

Landscaping Standards

Moab Municipal Code 17.10

How to Evaluate Your Landscape
Water Budget Example

updated February 2024



Summary

Moab Municipal Code 17.10

Water Budget Example

1 Check Moab
Municipal Code.

2 Examine your
property.

3 Get to
know your
landscape.

4 Calculate the
water budget.

5 Compare your
landscape
with the code.

6 Plan the
adjustments.

7 Complete the
submission
worksheet.

8 Submit the
documents with
your application
to Moab City.

Chapter 17.10 LANDSCAPING STANDARDS

Sections:

- 17.10.010 Intent.**
- 17.10.020 Scope and applicability.**
- 17.10.030 Landscaping – Maintenance.**
- 17.10.040 General standards.**
- 17.10.050 Buffering and screening requirements.**
- 17.10.060 Submittal requirements.**
- 17.10.070 Review procedures.**
- 17.10.080 Enforcement.**
- Appendix A Water Budget.**
- Appendix B General Template.**
- Appendix C Approved Plant List Criteria.**

17.10.010 Intent.

The intent of the landscaping requirements in this title shall be to enhance and preserve the community quality of life and property values by enriching the visual environment, supporting public safety, and contributing to a resilient and sustainable environment. (Ord. 23-08 § 3, 2023)

17.10.020 Scope and applicability.

In landscaped areas or where landscaping is required, such landscaping shall comply with the requirements set forth in this title for the specific use and location. The specific requirements relating to landscaping standards shall comply with the level of associated requirements based on scale of development, outlined in the review and procedures section of this title. Exemptions and exceptions are outlined in the review procedures.

A. *Required Landscaping.*

1. In addition to the specific sections of the Moab Municipal Code requiring landscaping, screening, or buffering, the requirements and regulations specified in this title shall apply to all provisions and processes requiring landscaping, including:
 - a. Permitted residential uses, including single-household dwellings, two-household dwellings, and multi-household dwellings between three and six units, shall require at least seventy percent of the area

Water Budget Example

Step 1: Check Moab Municipal Code.

- Identify the extent to which the Moab Municipal Code applies to your landscape. ([17.10.020](#), [17.10.030](#), [17.10.050](#), [17.10.070](#)).

- No change to the property may just require regular maintenance.
- Minor adjustments to the landscape may require compliance for new aspects.
- Major changes to the landscape or any changes to the property may have more requirements and require a submission

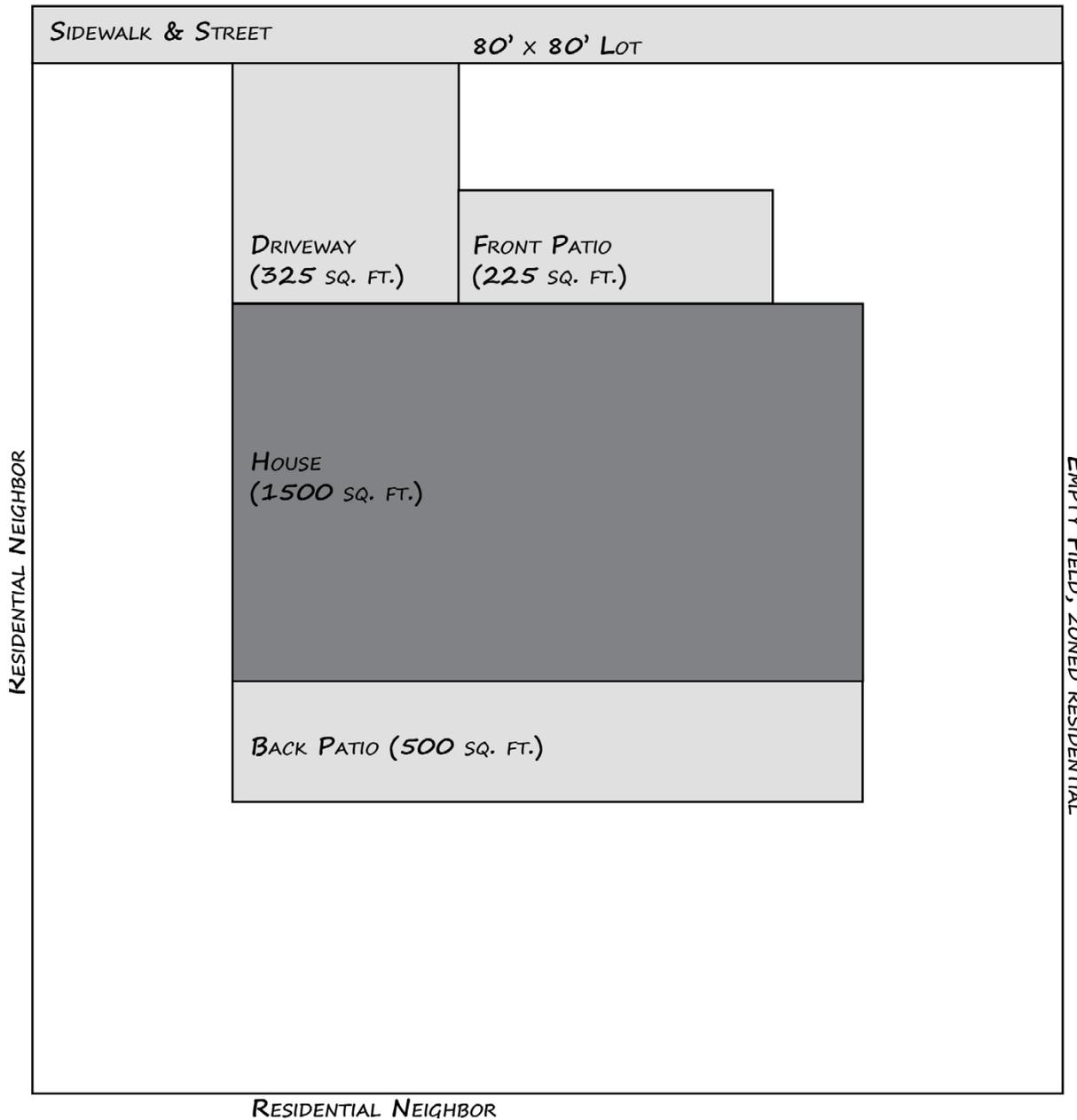
PAUSE HERE. Your determination at this step will guide how you proceed. Modifications that require "greater compliance" may use this as a resource. Changes that require full compliance or a submission should work through the following steps.

- If the change requires a submission, identify the type of landscaping plan required ([17.10.060](#)).

- General
- Level I
- Level II

- Identify the applicable standards. ALL landscaping plans must meet General Standards 1-3, plus—

- General plan, choose between
 - Prescriptive option: Standards 4-7, or
 - Water budget option: Standard 9.
- Level 1: Standards 5 – 9
- Level 2: Standards 4-9



Water Budget Example

Step 2: Examine your property.

- Identify the—
 - Property zone
 - Neighboring property zones
- Identify the dimensions of the—
 - Property
 - House
 - Paved areas
 - Landscape area

Find helpful maps here:

moabcity.org/291/City-Maps

Example lot:

Lot size: 6400 sq. ft.

-1500 sq. ft. house area

-1050 sq. ft. driveway & patios

Landscaped area = 3850 sq. ft.

Plant spread:

Street trees:

Artificial plants:

Non-approved plants:

Cool Season Turf:

Mulch:

Water features:

Hydrozoning:

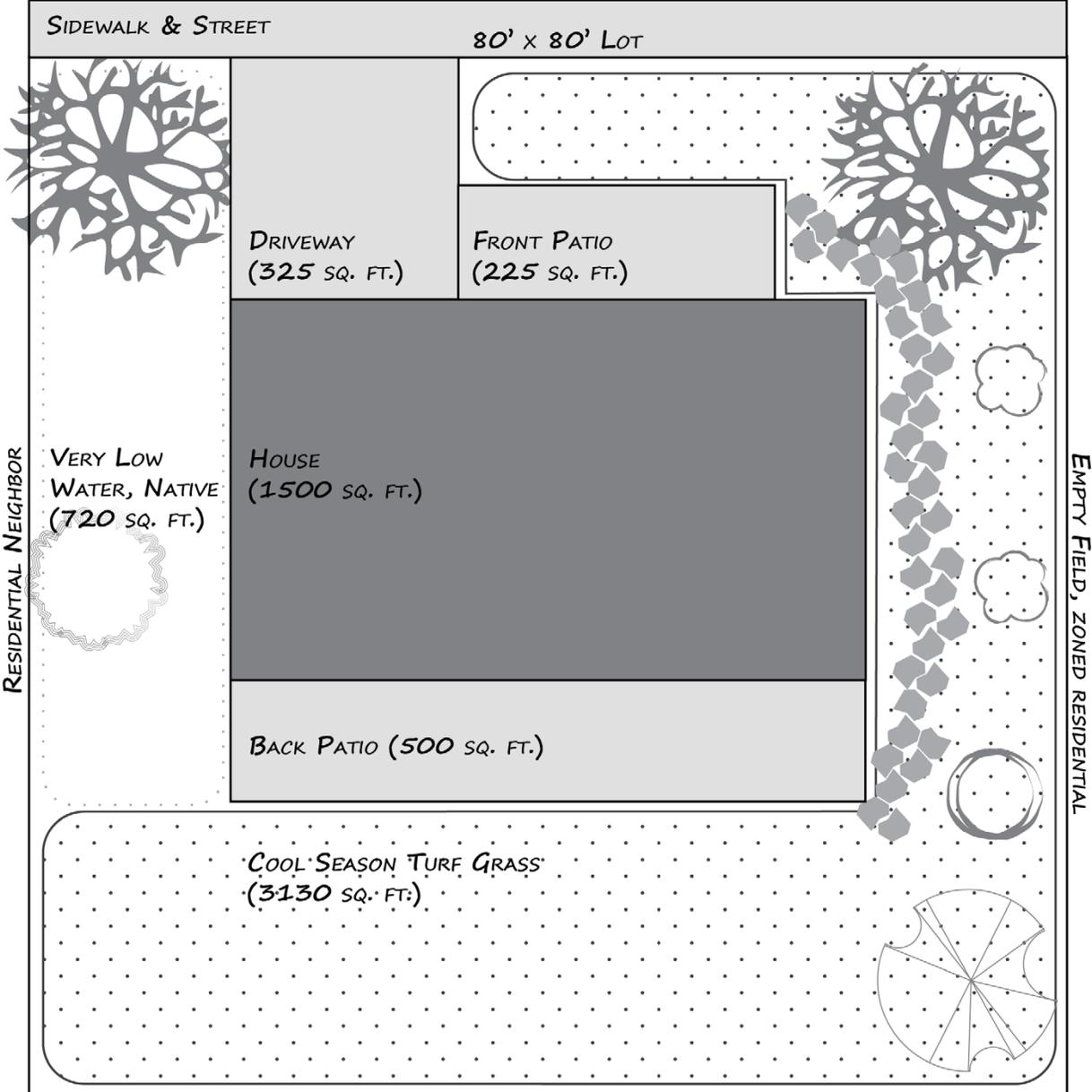
Water Budget Example

Step 3: Get to know your landscape.

- Identify landscape elements—
 - Trees, shrubs, forbs (small flowering plants), grasses, etc.
 - Mulch
- Identify zones of plants using differing amounts of water. These zones could include—
 - Vegetable gardens
 - Turf
 - Native plants
- Enter the plants into the Live Plant Calculator to assist. It's available at: moabcity.org/676/Landscaping-Standards

Example lot:

Lot size: 6400 sq. ft.
Landscaped area: 3850 sq. ft.
Plant spread: 99%
Street trees: 2
Artificial plants: None
Non-approved plants: 3



RESIDENTIAL NEIGHBOR

- | | |
|---|--|
|  TRAILING BELLFLOWER (3) |  KENTUCKY BLUEGRASS |
|  BIGTOOTH MAPLE (2) |  RABBITBRUSH (4) |
|  BLUE GRAMA (16) |  UTAH JUNIPER (1) |
|  CHASTE TREE (1) |  PAVER |

Water Budget Example

Step 4: Calculate the water budget.

City of Moab Water Efficient Landscaping Water Budget Worksheet															
Note: Project Applicant must complete this worksheet as it is a required element of the Landscape Plan.															
Address:			Contact Info:												
CALCULATING GALLONS OF WATER NEEDED BY PLANT CATEGORY AND IRRIGATION TYPE															
The specific irrigation water needs of each hydrozone in the design should be determined using the following formula and factors:															
Irrigation Water Budget = [(ETo x Plant Factor) - EP] x Irrigated Area / Irrigation Efficiency x 0.623															
Where:				<table border="1"> <thead> <tr> <th colspan="2">Reference Evapotranspiration</th> </tr> </thead> <tbody> <tr> <td>49.8</td> <td>inches/year</td> </tr> <tr> <td>31.0</td> <td>gallons/square foot</td> </tr> </tbody> </table>		Reference Evapotranspiration		49.8	inches/year	31.0	gallons/square foot				
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ETo = Reference Evapotranspiration in inches/season (May - Oct)				<table border="1"> <thead> <tr> <th colspan="2">Effective Precipitation</th> </tr> </thead> <tbody> <tr> <td>1.7</td> <td>inches/year</td> </tr> <tr> <td>1.1</td> <td>gallons/square foot</td> </tr> </tbody> </table>		Effective Precipitation		1.7	inches/year	1.1	gallons/square foot				
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Irrigation Efficiency															
None	100%														
Drip	90%														
Overhead	70%														
Water Feature	75%														
Irrigated Area = Hydrozone Area in Square Feet															
Hydrozones Efficiency															
Water Use Category	Plant Factor	Code													
High / Water Feature	0.80	H													
Medium	0.50	M													
Low	0.20	L													
Very Low / Non-irrigated	0.00	VL													
HYDROZONE WATER BUDGET CALCULATION															
Complete the hydrozone table for each hydrozone. Use as many rows as necessary to provide the square footage of landscape area per hydrozone.															
Total required landscape area:			Sq. Ft.												
Total landscape area:			Sq. Ft. 3850												
Plant Water Use Type(s)	Plant Factor	Irrigation Method	Irrigation Efficiency	Hydrozone Area (Sq. Ft.)	Plant Water Need (gal/season)										
L	0.20	Drip	0.90	1000	5718										
VL	0.00	Drip	0.90	720	0										
H	0.80	Overhead	0.70	3130	106247										
	#N/A		#N/A		0										
	#N/A		#N/A		0										
	#N/A		#N/A		0										
	#N/A		#N/A		0										
TOTAL				3850	106247										
AVERAGE IRRIGATION					27.6										
*The Maximum Applied Water Budget is 15 gallons/sq.ft./season unless "Special Features" are used. The Maximum Water Budget increases to 16 gal/sq.ft./season if at least 5% of the total irrigated hydrozone area is comprised of "Special Features". The Budget increases to 17 gal./sq.ft./season if at least 10% of the total irrigated hydrozone area is comprised of "Special Features." The use of rain barrels is also incentivized. The Maximum Applied Water Budget increases to 17 gal./sq.ft./season if at least 10% of the total irrigated hydrozone area is comprised of "Special Features." Please refer to 17.10.040 for more information on Special Features and rain barrels. https://moab.municipal.codes/Code/17.10.040 updated: 01.08.24															

Example lot:

Lot size: 6400 sq. ft.

Landscaped area: 3850 sq. ft.

Plant spread: 99%

Street trees: 2

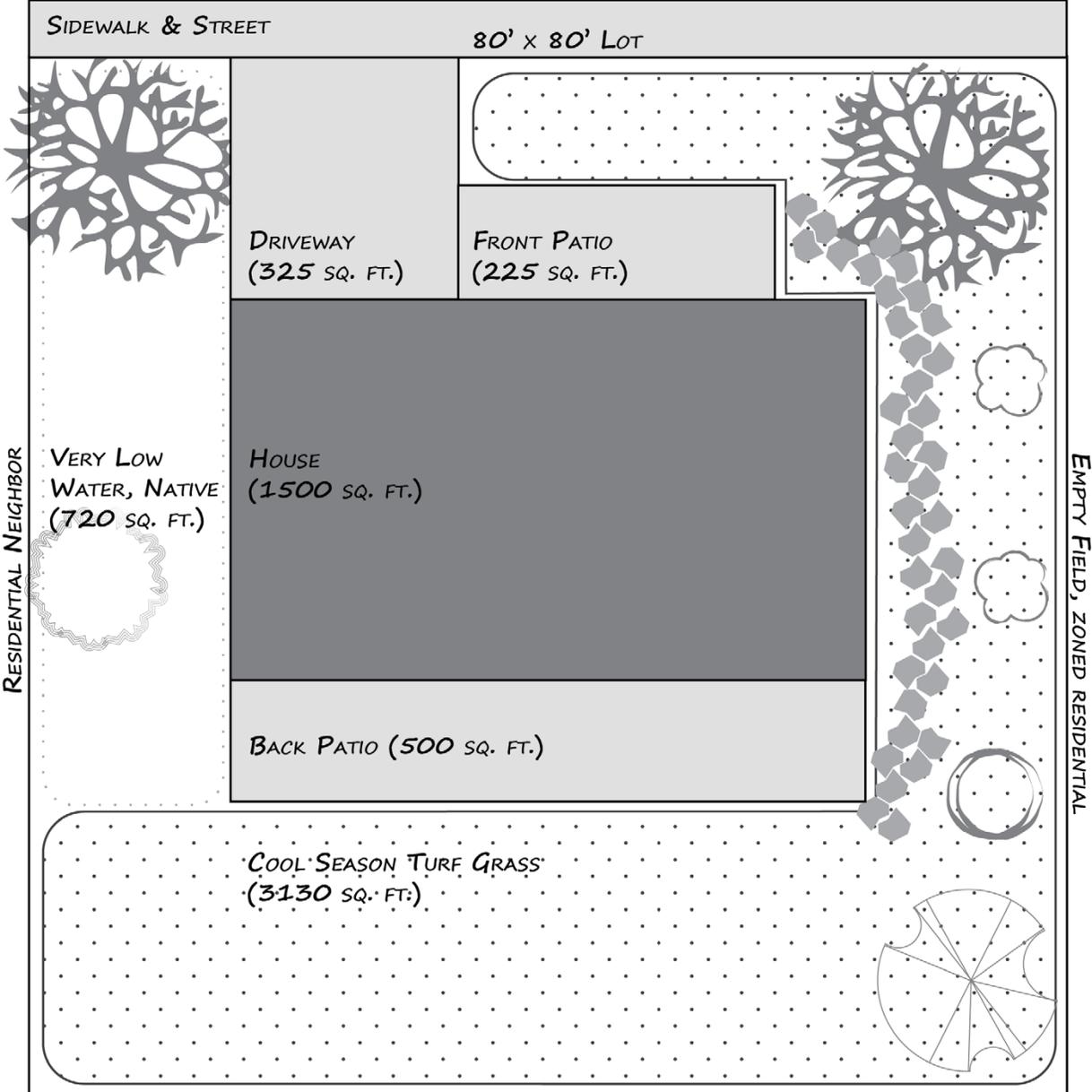
Artificial plants: None

Non-approved plants: 3

Water budget: 27.6 gal./sq. ft.

Water Budget Example

Step 5: Assess differences between your landscape and code requirements.



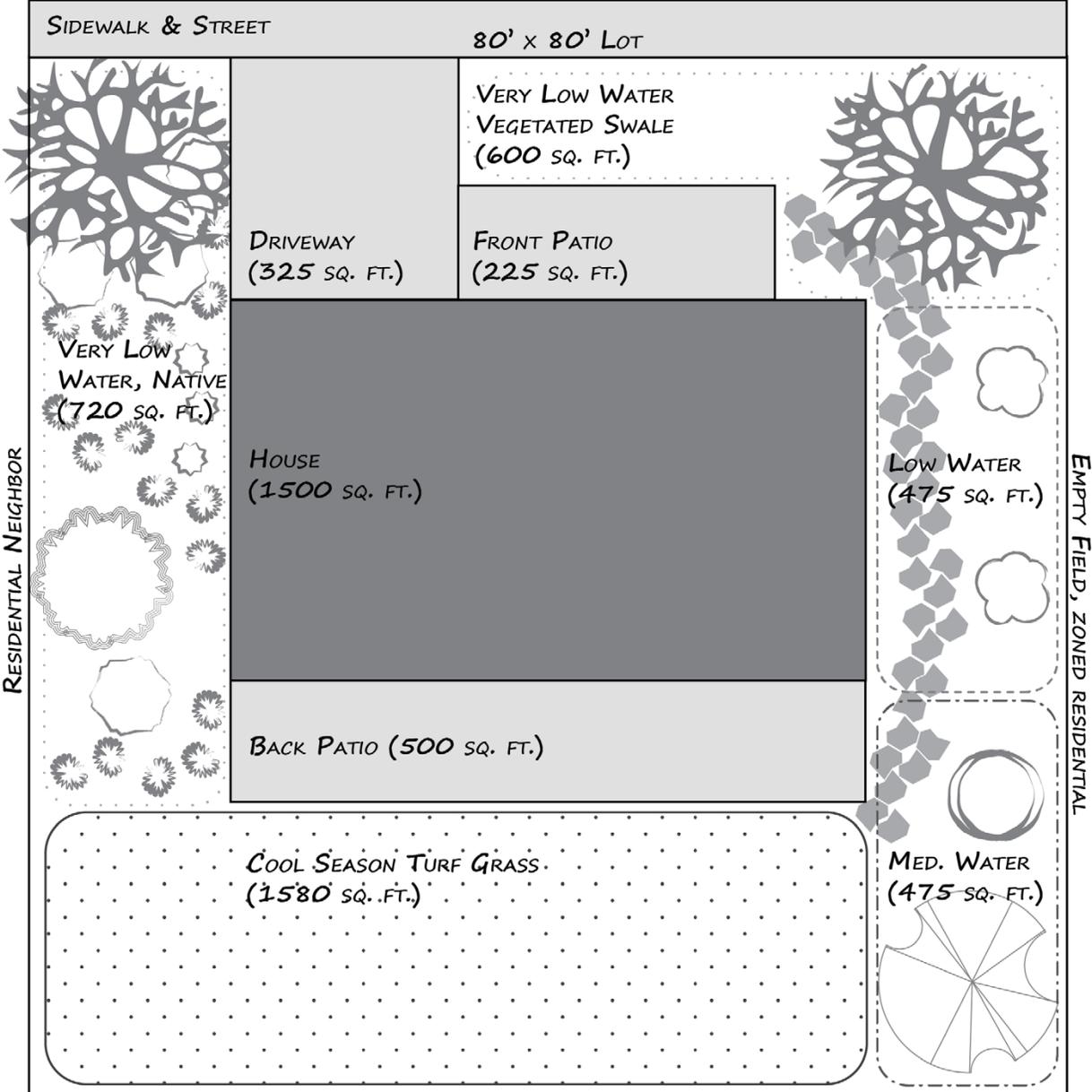
Example lot:

- Lot size:** 6400 sq. ft.
- Landscaped area:** 3850 sq. ft.
- Plant spread:** 99%
Meets requirements
- Street trees:** 2
Meets requirements of one tree per 40 ft.
- Artificial plants:** None
Meets requirements
- Non-approved plants:** 3
Check noxious weed list and percentage.
- Water budget:** 27.6 gal./sq. ft.
Cool season turf is using too much water. The budget is over the allowed 17 gal./sq. ft./season, which includes a 2 gal. bonus from the native landscape.

- RESIDENTIAL NEIGHBOR**
- TRAILING BELLFLOWER (3)
 - BIGTOOTH MAPLE (2)
 - BLUE GRAMA (16)
 - CHASTE TREE (1)
 - KENTUCKY BLUEGRASS
 - RABBITBRUSH (4)
 - UTAH JUNIPER (1)
 - PAVER

Water Budget Example

Step 6: Plan the needed adjustments.



Example lot:

Lot size: 6400 sq. ft.

Landscaped area: 3850 sq. ft.

Plant spread: 69%
 The spread changed, but it still meets a minimum of at least 25%.

Street trees: 2

Artificial plants: None

Non-approved plants: 3
 They're not on the noxious weed list and not more than 10% of the landscape.

Water budget: 16.6 gal./sq. ft.
 Bonuses from native area and swale increase budget from 15 to 17 gal. Less grass brings landscape into budget.

- TRAILING BELLFLOWER (3)
- KENTUCKY BLUEGRASS
- UTAH JUNIPER (1)
- BIGTOOTH MAPLE (2)
- RABBITBRUSH (4)
- PAVER
- BLUE GRAMA (16)
- ROCK SPIREA (1)
- CHASTE TREE (1)
- BLUE MIST SPIREA (2)

Fill in blue cells. Submissions must comply with the standards in [Chapter 17.10](#), which is the definitive source of information. This template is for assistance in creating a General Landscape Plan, as described in section [17.10.060](#).

1. Applicants' Landscape Plans must comply with General Standards 1-3.
2. Then, applicants may choose between the following options:
 - a. Prescriptive Option Landscape Plans shall also follow General Standards 4-7. Continue to section I.
 - b. Water Budget Landscape Plans shall also follow General Standard 9. Continue to section II.

Total Landscaped Area = **3,850.0** sq. ft.

Submittal Requirement Number	Requirement summary Name	Requirement summary	Submittal I verify that this landscape contains...	
1	Plant Material 17.10.040(A)(1)	Living Plant Material Minimum ≥ 25% <ul style="list-style-type: none"> Measured by the estimated spread at maturity Tree canopy may count as up to 15% or the 25% requirement. <p>Trees are required on street frontage, one for every 40 feet.</p> <ul style="list-style-type: none"> Alternatives include trees located within allowed areas of private property or an agreement to plant or pay a fee in lieu. Required trees are no more than 120 ft. apart. 	Living plant material at maturity	3,139.0 sq. ft.
			Live plant material <i>Living plant material ft²/Total landscape x 100 (Please use the live plant calculator.)</i>	66 %
			Check to confirm plant list is attached*	<input checked="" type="checkbox"/>
			Street frontage of the property	80.0 linear ft.
			Trees required <i>Linear feet of street frontage /40</i>	2 trees
			Of required, trees in right-of-way	2.0 trees
			Of required, trees on private land	trees
Of required, trees planted in city agreement. Describe in comments.	trees			
2	Artificial Plants 17.10.040(A)(2).	Artificial plants and turf, do not count toward the required landscape.	Check to confirm landscape does not include artificial plants.	<input checked="" type="checkbox"/>
3	Approved Plant List 17.10.040(A)(3)	90% of forbs, shrubs, and trees shall be from the Plant List .	Percentage of plant material is on the Approved Plant List.	99.9 %
			This percentage is measured by:	<input type="radio"/> Quantity OR <input checked="" type="radio"/> Spread
			100% of groundcovers and ornamental grasses shall be from the Plant List.	Check to confirm groundcovers and ornamental grasses meets this standard.

*Attached documentation may be included in the landscape plan. Spreadsheets to help calculate live plant material and water budget are available online. <https://moabcity.org/676/Landscaping-Standards>
Updated: 1/25/2024

Water Budget Example

Step 7: Complete the Submission Worksheet.

It's available at:

moabcity.org/676/Landscaping-Standards

Step 8: Submit your Worksheet and documentation with the building permit or relevant Moab City application.

Scan the QR code

for landscape resources, including calculators, FAQs, the Approved Plant List, and more!

