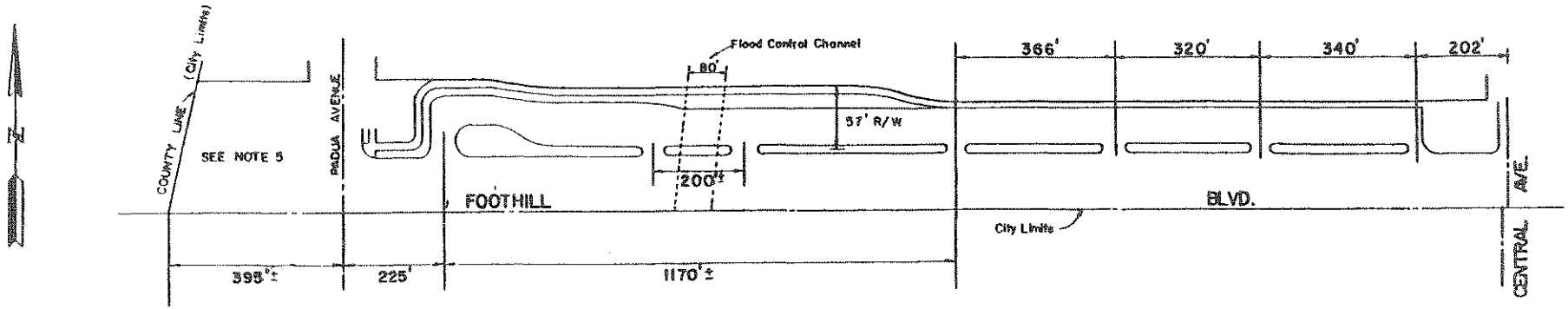
TYPICAL SECTION

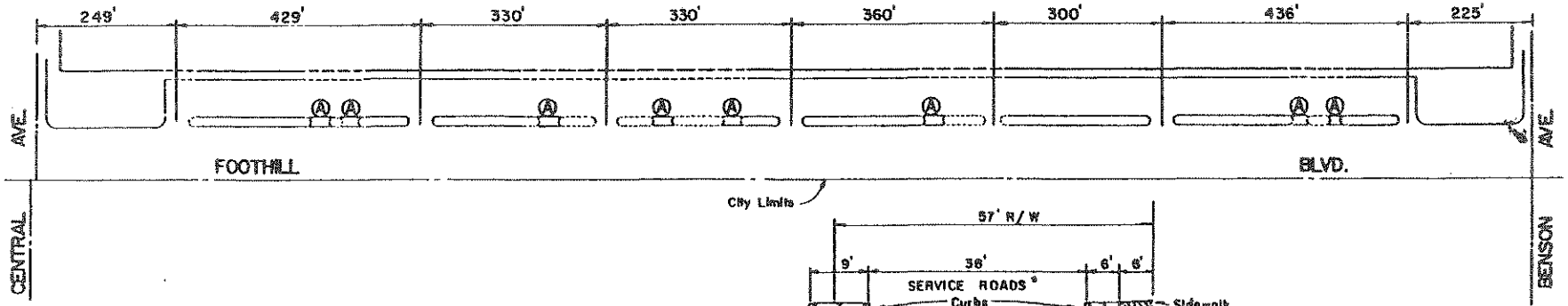
LEGEND

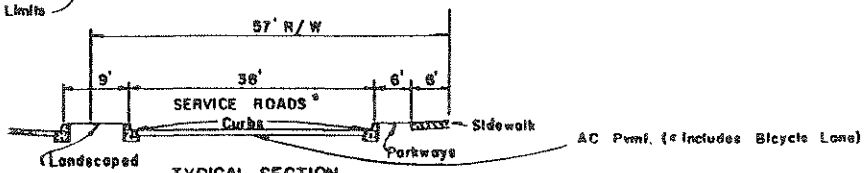
- Existing Curb
- Existing R/W
- Proposed Curb
- Proposed R/W
- Existing Opening
- Existing Opening To Be Closed Ⓐ
- Opening To Be Created In Existing Curb Ⓑ

CITY OF UPLAND STANDARD DRAWING

Drawn By	Date	PRECISE PLAN
j.c.h.	8-26-65	NO. 7
Revision By	Date	FOOTHILL BLVD. SERVICE RDS. CAMPUS AVE. TO GROVE AVE.
w a h	1-6-66	Approved By
LWA	PPA #3 12-15-69	Fred C. Blanchard CITY ENGINEER
As Built JC & AB	Revisions 1-25-71	DRAWING NUMBER CU-A-4

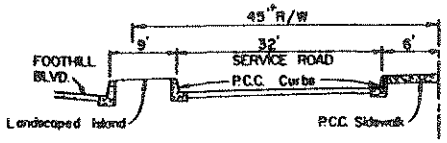






TYPICAL SECTION
WEST OF FLOOD CONTROL CHANNEL

* Except as otherwise noted.



TYPICAL SECTION
EAST OF FLOOD CONTROL CHANNEL

GENERAL NOTES

1. All Permanent Service Road Openings Shall Be Located As Shown Hereon, Except For Minor Adjustment To Coincide With Property Lines.
2. The Maximum Width Of Any Opening Between The Service Road And Foothill Blvd. Shall Be 50 Feet.
3. Dedication Of Access Rights To Foothill Blvd. Shall Be Included In The Deed Granting Service Road R/W To The City.
4. All Service Road Plans Must Be Submitted To The California Division Of Highways For Encroachment Permits Before Construction.
5. Actual Design of Service Road Facilities Within Right of Way West of Padua Avenue to be Coordinated With City of Claremont Before Construction.

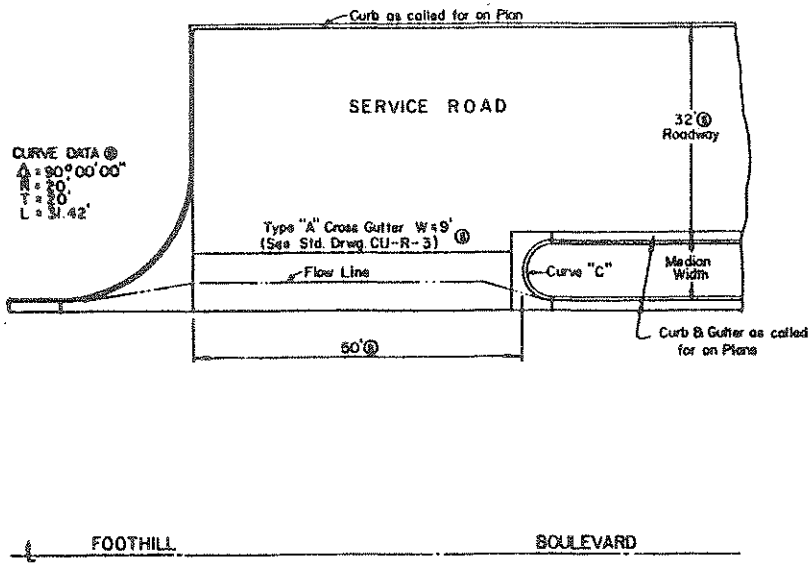
LEGEND

- Existing Curb
- Existing R/W
- Proposed Curb
- Proposed R/W
- Existing Opening
- Existing Opening To Be Closed Ⓐ

CITY OF UPLAND STANDARD DRAWING

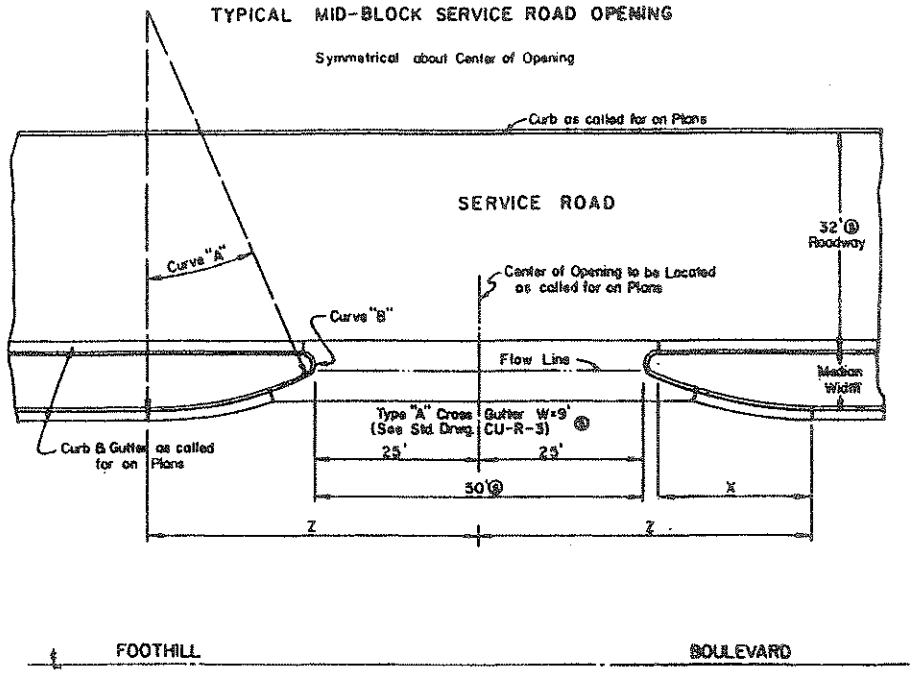
Drawn By	Date	PRECISE PLAN
w e h	12-29-65	NO. 8A FOOTHILL BLVD. SERVICE ROADS COUNTY LINE to BENSON AVE.
Revision By	Date	
B.G.	4-16-73	Approved By Fred C. Blanchard CITY ENGINEER
		DRAWING NUMBER CU-A-5

TYPICAL TERMINAL SERVICE ROAD OPENING



TYPICAL MID-BLOCK SERVICE ROAD OPENING

Symmetrical about Center of Opening



CURVE DATA

			CURVE "A" Radius = 60 Feet			CURVE "B" Radius = 2 Feet		CURVE "C" Δ = 180°	
Median Width	X	Z	Δ	L	T	Δ	L	R	L
9'	23.56'	50.56'	23°-57'-54"	25.10'	12.73'	156°-02'-06"	5.45'	4.5'	14.14'
11'	27.82'	54.64'	28°-26'-27"	29.78'	15.20'	151°-33'-33"	5.29'	5.5'	17.28'
12'	29.39'	56.39'	30°-27'-01"	31.89'	16.33'	149°-32'-59"	5.22'	6'	18.85'
40'								20'	62.83'

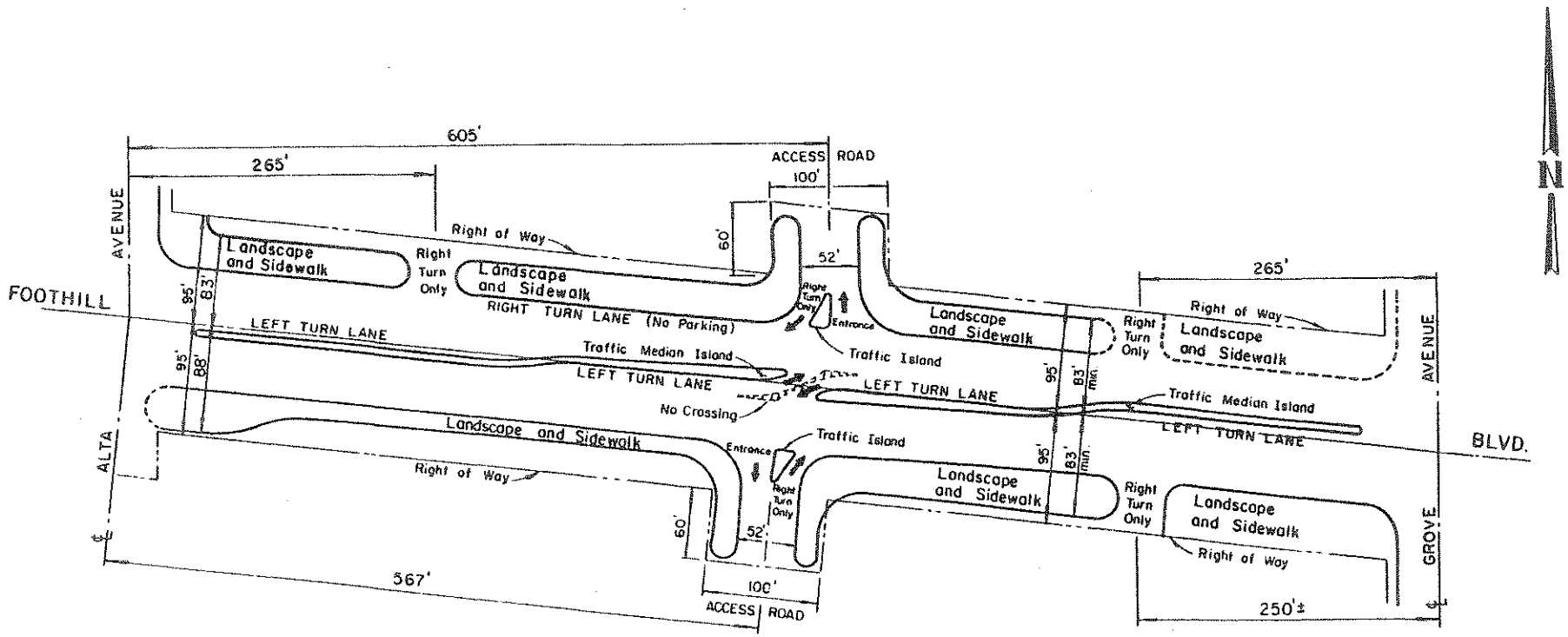
GENERAL NOTES

1. Terminal Service Road Openings Designated by the Letter "T" on Drawings Number CU-A-1 and Number CU-A-4 shall be 40 Feet Wide and Curve "C" shall have a Radius of 20 Feet.
2. Flow Line Elevations Across Service Road Openings are to be Indicated on the Profile Portion of the Plan.

Ⓢ STANDARD UNLESS OTHERWISE NOTED ON PLANS.

CITY OF UPLAND
STANDARD DRAWING

Drawn By	Date	FOOTHILL BOULEVARD SERVICE ROADS STANDARD OPENINGS
w a h	1-7-66	
Revision By	Date	
		Approved By Fred C. Blanchard CITY ENGINEER
		Drawing Number CU-A-6



GENERAL NOTES:

1. See Drwg. CU-A-8 For Additional Dimensions For Access Road Openings At Mid-Block.

2. This Plan Is An Alternate To A Portion Of The Plan Shown On Drawing No. CU-A-4; The General Notes Listed Thereon Shall Be Considered A Part Of This Plan And Apply To The Plan, Wherever Applicable.

3. Left Turn Storage Islands On Foothill Blvd. To Serve The Adjacent Properties Shall Be Fully Constructed By The Developers Of Said Properties.

4. Traffic Median Island In The Center Of Foothill Blvd. Shall Be Constructed Prior To The Opening Of The "Right Turn Only" Entrance Located 265' East Of Alta Avenue To Insure Against Left Turn Movements Into Said "Right Turn Only" Entrance.

CITY OF UPLAND STANDARD DRAWING

Drawn By	Date
Lwa	5-26-70
REVISIONS BY	DATE
W.A.B.	5/3/71

PRECISE PLAN AMMENDMENT No. 4 & 5

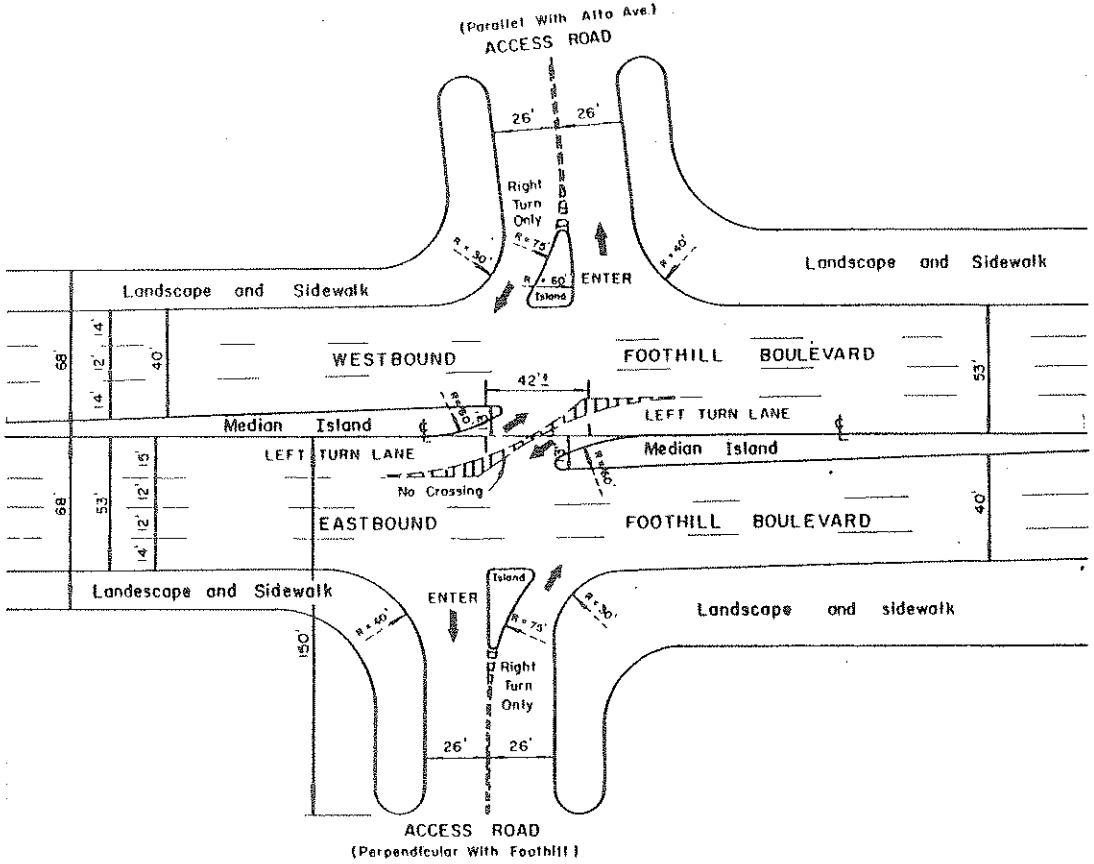
Alternate Plan To P.P. No. 7

Foothill Blvd. Service Roads Alta Ave. to Grove Ave.

APPROVED BY

CITY ENGINEER

DRAWING No. CU - A - 7

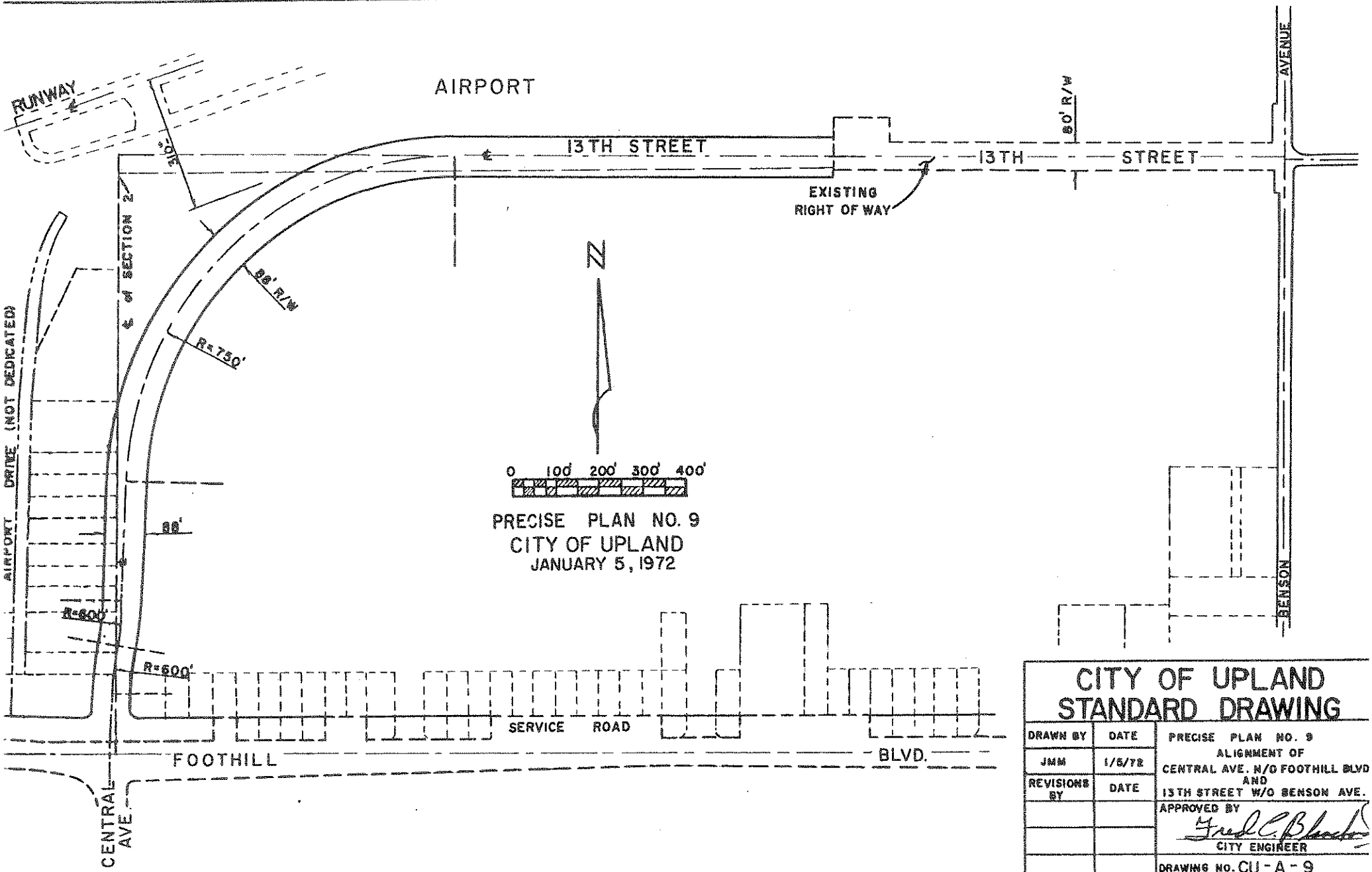


NOTE

1. See Drawing No. CU-A-7 For Overall Plan Between Alta Avenue and Grove Avenue.

CITY OF UPLAND STANDARD DRAWING

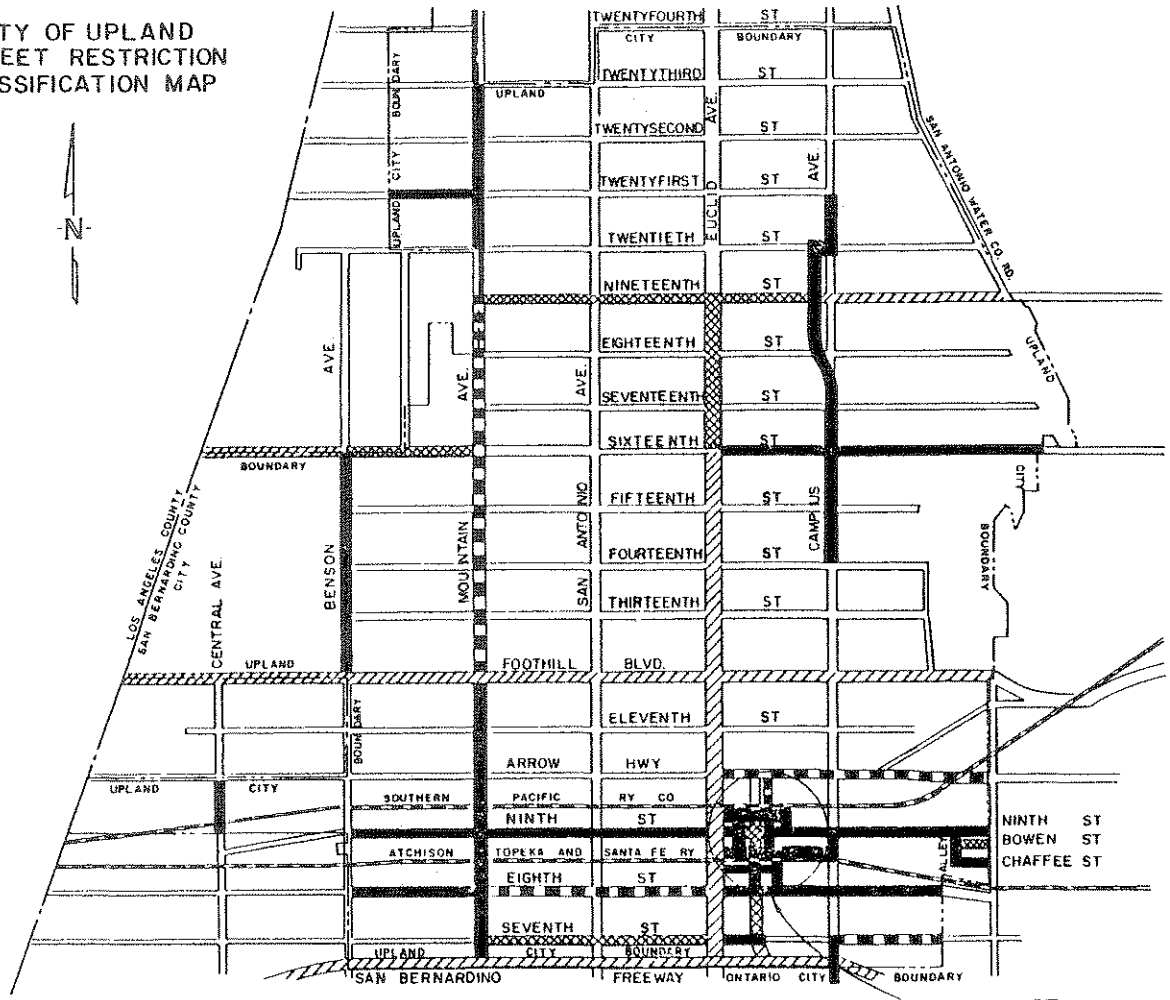
DRAWN	DATE	PRECISE PLAN AMENDMENT NO. 4
Lwa	5-26-70	ALTERNATE PLAN TO P.P. No. 7 Detail of Access Road Openings on N & S Sides of Foothill Blvd. Midway between Alta Avenue and Grove Avenue
		APPROVED BY Fred C. Blowers CITY ENGINEER
		DRAWING NO. CU-A-8



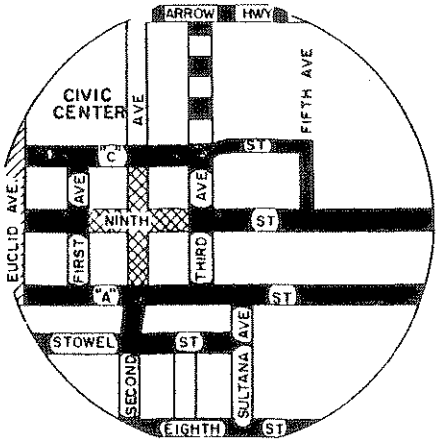
CITY OF UPLAND STANDARD DRAWING

DRAWN BY	DATE	PRECISE PLAN NO. 9 ALIGNMENT OF CENTRAL AVE. N/O FOOTHILL BLVD AND 13TH STREET W/O BENSON AVE.
JMM	1/6/72	
REVISIONS BY	DATE	APPROVED BY Fred C. Blanchard CITY ENGINEER
		DRAWING NO. CU-A-9

CITY OF UPLAND STREET RESTRICTION CLASSIFICATION MAP



SEE CIVIC CENTER INSERT



CIVIC CENTER INSERT

LEGEND

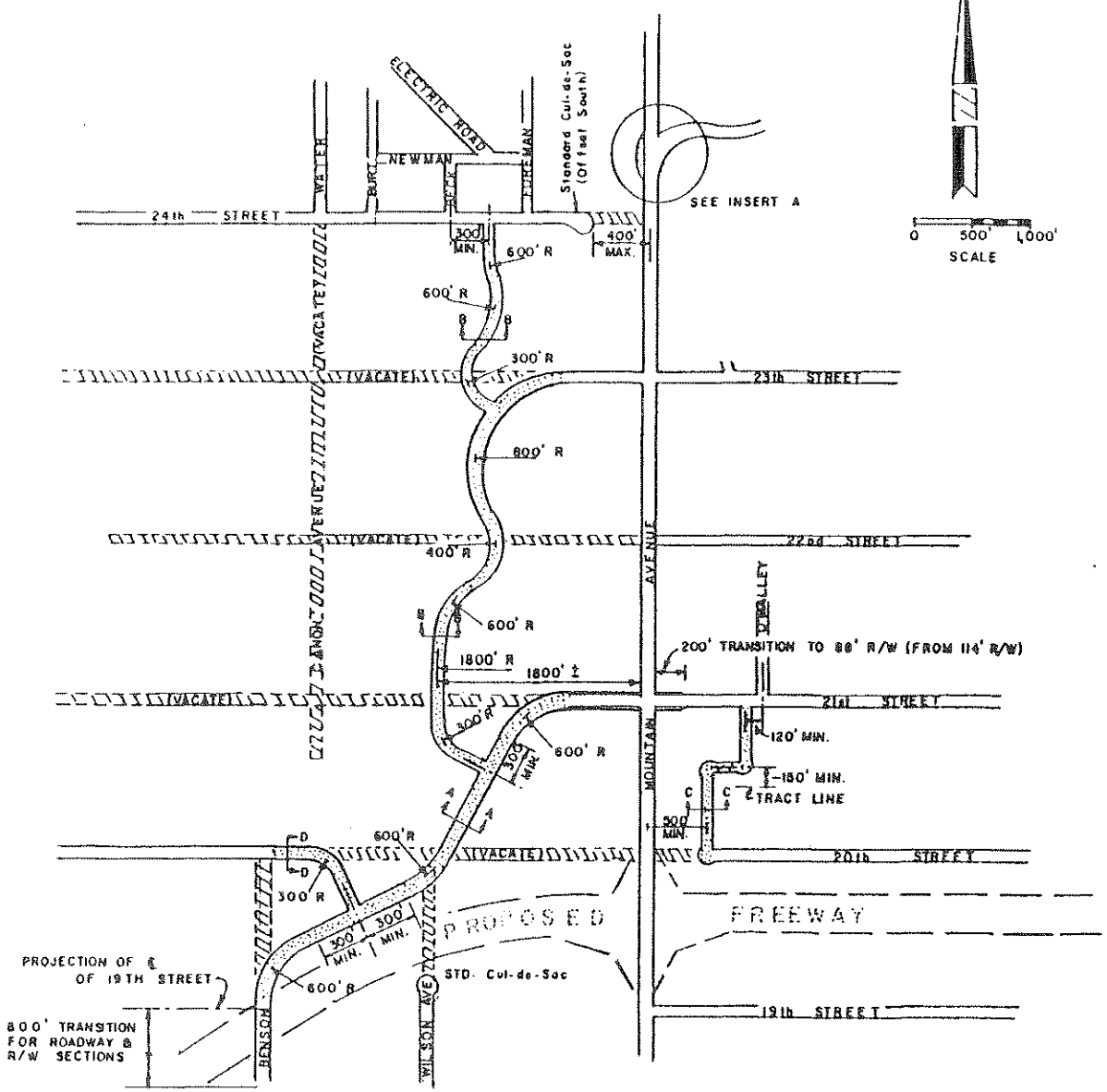
- STATE HWY.
- UNRESTRICTED
- INTERMEDIATE LOAD
- SPECIALLY IDENTIFIED
- ALL OTHER STREETS ARE RESTRICTED

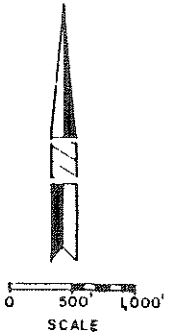
LOAD LIMITS

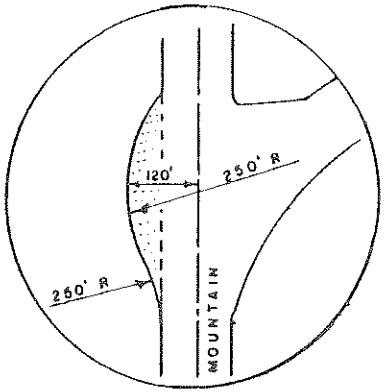
UNRESTRICTED: ACCORDING TO STATE LAW
INTERMEDIATE LOAD: 36,000 LBS. MAX.
SPECIALLY IDENTIFIED: SEE SECT. 3311 OF MUNICIPAL CODE
ALL OTHERS, RESTRICTED TO 10,000 LBS. MAX.

CITY OF UPLAND STANDARD DRAWING

DRAWN BY	DATE	RESTRICTED USE OF CERTAIN CITY STREETS
J.E.K.	5-18-72	CLASSIFICATION AND DESIGNATED STREETS
REVISIONS BY	DATE	PER SECTION 3311 MUNICIPAL CODE
		APPROVED BY
		CITY ENGINEER
		DRAWING NO. CU-A-10







INSERT A

STREET LEGEND

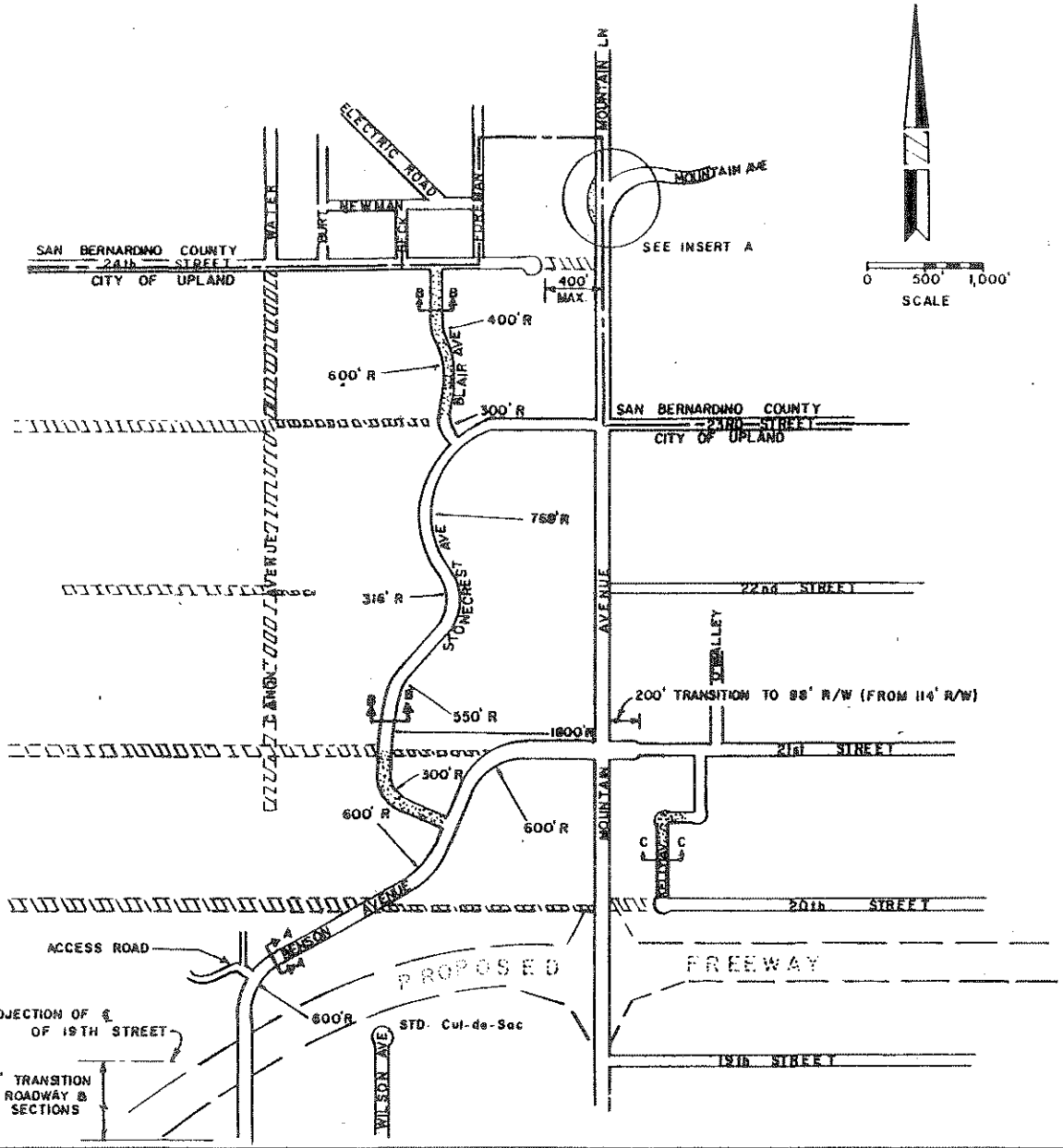
EXISTING STREET TO REMAIN	
NEW RIGHT OF WAY	
EXISTING TO BE VACATED	
PROPOSED FREEWAY	

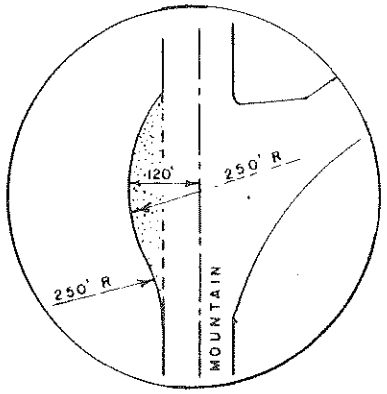
GENERAL NOTES

1. Refer to City of Upland Standard Drawing No. CU-L-2 for all Cul-de-Sac and Knuckles (Right Angle Turns).
2. All Radii may be increased up to 25% or decreased up to 10%.
3. See Standard Drawing No. CU-A-12 for typical sections.

CITY OF UPLAND STANDARD DRAWING

DRAWN BY	DATE	PRECISE PLAN NO. 12 CIRCULATION ELEMENT NORTHWEST SECTOR OF THE GENERAL PLAN
L A L	10-3-77	
REVISION BY	DATE	APPROVED BY
		Fred C. Blanford
		CITY ENGINEER
		DRAWING NO. CU-A-11





INSERT A

STREET LEGEND

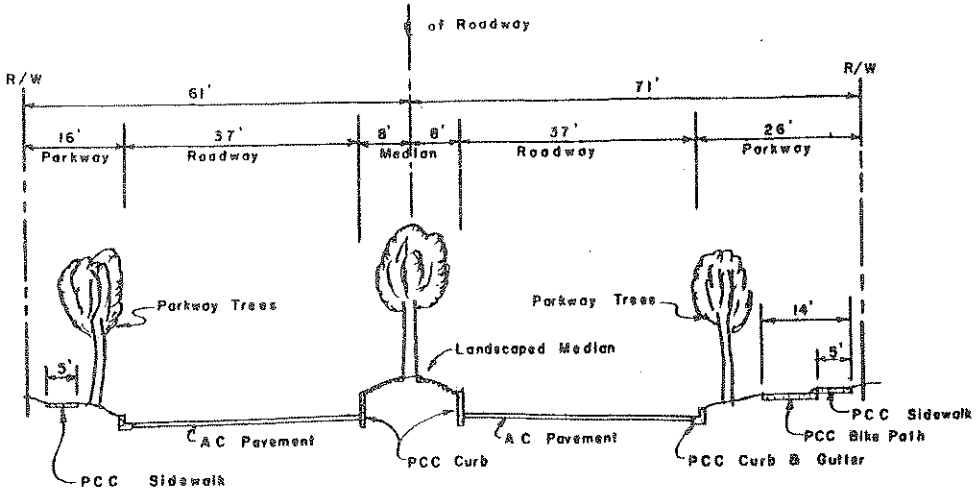
EXISTING STREET	
NEW RIGHT OF WAY	
EXISTING TO BE VACATED	
PROPOSED FREEWAY	

GENERAL NOTES

1. Refer to City of Upland Standard Drawing No. CU-L-2 for all Cul-de-Sac and Knuckles (Right Angle Turns).
2. This drawing is a supplement to drawing CU-A-11 (Precise Plan No. 12), showing accomplished street changes.
3. See Standard Drawing No. CU-A-12 for typical sections.

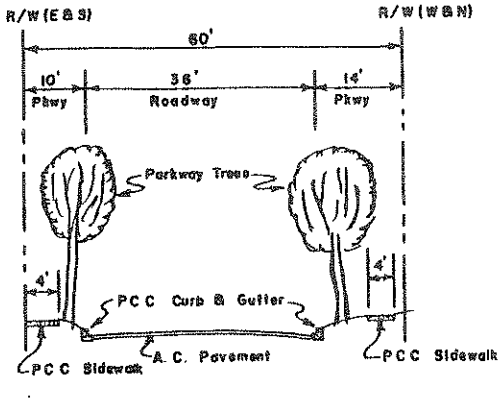
CITY OF UPLAND STANDARD DRAWING

DRAWN BY	DATE	PRECISE PLAN NO. 12 IMPLEMENTATION
JN	1-30-85	
REVISION BY	DATE	APPROVED BY
		CITY ENGINEER
		DRAWING NO. CU-A-11S



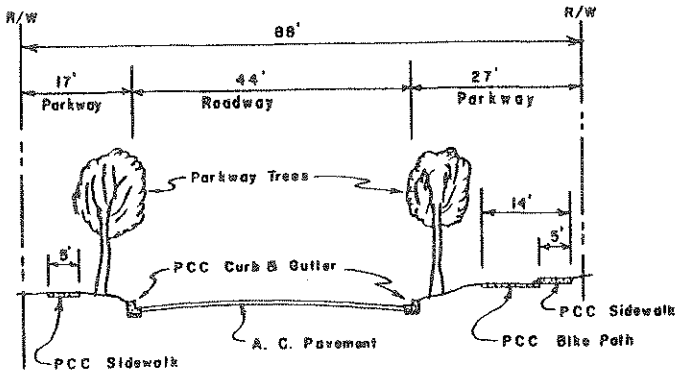
SECTION A-A

BENSON AVENUE NORTH OF 19th STREET
21st STREET WEST OF MOUNTAIN AVENUE



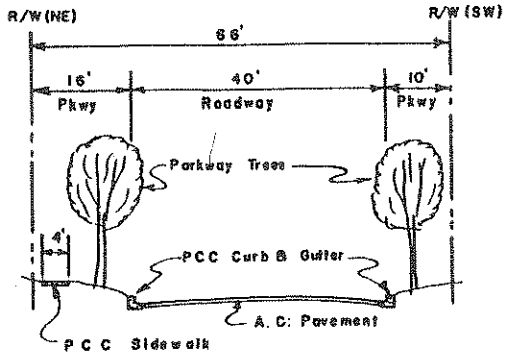
SECTION C-C

NORTH-SOUTH ALIGNMENT CONNECTING 20th STREET
TO 21st STREET EAST OF MOUNTAIN AVENUE



SECTION B-B

23rd STREET WEST OF MOUNTAIN AVENUE
AND
NORTH-SOUTH ALIGNMENTS CONNECTING
BENSON AVENUE TO 23rd STREET AND 24th
STREET



SECTION D-D

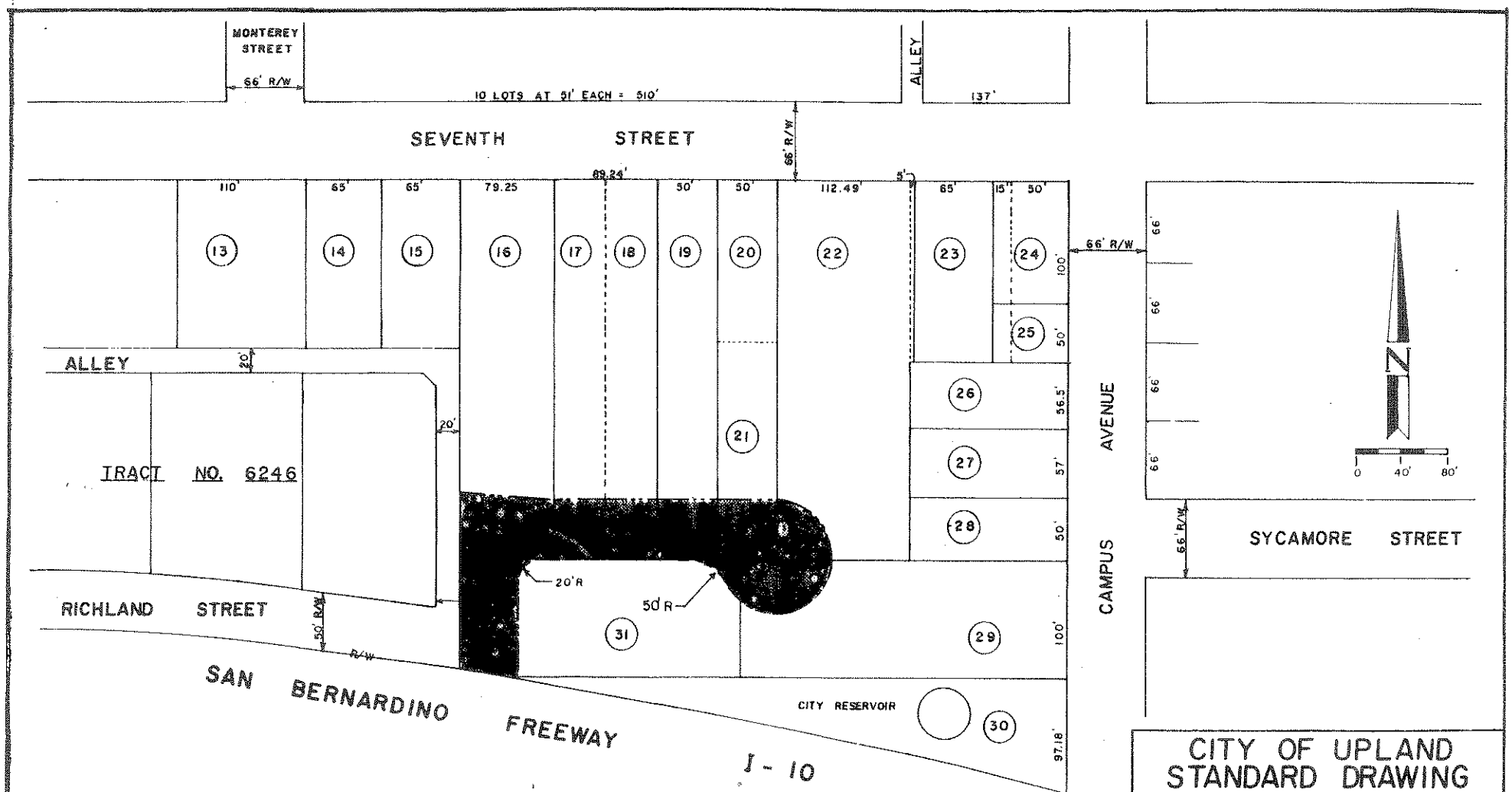
20th STREET NORTHWEST
OF BENSON AVENUE

GENERAL NOTE

1. See Standard Drawing CU-A-11 for plan and other details.

CITY OF UPLAND
STANDARD DRAWING

DRAWN BY	DATE	PRECISE PLAN NO. 12
L A L	10-3-77	CIRCULATION ELEMENT NORTHWEST SECTOR OF THE GENERAL PLAN
REVISION BY	DATE	SECTION DETAILS
		APPROVED BY Fred C. Blanchard CITY ENGINEER
		DRAWING NO. CU-A-12



CITY OF UPLAND STANDARD DRAWING

DRAWN BY	DATE	PRECISE PLAN NO. 3 : REVISION 1
LAL	11/7/77	RICHLAND STREET EXTENSION
REVISIONS BY	DATE	510'± EASTERLY TO CAMPUS AVE.
JN	2/21/85	APPROVED BY
		CITY ENGINEER
		DRAWING NO. CU - A - 13

PLAN SYMBOLS

- Center Line
- Point Of Intersection
- Right Of Way Line
- Property Line
- Existing Curb
- New Curb
- Existing Curb And Gutter
- New Curb And Gutter
- Existing Sidewalk
- New Concrete Sidewalk
- New Concrete Driveway
- New Pavement
- New Pavement To Be Overlaid Over Existing Pavement
- 24" RCP — Existing Reinforced Concrete Culvert Or Storm Drain
- 18" x 11" CMP — Existing Corrugated Metal Culvert Or Storm Drain
- Existing Curb Inlet
- Existing Inlet With Grating
- 18" CMP — New Storm Drain, Curb Inlet And Gutter Depression
- 8" CP — Existing Concrete Irrigation Line
- 12" ST — Existing Steel Irrigation Line
- Existing Irrigation Standpipe
- 12" ST-I — New Steel Irrigation Line
- 6" — Existing Water Line
- Water Meter
- Water Valve
- Fire Hydrant
- Existing Sprinkler Or Bubbler Head
- 2" — Existing Gas Line
- Gas Meter
- Gas Valve
- Existing Telephone Conduit
- Existing Electric Conduit
- Telephone Pole
- Power Pole
- Pole Anchor
- Guy Pole
- Telephone & Power On Same Pole
- SL — Existing Street Lighting Conduit
- Existing Street Light
- New Street Light
- SIG — Existing Traffic Signal Conduit
- Existing Traffic Signal
- D — Existing Traffic Signal Detector
- Existing Traffic Signal Controller
- PB — Pull Box
- S — New Stop Sign
- Y — New Yield Sign
- New Informational Sign
- Existing Street Name Sign
- New Street Name Sign
- Railroad Tracks
- Existing Railroad Crossing Sign
- Existing Railroad Crossing Signal
- Existing Chain Link Fence
- Existing Wire Fence
- Existing Wood Fence
- Existing Masonry Wall
- Existing Hedge
- Shrub
- Existing Tree
- Proposed Tree
- Palm Tree
- Diameter Of Tree Outlines In Feet Should Be Approximately Equal To Trunk Size In Inches
- Building
- Monument
- Existing Natural Flow Line
- Existing Top Of Slope
- Existing Toe Of Slope
- Direction Of Flow
- New Top Of Slope
- New Toe Of Slope
- 8" — S — Existing Sanitary Sewer
- Existing Manhole
- S — Existing Sewer Cleanout
- 8" — New Sanitary Sewer And Manhole
- 8" — New Sewer Cleanout
- 8" — New Sanitary Sewer Main With Wyes And Lateral

PROFILE SYMBOLS

- Existing Pavement Profile
- Existing Curb Profile
- Existing Sidewalk Profile
- Existing Ground Profile
- Finished ℄ Grade
- Top Of Curb Grade
- Back Of Sidewalk Grade
- Point Of Intersection
- 24" RCP — New Culvert Or Storm Drain And Curb Inlet
- Existing Sanitary Sewer, Manhole & Cleanout
- New Sanitary Sewer, Manhole & Cleanout

CITY OF UPLAND STANDARD DRAWING

Drawn By	Date	PLAN & PROFILE SYMBOLS
j.c.h	7-26-65	
Revision By	Date	
		APPROVED BY Fred E. Wanchard CITY ENGINEER
		DRAWING NUMBER CU-D-1

GENERAL NOTES

1. All work called for on the Plans shall be in compliance with current City of Upland Standard Specifications, adopted by City Council, unless otherwise noted on the Plans or in the Special Provisions for the subject Project.

2. The Contractor, before undertaking any grading or construction work of any type within the public right of way, must first obtain a Construction Permit from the City Engineering Dept.

3. A Temporary Street Closure Permit is required in all cases where work will in any way interfere with either vehicular or pedestrian traffic. The Contractor is advised that City Council Resolution No 1656, dealing with prompt restoration of city streets torn up during construction, will be enforced in all cases where the provisions thereof are applicable.

4. Inspection by the City of the work called for on the Plans shall not, in any way, relieve the Contractor and/or the Developer of their obligation to perform the work in compliance with the Plans and Specifications.

5. Any alterations or variances from the Plans, except minor adjustments in the field to meet existing conditions, shall be requested in writing and may not be instituted until approved by the City Engineer or his representatives acting specifically upon his instructions.

6. All elevations shown on the Plans are established from City of Upland datum plane.

7. Quantities, as shown on the plans, are estimated, and the Contractor is advised that final quantities of material and work in place may be somewhat greater or less than those indicated on the Plans.

8. Concrete gutters, alley approaches, driveways or other concrete items, which will be subject to vehicular traffic, shall be barricaded, and no vehicular traffic permitted thereon, for a period of at least seven days following the placing of said concrete item. When the general provisions call for use of a concrete item by vehicular traffic sooner than seven days after placing, or when the Contractor for convenience of operation so desires, concrete containing eight sacks of cement per cubic yard may, and shall if so directed by the Engineer, be used, and traffic will be permitted thereon seventy-two hours after the placing of said eight sack concrete.

9. Irrigation lines within any City right of way shall have a twenty-four inch minimum cover from finish surface, unless said irrigation line is encased in concrete or bedded in a special concrete cradle.

10. The Contractor shall operate in a manner compliant with all applicable sections of the Municipal Code and compliant with all applicable City Council Resolutions.

11. The location of underground utility or irrigation lines, as shown on the Plans, is approximate, and since the actual location may be somewhat different from that shown, the Contractor is required to contact the interested utility or water company before excavating in the vicinity of any such lines.

12. Parkway trees, installed by the developer, shall be planted and maintained in accordance with City of Upland Standard Drawing No. CU-P-6.

13. All street name and traffic regulatory signs indicated on the Plans will be installed by the developer in accordance with City of Upland Std. Drwg. Nos. CU-G-2, CU-G-3, CU-G-4.

14. All street lights indicated on the Plans shall be installed by the Southern California Edison Company. The Developer shall pay the City, in advance, for the installation of lights to be served from overhead systems, and the City will, in turn, arrange for their installation. The Developer shall work directly with the Edison Company when the lights are to be served from an underground system.

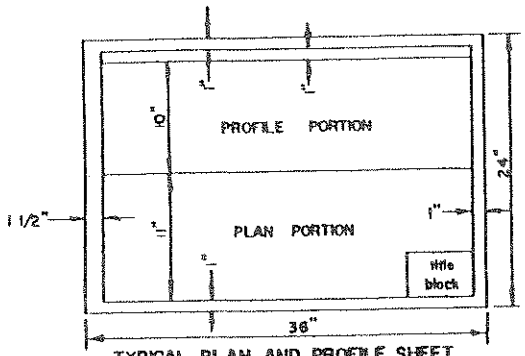
15. An approved weed killer shall be applied to the prepared base prior to asphalt paving in all areas where there is any evidence of humus or organic material present in the base (either native or imported) material. All weed killers used shall be applied in strict accordance with the manufacturers specifications and instructions.

ABBREVIATIONS

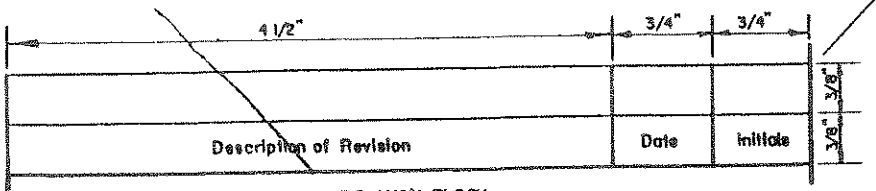
A.C.	Asphaltic Concrete	A.C.P.	Asbestos Cement Pipe
&	and		
@	at		
Ave.	Avenue		
B.C.	Begin Curve		
B.C.R.	Begin Curb Return		
Bit.	Bituminous		
Bldg.	Building	Bk.	Book
Blvd.	Boulevard	B.M.	Bench Mark
B.V.C.	Begin Vertical Curve		
B/W	Back of Sidewalk		
C	Correction at center of Vertical Curve	C.B.	Catch Basin
c.c.	Center to Center	C.F.	Curb Face
C.I.	Cast Iron		
℄	Center Line		
C.M.P.	Corrugated Metal Pipe	C.O.	Cleanout
Conc.	Concrete	Constr.	Construct
C.U.P.	Conditional Use Permit	D.A.	Drive Approach
Dia.	Diameter		
D.M.H.	Drop Manhole		
Drwg.	Drawing	Dwy.	Driveway
E.	East		
E.C.	End Curve		
E.C.R.	End Curb Return		
El.	Elevation		
E.V.C.	End Vertical Curve		
Exist.	Existing		
F.B.	Field Book		
F.H.	Fire Hydrant		
F.L.	Flow Line	F.S.	Finished Surface
G.P.	Grading Plan	G.L.	Ground Line
G.T.P.	Gas Tax Project	Gr.	Grade
I	Central Angle or Delta		
L	Length or Length of Arc		
Lt.	Left		
M.H.	Manhole	M.B.	Map Book
N	North	Mon.	Monument
No.	Number		
%	per cent		
P.C.C.	Point of Compound Curve	or Portland Cement Conc.	
ℙ	Property Line		
P.R.C.	Point of Reverse Curve		
Proj.	Project	P.I.	Point of Intersection
P.V.I.	Point of Vertical Intersection		
R.	Radius	P.P.	Power Pole
R.C.P.	Reinforced Concrete Pipe		
Rd.	Road	Pvmt.	Pavement
R.R.	Railroad	Rdwy.	Roadway
R/S	Record of Survey		
Rt.	Right		
R/W	Right of Way		
S.	South		
Sect.	Section		
Sl.	Slope		
S.P.	Site Plan	Sp.M.H.	Special Manhole
Spec.	Specification	S.S.	Sanitary Sewer
St.	Street	Std.	Standard
Sta.	Station	S.W.	Sidewalk
T	Tangent Length for Curve		
Tr.	Tract		
V.C.P.	Vitrified Clay Pipe	V.C.	Vertical Curve
W	West or Width		
2:1	Slope of one foot measured vertically for every two feet measured horizontally		

CITY OF UPLAND STANDARD DRAWING

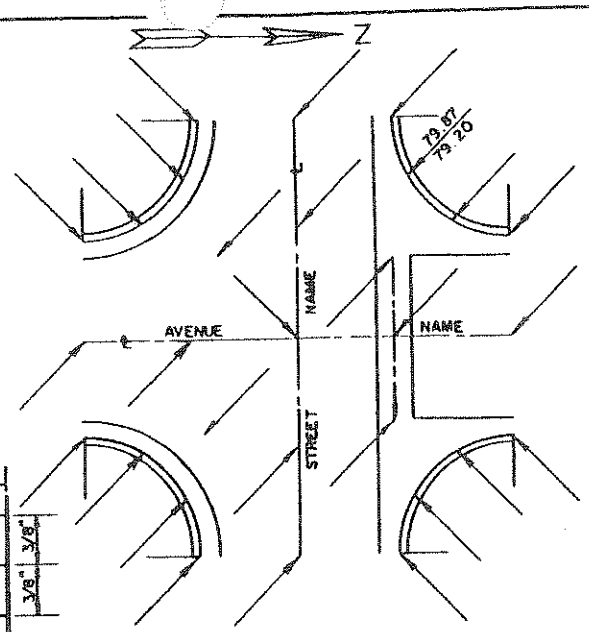
Drawn By	Date	GENERAL NOTES AND ABBREVIATIONS
j.c.h.	7-29-65	
Revision By	Date	
L.w.a.	10-24-66	APPROVED BY
L.G.Y.	12-15-66	Fred C. Blanchard, CITY ENGINEER
L.w.a.	5-13-70	DRAWING NUMBER CU-D-2



TYPICAL PLAN AND PROFILE SHEET



REVISION BLOCK



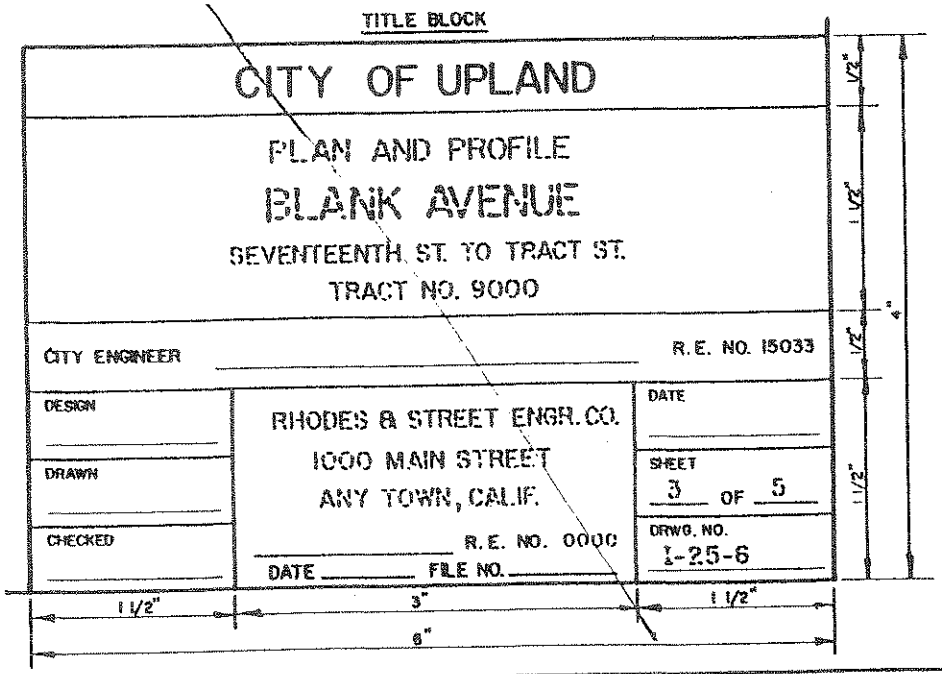
TYPICAL INTERSECTION DETAIL

Scale: Use 1" = 10"

ELEVATIONS TO BE SHOW

Show finish elevations at points as indicated in this example, and at all other points needed to grade intersection correctly. For curb grades, list top of curb over flow line elevations. Elevations for curb returns should normally be given at third points.

TITLE BLOCK



See new title block 10-18-85

GENERAL NOTES

The following general note shall be included on the first sheet of every set of plans. [The following City of Upland Standard Drawings apply to this project and shall be considered as a part of these Plans:] This note is to be followed by a list of all applicable Std. Drwgs.

The General Notes listed on Std. Drwg. CU-D-2 need not be repeated on the plans; reference to Drwg. CU-D-2 will be acceptable. Any additional general notes should be listed on the first sheet of the plans.

ESTIMATED QUANTITIES

List estimated quantities in table form on first sheet of plans.

List estimated asphalt paving quantities in both square feet and in tons.

List roadway excavation and embankment in cubic yards.

List all removal items as well as new construction.

List all manholes and water valves to be adjusted to grade.

INDEX MAP

An index map should be located at the right side of the first sheet. The normal scale for index maps is 1"=200'.

TYPICAL SECTIONS

Show typical sections on the plan and profile sheets to which they apply wherever possible.

TYPICAL INTERSECTION DETAILS

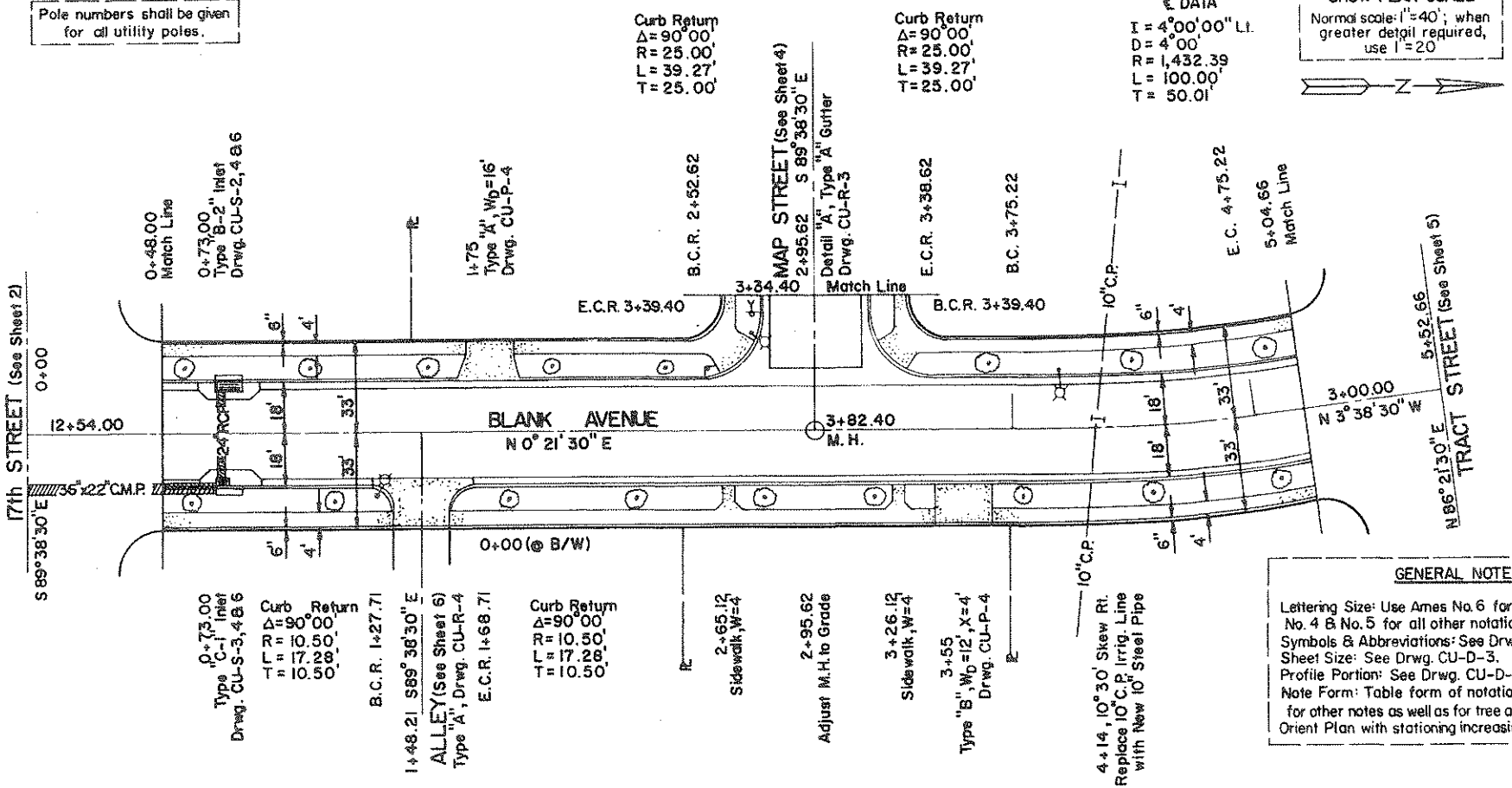
Show typical intersection details for all intersections. Wherever possible intersection details should be included on the plan and profile sheet to which they apply. Otherwise they may be shown on either the first sheet or on a special detail sheet.

CITY OF UPLAND STANDARD DRAWING		
DRAWN BY	DATE	IMPROVEMENT PLAN SHEETS GENERAL INFORMATION
wah	8/5/65	
REVISIONS BY	DATE	
		APPROVED BY Fred C. Bierstedt CITY ENGINEER
		DRAWING NO. CU-D-3

Pole numbers shall be given for all utility poles.

SHOW PLAN SCALE
Normal scale: 1"=40'; when greater detail required, use 1"=20'

℄ DATA
I = 4°00'00" Lt.
D = 4°00'
R = 1,432.39
L = 100.00'
T = 50.01'

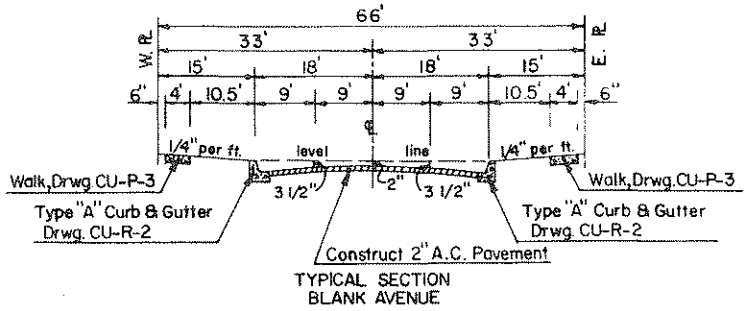


GENERAL NOTES

Lettering Size: Use Ames No. 6 for street names; No. 4 & No. 5 for all other notations.
Symbols & Abbreviations: See Drwg. CU-D-1 & 2.
Sheet Size: See Drwg. CU-D-3.
Profile Portion: See Drwg. CU-D-5.
Note Form: Table form of notations may be used for other notes as well as for tree and light locations.
Orient Plan with stationing increasing to the right.

NEW TREES & STREET LIGHTS

LEFT PARKWAY		RIGHT PARKWAY	
Sta.	Item	Sta.	Item
0+55	Magnolia Tree	0+55	Magnolia Tree
1+00	" " "	1+10	" " "
1+45	" " "	1+33	"R-1" Light
2+00	" " "	1+85	Magnolia Tree
2+40	" " "	2+30	" " "
2+72	"R-1" Light	2+75	" " "
3+55	Magnolia Tree	3+15	" " "
3+95	"R-1" Light	3+80	" " "
4+35	Magnolia Tree	4+30	" " "
4+90	" " "	4+80	" " "

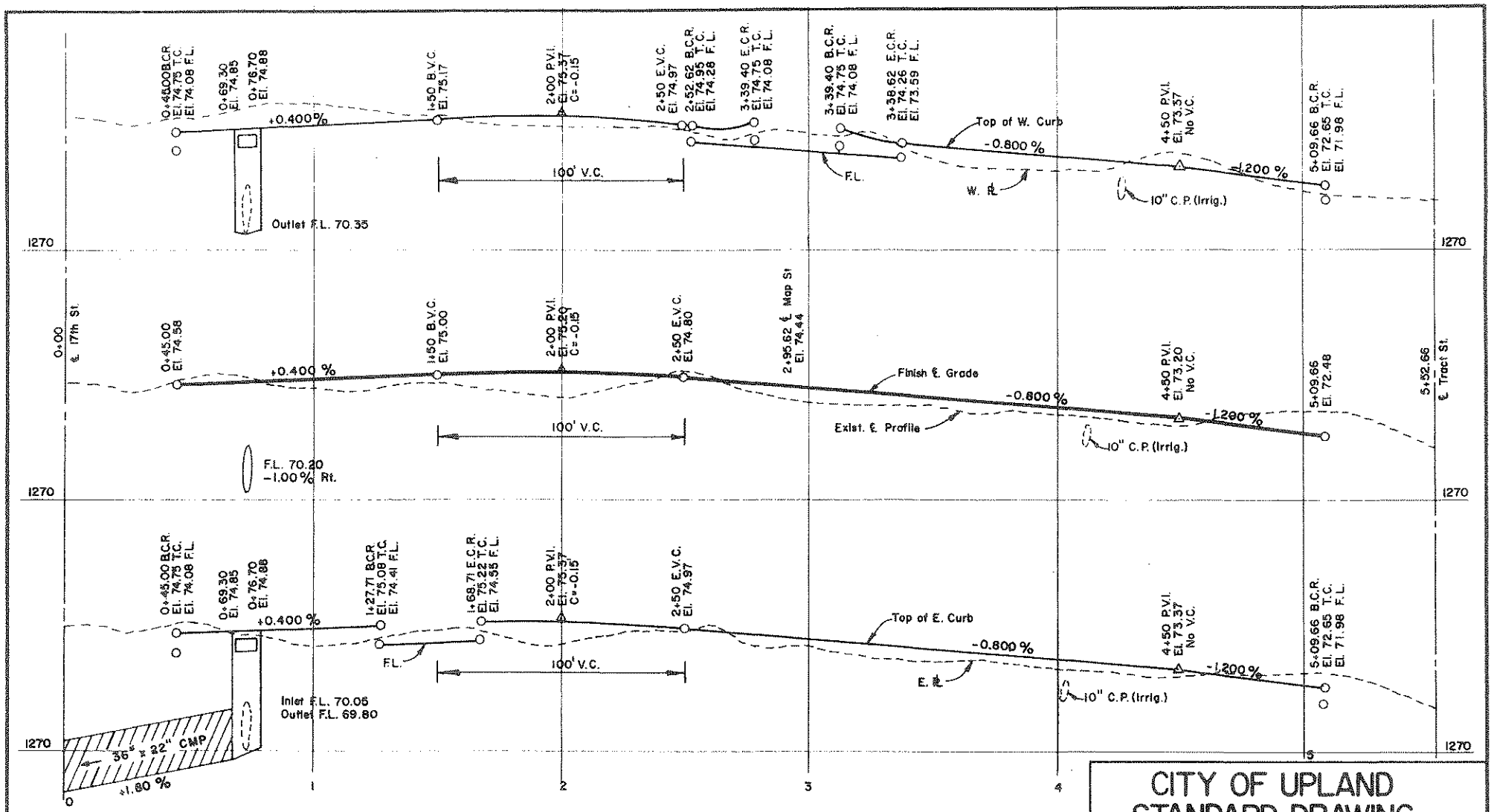


TYPICAL SECTION
BLANK AVENUE

Draw Typical Section to 1"=10' Horiz. Scale & 1"=4' Vert. Scale

CITY OF UPLAND STANDARD DRAWING

DRAWN BY	DATE	TYPICAL STREET IMPROVEMENT PLAN
w a h	7/30/65	
REVISION BY	DATE	APPROVED BY
		CITY ENGINEER
		DRAWING NO. CU-D-4



Vertical Control: Reference to City of Upland Bench Marks used to establish control elevations should be given on the profile portion on the Plan. This reference note should include: the B.M. No. ; the established elevation; the location; and a description of the B.M. . Also if other bench marks exist in the immediate area they should be tied in through a Level Equation.

Gradients and Breaks in Grade: The normal minimum gradient for new roads shall be 0.400%. All breaks in grade in excess of 0.60% change shall normally require a vertical curve.

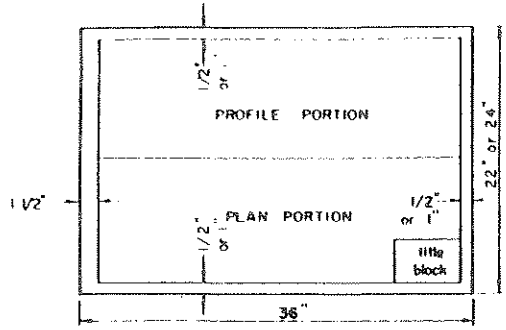
Profile Scales: The horizontal scale used on the profile portion shall be the same as the plan scale. The vertical scale shall be ten times the horizontal scale.

Stationing and Horizontal Distances: Unless specifically noted all stationing shall be related to center line stationing for all profile lines, and all horizontal measurements shall be as projected on center line.

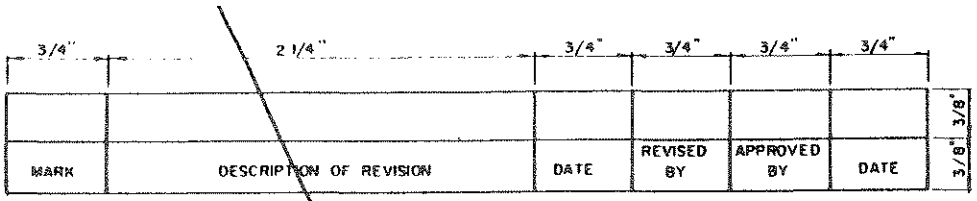
Intersection Grades: Detailed elevations at intersections shall be given on intersection details as indicated on Drwg. CU-D-3.

CITY OF UPLAND STANDARD DRAWING

DRAWN BY	DATE	TYPICAL STREET IMPROVEMENT PROFILE
w a h	8/3/65	
REVISIONS BY	DATE	
		APPROVED BY Fred C. Blanchard CITY ENGINEER
		DRAWING NO. CU-D-5

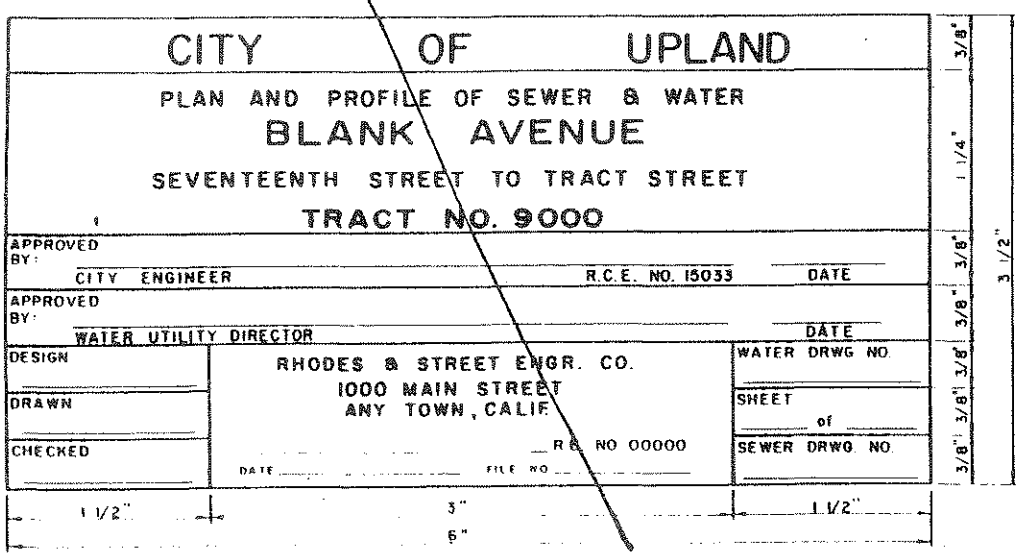


TYPICAL PLAN AND PROFILE SHEET



REVISION BLOCK

TITLE BLOCK



See new title block 10-18-85.

GENERAL NOTES

THE FOLLOWING GENERAL NOTES SHALL BE INCLUDED ON THE FIRST SHEET OF EVERY SET OF PLANS:

The following City of Upland Standard Drawings apply to this project and shall be considered as a part of these plans: (This note is to be followed by a list of all applicable Standard Drawings).

Any additional general notes special to this project.

ESTIMATED QUANTITIES

List estimated quantities in table form on the first sheet of the plans.
List all removal items as well as new construction.
List sewer main and service laterals in linear feet of each.
List standard manholes and cleanouts in number of each.
List water main in linear feet.
List all valves, flanges, fire hydrant assemblies, and water service laterals in number of each.
List all manholes and valves to be adjusted to grade in number of each.

INDEX MAP

An index map should be located at the right side of the first sheet. The normal scale for index maps is 1"=200'.

GENERAL INFORMATION

Water mains in the City of Upland are normally located 6 feet west of the east curb on north & south streets and 6 feet north of the south curb on east & west streets.

Sewer mains are normally located in the center of the street.

See Standard Drawing No. CU-D-9 For Standard Utility Locations.

CITY OF UPLAND STANDARD DRAWING		
DRAWN BY	DATE	SEWER & WATER IMPROVEMENT PLAN SHEETS
S.K.	9-1-75	GENERAL INFORMATION
REVISIONS BY	DATE	APPROVED BY Fred C. Blanchard CITY ENGINEER
		DRAWING NO. CU-D-6

GENERAL NOTES

FOR SEWER AND WATER IMPROVEMENTS WHICH ARE TO BE INCORPORATED INTO THE CONSTRUCTION PLANS BY REFERENCE TO THIS STANDARD DRAWING

1. All work and material shall conform to the higher standard in either "Standard Specifications for the Construction of Water Mains and Appurtenances, July 1972," on file at the City Water Department, City of Upland, OR "Standard Specifications for Public Works Construction," latest issue and amendments, known as the "Green Book."

2. The contractor shall be fully responsible for locating and protecting from damage all existing facilities and improvements whether or not shown on these plans. The facilities and improvements are believed to be correctly shown but the sewer contractor is required to satisfy himself as to the completeness and accuracy of the locations.

3. San Antonio Water Company, 139 N. Euclid Avenue, Upland, 982-4107, may have water lines in this area. Contact them for location, size and depth of lines, and other pertinent information.

4. Quantities shown on the plans are estimated. The contractor shall satisfy himself as to the accuracy of quantities before bidding on any item.

5. The contractor shall obtain a permit from the State of California, Department of Industrial Relations, Division of Industrial Safety, before starting the excavation of any trench five feet or more in depth. Shoring, bracing, sloping and all other provisions for worker protection shall conform to the provisions contained in Article 6 of the State of California, Department of Industrial Relations Construction Safety Orders, effective August 8, 1965 and as amended July 27, 1973. If a variation from these standards is desired, a detailed plan shall be prepared by a registered civil engineer and submitted to the City Engineer for approval.

6. All water and sewer mains shall meet the State of California, Department of Health, requirements for the separation between water mains and sanitary sewer.

7. The contractor is required to repair the existing pavement which is removed or damaged by his operations in accordance with Standard Drawing CU-Z-3 unless arrangements are made which coordinate street paving in a manner acceptable to and approved by the City Engineer.

8. Before connecting to the City water system, the developer must meet the requirements of Section 7720.12(a) of the Upland Municipal Code relating to the transfer of water stock to the City of Upland.

9. Service laterals are to be placed at the center third of the lot unless otherwise approved by City.

10. Service laterals are to be installed per Standard Drawing W6-6, on file at the City of Upland Water Department.

11. Fire hydrants shall be installed per Standard Drawing W6-4 and W6-5, on file at the City of Upland Water Department.

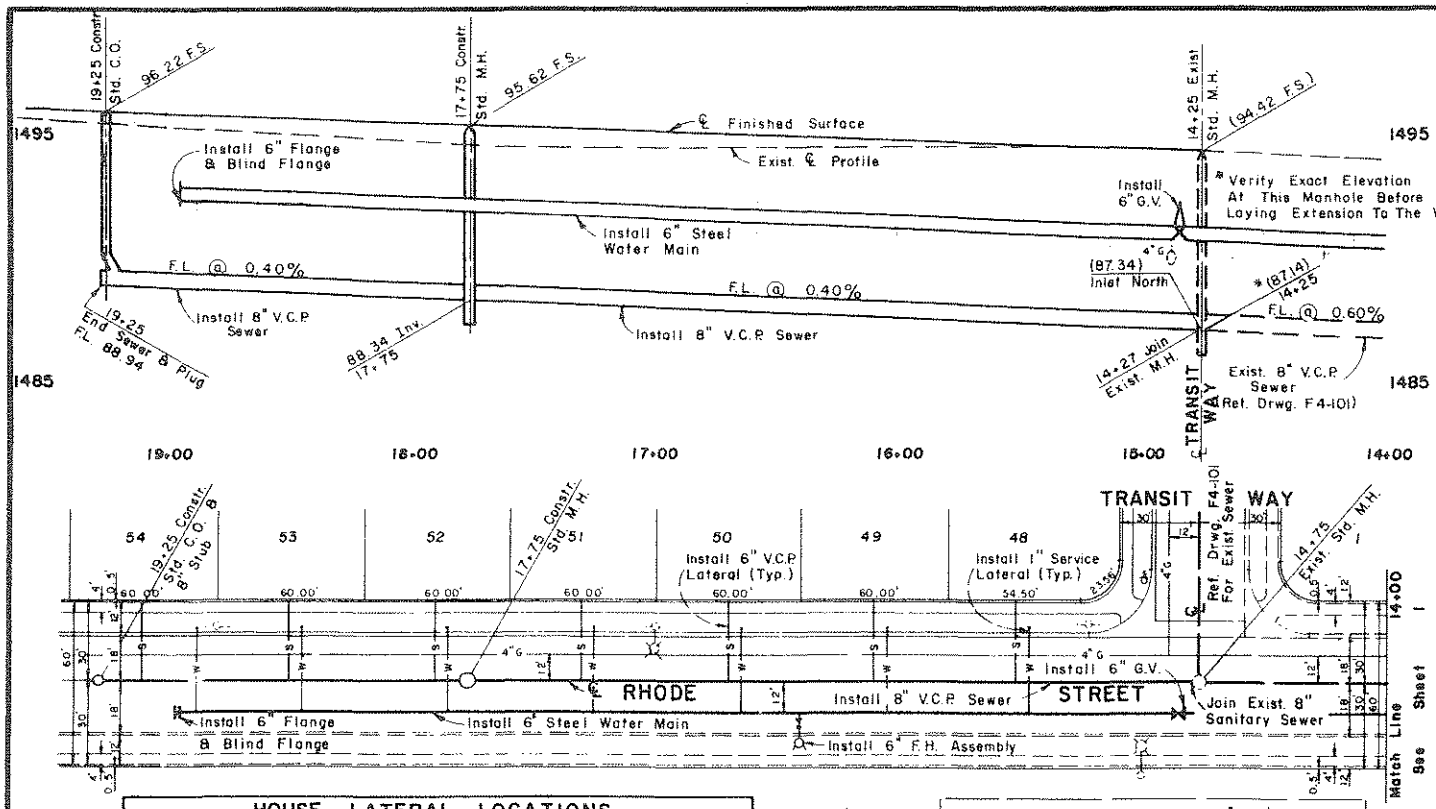
12. Connection to existing water mains shall be by "Hot Tap."

13. Minimum cover of water lines shall be as follows:

Diameter of pipe	Minimum cover
2"	24"
4"	30"
6"	36"
8"	42"
10"	48"
12"	48"
14"	52"

14. Saddle connections are not permitted to the sewer main. New connections require a "Tee" or "Wye" section to be placed in the main line.

CITY OF UPLAND STANDARD DRAWING		
DRAWN BY	DATE	SEWER & WATER IMPROVEMENT GENERAL NOTES
S.K.	9-1-75	
REVISIONS BY	DATE	
		APPROVED BY Fred C. Blanchard CITY ENGINEER
		DRAWING NO. CU-D-7



GENERAL NOTES

1. The following City of Upland Standard Drawings apply to this project and shall be considered as a part of these plans: CU-D-1, 2, 7; CU-Z-1 thru 4.

ESTIMATE OF QUANTITIES

ITEM	DESCRIPTION	QUANTITY	UNIT	REMARKS
1.	8" V.C.P. Sewer (Inc. Tees & Plugs)		L.F.	Excludes Length Thru Manhole
2.	6" V.C.P. Lateral		L.F.	
3.	Std. Manhole		EA.	
4.	Std. Cleanout		EA.	
5.	6" Steel Water Main		L.F.	
6.	1" Service Lateral		EA.	
7.	6" Fire Hydrant Assy.		EA.	
8.	6" Gate Valve		EA.	
9.	6" Flange & Blind Flange		EA.	

HOUSE LATERAL LOCATIONS

SEWER			WATER		
Lot Nº	Design Location	"As Built"	Lot Nº	Design Location	"As Built"
48	15+42.75		48	15+38.75	
49	16+07.50		49	16+03.50	
50	16+67.50		50	16+63.50	
51	17+27.50		51	17+23.50	
52	17+87.50		52	17+83.50	
53	18+47.50		53	18+43.50	
54	19+07.50		54	18+90.00	

PLAN SCALE: Normal Scale Is 1" = 40'; When Greater Detail Is Required, Use 1" = 20'.

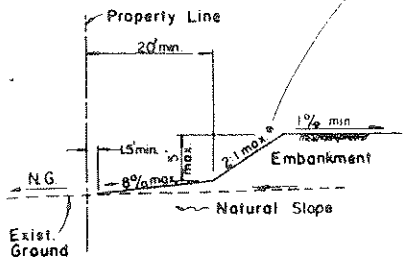
PROFILE SCALE: The Horizontal Scale Used On The Profile Portion Shall Be The Same As The Plan Scale. The Vertical Scale Shall Be Ten Times The Horizontal Scale.

VERTICAL CONTROL: Reference To City Of Upland Bench Marks Used To Establish Control Elevations Should Be Given On The Profile Portion Of The Plan.

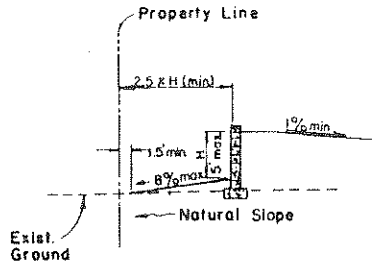
CITY OF UPLAND STANDARD DRAWING

DRAWN BY	DATE	TYPICAL SEWER & WATER IMPROVEMENT PLAN
S.K.	9-1-75	
REVISION BY	DATE	
		APPROVED BY Frank C. Blanchard CITY ENGINEER
		DRAWING NO. CU-D-8

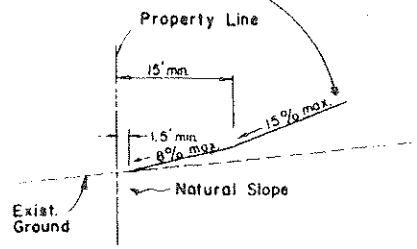
* NOTE: Provide Erosion Control For All Slopes In Excess Of 10%.



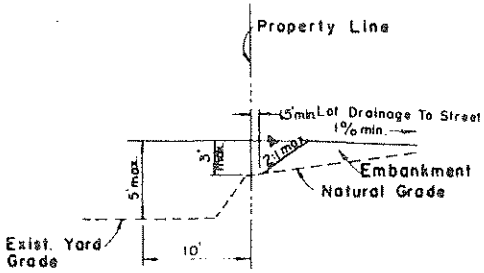
EMBANKMENT LIMITS USING TERRACING TYPE "A"



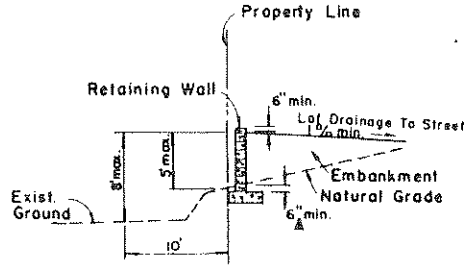
EMBANKMENT LIMITS USING TERRACING WITH RETAINING WALL TYPE "B"



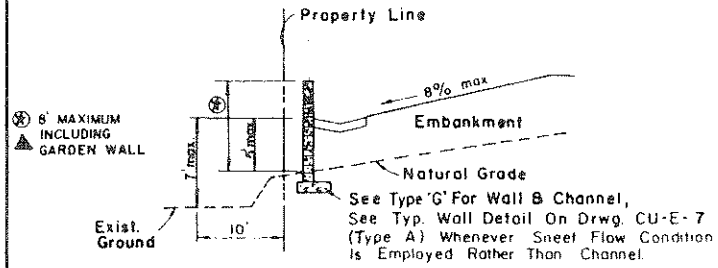
EMBANKMENT LIMITS MAXIMUM SLOPES WITHOUT TERRACING TYPE "C"



MAXIMUM LIMITS FOR EMBANKMENT WITH DRAINAGE TO STREET AND WITHOUT RETAINING WALLS TYPE "D"

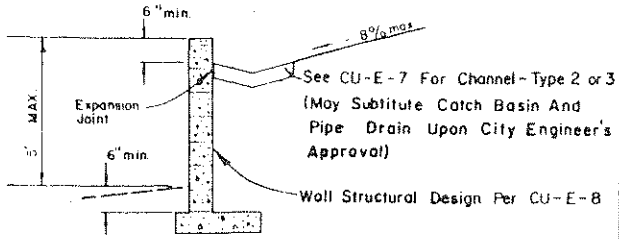


MAXIMUM LIMITS FOR EMBANKMENT WITH DRAINAGE TO STREET AND WITH RETAINING WALLS TYPE "E"



⊛ 6' MAXIMUM INCLUDING
▲ GARDEN WALL

LIMITS AND REQUIREMENTS FOR LOTS DRAINING TO REAR LINE TYPE "F"



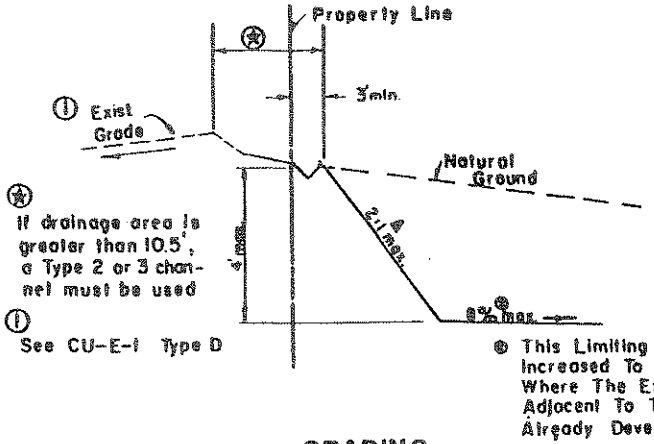
TYPICAL DETAIL FOR RETAINING WALL & CHANNEL TYPE "G"

GENERAL NOTES

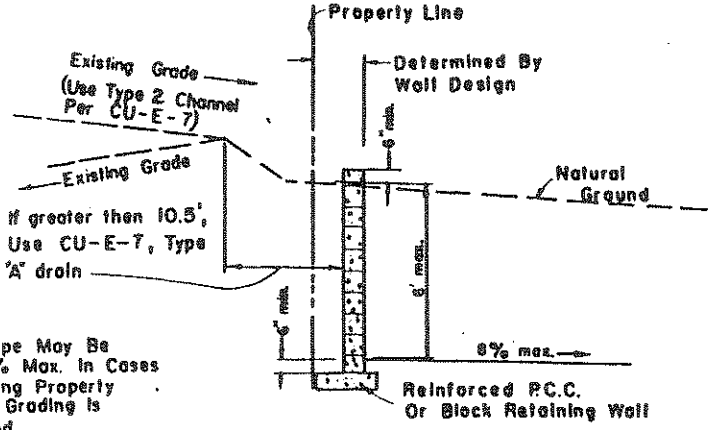
1. Notes Regarding Type "C" Embankments
   (a) Use P.C.C. Channel at Bottom Of Slope If Adjoining Property Has Retaining Wall Or Cut Slopes Within 10 Feet Of Property Line.
   (b) Not Permitted If Existing Ground Of Adjoining Property Slopes Toward The Property Line.
2. See Section 8.11.9 Of The Municipal Code For General Requirements Of The City Grading Ordinance.
3. Interior Lot Line Provisions, Per Std. Drwg. CU-E-4, May Be Used For Exterior Lots If There Is A Signed Agreement From Adjoining Property Owners.
4. Full Lot Drainage To The Rear At Exterior Boundaries Will Be Permitted Subject To The Following Provisions:
   a. Runoff Shall Be Sheet Flow Only.
   b. Engineering Calculations Shall Be Performed Showing That Runoff Quantity Will Not Be Increased;
5. Wherever There Is Either An Existing Wall That Does Not Have Provisions For The Passage Of Runoff Or Some Other Blockage Of Sheet Flow That Has Existed Along The Development Boundary For A Period Of Time, Or An Existing Cut Slope Adjacent To The New Boundary, All Roof Water And Front Yard Drainage Shall Be Carried To The Street.
6. The Mark "▲" By Any Limit Shown Hereon Indicates An Absolute Limit. All Other Limits Must Also Be Followed Unless A Variance Has Been Approved By The Administrative Comm.
7. See Gen. Note No. 3 CU-E-2.

CITY OF UPLAND STANDARD DRAWING

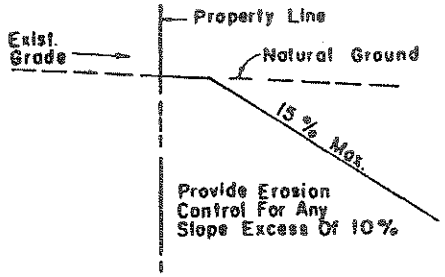
DRAWN BY	DATE	LOT GRADING LIMITS
W.A.H.	10/5/65	REAR YARD EMBANKMENTS AT EXTERIOR LOT LINES
REVISION BY	DATE	
F.C.B.	5/16/75	APPROVED BY
J.J.W.	4-3-80	DEPUTY CITY ENGINEER
		DRAWING NO. CU-E-1



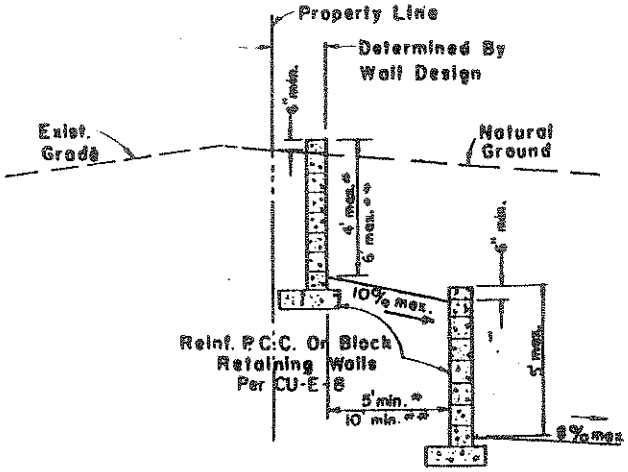
GRADING WITHOUT RETAINING WALL MAXIMUM HEIGHT WHEN SLOPE EXCEEDS 15% TYPE "J"



GRADING WITH RETAINING WALL TYPE "K"



GRADING WITHOUT RETAINING WALL MAXIMUM SLOPE WITHOUT HEIGHT LIMITATION TYPE "L"



GRADING WITH DOUBLE RETAINING WALLS TYPE "M"

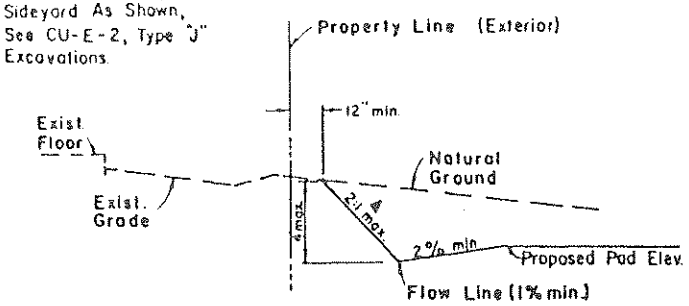
NOTES

1. See Section 8110 Of The Municipal Code For General Requirements Of The City Grading Ordinance.
2. The Mark "A" By Any Limit Shown Hereon Indicates An Absolute Limit. All Other Limits Must Also Be Followed Unless A Variance Has Been Approved By The Administrative Committee.
3. All Slope Banks Exceeding 3' In Height And Visible From Main Thoroughfares (2 Lanes Each Way) Are Subject To Architectural Commission Review.

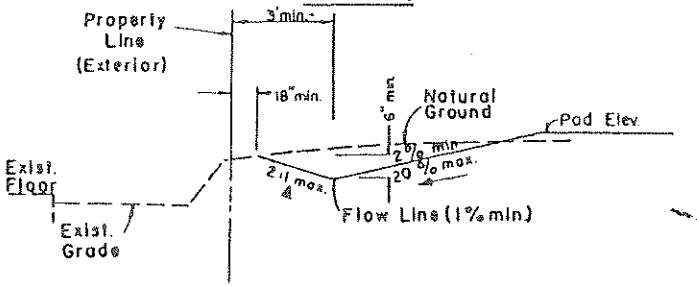
CITY OF UPLAND STANDARD DRAWING

DRAWN BY	DATE	LOT GRADING LIMITS REAR YARD EXCAVATIONS AT EXTERIOR LOT LINES
W.A.H.	10/5/65	
REVISION BY	DATE	TYPICAL GRADING AT RESIDENCES
F.C.B.	5/16/73	APPROVED BY
JJW	9-3-80	DEPUTY CITY ENGINEER
		DRAWING NO. CU-E-2

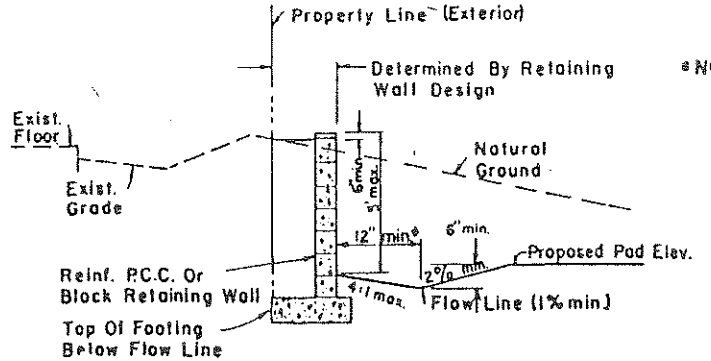
For Other Than Typical Sideyard As Shown, See CU-E-2, Type "J" Excavations.



PROPOSED PAD BELOW NATURAL GROUND LINE
(WITHOUT RETAINING WALL)
TYPE "Q"

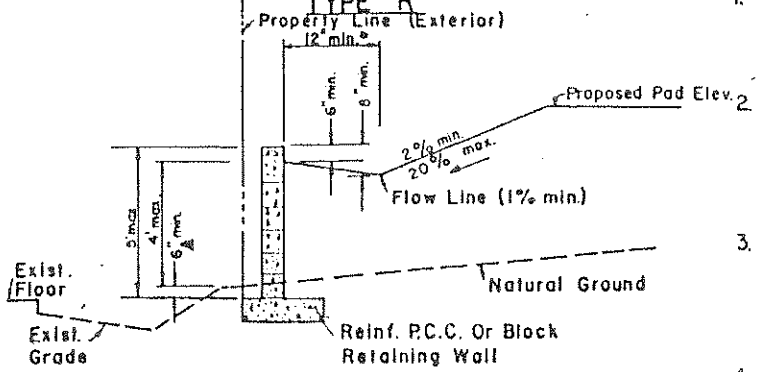


PROPOSED PAD ABOVE NATURAL GROUND LINE
(WITHOUT RETAINING WALL)
TYPE "S"



*NOTE:
Flow Line May Be Located At Face Of Wall, Dependent On Overall Lot Drainage Design, Subject To Approval By City Engineer

PROPOSED PAD BELOW NATURAL GROUND LINE
(WITH RETAINING WALL)
TYPE "R"



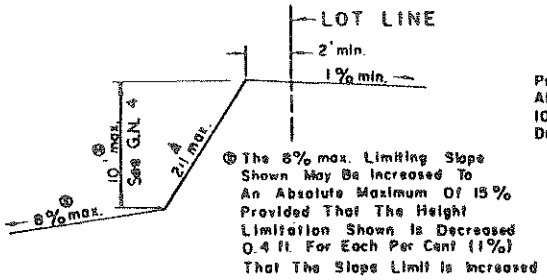
PROPOSED PAD ABOVE NATURAL GROUND LINE
(WITH RETAINING WALL)
TYPE "T"

NOTES

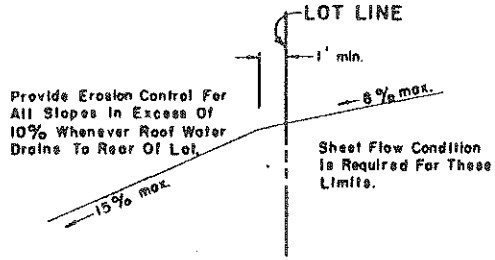
1. All Lots Shall Have Vehicular Access To The Rear Yard. If The Side Yard Is Used For Access It Shall Have A Cross Slope Less Than 8% Average In A 10' Width. See CU-E-10 For Details.
2. All Slope Banks Exceeding 3' Height And Visible From Main Thoroughfares Are Subject To Architectual Commission Review.
3. The Mark "*" By Any Limit Shown Hereon Indicates An Absolute Limit. All Other Limits Must Also Be Followed Unless A Variance Has Been Approved By The Admin. Comm.
4. See Section 81.10 Of The Municipal Code For General Requirements Of The City Grading Ordinance.

CITY OF UPLAND STANDARD DRAWING

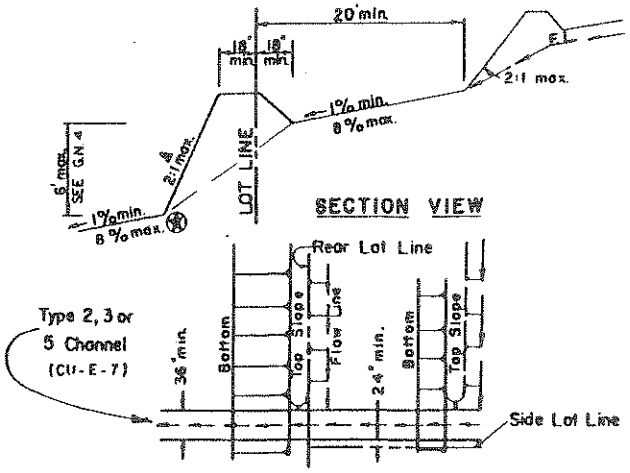
DRAWN BY	DATE	LOT GRADING LIMITS EXTERIOR SIDE YARD GRADING LIMITS
W.A.H.	10/5/63	
REVISION BY	DATE	
F.C.B.	5/16/75	APPROVED BY
B.F.	10/29/76	DEPUTY CITY ENGINEER
JJW	9-3-80	DRAWING NO. CU-E-3



DRAINAGE TO STREET
GRADING WITHOUT RETAINING WALL
TYPE "V"

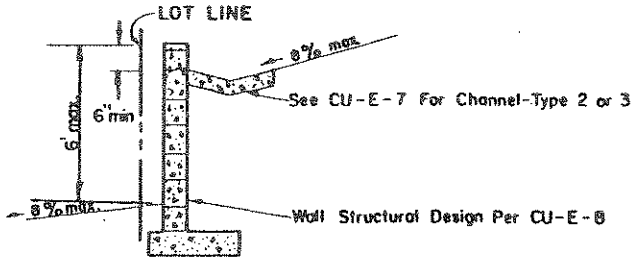


DRAINAGE OF HIGH LOTS TO REAR
MAXIMUM SLOPES WITHOUT HEIGHT LIMITATION
TYPE "W"



DRAINAGE OF HIGH LOT TO REAR
MAXIMUM HEIGHT WHEN SLOPE EXCEEDS 15%
TYPE "X" See G.N. 5

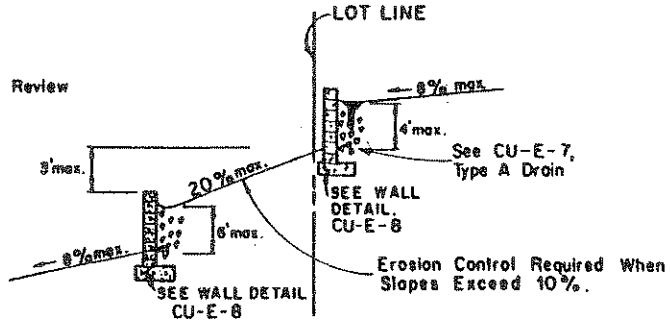
⊛ If Slope Is Less Than 3% Carry Channel 3' Beyond The Bottom Of Slope, And Place An Energy Dissipator At The Channel Terminus. When Slopes Exceed 3% Carry All Drainage To The Street In A Channel (Type 1-5) Or In A Pipe (6" min.).



DRAINAGE OF HIGH LOT TO REAR
GRADING WITH RETAINING WALL & CHANNEL
TYPE "Y"

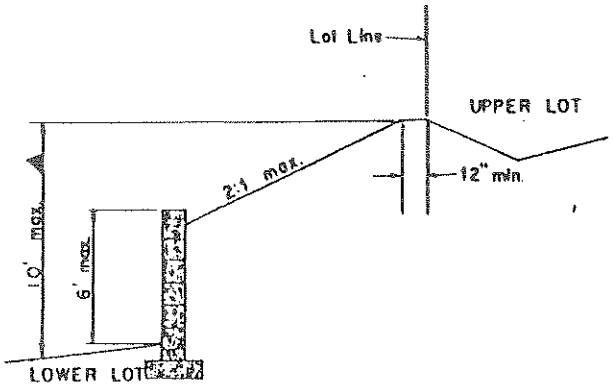
GENERAL NOTES

1. See Section 8110 Of The Municipal Code For General Requirements Of The City Grading Ordinance.
2. All Slope Banks Exceeding 3' In Height, And Visible From Main Thoroughfares Are Subject To Architectual Commission Review
3. The Mark "A" By Any Limit Shown Hereon Indicates An Absolute Limit. All Other Limits Must Also Be Followed Unless A Variance Has Been Approved By The Administrative Committee.
4. This Maximum Height May Be Increased By Three Feet For Each Per Cent That The Natural Ground Slope Exceeds Four Percent (4%). (Natural Slope As Used Here Shall Be The Average Grade Between The Tract Or Site Boundaries. Where Adjacent To Public R/W The ℄ Is Considered As Boundary Line).
5. Use Only Where A Maximum Of 2 Upsteam Lots Are Tributary To One Downstream Lot.

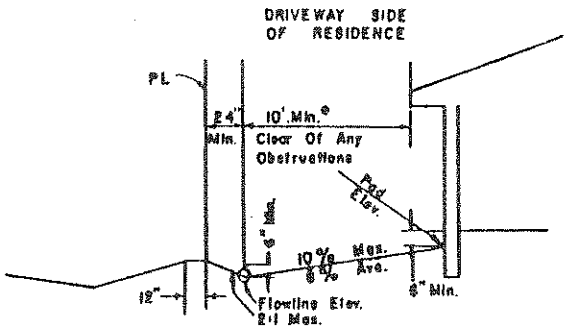


DRAINAGE OF HIGH LOT TO REAR
GRADING USING RETAINING WALLS
TYPE "Z"

CITY OF UPLAND STANDARD DRAWING		
DRAWN BY	DATE	LOT GRADING LIMITS INTERIOR LOTS: REAR YARD GRADING LIMITS
	5/16/75	
REVISION BY	DATE	
JJW	7-3-80	APPROVED BY
		DEPUTY CITY ENGINEER
		DRAWING NO. CU-E-4

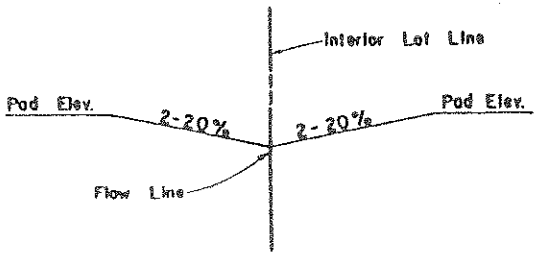


TYPICAL SIDEYARD COMBINATION
SLOPE AND RETAINING WALL

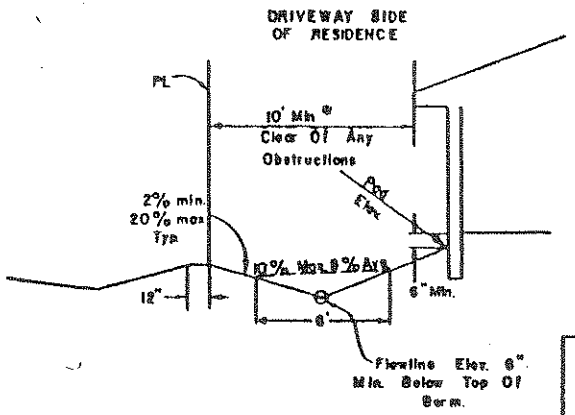


REQUIRED VEHICULAR ACCESS TO REAR YARD

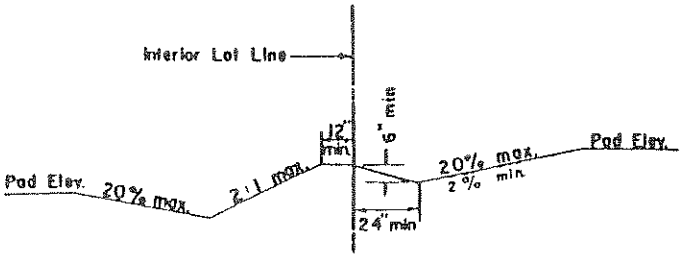
* May Be Measured To Wall Only When Eave Height Exceeds 12'



COMMON FLOWLINE



REQUIRED VEHICLE ACCESS TO REAR YARD (ALTERNATE)



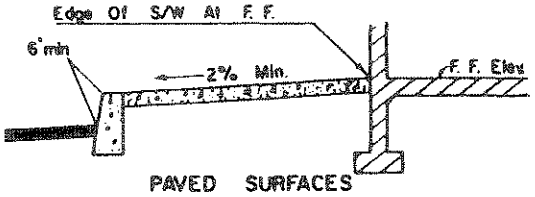
TYPICAL SIDEYARD LIMITS

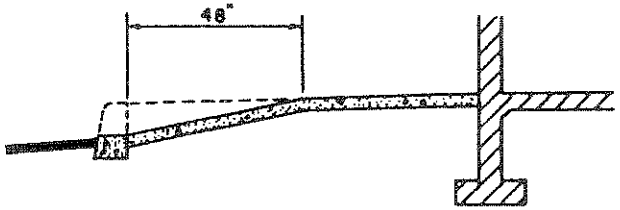
GENERAL NOTES

1. See Section 8110 Of The Municipal Code For General Requirements Of The City Grading Ordinances.
2. All Lots Shall Have Vehicular Access To The Rear Yard. If The Side Yard Is Used For Access It Shall Have A Cross Slope Less Than 8% Average In A 10' Width.
3. All Slope Banks Exceeding 3' In Height And Visible From Main Thoroughfares (2 Lanes Each Way) Are Subject To Architectual Commission Review.
4. The Mark "Δ" By Any Limit Shown Hereon Indicates An Absolute Limit. All Other Limits Must Be Followed Unless A Variance Has Been Approved By The Administrative Comm.
5. Sideyard Vehicle Access Is Not Required When Lots Have Access From The Rear (i.e. Alley, etc.) Or In The Case Of A Corner Lot. The Vehicle Access In These Cases Cannot Have A Grade Exceeding 14%.

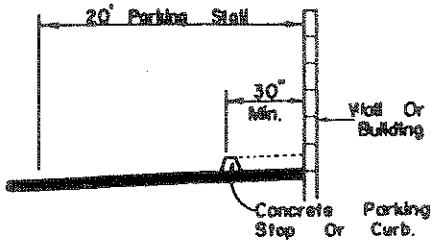
CITY OF UPLAND STANDARD DRAWING

DRAWN BY	DATE	LOT GRADING LIMITS
		INTERIOR LOT SIDEYARD GRADING LIMITS
REVISIONS BY	DATE	
JJW	9-3-80	APPROVED BY DEPUTY CITY ENGINEER
		DRAWING NO. CU-E-5

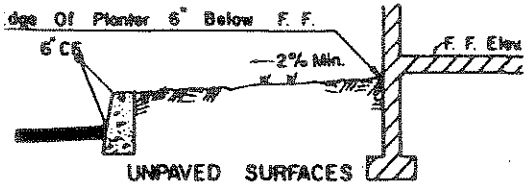




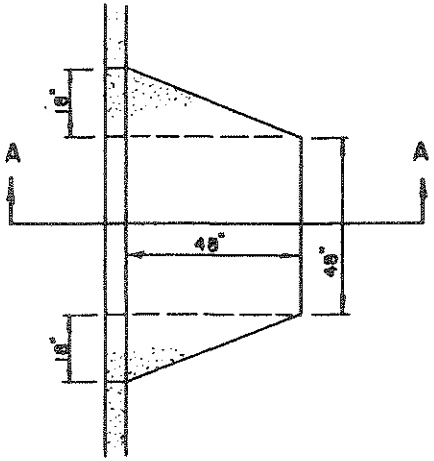
SECTION A-A



PARKING SPACE OBSTRUCTION



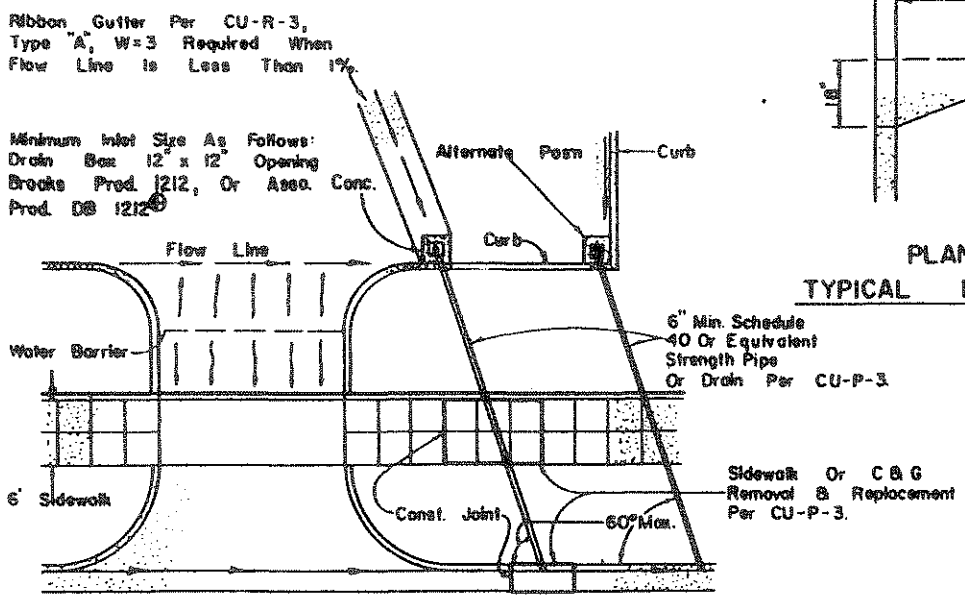
FINISHED SURFACES AROUND BUILDINGS



PLAN VIEW
TYPICAL HANDICAP RAMP

GENERAL NOTES

1. See Section 8110 Of The Municipal Code For General Requirement Of The City Grading Ordinances.
2. In Addition To The Other Applicable Grading Limits Shown, These Standard Drawings Shall Also Be Applied To All Commerical Or Industrial Developments Or Multiple Family Apartment Complexes, Unless Otherwise Approved By The Administrative Committee.
3. All Paved Parking And Driving Areas Shall Have A Minimum Of .20' Depth A.C.
4. SITE DRAINAGE SHALL NOT BE ALLOWED TO FLOW ACROSS PUBLIC SIDEWALKS.



REQUIRED UNDER SIDEWALK DRAIN FOR COMMERICAL DEVELOPMENTS

See CU-P-3 For Alternate.

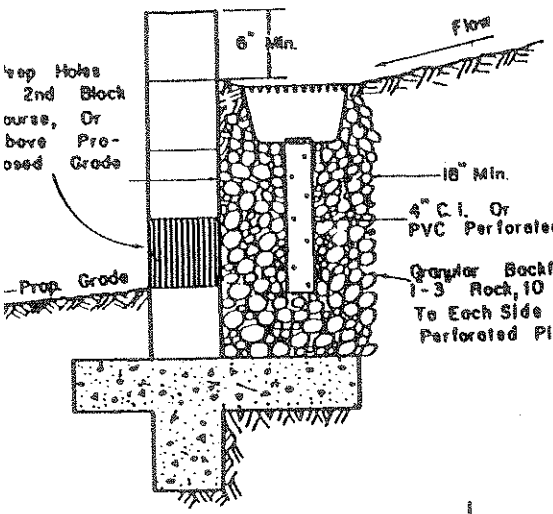
ALTERNATE

⊕WHERE CURB OPENING IS PROVIDED IN LIEU OF INLET STRUCTURE THERE SHALL BE PROVIDED A P.C.C. APRON STRUCTURE HAVING 20 SQ. FT. IN AREA AND WITH NO GREATER SLOPES THAN 8%.

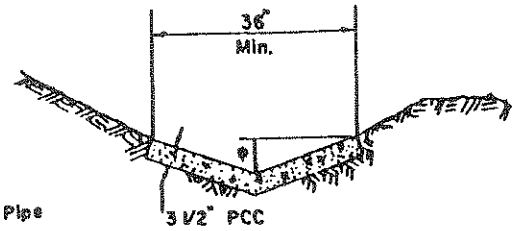
CITY OF UPLAND STANDARD DRAWING

DRAWN BY	DATE	MISCELLANEOUS SITE GRADING DETAILS
JJW	9-3-86	
REVISION BY	DATE	
		APPROVED BY
		DEPUTY CITY ENGINEER
		DRAWING NO. CU-E-6

Rearyard Drain (AFC No. A-344, With 10" x 10" Grate) Or Equal Maximum Spacing 40' Feet, For Lot Widths Greater Than 60 Feet. Minimum Of One Drain Is Required For Each Lot With Tributary Area Up To 8000 S.F.



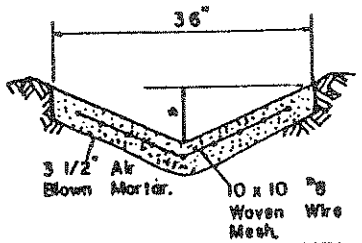
TYPE A DRAIN



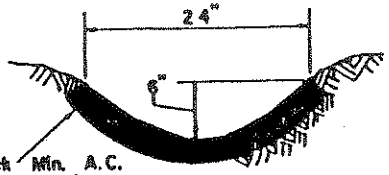
* 6" Minimum For Grades 1% Or Greater.
* 8" Minimum For Less Than 1%.

TYPE 2 CHANNEL

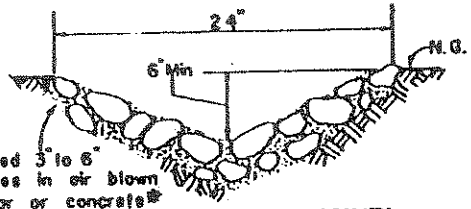
* 6" Minimum For Grades 1% Or Greater.
8" Minimum For Grades Less Than 1%.



TYPE 3 CHANNEL

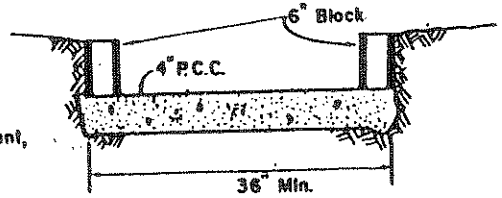


TYPE 4 CHANNEL

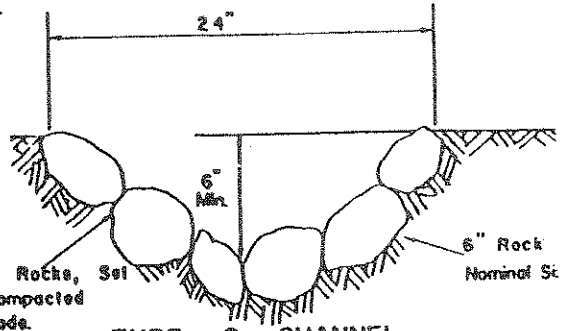


TYPE 5 CHANNEL

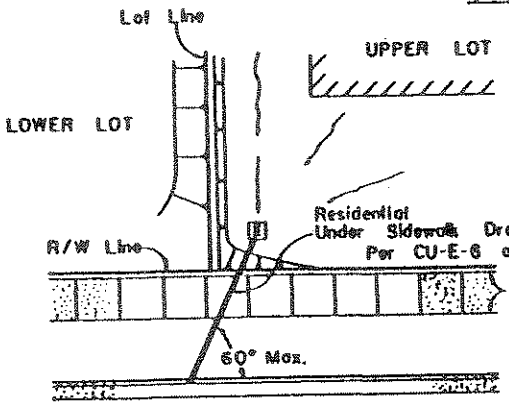
* A Dry Mixture Of Cement, Sand And Rock May Be Substituted. 3.5 Sacks Cement Per Cu. Yd. Min. Wet In Place.



TYPE 1 CHANNEL

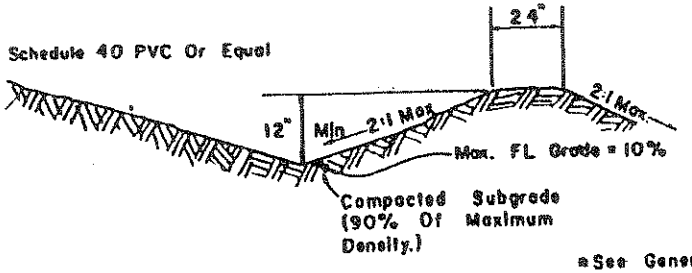


TYPE 6 CHANNEL



Required Yard Drain When Street Grade Exceeds 5%.

TYPE B DRAIN



TYPE 7 CHANNEL*

* See General Notes For Restrictions On Useage.

GENERAL NOTES

1. See Section 8110 Of The Municipal Code For General Requirements Of The City Grading Ordinances.
2. Type 7 Drain May Only Be Used As An Interim Solution Or As A Temporary Drain. Its Use Must Be Approved By The ADMINISTRATIVE COMMITTEE.
3. MINIMUM FLOWLINE GRADES:
   Type 1, 2, 3 .5%
   Type 4, 5, 6, & 7 1.0%
4. The Engineer Shall Perform Hydraulic Calculations To Verify Adequacy Of Channel Size. Freeboard Requirement Can Be Eliminated If City's Current Comprehensive Storm Drain Report (Moffat & Nichols, 1966) Shows Q_{100} < 1 C.F.S./Ac For Residential Areas Or 1.5 C.F.S./Ac. For Commercial & Industrial Areas.

CITY OF UPLAND STANDARD DRAWING

DRAWN BY	DATE	DRAINAGE CHANNEL AND MISC. LOT DRAINS
JJN	9-3-80	
REVISION BY	DATE	APPROVED BY
		DEPUTY CITY ENGINEER
		DRAWING NO. CU-E-7

GARDEN WALLS

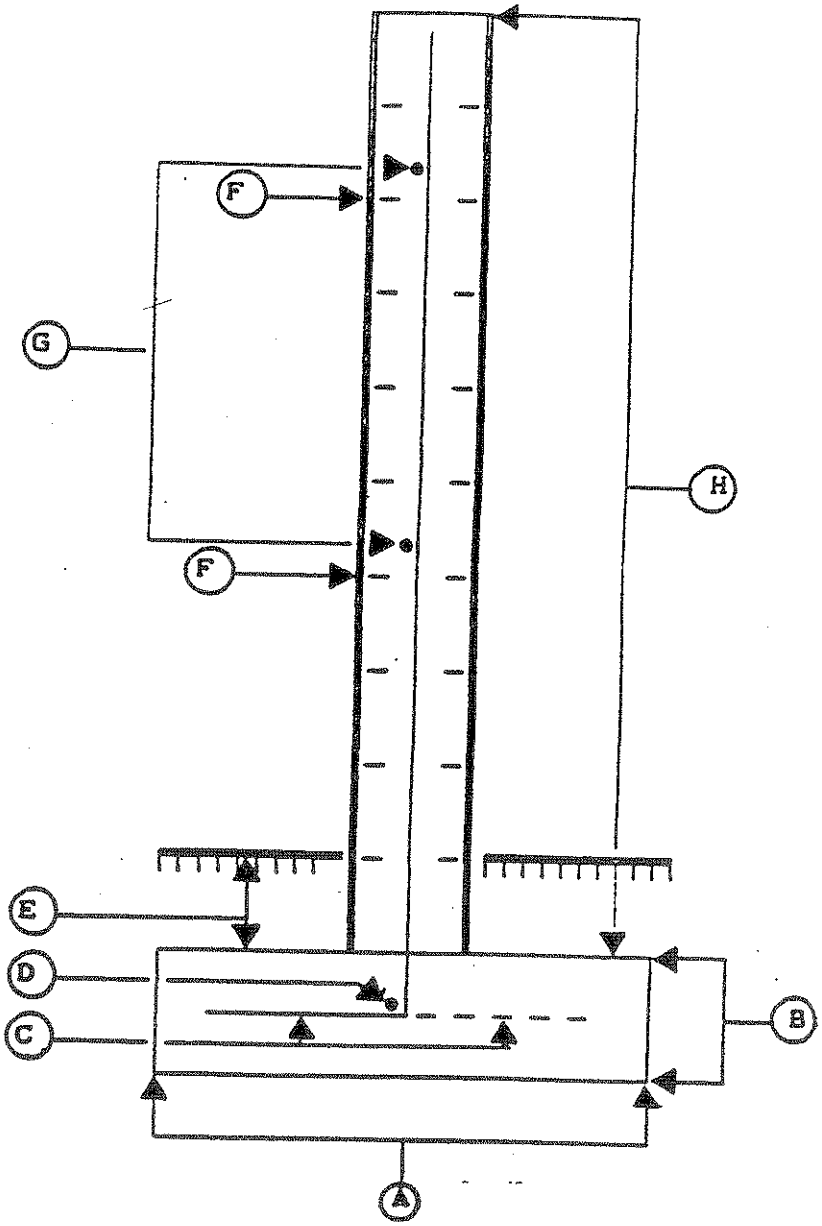
ED. 101

(A) SEE CHART
(B) SEE CHART
(C) SEE CHART
(D) #4 HORIZONTAL REINFORCEMENT IN FOOTING
(E) 8" MINIMUM EARTH COVER
(F) WEB LOCATION FOR GROUTING BOND BEAMS
(G) MID-HEIGHT REINFORCEMENT REQUIRED IN ALL WALLS OVER 4 FEET IN HEIGHT. TOP REINFORCEMENT REQUIRED IN ALL WALLS.
(H) SEE CHART

H	A	B	C
2'	24"	8"	#4 @24"O.C.
3'	24"	8"	#4 @24"O.C.
4'	24"	8"	#4 @24"O.C.
5'	24"	8"	#4 @24"O.C.
6'	24"	8"	#4 @24"O.C.

WALLS SHALL BE AS DEFINED IN SEC. 2-2415 OF THE STATE MASONRY CODES AND SPECIFICATIONS.
CLEANOUTS SHALL BE AS PER STATE CODE REQUIREMENTS.
CONCRETE & GROUT-2000PSI@28DAYS

6" SLUMPSTONE WALLS MUST BE INSPECTED AND GROUTED IN 2' LIFTS. (LOW LIFT GROUTING)



CITY OF UPLAND — STANDARD DRAWING

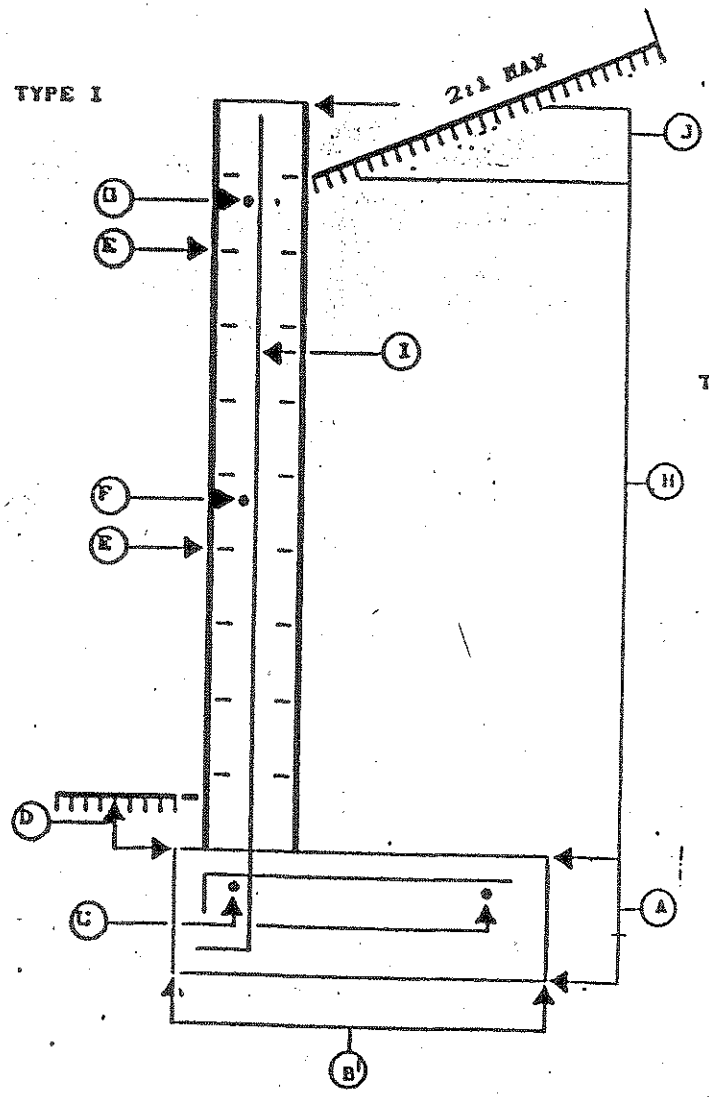
WALL DETAILS — — — — CU — E — 8

(A) SEE CHART
(B) SEE CHART
(C) #4 HORIZONTAL REINFORCEMENT
(D) 6" MINIMUM EARTH COVER
(E) WEB LOCATION
(F) 4'0" AND HIGHER WALLS REQUIRE MED-HEIGHT HORIZONTAL REINFORCEMENT
(G) UPPER HORIZONTAL REINFORCEMENT-1 #4
(H) SEE CHART
(I) SEE CHART
(J) 6" MINIMUM ABOVE EARTH RETENTION

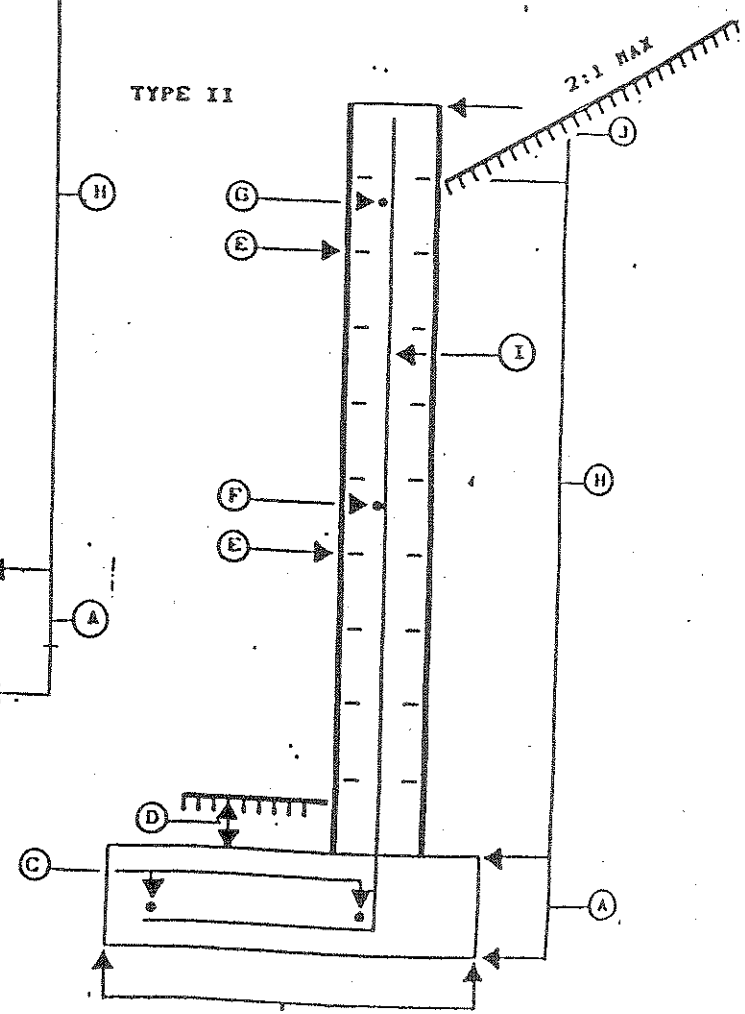
H	K	A	B	B'	I
2'	8"	12"	2'3"	2'9"	#3 @24"O.C.
3'	8"	12"	2'3"	2'9"	#3 @24"O.C.
4'	8"	12"	3'0"	3'6"	#4 @24"O.C.
5'	8"	12"	3'6"	4'0"	#5 @16"O.C.
6'	8"	12"	4'0"	4'9"	#5 @16"O.C.

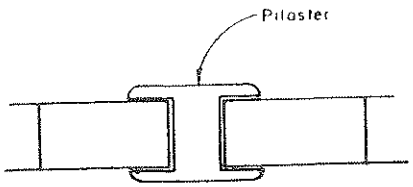
WALLS SHALL BE AS DEFINED IN SEC. 2-2415 OF THE STATE MASONRY CODES AND SPECIFICATIONS.

TYPE I

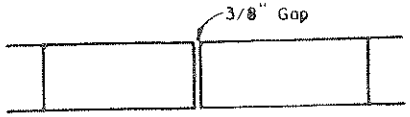


TYPE II





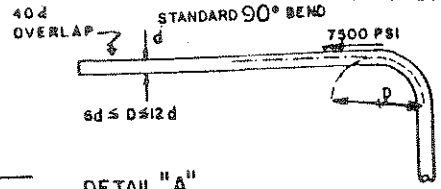
PLAN VIEW
TYPE I



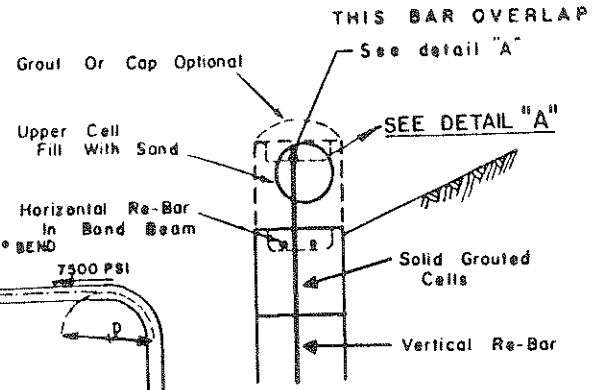
PLAN VIEW
TYPE II

GARDEN WALL EXPANSION JOINT DETAILS

See General Note 3.

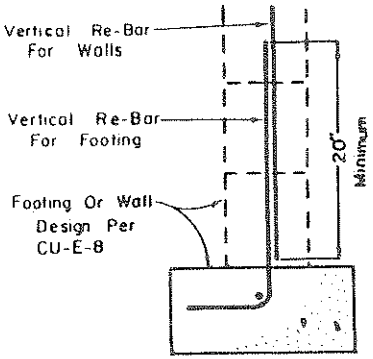


DETAIL "A"

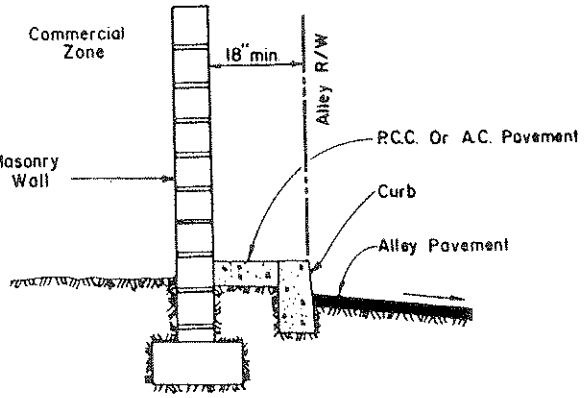


LOOP DETAIL FOR EXTENDABLE RETAINING WALLS

See General Note 4.



FOOTING TO WALL SPLICE RE-BAR DETAIL



WALL PROTECTION DETAIL

GENERAL NOTES

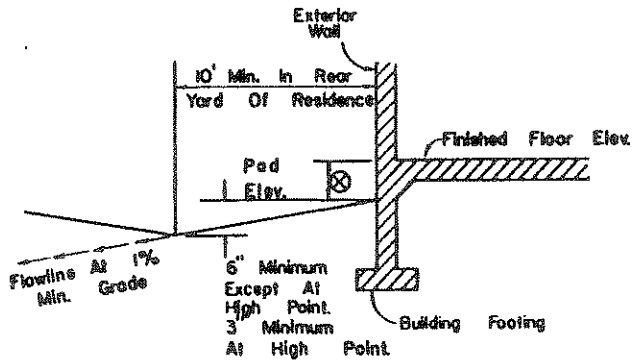
1. See Section 8110 Of The Municipal Code For General Requirements Of The City Grading Ordinance
2. Special Wall Conditions -
   See City Planning Department Exhibits "Wall Setbacks In R-1 Zones With And Without Alley" Location Requirements.

   Where Wall Is Built Less Than 18 Inches From A.C. Or P.C.C. Surfacing, The Intervening Area Shall Be Surfaced To Match Existing Surfacing.
3. Construct Expansion Joints Into All Garden Walls At A 100 Foot Maximum Spacing. The Use Of Type I Or Type II Is Optional With Builder Unless One Is Specified By The City Administrative Committee.
4. Retaining Walls As Shown Upon CU-E-8 May Have An Additional Garden Wall Built Upon Them Only If They Have Been Provided With Extension of Rebar. See Applicable Grading Limits Within The CU-E-Series For Height Limitations When Using Combination Retaining And Garden Walls.

CITY OF UPLAND STANDARD DRAWING		
DRAWN BY	DATE	WALL DETAILS
REVISION BY	DATE	APPROVED BY 1-4-86
		CHIEF BUILDING OFFICIAL
		DRAWING NO. CU-E-9

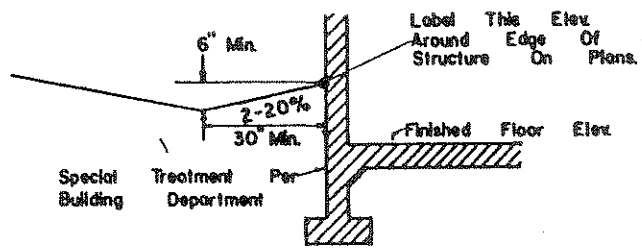
GENERAL NOTES

1. See Section 8110 Of The Municipal Code For General Requirements Of The City Grading Ordinances.
2. All Slope Banks Exceeding 3' In Height And Visible From Main Thoroughfares (2 Lanes Each Way) Are Subject To Architectural Commision Review.
3. The Mark "▲" By Any Limit Shown Hereon Indicates An Absolute Limit. All Other Limits Must Be Followed Unless A Variance Has Been Approved By The Administrative Comm.



⊗ 6" Minimum. If An Extra Depth Footing Is Labeled Upon Plan, This Dimension Shall Be Increased By That Amount.

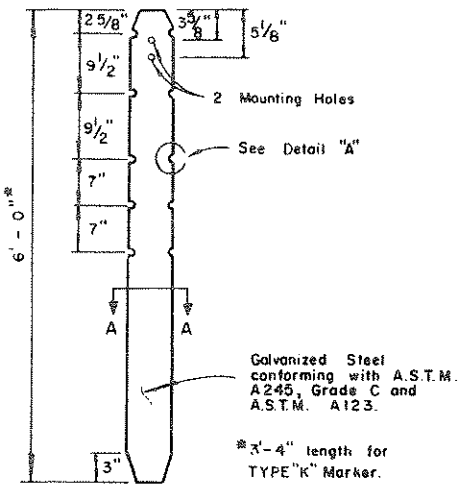
TYPICAL FLOWLINE GRADING LIMITS



EXTRA STEM HEIGHT WALL

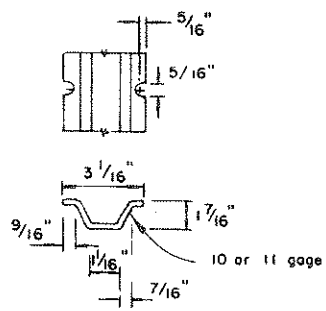
CITY OF UPLAND STANDARD DRAWING

DRAWN BY	DATE	GRADING DETAILS FOR EXTENDED DEPTH FOOTINGS
JJW	9-3-85	
REVISION BY	DATE	APPROVED BY John L. Weiss
		DEPUTY CITY ENGINEER
		DRAWING NO. CU-E-10

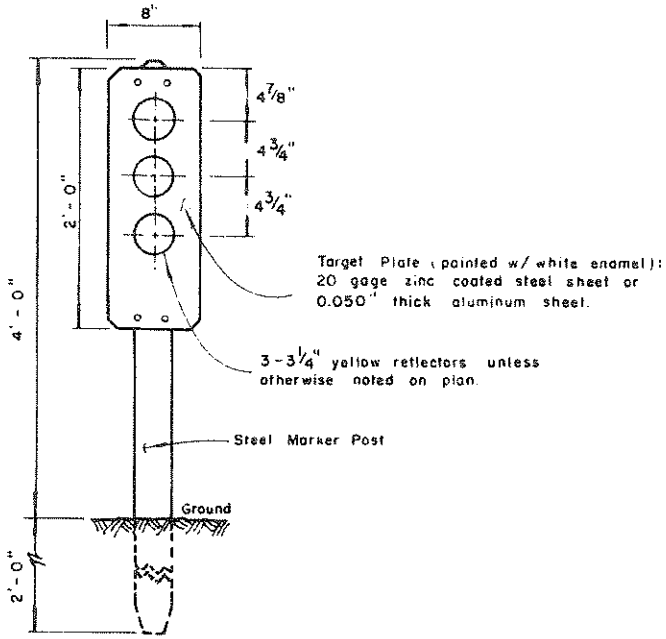


STEEL MARKER POST

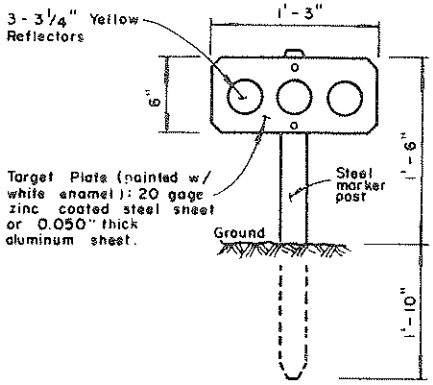
DETAIL "A"



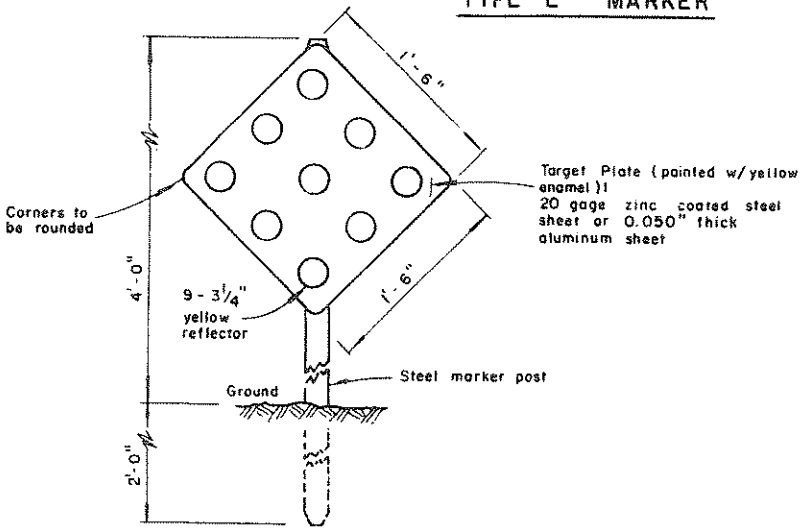
SECTION A-A



TYPE "L" MARKER



TYPE "K" MARKER



TYPE "M" MARKER

CITY OF UPLAND STANDARD DRAWING

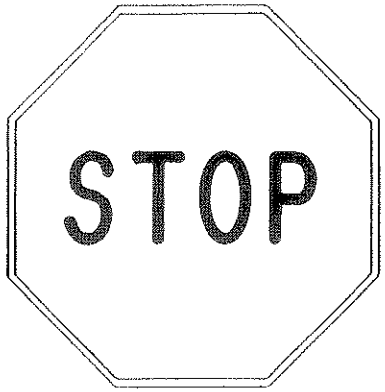
Drawn By	Date	STEEL GUIDE MARKERS
LWA	5-8-70	
Revisions By	Date	
B.G.	1-24-74	

Approved By

Fred C. Blanchard

City Engineer

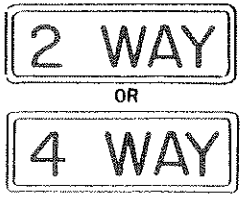
DRAWING NO. CU-G-1



R-1

SPECIFICATIONS: (2) (3)

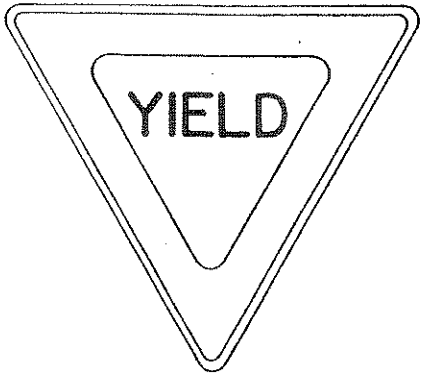
(a) 30" x 30" Octagonal Aluminun Sign (1)
(b) Reflectorized Porcelain Finish
(c) Location (8) (4) (See CU-G-3)
(d) Mounting Hardware (9)
(2 Straps)
(e) Stop Line And "STOP" Pavement Marking (11) (See CU-G-3)
(f) "STOP AHEAD" Pavement Markings (12) (See CU-G-3)



R-1 A

SPECIFICATIONS: (2) (3)

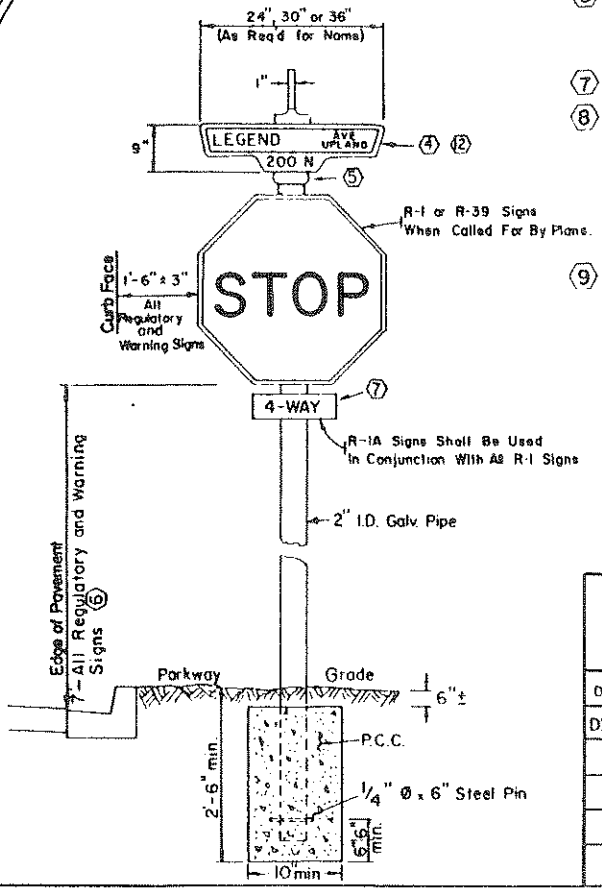
(a) 12" x 6" Rectangular Aluminum Sign (1)
(b) Reflectorized Porcelain Finish
(c) Mounting Hardware (9)
(2 Straps)



R-39

SPECIFICATIONS: (2) (3)

(a) 36" Tri Aluminum Sign (1)
(b) Reflectorized Porcelain Finish
(c) Location (8) (4) (See CU-G-3)
(d) Mounting Hardware (9)
(2 Straps)



NOTES:

(1) Unless otherwise noted on plans.

(2) "Manual on Uniform Traffic Control Devices".

(3) State of California "Traffic Manual".

(4) For Street Corner Location See Standard Drawing No. CU-G-4

(5) Cap to be located 1" above top of Regulatory Sign.

(6) If only the street name sign is to be mounted on the pole: The bottom of the sign should be placed 9' above the edge of the pavement.

(7) To be mounted 1" below Regulatory Sign.

(8) The Stop and Yield sign shall be erected at the point where the vehicle is to stop or as near thereto as possible.
See detail on Standard Drawing No CU-G-3

(9) Mounting Hardware:
(3/4" stainless steel strap
Western Highway Products Co.
No. H 13 - 032 or equivalent)
Strap-on Bracket
(Western Highway Products Co.
No. H 1 - SL or equivalent)
Seal-tite Bolt
(Western Highway Products Co.
No. H 6 or equivalent)

Notes Continued On STANDARD DRAWING NO. CU-G-3

CITY OF UPLAND
STANDARD DRAWING

DRAWN BY	DATE	SIGN POST and SIGNS: STOP (R-1) 2 & 4 - WAY (R1-A) YIELD (R-39) STREET NAME
DVH & BG	5/13/75	
REVISION BY	DATE	
		APPROVED BY
		CITY ENGINEER
		DRAWING NO. CU-G-2

NOTES : (Continued From Drawing No. CU-G-2)

(10) STOP LINES And "STOP"* Pavement Markings Are Required To Be Used In Conjunction With All Stop Signs.
The STOP LINE Shall Be:
White In Color,
12" Wide, And Placed Across All Approach Lanes At The Same Location As The Stop Sign.
The "STOP" Pavement Marking Shall Be:
White In Color, And Shall Be Located 10'± Ahead Of The Stop Line.

(11) "STOP AHEAD"* Pavement Markings Shall Be Used As Required By The Improvement Plans. In No Case Shall The "STOP AHEAD" Be Placed Closer Than 200' Ahead Of The Stop Line. The "STOP AHEAD" Shall Be White In Color.

(12) STREET NAME SIGN SPECIFICATIONS
Western Highway Products, Inc.
No. P9 or Equivalent
Porcelain on Steel #4 Green Background With White Porcelain Beaded Legend, Border, Block Number, City Name and Suffix.
Legend = 4" High Letters
Block Number = 2" High Letters
Suffix = 2" High Letters
City Name = 1" High Letters

* Specifications For The Letters Used in Pavement Marking May be Obtained From The Engineering Deparment.

CITY OF UPLAND STANDARD DRAWING		
DRAWN BY	DATE	SIGN POST and SIGNS: STOP (R-1) 2&4-WAY (R1-A) YIELD (R-39) STREET NAME
D.V.H	5/13/75	
REVISION BY	DATE	
		APPROVED BY Fred C. Shaffer CITY ENGINEER
		DRAWING NO. CU-G-3

SELECT SYSTEM STREETS

7 TH STREET (C)
8 TH STREET (A)
9 TH STREET (C)
ARROW HIGHWAY (C)
11 TH STREET: (West of Campus Ave) (C)
13 TH STREET (C)
14 TH STREET (C)
15 TH STREET (C)
16 TH STREET (A)
17 TH STREET (C)
18 TH STREET (C)
20 TH STREET (C)
21 ST STREET (C)
22ND STREET (C)
23RD STREET (C)
24TH STREET (C)

2 ND AVENUE: (7th St to "A" St, "C" St. to Foothill Blvd) (C)
SULTANA AVENUE: (South of 7th St) (C)
MOUNTAIN AVENUE (A)
SAN ANTONIO AVENUE (C)
EUCLID AVENUE: (19th St. to 24th St) (A)
CAMPUS AVENUE (C)
GROVE AVENUE (C)
SAN BERNARDINO ROAD (C)
CENTRAL AVENUE (A)
BENSON AVENUE (C)

(A) Arterial Streets
(C) Collector Streets

STATE HIGHWAYS

FOOTHILL BLVD. (Rt 66)

EUCLID AVENUE:
San Bernardino Freeway to 19th Street (Rt. 83)

NINETEENTH ST (Rt. 30)

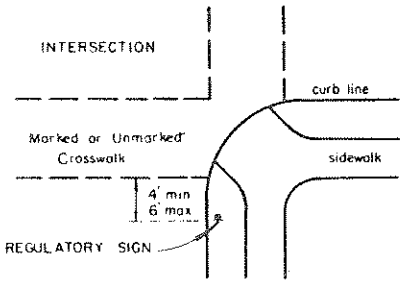
MOUNTAIN AVENUE:
16th Street to 19th Street (Rt. 30)

SIXTEENTH ST.:
County Line to Mountain Avenue (Rt 30)

SAN BERNARDINO FREEWAY (Interstate 10)

LOCAL STREETS

All other streets not listed as being "Select" or "State".



TYPICAL LOCATION FOR "STOP" & "YIELD" SIGNS
See Note (8) Standard Drawing No CU-G-2

STOP

STOP SIGNS REQUIRED. Stop signs are required for traffic control on all streets intersecting with any of the following traffic arteries (except where control is by a traffic signal system):

NAME OF ARTERY	LIMITS
7 TH STREET	ENTIRE LENGTH
8 TH STREET	" "
9 TH STREET	" "
11 TH STREET	" "
13 TH STREET	BENSON TO CAMPUS
14 TH STREET	MOUNTAIN TO CAMPUS
15 TH STREET	BENSON TO CAMPUS
16 TH STREET	ENTIRE LENGTH
17 TH STREET	MOUNTAIN TO CAMPUS
18 TH STREET	BENSON TO CAMPUS
19 TH STREET	ENTIRE LENGTH
20 TH STREET	MOUNTAIN TO EUCLID
21 ST STREET	" "
22ND STREET	" "
23RD STREET	" "
24TH STREET	ENTIRE LENGTH
ARROW HIGHWAY	" "
SAN BERNARDINO ROAD	" "
FOOTHILL BOULEVARD	" "
CENTRAL AVENUE	" "
BENSON AVENUE	" "
MOUNTAIN AVENUE	" "
SAN ANTONIO AVENUE	" "
CAMPUS AVENUE	" "
GROVE AVENUE	" "
EUCLID AVENUE	" "

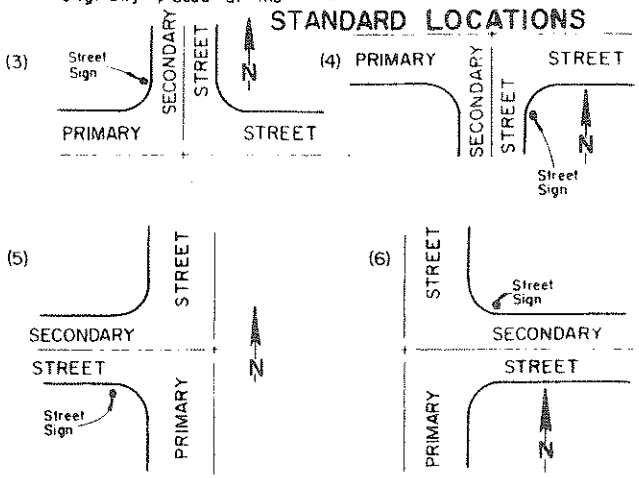
STREET

STREET NAME SIGNS REQUIRED

(1) At any corner that is the first or only corner developed.

(2) At any existing intersection with a PARTIAL STREET that is now being fully developed, the existing street name sign shall be relocated to the correct corner, if it was not originally placed at the "standard" location.

STANDARD LOCATIONS



Examples (3), (4), (5) & (6) are considered "Standard Locations" and the terms PRIMARY and SECONDARY are intended to denote which street is the more important: e.g.

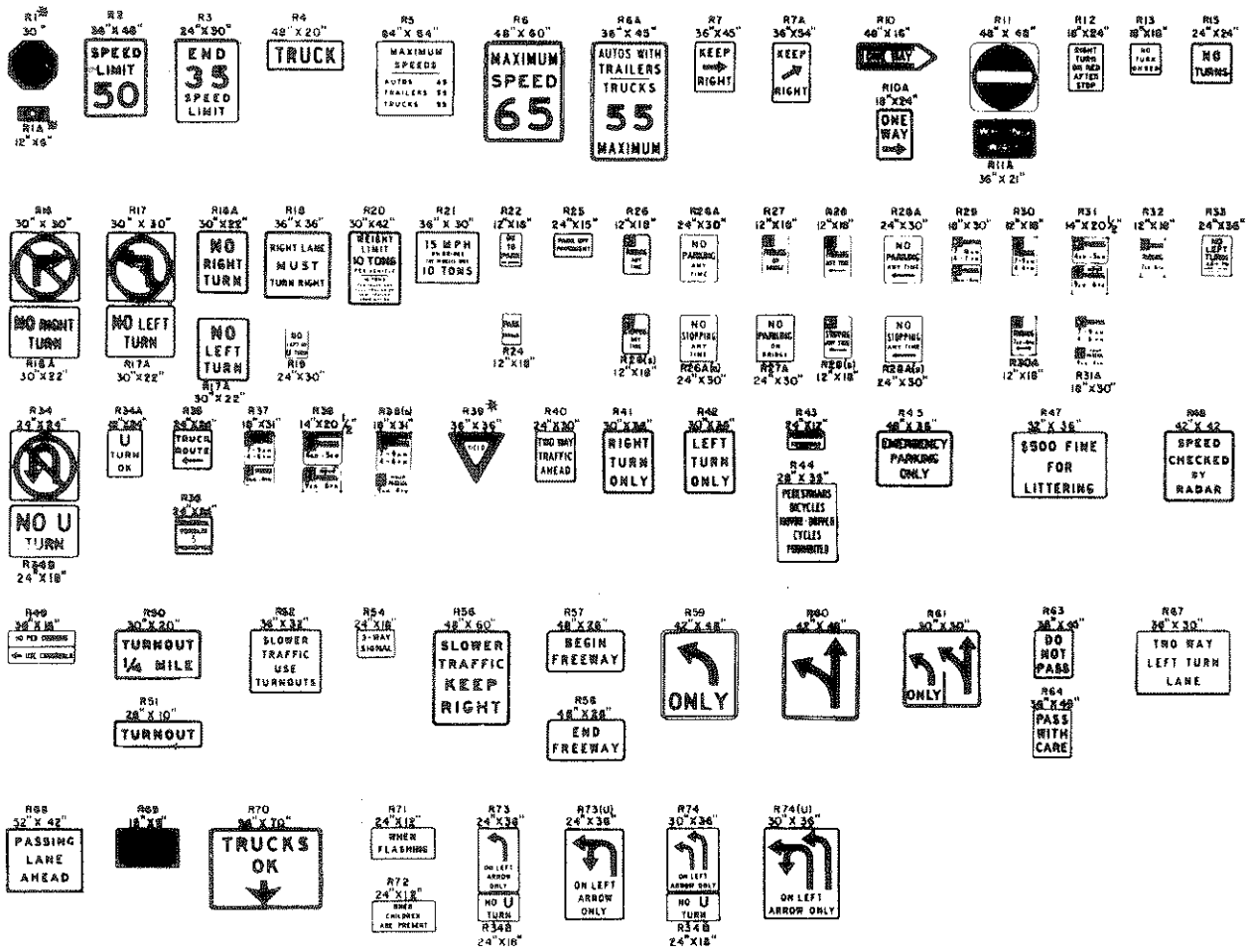
PRIMARY		SECONDARY
Arterial	Vs.	Collector
Select	Vs	Local
Thru Street	Vs	Cul-de-sac

(7) On all 4-corners at the intersection of 2 Arterial Streets.

(8) At the intersection of 2 Local Streets, the street considered to be the thru street will be based on examination of neighborhood street patterns.

CITY OF UPLAND STANDARD DRAWING		
DRAWN BY	DATE	LOCATION OF REGULATORY AND STREET NAME SIGNS
B.G.	5/21/75	
REVISION BY	DATE	
B.F.	4/1/76	APPROVED BY
		CITY ENGINEER
		DRAWING NO. CU-G-4

REGULATORY SIGNS



*SEE STANDARD DRAWING NO. CU-G-2

NOTES:

1. SPECIFICATIONS PER "MANUAL ON UNIFORM TRAFFIC CONTROL" AND STATE OF CALIFORNIA "TRAFFIC MANUAL".
   (a) SIZE SHOWN WITH EACH SIGN.
   (b) REFLECTORIZED-PORCELAIN.
2. LOCATION PER APPROVED IMPROVEMENT PLANS.
3. POST AND POST HOLE PER STANDARD DRAWING NO. CU-G-2.
4. MOUNTING HARDWARE (2 STRAPS) 3/4" STAINLESS STEEL STRAP WESTERN HIGHWAY PRODUCTS CO. NO. H13-032 OR EQUIVALENT.

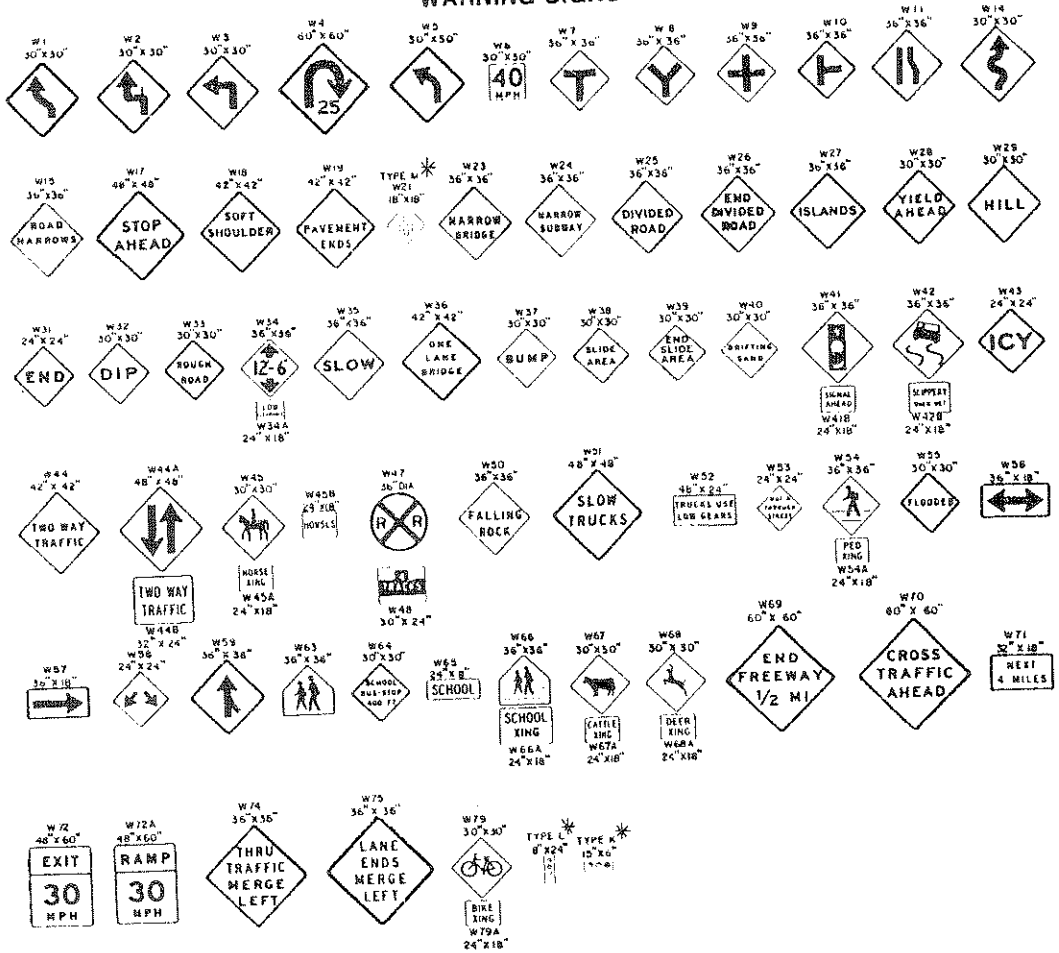
   STRAP-ON BRACKET WESTERN HIGHWAY PRODUCTS CO. NO. H1-SL OR EQUIVALENT.

   SEAL-TITE BOLT WESTERN HIGHWAY PRODUCTS CO. NO. H6 OR EQUIVALENT.

CITY OF UPLAND
STANDARD DRAWING

DRAWN BY	DATE	REGULATORY SIGNS SPECIFICATIONS
	5/21/75	
REVISION BY	DATE	
		APPROVED BY Fred C. Blankenship CITY ENGINEER
		DRAWING NO. CU-G-5

WARNING SIGNS



* SEE STANDARD DRAWING NO. CU-G-1

NOTES:

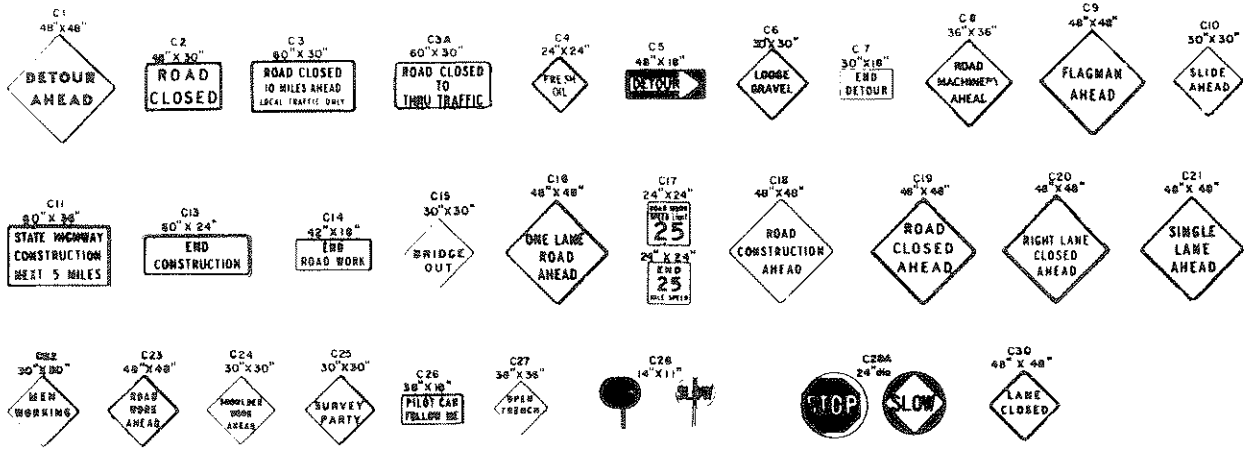
1. SPECIFICATIONS PER "MANUAL ON UNIFORM TRAFFIC CONTROL" AND STATE OF CALIFORNIA "TRAFFIC MANUAL".
2. LOCATIONS PER APPROVED IMPROVEMENT PLANS.
3. POST AND POST HOLE PER STANDARD DRAWING NO. CU-G-2.
4. MOUNTING HARDWARE (2 STRAPS) 3/4" STAINLESS STEEL STRAP WESTERN HIGHWAY PRODUCTS CO. NO. H13-032 OR EQUIVALENT.

   STRAP-ON BRACKET WESTERN HIGHWAY PRODUCTS CO. NO. HI-SL OR EQUIVALENT.

   SEAL-TITE BOLT WESTERN HIGHWAY PRODUCTS CO. NO. H6 OR EQUIVALENT.

CITY OF UPLAND STANDARD DRAWING		
DRAWN BY	DATE 5/21/75	WARNING SIGNS SPECIFICATIONS
REVISION BY	DATE	
		APPROVED BY Fred C. Blanchard CITY ENGINEER
		DRAWING NO. CU-G-6

CONSTRUCTION SIGNS



NOTES:

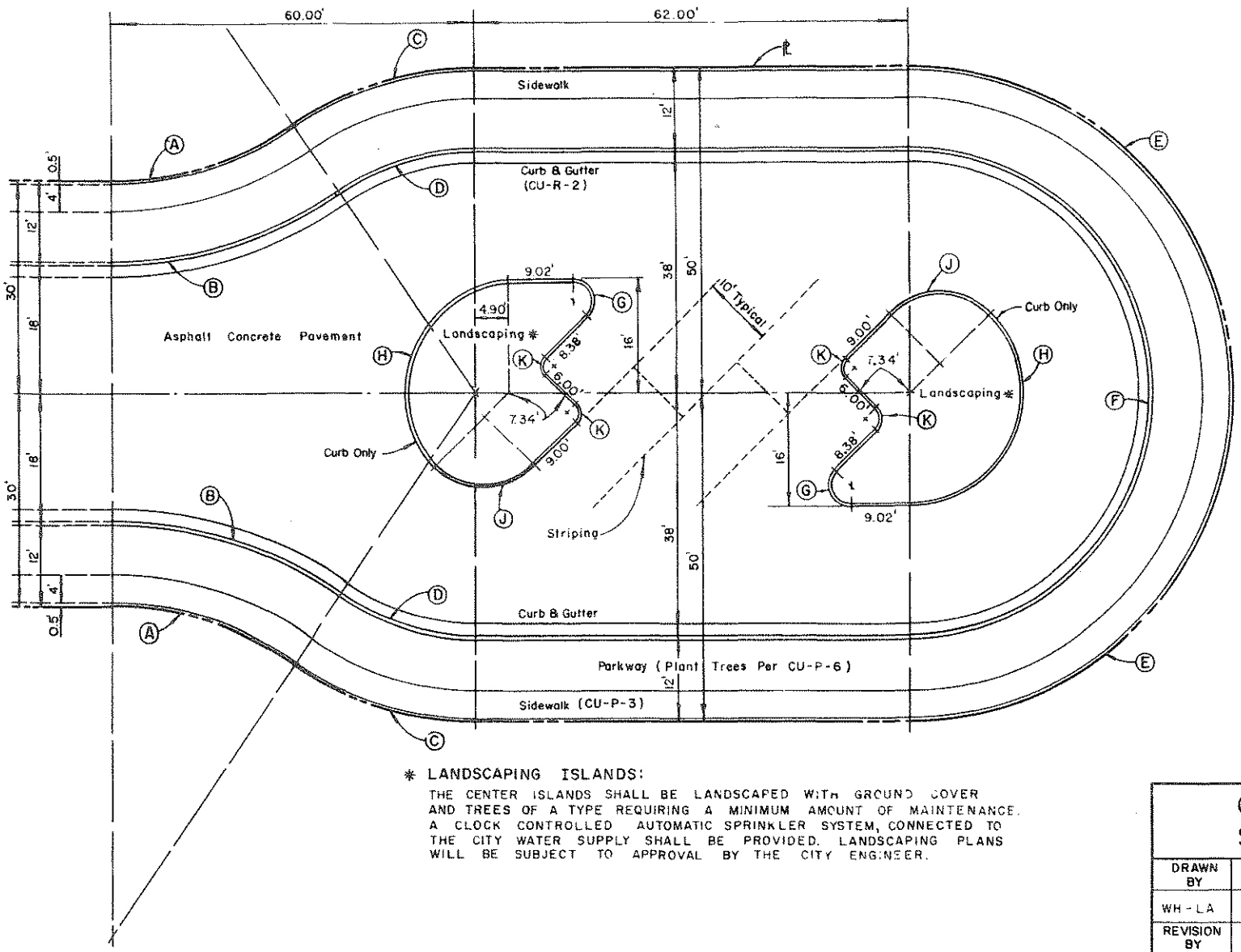
1. SPECIFICATIONS PER "MANUAL ON UNIFORM TRAFFIC CONTROL" AND STATE OF CALIFORNIA "TRAFFIC MANUAL".
   (a) SIZE SHOWN WITH EACH SIGN.
   (b) REFLECTORIZED-PORCELAIN.
2. LOCATION PER APPROVED IMPROVEMENT PLANS.
3. POST AND POST HOLE PER STANDARD DRAWING NO. CU-G-2.
4. MOUNTING HARDWARE (2 STRAPS)
   3/4" STAINLESS STEEL STRAP
   WESTERN HIGHWAY PRODUCTS CO.
   NO. HI3-032 OR EQUIVALENT.

   STRAP-ON BRACKET
   WESTERN HIGHWAY PRODUCTS CO.
   NO. HI-SL OR EQUIVALENT.

   SEAL-TITE BOLT
   WESTERN HIGHWAY PRODUCTS CO.
   NO. H6 OR EQUIVALENT.

CITY OF UPLAND
STANDARD DRAWING

DRAWN BY	DATE	CONSTRUCTION SIGNS SPECIFICATIONS
	5/21/75	
REVISION BY	DATE	
		APPROVED BY Fred C. Blanchard CITY ENGINEER
		DRAWING NO. CU-G-7



CURVE DATA			
Curve	Radius	Delta	Length
A	50.00'	36°-52'-12"	32.18'
B	62.00'	36°-52'-12"	39.90'
C	50.00'	36°-52'-12"	32.18'
D	38.00'	36°-52'-12"	24.45'
E	50.00'	180°-00'-00"	157.08'
F	38.00'	180-00-00	119.38'
G	3.00'	135°00'-00"	7.07'
H	16.00'	135°00'-00"	37.70'
J	10.00'	90°-00'-00"	15.71'
K	2.00'	90°-00'-00"	3.14'

QUANTITIES	
Curb Only	198 L.F.
Curb & Gutter	372.08 L.F.
Sidewalk	1607.7 S.F.
Island Landscaping	1168 S.F.
Pavement	8352 S.F.

✱ LANDSCAPING ISLANDS:

THE CENTER ISLANDS SHALL BE LANDSCAPED WITH GROUND COVER AND TREES OF A TYPE REQUIRING A MINIMUM AMOUNT OF MAINTENANCE. A CLOCK CONTROLLED AUTOMATIC SPRINKLER SYSTEM, CONNECTED TO THE CITY WATER SUPPLY SHALL BE PROVIDED. LANDSCAPING PLANS WILL BE SUBJECT TO APPROVAL BY THE CITY ENGINEER.

CITY OF UPLAND STANDARD DRAWING

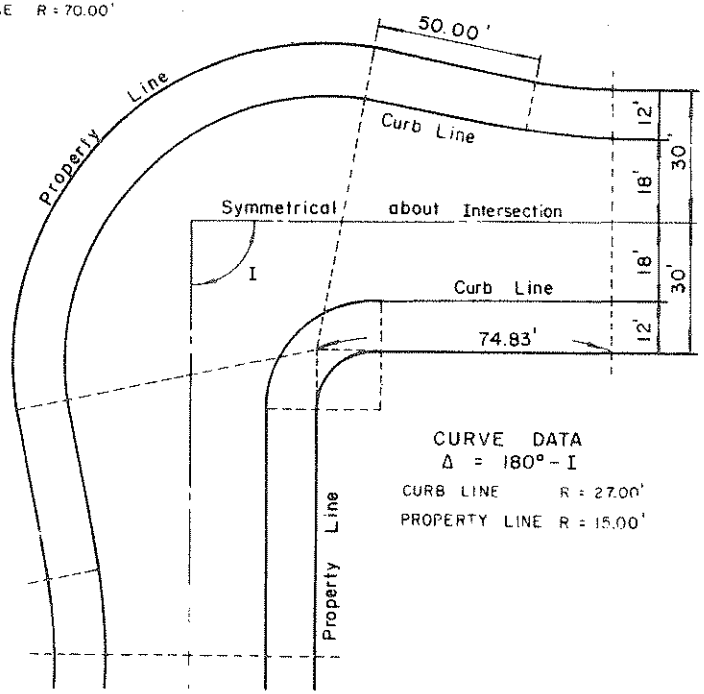
DRAWN BY	DATE	OPTIONAL PLAN for CUL - DE - SACS
WH - LA	9-5-68	
REVISION BY	DATE	
J.B.C.	4/16/75	APPROVED BY Fred C. Blanchard CITY ENGINEER
		DRAWING NUMBER CU-L-1

CURVE DATA
Δ = 198° 19' 12" – I

CURB LINE R = 58.00'
PROPERTY LINE R = 70.00'

CURVE DATA
Δ = 9° 09' 36"

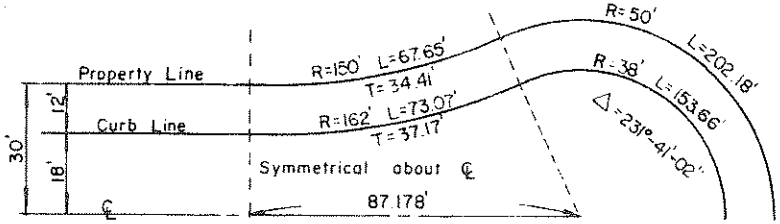
CURB LINE	PROPERTY LINE
R = 102.00'	R = 90.00'
T = 8.17'	T = 7.21'
L = 16.31'	L = 14.39'



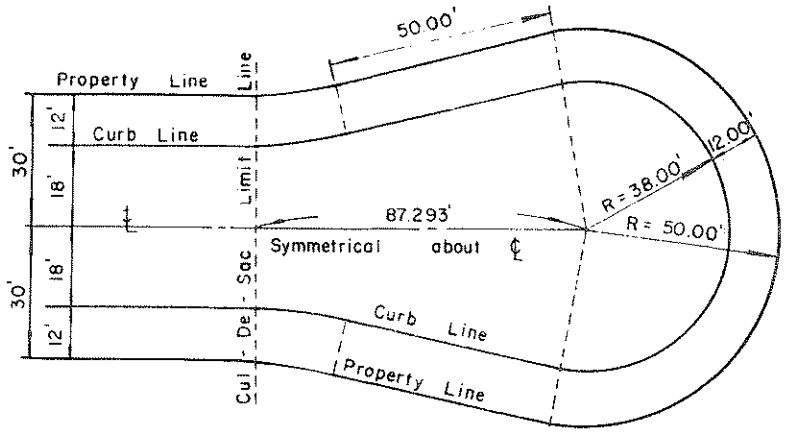
CURVE DATA
Δ = 180° – I

CURB LINE R = 27.00'
PROPERTY LINE R = 15.00'

STANDARD KNUCKLE
(Right Angle Turn)



ALTERNATE CUL - DE - SAC



CURVE DATA
Δ = 16°-34'-35"

CURB LINE	PROPERTY LINE
R = 100'	R = 88.00'
T = 14.57'	T = 12.82'
L = 28.93'	L = 25.46'

CURVE DATA
Δ = 213°-09'-10"

CURB LINE	PROPERTY LINE
R = 38.00'	R = 50.00'
L = 141.37'	L = 186.01'

STANDARD CUL - DE - SAC

Cul-de-Sac QUANTITIES

ITEM	STANDARD	ALTERNATE
Sidewalk (4' wide)	1,316.3 SF	1,318.5 SF
A.C. Pavement	6,498.1 S.F.	6,278.5 S.F.
Type 'A' Curb & Gutter. (8"cf, 18"gtr)	299.23 L.F.	299.80 L.F.

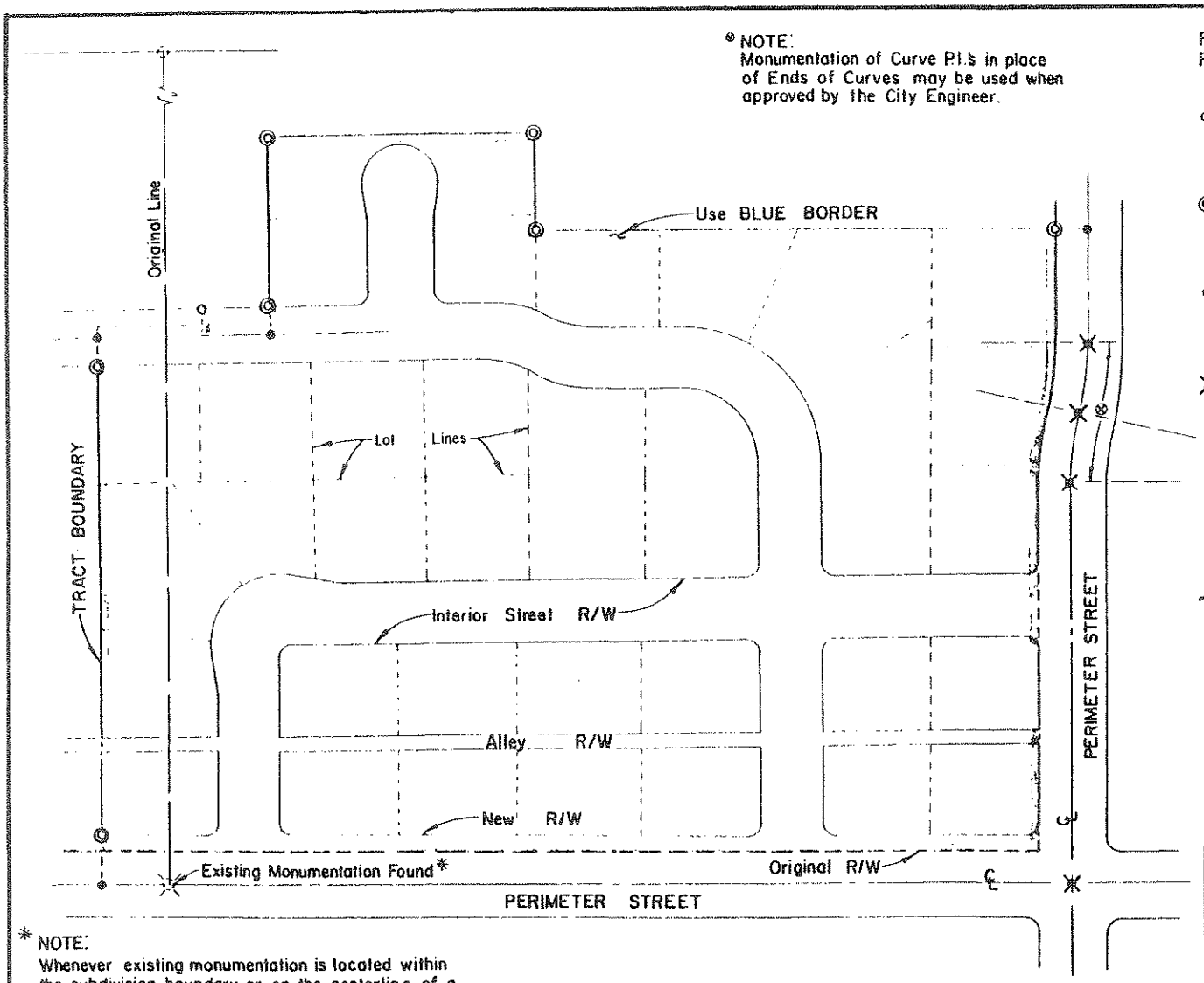
CITY OF UPLAND
STANDARD DRAWING

Drawn By	Date
LWA	5-1-70
Revisions By	Date
J.B.C.	4/17/75

STANDARD CUL-DE-SAC
STANDARD KNUCKLE

Approved By
City Engineer

DRAWING NO. CU - L - 2



* NOTE:
Monumentation of Curve P.I.'s in place of Ends of Curves may be used when approved by the City Engineer.

REQUIRED EXTERIOR BOUNDARY AND RELATED PERIMETER STREET MONUMENTATION

LEGEND

o ····· INDICATES SET 1" IRON PIPE WITH BRASS NAIL TAGGED WITH LS OR RCE TAG.

◎ ····· INDICATES SET 2" IRON PIPE WITH BRASS NAIL TAGGED WITH LS OR RCE TAG.

● ····· INDICATES SET 6" BOAT SPIKE OR EQUIVALENT WITH CROSS OR PUNCH MARK.

✕ ····· INDICATES SET 6" BOAT SPIKE OR EQUIVALENT WITH CROSS OR PUNCH MARK. (TIES REQUIRED)

GENERAL NOTES

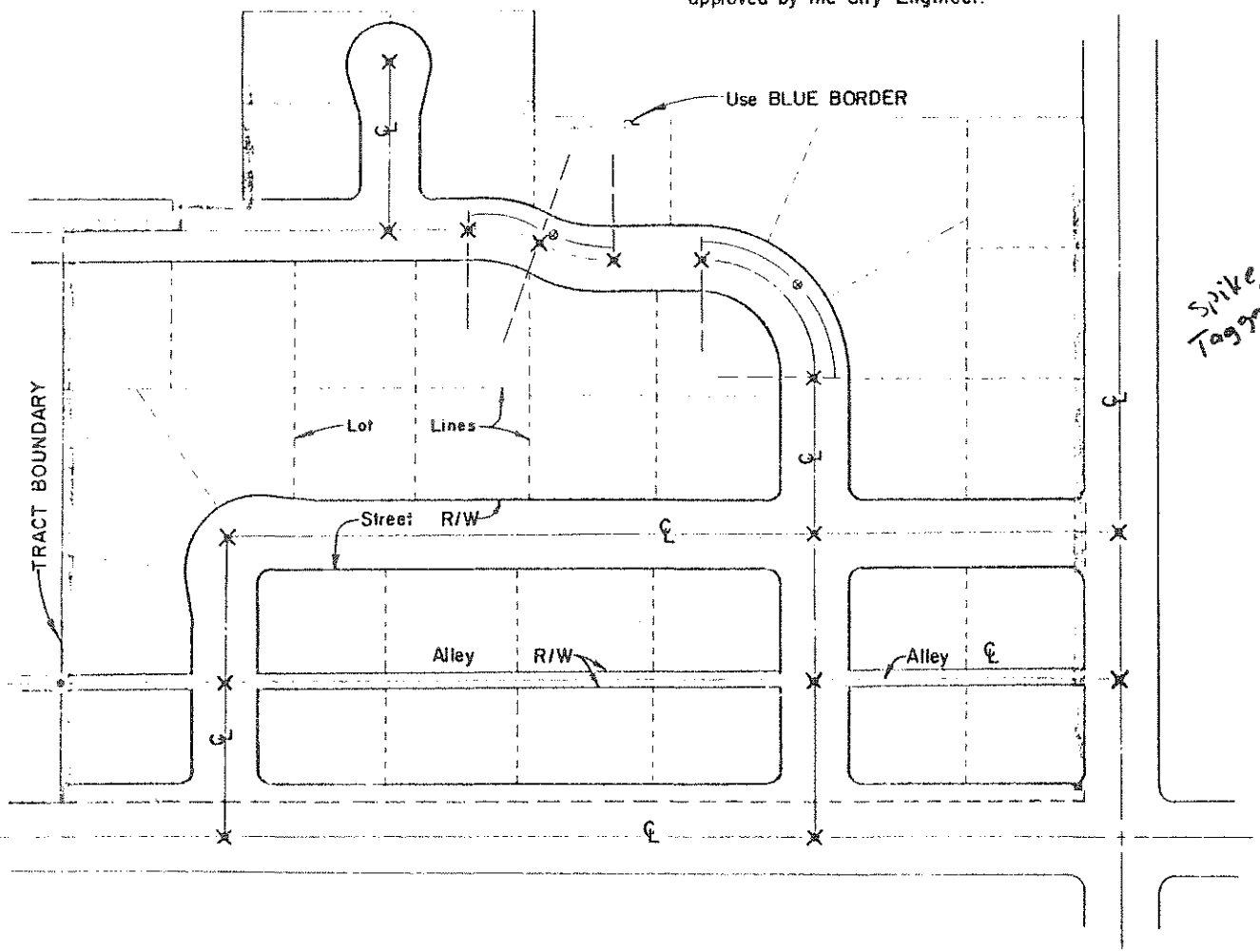
See Standard Drawing No. CU-L-4 for Required Monumentation For Interior Streets and Alleys.

~~See Standard Drawing No. CU-L-5 for Street Ties Requirements.~~

* NOTE:
Whenever existing monumentation is located within the subdivision boundary or on the centerline of a perimeter street, ties shall be established and record per Standard Drawing No. CU-L-5, and said point shall be preserved or reset.

CITY OF UPLAND
STANDARD DRAWING

Drawn By	Date	EXTERIOR BOUNDARY & RELATED PERIMETER STREET MONUMENTATION
M.a.s.	7-28-72	
Revision By	Date	
		Approved By
		CITY ENGINEER
		DRAWING NUMBER CU-L-3



⊗ NOTE:
Monumentation of Curve P.I.'s in place of Ends of Curves may be used when approved by the City Engineer.

REQUIRED MONUMENTATION FOR INTERIOR STREETS AND ALLEYS

LEGEND

o---- INDICATES SET 1" IRON PIPE WITH BRASS NAIL TAGGED WITH LS OR RCE TAG.

⊗---- INDICATES SET 6" BOAT SPIKE OR EQUIVALENT WITH CROSS OR PUNCH MARK.

X --- INDICATES SET 6" BOAT SPIKE OR EQUIVALENT WITH CROSS OR PUNCH MARK. (TIES REQUIRED)

Spike & Tagged Washer

GENERAL NOTES

See Standard Drawing CU-L-3 for Required Exterior Boundary and Related Perimeter Street Monumentation.

~~See Standard Drawing CU-L-5 for Street Ties Requirements~~.

CITY OF UPLAND
STANDARD DRAWING

Drawn By	Date	MONUMENTATION FOR INTERIOR STREETS AND ALLEYS
M.a.s.	7-28-72	
Revision By	Date	
		Approved By Fred C. Blanchard CITY ENGINEER
		DRAWING NUMBER: CU-L-4

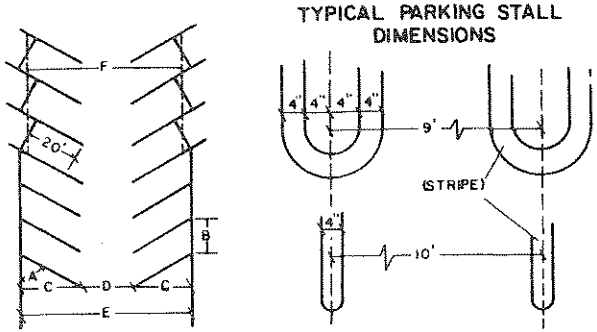
9' DOUBLE STRIPED SPACE

ANGLE	CURB LENGTH	STALL LENGTH	AISLE	BAY WIDTH	INTERLOCKING BAY WIDTH
30°	18'	17' 10"	12' 6"	48' 2"	39' 6"
40°	14'	19' 9"	13' 6"	53'	46' 1"
45°	12' 9"	20' 6"	14' 6"	55' 6"	49' 2"
50°	11' 9"	21' 1"	15' 6"	57' 8"	51' 11"
60°	10' 5"	21' 10"	19'	62' 8"	58' 2"
90°	9'	20'	26'	66'	66'
A	B	C	D	E	F

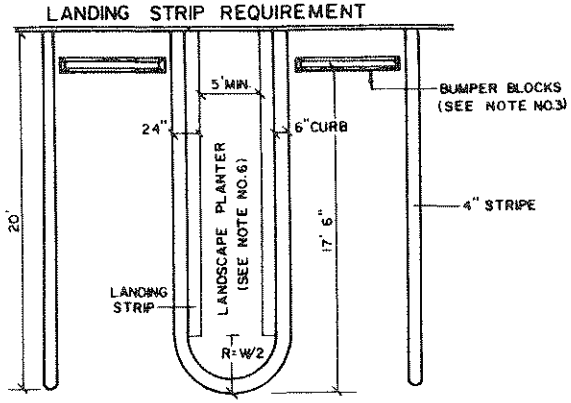
10' STANDARD SINGLE STRIPED SPACE

ANGLE	CURB LENGTH	STALL LENGTH	AISLE	BAY WIDTH	INTERLOCKING BAY WIDTH
30°	20'	18' 8"	12'	49' 4"	40' 8"
40°	15' 8"	20' 6"	12' 6"	53' 6"	45' 11"
45°	14' 2"	21' 3"	14'	56' 6"	49' 5"
50°	13' 2"	21' 9"	15'	58' 6"	51' 1"
60°	11' 6"	22' 4"	18'	62' 8"	57' 8"
90°	10'	20'	26'	66'	66'
A	B	C	D	E	F

TYPICAL PARKING STALL DIMENSIONS

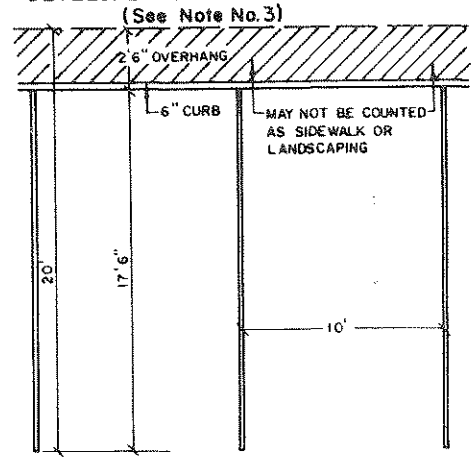


LANDING STRIP REQUIREMENT



WHEREVER A PARKING STALL ABUTS A LANDSCAPED PLANTER AREA, EITHER IN THE PARKING LOT OR ADJACENT TO A BUILDING, A 24" LANDING STRIP MUST BE PROVIDED.

DEVELOPER OPTION BUMPER BLOCK (See Note No.3)



THIS OPTION MAY BE APPLIED TO EITHER THE TEN FOOT STALL OR THE 9' DOUBLE STRIPED PARKING STALLS.

GENERAL NOTES:

1. FIRE DEPARTMENT REQUIREMENTS:
   ANY PARKING AISLE THAT IS DESIGNATED BY THE FIRE DEPARTMENT AS A FIRE LANE IS A MINIMUM OF TWENTY-FOUR (24') FEET IN WIDTH.
   FIRE EQUIPMENT TURNING RADIUS SHALL BE DESIGNED TO THE SATISFACTION OF THE FIRE DEPARTMENT WITH A MINIMUM INSIDE TURNING RADIUS OF 20' AND A MINIMUM OUTSIDE TURNING RADIUS OF 45'.

2. COMPACT CAR SPACES ARE NOT COUNTED AS BEING PART OF THE PARKING SPACES THAT ARE REQUIRED ON-SITE. FOR COMPACT CAR SPACES REFER TO DRAWING NO. CU-L-6 FOR DIMENSIONS.

3. BUMPER BLOCKS ARE REQUIRED TO BE PROVIDED ON ALL PARKING STALLS FRONTING A PROPERTY LINE, BUILDING, GARDEN WALL OR FENCE. IN LIEU OF PROVIDING BUMPER BLOCKS, THE DEVELOPER MAY UTILIZE THE "DEVELOPER OPTION BUMPER BLOCK" DETAIL ILLUSTRATED HEREIN ABOVE.

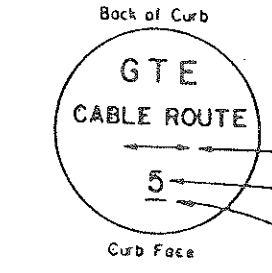
4. DIMENSIONS OF SPECIAL TYPES OF PARKING STALL:
   - PARALLEL PARKING STALL: 10' X 23'
   - LOADING SPACE: 10' X 20' WITH 14' VERTICAL CLEARANCE
   - HANDICAPPED STALL: 14' X 20'
   - STALLS ADJACENT TO WALL OR RAISED PLANTER OVER 18" IN HEIGHT: 12' X 20'

5. VEHICLES SHALL NOT EXTEND OVER THE PUBLIC SIDEWALK OR PROPERTY LINES. NOR SHALL PARKING STALLS BE LOCATED WHERE IT WOULD BE NECESSARY FOR THE DRIVER TO BACK UP ACROSS A PUBLIC SIDEWALK.

6. LANDSCAPING: LANDSCAPING SHALL BE PROVIDED AS REQUIRED BY THE UMC (5% MINIMUM OF THE PAVED PARKING AREA), & SHALL COMPLY WITH THE FOLLOWING CRITERIA:
   - MINIMUM INSIDE PLANTER WIDTH SHALL BE 5' & MINIMUM PLANTER AREA SHALL BE 40 SQ FT IN ORDER TO MEET THE 5% LANDSCAPING REQUIREMENTS.
   - THE LANDSCAPED AREA OVERHUNG BY A PARKED VEHICLE SHALL NOT BE INCLUDED IN MEETING THE 5% LANDSCAPING REQUIREMENT.

CITY OF UPLAND STANDARD DRAWING

DRAWN BY	DATE	PARKING LOT DESIGN STANDARD
P. O.	9-27-82	
REVISION BY	DATE	
		APPROVED BY
		DEPUTY CITY ENGINEER
		DRAWING NO. CU-L-5



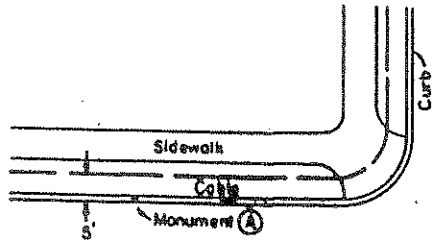
EXAMPLE (A)

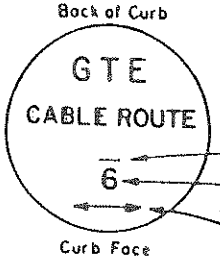
Cable in the parkway, parallel to curb

Represents Cable

Distance from Curb Face to Cable

Represents Curb Face





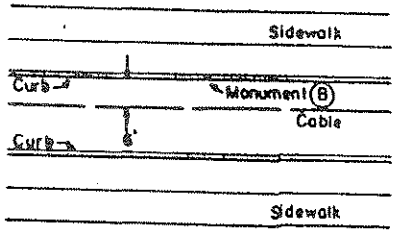
EXAMPLE (B)

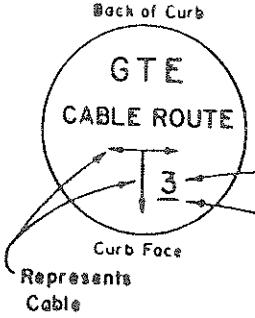
Cable in the street, parallel to curb

Represents Curb Face

Distance from Curb Face to Cable

Represents Cable



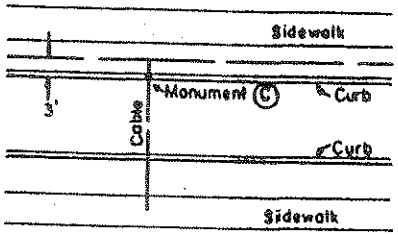


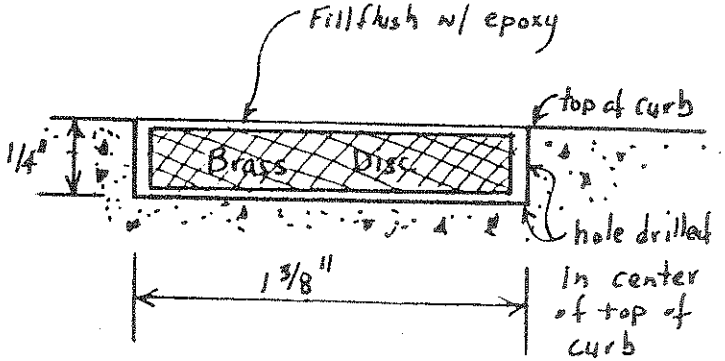
EXAMPLE (C)

Cable crossing the street at this point from a cable running parallel to the curb

Distance from Curb Face to Cable

Represents Curb Face

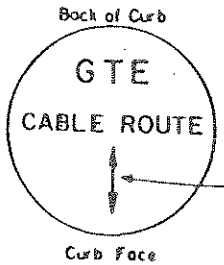




Installation Detail

(no scale)

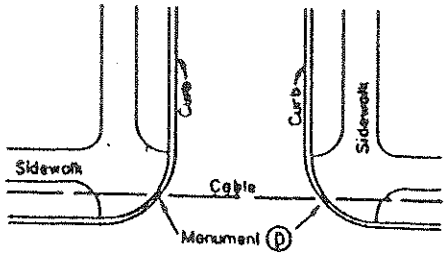
CITY OF UPLAND STANDARD DRAWING		
DRAWN BY	DATE	Utility Line Markers
JJW	9/85	
REVISION BY	DATE	
		APPROVED BY
		DEP. CITY ENGINEER
		DRAWING NO. CU-L-6

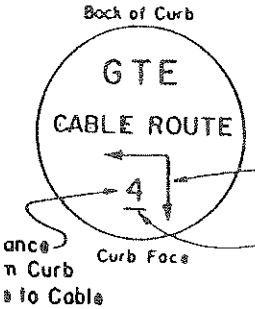


EXAMPLE (D)

A point on each side of street where cable crosses

Represents Cable



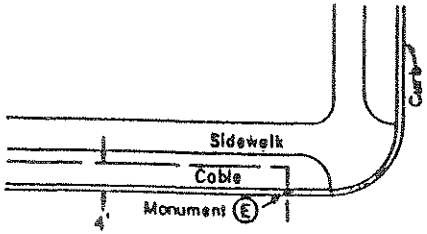


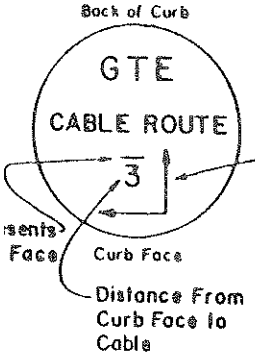
EXAMPLE (E)

Cable making a 90° turn and crossing the street

Represents Cable

Represents Curb Face

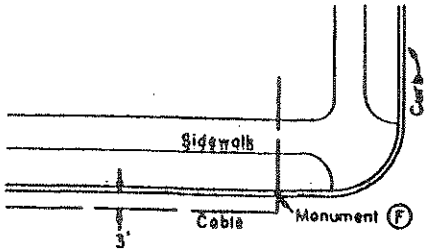




EXAMPLE (F)

End of cable in the parkway, or street

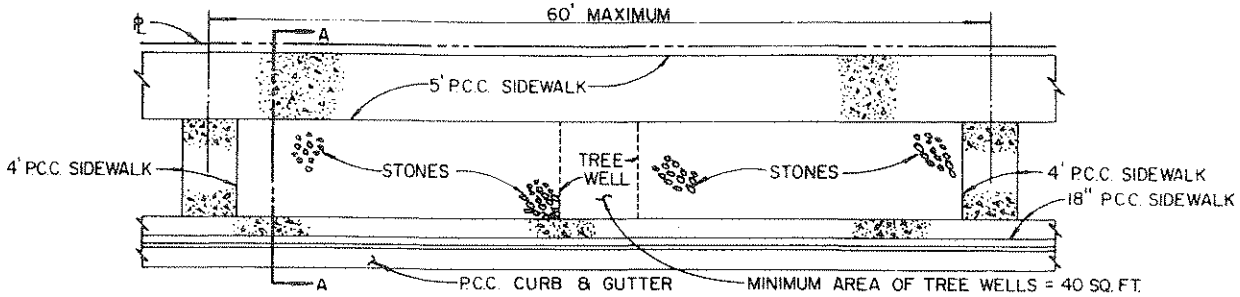
Represents Cable



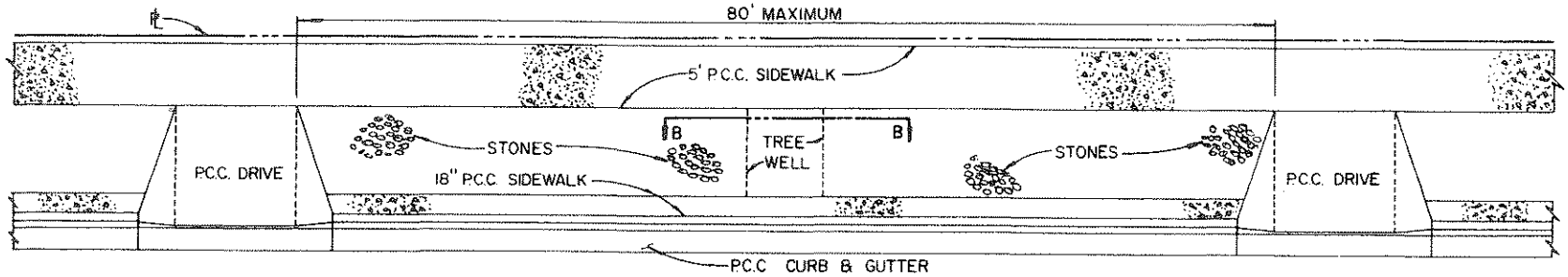
CITY OF UPLAND
STANDARD DRAWING

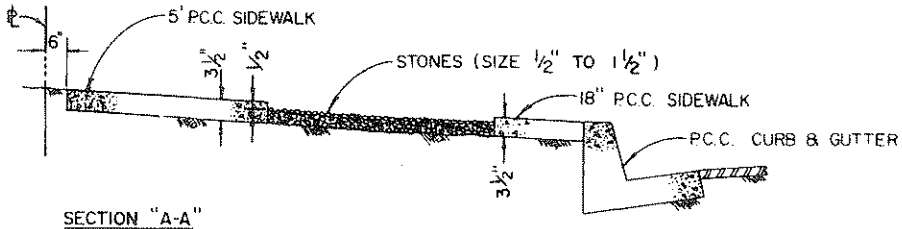
DRAWN BY	DATE	Utility Line Markers
JW	9/85	
REVISION BY	DATE	
		APPROVED BY
		DEP. CITY ENGINEER
		DRAWING NO. CU-L-7

SPACING FOR 4' WALKS TO CURB



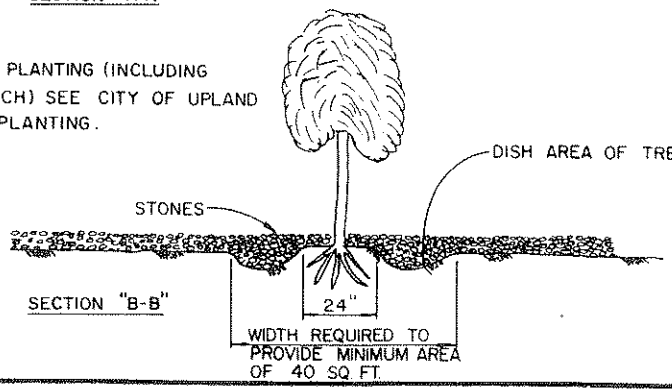
NO WALKS TO CURB REQUIRED





SECTION "A-A"

NOTE: FOR DETAILS ON TREE PLANTING (INCLUDING STAKES, TIES AND MULCH) SEE CITY OF UPLAND STANDARD FOR TREE PLANTING.



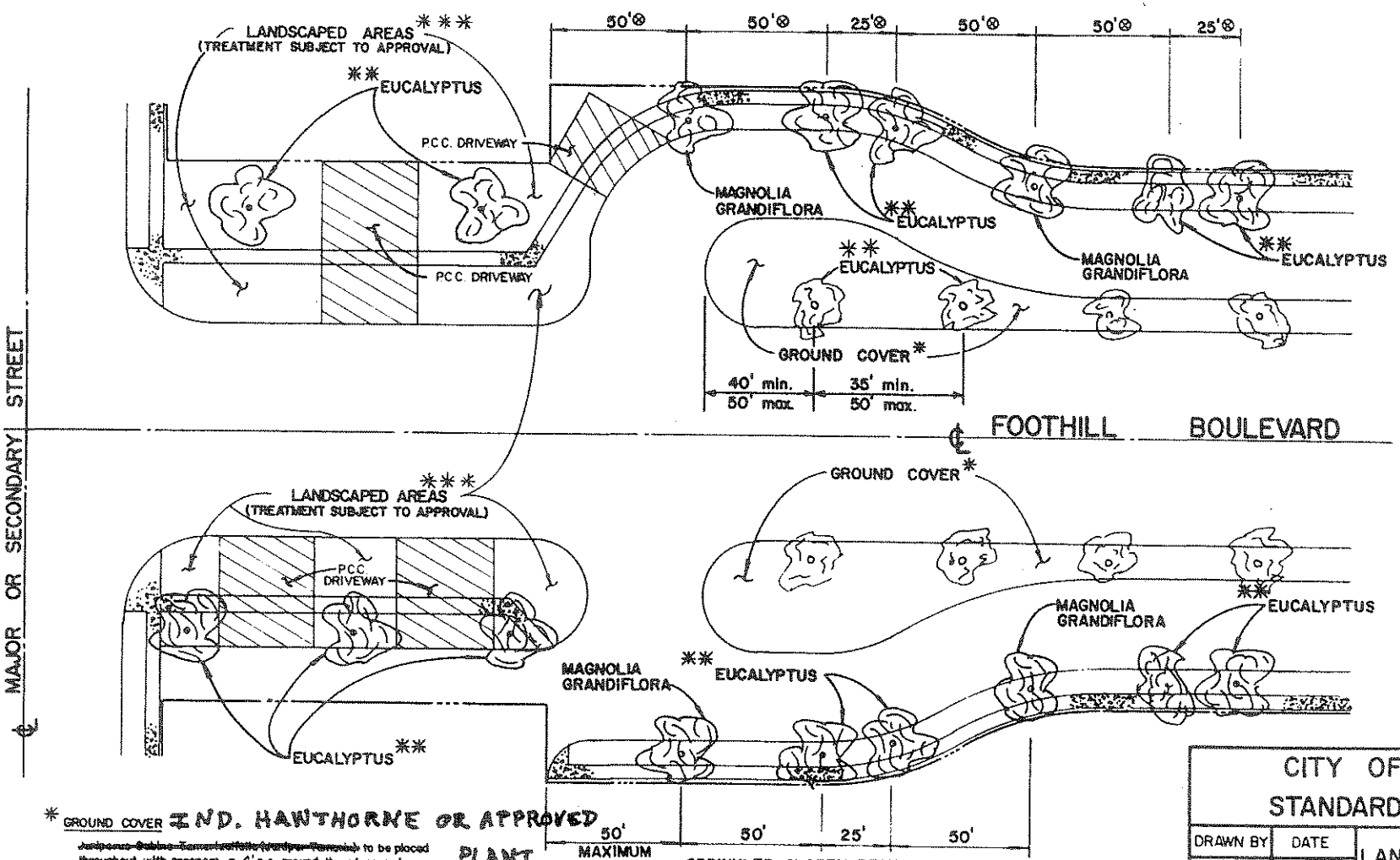
SECTION "B-B"

CITY OF UPLAND STANDARD DRAWING

DRAWN BY	DATE	STANDARD DETAIL FOR USE OF CRUSHED ROCK IN COMMERCIAL PARKWAYS
J.C.H.	11-10-64	
REVISION BY	DATE	
H.G.	5-11-66	APPROVED BY: Fred C. Blanchard CITY ENGINEER
L.G.K.	12-15-66	
		DRAWING NUMBER: CU-P-1

⊗ LOCATION OF TREES

Tree spacing as indicated hereon is the desirable spacing; adjustments may be necessary to coordinate with drives, street lights, etc. Trees located in the island between Foothill Blvd. and the Service Road should have varied spacing, and said spacing should be coordinated with the location of trees in the parkway area along sections requiring parkway trees.



* GROUND COVER IND. HAWTHORNE OR APPROVED PLANT

~~Juniperus Sabina Tamariscifolia (Juniper Tamarix)~~ to be placed throughout with creepers a 4' c.c. around the edges and hi-growers a 4' c.c. in center areas. Sprinkler systems are required for all landscaped areas: islands, parkways, etc.

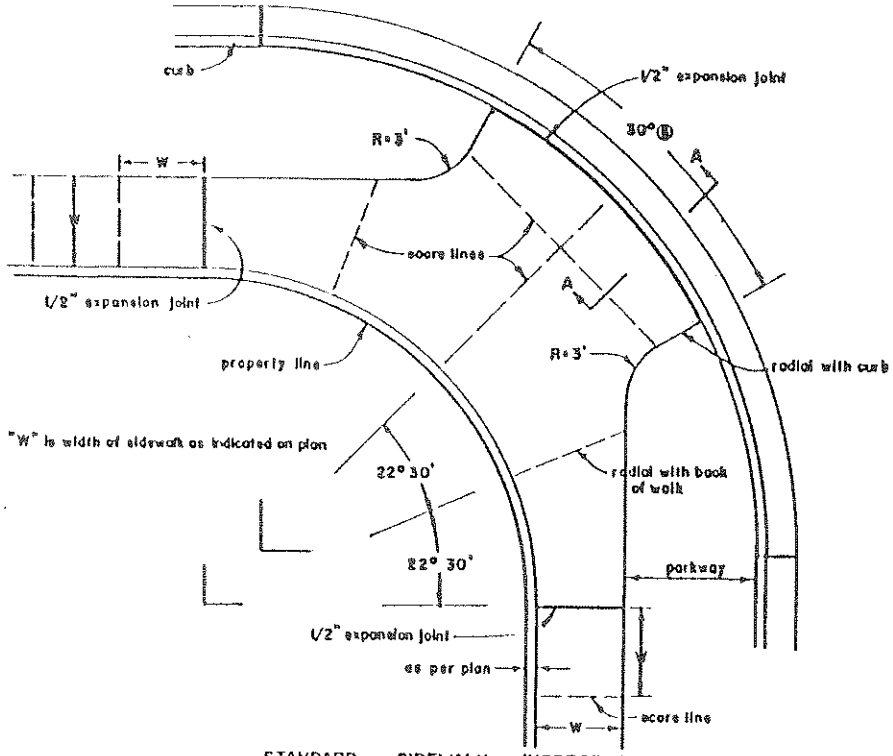
** EUCALYPTUS SIDEROXYLON ROSEA (min. height 18')

*** Corner Landscaped Areas shall include Junipers and Eucalyptus predominantly but may also include other planting for accent purposes

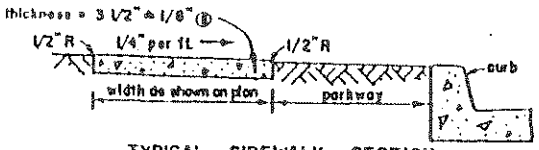
SPRINKLER SYSTEM REQUIREMENTS

Landscaped areas must be equipped with a sprinkler system designed to provide adequate irrigation to all plants and trees. See City of Upland Standard Drawing W6-10. Sprinkler system to be clock controlled, and connected to City water system.

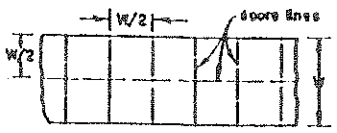
CITY OF UPLAND STANDARD DRAWING		
DRAWN BY	DATE	LANDSCAPE PLAN FOR FOOTHILL BOULEVARD
J.C.H.	3-8-65	
REVISION BY	DATE	
W.O.H.	11-18-65	APPROVED BY
L.G.K	6-2-67	CITY ENGINEER
Lwo	5-15-70	DRAWING NUMBER: CU-P-2



STANDARD SIDEWALK INTERSECTION

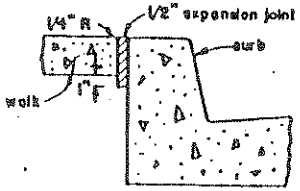


TYPICAL SIDEWALK SECTION

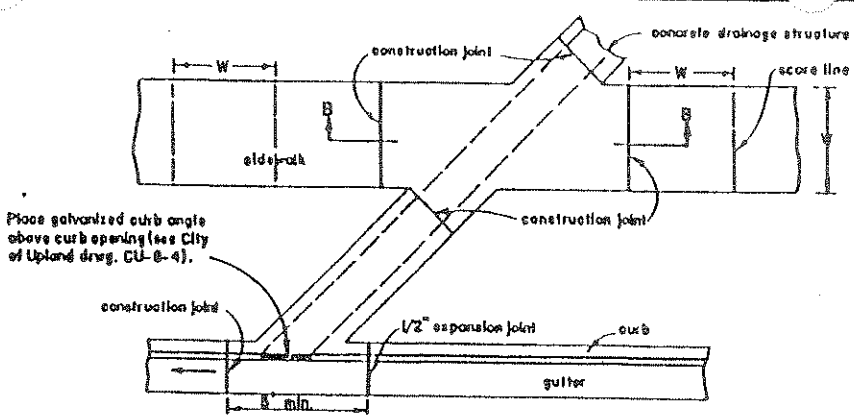


TYPICAL SCORING

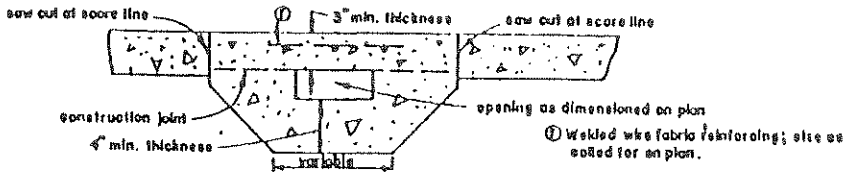
walks wider than 5'



SECTION "A-A"



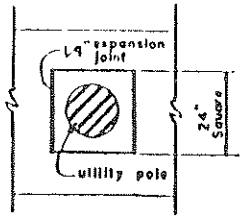
TYPICAL DETAIL OF DRAIN THRU WALK



SECTION "B-B"

GENERAL NOTES

1. Where a sidewalk is to be placed abutting a concrete curb or masonry wall the joint between the walk and curb or wall shall be a cold joint, except at walk returns where an expansion joint will be used as shown hereon.

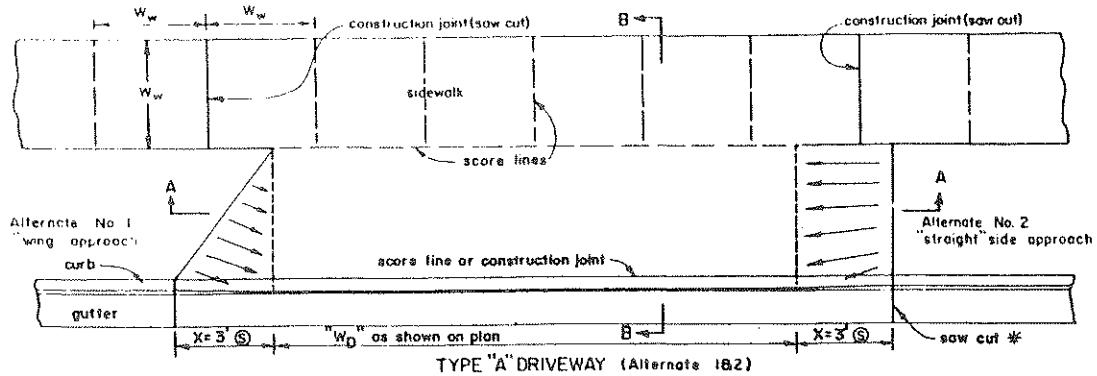


DETAIL FOR UTILITY POLES PLACED IN CONCRETE WALKS

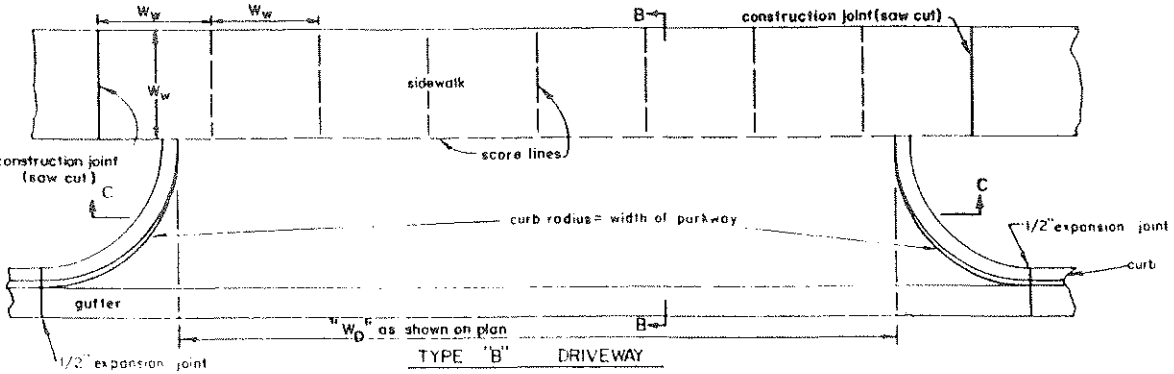
Ⓑ STANDARD DIMENSION UNLESS OTHERWISE NOTED ON PLAN.

CITY OF UPLAND STANDARD DRAWING

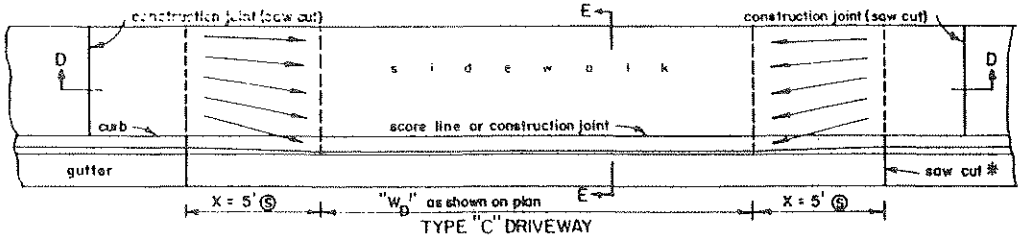
DRAWN BY	DATE	SIDEWALK DETAILS
w e h	7/15/68	
REVISION BY	DATE	
L.O.K.	12-16-66	APPROVED BY
		CITY ENGINEER
		DRAWING NO. CU-P-3



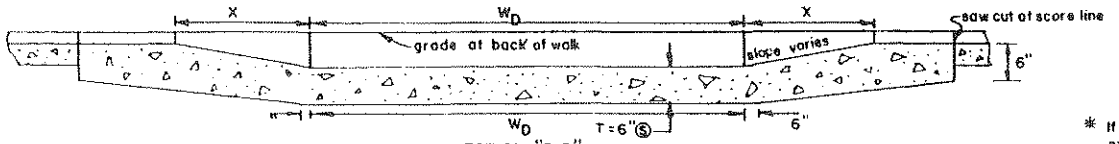
TYPE "A" DRIVEWAY (Alternate 1 & 2)



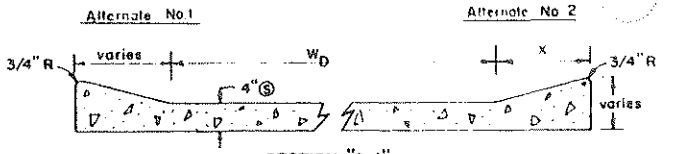
TYPE "B" DRIVEWAY



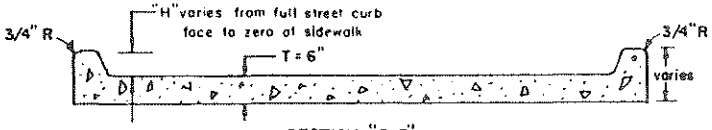
TYPE "C" DRIVEWAY



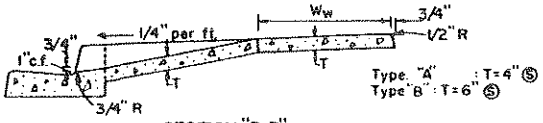
SECTION "D-D"



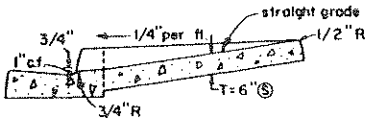
SECTION "A-A"



SECTION "C-C"



SECTION "B-B"



SECTION "E-E"

GENERAL NOTES

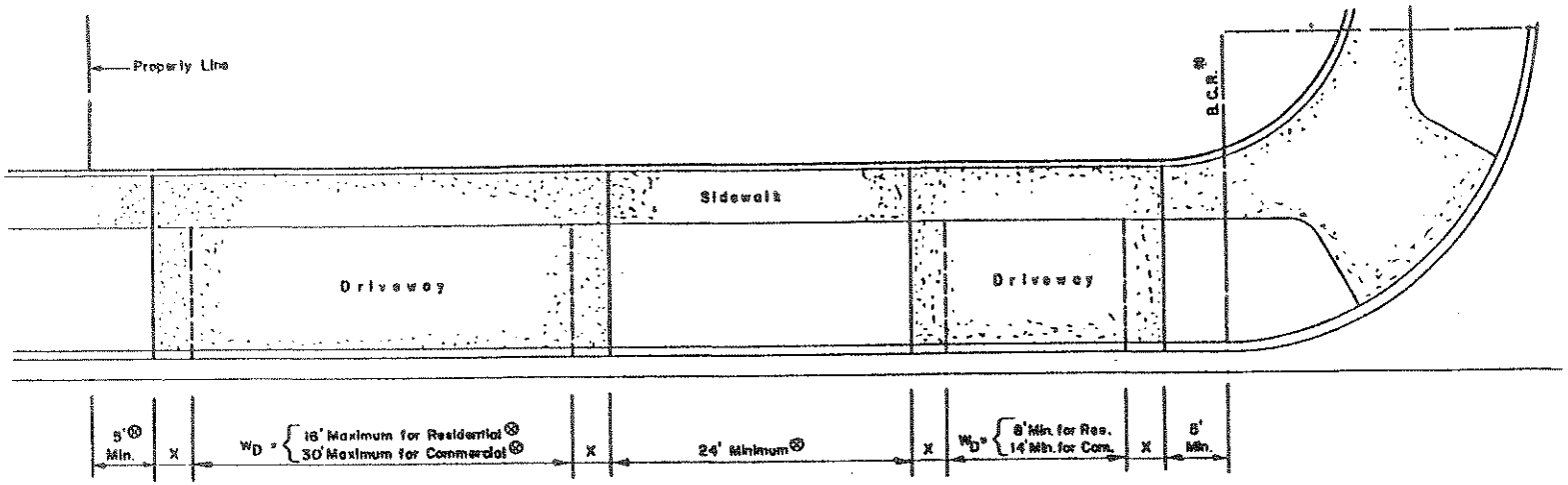
1. Type "A" (alternate 1 & 2) are residential driveways only
   Type "B" & "C" are commercial driveways

Ⓢ STANDARD DIMENSION UNLESS OTHERWISE NOTED ON PLAN.

* If new curb cut falls within 5 ft. of expansion joint, remove curb to joint.

CITY OF UPLAND STANDARD DRAWING

DRAWN BY	DATE	DRIVEWAYS
w a h	7/20/65	
REVISIONS BY	DATE	
BQ	8-25-75	APPROVED BY Fred C. Blanchard CITY ENGINEER
		DRAWING NO. CU-P-4



STANDARD DRIVEWAY SPACING

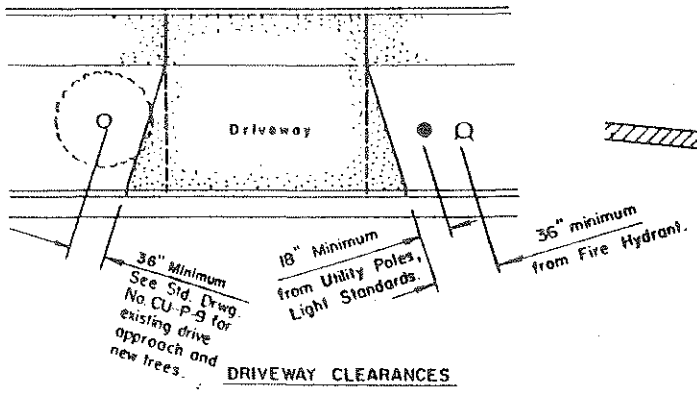
GENERAL NOTES

The maximum total width of driveways, including the "X" dimensions, to be allowed for a residential lot shall be 40% of the lot frontage.

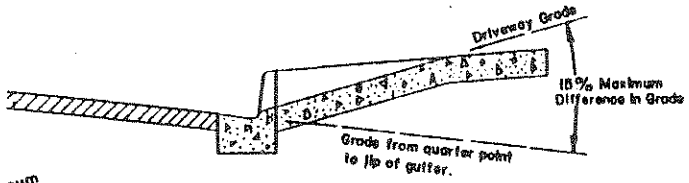
The maximum total width of driveways, including the "X" dimensions, to be allowed for a commercial lot shall be 50% of the property frontage.

⊗ Exceptions to these maximum and minimum dimensions may be granted by the City Engineer under special conditions.

* Curb return for either Street or Alley.



DRIVEWAY CLEARANCES



DRIVEWAY GRADIENT

CITY OF UPLAND STANDAND DRAWING

DRAWN BY	DATE	DRIVEWAY LOCATIONS
wah	8/6/65	
REVISIONS BY	DATE	
B.G.	12-13-73	APPROVED BY Fred C. Blanchard CITY ENGINEER
		DRAWING NO. CU-P-5

APPROVED TREES FOR USE WITHIN CITY RIGHT OF WAYS

BOTANICAL NAME	COMMON NAME	Ref ✡ Page No.	Min Pkway Width	Tree Spacing Min.	Tree Spacing Max.
SMALL TREES 15'-20' IN HEIGHT					
Callistemon citrinus	Lemon Bottlebrush	207	4'	15'	30'
Pittosporum rhombifolium	Queensland Pittosporum	374	4'	18'	30'
Lagerstroemia indica	Crape Myrtle	316	4'	18'	30'
Prunus Krauter Vesuvius	Flowering Plum	387	5'	20'	35'
Eriobotrya deflexa	Bronze Loquat	260	5'	20'	30'
MEDIUM TREES 25'-40' IN HEIGHT					
Quercus ilex	Holly Oak	391	6'	25'	40'
Pittosporum undulatum	Victorian Box	374	6'	25'	35'
Liquidambar styraciflua (Palo Alto')	American Sweet Gum	324	6'	25'	35'
Koelreuteria bypinnata (or K. henryi)	Chinese Flame Tree	316	6'	30'	45'
Schinus terebinthifolius	Brazilian Pepper	413	7'	30'	45'
Pistacia chenensis	Chinese Pistache	374	6'	30'	45'
Cupaniopsis anacardioides	Carrot Wood, Tuckeroo	245	6'	30'	40'
LARGE TREES 40'-60' IN HEIGHT					
Liriodendron tulipifera	Tulip Tree	324	7'	30'	45'
Eucalyptus sideroxylon Rosea	Pink Ironbark or Red Ironbark	270	7'	30'	40'
		279	7'	30'	45'
		279	7'	30'	45'
CONIFEROUS EVERGREENS					
Calocedrus decurrens	Incense Cedar	208	7'	30'	40'
Pinus thunbergiana	Japanese Black Pine	373	7'	30'	40'
Pinus pinea	Italian Stone Pine	372	7'	30'	45'
Podocarpus gracilior	Fern Pine	378	7'	30'	45'
Pinus canariensis	Canary Island Pine	369	7'	30'	40'
PALMS					
Washingtonia robusta	Mexican Fan Palm	441	7'	25'	40'
Trachycarpus fortunei	Windmill Palm	432	7'	25'	40'

Page numbers listed are from publication:
Sunset Western Garden Book

GENERAL NOTES

1. Trees to be planted shall be of the species specified on the plan.
2. A construction permit to plant trees must be obtained from the City Engineer before trees can be planted.
3. The planting of bare root trees must have special approval from the City Engineer.
4. Trees shall normally not be less than 6' in height above ground level when planted, shall be 5 gal. size (min.) and shall not be root bound.
5. The tree stake shall be set to the southwest side of tree
6. Developers (or Contractors) shall be responsible for care of trees for a period of one year after the acceptance by the City of the street improvements.
7. It is the City's desire to maintain uniformity in tree planting. Every effort should be made to keep the same type and variety of tree throughout the limits of each block.
8. Tree planting shall comply with Section 308 of the Standard Specifications except as otherwise noted hereon.
9. Trees shall be spaced in accordance with the clearances indicated on Std. Drwg. CU-P-9 and the maximum and minimums shown hereon.

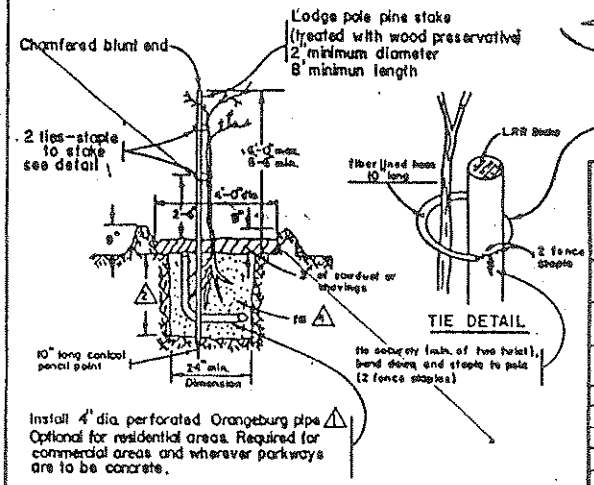
* Except that when homeowners move in and occupy properties, they shall be considered responsible for the parkway trees along their lot frontage(s).

4 Fill with native soil after removing rocks larger than 3" Do not tamp, but water thoroughly.

3 #9 wire (non-galvanized) may be substituted for #12 galvanized wire.

2 24" Minimum depth for bare root trees. 18" minimum depth for all others.

1 Orangeburg pipe installation includes; 5 L.F. of straight pipe (in 3 sections); 2-90° elbows; plug at end; cast iron grate at surface - Entrance.



TREE DESIGNATIONS FOR PRINCIPAL STREETS

STREETS	EAST OF EUCLID or NORTH OF FOOTHILL	WEST OF EUCLID or SOUTH OF FOOTHILL
Arrow Hwy.	Carrotwood	Evergreen Elm *
Benson Ave.	Flowering Plum	Flowering Plum
Campus Ave.	Canary Pine	Tulip
Central Ave.	Pittosporum	Pittosporum
Foothill Blvd.	Euc. & Magnolia	Euc. & Magnolia
Grove Ave.	Tulip	Tulip
Mountain Ave.	Bronze Loquat	Victorian Box
San Antonio	Liquidambar	Liquidambar
San Bernardino	California Oak **	California Oak **

STREETS	EAST of EUCLID	WEST of EUCLID
7th	Tulip	Evergreen Elm *
8th	Evergreen Elm *	Tulip
9th	Tulip	Tulip
11th	Evergreen Elm *	Evergreen Elm *
13th	Liquidambar	Holly Oak
14th	Tulip	Tulip
15th	Liquidambar	Liquidambar
17th	Tulip	Tulip
18th	Liquidambar	Liquidambar
19th	Pittosporum R.	Virginia Live Oak ***
20th	Incense Cedar	Incense Cedar
21st	Tulip	Tulip
22nd	Evergreen Elm *	Evergreen Elm *
23rd	Tulip	Tulip
24th	Crape Myrtle	Crape Myrtle

* Ulmus parvifolia ('Brea' or 'Drake')
** Quercus lobata
*** Quercus virginiana

STREETS		
16th	East/San Antonio	Liquidambar
16th	West/San Antonio	Bronze Loquat
3rd	("A" st to Arrow Hwy)	Evergreen Elm *

See approved St. Tree List

CITY OF UPLAND STANDARD DRAWING

DRAWN BY	DATE
F.E.C.	4/17/75

REVISIONS

J.C.H.	9-2-65	L.W.A.	5-23-68
W.A.H.	9-10-65	L.W.A.	8-13-70
W.A.H.	2-18-66	B.B.	1-31-74
L.W.A.	10-24-66	F.E.C.	4-17-75
L.G.K.	12-20-66	K.J.M.	10-14-75
L.W.A.	8-30-68	S.F.	1-19-79

TREE PLANTING

APPROVED BY Fred C. Blanchard
CITY ENGINEER

DRAWING NO. CU-P-6

ALBIZIA julibrissin. SILK TREE - Deciduous

ARCHONTOPHOENIX cunninghamiana (Seaforthia elegans). KING PALM. Evergreen

BAUHINIA variegata. PURPLE ORCHID TREE. Deciduous

BAUHINIA variegata 'Candida'. WHITE ORCHID TREE. Deciduous

BETULA pendula. EUROPEAN WHITE BIRCH. Deciduous

BRACHYCHITON acerifolia (Stercubas acerifolia). FLAME TREE, AUSTRALIAN FLAME TREE. Deciduous

BRACHYCHITON populneus (Sterculia diversifolia). BOTTLE TREE. Evergreen

CAESALPINIA gilliesii (Poinciana gilliesii). BIRD OF PARADISE BUSH. Deciduous

CALLISTEMON citrinus (C. lanceolatus). LEMON BOTTLEBRUSH. Evergreen

CALLISTEMON viminalis. WEEPING BOTTLEBRUSH. Evergreen

CASSIA leptophylla. GOLD MEDALLION TREE. Evergreen

CERCIDIUM floridum (C. torreyanum). BLUE PALO VERDE. Deciduous

CERCIS occidentalis. WESTERN REDBUD. Deciduous

CHIONANTHUS retusus. CHINESE FRINGE TREE. Deciduous

CHORISIA speciosa. FLOSS SILK TREE. Evergreen

CINNAMOMUM camphora. CAMPHOR TREE. Evergreen

CUPANIOPSIS anacardioides. CARROT WOOD, TUCKEROO. Evergreen

ERYTHRINA coralloides. NAKED CORAL TREE. Deciduous

EUCALYPTUS torquata. CORAL GUM. Evergreen

FICUS microcarpa nitida. INDIAN LAUREL FIG. Evergreen

GINKGO biloba. MAIDENHAIR TREE. Deciduous

GLEDITSIA triacanthos 'Sunburst'. HONEY LOCUST. Deciduous

HETEROMELES arbutifolia (Photinia arbutifolia). TOYON, CHRISTMAS BERRY, CALIFORNIA HOLLY. Evergreen

HYMENOSPORUM flavum. SWEETSHADE. Evergreen

JUNIPERUS scopulorum 'Blue Haven'. BLUE HEAVEN. Evergreen

KOELREUTERIA bipannata (K. integrifoliola). CHINESE FLAME TREE. Deciduous

KOELREUTERIA paniculata. GOLDENRAIN TREE. Deciduous

LAGERSTROEMIA indica. CRAPE MYRTLE. Deciduous

LIRIODENDRON tulipifera. TULIP TREE. Deciduous

MAGNOLIA grandiflora. SOUTHERN MAGNOLIA. BULL BAY. Evergreen

MAGNOLIA grandiflora 'Majestic Beauty'. MAGNOLIA. Evergreen

MAGNOLIA soulangiana. SAUCER MAGNOLIA (Often erroneously called TULIP TREE). Deciduous

MAGNOLIA soulangiana 'Alexandrina'. SAUCER MAGNOLIA. Deciduous

MALUS floribunda. JAPANESE FLOWERING CRABAPPLE. Deciduous

MELALEUCA quinquenervia (sold as M. leucadendra). CAJEPUT TREE. Evergreen

OLEA europaea. OLIVE. Evergreen

PICEA pungens 'Glauca'. COLORADO BLUE SPRUCE. Evergreen

PINUS canariensis. CANARY ISLAND PINE. Evergreen

PINUS eldarica. 'Mondell Pine'. CALABRIAN PINE. Evergreen

PINUS pinaster. CLUSTER PINE, FRENCH TURPENTINE PINE, MARITIME PINE. Evergreen

PINUS pinea. ITALIAN STONE PINE. Evergreen

PISTACIA chinensis. CHINESE PISTACHE. Deciduous

PITTOSPORUM rhombifolium. QUEENSLAND PITTOSPORUM. Evergreen

PITTOSPORUM undulatum. VICTORIAN BOX. Evergreen

PLATANUS acerifolia. (Often sold as P. orientalis.) LONDON PLANE TREE. Deciduous

PODOCARPUS gracilior. (Often sold as P. elongatus.) FERN PINE. Evergreen

PRUNUS cerasifera. CHERRY PLUM, MYROBALAN. Deciduous

PRUNUS cerasifera 'Krauter Vesuvius'. PURPLE LEAF PLUM. Deciduous

PRUNUS cerasifera 'Thundercloud'. PURPLE LEAF PLUM. Deciduous

PYRUS calleryana. ORNAMENTAL PEAR. Deciduous

QUERCUS ilex. HOLLY OAK, HOLM OAK. Evergreen

QUERCUS suber. CORK OAK. Evergreen

SAPIUM sebiferum. CHINESE TALLOW TREE. Deciduous

TABEBUIA avellanedae. (T.ipe). Deciduous

TABEBUIA chrysotricha. (sometimes sold as T. putcherrima.) GOLDEN TRUMPET TREE. Deciduous

ZELKOVA serrata. SAWLEAF ZELKOVA. Deciduous

Foothill Service Island Plant Material Recommendations

Recommended species are the result of evaluating each for their appearance/ maintenance factors; tolerance to chemicals and smog/heat; growth habit in our environment and traffic visibility.

1. Pittosporum tobira "Wheelerii", Dwarf Mock Orange.
2. Raphiolepis indica "Enchantress", Dwarf Pink India Hawthorn.
3. Lagerstroemia indica "Petites", Dwarf Crepe Myrtles.
4. Xylosma congestum "Compactum", Dwarf Xylosma.
5. Ilex vomitoria "Nana", Dwarf Yaupon Holly.

   or

   Ilex cornuta "Rotunda", Dwarf Chinese Holly.
6. Juniperus chinensis "Armstrongii", Armstrong Juniper.

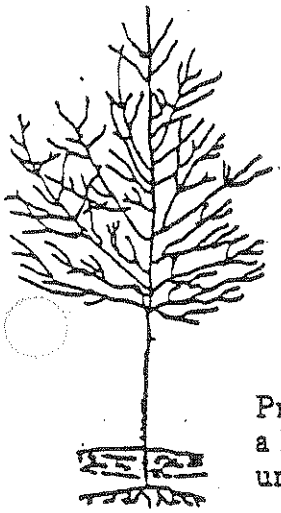
   (Armstrong Juniper can be used for good effect in special situations - i.e. individual wells on rock median island on Foothill Blvd. at Mountain Ave.)

7. Nandina domestica Compacta "Nana", Dwarf Heavenly Bamboo.
8. Leucophyllum texanum "Compacta", Texas Ranger Shrub.
9. Escallonia "Fradesi", Compact Escallonia.
10. Agapanthus africanus, Lily of the Nile.

PRUNING TREES

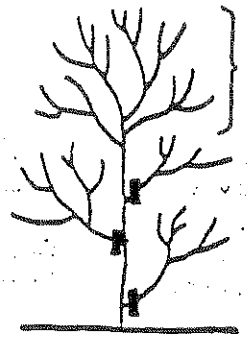
Remove crossing limbs, broken branches, and excessive growth next to the tree to admit sunlight and air circulation.

Make three saw cuts to prevent ripping the bark of the tree trunk. Start the first cut on the underside of the limb about one foot from the trunk or branch and saw through one third of the branch. Start the second cut on top of the branch, about 3 inches behind the bottom cut, sawing until the branch splits off. Saw off the stub flush with the trunk to allow the wound to heal.



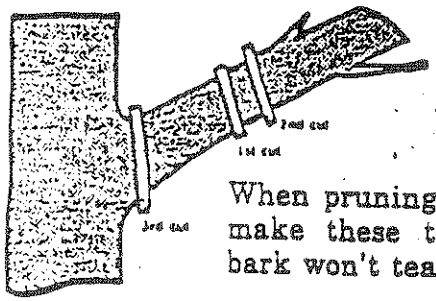
Lower branches on street trees should be removed to a height of 8 to 10 feet.

Prune this way to give tree a head you can walk or mow under.



Head or Crown

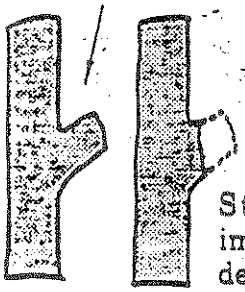
Remove side growth from trunk to encourage high, well formed head or crown.



When pruning large limbs, make these three cuts so bark won't tear.

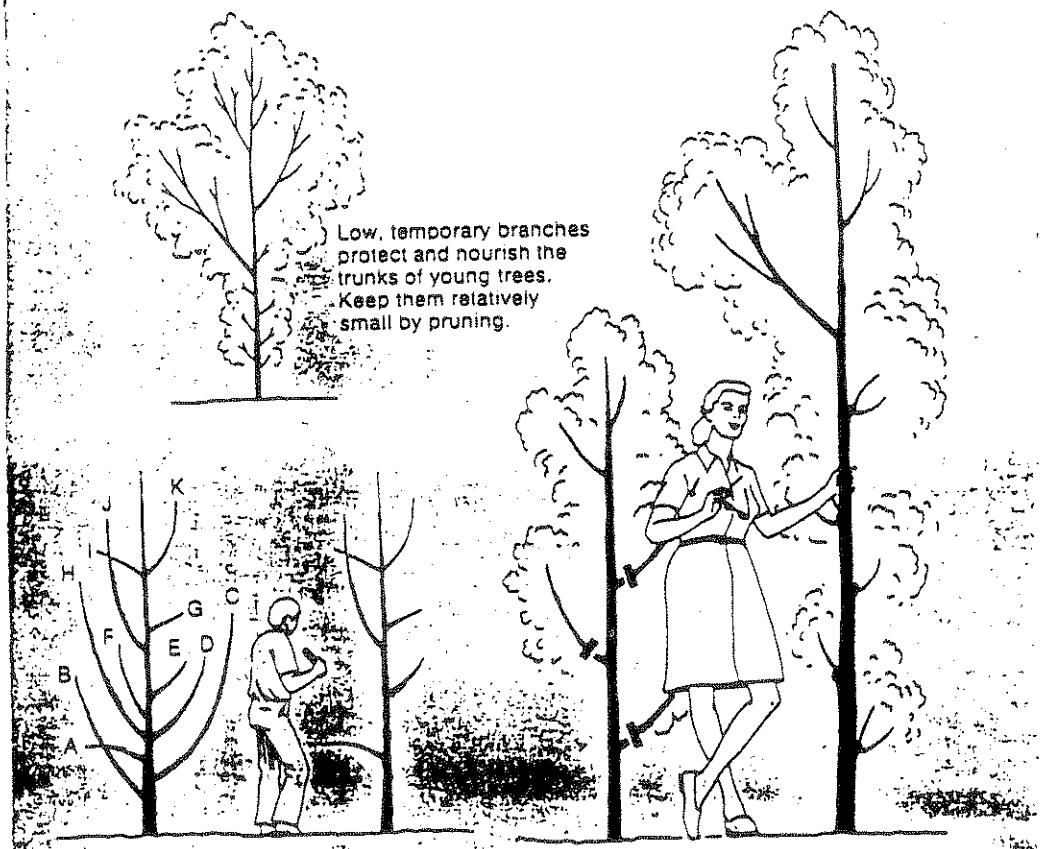
To prevent tearing bark, split in trunk, cut limb as shown.

Don't Leave Stubs



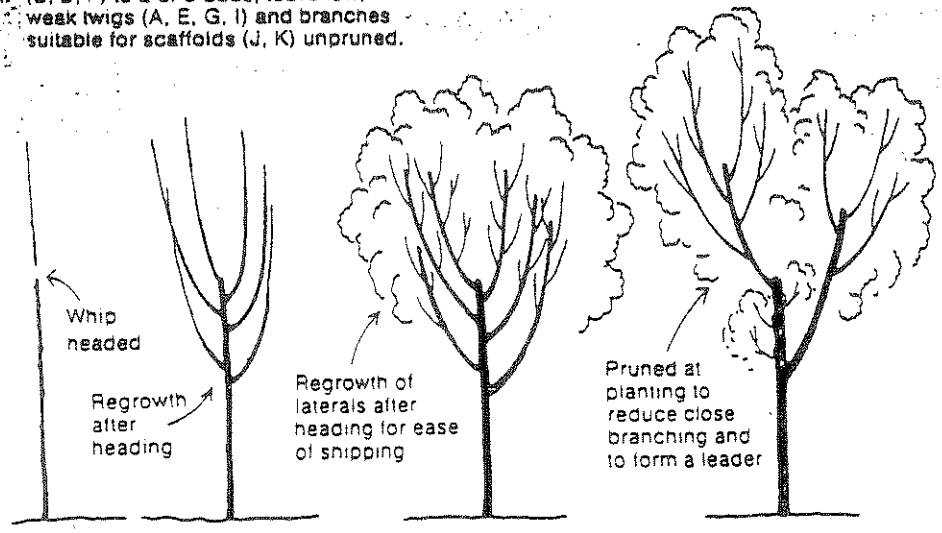
Stub looks ugly; more important, it can result in decay. Cut branch to trunk.

To keep the leader dominant, pinch back strong, competing laterals. The leader on the right has been choked out by strong growing laterals. The original leader and the less desirable lateral should be removed.

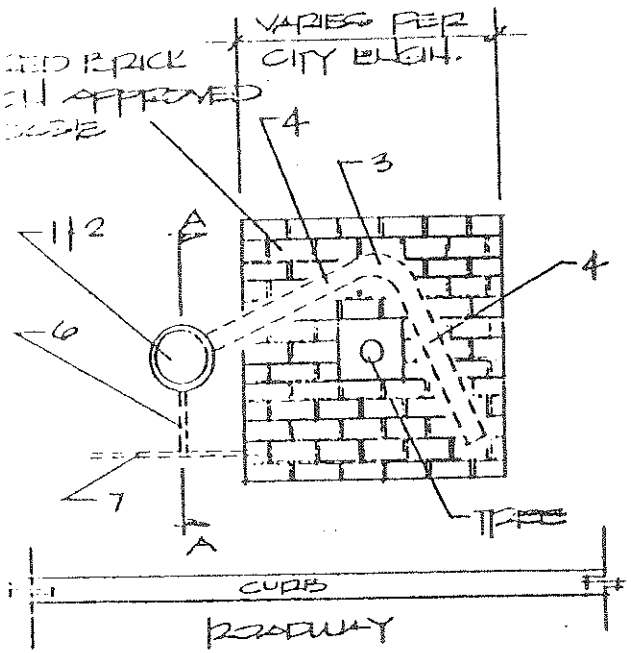


Ortho
"The World of Trees"

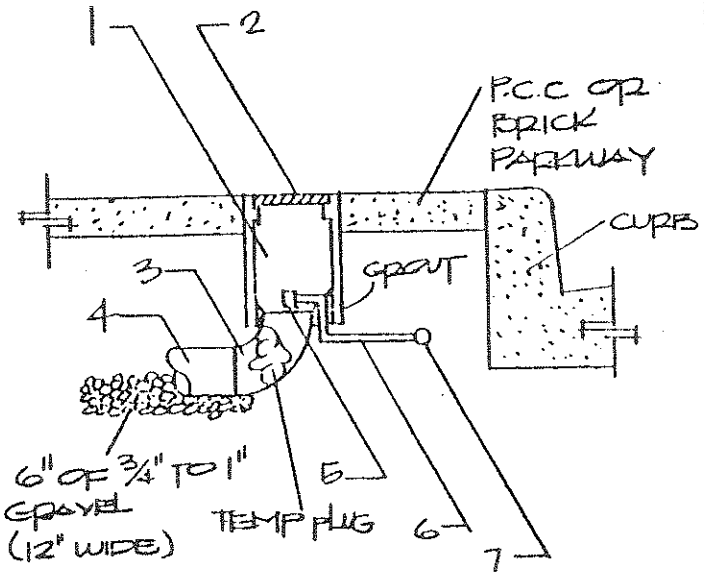
Chevron Chemi
Company 19



Unfortunately many landscape trees are headed before you buy them. Such trees often need severe pruning to develop a framework high enough above the ground.



TREE WELL DETAIL



SECTION A-A

1. IRRIGATION BOX 7 7/8" x 12"
2. IRRIGATION BOX COVER.
3. GRATEBURS BELOW -1" 90°
4. GRATEBURS PERFORATE PIPE 4"Φ, 4 LIN FT MIN. MAINTAIN 2° MIN. SLOPE
5. RAIN-O-MAT FLOOD HE #302-B
6. 1/2"Φ PIPE
7. WATER SUPPLY (CITY WATE & NOTE 1 BELOW)

MATERIALS.

PARKWAY TREATMENT PER THE DRAWING REQ'D OF THE FOLLOWING:

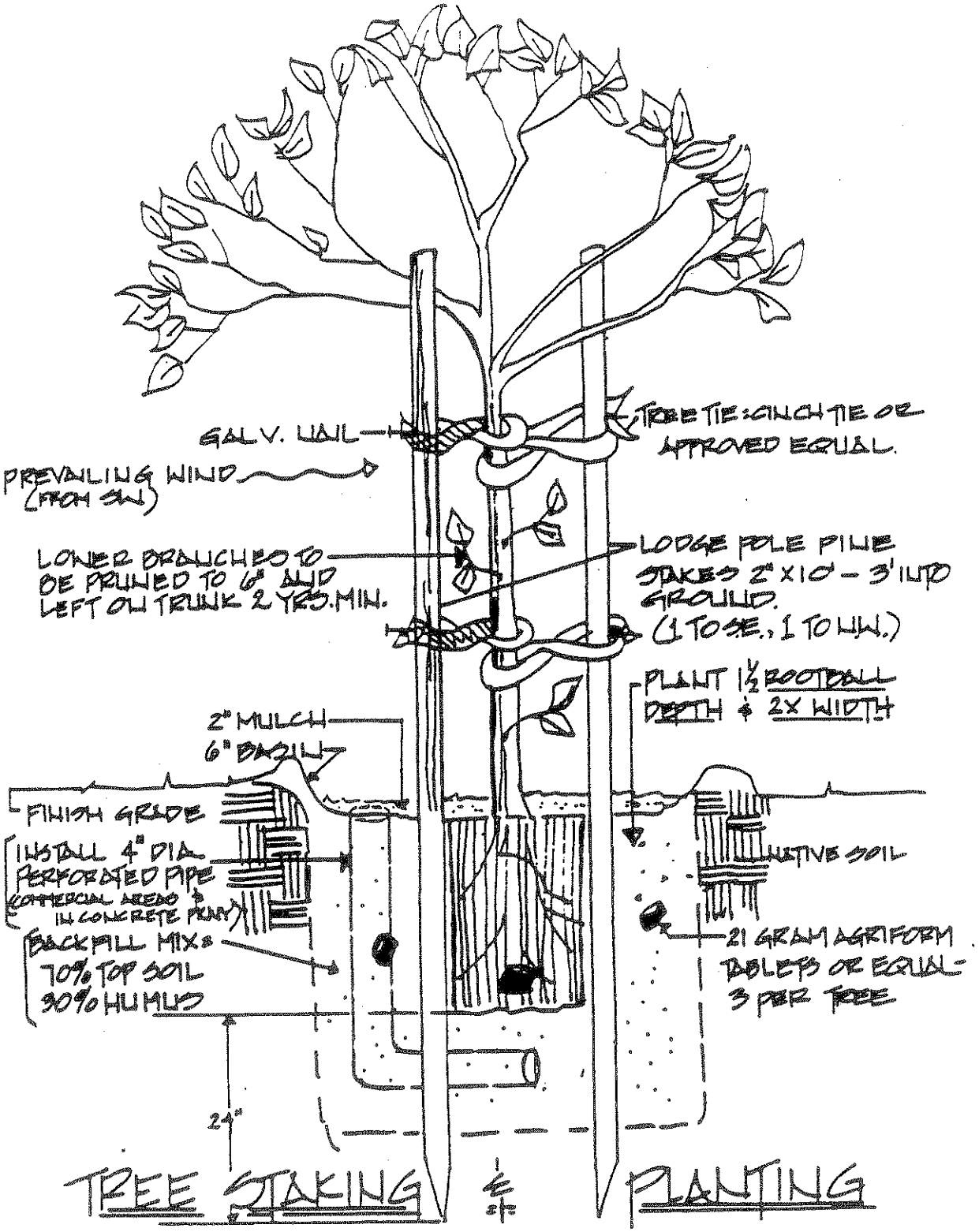
a) ALL SECONDARY FRONTAGE OR DOUBLE-FRONTAGE LOTS.

b) ALL USES SUBJECT TO CONDITIONAL USE PERMITS, EXCEPT WHERE A SPECIAL PARKWAY LANDSCAPING PLAN HAS BEEN APPROVED.

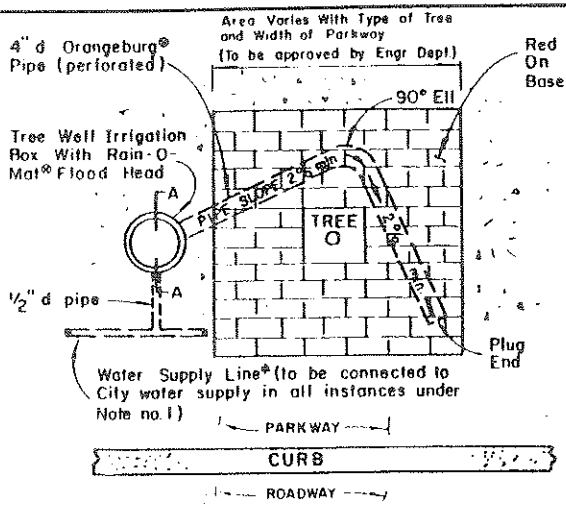
2. PARKWAY TREATMENT PER

INSTANCES:

a) ALL INDUSTRIAL ZONES
b) ALL COMMERCIAL ZONES.
c) ALL MULTI-FAMILY RESIDENTIAL ZONES
d) SIDE YARDS IN SINGLE-FAMILY RESIDENTIAL ZONES
e) UNDER SPECIAL

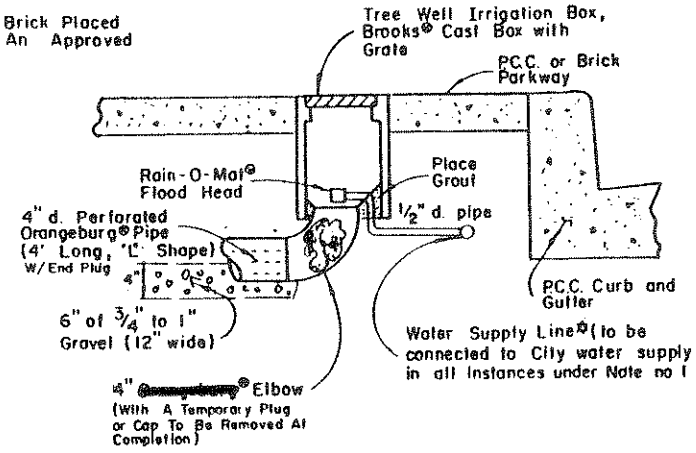


TREE STAKING & PLANTING



DETAIL FOR TREE WELLS

No Scale



SECTION A-A

No Scale

NOTES

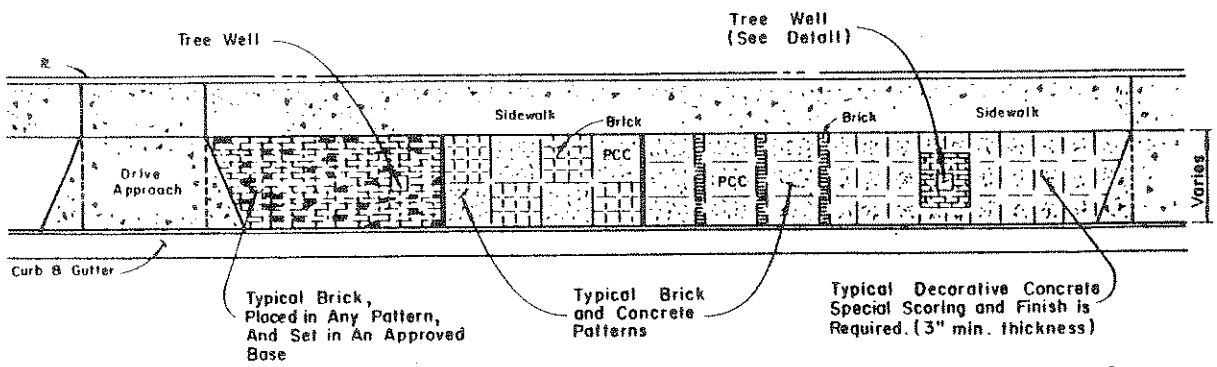
1. Parkway treatment per this Standard Drawing is REQUIRED of the following:
   (a) All secondary frontage or double-frontage lots.
   (b) All uses subject to Conditional Use Permits, except where a Special Parkway Landscaping Plan (which includes an automatic sprinkler system and lawn or other low growth plantings) has been approved

2. Parkway treatment* per this Standard Drawing is PERMITTED in the following instances:
   (a) All Industrial Zones
   (b) All Commercial Zones
   (c) All Multi-Family Residential Zones
   (d) Side yards in Single-Family Residential Zones.
   (e) Under Special Conditions Only (as approved by Engineering Dept.) for front yards in Single-Family Residential Zones.

   * Where this type of parkway treatment is used for any of the above listed "permitted locations" parkway tree irrigation shall be provided by one of the following:
   (1.) Underground sprinkler system per detail this drawing, except not to be connected to the City water system.
   (2.) Open tree wells (not covered by masonry materials) having a minimum area of 40 s.f. and an above ground water spigot at each tree well.

®3. All manufacturer's names and catalog numbers listed hereon are for descriptive purposes only and in each instance shall be deemed to be followed by "Or Equal As Approved by The Engineer".

*4. The water supply line shall include approved automatic control equipment; vacuum breaker; City meter. The size of the water supply line varies with the number of wells served - minimum size shall be 3/4" diameter pipe; all piping shall be Schedule 40 galvanized iron pipe with threaded joints.



SUGGESTED STYLES® For PLACING MASONRY MATERIALS

®Other Styles and Materials As Approved by the City Engineer.

DESCRIPTION OF TREE WELL MATERIALS®

BROOKS I-R 7 7/8" x 12" Box	- 1 Ea
BROOKS I-RDTG Cast Iron Cover	- 1 Ea
ORANGEBURG Elbow 4" dia., 90°	- 2 Ea
ORANGEBURG Perforated Pipe, 4" dia.	- 4 L F Min
RAIN-O-MAT Flood Head No. 302-B	- 1 Ea

CITY OF UPLAND STANDARD DRAWING

DRAWN BY	DATE	
LWA	10-1-70	PARKWAY TREATMENT with MASONRY MATERIALS (Required & Permitted Locations)
Revisions By:	DATE	
		APPROVED BY Fred C. Blanchard CITY ENGINEER
		DRAWING No. CU-P-7

1) Construction Permits for Work in Parkways CU-P-7

Capital Projects Engineer Hudson reported on an ongoing problem encountered in damage to parkway improvements incident to major projects of sidewalk or curb replacements. Citizens create, or have created, a number of parkway treatments which can be damaged during reconstruction of curbs or sidewalks. In some cases the repair of these improvements is much more expensive than the sidewalk or curb repair. To avoid major unexpected repair costs in the future, staff recommended two courses of action for Committee consideration:

a) When citizens obtain permits to install improvements in the public right-of-way (parkways), they be made aware that subsequent sidewalk, curb or other projects may damage those improvements, and that extraordinary cost of repair will normally not be assumed by the City.

b) When the City sets up a project for such repairs, and it is apparent that there may be substantial damage to installed work in the parkway, there will be discussion with the adjoining property owner as to the possibility of damage and who will bear the cost of repair -- prior to initiation of work. Some types of parkway improvements do not present a major cost to repair, others do and it is important to determine costs prior to commencing work.

The Committee recommends that Council approve the concepts set forth above as a guide to staff for future work. S/L 4/1/87

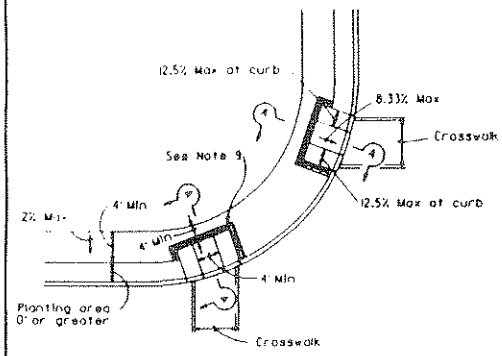
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO	TOTAL SHEETS

REGISTERED CIVIL ENGINEER

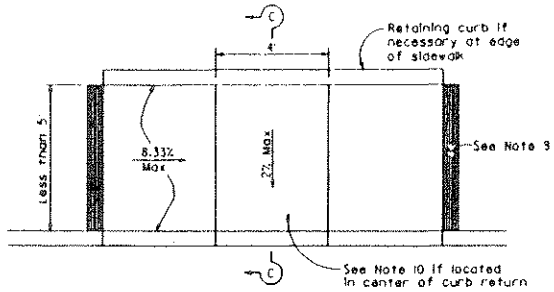
July 1, 1992
PLANS APPROVAL DATE

R. Nottmann
14703
Exp. 3-31-93
CIVIL
STATE OF CALIFORNIA

To accompany plans dated _____

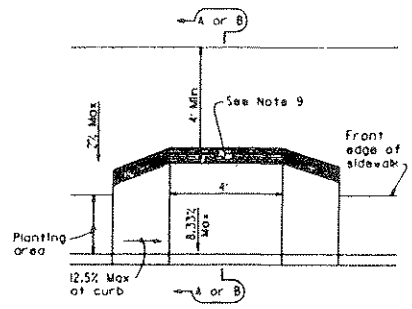


CASE A



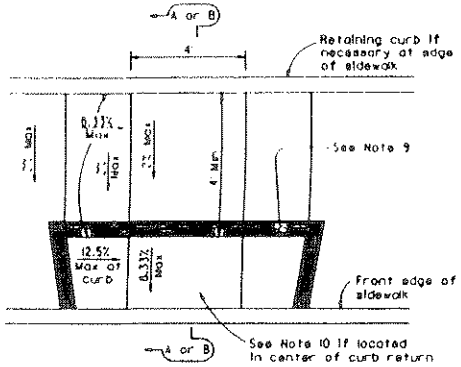
CASE C

Use when sidewalk is less than 5' wide

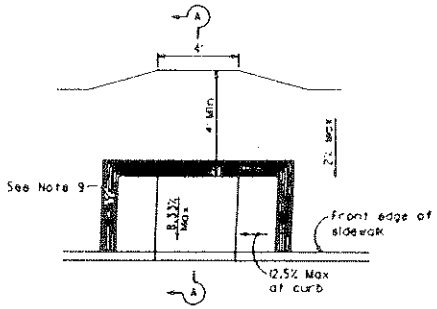


CASE F

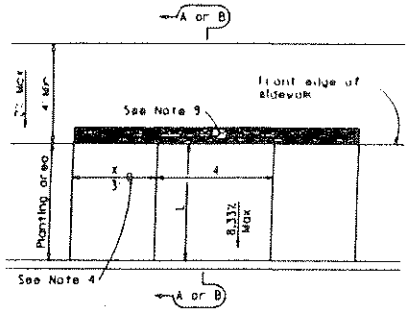
See Note 5



CASE B



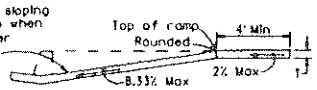
CASE D



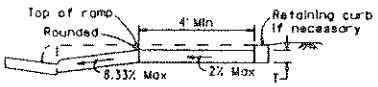
CASE G

See Note 5

Use grooves on sloping portion of ramp when located in center of curb return



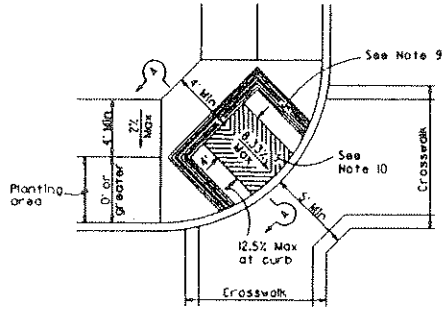
SECTION A-A



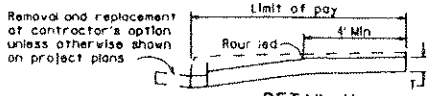
SECTION B-B

Depress entire sidewalk as required

SECTION C-C

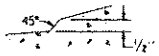


CASE E



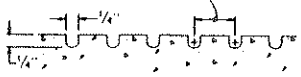
DETAIL H

Existing curb and sidewalk



LIP DETAIL

See Note 7



GROOVING DETAIL

NOTES

1. If distance from curb to back of sidewalk is too short to accommodate ramp and 4' platform as in Case A, the sidewalk may be depressed longitudinally as in Case B or C or may be widened as in Case D.
2. If sidewalk is less than 5' wide, the full width of the sidewalk shall be depressed as shown in Case C.
3. When ramp is located in center of curb return, crosswalk configuration must be similar to that shown on the plan to accommodate wheelchairs.
4. If planting area width is equal to or greater than ramp length (L), ramp side slope (X) distance = 3' (see Case G).
5. For Cases F and G, the longitudinal portion of the sidewalk may need to be depressed as shown in Case B.
6. If located on a curve the sides of the ramp need not be parallel, but the minimum width of the ramp shall be 4'.
7. The bottom of the ramp shall have a 1/2" lip at 45°.
8. Sidewalk and ramp thickness, T, shall be 3 1/2".
9. The ramp shall have a 12" wide border with 1/4" grooves approximately 3/8" on center. See grooving detail. The surface of ramp shall have a transverse broomed surface texture rougher than the surrounding sidewalk except when located in center of curb return.
10. When ramp is located in center of curb return, it shall be grooved in a herringbone pattern with 1/4" grooves approximately 1 1/2" on center. See grooving detail. Grooves shall be aligned parallel to crosswalk lines or parallel to the prolongation of curbs when there are no crosswalk lines.
11. Ramp side slope varies uniformly from a maximum of up to 12.5% at curb to conform with longitudinal sidewalk slope adjacent to top of the ramp, except in Cases C and G.
12. Utility pull boxes, manholes, vaults and all other utility facilities within the boundaries of the curb ramp will be relocated by others prior to, or in conjunction with, curb ramp construction.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

CURB RAMP DETAILS NO. 1

NO SCALE

NEW STANDARD PLAN NSP A88

STD. PLAN NSP A88

Planning Dist. Cal P-811
(superseded on P 88)

NOTES

1 For approved tree list and planting details see Standard Drawing CU-P-6

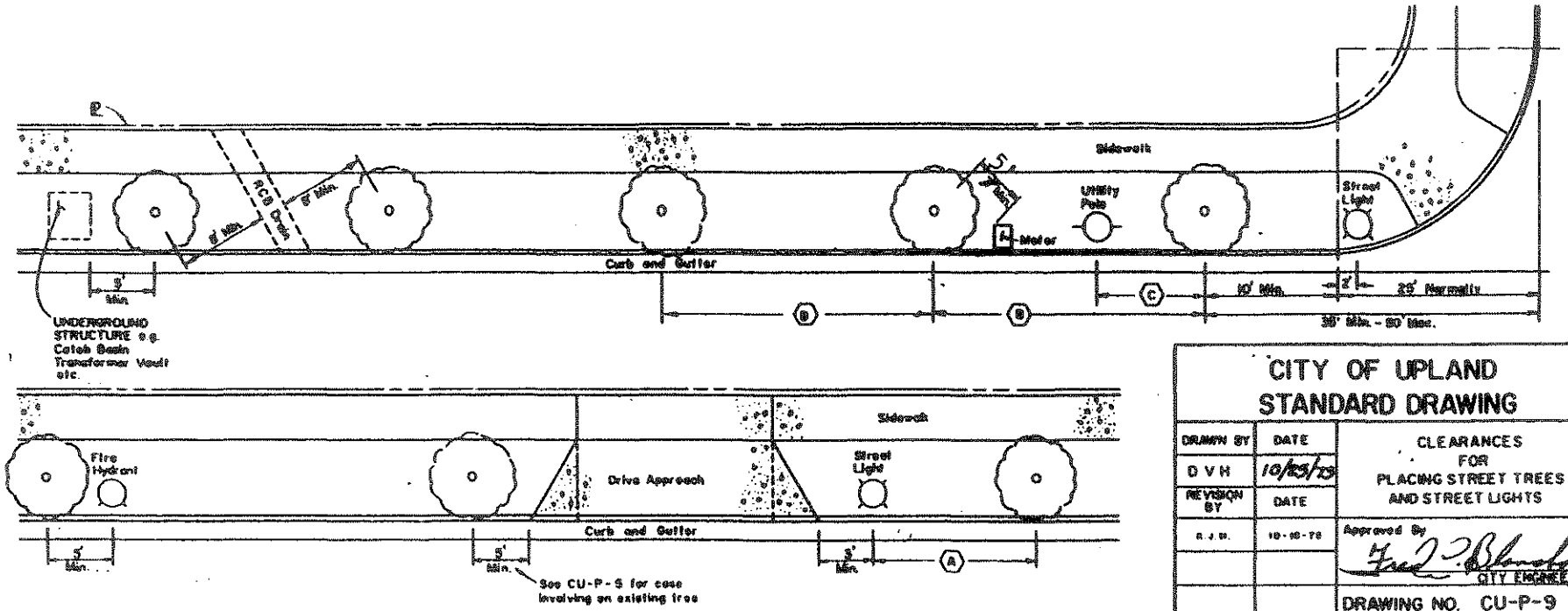
LEGEND

(A) * 10' Min. - for those trees listed under "Small Trees" on Standard Drawing CU-P-6
15' Min. - for all other trees

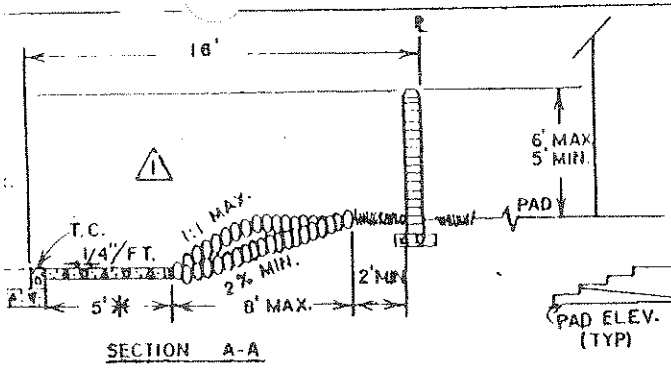
(B) Spacing in accordance with maximum and minimum dimensions shown on CU-P-6.

(C) * 5' Min. - for those trees listed under "Small Trees" on Standard Drawing CU-P-6
10' Min. - for all other trees

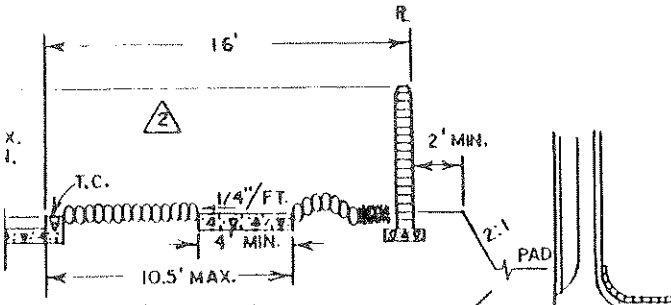
* The Max. for (A) and (C) shall be 1/2 (B) Max.



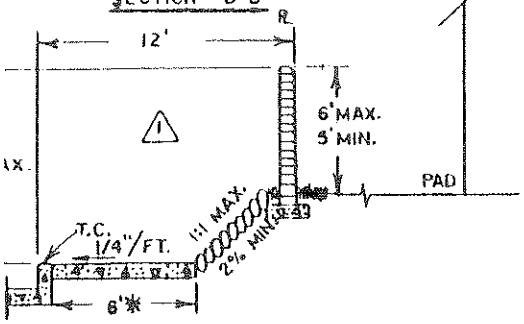
CITY OF UPLAND STANDARD DRAWING		
DRAWN BY	DATE	CLEARANCES FOR PLACING STREET TREES AND STREET LIGHTS
D V H	10/25/73	
REVISION BY	DATE	
R.J.H.	10-10-78	Approved By Fred P. Blanchard CITY ENGINEER
		DRAWING NO. CU-P-9



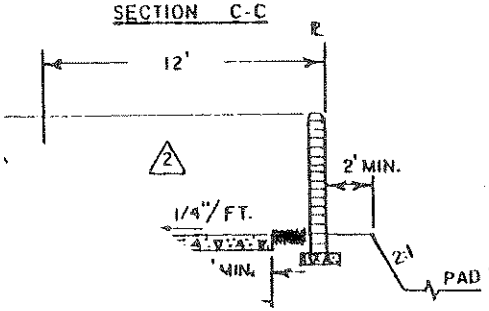
SECTION A-A

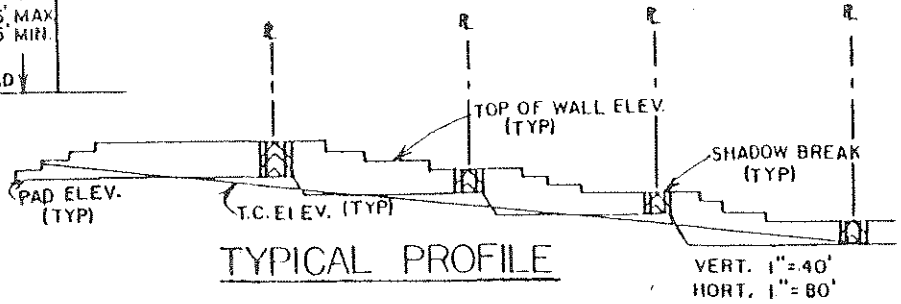


SECTION B-B



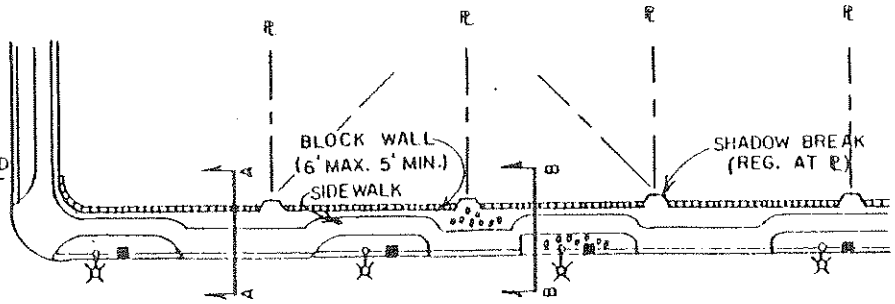
SECTION C-C





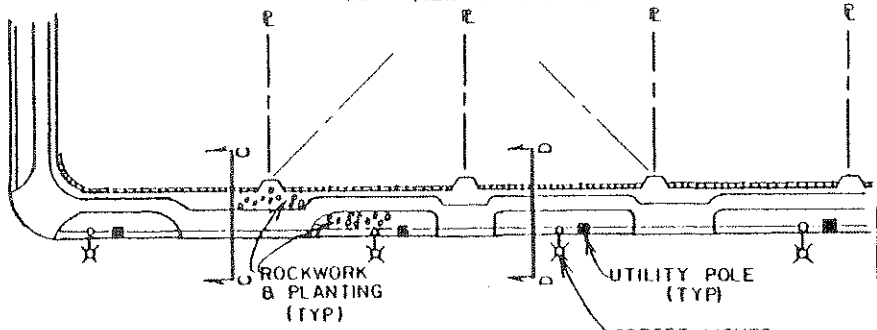
TYPICAL PROFILE

VERT. 1"=40'
HORT. 1"=80'



MOUNTAIN AVE.

PLAN VIEW 16' PARKWAY



SECONDARY HIGHWAYS

PLAN VIEW 12' PARKWAY

1 PAD ELEV. HIGHER THAN T.C.

2 PAD ELEV. EQUAL TO OR LOWER THAN T.C.

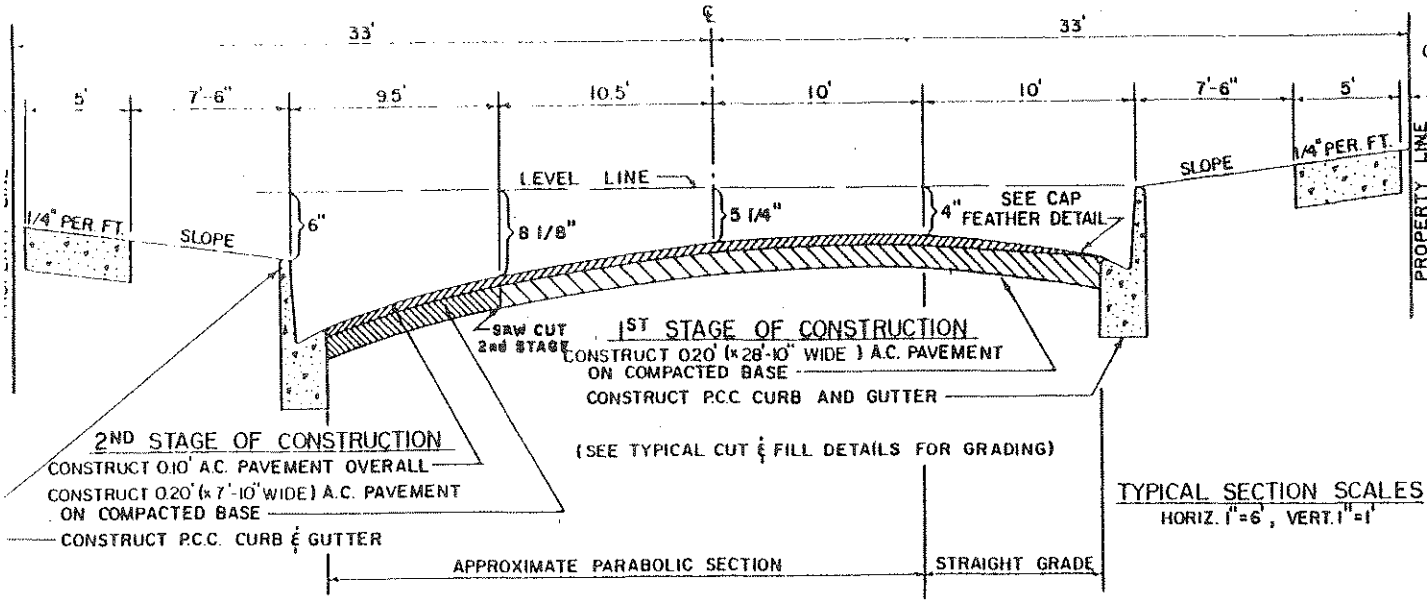
* { SIDEWALK AT CURB SHALL BE 1 FOOT WIDER THAN WHEN SIDEWALK IS AT NORMAL LOCATION. }

GENERAL NOTES

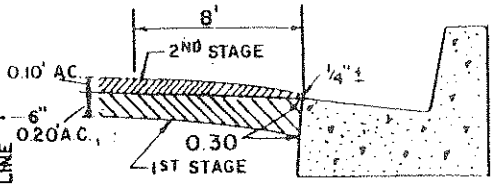
1. ALL ITEMS SHOWN ON THIS STANDARD DRAWING, SHALL APPEAR ON THE STREET IMPROVEMENT PLANS.
2. FOR PARKWAY ROCK DETAILS, SEE STANDARD PLANS, "MOUNTAIN AVENUE PARKWAY LANDSCAPING" DETAILS.
3. REFER TO STD. DWG. CU-E-1, FOR DETAILS OF REAR YARD EMBANKMENTS AT EXTERIOR LOT LINES, AND STD. DWG. CU-E-2 FOR DETAILS OF REAR YARD EXCAVATIONS AT EXTERIOR LOT LINES.
4. REFER TO PROJECT LANDSCAPE PLANS FOR ARCHITECTURAL TREATMENT OF WALLS, SHADOW BREAKS AND PLANTING DETAILS.
5. IRRIGATION SYSTEM IS REQUIRED. REFER TO STANDARD DRAWINGS CU-P-6 AND CU-P-7 AND PROJECT LANDSCAPING PLANS FOR DETAILS.
6. WALL HEIGHTS EXCEEDING MAXIMUMS SHOWN SHALL BE SUBJECT TO APPROVAL BY ADMINISTRATIVE COMMITTEE.
7. PAD ELEVATION IS FINISHED FLOOR ELEVATION MINUS 6".

CITY OF UPLAND
STANDARD DRAWING

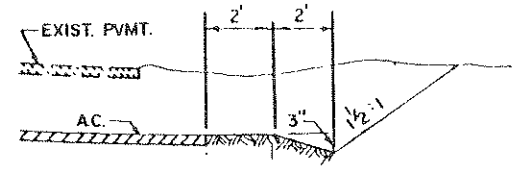
DRAWN BY	DATE	PARKWAY LANDSCAPING MOUNTAIN & AVENUE SECONDARY HIGHWAYS
FV		APPROVED BY [signature] 2-11-81 DEPT. CITY ENGINEER
		DRAWING NO. CU-P-10



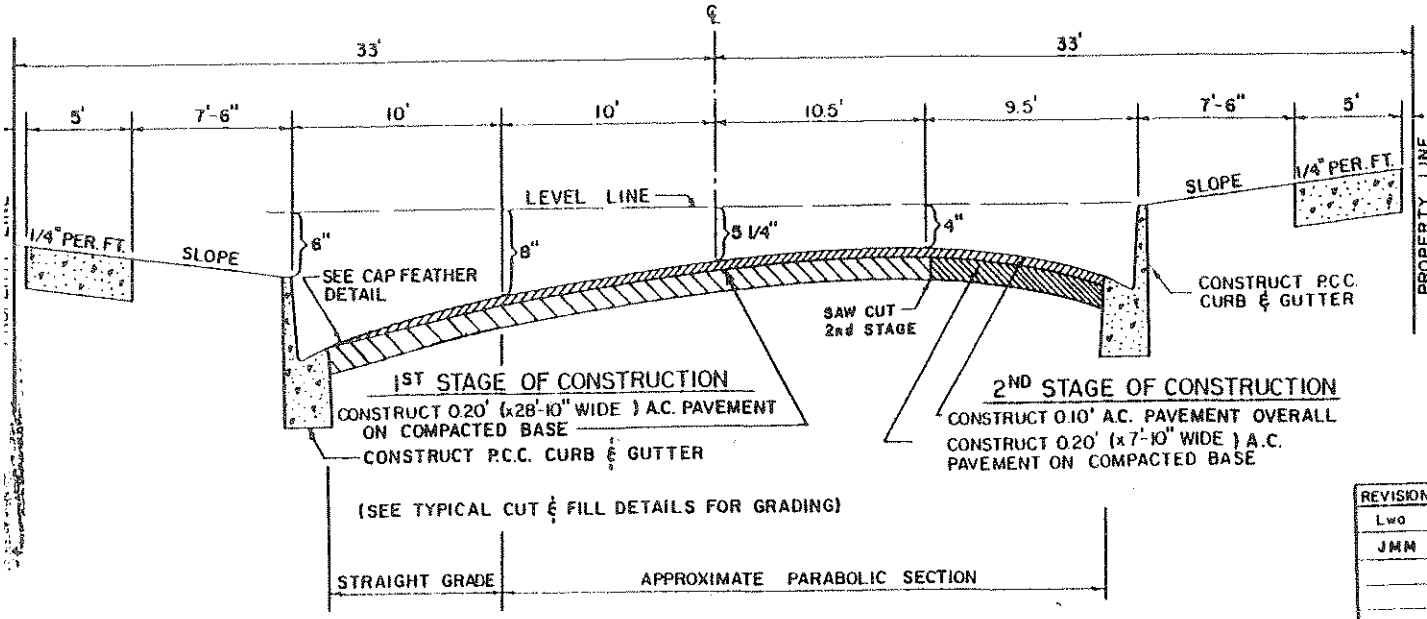
TYPICAL SECTION SCALES
HORIZ. 1" = 6', VERT. 1" = 1'

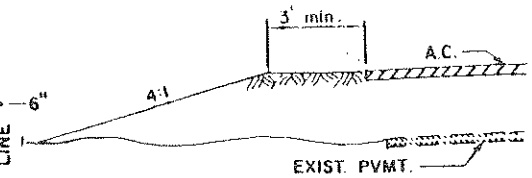


CAP FEATHER DETAIL
SCALES: HORIZ. 1" = 1.5', VERT. 1" = 1'



TYPICAL CUT DETAIL
SCALE: 1" = 2'





TYPICAL FILL DETAIL
SCALE: 1" = 2'

REVISIONS	DATE
Lwo	5-15-70
JMM	2-24-72

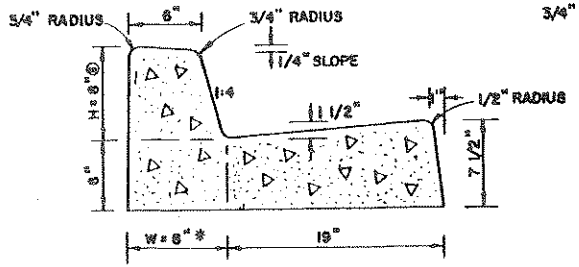
TYPICAL SECTIONS FOR STAGE CONSTRUCTION OF SELECT SYSTEM STREETS

CITY OF UPLAND

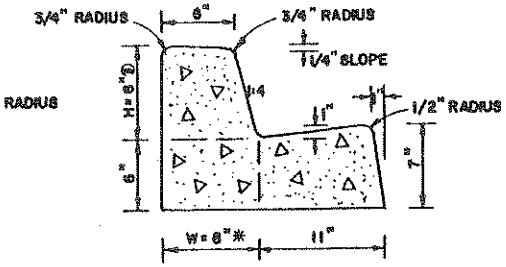
DRAWN BY: Phil Herrin
CHECKED BY:
DATE: March 10, 1965
SCALE: As Shown
SHEET NO. 1 OF 1 SHEETS

APPROVED BY: Hal C. Blanchard
CITY ENGINEER R.C.E. 15035

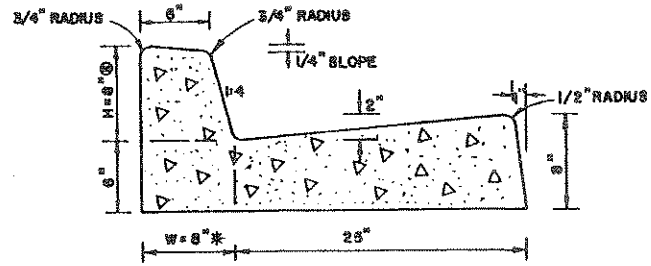
DRAWING NO. CU-R-1



COMBINATION CURB & GUTTER
TYPE "A"

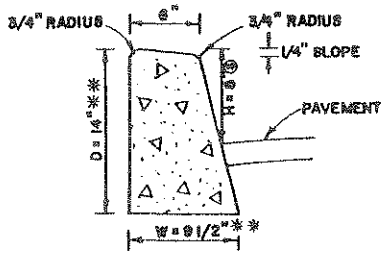


COMBINATION CURB & GUTTER
TYPE "B"



COMBINATION CURB & GUTTER
TYPE "C"

* DIMENSION SHOWN FOR "W" IS FOR STANDARD 8" CURB HEIGHT. WHEN PLANS CALL FOR OTHER THAN H=8", USE "W" FROM TABLE INCLUDED HEREON.



CURB ONLY
TYPE "D"

** DIMENSIONS SHOWN FOR "D" & "W" ARE FOR STANDARD 8" CURB HEIGHT. WHEN PLANS CALL FOR OTHER THAN H=8", USE "D" & "W" FROM TABLE INCLUDED HEREON.

**VARIABLE DIMENSIONS
CURB ONLY

HEIGHT	DEPTH	WIDTH
4"	10"	8 1/2"
5"	11"	8 3/4"
6"	12"	9"
7"	13"	9 1/4"
9"	15"	9 3/4"
10"	16"	10"
11"	18"	10 1/2"
12"	19"	10 3/4"
13"	20"	11"
14"	21"	11 1/4"

*VARIABLE DIMENSIONS
CURB & GUTTER

HEIGHT	WIDTH
6"	7 1/2"
7"	7 3/4"
9"	8 1/4"
10"	8 1/2"
11"	8 3/4"
12"	9"

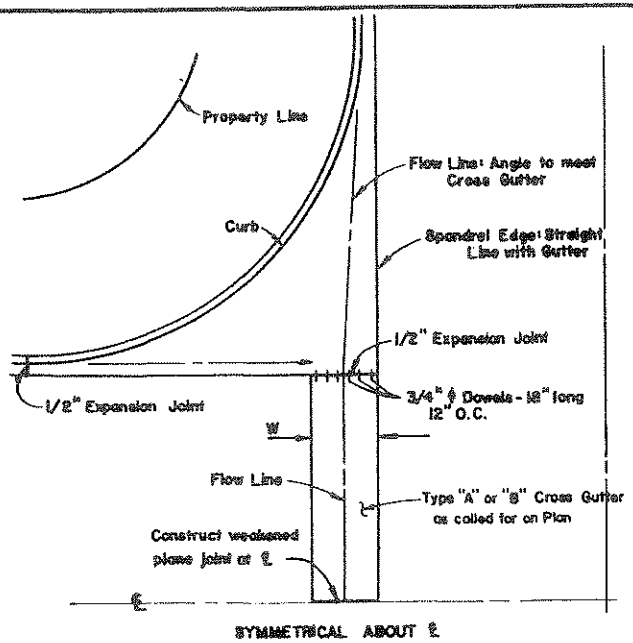
GENERAL NOTES

1. ALL CURBS AND GUTTERS ARE TO BE CONSTRUCTED OF PORTLAND CEMENT CONCRETE PER CITY OF UPLAND STANDARD SPECIFICATIONS.
2. TYPE "A" CURB & GUTTER SHALL BE USED IN ALL INSTANCES EXCEPT AS NOTED HEREONBELOW.
3. TYPE "C" CURB & GUTTER SHALL BE USED WHENEVER THE FLOW LINE GRADIENT IS LESS THAN 0.60%.
4. TYPE "B" CURB & GUTTER, MODIFIED TYPE "A", MODIFIED TYPE "C", AND SPECIAL CURB AND GUTTER SECTIONS SHALL ONLY BE USED WHEN SPECIFICALLY CALLED FOR ON THE PLANS.

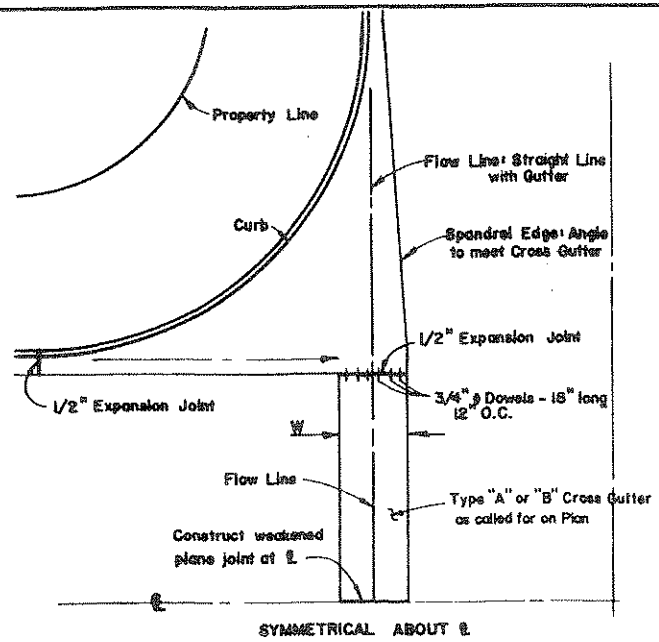
@: STANDARD DIMENSION UNLESS OTHERWISE NOTED ON PLAN

CITY OF UPLAND
STANDARD DRAWING

DRAWN BY	DATE	COMBINATION CURB & GUTTER AND CURB ONLY
w e h	6-23-64	
REVISION BY	DATE	
JMM	10-28-71	APPROVED BY Fred C. Blanchard CITY ENGINEER
		DRAWING NUMBER: CU-R-2



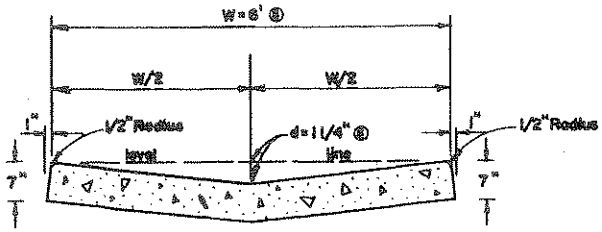
DETAIL "SE"



DETAIL "SG"

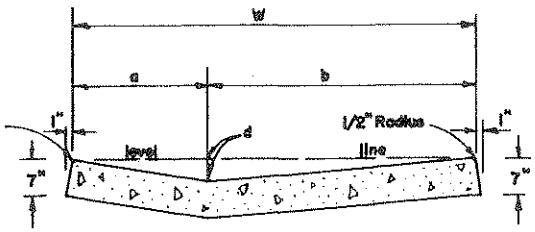
NOTE:

ALL CROSS GUTTERS TO BE CONSTRUCTED USING "8 SACK" CONCRETE UNLESS OTHERWISE NOTED ON THE PLAN OR APPROVED BY THE CITY ENGINEER.



TYPE "A" CROSS GUTTER

W	3'	5'	6'	7'	8'	9'
d	1"	1"	1 1/4"	1 1/4"	1 1/2"	1 1/2"



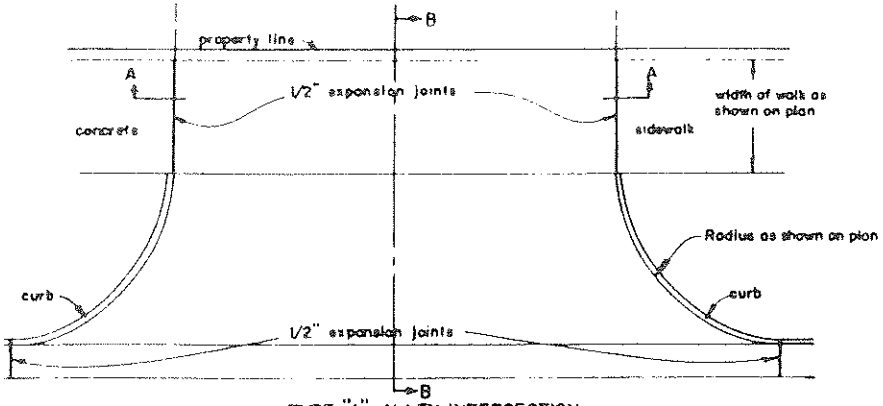
TYPE "B" CROSS GUTTER

W	4.5'	6'	7.5'	9'	10.5'
a	1.5'	2'	2.5'	3'	3.5'
b	3'	4'	5'	6'	7'
d	1"	1"	1 1/4"	1 1/2"	1 3/4"

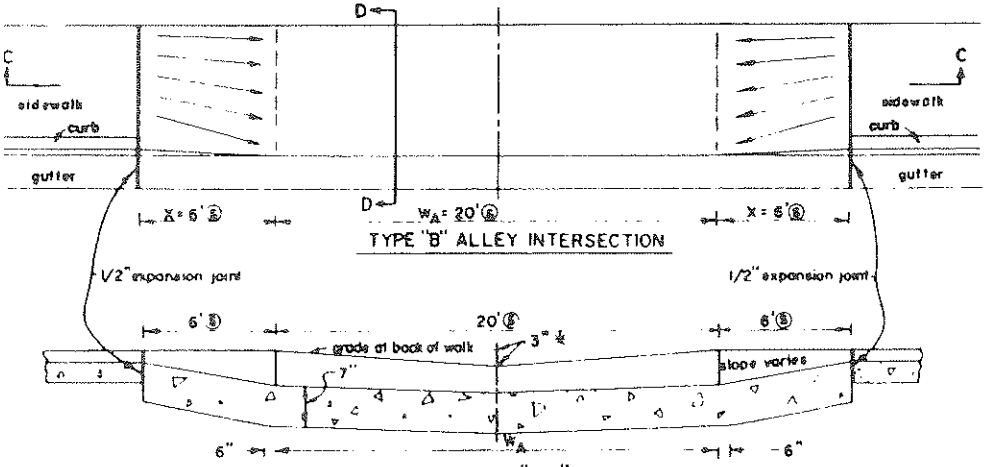
® STANDARD DIMENSION UNLESS OTHERWISE NOTED ON PLAN

CITY OF UPLAND STANDARD DRAWING

DRAWN BY	DATE	SPANDREL DETAILS AND CROSS GUTTERS
w a h	7/1/65	
REVISION BY	DATE	
w a h	12-8-65	APPROVED BY Fred C. Blanchard
L.w.a	7-8-69	CITY ENGINEER
		DRAWING NO. CU-R-3

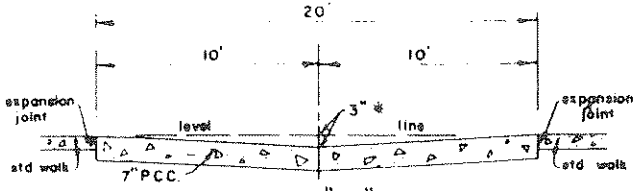


TYPE "A" ALLEY INTERSECTION

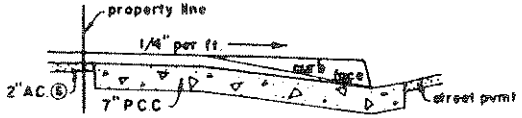


TYPE "B" ALLEY INTERSECTION

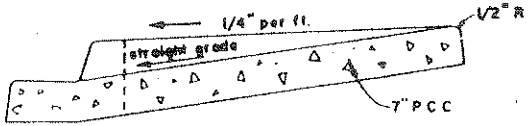
SECTION "C-C"



SECTION "A-A"



SECTION "B-B"

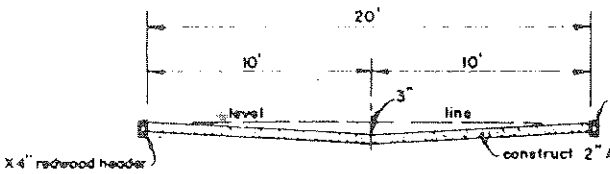


SECTION "D-D"

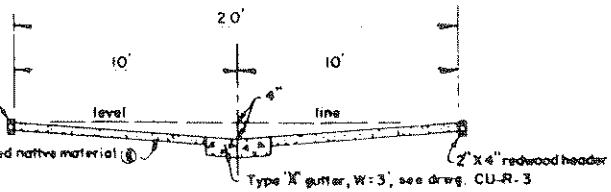
* 4" when alley has concrete gutter.

Ⓢ STANDARD UNLESS OTHERWISE NOTED ON PLAN

STANDARD ALLEY SECTIONS



TO BE USED WITH GRADES OF 0.60% OR GREATER

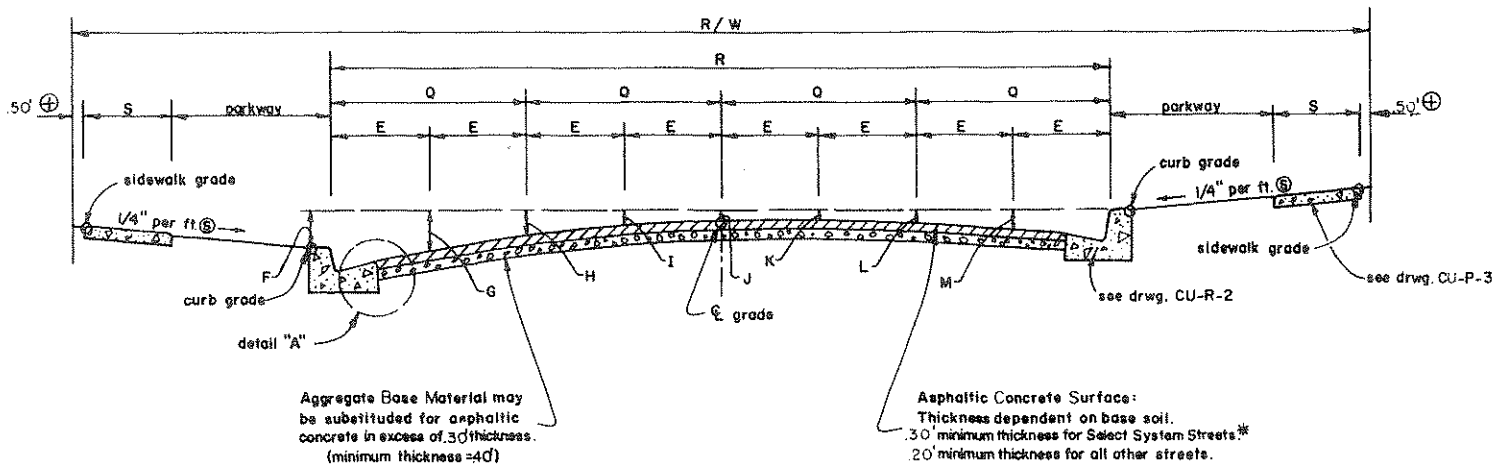


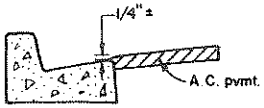
TO BE USED WITH GRADES OF LESS THAN 0.60%

CITY OF UPLAND STANDARD DRAWING

DRAWN BY	DATE	ALLEY SECTIONS AND DETAILS
w a h	7/16/65	
REVISION BY	DATE	APPROVED BY
		CITY ENGINEER
		DRAWING NO CU-R-4

TYPICAL ROADWAY SECTION





DETAIL "A"

⊕ variable dimension, normal distance = .50'

*.30' minimum for Select System Streets may be developed thru Stage Construction as indicated on drwg. CU-R-1.

GENERAL NOTES

1. Dimensions "G" thru "M" as given hereon are for 8" curb heights, and should be adjusted for other curb heights.
2. Minimum sidewalk width for business districts = 6'.

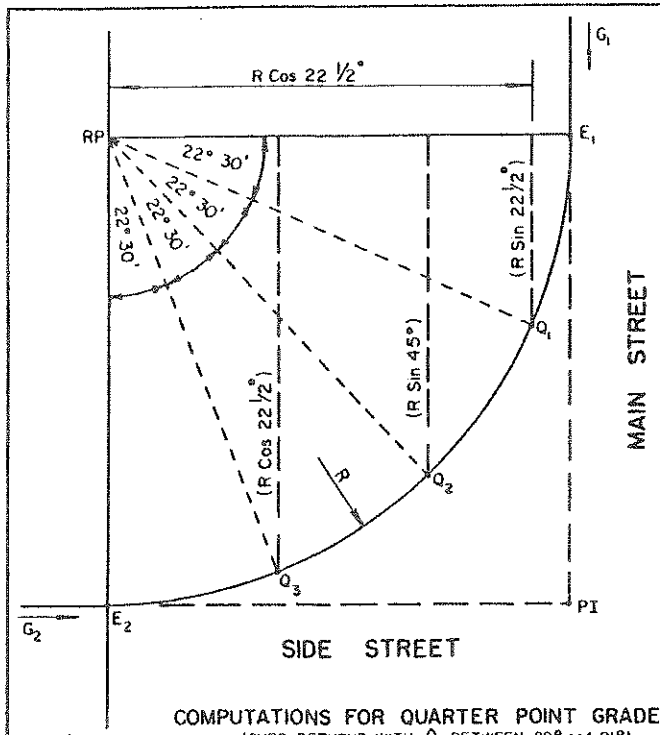
NORMAL DIMENSIONS FOR TYPICAL ROADWAY SECTIONS

R	S (min)	R/W	Q	E	F	G	H	I	J	K	L	M
36'	4'	60' min	9'	4.5'	0"	—	3 1/2"	—	2"	—	3 1/2"	—
					3"	—	6"	—	3 1/2"	2 3/4"	3 1/2"	—
					6"	—	8"	—	5 1/4"	—	4"	—
40'	5'	66'	10'	5'	0"	—	3 1/2"	—	2"	—	3 1/2"	—
					3"	—	6"	—	3 1/2"	2 3/4"	3 1/2"	—
					6"	—	8"	—	5 1/4"	—	4"	—
52'	5'	80'	13'	6.5'	0"	—	2 1/2"	—	1/2"	—	2 1/2"	—
					3"	—	5 1/2"	—	3"	2"	3"	—
					6"	—	7 1/2"	—	3 1/2"	2"	3"	—
					9"	—	10"	—	5 1/2"	—	3 1/2"	—
64'	5'	88'	16'	8'	0"	4 1/2"	2 3/4"	1 1/4"	0"	1 1/4"	2 3/4"	4 1/2"
					3"	6 1/2"	3 3/4"	1 1/2"	0"	1 1/4"	2 3/4"	4 1/2"
					6"	9 1/2"	6 3/4"	4 1/2"	2 3/4"	1 1/2"	2 3/4"	4 1/2"
					9"	12 1/2"	9 3/4"	7 1/2"	5 3/4"	4 1/4"	3"	4 1/2"
72'	5'	100'	18'	9'	0"	4 1/2"	2 3/4"	1 1/4"	0"	1 1/4"	2 3/4"	4 1/2"
					3"	6 1/2"	3 3/4"	1 1/2"	0"	1 1/4"	2 3/4"	4 1/2"
					6"	9 1/2"	6 3/4"	4 1/2"	2 3/4"	1 1/2"	2 3/4"	4 1/2"
					9"	12 1/2"	9 3/4	7 1/2"	5 3/4"	4 1/4"	3"	4 1/2"
					12"	14 3/4"	11 1/4"	8 1/2"	6 1/4"	4 1/2	3"	4 1/2"

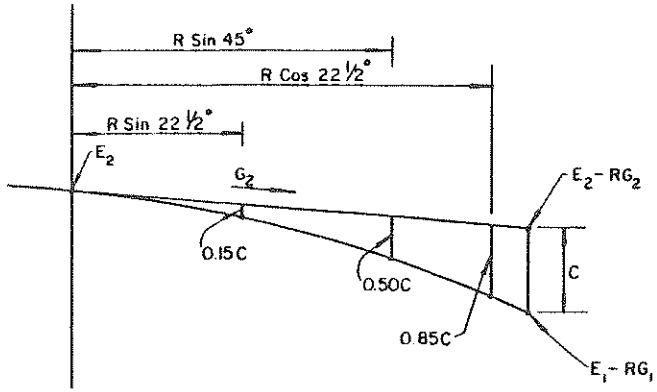
Ⓢ STANDARD UNLESS OTHERWISE NOTED ON PLAN

CITY OF UPLAND STANDARD DRAWING

DRAWN BY	DATE	ROADWAY SECTION
w a h	7/22/65	
REVISIONS BY	DATE	
W. A. B.	5-26-71	APPROVED BY Fred C. Blanchard CITY ENGINEER
		DRAWING NO. CU-R-5



COMPUTATIONS FOR QUARTER POINT GRADES
(CURB RETURNS WITH Δ BETWEEN 89° and 91°)



LEGEND & FORMULAE

$C = E_2 - E_1 + R(G_1 - G_2)$

$Q_1 = E_1 + C(1 - \cos^2 22\tfrac{1}{2}°) + R\left[G_2(1 - \cos 22\tfrac{1}{2}°) - G_1 \sin 22\tfrac{1}{2}°\right]$

$Q_2 = E_1 + C(1 - \sin^2 45°) + R\left[G_2(1 - \sin 45°) - G_1 \sin 45°\right]$

$Q_3 = E_1 + C(1 - \sin^2 22\tfrac{1}{2}°) + R\left[G_2(1 - \sin 22\tfrac{1}{2}°) - G_1 \cos 22\tfrac{1}{2}°\right]$

G = Rate of Grade

E = Elevation at Point Indicated (Ends of Return)

Q = Elevation at Point Indicated (Quarter Points)

NOTES:

(1) The method established hereon shall be used to compute both top of curb and flow line grades for all curb returns.

(2) MAIN STREET GRADES

The gradient of the "Main Street" shall be straight across the spandrel (A vertical curve will not be allowed).

SIDE STREET GRADES

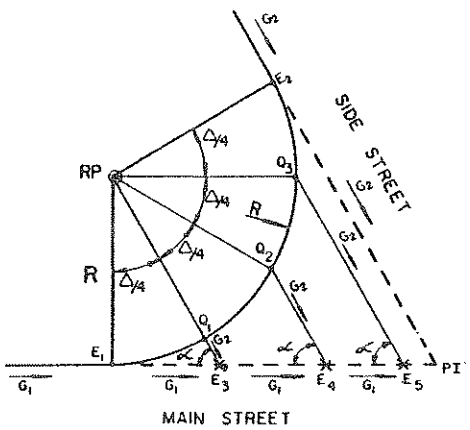
"G2" is the tangent grade of the side street at the end of the curb return.

A grade break will not be allowed at the end of the curb return.

A reverse vertical curve (Opposite that of the curb return) will not be allowed at the end of the curb return.

The rate of change in grade for a side street vertical curve shall not exceed 8% per 100 feet.

(3) Curb return grade for returns other than 90° shall be established on a plane with the side street and main street gradients meeting at the return P.I.



DETAIL FOR RETURNS LESS THAN 89° MORE THAN 91°

LEGEND & FORMULAE

$E_1 - G_1T = E_2 - G_2T$

$\alpha = 180° - \Delta$

$E_3 = E_1 - G_1\left[R \sin \Delta/4 + R(1 - \cos \Delta/4) \cot \alpha\right]$

$E_4 = E_1 - G_1\left[R \sin \Delta/2 + R(1 - \cos \Delta/2) \cot \alpha\right]$

$E_5 = E_1 - G_1\left[R \sin 3/4\Delta + R(1 - \cos 3/4\Delta) \cot \alpha\right]$

$Q_1 = E_3 + G_2\left[R(1 - \cos \Delta/4) \div \sin \alpha\right]$

$Q_2 = E_4 + G_2\left[R(1 - \cos \Delta/2) \div \sin \alpha\right]$

$Q_3 = E_5 + G_2\left[R(1 - \cos 3/4\,\Delta) \div \sin \alpha\right]$

E & Q = Elevation of Points Indicated

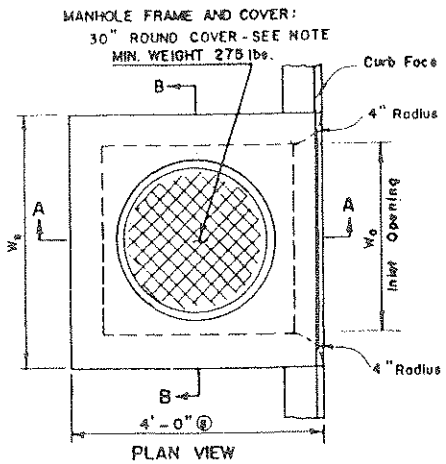
G = Rate of Grade

T = Tangent of Curb Return

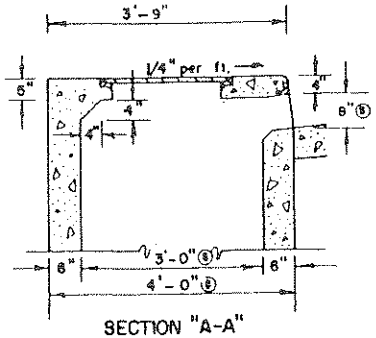
Maximum "C"	
R	C
15	0.13
20	0.24
25	0.37
30	0.54
35	0.70
40	0.80
45	0.90
50	1.00
60	1.20

CITY OF UPLAND
STANDARD DRAWING

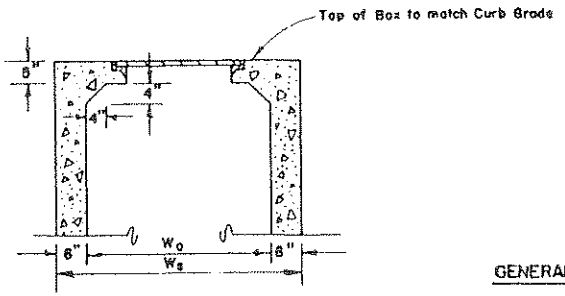
DRAWN BY	DATE	Required Method For Establishing Curb Return Grades
B.G.	3/21/74	
REVISION BY	DATE	
		APPROVED BY
		CITY ENGINEER
		DRAWING NO. CU-R-6



PLAN VIEW



SECTION "A-A"
(TOP OF INLET ONLY)

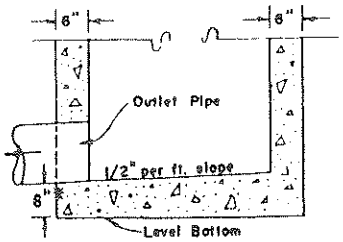


SECTION "B-B"
(TOP OF INLET ONLY)

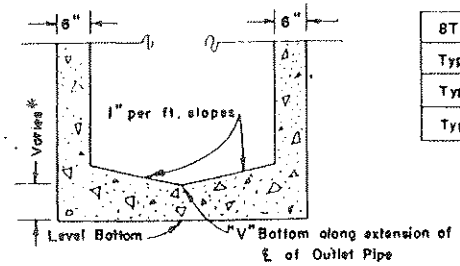
GENERAL NOTES

1. REFER TO CITY OF UPLAND STANDARD DRAWING CU-S-4 FOR REINFORCING STEEL AND ALL OTHER ADDITIONAL DETAILS.
2. MANHOLE FRAME & COVER EQUAL TO ALHAMBRA FOUNDRY A1136 - 30" CIRCULAR TELEPHONE TYPE WITH ALL TELEPHONE MARKINGS REMOVED, MINIMUM WEIGHT 250 LBS. OR EQUAL TO CITY OF LOS ANGELES STANDARD B2189 PARKWAY TYPE WITH LOCKING DEVICE.

TYPICAL DETAILS OF BOTTOM OF INLET STRUCTURES



SECTION OF BOTTOM
DRAWN THRU PIPE ℄



SECTION OF BOTTOM
DRAWN PERPENDICULAR TO PIPE ℄

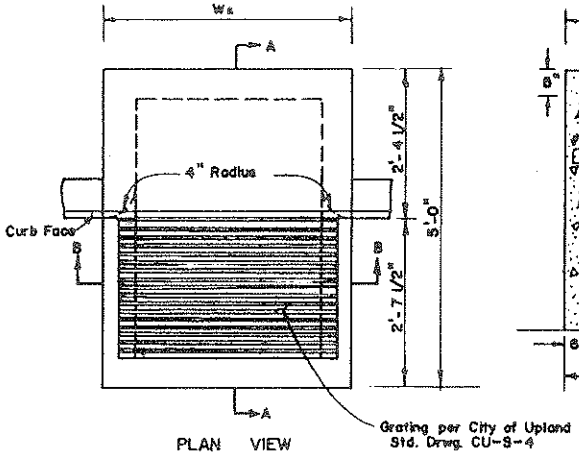
WIDTH OF STRUCTURE (W_s)
WIDTH OF INLET OPENING (W_o)

STRUCTURE	W_o	W_s
Type "A-1"	2'-11 3/8"	3'-11 3/8"
Type "A-2"	6'-4 3/4"	7'-4 3/4"
Type "A-3"	9'-10 1/8"	10'-10 1/8"

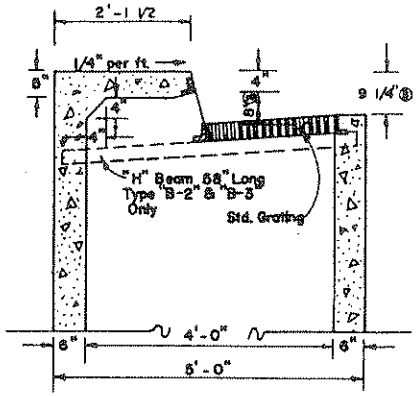
ⓢ STANDARD DIMENSION UNLESS OTHERWISE NOTED ON PLAN

* MINIMUM BOTTOM THICKNESS = 6" AT CENTER OF PIPE OUTLET

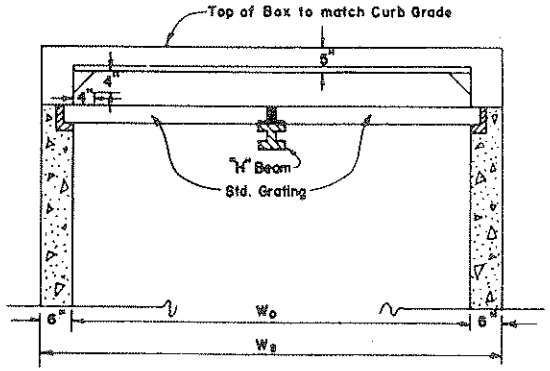
CITY OF UPLAND STANDARD DRAWING		
DRAWN BY	DATE	CURB INLETS
w o h	6-24-65	TYPES "A-1", "A-2" & "A-3"
REVISION BY	DATE	
L.G.K.	12-22-66	APPROVED BY
L.A.L.	10-12-77	Fred C. Blanchard CITY ENGINEER
		DRAWING NO. CU-S-1



PLAN VIEW



SECTION "A-A"



SECTION "B-B"

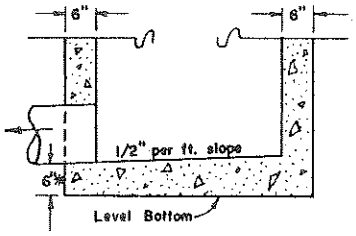
GENERAL NOTES

REFER TO CITY OF UPLAND STANDARD DRAWING CU-S-4 FOR REINFORCING STEEL, GRATINGS, AND ALL OTHER ADDITIONAL DETAILS.

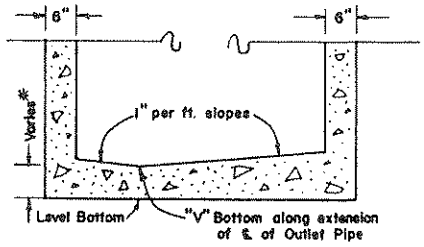
WIDTH OF STRUCTURE (W_s)
WIDTH OF INLET OPENING (W_o)

STRUCTURE	W_o	W_s	"H" BEAM
Type "B-1"	2'-11 3/8"	3'-11 3/8"	Not Required
Type "B-2"	6'-4 3/4"	7'-4 3/4"	1-5" WF 18.9#
Type "B-3"	9'-10 1/8"	10'-10 1/8	2-5" WF 18.9#

TYPICAL DETAILS OF BOTTOM OF INLET STRUCTURES



SECTION OF BOTTOM DRAWN THRU PIPE ℄



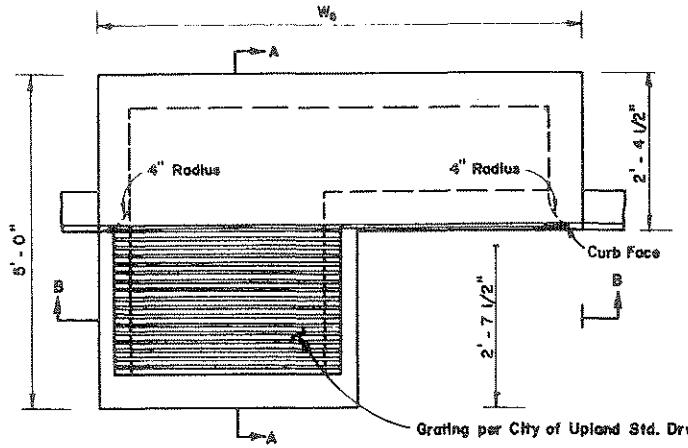
SECTION OF BOTTOM DRAWN PERPENDICULAR TO PIPE ℄

*Minimum bottom thickness = 6" at center of pipe outlet.

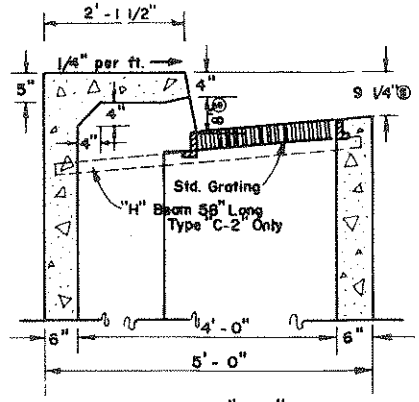
Ⓢ STANDARD DIMENSION UNLESS OTHERWISE NOTED ON PLAN.

CITY OF UPLAND STANDARD DRAWING

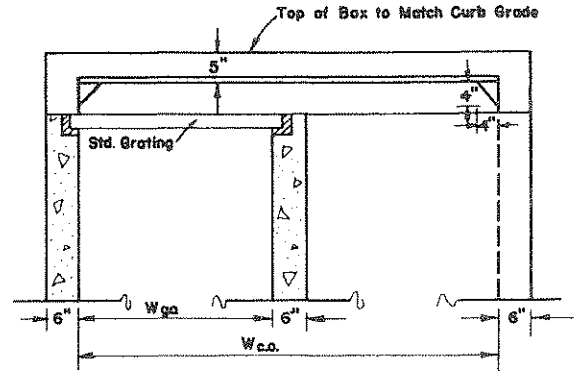
DRAWN BY	DATE	CURB INLETS TYPES: "B-1", "B-2" & "B-3"
w a h	6/29/65	
REVISION BY	DATE	APPROVED BY
w a h	11-26-65	Fred C. Blanchard
L.G.K.	12-21-66	CITY ENGINEER
		DRAWING NO. CU-S-2



PLAN VIEW



SECTION "A-A"



SECTION "B-B"

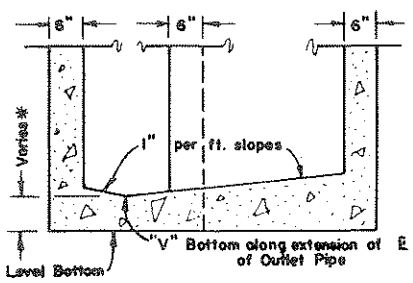
GENERAL NOTES

REFER TO CITY OF UPLAND STANDARD DRAWING CU-S-4 FOR REINFORCING STEEL, GRATINGS, AND ALL OTHER ADDITIONAL DETAILS.

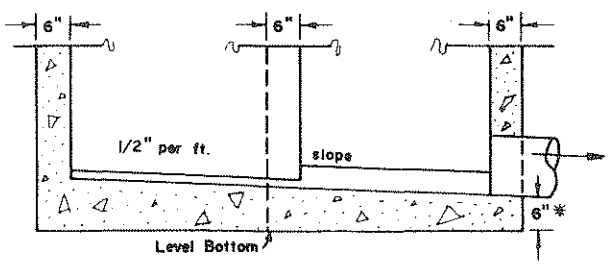
WIDTH OF STRUCTURE (W_s)
WIDTH OF GRATE OPENING ($W_{g.o.}$)
WIDTH OF CURB OPENING ($W_{c.o.}$)

STRUCTURE	W_s	$W_{g.o.}$	$W_{c.o.}$	"H" BEAM
Type "C-1"	7'-4 3/4"	2'-11 3/8"	6'-4 3/4"	Not Required
Type "C-2"	10'-10 1/8"	6'-4 3/4"	9'-10 1/8"	1-5" WF 18.9#

TYPICAL DETAILS OF BOTTOM OF INLET STRUCTURES



SECTION OF BOTTOM DRAWN THRU PIPE ℄



SECTION OF BOTTOM DRAWN PERPENDICULAR TO PIPE ℄

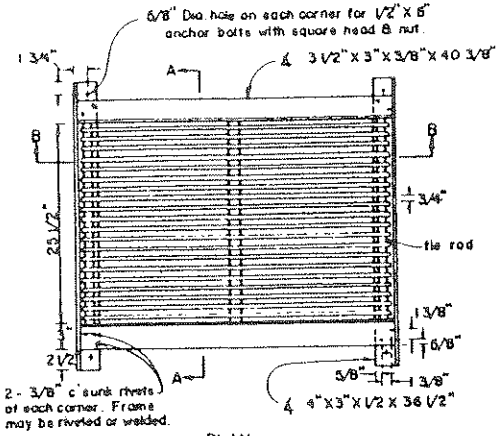
* Minimum bottom thickness = 6" at center of pipe outlet

® STANDARD DIMENSION UNLESS OTHERWISE NOTED ON PLAN.

CITY OF UPLAND STANDARD DRAWING

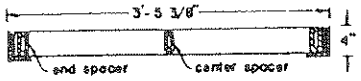
DRAWN BY	DATE	CURB INLETS
w a h	6/29/65	TYPES "C-1" & "C-2"
RIVISION BY	DATE	
w a h	11-26-65	APPROVED BY Fred C. Blanchard
L. G. K.	12-21-66	CITY ENGINEER
		DRAWING NO. CU-S-3

FRAME AND GRATING

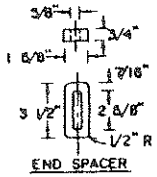


PLAN

SECTION "A-A"

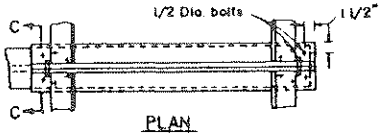


SECTION "B-B"

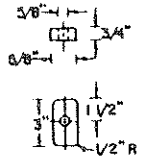


END SPACER

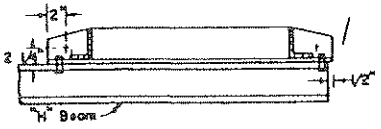
CENTER SUPPORT ASSEMBLY



PLAN



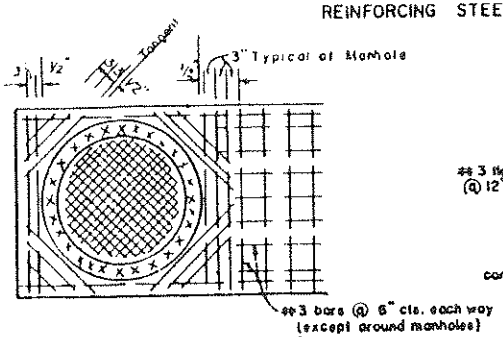
CENTER SPACER



ELEVATION

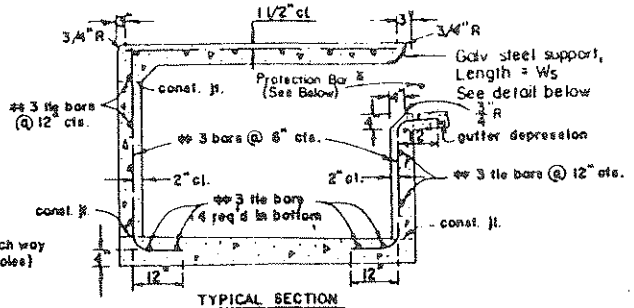
SECTION "C-C"

REINFORCING STEEL



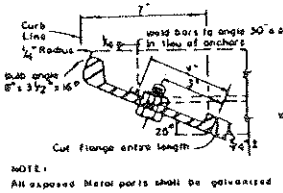
TYPICAL TOP SLAB REINFORCING
All Curb Inlets & Outlet Structures

* 1st protection bar 4" from bottom of the depression
NOTE, a 2nd bar is required if top opening is over 6"

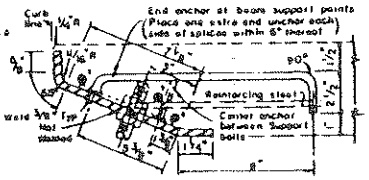


TYPICAL SECTION
All Curb Inlets & Outlet Structures

TYPICAL SLAB SECTION AT MANHOLE



BULB ANGLE
Alternate for Face Plate



FACE PLATE ANCHORAGE

GENERAL NOTES

REINFORCING STEEL

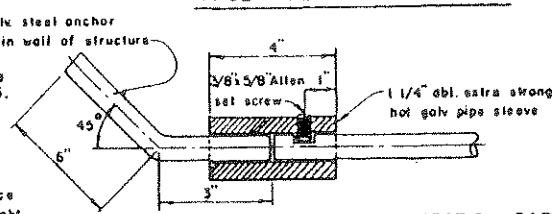
1. The details shown hereon apply to standard Curb Inlets and Outlets per City of Upland drwgs. no. CU-S-1, CU-S-2, CU-S-3 & CU-S-5.
2. All reinforcing steel, unless otherwise noted, shall be 3/8" Dia.

MANHOLE FRAME AND COVER

1. To be Parkway Type, min. weight 130 lbs, equal to the City of Los Angeles Standard No. B 218 9 with locking device OR Telephone Type with all markings removed, min. weight 250 lbs.. (ALHAMBRA FOUNDRY no. A1136 or equal.)

FRAME AND GRATE

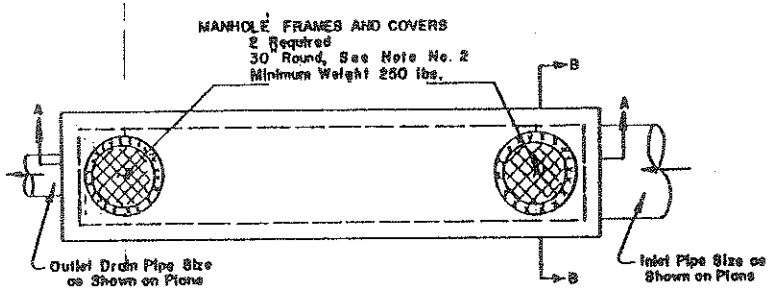
1. Center support assembly shall be used for multiple grating installations.
2. All exposed metal parts shall be galvanized. Welding, machining and drilling shall be done before galvanizing.
3. Bolt holes shall be 5/8" Dia. unless otherwise specified. Bolts shall be used to join two or more frames to "H" beam.
4. Tie rods shall be 1/2" Dia X 25 3/8", threaded 3/4" on bolt ends. Use one 1/2" Dia. square head nut at each end.
5. Top of grating shall be flush with street surface on all corners.
6. All parts shall be of structural grade steel, except spacers, which shall be either cast iron or steel.



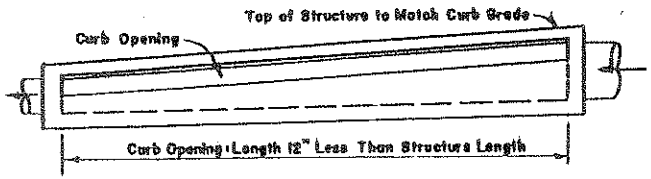
DETAIL OF REMOVABLE PROTECTION BAR
(TO BE USED IN ALL CASES Unless Otherwise Noted On The Plans)

CITY OF UPLAND STANDARD DRAWING

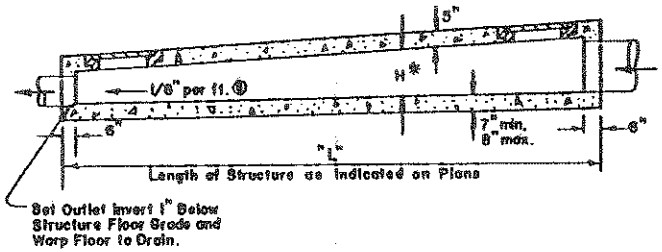
DRAWN BY	DATE	FRAME & GRATING & REINFORCING STEEL
w a h	7/9/85	
REVISIONS BY	DATE	APPROVED BY
L.H.H	10/24/66	Fred C. Blanford
L.G.K	12/21/66	CITY ENGINEER
L.W.G	5/20/70	
W.A.B	8/26/71	
L.A.L	3/28/77	DRAWING NO. CU-S-4



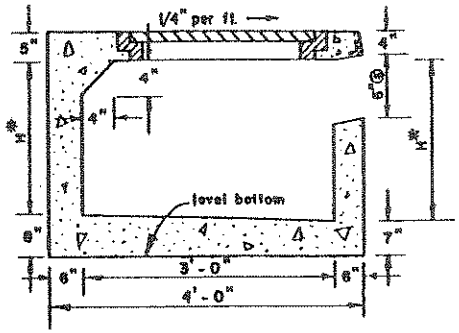
PLAN VIEW



FRONT VIEW



SECTION "A-A"



SECTION "B-B"

* "H" IS VARIABLE DIMENSION. MAXIMUM "H" EQUALS INSIDE HEIGHT OF INLET PIPE PLUS 2", AT INLET END OF STRUCTURE.

GENERAL NOTES

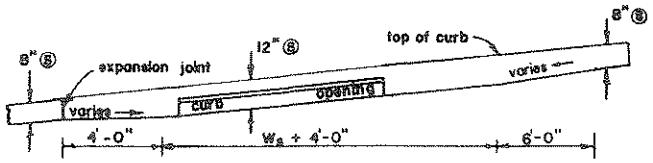
1. REFER TO CITY OF UPLAND STANDARD DRAWING CU-S-4 FOR REINFORCING STEEL AND ALL OTHER ADDITIONAL DETAILS.
2. MANHOLE COVER & FRAME TO BE PARKWAY TYPE EQUAL TO CITY OF LOS ANGELES STANDARD B2169 WITH LOCKING DEVICE OR TELEPHONE TYPE, MINIMUM WEIGHT 250 LBS., WITH ALL MARKINGS REMOVED. (ALHAMBRA FOUNDRY NO. A1136 OR EQUAL.)

® STANDARD DIMENSION UNLESS OTHERWISE NOTED ON PLAN.

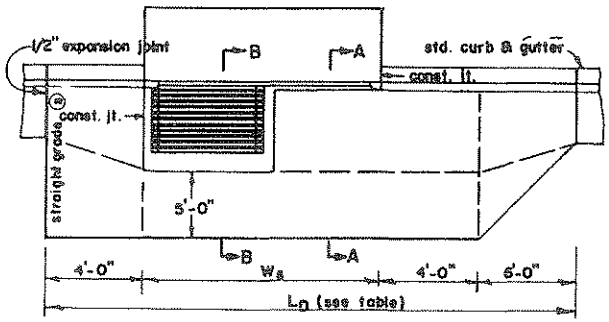
CITY OF UPLAND STANDARD DRAWING

DRAWN BY	DATE	CURB OUTLET STRUCTURE
w e h	7/1/65	
REVISION BY	DATE	
L A L	10/18/77	APPROVED BY Fred C. Blanchard CITY ENGINEER
		DRAWING NO. CU-S-5

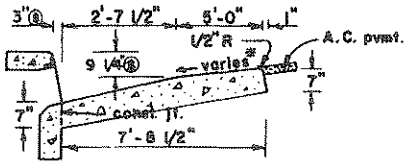
INLETS



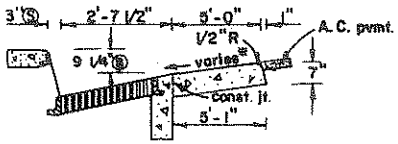
TYPICAL CURB ELEVATION VIEW FOR CURB INLETS



TYPICAL PLAN VIEW FOR CURB INLETS



SECTION "A-A"



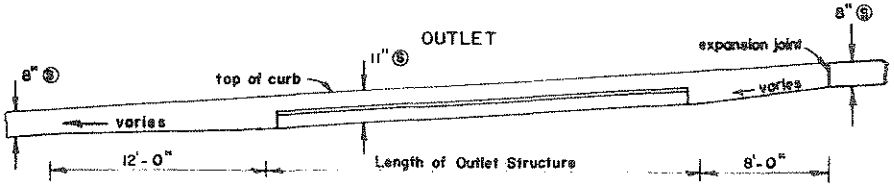
SECTION "B-B"

* Slope to meet pavement grade.

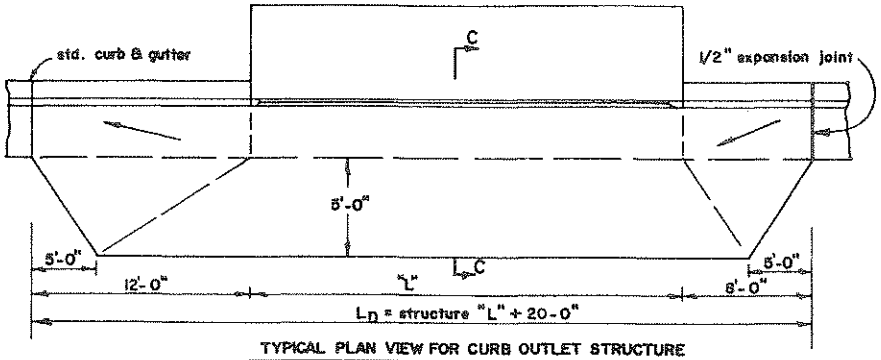
CURB INLET

STRUCTURE	A-1 & B-1	A-2, B-2 & C-1	A-3, B-3 & C-2
L_D	17'-11 3/8"	21'-4 3/4"	24'-10 1/8"

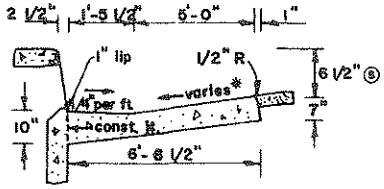
OUTLET



TYPICAL CURB ELEVATION VIEW FOR CURB OUTLET STRUCTURE



TYPICAL PLAN VIEW FOR CURB OUTLET STRUCTURE



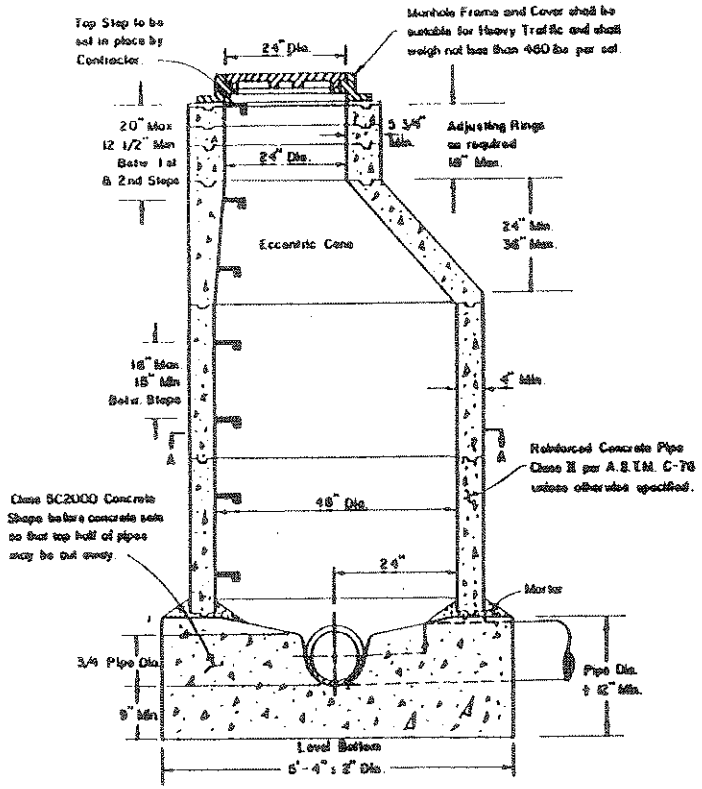
SECTION "C-C"

Ⓢ STANDARD DIMENSION UNLESS OTHERWISE NOTED ON PLAN.

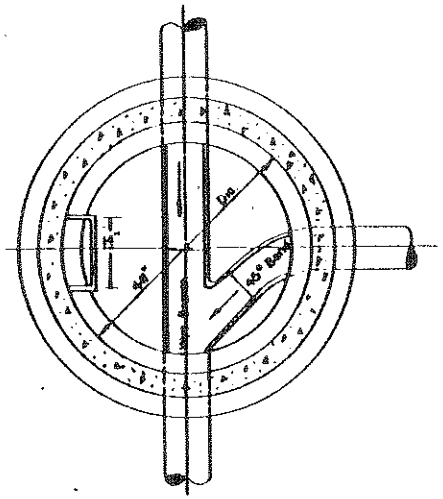
CITY OF UPLAND STANDARD DRAWING

DRAWN BY	DATE	STANDARD GUTTER DEPRESSIONS FOR CURB INLETS AND OUTLETS
w o h	7/12/65	
REVISION BY	DATE	
w o h	11-26-65	APPROVED BY
L.G.K.	12-21-66	Fred C. Blanchard, CITY ENGINEER
		DRAWING NO. CU-S-6

TYPE "A" MANHOLE

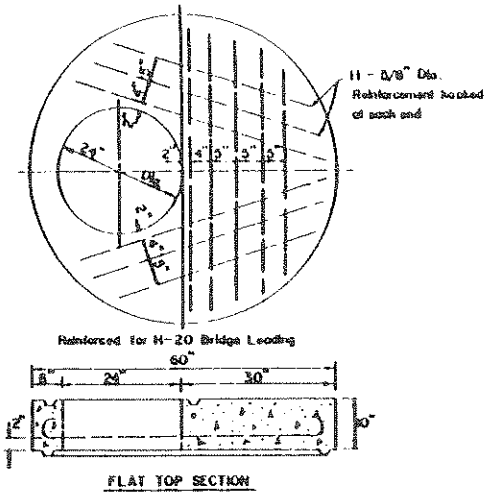


TYPICAL SECTION



SECTION "A-A"

TYPE "B" MANHOLE



FLAT TOP SECTION

NOTE:
Type "B" Manhole same as Type "A" Manhole except that Flat Top Section shall be used in place of Eccentric Cone Section & Manhole walls shall be St'd Precast Sections having 6"* minimum wall thickness.
(*Minimum reinforcement for Sections having 6" wall thickness shall be No. 4 wire hoops.)

GENERAL NOTES

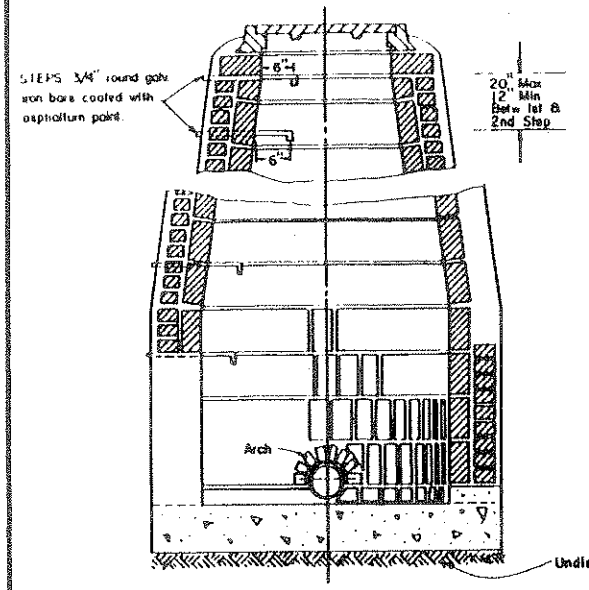
STANDARD MANHOLE – TYPE "A":
Type "A" Manholes shall be used in all cases, unless otherwise noted on the Plan or in the Specifications.

DROP MANHOLES:
Drop Manholes shall be constructed using a Tee Branch at top invert and a 90° Bend at the bottom invert. The entire Drop Section shall be encased in concrete, having a 6 inch minimum cover, from the base of the Manhole to the center of the upper pipe section.

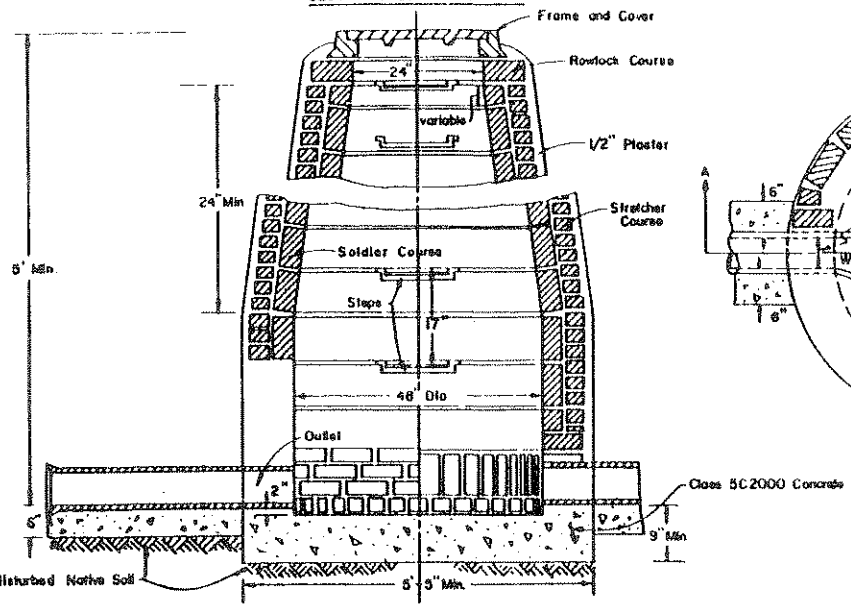
CITY OF UPLAND
STANDARD DRAWING

DRAWN BY	DATE	PRECAST CONC. MANHOLES TYPE "A" & TYPE "B" FOR SANITARY SEWER SYSTEMS
w a h	10/21/66	
REVISION BY	DATE	APPROVED BY Fred C. Blanchard CITY ENGINEER
		DRAWING NO. CU-Z-1

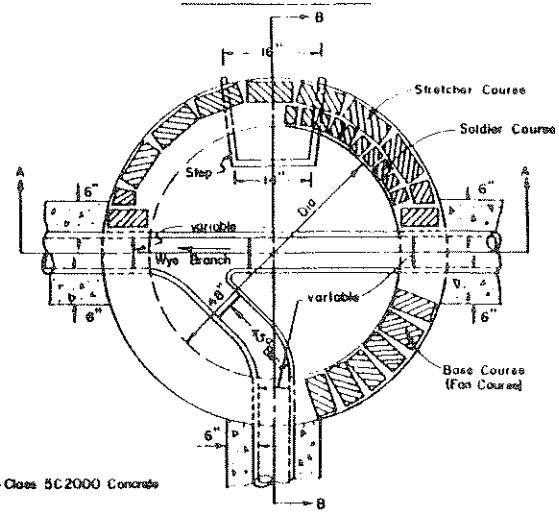
SECTIONAL ELEVATION "B-B"



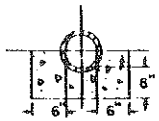
SECTIONAL ELEVATION "A-A"



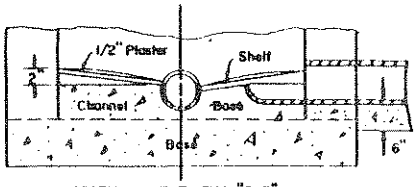
SECTIONAL PLAN OF BASE



TYPE "C" MANHOLE



CROSS SECTION OF CRADLE



SECTIONAL ELEVATION "B-B"
CHANNEL BASE

GENERAL NOTES

CONCRETE BASE:
During construction, all pipes shall be rigidly supported by brick piers one foot deep, located just outside the structure. Construct top of concrete base 2 inches below invert of lowest pipe. Fill space beneath pipe with mortar and shove from both sides with base course brick to form a water tight joint.

BASE OR FAN COURSE:
Lay brick flat on radial lines with tops to same level.

ARCHES:
Lay spalled brick on edge to form a true radial arch with full mortar joint around all pipe openings. Turn arch of two such courses over pipes 15 inches or more in diameter.

SOLDIER COURSES:
Lay inside brick on radial lines with first four courses vertical. Lay succeeding courses with a uniform batter to obtain an inside diameter of 24" at top of last or fractional soldier course. Use split brick to close soldier course.

STRETCHER COURSES:
Lay outside brick flat in a deep bed of mortar. Shove brick hard together against adjacent soldier course.

ROWLOCK COURSE:
Lay last course of brick on edge across soldier and stretcher courses, on radial lines.

STEPS:
Set lower step on top of third soldier course and notch brick above. Place upper step immediately below rowlock course and project 6 inches. Steps shall be spaced not more than 17 inches apart.

JOINTS:
Inside joints shall be neatly struck and pointed and shall not exceed 3/8 inch in thickness.

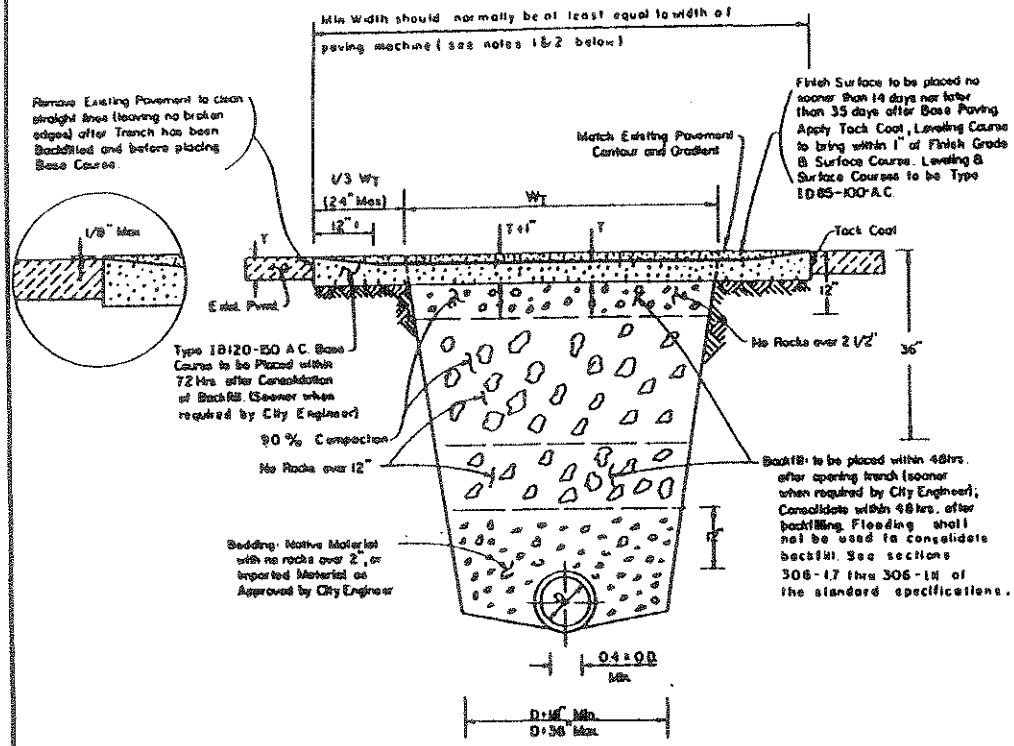
CHANNEL BASE:
The depth of channel in channel base shall be 3/4 of pipe diameter for pipes 15 inches or less, and shall equal the pipe diameter for pipes 18 inches or larger. For special channels in trap or gauging manholes see special plans.

CRADLE:
Cradle first length of pipe at all inlets and outlets with concrete per detail.

CITY OF UPLAND
STANDARD DRAWING

DRAWN BY	DATE	BRICK MANHOLE TYPE "C" FOR SANITARY SEWER SYSTEMS
w o h	10/21/65	
REVISION BY	DATE	
		APPROVED BY Fred C. Blanchard CITY ENGINEER
		DRAWING NO. CU-Z-2

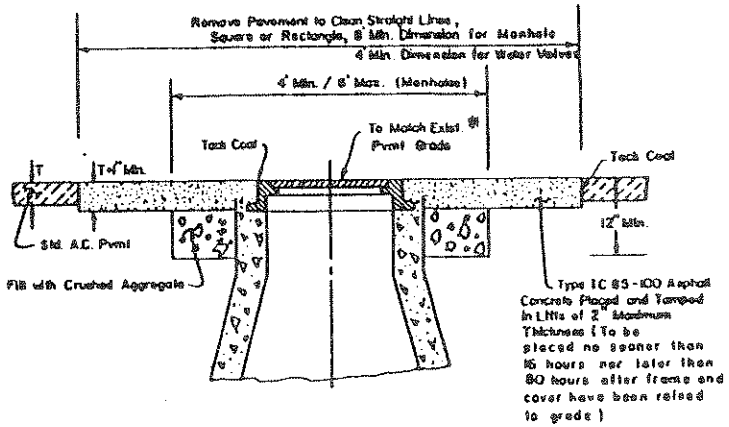
DETAIL FOR TRENCHING, BACKFILL & A.C. PAVEMENT REPAIR



GENERAL NOTES

1. Spreader Boxes may be employed for ditch paving jobs less than 500 lin. ft..
2. All Joints shall be vertical butt joints. Lap or feathered joints are not allowed.
3. Unless otherwise instructed by city Engineer, trench patch should be straight grade across width, and should not be crowned at center.

DETAIL FOR ADJUSTING MANHOLES & WATER VALVES TO GRADE



GENERAL NOTES

1. # Frame and Cover to be set 3" to 6" below Subgrade before A.C. Pavement is Placed.
2. Frame and Cover to be adjusted to Grade after A.C. Paving. Pavement Repairs to be made per this Detail after Raising to Grade.
3. Reset Top Step in Manhole at the time Frame and Cover are raised to Grade; add additional step when necessary to maintain proper spacing between Steps (see Dwgs. CU-Z-1 & CU-Z-2 for Correct Spacing of Steps).

CITY OF UPLAND STANDARD DRAWING

DRAWN BY	DATE	TRENCHING, BACKFILLING, ADJUSTING TO GRADE AND ASSOCIATED PAVEMENT REPAIRS
w.a.k.	10/28/65	
REVISION BY	DATE	
L.M.C.	10-24-66	APPROVED BY
L.G.K.	12-22-66	Fred C. Blanchard, CITY ENGINEER
W.A.B.	12-1-70	DRAWING NO. CU-Z-3

1. Trench repair shall be per City Standard CU-Z-3 except as modified below. This drawing and these modifications shall be considered a part of the plans.

   a. Pavement removals for trench resurfacing shall be at right angles to or parallel with the centerline of the street. No curvilinear trench surfacing will be permitted.

   b. All pavement cuts for trench resurfacing shall be saw cut leaving a clean straight line.

   c. If the remainder pavement between the edge of the trench cut and gutter line (or pavement joint, previous trench cut, longitudinal crack, transverse crack, etc.) is less than four feet, that pavement shall be removed. Resurfacing shall be incorporated with trench resurfacing.

   d. If the remainder pavement between the edge of trench cut and gutter line is four feet or greater, the remainder pavement shall be ground down tapering from 1" at the gutter to 0" four feet out from gutter. Trench resurfacing shall include overlaying this ground pavement.

   e. Depending upon width of trench, location of trench, condition of pavement, number of lanes, traffic volumes and other factors, additional requirements are made. Such requirements may include lane resurfacing, half street resurfacing, whole street resurfacing, and slurry seals.

   f. Prior to saw cutting for trench resurfacing, removal limits shall be approved by City Inspector.

2. Sidewalk and curb and gutter repair shall be to the closest expansion joint.

3. A Street Closure Permit shall be obtained from the City at least 48 hours prior to the start of construction.

4. Compaction test required - 95%. (Note: This item may be revised to 90% by City).

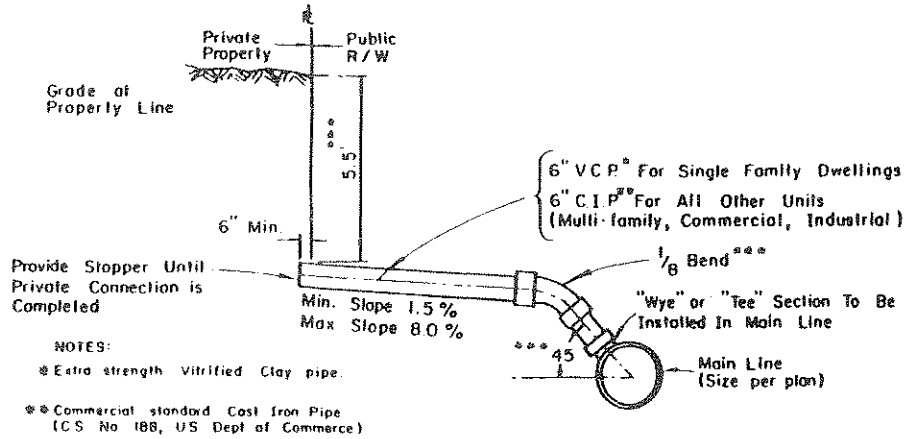
5. City of Upland Water Department Standard W6-23, which is attached, shall be considered part of this plan.

6. Centerline of trench, conduit or other utility installation shall not be closer than 5' from the edge of the gutter.

7. A preconstruction meeting shall be scheduled with the engineering department at least 10 days prior to start of construction unless otherwise directed by Engineering Department Public Works Director.

Call ~~Sharon Sharrett at 982-1352 ext. 222~~ BOB SCHNEEMAN 931-4146 if you have questions.

5/4/89



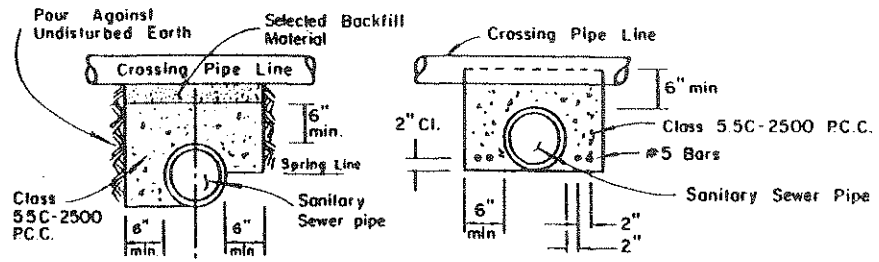
NOTES:

* Extra strength Vitrified Clay pipe.

** Commercial standard Cast Iron Pipe (C.S. No 188, U.S. Dept of Commerce)

*** Normal, unless otherwise noted on plan

SANITARY SEWER LATERAL LINE



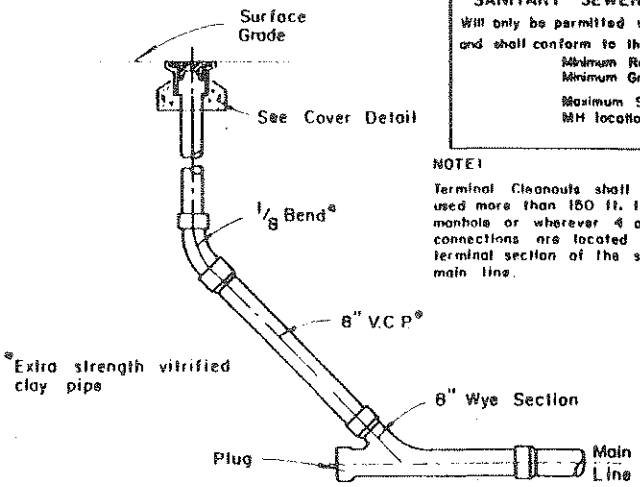
HALF SECTION — Use when sewer is being constructed

HALF SECTION — Use when sewer is existing

NOTE:
Minimum length for protection shall be 48" plus the diameter of the pipe crossing the sewer.

PROTECTION FOR SANITARY SEWERS

(Use When Clearance Between Sewer And Other Pipe Is 18" or Less)



*Extra strength vitrified clay pipe

SANITARY SEWER TERMINAL CLEANOUT

SANITARY SEWER ON HORIZONTAL CURVE

Will only be permitted when concentric with the street ℄, and shall conform to the following limiting requirements

Minimum Radius: 200 LF

Minimum Grade in % = $0.4 + \frac{60}{R}$

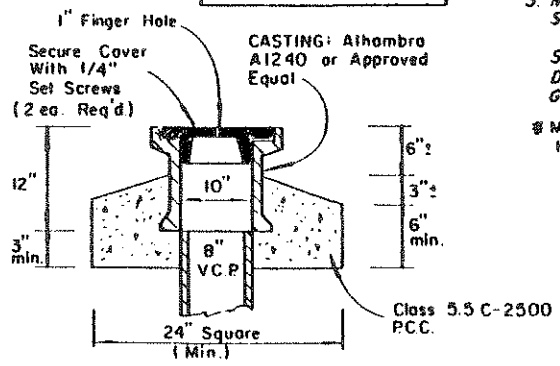
Maximum Spacing of staking 25 ft.

MH locations Req'd at both ends of curve with Max. spacing of 250 ft.

NOTE:
Terminal Cleanouts shall not be used more than 150 ft. from a manhole or wherever 4 or more connections are located on the terminal section of the sewer main line.

MAIN LINE GRADIENTS

DIA.	MIN. SLOPE	MAX. SLOPE
* 8"	0.40 %	80 %
10"	0.32	70
12"	0.24	50
15"	0.18	40
18"	0.14	30
21"	0.12	25
24"	0.10	20



COVER "DETAIL"

GENERAL NOTES:

1. *The width of the trench at the top of the pipe shall not exceed 3 times the diameter of the sanitary sewer pipe.*
2. *Grade stakes shall be set every 25 feet to insure a true gradient.*
3. *Maximum spacing between manholes:*
   $S_{max} = 35\ (D + G^{1/2})$

   S_{max} = *Maxium spacing*
   D = *Diameter in inches*
   G = *Gradient in percent*

* Minimum Slope Shall Be Increased For Dead End Lines Having A Limited Number Of Connections

CITY OF UPLAND STANDARD DRAWING

Drawn By	Date	SANITARY SEWER SYSTEMS
LWA	4-27-70	MAIN LINES
Revisions By	Date	LATERAL LINES
B.G.	12-12-73	TERMINAL CLEANOUTS
B.F	12-4-75	Approved By Fred C. Blanchard, City Engineer
		DRAWING NO. CU-Z-4

SAMPLE

DESIGN PROFESSIONAL'S STATEMENT
TEMPORARY DRAINAGE AND EROSION CONTROL

This drainage and erosion control plan was prepared under my direction. Berms, swales, sandbags and other temporary drainage facilities shown here are to be installed and maintained during the construction phase of the project.

In my opinion, adequate provisions have been made to provide drainage of surface water from the site without causing flooding or sedimentation problems on public rights-of-way or surrounding private property.

Firm Name

Signature

Title RCE#

Date

CITY ENGINEER'S STATEMENT
TEMPORARY DRAINAGE AND EROSION CONTROL

I hereby accept this temporary drainage and erosion control plan as meeting the prerequisites for issuance of permits and for record purposes.

This plan was prepared under the direction of a fully qualified professional who has stated that the implementation of the drainage devices shown hereon will alleviate potential flooding and erosion problems affecting public rights-of-way and surrounding private property during the construction stage of the project.

City Engineer RCE#

Date

TO APPEAR ON PAGE 1 OF PLAN(S)

DESIGN PROFESSIONAL'S STATEMENT
(Parkway Landscaping and Irrigation)

This plan was prepared under my direction and is, in my professional opinion, in accordance with all applicable City of Upland standards, requirements and conditions of approval, and, to the best of my knowledge, with all applicable California State Laws and requirements. The irrigation system is designed according to generally accepted standards and, in my opinion, will provide adequate coverage with relatively low maintenance. The hardscape items (sidewalks, drive approaches, etc.) shown on this plan conform, to the best of my knowledge, to the civil engineering plans for this project. In the event of any descrepancies, the civil engineering plans are assumed to be correct.

The developer has arranged to have (firm name): _____ inspect, or direct the inspection of the construction of the public and private facilities shown on these plans, and to furnish the statements, reports, and "as built" plans required by Planning Department Directive No. 9.

I have received a copy of the approved street tree list. The trees selected for the public right-of-way have been selected from that list.

_____
Firm Name

_____
Name Title

_____
Date

STATEMENTS OF CITY OF UPLAND
(Parkway Landscaping and Irrigation)

I hereby accept this Plan as meeting the prerequisite for issuance of applicable permits and for record purposes. This Plan was prepared under the direction of a fully qualified professional who has stated that the Plan conforms with all applicable requirements of the City. The design, elevations, sizes, details and features of the landscaping and irrigation have not been reviewed by the City, except as they relate to the City Standards, conditions of approval, and backflow prevention devices.

_____
Water Utility Director Date

_____
City Engineer RCE# 15033 Date
EXP. 3-31-91

DESIGN PROFESSIONAL'S STATEMENT FOR ROUGH GRADING

On behalf of _____, I hereby state that I am an official representative of the firm and that as of _____ (date), the rough grading of _____ has been completed, under my supervision, and is in substantial conformance with the official Grading Plan filed with the City, except as otherwise revised in an acceptable manner and in accordance with all applicable City of Upland Grading Standards and Conditions of Approval concerning grading and Section 8110 of the Upland Municipal Code. In my opinion, adequate provisions have been made for the drainage of surface waters from each building site.

I agree that concurrent with the filing of this grading statement for the final unit of this development, if substantial changes have been made, I will file an "As Built" plan with the City for record purposes which will reflect all significant changes from the original plan and which will include a statement that all changes conform to City Grading Standards and Conditions of Approval concerning grading and Section 8110 of the Upland Municipal Code. The "As Built" plan will show conditions as they existed on the inspection date indicated on this statement and will not show subsequent changes made by individual lot owners.

Remarks: _____

_____

_____

_____

_____

_____
Firm Name

_____
Signature

_____
Title RCE #

_____
Date

DESIGN PROFESSIONAL'S STATEMENT FOR FINAL GRADING

On behalf of _____, I hereby state that I am an official representative of the firm and that as of _____ (date), the final grading of _____ has been completed, under my supervision, and is in substantial conformance with the official Grading Plan filed with the City, except as otherwise revised in an acceptable manner and in accordance with all applicable City of Upland Grading Standards and Conditions of Approval concerning grading and Section 8110 of the Upland Municipal Code. In my opinion, adequate provisions have been made for the drainage of surface waters from each building site.

I agree that concurrent with the filing of this grading statement for the final unit of this development, if substantial changes have been made, I will file an "As Built" plan with the City for record purposes which will reflect all significant changes from the original plan and which will include a statement that all changes conform to City Grading Standards and Conditions of Approval concerning grading and Section 8110 of the Upland Municipal Code. The "As Built" plan will show conditions as they existed on the inspection date indicated on this statement and will not show subsequent changes made by individual lot owners.

Remarks: _____

_____

_____

_____

_____

_____
Firm Name

_____
Signature

_____
Title RCE #

_____
Date

SAMPLE

To appear on page 1 of plan

DESIGN PROFESSIONAL'S STATEMENT

This grading plan was prepared under my direction and is in accordance with Section 8110 of the Upland Municipal Code. The site grading and related structural features as designed and shown hereon conform with all applicable details and provisions of Series CU-E of the Standard Drawings of the City of Upland, with Series ED-E of the Engineering Directives, and with any City of Upland Conditions of Approval concerning grading. In my opinion, adequate provisions have been made for the drainage of surface waters from each building site.

Firm Name

Signature

Title RCE#

Date

STATEMENT OF CITY ENGINEER

I hereby accept this Grading Plan as meeting the prerequisite for issuance of a Grading Permit and for record purposes. This Grading Plan was prepared under the direction of a fully qualified professional who has stated that the plan conforms with all applicable requirements of the City. The design, elevations, details and features of the on-site grading have not been reviewed by the City, except as they relate to public improvements within adjacent right of ways and easements.

City Engineer RCE#

Date

General Notes

1. The Land Surveyors Act, Section 8771 of the Business & Professions Code, and Sections 732.5, 1492.5, 1810.5 of the Streets & Highways Code require that survey monuments shall be protected and perpetuated.

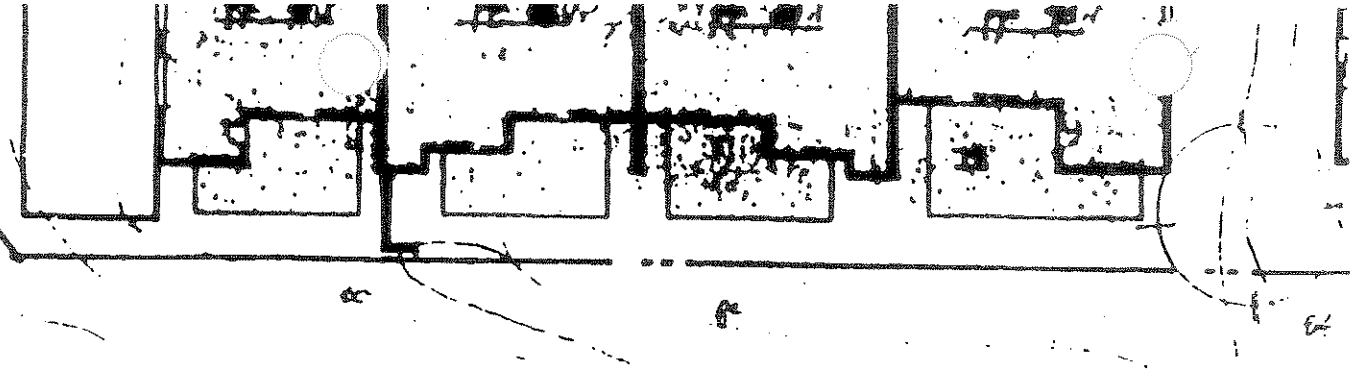
2. When monuments are near the path of construction, the monuments shall be located and referenced out by a Licensed Land Surveyor or Registered Civil Engineer (authorized to practice Land Surveying), prior to the time of construction.

3. Corner Records shall be filed with County Surveyor prior to the start of construction, for those survey points that exist as shown on recorded Tract Maps, Parcel Maps, Records of Surveys, Highway Maps or points that provide survey control. These Corner Records shall describe the monuments found as well as tie distances to reference points for the resetting of the survey monuments.

4. When the construction is completed, the monuments shall be set to the surface, or a survey monument box set at the monument or permanent witness monuments set to perpetuat the location. Corner Records are to be filed with the County Surveyor for the new monuments set.

5. Reconstruction and relocation of improvements or utilities on roads pursuant to Section 8771, is understood to mean grinding, asphalt overlays, chips seals, slurry seals or any other work that will cover or disturb the survey monuments.

Survey monuments that exist as shown on Recorded Maps, Highway Maps or points that provide survey control within the construction area, shall be located and referenced out by a Licensed Land Surveyor or Registered Civil Engineer (authorized to practice Land Surveying), and Corner Records shall be filed with the County Surveyor prior to the start of construction. These Corner Records shall describe the monuments found with tie distances to reference points for resetting of the survey monument . When construction is completed, monuments shall be set and Corner Records shall be filed with the County Surveyor showing the new monuments.



Gw/
For your File
K.C.
2-23-83

DESIGN PROFESSIONAL'S STATEMENT
(ON SITE STREET LIGHTING)

THIS PLAN WAS PREPARED UNDER MY DIRECTION AND IS, IN MY PROFESSIONAL OPINION, IN ACCORDANCE WITH ALL APPLICABLE CITY OF UPLAND STANDARDS, REQUIREMENTS AND CONDITIONS OF APPROVAL, AND, TO THE BEST OF MY KNOWLEDGE, WITH ALL APPLICABLE CALIFORNIA STATE LAWS AND REQUIREMENTS. THE STREET LIGHTING SYSTEM IS DESIGNED ACCORDING TO GENERALLY ACCEPTED STANDARDS AND, TO THE BEST OF MY KNOWLEDGE, THIS SYSTEM HAS BEEN INSTALLED IN THE SAME LOCATIONS AND WITH THE SAME WATTAGES AS SHOWN ON THE PLAN.

THE DEVELOPER HAS ARRANGED TO HAVE WHITTAKER ELECTRIC COMPANY INSPECT, OR DIRECT THE INSPECTION OF THE CONSTRUCTION OF PUBLIC AND PRIVATE FACILITIES SHOWN ON THESE PLANS, AND TO FURNISH THE STATEMENTS, REPORTS AND "AS BUILT" PLANS REQUIRED BY THE CITY OF UPLAND ENGINEERING DEPARTMENT.

WHITTAKER ELECTRIC co.
CONTRACTING ENGINEERING
[illegible] SOUTH "J" ST., SAN BERNARDINO, CA. 92410

Gene Bealor
GENE BEALOR - VICE PRESIDENT
2/7/83
DATE

2.