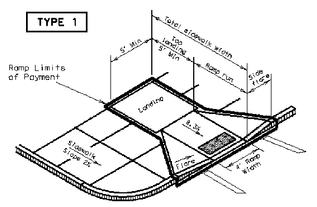
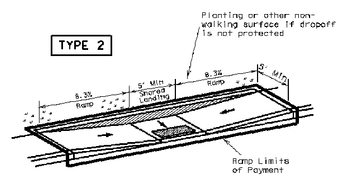
TYPE 1



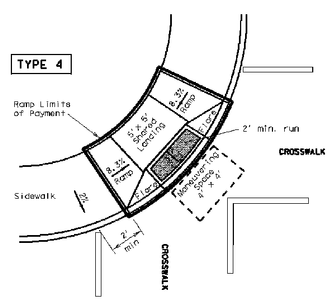
PERPENDICULAR CURB RAMP

TYPE 2



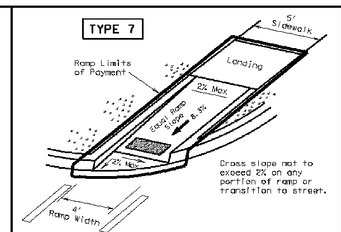
PARALLEL CURB RAMP
(Use only where water will not pond in the landing.)

TYPE 4



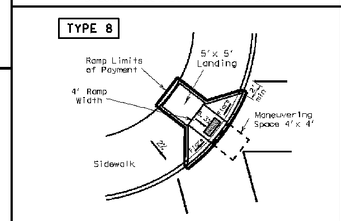
DIAGONAL COMBINATION CURB RAMP
Perpendicular to the Tangent of the Curb Radius and Contained in Crosswalk

TYPE 7



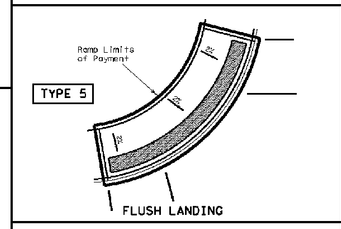
DIRECTIONAL RAMP WITHIN RADIUS
(Sidewalk set back from curb)

TYPE 8



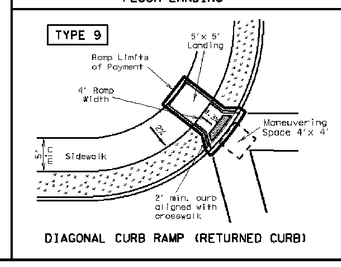
DIAGONAL CURB RAMP (FLARED SIDES)

TYPE 5



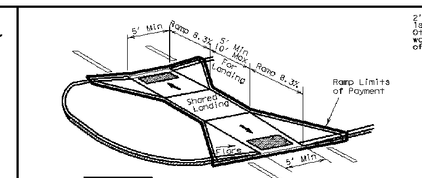
FLUSH LANDING

TYPE 9

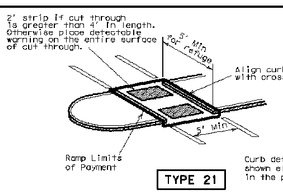


DIAGONAL CURB RAMP (RETURNED CURB)

TYPE 20

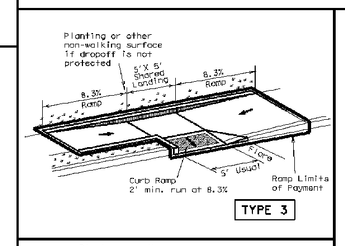


TYPE 21

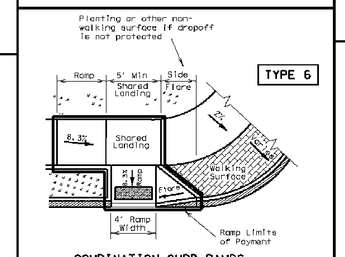


CURB RAMPS AT MEDIAN ISLANDS

TYPE 3

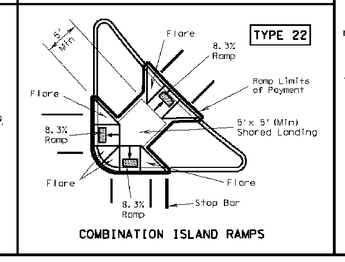


TYPE 6



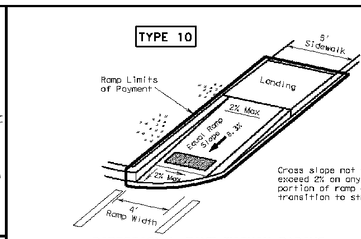
COMBINATION CURB RAMPS

TYPE 22



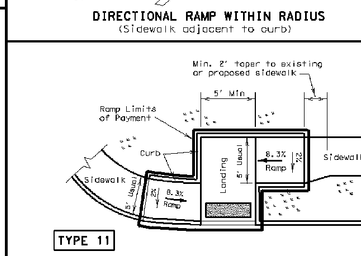
COMBINATION ISLAND RAMPS

TYPE 10



DIRECTIONAL RAMP WITHIN RADIUS
(Sidewalk adjacent to curb)

TYPE 11



OFFSET PARALLEL CURB RAMP

NOTES:
See General Notes on sheet 2 of 4 for more information.

~ Denotes planting or non-walking surface.

Texas Department of Transportation (Design Division (Roadway))

PEDESTRIAN FACILITIES
CURB RAMPS

PED-05

SHEET 1 OF 4

FILE:	ped05.dgn	DN: TX	CK:	DW: BSD	CK:
© TxDOT March 2002		DIST	FEDERAL AID PROJECT		SHEET
REVISIONS					
		COUNTY	CONTROL	SECT	JOB	HIGHWAY

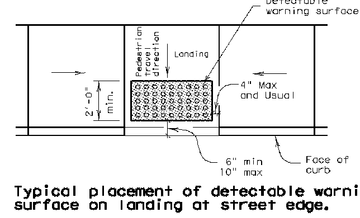
DISCLAIMER:
The use of this standard is governed by the "Texas Engineering Practice Act". No warranty is made by the Texas Department of Transportation for any purpose whatsoever. The Texas Department of Transportation assumes no responsibility for the accuracy or any use of or reliance upon the information contained herein.

USER NOTES:

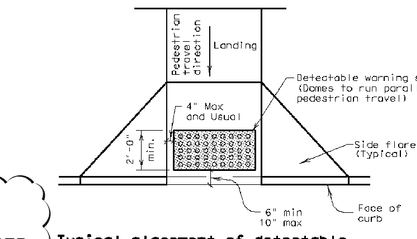
General Notes for Detectable Warnings

1. Curb ramps must contain a detectable warning surface that consists of raised truncated domes complying with Section 4.29 of the Texas Accessibility Standards (TAS). The surface must contrast visually with adjoining surfaces, including side flares. Furnish dark brown or dark red detectable warning surfaces adjacent to uncolored concrete, unless specified elsewhere in the plans.
2. Detectable warning surfaces must be slip resistant and not allow water to accumulate.
3. Align truncated domes in the direction of pedestrian travel when entering the street.
4. Shaded areas on Sheet 1 of 4 indicate the approximate location for the detectable warning surface for each curb ramp type.
5. Detectable warning surfaces shall be a minimum of 24" in depth in the direction of pedestrian travel, and extend the full width of the curb ramp or landing where the pedestrian access route enters the street.
6. Detectable warning surfaces shall be located so that the edge nearest the curb line is a minimum of 6" and a maximum of 10" from the extension of the face of curb. Detectable warning surfaces may be curved along the corner radius.
7. TxDOT maintains a list of Qualified Detectable Warning Materials. Details are provided herein for the placement of landscape pavers. For other materials, refer to the manufacturer's product manual for proper installation.

DETECTABLE WARNINGS

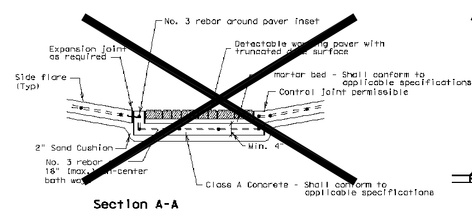


Typical placement of detectable warning surface on landing at street edge.

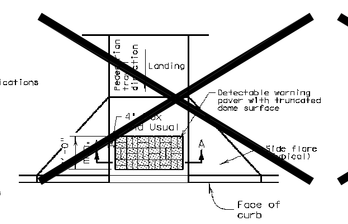


Typical placement of detectable warning surface on sloping ramp run.

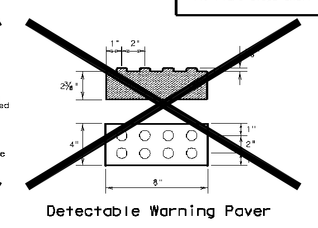
NOTE:
USE CITY OF ROCKWALL STANDARDS FOR DETECTABLE WARNING SURFACE ON BARRIER FREE RAMPS.



Section A-A



Truncated Dome Pattern Curb Ramp



Detectable Warning Paver

General Notes (Pavers)

Furnish detectable warning paver units meeting all requirements of ASTM C-936, C-33. Lay in a two by two unit basket weave pattern or as directed.

Lay full-size units first followed by pleasure units consisting of at least 25 percent of a full unit. Cut detectable warning paver units using a power saw.

DETECTABLE WARNING PAVER (OPTION)

Pedestrian Facilities General Notes

1. All slopes are maximum allowable. The least possible slope that will still drain properly should be used. Adjust curb ramp length or grade of approach sidewalks as directed.
2. The minimum sidewalk width is 5'. Where the sidewalk is adjacent to the back of curb, a 6" sidewalk width is encouraged. Where a 5' sidewalk can not be provided due to site constraints, a minimum 3' sidewalk with 5' x 5' passing areas at intervals not to exceed 200' is required.
3. Landings shall be 5'x 5' minimum with a maximum 2% slope in any direction.
4. Maneuvering space at the bottom of curb ramps shall be a minimum of 4'x 4' wholly contained within the crosswalk and wholly outside the parallel vehicular travel path.
5. Maximum allowable cross slope on sidewalk and curb ramp surfaces is 2%.
6. Curb ramps with returned curbs may be used only where pedestrians would not normally walk across the ramp, either because the adjacent surface is planting or other non-walking surface or because the side approach is substantially obstructed. Otherwise, provide flared sides.
7. Additional information on curb ramp location, design, light reflective value and texture may be found in the current edition of the Texas Accessibility Standards (TAS) and 16 TAC §68.102.
8. To serve as a pedestrian refuge area, the median should be a minimum of 5' wide. Medians should be designed to provide accessible passage over or through them.
9. Small channelization islands, which do not provide a minimum 5'x 5' landing at the top of curb ramps, shall be cut through level with the surface of the street.
10. Crosswalk dimensions, crosswalk markings and stop bar locations shall be as shown elsewhere in the plans. At intersections where crosswalk markings are not required, curb ramps shall be aligned with theoretical crosswalks, or as directed by the Engineer.
11. Existing features that comply with TAS may remain in place unless otherwise shown on the plans.
12. Handrails are not required on curb ramps. Provide curb ramps wherever an accessible route crosses (penetrates) a curb.
13. Curb ramps and landings shall be constructed and paid for in accordance with Item 531 "Sidewalks".
14. Separate curb ramp and landings from adjacent sidewalk and any other elements with premold or board joint of ¾" unless otherwise directed by the Engineer.
15. Provide a smooth transition where the curb ramps connect to the street.
16. Curbs shown on sheet 1 within the limits of payment are considered part of the curb ramp for payment, whether it is concrete curb, gutter, or combined curb and gutter.
17. Flare slope shall not exceed 10% measured along curb line.

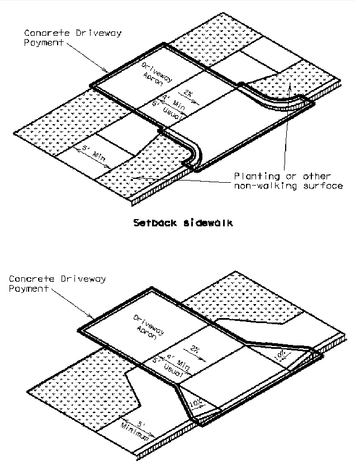
Texas Department of Transportation (Design Division (Roadway))

PEDESTRIAN FACILITIES
GENERAL NOTES AND DETECTABLE WARNINGS

PED-05

SHEET 2 OF 4

FILE:	ped05.dgn	DN: TX	CK:	DW: BSD	CK:
© TxDOT March 2002		DIST	FEDERAL AID PROJECT		SHEET
REVISIONS					
		COUNTY	CONTROL	SECT	JOB	HIGHWAY



Setback sidewalk

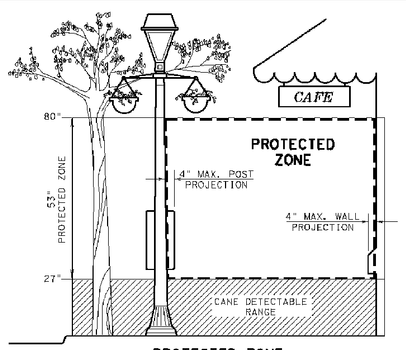
Apron offset sidewalk

Wide sidewalk

Ramp sidewalk

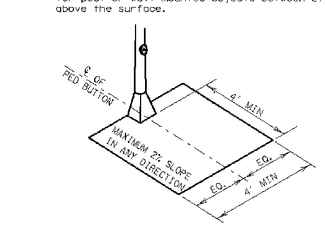
* (If curb height is greater than 6 inches, use grade less than or equal to 5%. Handrail and detectable warning not required.

SIDEWALK TREATMENT AT DRIVEWAYS

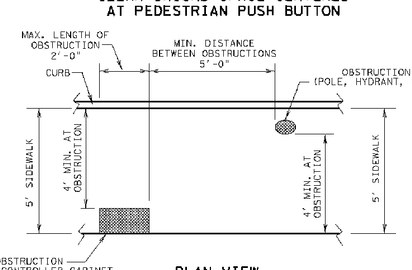


PROTECTED ZONE

In pedestrian circulation area, maximum 4" projection for post or wall mounted objects between 27" and 80" above the surface.



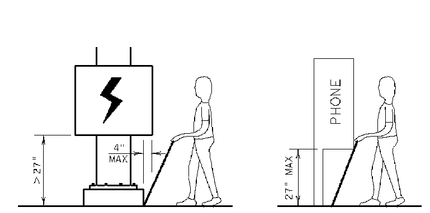
CLEAR GROUND SPACE CENTERED AT PEDESTRIAN PUSH BUTTON



PLAN VIEW
PLACEMENT OF STREET FIXTURES
(ITEMS NOT INTENDED FOR PUBLIC USE. MINIMUM 4' x 4' CLEAR GROUND SPACE REQUIRED AT PUBLIC USE FIXTURES.)

General Notes

1. All slopes are maximum allowable. The least possible slope that will still drain properly should be used.
2. Poles, traffic signal or illumination poles, ground boxes, controller boxes, signs, drainage facilities and other items so as not to obstruct the accessible route or clear ground space.
3. Usual sidewalk cross slope equals 1.5%. The maximum allowable sidewalk cross slope equals 2%.
4. Street grades and cross slopes shall be as shown elsewhere in the plans.
5. Existing features that comply with TAS may remain in place unless otherwise shown on the plans.
6. Changes in level greater than ¼inch are not permitted.
7. The least possible grade should be used to maximize accessibility. The running slope of sidewalks and crosswalks that the public right of way may follow the grade of the parallel roadway. Where a continuous grade greater than 5% must be provided, handrails may be desirable on each or both sides of a sidewalk to improve accessibility. Handrails may also be needed to protect pedestrians from potentially hazardous conditions. If provided, handrails must comply with TAS 4.8.5.
8. Handrail extensions shall not protrude into the usable landing area or into intersecting pedestrian routes.
9. Driveways and turnouts shall be constructed and paid for in accordance with Item, "Driveways and Turnouts". Sidewalks shall be constructed and paid for in accordance with Item, "Sidewalks".
10. Sidewalk details are shown elsewhere in the plans.



When an obstruction of a height greater than 27" from the surface would create a protrusion of more than 4" into the pedestrian circulation area, construct additional curb or foundation at the bottom to provide a maximum 4" overhang.

DETECTION BARRIER FOR VERTICAL CLEARANCE < 80"

Protruding objects of a height ≤ 27" are detectable by cane and do not require additional treatment.

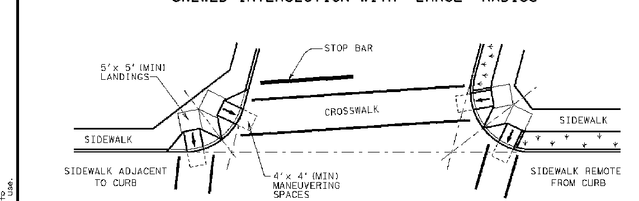
Texas Department of Transportation (Design Division (Roadway))

PEDESTRIAN FACILITIES
SIDEWALKS

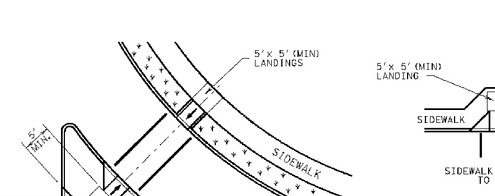
PED-05

SHEET 3 OF 4

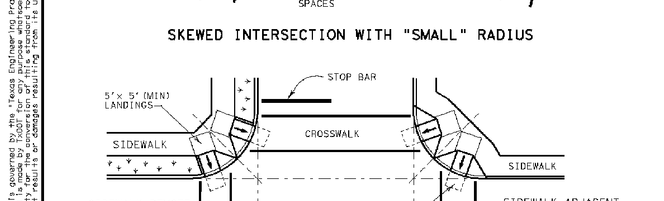
FILE:	ped05.dgn	DN: TX	CK:	DW: BSD	CK:
© TxDOT March 2002		DIST	FEDERAL AID PROJECTS		SHEET
REVISIONS					
		COUNTY	CONTROL	SECT	JOB	HIGHWAY



SKEWED INTERSECTION WITH "LARGE" RADIUS

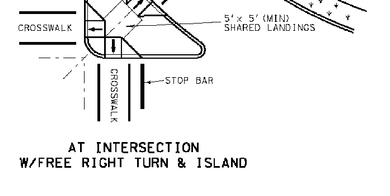


NORMAL INTERSECTION WITH "LARGE" RADIUS

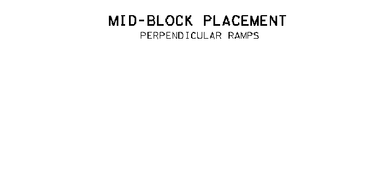


SKEWED INTERSECTION WITH "SMALL" RADIUS

NORMAL INTERSECTION WITH "SMALL" RADIUS



AT INTERSECTION
W/FREE RIGHT TURN & ISLAND



MID-BLOCK PLACEMENT
PERPENDICULAR RAMPS

TYPICAL CROSSING LAYOUTS
SEE SHEET 1 OF 4 FOR DETAILS AND DIMENSIONS

General Notes

1. Street grades and cross slopes shall be as shown elsewhere in the plans.
2. Ramps are shown here without detectable warnings for simplicity. Detectable warnings are required at the locations shown on the PED Standards (Sheets 1 and 2 of 4) and in accordance with the details shown below.
3. Small channelization islands, which can not provide a minimum 5' x 5' landing at the top of ramps, shall be cut through level with the surface of the street.

Texas Department of Transportation (Design Division (Roadway))

PEDESTRIAN FACILITIES
INTERSECTION LAYOUTS

PED-05

SHEET 4 OF 4

FILE:	ped05.dgn	DN: TX	CK:	DW: BSD	CK:
© TxDOT March 2002		DIST	FEDERAL AID PROJECT		SHEET
REVISIONS					
		COUNTY	CONTROL	SECT	JOB	HIGHWAY

REV.	DATE	REMARKS	BY

SITE DETAILS (2 OF 2)

MANSIONS SENIOR

CITY of ROCKWALL, TEXAS

RECORD DRAWING
RECORD INFORMATION PROVIDED BY CONASTER CONSTRUCTION, FORT WORTH, TEXAS
ELEVATION VERIFICATION PERFORMED BY SURVEY CONSULTANTS, INC., PLANO, TEXAS

STATE OF TEXAS
ROBERT K. MANAOIS
86508
LICENSED
PROFESSIONAL ENGINEER

RKM Consulting Engineers, Inc.
7616 LBJ Freeway, Suite 530
Dallas, Texas 75251
phone (214) 432-8070
fax (214) 432-8069
Copyright © 2009 RKM Consulting Engineers, Inc.

CHECKED	DESIGN	DRAWN	JOB	DATE	SCALE	SHEET
RKM	JRY	JRY	1026-005	02/18/09	N/A	20 OF 20