



**COMMISSION ON STORM WATER ISSUES
VIA VIDEOCONFERENCE
Wednesday, May 19, 2021
5:30 p.m.**

**IMPORTANT NOTICE REGARDING
PUBLIC ACCESS & PARTICIPATION**

On March 20, 2020, City Manager Gregory Rose declared a State of Emergency for the City of University City due to the COVID-19 Pandemic. Due to the ongoing efforts to limit the spread of the COVID-19 virus, the May 19, 2021 meeting will be conducted via videoconference.

Observe and/or Listen to the Meeting (your options to join the meeting are below):

Webinar via the link below:

<https://us02web.zoom.us/j/87941258159?pwd=MGVrdkptRE9Ua0d6dW5JekFMUFF4UT09>

Password: 989598

Audio Only Call

iPhone one-tap :

US: +13126266799,,87941258159# or +19292056099,,87941258159#

Or Telephone:

US: +1 312 626 6799 or +1 929 205 6099 or +1 301 715 8592 or +1 346 248 7799 or +1 669 900 6833 or +1 253 215 8782 or 888 788 0099 (Toll Free) or 877 853 5247 (Toll Free)

Webinar ID: 879 4125 8159

Citizen Participation and Public Hearing Comments:

Those who wish to provide a comment during the "Citizen Participation" portion as indicated on the agenda; may provide written comments to Sinan Alpaslan ahead of the meeting.

ALL written comments must be received **no later than 12:00 p.m. the day of the meeting**. Comments may be sent via email to: salpaslan@ucitymo.org, or mailed to the City Hall – 6801 Delmar Blvd. – Attention: Sinan Alpaslan. Such comments will be provided to Board/Commission member prior to the meeting. Comments will be made a part of the official record and made accessible to the public online following the meeting.

Please note, when submitting your comments, a **name and address must be provided**. Please also note if your comment is on an agenda or non-agenda item. If a name and address are not provided, the provided comment will not be recorded in the official record.

The City apologizes for any inconvenience the meeting format change may pose to individuals, but it is extremely important that extra measures be taken to protect employees, residents, and elected officials during these challenging times.



A G E N D A

COMMISSION ON STORM WATER ISSUES MEETING

May 19, 2021 at 5:30 p.m.

Via Zoom

- 1. MEETING CALLED TO ORDER**
- 2. ROLL CALL**
- 3. APPROVAL OF AGENDA**
- 4. APPROVAL OF MINUTES**
- 5. CITIZEN PARTICIPATION**

Procedures for submitting comments for Citizen Participation and Public Hearings:

ALL written comments must be received **no later than 12:00 p.m. the day of the meeting.** Comments may be sent via email to: salpaslan@ucitymo.org, or mailed to the City Hall – 6801 Delmar Blvd. – Attention: Sinan Alpaslan. Such comments will be provided to the Commission on Storm Water Issues members prior to the meeting. Comments will be made a part of the official record and made accessible to the public online following the meeting *Please note, when submitting your comments, a **name and address must be provided.** Please also not if your comment is on an agenda or non-agenda item. If a name and address are not provided, the provided comment will not be recorded in the official record.*

6. NEW BUSINESS

7. OLD BUSINESS

- a. US Army Corps of Engineers Upper River Des Peres Flood Risk Management Study – Update and discussion with the Army Corps team (updated list of questions compiled off recent meetings on this topic is attached – please see Attachment #1)
- b. Relief Map Project – Update (Commissioner Holly) – (please see Attachment #2)
- c. US Army Corps of Engineers Upper River Des Peres Flood Risk Management Study – Update to Commission from Technical Meetings attended by Commissioners Thompson, Karch and Staff member Alpaslan
- d. Flooding Early Warning System – Update
- e. Request for Proposals/Qualifications for Storm Water Master Plan – Update (please see Attachment #3)

8. SUBCOMMITTEE REPORTS

- a. Flood Early Warning System
- b. Communications

9. MISCELLANEOUS BUSINESS

- a. Sherwood Lake Update
- b. Deer Creek Tunnel Virtual Walkthrough (approximately 4 min. video)

10. COUNCIL LIAISON COMMENTS

11. ADJOURNMENT

Please call (314) 505-8572 or email salpaslan@ucitymo.org to confirm your attendance.

Questions from the Commission on Stormwater Issues and University City Council

13 May 2021

(Revised to include Commission Questions)

Questions that the Commission and/or City Council has for the USACE:

Councilman Cusick-

1. The 500 identified at-risk structures are based on what data?
2. How does our modeling coincide with the extent of actual flooded area experienced during prior flood events?
3. Your inundation modeling does not show where flooding has actually taken place?
4. Road bridges in the project reach show that opening are to small and is contributing to the flooding. Could increasing size of bridges increase conveyance and solve the problem?
5. Why can't the downstream tubes receive additional flow if channel modifications/bridge adjustments are made to increase conveyance?
6. How many at-risk structures are identified upstream of 82nd Avenue? There are no reports of flooding in these areas yet the inundation model shows flooding?
7. Question the BCR of acquisition at \$500K per structure. City has acquired 26 structures at total cost of \$4M which equates to \$160-180K per structure?
8. Repetitive loss structures will be forced by FEMA and local Floodplain Ordinance to be acquired?

Councilman Smotherson

1. I am located in the third ward. Why is flood insurance only identified in one alternative and not mentioned across all alternatives? The impact that each measure would have on Flood insurance premiums is critical to consider in your analysis of alternatives.

Councilman Clay

1. The NED plan would result in residents losing their basements. Is there any compensatory space added to their home as a result of the solution? (or financial compensation for loss of basement?)

City Manager Rose

1. A combination of detention basin and floodproofing is being considered. Will approval be needed in other jurisdiction (Overland)?

Mayor Crow

1. What if City of Overland determines they don't want this detention facility in their community what do we do?

Councilman McMahon

1. The elimination of basements resides in the plan. Do you proceed on the premise that 100 percent participation can be achieved?

Commission

1. Incorporate additional data (highwater marks, rainfall data, and dates). Revise 25-year flood boundary, and the homes being considered as beneficiaries and for improvements. Recognize at a minimum that the 2008 flood produced the highest stage since 1997 (24-years data on modern gage, with additional data in 70's) and has a 6-hour rainfall total that meets Atlas-40 25-year rainfall frequency. This flood did not overtop tube entrance or flood homes on Braddock/Coolidge/Archer. Is it reasonable to say 2008 was not a 25-year storm?
2. Revise buyout costs by using actual U City data, including Council Resolution 2010-16 establishing Voluntary Flood Buyout Policy
3. Survey resident's participation rates in floodproofing and incorporation into planning
4. Revise floodproofing costs. Include summary of the floodproofing being considered. Does dry floodproofing consider only filling basements, or does flash flooding scenario include alternate dry floodproofing?
5. Revise building elevation costs to consider loss of home value when eliminating basement and accommodating utilities in main floor. Appropriate to consider adding out-building and/or shed to offset lost basement? Would not make a property owner whole, but would be a more realistic compromise than putting the furnace into the den.
6. Report to the Commission on what revised costs (buyouts, floodproofing, building elevation) are used for revised TSP

Questions that the USACE has for City Council/Commission:

1. Does the Commission or Council have a feel for public preference on structure elevation versus floodproofing?
2. How would the City like to work on outreach to City of Overland?
3. Does the City have or have access to repetitive loss data, damage information, or claims information that they could provide to the USACE?
4. Who from the City will be participating in the TSP milestone meeting on May 26th? And speaking on the City's behalf? (We are anticipating Sinan)
5. What do you suggest in terms of presenting to the City Council once more (perhaps on the 24th of May) in anticipation of the TSP?
6. Can you provide actual (not modeled) flood elevation data referenced during the Commission Q&A?

A relief map of University City, California, showing topographic contours and a street grid. A thick black line outlines the city's irregular boundary. A network of red lines is overlaid on the map, representing a storm water relief project. The map uses a color gradient from brown/orange (higher elevation) to blue (lower elevation/water).

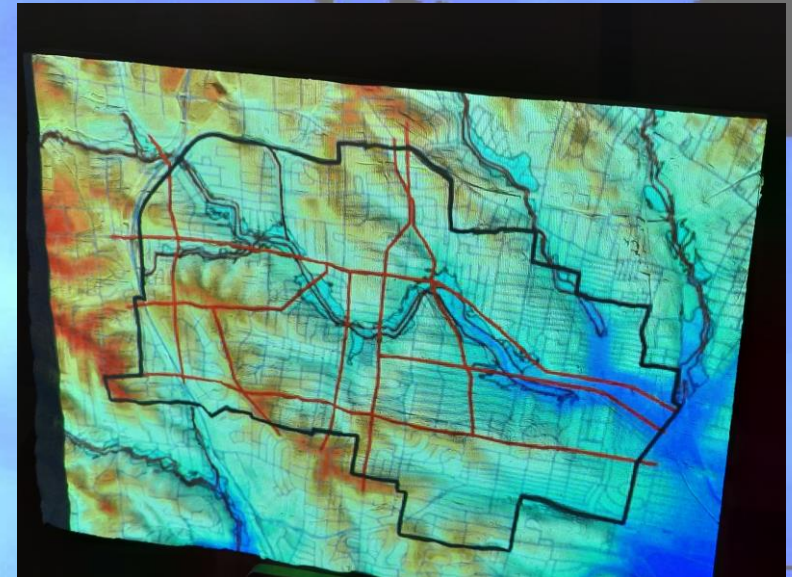
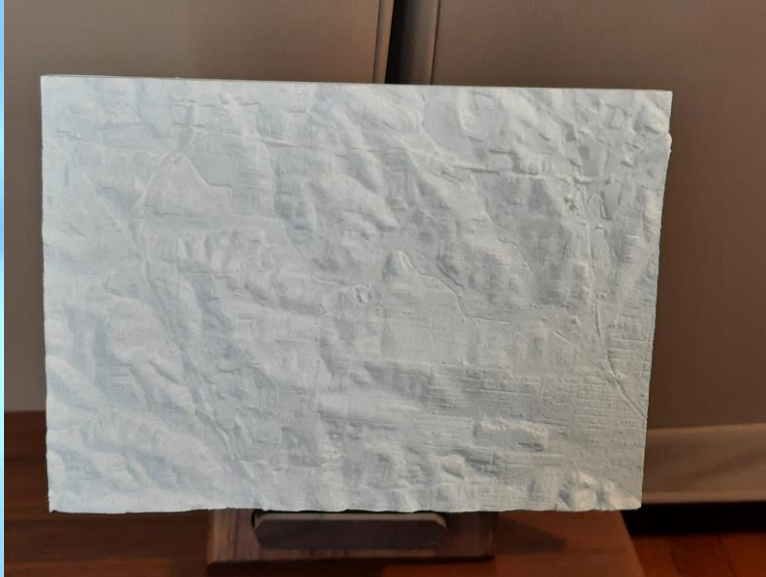
University City Commission on
Storm Water
Relief Map Project



Progress Since Last Commission Meeting

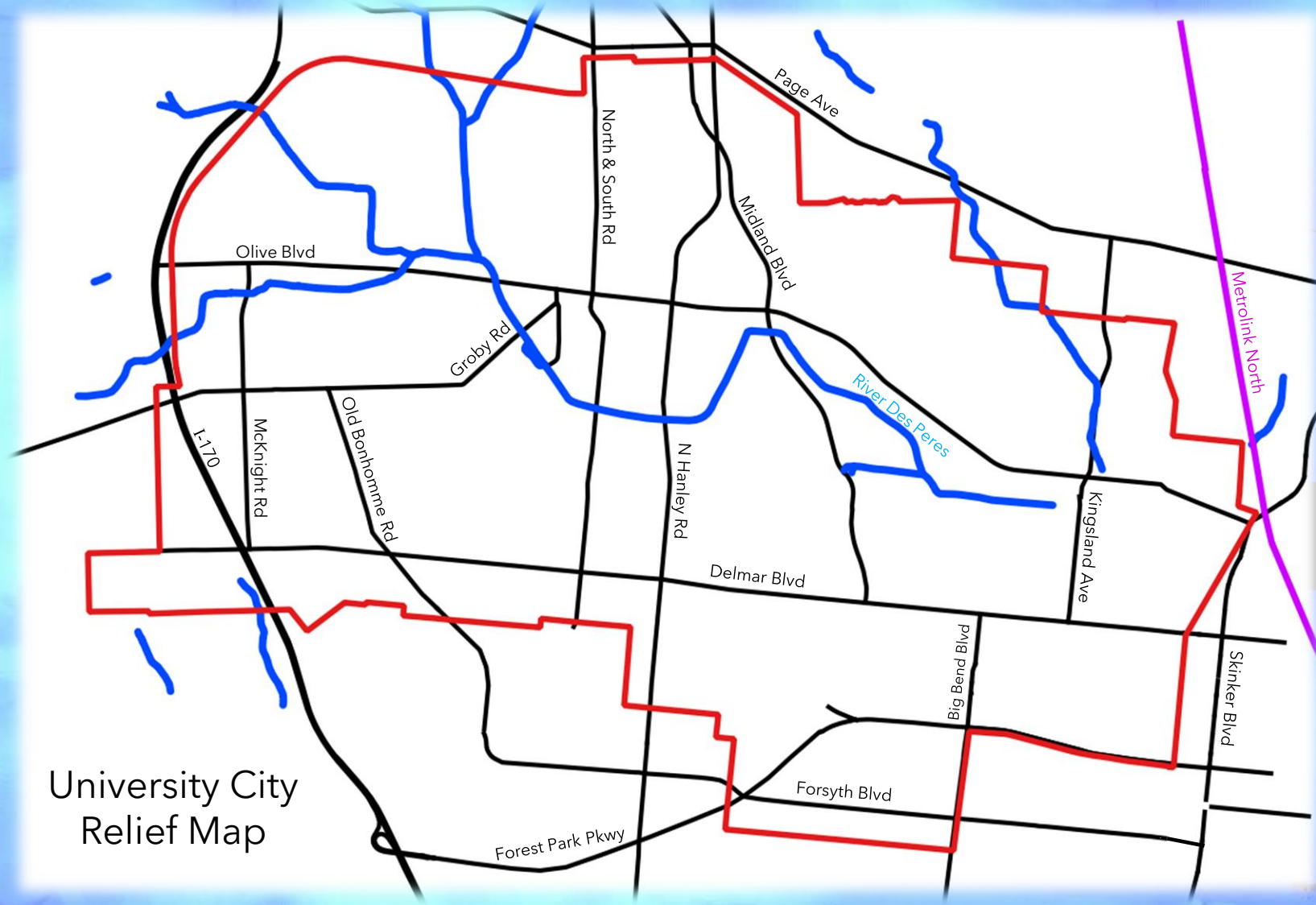
- Commission Delayed Go-Ahead on 3D Printed Relief Map Pending Commission Members Having Opportunity to View the Prototype Model Personally
- All Commission Members Plus Councilperson Cusick Have Now Seen Model
- Based Upon What I Believe Was a Consensus, I Conducted Projection Experiments on the Prototype Model
 - 3 D Model, Basic Reference Markings on Model & Supplemental Fly-Thru's

Projection Experiment





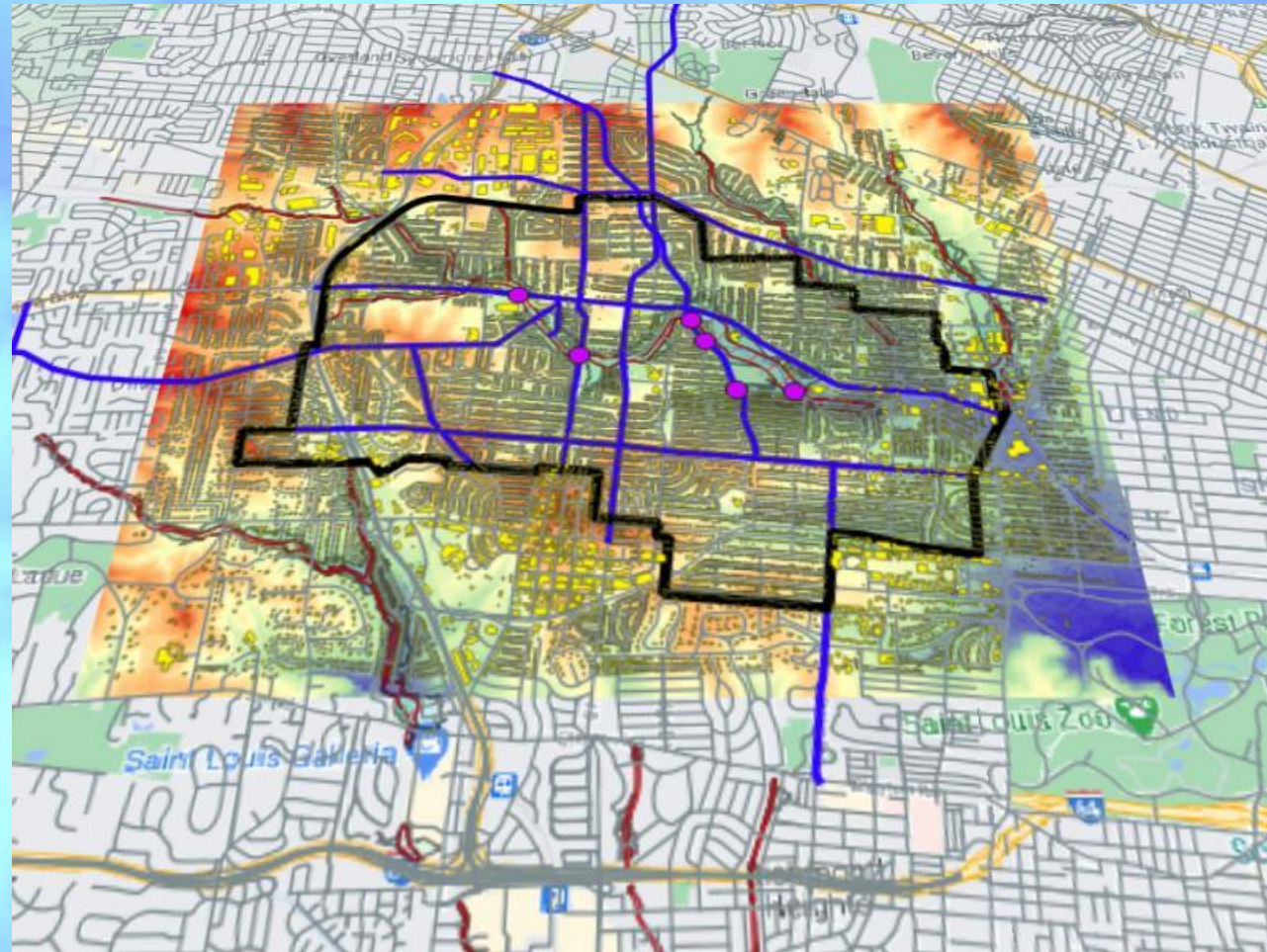
Basic Reference Markings



University City
Relief Map



Fly-Thru Example





Estimated Grand Total Relief Map Project

- Three-dimensional printing
- Stand Materials
- Artist Labor and Materials
- Incidentals (@ 10% of subtotal)

\$1739.59

\$234.92

\$625.00

\$260.00

\$2859.51

- 8 -12 Week Execution Time



Work Ahead

- Seek endorsement of Commission; if "GO" work on more detailed description of work, drawings, schedule, deliverables & responsibilities
- Explore next steps for city approval based on full estimate
- Explore possible educational collaboration with UCHS arts and STEM
- Continue to geocode and add survey responses and US Corps of Engineers buyout recommendations
- Investigate slope gradients vs purely elevations and survey trends
- Import US Corps of Engineers 2021 inundation shapefiles into model

Inundation Map

Updated based on 2008 flood extents

UNIVERSITY CITY.kmz

UNIVERSITY CITY

FEMA (1% Risk)

All items

Inundation Boundary (25yr) s1



2010 Wilson B/O Resolution

All items

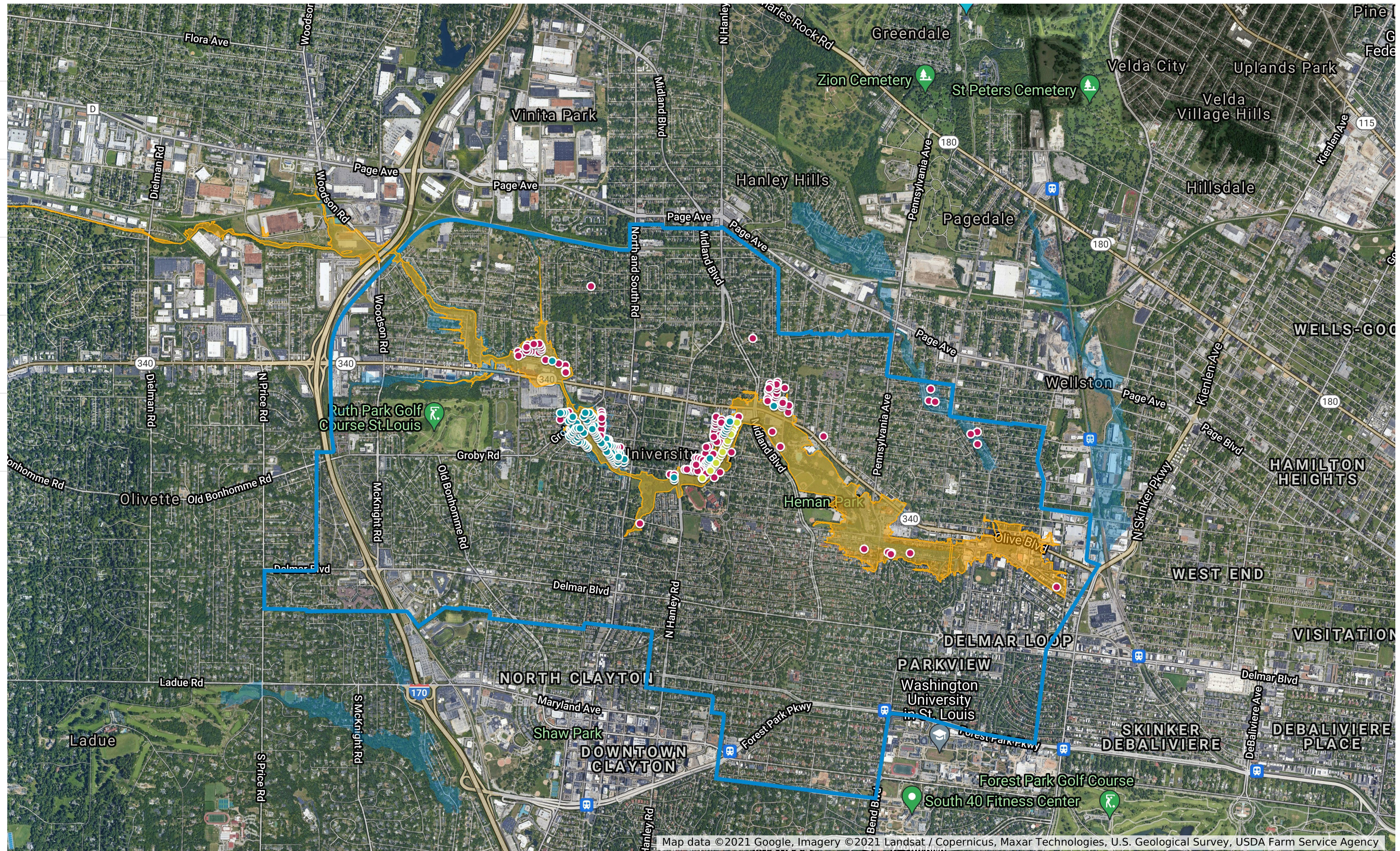
2010 Buyout Resolution.csv

All items

2008_Flood_Extent.csv

All items

Inundation boundaries from US Corps of Engineers 2021 Study as of May (these are NOT Public)
FEMA Layers Added



MEMORANDUM
DEPARTMENT OF PUBLIC WORKS

TO: Todd Thompson, Chairman – Commission on Storm Water Issues

FROM: Sinan Alpaslan, Director of Public Works, Staff Liaison to Commission

DATE: April 30, 2021

RE: Evaluation of submittals in response to Requests for Qualifications (RFQ) for Stormwater Master Plan – Update

The department received 7 submittals of qualifications from engineering firms in response to the City's RFQ that closed on March 16.

Staff has shortlisted the submittals to the following three firms and set up interviews in the first week of May for additional examination:

- 1) HR Green-Reitz&Jens
- 2) EDM Incorporated
- 3) Intuition & Logic-AMPM Consulting

Staff evaluation interview panel will outline the results of the interviews and provide a selection recommendation to the Commission. This action can be completed at a Commission meeting or a Subcommittee meeting.

Following the Commission's evaluation and the development of the Commission's recommendation to City Council in the matter, staff will work to prepare the item for inclusion in a Council meeting agenda for the approval of a services contract with the selected firm. The possible remaining Fiscal Year 2021 regular Council meeting dates for this action are: May 24, June 14, and June 28.

Please advise of any comments and revisions to this plan as the Commission deems necessary for the Stormwater Master Plan consultant evaluation.