



CITY OF TUCSON

Department of Transportation
Permit Center

201 N. Stone Ave., 4th Floor
Tucson, AZ 85701 (520) 791-5100

RIGHT OF WAY PERMIT ACTIVITY NO. T20RW01035

Start Date: 02/20/2020

Expiration Date: 03/21/2020

Traffic Time: 9:00 AM - 3:30 PM **24 Hour:** N **Weekend:** N **Other:** N

Address: 902 N 10TH AV TUC

Township-Range-Section: 14-13E-12

Work Order #:

Location: STONE / UNIVERSITY NW

Status: ISSUED

Type of Work: Combo

Description of Work:

4 WATER-HARVESTING BASINS AND PLANTINGS IN PUBLIC
RIGHT-OF-WAY ADJOINING STREET. 3 CURB CORE LEAVING MINIMUM
2" CLEARANCE OF SOLID CURB ABOVE CORE HOLE

Comments

APPLICANT NEIGHBORHOOD FORESTERS 02/19/2020 Phone: [REDACTED]
BRAD LANCASTER

License:

INSPECTOR AREA 1 02/19/2020 Phone: 520-400-6722
YOU SHALL CALL CITY OF TUCSON DOT INSPECTOR
TO ARRANGE A PRE-CONSTRUCTION MEETING

License: AREA-1

BARRICADE DESERT BARRICADES 02/19/2020 Phone: 520-219-2775
RENE OR MIKE
3536 N STONE
TUCSON AZ 85705

License: C000116086

CONTRACTOR DRYLAND DESIGN LLC 02/19/2020 Phone: 520-909-4946
3849 E BROADWAY BLVD # 275
TUCSON, AZ
JEFF RHODY 85716-5407

License: 300910

APPLICANT LITTLE JOHN EXCAVATING 02/19/2020 Phone: 520-730-9350
JOHN LITZEL

License:

By beginning the work approved by this permit the applicant agrees to all conditions listed below.

1. A copy of this permit shall be available on site for city review at all times.
2. All work shall conform to City of Tucson standards and specifications.
3. Notify in writing at least 5 working days before work begins, any businesses, residences and public transit routes affected by your temporary traffic control.
4. Notify City Communications (791-4144) at least 24 hours prior to closing any street or alley completely.
5. Notify SunTran (623-4301) at least 24 hours before starting work that will impact a transit stop or route.
6. Notify Environmental Services (791-3175) at least 24 hours prior to closing any street or alley completely.
7. Notify ParkTucson (791-5071) at least 24 hours before starting work for any parking restrictions that may occur in the boundaries of South_22nd, North_Speedway, West_Grande and East_Campbell.
8. Excavation work shall start within 30 days of permit issue date. Work shall be completed within 60 days of permit issue date.
9. Any damage to public or private property as a result of contractor's operations shall be restored in kind by contractor at no cost to the city.
10. Pavement patches shall be in accordance to PC/COT Standard Detail 216. Type "B" patches (concrete sub-base) are required for all streets shown on the City's major streets and routes plan and all inverted water carrying streets, see inspector for details.
11. All work conducted without obtaining the proper inspections, or prior approvals, from TDOT construction inspection, shall be subject to removal and replacement at no cost to the city.
12. At the end of each day, clean the roadway of excess dirt and debris.
13. Any attached plans represent a concept only and is subject to field review.
14. Keep a copy of your approved traffic control plan at the work site at all times.
15. The distance shown on the traffic control plan(s) are approximate and subject to adjustments in the field.
16. Category I and Category II work zone traffic control devices shall meet NCHRP Report 350 test and evaluation criteria.
17. Employees that are exposed to public vehicular traffic shall be provided with, and shall wear, warning vests or suitable garments marked with or made of reflectorized or highly visible material rated as Class 2 or above. The warning vests or suitable garments shall meet or exceed ANSI/ISEA 107-2004 Standard for High Visibility Warning Clothing.
18. Mark all unattended traffic and pedestrian hazards, including dumpster and mobile storage units, with type II barricades equipped with type A flashers.
19. Where it is relevant, equip all working and regulatory signs with highly visible flags and clean lights.
20. Place sandbags at the base of your signs and barricades to prevent them from being knocked over by traffic.
21. It is your responsibility to periodically examine traffic control devices and warning signs. Reset, correct or make any needed changes to those devices or signs.
22. "Share the Road with Care" signs are required for roadways that contain striped lanes and/or multi-use paths designated for bike usage.
23. All trenches and excavations must be barricaded and fenced per MUTCD, Part 6 and Additions by the City to the MUTCD, Part 6 standards and guides. Please refer to the City of Tucson Right-Of-Way Permit for additional requirements.
24. As per City Ordinance No. 2657 - Section 25-13, a written permit is required from the City of Tucson Permits and Codes Section (791-5100) prior to cutting, trenching, excavating, improving or removing any object placed in a street, alley, public property or public right-of-way.
25. When sidewalk closures occur, sidewalks will be restricted on one side at a time with notification of sidewalk closure at corresponding intersections.
26. Requires the use of an arrow board for lane closures on collector and arterial streets.
27. ADVANCE WARNING SIGNS SHALL BE USED ON EVERY SETUP, including short term jobs that are less than 30 minutes to perform.
28. Approved for devices placed in City of Tucson right of way.
29. Hours are subject to change at the discretion of TDOT Engineering, based on impacts to an area. Contractor will be notified immediately for any changes that are required.

Special Conditions

**Neighborhood Foresters Community Rain and Tree Planting
in the Public Right-of-Way 2020**

Addresses where work will be done, property owner contacts, and work that will be done at each address

Neighborhood Foresters ID # with blue stake 108480

Trees to be 5-gallon size. Understory plantings to be 1-gallon size.

Dunbar/Spring Neighborhood

[REDACTED] *Name*

902 N. 10th Ave

Tucson, AZ 85705

[REDACTED] *phone*
[REDACTED] *email*

- Excavate and rock (using Catalina granite rock) banks of two basins along street (one in each corner of public right-of-way on south side of property) each 10' long x 5' wide x minimum 1 foot deep.
- Two 4"-diameter curb cores.
- Remove gravel from pedestrian footpath on west and south sides of property in public right-of-way – 140' x 20' area.
- Apply wood-chip mulch to surface of soil within basins. Not to exceed 6-inch depth in bottom of basin, nor 2-inch depth on planting terrace.

Vegetation to be planted:

1 blue palo verde, 1 desert ironwood, and 1 desert willow, 2 chuparosa, 2 desert honeysuckle, 2 desert lavender, 2 native fairy duster, 2 red justicia, 1 yerba de venado, 1 paperflower, 1 limberbush, native wildflower and Tucson Basin restoration seed mix to be sowed

Blue stake #2020010300498

Dunbar/Spring Neighborhood

[REDACTED] *Name*

948 N. 10th Ave

Tucson, AZ 85705

[REDACTED] *phone*
[REDACTED] *email*
[REDACTED]

- Excavate and rock (using Catalina granite rock) banks of one basin 6' wide x 12' long. (Leave minimum 5'-wide pedestrian access from street to public footpath between new basin and existing basin).
- One 4"-diameter curb core
- Apply wood-chip mulch to surface of soil within basins. Not to exceed 6-inch depth in bottom of basin, nor 2-inch depth on planting terrace.

Vegetation to be planted:

1 velvet mesquite, 1 screwbean mesquite, 1 seep willow, 1 mexican elderberry, 1 giant sacaton, 1 Hall's panic grass, 1 desert honeysuckle, 1 chuparosa, native wildflower and Tucson Basin restoration seed mix to be sowed

Blue stake #2020010300498

THE 236 W. UNIVERSITY BLVD ADDRESS IS THE ONLY ONE FOR WHICH WE NEED A BARRICADE/ TRAFFIC CONTROL PLAN

Dunbar/Spring Neighborhood

[REDACTED]

Name

[REDACTED]

236 W. University Blvd

[REDACTED]

phone

[REDACTED]

email

- Excavate and rock (using Catalina granite rock) banks of one basin 5' wide x 12' long x minimum 1' deep.
- (Use existing driveway dip for stormwater inlet).
- (Put large rock in small existing basin to side by property fence).
- (Careful with existing non-native mesquite tree's roots (native successor will be planted – but keep existing tree for now).
- Remove gravel from pedestrian footpath in public right-of-way – 15' x 45' area.
- Apply wood-chip mulch to surface of soil within basins. Not to exceed 6-inch depth in bottom of basin, nor 2-inch depth on planting terrace.

Vegetation to be planted:

1 velvet mesquite, 1 desert ironwood, 1 desert lavender, 1 chuparosa, 1 desert honeysuckle, 1 red justicia, 1 limberbush, 1 yierba de venado, 1 oreganillo, 1 paperflower, 1 native fairy duster, native wildflower and Tucson Basin restoration seed mix to be sowed

Blue stake #2020010600671

MUST HAVE FILLED OUT + SIGNED FORM FOR EVERY ADDRESS WHERE WORK IS BEING DONE.

Tree, Curb Core / Curb Cut, and Water-Harvesting Basin Maintenance Agreement

Name: _____

Address: _____

Phone: _____

Email: _____

☐ I am the home/property owner of the above address

☐ Other (explain): _____

I agree to properly maintain the curb core(s)/cut(s), water-harvesting basin(s), and vegetation planted in the public Right-of-Way (ROW), or common area in proximity to the above property for as long as I live at, or own this address, with the understanding that future owners and residents are also required to maintain landscaping planted in these areas per locally applicable ordinances. I will notify future owners of this if property is sold.

Maintenance includes:

- Maintaining healthy perennial vegetation within the water-harvesting basin to utilize and infiltrate the harvested stormwater. Includes any needed irrigation of vegetation.
- Pruning and weeding to ensure the vegetation does not cause any traffic-visibility hazards
- Pruning and weeding to maintain a continuous minimum 5'-wide walking path cleared to a minimum height of 7' for the entire length of the right-of-way.
- Maintaining *approved* walking-/baby carriage-friendly materials (includes compacted native soil) on public walkway. (*Unacceptable* materials that are not walking-/baby carriage-friendly include loose rock or gravel, decomposed granite larger than 3/8-inch particle size, coarse organic material (woodchip) mulch larger than 1-inch in size; or organic mulch thicker than 1-inch depth).
- Removing any invasive plants/weeds such as buffel grass (*Pennisetum ciliare*), fountain grass (*Pennisetum setaceum*), Bermuda grass (*Cynodon dactylon*), and tumbleweed from the area.
- Removing litter.
- Keeping the curb-core hole or curb cut clear of debris to ensure street runoff flows freely into the adjoining basin
- Slope basin away from road to minimize water infiltrating under road bed.

Plant trees **AT LEAST 10 ft from sewer lines, 5 ft from water lines, and 3 ft from other utility lines.**
Do not plant under overhead lines. Do not plant in public Right-of-Way (ROW) without both a permit & Blue Stake clearance (dial 811 or (800) 782-5348).

I agree to hold the Dunbar/Spring Neighborhood Foresters, Trees for Tucson, the Dunbar/Spring Neighborhood Association, and all tree planters and organizers harmless for any liability associated with the curb coring, basins, or vegetation planting and maintenance.

Signature: _____

Date: _____

Q 236 W. University Blvd ✖

+

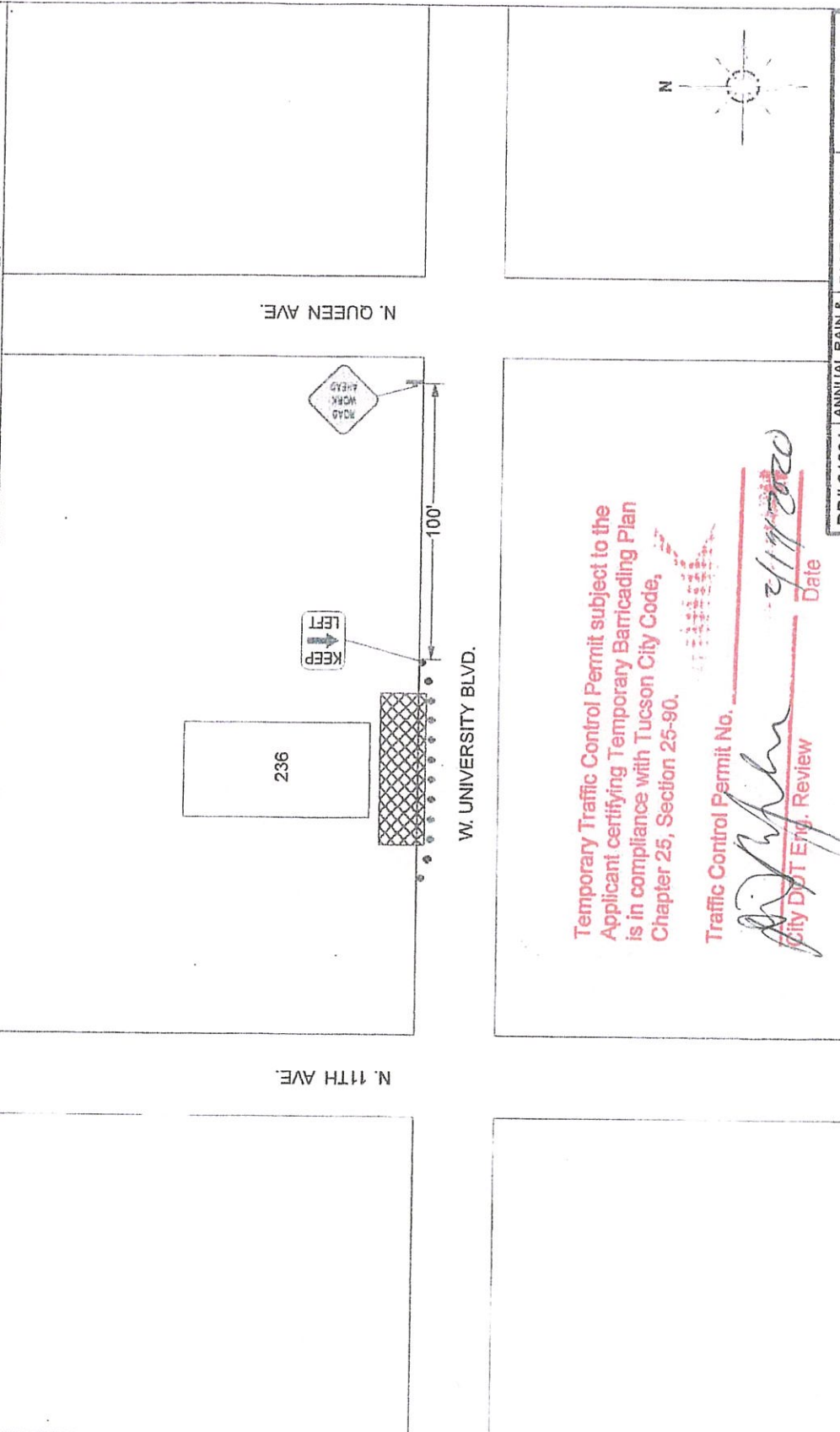
1



Co

236 W. UNIVERSITY BLVD.

THIS TRAFFIC CONTROL PLAN IS SUBMITTED BY DESERT BARRICADES, LLC AND IS SOLELY FOR THE USE OF DESERT BARRICADES, LLC ON THE PROJECT FOR WHICH IT WAS SUBMITTED. THE PLAN IS NOT TO BE USED OR DISTRIBUTED FOR USE BY ANY OTHER ENTITY OR ANY OTHER PROJECT LOCATION. DESERT BARRICADES, LLC DISCLAIMS ANY LIABILITY AND WARRANTY AS TO THE PLAN IF THE PLAN IS NOT IMPLEMENTED BY DESERT BARRICADES, LLC.



Temporary Traffic Control Permit subject to the Applicant certifying Temporary Barricading Plan is in compliance with Tucson City Code, Chapter 25, Section 25-90.

Traffic Control Permit No. _____

[Signature]
City DOT Eng. Review Date 2/19/2020

DRAWN BY: R. ANDRADE		SPEED LIMIT 25		LEGEND: Sign Symbol Vertical Panel/ cones Type 2 Type 3		PRE-WARNING SIGNS X 36" X 36" X 48" X 48" X DAYTIME ONLY X NIGHTTIME ONLY X LIGHTS ON ALL EQUIPMENT DRAWING NOT TO SCALE DATE: 2/6/20		NOTE: 1. ALL SIGN SPACING WILL BE AT 100'. 2. ALL VERTICAL PANELS WILL BE SPACED AT 40'. 3. ALL EQUIPMENT LEFT UP AFTER DARK SHALL HAVE LIGHTS AND SANDBAGS FOR BALLAST.		CONTRACTOR: NEIGHBORHOOD FORRESTER CONTACT: BRAD 275-8753 JOHN 730-9350 LOCATION: 236 W. UNIVERSITY BLVD. AGENCY: T.D.O.T. : TRAFFIC ENGINEERING	
DESERT BARRICADES, LLC 138 N STONE AVE, TUCSON, AZ 85703 PHONE: 520-795-1111 DESERTBARRICADES@DESERTBARRICADES.COM		POSTED SPEED 25		ANNUAL RAIN & TREE PLANTING DB# 61631 500E - 800W 200N - 1200N		TIME USAGE: AM TO PM ARTERIAL STREETS 7 AM TO 4 PM SURFACE STREETS 24 HOURS, PM TO AM					

**Neighborhood Foresters' Public-Right-of Way
Eddy-Style Water-Harvesting Basin Specifications
2-2020**

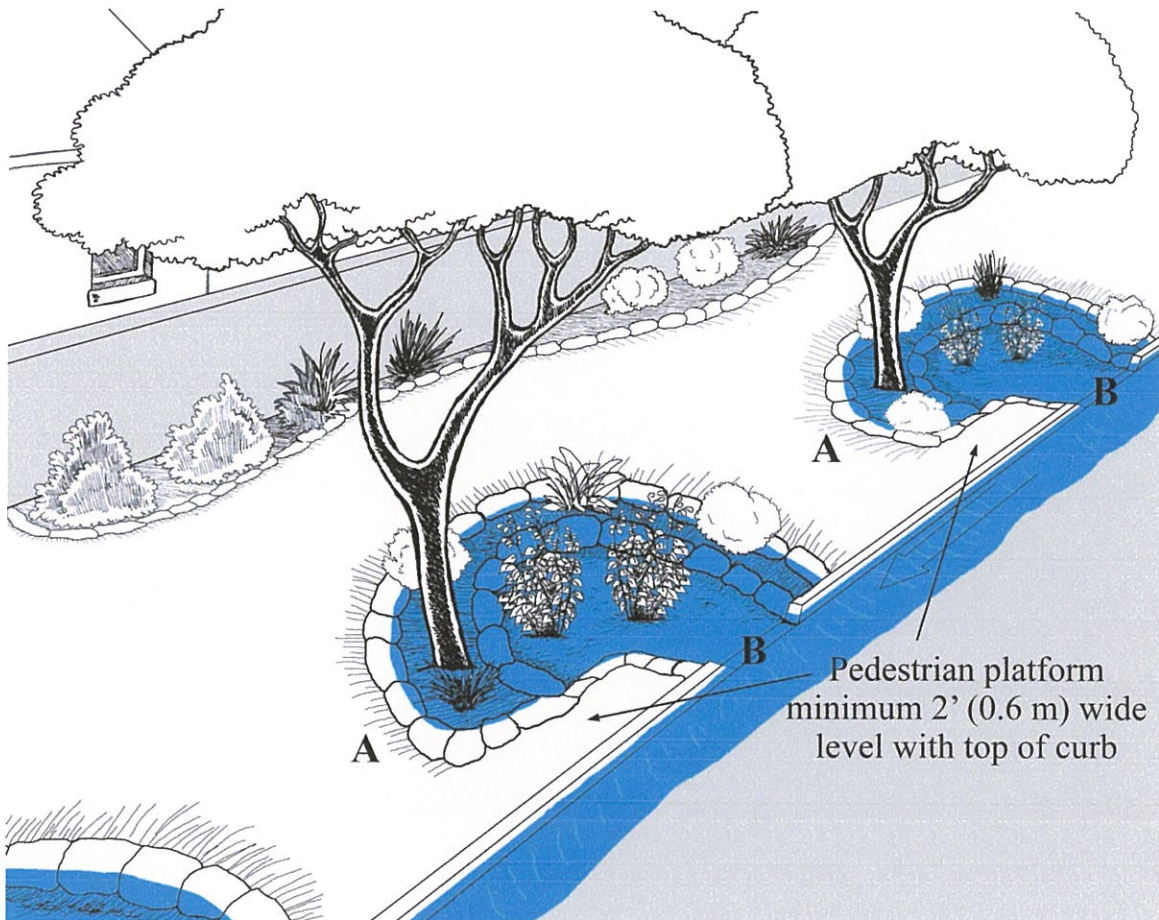


Figure 1. Eddy basin.

- Curb cut / core inlet must be on the upstream side of basin to maximize basin capacity, and prevent material from flowing out of basin.
- The upper edge of the farthest-downstream section of the basin (A) must be higher (ideally at least 4 inches higher) than the basin's curb cut or curb core inlet at street gutter (B).
- Must retain a minimum 2-foot wide pedestrian platform level with top of curb to enable passengers from parallel-parked cars to freely exit car and access public path.
- Must retain a minimum 5-foot wide pedestrian path between basins that connects with minimum 5-foot wide continuous pedestrian path parallel with street.

Arrow denotes water flow.

Image reproduced with permission from *Rainwater Harvesting for Drylands and Beyond, Volume 2, 2nd Edition* by Brad Lancaster

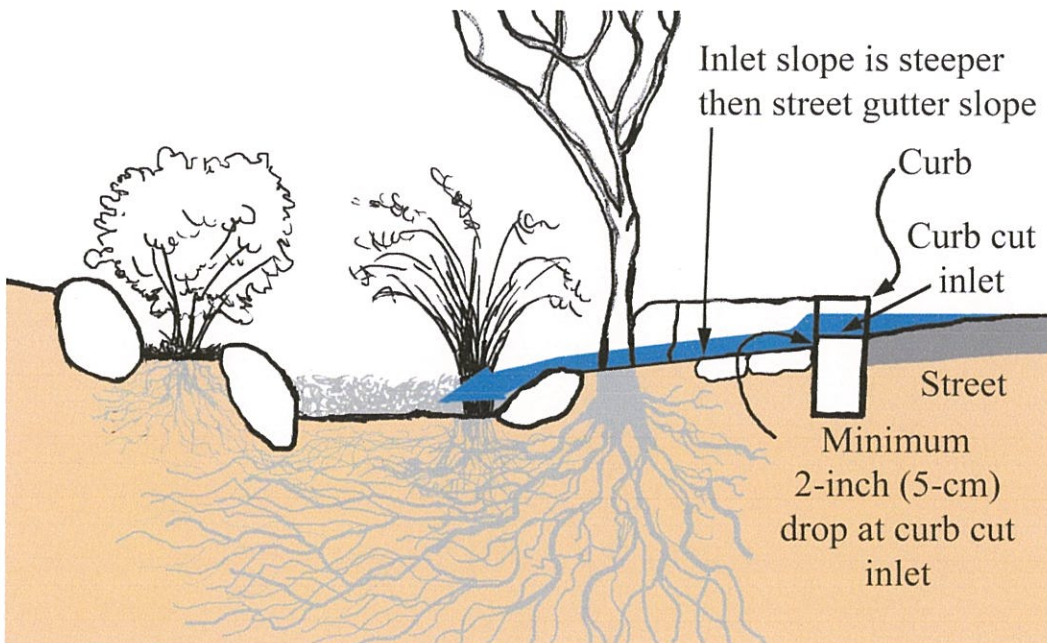


Figure 2. Minimum 2-inch drop at curb cut / core inlet to avoid debris clogging inlet.

Image reproduced with permission from *Rainwater Harvesting for Drylands and Beyond, Volume 2, 2nd Edition* by Brad Lancaster

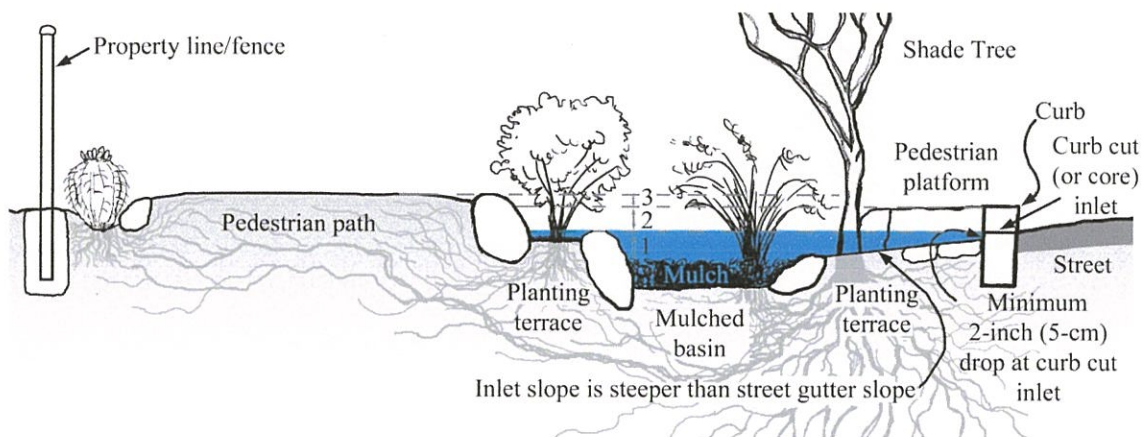


Figure 3. Elevation view of curb cut / curb core and basin. Low water level in storm.

Elevation 1: Bottom of basin, and the top of the mulch within it, is lower than elevation of curb-cut inlet so structure accepts and holds street runoff. The

deeper the basin in relation to its inlet/overflow, the greater its water-holding capacity.

Elevation 2: Curb-cut inlet is the low point of the basin's perimeter, so water will overflow at (or back up to) the inlet and the pavement-stabilized street-curb gutter. Planting terraces are higher than bottom of basin—but *no higher* than the curb cut inlet. Ideally they are *lower* than curb cut / core inlet. Planting terrace is for plants less water-tolerant than those planted in bottom of basins. Terraces also reduce the otherwise sudden drop along adjoining paths and pedestrian platforms.

Elevation 3: Pathway elevation is level with, or no more than two inches (5 cm) higher than, top of street curb so pathway is at least 4 inches (10 cm) higher than inlet/overflow so water will not flow over path into adjoining properties.

Additionally:

- Minimum 2-inch (5-cm) drop at inlet; plus inlet slope is steeper than street curb gutter slope to speed up, rather than slow, flow of incoming water—so sediment in water won't drop out of flow and clog inlet.

Note: Inlet slope can be stabilized with only one layer of rock, *but rock is not necessary on inlet slope* as pooling water will defuse force of incoming water.

- Public pathway to maintain minimum 5-foot width. Vegetation must be placed and/or pruned to maintain this minimum 5-foot wide clearance/access.

- Wood chip mulch to cover basin bottom and level planting terraces. Mulch on planting terrace not to exceed 2-inch thickness.

Image reproduced with permission from *Rainwater Harvesting for Drylands and Beyond, Volume 2, 2nd Edition* by Brad Lancaster

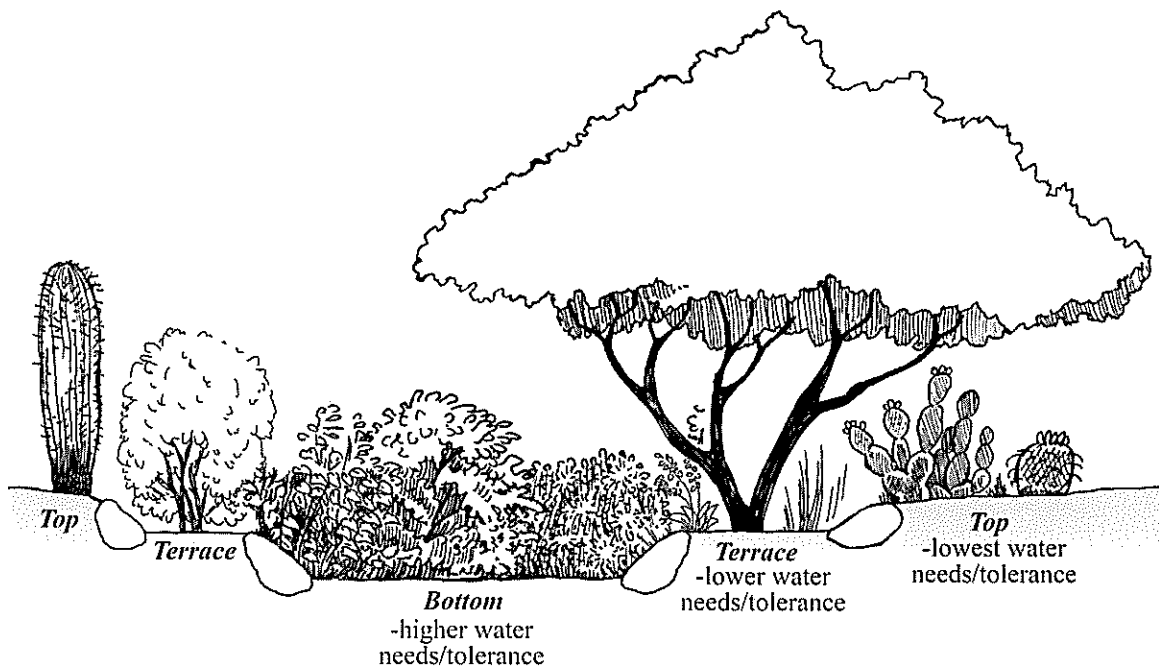


Figure 4. Plant species must be selected and placed in the *appropriate rain garden planting zone* to meet their ideal water needs and tolerances.

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Public-Right-of Way Street Curb Core Specifications



Figure 1.

- Angle curb core to drain from street gutter to water-harvesting basin.
- Curb core should be steeper than street-gutter slope to reduce chance of slowing water flow, which would result in curb core clogging with sediment.



Figure 2.

- Begin core in street gutter to create a depression that will direct more of the runoff in gutter to water-harvesting basin.
- Leave minimum 2-inches of solid curb *above* curb core to maintain strength of curb.
- 4-inch diameter curb core is the ideal if street curb height allows for minimum 2-inches of solid curb *above* curb core.



Figure 3.

- Leave *minimum* 2-inch drop from bottom of curb core to top of mulch within water-harvesting basin to reduce the chance of the core hole clogging with sediment.



DEPARTMENT OF TRANSPORTATION ENGINEERING

201 N. Stone Avenue, 4th Floor, Tucson, AZ 85701
Phone: (520) 791-5100

RECEIPT

ACTIVITY #: T20RW01035

FEES RECEIPT #: TC2001193

Date: 02/19/2020

Time: 01:30 PM

Permit Location:

902 N 10TH AV TUC

Composition Type: ROW

Activity Description:

4 WATER-HARVESTING BASINS AND PLANTINGS IN PUBLIC
RIGHT-OF-WAY ADJOINING STREET. 3 CURB CORE LEAVING MINIMUM
2" CLEARANCE OF SOLID CURB ABOVE CORE HOLE

Applicant: NEIGHBORHOOD FORESTERS
BRAD LANCASTER

[REDACTED]

PAID BY:

Type	Method	Description	Amount
Payment	Check	1017	175.00

Notation:

FEES PAID:

Item	Account Code	Description	Curnt Pmts
8222	015-491-8628-07	EXCAVATION FEES	50.00
8660	015-491-8636-01	BARRICADE - PERMIT FEES	75.00
8661	015-491-8636-02	BARRICADE - PLAN REVIEW	50.00

Issued by: DURBINA1

TOTAL:

175.00