

Community Solar Energy Pilot Program Application Form **SEP 09 2019****BOARD OF PUBLIC UTILITIES
TRENTON, NJ****Section A: Application Form Requirements, Instructions, Terms and Conditions**

The following Application Form is intended only for entities submitting a community solar project for consideration by the New Jersey Board of Public Utilities ("Board" or "BPU"). Projects selected by the Board will be approved for participation in the Community Solar Energy Pilot Program, pursuant to the rules at N.J.A.C. 14:8-9.

This Application Form is valid only for the following Program Year and Application Period:

Program Year 1, Application Period 1

Application Period Opens: April 9, 2019 at 9:00 A.M.

Application Period Closes: September 9, 2019 at 5:00 P.M.

I. Minimum Qualification Requirements

The Community Solar Energy Pilot Program is open to projects that meet the following minimum requirements, and the full requirements defined in N.J.A.C. 14:8-9 (available for reference at the following link: [http://njcleanenergy.com/files/file/R_2019%20d_021%20\(51%20N_J_R_%20232\(a\)\).pdf](http://njcleanenergy.com/files/file/R_2019%20d_021%20(51%20N_J_R_%20232(a)).pdf)).

1. The proposed community solar project must be located in the electric service territory of an Electric Distribution Company ("EDC") in the State of New Jersey.
2. Existing solar projects may not apply to requalify as a community solar project. An existing solar project, as defined in N.J.A.C. 14:8-9.2, means a solar project having begun operation and/or been approved by the Board for connection to the distribution system prior to February 19, 2019. Projects having received a subsection (t) conditional certification from the Board prior to February 19, 2019 should refer to section B. XIII. Special Authorizations and Exemptions for additional information.
3. The Board will not consider Applications for EDCs to develop, own, or operate community solar project(s).
4. The Board will not consider Applications for projects sited on preserved farmland, as defined in N.J.A.C. 14:8-9.2.
5. The Board will not consider Applications for projects exceeding the capacity limit for individual community solar projects, set at 5 MW as defined in N.J.A.C. 14:8-9.4(g).

II. Instructions for Completing the Community Solar Energy Pilot Program Application Form

1. Each solar project applying to participate in the Community Solar Energy Pilot Program requires the submission of an individual Application Form. Do not apply for more than one (1) project per Application Form. There is no limit to the number of Application Forms that can be submitted by any one Applicant (see the definition of an "Applicant" in section A. III. Terms and Conditions).



2. Complete sections B and C, and Appendix A in full. All questions are required to be answered, unless explicitly marked as optional. All attachments are required, unless explicitly marked as optional. All attachments must be attached to the end of the Application Form, therefore forming a complete application package. Note that attachments marked as optional will be considered if included, but their absence will not penalize an Application.
3. Original signatures on all forms and certifications of this Application Form are required. The certifications contained in section C must be notarized.
4. Specific exemptions are identified throughout the Application Form which apply only if: 1) the Applicant is a government entity (municipal, county, or state), AND 2) the community solar developer will be selected by the Applicant via a Request for Proposals ("RFP"), Request for Quotations ("RFQ"), or other bidding process. If this is the case, the Applicant must include a letter describing the proposed bidding process, and the Applicant should complete all sections of the Application Form based on the project as it will be designed in the bidding process. The Applicant must further commit to issuing said RFP, RFQ, or other bidding process within 90 days of the proposed project being approved by the Board for participation in the Community Solar Energy Pilot Program (see section B. XIII. Special Authorizations and Exemptions).

III. Terms and Conditions

General Terms and Conditions

1. The "Applicant" is defined as the entity that submits the Community Solar Energy Pilot Program Application Form (for example, an Applicant may be a project developer, project owner, project operator, property owner, contractor, installer, or agent thereof).
2. Prior to completing the Application Form, the Applicant must carefully review the rules at N.J.A.C. 14:8-9, and any other rules, regulations, and codes applicable to the design, construction, and operation of a community solar project in New Jersey. All Applications must be in compliance with all local, state and federal rules, regulations and laws. Furthermore, submission of an Application Form does not obviate the need for compliance with all applicable local, state, and federal laws and regulations at any time during the design, construction, operation, and decommissioning of a community solar project including, but not limited to, regulations by commissions such as the New Jersey Highlands Council and the New Jersey Pinelands Commission.
3. By submitting an Application, the Applicant acknowledges notice on behalf of all project participants that the information included in the Application is subject to disclosure under the Open Public Records Act, N.J.S.A. 47:1A-1 et seq. Aggregated information may be used by the Board and/or other state, federal, county, regional or local agencies in reports and evaluations, and the geographic location may be used to update Geographic Information System ("GIS") mapping. Applicants may identify sensitive and trade secret information that they wish to keep confidential by submitting them in accordance with the confidentiality procedures set forth in



N.J.A.C. 14:1-12.3. Furthermore, the Applicant understands that the list of approved community solar projects will be published on the Board of Public Utilities website.

4. Amendments or supplements to the Community Solar Energy Pilot Program Application Form will be made available via the New Jersey Clean Energy Program ("NJCEP") website at www.njcleanenergy.com. This Application Form may be modified for future Application Periods at any time without prior notification.

Evaluation of Applications and Approval of Projects

5. Only Applications that are administratively complete by the close of the Application Period will be considered for participation in the Community Solar Energy Pilot Program during that Program Year. An application will be deemed administratively complete if: 1) All questions are completed, except those explicitly marked as optional, 2) All required attachments are included (see Appendix B for a checklist of required attachments), and 3) All required signatures are included. Applicants will be notified if an Application is deemed administratively incomplete. An incomplete Application may be amended and resubmitted during the following Application Period without advantage or disadvantage.
6. The Applicant may be required to supplement the information provided in the Application Form upon request from the Board or Board Staff.
7. Following the close of the Application Period, each Application will be reviewed and evaluated by a dedicated Evaluation Committee.
8. In reviewing each application, Board Staff may consult with the New Jersey Department of Environmental Protection ("NJDEP"), the New Jersey Department of Agriculture, or other state agencies and consultants as are relevant to the Application. Any information marked and submitted as confidential will be treated as such by the receiving agency, and used for the sole purpose of evaluation.
9. The criteria for evaluation of Applications are presented in Appendix C (Evaluation Criteria). Projects must score a minimum 30 points total in order to be considered for participation in the Community Solar Energy Pilot Program. Projects that score above 30 points will be presented to the Board for approval for participation in the Community Solar Energy Pilot Program in order, starting with the highest-scoring project and proceeding to the lowest-scoring project, and until the allocated program capacity for that Program Year is filled.
The allocated program capacity for Program Year 1 is 75 MW. At least 40% of program capacity (i.e. at least 30 MW) will be allocated to LMI projects.
10. Board Staff may reject Applications that are incomplete at the close of the Application Period, that are not in compliance with the rules and regulations established in N.J.A.C. 14:8-9, or that do not meet a minimum standard for selection, as set forth in this Application Form.

Milestones and Follow-Up for Approved Projects

11. Should the proposed community solar project be approved by the Board for participation in the Community Solar Energy Pilot Program, such approval will be contingent on the project being constructed and operated as was proposed in its Application.

Furthermore, pursuant to the rules at N.J.A.C. 14:8-9.3(c), approved projects are expected to begin construction within 6 months of their approval by the Board, and are expected to become fully operational within 12 months of their approval by the Board. Extensions may be granted by Board Staff at its discretion, based on its assessment of the specific circumstances of each project approved.

In order to monitor compliance, approved projects will be required to submit updates to the Board:

- a. Prior to the beginning of construction, the Applicant must provide evidence that commitments in the following categories have been met: project location, community and environmental justice engagement, other benefits.
- b. Prior to applying for permission to operate ("PTO"), the Applicant must provide evidence that commitments in the following categories have been met: siting (other than location), all permits received.
- c. Prior to applying to the EDC for allocation of bill credits, the Applicant must provide evidence that commitments in the following categories have been met: product offering, subscriber type, geographic limit within EDC service territory.

If the approved project fails to be completed as proposed in the Application, and the Applicant fails to remediate the failure or provide an equivalent modification within a reasonable timeframe, the project may be penalized up to and including a withdrawal of the permission to operate in the Community Solar Energy Pilot Program.

Special Considerations for Project Siting

12. Unless the proposed community solar facility is located on a rooftop, parking lot, or parking structure, the Applicant must meet with the NJDEP's Office of Permit Coordination and Environmental Review ("PCER") to determine what permits may be required and to identify other potential issues. More information is available at: <http://www.nj.gov/dep/pcer>. The Applicant must have completed the NJDEP Permit Readiness Checklist and submitted said Checklist to NJDEP PCER prior to submitting the Application to the Board (see section B. VIII. Permits). The Permit Readiness Checklist is available at the following link: <https://www.nj.gov/dep/pcer/introchecklist.htm>.
13. Special attention should be paid when siting a project on a landfill, a brownfield, or an area of historic fill. For reference, NJDEP's *Guidance for Installation of Solar Renewable Energy Systems on Landfills in New Jersey* can be found at the following link: <https://www.nj.gov/dep/dshw/swp/solarguidance.pdf>.
14. The Applicant should review the environmental compliance history at the proposed site and the various operations that were conducted there. Satisfaction of all outstanding NJDEP regulatory

compliance obligations, if applicable, will be required prior to applying for permission to operate. The Applicant should identify any outstanding compliance and enforcement issues associated with the property on which the proposed project is to be sited and resolve them accordingly before submitting the Post Construction NJDEP Compliance Form, if applicable.

15. If the proposed project is sited on Green Acres preserved open space, as defined in N.J.A.C. 14:8-9.2, or on land owned by NJDEP, the Applicant must receive special approval for the project from NJDEP prior to submitting the Application to the Board, and attach proof of approval to their application package (see section B. VII. Community Solar Facility Siting).

Submitting an Application

Applications must adhere to all of the following instructions for submission. Applications must be received no later than 5:00 P.M. on the date of the close of the Application Period in order to be considered.

Mail or hand-deliver the original complete Application package plus three copies of the complete Application package to:

New Jersey Board of Public Utilities
44 South Clinton Avenue, 7th Floor
Post Office Box 350
Trenton, New Jersey 08625-0350
Attn: Office of Clean Energy
Community Solar Energy Pilot Program Application Package

In addition, submit an electronic version of the complete Application package to both of the following email addresses: communitysolar@njcleanenergy.com and board.secretary@bpu.nj.gov.

Questions and Further Information

Please address all questions pertaining to the Application Form to communitysolar@njcleanenergy.com.

Additional guidance and Frequently Asked Questions will be available on the NJCEP website at: <http://njcleanenergy.com/renewable-energy/programs/community-solar>.



Section B: Community Solar Energy Project Description

Instructions: Section B must be completed in its entirety. Any attachments should be placed at the end of the Application package.

I. Applicant Contact Information

Applicant Company/Entity Name: Triangle Equities Development Company LLC

First Name: Josh Last Name: Weingarten

Daytime Phone: 718 463 5757 Email: jweingarten@triequities.com

Applicant Mailing Address: 30-56 Whitestone Expressway

Municipality: Whitestone County: Queens Zip Code: 11354

Applicant is: ☐ Community Solar Project Owner ☐ Community Solar Developer/Facility Installer
☐ Property/Site Owner ☐ Subscriber Organization
☒ Agent (if agent, what role is represented) Project Sponsor

II. Community Solar Project Owner

Project Owner Company/Entity Name (complete if known): Brick Church Developer LLC

First Name: Josh Last Name: Weingarten

Daytime Phone: 718 463 5757 Email: jweingarten@triequities.com

Mailing Address: c/o Triangle Equities, 30-56 Whitestone Expressway

Municipality: Whitestone County: Queens Zip Code: 11354

III. Community Solar Developer

This section, "Community Solar Developer," is optional if: 1) the Applicant is a government entity (municipal, county, or state), AND 2) the community solar developer will be selected by the Applicant via a RFP, RFQ, or other bidding process. In all other cases, this section is required.

Developer Company Name (optional, complete if applicable): Brick Church Developer LLC

First Name: Josh Last Name: Weingarten

Daytime Phone: 718 463 5757 Email: jweingarten@triequities.com

Mailing Address: c/o Triangle Equities, 30-56 Whitestone Expressway

Municipality: Whitestone County: Queens Zip Code: 11354

The proposed community solar project will be primarily built by:

☐ the Developer ☒ a contracted engineering, procurement and construction ("EPC") company



If the proposed community solar project will be primarily built by a contracted EPC company, complete the following (optional, complete if known):

If the EPC company information is left blank and the proposed project is approved by the Board for participation in the Community Solar Energy Pilot Program, the Applicant must inform the Board of the information below once the EPC company becomes known.

EPC Company Name (optional, complete if applicable): _____

First Name: _____ Last Name: _____

Daytime Phone: _____ Email: _____

Mailing Address: _____

Municipality: _____ County: _____ Zip Code: _____

IV. Property/Site Owner Information

Property Owner Company/Entity Name: 533 Main Street Urban Renewal LLC / 15-33 Halstead Street Urban

First Name: Josh _____ Last Name: Weingarten _____

Daytime Phone: 718 463 5757 _____ Email: jweingarten@triequities.com _____

Applicant Mailing Address: c/o Triangle Equities, 30-56 Whitestone Expressway _____

Municipality: Whitestone _____ County: Queens _____ Zip Code: 11354 _____

V. Community Solar Subscriber Organization (optional, complete if known)

If this section, "Community Solar Subscriber Organization," is left blank and the proposed project is approved by the Board for participation in the Community Solar Energy Pilot Program, the Applicant must inform the Board of the information below once the Subscriber Organization becomes known.

Subscriber Organization Company/Entity Name (optional, complete if applicable): _____

First Name: _____ Last Name: _____

Daytime Phone: _____ Email: _____

Mailing Address: _____

Municipality: _____ County: _____ Zip Code: _____

VI. Proposed Community Solar Facility Characteristics

Community Solar Facility Size (as denominated on the PV panels):

~0.398 MW AC ~0.5054 MW DC

Community Solar Facility Location (Address): 15-33 Halstead Street _____

Municipality: East Orange _____ County: Essex _____ Zip Code: 07108 _____

Name of Property (optional, complete if applicable): _____

Property Block and Lot Number(s): Block 683, Lot 1 & Block 683, Lot 1.01 _____

Community Solar Site Coordinates: -74.2177124 Longitude 40.7653313 Latitude

Total Acreage of Property Block and Lots: 8.8295 acres
Total Acreage of Community Solar Facility: ~0.99 acres

Attach a delineated map of the portion of the property on which the community solar facility will be located. In the electronic submission, two copies of the delineated map should be provided: 1) as a PDF document, and 2) as a design plan in drawing file format (.dwg) or as a shapefile (.shp), in order to facilitate integration with Geographic Information System (GIS) software.

EDC electric service territory in which the proposed community solar facility is located: *(select one)*

- ☐ Atlantic City Electric ☐ Jersey Central Power & Light
☒ Public Service Electric & Gas ☐ Rockland Electric Co.

Estimated date of project completion* *(The Applicant should provide a good faith estimate of the date of project completion; however, this data is being collected for informational purposes only.):* 10
(month) 2020 (year)

Project completion is defined pursuant to the definition at N.J.A.C. 14:8-9.3 as being fully operational, up to and including having subscribers receive bill credits for their subscription to the project.

The proposed community solar facility is an existing project* ☐ Yes ☒ No

If "Yes," the Application will not be considered by the Board. See section B. XIII. for special provisions for projects having received a subsection (t) conditional certification from the Board prior to February 19, 2019.

*Existing project is defined in N.J.A.C. 14:8-9.2 as a solar project having begun operation and/or been approved by the Board for connection to the distribution system prior to February 19, 2019.

VII. Community Solar Facility Siting

1. The proposed community solar project has site control* ☒ Yes ☐ No

If "Yes," attach proof of site control.

If "No," the Application will be deemed incomplete.

*Site control is defined as property ownership or option to purchase, signed lease or option to lease, or signed contract for use as a community solar site or option to contract for use as a community solar site.

2. The proposed community solar facility is located, in part or in whole, on preserved farmland* ☐ Yes ☒ No

If "Yes," the Application will not be considered by the Board.



*Preserved farmland is defined in N.J.A.C. 14:8-9.2 as land from which a permanent development easement was conveyed and a deed of easement was recorded with the county clerk's office pursuant to N.J.S.A. 4:1C-11 et seq.; land subject to a farmland preservation program agreement recorded with the county clerk's office pursuant to N.J.S.A. 4:1C-24; land from which development potential has been transferred pursuant to N.J.S.A. 40:55D-113 et seq. or N.J.S.A. 40:55D-137 et seq.; or land conveyed or dedicated by agricultural restriction pursuant to N.J.S.A. 40:55D-39.1.

3. The proposed community solar facility is located, in part or in whole, on Green Acres preserved open space* or on land owned by the New Jersey Department of Environmental Protection (NJDEP) ☐ Yes ☒ No

If "Yes," the Applicant must attach special authorization from NJDEP for the site to host a community solar facility. The Board will not consider Applications for projects located, in part or in whole, on Green Acres preserved open space or on land owned by NJDEP, unless the Applicant has received special authorization from NJDEP and includes proof of such special authorization in the Application package.

*Green Acres preserved open space is defined in N.J.A.C. 14:8-9.2 as land classified as either "funded parkland" or "unfunded parkland" under N.J.A.C. 7:36, or land purchased by the State with "Green Acres funding" (as defined at N.J.A.C. 7:36).

4. The proposed community solar facility is located, in part or in whole, on land located in the New Jersey Highlands Planning Area or Preservation Area ☐ Yes ☒ No

5. The proposed community solar facility is located, in part or in whole, on land located in the New Jersey Pinelands ☐ Yes ☒ No

6. The proposed community solar facility is located, in part or in whole, on land that has been actively devoted to agricultural or horticultural use and that is/has been valued, assessed, and taxed pursuant to the "Farmland Assessment Act of 1964," P.L. 1964, c.48 (C. 54:4-23.1 et seq.) at any time within the ten year period prior to the date of submission of the Application ☐ Yes ☒ No

7. The proposed community solar facility is located, in part or in whole, on a landfill ☐ Yes ☒ No
If "Yes," provide the name of the landfill, as identified in NJDEP's database of New Jersey landfills, available at www.nj.gov/dep/dshw/lrm/landfill.htm: _____

8. The proposed community solar facility is located, in part or in whole, on a brownfield ☒ Yes ☐ No
If "Yes," has a final remediation document been issued for the property? ☐ Yes ☒ No



If "Yes," attach a copy of the Response Action Outcome ("RAO") issued by the LSRP or the No Further Action ("NFA") letter issued by NJDEP.

9. The proposed community solar facility is located, in part or in whole, on an area of historic fill ☐ Yes ☒ No
If "Yes," have the remedial investigation requirements pursuant to the Technical Requirements for Site Remediation, N.J.A.C. 7:26E-4.7 been implemented? ☐ Yes ☐ No
Has the remediation of the historic fill been completed pursuant to the Technical Requirements for Site Remediation, N.J.A.C. 7:26E-5.4? ☐ Yes ☐ No
If the remediation of the historic fill has been completed, attach a copy of the Response Action Outcome ("RAO") issued by a Licensed Site Remediation Professional ("LSRP") or the No Further Action ("NFA") letter issued by NJDEP.
10. The proposed community solar facility is located on a parking lot ☐ Yes ☒ No
11. The proposed community solar facility is located on a parking deck ☒ Yes ☐ No
12. The proposed community solar facility is located on a rooftop ☐ Yes ☒ No
13. The proposed community solar facility is located on a canopy over an impervious surface (e.g. walkway) ☐ Yes ☒ No
14. The proposed community solar facility is located on the property of an affordable housing building or complex ☒ Yes ☐ No
15. The proposed community solar facility is located on a water reservoir or other water body ("floating solar") ☐ Yes ☒ No
16. The proposed community solar facility is located on an area designated in need of redevelopment ☒ Yes ☐ No
If "Yes," attach proof of the designation of the area as being in need of redevelopment from a municipal, county, or state entity.
17. The proposed community solar facility is located on land or a building that is preserved by a municipal, county, state, or federal entity ☐ Yes ☒ No
If "Yes," attach proof of the designation of the area as "preserved" from a municipal, county, or state entity.
18. The proposed community solar facility is located, in part or in whole, on forested lands ☐ Yes ☒ No



Construction of the proposed community solar facility will require cutting down one or more trees ☐ Yes ☒ No

If "Yes," estimated number of trees required to be cut for construction: _____

19. The proposed community solar facility is located on land or a building owned or controlled by a government entity, including, but not limited to, a municipal, county, state, or federal entity ☐ Yes ☒ No

20. Are there any use restrictions at the site? ☐ Yes ☒ No
If "Yes," explain the use restriction below and provide documentation that the proposed community solar project is not prohibited.

Will the use restriction be required to be modified? ☐ Yes ☐ No

If "Yes," explain the modification below.

21. The proposed community solar facility has been specifically designed or planned to preserve or enhance the site (e.g. landscaping, land enhancements, pollination support, stormwater management, soil conservation, etc.) ☒ Yes ☐ No
If "Yes," explain below, and provide any additional documentation in an attachment.

The proposed community solar facility is an integral part of the Brick Church Redevelopment Project. The construction of the proposed facility and the parking deck upon which it is to be located will incorporate structural and non-structural stormwater management elements, including detention basins and outlet control structures. This will provide a significant stormwater



VIII. Permits

1. The Applicant has completed NJDEP Permit Readiness Checklist, and submitted it to NJDEP's PCER ☐ Yes ☒ No
If "Yes," attach a copy of the completed Permit Readiness Checklist as it was submitted to NJDEP PCER.



If “No,” the Application will be deemed incomplete. Exception: Applications for community solar projects located on a rooftop, parking lot, or parking structure are exempt from this requirement.

2. The Applicant has met with NJDEP’s PCER ☐ Yes ☒ No

If “Yes,” attach proof of a meeting with NJDEP PCER.

If “No,” the Application will be deemed incomplete. Exception: Applications for community solar projects located on a rooftop, parking lot, or parking structure are exempt from this requirement.

3. Please list all permits, approvals, or other authorizations that will be needed for the construction and operation of the proposed community solar facility pursuant to local, state and federal laws and regulations. Include permits that have already been received, have been applied for, and that will need to be applied for. The Applicant may extend this table by attaching additional pages if necessary. These include:

- Permits, approvals, or other authorizations from NJDEP (i.e. Land Use, Air Quality, New Jersey Pollutant Discharge Elimination System “NJPDES”, etc.) for the property.
- Permits, approvals, or other authorizations from NJDEP (i.e. Land Use, Air Quality, NJPDES, etc.) directly related to the installation and operation of a solar facility on this property.
- Permits, approvals, or other authorizations other than those from NJDEP for the development, construction, or operation of the community solar facility (including local zoning and other local and state permits)

An Application that does not list all permits, approvals, or other authorizations that will be needed for the construction and operation of the proposed community solar facility will be deemed incomplete.

If a permit has been received, attach a copy of the permit.

| Permit Name & Description | Permitting Agency/Entity | Date Permit Applied for (if applicable) / Date Permit Received (if applicable) |
|------------------------------|-------------------------------|---|
| Building | City of East Orange | |
| Electrical | City of East Orange | |
| Permission to Operate | Public Service Electric & Gas | |
| Planning Board Approval | City of East Orange | rec'd 9/4/2019 |
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4. The Applicant has consulted the hosting capacity map of the relevant EDC and determined that, based on the capacity hosting map as published at the date of submission of the Application, there is sufficient capacity available at the proposed location to build the proposed community solar facility ☒ Yes ☐ No
If "Yes," include a screenshot of the capacity hosting map at the proposed location, showing the available capacity.
If "No," the Application will be deemed incomplete.

IX. Community Solar Subscriptions and Subscribers

1. Estimated or Anticipated Number of Subscribers (*please provide a good faith estimate or range*):
75-125
2. Estimated or Anticipated Breakdown of Subscribers (*please provide a good faith estimate or range of the kWh of project allocated to each category*):
Residential: 319,700 Commercial: 145,000
Industrial: _____ Other: 145,000 (define "other": Municipal/Non-Profit)
3. The proposed community solar project is an LMI project* ☒ Yes ☐ No
*An LMI project is defined pursuant to N.J.A.C. 14:8-9 as a community solar project in which a minimum 51 percent of project capacity is subscribed by LMI subscribers.
4. The proposed community solar project will allocate at least 51% of project capacity to residential customers ☒ Yes ☐ No
5. The proposed community solar project is being developed in partnership with an affordable housing provider: ☒ Yes ☐ No
If "Yes," attach a letter of support from the affordable housing provider.
6. An affordable housing provider is seeking to qualify as an LMI subscriber for the purposes of the community solar project ☐ Yes ☒ No
If "Yes," estimated or anticipated percentage of the project capacity for the affordable housing provider's subscription (*provide an estimate or range*): _____

If "Yes," what specific, substantial, identifiable, and quantifiable long-term benefits from the community solar subscription are being passed through to their residents/tenants?



Additionally, the affordable housing provider must attach a signed affidavit that the specific, substantial, identifiable, and quantifiable long-term benefits from the community solar subscription will be passed through to their residents/tenants.

7. This project uses an anchor subscriber (*optional*) ☐ Yes ☒ No
If "Yes," name of the anchor subscriber (*optional*): _____
Estimated or anticipated percentage or range of the project capacity for the anchor subscriber's subscription: _____
8. Is there any expectation that the account holder of a master meter will subscribe to the community solar project on behalf of its tenants? ☐ Yes ☒ No
If "Yes," what specific, identifiable, sufficient, and quantifiable benefits from the community solar subscription are being passed through to the tenants?



Additionally, the account holder of the master meter must attach a signed affidavit that the specific, identifiable, sufficient, and quantifiable benefits from the community solar subscription will be passed through to the tenants.

If "No," please be aware that, if, at any time during the operating life of the community solar project the account holder of a master meter wishes to subscribe to the community solar project on behalf of its tenants, it must submit to the Board a signed affidavit that the specific, identifiable, sufficient, and quantifiable benefits from the community solar subscription will be passed through to its tenants.

9. The geographic restriction for distance between project site and subscribers is: (*select one*)
- ☐ No geographic restriction: whole EDC service territory
 - ☐ Same county OR same county and adjacent counties
 - ☒ Same municipality OR same municipality and adjacent municipalities

Note: The geographic restriction selected here will apply for the lifetime of the project, barring special dispensation from the Board, pursuant to N.J.A.C. 14:8-9.5(a).



10. Product Offering: *(The Applicant must also complete and attach one or more product offering form(s) found in Appendix A. See Appendix A for exemptions.)*

The subscription proposed offers guaranteed or fixed savings to subscribers ☒ Yes ☐ No

If "Yes," the guaranteed or fixed savings are offered as:

- ☐ A percentage saving on the customer's annual electric utility bill
- ☒ A percentage saving on the customer's community solar bill credit
- ☐ Other: _____

If "Yes," the proposed savings represent:

- ☐ 0% - 5% of the customer's annual electric utility bill or bill credit
- ☐ 5% - 10% of the customer's annual electric utility bill or bill credit
- ☒ 10% - 20% of the customer's annual electric utility bill or bill credit
- ☐ over 20% of the customer's annual electric utility bill or bill credit

The subscription proposed offers subscribers ownership or a pathway to ownership of a share of the community solar facility ☐ Yes ☒ No

If "Yes," include proof of a pathway to ownership of a share of the community solar facility offered to the subscribers in Appendix A.

11. The list of approved community solar projects will be published on the Board's website. Additionally, subscriber organizations have the option of indicating, on this list, that the project is currently seeking subscribers.

If this project is approved, the Board should indicate on its website that the project is currently seeking subscribers ☒ Yes ☐ No

If "Yes," the contact information indicated on the Board's website should read:

Company/Entity Name: Triangle Equities Contact Name: Josh Weingarten
Daytime Phone: 718 463 5757 Email: jweingarten@triequities.com

Note: it is the responsibility of the project's subscriber organization to notify the Board if/when the project is no longer seeking subscribers, and request that the Board remove the above information on its website.

X. Community Engagement

1. The proposed community solar project is being developed by or in collaboration* with the municipality in which the project is located ☒ Yes ☐ No

If "Yes," explain how and attach a letter of support from the municipality in which the project is located.

*Collaboration with the municipality should include, at minimum, one or more meetings with relevant municipal authorities and clear evidence of municipal involvement and approval of the design, development, or operation of the proposed community solar project.



The applicant is working closely with the City of East Orange, New Jersey on the Brick Church Plaza Redevelopment Project, which includes the proposed community solar energy facility. The City has been actively engaged with the applicant, designating the project a public-private partnership, and that engagement has included numerous meetings with City Council and other City officials. In addition, the City has demonstrated its support for the project. +

2. The proposed community solar project is being developed in collaboration* with one or more local community organization(s) ☒ Yes ☐ No

If "Yes," explain how and attach a letter of support from the local community organization(s).

*Collaboration with a local community organization should include, at minimum, one or more meetings with the relevant local community organization(s) and clear evidence of the local community organization's involvement and approval of the design, development, or operation of the proposed community solar project.

The applicant is working closely with the Newark Community Health Center ("NCHC") on the Brick Church Plaza Redevelopment Project, which includes the proposed community solar energy facility. NCHC has been actively engaged with the applicant, and is planning to open a satellite office within the project. Working with the applicant, NCHC will provide a suite of social and medical services to the LMI tenants of the project at a subsidized rate, including healthy +

3. The proposed community solar project was developed, at least in part, through a community consultative process* ☒ Yes ☐ No

If "Yes," please describe the consultative process.

*A community consultative process should include, at minimum, one or more opportunities for public intervention and outreach to the municipality and/or local community organizations.

The Brick Church Plaza redevelopment project, including the community solar energy project, has been the subject of public hearing and approval by the local Planning Board.

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| | |
|--|---------------------------|
| | 2.58 (i.e., \$0.0258/kWh) |
| | 3.23 (i.e., \$0.0323/kWh) |

For indicative purposes only, please indicate all local, state and federal tax incentives which will be applied to if the proposed community solar project is approved for participation in the Community Solar Energy Pilot Program:

Federal solar investment tax credit under Section 48 of the Internal Revenue Code
Federal accelerated depreciation under Section 168 of the Internal Revenue Code
New Jersey sales tax exemption under N.J. Stat. § 54:32B-8.33
New Jersey property tax exemption under N.J. Stat. § 54:4-3.113a et seq.

XII. Other Benefits

- The proposed community solar facility is paired with another distributed energy resource:
 - Micro-grid project ☐ Yes ☒ No
 - Storage ☐ Yes ☒ No
 - Other (*identify*): ☐ Yes ☒ No
- The proposed community solar facility provides grid benefits (e.g. congestion reduction) ☒ Yes ☐ No
 If "Yes" to any, please explain how and provide supporting documents.

 The proposed community solar facility will be producing electricity in a densely-populated, high load area and, in addition, will be selling to local subscribers. As a result, the facility will serve to reduce load stress on the local electric distribution system, particularly during peak periods.
- The proposed community solar project will create temporary or permanent jobs in New Jersey ☒ Yes ☐ No
 If "Yes," estimated number of temporary jobs created in New Jersey: 2,437 (see attached draft summ-
 If "Yes," estimated number of permanent jobs created in New Jersey: 498 many of economic benefits)
- The proposed community solar project will provide job training opportunities for local solar trainees ☒ Yes ☐ No
 If "Yes," will the job training be provided through a registered apprenticeship? ☐ Yes ☒ No



If "Yes," identify the entity or entities through which job training is or will be organized (e.g. New Jersey GAINS program, partnership with local school):

XIII. Special Authorizations and Exemptions

1. Is the proposed community solar project co-located with another community solar facility (as defined at N.J.A.C. 14:8-9.2)? ☐ Yes ☒ No

If "Yes," please explain why the co-location can be approved by the Board, consistent with the provisions at N.J.A.C. 14:8-9.

2. Does this project seek an exemption from the 10-subscriber minimum? ☐ Yes ☒ No

If "Yes," please demonstrate below (and attach supporting documents as relevant):

- a. That the project is sited on the property of a multi-family building.
- b. That the project will provide specific, identifiable, and quantifiable benefits to the households residing in said multi-family building.

3. Specific sections throughout the Application Form are identified as optional only if: 1) the Applicant is a government entity (municipal, county, or state), and 2) the community solar developer will be selected by the Applicant via a RFP, RFQ, or other bidding process. Has the Applicant left those specific sections blank? ☐ Yes ☒ No

If "Yes," attach a letter describing the proposed bidding process. The Applicant must further commit to issuing said RFP, RFQ, or other bidding process within 90 days of the proposed project being approved by the Board for participation in the Community Solar Energy Pilot Program. The Applicant will be required to provide the information contained in those optional sections to the Board once it becomes known.

4. Has the proposed community solar project received, in part or in whole, a subsection (t) conditional certification from the Board prior to February 19, 2019? ☐ Yes ☒ No

If "Yes," the project may apply to participate in the Community Solar Energy Pilot Program if it commits to withdrawing the applicable subsection (t) conditional certification immediately if it is approved by the Board for participation in the Community Solar Energy Pilot Program. Attach a signed affidavit that the Applicant will immediately withdraw the applicable subsection (t)



conditional certification if the proposed project is approved by the Board for participation in the Community Solar Energy Pilot Program.





Section C: Certifications

Instructions: Original signatures on all certifications are required. All certifications in this section must be notarized.

Applicant Certification

The undersigned warrants, certifies, and represents that:

- 1) I, Josh Weingarten (name) am the Authorized Signatory (title) of the Applicant Triangle Equities Development Company LLC (name) and have been authorized to file this Applicant Certification on behalf of my organization; and
- 2) The information provided in this Application package has been personally examined, is true, accurate, complete, and correct to the best of the undersigned's knowledge, based on personal knowledge or on inquiry of individuals with such knowledge; and
- 3) The community solar facility proposed in the Application will be constructed, installed, and operated as described in the Application and in accordance with all Board rules and applicable laws; and
- 4) The system proposed in the Application will be constructed, installed, and operated in accordance with all Board policies and procedures for the SREC Registration Program or subsequent revision to the SREC Registration Program, if applicable; and
- 5) My organization understands that certain information in this Application is subject to disclosure under the Open Public Records Act, N.J.S.A. 47-1A-1 et seq., and that sensitive and trade secret information that they wish to keep confidential should be submitted in accordance with the confidentiality procedures set forth in N.J.A.C. 14:1-12.3.; and
- 6) My organization acknowledges that **submission of false information may be grounds for denial of this Application, and if any of the foregoing statements are willfully false, they are subject to punishment to the full extent of the law, including the possibility of fine and imprisonment.**

Signature: [Signature]

Date: 9/9/2019

Print Name: Joshua Weingarten

Title: Authorized Signatory

Company: Triangle Equities Development Company LLC

Signed and sworn to before me on this 9th day of September, 2019

Signature

Michael P. Torpey

Name Attorney - At Law
State of New Jersey

Project Developer Certification

This Certification "Project Developer / Installer" is optional if: 1) the Applicant is a government entity (municipal, county, or state), AND 2) the community solar developer will be selected by the Applicant via a Request for Proposals (RFP), Request for Quotations (RFQ), or other bidding process. In all other cases, this Certification is required.

The undersigned warrants, certifies, and represents that:

- 1) I, Josh Weingarten (name) am the Authorized Signatory (title) of the Project Developer Brick Church Developer LLC (name) and have been authorized to file this Applicant Certification on behalf of my organization; and
- 2) The information provided in this Application package has been personally examined, is true, accurate, complete, and correct to the best of the undersigned's knowledge, based on personal knowledge or on inquiry of individuals with such knowledge; and
- 3) The community solar facility proposed in the Application will be constructed, installed, and operated as described in the Application and in accordance with all Board rules and applicable laws; and
- 4) The system proposed in the Application will be constructed, installed, and operated in accordance with all Board policies and procedures for the SREC Registration Program or subsequent revision to the SREC Registration Program, if applicable; and
- 5) My organization understands that certain information in this Application is subject to disclosure under the Open Public Records Act, N.J.S.A. 47-1A-1 et seq., and that sensitive and trade secret information that they wish to keep confidential should be submitted in accordance with the confidentiality procedures set forth in N.J.A.C. 14:1-12.3.; and
- 6) My organization acknowledges that **submission of false information may be grounds for denial of this Application, and if any of the foregoing statements are willfully false, they are subject to punishment to the full extent of the law, including the possibility of fine and imprisonment.**

Signature: _____

Date: 9/9/2019

Print Name: Joshua Weingarten

Title: Authorized Signatory Company: Brick Church Developer LLC

Signed and sworn to before me on this 9th day of September, 2019

Signature _____

Name Michael P. Torrey

Attorney - At Law

State of New Jersey



Project Owner Certification

The undersigned warrants, certifies, and represents that:

- 1) I, Josh Weingarten (name) am the Authorized Signatory (title) of the Project Owner Brick Church Developer LLC and have been authorized to file this Applicant Certification on behalf of my organization; and
- 2) The information provided in this Application package has been personally examined, is true, accurate, complete, and correct to the best of the undersigned's knowledge, based on personal knowledge or on inquiry of individuals with such knowledge; and
- 3) The community solar facility proposed in the Application will be constructed, installed, and operated as described in the Application and in accordance with all Board rules and applicable laws; and
- 4) The system proposed in the Application will be constructed, installed, and operated in accordance with all Board policies and procedures for the SREC Registration Program or subsequent revision to the SREC Registration Program, if applicable; and
- 5) My organization understands that certain information in this Application is subject to disclosure under the Open Public Records Act, N.J.S.A. 47-1A-1 et seq., and that sensitive and trade secret information that they wish to keep confidential should be submitted in accordance with the confidentiality procedures set forth in N.J.A.C. 14:1-12.3.; and
- 6) My organization acknowledges that **submission of false information may be grounds for denial of this Application, and if any of the foregoing statements are willfully false, they are subject to punishment to the full extent of the law, including the possibility of fine and imprisonment.**

Signature: _____

Date: 2/9/19

Print Name: Joshua Weingarten

Title: Authorized Signatory

Company: Brick Church Developer LLC

Signed and sworn to before me on this 9th day of September, 2019

Signature _____

Name Michael P. Torpey

Attorney-At-Law
State of New Jersey



Property Owner Certification

The undersigned warrants, certifies, and represents that:

- 1) I, Joshua Weingarten (name) am the Authorized Signatory (title) of the Property 533 main St Urban Renewal LLC (name) and have been authorized to file this Applicant Certification on behalf of my organization; and 15-33 Halstead St Urban Renewal LLC
- 2) The information provided in this Application package pertaining to siting and location of the proposed community solar project has been personally examined, is true, accurate, complete, and correct to the best of the undersigned's knowledge, based on personal knowledge or on inquiry of individuals with such knowledge; and
- 3) My organization or I understand that certain information in this Application is subject to disclosure under the Open Public Records Act, N.J.S.A. 47-1A-1 et seq., and that sensitive and trade secret information that they wish to keep confidential should be submitted in accordance with the confidentiality procedures set forth in N.J.A.C. 14:1-12.3.; and
- 4) My organization acknowledges that **submission of false information may be grounds for denial of this Application, and if any of the foregoing statements are willfully false, they are subject to punishment to the full extent of the law, including the possibility of fine and imprisonment.**

Signature: _____

Date: 9/9/2019

Print Name: Joshua Weingarten

Title: Authorized Signatory

Company: 533 main St Urban Renewal LLC
15-33 Halstead St Urban Renewal LLC

Signed and sworn to before me on this 9th day of September 2019

Signature _____

Name Michael P. Torpey

Attorney-at-Law
State of New Jersey



Subscriber Organization Certification (optional, complete if known)

The undersigned warrants, certifies, and represents that:

- 1) I, _____ (name) am the _____ (title) of the Subscriber Organization _____ (name) and have been authorized to file this Applicant Certification on behalf of my organization; and
- 2) The information provided in this Application package has been personally examined, is true, accurate, complete, and correct to the best of the undersigned's knowledge, based on personal knowledge or on inquiry of individuals with such knowledge; and
- 3) The community solar facility proposed in the Application will be constructed, installed, and operated as described in the Application and in accordance with all Board rules and applicable laws; and
- 4) My organization understands that certain information in this Application is subject to disclosure under the Open Public Records Act, N.J.S.A. 47-1A-1 et seq., and that sensitive and trade secret information that they wish to keep confidential should be submitted in accordance with the confidentiality procedures set forth in N.J.A.C. 14:1-12.3.; and
- 5) My organization acknowledges that **submission of false information may be grounds for denial of this Application, and if any of the foregoing statements are willfully false, they are subject**

Signature: _____

Print Name: _____

Title: _____ Company: _____

Signed and sworn to before me on this _____ day of _____, 20__

Signature _____

Name _____



Section D: Appendix

Appendix A: Product Offering Questionnaire

Complete the following Product Offering Questionnaire. If there are multiple different product offerings for the proposed community solar project, please complete and attach one Product Offering Questionnaire per product offering.

Applicants are expected to provide a good faith description of the product offerings developed for the proposed community solar project, as they are known at the time the Application is filed with the Board. If the proposed project is approved by the Board, the Applicant must notify the Board and receive approval from the Board for any modification or addition to a Product Offering Questionnaire.

Exception: This "Product Offering Questionnaire" is optional if: 1) the Applicant is a government entity (municipal, county, or state), AND 2) the community solar developer will be selected by the Applicant via a Request for Proposals (RFP), Request for Quotations (RFQ), or other bidding process.

This Questionnaire is Product Offering number 1 of 1 (total number of product offerings).

1.

Subscriptions will be sized based on 80%-90% of the subscriber's historical monthly electricity usage and spend, and will be structured so as that subscription fees will not exceed, on a monthly basis, the subscriber's average historical monthly electricity spend.

4. Fees

- ☐ Sign-up fee: _____
- ☐ Early Termination or Cancellation fees: _____
- ☐ Other fee(s) and frequency: _____

5. Does the subscription guarantee or offer fixed savings or specific, quantifiable economic benefits to the subscriber? ☒ Yes ☐ No
If "Yes," the savings are guaranteed or fixed:



- ☐ As a percentage of monthly utility bill
- ☐ As a fixed guaranteed savings compared to average historic bill
- ☒ As a fixed percentage of bill credits
- ☒ Other: Not to exceed historical monthly electricity spend.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Appendix B: Required Attachments Checklist

Note that this list is for indicative purposes only. Additional attachments may be required, and are identified throughout this Application Form.

| Required Attachments for all Applications | Page | Attached? |
|---|--------------|---|
| Delineated map of the portion of the property on which the community solar facility will be located. | p.7 | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| For electronic submission only: copy of the delineated map of the portion of the property on which the community solar facility will be located as a PDF and in drawing file format (.dwg) or as a shapefile (.shp). | p.7 | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| Proof of site control. | p.8 | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| Copy of the completed Permit Readiness Checklist as it was submitted to NJDEP PCER, if applicable. | p.11 | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Proof of a meeting with NJDEP PCER, if applicable. | p.12 | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| A screenshot of the capacity hosting map at the proposed location showing the available capacity. | p.12 | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| Substantiating evidence of project cost in the form of charts and/or spreadsheet models. | p.16 | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| Certifications in Section C. | p.19-23 | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| Product | | <input checked="" type="checkbox"/> <input type="checkbox"/> |
| | | |
| | | |
| Required Attachments for Exemptions | Page | Attached? |
| The Applicant is a government entity (municipal, county, or state), and the community solar developer will be selected by the Applicant via a Request for Proposals (RFP), Request for Quotations (RFQ), or other bidding process: ⇒ Attach a letter from the Applicant describing the bidding process | p.6, p.19 | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| The [redacted] in whole, on Green Acres preserved open space or on land owned by NJDEP. ⇒ Attach special authorization from NJDEP for the site to host a community solar facility. | p.8 | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| The proposed community solar project has received, in part or in whole, a subsection (t) conditional certification from the Board prior to February 19, 2019. ⇒ Attach a signed affidavit that the Applicant will immediately withdraw the applicable subsection (t) conditional certification if the proposed project is approved by the Board for participation in the Community Solar Energy Pilot Program. | p. 19 | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |

Appendix C: Evaluation Criteria

The Evaluation Criteria chart below lists the various categories that the Board will consider in evaluating project Applications. Projects must score a minimum 30 points total in order to be considered for participation in the Community Solar Energy Pilot Program. Projects that score above 30 points will be awarded program capacity in order, starting with the highest-scoring project and proceeding to the lowest-scoring project.

| Evaluation Criteria | Max. Points |
|---|---|
| Low- and Moderate-Income and Environmental Justice Inclusion Higher preference: LMI project | 30 |
| Siting Higher preference: landfills, brownfields, areas of historic fill, rooftops, parking lots, parking decks Medium preference: canopies over impervious surfaces (e.g. walkway), areas designated in need of redevelopment No Points: preserved lands, wetlands, forested areas, farmland Bonus points for: landscaping, land enhancement, pollination support, stormwater management, soil conservation | 20 Max. possible bonus points: 5 |
| Product Terms Higher preference: long-term contracts, flexible terms Medium preference: long-term contracts No Points: no guaranteed savings, no flexible terms* *Flexible terms may include: no cancellation fee, short-term contract | 10 10 |
| Community and Environmental Justice Engagement Higher preference: partnership with municipality, partnership with local community organization(s), partnership with affordable housing provider Medium preference: letter of support from municipality, project owner is a government and/or public and/or quasi-public entity, project owner is an affordable housing developer | 10 |
| Subscribers Higher preference: more than 51% project capacity is allocated to residential subscribers | 10 |
| Other Benefits Higher preference: Provides local jobs/job training, demonstrates co-benefits (e.g. paired with storage, micro-grid project, energy audit, EE measures) | 10 |
| Geographic Limit within EDC service territory Higher preference: municipality/adjacent municipality Medium preference: county/adjacent county No Points: any geographic location within the EDC service territory. | 5 |

Garage Triangle Equities- East Orange, south harrison St, east orange, nj

Report

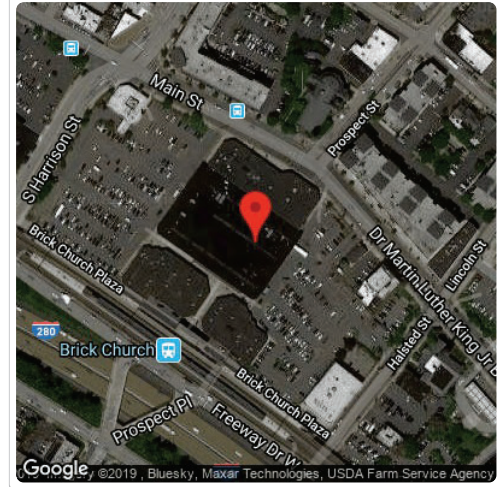
| | |
|-----------------|--|
| Project Name | Triangle Equities- East Orange |
| Project Address | south harrison St, east orange, nj |
| Prepared By | Doug Bagwill dbagwill@pfisterenergy.com |



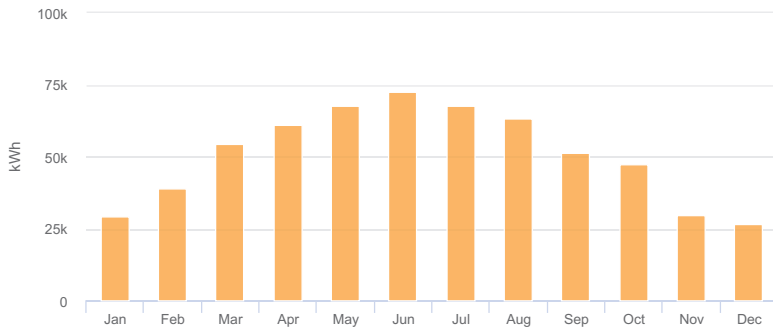
System Metrics

| | |
|-----------------------|---|
| Design | Garage |
| Module DC Nameplate | 505.4 kW |
| Inverter AC Nameplate | 400.0 kW Load Ratio: 1.26 |
| Annual Production | 609.7 MWh |
| Performance Ratio | 80.0% |
| kWh/kWp | 1,206.3 |
| Weather Dataset | TMY, NEWARK INTERNATIONAL ARPT, NSRDB (tmy3, I) |
| Simulator Version | 9eb9c0c7ce-c1f62f1eb4-a7e8b9659a-099c5fd3cf |

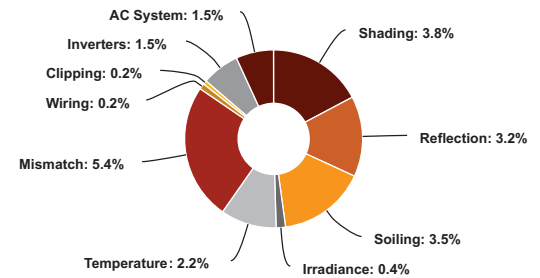
Project Location



Monthly Production



Sources of System Loss



Annual Production

| | Description | Output | % Delta |
|----------------------------------|-------------------------------------|------------------|--------------|
| Irradiance (kWh/m ²) | Annual Global Horizontal Irradiance | 1,422.0 | |
| | POA Irradiance | 1,507.8 | 6.0% |
| | Shaded Irradiance | 1,450.9 | -3.8% |
| | Irradiance after Reflection | 1,404.4 | -3.2% |
| | Irradiance after Soiling | 1,355.2 | -3.5% |
| | Total Collector Irradiance | 1,355.3 | 0.0% |
| Energy (kWh) | Nameplate | 684,868.9 | |
| | Output at Irradiance Levels | 682,320.5 | -0.4% |
| | Output at Cell Temperature Derate | 667,109.8 | -2.2% |
| | Output After Mismatch | 630,841.7 | -5.4% |
| | Optimal DC Output | 629,368.1 | -0.2% |
| | Constrained DC Output | 628,422.8 | -0.2% |
| | Inverter Output | 618,983.0 | -1.5% |
| | Energy to Grid | 609,698.0 | -1.5% |
| Temperature Metrics | | | |
| | Avg. Operating Ambient Temp | | 15.2 °C |
| | Avg. Operating Cell Temp | | 21.9 °C |
| Simulation Metrics | | | |
| | Operating Hours | 4578 | |
| | Solved Hours | 4578 | |

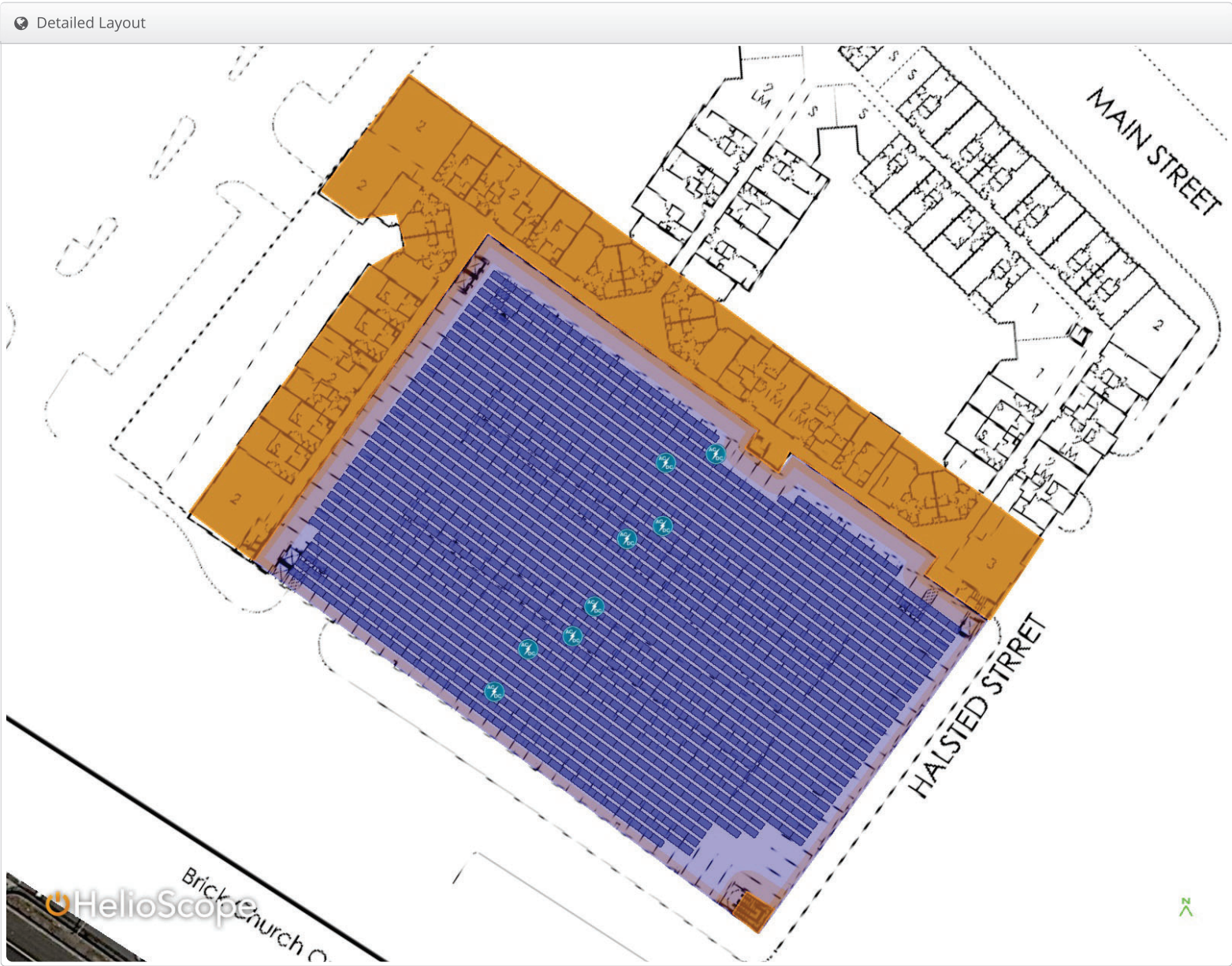
Condition Set

| | | | | | | | | | | | | | |
|------------------------------|---|-----|-------|-----|---------|-----|----------------------------------|-----|------------------|-----|-----|-----|--|
| Description | Condition Set 1 | | | | | | | | | | | | |
| Weather Dataset | TMY, NEWARK INTERNATIONAL ARPT, NSRDB (tmy3, I) | | | | | | | | | | | | |
| Solar Angle Location | Meteo Lat/Lng | | | | | | | | | | | | |
| Transposition Model | Perez Model | | | | | | | | | | | | |
| Temperature Model | Sandia Model | | | | | | | | | | | | |
| Temperature Model Parameters | Rack Type | | a | | b | | Temperature Delta | | | | | | |
| | Fixed Tilt | | -3.56 | | -0.075 | | 3°C | | | | | | |
| | Flush Mount | | -2.81 | | -0.0455 | | 0°C | | | | | | |
| | East-West | | -3.56 | | -0.075 | | 3°C | | | | | | |
| | Carport | | -3.56 | | -0.075 | | 3°C | | | | | | |
| Soiling (%) | J | F | M | A | M | J | J | A | S | O | N | D | |
| | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | |
| Irradiation Variance | 5% | | | | | | | | | | | | |
| Cell Temperature Spread | 4° C | | | | | | | | | | | | |
| Module Binning Range | -2.5% to 2.5% | | | | | | | | | | | | |
| AC System Derate | 1.50% | | | | | | | | | | | | |
| Module Characterizations | Module | | | | | | Characterization | | | | | | |
| | 72M-360 (Mar18) (Heliene Inc) | | | | | | Heliene_72M-360_Mar2018.pan, PAN | | | | | | |
| Component Characterizations | Device | | | | | | | | Characterization | | | | |
| | CPS SCA50KTL-DO/US-480 (Sept17) (Chint) | | | | | | | | Spec Sheet | | | | |

| Components | | |
|------------|---|------------------|
| Component | Name | Count |
| Inverters | CPS SCA50KTL-DO/US-480 (Sept17) (Chint) | 8 (400.0 kW) |
| Strings | 10 AWG (Copper) | 78 (11,522.7 ft) |
| Module | Heliene Inc, 72M-360 (Mar18) (360W) | 1,404 (505.4 kW) |

| Wiring Zones | | | |
|--------------|----------------|-------------|--------------------|
| Description | Combiner Poles | String Size | Stringing Strategy |
| Wiring Zone | 12 | 18-18 | Along Racking |

| Field Segments | | | | | | | | | |
|-----------------|------------|------------------------|------|----------|------------------|------------|--------|---------|----------|
| Description | Racking | Orientation | Tilt | Azimuth | Intrarow Spacing | Frame Size | Frames | Modules | Power |
| Field Segment 1 | Fixed Tilt | Landscape (Horizontal) | 10° | 216.448° | 1.6 ft | 1x1 | 1,404 | 1,404 | 505.4 kW |





50 Charles Lindbergh Boulevard
Suite 600
Uniondale, NY 11553
P: (212) 499-0100 / F: (516) 282-0585



March 20, 2017

Triangle Equities
30-56 Whitestone Expressway
Whitestone, NY 10577
Attn: Ed Henderson

RE: Title No. : FNTA-31285-NJ
Premises : 508 Martin Luther King Jr Blvd, East Orange, NJ
Owner(s) : LCE Orange Shopping Center, LLC, WBF East Orange Shopping Center, LLC
Buyer(s) : Triangle Equities Development Company, LLC
Reference: Brick Church Plaza

Dear Mr. Henderson:

Enclosed find the following items with reference to the above entitled matter:

- Recorded Deed
- Final Owners Policy


If you have any questions, or if we can be of any further assistance, please do not hesitate to contact the undersigned. Thank you.

Very truly yours,
First Nationwide Title Agency LLC

By: Ben Guter



Essex County Register Document Summary Sheet

| | | | | | |
|--|--|---|---|--|---|
| ESSEX COUNTY REGISTER OF DEEDS & MORTGAGES HALL OF RECORDS - ROOM 130 465 DR. MARTIN LUTHER KING BLVD NEWARK NJ 07102 | | Transaction Identification Number 2954657 2321905 | | | |
| Recorded Document to be Returned by Submitter to: LAND SERVICES USA 1835 MARKET ST., SUITE 420 PHILADELPHIA, PA 19103 | | | | | |
| Official Use Only | | Submission Date (mm/dd/yyyy) 02/28/2017 | | | |
| | | No. of Pages (excluding Summary Sheet) 9 | | | |
| | | Recording Fee (excluding transfer tax) <i>(Convenience Charge of \$3.00 included)</i> \$123.00 | | | |
| | | Realty Transfer Tax \$787,550.00 | | | |
| | | Total Amount \$787,673.00 | | | |
| Document Type DEED/NO EXEMPTION FROM REALTY TRANSFER FEE | | | | | |
| Electronic Recording Level L2 - Level 2 (With Images) | | | | | |
| Municipal Codes ESSEX COUNTY 99 | | | | | |
| Bar Code(s)  18 69 42 | | | | | |
| <table border="1"> <tr> <td colspan="2"> DANA RONE REG. OF DEEDS & MORTGAGES ESSEX COUNTY New Jersey DOCUMENT TYPE 1 INSTRUMENT NUMBER 2017018540 RECORDED ON Mar 01, 2017 2:03:24 PM Total Pages: 11 COUNTY REALTY TAX \$35,750.00 COUNTY REALTY TAX - \$17,875.00 PHPEA NJ PRESERVATION ACCOUNT \$55.00 REGISTER RECORDING FEE \$65.00 EFILING CONVENIENCE FEES \$3.00 STATE REALTY TAX \$89,375.00 STATE REALTY TAX - \$81,825.00 EAA STATE REALTY TAX - \$151,825.00 GENERAL PURPOSE STATE REALTY TAX - \$357,500.00 GRANTEE NJANTEF \$53,400.00 HOMELESSNESS TRUST FUND \$3.00 TOTAL PAID \$787,676.00 INV: 115302 USER: MC </td> <td> Additional Information (Official Use Only) </td> </tr> </table> | | | DANA RONE REG. OF DEEDS & MORTGAGES ESSEX COUNTY New Jersey DOCUMENT TYPE 1 INSTRUMENT NUMBER 2017018540 RECORDED ON Mar 01, 2017 2:03:24 PM Total Pages: 11 COUNTY REALTY TAX \$35,750.00 COUNTY REALTY TAX - \$17,875.00 PHPEA NJ PRESERVATION ACCOUNT \$55.00 REGISTER RECORDING FEE \$65.00 EFILING CONVENIENCE FEES \$3.00 STATE REALTY TAX \$89,375.00 STATE REALTY TAX - \$81,825.00 EAA STATE REALTY TAX - \$151,825.00 GENERAL PURPOSE STATE REALTY TAX - \$357,500.00 GRANTEE NJANTEF \$53,400.00 HOMELESSNESS TRUST FUND \$3.00 TOTAL PAID \$787,676.00 INV: 115302 USER: MC | | Additional Information (Official Use Only) |
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| <p align="center">* DO NOT REMOVE THIS PAGE. COVER SHEET [DOCUMENT SUMMARY FORM] IS PART OF ESSEX COUNTY REGISTER FILING RECORD. RETAIN THIS PAGE FOR FUTURE REFERENCE.</p> | | | | | |



Essex County Register Document Summary Sheet

| | | | | | | |
|---|----------------|--|----------------|----------------|---|--------------|
| DEED/NO EXEMPTION FROM REALTY TRANSFER FEE | Type | DEED/NO EXEMPTION FROM REALTY TRANSFER FEE | | | | |
| | Consideration | \$35,750,000.00 | | | | |
| | Submitted By | SIMPLIFILE, LLC. (SIMPLIFILE) | | | | |
| | Document Date | 02/15/2017 | | | | |
| | Reference Info | | | | | |
| | Book ID | Book | Beginning Page | Instrument No. | Recorded/File Date | |
| | | | | | | |
| | GRANTOR | Name | | | Address | |
| | | LCE ORANGE SHOPPING CENTER LLC | | | 287 BOWMAN AVENUE, PURCHASE, NY 10577 | |
| | | WBF EAST ORANGE SHOPPING CENTER LLC | | | 350 5TH AVENUE, NEW YORK, NY 10118 | |
| | GRANTEE | Name | | | Address | |
| | | 533 MAIN STREET URBAN RENEWAL LLC | | | 30-56 WHITESTONE EXPRESSWAY, WHITESTONE, NY 11354 | |
| | Parcel Info | | | | | |
| | Property Type | Tax Dist. | Block | Lot | Qualifier | Municipality |
| | | 99 | 683 | 1 | | 99 |
| <p align="center">* DO NOT REMOVE THIS PAGE. COVER SHEET [DOCUMENT SUMMARY FORM] IS PART OF ESSEX COUNTY REGISTER FILING RECORD. RETAIN THIS PAGE FOR FUTURE REFERENCE.</p> | | | | | | |

Deed

This Deed is made on February 15, 2017 and delivered on February , 2017

BETWEEN

LC E. Orange Shopping Center, L.L.C.

and WBF East Orange Shopping Center LLC

a limited liability company of the state of New Jersey

a limited liability company of the state of New Jersey

having its principal office at
c/o UFVS Management
287 Bowman Avenue
Purchase, New York 10577
referred to as the Grantor,

having its principal office at
350 5th Avenue, Suite 6540
New York, New York 10118

AND

533 Main Street Urban Renewal LLC

a limited liability company of the State of New Jersey

whose post office address is
c/o Triangle Equities
30-56 Whitestone Expressway
Whitestone, NY 11354
referred to as the Grantee.

The words "Grantor" and "Grantee" shall mean all Grantors and all Grantees listed above.

1. **Transfer of Ownership.** The Grantor grants and conveys (transfers ownership of) the property (called the "Property") described below to the Grantee. This transfer is made for the sum of **\$35,750,000.00** **Thirty Five Million Seven Hundred Fifty Thousand Dollars and no cents.** The Grantor acknowledges receipt of this money.

2. **Tax Map Reference** (N.J.S.A. 46:26A-3) Municipality of East Orange
Block No. 683, Lot No. 1

3. **Property** The Property consists of the land and all the building and structures on the land in the **City of East Orange**, County of **Essex** and State of New Jersey. The legal description is:

X Please see attached Legal Description annexed hereto and made part hereof. (Check Box if Applicable)

BEING THE SAME property conveyed to Grantors herein by Deed from East Orange Urban Renewal Associates L.P., a New Jersey limited partnership, dated March 22, 2007, recorded March 29, 2007 in the Essex County Clerk's Office in Deed Book 12014, Page 4434.

Subject to easements and restrictions of record, if any, zoning ordinances and such state of facts as an accurate survey may disclose.

Prepared by:

Francis A. Ciambone, Esq.

(For Recordors Use Only)

Deed

This Deed is made on February 15, 2017 and delivered on February , 2017

BETWEEN

LC E. Orange Shopping Center, L.L.C.

and WBF East Orange Shopping Center LLC

a limited liability company of the state of New Jersey

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having its principal office at
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287 Bowman Avenue
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AND

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a limited liability company of the State of New Jersey

whose post office address is
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The words "Grantor" and "Grantee" shall mean all Grantors and all Grantees listed above.

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Block No. **683**, Lot No. **1**

3. Property The Property consists of the land and all the building and structures on the land in the **City of East Orange**, County of **Essex** and State of New Jersey. The legal description is:

X Please see attached Legal Description annexed hereto and made part hereof. *(Check Box if Applicable)*

BEING THE SAME property conveyed to Grantors herein by Deed from East Orange Urban Renewal Associates L.P., a New Jersey limited partnership, dated March 22, 2007, recorded March 29, 2007 in the Essex County Clerk's Office in Deed Book 12014, Page 4434.

Subject to easements and restrictions of record, if any, zoning ordinances and such state of facts as an accurate survey may disclose.

Prepared by:

Francis A. Ciambone, Esq.

(For Recorders Use Only)



SCHEDULE C

LEGAL DESCRIPTION

File No: NJST16-3809

ALL that certain lot, piece or parcel of land, with the buildings and improvements thereon erected, situate, lying and being in the **City of East Orange**, County of **Essex** and State of New Jersey, being more particularly described as follows:

BEING shown and designated as Parcel "A" on a certain Map entitled "Brick Church Urban Renewal Project, Parcel Map, Office of the City Engineer, East Orange, N.J." filed in the East Orange Engineering Department dated October 1984, last revised April 24, 1986.

BEING more particularly described as follows:

BEGINNING at the intersection formed by the Southwesterly sideline of Dr. Martin Luther King Jr. Boulevard, formerly known as Main Street, with the Northwesterly sideline of Halsted Street, 60 feet wide, and running; thence,

1) Along said Northwesterly sideline of Halsted Street South 45 degrees 40 minutes 00 seconds West 166.13 feet (aforementioned Parcel Map 166.12 feet); thence,

2) North 44 degrees 20 minutes 00 seconds West 87.20 feet; thence,

3) South 45 degrees 44 minutes 30 seconds West 202.74 feet; thence,

4) South 45 degrees 29 minutes 00 seconds West 21.00 feet to the Northwesterly sideline of Brick Church Plaza, 24 feet wide; thence,

5) Along the same North 44 degrees 31 minutes 00 seconds West 24.75 feet to a point of curvature; thence,

6) Still along the same along a curve to the left with a radius of 4335.78 feet, a central angle of 02 degrees 40 minutes 18 seconds and an arc length of 202.175 feet to a point on a curve; thence,

7) Still along the same along a non-tangent curve to the left with a radius of 37.00 feet, a central angle of 55 degrees 09 minutes 01 seconds and an arc length of 35.61 feet to a point of tangency; thence,

8) Still along the same North 47 degrees 31 minutes 00 seconds West 150.02 feet to a point of curvature; thence,

9) Still along the same along a curve to the left with a radius of 22.50 feet, a central angle of 72 degrees 38 minutes 33 seconds and an arc length of 28.53 feet to a point of non-tangency; thence,

10) Still along the same North 47 degrees 31 minutes 00 seconds West 51.38 feet to a point of curvature; thence,

11) Still along the same along a curve to the left with a radius of 4335.78 feet a central angle of 03 degrees 00 minutes 00 seconds and an arc length of 227.02 feet to a point of tangency; thence,



12) Still along the same North 50 degrees 31 minutes 00 seconds West 110.53 feet to the Southeasterly sideline of South Harrison Street, 74 feet wide; thence,

13) Along the same North 38 degrees 30 minutes 00 seconds East 316.96 feet to a point of curvature; thence,

14) Still along the same along a curve to the right with a radius of 150.00 feet, a central angel of 27 degrees 27 minutes 45 seconds and an arc length 71.90 feet (aforementioned Parcel Map 71.67 feet) to a point of tangency; thence,

15) Still along the same North 65 degrees 57 minutes 45 seconds East 25.19 to a point of curvature; thence,

16) Along a curve to the right with a radius of 20.00 feet a central angle of 59 degrees 0/ minutes 15 seconds and an arc length of 20.64 feet to a point of tangency in said Southwesterly sideline of Dr. Martin Luther King Jr. Boulevard; thence,

17) Along the same South 54 degrees 55 minutes 00 seconds East 336.14 feet to a point of curvature; thence,

18) Still along the same along a curve to the right with a radius of 490.00 feet a central angle of 01 degrees 46 minutes 37 seconds and an arc length of 15.20 feet to a point of tangency; thence,

19) Still along the same South 53 degrees 08 minutes 23 seconds East 107.52 feet to a point of curvature; thence,

20) Still along the same along a curve to the right with a radius of 390.00 feet a central angle of 14 degrees 10 minutes 56 seconds and an arc length of 96.54 feet to a point of non-tangency; thence,

21) Still along the same South 30 degrees 12 minutes 57 seconds East 47.72 feet; thence,

22) Still along the same South 34 degrees 41 minutes 00 seconds East 99.23 feet; thence,

23) South 53 degrees 26 minutes 00 seconds West 45.04 feet; thence,

24) South 40 degrees 08 minutes 00 seconds West 55.00 feet; thence,

25) South 34 degrees 15 minutes 00 seconds East 70.69 feet; thence,

26) South 40 degrees 31 minutes 00 seconds West 1.40 feet; thence,

27) South 34 degrees 41 minutes 00 seconds East 44.37 feet; thence,

28) North 40 degrees 32 minutes 00 seconds East 1.70 feet; thence,

29) South 35 degrees 00 minutes 24 seconds East 22.99 feet; thence,

30) North 40 degrees 32 minutes 00 seconds East 53.00 feet; thence,

31) North 52 degrees 00 minutes 00 seconds East 47.04 feet (aforementioned Parcel Map 47.00 feet) to said Southwesterly sideline of Dr. Martin Luther King Jr. Boulevard; thence,



32) Along the same South 34 degrees 41 minutes 00 seconds East 84.31 feet (aforementioned Parcel Map 84.16 feet) to said Northwesterly sideline of Halsted Street, the Point or Place of Beginning.

Said description is in accordance with a survey made by John G. Dlaz, PLS, dated February 15, 2007.

FOR INFORMATION PURPOSES ONLY:

BEING Known as Lot 1, Block 683, on the Official Tax Map of the City of East Orange.

BEING commonly known as 508 Dr. Martin Luther King Jr. Boulevard, East Orange, New Jersey

END OF LEGAL DESCRIPTION

The street address of the Property is:
533 Dr. Martin Luther King Jr. Boulevard, East Orange, NJ 07018.

4. Promises by Grantor. The Grantor promises that the Grantor has done no act to encumber the Property. This promise is called a "Covenant as to grantor's acts" (N.J.S.A. 46:4-6). This promise means that the Grantor has not allowed anyone else to obtain any legal rights which affect the Property (such as by making a mortgage or allowing a judgment to be entered against the Grantor).

5. Signatures. This Deed is signed and attested to by the Grantor's proper members as of the date at the top of the first page. (Print name below each signature.)

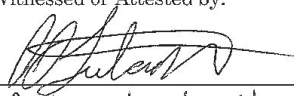
Witnessed or Attested by:


Francis A. Ciambone, Esq.

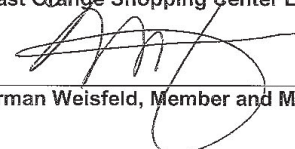
LC E. Orange Shopping Center, L.L.C.
By: **1 & 9 62nd Street, LLC, Sole Member**

By: 
Anthony LoConte, Managing Member

Witnessed or Attested by:

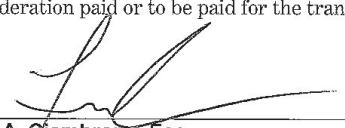

Andrew Liebowitz

WBF East Orange Shopping Center LLC

By: 
Norman Weisfeld, Member and Manager

STATE OF NEW JERSEY, COUNTY OF **BERGEN** SS:
I CERTIFY that on **February 21**, 2017
Anthony LoConte


personally came before me and stated to my satisfaction that this person (or if more than one, each person):
(a) was the maker of the attached Deed;
(b) was authorized to and did execute this Deed as **Managing Member of 1 & 9 62nd Street, LLC, Sole Member of LC E. Orange Shopping Center, L.L.C.** the entity named in this Deed;
(c) made this Deed for **\$35,750,000.00** as the full and actual consideration paid or to be paid for the transfer of title. (Such consideration is defined in N.J.S.A. 46:15-5); and
(d) executed this Deed as the act of the entity.


Francis A. Ciambone, Esq.
An Attorney at Law of New Jersey

STATE OF NEW YORK, COUNTY OF **NEW YORK** SS:
I CERTIFY that on **February 15th**, 2017
Norman Weisfeld

personally came before me and stated to my satisfaction that this person (or if more than one, each person):
(a) was the maker of the attached Deed;
(b) was authorized to and did execute this Deed as **Member and Manager of WBF East Orange Shopping Center LLC** the entity named in this Deed;
(c) made this Deed for **\$35,750,000.00** as the full and actual consideration paid or to be paid for the transfer of title. (Such consideration is defined in N.J.S.A. 46:15-5); and
(d) executed this Deed as the act of the entity.

RECORD AND RETURN TO
Mark S. Levenson, Esq.
Sills Cummis
One Riverfront Plaza
Newark, NJ 07024


Notary Public of New York
REUBEN MARC WEISFELD
NOTARY PUBLIC-STATE OF NEW YORK
No. 02WE6322823
Qualified in Nassau County



GIT/REP-3
(9-15)

State of New Jersey

Seller's Residency Certification/Exemption

(Please Print or Type)

SELLER(S) INFORMATION:

Name(s) **LC E. Orange Shopping Center, L.L.C.**

Current Street Address **287 Bowman Avenue**

City, Town, Post Office Box **Purchase** State **NJ** Zip Code **07018**

PROPERTY INFORMATION:

Block(s) **683** Lot(s) **1** Qualifier

Street Address **533 Dr. Martin Luther King Jr. Boulevard**

City, Town, Post Office Box **East Orange** State **NJ** Zip Code **07018**

Seller's Percentage of Ownership **50%** Total Consideration **\$35,750,000.00**

Owner's Share of Consideration **\$17,875,000.00** Closing Date **Feb. , 2017**

SELLER'S ASSURANCES (Check the Appropriate Box) (Boxes 2 through 14 apply to Residents and Non-residents):

1. ☐ Seller is a resident taxpayer (individual, estate, or trust) of the State of New Jersey pursuant to the New Jersey Gross Income Tax Act, will file a resident gross income tax return, and will pay any applicable taxes on any gain or income from the disposition of this property.
2. ☐ The real property being sold or transferred is used exclusively as a principal residence as defined in 26 U.S. Code section 121.
3. ☐ Seller is a mortgagor conveying the mortgaged property to a mortgagee in foreclosure or in a transfer in lieu of foreclosure with no additional consideration.
4. ☐ Seller, transferor or transferee is an agency or authority of the United States of America, an agency or authority of the State of New Jersey, the Federal National Mortgage Association, the Federal Home Loan Mortgage Corporation, the Government National Mortgage Association, or a private mortgage insurance company.
5. ☒ Seller is not an individual, estate, or trust and is not required to make an estimated gross income tax payment.
6. ☐ The total consideration for the property is \$1,000 or less so the seller is not required to make an estimated income tax payment.
7. ☐ The gain from the sale is not recognized for federal income tax purposes under 26 U.S. Code section 721, 1031, or 1033 (CIRCLE THE APPLICABLE SECTION). If the indicated section does not ultimately apply to this transaction, the seller acknowledges the obligation to file a New Jersey income tax return for the year of the sale and report the recognized gain.
☐ Seller did not receive non-like kind property.
8. ☐ The real property is being transferred by an executor or administrator of a decedent to a devisee or heir to effect distribution of the decedent's estate in accordance with the provisions of the decedent's will or the intestate laws of this State.
9. ☐ The real property being sold is subject to a short sale instituted by the mortgagee, whereby the seller has agreed not to receive any proceeds from the sale and the mortgagee will receive all proceeds paying off an agreed amount of the mortgage.
10. ☐ The deed is dated prior to August 1, 2004, and was not previously recorded.
11. ☐ The real property is being transferred under a relocation company transaction where a trustee of the relocation company buys the property from the seller and then sells the house to a third party buyer for the same price.
12. ☐ The real property is being transferred between spouses or incident to a divorce decree or property settlement agreement under 26 U.S. Code section 1041.
13. ☐ The property transferred is a cemetery plot.
14. ☐ The seller is not receiving net proceeds from the sale. Net proceeds from the sale means the net amount due to the seller on the settlement sheet.

SELLER(S) DECLARATION:

The undersigned understands that this declaration and its contents may be disclosed or provided to the New Jersey Division of Taxation and that any false statement contained herein may be punished by fine, imprisonment, or both. I furthermore declare that I have examined this declaration and, to the best of my knowledge and belief, it is true, correct and complete. By checking this box ☐ I certify that a Power of Attorney to represent the seller(s) has been previously recorded or is being recorded simultaneously with the deed to which this form is attached.

February 21, 2017

Date

Signature (Seller) Please indicate if Power of Attorney or Attorney in Fact
Anthony LoConte, Managing Member of Sole Member

Date

Signature (Seller) Please indicate if Power of Attorney or Attorney in Fact



GIT/REP-3
(9-15)

State of New Jersey

Seller's Residency Certification/Exemption

(Please Print or Type)

SELLER(S) INFORMATION:

Name(s) **WBF East Orange Shopping Center LLC**

Current Street Address **350 5th Avenue, Suite 6540**

City, Town, Post Office Box **New York** State **NY** Zip Code **10118**

PROPERTY INFORMATION:

Block(s) **683** Lot(s) **1** Qualifier

Street Address **533 Dr. Martin Luther King Jr. Boulevard**

City, Town, Post Office Box **East Orange** State **NJ** Zip Code **07018**

Seller's Percentage of Ownership **50%** Total Consideration **\$35,750,000.00**

Owner's Share of Consideration **\$17,875,000.00** Closing Date **Feb., 2017**

SELLER'S ASSURANCES (Check the Appropriate Box) (Boxes 2 through 14 apply to Residents and Non-residents):

1. ☐ Seller is a resident taxpayer (individual, estate, or trust) of the State of New Jersey pursuant to the New Jersey Gross Income Tax Act, will file a resident gross income tax return, and will pay any applicable taxes on any gain or income from the disposition of this property.
2. ☐ The real property being sold or transferred is used exclusively as a principal residence as defined in 26 U.S. Code section 121.
3. ☐ Seller is a mortgagor conveying the mortgaged property to a mortgagee in foreclosure or in a transfer in lieu of foreclosure with no additional consideration.
4. ☐ Seller, transferor or transferee is an agency or authority of the United States of America, an agency or authority of the State of New Jersey, the Federal National Mortgage Association, the Federal Home Loan Mortgage Corporation, the Government National Mortgage Association, or a private mortgage insurance company.
5. ☒ Seller is not an individual, estate, or trust and is not required to make an estimated gross income tax payment.
6. ☐ The total consideration for the property is \$1,000 or less so the seller is not required to make an estimated income tax payment.
7. ☐ The gain from the sale is not recognized for federal income tax purposes under 26 U.S. Code section 721, 1031, or 1033 (CIRCLE THE APPLICABLE SECTION). If the indicated section does not ultimately apply to this transaction, the seller acknowledges the obligation to file a New Jersey income tax return for the year of the sale and report the recognized gain.
☐ Seller did not receive non-like kind property.
8. ☐ The real property is being transferred by an executor or administrator of a decedent to a devisee or heir to effect distribution of the decedent's estate in accordance with the provisions of the decedent's will or the intestate laws of this State.
9. ☐ The real property being sold is subject to a short sale instituted by the mortgagee, whereby the seller has agreed not to receive any proceeds from the sale and the mortgagee will receive all proceeds paying off an agreed amount of the mortgage.
10. ☐ The deed is dated prior to August 1, 2004, and was not previously recorded.
11. ☐ The real property is being transferred under a relocation company transaction where a trustee of the relocation company buys the property from the seller and then sells the house to a third party buyer for the same price.
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SELLER(S) DECLARATION:

The undersigned understands that this declaration and its contents may be disclosed or provided to the New Jersey Division of Taxation and that any false statement contained herein may be punished by fine, imprisonment, or both. I furthermore declare that I have examined this declaration and, to the best of my knowledge and belief, it is true, correct and complete. By checking this box ☐ I certify that a Power of Attorney to represent the seller(s) has been previously recorded or is being recorded simultaneously with the deed to which this form is attached.

February 15, 2017

Date

Signature (Seller) Please indicate if Power of Attorney or Attorney in Fact

Norman Weisfeld, Member and Manager

Date

Signature (Seller) Please indicate if Power of Attorney or Attorney in Fact

STATE OF NEW JERSEY

AFFIDAVIT OF CONSIDERATION FOR USE BY SELLER

(Chapter 49, P.L. 1968, as amended through Chapter 33, P.L. 2006) (N.J.S.A. 46:15-6 et seq.)
BEFORE COMPLETING THIS AFFIDAVIT, PLEASE READ THE INSTRUCTIONS ON THE REVERSE SIDE OF THIS FORM.

| | | |
|---|--|--|
| STATE OF NEW JERSEY } COUNTY BERGEN | SS. County Municipal Code 0705 | FOR RECORDER'S USE ONLY Consideration \$ _____ RTF paid by seller \$ _____ Date _____ By _____ |
|---|--|--|

Municipality of Property Location: **East Orange**

(1) **PARTY OR LEGAL REPRESENTATIVE** (Instructions 3 and 4 attached)
Deponent, **Anthony LoConte**, being duly sworn according to law upon his/her oath deposes
(Name)
and says that he/she is the **Manager of Grantor** in a deed dated **February 22, 2017**
(Grantor, Legal Representative, Corporate Officer, Officer of Title Co., Lending Institution, etc.)
transferring real property identified as Block No. **683**, Lot No. **1** located at
533 Dr. Martin Luther King Jr. Boulevard, East Orange, NJ and annexed thereto.
(Street Address, Town)

(2) **CONSIDERATION: \$35,750,000.00** (Instructions 1 and 5) ☐ no prior mortgage to which property is subject.

(3) Property transferred is Class **(4A)** 4B 4C (circle one). If property transferred is Class 4A, calculation in Section 3A is required.

(3A) **REQUIRED CALCULATION of Equalized Valuation for all Class 4A (Commercial) Property Transactions:**
(Instructions 5A and 7)

Total Assessed Valuation ÷ Director's Ratio = Equalized Assessed Valuation
\$ 18,020,600.00 ÷ 91.56 % = \$ 19,687,731.80

If Director's Ratio is less than 100%, the equalized valuation will be an amount greater than the assessed value. If Director's Ratio is equal to or in excess of 100%, the assessed value will be equal to the equalized valuation.

(4) **FULL EXEMPTION FROM FEE:** (Instruction 8)

Deponent states that this deed transaction is fully exempt from the Realty Transfer Fee imposed by C. 49, P.L. 1968, as amended through C. 66, P.L. 2004, for the following reason(s). Mere reference to the exemption symbol is insufficient. Explain in detail.

(5) **PARTIAL EXEMPTION FROM FEE:** (Instruction 9) **NOTE:** All boxes below apply to grantor(s) only. **ALL BOXES IN APPROPRIATE CATEGORY MUST BE CHECKED.** Failure to do so will void claim for partial exemption.

Deponent claims that this deed transaction is exempt from the State's portion of the Basic, Supplemental and General Purpose Fee, as applicable, imposed by C. 176, P.L. 1975; C. 113, P.L. 2004 and C. 66, P.L. 2004 for the following reason(s):

| | | |
|--|--|--|
| A. SENIOR CITIZEN (Instruction 9) <input type="checkbox"/> Grantor(s) 62 years of age or over* <input type="checkbox"/> Owned and occupied by grantor(s) at time of sale <input type="checkbox"/> One- or two-family residential premises | | <input type="checkbox"/> Resident of the State of New Jersey <input type="checkbox"/> Owners as joint tenants must all qualify |
| B. BLIND PERSON (Instruction 9) <input type="checkbox"/> Grantor(s) legally blind* <input type="checkbox"/> Owned and occupied by grantor(s) at time of sale <input type="checkbox"/> One- or two-family residential premises <input type="checkbox"/> Resident of the State of New Jersey <input type="checkbox"/> Owners as joint tenants must all qualify | | DISABLED PERSON (Instruction 9) <input type="checkbox"/> Grantor(s) permanently and totally disabled* <input type="checkbox"/> Grantor(s) receiving disability payments* <input type="checkbox"/> Grantor(s) not gainfully employed* <input type="checkbox"/> Owned and occupied by grantor(s) at time of sale <input type="checkbox"/> One- or two-family residential premises <input type="checkbox"/> Resident of the State of New Jersey <input type="checkbox"/> Owners as joint tenants must all qualify |
| C. LOW AND MODERATE INCOME HOUSING (Instruction 9) <input type="checkbox"/> Affordable according to HUD standards <input type="checkbox"/> Meets income requirements of region <input type="checkbox"/> Reserved for occupancy <input type="checkbox"/> Subject to resale controls | | |

(6) **NEW CONSTRUCTION** (Instructions 2, 10 and 12)
☐ Entirely new improvement
☐ Not previously used for any purpose
☐ Not previously occupied
☐ "New Construction" printed clearly at top of the first page of the deed

(7) **RELATED LEGAL ENTITIES TO LEGAL ENTITIES** (Instructions 5, 12 and 14)

- ☐ No prior mortgage assumed or to which property is subject at time of sale
☐ No contributions to capital by either grantor or grantee legal entity
☐ No stock or money exchanged by or between grantor or grantee legal entities

(8) Deponent makes this Affidavit to induce the County Clerk or Register of Deeds to record the deed and accept the fee submitted herewith in accordance with the provisions of Chapter 49, P.L. 1968, as amended through Chapter 33, P.L. 2006.

Subscribed and sworn to before me
this **21st** day
of **February**, 20 **17**

Notary Public

Signature of Deponent
287 Bowman Avenue
Purchase, NY 10577
Deponent Address

XXX-XX-X **557**
Last 3 digits in Grantor's Soc. Sec. No.

L.C.E. Orange Shopping Center, L.L.C., et al.
Grantor Name

287 Bowman Avenue
Purchase, NY 10577
Grantor Address at Time of Sale

Card Service USA, Inc.
Name/Company of Settlement Officer

Francis A. Ciambone, An Attorney at Law of NJ
When section 3A is completed, county recording officers shall forward one copy of each Affidavit of Consideration for Use by Seller to:

| | |
|------------------------------|-----------------------|
| FOR OFFICIAL USE ONLY | |
| Instrument Number _____ | County _____ |
| Deed Number _____ | Book _____ Page _____ |
| Deed Dated _____ | Date Recorded _____ |

RTF-1EE (Rev. 12/09)

STATE OF NEW JERSEY

MUST SUBMIT IN DUPLICATE

AFFIDAVIT OF CONSIDERATION FOR USE BY BUYER

(Chapter 49, P.L. 1968, as amended through Chapter 33, P.L. 2006) (N.J.S.A. 46:15-5 et seq.)

PLEASE READ THE INSTRUCTIONS ON THE REVERSE SIDE OF THIS FORM BEFORE COMPLETING THIS AFFIDAVIT

STATE OF NEW JERSEY York

COUNTY

Bergen New YorkSS. County Municipal Code
0705MUNICIPALITY OF PROPERTY LOCATION East Orange

FOR RECORDER'S USE ONLY

Consideration \$
RTF paid by buyer \$
Date By

(1) PARTY OR LEGAL REPRESENTATIVE (See Instructions #3 and #4 on reverse side)

Deponent, Joshua Weingarten being duly sworn according to law upon his/her oath, Last three digits in grantee's Social Security Number 834(Name)
deposes and says that he/she is the Corporate Officer of Grantee in a deed dated February 22, 2017 transferring (Grantee, Legal Representative, Corporate Officer, Officer of Title Company, Lending Institution, etc.)real property identified as Block number 683 Lot number 1 located at533 Dr. Martin Luther King Jr. Boulevard, East Orange, NJ and annexed thereto.
(Street Address, Town)(2) CONSIDERATION \$ 35,750,000 (See Instructions #1, #5, and #11 on reverse side)

Entire consideration is in excess of \$1,000,000:

PROPERTY CLASSIFICATION CHECKED OR CIRCLED BELOW IS TAKEN FROM OFFICIAL ASSESSMENT LIST (A PUBLIC RECORD) OF MUNICIPALITY WHERE THE REAL PROPERTY IS LOCATED IN THE YEAR OF TRANSFER. REFER TO N.J.A.C. 18:12-2.2 ET SEQ.

(A) Grantee required to remit the 1% fee, complete (A) by checking off appropriate box or boxes below.

- ☐ Class 2 - Residential ☒ Class 4A - Commercial properties
☐ Class 3A - Farm property (Regular) and any other real property transferred to same grantee in conjunction with transfer of Class 3A property (if checked, calculation in (E) required below)
☐ Cooperative unit (four families or less) (See C. 46:8D-3.)
☐ Cooperative units are Class 4C.

(B) Grantee is not required to remit 1% fee (one or more of following classes being conveyed), complete (B) by checking off appropriate box or boxes below.

- ☐ Property class. Circle applicable class or classes: 1 3B 4B 4C 15
 Property classes: 1-Vacant Land; 3B-Farm property (Qualified); 4B-Industrial properties; 4C-Apartments; 15-Public Property, etc. (N.J.A.C. 18:12-2.2 et seq.)
☐ Exempt organization determined by federal Internal Revenue Service/Internal Revenue Code of 1986, 26 U.S.C. s. 501.
☐ Incidental to corporate merger or acquisition; equalized assessed valuation less than 20% of total value of all assets exchanged in merger or acquisition. If checked, calculation in (E) required and MUST ATTACH COMPLETED RTF-4.

(C) When grantee transfers properties involving block(s) and lot(s) of two or more classes in one deed, one or more subject to the 1% fee (A), with one or more than one not subject to the 1% fee (B), pursuant to N.J.S.A. 46:15-7.2, complete (C) by checking off appropriate box or boxes and (D).

- ☒ Property class. Circle applicable class or classes: 1 2 3B 4A 4B 4C 15

(D) EQUALIZED VALUE CALCULATION FOR ALL PROPERTIES CONVEYED, WHETHER THE 1% FEE APPLIES OR DOES NOT APPLY

Total Assessed Valuation + Director's Ratio = Equalized Valuation

Property Class 4A \$ 18,020,600 + 91.56 % = \$ 19,681,738.80

Property Class _____ \$ _____ + _____ % = \$ _____

Property Class _____ \$ _____ + _____ % = \$ _____

Property Class _____ \$ _____ + _____ % = \$ _____

(E) REQUIRED EQUALIZED VALUE CALCULATION FOR ALL CLASS 4A (COMMERCIAL) PROPERTY TRANSACTIONS: (See Instructions #6 and #7 on reverse side)

Total Assessed Valuation + Director's Ratio = Equalized Value

\$ 18,020,600 + 91.56 % = \$ 19,681,738.80

If Director's Ratio is less than 100%, the equalized valuation will be an amount greater than the assessed valuation. If Director's Ratio is equal to or exceeds 100%, the assessed valuation will be equal to the equalized value.

(3) TOTAL EXEMPTION FROM FEE (See Instruction #8 on reverse side)

Deponent states that this deed transaction is fully exempt from the Realty Transfer Fee imposed by C. 49, P.L. 1968, as amended through Chapter 33, P.L. 2006, for the following reason(s). Mere reference to exemption symbol is insufficient. Explain in detail.

(4) Deponent makes Affidavit of Consideration for Use by Buyer to induce county clerk or register of deeds to record the deed and accept the fee submitted herewith pursuant to the provisions of Chapter 49, P.L. 1968, as amended through Chapter 33, P.L. 2006.

Subscribed and sworn to before me

this 22 day of February, 2017

Signature of Deponent

30-55 Whitestone Expressway, Whitestone, NY 11354

Deponent Address

533 Main Street Urban Renewal LLC

Grantee Name

30-55 Whitestone Expressway, Whitestone, NY 11354

Grantee Address at Time of Sale

Land Service USA Inc
Name/Company of Settlement Officer

BERNARD J. CELARDO
 Notary Public-State of New York
 No. 01CE4885151
 Qualified in Suffolk County
 Commission Expires March 16th 2019

County recording officers: forward one copy of each RTF-1EE to:

STATE OF NJ - DIVISION OF TAXATION
 PO BOX 251
 TRENTON, NJ 08695-0251
 ATTENTION: REALTY TRANSFER FEE UNIT

FOR OFFICIAL USE ONLY
 Instrument Number _____ County _____
 Deed Number _____ Book _____ Page _____
 Deed Dated _____ Date Recorded _____

The Director, Division of Taxation, Department of the Treasury has prescribed this form, as required by law. It may not be altered or amended without prior approval of the Director. For further information on the Realty Transfer Fee or to print a copy of this Affidavit or any other relevant forms, visit: www.state.nj.us/treasury/taxation/ip/localtax.shtml.

STATE OF NEW JERSEY

AFFIDAVIT OF CONSIDERATION FOR USE BY SELLER

(Chapter 49, P.L. 1968, as amended through Chapter 33, P.L. 2006) (N.J.S.A. 46:15-5 et seq.)

BEFORE COMPLETING THIS AFFIDAVIT, PLEASE READ THE INSTRUCTIONS ON THE REVERSE SIDE OF THIS FORM.

| | | |
|---|--|--|
| STATE OF NEW JERSEY } COUNTY <u>BERGEN</u> | SS. County Municipal Code <u>0705</u> | FOR RECORDER'S USE ONLY Consideration \$ RTF paid by seller \$ Date By |
|---|--|--|

Municipality of Property Location: East Orange

† Use symbol "C" to indicate that fee is exclusively for county use.

(1) **PARTY OR LEGAL REPRESENTATIVE** (Instructions 3 and 4 attached)
Deponent, Anthony LoConte, being duly sworn according to law upon his/her oath deposes and says that he/she is the Manager of Grantor in a deed dated February 22, 2017 transferring real property identified as Block No. 683, Lot No. 1 located at 533 Dr. Martin Luther King Jr. Boulevard, East Orange, NJ and annexed thereto.
(Street Address, Town)

(2) **CONSIDERATION:** \$35,750,000.00 (Instructions 1 and 5) ☐ no prior mortgage to which property is subject.

(3) Property transferred is Class 4A 4B 4C (circle one). If property transferred is Class 4A, calculation in Section 3A is required.

(3A) **REQUIRED CALCULATION of Equalized Valuation for all Class 4A (Commercial) Property Transactions:** (Instructions 5A and 7)

Total Assessed Valuation ÷ Director's Ratio = Equalized Assessed Valuation
\$ 18,020,000.00 ÷ 91.56 % = \$ 19,681,738.80

If Director's Ratio is less than 100%, the equalized valuation will be an amount greater than the assessed value. If Director's Ratio is equal to or in excess of 100%, the assessed value will be equal to the equalized valuation.

(4) **FULL EXEMPTION FROM FEE:** (Instruction 8)

Deponent states that this deed transaction is fully exempt from the Realty Transfer Fee imposed by C. 49, P.L. 1968, as amended through C. 66, P.L. 2004, for the following reason(s). Mere reference to the exemption symbol is insufficient. Explain in detail.

(5) **PARTIAL EXEMPTION FROM FEE:** (Instruction 9) NOTE: All boxes below apply to grantor(s) only. ALL BOXES IN APPROPRIATE CATEGORY MUST BE CHECKED. Failure to do so will void claim for partial exemption.

Deponent claims that this deed transaction is exempt from the State's portion of the Basic, Supplemental and General Purpose Fee, as applicable, imposed by C. 176, P.L. 1975; C. 113, P.L. 2004 and C. 66, P.L. 2004 for the following reason(s):

| | | |
|--|--|--|
| A. SENIOR CITIZEN (Instruction 9) <input type="checkbox"/> Grantor(s) 62 years of age or over* <input type="checkbox"/> Owned and occupied by grantor(s) at time of sale <input type="checkbox"/> One- or two-family residential premises | | <input type="checkbox"/> Resident of the State of New Jersey <input type="checkbox"/> Owners as joint tenants must all qualify |
| B. BLIND PERSON (Instruction 9) <input type="checkbox"/> Grantor(s) legally blind* <input type="checkbox"/> Owned and occupied by grantor(s) at time of sale <input type="checkbox"/> One- or two-family residential premises <input type="checkbox"/> Resident of the State of New Jersey <input type="checkbox"/> Owners as joint tenants must all qualify | | DISABLED PERSON (Instruction 9) <input type="checkbox"/> Grantor(s) permanently and totally disabled* <input type="checkbox"/> Grantor(s) receiving disability payments* <input type="checkbox"/> Grantor(s) not gainfully employed* <input type="checkbox"/> Owned and occupied by grantor(s) at time of sale <input type="checkbox"/> One- or two-family residential premises <input type="checkbox"/> Resident of the State of New Jersey <input type="checkbox"/> Owners as joint tenants must all qualify |
| C. LOW AND MODERATE INCOME HOUSING (Instruction 9) <input type="checkbox"/> Affordable according to HUD standards <input type="checkbox"/> Meets income requirements of region | | <input type="checkbox"/> Reserved for occupancy <input type="checkbox"/> Subject to resale controls |

(6) **NEW CONSTRUCTION** (Instructions 2, 10 and 12)
☐ Entirely new improvement
☐ Not previously used for any purpose
☐ "New Construction" printed clearly at top of the first page of the deed

(7) **RELATED LEGAL ENTITIES TO LEGAL ENTITIES** (Instructions 5, 12 and 14)

- ☐ No prior mortgage assumed or to which property is subject at time of sale
☐ No contributions to capital by either grantor or grantee legal entity
☐ No stock or money exchanged by or between grantor or grantee legal entities

(8) Deponent makes this Affidavit to induce the County Clerk or Register of Deeds to record the deed and accept the fee submitted herewith in accordance with the provisions of Chapter 49, P.L. 1968, as amended through Chapter 33, P.L. 2006.

Subscribed and sworn to before me
this 21 day
of February, 2017

Signature of Deponent
Anthony LoConte
Deponent Address
287 Bowman Avenue
Purchase, NY 10577

LCE Orange Shopping Center, L.L.C., et al.
Grantor Name
287 Bowman Avenue
Purchase, NY 10577
Grantor Address at Time of Sale

XXX-XX-X 557
Last 3 digits in Grantor's Soc. Sec. No.

Land Services USA
Name/Company of Settlement Officer

Francis A. Ciambone, An Attorney at Law of NJ
When section 3A is completed, county recording officers shall forward one copy of each Affidavit of Consideration for Use by Seller to:

| | |
|------------------------------|---------------|
| FOR OFFICIAL USE ONLY | |
| Instrument Number | County |
| Deed Number | Book |
| Deed Dated | Page |
| | Date Recorded |

State of New Jersey - Division of Taxation, P.O. Box 251, Trenton, NJ 08695-0251, Attention: Realty Transfer Fee Unit
The Director of the Division of Taxation in the Department of the Treasury has prescribed this form as required by law, and it may not be altered or amended without the prior approval of the Director. For information on the Realty Transfer Fee or to print a copy of this Affidavit, visit the Division of Taxation website at www.state.nj.us/treasury/taxation/lpt/localtax.htm.

OWNER'S POLICY OF TITLE INSURANCE
ISSUED BY

STEWART TITLE GUARANTY COMPANY

Any notice of claim and any other notice or statement in writing required to be given the Company under this Policy must be given to the Company at the address shown in Section 18 of the Conditions.

COVERED RISKS

SUBJECT TO THE EXCLUSIONS FROM COVERAGE, THE EXCEPTIONS FROM COVERAGE CONTAINED IN SCHEDULE B, AND THE CONDITIONS, STEWART TITLE GUARANTY COMPANY, a Texas corporation (the "Company") insures, as of Date of Policy and, to the extent stated in Covered Risks 9 and 10, after Date of Policy, against loss or damage, not exceeding the Amount of Insurance, sustained or incurred by the Insured by reason of:

1. Title being vested other than as stated in Schedule A.
2. Any defect in or lien or encumbrance on the Title. This Covered Risk includes but is not limited to insurance against loss from:
 - (a) A defect in the Title caused by:
 - (i) forgery, fraud, undue influence, duress, incompetency, incapacity, or impersonation;
 - (ii) failure of any person or Entity to have authorized a transfer or conveyance;
 - (iii) a document affecting Title not properly created, executed, witnessed, sealed, acknowledged, notarized, or delivered;
 - (iv) failure to perform those acts necessary to create a document by electronic means authorized by law;
 - (v) a document executed under a falsified, expired, or otherwise invalid power of attorney;
 - (vi) a document not properly filed, recorded, or indexed in the Public Records including failure to perform those acts by electronic means authorized by law; or
 - (vii) a defective judicial or administrative proceeding.
 - (b) The lien of real estate taxes or assessments imposed on the Title by a governmental authority due or payable, but unpaid.
 - (c) Any encroachment, encumbrance, violation, variation, or adverse circumstance affecting the Title that would be disclosed by an accurate and complete land survey of the Land. The term "encroachment" includes encroachments of existing improvements located on the Land onto adjoining land, and encroachments onto the Land of existing improvements located on adjoining land.
3. Unmarketable Title.
4. No right of access to and from the Land.
5. The violation or enforcement of any law, ordinance, permit, or governmental regulation (including those relating to building and zoning) restricting, regulating, prohibiting, or relating to:
 - (a) the occupancy, use, or enjoyment of the Land;
 - (b) the character, dimensions, or location of any improvement erected on the Land;
 - (c) the subdivision of land; or
 - (d) environmental protectionif a notice, describing any part of the Land, is recorded in the Public Records setting forth the violation or intention to enforce, but only to the extent of the violation or enforcement referred to in that notice.
6. An enforcement action based on the exercise of a governmental police power not covered by Covered Risk 5 if a notice of the enforcement action, describing any part of the Land, is recorded in the Public Records, but only to the extent of the enforcement referred to in that notice.

Countersigned by:

Authorized Signature
Land Services USA, Inc.

Company

Philadelphia, PA

City, State

stewart
title guaranty company



Matt Morris
President and CEO

Denise Carraux
Secretary

Policy
Serial No. **O-9301-001479948**

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AMERICAN
LAND TITLE
ASSOCIATION



COVERED RISKS (Continued)

7. The exercise of the rights of eminent domain if a notice of the exercise, describing any part of the Land, is recorded in the Public Records.
8. Any taking by a governmental body that has occurred and is binding on the rights of a purchaser for value without Knowledge.
9. Title being vested other than as stated in Schedule A or being defective
 - (a) as a result of the avoidance in whole or in part, or from a court order providing an alternative remedy, of a transfer of all or any part of the title to or any interest in the Land occurring prior to the transaction vesting Title as shown in Schedule A because that prior transfer constituted a fraudulent or preferential transfer under federal bankruptcy, state insolvency, or similar creditors' rights laws; or
 - (b) because the instrument of transfer vesting Title as shown in Schedule A constitutes a preferential transfer under federal bankruptcy, state insolvency, or similar creditors' rights laws by reason of the failure of its recording in the Public Records
 - (i) to be timely, or
 - (ii) to impart notice of its existence to a purchaser for value or to a judgment or lien creditor.
10. Any defect in or lien or encumbrance on the Title or other matter included in Covered Risks 1 through 9 that has been created or attached or has been filed or recorded in the Public Records subsequent to Date of Policy and prior to the recording of the deed or other instrument of transfer in the Public Records that vests Title as shown in Schedule A. The Company will also pay the costs, attorneys' fees and expenses incurred in defense of any matter insured against by this Policy, but only to the extent provided in the Conditions.

EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy, and the Company will not pay loss or damage, costs, attorneys' fees, or expenses that arise by reason of:

1. (a) Any law, ordinance, permit, or governmental regulation (including those relating to building and zoning) restricting, regulating, prohibiting, or relating to:
 - (i) the occupancy, use, or enjoyment of the Land;
 - (ii) the character, dimensions, or location of any improvement erected on the Land;
 - (iii) the subdivision of land; or
 - (iv) environmental protection;
 or the effect of any violation of these laws, ordinances, or governmental regulations. This Exclusion 1(a) does not modify or limit the coverage provided under Covered Risk 5.
- (b) Any governmental police power. This Exclusion 1(b) does not modify or limit the coverage provided under Covered Risk 6.
2. Rights of eminent domain. This Exclusion does not modify or limit the coverage provided under Covered Risk 7 or 8.
3. Defects, liens, encumbrances, adverse claims, or other matters
 - (a) created, suffered, assumed, or agreed to by the Insured Claimant;
 - (b) not Known to the Company, not recorded in the Public Records at Date of Policy, but Known to the Insured Claimant and not disclosed in writing to the Company by the Insured Claimant prior to the date the Insured Claimant became an Insured under this policy;
- (c) resulting in no loss or damage to the Insured Claimant;
- (d) attaching or created subsequent to Date of Policy (however, this does not modify or limit the coverage provided under Covered Risk 9 and 10); or
- (e) resulting in loss or damage that would not have been sustained if the Insured Claimant had paid value for the Title.
4. Any claim, by reason of the operation of federal bankruptcy, state insolvency, or similar creditors' rights laws, that the transaction vesting the Title as shown in Schedule A, is
 - (a) a fraudulent conveyance or fraudulent transfer; or
 - (b) a preferential transfer for any reason not stated in Covered Risk 9 of this policy.
5. Any lien on the Title for real estate taxes or assessments imposed by governmental authority and created or attaching between Date of Policy and the date of recording of the deed or other instrument of transfer in the Public Records that vests Title as shown in Schedule A.

CONDITIONS

1. DEFINITION OF TERMS.

The following terms when used in this policy mean:

- (a) "Amount of Insurance": The amount stated in Schedule A, may be increased or decreased by endorsement to this policy, increased by Section 8(b), or decreased by Sections 10 and 11 of these Conditions.
- (b) "Date of Policy": The date designated as "Date of Policy" in Schedule A.
- (c) "Entity": A corporation, partnership, trust, limited liability company, or other similar legal entity.
- (d) "Insured": The Insured named in Schedule A.
 - (i) the term "Insured" also includes:
 - (A) successors to the Title of the Insured by operation of law as distinguished from purchase, including heirs, devisees, survivors, personal representatives, or next of kin;
 - (B) successors to an Insured by dissolution, merger, consolidation, distribution, or reorganization;
 - (C) successors to an Insured by its conversion to another kind of Entity;
 - (D) a grantee of an Insured under a deed delivered without payment of actual valuable consideration conveying the Title;
 - (1) if the stock, shares, memberships, or other equity interests of the grantee are wholly-owned by the named Insured,
 - (2) if the grantee wholly owns the named Insured,
 - (3) if the grantee is wholly-owned by an affiliated Entity of the named Insured, provided the affiliated Entity and the named Insured are both wholly-owned by the same person or Entity, or
 - (4) if the grantee is a trustee or beneficiary of a trust created by a written instrument established by the Insured named in Schedule A for estate planning purposes.
 - (ii) with regard to (A), (B), (C), and (D) reserving, however, all rights and defenses as to any successor that the Company would have had against any predecessor Insured.
 - (e) "Insured Claimant": An Insured claiming loss or damage.
 - (f) "Knowledge" or "Known": Actual knowledge, not constructive knowledge or notice that may be imputed to an Insured by reason of the Public Records or any other records that impart constructive notice of matters affecting the Title.

CONDITIONS (Continued)

- (g) "Land": The land described in Schedule A, and affixed improvements that by law constitute real property. The term "Land" does not include any property beyond the lines of the area described in Schedule A, nor any right, title, interest, estate, or easement in abutting streets, roads, avenues, alleys, lanes, ways, or waterways, but this does not modify or limit the extent that a right of access to and from the Land is insured by this policy.
 - (h) "Mortgage": Mortgage, deed of trust, trust deed, or other security instrument, including one evidenced by electronic means authorized by law.
 - (i) "Public Records": Records established under state statutes at Date of Policy for the purpose of imparting constructive notice of matters relating to real property to purchasers for value and without Knowledge. With respect to Covered Risk 5(d), "Public Records" shall also include environmental protection liens filed in the records of the clerk of the United States District Court for the district where the Land is located.
 - (j) "Title": The estate or interest described in Schedule A.
 - (k) "Unmarketable Title": Title affected by an alleged or apparent matter that would permit a prospective purchaser or lessee of the Title or lender on the Title to be released from the obligation to purchase, lease, or lend if there is a contractual condition requiring the delivery of marketable title.
- 2. CONTINUATION OF INSURANCE.**
The coverage of this policy shall continue in force as of Date of Policy in favor of an Insured, but only so long as the Insured retains an estate or interest in the Land, or holds an obligation secured by a purchase money Mortgage given by a purchaser from the Insured, or only so long as the Insured shall have liability by reason of warranties in any transfer or conveyance of the Title. This policy shall not continue in force in favor of any purchaser from the Insured of either (i) an estate or interest in the Land, or (ii) an obligation secured by a purchase money Mortgage given to the Insured.
- 3. NOTICE OF CLAIM TO BE GIVEN BY INSURED CLAIMANT.**
The Insured shall notify the Company promptly in writing (i) in case of any litigation as set forth in Section 5(a) of these Conditions, (ii) in case Knowledge shall come to an Insured hereunder of any claim of title or interest that is adverse to the Title, as insured, and that might cause loss or damage for which the Company may be liable by virtue of this policy, or (iii) if the Title, as insured, is rejected as Unmarketable Title. If the Company is prejudiced by the failure of the Insured Claimant to provide prompt notice, the Company's liability to the Insured Claimant under the policy shall be reduced to the extent of the prejudice.
- 4. PROOF OF LOSS.**
In the event the Company is unable to determine the amount of loss or damage, the Company may, at its option, require as a condition of payment that the Insured Claimant furnish a signed proof of loss. The proof of loss must describe the defect, lien, encumbrance, or other matter insured against by this policy that constitutes the basis of loss or damage and shall state, to the extent possible, the basis of calculating the amount of the loss or damage.
- 5. DEFENSE AND PROSECUTION OF ACTIONS.**
(a) Upon written request by the Insured, and subject to the options contained in Section 7 of these Conditions, the Company, at its own cost and without unreasonable delay, shall provide for the defense of an Insured in litigation in which any third party asserts a claim covered by this policy adverse to the Insured. This obligation is limited to only those stated causes of action alleging matters insured against by this policy. The Company shall have the right to select counsel of its choice (subject to the right of the Insured to object for reasonable cause) to represent the Insured as to those stated causes of action. It shall not be liable for and will not pay the fees of any other counsel. The Company will not pay any fees, costs, or expenses incurred by the Insured in the defense of those causes of action that allege matters not insured against by this policy.
- (b) The Company shall have the right, in addition to the options contained in Section 7 of these Conditions, at its own cost, to institute and prosecute any action or proceeding or to do any other act that in its opinion may be necessary or desirable to establish the Title, as insured, or to prevent or reduce loss or damage to the Insured. The Company may take any appropriate action under the terms of this policy, whether or not it shall be liable to the Insured. The exercise of these rights shall not be an admission of liability or waiver of any provision of this policy. If the Company exercises its rights under this subsection, it must do so diligently.
- (c) Whenever the Company brings an action or asserts a defense as required or permitted by this policy, the Company may pursue the litigation to a final determination by a court of competent jurisdiction, and it expressly reserves the right, in its sole discretion, to appeal any adverse judgment or order.
- 6. DUTY OF INSURED CLAIMANT TO COOPERATE.**
(a) In all cases where this policy permits or requires the Company to prosecute or provide for the defense of any action or proceeding and any appeals, the Insured shall secure to the Company the right to so prosecute or provide defense in the action or proceeding, including the right to use, at its option, the name of the Insured for this purpose. Whenever requested by the Company, the Insured, at the Company's expense, shall give the Company all reasonable aid (i) in securing evidence, obtaining witnesses, prosecuting or defending the action or proceeding, or effecting settlement, and (ii) in any other lawful act that in the opinion of the Company may be necessary or desirable to establish the Title or any other matter as insured. If the Company is prejudiced by the failure of the Insured to furnish the required cooperation, the Company's obligations to the Insured under the policy shall terminate, including any liability or obligation to defend, prosecute, or continue any litigation, with regard to the matter or matters requiring such cooperation.
- (b) The Company may reasonably require the Insured Claimant to submit to examination under oath by any authorized representative of the Company and to produce for examination, inspection, and copying, at such reasonable times and places as may be designated by the authorized representative of the Company, all records, in whatever medium maintained, including books, ledgers, checks, memoranda, correspondence, reports, e-mails, disks, tapes, and videos whether bearing a date before or after Date of Policy, that reasonably pertain to the loss or damage. Further, if requested by any authorized representative of the Company, the Insured Claimant shall grant its permission, in writing, for any authorized representative of the Company to examine, inspect, and copy all of these records in the custody or control of a third party that reasonably pertain to the loss or damage. All information designated as confidential by the Insured Claimant provided to the Company pursuant to this Section shall not be disclosed to others unless, in the reasonable judgment of the Company, it is necessary in the administration of the claim. Failure of the Insured Claimant to submit for examination under oath, produce any reasonably requested information, or grant permission to secure reasonably necessary information from third parties as required in this subsection, unless prohibited by law or governmental regulation, shall terminate any liability of the Company under this policy as to that claim.
- 7. OPTIONS TO PAY OR OTHERWISE SETTLE CLAIMS; TERMINATION OF LIABILITY.**

CONDITIONS (Continued)

In case of a claim under this policy, the Company shall have the following additional options:

- (a) To Pay or Tender Payment of the Amount of Insurance.
To pay or tender payment of the Amount of Insurance under this policy together with any costs, attorneys' fees, and expenses incurred by the Insured Claimant that were authorized by the Company up to the time of payment or tender of payment and that the Company is obligated to pay.

Upon the exercise by the Company of this option, all liability and obligations of the Company to the Insured under this policy, other than to make the payment required in this subsection, shall terminate, including any liability or obligation to defend, prosecute, or continue any litigation.

- (b) To Pay or Otherwise Settle With Parties Other than the Insured or With the Insured Claimant.

(i) to pay or otherwise settle with other parties for or in the name of an Insured Claimant any claim insured against under this policy. In addition, the Company will pay any costs, attorneys' fees and expenses incurred by the Insured Claimant that were authorized by the Company up to the time of payment and that the Company is obligated to pay; or

(ii) to pay or otherwise settle with the Insured Claimant the loss or damage provided for under this policy, together with any costs, attorneys' fees, and expenses incurred by the Insured Claimant that were authorized by the Company up to the time of payment and that the Company is obligated to pay.

Upon the exercise by the Company of either of the options provided for in subsections (b)(i) or (ii), the Company's obligations to the Insured under this policy for the claimed loss or damage, other than the payments required to be made, shall terminate, including any liability or obligation to defend, prosecute, or continue any litigation.

8. DETERMINATION AND EXTENT OF LIABILITY.

This policy is a contract of indemnity against actual monetary loss or damage sustained or incurred by the Insured Claimant who has suffered loss or damage by reason of matters insured against by this policy.

- (a) The extent of liability of the Company for loss or damage under this policy shall not exceed the lesser of
- (i) the Amount of Insurance; or
 - (ii) the difference between the value of the Title as insured and the value of the Title subject to the risk insured against by this policy.
- (b) If the Company pursues its rights under Section 5 of these Conditions and is unsuccessful in establishing the Title, as insured,
- (i) the Amount of Insurance shall be increased by 10%, and
 - (ii) the Insured Claimant shall have the right to have the loss or damage determined either as of the date the claim was made by the Insured Claimant or as of the date it is settled and paid.
- (c) In addition to the extent of liability under (a) and (b), the Company will also pay those costs, attorneys' fees, and expenses incurred in accordance with Sections 5 and 7 of these Conditions.

9. LIMITATION OF LIABILITY.

- (a) If the Company establishes the Title, or removes the alleged defect, lien, or encumbrance, or cures the lack of a right of access to or from the Land, or cures the claim of Unmarketable Title, all as insured, in a reasonably diligent manner by any method, including litigation and the completion of any appeals, it shall have fully performed its obligations with respect to that matter and shall not be liable for any loss or damage caused to the Insured.
- (b) In the event of any litigation, including litigation by the Company or with the Company's consent, the Company shall have no liability for loss or damage until there has been a final determination by a court of competent jurisdiction, and disposition of all appeals, adverse to the Title, as insured.

- (c) The Company shall not be liable for loss or damage to the Insured for liability voluntarily assumed by the Insured in settling any claim or suit without the prior written consent of the Company.

10. REDUCTION OF INSURANCE; REDUCTION OR TERMINATION OF LIABILITY.

All payments under this policy, except payments made for costs, attorneys' fees, and expenses, shall reduce the Amount of Insurance by the amount of the payment.

11. LIABILITY NONCUMULATIVE.

The Amount of Insurance shall be reduced by any amount the Company pays under any policy insuring a Mortgage to which exception is taken in Schedule B or to which the Insured has agreed, assumed, or taken subject, or which is executed by an Insured after Date of Policy and which is a charge or lien on the Title, and the amount so paid shall be deemed a payment to the Insured under this policy.

12. PAYMENT OF LOSS.

When liability and the extent of loss or damage have been definitely fixed in accordance with these Conditions, the payment shall be made within 30 days.

13. RIGHTS OF RECOVERY UPON PAYMENT OR SETTLEMENT.

- (a) Whenever the Company shall have settled and paid a claim under this policy, it shall be subrogated and entitled to the rights of the Insured Claimant in the Title and all other rights and remedies in respect to the claim that the Insured Claimant has against any person or property, to the extent of the amount of any loss, costs, attorneys' fees, and expenses paid by the Company. If requested by the Company, the Insured Claimant shall execute documents to evidence the transfer to the Company of these rights and remedies. The Insured Claimant shall permit the Company to sue, compromise, or settle in the name of the Insured Claimant and to use the name of the Insured Claimant in any transaction or litigation involving these rights and remedies. If a payment on account of a claim does not fully cover the loss of the Insured Claimant, the Company shall defer the exercise of its right to recover until after the Insured Claimant shall have recovered its loss.
- (b) The Company's right of subrogation includes the rights of the Insured to indemnities, guaranties, other policies of insurance, or bonds, notwithstanding any terms or conditions contained in those instruments that address subrogation rights.

14. ARBITRATION.

Either the Company or the Insured may demand that the claim or controversy shall be submitted to arbitration pursuant to the Title Insurance Arbitration Rules of the American Land Title Association ("Rules"). Except as provided in the Rules, there shall be no joinder or consolidation with claims or controversies of other persons. Arbitrable matters may include, but are not limited to, any controversy or claim between the Company and the Insured arising out of or relating to this policy, any service in connection with its issuance or the breach of a policy provision, or to any other controversy or claim arising out of the transaction giving rise to this policy. All arbitrable matters when the Amount of Insurance is \$2,000,000 or less shall be arbitrated at the option of either the Company or the Insured. All arbitrable matters when the Amount of Insurance is in excess of \$2,000,000 shall be arbitrated only when agreed to by both the Company and the Insured. Arbitration pursuant to this policy and under the Rules shall be binding upon the parties. Judgment upon the award rendered by the Arbitrator(s) may be entered in any court of competent jurisdiction.

15. LIABILITY LIMITED TO THIS POLICY; POLICY ENTIRE CONTRACT.

- (a) This policy together with all endorsements, if any, attached to it by the Company is the entire policy and contract between the Insured

CONDITIONS (Concluded)

and the Company. In interpreting any provision of this policy, this policy shall be construed as a whole.

- (b) Any claim of loss or damage that arises out of the status of the Title or by any action asserting such claim, shall be restricted to this policy.
- (c) Any amendment of or endorsement to this policy must be in writing and authenticated by an authorized person, or expressly incorporated by Schedule A of this policy.
- (d) Each endorsement to this policy issued at any time is made a part of this policy and is subject to all of its terms and provisions. Except as the endorsement expressly states, it does not (i) modify any of the terms and provisions of the policy, (ii) modify any prior endorsement, (iii) extend the Date of Policy, or (iv) increase the Amount of Insurance.

16. SEVERABILITY.

In the event any provision of this policy, in whole or in part, is held invalid or unenforceable under applicable law, the policy shall be deemed not to include that provision or such part held to be invalid, but all other provisions shall remain in full force and effect.

17. CHOICE OF LAW; FORUM.

- (a) Choice of Law: The Insured acknowledges the Company has underwritten the risks covered by this policy and determined the premium charged therefor in reliance upon the law affecting interests in real property and applicable to the interpretation, rights, remedies, or enforcement of policies of title insurance of the jurisdiction where the Land is located.

Therefore, the court or an arbitrator shall apply the law of the jurisdiction where the Land is located to determine the validity of claims against the Title that are adverse to the Insured and to interpret and enforce the terms of this policy. In neither case shall the court or arbitrator apply its conflicts of laws principles to determine the applicable law.

- (b) Choice of Forum: Any litigation or other proceeding brought by the Insured against the Company must be filed only in a state or federal court within the United States of America or its territories having appropriate jurisdiction.

18. NOTICES, WHERE SENT.

Any notice of claim and any other notice or statement in writing required to be given the Company under this Policy must be given to the Company at Claims Department at P.O. Box 2029, Houston, TX 77252-2029.





SCHEDULE A

Name and Address of the Title Insurance Company:

Stewart Title Guaranty Company
1980 Post Oak Boulevard
Houston, TX 77056

File No.: **NJST16-3809GD**

Policy No.: **O-9301-001479948**

Address Reference: **533 Dr. Martin Luther King, Jr. Blvd., East Orange, NJ 07018**

Amount of Insurance: **\$35,750,000.00**

Policy Date: **March 1, 2017**

1. Name of Insured:

533 Main Street Urban Renewal LLC

2. The estate or interest in the Land that is insured by this Policy is:

Fee Simple

3. Title is vested in:

533 Main Street Urban Renewal LLC by virtue of a deed from LCE Orange Shopping Center, L.L.C. and WBF East Orange Shopping Center, LLC, dated February 15, 2017 and recorded March 1, 2017 as Instrument # 2017018540 in the Register's Office for the County of Essex.

4. The Land referred to in this policy is described as follows:

Located in: City of East Orange, Essex County, New Jersey

See Schedule A continued for Legal Description

LAND SERVICES USA, INC.

Countersigned:

Authorized Officer or Agent

Issued at:

**1835 Market St, Suite 420
Philadelphia, PA 19103**

ALTA Owner's Policy (6/17/06)
Schedule A

NJRB 1-15
Effective: 2/15/07
Revised: 9/10/07

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SCHEDULE A
(continued)

File No.: **NJST16-3809GD**

Policy No.: **O-9301-001479948**

LEGAL DESCRIPTION

ALL that certain lot, piece or parcel of land, with the buildings and improvements thereon erected, situate, lying and being in **East Orange** City, County of **Essex** and State of New Jersey, being more particularly described as follows:

BEING shown and designated as Parcel "A" on a certain Map entitled "Brick Church Urban Renewal Project, Parcel Map, Office of the City Engineer, East Orange, N.J." filed in the East Orange Engineering Department dated October 1984, last revised April 24, 1986.

BEING more particularly described as follows:

BEGINNING at the intersection formed by the Southwesterly sideline of Dr. Martin Luther King Jr. Boulevard, formerly known as Main Street, with the Northwesterly sideline of Halsted Street, 60 feet wide, and running; thence,

1) Along said Northwesterly sideline of Halsted Street South 45 degrees 40 minutes 00 seconds West 166.13 feet (aforementioned Parcel Map 166.12 feet); thence,

2) North 44 degrees 20 minutes 00 seconds West 87.20 feet; thence,

3) South 45 degrees 44 minutes 30 seconds West 202.74 feet; thence,

4) South 45 degrees 29 minutes 00 seconds West 21.00 feet to the Northwesterly sideline of Brick Church Plaza, 24 feet wide; thence,

5) Along the same North 44 degrees 31 minutes 00 seconds West 24.75 feet to a point of curvature; thence,

6) Still along the same along a curve to the left with a radius of 4335.78 feet, a central angle of 02 degrees 40 minutes 18 seconds and an arc length of 202.175 feet to a point on a curve; thence,

7) Still along the same along a non-tangent curve to the left with a radius of 37.00 feet, a central angle of 55 degrees 09 minutes 01 seconds and an arc length of 35.61 feet to a point of tangency; thence,

8) Still along the same North 47 degrees 31 minutes 00 seconds West 150.02 feet to a point of curvature; thence,

9) Still along the same along a curve to the left with a radius of 22.50 feet, a central angle of 72 degrees 38 minutes 33 seconds and an arc length of 28.53 feet to a point of non-tangency; thence,

10) Still along the same North 47 degrees 31 minutes 00 seconds West 51.38 feet to a point of curvature; thence,

11) Still along the same along a curve to the left with a radius of 4335.78 feet a central angle of 03 degrees 00 minutes 00 seconds and an arc length of 227.02 feet to a point of tangency; thence,

12) Still along the same North 50 degrees 31 minutes 00 seconds West 110.53 feet to the Southeasterly sideline of South Harrison Street, 74 feet wide; thence,

13) Along the same North 38 degrees 30 minutes 00 seconds East 316.96 feet to a point of curvature; thence,

ALTA Owner's Policy (6/17/06)
Schedule A

NJRB 1-15
Effective: 2/15/07
Revised: 9/10/07

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SCHEDULE A
(continued)

File No.: **NJST16-3809GD**

Policy No.: **O-9301-001479948**

14) Still along the same along a curve to the right with a radius of 150.00 feet, a central angel of 27 degrees 27 minutes 45 seconds and an arc length 71.90 feet (aforementioned Parcel Map 71.67 feet) to a point of tangency; thence,

15) Still along the same North 65 degrees 57 minutes 45 seconds East 25.19 to a point of curvature; thence,

16) Along a curve to the right with a radius of 20.00 feet a central angle of 59 degrees 0/ minutes 15 seconds and an arc length of 20.64 feet to a point of tangency in said Southwesterly sideline of Dr. Martin Luther King Jr. Boulevard; thence,

17) Along the same South 54 degrees 55 minutes 00 seconds East 336.14 feet to a point of curvature; thence,

18) Still along the same along a curve to the right with a radius of 490.00 feet a central angle of 01 degrees 46 minutes 37 seconds and an arc length of 15.20 feet to a point of tangency; thence,

19) Still along the same South 53 degrees 08 minutes 23 seconds East 107.52 feet to a point of curvature; thence,

20) Still along the same along a curve to the right with a radius of 390.00 feet a central angle of 14 degrees 10 minutes 56 seconds and an arc length of 96.54 feet to a point of non-tangency; thence,

21) Still along the same South 30 degrees 12 minutes 57 seconds East 47.72 feet; thence,

22) Still along the same South 34 degrees 41 minutes 00 seconds East 99.23 feet; thence,

23) South 53 degrees 26 minutes 00 seconds West 45.04 feet; thence,

24) South 40 degrees 08 minutes 00 seconds West 55.00 feet; thence,

25) South 34 degrees 15 minutes 00 seconds East 70.69 feet; thence,

26) South 40 degrees 31 minutes 00 seconds West 1.40 feet; thence,

27) South 34 degrees 41 minutes 00 seconds East 44.37 feet; thence,

28) North 40 degrees 32 minutes 00 seconds East 1.70 feet; thence,

29) South 35 degrees 00 minutes 24 seconds East 22.99 feet; thence,

30) North 40 degrees 32 minutes 00 seconds East 53.00 feet; thence,

31) North 52 degrees 00 minutes 00 seconds East 47.04 feet (aforementioned Parcel Map 47.00 feet) to said Southwesterly sideline of Dr. Martin Luther King Jr. Boulevard; thence,

32) Along the same South 34 degrees 41 minutes 00 seconds East 84.31 feet (aforementioned Parcel Map 84.16 feet) to said Northwesterly sideline of Halsted Street, the Point or Place of Beginning.

Said description is in accordance with a survey made by John G. Diaz, PLS, dated February 15, 2007.

ALTA Owner's Policy (6/17/06)
Schedule A

NJRB 1-15

Revised: 9/10/07

Effec

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SCHEDULE A
(continued)

File No.: **NJST16-3809GD**

Policy No.: **O-9301-001479948**

FOR INFORMATION PURPOSES ONLY:

BEING Known as Lot 1, Block 683, on the Official Tax Map of East Orange City

BEING commonly known as 533 Dr. Martin Luther King Jr. Boulevard, East Orange, New Jersey.

ALTA Owner's Policy (6/17/06)
Schedule A

NJRB 1-15

Revised: 9/10/07

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SCHEDULE B

EXCEPTIONS FROM COVERAGE

File No.: **NJST16-3809GD**

Policy No.: **O-9301-001479948**

Notwithstanding any provision of the policy to the contrary, the following matters are expressly excepted from the coverage of the policy, and the Company will not pay loss or damage, costs, attorney's fees or expenses that arise by reason of:

1. Any encroachment, encumbrance, violation, variation, or adverse circumstance affecting the Title that would be disclosed by an accurate and complete land survey of the Land.
2. Intentionally omitted.
3. Intentionally omitted.
4. Intentionally omitted.
5. Intentionally omitted.
6. Subject to added or omitted assessments pursuant to N.J.S.A 54:4-63.1 et seq.
7. Subsurface conditions and/or encroachments not disclosed by an instrument of record.
8. Taxes and assessments for the year 2017 and subsequent years, a lien, not yet due and payable.
9. Intentionally omitted.
10. Intentionally omitted.
11. Minerals of whatsoever kind, subsurface and surface substances, including but not limited to coal, lignite, oil, gas, uranium, clay, rock, sand and gravel in, on, under and that may be 'produced from the Land, together with all rights, privileges, and immunities relating thereto, whether or not appearing in the Public Records or listed in Schedule B. The Company makes no representation as to the present ownership of any such interests. There may be leases, grants, exceptions or reservations of interests that are not listed.
12. Sanitary Sewer Easements and Conditions and Covenants as described and defined by instrument recorded in Book 4889 at Page 602. NOTE: Said conditions contain a right of reverter in favor of the City of East Orange
13. Parking Easement Agreement as described and defined by instrument recorded in Book 5579 at Page 793 and amended in Book 6118 Page 474.
14. Terms and conditions of a lease evidenced by Memorandum of Lease dated January 8, 1986 by and between East Orange Enter Urban Renewal Associates L.P. as landlord and Village Supermarket, Inc., as tenant recorded in Book 4908 Page 832, as affected by Subordination Agreement; Acknowledgement of Lease Assignment, Attornment and Non-Disturbance Agreement by and among 533 Main Street Urban Renewal LLC, Village Super Market, Inc. and GSUIG Real Estate Member LLC to be forthwith recorded in the Register's Office of Essex County, New Jersey.
15. Lease Option Agreement dated April 13, 1987 by and between East Orange Enter Urban Renewal Associates L.P. as landlord and A.D.B Corporation (Dunkin Donuts of America) recorded in Book 5001 Page 670.

ALTA Owner's Policy (6/17/06)
Schedule B

NJRB 1-15
Effective: 2/15/07
Revised: 9/10/07

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SCHEDULE B
(continued)

File No.: **NJST16-3809GD**

Policy No.: **O-9301-001479948**

16. Conditions as contained in document entitled "Brick Church Urban Renewal Project" as described and defined by instrument recorded in Book 4380 at Page 870.
17. Conditions as contained in document entitled "Brick Church Urban Renewal Project" as described and defined by instrument recorded in Book 4889 at Page 514 and amended by First Amendment recorded in Book 4889 Page 570. NOTE: Said conditions contain a right of reverter in favor of the City of East Orange.
18. Subject to the rights of any tenants, if any, regarding any lease or rental agreements.
19. Private rights, if any, of utility companies in and to the beds of Washington Place, Prospect Place and a portion of Brick Church Plaza, now vacated.
20. Mortgage, Assignment of Leases and Rents, Security Agreement and Fixture Filing from 533 Main Street Urban Renewal LLC to GSUIG Real Estate Member LLC in the original principal amount of \$23,500,000.00 dated February 22, 2017 and recorded March 1, 2017 as Instrument # 2017018541 in the Register's Office of Essex County, New Jersey.
21. UCC-1 Financing Statement between 533 Main Street Urban Renewal LLC and GSUIG Real Estate Member LLC, recorded March 1, 2017 as Instrument # 2017018543 in the Register's Office for the County of Essex.



ENDORSEMENT
ATTACHED TO POLICY NUMBER **O-9301-001479948**
ISSUED BY

STEWART TITLE GUARANTY COMPANY

File No.: **NJST16-3809 GD**

1. The Company insures against loss or damage sustained by the Insured in the event that, at Date of Policy,
 - a. according to applicable zoning ordinances and amendments, the Land is not classified **Zone CBD, Central Avenue, Central Business District;**
 - b. the following use or uses are not allowed under that classification: **Retail / Shopping Center**
 - c. There shall be no liability under paragraph 1.b. if the use or uses are not allowed as the result of any lack of compliance with any conditions, restrictions, or requirements contained in the zoning ordinances and amendments, including but not limited to the failure to secure necessary consents or authorizations as a prerequisite to the use or uses. This paragraph 1.c. does not modify or limit the coverage provided in Covered Risk 5.
2. The Company further insures against loss or damage sustained by the Insured by reason of a final decree of a court of competent jurisdiction either
prohibiting the use of the Land, with any existing structure, as specified in paragraph 1.b.;
or
requiring the removal or alteration of the structure because, at Date of Policy, the zoning ordinances and amendments have been violated with respect to any of the following matters:
 - a. Area, width, or depth of the Land as a building site for the structure
 - b. Floor space area of the structure
 - c. Setback of the structure from the property lines of the Land
 - d. Height of the structure, or
 - e. Number of parking spaces.
3. There shall be no liability under this endorsement based on
 - a. the invalidity of the zoning ordinances and amendments until after a final decree of a court of competent jurisdiction adjudicating the invalidity, the effect of which is to prohibit the use or uses;
 - b. the refusal of any person to purchase, lease or lend money on the Title covered by this policy.

This endorsement is issued as part of the policy. Except as it expressly states, it does not (i) modify any of the terms and provisions of the policy, (ii) modify any prior endorsements, (iii) extend the Date of Policy, or (iv) increase the Amount of Insurance. To the extent a provision of the policy or a previous endorsement is inconsistent with an express provision of this endorsement, this endorsement controls. Otherwise, this endorsement is subject to all of the terms and provisions of the policy and of any prior endorsements.

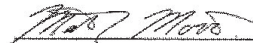
Signed under seal for the Company, but this endorsement is to be valid only when it bears an authorized countersignature.

Countersigned:

Authorized Countersignature
Land Services USA, Inc.
Company Name
Philadelphia, PA 19103
City, State

stewart
title guaranty company




Matt Morris
President and CEO


Denise Carraux
Secretary

File No.: **NJST16-3809 GD**
ALTA 3.1-06 Zoning - Completed Structure (6/17/06 Rev. 10/22/09)

NJRB 5-88
Revised: 10/22/09
Last Revised: 4/15/10

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American Land Title Association

Endorsement 9.2-06
(Covenants, Conditions and Restrictions –
Improved Land – Owner's Policy)
Revised 04-02-12

New Jersey Variation

File No. NJST16-3809

ENDORSEMENT

Attached to Policy No. **O-9301-001479948**

Issued by

STEWART TITLE GUARANTY COMPANY

1. The insurance provided by this endorsement is subject to the exclusions in Section 4 of this endorsement; and the Exclusions from Coverage, the Exceptions from Coverage contained in Schedule B, and the Conditions in the policy.
2. For the purposes of this endorsement only,
 - a. "Covenant" means a covenant, condition, limitation or restriction in a document or instrument recorded in the Public Records at Date of Policy.
 - b. "Improvement" means a building, structure located on the surface of the Land, road, walkway, driveway, or curb, affixed to the Land at Date of Policy and that by law constitutes real property, but excluding any crops, landscaping, lawn, shrubbery, or trees.
3. The Company insures against loss or damage sustained by the Insured by reason of:
 - a. A violation on the Land at Date of Policy of an enforceable Covenant, unless an exception in Schedule B of the policy identifies the violation;
 - b. Enforced removal of an Improvement as a result of a violation, at Date of Policy, of a building setback line shown on a plat of subdivision recorded or filed in the Public Records, unless an exception in Schedule B of the policy identifies the violation; or
 - c. A notice of a violation, recorded in the Public Records at Date of Policy, of an enforceable Covenant relating to environmental protection describing any part of the Land and referring to that Covenant, but only to the extent of the violation of the Covenant referred to in that notice, unless an exception in Schedule B of the policy identifies the notice of the violation.
4. This endorsement does not insure against loss or damage (and the Company will not pay costs, attorneys' fees, or expenses) resulting from:
 - a. any Covenant contained in an instrument creating a lease;
 - b. any Covenant relating to obligations of any type to perform maintenance, repair, or remediation on the Land; or
 - c. except as provided in Section 3.c., any Covenant relating to environmental protection of any kind or nature, including hazardous or toxic matters, conditions, or substances; or
 - d. any Covenant excepted in Schedule B related to, or rules or regulations promulgated by, the Department of Community Affairs ("DCA") or Council on Affordable Housing ("COAH") or any other federal, state or local governmental body or agency or any federal or state laws with regard to affordable housing or matters related thereto.

NEW JERSEY LAND TITLE
INSURANCE RATING BUREAU

AMERICAN
LAND TITLE
ASSOCIATION
RB 5-97
15/2014
Last

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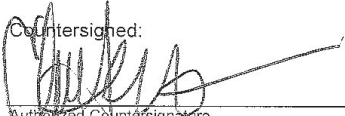
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ENDORSEMENT

(continued)

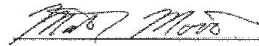
This endorsement is issued as part of the policy. Except as it expressly states, it does not (i) modify any of the terms and provisions of the policy, (ii) modify any prior endorsements, (iii) extend the Date of Policy, or (iv) increase the Amount of Insurance. To the extent a provision of the policy or a previous endorsement is inconsistent with an express provision of this endorsement, this endorsement controls. Otherwise, this endorsement is subject to all of the terms and provisions of the policy and of any prior endorsements.

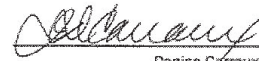
Signed under seal for the Company, but this endorsement is to be valid only when it bears an authorized countersignature.

Countersigned:

Authorized Countersignature
LAND SERVICES USA, INC.
Company Name
Philadelphia, PA 19103
City, State

stewart
title guaranty company




Matt Morris
President and CEO


Denise Carraux
Secretary

NEW JERSEY LAND TITLE
INSURANCE RATING BUREAU

La  4JRB 5-97
4/15/2014

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ALTA Form 18-06 (Single Tax Parcel)

ENDORSEMENT

Attached to Policy No. **O-9301-001479948**

Issued by

STEWART TITLE GUARANTY COMPANY

File No.: **NJST16-3809 GD**

The Company insures against loss or damage sustained by the Insured by reason of the Land being taxed as part of a larger parcel of land or failing to constitute a separate tax parcel for real estate taxes.

This endorsement is issued as part of the policy. Except as it expressly states, it does not (i) modify any of the terms and provisions of the policy, (ii) modify any prior endorsements, (iii) extend the Date of Policy, or (iv) increase the Amount of Insurance. To the extent a provision of the policy or a previous endorsement is inconsistent with an express provision of this endorsement, this endorsement controls. Otherwise, this endorsement is subject to all of the terms and provisions of the policy and of any prior endorsements.

Signed under seal for the Company, but this endorsement is to be valid only when it bears an authorized countersignature.

Countersigned: 
Authorized Countersignature
LAND SERVICES USA, INC.
Company Name
Philadelphia, PA 19103
City, State

stewart
title guaranty company




Matt Morris
President and CEO


Denise Cafraux
Secretary

File No.: **NJST16-3809 GD**
ALTA 18-06 Single Tax Parcel (6/17/06)

NJRB 5-117
Effective: 2/15/07

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ENDORSEMENT

Attached to Policy No. **O-9301-001479948**

Issued by

STEWART TITLE GUARANTY COMPANY

File No.: **NJST16-3809 GD**

The Company insures against loss or damage sustained by the Insured by reason of:

1. the failure of the Land to be contiguous to Westerly line of the right of way of Dr. Martin Luther King Jr. Boulevard and Lots 5, 4.02 and 4.01, Block 683 along the Easterly boundary line(s); or to the Northerly line of the right of way of Halsted Street and Lots 1.01 and 4.01, Block 683 along the Southerly boundary line(s); or to the Easterly line of the right of way of Brick Church Plaza and Lot 1.01, Block 683 along the Westerly boundary line(s); or to the Southerly right of way line of South Harrison Street and Lot 5, Block 683 along the Northerly boundary line(s); or
2. the presence of any gaps, strips, or gores separating the contiguous boundary lines described above.

This endorsement is issued as part of the policy. Except as it expressly states, it does not (i) modify any of the terms and provisions of the policy, (ii) modify any prior endorsements, (iii) extend the Date of Policy, or (iv) increase the Amount of Insurance. To the extent a provision of the policy or a previous endorsement is inconsistent with an express provision of this endorsement, this endorsement controls. Otherwise, this endorsement is subject to all of the terms and provisions of the policy and of any prior endorsements.

Signed under seal for the Company, but this endorsement is to be valid only when it bears an authorized countersignature.

Countersigned:

Authorized Countersignature
LAND SERVICES USA, INC.
Company Name
Philadelphia, PA 19103
City, State

stewart
title guaranty company




Matt Morris

President and CEO


Denise Carraux

Secretary

File No.: **NJST16-3809 GD**
ALTA 19.1-06 Contiguity - Single Parcel (6/17/06)

NJRB 5-120
Effective: 2/15/07

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Survey Endorsement

ENDORSEMENT
ATTACHED TO POLICY NUMBER O-9301-001479948
ISSUED BY
STEWART TITLE GUARANTY COMPANY

File No.: NJST16-3809 GD

Charge: \$25.00

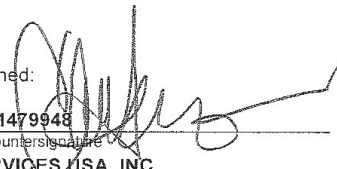
Exception No. 1 is removed. Notwithstanding any provision in the policy to the contrary, unless an exception is taken in Schedule B, the policy insures against loss arising from any encroachment, encumbrance, violation, variation, or adverse circumstance affecting the Title. The following matters shown on a survey made by **John P. Lynch, New Jersey Professional Land Surveyor #03538100 on behalf of Control Point Associates, Inc.**, dated **1/18/2017** and last revised to February 10, 2017, are added to Schedule B:

1. Fences, curbs, walls and wooden guide rails do not coincide with title lines;
2. 12-foot sanitary sewer easement

This policy does not insure against errors or inaccuracies in the survey with respect to matters which do not affect title.

This endorsement is issued as part of the policy. Except as it expressly states, it does not (i) modify any of the terms and provisions of the policy, (ii) modify any prior endorsements, (iii) extend the Date of Policy, or (iv) increase the Amount of Insurance. To the extent a provision of the policy or a previous endorsement is inconsistent with an express provision of this endorsement, this endorsement controls. Otherwise, this endorsement is subject to all of the terms and provisions of the policy and of any prior endorsements.

Signed under seal for the Company, but this endorsement is to be valid only when it bears an authorized countersignature.

Countersigned: 
O-9301-001479948
Authorized Countersignature
LAND SERVICES USA, INC.
Company Name
Philadelphia, PA 19103
City, State

stewart
title guaranty company




Matt Morris
President and CEO


Denise Carraux
Secretary

File No.: NJST16-3809 GD
SURVEY ENDORSEMENT

NJRB 5-01
Effective: 10/20/75
Last Revised: 9/10/07

WAIVER OF ARBITRATION ENDORSEMENT
(OWNER'S OR LOAN POLICY)

Attached to and made part of Policy No. **O-9301-001479948**

ISSUED BY

STEWART TITLE GUARANTY COMPANY

File No.: **NJST16-3809 GD**

The policy is amended by deleting therefrom:

- (a) Condition 13 (if this endorsement is attached to an ALTA Loan Policy or ALTA Expanded Coverage Residential Loan Policy);
- (b) Condition 14 (if this endorsement is attached to an ALTA Owner's Policy); or
- (c) Condition 11 (if this endorsement is attached to an ALTA Homeowner's Policy).

This endorsement is made a part of the policy and is subject to all of the terms and provisions thereof and of any prior endorsements thereto. Except to the extent expressly stated, it neither modifies any of the terms and provisions of the policy and any prior endorsements, nor does it extend the effective date of the policy and any prior endorsements, nor does it increase the face amount thereof.

Signed under seal for the Company, but this endorsement is to be valid only when it bears an authorized countersignature.

Countersigned:

Authorized Countersignature

LAND SERVICES USA, INC.

Company Name

Philadelphia, PA

City, State

stewart
title guaranty company



Matt Morris
President and CEO

Denise Carraux
Secretary

DANA RONE
ESSEX COUNTY REGISTER OF DEEDS & MORTGAGES



Hall of Records
465 Martin Luther King Jr Blvd
Room 130
Newark, NJ 07102
(973) 621-4960

***RETURN DOCUMENT TO:**
FIRST NATIONWIDE TITLE AGENCY, LLC
50 CHARLES LINDBERGH BLVD
SUITE 600
UNIONDALE, NY 11553

Instrument Number - 2018034820

Recorded On 4/23/2018 At 12:17:02 PM

* Instrument Type - DEED

Invoice Number - 201407 User ID: BB

***Total Pages - 8**

* Grantor - 33 HALSTED STREET ASSOCIATES, L.L.C.

* Grantee - 15-33 HALSTED STREET URBAN RENEWAL LLC

* PARCEL IDENTIFICATION NUMBER

Block: 683 Lot: 1.01 - EAST ORANGE

*** FEES**

| | |
|------------------------------------|-------------|
| COUNTY REALTY TAX | \$1,750.00 |
| COUNTY REALTY TAX - PHPFA | \$875.00 |
| NJ PRESERVATION ACCOUNT | \$45.00 |
| REGISTER RECORDING FEE | \$55.00 |
| STATE REALTY TAX | \$4,375.00 |
| STATE REALTY TAX - EAA | \$3,625.00 |
| STATE REALTY TAX - GENERAL PURPOSE | \$5,625.00 |
| STATE REALTY TAX - GRANTEE | \$17,500.00 |
| NJAHTF | \$2,400.00 |
| HOMELESSNESS TRUST FUND | \$3.00 |
| TOTAL PAID | \$36,253.00 |

I hereby CERTIFY that this document is
Recorded in the Register of Deeds & Mortgages Office
of Essex County, New Jersey

Dana Rone
Register of Deeds & Mortgages

THIS IS A CERTIFICATION PAGE

Do Not Detach

THIS PAGE IS NOW PART OF THIS LEGAL DOCUMENT

* - Information denoted by an asterisk may change during the verification process and may not be reflected on this page.

INSTRUMENT NUMBER - 2018034820



Essex County Recording Data Page
Honorable Dana Rone
Essex County Register



Official Use Only

Official Use Only:

Date of Document:

4/16/2018

Type of Document:

Deed

First Party Name:

33 Halsted Street Associates, L.L.C.

Second Party Name:

15-33 Halsted Street Urban Renewal LLC

Additional Parties:

THE FOLLOWING SECTION IS REQUIRED FOR DEEDS ONLY

Block:

683

Lot:

1.01

Qualifier:

Municipality:

City of East Orange

Consideration:

\$1,750,000.00

Mailing Address of Grantee:

30-56 Whitestone Expressway, Whitestone, NY 11354

THE FOLLOWING SECTION IS FOR ORIGINAL MORTGAGE BOOKING & PAGING INFORMATION

ASSIGNMENTS, RELEASES, SATISFACTIONS, DISCHARGES & OTHER ORIGINAL MORTGAGE AGREEMENTS ONLY

Original Book:

Original Page:

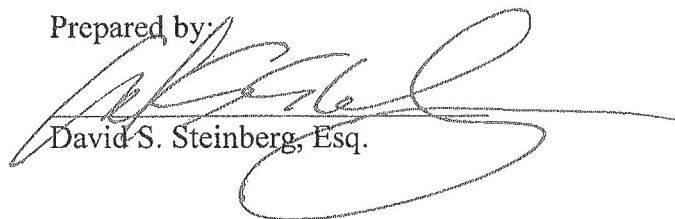
ESSEX COUNTY RECORDING DATA PAGE

Please do not detach this page from the original document as it
contains important recording information and is part of the permanent record.

Record and Return to:

First Nationwide Title Agency, LLC
50 Charles Lindbergh Blvd., Suite 600
Uniondale, NY 11553

Prepared by:


David S. Steinberg, Esq.

DEED

This Deed is made on April 16, 2018,

BETWEEN

33 HALSTED STREET ASSOCIATES, L.L.C., a New Jersey limited liability company,

whose address is 77 Park Street, Montclair, New Jersey 07042,

the Grantor,

AND

15-33 Halsted Street Urban Renewal LLC, a New Jersey limited liability company,

whose address is c/o Triangle Equities Development Company LLC, 30-56 Whitestone Expressway, Whitestone, New York, 11354,

the Grantee.

The words "Grantor" and "Grantee" shall mean all Grantors and all Grantees listed above.

Transfer of Ownership. The Grantor grants and conveys (transfers ownership of) the property described below to the Grantee. This transfer is made for the sum of ONE MILLION SEVEN HUNDRED FIFTY THOUSAND AND 00/100 (\$1,750,000.00) Dollars. The Grantor acknowledges receipt of this money.

Tax Map Reference. (N.J.S.A. 46:15-2.1). Municipality of East Orange, New Jersey, Block 683, Lot 1.01.

Property. The property consists of the land and all the buildings and structures on the land located in the City of East Orange, County of Essex and State of New Jersey. The legal description is:

As described on Schedule A attached hereto and made a part hereof.

Being commonly known as 15-33 Halsted Street, East Orange, NJ

Being designated as Tax Lot 1.01 in Block 683, vested in the Grantor herein by Deed dated May 13, 1997, and recorded May 20, 1997, in Book 5474 at page 484, in the Office of the Clerk of Essex County.

Promises by Grantor. The Grantor promises that the Grantor has done no act to encumber the property. This promise is called a "covenant as to grantor's acts" (N.J.S.A. 46:4-6). This promise means that the Grantor has not allowed anyone else to obtain any legal rights which affect the property (such as by making a mortgage or allowing a judgment to be entered against the Grantor).

Signatures. The Grantor signs this Deed as of the date at the top of the first page.

33 HALSTED STREET ASSOCIATES, L.L.C.
a New Jersey limited liability company

By:

Edward G. Martoglio
Manager

STATE OF NEW JERSEY)
) ss.:
COUNTY OF ESSEX)

I CERTIFY that on April 12, 2018, Edward G. Martoglio personally came before me and acknowledged under oath, to my satisfaction that:

- (a) he signed and delivered the attached Deed as the Manager of 33 HALSTED STREET ASSOCIATES, L.L.C., a New Jersey limited liability company, named in this Deed;
- (b) this document was signed and made by the limited liability company as its voluntary act and deed;
- (c) this Deed was made for \$1,750,000.00 as the full and actual consideration paid or to be paid for the transfer of title. (such consideration is defined in N.J.S.A. 46:15-5).

Notary Public of the State of New Jersey

JULIA A HATHAWAY-MAIORIELLO
NOTARY PUBLIC - STATE OF NEW JERSEY
MY COMMISSION EXPIRES SEPTEMBER 8, 2022
No. 50067482

SCHEDULE A

Legal Description

All that certain lot, parcel or tract of land, situate and lying in the City of East Orange, County of Essex, State of New Jersey, more particularly described as follows: Block 683, Lot 1.01.

And further described as follows:

BEGINNING at a point formed by the intersection of the northeasterly side of Brick Church Plaza with the northwesterly side of Halsted Street; running thence along the aforesaid side of Brick Church Plaza, North 44 degrees 30 seconds West 87.46 feet; thence North 45 degrees 44 minutes 30 seconds East 202.74 feet; thence South 44 degrees 20 minutes East 87.20 feet to the aforesaid side of Halsted Street; thence along the same, South 45 degrees 40 minutes West 202.48 feet to the point and place of BEGINNING.

And as further described in that certain ALTA/NSPS Land Title Survey prepared by John P. Lynch, Control Point Associates, Inc., File No. 01-170521 dated November 17, 2017, last revised on 4/16/18, as follows:

Beginning at a point on the northerly line of Halsted Street (60 feet wide), said point being at the point of intersection of said northerly line with the dividing line between Lot 1.01 and Lot 1, Block 683 (lands n/f 533 Main Street Urban Renewal LLC), said point being distant along said northerly line on a course of South 45 degrees 40 minutes 00 seconds West, a distance of 166.12 feet from an x-cut set at the intersection of the northerly line of Halsted Street with the westerly line of Dr. Martin Luther King Jr. Boulevard (f.k.a. Main Street, variable width), and from said point of beginning:

Running thence continuing along the northerly line of Halsted Street, South 45 degrees 40 minutes 00 seconds West, a distance of 202.48 feet to a point;

Thence along the easterly line of Brick Church Plaza (variable width), North 44 degrees 30 minutes 20 seconds West, a distance of 87.46 feet to a point;

Thence the following two (2) courses along the dividing line between Lot 1.01 and Lot 1, Block 683:

1. North 45 degrees 44 minutes 30 seconds East, a distance of 202.74 feet to an iron bar with Control Point Associates, Inc. Cap set, thence;
2. South 44 degrees 20 minutes 00 seconds East, a distance of 87.20 feet to an x-cut set at the point and place of beginning.



State of New Jersey
SELLER'S RESIDENCY CERTIFICATION/EXEMPTION

GIT/REP-3
(9-2015)

(Please Print or Type)

SELLER'S INFORMATION

Name(s)

33 Halsted Street Associates, L.L.C.

Current Street Address

77 Park Street

City, Town, Post Office Box

Montclair

State

NJ

Zip Code

07042

PROPERTY INFORMATION

Block(s)

683

Lot(s)

1.01

Qualifier

Street Address

15-33 Halsted Street

City, Town, Post Office Box

East Orange

State

NJ

Zip Code

07018

Seller's Percentage of Ownership

100%

Total Consideration

1,750,000.00

Owner's Share of Consideration

100%

Closing Date

4/16/2018

SELLER'S ASSURANCES (Check the Appropriate Box) (Boxes 2 through 14 apply to Residents and Nonresidents)

1. ☒ Seller is a resident taxpayer (individual, estate, or trust) of the State of New Jersey pursuant to the New Jersey Gross Income Tax Act, will file a resident gross income tax return, and will pay any applicable taxes on any gain or income from the disposition of this property.
2. ☐ The real property sold or transferred is used exclusively as a principal residence as defined in 26 U.S. Code section 121.
3. ☐ Seller is a mortgagor conveying the mortgaged property to a mortgagee in foreclosure or in a transfer in lieu of foreclosure with no additional consideration.
4. ☐ Seller, transferor, or transferee is an agency or authority of the United States of America, an agency or authority of the State of New Jersey, the Federal National Mortgage Association, the Federal Home Loan Mortgage Corporation, the Government National Mortgage Association, or a private mortgage insurance company.
5. ☒ Seller is not an individual, estate, or trust and is not required to make an estimated gross income tax payment.
6. ☐ The total consideration for the property is \$1,000 or less so the seller is not required to make an estimated income tax payment.
7. ☐ The gain from the sale is not recognized for federal income tax purposes under 26 U.S. Code section 721, 1031, or 1033 (CIRCLE THE APPLICABLE SECTION). If the indicated section does not ultimately apply to this transaction, the seller acknowledges the obligation to file a New Jersey income tax return for the year of the sale and report the recognized gain.
☐ Seller did not receive non-like kind property.
8. ☐ The real property is being transferred by an executor or administrator of a decedent to a devisee or heir to effect distribution of the decedent's estate in accordance with the provisions of the decedent's will or the intestate laws of this State.
9. ☐ The real property being sold is subject to a short sale instituted by the mortgagee, whereby the seller agreed not to receive any proceeds from the sale and the mortgagee will receive all proceeds paying off an agreed amount of the mortgage.
10. ☐ The deed is dated prior to August 1, 2004, and was not previously recorded.
11. ☐ The real property is being transferred under a relocation company transaction where a trustee of the relocation company buys the property from the seller and then sells the house to a third party buyer for the same price.
12. ☐ The real property is being transferred between spouses or incident to a divorce decree or property settlement agreement under 26 U.S. Code section 1041.
13. ☐ The property transferred is a cemetery plot.
14. ☐ The seller is not receiving net proceeds from the sale. Net proceeds from the sale means the net amount due to the seller on the settlement sheet.

SELLER'S DECLARATION

The undersigned understands that this declaration and its contents may be disclosed or provided to the New Jersey Division of Taxation and that any false statement contained herein may be punished by fine, imprisonment, or both. I furthermore declare that I have examined this declaration and, to the best of my knowledge and belief, it is true, correct and complete. By checking this box ☐ I certify that a Power of Attorney to represent the seller(s) has been previously recorded or is being recorded simultaneously with the deed to which this form is attached.

4/12/2018

Date

Signature

(Seller) Please indicate if Power of Attorney or Attorney in Fact

Signature

(Seller) Please indicate if Power of Attorney or Attorney in Fact

MUST SUBMIT IN DUPLICATE

AFFIDAVIT OF CONSIDERATION FOR USE BY BUYER

(Chapter 49, P.L. 1968, as amended through Chapter 33, P.L. 2006) (N.J.S.A. 46:15-5 et seq.)

PLEASE READ THE INSTRUCTIONS ON THE REVERSE SIDE OF THIS FORM BEFORE COMPLETING THIS AFFIDAVIT

STATE OF

New York

COUNTY

Queens

} SS. County Municipal Code
0705

MUNICIPALITY OF PROPERTY LOCATION East Orange

FOR RECORDER'S USE ONLY

Consideration \$ 1,750,000
RTF paid by buyer \$ 37,500
Date 4/23/18 By [Signature]

(1) PARTY OR LEGAL REPRESENTATIVE (See Instructions #3 and #4 on reverse side)

XXX-XX-X 6 2 3

Last three digits in grantee's Social Security Number

Deponent, Josh Weingarten, being duly sworn according to law upon his/her oath,
(Name)deposes and says that he/she is the authorized signatory of grantor in a deed dated 4/16/2018 transferring
(Grantee, Legal Representative, Corporate Officer, Officer of Title Company, Lending Institution, etc.)

real property identified as Block number 683 Lot number 1.01 located at

15-33 Halsted Street, East Orange and annexed thereto.
(Street Address, Town)

(2) CONSIDERATION \$ 1,750,000.00 (See Instructions #1, #5, and #11 on reverse side)

Entire consideration is in excess of \$1,000,000:

PROPERTY CLASSIFICATION CHECKED OR CIRCLED BELOW IS TAKEN FROM OFFICIAL ASSESSMENT LIST (A PUBLIC RECORD) OF MUNICIPALITY WHERE THE REAL PROPERTY IS LOCATED IN THE YEAR OF TRANSFER. REFER TO N.J.A.C. 18:12-2.2 ET SEQ.

(A) Grantee required to remit the 1% fee, complete (A) by checking off appropriate box or boxes below.

- ☐ Class 2 - Residential ☒ Class 4A - Commercial properties
☐ Class 3A - Farm property (Regular) and any other real property transferred to same grantee in conjunction with transfer of Class 3A property ☐ Cooperative unit (four families or less) (See C. 46:8D-3.)
 Cooperative units are Class 4C.

(B) Grantee is not required to remit 1% fee (one or more of following classes being conveyed), complete (B) by checking off appropriate box or boxes below.

- ☐ Property class. Circle applicable class or classes: 1 3B 4B 4C 15
 Property classes: 1-Vacant Land; 3B- Farm property (Qualified); 4B- Industrial properties; 4C- Apartments; 15- Public Property, etc. (N.J.A.C. 18:12-2.2 et seq.)
☐ Exempt organization determined by federal Internal Revenue Service/Internal Revenue Code of 1986, 26 U.S.C. s. 501.
☐ Incidental to corporate merger or acquisition; equalized assessed valuation less than 20% of total value of all assets exchanged in merger or acquisition. If checked, calculation in (E) required and MUST ATTACH COMPLETED RTF-4.

(C) When grantee transfers properties involving block(s) and lot(s) of two or more classes in one deed, one or more subject to the 1% fee (A), with one or more than one not subject to the 1% fee (B), pursuant to N.J.S.A. 46:15-7.2, complete (C) by checking off appropriate box or boxes and (D).

☐ Property class. Circle applicable class or classes: 1 2 3B 4A 4B 4C 15

(D) EQUALIZED VALUE CALCULATION FOR ALL PROPERTIES CONVEYED, WHETHER THE 1% FEE APPLIES OR DOES NOT APPLY

Total Assessed Valuation + Director's Ratio = Equalized Valuation

Property Class _____ \$ _____ + _____ % = \$ _____
 Property Class _____ \$ _____ + _____ % = \$ _____
 Property Class _____ \$ _____ + _____ % = \$ _____
 Property Class _____ \$ _____ + _____ % = \$ _____

(E) REQUIRED EQUALIZED VALUE CALCULATION FOR ALL CLASS 4A (COMMERCIAL) PROPERTY TRANSACTIONS: (See Instructions #6 and #7 on reverse side)

Total Assessed Valuation + Director's Ratio = Equalized Value

\$ 1,450,000.00 + 82.53 % = \$ 1,756,936.87

If Director's Ratio is less than 100%, the equalized valuation will be an amount greater than the assessed valuation. If Director's Ratio is equal to or exceeds 100%, the assessed valuation will be equal to the equalized value.

(3) TOTAL EXEMPTION FROM FEE (See Instruction #8 on reverse side)

Deponent states that this deed transaction is fully exempt from the Realty Transfer Fee imposed by C. 49, P.L. 1968, as amended through Chapter 33, P.L. 2006, for the following reason(s). Mere reference to exemption symbol is insufficient. Explain in detail.

(4) Deponent makes Affidavit of Consideration for Use by Buyer to induce county clerk or register of deeds to record the deed and accept the fee submitted herewith pursuant to the provisions of Chapter 49, P.L. 1968, as amended through Chapter 33, P.L. 2006.

Subscribed and sworn to before me
this 10 day of April, 2018

Signature of Deponent

15-33 Halsted Street Urban Renewal LLC

Grantee Name

30-56 Whitestone Expressway, Whitestone, NY
Deponent Address30-56 Whitestone Expressway, Whitestone, NY
Grantee Address at Time of Sale

Name/Company of Settlement Officer

LEIGH REGAN
 NOTARY PUBLIC, STATE OF NEW YORK
 NO. 01RE6187010
 QUALIFIED IN QUEENS COUNTY
 MY COMMISSION EXPIRES MAY 12, 2020

STATE OF NJ - DIVISION OF TAXATION
 PO BOX 251
 TRENTON, NJ 08646-0251
 ATTENTION: REALTY TRANSFER FEE UNIT

FOR OFFICIAL USE ONLY
 Instrument Number _____ County _____
 Deed Number _____ Book _____ Page _____
 Deed Dated 4/23/18 Date Recorded 4/23/18

STATE OF NEW JERSEY
AFFIDAVIT OF CONSIDERATION FOR USE BY SELLER

(Chapter 49, P.L. 1968, as amended through Chapter 33, P.L. 2006) (N.J.S.A. 46:15-5 et seq.)

BEFORE COMPLETING THIS AFFIDAVIT, PLEASE READ THE INSTRUCTIONS ON THE REVERSE SIDE OF THIS FORM.

STATE OF NEW JERSEY

COUNTY

ESSEX

SS. County Municipal Code
0705

MUNICIPALITY OF PROPERTY LOCATION East Orange, NJ

| FOR RECORDER'S USE ONLY | |
|-------------------------|------------------------|
| Consideration | \$ 1,750,000 |
| RTF paid by seller | \$ 18,050 |
| Date | 4/12/18 By [Signature] |

*Use symbol "C" to indicate that fee is exclusively for county use.

(1) PARTY OR LEGAL REPRESENTATIVE (Instructions #3 and #4 on reverse side)

Deponent, Edward G. Martoglio, being duly sworn according to law upon his/her oath,
(Name)
deposes and says that he/she is the Manager of Grantor in a deed dated 4/16/2018 transferring
(Grantor, Legal Representative, Corporate Officer, Officer of Title Company, Lending Institution, etc.)
real property identified as Block number 683 Lot number 1.01 located at
15-33 Halsted Street, East Orange and annexed thereto.
(Street Address, Town)

(2) CONSIDERATION \$ 1,750,000.00 (Instructions #1 and #5 on reverse side) ☒ no prior mortgage to which property is subject.

(3) Property transferred is Class 4A 4B 4C (circle one). If property transferred is Class 4A, calculation in Section 3A below is required.

(3A) REQUIRED CALCULATION OF EQUALIZED VALUATION FOR ALL CLASS 4A (COMMERCIAL) PROPERTY TRANSACTIONS:
(Instructions #5A and #7 on reverse side)

Total Assessed Valuation + Director's Ratio = Equalized Assessed Valuation

\$ 1,450,000.00 + 82.53% = \$ 1,756,936.87

If Director's Ratio is less than 100%, the equalized valuation will be an amount greater than the assessed value. If Director's Ratio is equal to or in excess of 100%, the assessed value will be equal to the equalized valuation.

(4) FULL EXEMPTION FROM FEE (Instruction #8 on reverse side)

Deponent states that this deed transaction is fully exempt from the Realty Transfer Fee imposed by C. 49, P.L. 1968, as amended through C. 66, P.L. 2004, for the following reason(s). Mere reference to exemption symbol is insufficient. Explain in detail.

(5) PARTIAL EXEMPTION FROM FEE (Instruction #9 on reverse side)

NOTE: All boxes below apply to grantor(s) only. ALL BOXES IN APPROPRIATE CATEGORY MUST BE CHECKED. Failure to do so will void claim for partial exemption. Deponent claims that this deed transaction is exempt from State portions of the Basic, Supplemental, and General Purpose Fees, as applicable, imposed by C. 176, P.L. 1975, C. 113, P.L. 2004, and C. 66, P.L. 2004 for the following reason(s):

- A. SENIOR CITIZEN Grantor(s) ☐ 62 years of age or over. * (Instruction #9 on reverse side for A or B)
- B. ☐ BLIND PERSON Grantor(s) ☐ legally blind or; *
- ☐ DISABLED PERSON Grantor(s) ☐ permanently and totally disabled ☐ receiving disability payments ☐ not gainfully employed *
- Senior citizens, blind persons, or disabled persons must also meet all of the following criteria:
- ☐ Owned and occupied by grantor(s) at time of sale. ☐ Resident of State of New Jersey.
- ☐ One or two-family residential premises. ☐ Owners as joint tenants must all qualify.

*IN CASE OF HUSBAND AND WIFE, PARTNERS IN A CIVIL UNION COUPLE, ONLY ONE GRANTOR NEED QUALIFY IF TENANTS BY THE ENTIRETY.

C. LOW AND MODERATE INCOME HOUSING (Instruction #9 on reverse side)

- ☐ Affordable according to H.U.D. standards. ☐ Reserved for occupancy.
- ☐ Meets income requirements of region. ☐ Subject to resale controls.

(6) NEW CONSTRUCTION (Instructions #2, #10, #12 on reverse side)

- ☐ Entirely new improvement. ☐ Not previously occupied.
- ☐ Not previously used for any purpose. ☐ "NEW CONSTRUCTION" printed clearly at top of first page of the deed.

(7) RELATED LEGAL ENTITIES TO LEGAL ENTITIES (Instructions #5, #12, #14 on reverse side)

- ☒ No prior mortgage assumed or to which property is subject at time of sale.
- ☒ No contributions to capital by either grantor or grantee legal entity.
- ☒ No stock or money exchanged by or between grantor or grantee legal entities.

(8) Deponent makes this Affidavit to induce county clerk or register of deeds to record the deed and accept the fee submitted herewith in accordance with the provisions of Chapter 49, P.L. 1968, as amended through Chapter 33, P.L. 2006.

Subscribed and sworn to before me
this 12th day of April, 20 18

JULIA A HATHAWAY-MAIORIELLO
NOTARY PUBLIC - STATE OF NEW JERSEY
MY COMMISSION EXPIRES SEPTEMBER 8, 2022
No. 50067482

Last three digits in Grantor's Social Security Number

Signature of Deponent
77 Park Street, Montclair, NJ
Deponent Address
XXX-XXX-055

33 Halsted Street Associates, L.L.C.
Grantor Name
77 Park Street, Montclair, NJ 07042
Grantor Address at Time of Sale

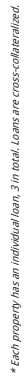
Name/Company of Settlement Officer

| FOR OFFICIAL USE ONLY | |
|-----------------------|---------------|
| Instrument Number | County |
| Deed Number | Book |
| Deed Date | Date Recorded |

County recording officers shall forward one copy of each RTF-1 form when Section 3A is completed to:

STATE OF NEW JERSEY
PO BOX 251
TRENTON, NJ 08695-0251
ATTENTION: REALTY TRANSFER FEE UNIT

Rep to City: Redeveloper represent that its affiliates are fee simple owners of the Property and will cause such affiliates to undertake the project.



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© 2006 The Authors

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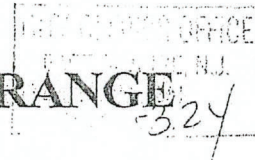
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CITY COUNCIL OF EAST ORANGE



RESOLUTION offered by Council Member Green

A RESOLUTION AUTHORIZING THE EAST ORANGE PLANNING BOARD TO CONDUCT A REVIEW AND INVESTIGATION OF ALL OF THE URBAN ENTERPRISE ZONE (UEZ) AREAS WITHIN THE CITY OF EAST ORANGE TO DETERMINE IF THESE AREAS QUALIFY AS AN AREA IN NEED OF REDEVELOPMENT

WHEREAS, the City Council of the City of East Orange has designated certain areas within the City of East Orange as Urban Enterprise Zones (UEZ); and

WHEREAS, the effects of the current financial state of the economy and physical conditions has created a need to reexamine the development regulations in these Urban Enterprise Zones; and

WHEREAS, the following criteria pursuant to 40A:12A-6 are a basis to designate An Area in Need of Redevelopment:

- a. The generality of buildings are substandard, unsafe, unsanitary, dilapidated, or obsolescent, or possess any of such characteristics, or are so lacking in light, air or space as to be conducive to unwholesome living or working conditions.
- b. The discontinuance of the use of buildings previously used for commercial, manufacturing, or industrial purposes; the abandonment of such buildings; or the same being allowed to fall into so great a state of disrepair as to be untenable.
- c. Land that is owned by the municipality, the county, a local housing authority, redevelopment agency or redevelopment entity, or unimproved vacant land that has remained so for a period of ten years prior to adoption of the resolution, and sections or portions of the municipality, or topography, or nature of the soil, is not likely to be developed through the instrumentality of private capital.
- d. Areas with buildings or improvements which, by reason of dilapidation, obsolescence, overcrowding, arrangement or design, lack of ventilation, light and sanitary facilities, excessive land coverage, deleterious land use or obsolete layout, or any combination of these or other factors, are detrimental to safety, health, morals, or welfare of the community.
- e. A growing lack and or total lack of proper utilization of areas caused by the condition of the title, diverse ownership of the real property therein or other conditions, resulting in a stagnant or not fully productive condition of land potentially useful and valuable for contributing to and serving the public health, safety and welfare.
- f. Areas, in excess of five contiguous acres, whereon buildings or improvements have been destroyed, consumed by fire, demolished or altered by the action of storm, fire, cyclone, tornado, earthquake or other casualty in such a way that the aggregate assessed value of the area has been materially depreciated.
- g. In any municipality in which an enterprise zone has been designated pursuant to the "New Jersey Urban Enterprise Zones Act," P.L. 1983, c. 303 (C.52:27H-60 et seq.) the execution of the actions prescribed in that act for the adoption

CITY COUNCIL OF EAST ORANGE

by the municipality and approval by the New Jersey Urban Enterprise Zone Authority of the zone development plan for the area of the enterprise zone shall be considered sufficient for the determination that the area is in need of redevelopment pursuant to sections 5 and 6 of P.L. 1992, c.79 (C.40A:12A-5 and 40A:12A-6) for the purpose of granting tax exemptions within the enterprise zone district pursuant to the provisions of P.L.1991, c.431 (C.40A:20-1 et seq.) or the adoption of a tax abatement and exemption ordinance pursuant to the provisions of P.L.1991, c.441 (C.40A:21-1 et seq.) The municipality shall not utilize any other redevelopment powers within the urban enterprise zone unless the municipal governing body and planning board have also taken the actions and fulfilled the requirements prescribed in P.L.1992, c.79 (C.40A:12A-1 et al.) for determining that the area is in need of redevelopment or an area in need of rehabilitation and the municipal governing body has adopted a redevelopment plan ordinance including the area of the enterprise zone.

h. The designation of the delineated area is consistent with smart growth planning principles adopted pursuant to law or regulation.

NOW THEREFORE BE IT RESOLVED, by the City Council of the City of East Orange that all of the Urban Enterprise Zones are hereby referred to the Planning Board for review and declaration as an Area in Need of Redevelopment.

BE IT FURTHER RESOLVED, this resolution shall take effect immediately.

I HEREBY CERTIFY THE FOREGOING TO BE A TRUE COPY
OF RESOLUTION NO. 324 ADOPTED BY THE CITY
COUNCIL OF EAST ORANGE AT ITS MEETING HELD
November 28, 2011
[Signature]
CITY CLERK, EAST ORANGE, NJ

| Council Member | AYE | NAY | N.V. | A.B. |
|----------------|-----|-----|------|------|
| FIELDS | | | | X |
| BARNES | | | X | |
| JOHNSON | X | | | |
| CROSS | X | | | |
| GREEN | X | | | |

| Council Member | AYE | NAY | N.V. | A.B. |
|----------------|-----|-----|------|------|
| HUGHES | X | | | |
| MCPHATTER | X | | | |
| HOLMAN | | | X | |
| HOLT | X | | | |
| TALMADGE | X | | | |

X - Indicates Vote A.B. - Absent
Action on Veto - ✓ To Sustain

N.V - Not Voting (Abstained or Excused)
✓✓ To Over-Ride

VOTES REQUIRED _____

Approved as to:
Factual Contents _____ Department Head _____ Comptroller _____
Form and Legality [Signature] Counsel _____
Tabled _____ Removed from Table _____
Presented to Mayor November 29, 2011 Adopted November 28 2011
Approved November 29, 2011 [Signature] City Council Chairwoman
Vetoed [Signature] Mayor [Signature] City Clerk
Entered on Council Minutes, Page _____

- I. A Resolution Authorizing the East Orange Planning Board to conduct a review and investigation of all of the Urban Enterprise Zones (UEZ) Areas within the City of East Orange to determine if these areas qualify as an 'Area in Need of Redevelopment'
- If Planning Board designates, all of the UEZ area would qualify for special tax benefits only available for Areas in Need of Redevelopment
 - Reduces the need for "spot" blighting for specific projects
 - Reduces future red tape

NOV 16 '11 4:31 PM

CITY OF EAST ORANGE, NEW JERSEY
East Orange Planning Board



RESOLUTION PB-011-11

WHEREAS, the City Council of the City of East Orange pursuant to N.J.S.A.12A-1 et. seq. known as "The Local Redevelopment and Housing Law" has the authority promulgate ordinances to regulate land use and development within the City of East Orange; and

WHEREAS, the City Council of the City of East Orange passed Resolution I-324 on November 28, 2011 which authorized the East Orange Planning Board to review all of the Urban Enterprise Zone (s) (UEZ) within the City of East Orange to determine if these areas qualify as areas in need of redevelopment pursuant to N.J.S.A. 40:12A-6 and to make recommendations regarding amendments and modifications to the current Code of City of East Orange where applicable; and

WHEREAS, the East Orange Planning Board makes the following findings of fact:

FINDINGS OF FACT

1. The record of evidence, recitals, discussions, presentations, exhibits and testimony at the meeting on December 7, 2011 are incorporated herein by reference.
2. The East Orange Planning Board with the assistance of the East Orange Department of Policy, Planning and Development and the Office of Corporation Counsel of the City of East Orange has determined that pursuant to applicable law that all of the Urban Enterprise Zone (s) (UEZ) areas within the City of East Orange qualifies as areas in need of redevelopment.

NOW, THEREFORE, BE IT RESOLVED, by the East Orange Planning Board hereby recommends, pursuant to the evidence, recitals, discussions, presentations, exhibits and testimony at the meeting held on December 7, 2011, to the City Council of the City of East Orange that under applicable law that all of the Urban Enterprise Zone (s) (UEZ) areas within the City of East Orange qualifies as areas in need of redevelopment.

| Members | Aye | Nay | N.V. | A.B. | E.X. | Members | Aye | Nay | N.V. | A.B. | E.X. |
|-----------------------|-----|-----|------|------|------|----------------------|-----|-----|------|------|------|
| Robert L. Bowser ① | X | | | | | William T. Hubbard ⑤ | X | | | | |
| Montell Figgins, Esq. | | | | | | Everett Jennings | X | | | | |
| Wanda Prophete | X | | | | | Ted Green ② | | | | | |
| Carol T. Jenkins ③ | X | | | | | Lloyd Abdul-Raheem | X | | | | |
| Barbara J. Weaver ④ | X | | | | | Katharine D. Scott | X | | | | |
| | | | | | | Andrew Thompson ⑤ | X | | | | |

X: Indicates Vote

N.V.: Not Voting (Abstained)

A.B.: Absent

E.X.: Excused or Ineligible

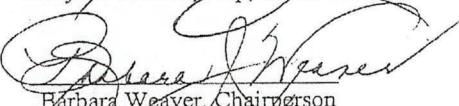
- ① Mayor or Mayor's Representative
- ② City Council Representative
- ③ Planning Board Chairperson
- ④ Planning Board Vice-Chairperson
- ⑤ Planning Board Alternate

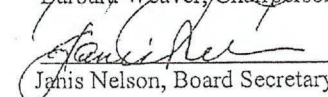
Presented: December 7, 2011

Adopted: December 7, 2011

Form and Legality:


Larry I. Johnson, Esq., Board Counsel


Barbara Weaver, Chairperson


Janis Nelson, Board Secretary

CITY COUNCIL OF EAST ORANGE

RESOLUTION offered by Council Member Green

A RESOLUTION DECLARING AND ESTABLISHING ALL OF THE URBAN ENTERPRISE ZONE (UEZ) AREAS WITHIN THE CITY OF EAST ORANGE AREAS AS AN AREA IN NEED OF REDEVELOPMENT

WHEREAS, that The City Council of the City of East Orange has designated certain areas within the City of East Orange as an Urban Enterprise Zone (UEZ); and

WHEREAS, that N.J.S.A. 40A:12A-6 g. is the basis for determining all of the UEZ designated lands as An Area in Need of Redevelopment only for special tax incentive purposes:

g. In any municipality in which an enterprise zone has been designated pursuant to the "New Jersey Urban Enterprise Zones Act," P.L.1983, c. 303 (C.52:27H-60 et seq.) the execution of the actions prescribed in that act for the adoption by the municipality and approval by the New Jersey Urban Enterprise Zone Authority of the zone development plan for the area of the enterprise zone shall be considered sufficient for the determination that the area is in need of redevelopment pursuant to sections 5 and 6 of P.L. 1992, c.79 (C.40A:12A-5 and 40A:12A-6) for the purpose of granting tax exemptions within the enterprise zone district pursuant to the provisions of P.L.1991, c.431 (C.40A:20-1 et seq.) or the adoption of a tax abatement and exemption ordinance pursuant to the provisions of P.L.1991, c.441 (C.40A:21-1 et seq.) The municipality shall not utilize any other redevelopment powers within the urban enterprise zone unless the municipal governing body and planning board have also taken the actions and fulfilled the requirements prescribed in P.L.1992, c.79 (C.40A:12A-1 et al.) for determining that the area is in need of redevelopment or an area in need of rehabilitation and the municipal governing body has adopted a redevelopment plan ordinance including the area of the enterprise zone.

WHEREAS, that on November 28, 2011 the City Council of the City of East Orange adopted Resolution I -324 authorizing the East Orange Planning Board to conduct a review and investigation of all of the Urban Enterprise Zone (UEZ) areas within the City of East Orange to determine if these areas qualify as an Area in Need of Redevelopment: and

WHEREAS, that at a public hearing held on December 7, 2011 the Planning Board of the City of East Orange pursuant to the evidence, recitals, discussions, presentations, exhibits and testimony adopted Resolution PB-011-11 acknowledging that all of the Urban Enterprise Zone (UEZ) is an Area in Need of Redevelopment only for the purpose of enabling the City to provide tax incentives as described in N.J.S.A. 40A:12A-6g while recognizing that previously designated areas in need of redevelopment that may also be in the UEZ shall retain their original designation.

NOW THEREFORE BE IT RESOLVED, by the City Council of the City of East Orange that all of the Urban Enterprise Zone is hereby declared and established as an Area in Need of Redevelopment only for the purpose of enabling the City to provide tax incentives as described in N.J.S.A. 40A:12A-6g.

BE IT FURTHER RESOLVED, that areas previously designated as Areas in Need of Redevelopment shall remain so designated under their original designation.

BE IT FURTHER RESOLVED, that the Planning Board is instructed to prepare a plan for the designated areas.

BE IT FURTHER RESOLVED, this resolution shall take effect immediately.

| Council Member | AYE | NAY | N.V. | A.B. |
|----------------|-----|-----|------|------|
| FIELDS | ✓ | | | |
| BARNES | ✓ | | | |
| JOHNSON | ✓ | | | |
| CROSS | ✓ | | | |
| GREEN | ✓ | | | |

| Council Member | AYE | NAY | N.V. | A.B. |
|----------------|-----|-----|------|------|
| HUGHES | | | | ✓ |
| MCPHATTER | | | | ✓ |
| HOLMAN | ✓ | | | |
| HOLT | | | | ✓ |
| TALMADGE | ✓ | | | |

X - Indicates Vote A.B. - Absent
Action on Veto - ✓ To Sustain

N.V. - Not Voting (Abstained or Excused)
✓✓ To Over-Ride

VOTES REQUIRED _____

Approved as to: [Signature] Department Head Appropriation _____ Comptroller
Factual Contents
Form and Legality [Signature] Counsel 12-12-11
Tabled _____ Removed from Table _____
Presented to Mayor December 28, 2011 Adopted December 27 2011
Approved December 28, 2011 [Signature] City Council Chairwoman
Vetoed [Signature] Mayor [Signature] City Clerk
Entered on Council Minutes, Page _____

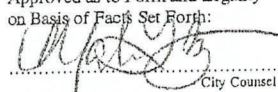
ORDINANCE OF THE CITY OF EAST ORANGE, NEW JERSEY

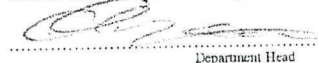
1st Reading January 30, 2012
Public Hearing February 27, 2012
Final Reading February 27, 2012

Referred to
Planning Board
From
Planning Board

Approved as to Form and Legality
on Basis of Facts Set Forth:

Factual Contents Certified to By:


City Council


Department Head

Appropriations:

Removed
From Table
Tabled

~~XXXXXXXX~~ COUNCILMAN TED GREEN
COUNCILWOMAN JACQUELYN E. JOHNSON

Presents the following Ordinance:

ORDINANCE NO. 5 OF 2012

AN ORDINANCE ADOPTING A REDEVELOPMENT PLAN FOR ALL
URBAN ENTERPRISE ZONE (UEZ) AREAS WITHIN THE CITY OF
EAST ORANGE FOR THE SOLE PURPOSE OF GRANTING TAX
INCENTIVES WITHIN THE UEZ

WHEREAS, on November 29, 2011, the East Orange City Council adopted Resolution I-324 authorizing the Planning Board to conduct a review and investigation of all of the Urban Enterprise Zone (UEZ) Areas within the City of East Orange to determine if these areas qualify as an Area in Need of Redevelopment; and

WHEREAS, on December 7, 2011, the East Orange Planning Board after due notice and hearing as required pursuant to the Local Housing and Redevelopment Law, N.J.S.A. 40A:12A-1, et seq., made an affirmative recommendation to the East Orange City Council, which adopted Resolution I-357 on December 27, 2011 declaring that all of the UEZ Areas within the City of East Orange meets the statutory criteria to qualify as an Area in Need of Redevelopment, pursuant to N.J.S.A. 40A:12A-5.g., for the purpose of granting tax incentives within the UEZ; and

WHEREAS, pursuant to N.J.S.A.40A: 12A-7, the City of East Orange now wishes to adopt, by ordinance, a Redevelopment Plan for the UEZ area, for the purpose of granting tax incentives within the UEZ.

NOW THEREFORE BE IT ORDAINED, by the City Council of the City of East Orange as follows:

Section 1. Establishment of the Redevelopment Plan.
The Redevelopment Plan for the UEZ area is hereby adopted.

Section 2. District Properties.
The Redevelopment Plan for the UEZ area applies to all properties within the City of East Orange UEZ, as they have been designated pursuant to the "New Jersey Urban Enterprise Zone Act," P.L. 1983, c. 303 (C.52:27H-60 et seq.) by Ordinance 11 of 1996 and denoted on the Official Urban Enterprise Zone Map adopted through that Ordinance. This plan does not, however, apply to areas that were designated as a redevelopment area by way of another area in need of redevelopment designation or are governed by another redevelopment plan adopted by the City of East Orange.

Section 3. Compliance With State Redevelopment Statutes/Other Provisions Necessary to Meet State and Local Requirements.

In accordance with N.J.S.A. 40A:12A-1 et. seq. known as "The Local Redevelopment and Housing Law", the following statements are made:

1. The Redevelopment Plan has a definite relationship to local objectives that promote revitalization and reinvestment within the City of East Orange UEZ.

2. In accordance with NJSA 40A:12A-7, this plan shall be referred to the East Orange Planning Board for its recommendation concerning this redevelopment plan.

3. This plan is to be adopted based on the finding that the UEZ is an area in need of redevelopment for the purpose of granting tax incentives in accordance with NJSA 40A:12A-5.g.

Section 4. Redevelopment Plan Provisions.

This plan only provides for properties in the plan area to qualify for tax incentives available in Areas in Need of Redevelopment pursuant to NJSA 40A:12A-5.g. The purpose of the Redevelopment Plan is for the enabling of tax incentives for development within the UEZ. Properties in the plan area shall be developed expeditiously in accordance with this plan and its provisions.

1. This plan furthers local objectives for appropriate land uses, density of population, and improved traffic and public transportation, public utilities, recreational and community facilities, and other public improvements by promoting and facilitating the redevelopment of vacant or underutilized sites in The City of East Orange.

2. The Redevelopment Plan does not change or apply to any existing redevelopment plans already enacted, nor does it affect zoning or development requirements or application rights for variances or waivers for land uses and buildings within this redevelopment plan area. This plan has no impact on existing affordable housing units. The purpose of the Redevelopment Plan is solely for the purpose of enabling the granting of tax incentives within the UEZ.

3. The Redevelopment Plan does not have any provision for the removal of housing units or resident relocation through acquisition of property.

4. The Redevelopment Plan does not have any provision for property acquisition.

5. The Redevelopment Plan is substantially consistent with the Master Plan of the City of East Orange and contiguous municipalities, and the State Development and Redevelopment Plan, all of which share a common goal of promoting economic development and reinvestment in New Jersey's urban core.

6. No housing units affordable to low or moderate income households, as defined pursuant to section 4 of P. L. 1985, c. 222 (C.52:27D-304), are proposed to be removed through this plan.

7. No new replacement housing is proposed to be constructed as a result of this plan because no existing housing is proposed to be removed as a result of this plan.

Section 5. Procedures for Amending the Plan.

The Plan may be amended upon compliance with the requirements of the law.

Section 6. Severability of Ordinance Provisions.

Each section of this ordinance is an independent section, and the holding of any section or part thereof to be unconstitutional, void, or ineffective for any cause shall not be deemed to affect the validity of constitutionality of any other section or parts thereof.

Section 7. Inconsistencies

All other ordinances and parts of ordinances in conflict or inconsistent with this ordinance are hereby repealed but only to the extent of such conflict or inconsistency.

Section 8. Effective Date

This ordinance shall take effect after final passage and upon expiration of twenty (20) days following publication unless otherwise provided by resolution of this City Council.

I HEREBY CERTIFY THE FOREGOING TO BE A
TRUE COPY OF ORDINANCE NO. 5/2012
ADOPTED BY THE CITY COUNCIL OF EAST
ORANGE AT ITS MEETING HELD
February 27, 2012
[Signature]
CITY CLERK, EAST ORANGE, NJ

FIRST READING

| COUNCIL MEMBER | AYE | NAY | N.V. | A.B. | VETO | COUNCIL MEMBER | AYE | NAY | N.V. | A.B. | VETO |
|----------------|-----|-----|------|------|------|----------------|-----|-----|------|------|------|
| FIELDS | X | | | | | HUGHES | X | | | | |
| BARNES | X | | | | | MCPHATTER | | | X | | |
| CROSS | X | | | | | HOLMAN | X | | | | |
| JOHNSON | X | | | | | HOLT | X | | | | |
| GREEN | X | | | | | TALMADGE | X | | | | |

RECORD OF COUNCIL VOTE ON FINALE PASSAGE

| COUNCIL MEMBER | AYE | NAY | N.V. | A.B. | VETO | COUNCIL MEMBER | AYE | NAY | N.V. | A.B. | VETO |
|----------------|-----|-----|------|------|------|----------------|-----|-----|------|------|------|
| FIELDS | ✓ | | | | | HUGHES | ✓ | | | | |
| BARNES | ✓ | | | | | MCPHATTER | ✓ | | | | |
| CROSS | ✓ | | | | | HOLMAN | | | | ✓ | |
| JOHNSON | ✓ | | | | | HOLT | ✓ | | | | |
| GREEN | ✓ | | | | | TALMADGE | ✓ | | | | |

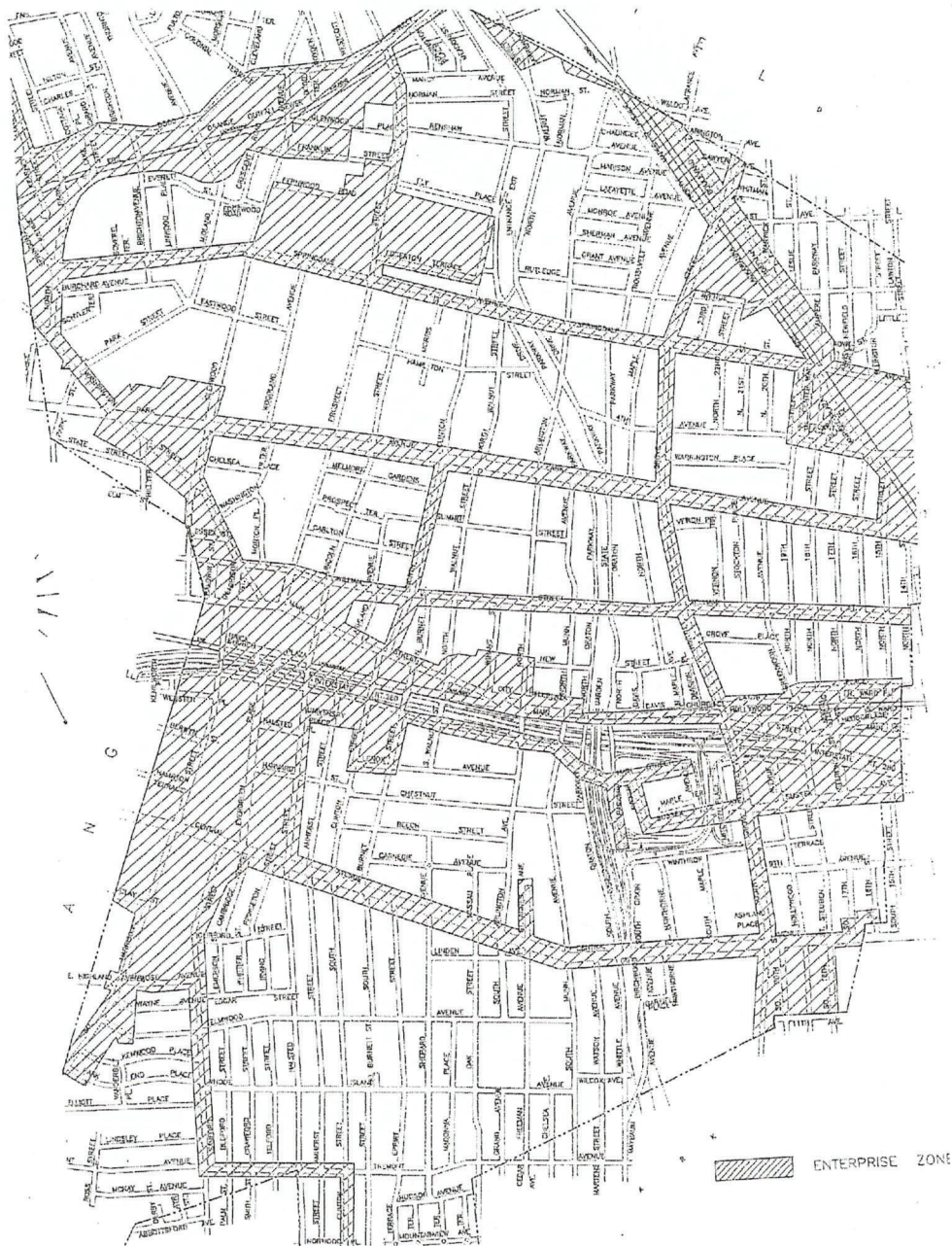
X - Indicates Vote A.B. - Absent
Action on Veto - ✓ To Sustain

N.V. - Not Voting (Abstained or Excused)
✓✓ To Over-Ride

Passed on First Reading January 30, 2012
Adopted on Final Reading February 27, 2012
Presented to Mayor February 28, 2012
Approved: February 28, 2012
Vetoed: Reconsidered by Council

[Signature]
Mayor

[Signature]
Council Chairman
[Signature]
City Clerk





STATE OF NEW JERSEY
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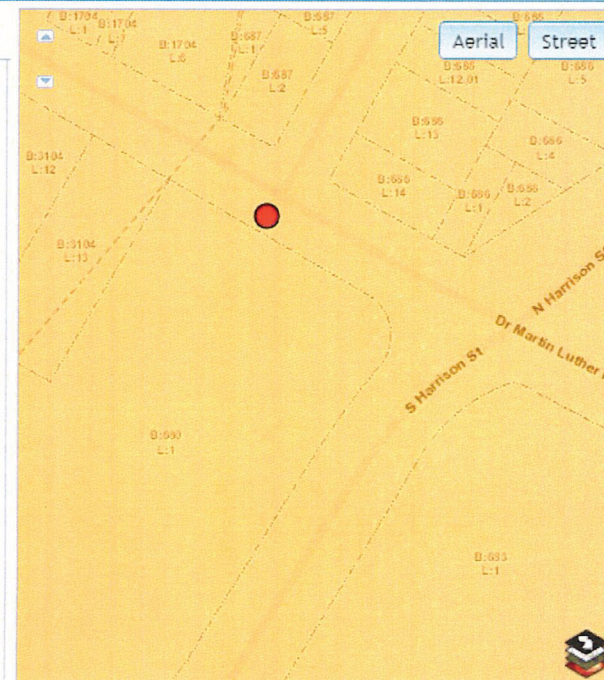
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Program**

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ORANGE, NJ, 07018

585 Dr Martin Luther King Jr Blvd, EAST
ORANGE, NJ, 07018



assistance.

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Program [Forms & Information](#) web page.

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less than \$4,500 per quarter by applying to Labor for a rebate after

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ORDINANCE OF THE CITY OF EAST ORANGE, NEW JERSEY

1st Reading: 8, 28, 17

Public Hearing: 9, 25, 17

2nd Reading & Adoption: 9, 25, 17

Referred to Planning Board: ____/____/____

Received from Planning Board: ____/____/____

Approved as to Formal and Legality
On Basis of Facts Set forth:

[Signature]
City Council

Factual Contents Certified to By: *[Signature]*
For Valerie Jacobson
Department Head

Appropriations:

..... Tabled: ____/____/____
Comptroller

Removed From Table: ____/____/____

Councilman/ Councilwoman *Bullock/Holman* Presents the following Ordinance:

ORDINANCE NO. 31 OF 2017

ORDINANCE AMENDING THE 2012 REDEVELOPMENT PLAN
FOR ALL URBAN ENTERPRISE ZONE AREAS WITHIN THE CITY
OF EAST ORANGE FOR THE PURPOSE OF GRANTING TAX
INCENTIVES

WHEREAS, on November 28, 2011, the East Orange City Council (the "Council") adopted Resolution I-324 authorizing the Planning Board to conduct a review and investigation of all of the Urban Enterprise Zone areas (the "UEZ") within the City of East Orange (the "City") to determine if those areas qualified as an area in need of redevelopment pursuant to the Local Redevelopment and Housing Law, N.J.S.A. 40A:12A-1 et seq. (the "Redevelopment Law"); and

WHEREAS, on December 7, 2011, the East Orange Planning Board (the "Board"), after due notice and hearing as required pursuant to the Redevelopment Law made an affirmative recommendation to the Council; and

WHEREAS, on December 27, 2011, the Council adopted Resolution I-357 declaring that all of the UEZ areas within the City met the statutory criteria to qualify as an area in need of redevelopment, pursuant to N.J.S.A. 40A:12A-5(g), for the purpose of granting tax incentives within the UEZ; and

WHEREAS, on February 27, 2012, the Council adopted Ordinance No. 5 of 2012 adopting a redevelopment plan for all property within the UEZ (the "2012 Redevelopment Plan"); and

WHEREAS, the Council desires to amend the 2012 Redevelopment Plan to clarify that if it applies to properties that are subject to another redevelopment plan, that the land use regulations contained in the other redevelopment plans shall govern,

NOW, THEREFORE, BE IT ORDAINED AND ENACTED by the City Council of the City of East Orange, in the County of Essex, State of New Jersey as follows:

I. GENERAL

The aforementioned recitals are incorporated herein as though fully set forth at length.

II. AMENDMENT 2012 REDEVELOPMENT PLAN

(a) Section 2 of the 2012 Redevelopment Plan is hereby amended to read as follows:

"The Redevelopment Plan for the UEZ area applies to all properties within the City of East Orange UEZ, as they have been designated pursuant to the "New Jersey Urban Enterprise Zone Act," P.L. 1983, c. 303 (C. N.J.S.A. 52:27H-60 et seq.), by Ordinance 11 of 1996 and denoted on the Official Urban Enterprise Zone Map adopted through that Ordinance. This plan does not, however, apply to areas that were designated as a redevelopment area by way of another area in need of redevelopment designation or are governed by another redevelopment plan adopted by the City of East Orange. To the extent that an area governed by this Redevelopment Plan is also subject to another redevelopment plan adopted by ordinance of the City, the provisions of this Redevelopment Plan shall supplement such other redevelopment plan. In such event, this Redevelopment Plan shall apply only for the purpose of granting tax incentives within the UEZ and all other provisions in such other redevelopment plan (as may be amended from time to time), including but not limited to the land use provisions contained therein, shall govern such area and are hereby incorporated by reference."

(b) Section 4, paragraph 2 of the 2012 Redevelopment Plan is hereby amended to read as follows:

"The Redevelopment Plan does not change or apply to any existing redevelopment plans already enacted, nor does it affect zoning or development requirements or application rights for variances or waivers for land uses and buildings within this redevelopment plan area. To the extent that an area governed by this Redevelopment Plan is also subject to another redevelopment plan adopted by ordinance of the City, this Redevelopment Plan incorporates by reference all provisions in such other redevelopment plan (as may be amended from time to time), including but not limited to the land use provisions contained therein. To the extent that a given area governed by this Redevelopment Plan is not subject to another redevelopment plan adopted by ordinance of the City, this Redevelopment Plan does not affect zoning or development requirements or application rights for variances or waivers for land uses and buildings within this redevelopment plan area. This Redevelopment Plan has no impact on existing affordable housing units. The purpose of the this Redevelopment Plan is solely for the purpose of enabling the granting of tax incentives within the UEZ."

I HEREBY CERTIFY THE FOREGOING TO BE A
TRUE COPY OF ORDINANCE NO. 31
ADOPTED BY THE CITY COUNCIL OF EAST
ORANGE AT ITS MEETING HELD
SEPTEMBER 25, 2017
[Signature]
CITY CLERK, EAST ORANGE, NJ

III. SEVERABILITY AND APPLICABILITY

If any part of this Ordinance shall be deemed invalid, such parts shall be severed and the invalidity thereby shall not affect the remaining parts of this Ordinance. Any portion of the 2012 Redevelopment Plan not modified by Section II of this Ordinance shall remain in full force and effect.

IV. ZONING MAP

The zoning map of the City is hereby amended to incorporate the revisions set forth in Section II of this Ordinance.

V. AVAILABILITY OF THE ORDINANCE

A copy of this Ordinance shall be available for public inspection at the offices of the City.

VI. EFFECTIVE DATE

This Ordinance shall take effect according to law.

FIRST READING

| COUNCILMEMBER | AYE | NAY | N.V. | A. B. | VETO |
|---------------|-----|-----|------|-------|------|
| BULLOCK | | | | X | |
| BRENT | X | | | | |
| JOHNSON | X | | | | |
| LEWIS | X | | | | |
| COOPER | X | | | | |

| COUNCILMEMBER | AYE | NAY | N.V. | A.B. | VETO |
|---------------|-----|-----|------|------|------|
| HOLMAN | X | | | | |
| GOMEZ | X | | | | |
| JAMES | X | | | | |
| TALMADGE | X | | | | |
| GREEN | X | | | | |

SECOND READING & FINAL PASSAGE

| COUNCILMEMBER | AYE | NAY | N.V. | A. B. | VETO |
|---------------|-----|-----|------|-------|------|
| BULLOCK | X | | | | |
| BRENT | | | | X | |
| JOHNSON | X | | | | |
| LEWIS | X | | | | |
| COOPER | X | | | | |

| COUNCILMEMBER | AYE | NAY | N.V. | A.B. | VETO |
|---------------|-----|-----|------|------|------|
| HOLMAN | | | X | | |
| GOMEZ | X | | | | |
| JAMES | X | | | | |
| TALMADGE | X | | | | |
| GREEN | X | | | | |

X- Indicates Vote A.B.- Absent N.V.- Not Voting (Abstained or Excused) ACTION ON VETO: / To Sustain / To Over-Ride

Passed on First Reading: 8/22 / 2017

Adopted on final Reading: 9/25 / 2017

Presented to Mayor: 9/26 / 2017

Approved: 9/26 / 2017

Vetoed: ____ / ____ / 2017

Reconsidered by Council: ____ / ____ / 2017

[Signature]
Mayor

[Signature]
Council Chairman
[Signature]
City Clerk

STORMWATER MANAGEMENT REPORT

for

Proposed The Crossings at Brick Church Station

Prepared for:

Brick Church Opportunity Zone Fund I, LLC
Block 683; Lots 1, 1.01, 4.01, 4.02 & 5
505, 507, 513-517 & 533 Dr. MLK Jr. Boulevard and
15-33 Halsted Street
City of East Orange
Essex County, New Jersey

Prepared by



BOHLER
ENGINEERING

NJ Certification of Authorization No. 24GA28161700

35 Technology Drive
Warren, NJ 07059
908-668-8300

Bradford Bohler, P.E.
New Jersey Professional Engineer License No. 47421

Revision #1: August 9, 2019
June 28, 2019
BENJ #: J180710

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A. Pre- vs. Post-Development Hydrographs

- ♦ Runoff Rate Summary Chart
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- ♦ 2-Year Storm Event
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- ♦ 100-Year Storm Event
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- ♦ Aerial Map
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1. Introduction

The purpose of this Stormwater Management Report is to analyze the stormwater drainage conditions that will occur as a result of the construction of a five-story Building A, which includes 85,490 SF of retail and 400 dwelling units, along with a nine-story Building B, which includes 112,160 SF of commercial space and 420 dwelling units. In addition to the new buildings, the project also includes the associated asphalt/concrete parking/circulation areas, sidewalks, landscaping, and stormwater management facilities. The subject property is currently occupied by seven separate buildings containing retail and office space. The largest building is a supermarket. The design constraints are based on the City of East Orange and Hudson-Essex & Passaic Soil Conservation District requirements. The subject property is known as Block 683, Lots 1, 1.01, 4.01, 4.02 and 5 in the City of East Orange, Essex County, New Jersey. The scope of this study includes analysis of the existing drainage characteristics of the site compared with post drainage conditions. This Report comparatively analyzes the pre-development site runoff to the post development site runoff. Calculations documenting the design of the stormwater management system, as illustrated on the Site Plan drawing documents, prepared by Bohler Engineering are included within the Appendix of this Report.

2. Existing Site Conditions

The subject property encompasses 9.650 acres (including the proposed vacation of Brick Church Plaza). The site is located at 505, 507, 513-517 & 533 Dr. MLK Jr. Boulevard and 15-33 Halsted Street and is bordered to the north by Dr. MLK Jr. Boulevard (a.k.a. Main Street) and commercial uses beyond, to the east by Halsted Street and a church beyond; to the south by Brick Church Plaza and NJ Transit rail beyond, and to the west by South Harrison Street and commercial uses beyond. The subject property is currently occupied by seven separate buildings with various uses including retail, restaurants, and office space. The anchor retail tenant is a ShopRite grocery store. The drainage pattern flows via overland sheet flow and shallow concentrated flow into the municipal drainage system.

Based on a review of the Essex County Soil Survey, the subject parcel contains URBOOB (Urban land, Boonton substratum, 0 to 8% slopes, red sandstone lowland), and BowrB (Boonton – Urban land, Boonton substratum complex, red sandstone lowland, 0 to 8% slopes), which are delineated on the Soils Map located within the Appendix of this Report. The TR-55 Manual does not provide Hydrologic Soil Type designations for the above soil types. According to the web soil survey provided by the Natural Resources Conservation Service, there is no rating for URBOOB, therefore Hydrologic Soil Type ‘D’ is assumed to be appropriate for this analysis. BowrB is classified as Hydrologic Soil Type ‘C’.

The existing site conditions for the studied subject property is illustrated on the “Existing Drainage Areas Map” included within the Appendix of this Report. This map is based on a Topographic and Utility Survey, prepared by Control Point Associates, Inc. Based on the analysis of the existing topography of the subject property, the existing conditions are tributary to the drainage systems beneath one of the following: South Harrison Street; the Brick Church

Train Station; or Dr. Martin Luther King Jr. Boulevard (refer to the “Existing Drainage Areas Map” for additional information).

Drainage Area ‘E1’ (Tributary to the South Harrison Street Drainage System):

The area consists of 156,657 sf (3.596 Ac.) of pavement, buildings, and grass areas on-site draining to the south via overland sheet flow, shallow concentrated flow, and pipe channel flow. A CN value of 97 was utilized for this area with a calculated time of concentration of 6 minutes.

Drainage Area ‘E2’ (Tributary to the Brick Church Train Station Drainage System):

The area consists of 177,508 sf (4.075 Ac.) of pavement, buildings, and grass areas on-site draining to the south via overland sheet flow, shallow concentrated flow, and pipe channel flow. A CN value of 97 was utilized for this area with a calculated time of concentration of 6 minutes.

Drainage Area ‘E3’ (Tributary to the Dr. Martin Luther King Jr. Boulevard Drainage System):

The area consists of 86,196 sf (1.979 Ac.) of pavement, buildings, and grass areas on-site draining to the north via overland sheet flow, shallow concentrated flow, and pipe channel flow. A CN value of 96 was utilized for this area with a calculated time of concentration of 6 minutes.

3. Proposed Site Conditions

The post-development conditions include a five-story Building A and a nine-story Building B. In addition to the new buildings, the project also includes the associated asphalt/concrete parking/circulation areas, sidewalks, landscaping, and stormwater management facilities. The proposed site is designed in a manner that generally maintains the existing drainage patterns. On-site stormwater management improvements to collect and control stormwater runoff include trench drains, inlets, piping, roof drains, and an underground detention basin. These improvements are illustrated on the Site Plans, prepared by Bohler Engineering. The proposed conditions are as follows:

Drainage Area ‘P1’ (Tributary to the South Harrison Street Drainage System):

Drainage Area P1 consists of 164,635 SF (3.780 Ac.) of pavement, building, and landscaped areas. The area is discharged to the existing drainage network beneath

South Harrison Street. A CN value of 98 was utilized for this area with a minimum time of concentration of 6 minutes.

Drainage Area 'P2' (Tributary to the Brick Church Train Station Drainage System):

Drainage area P2 consists of 175,132 SF (4.020 Ac.) of pavement, building, and landscaped areas and discharges to the drainage system beneath Brick Church Train Station. A CN value of 98 was utilized for this area with a minimum time of concentration of 6 minutes.

Drainage Area 'P3' (Tributary to the Dr. Martin Luther King Jr. Boulevard Drainage System):

Drainage area P3 consists of 80,594 SF (1.850 Ac.) of pavement, building, and landscaped areas and discharges to the drainage system beneath Dr. Martin Luther King Boulevard. A CN value of 98 was utilized for this area with a minimum time of concentration of 6 minutes.

3.1 Non-Structural Stormwater Management Facilities

In accordance with the NJDEP regulations, several non-structural stormwater management strategies have been incorporated into this design and are listed below:

3.1.1 Low Maintenance Landscaping

A comprehensive Landscape Plan has been incorporated within the subject development, which provides low maintenance landscaping. Furthermore, the use of lawn areas are not utilized and fertilizers and pesticides are to be used sparingly.

3.1.2 Preventive Source Controls

The proposed development has addressed this area by providing trash receptacles located throughout the site. A maintenance schedule will be followed to routinely clean the site of trash.

3.2 Structural Stormwater Management Facilities

In addition to the above non-structural BMP strategies, the following types of structural BMPs are employed in this design:

3.2.1 Underground Detention Basins

The proposed underground detention basin (manufactured by StormTrap or approved equal) serves as the stormwater detention system for Sub-Drainage Area 'P1'. The proposed underground detention basin collects stormwater runoff from the proposed development as noted above through trench drain, inlets, underground piping system, and overland sheet flow. The underground detention basin is designed to store and release stormwater at a controlled rate to meet the stormwater quantity reduction requirements.

3.2.2 Outlet Control Structures

Stormwater from the proposed development as discussed above in association with the underground detention basin is released at a controlled rate to the South Harrison Street Drainage System by the proposed precast reinforced concrete outlet control structure that is part of the proposed StormTrap system. The proposed precast reinforced concrete Outlet Control Structure is equipped with a 6" x 22.7" orifice at elevation 174.30 to convey the runoff from a storm event up to the 2-Year Storm, and a 4' weir at elevation 176.14 to convey the runoff from storm events including the 10-Year and up to the 100-Year Storm..

3.3 Soil Erosion and Sediment Control Design

The Soil Erosion and Sediment Control Plan is included within the Site Plans and shall be followed throughout construction. Silt fences, stabilized construction entrances, a temporary soil stockpile, trench drain filters, and inlet filters are proposed to be utilized during construction. It should be noted that stormwater collected from the site will be discharged to the drainage systems of South Harrison Street, Brick Church Train Station, and Dr. Martin Luther King Boulevard. The proposed development retains pre-developed runoff characteristics and does not increase the rate of runoff. As such, the offsite stability should be considered as 'stable.'

4. Methodology

The methodology utilized to design the subject stormwater management system is in compliance with all jurisdictional agency regulations. Specifically, the proposed design was developed for the subject site utilizing the TR-55 Method. Runoff curve numbers were determined for each drainage area based on Type 'C' and 'D' soils and the minimum time of concentration have been utilized in accordance with the TR-55 Urban Hydrology for Small Watersheds through the use of the stormwater design software, HydroCAD 10.00. Design calculations are included within the Appendix of this Report. Hydrographs were generated for each watershed under the existing and proposed conditions. These hydrographs were created with HydroCAD 10.00 and are included in the Appendix of the report.

The primary design constraints for this project are based on the requirements set forth in the New Jersey Department of Environmental Protection (NJDEP) 'Stormwater Management Regulations'. By design, the

requirements set forth by the City of East Orange and Hudson-Essex & Passaic Soil Conservation District are met. The stormwater NJDEP management regulations can be separated into three primary categories:

1. Water Quality (Total Suspended Solids)
2. Quantity Reductions
3. Groundwater Recharge

4.1 Water Quality

The NJDEP's Stormwater Management Rules require 80% Total Suspended Solids (TSS) reduction in the post-construction runoff from a land development site for areas of new impervious coverage. Stormwater management measures shall only be required for water quality control if an additional ¼ acre of impervious surface is being proposed. In the proposed condition the site is largely occupied by building area and sidewalks which the NJDEP characterizes as clean water runoff. Since there is an increase in the clean water runoff when compared to the existing conditions, the overall TSS removal is increased for the site and 80% TSS removal is not appropriate. Please see the Comparison Table of the Existing and Proposed Conditions for the pavements, sidewalk, and building roofs which shows an increase in clean water runoff for the site.

| | EXISTING | PROPOSED |
|-----------------------|------------------------|------------------------|
| PAVEMENTS | 225,068 SF (5.167 Ac.) | 123,270 SF (2.830 Ac.) |
| SIDEWALK | 31,266 SF (0.718 Ac.) | 31,886 SF (0.732 Ac.) |
| BUILDING ROOFS | 138,790 SF (3.186 Ac.) | 260,225 SF (5.974 Ac.) |

4.2 Quantity Reductions

The quantity reduction for post-construction development as detailed in the NJDEP Stormwater Management Regulations requires a 50% reduction for the 2-year storm, a 25% reduction for the 10-year storm, and 20% reduction for the 100-year storm for areas where detention is required due to development or prove hydrographs for the 2-year, 10-year, and 100-year storms do not exceed existing hydrographs. As demonstrated by the Runoff Rate Summary Charts found in the Appendix of this Report, the post-development runoff rates for the onsite watershed for the subject property have met the percent reduction requirements when compared to the pre-development runoff rates when comparing Drainage Area 'P1' vs 'E1'. The hydrographs for the 2-, 10-, and 100- year storms do not exceed existing hydrographs for areas when comparing Drainage Areas 'P2' vs 'E2' and 'P3' vs 'E3'.

4.3 Groundwater Recharge

Stormwater Management Rules require that a proposed land development site comply with either of the following groundwater recharge requirements:

- Demonstrate through hydrologic and hydraulic analysis that the site and its stormwater management measures maintain 100% of the average annual pre-construction groundwater recharge volume for the site; or
- Demonstrate through hydrologic and hydraulic analysis that the increase of stormwater runoff volume from pre-construction to post-construction for the 2-year storm is infiltrated.

Additionally, NJAC § 7:8-5.4(a)2 states that the groundwater recharge requirement does not apply to projects within the urban redevelopment area nor projects where recharge would be inconsistent with a remedial action work plan.

The subject site is in State Planning Area 1, where groundwater recharge is not required.

5. Pipe Sizing Calculations

Calculations for pipe sizing for the stormwater conveyance system are contained in the Appendix of this Report. The Rational Method has been utilized to size the on-site storm piping for the 25-year occurrence storm. The calculations are conservatively based on a minimum six (6) minute time of concentration to any particular inlet. Inlet Drainage Areas Maps are included in the Appendix of this Report.

6. Conclusion

In summary, the proposed stormwater management system illustrated on the drawings, prepared by Bohler Engineering meets the requirements set forth by all reviewing jurisdictional agencies and the NJDEP Stormwater Regulations. The results of the design calculations performed demonstrate that the stormwater runoff rates from the proposed development are reduced when compared to the existing runoff rates. A pre-development versus post development discharge Runoff Rate Summary Chart is provided for complete runoff rate comparison for Drainage Area 'E1' versus Drainage Area 'P1', Drainage Area 'E2' versus Drainage Area 'P2', and Drainage Area 'E3' versus Drainage Area 'P3'. Note that the existing drainage patterns are being maintained, runoff rates are being reduced or are not exceeding existing conditions. Due to the fact that the post-development runoff rates are less than the pre-development runoff rates, our office anticipates no negative impacts to the surrounding areas.

APPENDICES

A. PRE- vs. POST-DEVELOPMENT HYDROGRAPHS

- ◆ **Runoff Rate Summary Chart**
- ◆ **Runoff Rate and Volume Summary Chart**
- ◆ **2-Year Storm Event**
- ◆ **10-Year Storm Event**
- ◆ **25-Year Storm Event**
- ◆ **100-Year Storm Event**

A. PRE- vs. POST-DEVELOPMENT HYDROGRAPHS

- ◆ **Runoff Rate Summary Chart**

- ◆ **Runoff Rate and Volume Summary Chart**

RUNOFF RATE SUMMARY CHART

Analysis of Drainage Area 'E1' versus Drainage Area 'P1'
Drainage Area Tributary to the South Harrison Street Drainage System

| Storm Interval | Existing Runoff Rate | Reduction Required | Proposed Runoff Rate | Reduction Proposed |
|---------------------------|-------------------------------------|-------------------------------|-------------------------------------|-------------------------------|
| 2 Year | 11.49 cfs | 50% | 5.73 cfs | 50% |
| 10 Year | 17.67 cfs | 25% | 8.66 cfs | 51% |
| 100 Year | 29.61 cfs | 20% | 12.24 cfs | 59% |

RUNOFF RATE AND VOLUME SUMMARY CHART

Analysis of Drainage Area 'E2' versus Drainage Area 'P2'

Drainage Area Tributary to the Brick Church Train Station Drainage System

| Storm Interval | Existing Runoff Rate | Existing Volume | Proposed Runoff Rate | Proposed Volume |
|---------------------------|-------------------------------------|----------------------------|-------------------------------------|----------------------------|
| 2 Year | 13.13 cfs | 1.072 af | 13.07 cfs | 1.069 af |
| 10 Year | 20.14 cfs | 1.673 af | 19.98 cfs | 1.663 af |
| 100 Year | 33.65 cfs | 2.837 af | 33.30 cfs | 2.813 af |

RUNOFF RATE AND VOLUME SUMMARY CHART

Analysis of Drainage Area 'E3' versus Drainage Area 'P3'

Drainage Area Tributary to the Dr. Martin Luther King Jr. Boulevard Drainage System

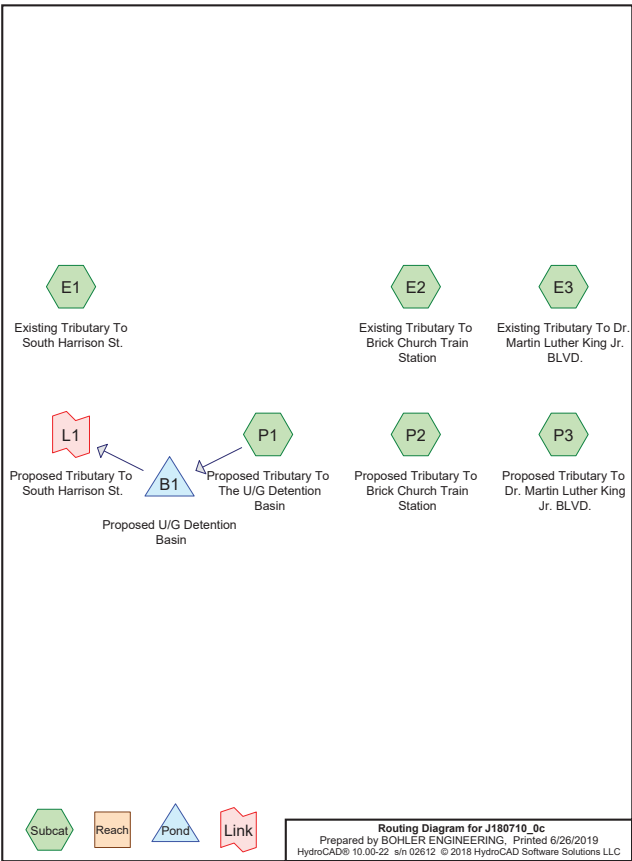
| Storm Interval | Existing Runoff Rate | Existing Volume | Proposed Runoff Rate | Proposed Volume |
|---------------------------|-------------------------------------|----------------------------|-------------------------------------|----------------------------|
| 2 Year | 6.08 cfs | 0.492 af | 6.01 cfs | 0.491 af |
| 10 Year | 9.49 cfs | 0.779 af | 9.19 cfs | 0.765 af |
| 100 Year | 16.08 cfs | 1.339 af | 15.32 cfs | 1.294 af |

A. PRE- vs. POST-DEVELOPMENT HYDROGRAPHS

◆ 2-Year Storm Event

Area Listing (all nodes)

| Area (acres) | CN | Description (subcatchment-numbers) |
|-----------------|----|--|
| 0.694 | 80 | >75% Grass cover, Good, HSG D (E1, E2, E3, P1, P2, P3) |
| 18.607 | 98 | Paved parking, HSG D (E1, E2, E3, P1, P2, P3) |
| 19.300 | 97 | TOTAL AREA |



Soil Listing (all nodes)

| Area (acres) | Soil Group | Subcatchment Numbers |
|-----------------|---------------|-------------------------|
| 0.000 | HSG A | |
| 0.000 | HSG B | |
| 0.000 | HSG C | |
| 19.300 | HSG D | E1, E2, E3, P1, P2, P3 |
| 0.000 | Other | |
| 19.300 | TOTAL AREA | |

Ground Covers (all nodes)

| HSG-A (acres) | HSG-B (acres) | HSG-C (acres) | HSG-D (acres) | Other (acres) | Total (acres) | Ground Cover | Subcatchment Numbers |
|------------------|------------------|------------------|------------------|------------------|------------------|------------------------|-------------------------|
| 0.000 | 0.000 | 0.000 | 0.694 | 0.000 | 0.694 | >75% Grass cover, Good | E1, E2, E3, P1, P2, P3 |
| 0.000 | 0.000 | 0.000 | 18.607 | 0.000 | 18.607 | Paved parking | E1, E2, E3, P1, P2, P3 |
| 0.000 | 0.000 | 0.000 | 19.300 | 0.000 | 19.300 | TOTAL AREA | |

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Pipe Listing (all nodes)

| Line# | Node Number | In-Invert (feet) | Out-Invert (feet) | Length (feet) | Slope (ft/ft) | n | Diam/Width (inches) | Height (inches) | Inside-Fill (inches) |
|-------|----------------|---------------------|----------------------|------------------|------------------|-------|------------------------|--------------------|-------------------------|
| 1 | B1 | 174.30 | 173.40 | 60.0 | 0.0150 | 0.013 | 15.0 | 0.0 | 0.0 |

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NOAA 24-hr D 2-year Rainfall=3.44"

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Time span=0.00-72.00 hrs, dt=0.01 hrs, 7201 points x 9

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv.

Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment E1: Existing Tributary To Runoff Area=156,657 sf 94.87% Impervious Runoff Depth=3.12"
Tc=6.0 min CN=80/98 Runoff=11.49 cfs 0.936 af

Subcatchment E2: Existing Tributary To Runoff Area=177,508 sf 97.00% Impervious Runoff Depth=3.16"
Tc=6.0 min CN=80/98 Runoff=13.13 cfs 1.072 af

Subcatchment E3: Existing Tributary To Runoff Area=86,196 sf 86.23% Impervious Runoff Depth=2.98"
Tc=6.0 min CN=80/98 Runoff=6.08 cfs 0.492 af

Subcatchment P1: Proposed Tributary To Runoff Area=164,635 sf 98.71% Impervious Runoff Depth=3.19"
Tc=6.0 min CN=80/98 Runoff=12.27 cfs 1.003 af

Subcatchment P2: Proposed Tributary To Runoff Area=175,132 sf 98.92% Impervious Runoff Depth=3.19"
Tc=6.0 min CN=80/98 Runoff=13.07 cfs 1.069 af

Subcatchment P3: Proposed Tributary To Runoff Area=80,594 sf 98.81% Impervious Runoff Depth=3.19"
Tc=6.0 min CN=80/98 Runoff=6.01 cfs 0.491 af

Pond B1: Proposed U/G Detention Basin Peak Elev=176.14' Storage=8,067 cf Inflow=12.27 cfs 1.003 af
Primary=5.73 cfs 1.003 af Secondary=0.00 cfs 0.000 af Outflow=5.73 cfs 1.003 af

Link L1: Proposed Tributary To South Harrison St. Inflow=5.73 cfs 1.003 af
Primary=5.73 cfs 1.003 af

Total Runoff Area = 19,300 ac Runoff Volume = 5.064 af Average Runoff Depth = 3.15"
3.59% Pervious = 0.694 ac 96.41% Impervious = 18.607 ac

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NOAA 24-hr D 2-year Rainfall=3.44"

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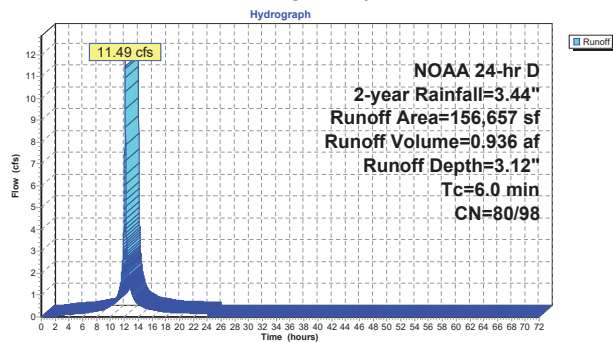
Summary for Subcatchment E1: Existing Tributary To South Harrison St.

Runoff = 11.49 cfs @ 12.13 hrs, Volume= 0.936 af, Depth= 3.12"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
NOAA 24-hr D 2-year Rainfall=3.44"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 8,031 | 80 | >75% Grass cover, Good, HSG D |
| 148,626 | 98 | Paved parking, HSG D |
| 156,657 | 97 | Weighted Average |
| 8,031 | 80 | 5.13% Pervious Area |
| 148,626 | 98 | 94.87% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|-------------|------------------|------------------|----------------------|-------------------|---------------|
| 6.0 | | | | | Direct Entry, |

Subcatchment E1: Existing Tributary To South Harrison St.**J180710_0c**

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NOAA 24-hr D 2-year Rainfall=3.44"

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Hydrograph for Subcatchment E1: Existing Tributary To South Harrison St.

| Time (hours) | Precip. (inches) | Perv.Excess (inches) | Imp.Excess (inches) | Runoff (cfs) |
|-----------------|---------------------|-------------------------|------------------------|-----------------|
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2.00 | 0.08 | 0.00 | 0.01 | 0.04 |
| 4.00 | 0.18 | 0.00 | 0.06 | 0.12 |
| 6.00 | 0.29 | 0.00 | 0.14 | 0.16 |
| 8.00 | 0.45 | 0.00 | 0.27 | 0.28 |
| 10.00 | 0.68 | 0.01 | 0.49 | 0.52 |
| 12.00 | 1.65 | 0.36 | 1.43 | 6.33 |
| 14.00 | 2.76 | 1.07 | 2.53 | 6.60 |
| 16.00 | 2.99 | 1.25 | 2.76 | 6.33 |
| 18.00 | 3.15 | 1.36 | 2.91 | 6.22 |
| 20.00 | 3.26 | 1.45 | 3.03 | 6.19 |
| 22.00 | 3.36 | 1.52 | 3.12 | 6.16 |
| 24.00 | 3.44 | 1.59 | 3.21 | 6.14 |
| 26.00 | 3.44 | 1.59 | 3.21 | 6.14 |
| 28.00 | 3.44 | 1.59 | 3.21 | 6.14 |
| 30.00 | 3.44 | 1.59 | 3.21 | 6.14 |
| 32.00 | 3.44 | 1.59 | 3.21 | 6.14 |
| 34.00 | 3.44 | 1.59 | 3.21 | 6.14 |
| 36.00 | 3.44 | 1.59 | 3.21 | 6.14 |
| 38.00 | 3.44 | 1.59 | 3.21 | 6.14 |
| 40.00 | 3.44 | 1.59 | 3.21 | 6.14 |
| 42.00 | 3.44 | 1.59 | 3.21 | 6.14 |
| 44.00 | 3.44 | 1.59 | 3.21 | 6.14 |
| 46.00 | 3.44 | 1.59 | 3.21 | 6.14 |
| 48.00 | 3.44 | 1.59 | 3.21 | 6.14 |
| 50.00 | 3.44 | 1.59 | 3.21 | 6.14 |
| 52.00 | 3.44 | 1.59 | 3.21 | 6.14 |
| 54.00 | 3.44 | 1.59 | 3.21 | 6.14 |
| 56.00 | 3.44 | 1.59 | 3.21 | 6.14 |
| 58.00 | 3.44 | 1.59 | 3.21 | 6.14 |
| 60.00 | 3.44 | 1.59 | 3.21 | 6.14 |
| 62.00 | 3.44 | 1.59 | 3.21 | 6.14 |
| 64.00 | 3.44 | 1.59 | 3.21 | 6.14 |
| 66.00 | 3.44 | 1.59 | 3.21 | 6.14 |
| 68.00 | 3.44 | 1.59 | 3.21 | 6.14 |
| 70.00 | 3.44 | 1.59 | 3.21 | 6.14 |
| 72.00 | 3.44 | 1.59 | 3.21 | 6.14 |

Summary for Subcatchment E2: Existing Tributary To Brick Church Train Station

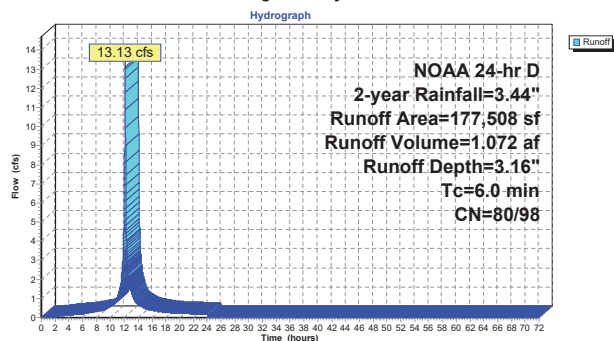
Runoff = 13.13 cfs @ 12.13 hrs, Volume= 1.072 af, Depth= 3.16"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 NOAA 24-hr D 2-year Rainfall=3.44"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 5,334 | 80 | >75% Grass cover, Good, HSG D |
| 172,174 | 98 | Paved parking, HSG D |
| 177,508 | 97 | Weighted Average |
| 5,334 | 80 | 3.00% Pervious Area |
| 172,174 | 98 | 97.00% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---------------|
| 6.0 | | | | | Direct Entry, |

Subcatchment E2: Existing Tributary To Brick Church Train Station



Hydrograph for Subcatchment E2: Existing Tributary To Brick Church Train Station

| Time (hours) | Precip. (inches) | Perv.Excess (inches) | Imp.Excess (inches) | Runoff (cfs) |
|--------------|------------------|----------------------|---------------------|--------------|
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2.00 | 0.08 | 0.00 | 0.01 | 0.05 |
| 4.00 | 0.18 | 0.00 | 0.06 | 0.13 |
| 6.00 | 0.29 | 0.00 | 0.14 | 0.19 |
| 8.00 | 0.45 | 0.00 | 0.27 | 0.32 |
| 10.00 | 0.68 | 0.01 | 0.49 | 0.60 |
| 12.00 | 1.65 | 0.36 | 1.43 | 7.25 |
| 14.00 | 2.76 | 1.07 | 2.53 | 0.68 |
| 16.00 | 2.99 | 1.25 | 2.76 | 0.38 |
| 18.00 | 3.15 | 1.36 | 2.91 | 0.25 |
| 20.00 | 3.26 | 1.45 | 3.03 | 0.22 |
| 22.00 | 3.36 | 1.52 | 3.12 | 0.19 |
| 24.00 | 3.44 | 1.59 | 3.21 | 0.15 |
| 26.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 28.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 30.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 32.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 34.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 36.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 38.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 40.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 42.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 44.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 46.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 48.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 50.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 52.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 54.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 56.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 58.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 60.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 62.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 64.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 66.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 68.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 70.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 72.00 | 3.44 | 1.59 | 3.21 | 0.00 |

Summary for Subcatchment E3: Existing Tributary To Dr. Martin Luther King Jr. BLVD.

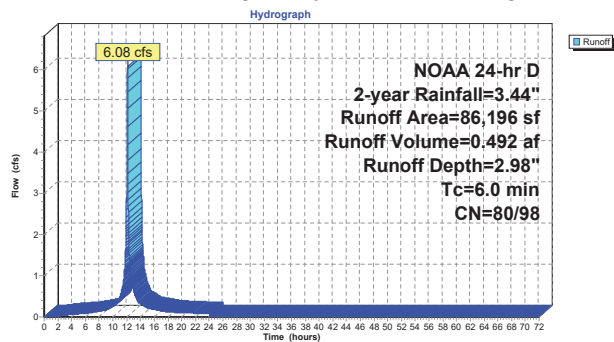
Runoff = 6.08 cfs @ 12.13 hrs, Volume= 0.492 af, Depth= 2.98"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 NOAA 24-hr D 2-year Rainfall=3.44"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 11,871 | 80 | >75% Grass cover, Good, HSG D |
| 74,325 | 98 | Paved parking, HSG D |
| 86,196 | 96 | Weighted Average |
| 11,871 | 80 | 13.77% Pervious Area |
| 74,325 | 98 | 86.23% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---------------|
| 6.0 | | | | | Direct Entry, |

Subcatchment E3: Existing Tributary To Dr. Martin Luther King Jr. BLVD.



Hydrograph for Subcatchment E3: Existing Tributary To Dr. Martin Luther King Jr. BLVD.

| Time (hours) | Precip. (inches) | Perv.Excess (inches) | Imp.Excess (inches) | Runoff (cfs) |
|--------------|------------------|----------------------|---------------------|--------------|
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2.00 | 0.08 | 0.00 | 0.01 | 0.02 |
| 4.00 | 0.18 | 0.00 | 0.06 | 0.06 |
| 6.00 | 0.29 | 0.00 | 0.14 | 0.08 |
| 8.00 | 0.45 | 0.00 | 0.27 | 0.14 |
| 10.00 | 0.68 | 0.01 | 0.49 | 0.26 |
| 12.00 | 1.65 | 0.36 | 1.43 | 3.33 |
| 14.00 | 2.76 | 1.07 | 2.53 | 0.32 |
| 16.00 | 2.99 | 1.25 | 2.76 | 0.18 |
| 18.00 | 3.15 | 1.36 | 2.91 | 0.12 |
| 20.00 | 3.26 | 1.45 | 3.03 | 0.10 |
| 22.00 | 3.36 | 1.52 | 3.12 | 0.09 |
| 24.00 | 3.44 | 1.59 | 3.21 | 0.07 |
| 26.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 28.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 30.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 32.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 34.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 36.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 38.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 40.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 42.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 44.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 46.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 48.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 50.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 52.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 54.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 56.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 58.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 60.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 62.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 64.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 66.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 68.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 70.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 72.00 | 3.44 | 1.59 | 3.21 | 0.00 |

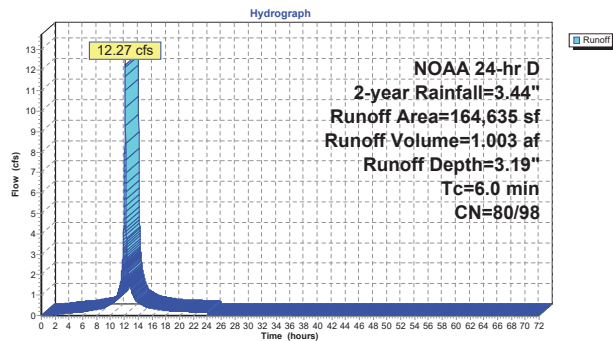
Summary for Subcatchment P1: Proposed Tributary To The U/G Detention Basin

Runoff = 12.27 cfs @ 12.13 hrs, Volume= 1.003 af, Depth= 3.19"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
NOAA 24-hr D 2-year Rainfall=3.44"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 162,504 | 98 | Paved parking, HSG D |
| 2,131 | 80 | >75% Grass cover, Good, HSG D |
| 164,635 | 98 | Weighted Average |
| 2,131 | 80 | 1.29% Pervious Area |
| 162,504 | 98 | 98.71% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---------------|
| 6.0 | | | | | Direct Entry, |

Subcatchment P1: Proposed Tributary To The U/G Detention Basin**Hydrograph for Subcatchment P1: Proposed Tributary To The U/G Detention Basin**

| Time (hours) | Precip. (inches) | Perv.Excess (inches) | Imp.Excess (inches) | Runoff (cfs) |
|--------------|------------------|----------------------|---------------------|--------------|
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2.00 | 0.08 | 0.00 | 0.01 | 0.05 |
| 4.00 | 0.18 | 0.00 | 0.06 | 0.13 |
| 6.00 | 0.29 | 0.00 | 0.14 | 0.18 |
| 8.00 | 0.45 | 0.00 | 0.27 | 0.30 |
| 10.00 | 0.68 | 0.01 | 0.49 | 0.56 |
| 12.00 | 1.65 | 0.36 | 1.43 | 6.79 |
| 14.00 | 2.76 | 1.07 | 2.53 | 0.64 |
| 16.00 | 2.99 | 1.25 | 2.76 | 0.35 |
| 18.00 | 3.15 | 1.36 | 2.91 | 0.24 |
| 20.00 | 3.26 | 1.45 | 3.03 | 0.20 |
| 22.00 | 3.36 | 1.52 | 3.12 | 0.17 |
| 24.00 | 3.44 | 1.59 | 3.21 | 0.14 |
| 26.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 28.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 30.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 32.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 34.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 36.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 38.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 40.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 42.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 44.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 46.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 48.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 50.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 52.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 54.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 56.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 58.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 60.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 62.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 64.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 66.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 68.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 70.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 72.00 | 3.44 | 1.59 | 3.21 | 0.00 |

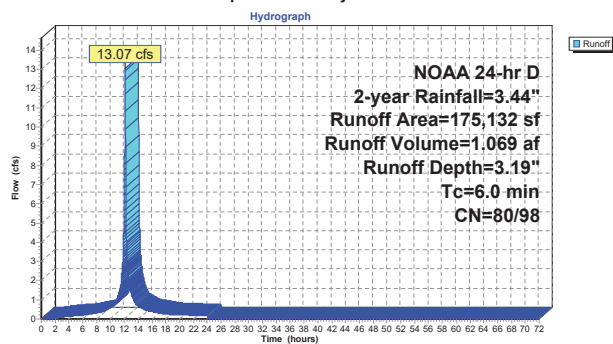
Summary for Subcatchment P2: Proposed Tributary To Brick Church Train Station

Runoff = 13.07 cfs @ 12.13 hrs, Volume= 1.069 af, Depth= 3.19"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
NOAA 24-hr D 2-year Rainfall=3.44"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 173,242 | 98 | Paved parking, HSG D |
| 1,890 | 80 | >75% Grass cover, Good, HSG D |
| 175,132 | 98 | Weighted Average |
| 1,890 | 80 | 1.08% Pervious Area |
| 173,242 | 98 | 98.92% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---------------|
| 6.0 | | | | | Direct Entry, |

Subcatchment P2: Proposed Tributary To Brick Church Train Station**Hydrograph for Subcatchment P2: Proposed Tributary To Brick Church Train Station**

| Time (hours) | Precip. (inches) | Perv.Excess (inches) | Imp.Excess (inches) | Runoff (cfs) |
|--------------|------------------|----------------------|---------------------|--------------|
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2.00 | 0.08 | 0.00 | 0.01 | 0.05 |
| 4.00 | 0.18 | 0.00 | 0.06 | 0.13 |
| 6.00 | 0.29 | 0.00 | 0.14 | 0.19 |
| 8.00 | 0.45 | 0.00 | 0.27 | 0.32 |
| 10.00 | 0.68 | 0.01 | 0.49 | 0.60 |
| 12.00 | 1.65 | 0.36 | 1.43 | 7.23 |
| 14.00 | 2.76 | 1.07 | 2.53 | 0.68 |
| 16.00 | 2.99 | 1.25 | 2.76 | 0.37 |
| 18.00 | 3.15 | 1.36 | 2.91 | 0.25 |
| 20.00 | 3.26 | 1.45 | 3.03 | 0.21 |
| 22.00 | 3.36 | 1.52 | 3.12 | 0.18 |
| 24.00 | 3.44 | 1.59 | 3.21 | 0.15 |
| 26.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 28.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 30.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 32.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 34.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 36.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 38.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 40.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 42.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 44.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 46.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 48.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 50.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 52.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 54.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 56.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 58.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 60.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 62.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 64.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 66.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 68.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 70.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 72.00 | 3.44 | 1.59 | 3.21 | 0.00 |

Summary for Subcatchment P3: Proposed Tributary To Dr. Martin Luther King Jr. BLVD.

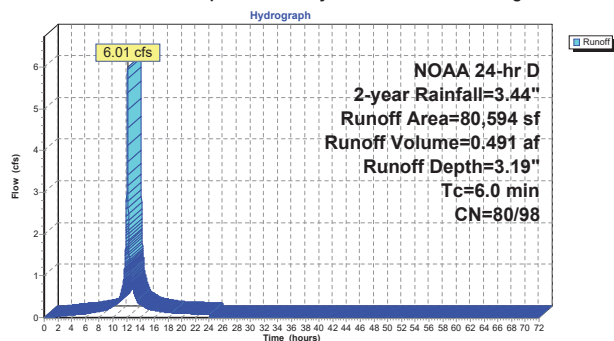
Runoff = 6.01 cfs @ 12.13 hrs, Volume= 0.491 af, Depth= 3.19"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
NOAA 24-hr D 2-year Rainfall=3.44"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 79,635 | 98 | Paved parking, HSG D |
| 959 | 80 | >75% Grass cover, Good, HSG D |
| 80,594 | 98 | Weighted Average |
| 959 | 80 | 1.19% Pervious Area |
| 79,635 | 98 | 98.81% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---------------|
| 6.0 | | | | | Direct Entry, |

Subcatchment P3: Proposed Tributary To Dr. Martin Luther King Jr. BLVD.



Summary for Pond B1: Proposed U/G Detention Basin

Inflow Area = 3,779 ac, 98.71% Impervious, Inflow Depth = 3.19" for 2-year event
Inflow = 12.27 cfs @ 12.13 hrs, Volume= 1,003 af
Outflow = 5.73 cfs @ 12.24 hrs, Volume= 1,003 af, Atten= 53%, Lag= 6.6 min
Primary = 5.73 cfs @ 12.24 hrs, Volume= 1,003 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 9
Peak Elev= 176.14' @ 12.24 hrs Surf.Area= 4,987 sf Storage= 8,067 cf

Plug-Flow detention time= 43.1 min calculated for 1,003 af (100% of inflow)
Center-of-Mass det. time= 43.1 min (800.4 - 757.3)

| Volume | Invert | Avail. Storage | Storage Description |
|--------|---------|----------------|---|
| #1A | 174.30' | 0 cf | 21.79'W x 228.85'L x 5.50'H Field A |
| | | | 27,429 cf Overall - 27,429 cf Embedded = 0 cf x 40.0% Voids |
| #2A | 174.30' | 21,961 cf | StormTrap SingleTrap 5-0 x 14 Inside #1 |
| | | | Inside= 101.7'W x 60.0'H => 38.33 sf x 15.40'L = 590.2 cf |
| | | | Outside= 101.7'W x 66.0'H => 46.64 sf x 15.40'L = 718.0 cf |
| | | | 8.48' x 215.54' Core + 6.66' Border = 21.79' x 228.85' System |
| | | 21,961 cf | Total Available Storage |

Storage Group A created with Chamber Wizard

| Device | Routing | Invert | Outlet Devices |
|--------|-----------|---------|---|
| #1 | Primary | 174.30' | 15.0" Round Culvert |
| | | | L= 60.0' RCP, square edge headwall, Ke= 0.500 |
| | | | Inlet / Outlet Invert= 174.30' / 173.40' S= 0.0150 /' Cc= 0.900 |
| | | | n= 0.013, Flow Area= 1.23 sf |
| #2 | Device 1 | 174.30' | 22.7" W x 6.0" H Vert. Orifice/Grate C= 0.600 |
| #3 | Device 1 | 176.14' | 4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s) |
| #4 | Secondary | 180.10' | 22.0" x 48.0" Horiz. Orifice/Grate C= 0.600 |
| | | | Limited to weir flow at low heads |

Primary OutFlow Max=5.73 cfs @ 12.24 hrs HW=176.14' TW=0.00' (Dynamic Tailwater)

- 1=Culvert (Passes 5.73 cfs of 6.50 cfs potential flow)
- 2=Orifice/Grate (Orifice Controls 5.73 cfs @ 6.06 fps)
- 3=Sharp-Crested Rectangular Weir (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=174.30' (Free Discharge)
4=Orifice/Grate (Controls 0.00 cfs)

Hydrograph for Subcatchment P3: Proposed Tributary To Dr. Martin Luther King Jr. BLVD.

| Time (hours) | Precip. (inches) | Perv.Excess (inches) | Imp.Excess (inches) | Runoff (cfs) |
|--------------|------------------|----------------------|---------------------|--------------|
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2.00 | 0.08 | 0.00 | 0.01 | 0.02 |
| 4.00 | 0.18 | 0.00 | 0.06 | 0.06 |
| 6.00 | 0.29 | 0.00 | 0.14 | 0.09 |
| 8.00 | 0.45 | 0.00 | 0.27 | 0.15 |
| 10.00 | 0.68 | 0.01 | 0.49 | 0.27 |
| 12.00 | 1.65 | 0.36 | 1.43 | 3.32 |
| 14.00 | 2.76 | 1.07 | 2.53 | 0.31 |
| 16.00 | 2.99 | 1.25 | 2.76 | 0.17 |
| 18.00 | 3.15 | 1.36 | 2.91 | 0.12 |
| 20.00 | 3.26 | 1.45 | 3.03 | 0.10 |
| 22.00 | 3.36 | 1.52 | 3.12 | 0.08 |
| 24.00 | 3.44 | 1.59 | 3.21 | 0.07 |
| 26.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 28.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 30.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 32.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 34.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 36.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 38.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 40.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 42.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 44.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 46.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 48.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 50.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 52.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 54.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 56.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 58.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 60.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 62.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 64.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 66.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 68.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 70.00 | 3.44 | 1.59 | 3.21 | 0.00 |
| 72.00 | 3.44 | 1.59 | 3.21 | 0.00 |

Pond B1: Proposed U/G Detention Basin - Chamber Wizard Field A

Chamber Model = StormTrap SingleTrap 5-0 (StormTrap SingleTrap® 5'-0" tall Type II + IV)
Inside= 101.7'W x 60.0'H => 38.33 sf x 15.40'L = 590.2 cf
Outside= 101.7'W x 66.0'H => 46.64 sf x 15.40'L = 718.0 cf

14 Chambers/Row x 15.40' Long = 215.54' Row Length +79.9" Border x 2 = 228.85' Base Length
1 Rows x 101.7" Wide + 79.9" Side Border x 2 = 21.79' Base Width
66.0" Chamber Height = 5.50' Field Height

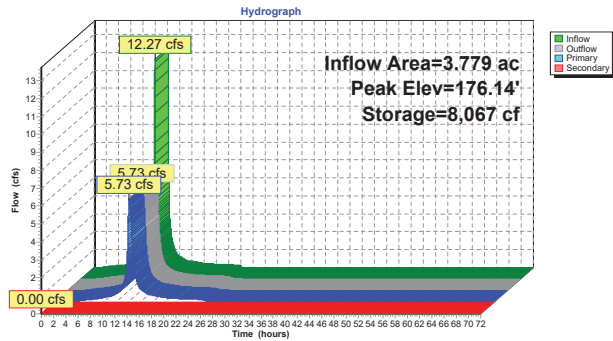
14 Chambers x 590.2 cf + 13,698.3 cf Border = 21,960.9 cf of Chamber Storage
14 Chambers x 718.0 cf + 17,377.2 cf Border = 27,429.1 cf of Displacement

Chamber Storage = 21,960.9 cf = 0.504 af
Overall Storage Efficiency = 80.1%
Overall System Size = 228.85' x 21.79' x 5.50'

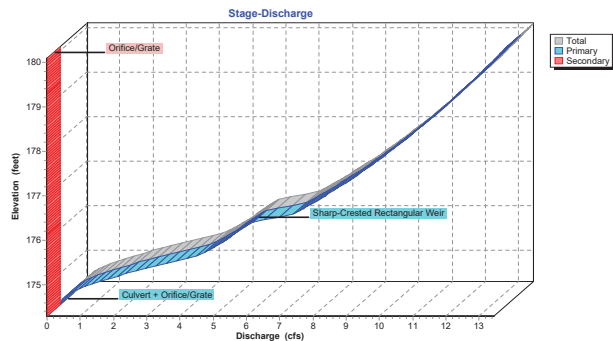
14 Chambers (plus border)
1,015.9 cy Field



Pond B1: Proposed U/G Detention Basin



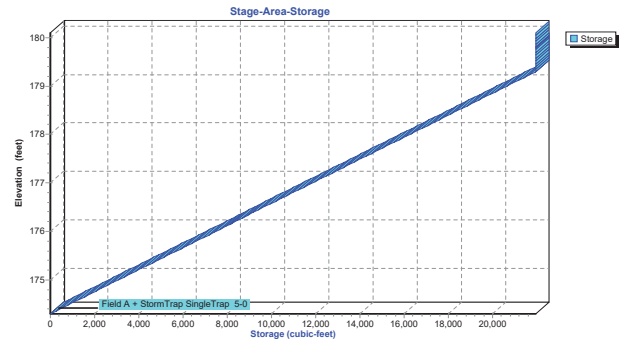
Pond B1: Proposed U/G Detention Basin



Hydrograph for Pond B1: Proposed U/G Detention Basin

| Time (hours) | Inflow (cfs) | Storage (cubic-feet) | Elevation (feet) | Outflow (cfs) | Primary (cfs) | Secondary (cfs) |
|--------------|--------------|----------------------|------------------|---------------|---------------|-----------------|
| 0.00 | 0.00 | 0 | 174.30 | 0.00 | 0.00 | 0.00 |
| 2.00 | 0.05 | 79 | 174.32 | 0.00 | 0.00 | 0.00 |
| 4.00 | 0.13 | 526 | 174.42 | 0.07 | 0.00 | 0.00 |
| 6.00 | 0.18 | 789 | 174.48 | 0.16 | 0.00 | 0.00 |
| 8.00 | 0.30 | 1,032 | 174.54 | 0.26 | 0.00 | 0.00 |
| 10.00 | 0.56 | 1,402 | 174.62 | 0.48 | 0.00 | 0.00 |
| 12.00 | 6.79 | 4,319 | 175.28 | 3.50 | 3.50 | 0.00 |
| 14.00 | 0.64 | 1,820 | 174.71 | 0.78 | 0.78 | 0.00 |
| 16.00 | 0.35 | 1,260 | 174.59 | 0.39 | 0.39 | 0.00 |
| 18.00 | 0.24 | 1,039 | 174.54 | 0.27 | 0.00 | 0.00 |
| 20.00 | 0.20 | 920 | 174.51 | 0.21 | 0.00 | 0.00 |
| 22.00 | 0.17 | 852 | 174.49 | 0.18 | 0.00 | 0.00 |
| 24.00 | 0.14 | 781 | 174.48 | 0.15 | 0.00 | 0.00 |
| 26.00 | 0.00 | 329 | 174.37 | 0.03 | 0.00 | 0.00 |
| 28.00 | 0.00 | 204 | 174.35 | 0.01 | 0.00 | 0.00 |
| 30.00 | 0.00 | 149 | 174.33 | 0.01 | 0.00 | 0.00 |
| 32.00 | 0.00 | 118 | 174.33 | 0.00 | 0.00 | 0.00 |
| 34.00 | 0.00 | 98 | 174.32 | 0.00 | 0.00 | 0.00 |
| 36.00 | 0.00 | 85 | 174.32 | 0.00 | 0.00 | 0.00 |
| 38.00 | 0.00 | 74 | 174.32 | 0.00 | 0.00 | 0.00 |
| 40.00 | 0.00 | 67 | 174.32 | 0.00 | 0.00 | 0.00 |
| 42.00 | 0.00 | 60 | 174.31 | 0.00 | 0.00 | 0.00 |
| 44.00 | 0.00 | 55 | 174.31 | 0.00 | 0.00 | 0.00 |
| 46.00 | 0.00 | 51 | 174.31 | 0.00 | 0.00 | 0.00 |
| 48.00 | 0.00 | 47 | 174.31 | 0.00 | 0.00 | 0.00 |
| 50.00 | 0.00 | 44 | 174.31 | 0.00 | 0.00 | 0.00 |
| 52.00 | 0.00 | 42 | 174.31 | 0.00 | 0.00 | 0.00 |
| 54.00 | 0.00 | 39 | 174.31 | 0.00 | 0.00 | 0.00 |
| 56.00 | 0.00 | 37 | 174.31 | 0.00 | 0.00 | 0.00 |
| 58.00 | 0.00 | 35 | 174.31 | 0.00 | 0.00 | 0.00 |
| 60.00 | 0.00 | 34 | 174.31 | 0.00 | 0.00 | 0.00 |
| 62.00 | 0.00 | 32 | 174.31 | 0.00 | 0.00 | 0.00 |
| 64.00 | 0.00 | 31 | 174.31 | 0.00 | 0.00 | 0.00 |
| 66.00 | 0.00 | 29 | 174.31 | 0.00 | 0.00 | 0.00 |
| 68.00 | 0.00 | 28 | 174.31 | 0.00 | 0.00 | 0.00 |
| 70.00 | 0.00 | 27 | 174.31 | 0.00 | 0.00 | 0.00 |
| 72.00 | 0.00 | 26 | 174.31 | 0.00 | 0.00 | 0.00 |

Pond B1: Proposed U/G Detention Basin



Stage-Discharge for Pond B1: Proposed U/G Detention Basin

| Elevation (feet) | Discharge (cfs) | Primary (cfs) | Secondary (cfs) | Elevation (feet) | Discharge (cfs) | Primary (cfs) | Secondary (cfs) |
|------------------|-----------------|---------------|-----------------|------------------|-----------------|---------------|-----------------|
| 174.30 | 0.00 | 0.00 | 0.00 | 179.50 | 12.64 | 12.64 | 0.00 |
| 174.40 | 0.05 | 0.05 | 0.00 | 179.60 | 12.78 | 12.78 | 0.00 |
| 174.50 | 0.19 | 0.19 | 0.00 | 179.70 | 12.91 | 12.91 | 0.00 |
| 174.60 | 0.42 | 0.42 | 0.00 | 179.80 | 13.05 | 13.05 | 0.00 |
| 174.70 | 0.73 | 0.73 | 0.00 | 179.90 | 13.18 | 13.18 | 0.00 |
| 174.80 | 1.10 | 1.10 | 0.00 | 180.00 | 13.31 | 13.31 | 0.00 |
| 174.90 | 1.54 | 1.54 | 0.00 | 180.10 | 13.44 | 13.44 | 0.00 |
| 175.00 | 2.01 | 2.01 | 0.00 | | | | |
| 175.10 | 2.53 | 2.53 | 0.00 | | | | |
| 175.20 | 3.06 | 3.06 | 0.00 | | | | |
| 175.30 | 3.58 | 3.58 | 0.00 | | | | |
| 175.40 | 4.08 | 4.08 | 0.00 | | | | |
| 175.50 | 4.43 | 4.43 | 0.00 | | | | |
| 175.60 | 4.66 | 4.66 | 0.00 | | | | |
| 175.70 | 4.87 | 4.87 | 0.00 | | | | |
| 175.80 | 5.08 | 5.08 | 0.00 | | | | |
| 175.90 | 5.28 | 5.28 | 0.00 | | | | |
| 176.00 | 5.48 | 5.48 | 0.00 | | | | |
| 176.10 | 5.66 | 5.66 | 0.00 | | | | |
| 176.20 | 6.04 | 6.04 | 0.00 | | | | |
| 176.30 | 6.85 | 6.85 | 0.00 | | | | |
| 176.40 | 7.18 | 7.18 | 0.00 | | | | |
| 176.50 | 7.42 | 7.42 | 0.00 | | | | |
| 176.60 | 7.65 | 7.65 | 0.00 | | | | |
| 176.70 | 7.87 | 7.87 | 0.00 | | | | |
| 176.80 | 8.09 | 8.09 | 0.00 | | | | |
| 176.90 | 8.30 | 8.30 | 0.00 | | | | |
| 177.00 | 8.51 | 8.51 | 0.00 | | | | |
| 177.10 | 8.71 | 8.71 | 0.00 | | | | |
| 177.20 | 8.91 | 8.91 | 0.00 | | | | |
| 177.30 | 9.11 | 9.11 | 0.00 | | | | |
| 177.40 | 9.30 | 9.30 | 0.00 | | | | |
| 177.50 | 9.48 | 9.48 | 0.00 | | | | |
| 177.60 | 9.66 | 9.66 | 0.00 | | | | |
| 177.70 | 9.84 | 9.84 | 0.00 | | | | |
| 177.80 | 10.02 | 10.02 | 0.00 | | | | |
| 177.90 | 10.19 | 10.19 | 0.00 | | | | |
| 178.00 | 10.36 | 10.36 | 0.00 | | | | |
| 178.10 | 10.53 | 10.53 | 0.00 | | | | |
| 178.20 | 10.69 | 10.69 | 0.00 | | | | |
| 178.30 | 10.86 | 10.86 | 0.00 | | | | |
| 178.40 | 11.01 | 11.01 | 0.00 | | | | |
| 178.50 | 11.17 | 11.17 | 0.00 | | | | |
| 178.60 | 11.33 | 11.33 | 0.00 | | | | |
| 178.70 | 11.48 | 11.48 | 0.00 | | | | |
| 178.80 | 11.63 | 11.63 | 0.00 | | | | |
| 178.90 | 11.78 | 11.78 | 0.00 | | | | |
| 179.00 | 11.93 | 11.93 | 0.00 | | | | |
| 179.10 | 12.07 | 12.07 | 0.00 | | | | |
| 179.20 | 12.22 | 12.22 | 0.00 | | | | |
| 179.30 | 12.36 | 12.36 | 0.00 | | | | |
| 179.40 | 12.50 | 12.50 | 0.00 | | | | |

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Prepared by BOHLER ENGINEERING

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NOAA 24-hr D 2-year Rainfall=3.44"

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Stage-Area-Storage for Pond B1: Proposed U/G Detention Basin

| Elevation (feet) | Storage (cubic-feet) | Elevation (feet) | Storage (cubic-feet) | Elevation (feet) | Storage (cubic-feet) |
|---------------------|-------------------------|---------------------|-------------------------|---------------------|-------------------------|
| 174.30 | 0 | 176.38 | 9,136 | 178.46 | 18,271 |
| 174.34 | 176 | 176.42 | 9,311 | 178.50 | 18,447 |
| 174.38 | 351 | 176.46 | 9,487 | 178.54 | 18,623 |
| 174.42 | 527 | 176.50 | 9,663 | 178.58 | 18,798 |
| 174.46 | 703 | 176.54 | 9,838 | 178.62 | 18,974 |
| 174.50 | 878 | 176.58 | 10,014 | 178.66 | 19,150 |
| 174.54 | 1,054 | 176.62 | 10,190 | 178.70 | 19,326 |
| 174.58 | 1,230 | 176.66 | 10,366 | 178.74 | 19,501 |
| 174.62 | 1,405 | 176.70 | 10,541 | 178.78 | 19,677 |
| 174.66 | 1,581 | 176.74 | 10,717 | 178.82 | 19,853 |
| 174.70 | 1,757 | 176.78 | 10,893 | 178.86 | 20,028 |
| 174.74 | 1,933 | 176.82 | 11,068 | 178.90 | 20,204 |
| 174.78 | 2,108 | 176.86 | 11,244 | 178.94 | 20,380 |
| 174.82 | 2,284 | 176.90 | 11,420 | 178.98 | 20,555 |
| 174.86 | 2,460 | 176.94 | 11,595 | 179.02 | 20,731 |
| 174.90 | 2,635 | 176.98 | 11,771 | 179.06 | 20,907 |
| 174.94 | 2,811 | 177.02 | 11,947 | 179.10 | 21,082 |
| 174.98 | 2,987 | 177.06 | 12,122 | 179.14 | 21,258 |
| 175.02 | 3,162 | 177.10 | 12,298 | 179.18 | 21,434 |
| 175.06 | 3,338 | 177.14 | 12,474 | 179.22 | 21,609 |
| 175.10 | 3,514 | 177.18 | 12,649 | 179.26 | 21,785 |
| 175.14 | 3,689 | 177.22 | 12,825 | 179.30 | 21,961 |
| 175.18 | 3,865 | 177.26 | 13,001 | 179.34 | 21,961 |
| 175.22 | 4,041 | 177.30 | 13,177 | 179.38 | 21,961 |
| 175.26 | 4,216 | 177.34 | 13,352 | 179.42 | 21,961 |
| 175.30 | 4,392 | 177.38 | 13,528 | 179.46 | 21,961 |
| 175.34 | 4,568 | 177.42 | 13,704 | 179.50 | 21,961 |
| 175.38 | 4,744 | 177.46 | 13,879 | 179.54 | 21,961 |
| 175.42 | 4,919 | 177.50 | 14,055 | 179.58 | 21,961 |
| 175.46 | 5,095 | 177.54 | 14,231 | 179.62 | 21,961 |
| 175.50 | 5,271 | 177.58 | 14,406 | 179.66 | 21,961 |
| 175.54 | 5,446 | 177.62 | 14,582 | 179.70 | 21,961 |
| 175.58 | 5,622 | 177.66 | 14,758 | 179.74 | 21,961 |
| 175.62 | 5,798 | 177.70 | 14,933 | 179.78 | 21,961 |
| 175.66 | 5,973 | 177.74 | 15,109 | 179.82 | 21,961 |
| 175.70 | 6,149 | 177.78 | 15,285 | 179.86 | 21,961 |
| 175.74 | 6,325 | 177.82 | 15,460 | 179.90 | 21,961 |
| 175.78 | 6,500 | 177.86 | 15,636 | 179.94 | 21,961 |
| 175.82 | 6,676 | 177.90 | 15,812 | 179.98 | 21,961 |
| 175.86 | 6,852 | 177.94 | 15,987 | 180.02 | 21,961 |
| 175.90 | 7,027 | 177.98 | 16,163 | 180.06 | 21,961 |
| 175.94 | 7,203 | 178.02 | 16,339 | 180.10 | 21,961 |
| 175.98 | 7,379 | 178.06 | 16,515 | | |
| 176.02 | 7,555 | 178.10 | 16,690 | | |
| 176.06 | 7,730 | 178.14 | 16,866 | | |
| 176.10 | 7,906 | 178.18 | 17,042 | | |
| 176.14 | 8,082 | 178.22 | 17,217 | | |
| 176.18 | 8,257 | 178.26 | 17,393 | | |
| 176.22 | 8,433 | 178.30 | 17,569 | | |
| 176.26 | 8,609 | 178.34 | 17,744 | | |
| 176.30 | 8,784 | 178.38 | 17,920 | | |
| 176.34 | 8,960 | 178.42 | 18,096 | | |

J180710_0c

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NOAA 24-hr D 2-year Rainfall=3.44"

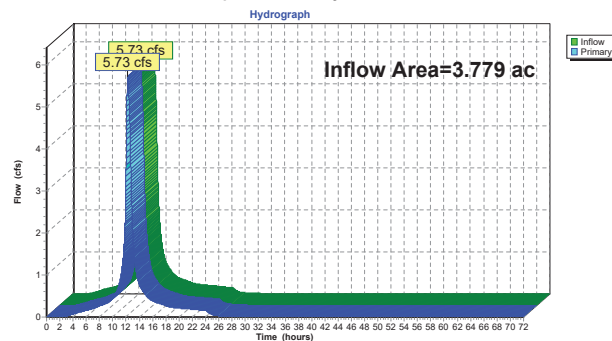
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Summary for Link L1: Proposed Tributary To South Harrison St.

Inflow Area = 3.779 ac, 98.71% Impervious, Inflow Depth = 3.18" for 2-year event
 Inflow = 5.73 cfs @ 12.24 hrs, Volume= 1.003 af
 Primary = 5.73 cfs @ 12.24 hrs, Volume= 1.003 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Link L1: Proposed Tributary To South Harrison St.**J180710_0c**

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NOAA 24-hr D 2-year Rainfall=3.44"

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Hydrograph for Link L1: Proposed Tributary To South Harrison St.

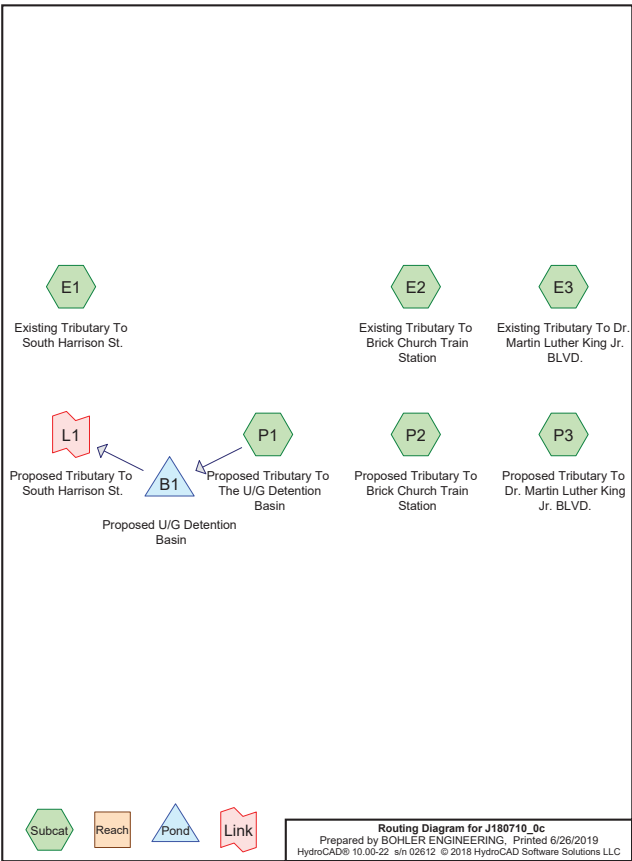
| Time (hours) | Inflow (cfs) | Elevation (feet) | Primary (cfs) | Time (hours) | Inflow (cfs) | Elevation (feet) | Primary (cfs) |
|-----------------|-----------------|---------------------|------------------|-----------------|-----------------|---------------------|------------------|
| 0.00 | 0.00 | 0.00 | 0.00 | 52.00 | 0.00 | 0.00 | 0.00 |
| 1.00 | 0.00 | 0.00 | 0.00 | 53.00 | 0.00 | 0.00 | 0.00 |
| 2.00 | 0.00 | 0.00 | 0.00 | 54.00 | 0.00 | 0.00 | 0.00 |
| 3.00 | 0.02 | 0.00 | 0.02 | 55.00 | 0.00 | 0.00 | 0.00 |
| 4.00 | 0.07 | 0.00 | 0.07 | 56.00 | 0.00 | 0.00 | 0.00 |
| 5.00 | 0.12 | 0.00 | 0.12 | 57.00 | 0.00 | 0.00 | 0.00 |
| 6.00 | 0.16 | 0.00 | 0.16 | 58.00 | 0.00 | 0.00 | 0.00 |
| 7.00 | 0.20 | 0.00 | 0.20 | 59.00 | 0.00 | 0.00 | 0.00 |
| 8.00 | 0.26 | 0.00 | 0.26 | 60.00 | 0.00 | 0.00 | 0.00 |
| 9.00 | 0.33 | 0.00 | 0.33 | 61.00 | 0.00 | 0.00 | 0.00 |
| 10.00 | 0.48 | 0.00 | 0.48 | 62.00 | 0.00 | 0.00 | 0.00 |
| 11.00 | 0.80 | 0.00 | 0.80 | 63.00 | 0.00 | 0.00 | 0.00 |
| 12.00 | 3.50 | 0.00 | 3.50 | 64.00 | 0.00 | 0.00 | 0.00 |
| 13.00 | 2.06 | 0.00 | 2.06 | 65.00 | 0.00 | 0.00 | 0.00 |
| 14.00 | 0.78 | 0.00 | 0.78 | 66.00 | 0.00 | 0.00 | 0.00 |
| 15.00 | 0.52 | 0.00 | 0.52 | 67.00 | 0.00 | 0.00 | 0.00 |
| 16.00 | 0.39 | 0.00 | 0.39 | 68.00 | 0.00 | 0.00 | 0.00 |
| 17.00 | 0.32 | 0.00 | 0.32 | 69.00 | 0.00 | 0.00 | 0.00 |
| 18.00 | 0.27 | 0.00 | 0.27 | 70.00 | 0.00 | 0.00 | 0.00 |
| 19.00 | 0.23 | 0.00 | 0.23 | 71.00 | 0.00 | 0.00 | 0.00 |
| 20.00 | 0.21 | 0.00 | 0.21 | 72.00 | 0.00 | 0.00 | 0.00 |
| 21.00 | 0.20 | 0.00 | 0.20 | | | | |
| 22.00 | 0.18 | 0.00 | 0.18 | | | | |
| 23.00 | 0.17 | 0.00 | 0.17 | | | | |
| 24.00 | 0.15 | 0.00 | 0.15 | | | | |
| 25.00 | 0.06 | 0.00 | 0.06 | | | | |
| 26.00 | 0.03 | 0.00 | 0.03 | | | | |
| 27.00 | 0.02 | 0.00 | 0.02 | | | | |
| 28.00 | 0.01 | 0.00 | 0.01 | | | | |
| 29.00 | 0.01 | 0.00 | 0.01 | | | | |
| 30.00 | 0.01 | 0.00 | 0.01 | | | | |
| 31.00 | 0.00 | 0.00 | 0.00 | | | | |
| 32.00 | 0.00 | 0.00 | 0.00 | | | | |
| 33.00 | 0.00 | 0.00 | 0.00 | | | | |
| 34.00 | 0.00 | 0.00 | 0.00 | | | | |
| 35.00 | 0.00 | 0.00 | 0.00 | | | | |
| 36.00 | 0.00 | 0.00 | 0.00 | | | | |
| 37.00 | 0.00 | 0.00 | 0.00 | | | | |
| 38.00 | 0.00 | 0.00 | 0.00 | | | | |
| 39.00 | 0.00 | 0.00 | 0.00 | | | | |
| 40.00 | 0.00 | 0.00 | 0.00 | | | | |
| 41.00 | 0.00 | 0.00 | 0.00 | | | | |
| 42.00 | 0.00 | 0.00 | 0.00 | | | | |
| 43.00 | 0.00 | 0.00 | 0.00 | | | | |
| 44.00 | 0.00 | 0.00 | 0.00 | | | | |
| 45.00 | 0.00 | 0.00 | 0.00 | | | | |
| 46.00 | 0.00 | 0.00 | 0.00 | | | | |
| 47.00 | 0.00 | 0.00 | 0.00 | | | | |
| 48.00 | 0.00 | 0.00 | 0.00 | | | | |
| 49.00 | 0.00 | 0.00 | 0.00 | | | | |
| 50.00 | 0.00 | 0.00 | 0.00 | | | | |
| 51.00 | 0.00 | 0.00 | 0.00 | | | | |

A. PRE- vs. POST-DEVELOPMENT HYDROGRAPHS

◆ 10-Year Storm Event

Area Listing (all nodes)

| Area (acres) | CN | Description (subcatchment-numbers) |
|-----------------|----|--|
| 0.694 | 80 | >75% Grass cover, Good, HSG D (E1, E2, E3, P1, P2, P3) |
| 18.607 | 98 | Paved parking, HSG D (E1, E2, E3, P1, P2, P3) |
| 19.300 | 97 | TOTAL AREA |



Soil Listing (all nodes)

| Area (acres) | Soil Group | Subcatchment Numbers |
|-----------------|---------------|-------------------------|
| 0.000 | HSG A | |
| 0.000 | HSG B | |
| 0.000 | HSG C | |
| 19.300 | HSG D | E1, E2, E3, P1, P2, P3 |
| 0.000 | Other | |
| 19.300 | TOTAL AREA | |

Ground Covers (all nodes)

| HSG-A (acres) | HSG-B (acres) | HSG-C (acres) | HSG-D (acres) | Other (acres) | Total (acres) | Ground Cover | Subcatchment Numbers |
|------------------|------------------|------------------|------------------|------------------|------------------|------------------------|-------------------------|
| 0.000 | 0.000 | 0.000 | 0.694 | 0.000 | 0.694 | >75% Grass cover, Good | E1, E2, E3, P1, P2, P3 |
| 0.000 | 0.000 | 0.000 | 18.607 | 0.000 | 18.607 | Paved parking | E1, E2, E3, P1, P2, P3 |
| 0.000 | 0.000 | 0.000 | 19.300 | 0.000 | 19.300 | TOTAL AREA | |

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Pipe Listing (all nodes)

| Line# | Node Number | In-Invert (feet) | Out-Invert (feet) | Length (feet) | Slope (ft/ft) | n | Diam/Width (inches) | Height (inches) | Inside-Fill (inches) |
|-------|----------------|---------------------|----------------------|------------------|------------------|-------|------------------------|--------------------|-------------------------|
| 1 | B1 | 174.30 | 173.40 | 60.0 | 0.0150 | 0.013 | 15.0 | 0.0 | 0.0 |

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NOAA 24-hr D 10-year Rainfall=5.22"

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Time span=0.00-72.00 hrs, dt=0.01 hrs, 7201 points x 9
 Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv.
 Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment E1: Existing Tributary To Runoff Area=156,657 sf 94.87% Impervious Runoff Depth=4.89"
 Tc=6.0 min CN=80/98 Runoff=17.67 cfs 1.464 af

Subcatchment E2: Existing Tributary To Runoff Area=177,508 sf 97.00% Impervious Runoff Depth=4.93"
 Tc=6.0 min CN=80/98 Runoff=20.14 cfs 1.673 af

Subcatchment E3: Existing Tributary To Runoff Area=86,196 sf 86.23% Impervious Runoff Depth=4.72"
 Tc=6.0 min CN=80/98 Runoff=9.49 cfs 0.779 af

Subcatchment P1: Proposed Tributary To Runoff Area=164,635 sf 98.71% Impervious Runoff Depth=4.96"
 Tc=6.0 min CN=80/98 Runoff=18.77 cfs 1.562 af

Subcatchment P2: Proposed Tributary To Runoff Area=175,132 sf 98.92% Impervious Runoff Depth=4.96"
 Tc=6.0 min CN=80/98 Runoff=19.98 cfs 1.663 af

Subcatchment P3: Proposed Tributary To Runoff Area=80,594 sf 98.81% Impervious Runoff Depth=4.96"
 Tc=6.0 min CN=80/98 Runoff=9.19 cfs 0.765 af

Pond B1: Proposed U/G Detention Basin Peak Elev=177.07' Storage=12,169 cf Inflow=18.77 cfs 1.562 af
 Primary=8.66 cfs 1.561 af Secondary=0.00 cfs 0.000 af Outflow=8.66 cfs 1.561 af

Link L1: Proposed Tributary To South Harrison St. Inflow=8.66 cfs 1.561 af
 Primary=8.66 cfs 1.561 af

Total Runoff Area = 19,300 ac Runoff Volume = 7,905 af Average Runoff Depth = 4.91"
3.59% Pervious = 0.694 ac 96.41% Impervious = 18,607 ac

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NOAA 24-hr D 10-year Rainfall=5.22"

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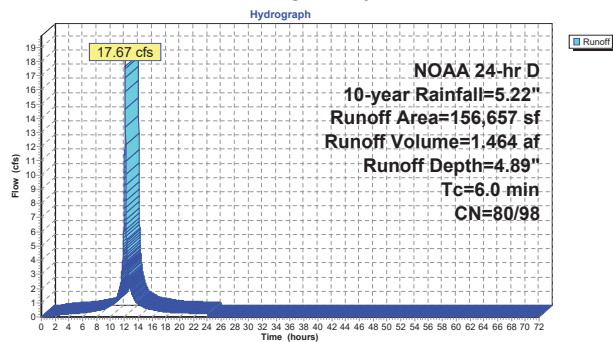
Summary for Subcatchment E1: Existing Tributary To South Harrison St.

Runoff = 17.67 cfs @ 12.13 hrs, Volume= 1.464 af, Depth= 4.89"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 NOAA 24-hr D 10-year Rainfall=5.22"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 8,031 | 80 | >75% Grass cover, Good, HSG D |
| 148,626 | 98 | Paved parking, HSG D |
| 156,657 | 97 | Weighted Average |
| 8,031 | 80 | 5.13% Pervious Area |
| 148,626 | 98 | 94.87% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|-------------|------------------|------------------|----------------------|-------------------|---------------|
| 6.0 | | | | | Direct Entry, |

Subcatchment E1: Existing Tributary To South Harrison St.**J180710_0c**

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NOAA 24-hr D 10-year Rainfall=5.22"

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Hydrograph for Subcatchment E1: Existing Tributary To South Harrison St.

| Time (hours) | Precip. (inches) | Perv.Excess (inches) | Imp.Excess (inches) | Runoff (cfs) |
|-----------------|---------------------|-------------------------|------------------------|-----------------|
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2.00 | 0.13 | 0.00 | 0.02 | 0.11 |
| 4.00 | 0.27 | 0.00 | 0.12 | 0.21 |
| 6.00 | 0.45 | 0.00 | 0.27 | 0.28 |
| 8.00 | 0.68 | 0.01 | 0.48 | 0.45 |
| 10.00 | 1.03 | 0.09 | 0.82 | 0.82 |
| 12.00 | 2.50 | 0.89 | 2.27 | 9.77 |
| 14.00 | 4.19 | 2.20 | 3.95 | 9.92 |
| 16.00 | 4.54 | 2.50 | 4.31 | 0.51 |
| 18.00 | 4.77 | 2.70 | 4.54 | 0.34 |
| 20.00 | 4.95 | 2.85 | 4.71 | 0.29 |
| 22.00 | 5.09 | 2.98 | 4.86 | 0.25 |
| 24.00 | 5.22 | 3.09 | 4.98 | 0.21 |
| 26.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 28.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 30.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 32.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 34.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 36.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 38.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 40.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 42.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 44.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 46.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 48.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 50.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 52.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 54.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 56.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 58.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 60.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 62.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 64.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 66.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 68.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 70.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 72.00 | 5.22 | 3.09 | 4.98 | 0.00 |

Summary for Subcatchment E2: Existing Tributary To Brick Church Train Station

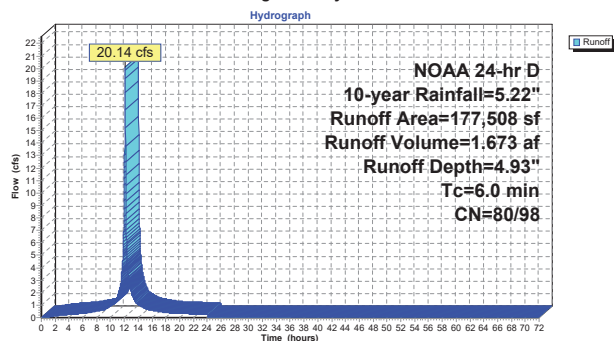
Runoff = 20.14 cfs @ 12.13 hrs, Volume= 1.673 af, Depth= 4.93"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 NOAA 24-hr D 10-year Rainfall=5.22"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 5,334 | 80 | >75% Grass cover, Good, HSG D |
| 172,174 | 98 | Paved parking, HSG D |
| 177,508 | 97 | Weighted Average |
| 5,334 | 80 | 3.00% Pervious Area |
| 172,174 | 98 | 97.00% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---------------|
| 6.0 | | | | | Direct Entry, |

Subcatchment E2: Existing Tributary To Brick Church Train Station



Hydrograph for Subcatchment E2: Existing Tributary To Brick Church Train Station

| Time (hours) | Precip. (inches) | Perv.Excess (inches) | Imp.Excess (inches) | Runoff (cfs) |
|--------------|------------------|----------------------|---------------------|--------------|
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2.00 | 0.13 | 0.00 | 0.02 | 0.13 |
| 4.00 | 0.27 | 0.00 | 0.12 | 0.25 |
| 6.00 | 0.45 | 0.00 | 0.27 | 0.32 |
| 8.00 | 0.68 | 0.01 | 0.48 | 0.52 |
| 10.00 | 1.03 | 0.09 | 0.82 | 0.94 |
| 12.00 | 2.50 | 0.89 | 2.27 | 11.16 |
| 14.00 | 4.19 | 2.20 | 3.95 | 1.04 |
| 16.00 | 4.54 | 2.50 | 4.31 | 0.58 |
| 18.00 | 4.77 | 2.70 | 4.54 | 0.39 |
| 20.00 | 4.95 | 2.85 | 4.71 | 0.33 |
| 22.00 | 5.09 | 2.98 | 4.86 | 0.28 |
| 24.00 | 5.22 | 3.09 | 4.98 | 0.24 |
| 26.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 28.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 30.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 32.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 34.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 36.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 38.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 40.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 42.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 44.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 46.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 48.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 50.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 52.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 54.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 56.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 58.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 60.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 62.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 64.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 66.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 68.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 70.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 72.00 | 5.22 | 3.09 | 4.98 | 0.00 |

Summary for Subcatchment E3: Existing Tributary To Dr. Martin Luther King Jr. BLVD.

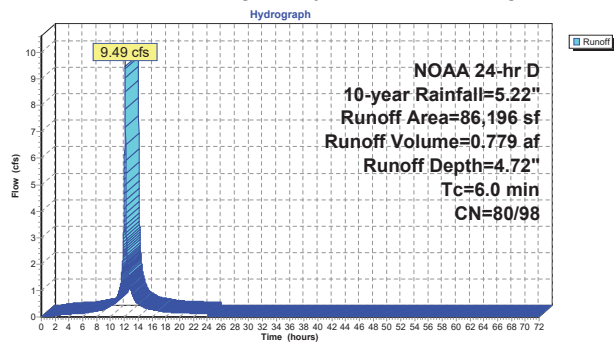
Runoff = 9.49 cfs @ 12.13 hrs, Volume= 0.779 af, Depth= 4.72"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 NOAA 24-hr D 10-year Rainfall=5.22"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 11,871 | 80 | >75% Grass cover, Good, HSG D |
| 74,325 | 98 | Paved parking, HSG D |
| 86,196 | 96 | Weighted Average |
| 11,871 | 80 | 13.77% Pervious Area |
| 74,325 | 98 | 86.23% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---------------|
| 6.0 | | | | | Direct Entry, |

Subcatchment E3: Existing Tributary To Dr. Martin Luther King Jr. BLVD.



Hydrograph for Subcatchment E3: Existing Tributary To Dr. Martin Luther King Jr. BLVD.

| Time (hours) | Precip. (inches) | Perv.Excess (inches) | Imp.Excess (inches) | Runoff (cfs) |
|--------------|------------------|----------------------|---------------------|--------------|
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2.00 | 0.13 | 0.00 | 0.02 | 0.08 |
| 4.00 | 0.27 | 0.00 | 0.12 | 0.11 |
| 6.00 | 0.45 | 0.00 | 0.27 | 0.14 |
| 8.00 | 0.68 | 0.01 | 0.48 | 0.23 |
| 10.00 | 1.03 | 0.09 | 0.82 | 0.42 |
| 12.00 | 2.50 | 0.89 | 2.27 | 5.22 |
| 14.00 | 4.19 | 2.20 | 3.95 | 0.50 |
| 16.00 | 4.54 | 2.50 | 4.31 | 0.28 |
| 18.00 | 4.77 | 2.70 | 4.54 | 0.19 |
| 20.00 | 4.95 | 2.85 | 4.71 | 0.16 |
| 22.00 | 5.09 | 2.98 | 4.86 | 0.14 |
| 24.00 | 5.22 | 3.09 | 4.98 | 0.11 |
| 26.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 28.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 30.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 32.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 34.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 36.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 38.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 40.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 42.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 44.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 46.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 48.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 50.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 52.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 54.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 56.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 58.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 60.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 62.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 64.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 66.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 68.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 70.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 72.00 | 5.22 | 3.09 | 4.98 | 0.00 |

Summary for Subcatchment P1: Proposed Tributary To The U/G Detention Basin

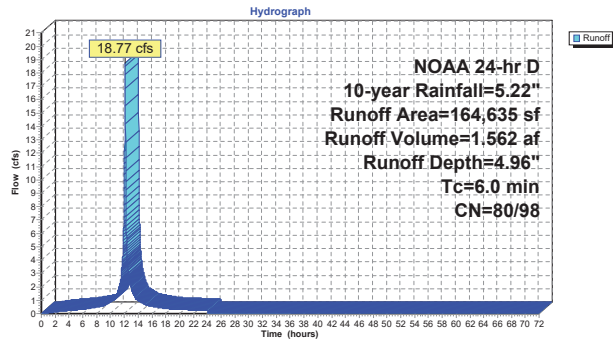
Runoff = 18.77 cfs @ 12.13 hrs, Volume= 1.562 af, Depth= 4.96"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 NOAA 24-hr D 10-year Rainfall=5.22"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 162,504 | 98 | Paved parking, HSG D |
| 2,131 | 80 | >75% Grass cover, Good, HSG D |
| 164,635 | 98 | Weighted Average |
| 2,131 | 80 | 1.29% Pervious Area |
| 162,504 | 98 | 98.71% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---------------|
| 6.0 | | | | | Direct Entry, |

Subcatchment P1: Proposed Tributary To The U/G Detention Basin



Hydrograph for Subcatchment P1: Proposed Tributary To The U/G Detention Basin

| Time (hours) | Precip. (inches) | Perv.Excess (inches) | Imp.Excess (inches) | Runoff (cfs) |
|--------------|------------------|----------------------|---------------------|--------------|
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2.00 | 0.13 | 0.00 | 0.02 | 0.12 |
| 4.00 | 0.27 | 0.00 | 0.12 | 0.23 |
| 6.00 | 0.45 | 0.00 | 0.27 | 0.30 |
| 8.00 | 0.68 | 0.01 | 0.48 | 0.49 |
| 10.00 | 1.03 | 0.09 | 0.82 | 0.88 |
| 12.00 | 2.50 | 0.89 | 2.27 | 10.41 |
| 14.00 | 4.19 | 2.20 | 3.95 | 0.97 |
| 16.00 | 4.54 | 2.50 | 4.31 | 0.54 |
| 18.00 | 4.77 | 2.70 | 4.54 | 0.36 |
| 20.00 | 4.95 | 2.85 | 4.71 | 0.31 |
| 22.00 | 5.09 | 2.98 | 4.86 | 0.26 |
| 24.00 | 5.22 | 3.09 | 4.98 | 0.22 |
| 26.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 28.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 30.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 32.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 34.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 36.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 38.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 40.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 42.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 44.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 46.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 48.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 50.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 52.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 54.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 56.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 58.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 60.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 62.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 64.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 66.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 68.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 70.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 72.00 | 5.22 | 3.09 | 4.98 | 0.00 |

Summary for Subcatchment P2: Proposed Tributary To Brick Church Train Station

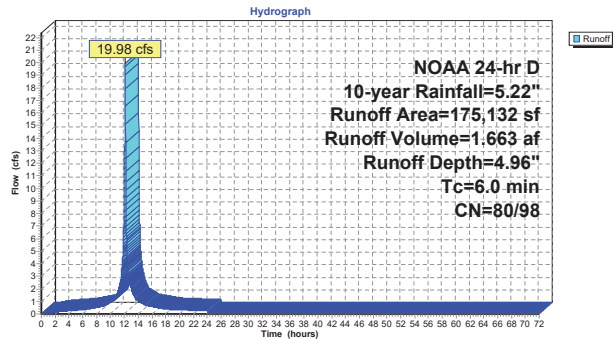
Runoff = 19.98 cfs @ 12.13 hrs, Volume= 1.663 af, Depth= 4.96"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 NOAA 24-hr D 10-year Rainfall=5.22"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 173,242 | 98 | Paved parking, HSG D |
| 1,890 | 80 | >75% Grass cover, Good, HSG D |
| 175,132 | 98 | Weighted Average |
| 1,890 | 80 | 1.08% Pervious Area |
| 173,242 | 98 | 98.92% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---------------|
| 6.0 | | | | | Direct Entry, |

Subcatchment P2: Proposed Tributary To Brick Church Train Station



Hydrograph for Subcatchment P2: Proposed Tributary To Brick Church Train Station

| Time (hours) | Precip. (inches) | Perv.Excess (inches) | Imp.Excess (inches) | Runoff (cfs) |
|--------------|------------------|----------------------|---------------------|--------------|
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2.00 | 0.13 | 0.00 | 0.02 | 0.13 |
| 4.00 | 0.27 | 0.00 | 0.12 | 0.25 |
| 6.00 | 0.45 | 0.00 | 0.27 | 0.32 |
| 8.00 | 0.68 | 0.01 | 0.48 | 0.52 |
| 10.00 | 1.03 | 0.09 | 0.82 | 0.94 |
| 12.00 | 2.50 | 0.89 | 2.27 | 11.08 |
| 14.00 | 4.19 | 2.20 | 3.95 | 1.03 |
| 16.00 | 4.54 | 2.50 | 4.31 | 0.57 |
| 18.00 | 4.77 | 2.70 | 4.54 | 0.38 |
| 20.00 | 4.95 | 2.85 | 4.71 | 0.33 |
| 22.00 | 5.09 | 2.98 | 4.86 | 0.28 |
| 24.00 | 5.22 | 3.09 | 4.98 | 0.23 |
| 26.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 28.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 30.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 32.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 34.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 36.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 38.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 40.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 42.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 44.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 46.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 48.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 50.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 52.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 54.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 56.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 58.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 60.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 62.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 64.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 66.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 68.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 70.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 72.00 | 5.22 | 3.09 | 4.98 | 0.00 |

Summary for Subcatchment P3: Proposed Tributary To Dr. Martin Luther King Jr. BLVD.

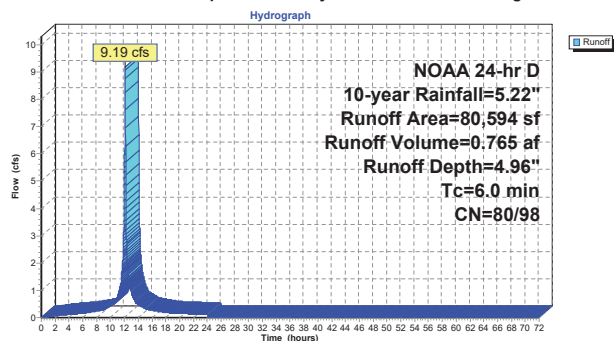
Runoff = 9.19 cfs @ 12.13 hrs, Volume= 0.765 af, Depth= 4.96"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
NOAA 24-hr D 10-year Rainfall=5.22"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 79,635 | 98 | Paved parking, HSG D |
| 959 | 80 | >75% Grass cover, Good, HSG D |
| 80,594 | 98 | Weighted Average |
| 959 | 80 | 1.19% Pervious Area |
| 79,635 | 98 | 98.81% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---------------|
| 6.0 | | | | | Direct Entry, |

Subcatchment P3: Proposed Tributary To Dr. Martin Luther King Jr. BLVD.



Summary for Pond B1: Proposed U/G Detention Basin

Inflow Area = 3,779 ac, 98.71% Impervious, Inflow Depth = 4.96" for 10-year event
Inflow = 18.77 cfs @ 12.13 hrs, Volume= 1.562 af
Outflow = 8.66 cfs @ 12.24 hrs, Volume= 1.561 af, Atten= 54%, Lag= 6.8 min
Primary = 8.66 cfs @ 12.24 hrs, Volume= 1.561 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 9
Peak Elev= 177.07' @ 12.24 hrs Surf.Area= 4,987 sf Storage= 12,169 cf

Plug-Flow detention time= 36.6 min calculated for 1.561 af (100% of inflow)
Center-of-Mass det. time= 36.7 min (785.9 - 749.2)

| Volume | Invert | Avail. Storage | Storage Description |
|--------|---------|----------------|---|
| #1A | 174.30' | 0 cf | 21.79'W x 228.85'L x 5.50'H Field A |
| | | | 27,429 cf Overall - 27,429 cf Embedded = 0 cf x 40.0% Voids |
| #2A | 174.30' | 21,961 cf | StormTrap SingleTrap 5-0 x 14. Inside #1 |
| | | | Inside= 101.7'W x 60.0'H => 38.33 sf x 15.40'L = 590.2 cf |
| | | | Outside= 101.7'W x 66.0'H => 46.64 sf x 15.40'L = 718.0 cf |
| | | | 8.48' x 215.54' Core + 6.66' Border = 21.79' x 228.85' System |
| | | 21,961 cf | Total Available Storage |

Storage Group A created with Chamber Wizard

| Device | Routing | Invert | Outlet Devices |
|--------|-----------|---------|--|
| #1 | Primary | 174.30' | 15.0" Round Culvert |
| | | | L= 60.0' RCP, square edge headwall, Ke= 0.500 |
| | | | Inlet / Outlet Invert= 174.30' / 173.40' S= 0.0150' / n= 0.013, Flow Area= 1.23 sf |
| #2 | Device 1 | 174.30' | 22.7" W x 6.0" H Vert. Orifice/Grate C= 0.600 |
| #3 | Device 1 | 176.14' | 4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s) |
| #4 | Secondary | 180.10' | 22.0" x 48.0" Horiz. Orifice/Grate C= 0.600 |
| | | | Limited to weir flow at low heads |

Primary OutFlow Max=8.65 cfs @ 12.24 hrs HW=177.07' TW=0.00' (Dynamic Tailwater)

- 1=Culvert (Inlet Controls 8.65 cfs @ 7.05 fps)
- 2=Orifice/Grate (Passes < 7.23 cfs potential flow)
- 3=Sharp-Crested Rectangular Weir (Passes < 11.19 cfs potential flow)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=174.30' (Free Discharge)

- 4=Orifice/Grate (Controls 0.00 cfs)

Hydrograph for Subcatchment P3: Proposed Tributary To Dr. Martin Luther King Jr. BLVD.

| Time (hours) | Precip. (inches) | Perv.Excess (inches) | Imp.Excess (inches) | Runoff (cfs) |
|--------------|------------------|----------------------|---------------------|--------------|
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2.00 | 0.13 | 0.00 | 0.02 | 0.06 |
| 4.00 | 0.27 | 0.00 | 0.12 | 0.11 |
| 6.00 | 0.45 | 0.00 | 0.27 | 0.15 |
| 8.00 | 0.68 | 0.01 | 0.48 | 0.24 |
| 10.00 | 1.03 | 0.09 | 0.82 | 0.43 |
| 12.00 | 2.50 | 0.89 | 2.27 | 5.10 |
| 14.00 | 4.19 | 2.20 | 3.95 | 0.47 |
| 16.00 | 4.54 | 2.50 | 4.31 | 0.26 |
| 18.00 | 4.77 | 2.70 | 4.54 | 0.18 |
| 20.00 | 4.95 | 2.85 | 4.71 | 0.15 |
| 22.00 | 5.09 | 2.98 | 4.86 | 0.13 |
| 24.00 | 5.22 | 3.09 | 4.98 | 0.11 |
| 26.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 28.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 30.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 32.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 34.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 36.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 38.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 40.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 42.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 44.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 46.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 48.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 50.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 52.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 54.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 56.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 58.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 60.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 62.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 64.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 66.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 68.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 70.00 | 5.22 | 3.09 | 4.98 | 0.00 |
| 72.00 | 5.22 | 3.09 | 4.98 | 0.00 |

Pond B1: Proposed U/G Detention Basin - Chamber Wizard Field A

Chamber Model = StormTrap SingleTrap 5-0 (StormTrap SingleTrap® 5'-0" tall Type II + IV)
Inside= 101.7'W x 60.0'H => 38.33 sf x 15.40'L = 590.2 cf
Outside= 101.7'W x 66.0'H => 46.64 sf x 15.40'L = 718.0 cf

14 Chambers/Row x 15.40' Long = 215.54' Row Length +79.9' Border x 2 = 228.85' Base Length
1 Rows x 101.7' Wide + 79.9' Side Border x 2 = 21.79' Base Width
66.0" Chamber Height = 5.50' Field Height

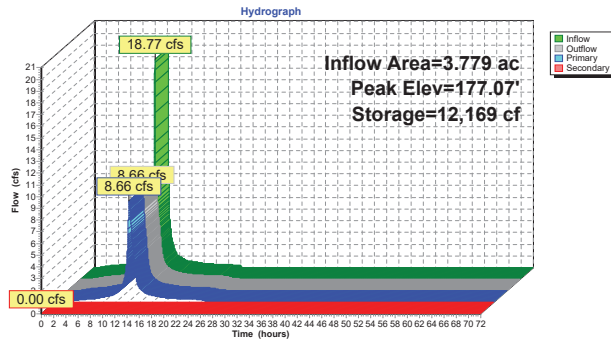
14 Chambers x 590.2 cf + 13,698.3 cf Border = 21,960.9 cf Chamber Storage
14 Chambers x 718.0 cf + 17,377.2 cf Border = 27,429.1 cf Displacement

Chamber Storage = 21,960.9 cf = 0.504 af
Overall Storage Efficiency = 80.1%
Overall System Size = 228.85' x 21.79' x 5.50'

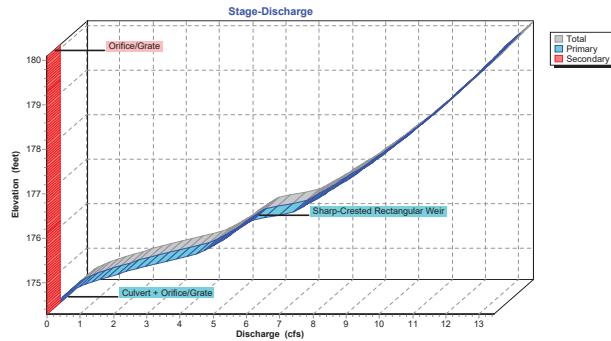
14 Chambers (plus border)
1,015.9 cy Field



Pond B1: Proposed U/G Detention Basin



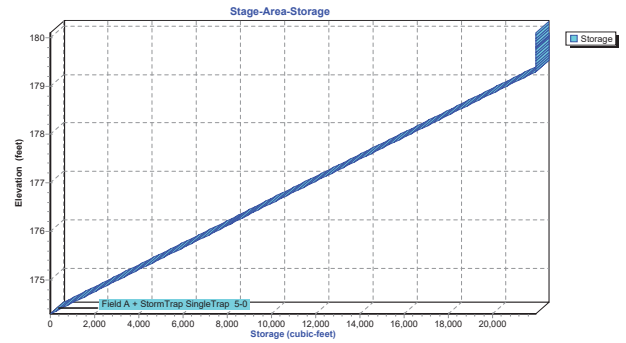
Pond B1: Proposed U/G Detention Basin



Hydrograph for Pond B1: Proposed U/G Detention Basin

| Time (hours) | Inflow (cfs) | Storage (cubic-feet) | Elevation (feet) | Outflow (cfs) | Primary (cfs) | Secondary (cfs) |
|--------------|--------------|----------------------|------------------|---------------|---------------|-----------------|
| 0.00 | 0.00 | 0 | 174.30 | 0.00 | 0.00 | 0.00 |
| 2.00 | 0.12 | 275 | 174.36 | 0.02 | 0.02 | 0.00 |
| 4.00 | 0.23 | 860 | 174.50 | 0.19 | 0.19 | 0.00 |
| 6.00 | 0.30 | 1,071 | 174.54 | 0.28 | 0.28 | 0.00 |
| 8.00 | 0.49 | 1,349 | 174.61 | 0.44 | 0.44 | 0.00 |
| 10.00 | 0.88 | 1,811 | 174.71 | 0.77 | 0.77 | 0.00 |
| 12.00 | 10.41 | 6,000 | 175.67 | 4.80 | 4.80 | 0.00 |
| 14.00 | 0.97 | 2,248 | 174.81 | 1.15 | 1.15 | 0.00 |
| 16.00 | 0.54 | 1,553 | 174.65 | 0.58 | 0.58 | 0.00 |
| 18.00 | 0.36 | 1,280 | 174.59 | 0.40 | 0.40 | 0.00 |
| 20.00 | 0.31 | 1,137 | 174.56 | 0.32 | 0.32 | 0.00 |
| 22.00 | 0.26 | 1,053 | 174.54 | 0.27 | 0.27 | 0.00 |
| 24.00 | 0.22 | 963 | 174.52 | 0.23 | 0.23 | 0.00 |
| 26.00 | 0.00 | 358 | 174.38 | 0.03 | 0.03 | 0.00 |
| 28.00 | 0.00 | 215 | 174.35 | 0.01 | 0.01 | 0.00 |
| 30.00 | 0.00 | 154 | 174.34 | 0.01 | 0.01 | 0.00 |
| 32.00 | 0.00 | 121 | 174.33 | 0.00 | 0.00 | 0.00 |
| 34.00 | 0.00 | 101 | 174.32 | 0.00 | 0.00 | 0.00 |
| 36.00 | 0.00 | 86 | 174.32 | 0.00 | 0.00 | 0.00 |
| 38.00 | 0.00 | 76 | 174.32 | 0.00 | 0.00 | 0.00 |
| 40.00 | 0.00 | 68 | 174.32 | 0.00 | 0.00 | 0.00 |
| 42.00 | 0.00 | 61 | 174.31 | 0.00 | 0.00 | 0.00 |
| 44.00 | 0.00 | 56 | 174.31 | 0.00 | 0.00 | 0.00 |
| 46.00 | 0.00 | 51 | 174.31 | 0.00 | 0.00 | 0.00 |
| 48.00 | 0.00 | 48 | 174.31 | 0.00 | 0.00 | 0.00 |
| 50.00 | 0.00 | 45 | 174.31 | 0.00 | 0.00 | 0.00 |
| 52.00 | 0.00 | 42 | 174.31 | 0.00 | 0.00 | 0.00 |
| 54.00 | 0.00 | 39 | 174.31 | 0.00 | 0.00 | 0.00 |
| 56.00 | 0.00 | 37 | 174.31 | 0.00 | 0.00 | 0.00 |
| 58.00 | 0.00 | 35 | 174.31 | 0.00 | 0.00 | 0.00 |
| 60.00 | 0.00 | 34 | 174.31 | 0.00 | 0.00 | 0.00 |
| 62.00 | 0.00 | 32 | 174.31 | 0.00 | 0.00 | 0.00 |
| 64.00 | 0.00 | 31 | 174.31 | 0.00 | 0.00 | 0.00 |
| 66.00 | 0.00 | 30 | 174.31 | 0.00 | 0.00 | 0.00 |
| 68.00 | 0.00 | 28 | 174.31 | 0.00 | 0.00 | 0.00 |
| 70.00 | 0.00 | 27 | 174.31 | 0.00 | 0.00 | 0.00 |
| 72.00 | 0.00 | 26 | 174.31 | 0.00 | 0.00 | 0.00 |

Pond B1: Proposed U/G Detention Basin



Stage-Discharge for Pond B1: Proposed U/G Detention Basin

| Elevation (feet) | Discharge (cfs) | Primary (cfs) | Secondary (cfs) | Elevation (feet) | Discharge (cfs) | Primary (cfs) | Secondary (cfs) |
|------------------|-----------------|---------------|-----------------|------------------|-----------------|---------------|-----------------|
| 174.30 | 0.00 | 0.00 | 0.00 | 179.50 | 12.64 | 12.64 | 0.00 |
| 174.40 | 0.05 | 0.05 | 0.00 | 179.60 | 12.78 | 12.78 | 0.00 |
| 174.50 | 0.19 | 0.19 | 0.00 | 179.70 | 12.91 | 12.91 | 0.00 |
| 174.60 | 0.42 | 0.42 | 0.00 | 179.80 | 13.05 | 13.05 | 0.00 |
| 174.70 | 0.73 | 0.73 | 0.00 | 179.90 | 13.18 | 13.18 | 0.00 |
| 174.80 | 1.10 | 1.10 | 0.00 | 180.00 | 13.31 | 13.31 | 0.00 |
| 174.90 | 1.54 | 1.54 | 0.00 | 180.10 | 13.44 | 13.44 | 0.00 |
| 175.00 | 2.01 | 2.01 | 0.00 | | | | |
| 175.10 | 2.53 | 2.53 | 0.00 | | | | |
| 175.20 | 3.06 | 3.06 | 0.00 | | | | |
| 175.30 | 3.58 | 3.58 | 0.00 | | | | |
| 175.40 | 4.08 | 4.08 | 0.00 | | | | |
| 175.50 | 4.43 | 4.43 | 0.00 | | | | |
| 175.60 | 4.66 | 4.66 | 0.00 | | | | |
| 175.70 | 4.87 | 4.87 | 0.00 | | | | |
| 175.80 | 5.08 | 5.08 | 0.00 | | | | |
| 175.90 | 5.28 | 5.28 | 0.00 | | | | |
| 176.00 | 5.48 | 5.48 | 0.00 | | | | |
| 176.10 | 5.66 | 5.66 | 0.00 | | | | |
| 176.20 | 6.04 | 6.04 | 0.00 | | | | |
| 176.30 | 6.85 | 6.85 | 0.00 | | | | |
| 176.40 | 7.18 | 7.18 | 0.00 | | | | |
| 176.50 | 7.42 | 7.42 | 0.00 | | | | |
| 176.60 | 7.65 | 7.65 | 0.00 | | | | |
| 176.70 | 7.87 | 7.87 | 0.00 | | | | |
| 176.80 | 8.09 | 8.09 | 0.00 | | | | |
| 176.90 | 8.30 | 8.30 | 0.00 | | | | |
| 177.00 | 8.51 | 8.51 | 0.00 | | | | |
| 177.10 | 8.71 | 8.71 | 0.00 | | | | |
| 177.20 | 8.91 | 8.91 | 0.00 | | | | |
| 177.30 | 9.11 | 9.11 | 0.00 | | | | |
| 177.40 | 9.30 | 9.30 | 0.00 | | | | |
| 177.50 | 9.48 | 9.48 | 0.00 | | | | |
| 177.60 | 9.66 | 9.66 | 0.00 | | | | |
| 177.70 | 9.84 | 9.84 | 0.00 | | | | |
| 177.80 | 10.02 | 10.02 | 0.00 | | | | |
| 177.90 | 10.19 | 10.19 | 0.00 | | | | |
| 178.00 | 10.36 | 10.36 | 0.00 | | | | |
| 178.10 | 10.53 | 10.53 | 0.00 | | | | |
| 178.20 | 10.69 | 10.69 | 0.00 | | | | |
| 178.30 | 10.86 | 10.86 | 0.00 | | | | |
| 178.40 | 11.01 | 11.01 | 0.00 | | | | |
| 178.50 | 11.17 | 11.17 | 0.00 | | | | |
| 178.60 | 11.33 | 11.33 | 0.00 | | | | |
| 178.70 | 11.48 | 11.48 | 0.00 | | | | |
| 178.80 | 11.63 | 11.63 | 0.00 | | | | |
| 178.90 | 11.78 | 11.78 | 0.00 | | | | |
| 179.00 | 11.93 | 11.93 | 0.00 | | | | |
| 179.10 | 12.07 | 12.07 | 0.00 | | | | |
| 179.20 | 12.22 | 12.22 | 0.00 | | | | |
| 179.30 | 12.36 | 12.36 | 0.00 | | | | |
| 179.40 | 12.50 | 12.50 | 0.00 | | | | |

J180710_0c

Prepared by BOHLER ENGINEERING

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NOAA 24-hr D 10-year Rainfall=5.22"

Printed 6/26/2019

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Stage-Area-Storage for Pond B1: Proposed U/G Detention Basin

| Elevation (feet) | Storage (cubic-feet) | Elevation (feet) | Storage (cubic-feet) | Elevation (feet) | Storage (cubic-feet) |
|---------------------|-------------------------|---------------------|-------------------------|---------------------|-------------------------|
| 174.30 | 0 | 176.38 | 9,136 | 178.46 | 18,271 |
| 174.34 | 176 | 176.42 | 9,311 | 178.50 | 18,447 |
| 174.38 | 351 | 176.46 | 9,487 | 178.54 | 18,623 |
| 174.42 | 527 | 176.50 | 9,663 | 178.58 | 18,798 |
| 174.46 | 703 | 176.54 | 9,838 | 178.62 | 18,974 |
| 174.50 | 878 | 176.58 | 10,014 | 178.66 | 19,150 |
| 174.54 | 1,054 | 176.62 | 10,190 | 178.70 | 19,326 |
| 174.58 | 1,230 | 176.66 | 10,366 | 178.74 | 19,501 |
| 174.62 | 1,405 | 176.70 | 10,541 | 178.78 | 19,677 |
| 174.66 | 1,581 | 176.74 | 10,717 | 178.82 | 19,853 |
| 174.70 | 1,757 | 176.78 | 10,893 | 178.86 | 20,028 |
| 174.74 | 1,933 | 176.82 | 11,068 | 178.90 | 20,204 |
| 174.78 | 2,108 | 176.86 | 11,244 | 178.94 | 20,380 |
| 174.82 | 2,284 | 176.90 | 11,420 | 178.98 | 20,555 |
| 174.86 | 2,460 | 176.94 | 11,595 | 179.02 | 20,731 |
| 174.90 | 2,635 | 176.98 | 11,771 | 179.06 | 20,907 |
| 174.94 | 2,811 | 177.02 | 11,947 | 179.10 | 21,082 |
| 174.98 | 2,987 | 177.06 | 12,122 | 179.14 | 21,258 |
| 175.02 | 3,162 | 177.10 | 12,298 | 179.18 | 21,434 |
| 175.06 | 3,338 | 177.14 | 12,474 | 179.22 | 21,609 |
| 175.10 | 3,514 | 177.18 | 12,649 | 179.26 | 21,785 |
| 175.14 | 3,689 | 177.22 | 12,825 | 179.30 | 21,961 |
| 175.18 | 3,865 | 177.26 | 13,001 | 179.34 | 21,961 |
| 175.22 | 4,041 | 177.30 | 13,177 | 179.38 | 21,961 |
| 175.26 | 4,216 | 177.34 | 13,352 | 179.42 | 21,961 |
| 175.30 | 4,392 | 177.38 | 13,528 | 179.46 | 21,961 |
| 175.34 | 4,568 | 177.42 | 13,704 | 179.50 | 21,961 |
| 175.38 | 4,744 | 177.46 | 13,879 | 179.54 | 21,961 |
| 175.42 | 4,919 | 177.50 | 14,055 | 179.58 | 21,961 |
| 175.46 | 5,095 | 177.54 | 14,231 | 179.62 | 21,961 |
| 175.50 | 5,271 | 177.58 | 14,406 | 179.66 | 21,961 |
| 175.54 | 5,446 | 177.62 | 14,582 | 179.70 | 21,961 |
| 175.58 | 5,622 | 177.66 | 14,758 | 179.74 | 21,961 |
| 175.62 | 5,798 | 177.70 | 14,933 | 179.78 | 21,961 |
| 175.66 | 5,973 | 177.74 | 15,109 | 179.82 | 21,961 |
| 175.70 | 6,149 | 177.78 | 15,285 | 179.86 | 21,961 |
| 175.74 | 6,325 | 177.82 | 15,460 | 179.90 | 21,961 |
| 175.78 | 6,500 | 177.86 | 15,636 | 179.94 | 21,961 |
| 175.82 | 6,676 | 177.90 | 15,812 | 179.98 | 21,961 |
| 175.86 | 6,852 | 177.94 | 15,987 | 180.02 | 21,961 |
| 175.90 | 7,027 | 177.98 | 16,163 | 180.06 | 21,961 |
| 175.94 | 7,203 | 178.02 | 16,339 | 180.10 | 21,961 |
| 175.98 | 7,379 | 178.06 | 16,515 | | |
| 176.02 | 7,555 | 178.10 | 16,690 | | |
| 176.06 | 7,730 | 178.14 | 16,866 | | |
| 176.10 | 7,906 | 178.18 | 17,042 | | |
| 176.14 | 8,082 | 178.22 | 17,217 | | |
| 176.18 | 8,257 | 178.26 | 17,393 | | |
| 176.22 | 8,433 | 178.30 | 17,569 | | |
| 176.26 | 8,609 | 178.34 | 17,744 | | |
| 176.30 | 8,784 | 178.38 | 17,920 | | |
| 176.34 | 8,960 | 178.42 | 18,096 | | |

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NOAA 24-hr D 10-year Rainfall=5.22"

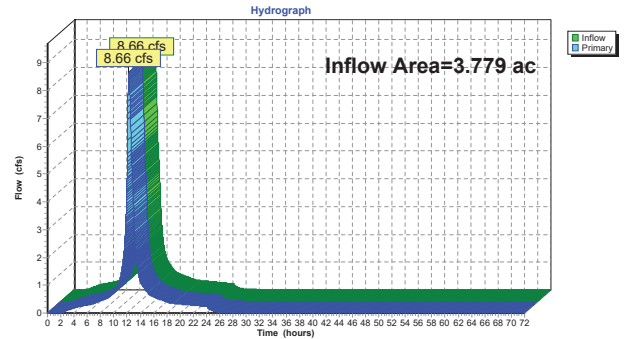
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Summary for Link L1: Proposed Tributary To South Harrison St.

Inflow Area = 3.779 ac, 98.71% Impervious, Inflow Depth = 4.96" for 10-year event
 Inflow = 8.66 cfs @ 12.24 hrs, Volume= 1.561 af
 Primary = 8.66 cfs @ 12.24 hrs, Volume= 1.561 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Link L1: Proposed Tributary To South Harrison St.**J180710_0c**

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NOAA 24-hr D 10-year Rainfall=5.22"

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Hydrograph for Link L1: Proposed Tributary To South Harrison St.

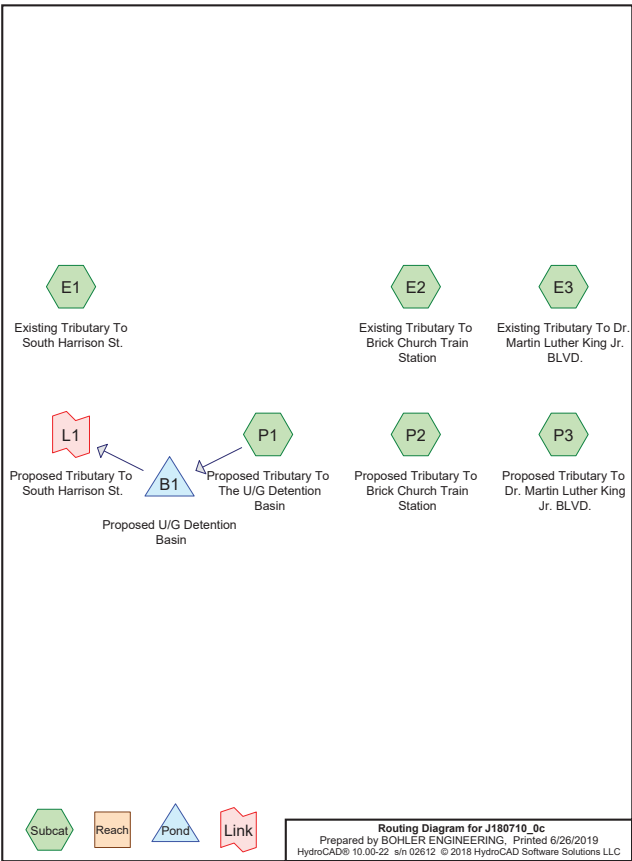
| Time (hours) | Inflow (cfs) | Elevation (feet) | Primary (cfs) | Time (hours) | Inflow (cfs) | Elevation (feet) | Primary (cfs) |
|-----------------|-----------------|---------------------|------------------|-----------------|-----------------|---------------------|------------------|
| 0.00 | 0.00 | 0.00 | 0.00 | 52.00 | 0.00 | 0.00 | 0.00 |
| 1.00 | 0.00 | 0.00 | 0.00 | 53.00 | 0.00 | 0.00 | 0.00 |
| 2.00 | 0.00 | 0.00 | 0.00 | 54.00 | 0.00 | 0.00 | 0.00 |
| 3.00 | 0.10 | 0.00 | 0.10 | 55.00 | 0.00 | 0.00 | 0.00 |
| 4.00 | 0.19 | 0.00 | 0.19 | 56.00 | 0.00 | 0.00 | 0.00 |
| 5.00 | 0.24 | 0.00 | 0.24 | 57.00 | 0.00 | 0.00 | 0.00 |
| 6.00 | 0.28 | 0.00 | 0.28 | 58.00 | 0.00 | 0.00 | 0.00 |
| 7.00 | 0.35 | 0.00 | 0.35 | 59.00 | 0.00 | 0.00 | 0.00 |
| 8.00 | 0.44 | 0.00 | 0.44 | 60.00 | 0.00 | 0.00 | 0.00 |
| 9.00 | 0.54 | 0.00 | 0.54 | 61.00 | 0.00 | 0.00 | 0.00 |
| 10.00 | 0.77 | 0.00 | 0.77 | 62.00 | 0.00 | 0.00 | 0.00 |
| 11.00 | 1.28 | 0.00 | 1.28 | 63.00 | 0.00 | 0.00 | 0.00 |
| 12.00 | 4.80 | 0.00 | 4.80 | 64.00 | 0.00 | 0.00 | 0.00 |
| 13.00 | 3.83 | 0.00 | 3.83 | 65.00 | 0.00 | 0.00 | 0.00 |
| 14.00 | 1.15 | 0.00 | 1.15 | 66.00 | 0.00 | 0.00 | 0.00 |
| 15.00 | 0.76 | 0.00 | 0.76 | 67.00 | 0.00 | 0.00 | 0.00 |
| 16.00 | 0.58 | 0.00 | 0.58 | 68.00 | 0.00 | 0.00 | 0.00 |
| 17.00 | 0.49 | 0.00 | 0.49 | 69.00 | 0.00 | 0.00 | 0.00 |
| 18.00 | 0.40 | 0.00 | 0.40 | 70.00 | 0.00 | 0.00 | 0.00 |
| 19.00 | 0.34 | 0.00 | 0.34 | 71.00 | 0.00 | 0.00 | 0.00 |
| 20.00 | 0.32 | 0.00 | 0.32 | 72.00 | 0.00 | 0.00 | 0.00 |
| 21.00 | 0.30 | 0.00 | 0.30 | | | | |
| 22.00 | 0.27 | 0.00 | 0.27 | | | | |
| 23.00 | 0.25 | 0.00 | 0.25 | | | | |
| 24.00 | 0.23 | 0.00 | 0.23 | | | | |
| 25.00 | 0.07 | 0.00 | 0.07 | | | | |
| 26.00 | 0.03 | 0.00 | 0.03 | | | | |
| 27.00 | 0.02 | 0.00 | 0.02 | | | | |
| 28.00 | 0.01 | 0.00 | 0.01 | | | | |
| 29.00 | 0.01 | 0.00 | 0.01 | | | | |
| 30.00 | 0.01 | 0.00 | 0.01 | | | | |
| 31.00 | 0.00 | 0.00 | 0.00 | | | | |
| 32.00 | 0.00 | 0.00 | 0.00 | | | | |
| 33.00 | 0.00 | 0.00 | 0.00 | | | | |
| 34.00 | 0.00 | 0.00 | 0.00 | | | | |
| 35.00 | 0.00 | 0.00 | 0.00 | | | | |
| 36.00 | 0.00 | 0.00 | 0.00 | | | | |
| 37.00 | 0.00 | 0.00 | 0.00 | | | | |
| 38.00 | 0.00 | 0.00 | 0.00 | | | | |
| 39.00 | 0.00 | 0.00 | 0.00 | | | | |
| 40.00 | 0.00 | 0.00 | 0.00 | | | | |
| 41.00 | 0.00 | 0.00 | 0.00 | | | | |
| 42.00 | 0.00 | 0.00 | 0.00 | | | | |
| 43.00 | 0.00 | 0.00 | 0.00 | | | | |
| 44.00 | 0.00 | 0.00 | 0.00 | | | | |
| 45.00 | 0.00 | 0.00 | 0.00 | | | | |
| 46.00 | 0.00 | 0.00 | 0.00 | | | | |
| 47.00 | 0.00 | 0.00 | 0.00 | | | | |
| 48.00 | 0.00 | 0.00 | 0.00 | | | | |
| 49.00 | 0.00 | 0.00 | 0.00 | | | | |
| 50.00 | 0.00 | 0.00 | 0.00 | | | | |
| 51.00 | 0.00 | 0.00 | 0.00 | | | | |

A. PRE- vs. POST-DEVELOPMENT HYDROGRAPHS

◆ 25-Year Storm Event

Area Listing (all nodes)

| Area (acres) | CN | Description (subcatchment-numbers) |
|-----------------|----|--|
| 0.694 | 80 | >75% Grass cover, Good, HSG D (E1, E2, E3, P1, P2, P3) |
| 18.607 | 98 | Paved parking, HSG D (E1, E2, E3, P1, P2, P3) |
| 19.300 | 97 | TOTAL AREA |



Soil Listing (all nodes)

| Area (acres) | Soil Group | Subcatchment Numbers |
|-----------------|---------------|-------------------------|
| 0.000 | HSG A | |
| 0.000 | HSG B | |
| 0.000 | HSG C | |
| 19.300 | HSG D | E1, E2, E3, P1, P2, P3 |
| 0.000 | Other | |
| 19.300 | TOTAL AREA | |

Ground Covers (all nodes)

| HSG-A (acres) | HSG-B (acres) | HSG-C (acres) | HSG-D (acres) | Other (acres) | Total (acres) | Ground Cover | Subcatchment Numbers |
|------------------|------------------|------------------|------------------|------------------|------------------|------------------------|-------------------------|
| 0.000 | 0.000 | 0.000 | 0.694 | 0.000 | 0.694 | >75% Grass cover, Good | E1, E2, E3, P1, P2, P3 |
| 0.000 | 0.000 | 0.000 | 18.607 | 0.000 | 18.607 | Paved parking | E1, E2, E3, P1, P2, P3 |
| 0.000 | 0.000 | 0.000 | 19.300 | 0.000 | 19.300 | TOTAL AREA | |

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Pipe Listing (all nodes)

| Line# | Node Number | In-Invert (feet) | Out-Invert (feet) | Length (feet) | Slope (ft/ft) | n | Diam/Width (inches) | Height (inches) | Inside-Fill (inches) |
|-------|----------------|---------------------|----------------------|------------------|------------------|-------|------------------------|--------------------|-------------------------|
| 1 | B1 | 174.30 | 173.40 | 60.0 | 0.0150 | 0.013 | 15.0 | 0.0 | 0.0 |

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NOAA 24-hr D 25-year Rainfall=6.44"

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Time span=0.00-72.00 hrs, dt=0.01 hrs, 7201 points x 9

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv.

Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment E1: Existing Tributary To Runoff Area=156,657 sf 94.87% Impervious Runoff Depth=6.10"
Tc=6.0 min CN=80/98 Runoff=21.91 cfs 1.827 af

Subcatchment E2: Existing Tributary To Runoff Area=177,508 sf 97.00% Impervious Runoff Depth=6.14"
Tc=6.0 min CN=80/98 Runoff=24.94 cfs 2.085 af

Subcatchment E3: Existing Tributary To Runoff Area=86,196 sf 86.23% Impervious Runoff Depth=5.92"
Tc=6.0 min CN=80/98 Runoff=11.83 cfs 0.977 af

Subcatchment P1: Proposed Tributary To Runoff Area=164,635 sf 98.71% Impervious Runoff Depth=6.18"
Tc=6.0 min CN=80/98 Runoff=23.21 cfs 1.945 af

Subcatchment P2: Proposed Tributary To Runoff Area=175,132 sf 98.92% Impervious Runoff Depth=6.18"
Tc=6.0 min CN=80/98 Runoff=24.71 cfs 2.070 af

Subcatchment P3: Proposed Tributary To Runoff Area=80,594 sf 98.81% Impervious Runoff Depth=6.18"
Tc=6.0 min CN=80/98 Runoff=11.37 cfs 0.952 af

Pond B1: Proposed U/G Detention Basin Peak Elev=177.79' Storage=15,341 cf Inflow=23.21 cfs 1.945 af
Primary=10.01 cfs 1.944 af Secondary=0.00 cfs 0.000 af Outflow=10.01 cfs 1.944 af

Link L1: Proposed Tributary To South Harrison St. Inflow=10.01 cfs 1.944 af
Primary=10.01 cfs 1.944 af

Total Runoff Area = 19,300 ac Runoff Volume = 9.857 af Average Runoff Depth = 6.13"
3.59% Pervious = 0.694 ac 96.41% Impervious = 18.607 ac

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NOAA 24-hr D 25-year Rainfall=6.44"

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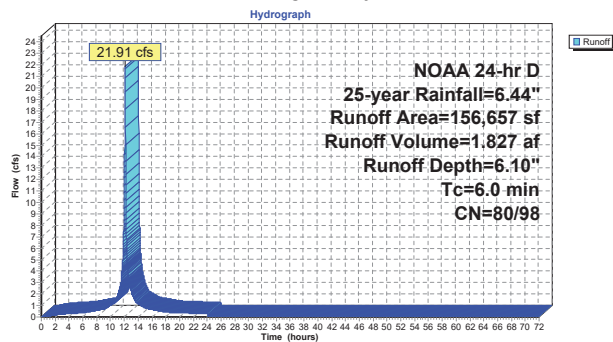
Summary for Subcatchment E1: Existing Tributary To South Harrison St.

Runoff = 21.91 cfs @ 12.13 hrs, Volume= 1.827 af, Depth= 6.10"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
NOAA 24-hr D 25-year Rainfall=6.44"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 8,031 | 80 | >75% Grass cover, Good, HSG D |
| 148,626 | 98 | Paved parking, HSG D |
| 156,657 | 97 | Weighted Average |
| 8,031 | 80 | 5.13% Pervious Area |
| 148,626 | 98 | 94.87% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|-------------|------------------|------------------|----------------------|-------------------|---------------|
| 6.0 | | | | | Direct Entry, |

Subcatchment E1: Existing Tributary To South Harrison St.**J180710_0c**

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NOAA 24-hr D 25-year Rainfall=6.44"

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Hydrograph for Subcatchment E1: Existing Tributary To South Harrison St.

| Time (hours) | Precip. (inches) | Perv.Excess (inches) | Imp.Excess (inches) | Runoff (cfs) |
|-----------------|---------------------|-------------------------|------------------------|-----------------|
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2.00 | 0.15 | 0.00 | 0.04 | 0.16 |
| 4.00 | 0.34 | 0.00 | 0.18 | 0.28 |
| 6.00 | 0.55 | 0.00 | 0.36 | 0.35 |
| 8.00 | 0.84 | 0.04 | 0.63 | 0.56 |
| 10.00 | 1.28 | 0.18 | 1.06 | 1.02 |
| 12.00 | 3.09 | 1.31 | 2.85 | 12.13 |
| 14.00 | 5.16 | 3.04 | 4.93 | 1.13 |
| 16.00 | 5.60 | 3.43 | 5.37 | 0.63 |
| 18.00 | 5.89 | 3.68 | 5.85 | 0.42 |
| 20.00 | 6.10 | 3.87 | 5.86 | 0.36 |
| 22.00 | 6.29 | 4.04 | 6.05 | 0.31 |
| 24.00 | 6.44 | 4.18 | 6.20 | 0.26 |
| 26.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 28.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 30.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 32.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 34.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 36.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 38.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 40.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 42.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 44.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 46.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 48.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 50.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 52.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 54.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 56.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 58.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 60.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 62.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 64.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 66.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 68.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 70.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 72.00 | 6.44 | 4.18 | 6.20 | 0.00 |

Summary for Subcatchment E2: Existing Tributary To Brick Church Train Station

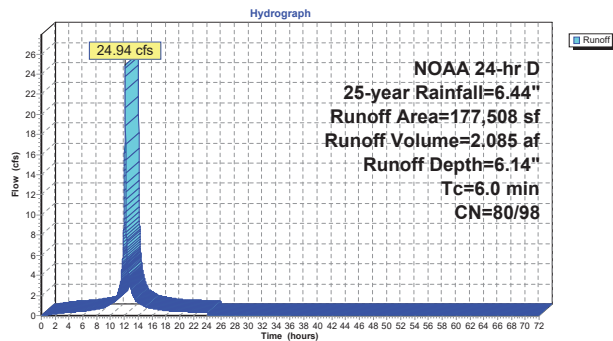
Runoff = 24.94 cfs @ 12.13 hrs, Volume= 2.085 af, Depth= 6.14"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 NOAA 24-hr D 25-year Rainfall=6.44"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 5,334 | 80 | >75% Grass cover, Good, HSG D |
| 172,174 | 98 | Paved parking, HSG D |
| 177,508 | 97 | Weighted Average |
| 5,334 | 80 | 3.00% Pervious Area |
| 172,174 | 98 | 97.00% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---------------|
| 6.0 | | | | | Direct Entry, |

Subcatchment E2: Existing Tributary To Brick Church Train Station



Hydrograph for Subcatchment E2: Existing Tributary To Brick Church Train Station

| Time (hours) | Precip. (inches) | Perv.Excess (inches) | Imp.Excess (inches) | Runoff (cfs) |
|--------------|------------------|----------------------|---------------------|--------------|
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2.00 | 0.15 | 0.00 | 0.04 | 0.19 |
| 4.00 | 0.34 | 0.00 | 0.18 | 0.32 |
| 6.00 | 0.55 | 0.00 | 0.36 | 0.41 |
| 8.00 | 0.84 | 0.04 | 0.63 | 0.65 |
| 10.00 | 1.28 | 0.18 | 1.06 | 1.17 |
| 12.00 | 3.09 | 1.31 | 2.85 | 13.83 |
| 14.00 | 5.16 | 3.04 | 4.93 | 1.29 |
| 16.00 | 5.60 | 3.43 | 5.37 | 0.71 |
| 18.00 | 5.89 | 3.68 | 5.65 | 0.48 |
| 20.00 | 6.10 | 3.87 | 5.98 | 0.41 |
| 22.00 | 6.29 | 4.04 | 6.05 | 0.35 |
| 24.00 | 6.44 | 4.18 | 6.20 | 0.29 |
| 26.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 28.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 30.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 32.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 34.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 36.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 38.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 40.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 42.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 44.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 46.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 48.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 50.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 52.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 54.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 56.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 58.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 60.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 62.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 64.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 66.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 68.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 70.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 72.00 | 6.44 | 4.18 | 6.20 | 0.00 |

Summary for Subcatchment E3: Existing Tributary To Dr. Martin Luther King Jr. BLVD.

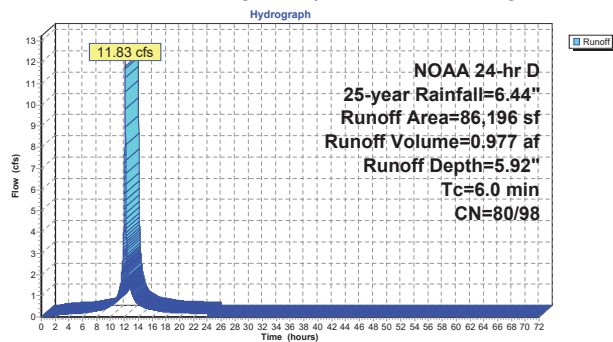
Runoff = 11.83 cfs @ 12.13 hrs, Volume= 0.977 af, Depth= 5.92"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 NOAA 24-hr D 25-year Rainfall=6.44"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 11,871 | 80 | >75% Grass cover, Good, HSG D |
| 74,325 | 98 | Paved parking, HSG D |
| 86,196 | 96 | Weighted Average |
| 11,871 | 80 | 13.77% Pervious Area |
| 74,325 | 98 | 86.23% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---------------|
| 6.0 | | | | | Direct Entry, |

Subcatchment E3: Existing Tributary To Dr. Martin Luther King Jr. BLVD.



Hydrograph for Subcatchment E3: Existing Tributary To Dr. Martin Luther King Jr. BLVD.

| Time (hours) | Precip. (inches) | Perv.Excess (inches) | Imp.Excess (inches) | Runoff (cfs) |
|--------------|------------------|----------------------|---------------------|--------------|
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2.00 | 0.15 | 0.00 | 0.04 | 0.08 |
| 4.00 | 0.34 | 0.00 | 0.18 | 0.14 |
| 6.00 | 0.55 | 0.00 | 0.36 | 0.18 |
| 8.00 | 0.84 | 0.04 | 0.63 | 0.29 |
| 10.00 | 1.28 | 0.18 | 1.06 | 0.53 |
| 12.00 | 3.09 | 1.31 | 2.85 | 6.52 |
| 14.00 | 5.16 | 3.04 | 4.93 | 0.62 |
| 16.00 | 5.60 | 3.43 | 5.37 | 0.34 |
| 18.00 | 5.89 | 3.68 | 5.65 | 0.23 |
| 20.00 | 6.10 | 3.87 | 5.98 | 0.20 |
| 22.00 | 6.29 | 4.04 | 6.05 | 0.17 |
| 24.00 | 6.44 | 4.18 | 6.20 | 0.14 |
| 26.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 28.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 30.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 32.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 34.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 36.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 38.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 40.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 42.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 44.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 46.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 48.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 50.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 52.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 54.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 56.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 58.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 60.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 62.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 64.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 66.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 68.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 70.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 72.00 | 6.44 | 4.18 | 6.20 | 0.00 |

Summary for Subcatchment P1: Proposed Tributary To The U/G Detention Basin

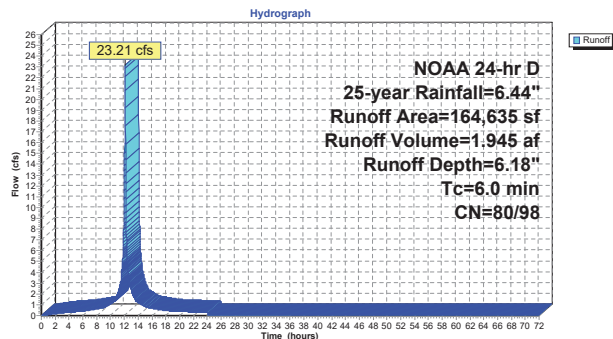
Runoff = 23.21 cfs @ 12.13 hrs, Volume= 1.945 af, Depth= 6.18"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 NOAA 24-hr D 25-year Rainfall=6.44"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 162,504 | 98 | Paved parking, HSG D |
| 2,131 | 80 | >75% Grass cover, Good, HSG D |
| 164,635 | 98 | Weighted Average |
| 2,131 | 80 | 1.29% Pervious Area |
| 162,504 | 98 | 98.71% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---------------|
| 6.0 | | | | | Direct Entry, |

Subcatchment P1: Proposed Tributary To The U/G Detention Basin



Hydrograph for Subcatchment P1: Proposed Tributary To The U/G Detention Basin

| Time (hours) | Precip. (inches) | Perv.Excess (inches) | Imp.Excess (inches) | Runoff (cfs) |
|--------------|------------------|----------------------|---------------------|--------------|
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2.00 | 0.15 | 0.00 | 0.04 | 0.18 |
| 4.00 | 0.34 | 0.00 | 0.18 | 0.31 |
| 6.00 | 0.55 | 0.00 | 0.36 | 0.39 |
| 8.00 | 0.84 | 0.04 | 0.63 | 0.61 |
| 10.00 | 1.28 | 0.18 | 1.06 | 1.10 |
| 12.00 | 3.09 | 1.31 | 2.85 | 12.88 |
| 14.00 | 5.16 | 3.04 | 4.93 | 1.20 |
| 16.00 | 5.60 | 3.43 | 5.37 | 0.66 |
| 18.00 | 5.89 | 3.68 | 5.65 | 0.44 |
| 20.00 | 6.10 | 3.87 | 5.96 | 0.38 |
| 22.00 | 6.29 | 4.04 | 6.05 | 0.32 |
| 24.00 | 6.44 | 4.18 | 6.20 | 0.27 |
| 26.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 28.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 30.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 32.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 34.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 36.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 38.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 40.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 42.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 44.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 46.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 48.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 50.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 52.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 54.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 56.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 58.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 60.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 62.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 64.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 66.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 68.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 70.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 72.00 | 6.44 | 4.18 | 6.20 | 0.00 |

Summary for Subcatchment P2: Proposed Tributary To Brick Church Train Station

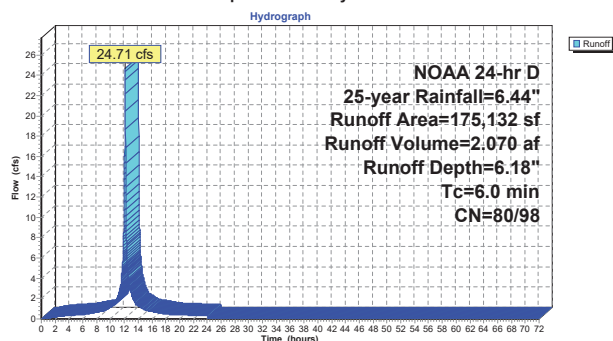
Runoff = 24.71 cfs @ 12.13 hrs, Volume= 2.070 af, Depth= 6.18"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 NOAA 24-hr D 25-year Rainfall=6.44"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 173,242 | 98 | Paved parking, HSG D |
| 1,890 | 80 | >75% Grass cover, Good, HSG D |
| 175,132 | 98 | Weighted Average |
| 1,890 | 80 | 1.08% Pervious Area |
| 173,242 | 98 | 98.92% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---------------|
| 6.0 | | | | | Direct Entry, |

Subcatchment P2: Proposed Tributary To Brick Church Train Station



Hydrograph for Subcatchment P2: Proposed Tributary To Brick Church Train Station

| Time (hours) | Precip. (inches) | Perv.Excess (inches) | Imp.Excess (inches) | Runoff (cfs) |
|--------------|------------------|----------------------|---------------------|--------------|
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2.00 | 0.15 | 0.00 | 0.04 | 0.19 |
| 4.00 | 0.34 | 0.00 | 0.18 | 0.33 |
| 6.00 | 0.55 | 0.00 | 0.36 | 0.41 |
| 8.00 | 0.84 | 0.04 | 0.63 | 0.65 |
| 10.00 | 1.28 | 0.18 | 1.06 | 1.17 |
| 12.00 | 3.09 | 1.31 | 2.85 | 13.71 |
| 14.00 | 5.16 | 3.04 | 4.93 | 1.27 |
| 16.00 | 5.60 | 3.43 | 5.37 | 0.70 |
| 18.00 | 5.89 | 3.68 | 5.65 | 0.47 |
| 20.00 | 6.10 | 3.87 | 5.96 | 0.40 |
| 22.00 | 6.29 | 4.04 | 6.05 | 0.34 |
| 24.00 | 6.44 | 4.18 | 6.20 | 0.29 |
| 26.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 28.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 30.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 32.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 34.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 36.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 38.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 40.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 42.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 44.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 46.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 48.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 50.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 52.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 54.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 56.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 58.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 60.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 62.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 64.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 66.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 68.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 70.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 72.00 | 6.44 | 4.18 | 6.20 | 0.00 |

Summary for Subcatchment P3: Proposed Tributary To Dr. Martin Luther King Jr. BLVD.

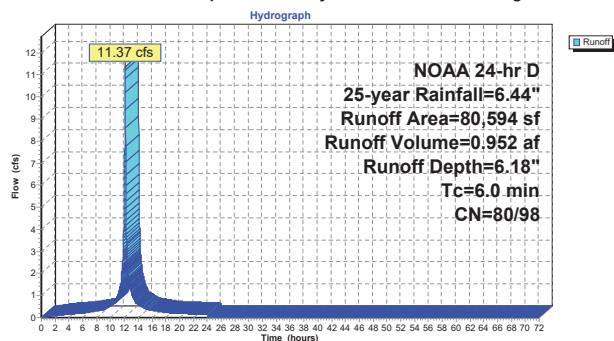
Runoff = 11.37 cfs @ 12.13 hrs, Volume= 0.952 af, Depth= 6.18"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
NOAA 24-hr D 25-year Rainfall=6.44"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 79,635 | 98 | Paved parking, HSG D |
| 959 | 80 | >75% Grass cover, Good, HSG D |
| 80,594 | 98 | Weighted Average |
| 959 | 80 | 1.19% Pervious Area |
| 79,635 | 98 | 98.81% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---------------|
| 6.0 | | | | | Direct Entry, |

Subcatchment P3: Proposed Tributary To Dr. Martin Luther King Jr. BLVD.



Summary for Pond B1: Proposed U/G Detention Basin

Inflow Area = 3.779 ac, 98.71% Impervious, Inflow Depth = 6.18" for 25-year event
Inflow = 23.21 cfs @ 12.13 hrs, Volume= 1.945 af
Outflow = 10.01 cfs @ 12.25 hrs, Volume= 1.944 af, Atten= 57%, Lag= 7.4 min
Primary = 10.01 cfs @ 12.25 hrs, Volume= 1.944 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 9
Peak Elev= 177.79' @ 12.25 hrs Surf.Area= 4,987 sf Storage= 15,341 cf

Plug-Flow detention time= 34.3 min calculated for 1.944 af (100% of inflow)
Center-of-Mass det. time= 34.4 min (780.2 - 745.8)

| Volume | Invert | Avail. Storage | Storage Description |
|--------|---------|----------------|--|
| #1A | 174.30' | 0 cf | 21.79'W x 228.85'L x 5.50'H Field A 27,429 cf Overall - 27,429 cf Embedded = 0 cf x 40.0% Voids |
| #2A | 174.30' | 21,961 cf | StormTrap SingleTrap 5-0 x 14. Inside #1 Inside= 101.7'W x 60.0'H => 38.33 sf x 15.40'L = 590.2 cf Outside= 101.7'W x 66.0'H => 46.64 sf x 15.40'L = 718.0 cf 8.48' x 215.54' Core + 6.66' Border = 21.79' x 228.85' System |
| | | 21,961 cf | Total Available Storage |

Storage Group A created with Chamber Wizard

| Device | Routing | Invert | Outlet Devices |
|--------|-----------|---------|--|
| #1 | Primary | 174.30' | 15.0" Round Culvert L= 60.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 174.30' / 173.40' S= 0.0150' /' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf |
| #2 | Device 1 | 174.30' | 22.7" W x 6.0" H Vert. Orifice/Grate C= 0.600 |
| #3 | Device 1 | 176.14' | 4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s) |
| #4 | Secondary | 180.10' | 22.0" x 48.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads |

Primary OutFlow Max=10.01 cfs @ 12.25 hrs HW=177.79' TW=0.00' (Dynamic Tailwater)

- 1=Culvert (Inlet Controls 10.01 cfs @ 8.15 fps)
- 2=Orifice/Grate (Passes < 8.20 cfs potential flow)
- 3=Sharp-Crested Rectangular Weir (Passes < 25.49 cfs potential flow)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=174.30' (Free Discharge)
4=Orifice/Grate (Controls 0.00 cfs)

Hydrograph for Subcatchment P3: Proposed Tributary To Dr. Martin Luther King Jr. BLVD.

| Time (hours) | Precip. (inches) | Perv.Excess (inches) | Imp.Excess (inches) | Runoff (cfs) |
|--------------|------------------|----------------------|---------------------|--------------|
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2.00 | 0.15 | 0.00 | 0.04 | 0.09 |
| 4.00 | 0.34 | 0.00 | 0.18 | 0.15 |
| 6.00 | 0.55 | 0.00 | 0.36 | 0.19 |
| 8.00 | 0.84 | 0.04 | 0.63 | 0.30 |
| 10.00 | 1.28 | 0.18 | 1.06 | 0.54 |
| 12.00 | 3.09 | 1.31 | 2.85 | 6.31 |
| 14.00 | 5.16 | 3.04 | 4.93 | 0.59 |
| 16.00 | 5.60 | 3.43 | 5.37 | 0.32 |
| 18.00 | 5.89 | 3.69 | 5.65 | 0.22 |
| 20.00 | 6.10 | 3.87 | 5.96 | 0.19 |
| 22.00 | 6.29 | 4.04 | 6.05 | 0.16 |
| 24.00 | 6.44 | 4.18 | 6.20 | 0.13 |
| 26.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 28.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 30.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 32.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 34.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 36.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 38.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 40.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 42.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 44.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 46.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 48.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 50.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 52.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 54.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 56.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 58.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 60.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 62.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 64.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 66.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 68.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 70.00 | 6.44 | 4.18 | 6.20 | 0.00 |
| 72.00 | 6.44 | 4.18 | 6.20 | 0.00 |

Pond B1: Proposed U/G Detention Basin - Chamber Wizard Field A

Chamber Model = StormTrap SingleTrap 5-0 (StormTrap SingleTrap® 5'-0" tall Type II + IV)
Inside= 101.7'W x 60.0'H => 38.33 sf x 15.40'L = 590.2 cf
Outside= 101.7'W x 66.0'H => 46.64 sf x 15.40'L = 718.0 cf

14 Chambers/Row x 15.40' Long = 215.54' Row Length +79.9" Border x 2 = 228.85' Base Length
1 Rows x 101.7" Wide + 79.9" Side Border x 2 = 21.79' Base Width
66.0" Chamber Height = 5.50' Field Height

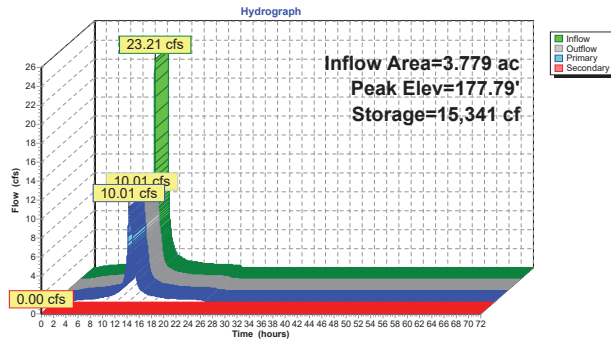
14 Chambers x 590.2 cf + 13,698.3 cf Border = 21,960.9 cf of Chamber Storage
14 Chambers x 718.0 cf + 17,377.2 cf Border = 27,429.1 cf of Displacement

Chamber Storage = 21,960.9 cf = 0.504 af
Overall Storage Efficiency = 80.1%
Overall System Size = 228.85' x 21.79' x 5.50'

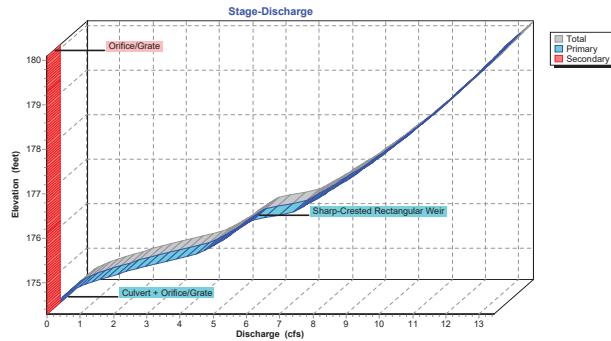
14 Chambers (plus border)
1,015.9 cy Field



Pond B1: Proposed U/G Detention Basin



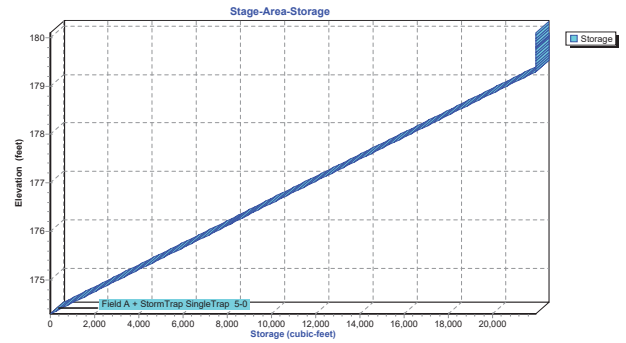
Pond B1: Proposed U/G Detention Basin



Hydrograph for Pond B1: Proposed U/G Detention Basin

| Time (hours) | Inflow (cfs) | Storage (cubic-feet) | Elevation (feet) | Outflow (cfs) | Primary (cfs) | Secondary (cfs) |
|--------------|--------------|----------------------|------------------|---------------|---------------|-----------------|
| 0.00 | 0.00 | 0 | 174.30 | 0.00 | 0.00 | 0.00 |
| 2.00 | 0.18 | 435 | 174.40 | 0.05 | 0.05 | 0.00 |
| 4.00 | 0.31 | 1,035 | 174.54 | 0.27 | 0.27 | 0.00 |
| 6.00 | 0.39 | 1,227 | 174.58 | 0.37 | 0.37 | 0.00 |
| 8.00 | 0.61 | 1,533 | 174.65 | 0.56 | 0.56 | 0.00 |
| 10.00 | 1.10 | 2,053 | 174.77 | 0.98 | 0.98 | 0.00 |
| 12.00 | 12.88 | 7,321 | 175.97 | 5.41 | 5.41 | 0.00 |
| 14.00 | 1.20 | 2,522 | 174.87 | 1.42 | 1.42 | 0.00 |
| 16.00 | 0.66 | 1,730 | 174.69 | 0.71 | 0.71 | 0.00 |
| 18.00 | 0.44 | 1,423 | 174.62 | 0.49 | 0.49 | 0.00 |
| 20.00 | 0.38 | 1,266 | 174.59 | 0.39 | 0.39 | 0.00 |
| 22.00 | 0.32 | 1,172 | 174.57 | 0.34 | 0.34 | 0.00 |
| 24.00 | 0.27 | 1,071 | 174.54 | 0.28 | 0.28 | 0.00 |
| 26.00 | 0.00 | 373 | 174.38 | 0.04 | 0.04 | 0.00 |
| 28.00 | 0.00 | 220 | 174.35 | 0.01 | 0.01 | 0.00 |
| 30.00 | 0.00 | 157 | 174.34 | 0.01 | 0.01 | 0.00 |
| 32.00 | 0.00 | 123 | 174.33 | 0.00 | 0.00 | 0.00 |
| 34.00 | 0.00 | 102 | 174.32 | 0.00 | 0.00 | 0.00 |
| 36.00 | 0.00 | 87 | 174.32 | 0.00 | 0.00 | 0.00 |
| 38.00 | 0.00 | 76 | 174.32 | 0.00 | 0.00 | 0.00 |
| 40.00 | 0.00 | 68 | 174.32 | 0.00 | 0.00 | 0.00 |
| 42.00 | 0.00 | 61 | 174.31 | 0.00 | 0.00 | 0.00 |
| 44.00 | 0.00 | 56 | 174.31 | 0.00 | 0.00 | 0.00 |
| 46.00 | 0.00 | 52 | 174.31 | 0.00 | 0.00 | 0.00 |
| 48.00 | 0.00 | 48 | 174.31 | 0.00 | 0.00 | 0.00 |
| 50.00 | 0.00 | 45 | 174.31 | 0.00 | 0.00 | 0.00 |
| 52.00 | 0.00 | 42 | 174.31 | 0.00 | 0.00 | 0.00 |
| 54.00 | 0.00 | 40 | 174.31 | 0.00 | 0.00 | 0.00 |
| 56.00 | 0.00 | 37 | 174.31 | 0.00 | 0.00 | 0.00 |
| 58.00 | 0.00 | 36 | 174.31 | 0.00 | 0.00 | 0.00 |
| 60.00 | 0.00 | 34 | 174.31 | 0.00 | 0.00 | 0.00 |
| 62.00 | 0.00 | 32 | 174.31 | 0.00 | 0.00 | 0.00 |
| 64.00 | 0.00 | 31 | 174.31 | 0.00 | 0.00 | 0.00 |
| 66.00 | 0.00 | 30 | 174.31 | 0.00 | 0.00 | 0.00 |
| 68.00 | 0.00 | 28 | 174.31 | 0.00 | 0.00 | 0.00 |
| 70.00 | 0.00 | 27 | 174.31 | 0.00 | 0.00 | 0.00 |
| 72.00 | 0.00 | 26 | 174.31 | 0.00 | 0.00 | 0.00 |

Pond B1: Proposed U/G Detention Basin



Stage-Discharge for Pond B1: Proposed U/G Detention Basin

| Elevation (feet) | Discharge (cfs) | Primary (cfs) | Secondary (cfs) | Elevation (feet) | Discharge (cfs) | Primary (cfs) | Secondary (cfs) |
|------------------|-----------------|---------------|-----------------|------------------|-----------------|---------------|-----------------|
| 174.30 | 0.00 | 0.00 | 0.00 | 179.50 | 12.64 | 12.64 | 0.00 |
| 174.40 | 0.05 | 0.05 | 0.00 | 179.60 | 12.78 | 12.78 | 0.00 |
| 174.50 | 0.19 | 0.19 | 0.00 | 179.70 | 12.91 | 12.91 | 0.00 |
| 174.60 | 0.42 | 0.42 | 0.00 | 179.80 | 13.05 | 13.05 | 0.00 |
| 174.70 | 0.73 | 0.73 | 0.00 | 179.90 | 13.18 | 13.18 | 0.00 |
| 174.80 | 1.10 | 1.10 | 0.00 | 180.00 | 13.31 | 13.31 | 0.00 |
| 174.90 | 1.54 | 1.54 | 0.00 | 180.10 | 13.44 | 13.44 | 0.00 |
| 175.00 | 2.01 | 2.01 | 0.00 | | | | |
| 175.10 | 2.53 | 2.53 | 0.00 | | | | |
| 175.20 | 3.06 | 3.06 | 0.00 | | | | |
| 175.30 | 3.58 | 3.58 | 0.00 | | | | |
| 175.40 | 4.08 | 4.08 | 0.00 | | | | |
| 175.50 | 4.43 | 4.43 | 0.00 | | | | |
| 175.60 | 4.66 | 4.66 | 0.00 | | | | |
| 175.70 | 4.87 | 4.87 | 0.00 | | | | |
| 175.80 | 5.08 | 5.08 | 0.00 | | | | |
| 175.90 | 5.28 | 5.28 | 0.00 | | | | |
| 176.00 | 5.48 | 5.48 | 0.00 | | | | |
| 176.10 | 5.66 | 5.66 | 0.00 | | | | |
| 176.20 | 6.04 | 6.04 | 0.00 | | | | |
| 176.30 | 6.85 | 6.85 | 0.00 | | | | |
| 176.40 | 7.18 | 7.18 | 0.00 | | | | |
| 176.50 | 7.42 | 7.42 | 0.00 | | | | |
| 176.60 | 7.65 | 7.65 | 0.00 | | | | |
| 176.70 | 7.87 | 7.87 | 0.00 | | | | |
| 176.80 | 8.09 | 8.09 | 0.00 | | | | |
| 176.90 | 8.30 | 8.30 | 0.00 | | | | |
| 177.00 | 8.51 | 8.51 | 0.00 | | | | |
| 177.10 | 8.71 | 8.71 | 0.00 | | | | |
| 177.20 | 8.91 | 8.91 | 0.00 | | | | |
| 177.30 | 9.11 | 9.11 | 0.00 | | | | |
| 177.40 | 9.30 | 9.30 | 0.00 | | | | |
| 177.50 | 9.48 | 9.48 | 0.00 | | | | |
| 177.60 | 9.66 | 9.66 | 0.00 | | | | |
| 177.70 | 9.84 | 9.84 | 0.00 | | | | |
| 177.80 | 10.02 | 10.02 | 0.00 | | | | |
| 177.90 | 10.19 | 10.19 | 0.00 | | | | |
| 178.00 | 10.36 | 10.36 | 0.00 | | | | |
| 178.10 | 10.53 | 10.53 | 0.00 | | | | |
| 178.20 | 10.69 | 10.69 | 0.00 | | | | |
| 178.30 | 10.86 | 10.86 | 0.00 | | | | |
| 178.40 | 11.01 | 11.01 | 0.00 | | | | |
| 178.50 | 11.17 | 11.17 | 0.00 | | | | |
| 178.60 | 11.33 | 11.33 | 0.00 | | | | |
| 178.70 | 11.48 | 11.48 | 0.00 | | | | |
| 178.80 | 11.63 | 11.63 | 0.00 | | | | |
| 178.90 | 11.78 | 11.78 | 0.00 | | | | |
| 179.00 | 11.93 | 11.93 | 0.00 | | | | |
| 179.10 | 12.07 | 12.07 | 0.00 | | | | |
| 179.20 | 12.22 | 12.22 | 0.00 | | | | |
| 179.30 | 12.36 | 12.36 | 0.00 | | | | |
| 179.40 | 12.50 | 12.50 | 0.00 | | | | |

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NOAA 24-hr D 25-year Rainfall=6.44"

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Stage-Area-Storage for Pond B1: Proposed U/G Detention Basin

| Elevation (feet) | Storage (cubic-feet) | Elevation (feet) | Storage (cubic-feet) | Elevation (feet) | Storage (cubic-feet) |
|---------------------|-------------------------|---------------------|-------------------------|---------------------|-------------------------|
| 174.30 | 0 | 176.38 | 9,136 | 178.46 | 18,271 |
| 174.34 | 176 | 176.42 | 9,311 | 178.50 | 18,447 |
| 174.38 | 351 | 176.46 | 9,487 | 178.54 | 18,623 |
| 174.42 | 527 | 176.50 | 9,663 | 178.58 | 18,798 |
| 174.46 | 703 | 176.54 | 9,838 | 178.62 | 18,974 |
| 174.50 | 878 | 176.58 | 10,014 | 178.66 | 19,150 |
| 174.54 | 1,054 | 176.62 | 10,190 | 178.70 | 19,326 |
| 174.58 | 1,230 | 176.66 | 10,366 | 178.74 | 19,501 |
| 174.62 | 1,405 | 176.70 | 10,541 | 178.78 | 19,677 |
| 174.66 | 1,581 | 176.74 | 10,717 | 178.82 | 19,853 |
| 174.70 | 1,757 | 176.78 | 10,893 | 178.86 | 20,028 |
| 174.74 | 1,933 | 176.82 | 11,068 | 178.90 | 20,204 |
| 174.78 | 2,108 | 176.86 | 11,244 | 178.94 | 20,380 |
| 174.82 | 2,284 | 176.90 | 11,420 | 178.98 | 20,555 |
| 174.86 | 2,460 | 176.94 | 11,595 | 179.02 | 20,731 |
| 174.90 | 2,635 | 176.98 | 11,771 | 179.06 | 20,907 |
| 174.94 | 2,811 | 177.02 | 11,947 | 179.10 | 21,082 |
| 174.98 | 2,987 | 177.06 | 12,122 | 179.14 | 21,258 |
| 175.02 | 3,162 | 177.10 | 12,298 | 179.18 | 21,434 |
| 175.06 | 3,338 | 177.14 | 12,474 | 179.22 | 21,609 |
| 175.10 | 3,514 | 177.18 | 12,649 | 179.26 | 21,785 |
| 175.14 | 3,689 | 177.22 | 12,825 | 179.30 | 21,961 |
| 175.18 | 3,865 | 177.26 | 13,001 | 179.34 | 21,961 |
| 175.22 | 4,041 | 177.30 | 13,177 | 179.38 | 21,961 |
| 175.26 | 4,216 | 177.34 | 13,352 | 179.42 | 21,961 |
| 175.30 | 4,392 | 177.38 | 13,528 | 179.46 | 21,961 |
| 175.34 | 4,568 | 177.42 | 13,704 | 179.50 | 21,961 |
| 175.38 | 4,744 | 177.46 | 13,879 | 179.54 | 21,961 |
| 175.42 | 4,919 | 177.50 | 14,055 | 179.58 | 21,961 |
| 175.46 | 5,095 | 177.54 | 14,231 | 179.62 | 21,961 |
| 175.50 | 5,271 | 177.58 | 14,406 | 179.66 | 21,961 |
| 175.54 | 5,446 | 177.62 | 14,582 | 179.70 | 21,961 |
| 175.58 | 5,622 | 177.66 | 14,758 | 179.74 | 21,961 |
| 175.62 | 5,798 | 177.70 | 14,933 | 179.78 | 21,961 |
| 175.66 | 5,973 | 177.74 | 15,109 | 179.82 | 21,961 |
| 175.70 | 6,149 | 177.78 | 15,285 | 179.86 | 21,961 |
| 175.74 | 6,325 | 177.82 | 15,460 | 179.90 | 21,961 |
| 175.78 | 6,500 | 177.86 | 15,636 | 179.94 | 21,961 |
| 175.82 | 6,676 | 177.90 | 15,812 | 179.98 | 21,961 |
| 175.86 | 6,852 | 177.94 | 15,987 | 180.02 | 21,961 |
| 175.90 | 7,027 | 177.98 | 16,163 | 180.06 | 21,961 |
| 175.94 | 7,203 | 178.02 | 16,339 | 180.10 | 21,961 |
| 175.98 | 7,379 | 178.06 | 16,515 | | |
| 176.02 | 7,555 | 178.10 | 16,690 | | |
| 176.06 | 7,730 | 178.14 | 16,866 | | |
| 176.10 | 7,906 | 178.18 | 17,042 | | |
| 176.14 | 8,082 | 178.22 | 17,217 | | |
| 176.18 | 8,257 | 178.26 | 17,393 | | |
| 176.22 | 8,433 | 178.30 | 17,569 | | |
| 176.26 | 8,609 | 178.34 | 17,744 | | |
| 176.30 | 8,784 | 178.38 | 17,920 | | |
| 176.34 | 8,960 | 178.42 | 18,096 | | |

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NOAA 24-hr D 25-year Rainfall=6.44"

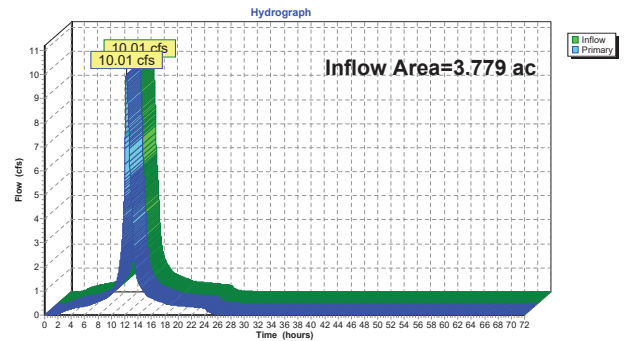
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Summary for Link L1: Proposed Tributary To South Harrison St.

Inflow Area = 3.779 ac, 98.71% Impervious, Inflow Depth = 6.17" for 25-year event
 Inflow = 10.01 cfs @ 12.25 hrs, Volume= 1,944 af
 Primary = 10.01 cfs @ 12.25 hrs, Volume= 1,944 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Link L1: Proposed Tributary To South Harrison St.**J180710_0c**

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NOAA 24-hr D 25-year Rainfall=6.44"

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Hydrograph for Link L1: Proposed Tributary To South Harrison St.

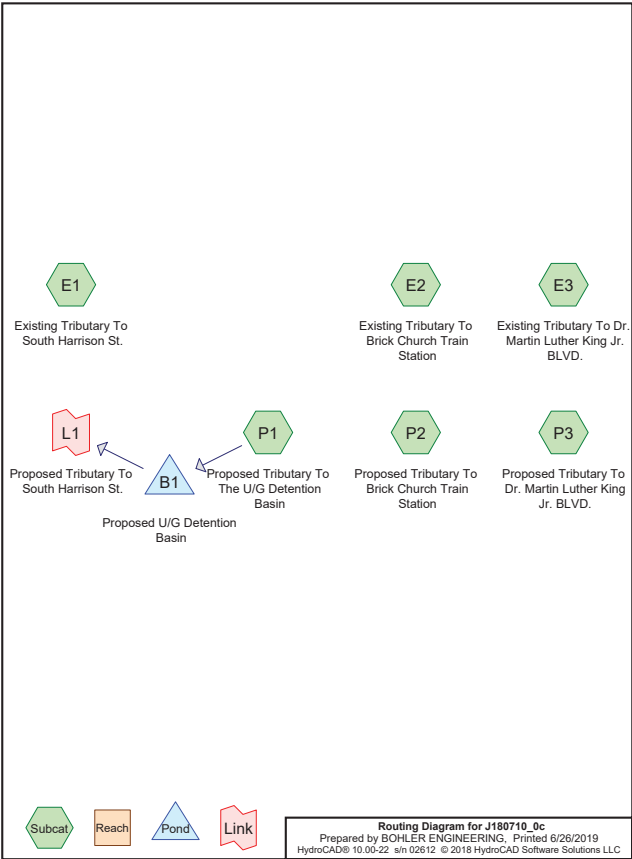
| Time (hours) | Inflow (cfs) | Elevation (feet) | Primary (cfs) | Time (hours) | Inflow (cfs) | Elevation (feet) | Primary (cfs) |
|-----------------|-----------------|---------------------|------------------|-----------------|-----------------|---------------------|------------------|
| 0.00 | 0.00 | 0.00 | 0.00 | 52.00 | 0.00 | 0.00 | 0.00 |
| 1.00 | 0.00 | 0.00 | 0.00 | 53.00 | 0.00 | 0.00 | 0.00 |
| 2.00 | 0.05 | 0.00 | 0.05 | 54.00 | 0.00 | 0.00 | 0.00 |
| 3.00 | 0.17 | 0.00 | 0.17 | 55.00 | 0.00 | 0.00 | 0.00 |
| 4.00 | 0.27 | 0.00 | 0.27 | 56.00 | 0.00 | 0.00 | 0.00 |
| 5.00 | 0.32 | 0.00 | 0.32 | 57.00 | 0.00 | 0.00 | 0.00 |
| 6.00 | 0.37 | 0.00 | 0.37 | 58.00 | 0.00 | 0.00 | 0.00 |
| 7.00 | 0.45 | 0.00 | 0.45 | 59.00 | 0.00 | 0.00 | 0.00 |
| 8.00 | 0.56 | 0.00 | 0.56 | 60.00 | 0.00 | 0.00 | 0.00 |
| 9.00 | 0.68 | 0.00 | 0.68 | 61.00 | 0.00 | 0.00 | 0.00 |
| 10.00 | 0.98 | 0.00 | 0.98 | 62.00 | 0.00 | 0.00 | 0.00 |
| 11.00 | 1.62 | 0.00 | 1.62 | 63.00 | 0.00 | 0.00 | 0.00 |
| 12.00 | 5.41 | 0.00 | 5.41 | 64.00 | 0.00 | 0.00 | 0.00 |
| 13.00 | 4.89 | 0.00 | 4.89 | 65.00 | 0.00 | 0.00 | 0.00 |
| 14.00 | 1.42 | 0.00 | 1.42 | 66.00 | 0.00 | 0.00 | 0.00 |
| 15.00 | 0.93 | 0.00 | 0.93 | 67.00 | 0.00 | 0.00 | 0.00 |
| 16.00 | 0.71 | 0.00 | 0.71 | 68.00 | 0.00 | 0.00 | 0.00 |
| 17.00 | 0.60 | 0.00 | 0.60 | 69.00 | 0.00 | 0.00 | 0.00 |
| 18.00 | 0.49 | 0.00 | 0.49 | 70.00 | 0.00 | 0.00 | 0.00 |
| 19.00 | 0.42 | 0.00 | 0.42 | 71.00 | 0.00 | 0.00 | 0.00 |
| 20.00 | 0.39 | 0.00 | 0.39 | 72.00 | 0.00 | 0.00 | 0.00 |
| 21.00 | 0.36 | 0.00 | 0.36 | | | | |
| 22.00 | 0.34 | 0.00 | 0.34 | | | | |
| 23.00 | 0.31 | 0.00 | 0.31 | | | | |
| 24.00 | 0.28 | 0.00 | 0.28 | | | | |
| 25.00 | 0.08 | 0.00 | 0.08 | | | | |
| 26.00 | 0.04 | 0.00 | 0.04 | | | | |
| 27.00 | 0.02 | 0.00 | 0.02 | | | | |
| 28.00 | 0.01 | 0.00 | 0.01 | | | | |
| 29.00 | 0.01 | 0.00 | 0.01 | | | | |
| 30.00 | 0.01 | 0.00 | 0.01 | | | | |
| 31.00 | 0.00 | 0.00 | 0.00 | | | | |
| 32.00 | 0.00 | 0.00 | 0.00 | | | | |
| 33.00 | 0.00 | 0.00 | 0.00 | | | | |
| 34.00 | 0.00 | 0.00 | 0.00 | | | | |
| 35.00 | 0.00 | 0.00 | 0.00 | | | | |
| 36.00 | 0.00 | 0.00 | 0.00 | | | | |
| 37.00 | 0.00 | 0.00 | 0.00 | | | | |
| 38.00 | 0.00 | 0.00 | 0.00 | | | | |
| 39.00 | 0.00 | 0.00 | 0.00 | | | | |
| 40.00 | 0.00 | 0.00 | 0.00 | | | | |
| 41.00 | 0.00 | 0.00 | 0.00 | | | | |
| 42.00 | 0.00 | 0.00 | 0.00 | | | | |
| 43.00 | 0.00 | 0.00 | 0.00 | | | | |
| 44.00 | 0.00 | 0.00 | 0.00 | | | | |
| 45.00 | 0.00 | 0.00 | 0.00 | | | | |
| 46.00 | 0.00 | 0.00 | 0.00 | | | | |
| 47.00 | 0.00 | 0.00 | 0.00 | | | | |
| 48.00 | 0.00 | 0.00 | 0.00 | | | | |
| 49.00 | 0.00 | 0.00 | 0.00 | | | | |
| 50.00 | 0.00 | 0.00 | 0.00 | | | | |
| 51.00 | 0.00 | 0.00 | 0.00 | | | | |

A. PRE- vs. POST-DEVELOPMENT HYDROGRAPHS

◆ 100-Year Storm Event

Area Listing (all nodes)

| Area (acres) | CN | Description (subcatchment-numbers) |
|-----------------|----|--|
| 0.694 | 80 | >75% Grass cover, Good, HSG D (E1, E2, E3, P1, P2, P3) |
| 18.607 | 98 | Paved parking, HSG D (E1, E2, E3, P1, P2, P3) |
| 19.300 | 97 | TOTAL AREA |



Soil Listing (all nodes)

| Area (acres) | Soil Group | Subcatchment Numbers |
|-----------------|---------------|-------------------------|
| 0.000 | HSG A | |
| 0.000 | HSG B | |
| 0.000 | HSG C | |
| 19.300 | HSG D | E1, E2, E3, P1, P2, P3 |
| 0.000 | Other | |
| 19.300 | TOTAL AREA | |

Ground Covers (all nodes)

| HSG-A (acres) | HSG-B (acres) | HSG-C (acres) | HSG-D (acres) | Other (acres) | Total (acres) | Ground Cover | Subcatchment Numbers |
|------------------|------------------|------------------|------------------|------------------|------------------|------------------------|-------------------------|
| 0.000 | 0.000 | 0.000 | 0.694 | 0.000 | 0.694 | >75% Grass cover, Good | E1, E2, E3, P1, P2, P3 |
| 0.000 | 0.000 | 0.000 | 18.607 | 0.000 | 18.607 | Paved parking | E1, E2, E3, P1, P2, P3 |
| 0.000 | 0.000 | 0.000 | 19.300 | 0.000 | 19.300 | TOTAL AREA | |

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Pipe Listing (all nodes)

| Line# | Node Number | In-Invert (feet) | Out-Invert (feet) | Length (feet) | Slope (ft/ft) | n | Diam/Width (inches) | Height (inches) | Inside-Fill (inches) |
|-------|-------------|------------------|-------------------|---------------|---------------|-------|---------------------|-----------------|----------------------|
| 1 | B1 | 174.30 | 173.40 | 60.0 | 0.0150 | 0.013 | 15.0 | 0.0 | 0.0 |

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NOAA 24-hr D 100-year Rainfall=8.66"

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Time span=0.00-72.00 hrs, dt=0.01 hrs, 7201 points x 9

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv.

Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment E1: Existing Tributary To Runoff Area=156,657 sf 94.87% Impervious Runoff Depth=8.31"
Tc=6.0 min CN=80/98 Runoff=29.61 cfs 2.490 af

Subcatchment E2: Existing Tributary To Runoff Area=177,508 sf 97.00% Impervious Runoff Depth=8.35"
Tc=6.0 min CN=80/98 Runoff=33.65 cfs 2.837 af

Subcatchment E3: Existing Tributary To Runoff Area=86,196 sf 86.23% Impervious Runoff Depth=8.12"
Tc=6.0 min CN=80/98 Runoff=16.08 cfs 1.339 af

Subcatchment P1: Proposed Tributary To Runoff Area=164,635 sf 98.71% Impervious Runoff Depth=8.39"
Tc=6.0 min CN=80/98 Runoff=31.29 cfs 2.643 af

Subcatchment P2: Proposed Tributary To Runoff Area=175,132 sf 98.92% Impervious Runoff Depth=8.40"
Tc=6.0 min CN=80/98 Runoff=33.30 cfs 2.813 af

Subcatchment P3: Proposed Tributary To Runoff Area=80,594 sf 98.81% Impervious Runoff Depth=8.39"
Tc=6.0 min CN=80/98 Runoff=15.32 cfs 1.294 af

Pond B1: Proposed U/G Detention Basin Peak Elev=179.21' Storage=21,578 cf Inflow=31.29 cfs 2.643 af
Primary=12.24 cfs 2.642 af Secondary=0.00 cfs 0.000 af Outflow=12.24 cfs 2.642 af

Link L1: Proposed Tributary To South Harrison St. Inflow=12.24 cfs 2.642 af
Primary=12.24 cfs 2.642 af

Total Runoff Area = 19,300 ac Runoff Volume = 13,416 af Average Runoff Depth = 8.34"
3.59% Pervious = 0.694 ac 96.41% Impervious = 18,607 ac

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NOAA 24-hr D 100-year Rainfall=8.66"

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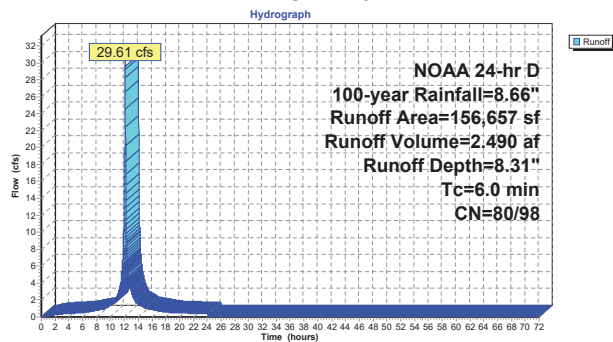
Summary for Subcatchment E1: Existing Tributary To South Harrison St.

Runoff = 29.61 cfs @ 12.13 hrs, Volume= 2.490 af, Depth= 8.31"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
NOAA 24-hr D 100-year Rainfall=8.66"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 8,031 | 80 | >75% Grass cover, Good, HSG D |
| 148,626 | 98 | Paved parking, HSG D |
| 156,657 | 97 | Weighted Average |
| 8,031 | 80 | 5.13% Pervious Area |
| 148,626 | 98 | 94.87% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---------------|
| 6.0 | | | | | Direct Entry, |

Subcatchment E1: Existing Tributary To South Harrison St.**J180710_0c**

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NOAA 24-hr D 100-year Rainfall=8.66"

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Hydrograph for Subcatchment E1: Existing Tributary To South Harrison St.

| Time (hours) | Precip. (inches) | Perv.Excess (inches) | Imp.Excess (inches) | Runoff (cfs) |
|--------------|------------------|----------------------|---------------------|--------------|
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2.00 | 0.21 | 0.00 | 0.08 | 0.26 |
| 4.00 | 0.45 | 0.00 | 0.28 | 0.40 |
| 6.00 | 0.74 | 0.02 | 0.54 | 0.50 |
| 8.00 | 1.12 | 0.12 | 0.91 | 0.78 |
| 10.00 | 1.72 | 0.40 | 1.49 | 1.40 |
| 12.00 | 4.15 | 2.17 | 3.91 | 16.42 |
| 14.00 | 6.94 | 4.64 | 6.70 | 1.53 |
| 16.00 | 7.54 | 5.19 | 7.30 | 0.85 |
| 18.00 | 7.92 | 5.55 | 7.68 | 0.57 |
| 20.00 | 8.21 | 5.82 | 7.97 | 0.48 |
| 22.00 | 8.45 | 6.05 | 8.21 | 0.41 |
| 24.00 | 8.66 | 6.25 | 8.42 | 0.35 |
| 26.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 28.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 30.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 32.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 34.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 36.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 38.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 40.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 42.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 44.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 46.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 48.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 50.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 52.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 54.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 56.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 58.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 60.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 62.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 64.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 66.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 68.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 70.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 72.00 | 8.66 | 6.25 | 8.42 | 0.00 |

Summary for Subcatchment E2: Existing Tributary To Brick Church Train Station

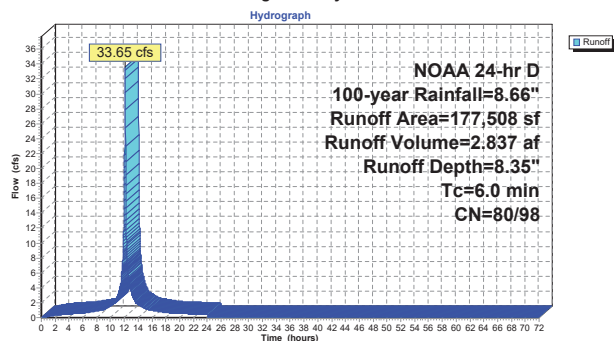
Runoff = 33.65 cfs @ 12.13 hrs, Volume= 2.837 af, Depth= 8.35"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 NOAA 24-hr D 100-year Rainfall=8.66"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 5,334 | 80 | >75% Grass cover, Good, HSG D |
| 172,174 | 98 | Paved parking, HSG D |
| 177,508 | 97 | Weighted Average |
| 5,334 | 80 | 3.00% Pervious Area |
| 172,174 | 98 | 97.00% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---------------|
| 6.0 | | | | | Direct Entry, |

Subcatchment E2: Existing Tributary To Brick Church Train Station



Hydrograph for Subcatchment E2: Existing Tributary To Brick Church Train Station

| Time (hours) | Precip. (inches) | Perv.Excess (inches) | Imp.Excess (inches) | Runoff (cfs) |
|--------------|------------------|----------------------|---------------------|--------------|
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2.00 | 0.21 | 0.00 | 0.08 | 0.30 |
| 4.00 | 0.45 | 0.00 | 0.28 | 0.47 |
| 6.00 | 0.74 | 0.02 | 0.54 | 0.57 |
| 8.00 | 1.12 | 0.12 | 0.91 | 0.89 |
| 10.00 | 1.72 | 0.40 | 1.49 | 1.60 |
| 12.00 | 4.15 | 2.17 | 3.91 | 18.68 |
| 14.00 | 6.94 | 4.64 | 6.70 | 1.73 |
| 16.00 | 7.54 | 5.19 | 7.30 | 0.96 |
| 18.00 | 7.92 | 5.55 | 7.68 | 0.64 |
| 20.00 | 8.21 | 5.82 | 7.97 | 0.55 |
| 22.00 | 8.45 | 6.05 | 8.21 | 0.47 |
| 24.00 | 8.66 | 6.25 | 8.42 | 0.39 |
| 26.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 28.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 30.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 32.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 34.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 36.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 38.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 40.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 42.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 44.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 46.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 48.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 50.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 52.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 54.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 56.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 58.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 60.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 62.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 64.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 66.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 68.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 70.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 72.00 | 8.66 | 6.25 | 8.42 | 0.00 |

Summary for Subcatchment E3: Existing Tributary To Dr. Martin Luther King Jr. BLVD.

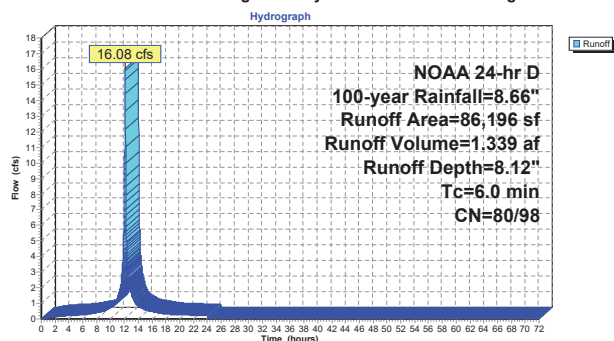
Runoff = 16.08 cfs @ 12.13 hrs, Volume= 1.339 af, Depth= 8.12"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 NOAA 24-hr D 100-year Rainfall=8.66"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 11,871 | 80 | >75% Grass cover, Good, HSG D |
| 74,325 | 98 | Paved parking, HSG D |
| 86,196 | 96 | Weighted Average |
| 11,871 | 80 | 13.77% Pervious Area |
| 74,325 | 98 | 86.23% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---------------|
| 6.0 | | | | | Direct Entry, |

Subcatchment E3: Existing Tributary To Dr. Martin Luther King Jr. BLVD.



Hydrograph for Subcatchment E3: Existing Tributary To Dr. Martin Luther King Jr. BLVD.

| Time (hours) | Precip. (inches) | Perv.Excess (inches) | Imp.Excess (inches) | Runoff (cfs) |
|--------------|------------------|----------------------|---------------------|--------------|
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2.00 | 0.21 | 0.00 | 0.08 | 0.13 |
| 4.00 | 0.45 | 0.00 | 0.28 | 0.20 |
| 6.00 | 0.74 | 0.02 | 0.54 | 0.25 |
| 8.00 | 1.12 | 0.12 | 0.91 | 0.40 |
| 10.00 | 1.72 | 0.40 | 1.49 | 0.74 |
| 12.00 | 4.15 | 2.17 | 3.91 | 8.88 |
| 14.00 | 6.94 | 4.64 | 6.70 | 0.83 |
| 16.00 | 7.54 | 5.19 | 7.30 | 0.46 |
| 18.00 | 7.92 | 5.55 | 7.68 | 0.31 |
| 20.00 | 8.21 | 5.82 | 7.97 | 0.26 |
| 22.00 | 8.45 | 6.05 | 8.21 | 0.23 |
| 24.00 | 8.66 | 6.25 | 8.42 | 0.19 |
| 26.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 28.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 30.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 32.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 34.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 36.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 38.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 40.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 42.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 44.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 46.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 48.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 50.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 52.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 54.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 56.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 58.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 60.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 62.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 64.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 66.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 68.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 70.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 72.00 | 8.66 | 6.25 | 8.42 | 0.00 |

Summary for Subcatchment P1: Proposed Tributary To The U/G Detention Basin

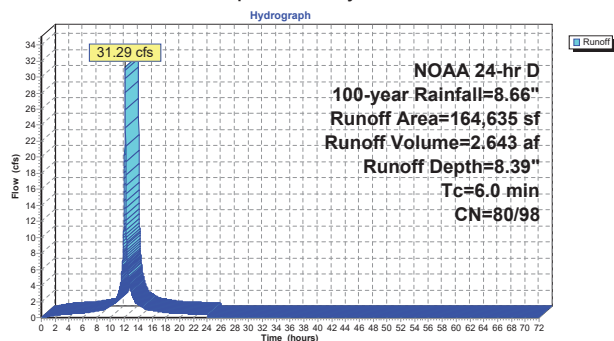
Runoff = 31.29 cfs @ 12.13 hrs, Volume= 2.643 af, Depth= 8.39"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 NOAA 24-hr D 100-year Rainfall=8.66"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 162,504 | 98 | Paved parking, HSG D |
| 2,131 | 80 | >75% Grass cover, Good, HSG D |
| 164,635 | 98 | Weighted Average |
| 2,131 | 80 | 1.29% Pervious Area |
| 162,504 | 98 | 98.71% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---------------|
| 6.0 | | | | | Direct Entry, |

Subcatchment P1: Proposed Tributary To The U/G Detention Basin



Hydrograph for Subcatchment P1: Proposed Tributary To The U/G Detention Basin

| Time (hours) | Precip. (inches) | Perv.Excess (inches) | Imp.Excess (inches) | Runoff (cfs) |
|--------------|------------------|----------------------|---------------------|--------------|
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2.00 | 0.21 | 0.00 | 0.08 | 0.29 |
| 4.00 | 0.45 | 0.00 | 0.28 | 0.44 |
| 6.00 | 0.74 | 0.02 | 0.54 | 0.84 |
| 8.00 | 1.12 | 0.12 | 0.91 | 1.49 |
| 10.00 | 1.72 | 0.40 | 1.49 | 1.49 |
| 12.00 | 4.15 | 2.17 | 3.91 | 17.38 |
| 14.00 | 6.94 | 4.64 | 6.70 | 1.61 |
| 16.00 | 7.54 | 5.19 | 7.30 | 0.89 |
| 18.00 | 7.92 | 5.55 | 7.68 | 0.60 |
| 20.00 | 8.21 | 5.82 | 7.97 | 0.51 |
| 22.00 | 8.45 | 6.05 | 8.21 | 0.44 |
| 24.00 | 8.66 | 6.25 | 8.42 | 0.36 |
| 26.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 28.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 30.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 32.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 34.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 36.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 38.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 40.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 42.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 44.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 46.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 48.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 50.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 52.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 54.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 56.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 58.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 60.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 62.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 64.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 66.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 68.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 70.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 72.00 | 8.66 | 6.25 | 8.42 | 0.00 |

Summary for Subcatchment P2: Proposed Tributary To Brick Church Train Station

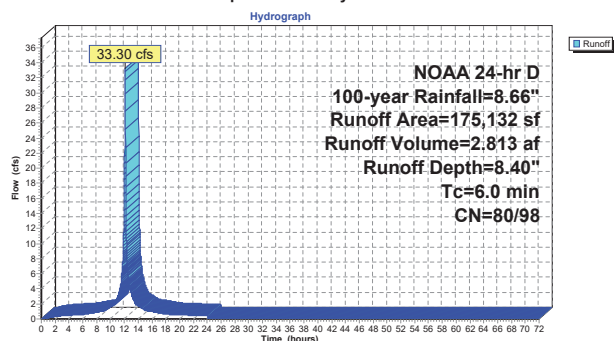
Runoff = 33.30 cfs @ 12.13 hrs, Volume= 2.813 af, Depth= 8.40"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 NOAA 24-hr D 100-year Rainfall=8.66"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 173,242 | 98 | Paved parking, HSG D |
| 1,890 | 80 | >75% Grass cover, Good, HSG D |
| 175,132 | 98 | Weighted Average |
| 1,890 | 80 | 1.08% Pervious Area |
| 173,242 | 98 | 98.92% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---------------|
| 6.0 | | | | | Direct Entry, |

Subcatchment P2: Proposed Tributary To Brick Church Train Station



Hydrograph for Subcatchment P2: Proposed Tributary To Brick Church Train Station

| Time (hours) | Precip. (inches) | Perv.Excess (inches) | Imp.Excess (inches) | Runoff (cfs) |
|--------------|------------------|----------------------|---------------------|--------------|
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2.00 | 0.21 | 0.00 | 0.08 | 0.31 |
| 4.00 | 0.45 | 0.00 | 0.28 | 0.47 |
| 6.00 | 0.74 | 0.02 | 0.54 | 0.58 |
| 8.00 | 1.12 | 0.12 | 0.91 | 0.89 |
| 10.00 | 1.72 | 0.40 | 1.49 | 1.59 |
| 12.00 | 4.15 | 2.17 | 3.91 | 18.50 |
| 14.00 | 6.94 | 4.64 | 6.70 | 1.71 |
| 16.00 | 7.54 | 5.19 | 7.30 | 0.95 |
| 18.00 | 7.92 | 5.55 | 7.68 | 0.64 |
| 20.00 | 8.21 | 5.82 | 7.97 | 0.54 |
| 22.00 | 8.45 | 6.05 | 8.21 | 0.46 |
| 24.00 | 8.66 | 6.25 | 8.42 | 0.39 |
| 26.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 28.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 30.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 32.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 34.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 36.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 38.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 40.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 42.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 44.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 46.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 48.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 50.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 52.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 54.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 56.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 58.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 60.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 62.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 64.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 66.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 68.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 70.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 72.00 | 8.66 | 6.25 | 8.42 | 0.00 |

Summary for Subcatchment P3: Proposed Tributary To Dr. Martin Luther King Jr. BLVD.

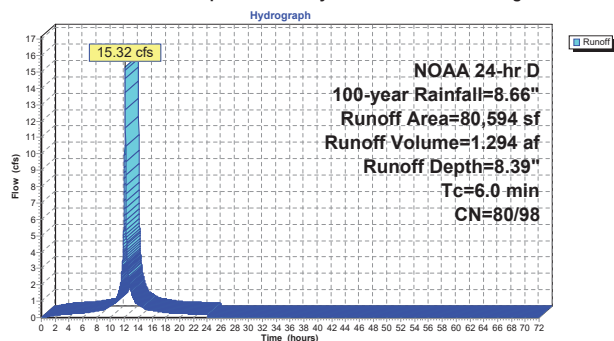
Runoff = 15.32 cfs @ 12.13 hrs, Volume= 1.294 af, Depth= 8.39"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
NOAA 24-hr D 100-year Rainfall=8.66"

| Area (sf) | CN | Description |
|-----------|----|-------------------------------|
| 79,635 | 98 | Paved parking, HSG D |
| 959 | 80 | >75% Grass cover, Good, HSG D |
| 80,594 | 98 | Weighted Average |
| 959 | 80 | 1.19% Pervious Area |
| 79,635 | 98 | 98.81% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|----------|---------------|---------------|-------------------|----------------|---------------|
| 6.0 | | | | | Direct Entry, |

Subcatchment P3: Proposed Tributary To Dr. Martin Luther King Jr. BLVD.



Hydrograph for Subcatchment P3: Proposed Tributary To Dr. Martin Luther King Jr. BLVD.

| Time (hours) | Precip. (inches) | Perv.Excess (inches) | Imp.Excess (inches) | Runoff (cfs) |
|--------------|------------------|----------------------|---------------------|--------------|
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2.00 | 0.21 | 0.00 | 0.08 | 0.14 |
| 4.00 | 0.45 | 0.00 | 0.28 | 0.22 |
| 6.00 | 0.74 | 0.02 | 0.54 | 0.26 |
| 8.00 | 1.12 | 0.12 | 0.91 | 0.41 |
| 10.00 | 1.72 | 0.40 | 1.49 | 0.73 |
| 12.00 | 4.15 | 2.17 | 3.91 | 8.51 |
| 14.00 | 6.94 | 4.64 | 6.70 | 8.79 |
| 16.00 | 7.54 | 5.19 | 7.30 | 0.44 |
| 18.00 | 7.92 | 5.55 | 7.68 | 0.29 |
| 20.00 | 8.21 | 5.82 | 7.97 | 0.25 |
| 22.00 | 8.45 | 6.05 | 8.21 | 0.21 |
| 24.00 | 8.66 | 6.25 | 8.42 | 0.18 |
| 26.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 28.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 30.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 32.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 34.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 36.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 38.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 40.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 42.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 44.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 46.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 48.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 50.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 52.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 54.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 56.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 58.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 60.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 62.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 64.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 66.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 68.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 70.00 | 8.66 | 6.25 | 8.42 | 0.00 |
| 72.00 | 8.66 | 6.25 | 8.42 | 0.00 |

Summary for Pond B1: Proposed U/G Detention Basin

Inflow Area = 3.779 ac, 98.71% Impervious, Inflow Depth = 8.39" for 100-year event
Inflow = 31.29 cfs @ 12.13 hrs, Volume= 2.643 af
Outflow = 12.24 cfs @ 12.27 hrs, Volume= 2.642 af, Atten= 61%, Lag= 8.4 min
Primary = 12.24 cfs @ 12.27 hrs, Volume= 2.642 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 9
Peak Elev= 179.21' @ 12.27 hrs Surf.Area= 4,987 sf Storage= 21,578 cf

Plug-Flow detention time= 32.4 min calculated for 2.642 af (100% of inflow)
Center-of-Mass det. time= 32.2 min (773.9 - 741.6)

| Volume | Invert | Avail.Storage | Storage Description |
|--------|---------|---------------|---|
| #1A | 174.30' | 0 cf | 21.79'W x 228.85'L x 5.50'H Field A 27,429 cf Overall - 27,429 cf Embedded = 0 cf x 40.0% Voids |
| #2A | 174.30' | 21,961 cf | StormTrap SingleTrap 5-0 x 14 Inside #1 Inside= 101.7'W x 60.0'H => 38.33 sf x 15.40'L = 590.2 cf Outside= 101.7'W x 66.0'H => 46.64 sf x 15.40'L = 718.0 cf 8.48' x 215.54' Core + 6.66' Border = 21.79' x 228.85' System |
| | | 21,961 cf | Total Available Storage |

Storage Group A created with Chamber Wizard

| Device | Routing | Invert | Outlet Devices |
|--------|-----------|---------|---|
| #1 | Primary | 174.30' | 15.0" Round Culvert L= 60.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 174.30' / 173.40' S= 0.0150 /' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf |
| #2 | Device 1 | 174.30' | 22.7" W x 6.0" H Vert. Orifice/Grate C= 0.600 |
| #3 | Device 1 | 176.14' | 4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s) |
| #4 | Secondary | 180.10' | 22.0" x 48.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads |

Primary OutFlow Max=12.24 cfs @ 12.27 hrs HW=179.21' TW=0.00' (Dynamic Tailwater)

- 1=Culvert (Inlet Controls 12.24 cfs @ 9.97 fps)
- 2=Orifice/Grate (Passes < 9.83 cfs potential flow)
- 3=Sharp-Crested Rectangular Weir (Passes < 59.62 cfs potential flow)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=174.30' (Free Discharge)
4=Orifice/Grate (Controls 0.00 cfs)

Pond B1: Proposed U/G Detention Basin - Chamber Wizard Field A

Chamber Model = StormTrap SingleTrap 5-0 (StormTrap SingleTrap® 5'-0" tall Type II + IV)
Inside= 101.7'W x 60.0'H => 38.33 sf x 15.40'L = 590.2 cf
Outside= 101.7'W x 66.0'H => 46.64 sf x 15.40'L = 718.0 cf

14 Chambers/Row x 15.40' Long = 215.54' Row Length +79.9" Border x 2 = 228.85' Base Length
1 Rows x 101.7' Wide + 79.9" Side Border x 2 = 21.79' Base Width
66.0" Chamber Height = 5.50' Field Height

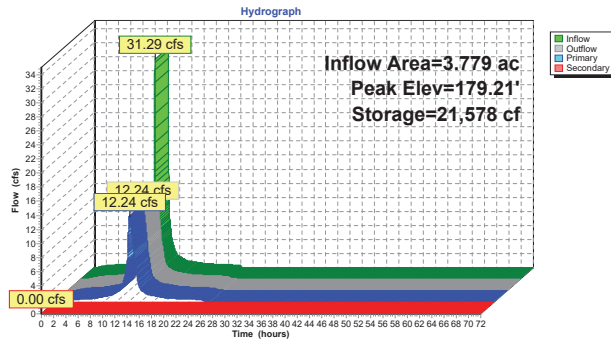
14 Chambers x 590.2 cf + 13,698.3 cf Border = 21,960.9 cf of Chamber Storage
14 Chambers x 718.0 cf + 17,377.2 cf Border = 27,429.1 cf of Displacement

Chamber Storage = 21,960.9 cf = 0.504 af
Overall Storage Efficiency = 80.1%
Overall System Size = 228.85' x 21.79' x 5.50'

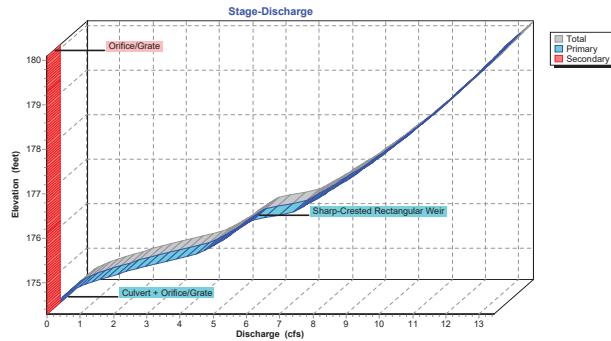
14 Chambers (plus border)
1,015.9 cy Field



Pond B1: Proposed U/G Detention Basin



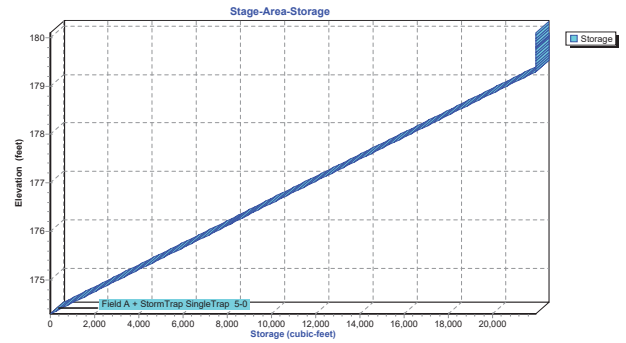
Pond B1: Proposed U/G Detention Basin



Hydrograph for Pond B1: Proposed U/G Detention Basin

| Time (hours) | Inflow (cfs) | Storage (cubic-feet) | Elevation (feet) | Outflow (cfs) | Primary (cfs) | Secondary (cfs) |
|--------------|--------------|----------------------|------------------|---------------|---------------|-----------------|
| 0.00 | 0.00 | 0 | 174.30 | 0.00 | 0.00 | 0.00 |
| 2.00 | 0.29 | 727 | 174.47 | 0.13 | 0.13 | 0.00 |
| 4.00 | 0.44 | 1,290 | 174.59 | 0.41 | 0.41 | 0.00 |
| 6.00 | 0.54 | 1,470 | 174.63 | 0.52 | 0.52 | 0.00 |
| 8.00 | 0.84 | 1,825 | 174.72 | 0.78 | 0.78 | 0.00 |
| 10.00 | 1.49 | 2,447 | 174.86 | 1.34 | 1.34 | 0.00 |
| 12.00 | 17.38 | 9,899 | 176.55 | 7.54 | 7.54 | 0.00 |
| 14.00 | 1.61 | 3,038 | 174.99 | 1.97 | 1.97 | 0.00 |
| 16.00 | 0.89 | 2,018 | 174.76 | 0.94 | 0.94 | 0.00 |
| 18.00 | 0.60 | 1,655 | 174.68 | 0.65 | 0.65 | 0.00 |
| 20.00 | 0.51 | 1,476 | 174.64 | 0.52 | 0.52 | 0.00 |
| 22.00 | 0.44 | 1,365 | 174.61 | 0.45 | 0.45 | 0.00 |
| 24.00 | 0.36 | 1,246 | 174.58 | 0.38 | 0.38 | 0.00 |
| 26.00 | 0.00 | 393 | 174.39 | 0.04 | 0.04 | 0.00 |
| 28.00 | 0.00 | 227 | 174.35 | 0.01 | 0.01 | 0.00 |
| 30.00 | 0.00 | 160 | 174.34 | 0.01 | 0.01 | 0.00 |
| 32.00 | 0.00 | 125 | 174.33 | 0.00 | 0.00 | 0.00 |
| 34.00 | 0.00 | 103 | 174.32 | 0.00 | 0.00 | 0.00 |
| 36.00 | 0.00 | 88 | 174.32 | 0.00 | 0.00 | 0.00 |
| 38.00 | 0.00 | 77 | 174.32 | 0.00 | 0.00 | 0.00 |
| 40.00 | 0.00 | 69 | 174.32 | 0.00 | 0.00 | 0.00 |
| 42.00 | 0.00 | 62 | 174.31 | 0.00 | 0.00 | 0.00 |
| 44.00 | 0.00 | 56 | 174.31 | 0.00 | 0.00 | 0.00 |
| 46.00 | 0.00 | 52 | 174.31 | 0.00 | 0.00 | 0.00 |
| 48.00 | 0.00 | 48 | 174.31 | 0.00 | 0.00 | 0.00 |
| 50.00 | 0.00 | 45 | 174.31 | 0.00 | 0.00 | 0.00 |
| 52.00 | 0.00 | 42 | 174.31 | 0.00 | 0.00 | 0.00 |
| 54.00 | 0.00 | 40 | 174.31 | 0.00 | 0.00 | 0.00 |
| 56.00 | 0.00 | 38 | 174.31 | 0.00 | 0.00 | 0.00 |
| 58.00 | 0.00 | 36 | 174.31 | 0.00 | 0.00 | 0.00 |
| 60.00 | 0.00 | 34 | 174.31 | 0.00 | 0.00 | 0.00 |
| 62.00 | 0.00 | 32 | 174.31 | 0.00 | 0.00 | 0.00 |
| 64.00 | 0.00 | 31 | 174.31 | 0.00 | 0.00 | 0.00 |
| 66.00 | 0.00 | 30 | 174.31 | 0.00 | 0.00 | 0.00 |
| 68.00 | 0.00 | 29 | 174.31 | 0.00 | 0.00 | 0.00 |
| 70.00 | 0.00 | 28 | 174.31 | 0.00 | 0.00 | 0.00 |
| 72.00 | 0.00 | 27 | 174.31 | 0.00 | 0.00 | 0.00 |

Pond B1: Proposed U/G Detention Basin



Stage-Discharge for Pond B1: Proposed U/G Detention Basin

| Elevation (feet) | Discharge (cfs) | Primary (cfs) | Secondary (cfs) | Elevation (feet) | Discharge (cfs) | Primary (cfs) | Secondary (cfs) |
|------------------|-----------------|---------------|-----------------|------------------|-----------------|---------------|-----------------|
| 174.30 | 0.00 | 0.00 | 0.00 | 179.50 | 12.64 | 12.64 | 0.00 |
| 174.40 | 0.05 | 0.05 | 0.00 | 179.60 | 12.78 | 12.78 | 0.00 |
| 174.50 | 0.19 | 0.19 | 0.00 | 179.70 | 12.91 | 12.91 | 0.00 |
| 174.60 | 0.42 | 0.42 | 0.00 | 179.80 | 13.05 | 13.05 | 0.00 |
| 174.70 | 0.73 | 0.73 | 0.00 | 179.90 | 13.18 | 13.18 | 0.00 |
| 174.80 | 1.10 | 1.10 | 0.00 | 180.00 | 13.31 | 13.31 | 0.00 |
| 174.90 | 1.54 | 1.54 | 0.00 | 180.10 | 13.44 | 13.44 | 0.00 |
| 175.00 | 2.01 | 2.01 | 0.00 | | | | |
| 175.10 | 2.53 | 2.53 | 0.00 | | | | |
| 175.20 | 3.06 | 3.06 | 0.00 | | | | |
| 175.30 | 3.58 | 3.58 | 0.00 | | | | |
| 175.40 | 4.08 | 4.08 | 0.00 | | | | |
| 175.50 | 4.43 | 4.43 | 0.00 | | | | |
| 175.60 | 4.66 | 4.66 | 0.00 | | | | |
| 175.70 | 4.87 | 4.87 | 0.00 | | | | |
| 175.80 | 5.08 | 5.08 | 0.00 | | | | |
| 175.90 | 5.28 | 5.28 | 0.00 | | | | |
| 176.00 | 5.48 | 5.48 | 0.00 | | | | |
| 176.10 | 5.66 | 5.66 | 0.00 | | | | |
| 176.20 | 6.04 | 6.04 | 0.00 | | | | |
| 176.30 | 6.85 | 6.85 | 0.00 | | | | |
| 176.40 | 7.18 | 7.18 | 0.00 | | | | |
| 176.50 | 7.42 | 7.42 | 0.00 | | | | |
| 176.60 | 7.65 | 7.65 | 0.00 | | | | |
| 176.70 | 7.87 | 7.87 | 0.00 | | | | |
| 176.80 | 8.09 | 8.09 | 0.00 | | | | |
| 176.90 | 8.30 | 8.30 | 0.00 | | | | |
| 177.00 | 8.51 | 8.51 | 0.00 | | | | |
| 177.10 | 8.71 | 8.71 | 0.00 | | | | |
| 177.20 | 8.91 | 8.91 | 0.00 | | | | |
| 177.30 | 9.11 | 9.11 | 0.00 | | | | |
| 177.40 | 9.30 | 9.30 | 0.00 | | | | |
| 177.50 | 9.48 | 9.48 | 0.00 | | | | |
| 177.60 | 9.66 | 9.66 | 0.00 | | | | |
| 177.70 | 9.84 | 9.84 | 0.00 | | | | |
| 177.80 | 10.02 | 10.02 | 0.00 | | | | |
| 177.90 | 10.19 | 10.19 | 0.00 | | | | |
| 178.00 | 10.36 | 10.36 | 0.00 | | | | |
| 178.10 | 10.53 | 10.53 | 0.00 | | | | |
| 178.20 | 10.69 | 10.69 | 0.00 | | | | |
| 178.30 | 10.86 | 10.86 | 0.00 | | | | |
| 178.40 | 11.01 | 11.01 | 0.00 | | | | |
| 178.50 | 11.17 | 11.17 | 0.00 | | | | |
| 178.60 | 11.33 | 11.33 | 0.00 | | | | |
| 178.70 | 11.48 | 11.48 | 0.00 | | | | |
| 178.80 | 11.63 | 11.63 | 0.00 | | | | |
| 178.90 | 11.78 | 11.78 | 0.00 | | | | |
| 179.00 | 11.93 | 11.93 | 0.00 | | | | |
| 179.10 | 12.07 | 12.07 | 0.00 | | | | |
| 179.20 | 12.22 | 12.22 | 0.00 | | | | |
| 179.30 | 12.36 | 12.36 | 0.00 | | | | |
| 179.40 | 12.50 | 12.50 | 0.00 | | | | |

J180710_0c

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NOAA 24-hr D 100-year Rainfall=8.66"

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Stage-Area-Storage for Pond B1: Proposed U/G Detention Basin

| Elevation (feet) | Storage (cubic-feet) | Elevation (feet) | Storage (cubic-feet) | Elevation (feet) | Storage (cubic-feet) |
|---------------------|-------------------------|---------------------|-------------------------|---------------------|-------------------------|
| 174.30 | 0 | 176.38 | 9,136 | 178.46 | 18,271 |
| 174.34 | 176 | 176.42 | 9,311 | 178.50 | 18,447 |
| 174.38 | 351 | 176.46 | 9,487 | 178.54 | 18,623 |
| 174.42 | 527 | 176.50 | 9,663 | 178.58 | 18,798 |
| 174.46 | 703 | 176.54 | 9,838 | 178.62 | 18,974 |
| 174.50 | 878 | 176.58 | 10,014 | 178.66 | 19,150 |
| 174.54 | 1,054 | 176.62 | 10,190 | 178.70 | 19,326 |
| 174.58 | 1,230 | 176.66 | 10,366 | 178.74 | 19,501 |
| 174.62 | 1,405 | 176.70 | 10,541 | 178.78 | 19,677 |
| 174.66 | 1,581 | 176.74 | 10,717 | 178.82 | 19,853 |
| 174.70 | 1,757 | 176.78 | 10,893 | 178.86 | 20,028 |
| 174.74 | 1,933 | 176.82 | 11,068 | 178.90 | 20,204 |
| 174.78 | 2,108 | 176.86 | 11,244 | 178.94 | 20,380 |
| 174.82 | 2,284 | 176.90 | 11,420 | 178.98 | 20,555 |
| 174.86 | 2,460 | 176.94 | 11,595 | 179.02 | 20,731 |
| 174.90 | 2,635 | 176.98 | 11,771 | 179.06 | 20,907 |
| 174.94 | 2,811 | 177.02 | 11,947 | 179.10 | 21,082 |
| 174.98 | 2,987 | 177.06 | 12,122 | 179.14 | 21,258 |
| 175.02 | 3,162 | 177.10 | 12,298 | 179.18 | 21,434 |
| 175.06 | 3,338 | 177.14 | 12,474 | 179.22 | 21,609 |
| 175.10 | 3,514 | 177.18 | 12,649 | 179.26 | 21,785 |
| 175.14 | 3,689 | 177.22 | 12,825 | 179.30 | 21,961 |
| 175.18 | 3,865 | 177.26 | 13,001 | 179.34 | 21,961 |
| 175.22 | 4,041 | 177.30 | 13,177 | 179.38 | 21,961 |
| 175.26 | 4,216 | 177.34 | 13,352 | 179.42 | 21,961 |
| 175.30 | 4,392 | 177.38 | 13,528 | 179.46 | 21,961 |
| 175.34 | 4,568 | 177.42 | 13,704 | 179.50 | 21,961 |
| 175.38 | 4,744 | 177.46 | 13,879 | 179.54 | 21,961 |
| 175.42 | 4,919 | 177.50 | 14,055 | 179.58 | 21,961 |
| 175.46 | 5,095 | 177.54 | 14,231 | 179.62 | 21,961 |
| 175.50 | 5,271 | 177.58 | 14,406 | 179.66 | 21,961 |
| 175.54 | 5,446 | 177.62 | 14,582 | 179.70 | 21,961 |
| 175.58 | 5,622 | 177.66 | 14,758 | 179.74 | 21,961 |
| 175.62 | 5,798 | 177.70 | 14,933 | 179.78 | 21,961 |
| 175.66 | 5,973 | 177.74 | 15,109 | 179.82 | 21,961 |
| 175.70 | 6,149 | 177.78 | 15,285 | 179.86 | 21,961 |
| 175.74 | 6,325 | 177.82 | 15,460 | 179.90 | 21,961 |
| 175.78 | 6,500 | 177.86 | 15,636 | 179.94 | 21,961 |
| 175.82 | 6,676 | 177.90 | 15,812 | 179.98 | 21,961 |
| 175.86 | 6,852 | 177.94 | 15,987 | 180.02 | 21,961 |
| 175.90 | 7,027 | 177.98 | 16,163 | 180.06 | 21,961 |
| 175.94 | 7,203 | 178.02 | 16,339 | 180.10 | 21,961 |
| 175.98 | 7,379 | 178.06 | 16,515 | | |
| 176.02 | 7,555 | 178.10 | 16,690 | | |
| 176.06 | 7,730 | 178.14 | 16,866 | | |
| 176.10 | 7,906 | 178.18 | 17,042 | | |
| 176.14 | 8,082 | 178.22 | 17,217 | | |
| 176.18 | 8,257 | 178.26 | 17,393 | | |
| 176.22 | 8,433 | 178.30 | 17,569 | | |
| 176.26 | 8,609 | 178.34 | 17,744 | | |
| 176.30 | 8,784 | 178.38 | 17,920 | | |
| 176.34 | 8,960 | 178.42 | 18,096 | | |

J180710_0c

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NOAA 24-hr D 100-year Rainfall=8.66"

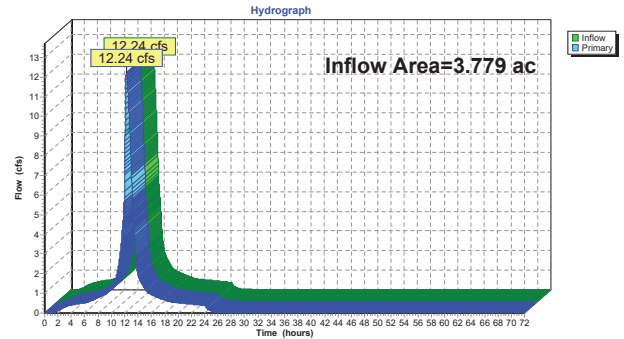
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Summary for Link L1: Proposed Tributary To South Harrison St.

Inflow Area = 3.779 ac, 98.71% Impervious, Inflow Depth = 8.39" for 100-year event
 Inflow = 12.24 cfs @ 12.27 hrs, Volume= 2.642 af
 Primary = 12.24 cfs @ 12.27 hrs, Volume= 2.642 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Link L1: Proposed Tributary To South Harrison St.**J180710_0c**

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NOAA 24-hr D 100-year Rainfall=8.66"

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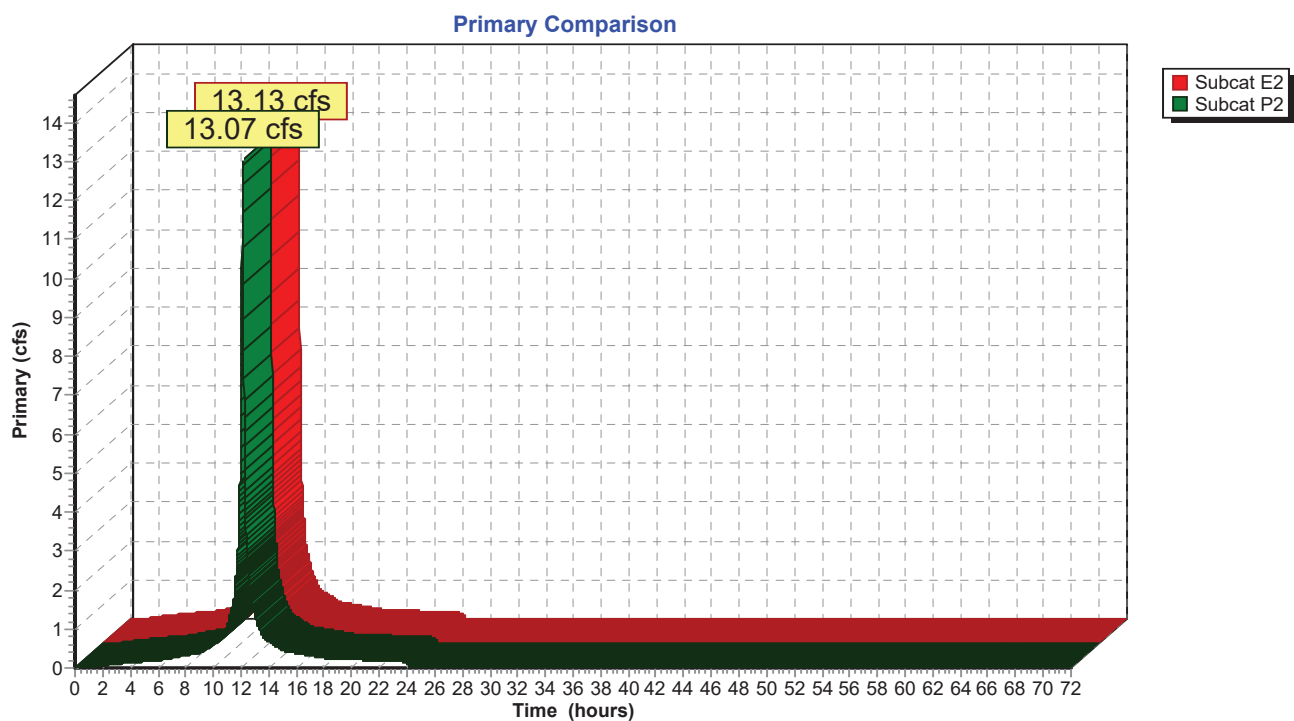
Hydrograph for Link L1: Proposed Tributary To South Harrison St.

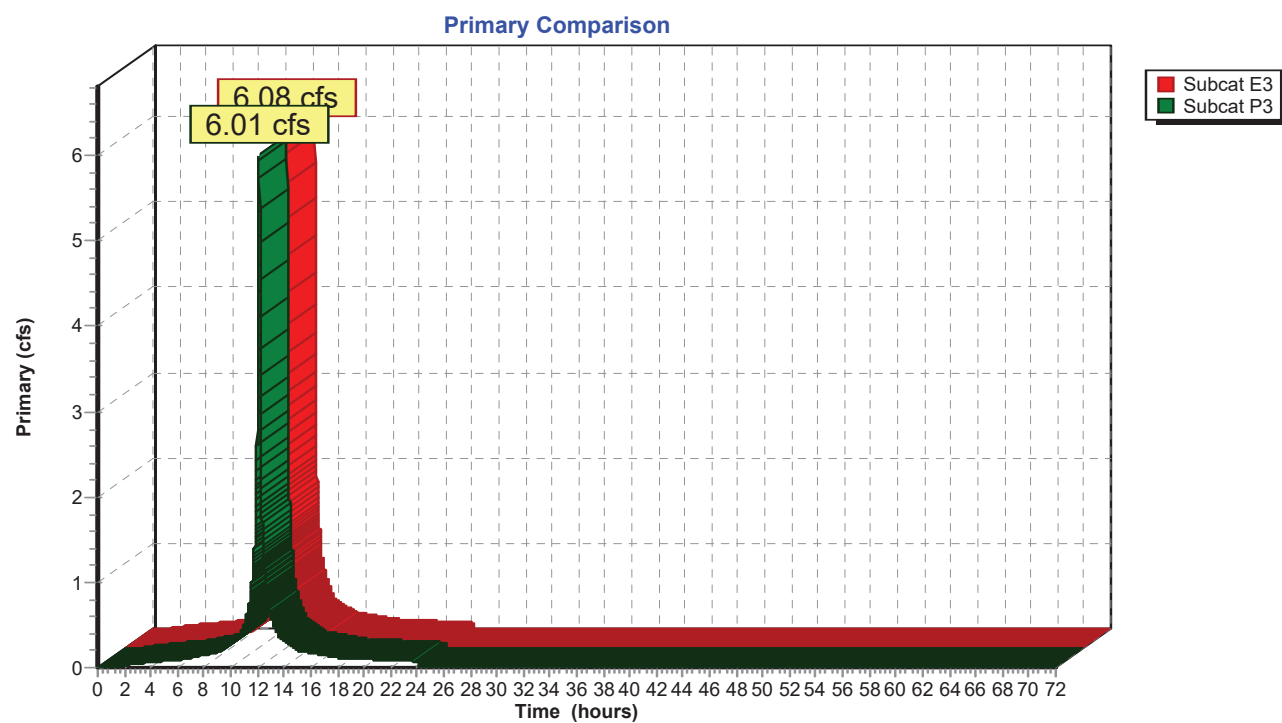
| Time (hours) | Inflow (cfs) | Elevation (feet) | Primary (cfs) | Time (hours) | Inflow (cfs) | Elevation (feet) | Primary (cfs) |
|-----------------|-----------------|---------------------|------------------|-----------------|-----------------|---------------------|------------------|
| 0.00 | 0.00 | 0.00 | 0.00 | 52.00 | 0.00 | 0.00 | 0.00 |
| 1.00 | 0.00 | 0.00 | 0.00 | 53.00 | 0.00 | 0.00 | 0.00 |
| 2.00 | 0.13 | 0.00 | 0.13 | 54.00 | 0.00 | 0.00 | 0.00 |
| 3.00 | 0.31 | 0.00 | 0.31 | 55.00 | 0.00 | 0.00 | 0.00 |
| 4.00 | 0.41 | 0.00 | 0.41 | 56.00 | 0.00 | 0.00 | 0.00 |
| 5.00 | 0.47 | 0.00 | 0.47 | 57.00 | 0.00 | 0.00 | 0.00 |
| 6.00 | 0.52 | 0.00 | 0.52 | 58.00 | 0.00 | 0.00 | 0.00 |
| 7.00 | 0.63 | 0.00 | 0.63 | 59.00 | 0.00 | 0.00 | 0.00 |
| 8.00 | 0.78 | 0.00 | 0.78 | 60.00 | 0.00 | 0.00 | 0.00 |
| 9.00 | 0.94 | 0.00 | 0.94 | 61.00 | 0.00 | 0.00 | 0.00 |
| 10.00 | 1.34 | 0.00 | 1.34 | 62.00 | 0.00 | 0.00 | 0.00 |
| 11.00 | 2.23 | 0.00 | 2.23 | 63.00 | 0.00 | 0.00 | 0.00 |
| 12.00 | 7.54 | 0.00 | 7.54 | 64.00 | 0.00 | 0.00 | 0.00 |
| 13.00 | 7.32 | 0.00 | 7.32 | 65.00 | 0.00 | 0.00 | 0.00 |
| 14.00 | 1.97 | 0.00 | 1.97 | 66.00 | 0.00 | 0.00 | 0.00 |
| 15.00 | 1.24 | 0.00 | 1.24 | 67.00 | 0.00 | 0.00 | 0.00 |
| 16.00 | 0.94 | 0.00 | 0.94 | 68.00 | 0.00 | 0.00 | 0.00 |
| 17.00 | 0.79 | 0.00 | 0.79 | 69.00 | 0.00 | 0.00 | 0.00 |
| 18.00 | 0.65 | 0.00 | 0.65 | 70.00 | 0.00 | 0.00 | 0.00 |
| 19.00 | 0.56 | 0.00 | 0.56 | 71.00 | 0.00 | 0.00 | 0.00 |
| 20.00 | 0.52 | 0.00 | 0.52 | 72.00 | 0.00 | 0.00 | 0.00 |
| 21.00 | 0.49 | 0.00 | 0.49 | | | | |
| 22.00 | 0.45 | 0.00 | 0.45 | | | | |
| 23.00 | 0.42 | 0.00 | 0.42 | | | | |
| 24.00 | 0.38 | 0.00 | 0.38 | | | | |
| 25.00 | 0.10 | 0.00 | 0.10 | | | | |
| 26.00 | 0.04 | 0.00 | 0.04 | | | | |
| 27.00 | 0.02 | 0.00 | 0.02 | | | | |
| 28.00 | 0.01 | 0.00 | 0.01 | | | | |
| 29.00 | 0.01 | 0.00 | 0.01 | | | | |
| 30.00 | 0.01 | 0.00 | 0.01 | | | | |
| 31.00 | 0.00 | 0.00 | 0.00 | | | | |
| 32.00 | 0.00 | 0.00 | 0.00 | | | | |
| 33.00 | 0.00 | 0.00 | 0.00 | | | | |
| 34.00 | 0.00 | 0.00 | 0.00 | | | | |
| 35.00 | 0.00 | 0.00 | 0.00 | | | | |
| 36.00 | 0.00 | 0.00 | 0.00 | | | | |
| 37.00 | 0.00 | 0.00 | 0.00 | | | | |
| 38.00 | 0.00 | 0.00 | 0.00 | | | | |
| 39.00 | 0.00 | 0.00 | 0.00 | | | | |
| 40.00 | 0.00 | 0.00 | 0.00 | | | | |
| 41.00 | 0.00 | 0.00 | 0.00 | | | | |
| 42.00 | 0.00 | 0.00 | 0.00 | | | | |
| 43.00 | 0.00 | 0.00 | 0.00 | | | | |
| 44.00 | 0.00 | 0.00 | 0.00 | | | | |
| 45.00 | 0.00 | 0.00 | 0.00 | | | | |
| 46.00 | 0.00 | 0.00 | 0.00 | | | | |
| 47.00 | 0.00 | 0.00 | 0.00 | | | | |
| 48.00 | 0.00 | 0.00 | 0.00 | | | | |
| 49.00 | 0.00 | 0.00 | 0.00 | | | | |
| 50.00 | 0.00 | 0.00 | 0.00 | | | | |
| 51.00 | 0.00 | 0.00 | 0.00 | | | | |

A. PRE- vs. POST-DEVELOPMENT HYDROGRAPHS

◆ Comparison Hydrographs

- 2-Year Storm Event

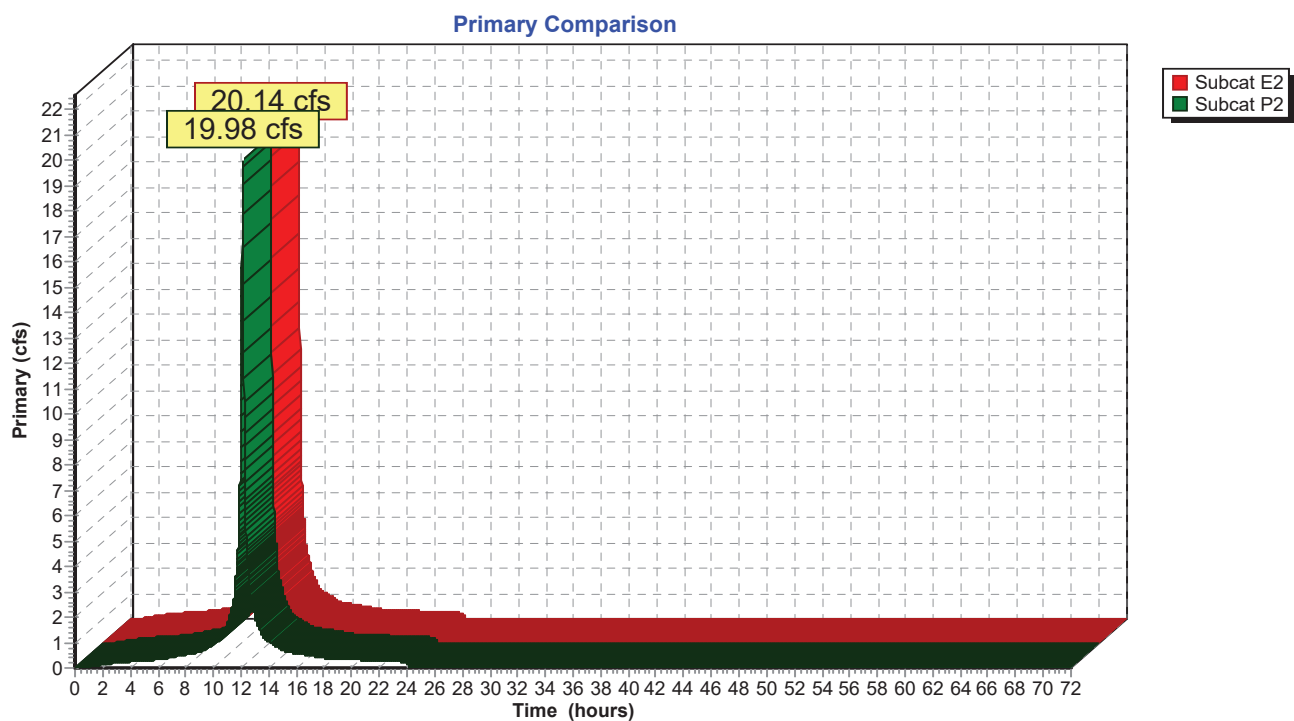


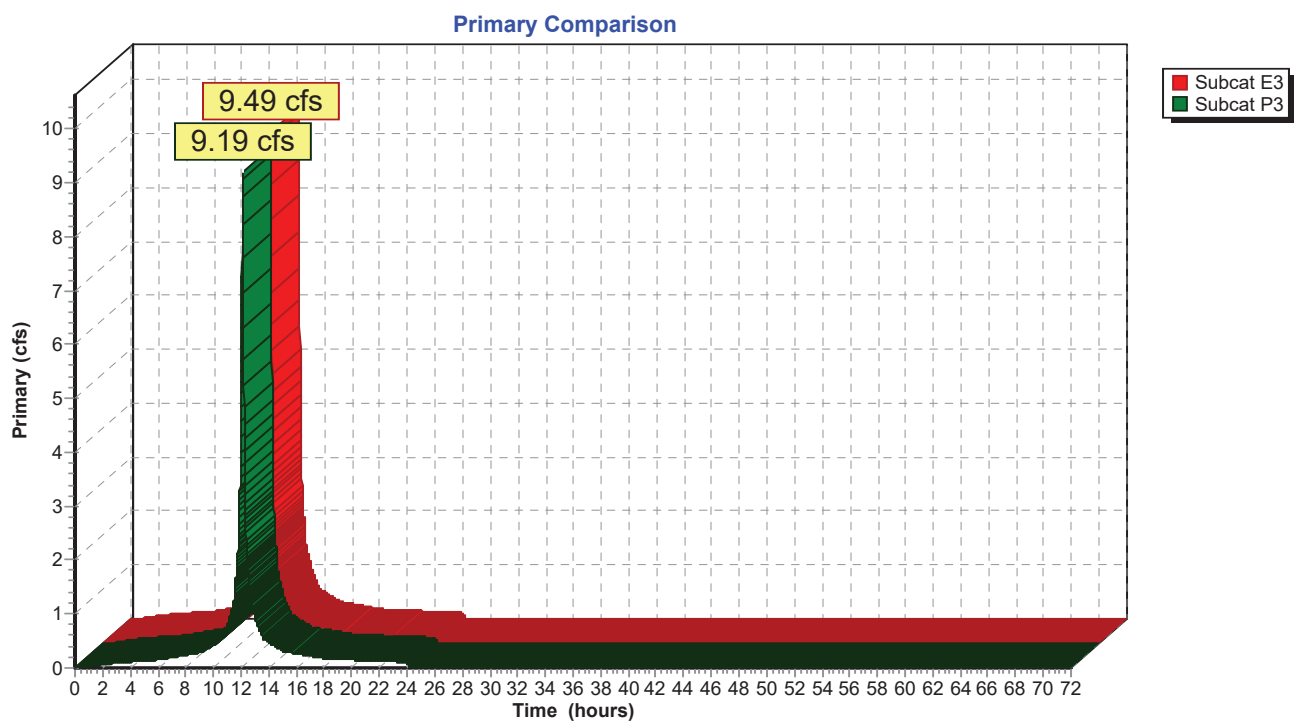


A. PRE- vs. POST-DEVELOPMENT HYDROGRAPHS

◆ Comparison Hydrographs

- 10-Year Storm Event

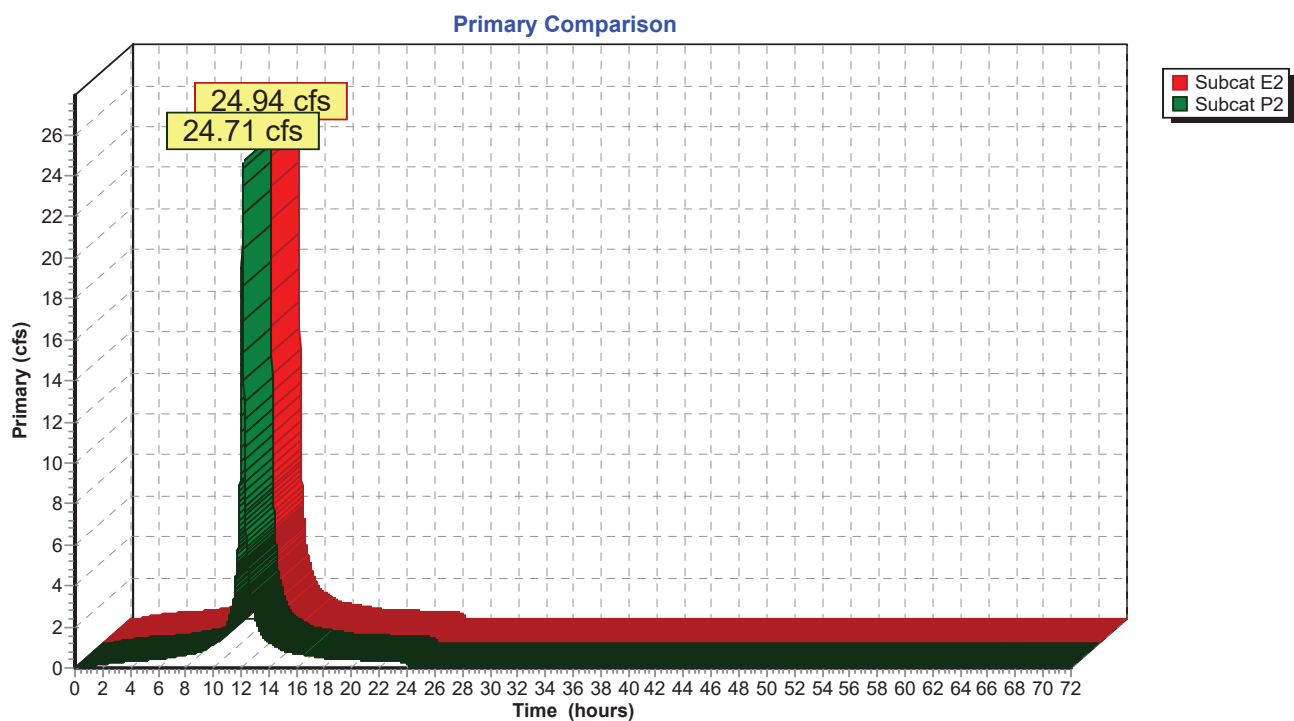


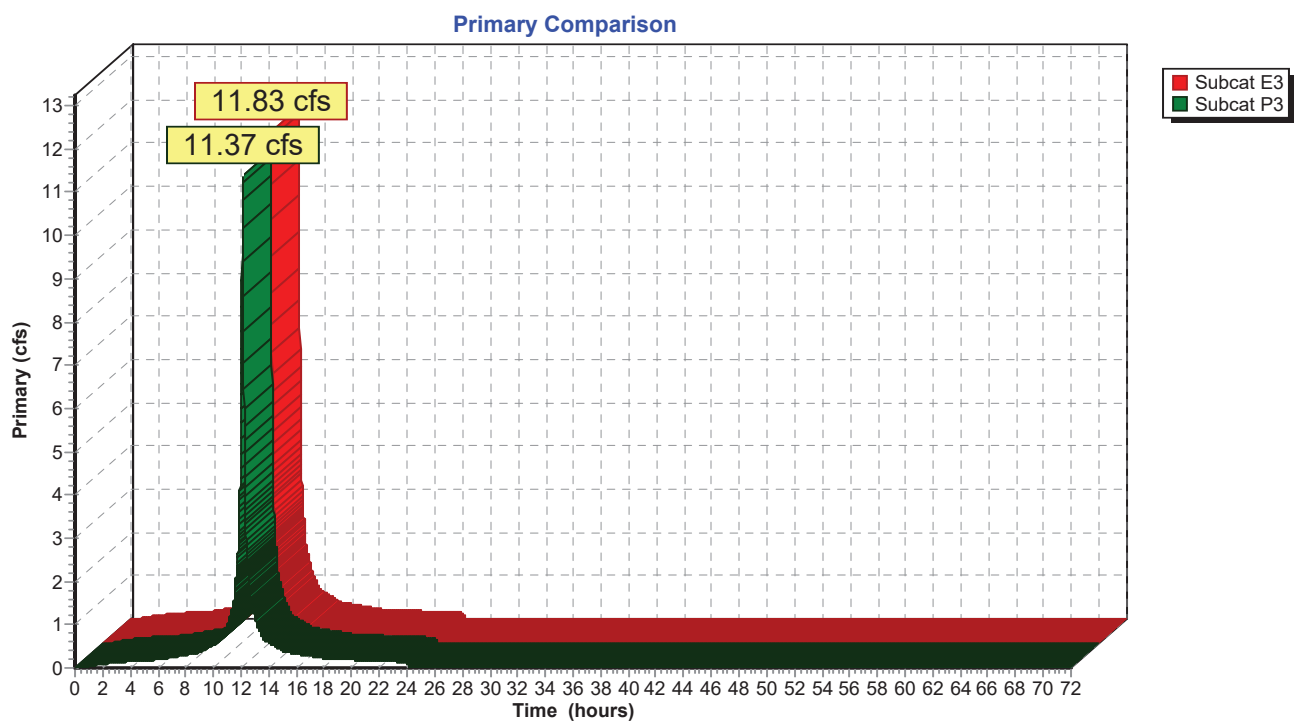


A. PRE- vs. POST-DEVELOPMENT HYDROGRAPHS

◆ Comparison Hydrographs

- 25-Year Storm Event

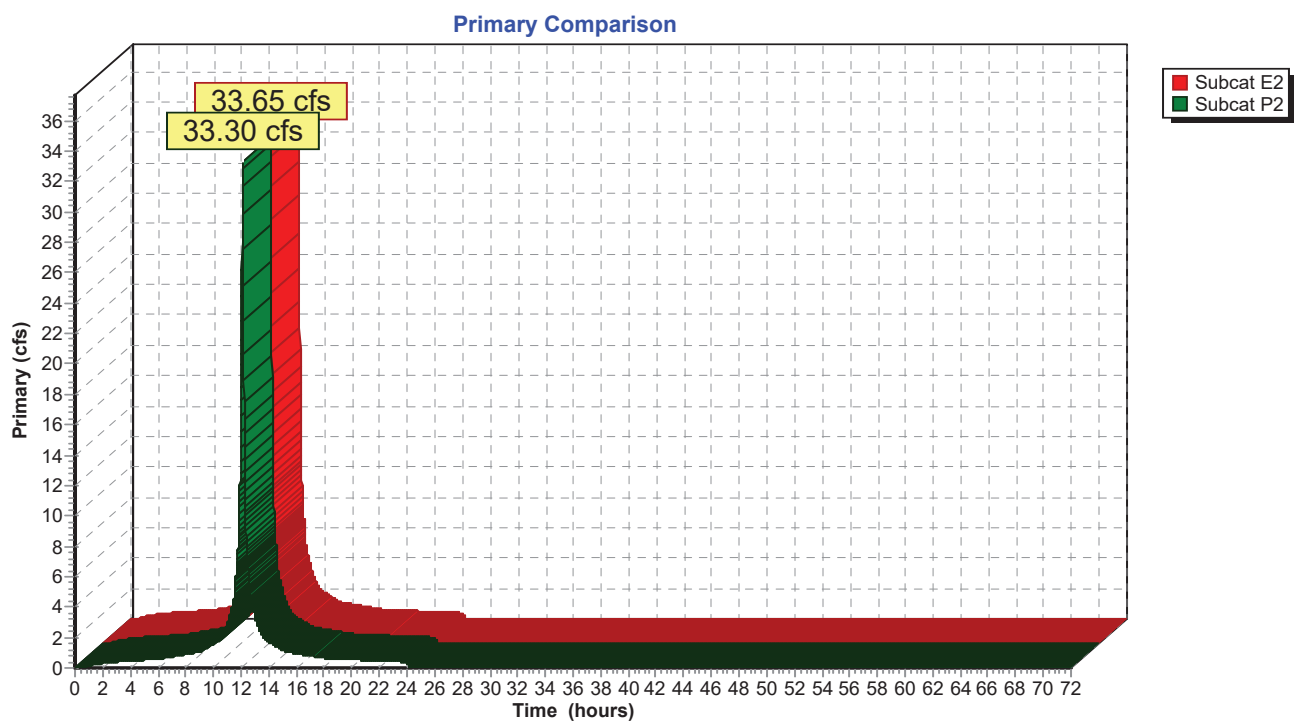


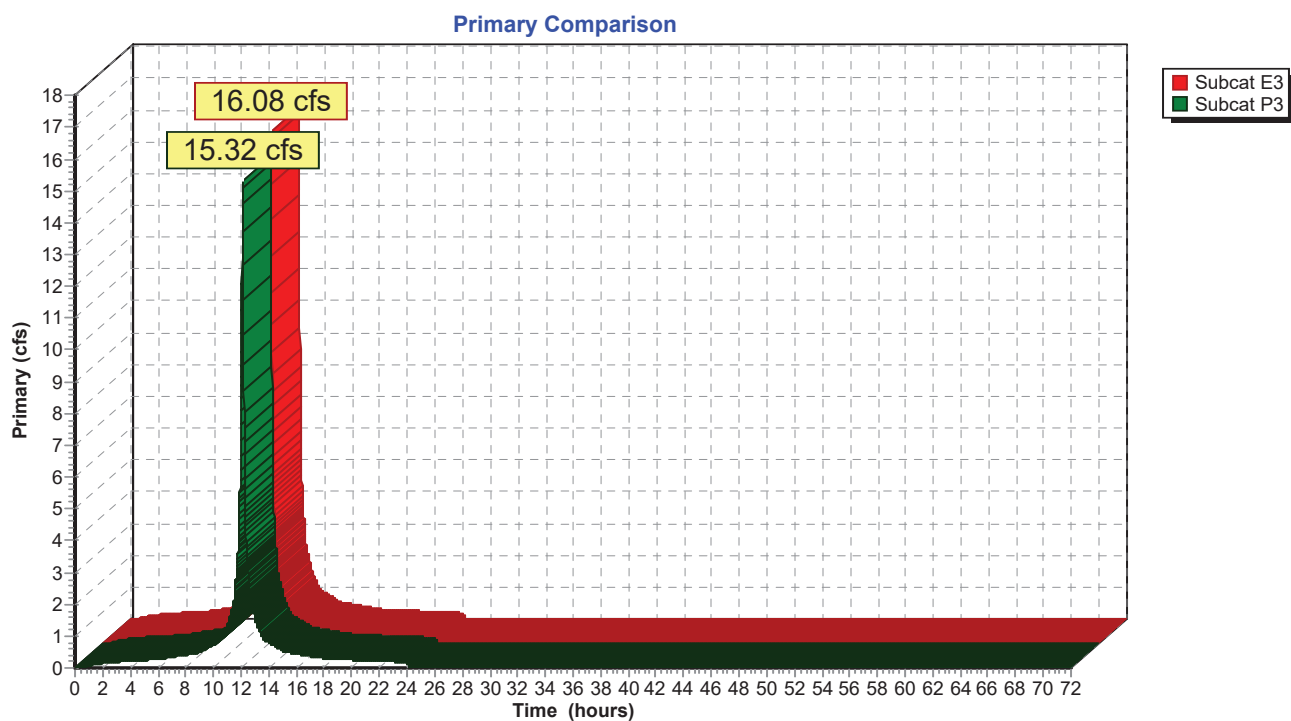


A. PRE- vs. POST-DEVELOPMENT HYDROGRAPHS

◆ Comparison Hydrographs

- 100-Year Storm Event





B. DESIGN CALCULATIONS

◆ Pipe Sizing Calculations

Project Number
City

J180710
East Orange, NJ

DATE: 8/9/2019
BY: JH
CHK BY: JFT

Storm Sewer Structure Chart & Pipe Sizing

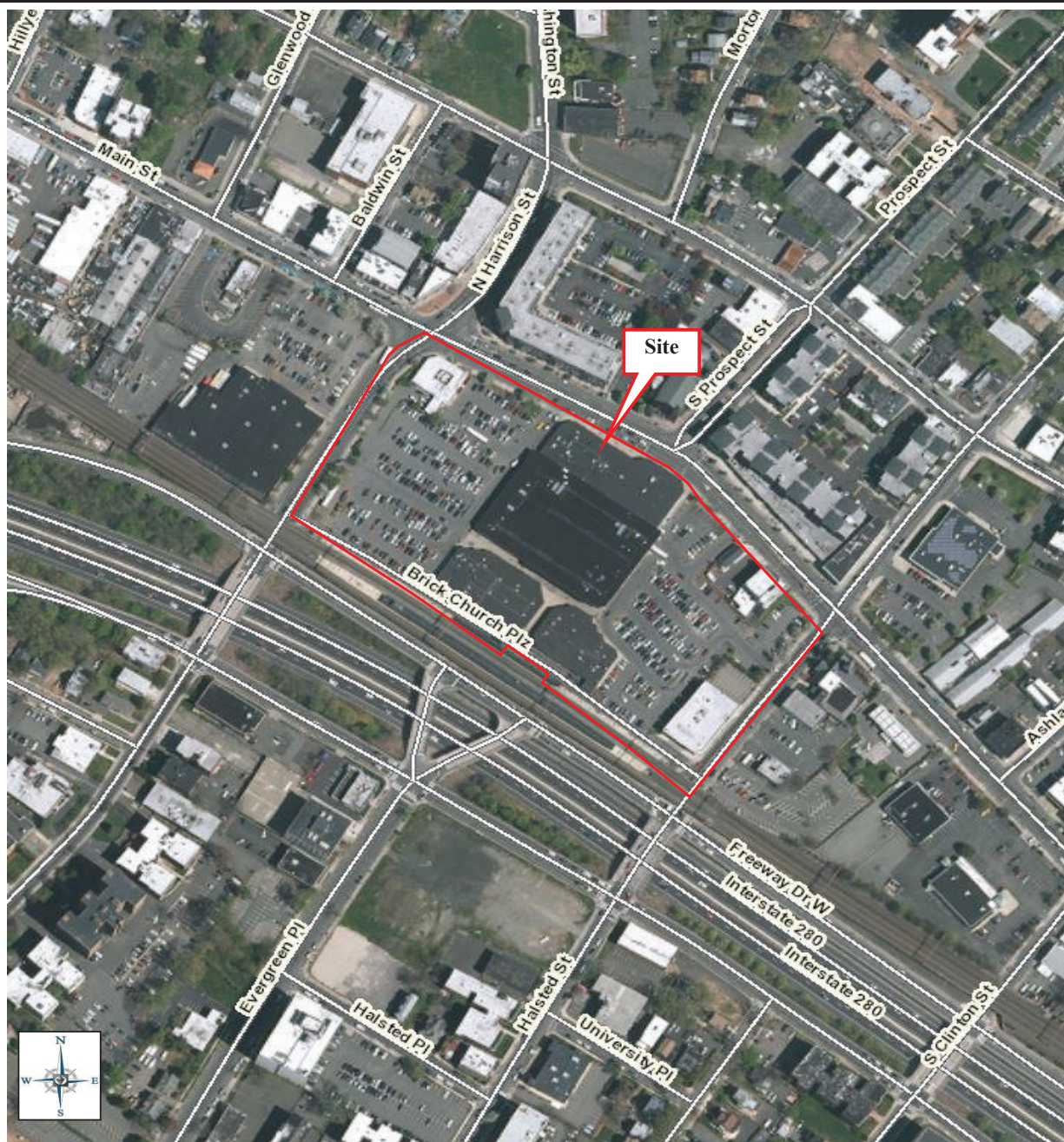
Storm Frequency (in years): 25 Sheet Name: NJDEP Int Curves

Upstream Structure Information

| Upstream Structure | Downstream Structure | Size | Qty | Type | Length | Slope(ft/ft) | n | Class | Area in Acres | C Value | C x A | C x A cum | I | Q to Inlet | Q cum for Pipe | Pipe Capacity | Pipe Velocity | Tt In Pipe | Tc to Inlet | Final TC |
|--------------------|----------------------|--------|-----|------|--------|--------------|-------|-------|---------------|---------|-------|-----------|------|------------|----------------|---------------|---------------|------------|-------------|----------|
| ROOF #1 | EX INLET #1 | 12 in. | 1 | RCP | 14 | 0.0200 | 0.013 | III | 0.56 Ac. | 0.95 | 0.53 | 0.53 | 7.70 | 4.08 | 4.08 | 5.04 | 6.42 fps. | 0.04 min | 6.0 min | 6.0 min |
| ROOF #2 | MH #4 | 18 in. | 1 | HDPE | 234 | 0.0100 | 0.011 | III | 1.35 Ac. | 0.95 | 1.28 | 1.28 | 7.70 | 9.86 | 9.86 | 12.41 | 7.03 fps. | 0.55 min | 6.0 min | 6.0 min |
| MH #4 | E #3 | 24 in. | 1 | RCP | 104 | 0.0050 | 0.013 | III | 0.67 Ac. | 0.95 | 0.64 | 1.92 | 7.56 | 4.84 | 14.52 | 15.99 | 5.09 fps. | 0.34 min | 6.0 min | 6.55 min |
| ROOF #4 | EX. MH #3 | 15 in. | 1 | RCP | 14 | 0.0250 | 0.013 | III | 0.85 Ac. | 0.95 | 0.81 | 0.81 | 7.70 | 6.24 | 6.24 | 10.21 | 8.32 fps. | 0.03 min | 6.0 min | 6.0 min |
| E #2 | B #9 | 12 in. | 1 | RCP | 90 | 0.0300 | 0.013 | III | 0.05 Ac. | 0.95 | 0.05 | 0.05 | 7.70 | 0.39 | 0.39 | 6.17 | 7.86 fps. | 0.19 min | 6.0 min | 6.0 min |
| B #9 | EX. MH #4 | 12 in. | 1 | RCP | 41 | 0.0100 | 0.013 | III | 0.14 Ac. | 0.95 | 0.13 | 0.18 | 7.70 | 1.00 | 1.39 | 3.56 | 4.54 fps. | 0.15 min | 6.0 min | 6.19 min |
| B #5 | B #10 | 15 in. | 1 | RCP | 123 | 0.0050 | 0.013 | III | 0.42 Ac. | 0.95 | 0.40 | 0.40 | 7.70 | 3.08 | 3.08 | 4.57 | 3.73 fps. | 0.55 min | 6.0 min | 6.0 min |
| B #6 | E #3 | 15 in. | 1 | RCP | 120 | 0.0050 | 0.013 | III | 0.10 Ac. | 0.95 | 0.09 | 0.09 | 7.70 | 0.69 | 0.69 | 4.57 | 3.73 fps. | 0.54 min | 6.0 min | 6.0 min |
| E #3 | B #10 | 24 in. | 1 | RCP | 139 | 0.0050 | 0.013 | III | 0.10 Ac. | 0.95 | 0.09 | 2.10 | 7.56 | 0.68 | 15.88 | 15.99 | 5.09 fps. | 0.46 min | 6.0 min | 6.89 min |
| B #10 | B #7 | 30 in. | 1 | RCP | 89 | 0.0050 | 0.013 | III | 0.58 Ac. | 0.95 | 0.55 | 3.05 | 7.43 | 4.08 | 22.65 | 29.00 | 5.91 fps. | 0.25 min | 6.0 min | 7.35 min |
| E #4 | B #7 | 15 in. | 1 | RCP | 42 | 0.0100 | 0.013 | III | 0.07 Ac. | 0.95 | 0.06 | 0.06 | 7.70 | 0.46 | 0.46 | 6.46 | 5.27 fps. | 0.13 min | 6.0 min | 6.0 min |
| B #7 | B #8 | 30 in. | 1 | RCP | 72 | 0.0050 | 0.013 | III | 0.08 Ac. | 0.95 | 0.07 | 3.18 | 7.29 | 0.51 | 23.17 | 29.00 | 5.91 fps. | 0.20 min | 6.0 min | 7.6 min |
| B #8 | U/G BASIN | 30 in. | 1 | RCP | 111 | 0.0050 | 0.013 | III | 0.06 Ac. | 0.95 | 0.05 | 3.23 | 7.29 | 0.36 | 23.54 | 29.00 | 5.91 fps. | 0.31 min | 6.0 min | 7.8 min |
| C/O #8 | U/G BASIN | 12 in. | 1 | HDPE | 29 | 0.0100 | 0.011 | III | 0.36 Ac. | 0.95 | 0.34 | 0.34 | 7.70 | 2.62 | 2.62 | 4.21 | 5.36 fps. | 0.09 min | 6.0 min | 6.0 min |
| E #1 | B #1 | 15 in. | 1 | RCP | 105 | 0.0050 | 0.013 | III | 0.23 Ac. | 0.95 | 0.22 | 0.22 | 7.70 | 1.69 | 1.69 | 4.57 | 3.73 fps. | 0.47 min | 6.0 min | 6.0 min |
| B #1 | DBL. B #1 | 15 in. | 1 | RCP | 135 | 0.0050 | 0.013 | III | 0.07 Ac. | 0.95 | 0.07 | 0.29 | 7.70 | 0.54 | 2.23 | 4.57 | 3.73 fps. | 0.60 min | 6.0 min | 6.47 min |
| DBL. B #1 | MH #1 | 18 in. | 1 | RCP | 63 | 0.0050 | 0.013 | III | 0.72 Ac. | 0.95 | 0.69 | 0.98 | 7.43 | 5.12 | 7.28 | 7.43 | 4.21 fps. | 0.25 min | 6.0 min | 7.07 min |
| MH #1 | MH #2 | 18 in. | 1 | RCP | 197 | 0.0050 | 0.013 | III | 0.00 Ac. | 0.95 | 0.00 | 0.98 | 7.43 | 0.00 | 7.28 | 7.43 | 4.21 fps. | 0.78 min | 6.0 min | 7.32 min |
| MH #2 | B #2 | 18 in. | 1 | RCP | 82 | 0.0050 | 0.013 | III | 0.00 Ac. | 0.95 | 0.00 | 0.98 | 7.15 | 0.00 | 7.01 | 7.43 | 4.21 fps. | 0.32 min | 6.0 min | 8.1 min |
| ROOF #5 | B #2 | 12 in. | 1 | HDPE | 9 | 0.0200 | 0.011 | III | 0.52 Ac. | 0.95 | 0.49 | 0.49 | 7.70 | 3.77 | 3.77 | 5.95 | 7.58 fps. | 0.02 min | 6.0 min | 6.0 min |
| ROOF #6 | DOGHOUSE MH #1 | 12 in. | 1 | HDPE | 73 | 0.0200 | 0.011 | III | 0.68 Ac. | 0.95 | 0.64 | 0.64 | 7.70 | 4.93 | 4.93 | 5.95 | 7.58 fps. | 0.16 min | 6.0 min | 6.0 min |
| ROOF #7 | B #3 | 12 in. | 1 | HDPE | 6 | 0.0200 | 0.011 | III | 0.67 Ac. | 0.95 | 0.64 | 0.64 | 7.70 | 4.93 | 4.93 | 5.95 | 7.58 fps. | 0.01 min | 6.0 min | 6.0 min |
| ROOF #8 | B #4 | 12 in. | 1 | HDPE | 13 | 0.0200 | 0.011 | III | 0.67 Ac. | 0.95 | 0.64 | 0.64 | 7.70 | 4.93 | 4.93 | 5.95 | 7.58 fps. | 0.03 min | 6.0 min | 6.0 min |
| B #2 | DOGHOUSE MH #1 | 18 in. | 1 | RCP | 47 | 0.0200 | 0.013 | III | 0.13 Ac. | 0.95 | 0.12 | 1.59 | 7.15 | 0.86 | 11.37 | 14.85 | 8.41 fps. | 0.09 min | 6.0 min | 8.42 min |
| B #4 | B #3 | 15 in. | 1 | HDPE | 134 | 0.0100 | 0.011 | III | 0.10 Ac. | 0.95 | 0.09 | 0.73 | 7.70 | 0.69 | 5.62 | 7.63 | 6.22 fps. | 0.36 min | 6.0 min | 6.03 min |
| B #3 | DOGHOUSE MH #1 | 18 in. | 1 | RCP | 149 | 0.0200 | 0.013 | III | 0.22 Ac. | 0.95 | 0.21 | 1.58 | 7.70 | 1.62 | 12.17 | 14.85 | 8.41 fps. | 0.30 min | 6.0 min | 6.39 min |

C. MAPS

- ◆ **Aerial Map**
- ◆ **Soil Map**
- ◆ **USGS Location Map**
- ◆ **HUC-14 Sub Watershed Map**
- ◆ **Flood Map**
- ◆ **Drainage Area Maps**
 - **Existing Drainage Areas Map**
 - **Proposed Drainage Areas Map**
 - **Inlet Drainage Area Map**



Aerial Map

Source: NJ GeoWeb

Date Access: 6/25/2019

Brick Church Opportunity Zone Fund I LLC

505, 507, 513-517 & 533 Dr. MLK Jr. Blvd. and
15 - 33 Halsted Street

City of East Orange, Essex County, NJ
Block 683, Lots 1, 1.01, 4.01, 4.02 & 5

BENJ #J180710

Prepared by: ARC

Date: 6/28/2019

Checked by: JFT

Scale: NTS



BOHLER
ENGINEERING



| Map Unit Symbol | Map Unit Name | Acres in AOI | Percent of AOI |
|-----------------------------|--|--------------|----------------|
| BowrB | Boonton - Urban land, Boonton substratum complex, red sandstone lowland, 0 to 8 percent slopes | 0.4 | 2.9% |
| URBOOB | Urban land, Boonton substratum, 0 to 8 percent slopes, red sandstone lowland | 12.2 | 97.1% |
| Totals for Area of Interest | | 12.6 | 100.0% |

Soils Map

Source: NRCS Web Soil Survey, 2012

Date Access: 6/25/2019

Brick Church Opportunity Zone Fund I LLC

505, 507, 513-517 & 533 Dr. MLK Jr. Blvd. and
15 - 33 Halsted Street

City of East Orange, Essex County, NJ
Block 683, Lots 1, 1.01, 4.01, 4.02 & 5

BENJ #J180710

Prepared by: ARC

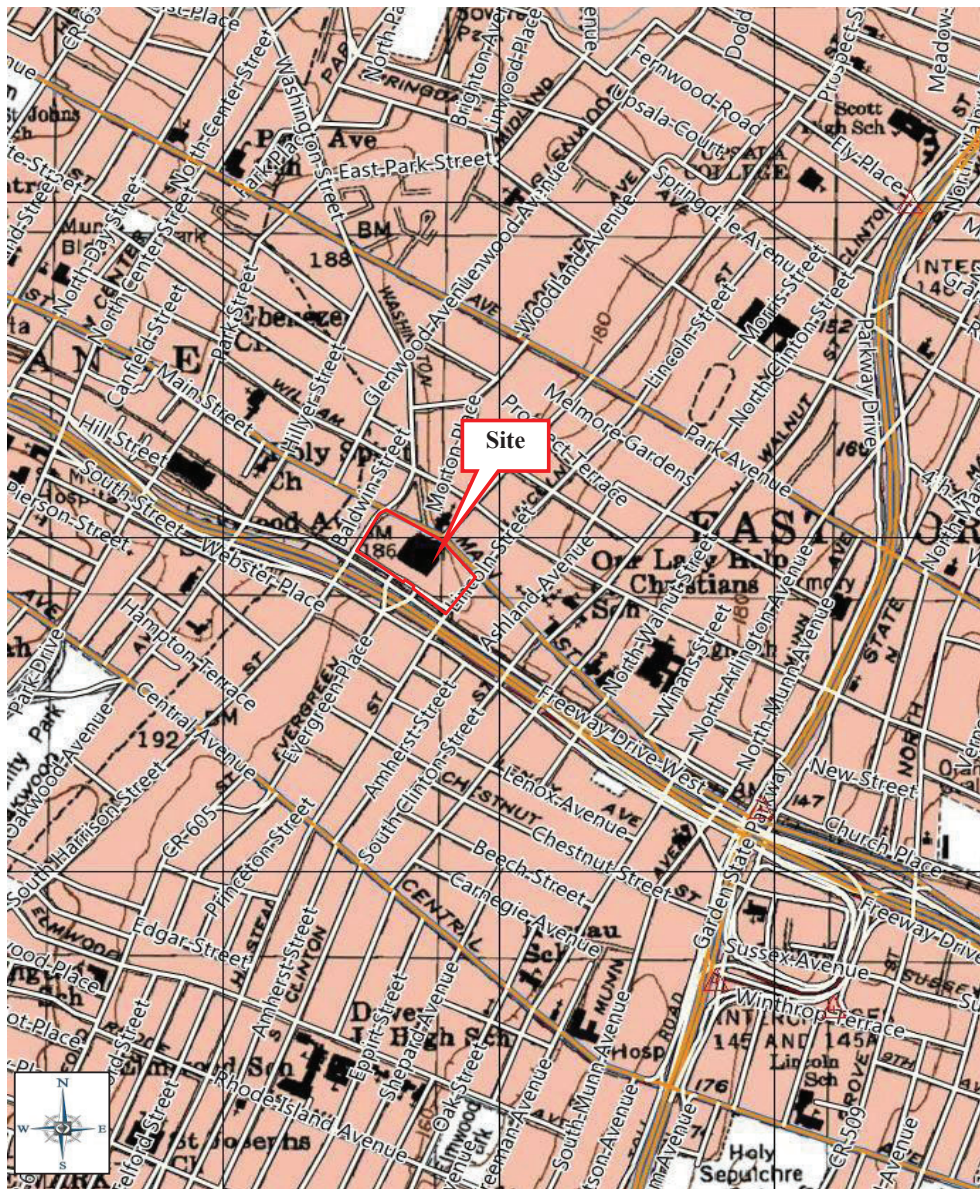
Date: 6/28/2019

Checked by: JFT

Scale: NTS



BOHLER
ENGINEERING



USGS Map

569,809-ft. E; 704,278-ft. N

Orange Quadrangle

Source: USGS, 1986

Date Access: 6/25/2019

Brick Church Opportunity Zone Fund I LLC

505, 507, 513-517 & 533 Dr. MLK Jr. Blvd. and
15 - 33 Halsted Street

City of East Orange, Essex County, NJ

Block 680; Lot 1 and Block 683, Lots 1, 1.01, 4.01, 4.02 & 5

BENJ #J180710

Prepared by: ARC

Date: 6/28/2019

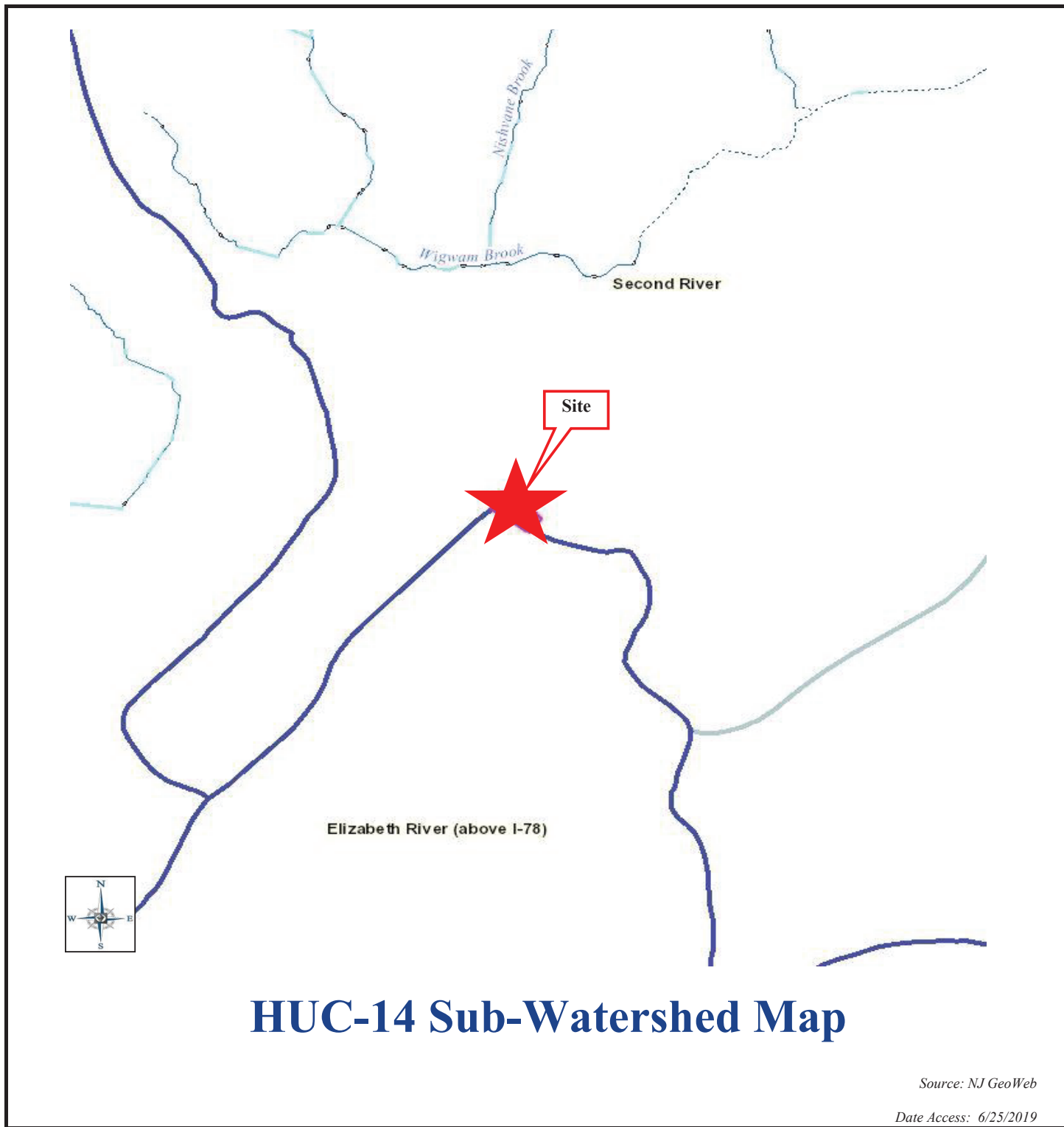
Checked by: JFT

Scale: NTS



BOHLER
ENGINEERING
City of East Orange, Essex County, NJ

6/28/2019



Brick Church Opportunity Zone Fund I LLC

505, 507, 513-517 & 533 Dr. MLK Jr. Blvd. and
15 - 33 Halsted Street

City of East Orange, Essex County, NJ
Block 683, Lots 1, 1.01, 4.01, 4.02 & 5

BENJ #J180710

Prepared by: ARC

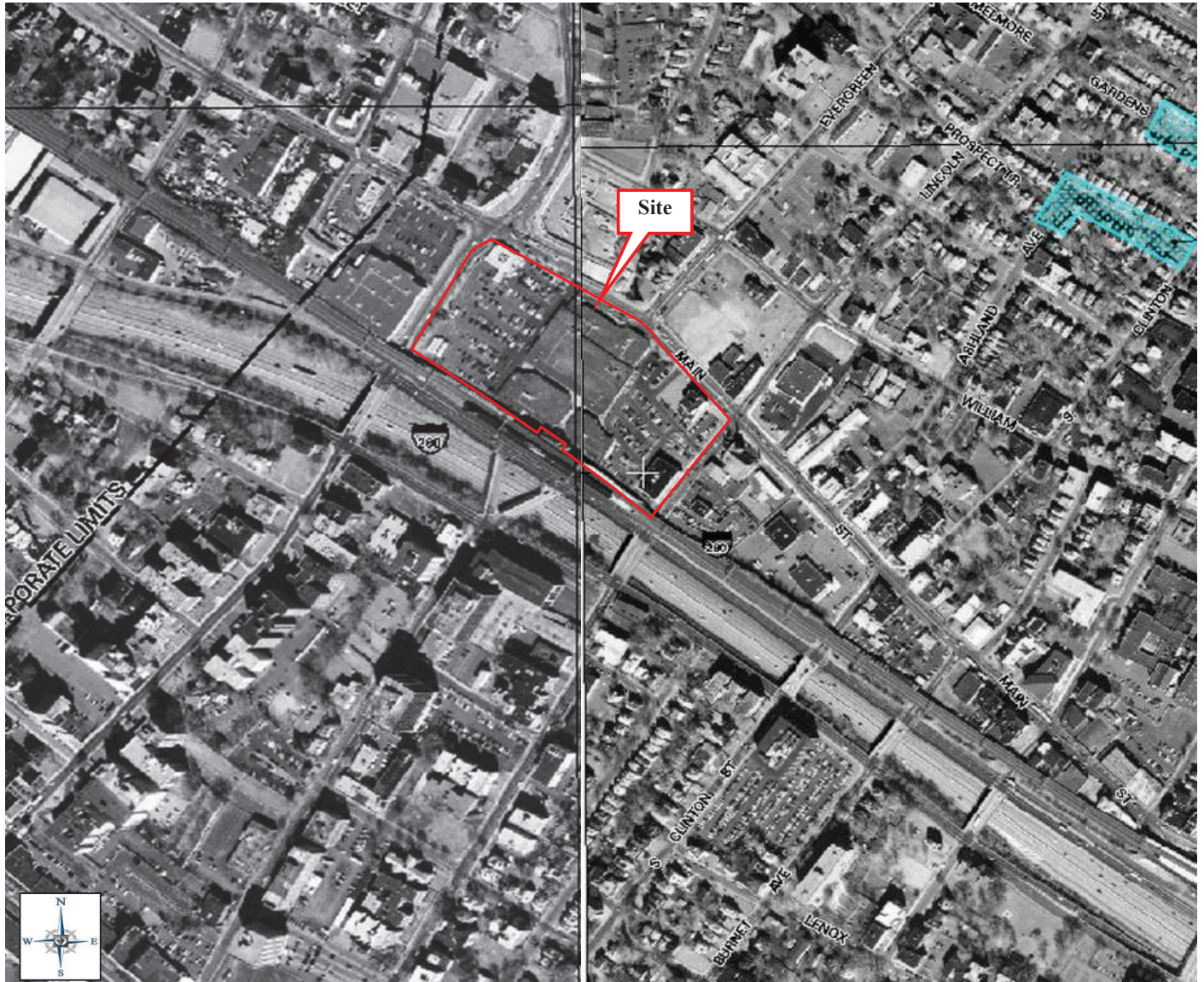
Date: 6/28/2019

Checked by: JFT

Scale: NTS



BOHLER
ENGINEERING



FEMA Flood Map

Source: FEMA FIRM Map #34013C0113F & #34013C0114F, Dated 06/04/2007

Date Access: 6/25/2019

Brick Church Opportunity Zone Fund I LLC

505, 507, 513-517 & 533 Dr. MLK Jr. Blvd. and
15 - 33 Halsted Street

City of East Orange, Essex County, NJ
Block 683, Lots 1, 1.01, 4.01, 4.02 & 5

BENJ #J180710

Prepared by: ARC

Date: 6/28/2019

Checked by: JFT

Scale: NTS



BOHLER
ENGINEERING



PROSPECT STREET -

VARIABLE WIDTH R.O.W. PER TAX MAP PUBLISHED

MILKING STREET

BLOCK 683
LOT 4.01
N/F LANDS OF
JEWELRY OUTLET INC

BLOCK 683
LOT 5
N/F LANDS OF

BLOCK 683
LOT 4.01
N/F LANDS OF
THE JEWELRY OUTLET INC.

BLOCK 683
LOT 5
N/F LANDS OF

STING E3 TRIBUTARY TO DR. MARTIN LUTHER KING JR. BLVD.
% GRASS COVER, GOOD; HSG D = 11,871 SF (0.273 AC); CN = 80
IMPERVIOUS; HSG D = 74,325 SF (1.706 AC); CN = 98
TOTAL AREA = 86,196 SF (1.979 AC); CN = 96; Tc = 6 MINUTES

BLOCK 683
LOT 1
N/F LANDS OF
LCE ORANGE SHOP CTR LLC &
WBSF EAST ORANGE URBAN SHOPPING
CENTER, LLC
D.B. 12041, P.G. 4434

"SHOPRITE"

5% GRASS COVER, GOOD, HSG D = 8,031 SF (0.184 AC); CN = 80
IMPERVIOUS, HSG D = 148,626 SF (3.412 AC); CN = 98
TOTAL AREA = 156,657 SF (3.596 AC); CN = 97; Tc = 6 MINUTES

BLOCK 680
N.F. Davis & Co.
585 MAIN ST. E. LLC
R. 6118, P.G. 484

SOUTH HARRISON
STREET
(74' WIDE PUBLIC R.O.W.)

BRICK CHURCH
PLAZA

HATSTED STREET
(60' WIDE R.O.W. PER TAX MAP PUBLIC)

50' WIDE R.O.W. PER TAX MAP PUBLIC

[illegible]

FOR EXHIBIT
PURPOSES ONLY

PROJECT NO.: J180710
DRAWN BY: SCJ/H
CHECKED BY: JFT
DATE: 06/28/2019
SCALE: AS SHOWN
CAD/D: J180710-EDA-1A

DRAINAGE MAPS

**BRICK CHURCH
OPPORTUNITY
ZONE FUND I, LLC
PROPOSED**

THE CROSSINGS AT BRICK
CHURCH STATION
BLOCK 683

LOTS 1, 101, 401, 402 & 5
905, 507, 513-517 & 533 DR. M.L.K JR.
BOULEVARD AND
1533 HALSTED STREET
CITY OF EAST ORANGE
ESSEX COUNTY, NEW JERSEY

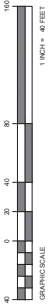


B.A. BOHLER

EXISTING
DRAINAGE AREA
MAP

SHEET NUMBER: 1 OF 1

PB730-19



BOHLER ENGINEERING

SITE CIVIL AND CONSULTING ENGINEERING
LANDSCAPE ARCHITECTURE
SURVEILLANCE DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES

| REV. | DATE | REVISIONS |
|------|------------|-------------|
| 1 | 08/15/2019 | NEW PROJECT |

| REV. | DATE | REVISIONS |
|------|------------|-------------|
| 1 | 08/15/2019 | NEW PROJECT |

811

NEW JERSEY
UNIVERSITY MICROFILMS INTERNATIONAL
UNIVERSITY MICROFILMS INTERNATIONAL

FOR EXHIBIT PURPOSES ONLY

PROJECT NO. 19-001
SHEET NO. 1 OF 1
SCALE: AS SHOWN
DATE: 08/15/2019

DRAINAGE MAPS

FOR
BRICK CHURCH OPPORTUNITY ZONE FUND I, LLC
THE CHURCH AT BRICK
CHURCH STATION
LOT 1, 01.401, 4.024 & 5.000
1453 HALSTED STREET
BRICK, NJ 08701
ESSEX COUNTY, NEW JERSEY

BOHLER ENGINEERING

317 HUNTERS CREEK DRIVE
BRICK, NJ 08701
Phone: (609) 666-0000
Fax: (609) 666-0001
www.BohlerEngineering.com

R.A. BOHLER

REGISTERED PROFESSIONAL ENGINEER
NEW JERSEY LICENSE NO. 120000001
PAID UP LICENSE EXPIRATION DATE 12/31/2024
PAID UP LICENSE EXPIRATION DATE 12/31/2024

PROPOSED DRAINAGE AREA MAP

SHEET TITLE

SHEET NUMBER
1
OF 1

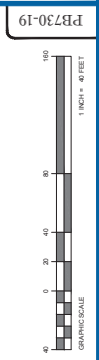
REVISION 1 - 08/15/2019



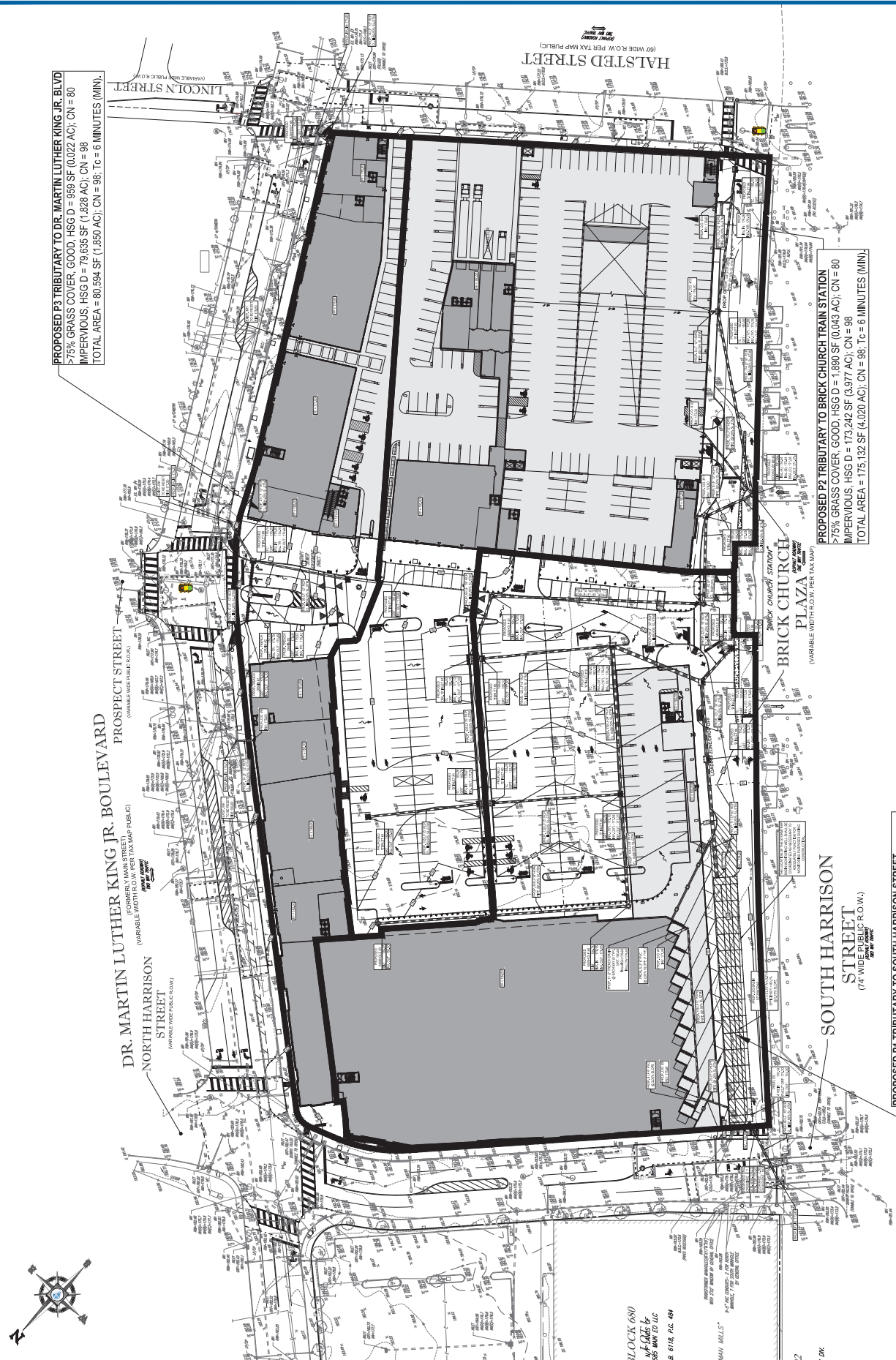
PROPOSED P3 TRIBUTARY TO DR. MARTIN LUTHER KING JR. BLVD
>75% GRASS COVER, GOOD, HSG D = 959 SF (0.022 AC); CN = 80
IMPERVIOUS, HSG D = 79,635 SF (1.828 AC); CN = 98
TOTAL AREA = 80,594 SF (1.850 AC); CN = 98; Tc = 6 MINUTES (MIN).

PROPOSED P2 TRIBUTARY TO BRICK CHURCH TRAIN STATION
>75% GRASS COVER, GOOD, HSG D = 1,890 SF (0.043 AC); CN = 80
IMPERVIOUS, HSG D = 173,242 SF (3.977 AC); CN = 98
TOTAL AREA = 175,132 SF (4.020 AC); CN = 98; Tc = 6 MINUTES (MIN).

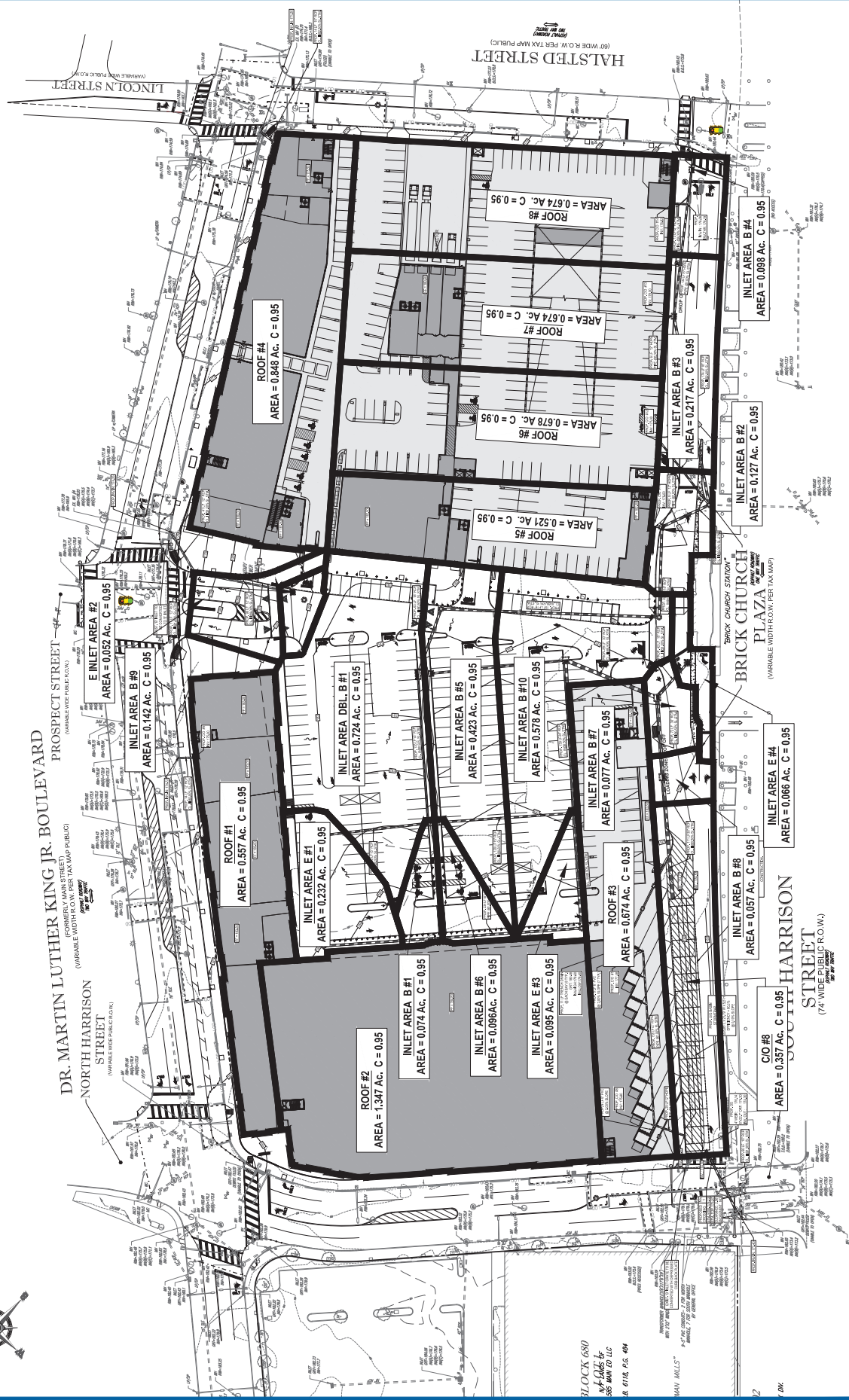
PROPOSED P1 TRIBUTARY TO SOUTH HARRISON STREET
>75% GRASS COVER, GOOD, HSG D = 2,131 SF (0.049 AC); CN = 80
IMPERVIOUS, HSG D = 162,504 SF (3.731 AC); CN = 98
TOTAL AREA = 164,635 SF (3.780 AC); CN = 98; Tc = 6 MINUTES (MIN).



PB730-19



BLOCK 680
M.L. 0466
S.S. 0466
R. 0118, P. 0466



SHEET NUMBER: 1 OF 1

PROFESSIONAL ENGINEER
NEW JERSEY LICENSE NO. 47421
DELAWARE LICENSE NO. 17111
FLORIDA LICENSE NO. 73277
NEW YORK LICENSE NO. 00851-A
CONNECTICUT LICENSE NO. 20339
PENNSYLVANIA LICENSE NO. 072006

N/CERT. OF AUTHORIZATION NO. 24-00000000

CITY OF EAST ORANGE

SCALE: AS 940A
MOID: J180710-JDA.

WHETHER ITS ON PRIVATE OR PUBLIC LAND.
1-800-272-1000

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East Orange Planning Board



RESOLUTION PB 730-19

RESOLUTION IN THE MATTER OF THE APPLICATION OF BRICK CHURCH OPPORTUNITY ZONE FUND I, LLC, FOR PRELIMINARY AND FINAL SITE PLAN APPROVAL, TO PERMIT THE DEMOLITION OF ALL EXISTING IMPROVEMENTS AT A 9.65 ACRE SITE KNOWN AS "BRICK CHURCH PLAZA" WHICH INCLUDES AN ADJACENT PUBLIC RIGHT-OF-WAY, AND THE CONSTRUCTION OF TWO MIXED-USE BUILDINGS, ONE FIVE STORIES IN HEIGHT AND THE OTHER A NINE-STORY BUILDING THAT WILL INTEGRATE A SEVEN-LEVEL PARKING DECK, CONTAINING AN APPROXIMATE TOTAL OF 820 RESIDENTIAL UNITS, 197,650 SQUARE FEET OF COMMERCIAL SPACE AND 1,588 PARKING SPACES, AT PROPERTY LOCATED AT 505, 507, 513-517 AND 533 DR. MARTIN LUTHER KING, JR. BOULEVARD AND 15-33 HALSTED STREET, BLOCK 683, LOTS 1, 1.01, 4.01, 4.02 AND 5; BLOCK 688.01, LOTS 1 AND 2; AND BLOCK 688, LOT 1.

WHEREAS, Brick Church Opportunity Zone Fund, I, LLC, filed an application with the City of East Orange Planning Board with respect to property known as Brick Church Plaza, a 9.65 acre site improved with a ShopRite grocery store and other commercial buildings and which includes an adjacent public right-of-way of the same name, located at 505, 507, 513-517 and 533 Dr. Martin Luther King, Jr. Boulevard and 15-33 Halsted Street, Block 683, Lots 1, 1.01, 4.01, 4.02 and 5; Block 688.01, Lots 1 and 2; and Block 688, Lot 1, for preliminary and final site plan approval which would permit the demolition of all existing commercial improvements and the construction of two mixed-use buildings, one five stories in height and the other nine stories, a seven-level parking deck and approximately 1,588 parking spaces; and

WHEREAS, entities related to the Applicant are the owners of Block 683, Lots 1 and 1.01; and

WHEREAS, Block 683, Lots 4.01, 4.02 and 4.05 are owned by unrelated entities who have either entered into contracts to sell their property to the Applicant or have evidenced their consent to this application pending acquisition by the Applicant; and

WHEREAS, Block 688.01, Lots 1 and 2 and Block 688, Lot 1 form a public right-of way also known Brick Church Plaza, which is owned by both the City of East Orange and New Jersey Transit; and

WHEREAS, development of the subject property is a governed by the Transit Village District Redevelopment Plan, originally adopted in December, 2015, and amended several times since (the “TVD Plan”), including by Ordinance 8 of 2019, which amended the TVD Plan to create a new subdistrict – the Brick Church Plaza District - to govern the redevelopment of the Brick Church Plaza site; and

WHEREAS, pursuant to the Redevelopment Plan and the Local Redevelopment and Housing Law, N.J.S.A. 40A:12A-1, *et seq.* (“LRHL”), the City Council, acting as the Redevelopment Entity, has designated an affiliate of the Applicant as the redeveloper of the site but has yet to enter into a redevelopment agreement with the Applicant or its affiliate; and

WHEREAS, the proposed development would fully conform with the amended TVD Plan; and

WHEREAS, a hearing on this application was held before the East Orange Planning Board on August 21, 2019; and

WHEREAS, the Applicant filed an affidavit with this Board showing compliance with the statutory requirements concerning notice to the affected property owners and of making proper and timely publication of the application in the official newspaper of the City of East Orange.

NOW, THEREFORE, be it resolved by the Planning Board of the City of East Orange as follows:

This was an application for preliminary and final site plan approval to permit the demolition of all existing improvements on a 9.65 acre tract which includes a portion of an adjacent public right-of-way, both known as “Brick Church Plaza,” and the construction of a five-story mixed-use building, another mixed-use building nine-stories in height that will integrate a seven-level parking deck, and approximately 1,588 parking spaces at property located at 505, 507, 513-517 and 533 Dr. Martin Luther King, Jr. Boulevard (“Main Street”) and 15-33 Halsted Street, Block 683, Lots 1, 1.01, 4.01, 4.02 and 5; Block 688.01, Lots 1 and 2; and Block 688, Lot 1. Block 683 forms a full city block fronting on four public streets - Main Street,

Halsted Street, Brick Church Plaza and South Harrison Street - and is improved with multiple commercial buildings including a ShopRite grocery store and other retail and office uses. Lots 1 and 2 in Block 683 are owned by entities related to the Applicant. Block 683, Lots 4, 4.01 and 5 are owned by unrelated entities which either have entered into a contract to sell to the Applicant or have consented to this application in anticipation of entering into such a contract. Block 688 and Block 688.01 form the public right-of-way Brick Church Plaza, which services the adjacent Brick Church train station and is owned in part by the City and in part by New Jersey Transit. The City will need to vacate its ownership interest in the public right-of-way and New Jersey Transit will need to vacate a portion of its ownership interest, and convey those vacated portions to the Applicant, to facilitate the proposed development. Development of the property is governed by the TVD Plan, recently amended to create the Brick Church Plaza District, one of eight subdistricts within the Plan. The proposed development would include 820 residential units and approximately 197,650 square feet of commercial space, and would fully conform with the development regulations set forth in TVD Plan and the Brick Church Plaza District amendment. Pursuant to the LRHL, the City Council designated the Applicant as the redeveloper of the property, but a redevelopment agreement was not yet entered into as of the date of the hearing on this application.

To obtain preliminary and final site plan approval, Applicant must demonstrate compliance with the standards governing review and approval of site plan applications set forth in the City's Land Use Ordinance.

Applicant was represented by Meryl A. G. Gonchar, Esq., of the firm Sills, Cummis & Gross, P.C. Ms. Gonchar presented the testimony of Joshua Weingarten, a representative of the Applicant; James Thaon, a New Jersey licensed professional engineer with the firm Bohler Engineering; Jack Raker, a New Jersey licensed architect with the firm Minno & Wasko Architects & Planners; and Daniel Brzac, a New Jersey licensed professional engineer specializing in traffic engineering with the firm Vanasse Hangen Brustlin, Inc. Mr. Thaon, Mr. Raker and Mr. Brzac were accepted by the Board as experts in their respective fields. The Board also received reports and heard testimony from Todd Hay, with the firm Pennoni Associates, the Board's consulting engineers, who also acts as the City Engineer, John McDonough, the Board's consulting planner, and Joseph J. Staigar, with the firm Dynamic Traffic, LLC, the Board's consulting traffic engineers. Several members of the public participated in the hearing.

Based on the evidence presented at the hearing, the Board made the following findings of fact:

1. The subject property comprises a full city block and an adjacent public right-of-way. The city block is divided into five tax lots and fronts on Main Street to the north, Halsted Street to the east, Brick Church Plaza to the south and South Harrison street to the west. Across Brick Church Plaza is the Brick Church train station;

2. Block 683, Lot 1 comprises the vast majority of the site, and has frontage on all four streets. It is improved with a ShopRite grocery store situated in the middle of the block, with additional retail space abutting the northerly side of the grocery store and which fronts on Main Street. Other uses on the site include a bank at the intersection of Main Street and South Harrison Street, and retail stores in two buildings between the grocery store and the Brick Church train station. All the buildings are one-story in height. The balance of Lot 1 is improved with surface parking stalls, with no internal vehicular connectivity between the parking area on the west side of the site and the parking area on the east side of the site. The shopping center is also known as Brick Church Plaza;

3. Block 683, Lot 1.01 is improved with a two-story office building with accessory surface parking on the north side of the building and is located at the corner of Halsted Street and Brick Church Plaza. Lot 4.01 is improved with a three story commercial building and fronts on Main Street, approximately 84 feet to the west of the intersection of Main Street and Halsted Street. Parking for Lot 1 separates Lot 4.01 from the intersection. Lot 4.02 is to the west of Lot 4.01 and is also improved with a three-story commercial building. The buildings on Lot 4.01 and 4.02 abut one another. Lot 5 is to the west of Lot 4.02 and is improved with a one story commercial building and a surface parking area which separates the building from Lot 4.02;

4. Lots 1 and 1.01 have been acquired by entities related to the Applicant. Lots 4.01, 4.02 and 5 are either under contract for purchase by entities related to the Applicant, or have evidenced their consent to this application in anticipation of entering into a contract of sale;

5. Prospect Street intersects with Main Street at the midpoint of the Lot 1 frontage and, if continued through Lot 1, would lead directly to the Brick Church train station. However, the building improvements on Lot 1 prevent direct access to the train station from Prospect Street and other points to the north, resulting in an obsolete layout that hinders pedestrian access to the train station;

6. Block 688.01, Lots 1 and 2 and Block 688, Lot 1 form the Brick Church Plaza public right-of-way, which is a one-way, narrow roadway running east to west situated on the north side of the train station. On the south side of the train station is Freeway Drive West. The right-of-way is owned in part by the City of East Orange and in part by New Jersey Transit, and includes a section owned by New Jersey Transit that permits vehicles to travel under the train station. The portion of the right-of-way that travels under the train station is also accessible from Evergreen Place, allowing vehicles from the south to make what amounts to a U-turn on Evergreen Place after crossing Freeway Drive West or to continue to South Harrison Street. The U-turn maneuver is also made possible by the design of Evergreen Place, which becomes a “Y”-shaped roadway as it crosses over Route 280, with the easterly wing of the “Y” named Prospect Place. Brick Church Plaza is primarily used by vehicular traffic accessing the train station, including drop-offs and pick-ups and taxi services. Vehicles cannot enter the shopping center from the public roadway;

7. Applicant proposed to demolish all improvements on Block 683 and, after the vacation and conveyance of portions of Blocks 688 and 688.01, construct a new mixed-use development on the site consisting of two separate buildings, one five stories in height and the other nine stories in height. The latter will integrate a seven-level parking structure. In total, there would be 820 residential units, and a projected 197,650 square feet of commercial space and 1,588 parking spaces. (This resolution reflects the square footage of the various commercial units and their uses, and the number of parking stalls, as were presented on Applicant’s plans, with the understanding that these details may change during the four year period projected for construction.);

8. Development of the property is governed by the TVD Plan and the recently enacted amendment which created the Brick Church Plaza District. The proposed development would fully conform with the TVD Plan, as amended;

9. The five-story mixed-use building (“Building A”) would be U-shaped and located on the westerly portion of the site. The building would extend nearly the full length of the South Harrison Street frontage, with a one foot setback along the frontage until it approaches the intersection with Main Street where the setback would gradually increase to 10 feet and then, due to a jog in the building wall proximate to the street corner, increase to 33.9 feet;

10. The northerly wing of Building A would also have approximately 415.5 feet of frontage on Main Street, with a minimum front yard setback of three feet. The southerly wing will front on and run parallel to the vacated Brick Church Plaza. It is expected that a new ShopRite grocery store would occupy 70,660 square feet of the ground floor of Building A, including the entirety of the South Harrison Street frontage and approximately 150 feet of the westerly portion of the Main Street frontage. The ground floor space immediately to the east of the grocery store frontage on Main Street would be the primary residential lobby for the four residential floors above the ground floor commercial space. To the east of the residential lobby would be three ground floor commercial units totaling 14,830 square feet;

11. The ground floor of the southerly wing of Building A would be largely devoted to loading and parking. Eight tractor-trailer loading docks would abut the southerly building wall of the grocery store, angled to the east for ease of access. The traffic pattern of the vacated portion of Brick Church Plaza would be reversed, with traffic instead traveling west to east to facilitate truck movements into and out of the angled loading docks. To the east of the loading docks would be ground floor parking stalls, a second residential lobby, a trash room and a mechanical room, all servicing Building A. Thirty-three parking spaces would be either fully or partially covered by the upper floors of the southerly wing of Building A;

12. The 33 covered parking stalls would be connected to and accessible from a large surface parking area located in the uncovered area of the U-shaped building. Inclusive of these 33 spaces, this parking area would total 233 perpendicular parking stalls, accessible from five, 24-foot wide drive aisles running parallel to Main Street. All spaces would measure 9 feet by 18 feet, except for six ADA compliant stalls located immediately in front of the main entrance to the grocery store situated at the midpoint of the easterly façade of the building;

13. The surface parking area servicing Building A will allow the two retail spaces along Main Street to have entrances from either the parking lot, Main Street, or both;

14. The upper four floors of Building A would contain 400 residential units, consisting of 8 micro units, 91 studio apartments, 181 one-bedroom units, which will include 16, low and moderate income or workforce units (hereinafter, "affordable units"), 104 two-bedroom units, of which 48 will be affordable units, and 16 three-bedroom units, all of which will be affordable units. The residential units would be accessible from double loaded corridors, with the units located in the center of the of the building above the grocery store encircling two

separate second floor terraces, connected by a second floor amenity space for the residential tenants. The terraces would be open to the sky, essentially creating two donut holes in the center of Building A, and providing light and air for the interior units. The second floor terraces would be accessible to all tenants of the building from multiple extensions of the internal, double loading corridor;

15. Vehicular and pedestrian access to the Building A parking area and the grocery store would be from an access drive aisle extending the full north-south length of the site from Main Street to the vacated Brick Church Plaza right-of-way. The access drive will form a four-way intersection with Prospect Street and Main Street, which is presently regulated by a traffic signal, which will remain. The two-way drive aisle will separate the westerly portion of the site, where Building A will be located, from the easterly portion of the site where Building B will be constructed, and will provide direct vehicular access between Main Street and the Brick Church train station in both directions. On the easterly side of the access drive aisle, across from the surface parking lot servicing Building A, will be 20 additional perpendicular surface parking stalls facing to the east and the front of Building B, including one ADA compliant space;

16. These 20 parking spaces would abut a 21-foot wide pedestrian promenade, also extending from Main Street to the vacated Brick Church Plaza, providing unimpeded pedestrian access to the train station. The 20 parking stalls and the pedestrian promenade would be surfaced with brick pavers to create a unified aesthetic;

17. A walkway running the full length of a landscaped island separating the middle rows of parking in the surface lot will connect to the pedestrian promenade via a raised crosswalk extending across the main north-south drive aisle. The walkway and crosswalk will offer pedestrian access between Building B and the grocery store;

18. Building B would be a nine-story mixed-use building, generally rectangular in shape, and located on the easterly portion of the site. It would incorporate a seven-level parking deck in the southeast corner of the site, would extend the full length of the Halsted Street frontage and would occupy approximately 365 feet of the Main Street frontage from the intersection of Halsted Street and Main Street to the pedestrian promenade. Setbacks along both street frontages would range from one to three feet;

19. The lobby accessing the residential units within Building B, located on floors three through nine, will be occupy the ground floor space at the corner of Main Street and

Halsted Street. Immediately to west of the residential lobby would be a ground floor lobby with an elevator providing access to a second floor medical office. Fronting on Main Street to the west of the medical office lobby will be an 8,000 square foot retail unit, with an 8,500 square foot retail unit to the west of the retail unit. A pedestrian walkway, one story in height, will separate the two retail units, providing access to a ground floor parking area behind the retail and lobby space. A third, 2,160 square foot retail unit would front on both Main Street and the pedestrian promenade;

20. The only breaks in the ground floor façade along Halsted Street would be two curb cuts, one to the south of the residential lobby measuring 33.7 feet in width which will serve a two-way driveway accessing the ground floor parking area behind the Main Street retail space. The other curb cut would be further to the south, and would measure 62.2 feet. This curb cut will provide access to four loading spaces underneath Building B. Two of the loading spaces would be devoted to tractor trailer deliveries for the commercial uses within Building B, one would be for trash removal and would front on a trash compactor, and the fourth would be for residential moves and other smaller deliveries. There will be three elevator shafts behind the Halsted Street loading area, one for residential moves and two accessing the second floor commercial space that will front on Main Street;

21. Halsted Street is a two lane, two-way roadway with a narrow cartway that allows no on-street parking on either side of the street, making it difficult for trucks, particularly tractor trailers, to back into the proposed loading area. Applicant will restrict the use of the Halsted Street loading area within Building B to off-peak hours to limit the impact on traffic;

22. Along the westerly façade of Building B, facing the pedestrian promenade and abutting the 2,160 square foot retail space that will also front on Main Street, will be a 1,400 square foot lobby area which will access a second floor “junior anchor” retail tenant. An elevator and a stairwell will lead directly from the lobby into the junior anchor retail space occupying the northwest corner of the second floor of Building B;

23. Next to the junior anchor lobby would be a 20-foot wide, two-way driveway servicing the ground floor parking area behind the Main Street retail space. This parking area would contain 72 parking spaces, including five ADA complaint stalls;

24. To the south of the parking lot driveway would be 6,600 square feet of ground floor restaurant space, and to the south of the restaurant space would be another lobby area with

an elevator leading to the second floor junior anchor space. Next to that lobby area would be a separate lobby area which will provide elevator access to a second floor restaurant unit, measuring 10,000 square feet. This restaurant space will have an outdoor terrace fronting on the pedestrian promenade;

25. To the south of the restaurant lobby would be a 24-foot wide, two-way driveway accessing a ground floor parking area with 28 spaces and the seven-level parking structure in the southeast portion of the site. The parking deck will also be accessible from the 72 space parking area behind the Main Street retail space and from a 26.5 foot wide, two-way driveway off of the vacated Brick Church Plaza right-of-way. The parking deck will contain approximately 1,200 parking stalls. (The engineering plans reflected 1,235 spaces and the architectural plan indicated 1,251 spaces in the parking structure. Testimony indicated that the correct count would be 1,180 spaces);

26. A 1,500 square foot ground floor retail unit was proposed for the southwest corner of Building B, just to the west of the Brick Church Plaza access to the parking structure;

27. As reflected by the inconsistencies in the counts of the number of parking structure stalls, the actual number of parking spaces constructed on the site may vary from the numbers set forth in this resolution. However, it was uncontroverted that the number of on-site spaces would exceed the 1,351 parking spaces required by the parking ratios set forth in the Brick Church Plaza District regulations for all proposed uses on the site;

28. In addition to the junior anchor retail space, which will occupy 47,500 square feet on the second floor, and the 10,000 square foot restaurant space, the second floor medical office would occupy 11,400 square feet in the northeast corner of Building B, overlooking the intersection of Main Street and Halsted Street. Between the medical office and the junior anchor would be 15,100 square feet of space allocated for a fitness center, which will be open to the general public, and a storage area for the junior anchor tenant;

29. Access to the fitness center would be from an elevator located in the northeast corner of the parking structure, which will also provide access to a rear entrance into medical office space. Four additional elevator banks and two stairwells will service the parking structure, and there will be an entrance from the second floor of the deck into the junior anchor space;

30. The parking structure would be wrapped by commercial and residential uses on its north and west sides. The south and east sides of the deck would serve as exterior walls of Building B;

31. It was anticipated that the ground floor parking areas in Building B and the first two floors of the parking structure would be used by public invitees of the retail and restaurant uses, and the upper five floors of the deck would be reserved for residential tenants and employees of the various uses on the site. It was also anticipated that 180 commuter parking spaces would be available within the parking deck through a shared parking arrangement;

32. Bollards will protect the pedestrian promenade from the abutting perpendicular parking spaces, and planters would be added on the promenade on each side of the driveways accessing the parking areas within Building B, installed perpendicular to the building wall, to direct pedestrians away from the building wall in order to provide pedestrian visibility for vehicles exiting the Building B parking areas;

33. The Board recognized that the size and uses of the commercial space, similar to the number and allocation of parking stalls, were projections that may be modified during or after construction, but the footprints of the two buildings would remain unchanged;

34. The 420 units on the seven residential floors in Building B will include 18 micro units, 92 studio apartments, 178 one-bedroom units, of which 19 would be affordable units, 115 two-bedroom units, including 51 affordable units, and 17 three-bedroom units, all of which will be affordable units;

35. Building B would have two third floor terraces, one fronting on the pedestrian promenade and the other a donut whole surrounded by residential units, both of which open to the sky and accessible to all residential tenants. Residential amenity space would separate the two terraces;

36. The micro units will measure approximately 435 square feet, the studio apartments 575 square feet, the one-bedroom affordable units 715 square feet, the one-bedroom market rate units 735 square feet, the two-bedroom affordable units 890 square feet, the two-bedroom market rate units 1,100 square feet and the three-bedroom affordable units 960 square feet. All unit sizes conformed with the Brick Church Plaza District standards. The unit breakdown for both buildings may be modified to conform with funding requirements for the affordable units;

37. The facades of Buildings A and B would be sided with various materials including brick, fiber cement panels of varying colors and metal cladding;

38. In addition to reversing the traffic flow through the Brick Church Plaza right-of-way, Applicant contemplated road improvements on Halsted Street, Main Street and South Harrison Street. Main Street would be narrowed to provide one lane in each direction, except for three lanes at the intersection at the Harrison Street intersection, designated for through movements, left turns onto South Harrison Street or right turns onto North Harrison Street. A left turn lane from westbound Main Street into the site will also be added, as will a left turn lane for eastbound Main Street traffic onto Prospect Street. No on-street parking will be permitted on Main Street in front of the site. A left turn lane would also be added for northbound Halsted Street traffic onto Main Street, and for southbound traffic on Lincoln Street, which is directly across Main Street from Halsted Street. A left turn lane from South Harrison Street onto Brick Church Plaza would be created to facilitate truck movements into the grocery store loading area and for vehicles accessing the train station. Traffic signals at the intersections of Brick Church Plaza and South Harrison Street and Brick Church Plaza and Halsted Street were also proposed, to supplement the three existing signals on Main Street at the intersections of South Harrison Street, Prospect Street and Halsted Street. Approvals from multiple governmental entities would be necessary to construct and install these improvements, and Applicant agreed to continue to work with the Board's consulting traffic engineer, Dynamic Traffic, to effectuate the improvements, to properly time the traffic signals at all five intersections adjacent to the site, and to minimize any adverse consequences for pedestrians and by-pass traffic, particularly for vehicles coming from the south, where the train trestles and supporting columns restrict sight distances and queuing lanes;

39. The one-way passageway under the Brick Church train station, which permits a U-turn for northbound traffic on Evergreen Place, will remain, with traffic traveling east to west. Vehicles utilizing this passageway may conflict with the reconfigured traffic pattern on the vacated Brick Church Plaza right-of-way, which will now be one-way, west to east. The redesign of Brick Church Plaza will also permit northbound Evergreen Place traffic to make a right turn onto Brick Church Plaza toward the Halsted Street intersection, a maneuver not now permitted, although a concrete mountable island would preclude access to the parking deck's entrance off of Brick Church Plaza and will mitigate conflicts with vehicles traveling from the

west or exiting the parking structure. Traffic headed eastbound on Brick Church Plaza from South Harrison Street will be able to turn right onto Evergreen Place, turn left into the site at the intersection with the internal drive, or into the parking structure, or to continue eastbound to the intersection of Halsted Street. The reconfiguration of Brick Church Plaza traffic patterns warrants further study by the Applicant's and the Board's professionals to ensure vehicular and pedestrian safety;

40. There would be two drop-off areas on the north side of the vacated Brick Church Plaza for commuters using the Brick Church train station and for taxi services, one west of the train station and one east of the station. The westerly drop-off area will also serve as a loading area for residential moves in Building A, as it is proximate to the residential lobby in the southerly wing of the building;

41. A landscaped island will separate ingress and egress traffic at the north-south drive aisle connection to Main Street, with a raised crosswalk connecting the easterly and westerly buildings at the island's southerly tip. The islands controlling traffic in the surface lot adjacent to Building A will also be landscaped, and trees would be planted along the pedestrian promenade. Total impervious coverage on the site would be 98.8%, although the Brick Church Plaza District permits 100% impervious coverage;

42. A streetscape plan will be submitted for review by the Board's professionals which will comply with streetscape standards being designed by the City. This will include street lamps, street furniture and street trees, along with sidewalk design;

43. A pylon sign will be located within the landscaped island proximate to the intersection of the internal drive aisle and Main Street. A monument sign would be located at the corner of Main Street and South Harrison Street, a second monument sign would be installed at the corner of Halsted Street and Brick Church Plaza, and a third monument sign would be located at the intersection of South Harrison Street and Brick Church Plaza. A wall sign will be installed at the roofline of the southeast corner of the parking deck, visible from the train line and Route 280. Residential signage would be installed on metal canopies above lobby entrances. All signs will conform with the sign regulations set forth in the Brick Church Plaza District regulatory scheme. Wall signs for each commercial tenant will also conform with the sign regulations, or variances will be sought as needed;

44. An underground detention basin would be constructed under the vacated Brick Church Plaza right-of-way, adjacent to the grocery store loading docks. Stormwater from the detention basin, collected from the westerly portion of the site including the roof of Building A, will discharge into the municipal system on South Harrison Avenue. Stormwater from the easterly portion of the site, including the access drive aisle and the Building B roof, will be collected in inlets and discharged directly into the municipal system either on Main Street or on Brick Church Plaza. The stormwater management system will meet all state and local regulations, including water quality filtering requirements if deemed necessary;

45. Pole mounted light fixtures and wall sconces will illuminate the site, with canopy lights used for the covered parking area under the southerly portion of Building A, the ground level parking areas within Building B, and the parking structure. The lighting plan conformed with the applicable footcandle standards set forth in TVD Plan;

46. Applicant will consolidate all existing tax lots into one tax lot, except for the portion of Brick Church Plaza, including the passageway under the train station, which will remain in title to New Jersey Transit; and

47. The project will be constructed in phases as reflected in a Construction Phasing Plan submitted to the Board, with the primary goal of minimizing the time which Shop Rite will be closed. It is understood that the phasing plan may be modified over time, and that the estimated four years of construction is subject to a variety of factors, not all of which are within the control of the Applicant.

On the basis of these findings of fact and the discussion of the Members of the Board present at the hearing, the Planning Board of the City of East Orange made the following conclusions of law:

1. The proposed development will promote the goals of the TVD Plan, which seeks mixed-use projects proximate to the City's two train stations. Incorporating moderate income residential units will also benefit the community by providing new, high quality affordable units;

2. Promotion of the State's smart-growth principals through construction of multi-family housing near mass transit is an appropriate use of the land and advances the goals of the Municipal Land Use Law;

3. The proposed development fully conformed with the regulations set forth in the TVD Plan and the Brick Church Plaza District, and with the standards set forth in the City's Land Use Ordinance governing preliminary and final site plan approval; and

4. Accordingly, Applicant was entitled to an approval as of right.

On the basis of these findings of fact and conclusions of law, and the discussion of the Members of the Board present at the hearing, the Planning Board of the City of East Orange, by a vote of eight (8) in favor and none opposed, determined that the Applicant had demonstrated that no deviations from the TVD were implicated by the proposed development and that Applicant was therefore entitled to preliminary and final site plan approval.

NOW, THEREFORE, be it resolved by the Planning Board of the City of East Orange that the application for preliminary and final site plan approval to permit the demolition of all existing commercial improvements and the construction of two mixed-use buildings, one five stories in height and the other nine stories with 820 residential units, 197,650 square feet of commercial space, a seven-level parking deck and 1,588 parking spaces at property located at 505, 507, 513-517 and 533 Dr. Martin Luther King, Jr. Boulevard and 15-33 Halsted Street, Block 683, Lots 1, 1.01, 4.01, 4.02 and 5; Block 688.01, Lots 1 and 2; and Block 688, Lot 1, be and hereby is GRANTED, subject to:

1. Execution of a redevelopment agreement between the Applicant and the City;
2. Vacation by the City and New Jersey Transit of the portions of the Brick Church Plaza right-of-way reflected on Applicant's plans, and specifically the Proposed Lot Consolidation Plan prepared by Control Point Associates, Inc., with a final revision date of August 9, 2019, and the acquisition of the vacated sections of the right-of-way by the Applicant;
3. Acquisition of all tax lots in Block 683;
4. Conformance with the engineering plans prepared by Bohler Engineering, with a final revision date of August 9, 2019, except as may be modified consistent with this resolution;
5. Conformance with the architectural plans prepared by Minno & Wasko Architects & Planners, dated August 9, 2019, except as may be modified consistent with this resolution;
6. Conformance with the Traffic Plan prepared by Vanasse Hangen Brustlin, Inc., dated August 9, 2019, subject to any modifications determined to be necessary during construction or imposed by any other governmental entity;

7. The continued involvement of Dynamic Traffic in evaluating any changes to the parking and circulation plan and the implementation of the proposed roadway improvements adjacent to the site, including the installation of new traffic signals and the timing of all traffic signals, and which may include consideration of traffic patterns in the vicinity of the site which will be affected by the proposed development;
8. Compliance with the comments set forth in the August 21, 2019, letter report issued by the City's Department of Public Works;
9. Modifications to the size and uses of the commercial units and the number and allocation of parking spaces, as may be determined to be necessary during or after construction, provided that the number of parking spaces exceeds the number required by the TVD Plan and there are approximately 180 spaces allocated to commuters, and further provided all such changes are reviewed and approved by the Board's professionals;
10. In recognition of the need for the continued involvement of the Board's professionals through the completion of construction, Applicant will maintain an escrow account with the City sufficient to meet the costs related thereto;
11. Limiting the use of the Halsted Street loading area in Building B to off-peak hours;
12. Conformance with the streetscape plan being designed by the City;
13. Conformance with all building and fire code requirements;
14. Any other necessary governmental approvals, including, without limitation, the Hudson-Essex-Passaic Soil Conservation District and NJDEP; and
15. Posting of performance and maintenance guarantees and inspection fees as required by law.

IN FAVOR OF GRANTING THE APPLICATION:

| | |
|---------------------------|-----|
| Councilman Gomez | Yes |
| Mr. Gonano | Yes |
| Ms. Jefferson | Yes |
| Mr. Kivuitu, Jr. | Yes |
| Ms. Onyeani | Yes |
| Mr. Scipio | Yes |
| Mr. St. Clair, Sr. | Yes |
| Chairwoman Scott-Flanagan | Yes |

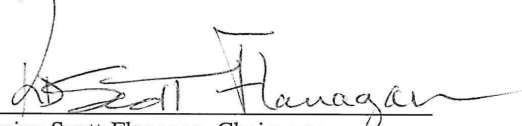
(8) Yes

OPPOSED TO GRANTING THE APPLICATION:

None

(0) No

The undersigned, a member of the City of East Orange Planning Board, certifies that the foregoing is a true copy of the Resolution adopted on the 4th day of September, 2019, to reflect the action taken by said Board on the 21st day of August, 2019.


Katherine Scott-Flanagan, Chairperson

| Members | Aye | Nay | N.V. | A.B. | E.X. | Members | Aye | Nay | N.V. | A.B. | E.X. |
|----------------------------|-----|-----|------|------|------|--|-----|-----|------|------|------|
| Mark Barner ^⑤ | | | | | | Loretta Hand-Onyeani | X | | | | |
| Casim Gomez ^② | X | | | | | Darryl Scipio | X | | | | |
| Thomas Gonano ^② | | | | | | Katharine D. Scott-Flanagan ^① | X | | | | |
| Ted R. Green ^③ | | | | | | Anthony P. St. Clair, Sr. ^⑥ | X | | | | |
| Evonne Jefferson | X | | | | | Faith Murithi ^⑦ | | | | | |
| Mutinda Kivuitu, Jr | | | | | | | | | | | |

X: Indicates Vote
A.B.: Absent

N.V.: Not Voting (Abstained)
E.X.: Excused or Ineligible

- ① Planning Board Chairperson
- ② Planning Board Vice-Chairperson
- ③ Mayor
- ④ City Council Representative
- ⑤ Class II Member
- ⑥ Planning Board Alternate#1
- ⑦ Planning Board Alternate#2


Form and Legality:


Michael S. Rubin, Board Counsel


Katherine D. Scott-Flanagan, Chairperson

Presented: September 4, 2019

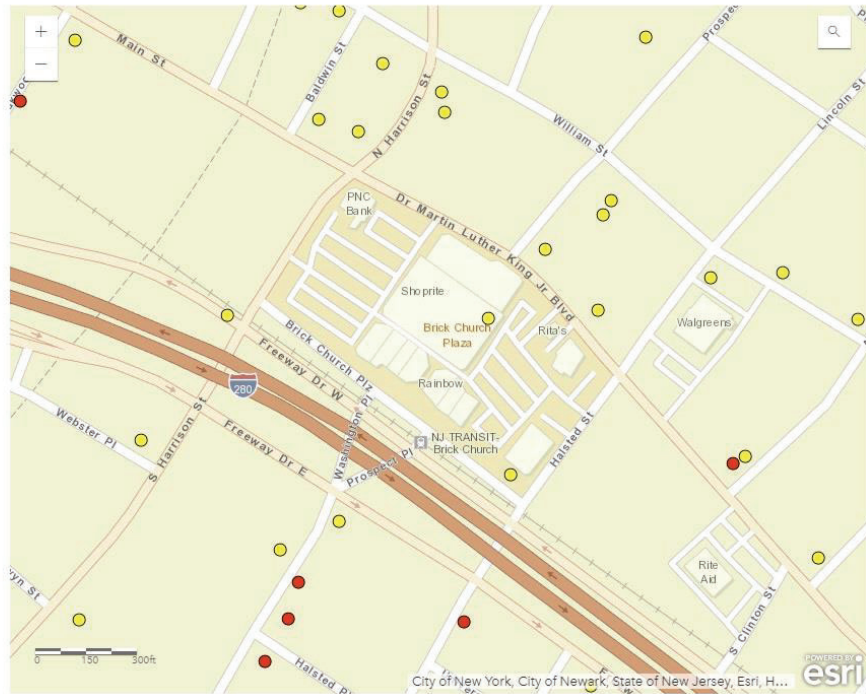
Adopted: September 4, 2019


Janis Nelson, Board Secretary

Legend

SolarPowerSuitability

- >1000kW
- 100-1000kW
- < 100kW





OFFICE OF MAYOR TED R. GREEN
CITY OF EAST ORANGE

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September 5, 2019

New Jersey Board of Public Utilities
Attn: Joe Fiordaliso, President
44 So Clinton Ave, 7th Floor
Trenton, NJ 08625

**RE: Support for Triangle Equities New Jersey Community Solar Energy Pilot Program
Application**

Dear Mr. Fiordaliso:

I write to demonstrate our support of Brick Church Urban Renewal III LLC ("BCUR"), which is affiliated with Triangle Equities Development Company, LLC regarding BCUR's application to participate in the current round of the New Jersey Community Solar Pilot Program. BCUR is a participating entity in Triangle's redevelopment of the area immediately adjoining the Brick Church railroad station, and the City of East Orange is working in close partnership with Triangle and BCUR to make the project a reality.

Over the past several years, the City has endeavored to encourage high-density residential and commercial development in the areas surrounding Brick Church Station, with the goal of creating a "Center of Place" for the City. In 2012, the State of New Jersey took an initial step towards making this vision a reality by granting Transit Village designation to the area within a half-mile radius of the train station. The City furthered its ambitious goals for the area by passing a new, Transit Village District Redevelopment Plan in December 2015. Additionally, the state of New Jersey nominated, and the United States Department of the Treasury approved, the same area as a federally designated Qualified Opportunity Zone to further promote private investment. The Brick Church Station area is the heart of the economic development vision for East Orange, and for these reasons, my Administration is excited about Triangle's planned redevelopment.

This transformative development is located directly adjacent to the Brick Church commuter rail station on New Jersey Transit's Essex & Morris line, and would support the investment in the immediate area around the Brick Church station, which is an economically-distressed community. Triangle has presented the City its vision for a redeveloped Brick Church Plaza Shopping Center. The plan significantly reconfigures the existing center to allow for new residential development, increased commercial development, public open space, and the inclusion of significant commuter parking – arranged in a way to emphasize connection to and showcase Brick Church Station.

BCUR's participation in the Community Solar Pilot Program would take advantage of available roof and parking areas of the project to offer green, renewable energy to local subscribers at a reduced cost. This public-private partnership between my administration and Triangle, including the Community Solar to be developed by BCUR, will be a significant benefit to residents of an economically-distressed area, in addition to the environmental benefits to the community.

I respectfully ask that the BCUR's Community Solar Energy Pilot Program application receive full and fair consideration.

Thank you for your attention to this important matter.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Ted Green', written over a horizontal line.

Ted Green
Mayor

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ONECOMMUNITY
ONEGOAL Progress

ONECITY
ONECOMMUNITY
ONEGOAL Progress

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