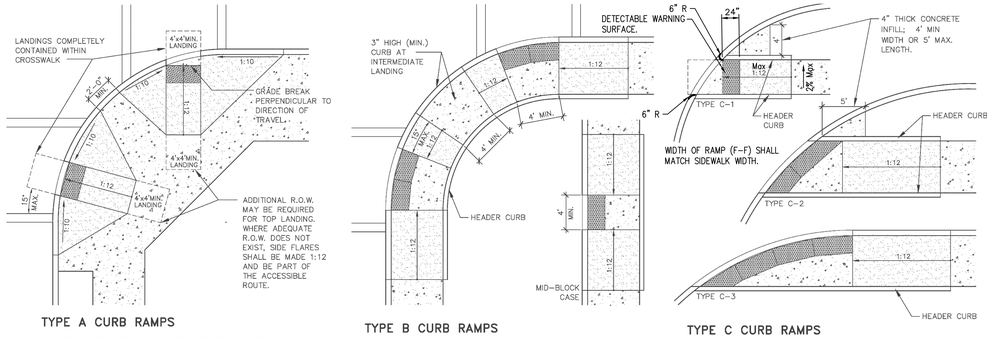


TYPE A CURB RAMPS

- CURB RAMPS PERPENDICULAR TO CURB OR TO DIRECTION OF TRAVEL. MAXIMUM DEVIATION FROM DIRECTION OF TRAVEL IS 15°.
- EXCEPT AT MID-BLOCK LOCATIONS, PAIRED SIMILAR TYPE A CURB RAMPS ARE PREFERRED; SINGLE TYPE A CORNER RAMPS AT 45° SERVING TWO DIRECTIONS MAY BE USED IN RETROFITS WITH LIMITED R.O.W. ONLY.

TYPE B CURB RAMPS

- PAIRED PARALLEL CURB RAMPS WITH SIDEWALK AT CURB FOR LIMITED R.O.W.
- 3" HIGH MID-LANDING ALLOWS RAMPS TO BE LOCATED CLOSER TO CORNER.
- CURVED RAMPS (SLOPES OVER 1:20) SHALL ONLY BE USED WITH AN INSIDE RADIUS GREATER THAN 30' OR SPANNING AN ANGLE OF LESS THAN 15°. GRADE BREAKS SHALL BE PERPENDICULAR TO THE DIRECTION OF TRAVEL.

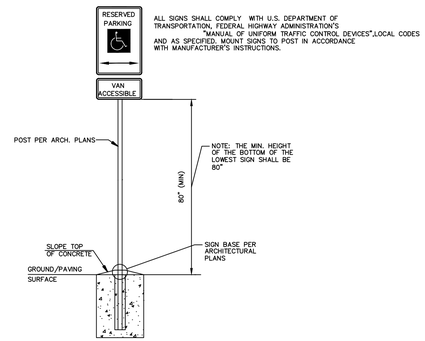
TYPE C CURB RAMPS

- UNIDIRECTIONAL PARALLEL CURB RAMPS WITH HEADER CURB.
- C-1 IS PREFERRED OVER C-2 WHERE ADEQUATE R.O.W. EXISTS. C-3 IS THE LEAST PREFERRED AND SHOULD ONLY BE USED WHERE NO OTHER ALTERNATIVE EXIST.
- SEE GENERAL NOTES REGARDING INSTALLATION OF TACTILE WARNING STRIPS.

GENERAL NOTES

1. THESE DRAWINGS PROVIDE GUIDANCE FOR COMPLIANCE WITH CITY STANDARDS, STATE CODES AND ADA STANDARDS AT THE TIME OF PUBLICATION, AND SHALL BE SUBORDINATE TO ALL SUBSEQUENT ADOPTED CODES AND STANDARDS.
2. ALL SLOPES SHOWN ARE THE MAXIMUM ALLOWABLE SLOPES. IF SLOPES CONSTRUCTED EXCEED THOSE SHOWN, THE WORK SHALL BE REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE. RAMP SLOPES OF 1:15 ARE RECOMMENDED TO ALLOW FOR CONSTRUCTION TOLERANCES WHERE FEASIBLE.
3. SURFACE TEXTURE OF CURB RAMPS AND SIDE FLARES SHALL BE A HEAVY BROOM FINISH, PERPENDICULAR TO EACH SLOPE, WITH A TEXTURE DEPTH OF .0625".
4. LANDINGS SHALL SLOPE TO DRAIN, AND HAVE A MAXIMUM SLOPE OF 2% (1% IS RECOMMENDED).
5. SIDE FLARES ARE A PART OF THE PATH OF TRAVEL AND SHALL HAVE A MAXIMUM SLOPE OF 1:10. FOR ALTERATIONS WHERE NO TOP LANDING IS POSSIBLE, SIDE FLAIRS SHALL BE A PART OF THE ACCESSIBLE ROUTE AND HAVE A MAXIMUM SLOPE OF 1:12.
6. TWO TYPE A CURB RAMPS ARE PREFERRED FOR NEW CONSTRUCTION, ALIGNED WITH THE SIDEWALK AND THE DIRECTION OF TRAVEL. DEPENDING ON R.O.W. AND CROSSWALK LOCATION, TYPE A PERPENDICULAR CURB RAMPS MAY BE ANGLED UP TO 15° OR OFFSET FROM THE CENTERLINE OF THE CROSSWALK. TYPE A SINGLE CORNER RAMPS ARE NOT PREFERRED EXCEPT IN MIDBLOCK LOCATIONS, OR IN CONSTRAINED RETROFIT APPLICATIONS.
7. ALL GRADE BREAKS AT ACCESSIBLE ROUTES SHALL BE PERPENDICULAR TO THE DIRECTION OF TRAVEL AND SHALL BE INDICATED BY A SCORE JOINT.
8. TACTILE WARNING STRIPS SHALL BE INSTALLED AT ALL CURB RAMPS AT STREET INTERSECTIONS, AND WHERE COMMERCIAL DRIVEWAYS PROVIDE YIELD OR STOP CONTROL, OR HAVE A CROSSING DISTANCE GREATER THAN 30'-0".
9. TACTILE WARNING STRIPS SHALL NOT SPAN ACROSS JOINT LINES OR CHANGES IN SLOPE
10. TACTILE WARNING STRIPS SHALL BE INSTALLED AT BACK OF CURB LINE, PERPENDICULAR TO THE DIRECTION OF TRAVEL. WHERE THE SEVERITY OF THE CORNER RADIUS WOULD REQUIRE ONE SIDE OF THE WARNING STRIP TO BE MORE THAN 5'-0" BEHIND THE BACK OF CURB, THE WARNING STRIP SHALL FOLLOW THE BACK OF CURB LINE AND BE CUT AND BEVELED TO REMAIN WITHIN 2" OF BACK OF CURB.
11. WHEN TWO CURB RAMPS ARE IMMEDIATELY ADJACENT, THE CURB EXPOSURE BETWEEN THE RAMPS MAY BE REDUCED TO 3" TO ALLOW FLEXIBILITY IN RAMP LOCATION.
12. WHERE HEADER CURB IS USED, IT SHOULD BE CLEARLY DELINEATED FROM THE PATH OF TRAVEL BY LANDSCAPE OR OTHER MEANS TO DISCOURAGE CROSS TRAFFIC.
13. WHERE CURB RAMPS ARE USED AS AN ACCESS POINT FOR CONSTRUCTION VEHICLES, THEY SHALL BE PROTECTED FROM DAMAGE AND CONSTRUCTED 6" THICK.
14. **DETECTABLE WARNING SURFACE SHALL BE CAST IN PLACE REPLACEABLE TYPE AND SHALL EXTEND FULL WIDTH OF OPENING. COLOR SHALL BE 'SAFETY YELLOW.**

NOTE: THE DETECTABLE WARNING SURFACE IS REFERRED TO AS A TACTILE WARNING STRIP IN THE GENERAL NOTES.

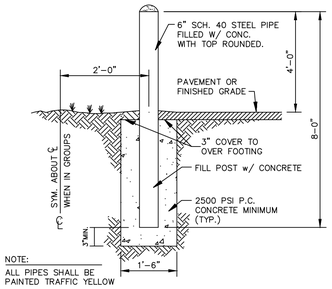


H/C Sign Detail

NTS

Precast Concrete Wheel Stop

NTS

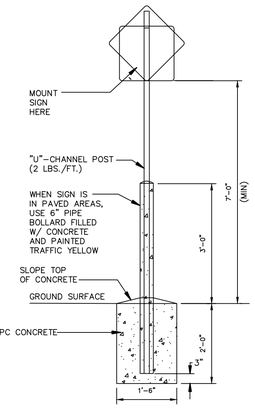


NOTE:
ALL PIPES SHALL BE PAINTED TRAFFIC YELLOW

Pipe Bollard Detail

NTS

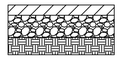
ALL SIGNS SHALL COMPLY WITH U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION'S "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES", LOCAL CODES AND AS SPECIFIED. MOUNT SIGNS TO POST IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.



Standard Sign Base

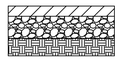
NTS

AUTOMOBILE PARKING AREA PAVEMENT (PARKING SPACES ONLY)



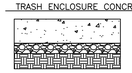
2" ASPHALTIC CONCRETE
4" AGGREGATE BASE COURSE
MIN. 12" COMPACTED SUBGRADE

INTERNAL DRIVEWAYS AND HEAVY DUTY PAVEMENT



3" ASPHALTIC CONCRETE
8" AGGREGATE BASE COURSE
MIN. 12" COMPACTED SUBGRADE

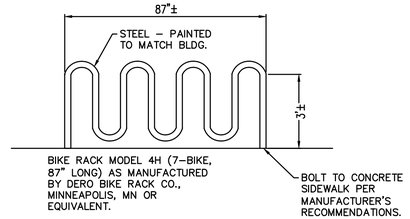
TRASH ENCLOSURE CONCRETE PAD



6" PORTLAND CEMENT CONCRETE W/ #4 BARS AT 12" C-C
8" AGGREGATE BASE COURSE
MIN. 12" COMPACTED SUBGRADE

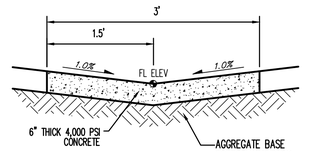
NOTE: REFERENCE GEOTECHNICAL REPORT BY EARTHWORKS ENGINEERING DATED 7/10/2015 FOR ADDITIONAL DETAILS AND SPECIFICATIONS OF PAVEMENT.

Pavement Sections



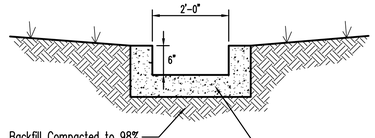
Bike Rack Detail

NTS



Valley Gutter Detail

NTS



Concrete Flume Detail

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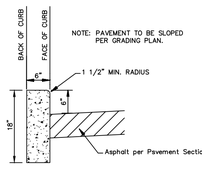

6"x18" Concrete Curb

NTS

STORM TRENCH INSTALLATION DETAIL

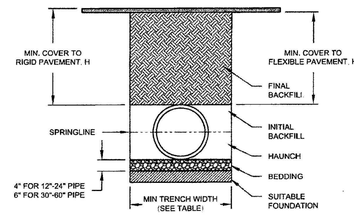

TABLE 1, RECOMMENDED MINIMUM TRENCH WIDTHS

PIPE DIAM.	MIN TRENCH WIDTH
12" (300mm)	30" (750mm)
15" (375mm)	34" (860mm)
18" (450mm)	39" (990mm)
24" (600mm)	48" (1200mm)
30" (750mm)	56" (1420mm)
36" (900mm)	64" (1620mm)
42" (1050mm)	72" (1830mm)
48" (1200mm)	80" (2030mm)
60" (1500mm)	96" (2440mm)

NOTES:

1. ALL PIPE SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS", LATEST ADDITION, WITH THE EXCEPTION THAT THE INITIAL BACKFILL MAY EXTEND TO THE CROWN OF THE PIPE. SOIL CLASSIFICATIONS ARE PER THE LATEST VERSION OF ASTM D2321, CLASS IVB MATERIALS (MH, CH) AS DEFINED IN PREVIOUS VERSIONS OF ASTM D2321 ARE NOT APPROPRIATE BACKFILL MATERIALS.
2. MEASURES SHOULD BE TAKEN TO PREVENT MIGRATION OF NATIVE FINES INTO BACKFILL MATERIAL, WHEN REQUIRED.
3. FOUNDATION: WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE ENGINEER. AS AN ALTERNATIVE AND AT THE DISCRETION OF THE DESIGN ENGINEER. THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL.
4. BEDDING: SUITABLE MATERIAL SHALL BE CLASS I, II,OR III. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. COMPACTION SHALL BE 90% OF MAXIMUM DENSITY PER ASTM D1557 OR AS SHOWN ON THE PLANS. UNLESS OTHERWISE NOTED BY THE ENGINEER, MINIMUM BEDDING THICKNESS SHALL BE 4" (100mm) FOR 12"-24" (300mm-600mm) DIAMETER PIPE; 6" (150mm) FOR 30"-60" (750mm-900mm) DIAMETER PIPE. THE MIDDLE 1/3 BENEATH THE PIPE INVERT SHALL BE LOOSELY PLACED.
5. INITIAL BACKFILL: SUITABLE MATERIAL SHALL BE CLASS I, II, OR III IN THE PIPE ZONE EXTENDING TO THE CROWN OF THE PIPE. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. MATERIAL SHALL BE INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION. FOR TRAFFIC APPLICATIONS; CLASS I, II OR III MATERIAL SHALL BE COMPACTED TO A DENSITY OF NOT LESS THAN 90 PERCENT OF MAXIMUM DENSITY PER ASTM D1557. CLASS IV MATERIALS AS DEFINED IN ASTM D2321 ARE NOT APPROPRIATE BACKFILL MATERIALS.
6. MINIMUM COVER: MINIMUM COVER, H, IN NON-TRAFFIC APPLICATIONS (GRASS OR LANDSCAPE AREAS) IS 12" (300mm) FROM THE TOP OF PIPE TO GROUND SURFACE. ADDITIONAL COVER MAY BE REQUIRED TO PREVENT FLOTATION. FOR TRAFFIC APPLICATIONS, MINIMUM COVER, H, IS 12" (300mm) UP TO 48" (1200mm) DIAMETER PIPE AND 24" (600mm) OF COVER FOR 60" (1500mm) DIAMETER PIPE, MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT.

TABLE 2, MINIMUM RECOMMENDED COVER BASED ON VEHICLE LOADING CONDITIONS

	SURFACE LIVE LOADING CONDITION	
PIPE DIAM.	H-25	HEAVY CONSTRUCTION (75T AXLE LOAD) *
12" - 48" (300mm - 1200mm)	12" (300mm)	48" (1200mm)
60" (1500mm)	24" (600mm)	60" (1500mm)

* VEHICLES IN EXCESS OF 75T MAY REQUIRE ADDITIONAL COVER

THE INSTALLATION DETAILS PROVIDED HEREIN ARE GENERAL RECOMMENDATIONS AND ARE NOT SPECIFIC FOR THIS PROJECT. THE DESIGN ENGINEER SHALL REVIEW THESE DETAILS PRIOR TO CONSTRUCTION. IT IS THE DESIGN ENGINEERS RESPONSIBILITY TO ENSURE THE DETAILS PROVIDED HEREIN MEETS OR EXCEEDS THE APPLICABLE NATIONAL, STATE OR LOCAL REQUIREMENTS AND TO ENSURE THAT THE DETAILS PROVIDED HEREIN ARE ACCEPTABLE FOR THIS PROJECT.

COA HP PP STORM TRENCH INSTALLATION DETAIL

DRAWN BY: ABC
APP'D: DATE:
APP'D BY: ENG
SCALE: NTS
SHEET OF

Sept

No	Revision Item	Date

SCOTT C. ANDERSON & associates architects
7604 rio penasco nw
albuquerque, nm 87120
andersonscott@comcast.net
505.401.7575

COMMERCIAL & APARTMENT BUILDING PHASE 1
4419 4th ST NW
ALBUQUERQUE, NM 87107

DRAWING TITLE

Site Details

SEAL: JEFFREY TODD WOOTEN, NEW MEXICO, 16892, PROFESSIONAL ENGINEER
11/23/2015

DESIGNED	JTW
DRAWN	JTW
CHECKED	JTW
REVIEWED	JTW
DATE	10/5/15

PROJECT NO: WE2014059
SCALE: See Plan
DRAWING NO: C6 OF 6

Wooten Engineering
1005 21st Street SE, Suite B1
Rio Rancho, N.M. 87124
Phone: (505) 980-3560