



## CITY OF ITHACA

108 East Green Street, Ithaca, New York 14850-6590

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### DEPARTMENT OF PUBLIC WORKS

Michael J. Thorne, P.E.

Superintendent

Telephone: 607/274-6527

Fax: 607/274-6587

## MEMORANDUM

**TO:** Common Council  
Planning & Development Board  
Bicycle Pedestrian Advisory Council  
Attendees of project public meeting

**FROM:** Tim Logue, Director of Engineering Services  
Addisu Gebre, Bridge Systems Engineer

**DATE:** January 12, 2016

**RE:** Cascadilla Creekway Project, CP#802

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Please find enclosed a memo that the Board of Public Works considered at their meeting yesterday. The Board has requested your input on selecting an alternative to pursue related to the railing along the creek. Please send your comments to Addisu Gebre in writing at [agebre@cityofithaca.org](mailto:agebre@cityofithaca.org) or the above address by January 31<sup>st</sup>. If you have any questions, you can also reach him at 274-6530.

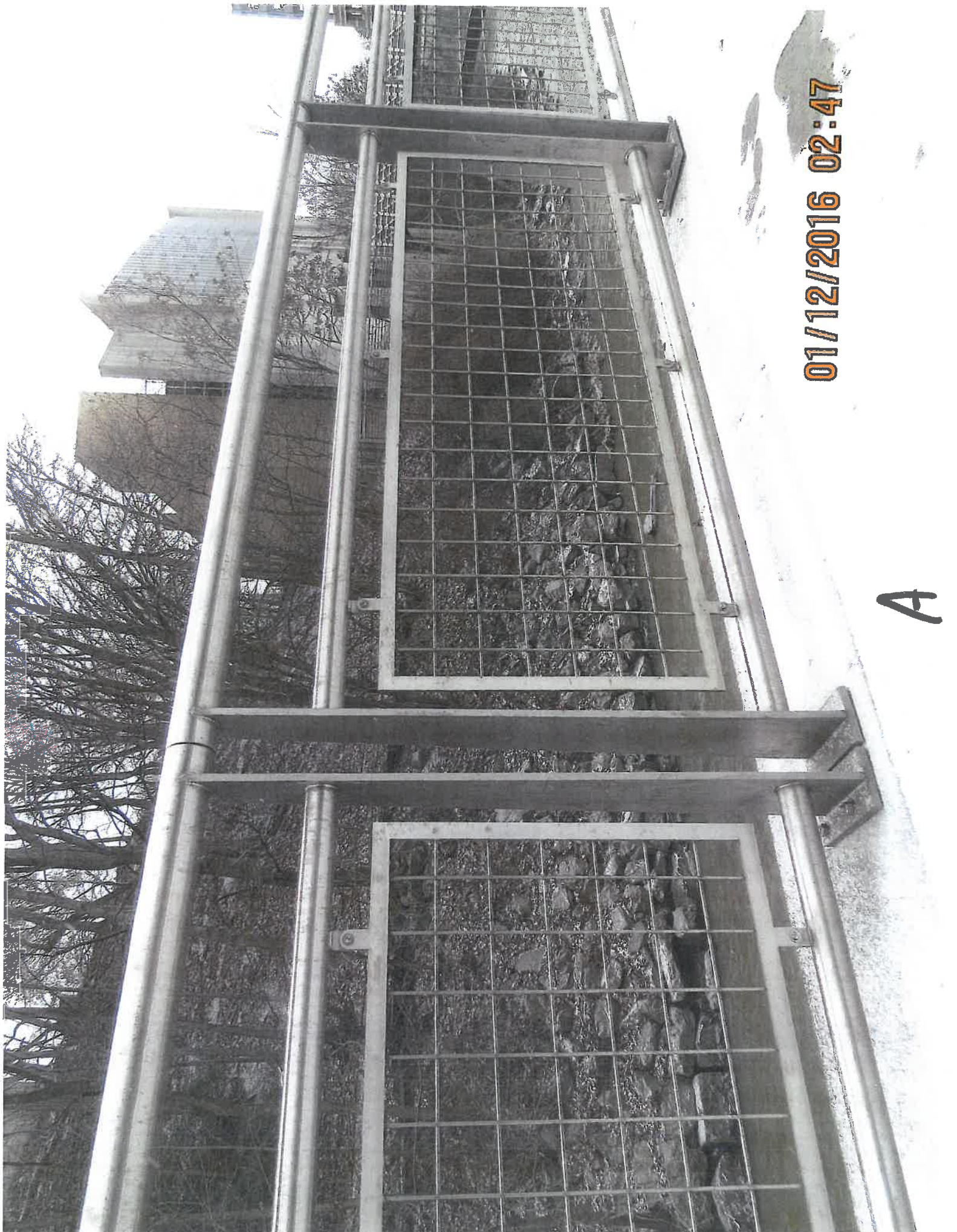
In addition to the memo, we have included a picture of the type of railing that we originally considered (and budgeted for) as part of the application for the Transportation Alternatives Program. It is the railing that we used along the Six Mile Creekwalk behind the Gateway Commons building at 401 East State/MLK Jr. Street (Picture A). We wouldn't need a railing that had such small openings, but this style of railing was what we were considering. This would be the type of railing that we would suggest in Alternative Two, in conjunction with a taller wall/curb along the creek (Picture B).

Also, we wanted to clarify that under Alternative Four, the City would certainly be able to pursue other funding for this project. For example, this project would be eligible for funds under the NYS Local Waterfront Revitalization Program or possibly through preventative mitigations under a FEMA program. With the announcement of the Governor's Upstate Revitalization Initiative, there may be other funding programs that would be applicable.

Please send your recommendation on which alternative to pursue to Addisu Gebre by January 31<sup>st</sup>. We will then present the recommendations to the Board of Public Works on February 8<sup>th</sup>, with the hope of that the BPW will select an alternative on February 22<sup>nd</sup>.

01/12/2016 02:47

A







B



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## MEMORANDUM

**TO:** Board of Public Works  
**FROM:** Tim Logue, Director of Engineering Services  
Addisu Gebre, Bridge Systems Engineer  
**DATE:** January 6, 2016  
**RE:** Cascadilla Creekway Project, CP#802

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This memo is intended to provide an update on the current project progress and to seek direction from the BPW on how to proceed with the project. The Board will likely want to seek input from Common Council, the Planning Board, and the public before selecting an alternative. With the Board's direction, staff will circulate this memo and request input so that the BPW can make a decision at the first meeting in February.

The Cascadilla Creekway Project proposes to rehabilitate and enhance the 100 block of Cascadilla Avenue, which is an important bicycle and pedestrian way along Cascadilla Creek. The project scope includes:

- Replacement of railings along the creek;
- Preservation of creek wall;
- Replacement of Sears St. Pedestrian bridge;
- Making pedestrian enhancements and upgrading six (6) curb ramps at the Cascadilla Ave. /N Cayuga St. intersection to meet current ADA guidelines; and
- Enhancement of Cascadilla Ave as part of the bicycle boulevard system

In September 2015, the project consultant, LaBella Associates D.P.C., submitted draft project scoping report for City's review. Subsequently, staff consulted with the Planning Board's Project Review Committee and held a project public information meeting on October 11, 2015.

As part of the draft design report, our consultant proposed using standard, federally-approved, crash tested railing along creek, due to the fact that motor vehicles are allowed on Cascadilla Avenue and the vertical drop into the creek. The current railings (even if they were repaired) do not meet this standard, though they have been in place for decades. The Planning Board, the public, a number of Common Council members, and staff have expressed concerns that the railings are not context sensitive and are "over-engineered" for the avenue, which carries a very

low-volume of low-speed motor vehicles, and acts much more like a walkway and bikeway upon which people can also drive. Unfortunately, communications with NYSDOT have confirmed that if the City is to use federal funds on the project, we must use a Federal Highway Administration (FHWA) approved railing system. There are three ways to get approval: 1) use a specific railing system that is already been crash tested and approved; 2) apply to FHWA to modify an approved, crash-tested system; or 3) following a specified protocol, crash test a railing system and seek FHWA approval. A fourth option for the City would be to forfeit the federal funding and proceed as a local project.

Staff seeks direction on which of these alternatives to pursue.

1. Use an FHWA approved railing system, such as one proposed to date by LaBella. We have clarified with LaBella and NYSDOT that even along a bikeway, we do not have to use the taller (54") "bicycle railing," and would be allowed to use a 42 inch high railing along the creek. This crash tested railing system is considerably more expensive than the original grant application scope of work/budget; however, the federal share of the project in dollars (\$600,000) is fixed. Any additional funds would have to be made up by the City.

Current Total Project Cost: \$1,200,000

Original Estimated Total Cost: \$750,000

Original Estimated City Share: \$150,000 (20% of the original total project cost)

Current Estimated City Share: \$600,000 (50% of the current total project cost)

2. Choose an FHWA approved railing system and modify it by adding railing or fencing. This option would require a new design for a railing, an analysis of the implications of modifying it, and submission to FHWA for approval. There would be some additional cost for our consultant to design and analyze the railing system, and the approval process with FHWA would likely take 3 or 4 months. Depending on what we propose, construction costs could also be higher than in Alternative 1. One modified system that we have discussed is comprised of a 10"-12" high concrete curb, approximately 18" wide (constructed as part of the cap on the retaining wall), with a pipe railing mounted to the top of the curb (with the appropriate sized voids in the railing to meet building code). We think a design like this, essentially a pedestrian/bicycle railing on top of a tall curb, would be appropriate considering the very low volumes and very low speeds of motor vehicle traffic, and the fact that no one seems to have ever heard of a vehicle crashing through the railing and into the creek.

Current Total Project Cost: >\$1,200,000

Original Estimated Total Cost: \$750,000

Original Estimated City Share: \$150,000 (20% of the original total project cost)

Current Estimated City Share: >\$600,000 (50% of the current total project cost)

3. The City could elect to follow the protocols to crash test a railing system of our own design and seek FHWA approval. Preliminary discussions indicate that pursuing this option would like cost at least \$100,000, and take somewhere between 6 to 12 months to complete.
4. Return the federal funds and proceed as a local project.

This options gives the City the greatest flexibility in regard to railing design, but forfeits the \$600,000 federal share in the project. The City would be responsible for the full cost of our current design contract with LaBella, which is approximately \$70,000. The construction costs and the total project costs would be significantly lower, perhaps upwards of 30% to 40% lower, but with the current estimate of \$1.2M, this might still mean a final project cost of \$720,000 to \$840,000.

Included with this memo are the current, preliminary renderings of the railing system proposed under Alternative 1, and a September 13, 2015 memo from the Planning Board to the BPW.

Our recommendation is to circulate this memo and seek input from Common Council members, the Planning Board, the Bicycle Pedestrian Advisory Council, and the public, requesting that comments be submitted to staff by January 31<sup>st</sup>, so that the Board can discuss at your first meeting in February (8<sup>th</sup>), with the hope that the BPW can make a decision at the second meeting in February (22<sup>nd</sup>).

If you have any questions, please call Addisu Gebre, Bridge Systems Engineer @ 607-274-6530





**CITY OF ITHACA**

**108 E. Green Street — 3rd Floor Ithaca, NY 14850-5690**

**DEPARTMENT OF PLANNING, BUILDING, ZONING, & ECONOMIC DEVELOPMENT**

**Division of Planning & Economic Development**

**JOANN CORNISH, DIRECTOR OF PLANNING & DEVELOPMENT**

Telephone: Planning & Development – 607-274-6550

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Email: [dgrunder@cityofithaca.org](mailto:dgrunder@cityofithaca.org)

Email: [iura@cityofithaca.org](mailto:iura@cityofithaca.org)

**To: Board of Public Works**

**From: Planning & Development Board**

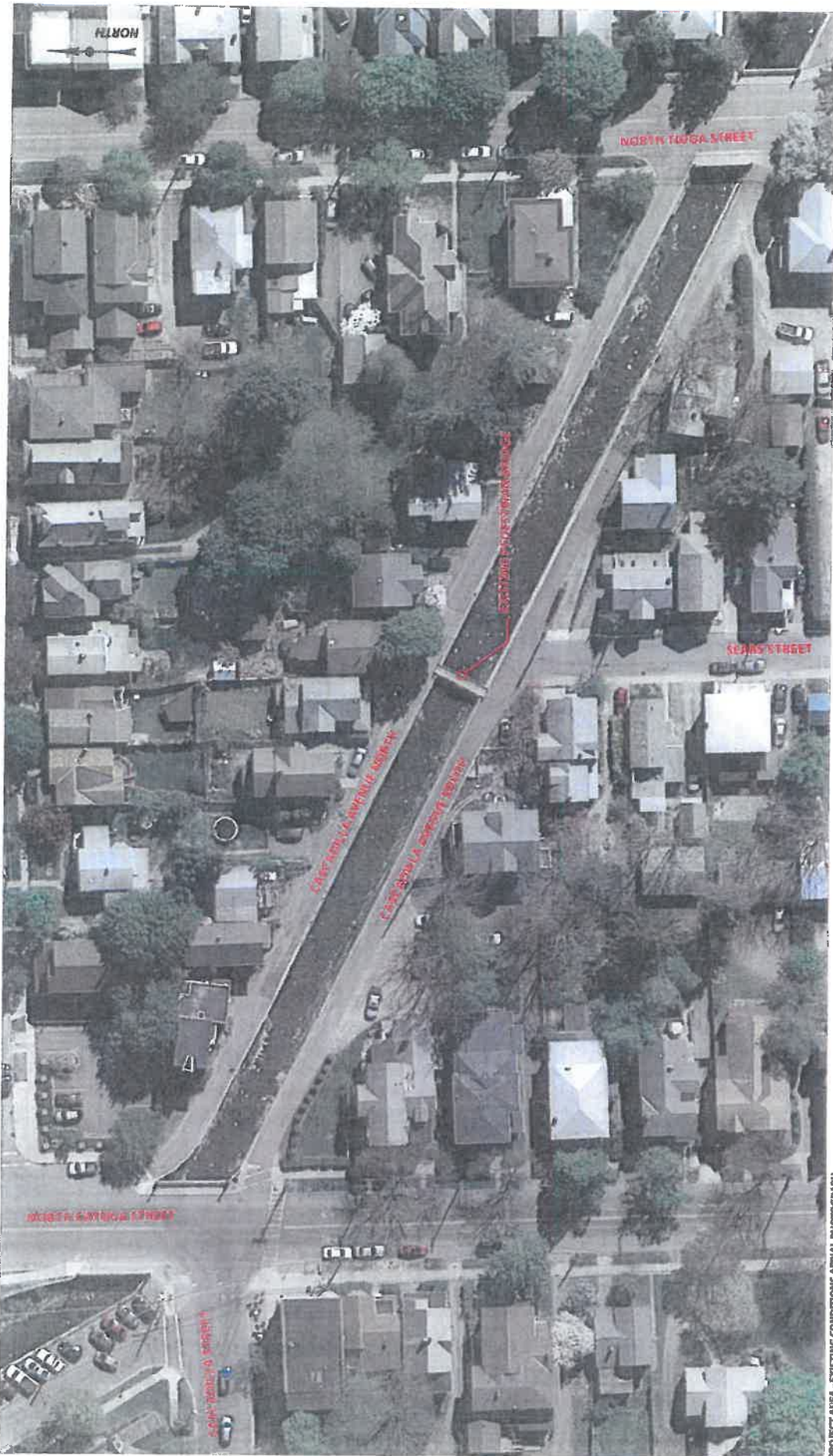
**RE: Improvements to Cascadilla Creekway**

**Date: September 23, 2015**

The Planning Board has reviewed plans dated September 15, 2015 for the proposed improvements to Cascadilla Creekway. As the Board understands the project it is to include some wall repairs, safety railings on both sides of the creekway, possible intersection improvements and a pedestrian bridge replacement.

Drawings illustrating the proposed height of the railings in relation to pedestrians, cars and cyclists, show that the railings on the south side of the creek are proposed to be approximately five feet high. The Planning Board understands that the reason for this height - which as the drawings depict, can be taller than a car - is to comply with safety standards that would allow the southern side of the creekway to be an official bicycle boulevard. However, the Board also understands that bike boulevards can include portions posted as dismount areas. The Board also understands that due to cost, the only feasible railing design is a standard steel box beam railing system.

The Planning Board feels that the tall height of the railings on the south creek side combined their standard highway design will significantly detract from the experience of being in this truly unique and beautiful part of the City. Since the structure of the railings cannot (as the Board understands it) be under consideration the Board suggests that the railings be painted dark green, similar to the railings on the Thurston Avenue Bridge. In addition, it urges the Board of Public Works to post this portion of the bike boulevard as a dismount area so that the railings on its south side can be lowered to the more open, welcoming and pedestrian scaled 3'6" proposed for its north side. The Board feels that the creekway will continue to function as an important pedestrian and bike route with this change and that lower painted railings will significantly improve the aesthetics and human scale of this project, and render it more appropriate for its beautiful Creekside setting.



PROJECT AREA - EXISTING CONDITIONS AERIAL PHOTOGRAPH  
N.T.S.

**CASCADILLA CREEKWAY**  
 CASCADILLA AVENUE NORTH AND SOUTH SECTIONS BETWEEN N. CAYUGA STREET AND N. TUGA STREET  
 PUBLIC INFORMATION MEETING - SEPTEMBER 21, 2015



Department of  
Transportation

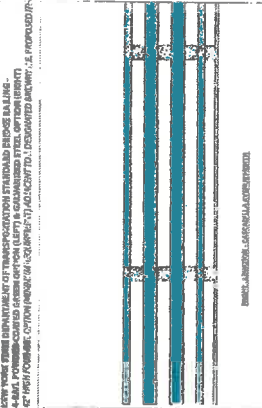
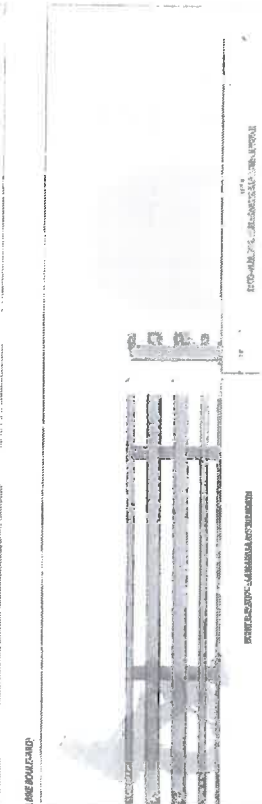
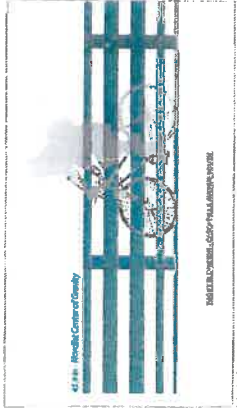
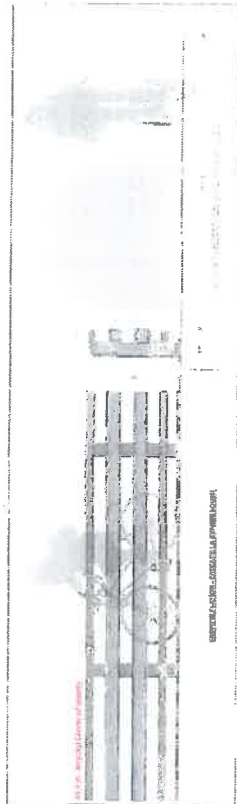
**IABELLA**

Engineering  
Architecture  
Environmental  
Planning

A 4370-JETEEB, P.C.







NEW YORK STATE DEPARTMENT OF TRANSPORTATION STANDARD BRIDGE RAILING -  
 CAST-IRON POST AND RAIL OPTION (LEFT) & CAST-IRON POST AND RAIL OPTION (RIGHT)  
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NEW YORK STATE DEPARTMENT OF TRANSPORTATION STANDARD BRIDGE RAILING -  
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**CASCADILLA CREEKWAY**  
 CASCADILLA AVENUE NORTH AND SOUTH SECTIONS BETWEEN N. CAYAGA STREET AND N. TOGA STREET  
 JANUARY 2016

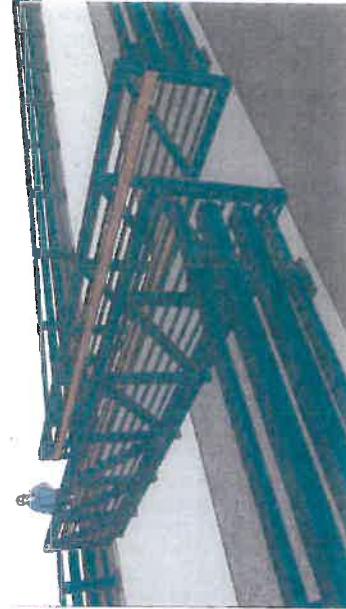


Department of Transportation  
**ABELLA**  
 Architects, Engineers, Planners, Inc.





PROPOSED BRIDGE OPTION  
 WITH STEEL TRUSS BRIDGE WITH CONCRETE FLOOR AND WOOD DECK



PROPOSED BRIDGE OPTION  
 STEEL BRIDGE WITH GREENHOUSE CLADDING, CONCRETE FLOOR AND WOOD DECK

**CASCADILLA CREEKWAY**  
 CASCADILLA AVENUE NORTH AND SOUTH SECTIONS BETWEEN N. CRUGER STREET AND N. TIOGA STREET  
 AUGUST 7, 2016



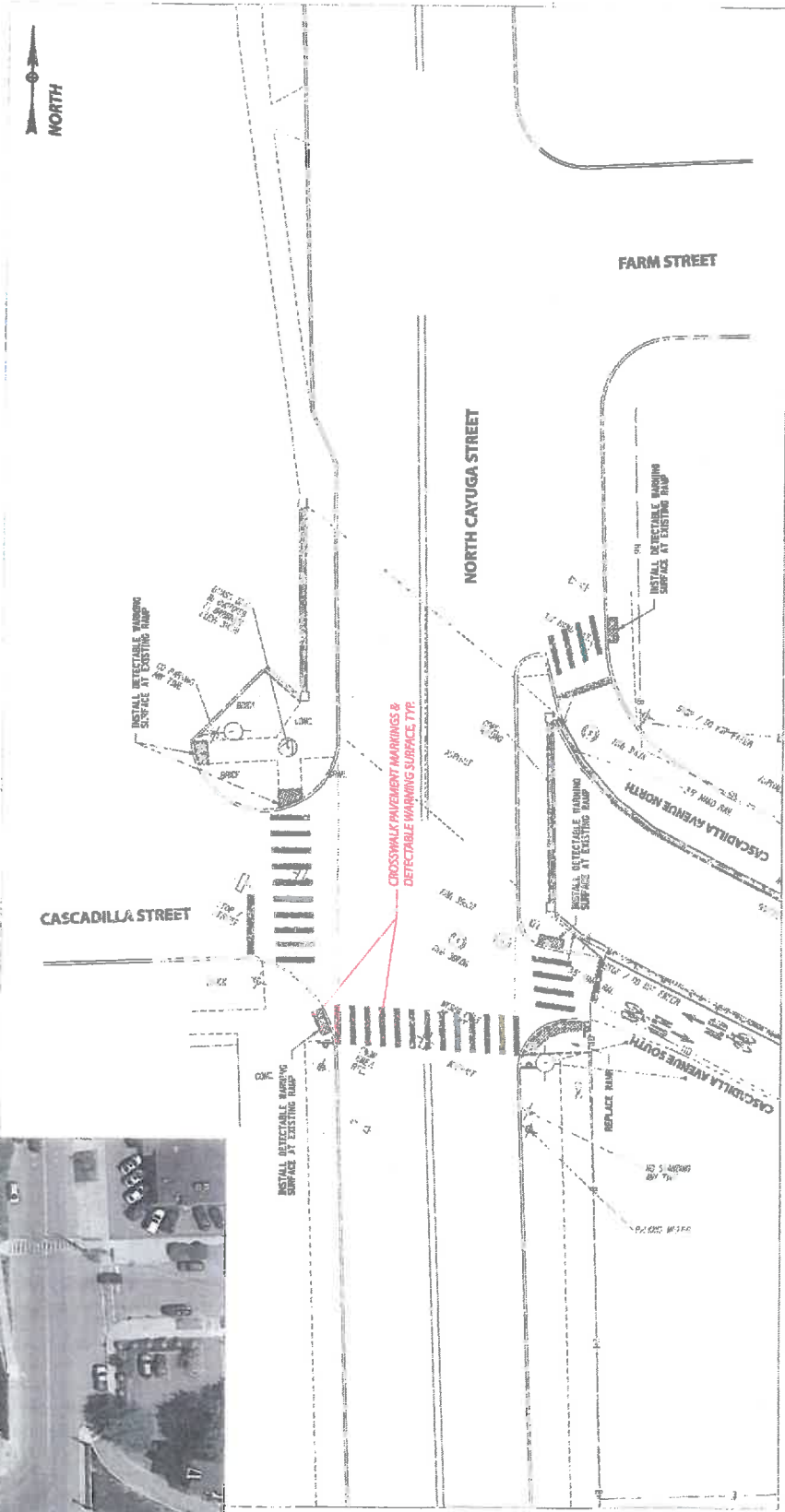
Department of  
 Transportation

**LABELIA** ENGINEERING ARCHITECTURE  
 10000 W. LOOP WEST, SUITE 100  
 HOUSTON, TEXAS 77042





EXISTING CONDITIONS



NORTH CAYUGA STREET INTERSECTION ALTERATIONS (OPTIONAL - MINOR IMPROVEMENTS) - SITE PLAN DETAIL  
TRAFFIC CALMING AND PEDESTRIAN CROSSWALK IMPROVEMENTS

**CASCADILLA CREEKWAY**

CASCADILLA AVENUE NORTH AND SOUTH SECTIONS BETWEEN N. CAYUGA STREET AND N. TOGA STREET

PUBLIC INFORMATION MEETING - SEPTEMBER 21, 2015



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