



Art by David Wooden / RMA

## Introducing the Dupont Tree Plaza

### New green Infrastructure will benefit the city

Restore Mass Ave President Deborah Shapley

Testimony before Committee on Transportation & the Environment, March 29, 2022

Mary M. Cheh, Chair

**The Dupont Tree Plaza will be a new community space in the heart of Dupont. Restore Mass Ave is excited to tell members of the City Council that we have a shovel-ready green retrofit for this long neglected public sidewalk.** The site is the east end of the two-mile route of “Mass Ave” where, for 15 years, our group has revived the historic landscape of double rows of large trees. But at the east end, before today, neither we locals nor the city has had a real-life chance to transform this important space into a city environmental landmark.

**Our 20 pages of engineer drawings, approved by all relevant city agencies, can construct in about six months the Dupont Tree Plaza you see in the rendering above.** Retrofitting this piece of District sidewalk will enable better access, safer walking and bicycle use, and deliver measurable water and air quality improvements that benefit all of Washington DC - my native town.

**Why RMA?** Why now? Restore Mass Ave is a neighborhood tree group that I and some neighbors founded in 2006. Over the years we have organized significant tree plantings (with Urban Forestry



Division, Casey Trees and others) and promoted tree growth (by our volunteers and local owners). Our project area is the two miles of “Mass Ave” known as Embassy Row, from 20<sup>th</sup> Street out to Wisconsin Avenue. Tree canopy in our area increased by 13.2% from 2006-2016, when DC canopy grew 2.5%.



Map and satellite views of Dupont Tree Plaza site. Address 1913 Massachusetts Avenue NW.

But this east end of our project area has remained nearly bare, despite our pleas for tree boxes - and the obvious success of the rows of oaks we planted with Casey Trees up 20 Street in 2009. There canopy increased 73%. So we ask the Council: why not do the same in the adjoining public space?

**It is high time District government stepped up to do something** about this notorious bare space. We propose trees to effectively lower the urban heat island. The DTP design spaces also offers lighting to create safe, inviting spaces 24/7. This locally generated design - sponsored by Chesapeake Bay Trust and endorsed by many local players - advances Council Members’ and the Mayor’s goal: for the District to be “healthiest, greenest” for all residents and visitors. Businesses such as retailers and hoteliers around Dupont need safe and appealing sidewalks and shade trees.

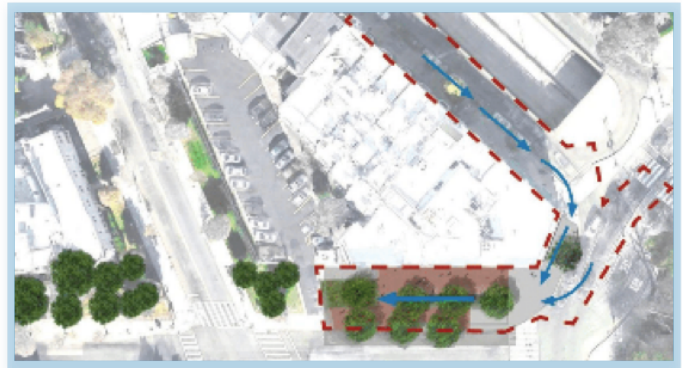
Before ticking off features & benefits that advance city programs, let me address “Why Now?”

Council Member Brooke Pinto has requested \$1.1 million for the Dupont Tree Plaza in FY 2023. But so far we have not found the item in the Mayor’s budget. **We testify today to ask that the Council include it in the FY budget for DOEE.** To achieve this we will work with Council Members and other officials. If the work proceeds in calendar 2023, the scene you see above could be real in 2024!

Thus RMA’s local alliance of stakeholders, partnering with an agency, can deliver at last a safer, healthier pedestrian corridor and nature-filled destination for thousands from around the District and from out of town.

**Trees and canopy** Seven new large species trees will enhance the existing five to cool & cleanse the air. Deep shade replaces the heat island. The illustration at right shows the new ecosystem corridor created by all twelve trees’ leaves and branches -along with native plants in the new good soil below.

These plantings extend a green corridor connecting the mature forest in Dupont

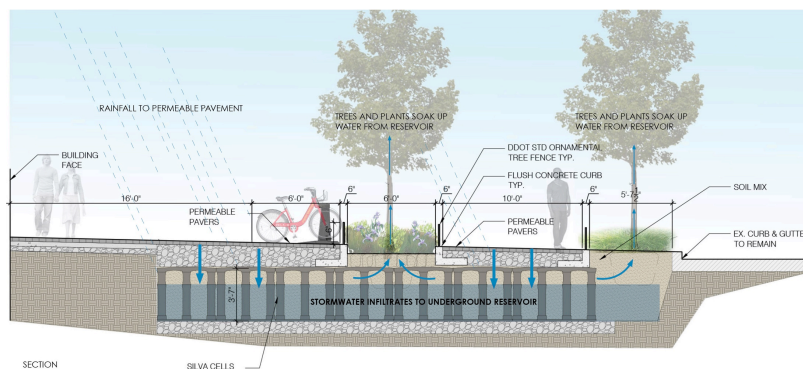


Circle Park across to the rising double tree rows of Massachusetts Avenue.

Restore Mass Ave's mission is growing rows of large shade trees. Our Plaza's bioretention and soil space is designed for trees, rather than the shrubs and grasses you see in many sidewalk retrofits. The trees will grow well because of **Silva Cells**. These are frames that hold good soil and let roots reach to each other underground. Below is a cutaway of our Plaza. It shows Silva Cells below the surface with soil and water that nourish the trees and plants.

Today RMA is proud to announce that the international **DeepRoot** Corporation will be our partner in the Dupont Tree Plaza project. DeepRoot manufactures and installs Silva Cells to foster mature tree landscapes in paved areas from London to San Francisco.

We also thank DesignGreen LLC, a woman-owned DC firm, for leading an expert team that created the Dupont Tree Plaza engineer plan. DesignGreen's principal Rebecca Stack deserves credit for solving the challenges of retrofitting this space and evolving the plan through all needed city approvals.



Cross section of Dupont Tree Plaza Silva Cells.

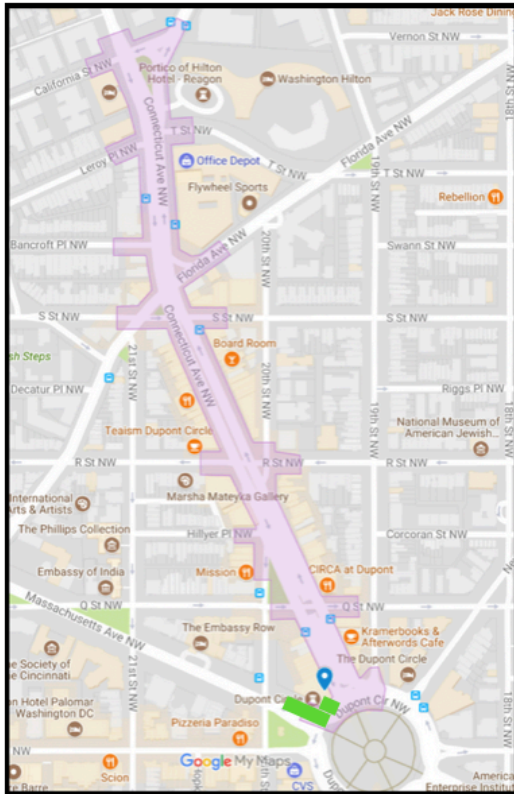
Please note. Mature trees reduce the water that reaches the city's gray infrastructure. A healthy large tree absorbs some two-thirds of the rainfall coming down. So one-third (or less) reaches us noodling around below. And if the ground has greenspace, even less of the water flows to our drains and pipes, the CSS and the Bay.



#### Road runoff from Connecticut Avenue - DDOT Deck Over

You may have heard about the big project that will stretch from Dupont Circle half mile north up Connecticut Avenue, a \$25 million transformation of that corridor. (Map next page.) The two projects are compatible based on engineer consultation. **If funded now, DTP will drain and cleanse dirty runoff from Connecticut and Dupont roadways well in advance of Deck Over completion.**

**We think it's strategic that the Dupont Tree Plaza proceeds now** to install the necessary stormwater management infrastructure.





 Connecticut Avenue Deck-Over - DDOT map  
 Dupont Tree Plaza (DTP) - RMA

Today, RMA has other news!

American University Professor Michael G. Alonzo's sustainability class will take temperature readings at and around the Plazas site: on bare sidewalk, sidewalk under partial shade (a row of street trees) or full shade (double rows of full trees). They will deploy novel bicycle weather station next week to the plaza site and measure along transects in the area.

This is important for the District. The "heat island" data now used is sensed by vehicles in the streets and the vehicle collection points are widely spaced. Professor Alonzo and his team will be taking finer grain data from sidewalks, where people are. "Weather bike" projects done in other cities have informed tree planting and other investments aimed to lessen exposure in a warming climate.

After the student reports, RMA hopes to re-measure temperatures where the students took their readings. Both this summer and later, assuming the plaza is built, and the trees grow. We may learn how air temperature is impacted by single or double rows of mature trees.

The site's small scale and diverse local leadership makes possible this and other innovations.

**Air Quality & Climate** Trees that form leafy rows make the air around them rich in oxygen and cooler. The Mayor's goal of equitable access to healthy, walkable sidewalks is aided in our plaza design, because it provides as many trees as possible on a site that's been bare & hot for decades.

The sidewalk there adjoins busy intersections of Connecticut Avenue with Massachusetts Avenue circulating around Dupont Circle. Per DDOT, 25,000 vehicles pass each weekday, right by pedestrians trying to cross. The plaza's shade trees close by will cool ground level air. This cooler ambient air means fewer harmful vehicle emissions. So our Plaza helps District compliance with the National Ambient Air Quality Standard (NAAQS) in the Clean Air Act.

For you and me, this means those **trees lower the health risk** to people who must pass there, especially those passing every single day to and from work.



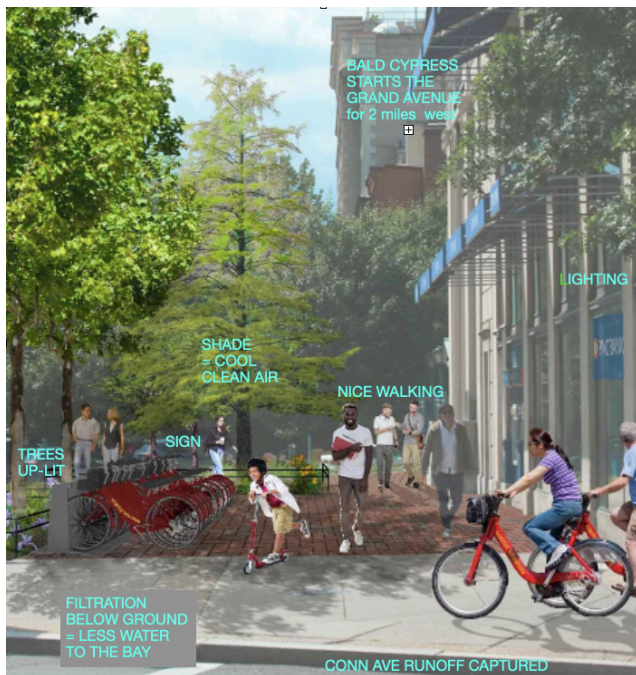
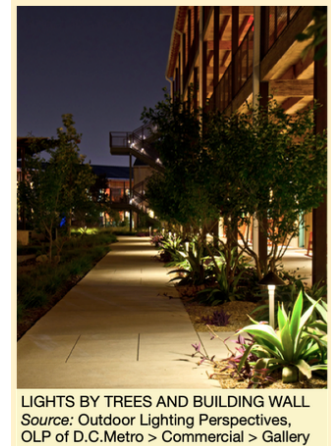
## Place-Making - A New Community Space

The Plaza can be a new community space in the heart of Dupont. Our plan's features "provide opportunity for a vibrant and rich public life," to quote the Public Life Initiative of the Office of Planning. They include:

**Designed pathways** - Easy navigation by walkers, people with bikes or strollers will replace the jutting curbs, broken pavement and blockages there now. Much of the surface will have brick porous paving; brick adds character and is nice to walk on.

**Lighting** - I mentioned safety as a big issue. Our Plaza has lighting along the first floor of the bank wall; the trees have shielded uplights. The photograph shows a local firm's dusk-to-dawn fixtures. They are astronomically timed so do not need to be reset.

**Signage** - Restore Mass Ave hopes for a sign that describes the history of the Embassy Row streetscape and RMA's restoration. As well, a sign could note the colorful history of "Stewart's Castle" - where the bank is now.



**Tours** - We envision the bald cypress area (at left) as a meetup point for tours.

**Community sharing** - We are considering a wall mounted screen to show upcoming events. It can rotate art also events at galleries and pop ups. RMA already has drawings by local DC school students of how the Plaza storm installation works.

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### Shared goals

The best summary of goals for the Dupont Tree Plaza are those stated by another local group - the Dupont Circle Citizen's Association. Restore Mass Ave and our allies now seek to build the Plaza to:

- Create a sense of community,
- Maintain safety,
- Promote diversity of businesses and people,
- Enhance the beauty and cleanliness of the neighborhood,



- Preserve the neighborhood's historic character.

Ward 2 Council Member Brooke Pinto has requested \$1.1 million for the Dupont Tree Plaza in FY 2023. **This testimony requests that the Council include this item in the FY 2023 budget for DOEE.** We look forward to working with Council Members and other officials to achieve this goal.

I submit this statement on behalf the Restore Mass Ave Board of Directors and many others who have sought this project and now dare to hope for its early realization.

Council Members should know this: the Dupont Tree Plaza was initiated by local needs and interests. Today we promise to carry the project to completion so as to **benefit the whole city**.

Thank you for the opportunity to appear. Please do not hesitate to contact us at any time.



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