

Residential Stormwater Planning

Course Introduction: <https://www.youtube.com/watch?v=GcsqrHiMPaw>

Site Assessment

This lesson is about Site Assessment, and it implies just what the name states: Going to a customer or business location and giving advice about how stormwater can be managed and utilized more effectively. It consists of a visit of about an hour at the location discussing possible interventions that could be made such as: Locations for rain garden(s), Conveyance techniques, plant suggestions, general advice on whatever the client wants to know about.

What do you need to know and have before you show up?

So, there you are, a Master Water Steward, on your way to help out a neighbor or a friend look at their property and think about how to manage rainwater. What do you need to know before you go, and what do you need to take with you to the site? A good list would include:

- **Camera or Smart phone** with a camera to take site photos
- **Measuring equipment**, to measure the impermeable surfaces and calculate runoff volume
- **Aerial photo**, so you have an idea of the existing features of the property
- **Drawing supplies** for taking notes and rudimentary site survey to be used to draft up design
- **Bluethumb Raingarden Manual**: to explain concepts + show plant possibilities
- **Soil Probe or Trowel**: for looking at soil type if unknown
- **Bag or Backpack**: to keep all of your tools in

What Should You Be Looking For?

The image below gives you a list of things that Metro Blooms recommends you talk with the property owner about. Not all of these will be relevant for each property, so use this list as a guide.

On the list of Things to Note, the list recommends you take measurements if the homeowner wants a design. We recommend you take measurements in every case. They can help you put a number on the runoff volume that the property generates. that is always a valuable number to share with the homeowner. Even if the homeowner decides not to install a raingarden, they at least know the impact their property has on local rivers and streams. It may inspire them to consider rainwater management features in the future.

Metro Blooms Onsite Consultation Checklist

What to Bring

- ☐ Notepad
- ☐ Camera
- ☐ Measuring Tape
- ☐ Aerial Photo
- ☐ Drawing Implement
- ☐ Shovel or Trowel
- ☐ Blue Thumb Guide

Things to Note Onsite

- ☐ Downspout Locations
- ☐ Soil Character (dig a hole)
- ☐ Flow Direction (overflow, offsite flows)
- ☐ Shade / Sun Condition
- ☐ Existing Landscaping (take pictures)
- ☐ Erosion / Bare Soil
- ☐ Topography (Low Areas)
- ☐ Take Measurements (if homeowner wants a design)
- ☐ Take pictures of possible garden sites

Topics to Discuss

- | | | |
|---|--|---|
| <input type="checkbox"/> Soils | <input type="checkbox"/> Material sourcing | <input type="checkbox"/> Downspout Redirection |
| <input type="checkbox"/> Drainage Issues | <input type="checkbox"/> Construction Costs | <input type="checkbox"/> Turf Reduction |
| <input type="checkbox"/> Plant Preferences | <input type="checkbox"/> Cut and Fill | <input type="checkbox"/> Debris Cleanup |
| <input type="checkbox"/> Stormwater Capture | <input type="checkbox"/> Grants/Cost Share | <input type="checkbox"/> Gardening experience |
| <input type="checkbox"/> BMP Opportunities | <input type="checkbox"/> Stormwater Utility Credit | <input type="checkbox"/> Neighborhood Install Project Details |



Depending upon where you are working the following websites can offer you finding property information. Look up using the property address and print a copy to bring with you on-site. Each of these interactive county GIS data bases operates a little differently and each has things are frustrating!! Do your best.

Hennepin County	http://gis.co.hennepin.mn.us/Property/Map/Default.aspx
Carver County	http://carvergisweb1.co.carver.mn.us/Public_Parcel/
Ramsey County	https://maps.co.ramsey.mn.us/SilverlightViewer_1_3/index.html?Viewer=MapRamsey
Anoka County	http://gis.anokacountymn.gov/
Washington County	http://maps.co.washington.mn.us/propertyviewer/
Scott County	http://maps.co.scott.mn.us/ScottGIS2.0/

Dakota County

<http://gis2.co.dakota.mn.us/maps/property.htm>

Each of these sites will offer some version of the following image. Use the Print icon associated with the webpage. Print a copy to bring with you to the site.

The screenshot displays the Hennepin County Property Map web application. The browser address bar shows the URL gis.co.hennepin.mn.us/Property/Map/Default.aspx. The search bar contains the address "2200 24th ave s, minneapolis". The left sidebar provides detailed information for the selected property (PID: 3602924210481).

Owner/Taxpayer

Owner: Mpls Public Housing Auth

Taxpayer: MPLS PUBLIC HOUSING AUTH
ATTN: COMPTROLLERS OFFICE
1001 WASHINGTON AVEN
MPLS MN 55401

Tax District

School Dist: 001

Sewer Dist:

Watershed Dist: 6

Parcel

Parcel Area: 0.12 acres
5,082 sq ft

Torrens/Abstract: Abstract

Addition: The Addition Of Brackett Lee & Heaton

Lot: 022

Block: 001

Metes & Bounds: E 97 Ft Of Lot 22

Tax Data (Payable 2012)

Market Value: \$0

Total Tax: \$0.00

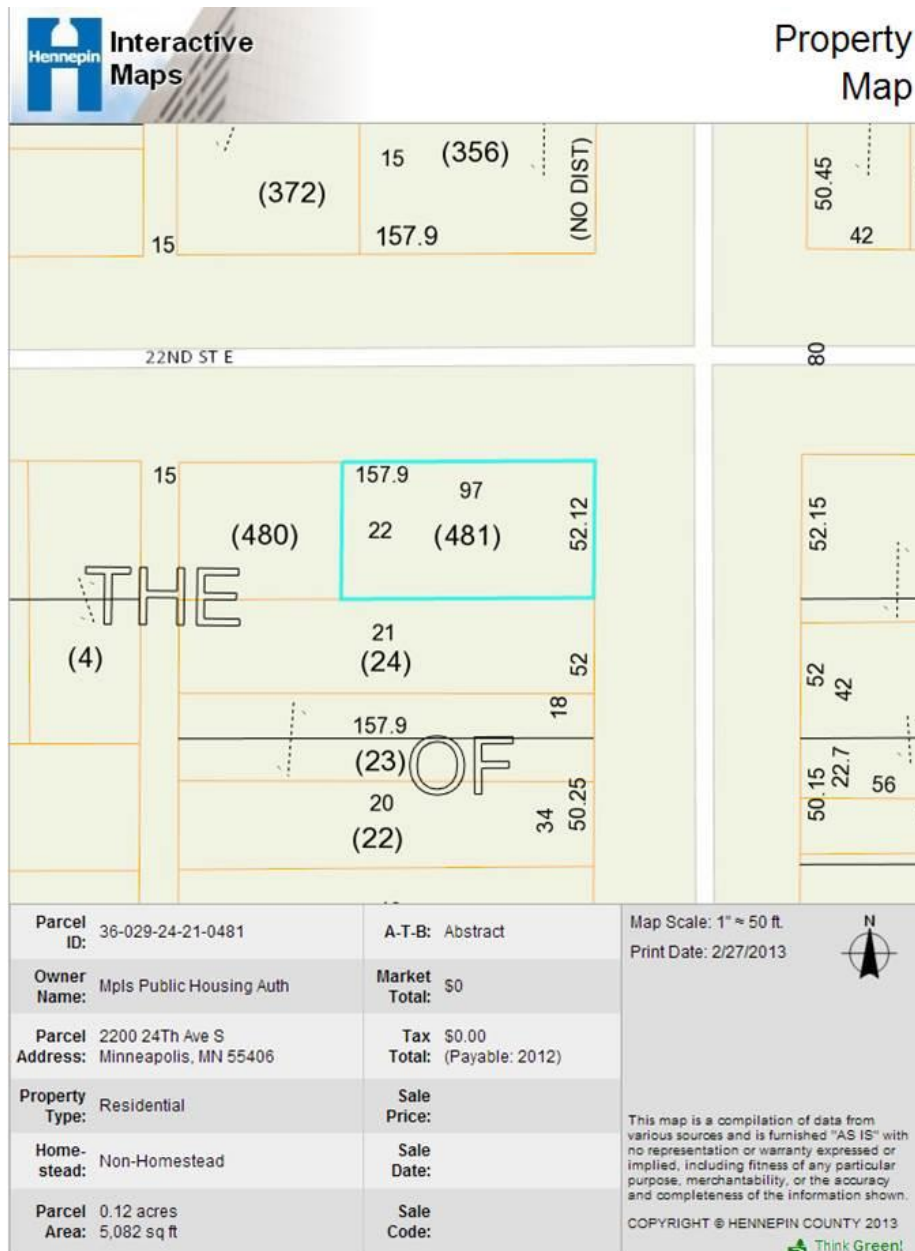
Property Type: Residential

The main map area shows an aerial view of the property with yellow boundary lines and various numerical labels. A red box highlights a specific parcel. The map includes a scale bar and a north arrow.

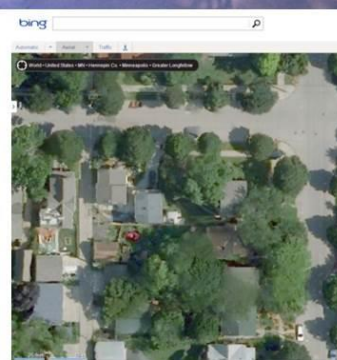
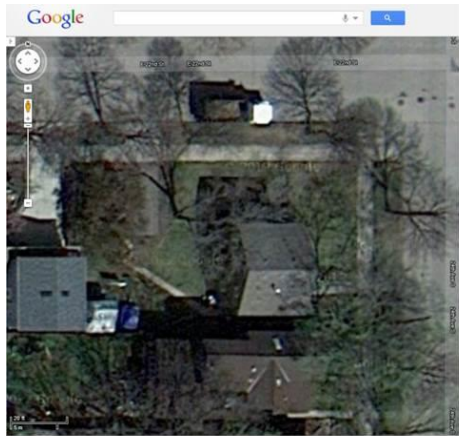
The next image is what you get- a gross printout, but it has the information you need and want to have with you for the site assessment.



You can also print out one without the aerial that would be easier to read.



You can also look at the other satellite imaging options like Google or Bing...They have some street view stuff you might like...or not



Learning Activity

It's time to put all of these ideas to use, and do a practice site assessment.

There are a couple ways to do this, depending on how you are taking this course:

1. If you are taking this course online, with a group of other aspiring Master Water Stewards:
 - a. Find a property owner who doesn't mind a group of water-friendly community members walking around their property.
 - b. Bring the whole group to the same residential property and work together to do a site assessment.
 - c. Bring the site assessment information, including the aerial photo, the measurements you took, the runoff volume of the property, and your recommendations for the property owner to your next meeting and work together to discuss what you found.
2. If you are taking this course online, but not working with a group:
 - a. Find a property owner who doesn't mind you walking around their property.
 - b. Visit the site and do a site assessment.
 - c. Post the site assessment information, including the aerial photo, the measurements you took, the runoff volume of the property, and your recommendations for the property owner, in the Forum. The instructor will discuss what you found, and what you

recommend the property owner should do to better manage rainwater on his/her property.

Here again is your list of things to bring, things to note, and things to talk about:

What to bring:

- **Camera or Smart phone** with a camera to take site photos
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What to notice:

- Downspout locations
- Soil character (dig a hole)
- Flow direction (overflow, offsite flows)
- Shade/Sun conditions
- Existing Landscaping (take pictures)
- Erosion/Bare soil
- Topography (low areas)
- Take measurements
- Take pictures of possible garden sites

What to talk about (Note- not all of these will be relevant to your conversations with property owners. Some of these are much more important to landscape designers):

- Soils
- Drainage issues
- Plant preferences
- Stormwater capture
- BMP opportunities
- Material sourcing
- Construction costs
- Cut and fill
- Grants/cost share
- Stormwater utility credit
- Downspout redirection
- Turf reduction
- Debris cleanup
- Gardening experience