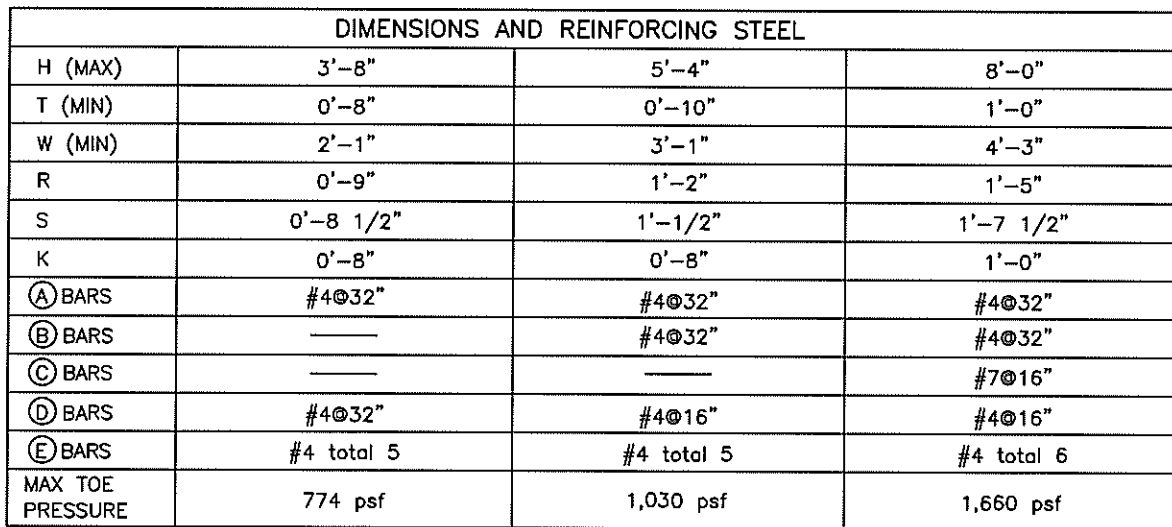


APPENDIX B STANDARD DRAWINGS



DRAWING NUMBER C-05

DESIGN CONDITIONS:

Walls are to be used for the loading conditions shown for each type wall. Design H shall not be exceeded. Footing key is required except as shown otherwise or when found unnecessary by the Engineer. Special footing design is required where foundation material is incapable of supporting toe pressure listed in table.

DESIGN DATA:**Reinforced Concrete:**

$F_c=1200$ psi $F'_c=3000$ psi
 $F_s=20,000$ psi $n=10$

Reinforced Masonry:

$F'_m=600$ psi $F_m=200$ psi
 $F_s=20,000$ psi $n=50$
 Earth=120 pcf and Equivalent Fluid
 Pressure=36 psf per foot of height

Walls shown for 1 1/2:1 unlimited sloping surcharge are designed in accordance with Rankine's formula for unlimited sloping surcharge with a $\phi = 42^\circ$.

REINFORCEMENT:

Intermediate grade, hard grade, or rail steel deformation shall conform ASTM A615, A616, A617. Bars shall lap 40 diameters, where spliced, unless otherwise shown on the plans. Bends shall conform to the Manual of Standard Practice, A.C.I. Backing for hooks is four diameters. All bar embeddings are clear distances to outside of bar. Spacing for parallel bars is center to center bars.

MASONRY:

All reinforced masonry retaining walls be constructed of regular or light weight standard units conforming to the "Standard Specifications for Public Works Construction."

JOINTS:

Vertical control joints shall be placed at 32' intervals maximum. Joints shall be designed to resist shear and other lateral forces while permitting longitudinal movement. Vertical expansion joints shall be placed at 96' intervals maximum.

CONCRETE:

Footing concrete shall be 560-C-3250, using Type B aggregate when placing conditions permit.

BACKFILL:

No backfill material shall be placed against masonry retaining walls until grout has reached design strength or until grout has cured for a minimum of 28 days. Compaction of backfill material by jetting or ponding with water will not be permitted. Each layer of backfill shall be moistened as directed by the Engineer and thoroughly tamped, rolled or otherwise compacted until the relative compacting is not less than 90%.

FENCING:

Safety fencing shall be installed at the top of the wall as required by the agency.

INSPECTIONS:

Call for inspections as follows:

- A. When the footing has been formed, with the steel tied securely in final position, and is ready for the concrete to be placed.
- B. Where cleanout holes are not provided:

(1) After the blocks have been laid up to a height of 4' or full height for walls up to 5', with steel in place but before the grout is poured, and.....

(2) After the first lift is properly grouted, the blocks have been laid up to the top of the wall with the steel tied securely in place but before the upper lift is grouted.

Where cleanout holes are provided:

After the blocks have been laid up to the top of the wall, with the steel tied securely in place, but before grouting.

- C. After grouting is complete and after rock or rubble wall drains are in place but before earth backfill is placed.

- D. Final inspection when all work has been completed.

CONCRETE GROUT AND MORTAR MIXES:

Concrete grout shall attain a minimum compressive strength of 2,000 psi in 28 days and mortar shall attain 1,800 psi in 28 days.

All cells shall be filled with grout. Rod or vibrate consolidation. Bring grout within 10 minutes of pouring to insure grout to a point 2" from the top of masonry units when grouting of second lift is to be continued at another time.

MORTAR KEY:

To insure proper bonding between the footing and the first course of block, a mortar key shall be formed by embedding a flat 2 x 4 flush with and at the top of the freshly poured footing. The 2 x 4 should be removed after the concrete has started to harden (approximately 1 hour).

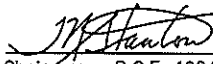
A mortar key may be omitted if the first course of block is set into the fresh concrete when the footing is poured, and a good bond is obtained.

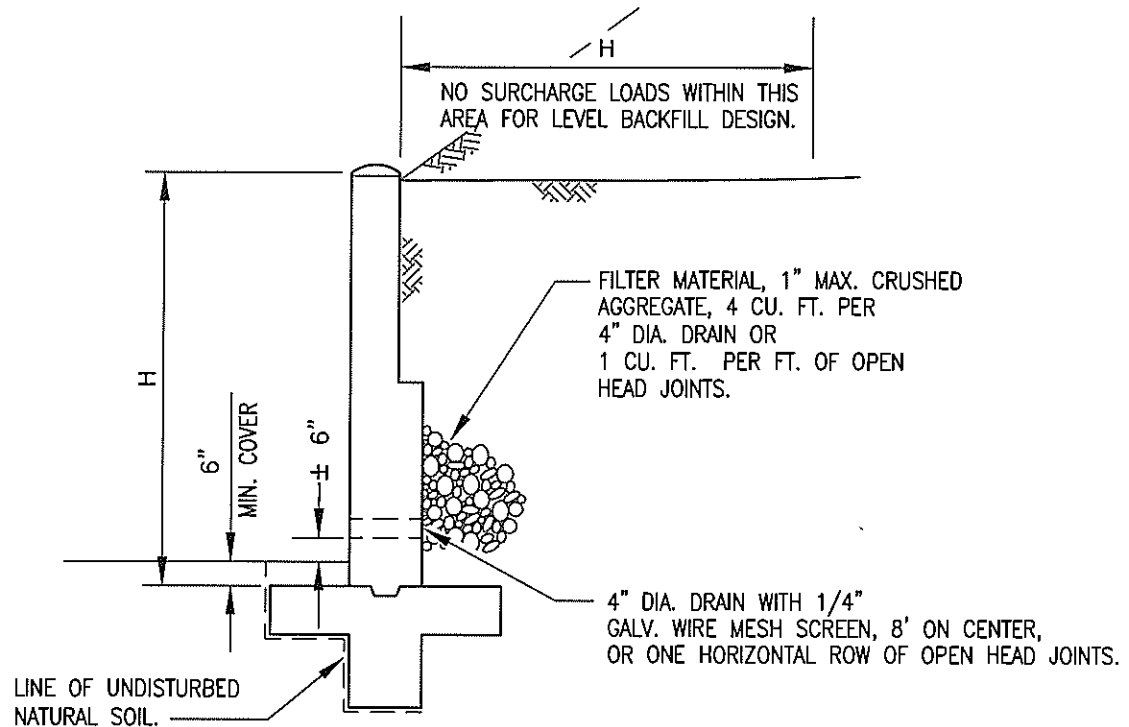
WALL DRAINS:

Wall drains shall be provided in accordance with Standard Drawing C-8.

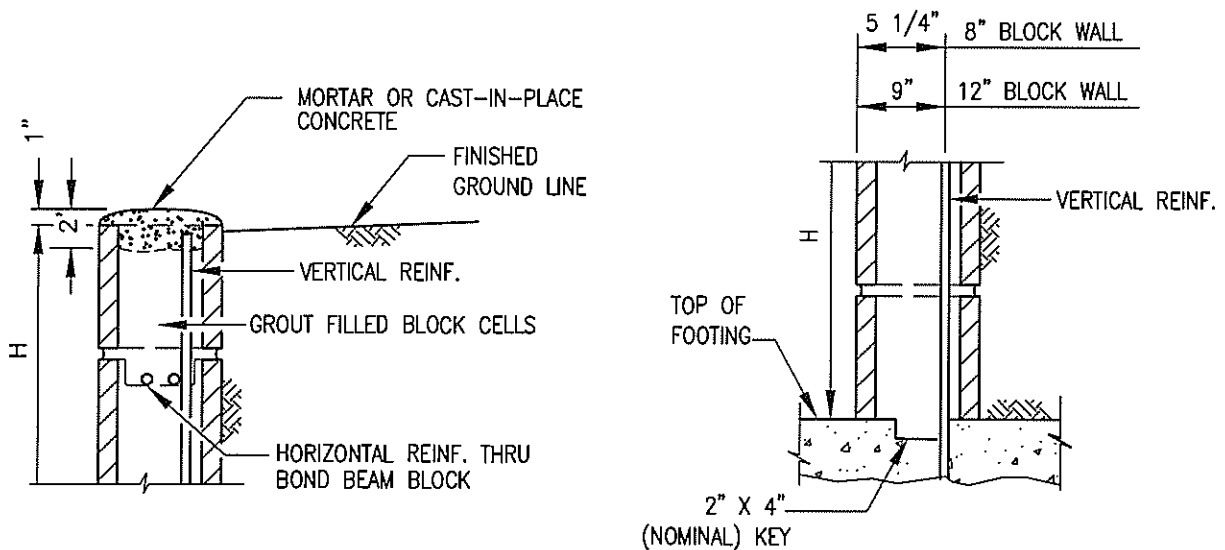
SOIL:

All footings shall extend at least 12" into undisturbed natural soil or approved compacted fill. Soil should be dampened prior to placing concrete in footings.

Revision	By	Approved	Date	SAN DIEGO REGIONAL STANDARD DRAWING	
ORIGINAL		A. Kercheval	12/75		
Add Metric		T. Stanton	03/03	GENERAL NOTES FOR MASONRY RETAINING WALLS	
Delete Metric	S.S.	T. Shell	03/11		
Reviewed	TS	T. Stanton	11/15		
				165	
				RECOMMENDED BY THE SAN DIEGO REGIONAL STANDARDS COMMITTEE	
				 12/17/2015 Chairperson R.C.E. 19246 Date	
				DRAWING NUMBER C-07	



TYPICAL SECTION

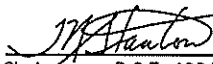


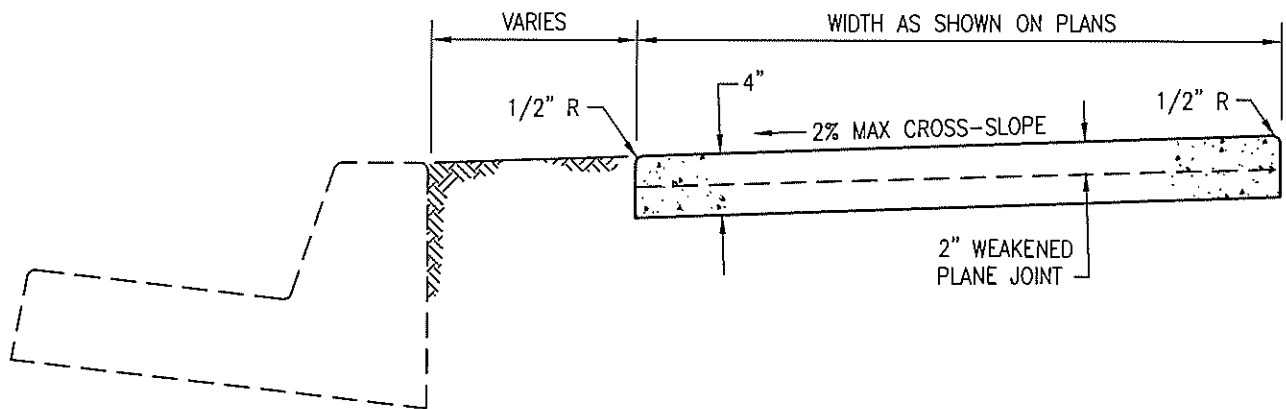
CAP DETAIL

KEY DETAIL

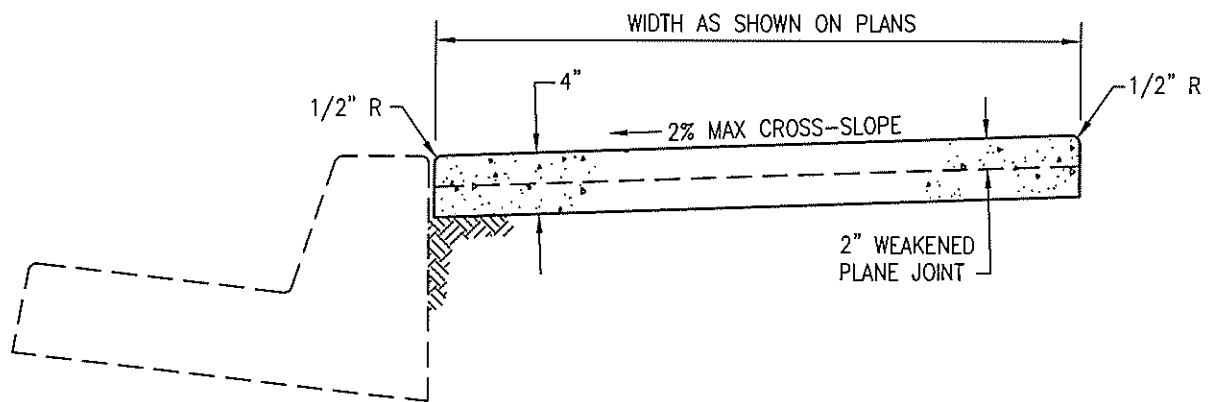
NOTES:

1. ALL MASONRY RETAINING WALLS SHALL BE CONSTRUCTED WITH CAP, KEY AND DRAINAGE DETAILS AS SHOWN HEREON.
2. 4" DIAMETER DRAIN MAY BE FORMED BY PLACING A BLOCK ON IT'S SIDE.

Revision	By	Approved	Date	SAN DIEGO REGIONAL STANDARD DRAWING		RECOMMENDED BY THE SAN DIEGO REGIONAL STANDARDS COMMITTEE
ORIGINAL		Kercheval	12/75			
Add Metric		T. Stanton	03/03			
Delete Metric	S.S.	T. Shell	03/11			
Reviewed	TS	T. Stanton	11/15			
				DETAILS FOR MASONRY RETAINING WALL		 12/17/2015 Chairperson R.C.E. 19246 Date
						DRAWING NUMBER C-08



NON-CONTIGUOUS

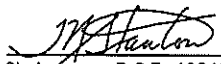


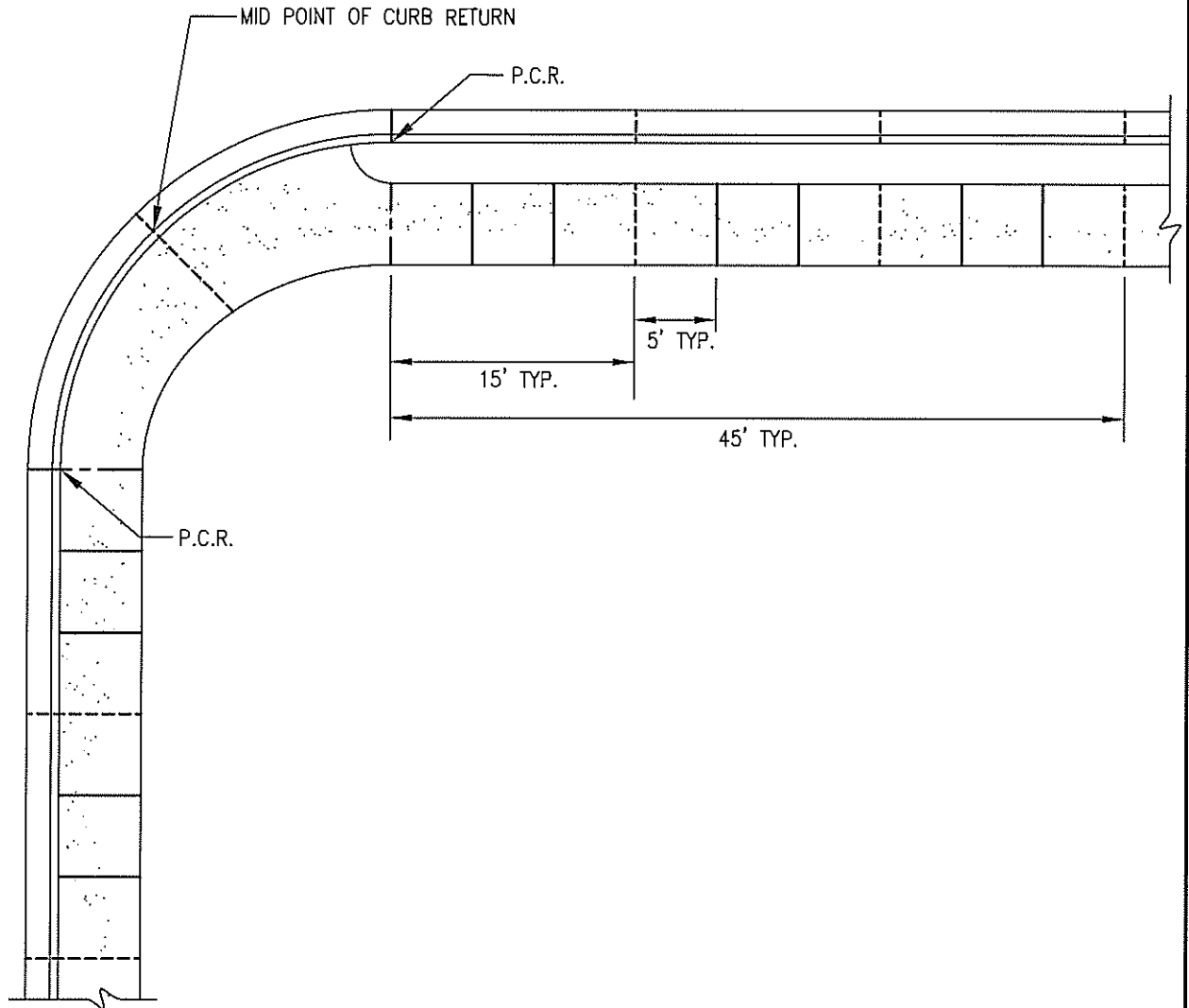
CONTIGUOUS

NOTES:

1. CONCRETE SHALL BE 520-C-2500.
2. SEE STANDARD DRAWINGS G-9 AND G-10 FOR JOINT DETAILS.


LEGEND ON PLANS

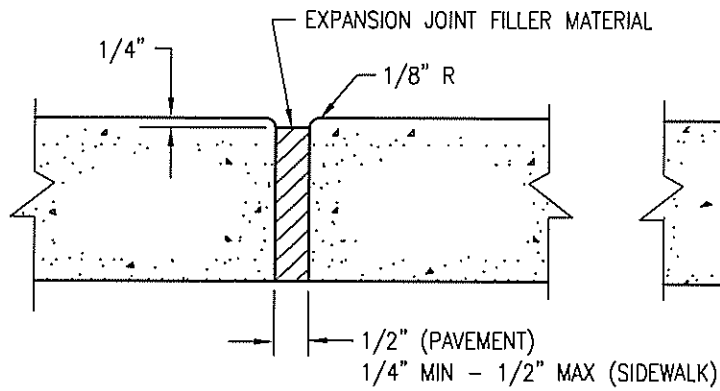
Revision	By	Approved	Date	SAN DIEGO REGIONAL STANDARD DRAWING SIDEWALK - TYPICAL SECTIONS	RECOMMENDED BY THE SAN DIEGO REGIONAL STANDARDS COMMITTEE
ORIGINAL		KERCHEVAL	12/75		
ADD METRIC		T. STANTON	03/03		
REFORMATTED		T. STANTON	04/06		
UPDATED	MR	MR/CV	11/11		
REVIEWED	CV	CV	12/15		
					 12/17/2015 Chairperson R.C.E. 19246 Date
					DRAWING NUMBER G-07



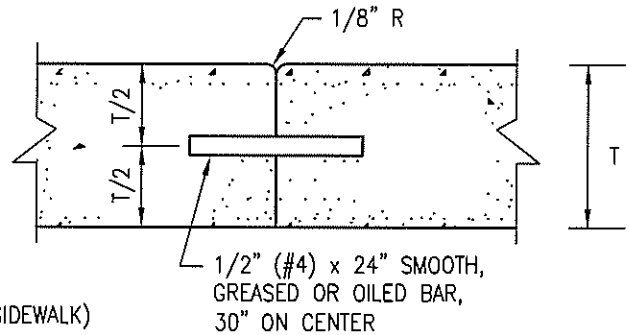
NOTES:

1. EXPANSION JOINTS ——— AT CURB RETURNS, ADJACENT TO STRUCTURES AND AT 45' INTERVALS.
(SEE STANDARD DRAWING G-10).
2. WEAKENED PLANE JOINTS AT MID POINT OF CURB RETURN, WHEN REQUIRED, AND AT 15' INTERVALS FROM P.C.R.
(SEE STANDARD DRAWING G-10).
3. 1/4" GROOVES ——— WITH 1/4" RADIUS EDGES AT 5' INTERVALS.

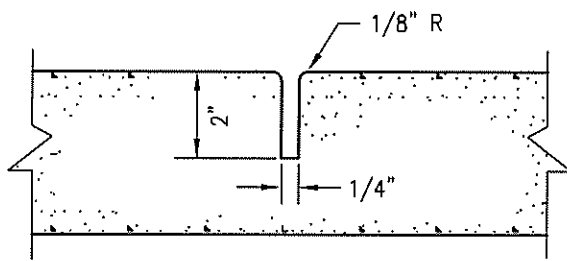
Revision	By	Approved	Date	SAN DIEGO REGIONAL STANDARD DRAWING		RECOMMENDED BY THE SAN DIEGO REGIONAL STANDARDS COMMITTEE	
ORIGINAL		KERCHEVAL	12/75	SIDEWALK JOINT LOCATIONS		 12/17/2015 Chairperson R.C.E. 19246 Date	
ADD METRIC		T. STANTON	03/03				
REFORMATTED		T. STANTON	04/06				
REVIEWED	CV	CV	12/15				
				168		DRAWING NUMBER G-09	



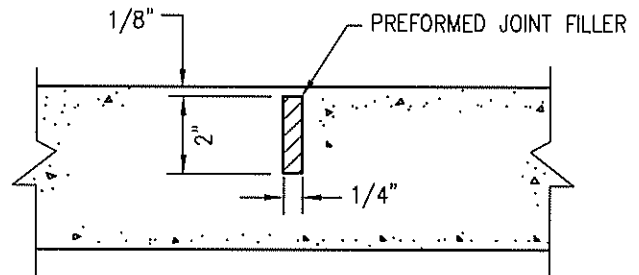
EXPANSION JOINT



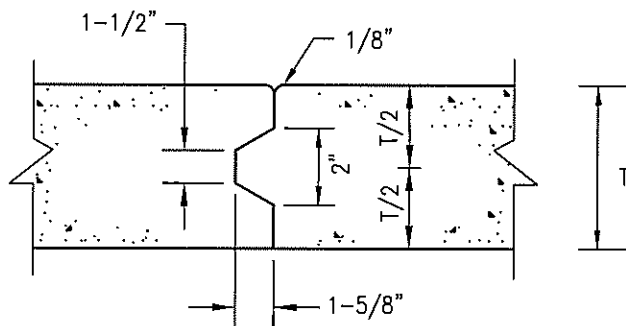
CONTACT JOINT



WEAKENED PLANE JOINT
CURB AND SIDEWALK



WEAKENED PLANE JOINT
GUTTER AND CONCRETE PAVEMENT



KEYED JOINT

Revision	By	Approved	Date
ORIGINAL		PARKINSON	02/95
ADD METRIC		T. STANTON	03/03
REFORMATTED		T. STANTON	04/06
UPDATED	CV	MR/CV	11/11
REVIEWED	CV	CV	12/15

SAN DIEGO REGIONAL STANDARD DRAWING

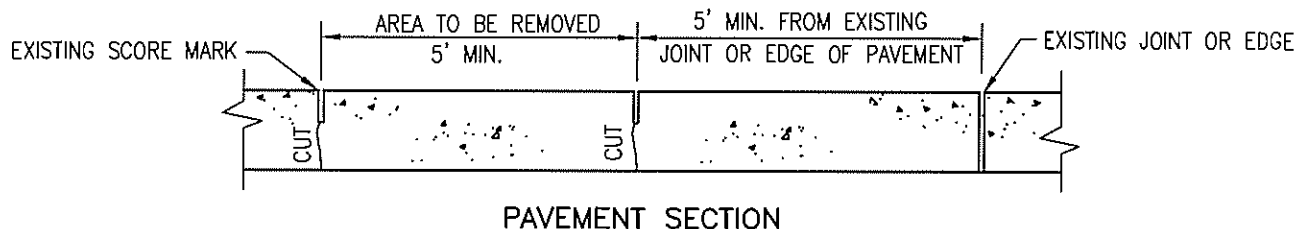
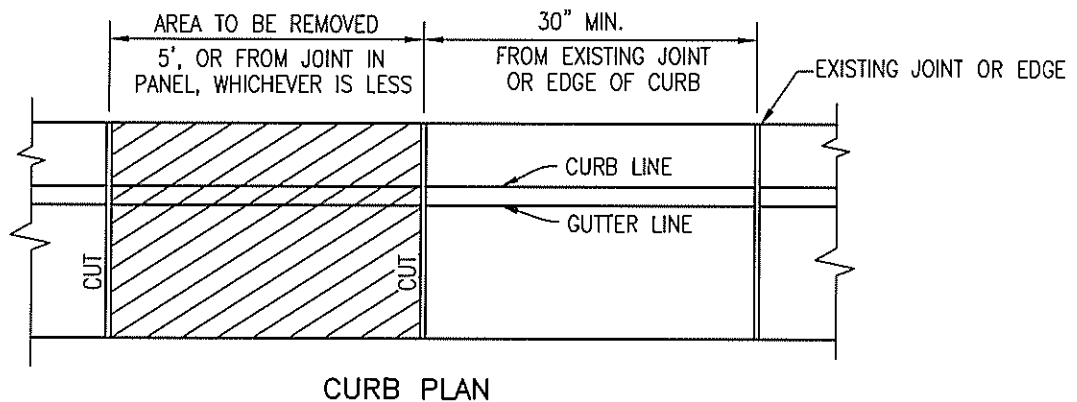
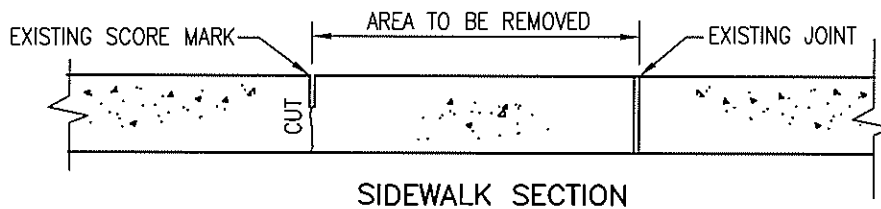
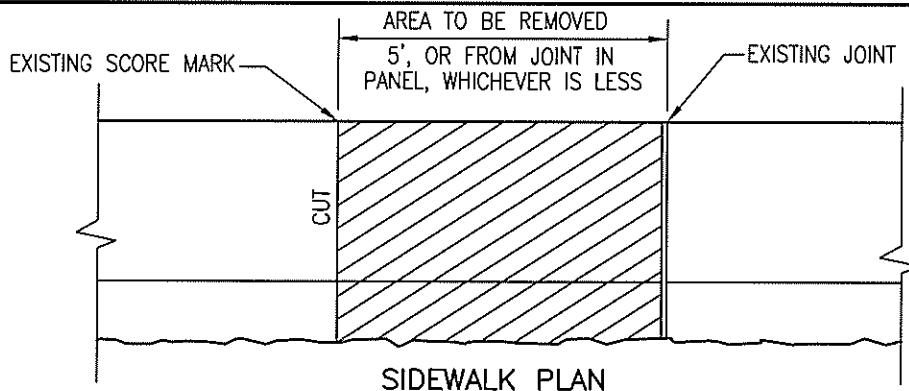
CONCRETE JOINT DETAILS

169

RECOMMENDED BY THE SAN DIEGO
REGIONAL STANDARDS COMMITTEE

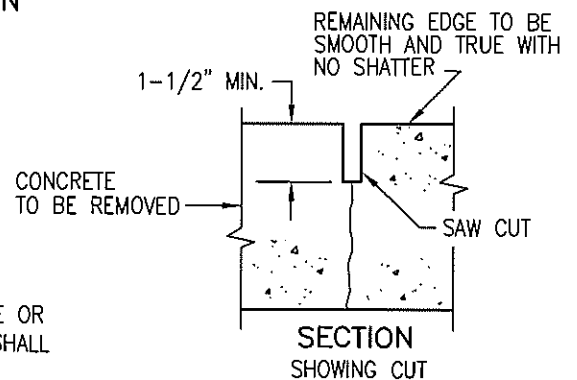
T. Stanton 12/17/2015
Chairperson R.C.E. 19246 Date


DRAWING
NUMBER **G-10**

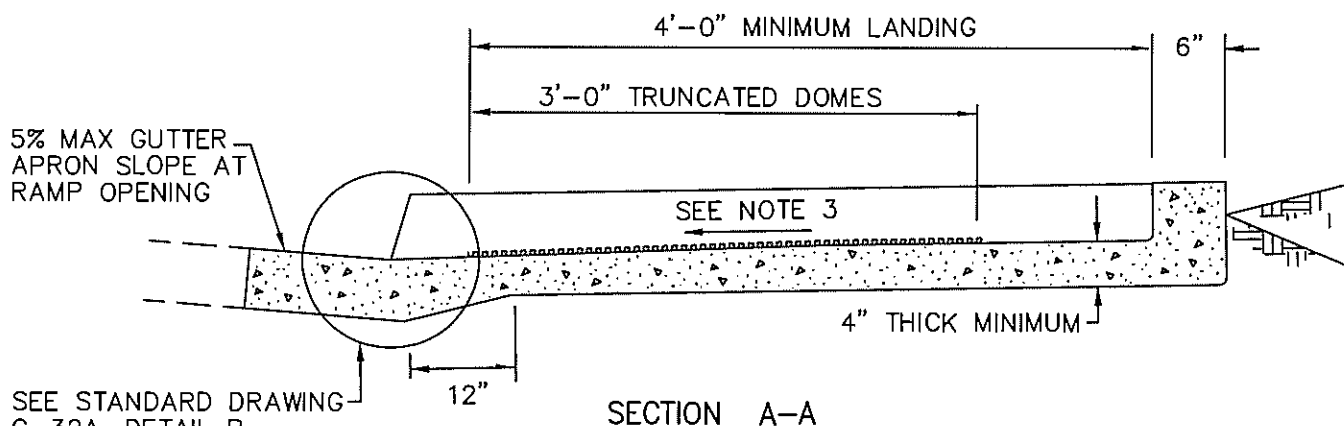
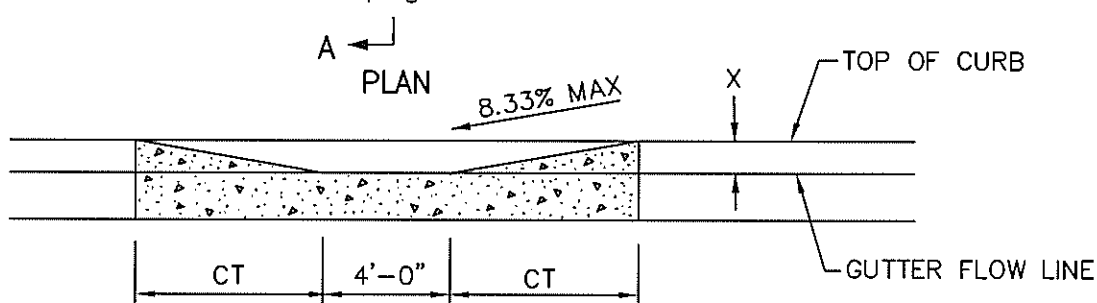
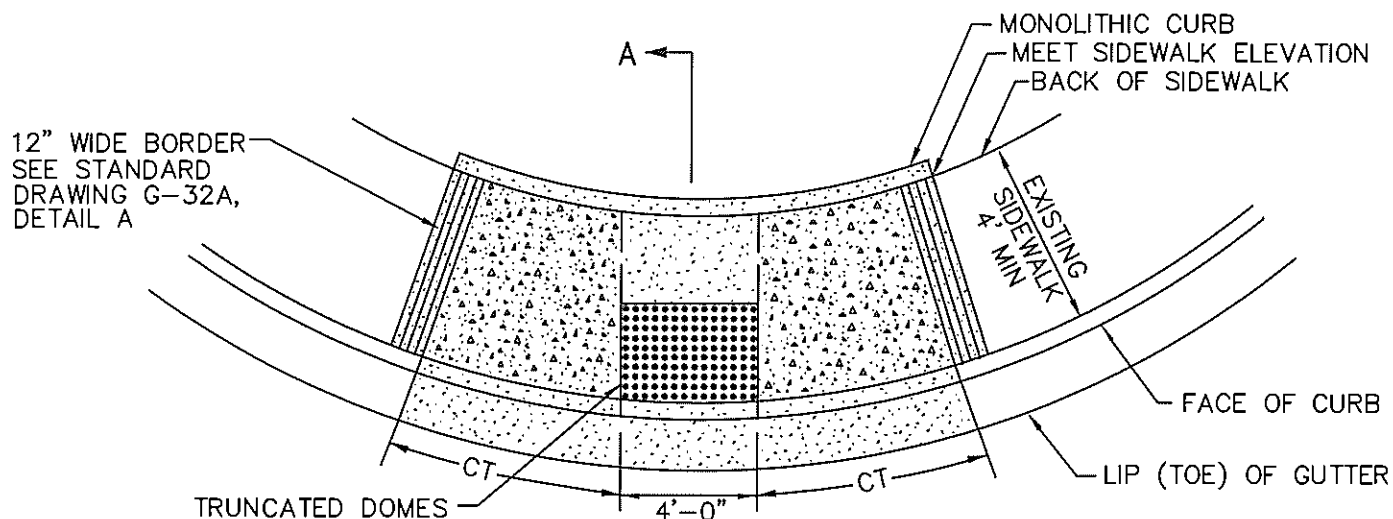


NOTE:

1. SIDEWALK CROSS SLOPE SHALL BE 2% MAX.
2. WHEN DISTANCE FROM "AREA TO BE REMOVED" TO EXISTING JOINT, EDGE OR SCORE MARK IS LESS THAN MINIMUM SHOWN, "AREA TO BE REMOVED" SHALL BE EXTENDED TO JOINT, EDGE OR SCORE MARK.



Revision	By	Approved	Date	SAN DIEGO REGIONAL STANDARD DRAWING		RECOMMENDED BY THE SAN DIEGO REGIONAL STANDARDS COMMITTEE	
ORIGINAL		KERCHEVAL	12/75	CONCRETE CURB, GUTTER, SIDEWALK AND PAVEMENT REMOVAL AND REPLACEMENT		 12/17/2015 Chairperson R.C.E. 19246 Date	
ADD METRIC		T. STANTON	03/03				
REFORMATTED		T. STANTON	04/06				
UPDATED	CV	MR/CV	11/11				
REVIEWED	CV	CV	12/15				
				170		DRAWING NUMBER G-11	



NOTES:

1. TYPE C ARE ONLY TO BE USED TO MITIGATE EXISTING CONDITIONS WHERE INADEQUATE RIGHT OF WAY EXISTS. TYPE C RAMP IS NOT TO BE USED IN NEW CONSTRUCTION, UNLESS APPROVED BY AGENCY.
2. SEE STANDARD DRAWING G-32A FOR GENERAL NOTES.
3. LANDING CROSS SLOPE SHALL BE 2.0% MAX IN BOTH DIRECTIONS.
4. FOR TRUNCATED DOMES, SEE STANDARD DRAWING G-30.
5. CT (CURB TRANSITION) SHALL BE 8.33% MAXIMUM.
6. SEE STANDARD DRAWING G-32B FOR X, Y, AND CT DETAILS.

Revision	By	Approved	Date
ORIGINAL		R. MUNOZ	05/97
ADD METRIC		T. STANTON	03/03
UPDATE		D. DAVIES	12/04
REVISED		T. STANTON	04/06
UPDATED	MR	MR/CV	03/12

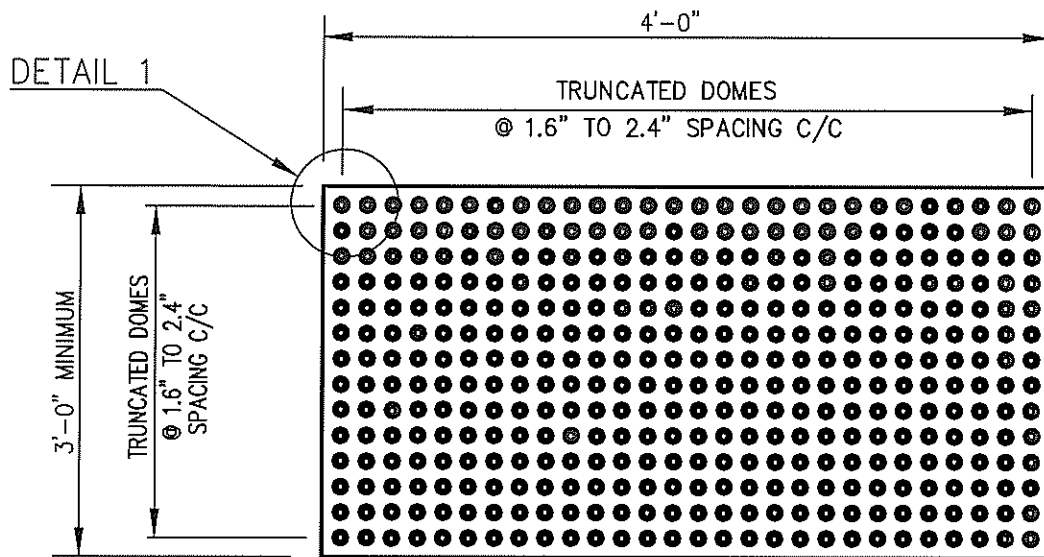
SAN DIEGO REGIONAL STANDARD DRAWING

CURB RAMP - TYPE C (FOR EXISTING SIDEWALK)

RECOMMENDED BY THE SAN DIEGO
REGIONAL STANDARDS COMMITTEE

M. Stanton 12/17/2015
Chairperson R.C.E. 19246 Date

DRAWING
NUMBER **G-29**

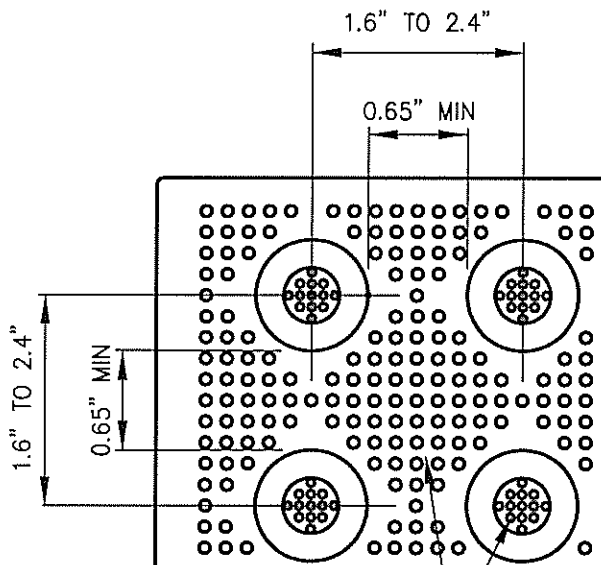


PLAN - TILE

NOT TO SCALE

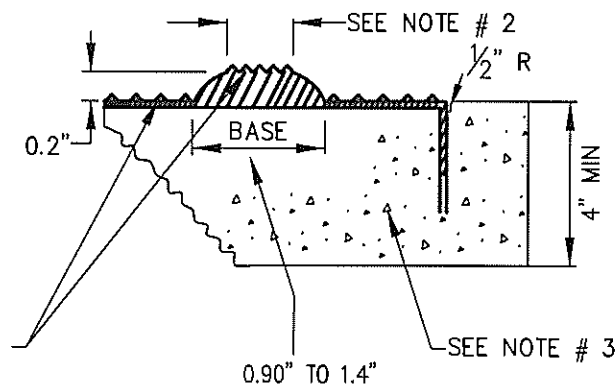
NOTES

1. DETECTABLE WARNING SURFACE COLOR SHALL BE YELLOW CONFORMING TO FEDERAL STANDARDS 595B TABLE IV, COLOR NO. 33538, OR AS SPECIFIED BY THE AGENCY. COLOR SHALL BE HOMOGENEOUS THROUGHOUT THE TILE.
2. TRUNCATED DOME TOP DIAMETER OF 50% OF THE BASE DIAMETER MINIMUM TO 65% OF THE BASE DIAMETER MAXIMUM.



DETAIL 1
NOT TO SCALE

NOTE:
PATTERN, SIZE &
ORIENTATION ARE
PER MANUFACTURER'S
RECOMMENDATION



Revision	By	Approved	Date
ORIGINAL		PARKINSON	02/95
ADD METRIC		T. STANTON	03/03
UPDATE		D. DAVIES	12/04
UPDATED	MR	MR/CV	03/12
UPDATED	MR	MR/CV	03/12

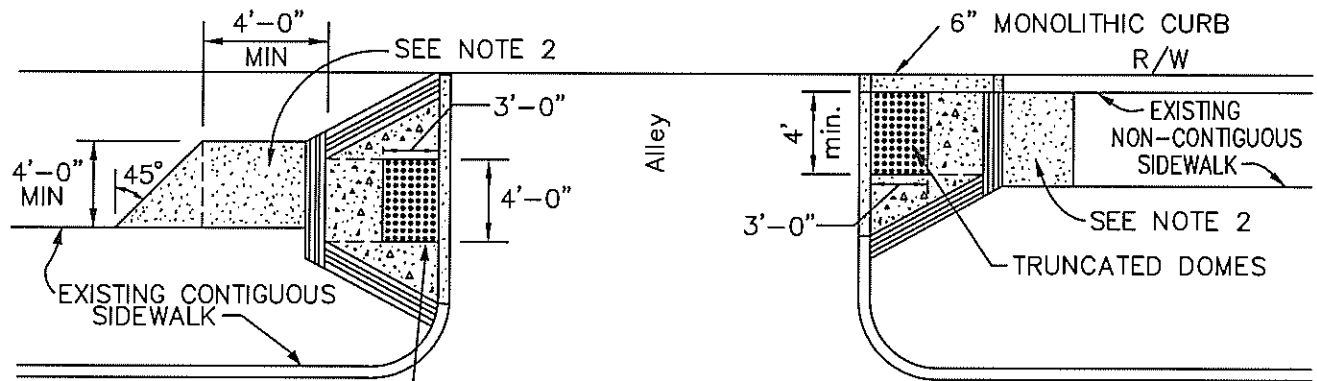
SAN DIEGO REGIONAL STANDARD DRAWING

TRUNCATED DOMES

RECOMMENDED BY THE SAN DIEGO
REGIONAL STANDARDS COMMITTEE

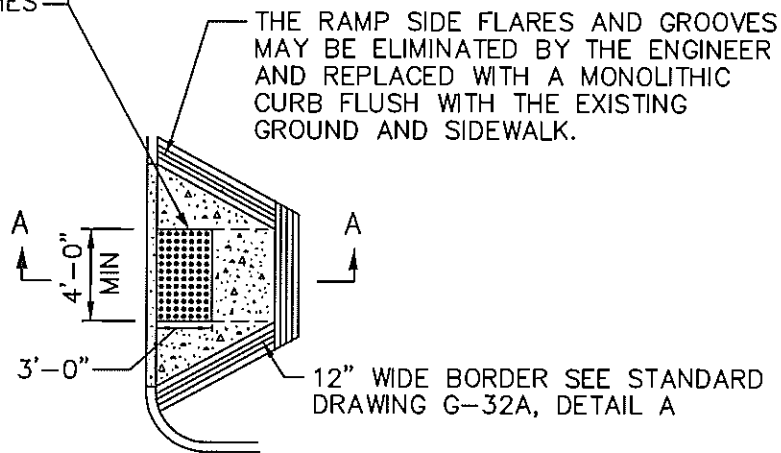
W. A. Henton 12/17/2015
Chairperson R.C.E. 19246 Date

DRAWING
NUMBER **G-30**

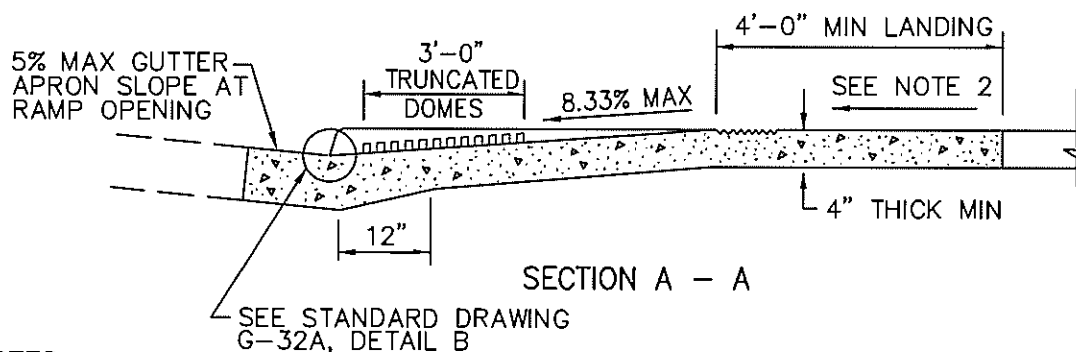


STREET
TYPICAL PLAN

TRUNCATED DOMES



PLAN VIEW



SECTION A - A

NOTES

1. SEE STANDARD DRAWING G-32A FOR GENERAL NOTES.
2. LANDING CROSS SLOPE SHALL BE 2.0% MAX IN BOTH DIRECTIONS.
3. FOR TRUNCATED DOMES DETAILS, SEE STANDARD DRAWING G-30.

Revision	By	Approved	Date
ORIGINAL		PARKINSON	02/95
UPDATE		D. DAVIES	12/04
REVISED		T. STANTON	04/06
UPDATED	MR	MR/CV	03/12
UPDATED	CV	CV	12/15

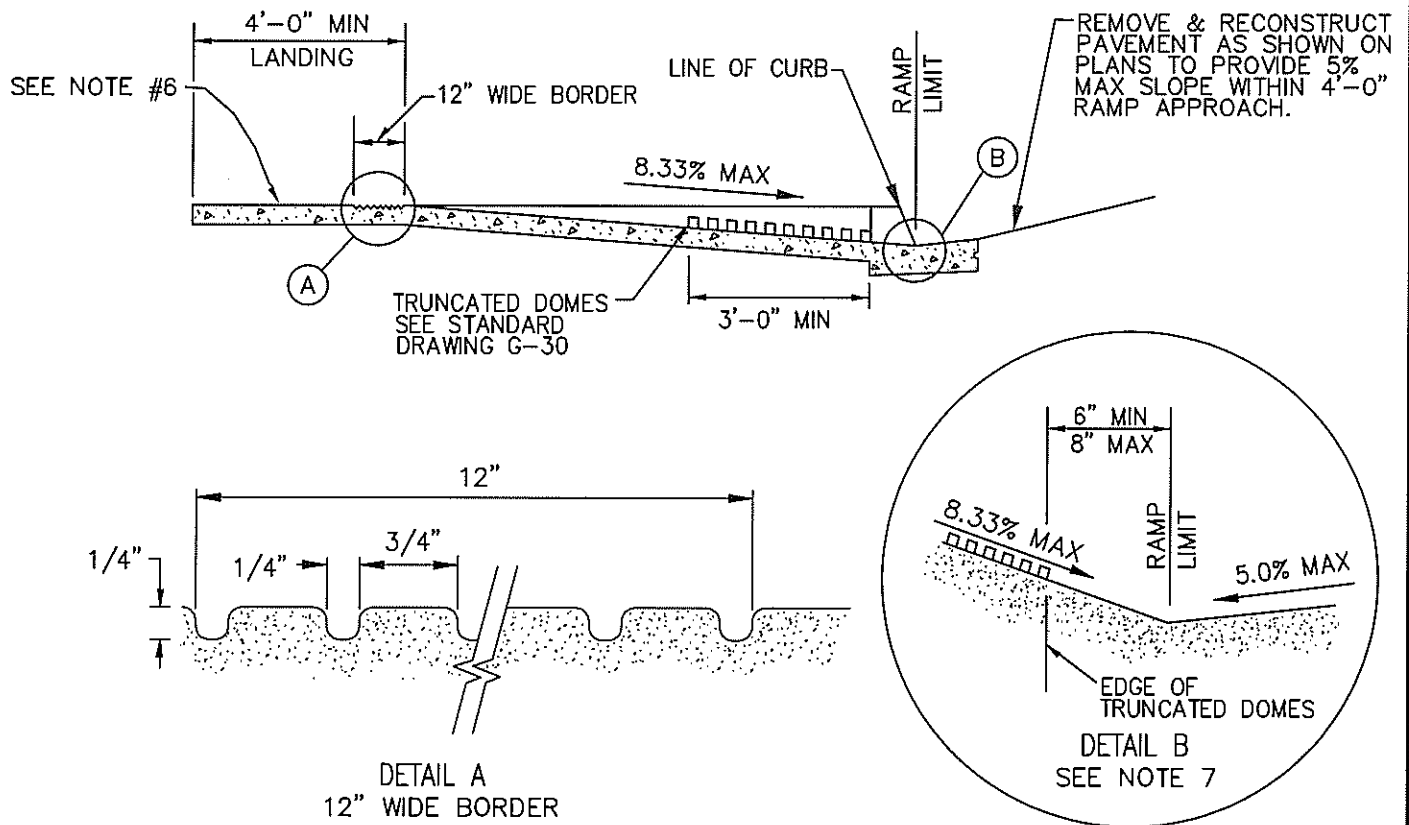
SAN DIEGO REGIONAL STANDARD DRAWING

CURB RAMP - TYPE D

RECOMMENDED BY THE SAN DIEGO
REGIONAL STANDARDS COMMITTEE

M. Hanton 12/17/2015
Chairperson R.C.E. 19246 Date

DRAWING
NUMBER **G-31**



NOTES

1. THE REMOVAL OF EXISTING CONCRETE CURB, GUTTER, SIDEWALK, AND PAVEMENT FOR PEDESTRIAN RAMP INSTALLATION SHALL COMPLY WITH STANDARD DRAWING G-11. FOR CONSTRUCTION OF CURB RAMPS ON EXISTING SIDEWALKS, REMOVAL OF ADDITIONAL SIDEWALK MAY BE REQUIRED TO COMPLY WITH ADA REQUIREMENTS TO MEET EXISTING GRADE.
2. CONCRETE SHALL BE CLASS 520-C-2500.
3. AREAS SHOWN THUS: SHALL HAVE A MEDIUM TO HEAVY BROOM TEXTURE FINISH, PERPENDICULAR TO THE AXIS OF THE RAMP. AREAS SHOWN THUS: ARE THE MINIMUM REQUIRED FOR A COMPLETE RAMP INSTALLATION.
4. IF OBSTRUCTIONS SUCH AS INLETS, UTILITY POLES, FIRE HYDRANTS, ETC., ARE ENCOUNTERED, THE RAMP LOCATIONS MAY BE ADJUSTED UPON THE APPROVAL OF THE AGENCY.
5. THE RAMP SLOPES WILL BE MEASURED RELATIVE TO THE SIDEWALK SLOPE. ADJOINING SLOPE BEYOND THE RAMP SHALL NOT EXCEED 20:1 (5%).
6. LANDING CROSS SLOPE SHALL BE 2.0% MAX IN BOTH DIRECTIONS.
7. EDGE OF TRUNCATED DOME PANEL SHALL BE LOCATED 6" MINIMUM AND 8" MAXIMUM FROM THE GUTTER FLOWLINE.

Revision	By	Approved	Date	SAN DIEGO REGIONAL STANDARD DRAWING		RECOMMENDED BY THE SAN DIEGO REGIONAL STANDARDS COMMITTEE	
ORIGINAL		PARKINSON	02/95	GENERAL NOTES FOR CURB RAMPS		 Chairperson R.C.E. 19246 Date 12/17/2015	
UPDATE		D. DAVIES	12/04				
REVISED		T. STANTON	04/06				
UPDATED	MR	MR/CV	03/12				
REVIEWED	CV	CV	12/15				
				174		DRAWING NUMBER G-32A	

TABLE A			
X	Y	Z	CT
CURB HEIGHT	RAMP LENGTH (12:1)	SIDE SLOPE (10:1)	CURB TRANS.
1"	1'-0"	1'-6"	0'-0"
2"	2'-0"	1'-8"	0'-0"
3"	3'-0"	2'-6"	0'-0"
4"	4'-0"	3'-4"	0'-0"
5"	5'-0"	4'-2"	0'-0"
6"	6'-0"	5'-0"	0'-0"
7"	7'-0"	5'-10"	1'-0"
8"	8'-0"	6'-8"	2'-0"

TYPE A AND B CURB RAMPS

TABLE B			
X	Y	Z	Z1
CURB HEIGHT	RAMP LENGTH (12:1)	SIDE SLOPE (10:1)	SIDE SLOPE (12:1)
1"	1'-0"	1'-6"	1'-0"
2"	2'-0"	1'-8"	2'-0"
3"	3'-0"	2'-6"	3'-0"
4"	4'-0"	3'-4"	4'-0"
5"	5'-0"	4'-2"	5'-0"
6"	6'-0"	5'-0"	6'-0"
7"	7'-0"	5'-10"	7'-0"
8"	8'-0"	6'-8"	8'-0"

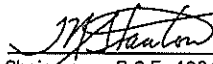
TYPE A-1 AND B-1 CURB RAMPS

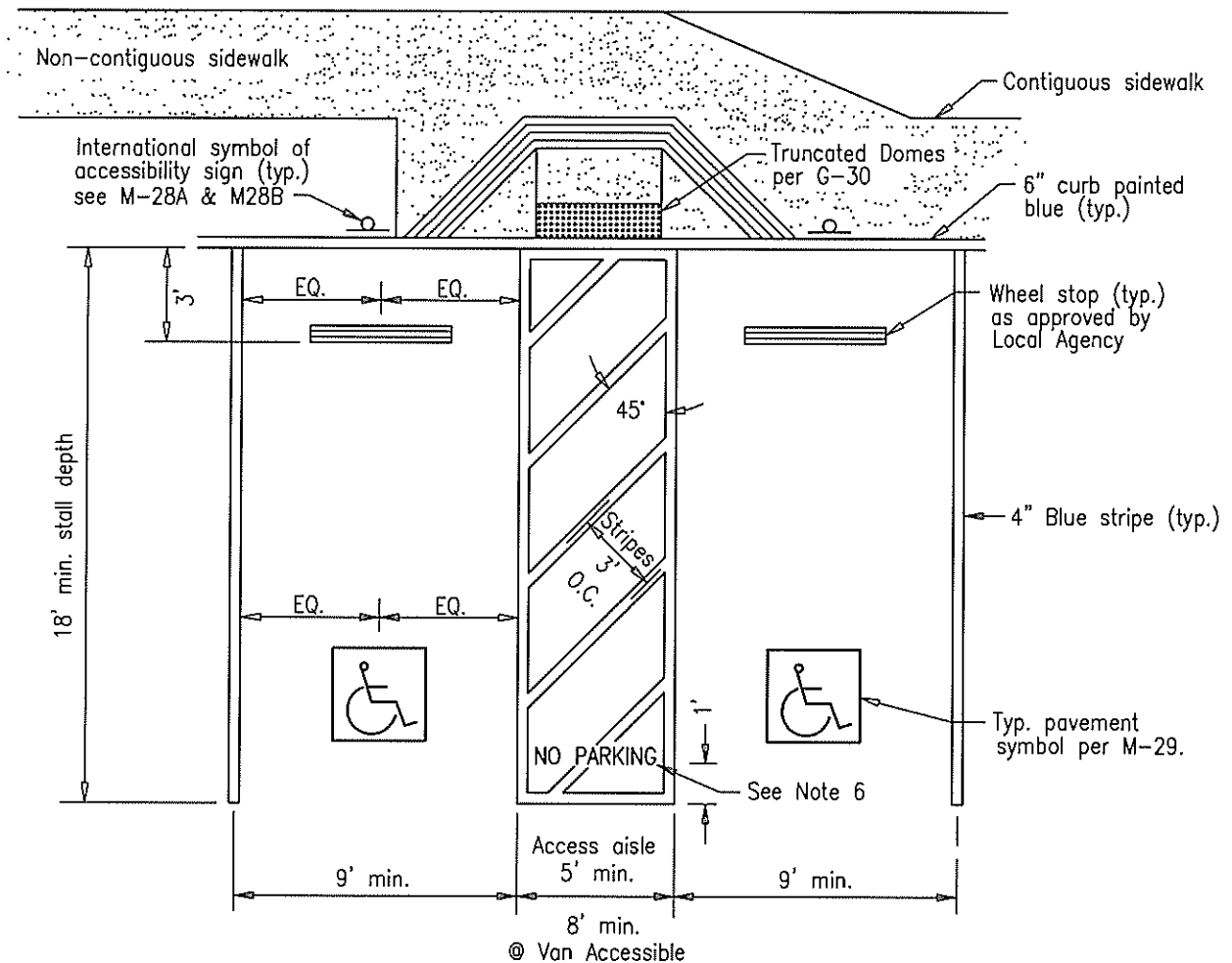
TABLE C	
X	CT
CURB HEIGHT	CURB TRANS. (12:1)
4"	4'-0"
5"	5'-0"
6"	6'-0"
7"	7'-0"
8"	8'-0"
9"	9'-0"
10"	10'-0"
11"	11'-0"
12"	12'-0"
13"	13'-0"

TYPE C CURB RAMP

NOTES

1. DIMENSIONS X, Y, Z, Z1, AND CT MAY BE DETERMINED BY USING THE TABLES ON THIS SHEET WITH PRIOR AGENCY APPROVAL. WITHOUT AGENCY APPROVAL, DIMENSIONS SHOULD NOT EXCEED THE MAXIMUM SLOPE OR RATIO PROVIDED.
2. Z* REFERS TO Z OR Z1 IN TABLE B. Z SIDE SLOPE SHALL BE 10:1, EXCEPT PER NOTE 3.
3. FOR TYPE A-1 AND B-1 CURB RAMPS, WHERE A 4' LANDING CANNOT BE CONSTRUCTED DUE TO INADEQUATE RIGHT OF WAY, A 3' MINIMUM LANDING IS ACCEPTABLE WITH PRIOR AGENCY APPROVAL AND PROVIDED THE SIDE SLOPES ARE REVISED TO 12:1 PER SIDE SLOPE Z1 IN TABLE B.

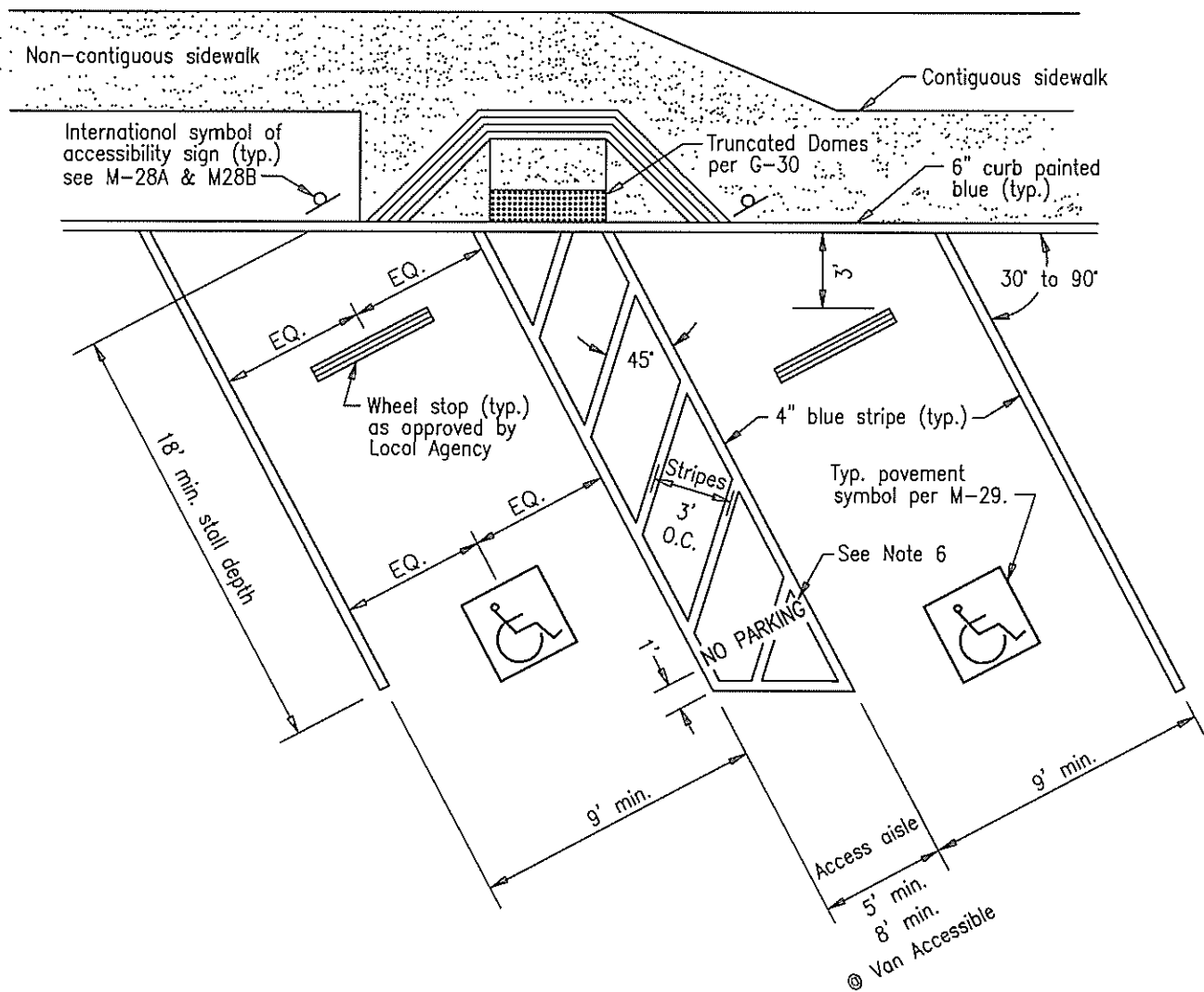
Revision	By	Approved	Date	SAN DIEGO REGIONAL STANDARD DRAWING NOTES FOR CURB RAMPS	RECOMMENDED BY THE SAN DIEGO REGIONAL STANDARDS COMMITTEE  12/17/2015 Chairperson R.C.E. 19246 Date	
ORIGINAL	MR	MR/CV	03/12		DRAWING NUMBER	G-32B
UPDATED	CV	CV	12/15			



NOTES:

1. Provide for adequate drainage.
2. For appropriate ramp alternate to conform to topographical conditions, see standard drawings G-27 through G-32B.
3. Blue color should match color No. 15090 in the Federal Standard 595a as specified in Section 522(b)2.
4. If only one accessible parking stall is going to be provided, the access aisle shall be 8' (van accessible) and located on the passenger side.
5. Sidewalk cross slope shall not exceed 2.0%.
6. "NO PARKING" 12" high stencil marking, reflective white over blue stripes.

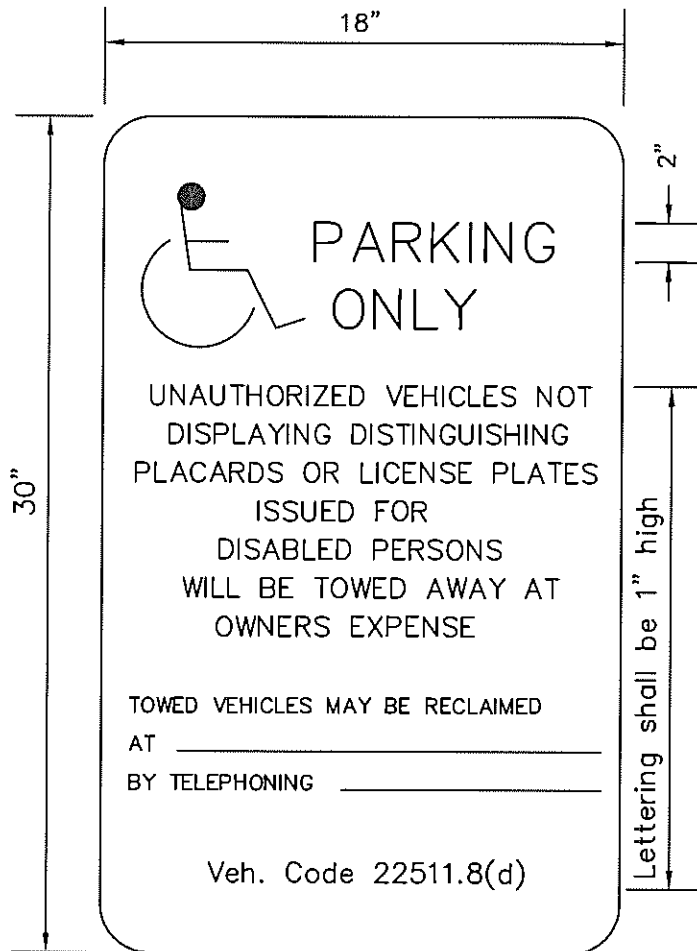
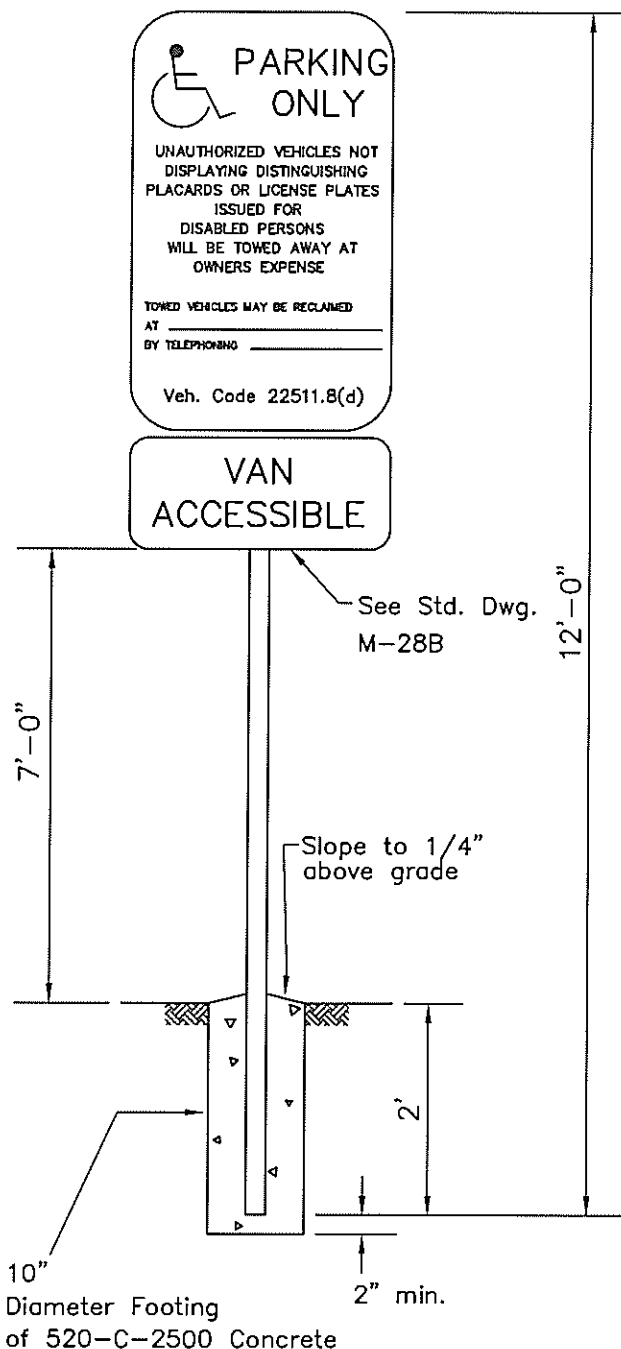
Revision	By	Approved	Date	SAN DIEGO REGIONAL STANDARD DRAWING		RECOMMENDED BY THE SAN DIEGO REGIONAL STANDARDS COMMITTEE	
Updated		D. Gerschoffer	15-Dec			<i>M. Stanton</i> 12/17/2015	
				DISABLED PARKING STALL(S)		Chairperson R.C.E. 19246 Date	
						DRAWING NUMBER	
						M-27A	



NOTES:

1. Provide for adequate drainage.
2. For appropriate ramp alternate to conform to topographical conditions, see standard drawings G-27 through G-32B.
3. Blue color should match color No. 15090 in the Federal Standard 595a as specified in Section 522(b)2.
4. If only one accessible parking stall is going to be provided, the access aisle shall be 8' (van accessible) and located on the passenger side.
5. Sidewalk cross slope shall not exceed 2.0%.
6. "NO PARKING" 12" high stencil marking, reflective white over blue stripes.

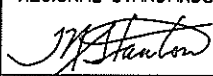
Revision	By	Approved	Date	SAN DIEGO REGIONAL STANDARD DRAWING		RECOMMENDED BY THE SAN DIEGO REGIONAL STANDARDS COMMITTEE	
Updated		D. Gerschoffer	15-Dec			<i>[Signature]</i> 12/17/2015	
				DIAGONAL DISABLED PARKING STALL(S)		Chairperson R.C.E. 19246	Date
						DRAWING	M-27B
						NUMBER	

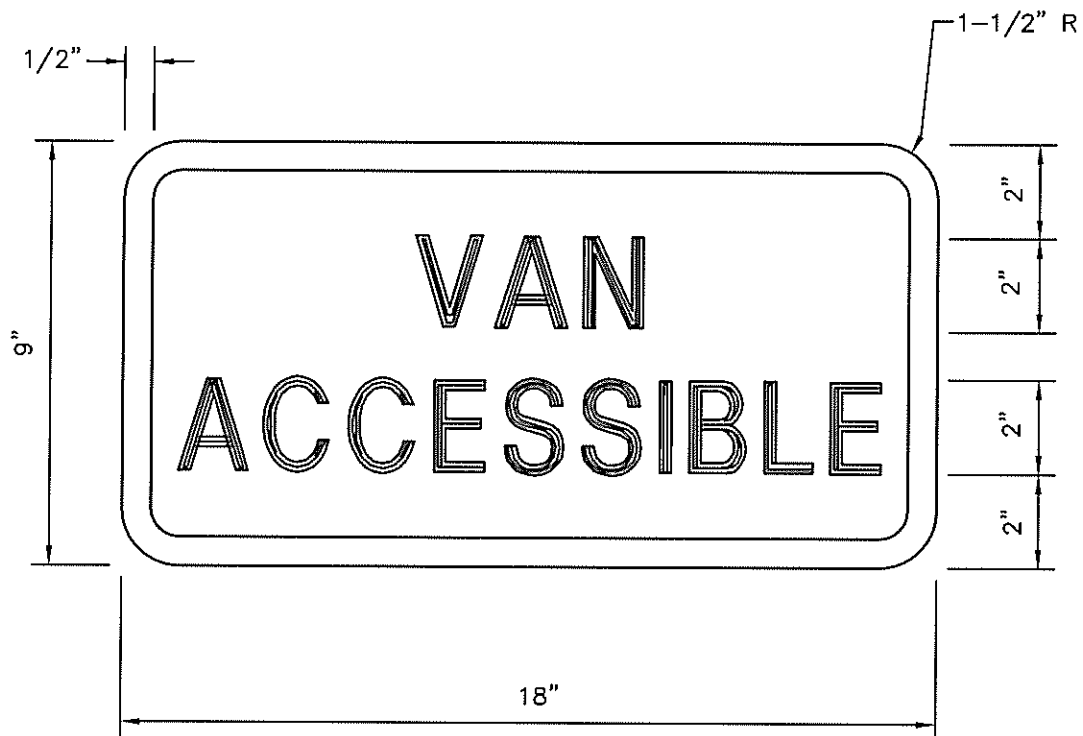


SIGN DETAIL

NOTES:


1. Sign shall be constructed of a minimum 0.062" thick aluminum.
2. Lettering, symbol and border shall be reflectorized white, on a blue background.
3. Lettering shall be 1" and 2" high.
4. Where space is designed for van accessibility, a sign "VAN ACCESSIBLE" shall be installed.
5. Minimum van accessible vertical clearance is 8'-2".

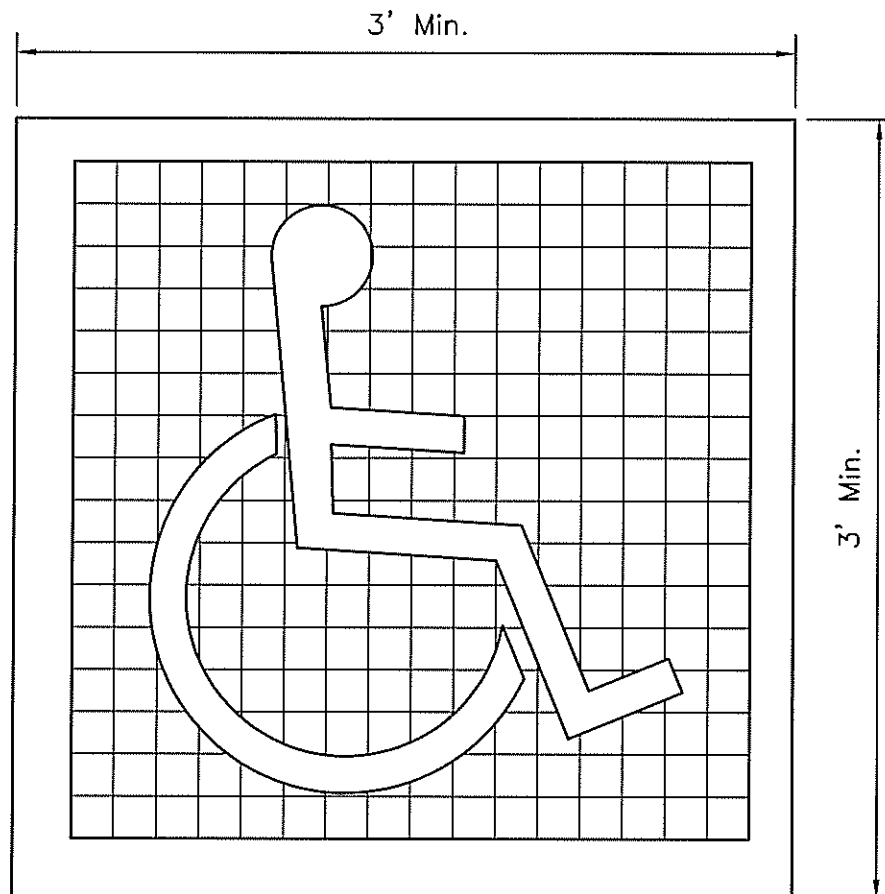
Revision	By	Approved	Date	SAN DIEGO REGIONAL STANDARD DRAWING	RECOMMENDED BY THE SAN DIEGO REGIONAL STANDARDS COMMITTEE
Updated		D. Gerachoff	15-Dec		
				DISABLED PARKING SIGN	 12/17/2015 Chairperson R.C.E. 19246 Date
					DRAWING NUMBER M-28A



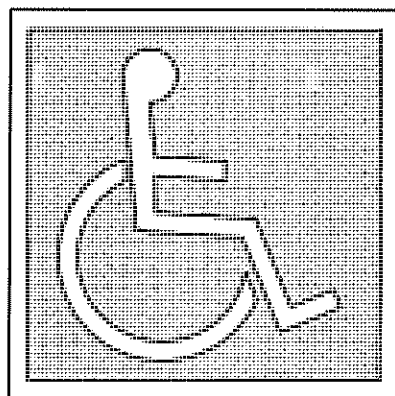
NOTES

1. Sign shall be constructed of aluminum, 0.062" minimum thickness.
2. Colors: Background—Reflectorized Blue
 Border and letters— Reflectorized White
 Blue color shall match color No. 15090 in the
 Federal Standard 595a as specified in Section 522(b)2.

Revision	By	Approved	Date	SAN DIEGO REGIONAL STANDARD DRAWING	RECOMMENDED BY THE SAN DIEGO REGIONAL STANDARDS COMMITTEE
Updated		D. Gerschoffer	15-Dec		
				VAN ACCESSIBLE SIGN FOR DISABLE PARKING SPACE	 12/17/2015 Chairperson R.C.E. 19246 Date
					DRAWING NUMBER M-28B



(a) SYMBOL PROPORTIONS



INTERNATIONAL SYMBOL
OF ACCESSIBILITY

(b) DISPLAY CONDITIONS

NOTES

1. Pavement symbol shall be painted white on a blue background.
2. Blue color shall match color No. 15090 in the Federal Standard 595a as specified in Section 522(b)2.

Revision	By	Approved	Date	SAN DIEGO REGIONAL STANDARD DRAWING		RECOMMENDED BY THE SAN DIEGO REGIONAL STANDARDS COMMITTEE	
Updated		D. Gerschoffer	15-Dec			<i>M. Stanton</i> 12/17/2015	
				PAVEMENT SYMBOL- DISABLED PARKING		Chairperson R.C.E. 19246	Date
						DRAWING NUMBER	M-29