Attachment 7

Endangered Species Consultation Documents

NHP Records Request Response (8/13/2018)
Invasive Species Compliance Letter (7/30/2018)
NYSDEC Bald Eagle Consultation Response (8/3/2018)
USFWS Consultation Package (8/15/2018)
USFWS Consultation Response (8/21/2018)

Note: Any appendices from the above reports have been removed.

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Fish and Wildlife, New York Natural Heritage Program
625 Broadway, Fifth Floor, Albany, NY 12233-4757
P: (518) 402-8935 | F: (518) 402-8925
www.dec.ny.gov

August 13, 2018

Alicia Shultz
Governor's Office of Storm Recovery
38-40 State Street
Albany, NY 12207

Re: 435 State Street Development Project
County: Broome Town/City: City Of Binghamton

Dear Ms. Shultz:

In response to your recent request, we have reviewed the New York Natural Heritage Program database with respect to the above project.

We have no records of rare or state-listed animals or plants, or significant natural communities at the project site.

In the Chenango River, 250 yards from the project site, the following rare freshwater mussels have been documented: **brook floater** (*Alasmidonta varicosa*, NYS-listed as Threatened) and **yellow lampmussel** (*Lampsilis cariosa*, unlisted). If the project is conducted so as to avoid impacts to the Chenango River and the aquatic habitat of the mussels, including preventing runoff of sediments and pollutants into the river, then significant impacts to the mussels would not be expected. For information about any permit considerations for your project, contact the Permits staff at the NYSDEC Region 7 Office at dep.r7@dec.ny.gov, 315-426-7438.

For most sites, comprehensive field surveys have not been conducted. We cannot provide a definitive statement on the presence or absence of all rare or state-listed species or significant natural communities. Depending on the nature of the project and the conditions at the project site, further information from on-site surveys or other resources may be required to fully assess impacts on biological resources.

For information regarding other permits that may be required under state law for regulated areas or activities (e.g., regulated wetlands), please contact the NYS DEC Region 7 Office, Division of Environmental Permits, as described above.

Sincerely,

Nick Conrad

Nicholas Conrad
Information Resources Coordinator
New York Natural Heritage Program

921

30 July 2018

KEPLINGER FREEMAN ASSOCIATES
LANDSCAPE ARCHITECTURE & LAND PLANNING
[illegible] ROAD, SUITE 107 EAST SYRACUSE, NEW YORK 13057
PHONE: (315) 445-7980 FAX: (315) 445-7981

Lori A. Shirley
Director, Bureau of Environmental Review and Assessment
Governor's Office of Storm Recovery
New York State Homes & Community Renewal
38-40 State Street, Albany, NY 1220

Re: Binghamton Housing Authority Housing
435 State Street, Binghamton, NY
Environmental Review Follow-Up Letter (FUL)
Prohibited and Regulated Invasive Species Certification

Dear Ms. Shirley,

I certify that the project will not include any of the species listed on the NYS Department of Environmental Conservation's Prohibited and Regulated Invasive Species regulations at 6 NYCRR Part 575.3 and 575.4, as listed on the NYSDEC website at address : http://www.dec.ny.gov/regulations/93848.html.

If you have any further questions please feel free to contact our office.

Sincerely
Keplinger Freeman Associates

Edward G. Keplinger, R.L.A. ASLA

Shirley, Lori (NYSHCR)

From: Parton, Bonnie B (DEC)
Sent: Friday, August 03, 2018 1:35 PM
To: Shultz, Alicia (NYSHCR); Dlugolenski, Joe M (DEC)
Cc: Shirley, Lori (NYSHCR); Bell, Thomas J (DEC)
Subject: Re: 435 State Street, Binghamton, NY
Attachments: 14. 435 State Street Binghamton_DEC NHP Consultation.pdf; 14. NYS DEC Resource Mapper.pdf; 16. DEC Jurisdictional Review Letter- 07-23-2018.pdf

Follow Up Flag: Flag for follow up
Flag Status: Flagged

Hi Alicia,

Due to the distance of the bald eagle nest from your project location, I do not anticipate any disturbance to the birds or their nest from your project. If you have any other questions, please let me know.

Bonnie

Bonnie Parton
Senior Wildlife Technician, Division of Fish, Wildlife and Marine Resources

New York State Department of Environmental Conservation
PO Box 369, Phoenix, NY 13135
P: (315) 635-7017 | C: (607) 543-0079 | F: (607) 753-8532 bonnie.parton@dec.ny.gov

www.dec.ny.gov

From: Shultz, Alicia (NYSHCR)
Sent: Tuesday, July 31, 2018 11:48 AM
To: Parton, Bonnie B (DEC); Dlugolenski, Joe M (DEC)
Cc: Shirley, Lori (NYSHCR)
Subject: RE: 435 State Street, Binghamton, NY

I also included our letter to NHP and some maps, thanks.

Thanks

Alicia Shultz
Senior Environmental Scientist
New York State Homes & Community Renewal
Governor's Office of Storm Recovery
38-40 State St.,408N, Hampton Plaza, Albany, NY 12207
(518) 474-0647 | cell (917) 376-9003 Alicia.Shultz@nyshcr.org |

From: Parton, Bonnie B (DEC)
Sent: Tuesday, July 31, 2018 11:40 AM
To: Shultz, Alicia (NYSHCR) <Alicia.Shultz@nyshcr.org>; Dlugolenski, Joe M (DEC) <joe.dlugolenski@dec.ny.gov>
Subject: Re: 435 State Street, Binghamton, NY

Hi Alicia,

Could you please forward me the attachments mentioned in your original email below? They did not come through in the forwarded email.

Thank you,
Bonnie

From: Shultz, Alicia (NYSHCR)
Sent: Monday, July 30, 2018 10:44:45 AM
To: Dlugolenski, Joe M (DEC)
Cc: Parton, Bonnie B (DEC)
Subject: RE: 435 State Street, Binghamton, NY

Thanks

Alicia Shultz
Senior Environmental Scientist
New York State Homes & Community Renewal
Governor's Office of Storm Recovery
38-40 State St.,408N, Hampton Plaza, Albany, NY 12207
(518) 474-0647 | cell (917) 376-9003 Alicia.Shultz@nyshcr.org |

From: Dlugolenski, Joe M (DEC)
Sent: Friday, July 27, 2018 10:52 AM
To: Shultz, Alicia (NYSHCR) <Alicia.Shultz@nyshcr.org>
Cc: Parton, Bonnie B (DEC) <bonnie.parton@dec.ny.gov>
Subject: FW: 435 State Street, Binghamton, NY

Alicia- Bonnie Parton, DEC R7 F&W, can address your concern best. She has been included in this email chain.
Regards,
Joe

Joe Dlugolenski
Deputy Regional Permit Administrator, Division of Environmental Permits
NYS Department of Environmental Conservation Region 7
1285 Fisher Ave, Cortland, NY 13045
P: 607-753-3095 ext 233 ~ F: 607-753-8532 ~ joe.dlugolenski@dec.ny.gov

From: dec.sm.DEP.R7
Sent: Friday, July 27, 2018 8:54 AM
To: Dlugolenski, Joe M (DEC) <joe.dlugolenski@dec.ny.gov>
Cc: Parton, Bonnie B (DEC) <bonnie.parton@dec.ny.gov>; dec.sm.DEP.R4 <R4DEP@dec.ny.gov>
Subject: FW: 435 State Street, Binghamton, NY

Good morning Joe:

Please see the e-mail below. I'm copying Bonnie also since they mentioned there are Bald Eagles in the area.

Have a super day.

Melissa

Melissa Gilmour
Program Aide, Division of Environmental Permits

New York State Department of Environmental Conservation
615 Erie Blvd West, Syracuse, NY 13204-2400
P: (315) 426-7438 | F: (315) 426-7425 | melissa.gilmour@dec.ny.gov
www.dec.ny.gov | | |

From: dec.sm.DEP.R4
Sent: Thursday, July 26, 2018 12:48 PM
To: Shultz, Alicia (NYSHCR) <Alicia.Shultz@nyshcr.org>; dec.sm.DEP.R7 <DEP.R7@dec.ny.gov>
Cc: Novak, Paul G (DEC) <paul.novak@dec.ny.gov>
Subject: RE: 435 State Street, Binghamton, NY

Alicia, by way of this email – I am forwarding to region 7. That is where Broome county is located.

From: Shultz, Alicia (NYSHCR)
Sent: Thursday, July 26, 2018 12:27 PM
To: Novak, Paul G (DEC) <paul.novak@dec.ny.gov>; dec.sm.DEP.R4 <R4DEP@dec.ny.gov>
Cc: Bailey, Amanda M (DEC) <Amanda.Bailey@dec.ny.gov>; O'Malley, May H (DEC) <May.OMalley@dec.ny.gov>; Shirley, Lori (NYSHCR) <Lori.Shirley@nyshcr.org>
Subject: 435 State Street, Binghamton, NY

Paul,

I am working on an GOSR affordable housing project in Binghamton, NY. According to the attached letter, there are Bald Eagles in my project area. Should I work with you on how to avoid, minimize, or mitigate any impacts. I also attached an aerial showing my project location.

Project information:

The proposed project will be located at 435 State Street, Binghamton (Broome County) NY, 13901, the former location of a 47,644-square foot commercial structure which was demolished in preparation for new construction of this 48-unit apartment complex. Adjacent land use is primarily office and retail commercial uses, with some multifamily housing adjacent to the east, and nearby to the northeast. This project will include 15,000 square feet of commercial space on the first floor that will be utilized by community service organizations. The proposed project consists of one, four-story building with an area of 65,276 square feet. There are two elevators serving 36 one-bedroom and 12 two-bedroom apartments. The complex will provide affordable housing to an underserved population in Binghamton.

Each residential floor will have a common laundry room. There will also be a community room for use by the residents. Each apartment will have a balcony. Additional amenities include a playground, sitting area and garden. Commercial natural gas, electric and cable television are on-site as is municipal water and sanitary sewer. A surface lot will have 122 parking spaces.

This is a community renewal project is part of a neighborhood specific revitalization plan. The site is in the EN-Zone and Governor's North Chenango River Brownfield Opportunity Area. NYS DEC has approved the project for admittance to the Brownfield Cleanup Program (BCP). By eliminating blight, it will improve development opportunities for surrounding properties. The community service component addresses an unmet community need and the services to be offered will benefit the tenants and predominately low-income population that live in the neighborhood. The location is part of a walkable community, on a regularly scheduled bus route, with existing utility infrastructure.

As part of the voluntary Brownfield Program the underground contamination will be remediated allowing it to be developed for the proposed mixed-use structure. The mixed-use building design is in compliance with the Binghamton commercial zoning code which does not permit residential on the first floor.

Thanks

Alicia Shultz
Senior Environmental Scientist
New York State Homes & Community Renewal
Governor's Office of Storm Recovery
38-40 State St.,408N, Hampton Plaza, Albany, NY 12207
(518) 474-0647 | cell (917) 376-9003 Alicia.Shultz@nyshcr.org |

Governor's Office of
Storm Recovery

ANDREW M. CUOMO
Governor

August 15, 2018

Robyn A. Niver
Endangered Species Biologist,
U.S. Fish & Wildlife Service
New York Field Office
3817 Luker Rd.
Cortland, NY 13045

VIA EMAIL: robyn_niver@fws.gov

Re: ESA/MBTA/BGEPA consultation for the Canal Plaza Project - 435 State Street, City of Binghamton, Broome County, New York, 13901

Dear Ms. Niver:

The Governor's Office of Storm Recovery (GOSR), operating under the auspices of the New York State Homes and Community Renewal's (NYSHCR) Housing Trust Fund Corporation, was established to aid the statewide recovery of disaster-affected communities in New York State. GOSR is administering a U.S. Department of Housing and Urban Development (HUD) Community Development Block Grant for Disaster Recovery (CDBG-DR), including the New York Rising Community Reconstruction (NYRCR) Program. The environmental review for projects funded under the NYRCR Program are processed on a case by case basis in accordance with the United States Fish and Wildlife Service (USFWS) New York Field Office's online project review process.

The purpose of this letter is to provide the USFWS New York Field Office notice of the proposed project and to document compliance with Section 7 of the Endangered Species Act (ESA) (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.), as well as the Migratory Bird Treaty Act of 1918 (MBTA) (40 Stat. 755, as amended; 16 U.S.C. 703-712), and the Bald and Golden Eagle Protection Act of 1940 (BGEPA) (54 Stat. 240, as amended; 16 U.S.C. 668-668c). As discussed below, we have reviewed the project and found that the proposed project does not jeopardize the continued existence of ESA species or destroy or adversely modify their critical habitat. We are submitting project materials to document that GOSR has made a "**No Effect**" determination for the project described herein. If the USFWS does not respond within 30 days from submittal of this form, then GOSR may presume that its determination for the project is informed by the best available information and its project responsibilities under Section 7 of the ESA have been fulfilled.

1.0 PROJECT DESCRIPTION

The Canal Plaza Project (Project) will involve the new construction of a 48-unit apartment complex providing affordable housing to an underserved population in Binghamton, New York. The Project will be located at 435 State Street, City of Binghamton, Broome County, New York, 13901 (Project location maps are included in **Appendix A**). The Project area is the former location of a 47,644-square foot commercial

structure which was demolished in preparation for new construction of this apartment complex. The proposed Project consists of one, four- story building with an area of 65,276 square feet. The Project will include 15,000 square feet of commercial space on the first floor that will be utilized by community service organizations. The complex will provide affordable housing to an underserved population in Binghamton. Site Plans are included in **Appendix B**.

The proposed building is mixed use, with a Community Service Facility (CSF) on the first floor and multi-family residential on floors two through four. Each residential floor will have a common laundry room, and a community room for use by the residents. Each apartment will have a balcony. Additional amenities include a playground, sitting area, and garden. Twelve units are being set aside for persons diagnosed with serious mental illness (SMI) who will receive supportive services and project based rental assistance by Catholic Charities Supportive Scattered Site Housing program funded by the New York State Office of Mental Health. Thirty- six units are non- special needs. Twelve units are targeted for persons at or below 30% Area Median Income (AMI), 12 are targeted for persons at or below 50% AMI, and 24 are targeted for persons at or below 60% AMI.

2.0 ENDANGERED SPECIES ACT, MIGRATORY BIRD TREATY ACT, AND BALD AND GOLDEN EAGLE PROTECTION ACT PROTECTED SPECIES

The USFWS New York Ecological Services Field Office was contacted through the Information, Planning, and Conservation System (IPaC) regarding the potential presence of species under the jurisdiction of the USFWS within the Project area. According to the USFWS Official Species List, there is one (1) federally threatened species (northern long-eared bat) that might potentially occur at the proposed Project location (**Appendix C**). According to the USFWS Official Species List, there is no critical habitat for federally protected threatened and endangered species in the Project area.

The IPaC Resource List indicates that there are migratory birds protected under the Migratory Bird Treaty Act and/or the Bald and Golden Eagle Protection Act that could potentially be affected by the Project (see USFWS IPaC Resource List in **Appendix D**). The primary nesting season for migratory birds is early April to mid-July. Precautions will be used to protect any migratory birds that may be found in or near the Project area. Such precautions include minimizing construction noise to the extent practicable, using care to avoid birds when operating machinery or vehicles near birds, and general contractor awareness of potential bird presence. We anticipate that these measures should avoid any take of migratory birds. GOSR has determined that the Project activities will have "**No Effect**" on migratory birds. There are no known breeding bald eagles within the vicinity of the Project area, as indicated by a records request response received from the New York Natural Heritage Program (NYNHP) on August 13, 2018 (**Appendix E**). Therefore, no adverse impacts to breeding bald eagles are expected as a result of the Project.

A description of the federally threatened and endangered species identified by USFWS, and an evaluation of the likelihood that the species occurs within the Project area and would be affected by the Project is provided below. The species descriptions are summarized from the New York State Department of Environmental Conservation (NYSDEC) fact sheet and USFWS species profiles.

2.1 NORTHERN LONG-EARED BAT

The NLEB is a medium-sized bat that is distinguished by its long ears, particularly as compared to other bats in its genus. The NLEB is found across much of the eastern and north central United States. White-nose syndrome is the predominant threat to this bat, especially throughout the northeast where the species has declined by up to 99 percent from pre-white-nose syndrome levels at many hibernation sites. During summer, NLEBs roost singly or in colonies underneath bark, in cavities, or in crevices of both live and dead trees, using tree species based on suitability to retain bark or provide cavities or crevices. They emerge at

dusk to fly through the understory of forested hillsides and ridges feeding on moths, flies, leafhoppers, caddisflies, and beetles or by gleaning insects from vegetation and water surfaces. NLEBs spend winter hibernating in caves and mines. This bat prefers habitat with abundant stands of trees with sufficient bark crevices and snags for roosting habitat that, which is not present in the Project area.

The Project is located in a developed residential/commercial area. The Project will not include the removal of any trees or shrubs, and there is no contiguous forested/wooded habitat located in the vicinity of the Project area. Also, based on the NYNHP records request response, there are no records of the NLEB at the project site or in the vicinity of the Project area. (**Appendix E**). Therefore, GOSR has determined that the proposed Project would have "**No Effect**" on the NLEB.

3.0 CONCLUSION

Project implementation would be conditioned upon issuance of applicable federal and state permits. The proposed Project would be constructed in accordance with federal and state permit requirements and their conditions. The Canal Plaza Project would not jeopardize the continued existence of ESA species or destroy or adversely modify their critical habitat. GOSR is submitting the above information as notification of its "**No Effect**" determination and requests acknowledgement from USFWS that they have received this determination that the proposed Project would have "**No Effect"** on endangered/threatened species, migratory birds, or critical habitat for species under USFWS jurisdiction.

If you have additional information or have questions concerning the evaluation, please contact me at (518) 474-0755 or via e-mail at Lori.Shirley@nyshcr.org. Thank you for your assistance.

Sincerely,

Lori A. Shirley
Director, Bureau of Environmental Review and Assessment
Governor's Office of Storm Recovery

Enclosures:

Appendix A	Project Location Maps
Appendix B	Site Plans
Appendix C	USFWS Official Species List
Appendix D	USFWS IPaC Resource List
Appendix E	NYNHP Record Request Response – August 13, 2018

The above appendices have been removed from this consultation.

United States Department of the Interior

FISH AND WILDLIFE SERVICE
New York Field Office
3817 Luker Road
Cortland, NY 13045
Phone: (607) 753-9334 Fax: (607) 753-9699
http://www.fws.gov/northeast/nyfo

To: Lori Shirley Date: Aug 21, 2018

USFWS File No: 18TA3034

Regarding your: ___Letter ___Fax _x_ Email Dated: Aug 15, 2018

For project: Canal Plaza

Located: 435 State Street

In Town/County: City of Binghamton, Broome County

Pursuant to the Endangered Species Act of 1973 (ESA) (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*), the U.S. Fish and Wildlife Service:

_x_ Acknowledges receipt of your "no effect" and/or no impact determination. No further ESA coordination or consultation is required.

___ Acknowledges receipt of your determination. Please provide a copy of your determination and supporting materials to any involved Federal agency for their final ESA determination.

___ Is taking no action pursuant to ESA or any legislation at this time, but would like to be kept informed of project developments.

As a reminder, until the proposed project is complete, we recommend that you check our website (http://www.fws.gov/northeast/nyfo/es/section7.htm) every 90 days from the date of this letter to ensure that listed species presence/absence information for the proposed project is current. Should project plans change or if additional information on listed or proposed species or critical habitat becomes available, this determination may be reconsidered.

USFWS Contact(s): [illegible]

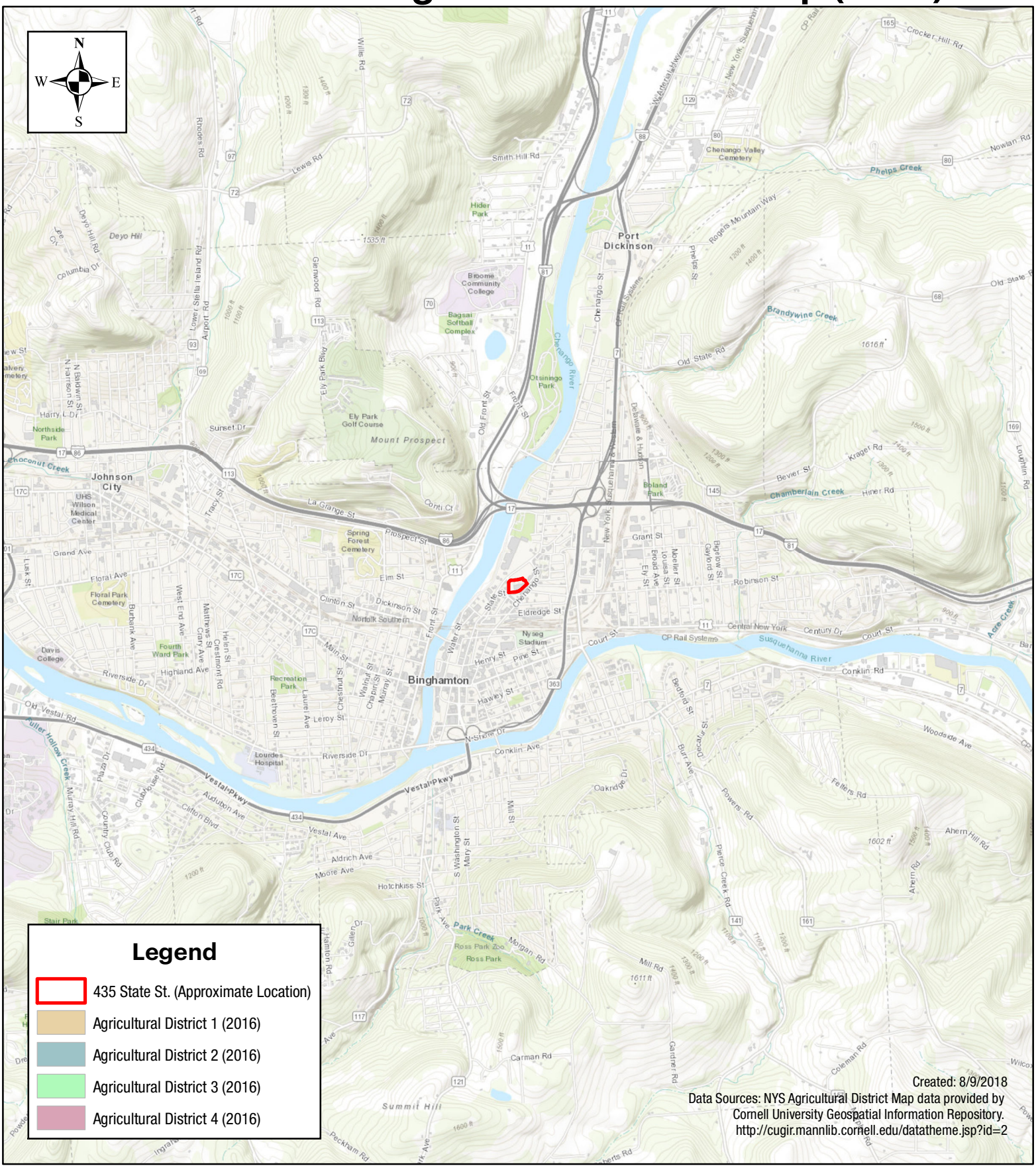
Supervisor: Acting Branch Chief Date: 8/21/18

Attachment 8

Agricultural and NRCS Soil Resource Documents

New York State Agricultural Districts Map (2016)
USDA NRCS Soil Resource Report
USDA NRCS Dwellings Without Basements Report
USDA NRCS Corrosion of Concrete Report
USDA NRCS Farmland Classification Report

New York State Agricultural District Map (2016)



Tectonic

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Canal Plaza Project
435 State Street
City of Binghamton
Broome County, New York

United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Broome County, New York

August 16, 2018

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require

alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410 or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map (Canal Plaza Project)

MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Map Unit Polygons

Soil Map Unit Lines

Soil Map Unit Points

Special Point Features

Blowout

Borrow Pit

Clay Spot

Closed Depression

Gravel Pit

Gravelly Spot

Landfill

Lava Flow

Marsh or swamp

Mine or Quarry

Miscellaneous Water

Perennial Water

Rock Outcrop

Saline Spot

Sandy Spot

Severely Eroded Spot

Sinkhole

Slide or Slip

Sodic Spot

Spoil Area

Stony Spot

Very Stony Spot

Wet Spot

Other

Special Line Features

Water Features

Streams and Canals

Transportation

Rails

Interstate Highways

US Routes

Major Roads

Local Roads

Background

Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Broome County, New York
Survey Area Data: Version 15, Oct 8, 2017

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Mar 14, 2012—May 8, 2016

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend (Canal Plaza Project)

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Cy	Cut and fill lands, silty materials	4.6	100.0%
Totals for Area of Interest		**4.6**	**100.0%**

Map Unit Descriptions (Canal Plaza Project)

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however,

onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Broome County, New York

Cy—Cut and fill lands, silty materials

Map Unit Setting

National map unit symbol: 9pxg
Mean annual precipitation: 36 to 45 inches
Mean annual air temperature: 43 to 48 degrees F
Frost-free period: 110 to 180 days
Farmland classification: Not prime farmland

Map Unit Composition

Udorthents, silty, and similar soils: 75 percent
Minor components: 25 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Udorthents, Silty

Typical profile

H1 - 0 to 4 inches: silt loam
H2 - 4 to 70 inches: silt loam

Properties and qualities

Slope: 0 to 8 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high (0.06 to 5.95 in/hr)
Depth to water table: About 36 to 72 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 15 percent
Available water storage in profile: Low (about 5.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6s
Hydrologic Soil Group: A
Hydric soil rating: No

Minor Components

Unadilla

Percent of map unit: 5 percent
Hydric soil rating: No

Fluvaquents

Percent of map unit: 5 percent
Landform: Flood plains
Hydric soil rating: Yes

Wayland

Percent of map unit: 5 percent
Landform: Flood plains
Hydric soil rating: Yes

Scio

Percent of map unit: 5 percent
Hydric soil rating: No

Udifluvents

Percent of map unit: 5 percent
Hydric soil rating: No

Soil Information for All Uses

Suitabilities and Limitations for Use

The Suitabilities and Limitations for Use section includes various soil interpretations displayed as thematic maps with a summary table for the soil map units in the selected area of interest. A single value or rating for each map unit is generated by aggregating the interpretive ratings of individual map unit components. This aggregation process is defined for each interpretation.

Building Site Development

Building site development interpretations are designed to be used as tools for evaluating soil suitability and identifying soil limitations for various construction purposes. As part of the interpretation process, the rating applies to each soil in its described condition and does not consider present land use. Example interpretations can include corrosion of concrete and steel, shallow excavations, dwellings with and without basements, small commercial buildings, local roads and streets, and lawns and landscaping.

Dwellings Without Basements (Canal Plaza Project)

Dwellings are single-family houses of three stories or less. For dwellings without basements, the foundation is assumed to consist of spread footings of reinforced concrete built on undisturbed soil at a depth of 2 feet or at the depth of maximum frost penetration, whichever is deeper.

The ratings for dwellings are based on the soil properties that affect the capacity of the soil to support a load without movement and on the properties that affect excavation and construction costs. The properties that affect the load-supporting capacity include depth to a water table, ponding, flooding, subsidence, linear extensibility (shrink-swell potential), and compressibility. Compressibility is inferred from the Unified classification of the soil. The properties that affect the ease and amount of excavation include depth to a water table, ponding, flooding, slope, depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, and the amount and size of rock fragments.

The ratings are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect the specified use.

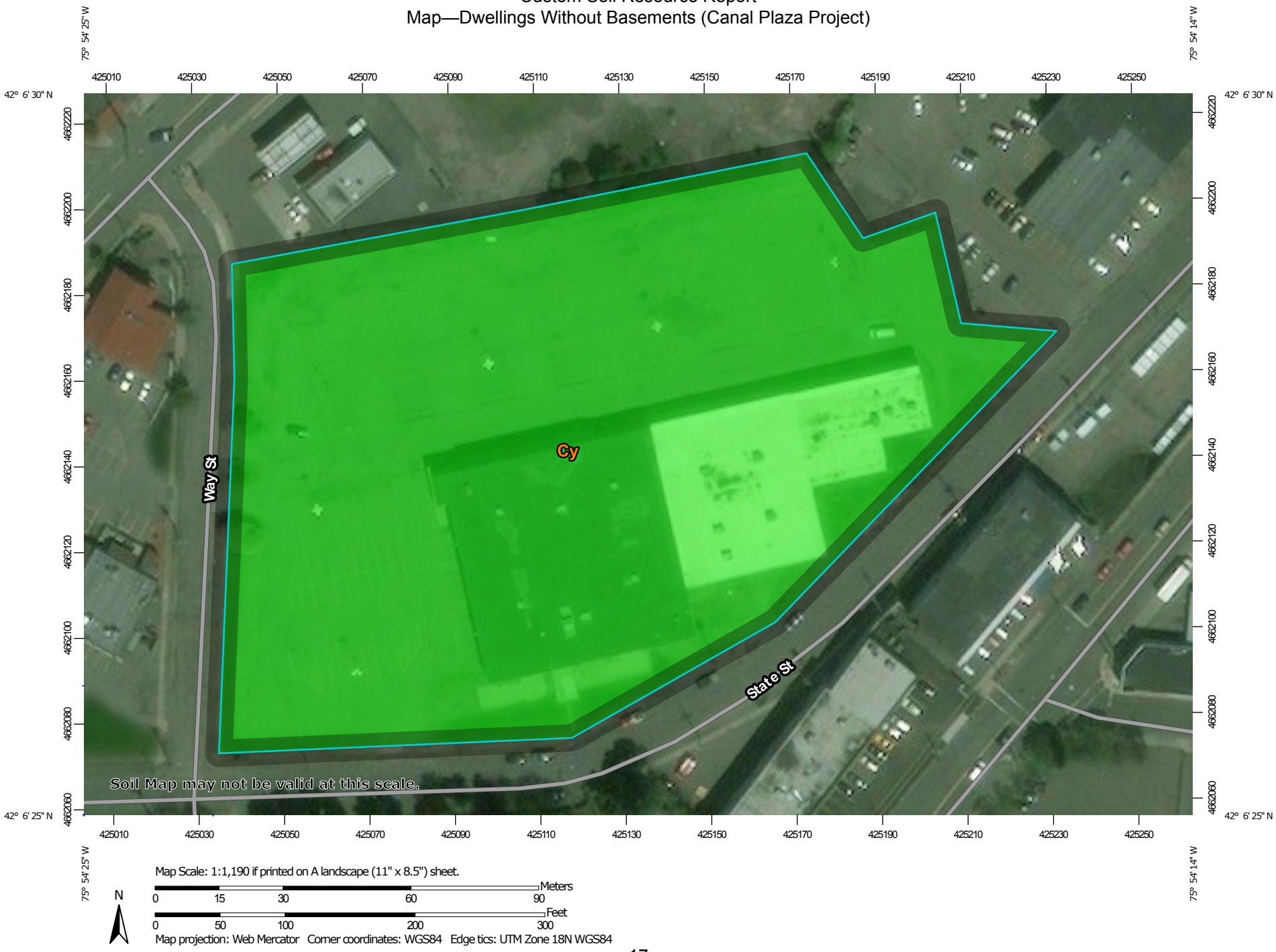
"Not limited" indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. "Somewhat limited" indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. "Very limited" indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

The map unit components listed for each map unit in the accompanying Summary by Map Unit table in Web Soil Survey or the Aggregation Report in Soil Data Viewer are determined by the aggregation method chosen. An aggregated rating class is shown for each map unit. The components listed for each map unit are only those that have the same rating class as listed for the map unit. The percent composition of each component in a particular map unit is presented to help the user better understand the percentage of each map unit that has the rating presented.

Other components with different ratings may be present in each map unit. The ratings for all components, regardless of the map unit aggregated rating, can be viewed by generating the equivalent report from the Soil Reports tab in Web Soil Survey or from the Soil Data Mart site. Onsite investigation may be needed to validate these interpretations and to confirm the identity of the soil on a given site.

Custom Soil Resource Report
Map—Dwellings Without Basements (Canal Plaza Project)



Map Scale: 1:1,190 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 15 30 60 90

Feet: 0 50 100 200 300

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Rating Polygons

Very limited

Somewhat limited

Not limited

Not rated or not available

Soil Rating Lines

Very limited

Somewhat limited

Not limited

Not rated or not available

Soil Rating Points

Very limited

Somewhat limited

Not limited

Not rated or not available

Water Features

Streams and Canals

Transportation

Rails

Interstate Highways

US Routes

Major Roads

Local Roads

Background

Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Broome County, New York
Survey Area Data: Version 15, Oct 8, 2017

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Mar 14, 2012—May 8, 2016

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Tables—Dwellings Without Basements (Canal Plaza Project)

Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
Cy	Cut and fill lands, silty materials	Not limited	Udorthents, silty (75%)		4.6	100.0%
Totals for Area of Interest					**4.6**	**100.0%**

Rating	Acres in AOI	Percent of AOI
Not limited	4.6	100.0%
Totals for Area of Interest	**4.6**	**100.0%**

Rating Options—Dwellings Without Basements (Canal Plaza Project)

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Corrosion of Concrete (Canal Plaza Project)

"Risk of corrosion" pertains to potential soil-induced electrochemical or chemical action that corrodes or weakens concrete. The rate of corrosion of concrete is based mainly on the sulfate and sodium content, texture, moisture content, and acidity of the soil. Special site examination and design may be needed if the combination of factors results in a severe hazard of corrosion. The concrete in installations that intersect soil boundaries or soil layers is more susceptible to corrosion than the concrete in installations that are entirely within one kind of soil or within one soil layer.

The risk of corrosion is expressed as "low," "moderate," or "high."

Custom Soil Resource Report
Map—Corrosion of Concrete (Canal Plaza Project)

Map Scale: 1:1,190 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 15 30 60 90

Feet: 0 50 100 200 300

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Rating Polygons

High

Moderate

Low

Not rated or not available

Soil Rating Lines

High

Moderate

Low

Not rated or not available

Soil Rating Points

High

Moderate

Low

Not rated or not available

Water Features

Streams and Canals

Transportation

Rails

Interstate Highways

US Routes

Major Roads

Local Roads

Background

Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

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This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Broome County, New York
Survey Area Data: Version 15, Oct 8, 2017

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Mar 14, 2012—May 8, 2016

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Table—Corrosion of Concrete (Canal Plaza Project)

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
Cy	Cut and fill lands, silty materials	Moderate	4.6	100.0%
Totals for Area of Interest			**4.6**	**100.0%**

Rating Options—Corrosion of Concrete (Canal Plaza Project)

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Land Classifications

Land Classifications are specified land use and management groupings that are assigned to soil areas because combinations of soil have similar behavior for specified practices. Most are based on soil properties and other factors that directly influence the specific use of the soil. Example classifications include ecological site classification, farmland classification, irrigated and nonirrigated land capability classification, and hydric rating.

Farmland Classification (Canal Plaza Project)

Farmland classification identifies map units as prime farmland, farmland of statewide importance, farmland of local importance, or unique farmland. It identifies the location and extent of the soils that are best suited to food, feed, fiber, forage, and oilseed crops. NRCS policy and procedures on prime and unique farmlands are published in the "Federal Register," Vol. 43, No. 21, January 31, 1978.

Map—Farmland Classification (Canal Plaza Project)

Map Scale: 1:1,190 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 15 30 60 90

Feet: 0 50 100 200 300

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

Soil Rating Polygons

- Not prime farmland
- All areas are prime farmland
- Prime farmland if drained
- Prime farmland if protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated
- Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated and drained
- Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if subsoiled, completely removing the root inhibiting soil layer
- Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
- Prime farmland if irrigated and reclaimed of excess salts and sodium
- Farmland of statewide importance
- Farmland of local importance
- Farmland of unique importance
- Not rated or not available

Soil Rating Lines

- Not prime farmland
- All areas are prime farmland
- Prime farmland if drained
- Prime farmland if protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated
- Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated and drained
- Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if subsoiled, completely removing the root inhibiting soil layer
- Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
- Prime farmland if irrigated and reclaimed of excess salts and sodium
- Farmland of statewide importance
- Farmland of local importance
- Farmland of unique importance
- Not rated or not available

Soil Rating Points

- Not prime farmland
- All areas are prime farmland
- Prime farmland if drained
- Prime farmland if protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated
- Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated and drained
- Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if subsoiled, completely removing the root inhibiting soil layer
- Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
- Prime farmland if irrigated and reclaimed of excess salts and sodium
- Farmland of statewide importance
- Farmland of local importance
- Farmland of unique importance
- Not rated or not available

Water Features

MAP INFORMATION

Streams and Canals

Transportation

Rails

Interstate Highways

US Routes

Major Roads

Local Roads

Background

Aerial Photography

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

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Survey Area Data: Version 15, Oct 8, 2017

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Date(s) aerial images were photographed: Mar 14, 2012—May 8, 2016

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Table—Farmland Classification (Canal Plaza Project)

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
Cy	Cut and fill lands, silty materials	Not prime farmland	4.6	100.0%
Totals for Area of Interest			**4.6**	**100.0%**

Rating Options—Farmland Classification (Canal Plaza Project)

Aggregation Method: No Aggregation Necessary

Tie-break Rule: Lower

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Attachment 9

State Historic Preservation Office Documentation:

SHPO Response (10/21/2016)

NEW YORK STATE OF OPPORTUNITY.
Parks, Recreation, and Historic Preservation

ANDREW M. CUOMO
Governor

ROSE HARVEY
Commissioner

October 21, 2016

Mr. Bruce Levine
President
3d Development Group LLC
4549 Main St
Suite 100
Amherst , NY 14226

Re: NYSHCR
Binghamton Housing Project (435 State Street)
435 State Street, Binghamton , NY 13901
16PR07017

Dear Mr. Levine:

Thank you for requesting the comments of the State Historic Preservation Office (SHPO). We have reviewed the project in accordance with Section 106 of the National Historic Preservation Act of 1966. These comments are those of the SHPO and relate only to Historic/Cultural resources. They do not include potential environmental impacts to New York State Parkland that may be involved in or near your project. Such impacts must be considered as part of the environmental review of the project pursuant to the National Environmental Policy Act and/or the State Environmental Quality Review Act (New York Environmental Conservation Law Article 8).

Based upon this review, the New York SHPO has determined that no historic properties will be affected by this undertaking.

If further correspondence is required regarding this project, please be sure to refer to the OPRHP Project Review (PR) number noted above.

Sincerely,

Ruth L. Pierpont

Ruth L. Pierpont

Deputy Commissioner for Historic Preservation

Attachment 10

Noise Abatement and Control Documents

Project Noise Screening Analysis
HUD's Sound Transmission Class Guidance

Project Noise Screening Analysis

Noise Abatement & Control Standards 24 CFR Part 51, Subpart B
September 7, 2018

Introduction

The purpose of this review is to ensure that the proposed project complies with 24 CFR § 51 Subpart B- Noise Abatement and Control. If, HUD assistance is requested for a proposed project that involves new construction and/or substantial re-design of residential areas, the project will be subject to part 51 Subpart B- Noise Abatement and Control according to 24 CFR § 51.101 (a)(3) - "HUD support for new construction." Specifically, HUD standards for exterior noise goals comprise a goal for a day-night noise level (DNL) average of 55 decibels (dB), however, DNLs of 65 dB and below are considered acceptable and are allowable (24 CFR § 51.104(a)).

Based on a desktop analysis of aerial photographs using the Methodology in the HUD Noise Guidebook, sources considered to possess potential to impact the property by generating major sources of perceptible noise at the Subject Property encompass noise from airports, railroads, and roadways/traffic. Noise sources were evaluated according to the HUD Noise Guidebook, Chapter 5[1]. The Subject Property is defined as the project area located at 435 State Street, City of Binghamton, Broome County, New York, at Section 144.82, Block 1, and Lot 9.

Additionally, the project does not involve implementation of any major new and permanent noise sources, as the project work involves the construction of residential spaces in an underserved area. Temporary noise would be generated during the construction activities, but the scale at which the construction will occur is anticipated to produce negligible noise levels.

The identified potential major sources of perceptible noise that are likely to affect the use at the Subject Property are evaluated below.

Airports:

There is one (1) FAA Certified Airport subject to noise review regulations under 14 CFR Part 139[2] within 15 miles of the Subject Property. This airport, the Greater Binghamton Airport, is located approximately 7.84 miles northwest of the Subject Property (**Appendix I**). The remaining airports within the 15 mile radius are privately owned or small public airports with turf runways, private heliports, or are airports not certified to serve air carrier operations under 14 CFR Part 139 and thus are not subject to 14 CFR Part 150 and Part 161 regulations[3].

The 2008 Land Use Plan for the Greater Binghamton Airport and the surrounding area includes noise contours that were used to determine the DNL at the Subject Property. The Subject Property (Noise Assessment Location) falls outside of the area depicted in the noise contour map for the Greater Binghamton Airport. Based on the Guidebook, additional map sources were used to approximate the distance of the Subject Property to the noise contours, and the resulting analysis assigned a DNL at the Subject Property due to airport noise at **less than 55 dB.**

D1 (The distance from the 65 DNL to the flightpath) = **175 ft.**
D2 (The distance from the noise assessment location to the flightpath) = **41,426 ft.**

---

[1] HUD Noise Guidebook. https://www.hudexchange.info/resource/313/hud-noise-guidebook/
[2] FAA 14 CFR Part 139 Airport Certification. https://www.faa.gov/airports/airport_safety/part139_cert/
[3] FAA Environmental Programs: Airport Noise. https://www.faa.gov/airports/environmental/airport_noise/

D2/D1= 236.72

Per the *U.S Department of Housing and Urban Development Noise Assessment Guidelines, Table 2* (depicted below), **the DNL at the Noise Assessment Location is less than 55 dB.**

Table 2

D2/D1	DNL dB
1.00	65
1.12	64
1.26	63
1.41	62
1.58	61
1.78	60
2.00	59
2.24	58
2.51	57
2.82	56
3.16	55

The Land Use Plan and the associated Noise Exposure contours for the Greater Binghamton Airport was used to complete a noise assessment at the Subject Property (calculation shown above). An Airport Location Map and the Greater Binghamton Airport Land Use Plan are included in **Appendix I**.

Railroads:
A review of aerial imagery shows that there are existing railroad tracks within 3,000 feet of the Subject Property. There are railroad tracks located approximately 1,156 feet south of the Subject Property, as shown in the Train Location Map included in **Appendix II**. A desktop analysis shows that there are barriers in the form of vegetation, residential structures, and commercial/ industrial structures between the Subject Property and the train tracks. Considering these factors, the noise from railway traffic is calculated to be **59.50 dB** at the Subject Property. Street and Railway Noise Documentation are included in **Appendix II**.

Major Roadways:
A review of major roadways with more than 10,000 vehicles per day within 1,000 feet of the Subject Property was conducted, as shown by the Location Map with 1,000 foot buffer and the NYS DOT Traffic Viewer Data Map in **Appendix II**. This resulted in the identification of no "major" roadways located near the Subject Property, or any roadways that involve traffic that exceeded an average traffic total of 10,000 vehicles per day. Major roadways are considered those roadways functionally classified as principal arterial, freeway/ expressway, or interstate roadways. All other roadways within 1,000 feet of the Subject Property are classified as Local roads and are considered to have a negligible impact on noise levels at the Subject Property and therefore not included in the calculation. Street and Railway Noise Documentation are included in **Appendix II**.

Stationary Sources:
No stationary sources were identified to impact the Subject Property.

Noise Barrier/Attenuation:
There are barriers between the highest noise source (NY Susquehanna & Western Railroad Company) and the Subject Property in the form of vegetation, residential structures, and commercial/ industrial structures.

Combined Noise Source DNL at Subject Property:
Airport: < 55 decibels (dB)
Railroad: 59.50 dB

Combined DNL at the Subject Property: 59.50 dB

Combination of these values, according to methods described in the Noise Assessment Guidelines, result in an **exterior DNL of 59.50 dB** at the Subject Property. This value is within "acceptable" noise level as it does not exceed 65 dB. Thus, **noise mitigation is not required**, as while noise exposure may be of some concern, normal building constructions will make the indoor environment acceptable and the outdoor environment will be reasonably pleasant for recreation and play. A noise evaluation letter provided by RZ Engineering, PLLC on November 22, 2016, included in **Appendix II**, concurs with the above Noise Screening Analysis.

Attached Appendixes:

Appendix I Airport Documentation
Appendix II Street and Railway Noise Documentation

References:

https://www.dot.ny.gov/tdv
https://www.hudexchange.info/resource/313/hud-noise-guidebook/
https://www.faa.gov/air_traffic/flight_info/aeronav/aero_data/Airport_Data/
https://www.faa.gov/airports/environmental/
https://www.faa.gov/airports/environmental/airport_noise/

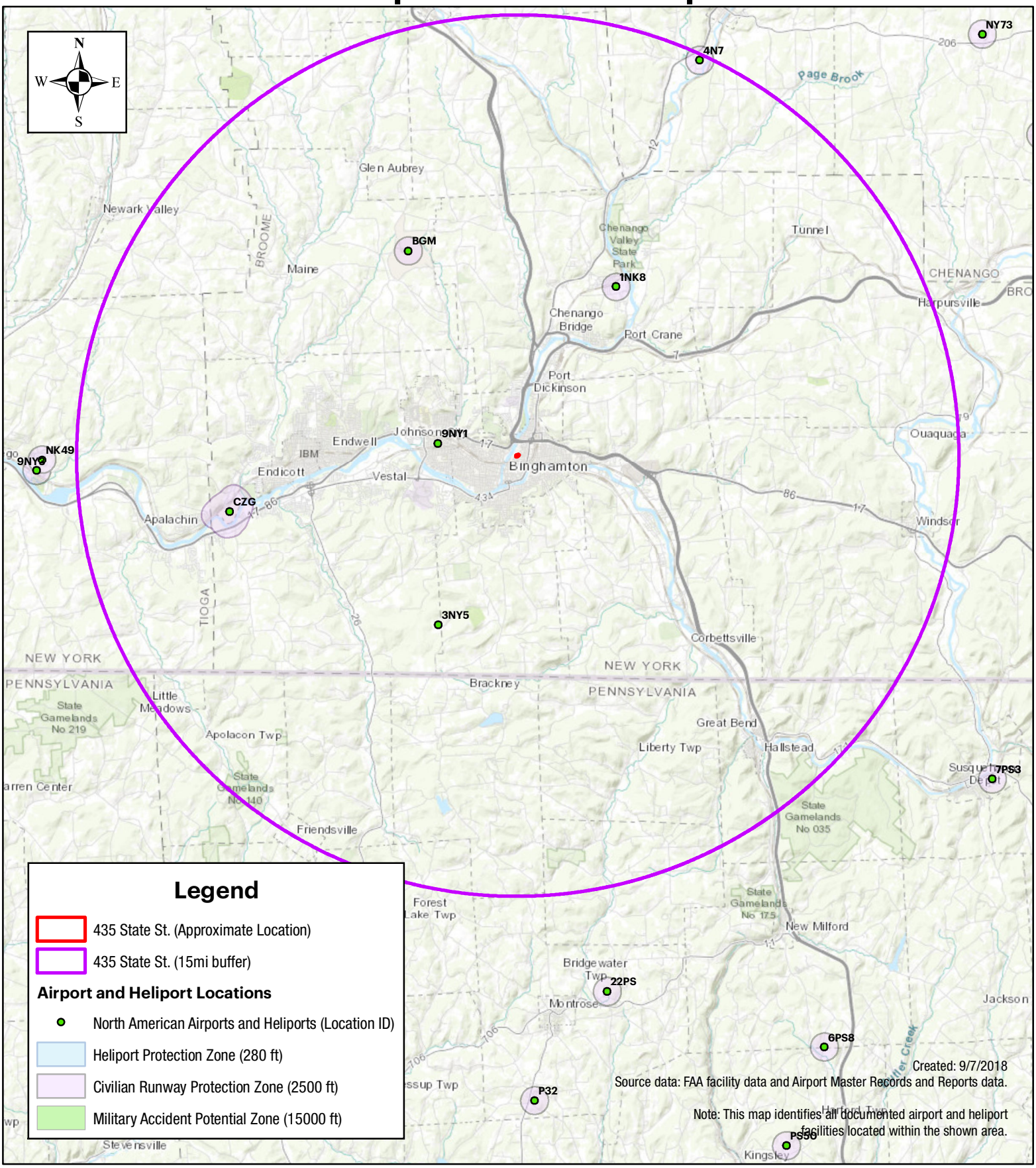
End of document.

Appendix I

Airport Documentation

Airport Hazards Map
Greater Binghamton Airport 2008 Land Use Plan Map
Aeronautical Information Services – NFDC Airport ID: 3NY5
Aeronautical Information Services – NFDC Airport ID: 9NY1
Aeronautical Information Services – NFDC Airport ID: CZG
Aeronautical Information Services – NFDC Airport ID: 1NK8
Aeronautical Information Services – NFDC Airport ID: 4N7

Airport Hazards Map

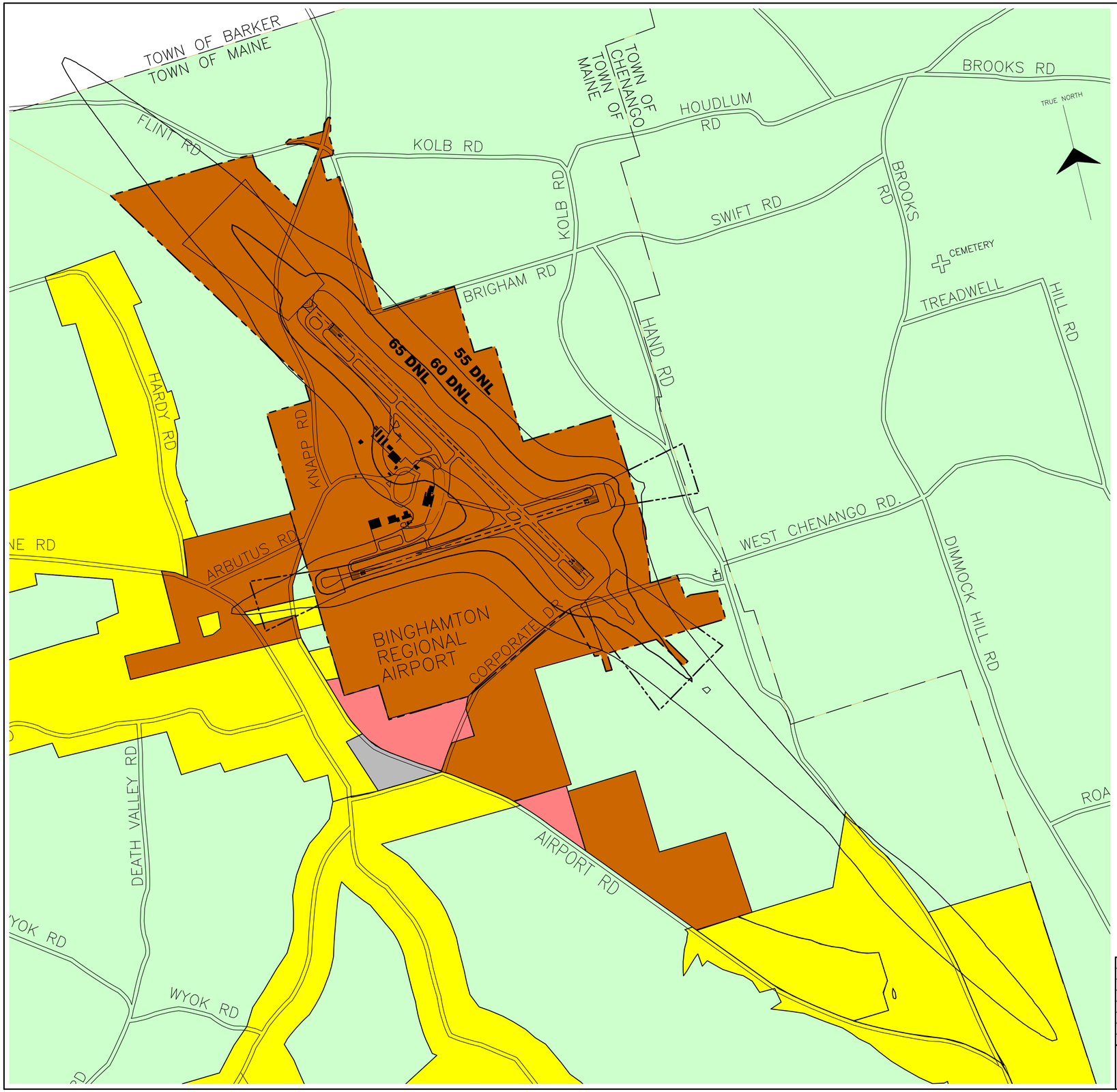


Tectonic

1:275,000

0 15,000 30,000 60,000 Feet

Canal Plaza Project
435 State Street
City of Binghamton
Broome County, New York



L	LEGEND
AGRICULTURE/RURAL RESIDENTIAL	
RESIDENTIAL	
COMMERCIAL	
INDUSTRIAL	
RECREATION/PUBLIC LAND	
CEMETERY	
CHURCH	
NOISE CONTOUR	65 DNL DB
PROPERTY ACQUISITION/EASEMENT	

NOTES: ZONING INFORMATION WAS OBTAINED FROM THE TOWN OF MAINE ZONING MAP AND ORDINANCE AND WAS CHECKED BY GROUND SURVEYS.

NOISE CONTOURS REFLECT YEAR 2025

SEE SHEET 3 FOR RPZ CONTROL PLAN

SCALE

0 1000 2000 3000

FEET

REV	DATE	DESCRIPTION	BY	SPONSOR

GREATER BINGHAMTON AIRPORT
BROOME COUNTY, NEW YORK

LAND USE PLAN

McFarland Johnson
49 COURT STREET, METROCENTER, PO BOX 1980
BINGHAMTON, NEW YORK 13902 www.mjinc.com

SCALE:		DESIGN: CHF	SHEET: 17
DRAWN: RGT/FMH		PROJECT: 16776.02	
CHECKED: CGN		DATE: DECEMBER 2008	

Aeronautical Information Services - National Flight Data Center (NFDC)

Airport ID

Data Effective: **08/16/2018 - 09/13/2018**

3NY5

LUKE

BINGHAMTON , NY - UNITED STATES

All Summary Operations Communications NAVAIDS Weather RWY N/S

Heliports Charts Contacts Remarks

Summary

Latitude/Longitude	42-1-25.271 N / 75-57-25.709 W
Elevation	1558 FT
Variation	12 W 1985
From city	5 miles SW of BINGHAMTON, NY
ARTCC	ZNY
Section chart	NEW YORK
Time Zone	UTC-5(-4DT)

View active NOTAMS

OPERATIONS

Airport Status	Operational
Facility use	Private use only

Control Tower	No air traffic control tower at airport
Tower Hours	
Apch/Dep Hours	
FSS	BUFFALO FSS (BUF) Toll Free: 1-800-WX-BRIEF
NOTAMs Facility	
Attendance	UNATNDD
Wind Indicator	Yes
Segmented Circle	No
Lights	
Beacon	
Landing Fee	No
Fuel	NONE
Fire and Rescue	
Int'l Operations	

COMMUNICATIONS

UNICOM:	None
CTAF:	None
ATIS:	None

NAVAIDS

NAVAIDS:

Type	ID	Name	Frequency	Hours	Distance	Bearing	Remarks
NDB	BG	SMITE	332 KHz	24 Hours	5.7 nm	211.2°	• OPERATIONAL IFR
VOR/DME	CFB	BINGHAMTON	112.2 MHz	24 Hours	11.3 nm	135.1°	• OPERATIONAL IFR • VOR UNUSBL 023-033 BYD 15 NM BLW 6000 FT.
NDB	IT	VRNAH	266 KHz	24 HRS	30.5 nm	143.0°	• OPERATIONAL IFR
VORTAC	GGT	GEORGETOWN	117.8 MHz	24 Hours	46.3 nm	187.2°	• OPERATIONAL RESTRICTED • VOR UNUSBL 105-279 ALL DSTCS BLO 4000 FT.

WEATHER

ID	Type	Frequency	Phone	Distance	Remarks
CZG	WX AWOS-3	119.075 MHz	607-785-2926	7.0 nm	
BGM	WX ASOS		607-729-8335	11.1 nm	
N27	WX AWOS-3	119.925 MHz	570-265-1024	27.4 nm	
N23	WX AWOS-3	118.275 MHz	607-561-2333	29.4 nm	
ITH	WX AWOS-3PT	125.175 MHz	607-257-2390	35.9 nm	

RUNWAY N/S

Dimensions	1500 ft. x 30 ft.
Surface Type	TURF
Surface Condition	
Treatment	
Runway Edge Lights	
PCN	
Single Wheel	
Double Wheel	
Double Tandem	
Dual Double Tandem	

Base End: N

Traffic Pattern	Left
Runway End Identifier Lights	No

Reciprocal End: S

Traffic Pattern	Left
Runway End Identifier Lights	No

HELIPORTS

None

CHARTS

Chart data valid from 0901Z 08/16/18 to 0901Z 09/13/18.

CONTACTS

OWNER

MRS. WALTER LUKE
12851 MAXIAN ROAD
BINGHAMTON, NY 13903
UNITED STATES
Phone: 607-669-4401

REMARKS

No remarks.

Aeronautical Information Services - National Flight Data Center (NFDC)

Airport ID

Data Effective: **08/16/2018 - 09/13/2018**

9NY1

WILSON MEMORIAL RGNL MEDICAL CENTER

JOHNSON CITY , NY - UNITED STATES

Summary

Latitude/Longitude	42-6-51.69 N / 75-57-27.7 W
Elevation	911 FT
Variation	12 W 1990
From city	0 miles N of JOHNSON CITY, NY
ARTCC	ZNY
Section chart	NEW YORK
Time Zone	UTC-5(-4DT)

View active NOTAMS

OPERATIONS

Airport Status	Operational
Facility use	Private use only MEDICAL USE.

Control Tower	No air traffic control tower at airport
Tower Hours	
Apch/Dep Hours	
FSS	BUFFALO FSS (BUF) Toll Free: 1-800-WX-BRIEF
NOTAMs Facility	
Attendance	MON-FRI 0800-1800
Wind Indicator	Lighted
Segmented Circle	No
Lights	SEE RMK FOR FLOOD LGTS CALL 607-763-6000.
Beacon	Clear, Green and Yellow SS-SR
Landing Fee	
Fuel	NONE
Fire and Rescue	
Int'l Operations	

COMMUNICATIONS

UNICOM:	None
CTAF:	None
ATIS:	None

NAVAIDS

NAVAIDS:

Type	ID	Name	Frequency	Hours	Distance	Bearing	Remarks
NDB	BG	SMITE	332 KHz	24 Hours	3.0 nm	281.0°	• OPERATIONAL IFR
VOR/DME	CFB	BINGHAMTON	112.2 MHz	24 Hours	8.4 nm	108.0°	• OPERATIONAL IFR • VOR UNUSBL 023-033 BYD 15 NM BLW 6000 FT.
NDB	IT	VRNAH	266 KHz	24 HRS	26.3 nm	136.0°	• OPERATIONAL IFR

VOR/DME	HNK	HANCOCK	116.8 MHz	24 Hours	28.8 nm	276.4°	• OPERATIONAL IFR
VORTAC	GGT	GEORGETOWN	117.8 MHz	24 Hours	40.9 nm	188.2°	• OPERATIONAL RESTRICTED • VOR UNUSBL 105-279 ALL DSTCS BLO 4000 FT.

WEATHER

ID	Type	Frequency	Phone	Distance	Remarks
BGM	WX ASOS		607-729-8335	5.7 nm	
CZG	WX AWOS-3	119.075 MHz	607-785-2926	6.6 nm	
N23	WX AWOS-3	118.275 MHz	607-561-2333	26.7 nm	
N03	WX AWOS-3	132.225 MHz	607-753-9784	30.9 nm	
N27	WX AWOS-3	119.925 MHz	570-265-1024	31.0 nm	

HELIPORTS

Identifier	Length x Width	Surface Type	Lighting	Remarks
H1	40 ft. x 40 ft.	CONC	BLDG MOUNTED FLOODLIGHTS.	ROOFTOP.

CHARTS

Chart data valid from 0901Z 08/16/18 to 0901Z 09/13/18.

CONTACTS

OWNER

UNITED HEALTH SVCS HOSP, INC.
33-57 HARRISON ST
JOHNSON CITY, NY 13790
UNITED STATES
Phone: 607-763-6000

MANAGER

WILLIAM J LOLLER
33-57 HARRISON ST
JOHNSON CITY, NY 13790
UNITED STATES
Phone: 607-763-6311

REMARKS

No remarks.

Aeronautical Information Services - National Flight Data Center (NFDC)

Airport ID

Data Effective: **08/16/2018 - 09/13/2018**

CZG (KCZG)

TRI-CITIES

ENDICOTT , NY - UNITED STATES

All Summary Operations Communications NAVAIDS Weather RWY 03/21

Heliports Charts Contacts Remarks

Summary

Latitude/Longitude	42-4-42.7 N / 76-5-46.8 W
Elevation	832.7 FT
Variation	12 W 1995
From city	3 miles SW of ENDICOTT, NY
ARTCC	ZNY
Section chart	NEW YORK
Time Zone	UTC-5(-4DT)

View active NOTAMS

OPERATIONS

Airport Status	Operational
Facility use	Open to the public

Control Tower	No air traffic control tower at airport
Tower Hours	
Apch/Dep Hours	
FSS	BUFFALO FSS (BUF) Toll Free: 1-800-WX-BRIEF
NOTAMs Facility	CZG (TRI-CITIES)
Attendance	ATNDD CALL ARPT MGR FOR SPECIFIC ATTENDANCE TIMES.
Wind Indicator	Lighted
Segmented Circle	Yes
Lights	SEE RMK ACTVT REIL RY 03/21; MIRL RY 03/21 - CTAF.
Beacon	Clear and Green ROTG BEACON OBSCURED NORTH & WEST OF ARPT DUE TO HIGH TERRAIN. SS-SR
Landing Fee	No
Fuel	100LL, A+
Fire and Rescue	
Int'l Operations	Not a Landing Rights Airport Not an Airport of Entry

COMMUNICATIONS

UNICOM:	122.8 MHz		
CTAF:	122.8 MHz		
ATIS:	None		
RADAR SERVICE:	Approach / Departure		
BINGHAMTON APPROACH:	118.6 MHz	APCH/P	(S-SE)
BINGHAMTON APPROACH/DEPARTURE:	118.6 MHz	APCH/P DEP/P	
	257.625 MHz	APCH/P DEP/P	
BINGHAMTON CLERANCE DELIVERY:	121.7 MHz	CD/P	
Other - (FIBTI DP):	118.6 MHz	FIBTI DP	
	257.625 MHz	FIBTI DP	
Other - (FIVLU DP):	118.6 MHz	FIVLU DP	
	257.625 MHz	FIVLU DP	

Remarks:

- APCH/DEP SERVICE PROVIDED BY NEW YORK ARTCC ON FREQS 133.35/372.0 (SAYRE RCAG) WHEN BINGHAMTON APCH CTL CLOSED.
- CD THRU FLT SVCS 1-888-766-8267.

NAVAIDS

NAVAIDS:

Type	ID	Name	Frequency	Hours	Distance	Bearing	Remarks
VOR/DME	CFB	BINGHAMTON	112.2 MHz	24 Hours	5.1 nm	159.3°	• OPERATIONAL IFR • VOR UNUSBL 023-033 BYD 15 NM BLW 6000 FT.
NDB	BG	SMITE	332 KHz	24 Hours	9.3 nm	260.3°	• OPERATIONAL IFR
NDB	IT	VRNAH	266 KHz	24 HRS	24.3 nm	150.1°	• OPERATIONAL IFR
VOR/DME	ITH	ITHACA	111.8 MHz	24 Hours	29.8 nm	147.0°	• OPERATIONAL RESTRICTED • VOR PORTION UNUSABLE 360-059 BYD 10 NM BLO 3800'; 060-080 BYD 28 NM BLO 2500'; 081-150 BYD 10 NM BLO 3800'. • DME PORTION UNUSBL 360-160 BYD 20 NM BLO 6500'.
VORTAC	GGT	GEORGETOWN	117.8 MHz	24 Hours	44.3 nm	195.7°	• OPERATIONAL RESTRICTED • VOR UNUSBL 105-279 ALL DSTCS BLO 4000 FT.

WEATHER

ID	Type	Frequency	Phone	Distance	Remarks
CZG	WX AWOS-3	119.075 MHz	607-785-2926	0.0 nm	
BGM	WX ASOS		607-729-8335	9.4 nm	
N27	WX AWOS-3	119.925 MHz	570-265-1024	25.3 nm	
ITH	WX AWOS-3PT	125.175 MHz	607-257-2390	29.6 nm	
N03	WX AWOS-3	132.225 MHz	607-753-9784	31.3 nm	

RUNWAY 03/21

Dimensions	3900 ft. x 75 ft.
Surface Type	ASPH

Surface Condition	EXCELLENT
Treatment	
Runway Edge Lights	Medium Intensity
PCN	
Single Wheel	30,000 lbs
Double Wheel	
Double Tandem	
Dual Double Tandem	

Base End: 03

True Alignment	24°
Traffic Pattern	Left
Markings	Non-precision instrument
Markings Condition	Good
Latitude	42-4-25.0861 N
Longitude	76-5-57.1812 W
Elevation	829.9 ft.
Threshold Crossing Height	
Visual Glide Path Angle	
Visual Slope Indicator	
Runway End Identifier Lights	Yes
TDZE	832.7 ft.

Reciprocal End: 21

True Alignment	204°
Traffic Pattern	Left
Markings	Non-precision instrument
Markings Condition	Good
Latitude	42-5-0.3633 N
Longitude	76-5-36.4102 W
Elevation	826.2 ft.
Threshold Crossing Height	40 ft. AGL
Visual Glide Path Angle	4°

Visual Slope Indicator	2-light PAPI on right
Runway End Identifier Lights	Yes
TDZE	832.7 ft.

HELIPORTS

None

CHARTS

Chart data valid from 0901Z 08/16/18 to 0901Z 09/13/18.

Minimums

TAKEOFF MINIMUMS

Instrument Approach Procedure (IAP) Charts

RNAV (GPS) RWY 03

RNAV (GPS) RWY 21

VOR-A

CONTACTS

OWNER

VILLAGE OF ENDICOTT
MUNICIPAL BLDG
ENDICOTT, NY 13760
UNITED STATES
Phone: 607-757-2420

MANAGER

GERARD CORPREW
351 INDUSTRIAL PK
ENDICOTT, NY 13760
UNITED STATES
Phone: 607-785-0467

REMARKS

- HIGH TENSION TWRS 2000 FT FROM RWY 21 THLD 60-70 FT TALL.
- MICROWAVE TOWER +600' 2.8 MILES OUT 3150' L OF RY 21; APCH - UNMKD/UNLGTD 24:1 SLOPE.
- HIGH TERRAIN ALL QUADRANTS.
- RWY 21 EXTDD SAFETY AREA HAS SURFACE VARIATIONS/DEPRESSIONS.
- GRVL ACCESS ROAD CROSSES RY 03 APCH.

Aeronautical Information Services - National Flight Data Center (NFDC)

Airport ID

Data Effective: **08/16/2018 - 09/13/2018**

1NK8

CHENANGO BRIDGE

BINGHAMTON , NY - UNITED STATES

All Summary Operations Communications NAVAIDS Weather RWY 09/27

RWY 18/36 Heliports Charts Contacts Remarks

Summary

Latitude/Longitude	42-11-30.273 N / 75-50-28.698 W
Elevation	940 FT
Variation	12 W 1985
From city	6 miles NE of BINGHAMTON, NY
ARTCC	ZNY
Section chart	NEW YORK
Time Zone	UTC-5(-4DT)

View active NOTAMS

OPERATIONS

Airport Status	Operational
Facility use	Private use only

Control Tower	No air traffic control tower at airport
Tower Hours	
Apch/Dep Hours	
FSS	BUFFALO FSS (BUF) Toll Free: 1-800-WX-BRIEF
NOTAMs Facility	
Attendance	UNATNDD
Wind Indicator	Yes
Segmented Circle	No
Lights	
Beacon	
Landing Fee	No
Fuel	NONE
Fire and Rescue	
Int'l Operations	Not a Landing Rights Airport Not an Airport of Entry

COMMUNICATIONS

UNICOM:	None
CTAF:	None
ATIS:	None

NAVAIDS

NAVAIDS:

Type	ID	Name	Frequency	Hours	Distance	Bearing	Remarks
NDB	BG	SMITE	332 KHz	24 Hours	5.7 nm	23.0°	• OPERATIONAL IFR
VOR/DME	CFB	BINGHAMTON	112.2 MHz	24 Hours	13.3 nm	81.0°	• OPERATIONAL IFR • VOR UNUSBL 023-033 BYD 15 NM BLW 6000 FT.
NDB	IT	VRNAH	266 KHz	24 HRS	27.5 nm	121.3°	• OPERATIONAL IFR

VORTAC	GGT	GEORGETOWN	117.8 MHz	24 Hours	35.8 nm	181.0°	• OPERATIONAL RESTRICTED • VOR UNUSBL 105-279 ALL DSTCS BLO 4000 FT.

WEATHER

ID	Type	Frequency	Phone	Distance	Remarks
BGM	WX ASOS		607-729-8335	6.3 nm	
CZG	WX AWOS-3	119.075 MHz	607-785-2926	13.3 nm	
N23	WX AWOS-3	118.275 MHz	607-561-2333	20.1 nm	
OIC	WX AWOS-3	119.025 MHz	607-336-8583	26.5 nm	
N03	WX AWOS-3	132.225 MHz	607-753-9784	29.3 nm	

RUNWAY 09/27

Dimensions	2000 ft. x 145 ft.
Surface Type	TURF
Surface Condition	
Treatment	
Runway Edge Lights	
PCN	
Single Wheel	
Double Wheel	
Double Tandem	
Dual Double Tandem	

Base End: 09

Traffic Pattern	Left
Centerline Lights	no
Runway End Identifier Lights	No

Reciprocal End: 27

Traffic Pattern	Left
Centerline Lights	no

Runway End Identifier Lights	No

RUNWAY 18/36

Dimensions	1700 ft. x 145 ft.
Surface Type	TURF
Surface Condition	
Treatment	
Runway Edge Lights	
PCN	
Single Wheel	
Double Wheel	
Double Tandem	
Dual Double Tandem	

Base End: 18

Traffic Pattern	Left
Centerline Lights	no
Runway End Identifier Lights	No

Reciprocal End: 36

Traffic Pattern	Left
Centerline Lights	no
Runway End Identifier Lights	No

HELIPORTS

None

CHARTS

Chart data valid from 0901Z 08/16/18 to 0901Z 09/13/18.

CONTACTS

OWNER

LAVERNE HASKELL
RD 3
BINGHAMTON, NY 13901
UNITED STATES
Phone: 607-648-5664

MANAGER

JAMES PECHA
1929 STATE ROUTE 12
BINGHAMTON, NY 13901
UNITED STATES
Phone: 607-725-7809

REMARKS

No remarks.

Aeronautical Information Services - National Flight Data Center (NFDC)

Airport ID

Data Effective: **08/16/2018 - 09/13/2018**

4N7

GREENE

GREENE , NY - UNITED STATES

All Summary Operations Communications NAVAIDS Weather RWY 07/25

Heliports Charts Contacts Remarks

Summary

Latitude/Longitude	42-18-15.269 N / 75-47-13.694 W
Elevation	935 FT
Variation	12 W 1985
From city	2 miles SW of GREENE, NY
ARTCC	ZBW
Section chart	NEW YORK
Time Zone	UTC-5(-4DT)

View active NOTAMS

OPERATIONS

Airport Status	Operational
Facility use	Open to the public

Control Tower	No air traffic control tower at airport
Tower Hours	
Apch/Dep Hours	
FSS	BUFFALO FSS (BUF) Toll Free: 1-800-WX-BRIEF
NOTAMs Facility	BUF (BUFFALO NIAGARA INTL)
Attendance	DALGT FOR SERVICES CALL IN ADVANCE - 607-656-8565.
Wind Indicator	Yes
Segmented Circle	No
Lights	SEE RMK ACTVT LIRL RY 07/25 - 4 CLICKS - CTAF.
Beacon	
Landing Fee	
Fuel	NONE
Fire and Rescue	
Int'l Operations	Not a Landing Rights Airport Not an Airport of Entry

COMMUNICATIONS

UNICOM:	122.8 MHz
CTAF:	122.8 MHz
ATIS:	None

Remarks:

- CD THRU FLT SVCS 1-888-766-8267.

NAVAIDS

NAVAIDS:

Type	ID	Name	Frequency	Hours	Distance	Bearing	Remarks
NDB	BG	SMITE	332 KHz	24 Hours	12.8 nm	21.1°	• OPERATIONAL IFR
VOR/DME	CFB	BINGHAMTON	112.2 MHz	24 Hours	17.9 nm	60.3°	• OPERATIONAL IFR • VOR UNUSBL 023-033 BYD 15 NM BLW 6000 FT.

VORTAC	GGT	GEORGETOWN	117.8 MHz	24 Hours	29.1 nm	176.5°	• OPERATIONAL RESTRICTED • VOR UNUSBL 105-279 ALL DSTCS BLO 4000 FT.

WEATHER

ID	Type	Frequency	Phone	Distance	Remarks
BGM	WX ASOS		607-729-8335	10.3 nm	
N23	WX AWOS-3	118.275 MHz	607-561-2333	16.5 nm	
CZG	WX AWOS-3	119.075 MHz	607-785-2926	19.3 nm	
OIC	WX AWOS-3	119.025 MHz	607-336-8583	19.6 nm	
N03	WX AWOS-3	132.225 MHz	607-753-9784	25.8 nm	

RUNWAY 07/25

Dimensions	2665 ft. x 200 ft.
Surface Type	TURF
Surface Condition	GOOD
Treatment	
Runway Edge Lights	Non-Standard LOW INTST; NON-STD EDGE & END LGTS.
PCN	
Single Wheel	
Double Wheel	
Double Tandem	
Dual Double Tandem	

Base End: 07

Traffic Pattern	Left
Markings	Nonstandard RY NUMBERS ETCHED INTO TURF SFC BOTH ENDS.
Markings Condition	Good
Runway End Identifier Lights	No

Reciprocal End: 25

Traffic Pattern	Left
Markings	Nonstandard
Markings Condition	Good
Runway End Identifier Lights	No

HELIPORTS

None

CHARTS

Chart data valid from 0901Z 08/16/18 to 0901Z 09/13/18.

CONTACTS

OWNER

GREENE AIRPORT LLC
173 AIRPORT ROAD
GREENE, NY 13778
UNITED STATES
Phone: 607-656-8565

MANAGER

MARCEL BARROWS
173 AIRPORT ROAD
GREENE, NY 13778
UNITED STATES
Phone: (607) 358-5801

REMARKS

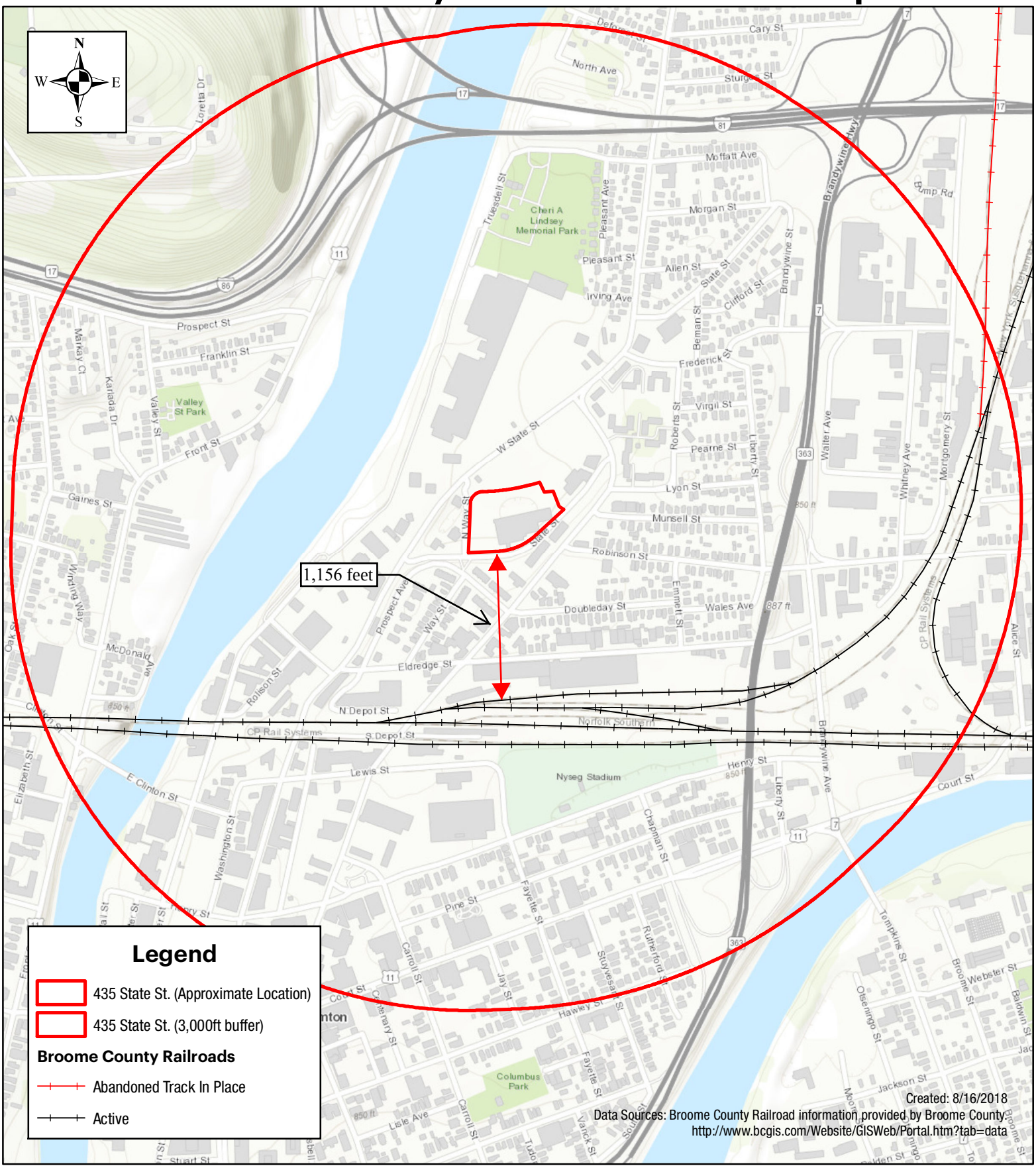
- DURING WINTER CHECK FSS FOR NOTAMS.
- TOWN RD CROSSES +308 FT LT. & 187 FT RT., IN FM RY 07 BEG.
- DEER AND GEESE ON & INVOF ARPT.
- RY 25 HAS NUMEROUS +30-90 FT TREES, BOTH SIDES AT THLD.

Appendix II

Street and Railway Noise Documentation

Broome County Railroad Locations Map
HUD DNL from Railway Traffic Calculations (8/16/2018)
Noise Evaluation Letter, RZ Engineering, PLLC (11/22/2016)
Location Map
NYS DOT Traffic Data Viewer Map (8/16/2018)

Broome County Railroad Locations Map



Tectonic

1:10,000

0 500 1,000 2,000 Feet

Canal Plaza Project
435 State Street
City of Binghamton
Broome County, New York

DNL Calculator

WARNING: HUD recommends the use of Microsoft Internet Explorer for performing noise calculations. The HUD Noise Calculator has an error when using Google Chrome unless the cache is cleared before each use of the calculator. HUD is aware of the problem and working to fix it in the programming of the calculator.

The Day/Night Noise Level Calculator is an electronic assessment tool that calculates the Day/Night Noise Level (DNL) from roadway and railway traffic. For more information on using the DNL calculator, view the **Day/Night Noise Level Calculator Electronic Assessment Tool Overview (/programs/environmental-review/daynight-noise-level-electronic-assessment-tool/)**.

Guidelines

- To display the Road and/or Rail DNL calculator(s), click on the "Add Road Source" and/or "Add Rail Source" button(s) below.
- All Road and Rail input values must be positive non-decimal numbers.
- All Road and/or Rail DNL value(s) must be calculated separately before calculating the Site DNL.
- All checkboxes that apply must be checked for vehicles and trains in the tables' headers.
- **Note #1:** Tooltips, containing field specific information, have been added in this tool and may be accessed by hovering over all the respective data fields (site identification, roadway and railway assessment, DNL calculation results, roadway and railway input variables) with the mouse.
- **Note #2:** DNL Calculator assumes roadway data is always entered.

DNL Calculator

Site ID	Canal Plaza
Record Date	08/16/2018
User's Name	

Railroad #1 Track Identifier:	**NY Susquehanna & Western Railroad Company**

Rail # 1

Train Type	Electric ☐	Diesel ☑
Effective Distance		1156
Average Train Speed		10
Engines per Train		2
Railway cars per Train		25
Average Train Operations (ATO)		6
Night Fraction of ATO		8
Railway whistles or horns?	Yes: ☐ No: ☐	Yes: ☑ No: ☐
Bolted Tracks?	Yes: ☐ No: ☐	Yes: ☑ No: ☐
Train DNL		59.5027
Calculate Rail #1 DNL	59.5027	Reset

Add Road Source | Add Rail Source

Airport Noise Level	
Loud Impulse Sounds?	○ **Yes** ◉ **No**
Combined DNL for all Road and Rail sources	**59.5027**
Combined DNL including Airport	**N/A**
Site DNL with Loud Impulse Sound	

Calculate

Mitigation Options

If your site DNL is in Excess of 65 decibels, your options are:

- **No Action Alternative**: Cancel the project at this location
- **Other Reasonable Alternatives**: Choose an alternate site
- **Mitigation**
    - **Contact your Field or Regional Environmental Officer (/programs/environmental-review/hud-environmental-staff-contacts/)**
    - Increase mitigation in the building walls (only effective if no outdoor, noise sensitive areas)
    - Reconfigure the site plan to increase the distance between the noise source and noise-sensitive uses
    - Incorporate natural or man-made barriers. See ***The Noise Guidebook (/resource/313/hud-noise-guidebook/)***
    - Construct noise barrier. See the **Barrier Performance Module (/programs/environmental-review/bpm-calculator/)**

Tools and Guidance

Day/Night Noise Level Assessment Tool User Guide (/resource/3822/day-night-noise-level-assessment-tool-user-guide/)

Day/Night Noise Level Assessment Tool Flowcharts (/resource/3823/day-night-noise-level-assessment-tool-flowcharts/)

RZ Engineering, PLLC

STORMWATER SANITARY WATER ENVIRONMENTAL TRANSPORTATION

November 22, 2016

Mr. Ed Keplinger, RLA
Keplinger Freeman Associates
6320 Fly Road, Suite 201
East Syracuse, NY 13057

Re: RZE# 16058
Binghamton Housing
Proximity to Rail line
Binghamton, NY

Dear Mr. Keplinger,

It is our understanding that the 435 State Street Housing development located at 435 West State Street in Binghamton, NY is located within a 0.25 mile buffer of a surface rail line. As we understand it, part of the NYS Homes and Community Renewal's environmental review consists of an evaluation if the site is located within one-quarter mile of a surface rail line not exclusively used for passenger travel. If the site is located within the buffer, documentation must be provided demonstrating that the rail line poses little potential risk for prospective residents after considering the volume and speed of traffic on the line; types of cargo carried; physical features in the surrounding area that would mitigate any potential risk; and any project design features that would mitigate any potential risk."

The proposed 435 State Street Housing project is located within the 0.25 mile buffer approximately 164' short of the 0.25 mile setback. The aerial photograph below shows the proposed project and its proximity to the rail line from the project site.

6320 Fly Road, Suite 109
East Syracuse, NY 13057

Ph: 315.432.1089
Fax: 315.445.7981
rzona@rzengineering.com

As can be seen in the photograph above there are several buildings, both commercial and industrial in addition to four public streets between the subject site and the rail line. Additionally, several single family residential housing areas located along local city streets are also located within the 0.25 mile buffer between the subject site and the surface rail line.

In light of the proposed project's location which is only slightly inside the 0.25 mile setback (by approximately 164'), it's position – situated further away than other local residential areas and the existence of multiple commercial, residential and industrial structures located between the site and the rail line; we feel that the existence of this existing rail line will present very minor (if any) potential risk for its prospective residents. If you have any questions please feel free to contact our office.

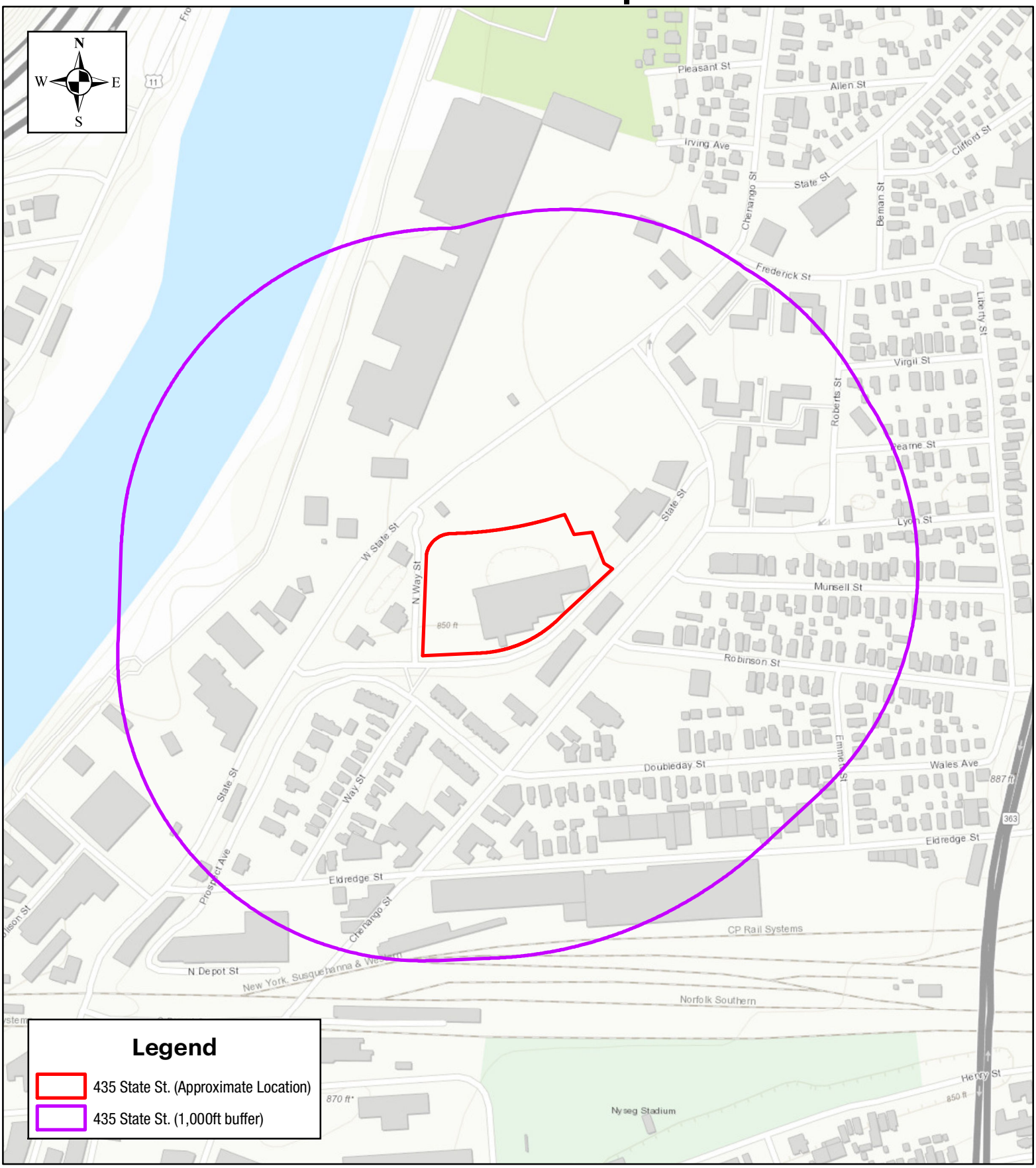
Very Truly Yours,

Rudy L. Zona, P.E.

6320 Fly Road, Suite 109
East Syracuse, NY 13057

Ph: 315.432.1089
Fax: 315.445.7981
rzona@rzengineering.com

Location Map



Tectonic

1:5,000

0 250 500 1,000 Feet

Canal Plaza Project
435 State Street
City of Binghamton
Broome County, New York

NYS Traffic Data Viewer

Layers

- TDV
  - Average Daily Traffic, 2015
    - 1 - 1500
    - 1501 - 4000
    - 4001 - 10000
    - 10001 - 25000
    - 25001 - 75000
    - 75001 - 300000
    - No Data
  - Continuous Counts
  - Short Counts
  - Bridges
  - Grade Crossings

Topo

0 150 300ft

U.S. Department of Housing and Urban Development
Office of Community Planning and Development

Noise Notebook

Chapter 4
Supplement

Sound Transmission Class Guidance

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Sound Transmission Class Guidance

Introduction

The Noise Guidebook, pages 33-37, provides an elementary discussion of STC, provides some STC ratings for common building materials and limited exterior and interior wall construction configurations, and describes a method to determine composite STC value of a wall containing a window or door. This update provides for an understanding of STC and provides an expanded material and construction classification for both internal and external building materials and typical construction patterns.

The intent of this chapter is not to endorse anyone building manufacturer or product over another but to keep HUD Environmental staff and other interested persons advised on the STC values of current building materials and practices which can be applied to HUD supported housing activities. Additional subsections on specific types of building materials, construction techniques and STC values will be periodically added.

As stated in the Noise Guidebook, "STC is used as a measure of a material's ability to reduce sound," and effectively mitigate any adverse noise levels that could impede a person's use of a residential or commercial structure. The higher the STC value, the greater the sound attenuation and presumably the quieter the structure's interior. In addition to STC, another interior building measuring technique to evaluate sound impact or absorption between floors is the Impact Isolation Class (IIC). Both techniques will be fully discussed after a brief explanation of the following basic principals related to sound.

What Is Sound

Sound is indicated in two ways: frequency and intensity. Frequency, the high or low pitch of sound, is expressed as the number of vibrations or cycles per second. One vibration or cycle per second is a hertz (Hz). For example on a piano the middle C note has a frequency of 262 Hz and the total range of a piano has a frequency of 27 Hz to 4186 Hz, well within the 16 to 20,000 Hz range of the human ear. The sound created by the piano is heard by the human ear by air pressure created by vibration. The greater the pressure, the greater the loudness or intensity of the sound heard by the human ear. Loudness is expressed in decibels (dB). The decibel is one-tenth of a "Bel," a unit named for Alexander Graham Bell. Since the ear is more sensitive to sound in the middle range of frequencies, loudness (intensity) is determined at a frequency of 1,000 Hz. On the decibel scale, 0 dB indicates a level of sound at 1,000 Hz, a sound just barely audible to person with normal unimpaired hearing.

The A-weighted scale of a sound meter is designed to adjust the sensitivity of a sound meter to sounds of different frequencies that closely approximate how the human ear might respond to moderate sound levels in the 1,000 to 4,000 Hz range. The A-weighted sound level is used extensively for measuring community and transportation noises.

The Sound Transmission Class (STC), measured in decibels, is used to measure building material's ability to absorb sound. The STC can be used to measure sound absorption for both external building walls and internal walls in single and multifamily structures. The STC is measured by positioning a representative sample of the building material midway in an acoustical chamber, dividing the chamber in half or into two rooms. One section of the chamber contains the sound source and the other section the sound receiving equipment. The test procedure calls for a steady sound in the source room and measuring the sound level in both the source and receiving rooms. Differences in sound levels in the rooms determines the transmission loss characteristics of the material tested. For example, if a generated sound level of 80 dB is measured in the source room and 30 dB is measured in the adjacent receiving room, the tested material has a sound reduction intensity (STC) of 5OdB.

The Impact Isolation Class (IIC), measured in decibels, is the classification system used to determine sound *impact* from floor to ceiling in a structure. The IIC is not to be used to measure airborne sound penetration or absorption in walls. The IIC numerical rating efficiency increases with improved impact isolation performance of the floor and its component sub flooring and materials. The rating scale values are generally equivalent to the airborne sound transmission loss. The impact of steps or vibrations on a floor and the reverberation of that noise in the room below is dependent upon the type, density and thickness of the floor and ceiling material, its absorption material, and quality of construction. A separate section on common floor materials and construction patterns to illustrate both the STC and IIC ratings is included.

Sound Reduction In Structures

Four general techniques for controlling noise in single-family and multifamily structures are:

1. Elimination of the cause or source of the noise,
2. Employ materials which absorb sound rather than reflect noise,

3. Use sound barriers in building layout to prevent sound from being transmitted from one adjoining area into another, and
4. Use design considerations to mask or absorb the noise.

A description of each technique and its applicability follows.

1. ELIMINATION:
The elimination of a noise source may be impractical or impossible to achieve, whether emanating from within or outside the structure. Examples include the operation of mechanical equipment within the dwelling unit, excessive corridor noise, air conditioning/heating system, elevators, exhaust fans, and outdoor transportation sounds such as automotive traffic, aircraft overflights, and commercial or industrial activities. Some noise reduction could be achieved through sound reduction or absorption techniques, but total elimination of these sounds may be impossible.

2. ABSORPTION:
Sound absorption control is the reduction of sound emanating from a source within a room. The extent of control depends upon the efficiency of the room's surfaces in absorbing rather than reflecting sound waves. A surface, which could theoretically absorb 100% of the sound would have a sound absorption coefficient of 1.0. A surface absorbing 35% of the sound would have a coefficient of 0.35. The effectiveness of wall construction as a means of sound absorption is tested in a similar manner as that of STC. If a generated sound level of 80 dB is observed in one room and 30 dB is measured in an adjacent room, the reduction in sound absorption for the intervening wall is 50 dB. In choosing the type of construction material for interior walls to absorb sound transmission, porosity and density of the material should be considered. Resistance to sound transmission increases with unit weight and decreases with porosity. For example, unpainted, open textured concrete block exhibits improved resistance to sound passage after sealing the surface with plaster or paint. The sealing of the pores result in a reduction in the sound absorption of the block. In multifamily structures using concrete block partitions to separate public areas such as stairwells and corridors from adjacent living areas, sound transmission reduction is achieved through plastering or painting the surface of the residential unit or living area on the opposite side of the partition. The sound is absorbed by the concrete masonry's unpainted side and its transmission is prevented into the residential unit or living area by the plaster or paint on the other side.

However, all of the design elements that are employed to control sound can be nullified through poor or improper construction practices. Sound leakage will occur through any opening in a wall. An improperly fitted door or window is a prime source of sound leakage, as well as openings around ducts, pipes and electrical outlets which are improperly fitted or sealed.

3. SOUND BARRIERS:
Prudent building layout can be effective in controlling noise in single-family and multifamily housing. Sound waves can be prevented from being transmitted from one adjoining area to another. Closets, stairways and corridors can be used as buffers against airborne sound transmission between apartments or bedrooms. Concrete blocks or solid partitions can be employed to separate boiler rooms, air conditioning units, work areas or noisy public areas such as stairwells, corridors or lobbies from adjacent living areas. Partitions designed to absorb sound on one side and to retain sound absorption on the other can effectively block or reduce sound transmission into living areas intended for quiet use. The barrier should have a high sound absorption coefficient on one side and an equally high sound retention coefficient on the reverse side to effective. For example, unpainted porous concrete block would have a high sound absorption coefficient and a high noise retention coefficient on the reverse side if the porous surface in the living unit was effectively sealed by plaster or paint. Similarly, noise originators such as cloths washing machines, central heaters, and other noisy major appliances can be placed in a basement or utility rooms that are physically isolated from other living areas by walls or floors to absorb or block the emitted sounds.

4. DESIGN:
Design factors is the last major element to consider in controlling noise in single-family and multifamily structures. Design considerations offer the most infinite prospects for controlling noise due to the numerous types of building designs. For example, adjacent apartments can be arranged to have quiet areas (bedrooms or living rooms) abut and have noisy areas (kitchens and bathrooms) next to similar noisy areas. Apartment door openings into the same hallway can be staggered to reduce sound penetration into the unit directly across the hall. Since sound travels in a straight line, some of the sound from one doorway would be absorbed or diffused into the wall building material of the unit directly across the hall.

Windows should be placed as far away as possible from common walls. The closer the windows are to each other, the more sound will pass from one apartment to another. Medicine cabinets in opposite bathroom partitions should be offset. Cabinets placed back-to-back will transmit almost as much noise as an opening. Heating/cooling ducts are like speaking tubes, carrying noise from one room to another. Techniques should be employed to trap or splinter

sound or have turns in the ducts to reduce noise transference.

Noise producing equipment should be kept as far as possible from living areas and especially the bedrooms. Flexible connectors should be used to couple mechanical equipment to pipes and ducts. Pipes and ducts should not be firmly connected to parts of a building that could serve as sounding boards but be supported by resilient connections to solid supports. Where pipes and ducts pass through walls and floors, they should be isolated by gaskets. The acoustical integrity of a building or a building section with an otherwise adequate STC rating can be significantly reduced by a small hole or crack in the exterior wall or any other path that allows sound to bypass the exterior or interior walls and flow into other areas of the structure.

Weather and Sound

Air will attenuate noise at high frequencies usually from 1,000 Hz upwards. Sound absorption by air changes with wind speed, temperature and humidity. For example, wind blowing at slower speeds near the ground surface than at higher elevations will produce a bending of the sound upwards, resulting in less noise at ground level. Temperature gradients have a similar effect because the velocity of sound increases with the higher temperatures. If the temperature is higher near the ground than in the upper layers (usually the case during the day), the sound waves higher above the ground will travel slower and the sound will be bent upwards resulting in quieter conditions at ground level. The reverse is true at night, the temperature is lower near the ground, sound will bend towards the ground, increasing noise at the ground level. Wind and temperature- gradient effects can also account for the occasional freak reception of sounds over long distances, especially train whistles. The sound has been bent upwards by a temperature or wind gradient and after traveling some way at high level is bent down again by a reverse gradient.

Weather conditions can produce substantial variations of as much as +- 10 dB. For example, fog causes an increase in the absorption in the air. A moderately dense fog, visibility 150 feet, gives extra attenuation of 1 to 3 dB per 300 feet, depending on frequency. Similarly, snow forms an absorbent layer on the ground, which affects ground reflection, thereby reducing the sound level.

Weather can also be a significant source of noise in a structure. Common irritants are wind and rain. Wind whistling around a building, into ventilation grilles, screens or past other external architectural or artistic features can result in disturbing noise. Similarly, the impact of rain on lightweight roofing, gutters or skylights can produce high internal noise levels.

STC Ratings for Wall, Floor and Window Materials and Assemblies

Appendix A illustrates sound transmission class ratings for wall, floor, window and door assemblies. The data used in this section is compiled from laboratory reports and various technical and trade literature publications received by this Office. Each item has an assigned STC rating, an accompanying sketch and a brief description of its composition or assembly. In addition, where possible, an Impact Isolation Class (IIC) rating has been assigned to floors to determine sound impact from floor to ceiling. Appendix A is a guide designed to aid HUD Housing and Environmental personal in determining STC values for most common housing construction practices and materials used in residential construction. The STC information can be used to supplement acoustical measurements by providing approximate interior noise levels for existing or proposed dwellings located in high noise areas by deducting the STC value from the exterior noise level. The data could also be used to advise HUD clients in determining and achieving compliance with the noise criteria stated in 24 CFR Part 51 B through the use of common construction materials and techniques to achieve noise attenuation for new construction and rehabilitation.

The appendix is divided into the following subsections:

1. WALLS
    - Exterior
    - Interior
2. FLOORS
    - Wood
    - Concrete
3. WINDOWS
4. DOORS
    - Exterior
    - Interior

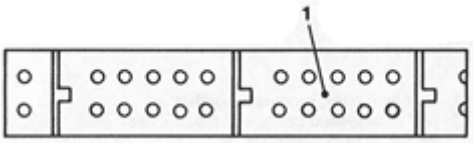
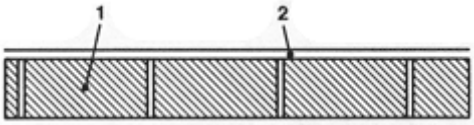
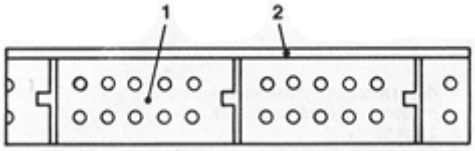
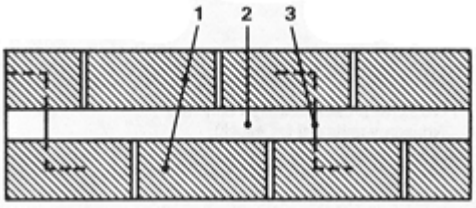
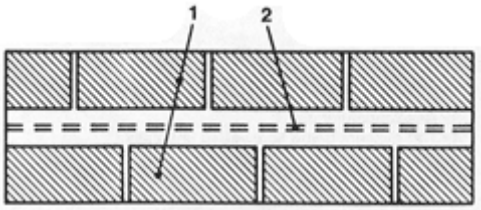
A bibliography of the reports, manufacturer's catalogs, technical papers, testing laboratories and other publications used in compiling this data is listed in the Appendix B.

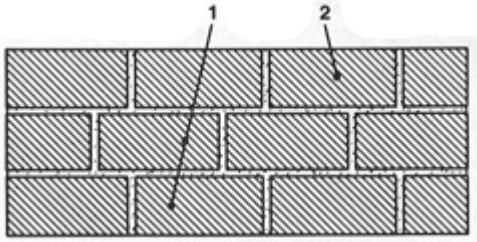
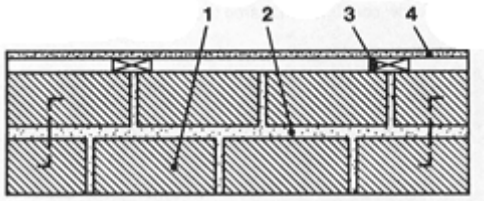
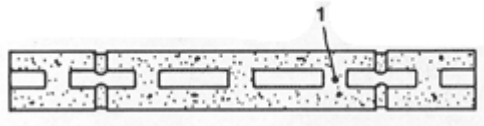
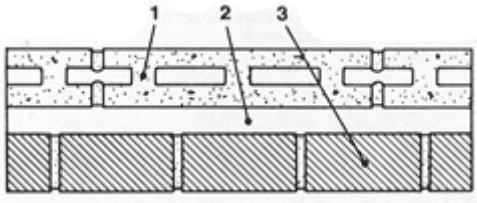
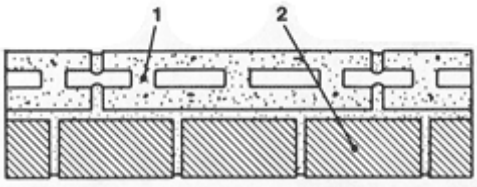
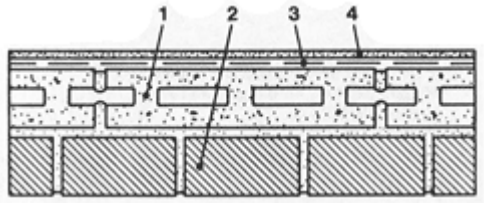
Appendix A STC Ratings

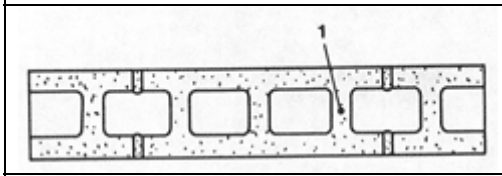
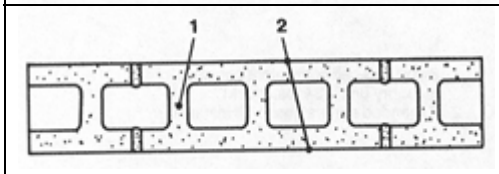
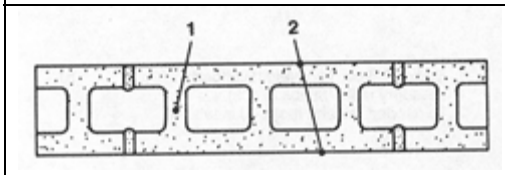
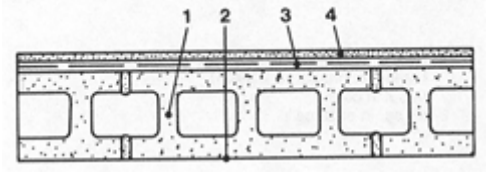
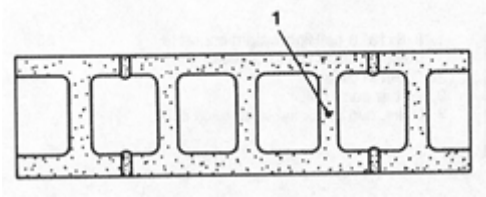
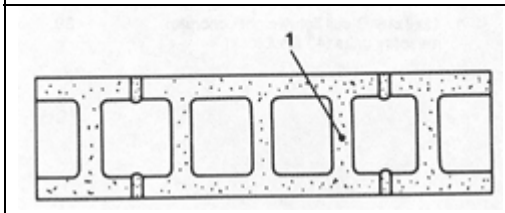
Appendix A

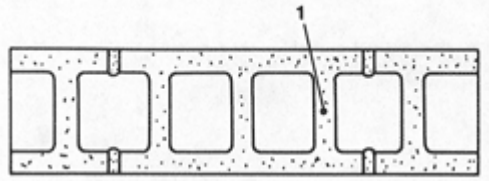
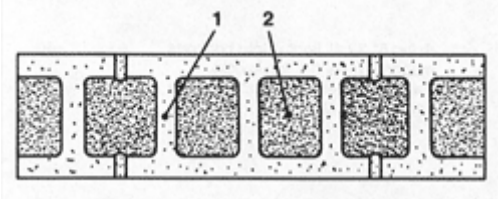
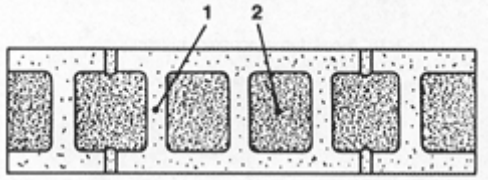
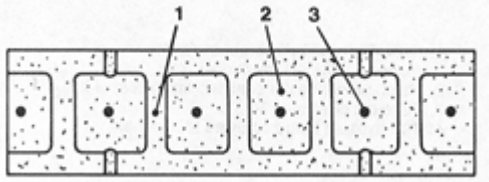
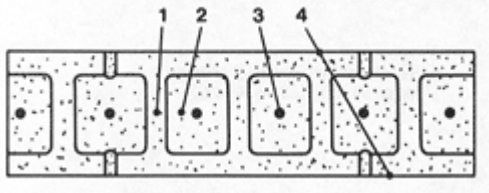
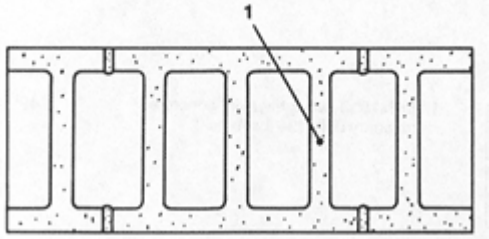
STC Ratings

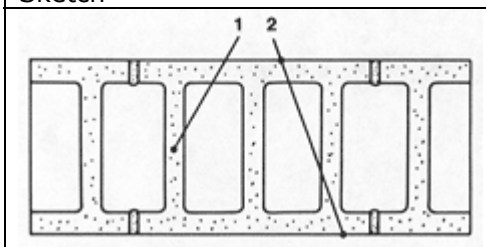
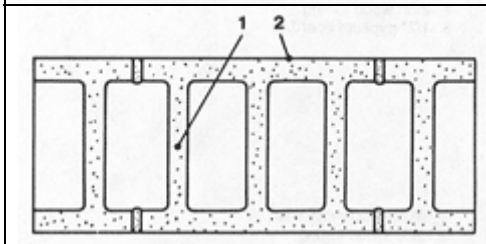
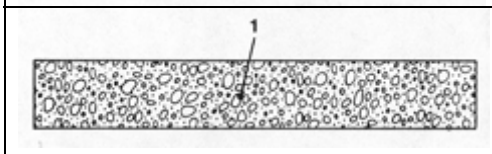
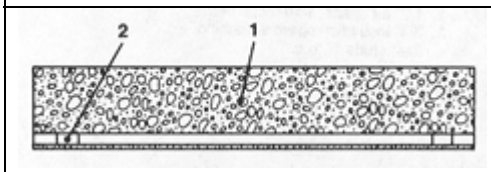
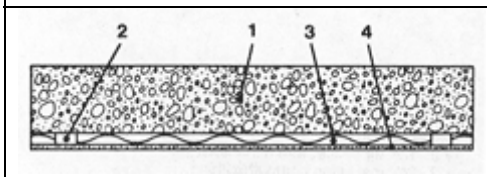
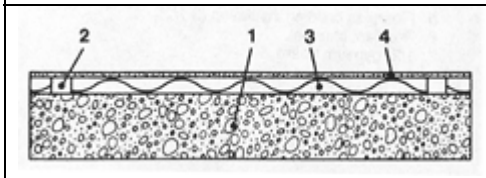
Walls: Exterior

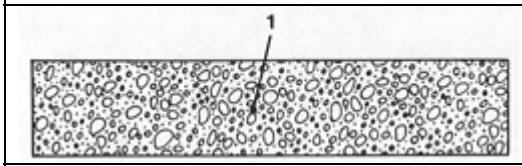
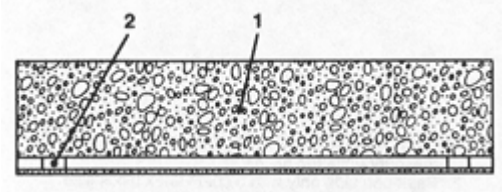
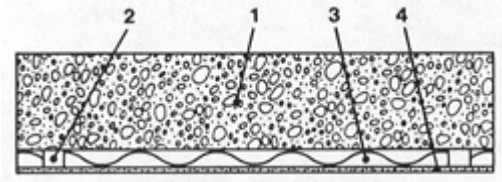
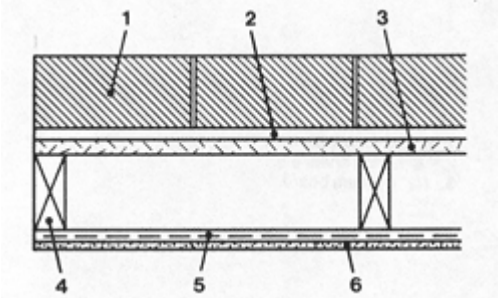
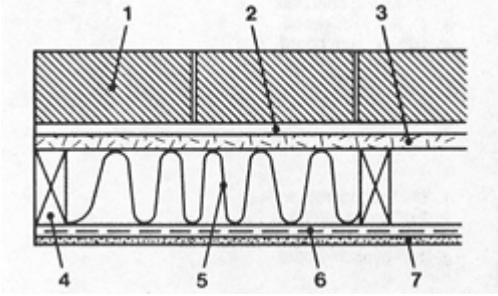
Sketch	Brief Description	STC
	1. 4” face brick, mortared together.	45
	1. Hollow core brick, mortared together.	51
	1. Common brick, mortared together. 2. ½” gypsum/sand plaster.	50
	1. Hollow core brick, mortared together. 2. ½” gypsum/sand plaster.	53
	1. Face brick, mortared together. 2. 2” air space. 3. Metal ties.	50
	1. Brick, mortared together. 2. 2 ¼” cavity filled with concrete grout and #6 bars vertically 48”o.c. and #5 bars horizontally 30”o.c.	59

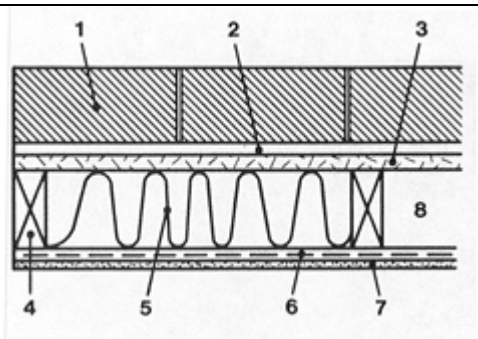
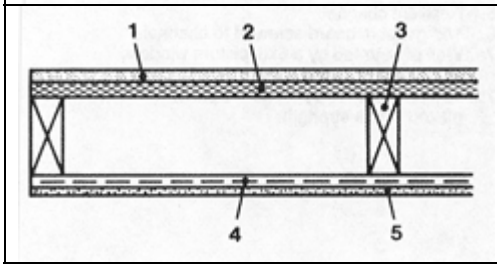
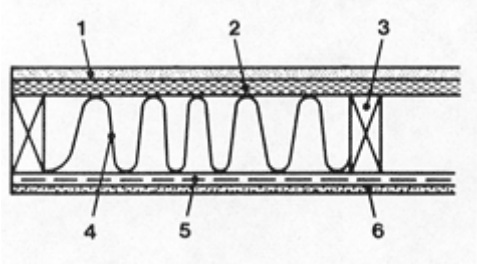
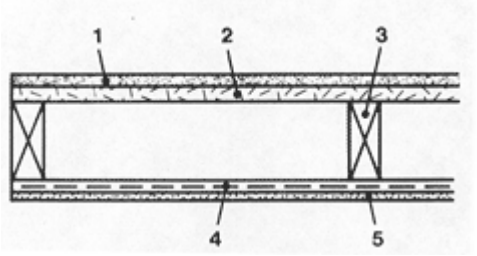
Sketch	Brief Description	STC
	1. Common brick, mortared together. 2. Face brick, mortared together.	59
	1. Common brick, mortared together. 2. ¾″ mortar-filled cavity with metal Z ties 24″o.c. in both directions. 3. 1x3″ furring strips 16″o.c. and nailed vertically into mortar joints 12″o.c. 4. ½″ gypsum board nailed 8″o.c. along edges and 12″o.c. in field.	53
	1. 4x8x16″ 3-cell lightweight concrete masonry units (17 lbs./block).	40
	1. 4x8x18″ 3-cell lightweight concrete masonry units (19 lbs./block). 2. 2″ air cavity. 3. Common brick, mortared together.	54
	1. 4x8x18″ 3-cell lightweight concrete masonry units (19 lbs./block). 2. Common brick, mortared together. (brick headers after every second course of block to tie the withes together).	51
	1. 4x8x18″ 3-cell lightweight concrete masonry units (19 lbs./block). 2. Common brick, mortared together. 3. Resilient channels. 4. ½″ gypsum board screwed to channels.	56

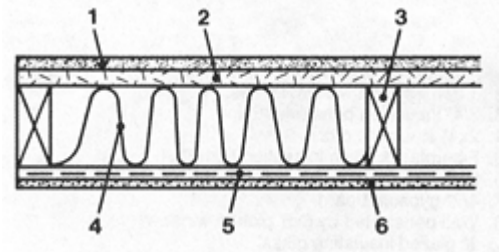
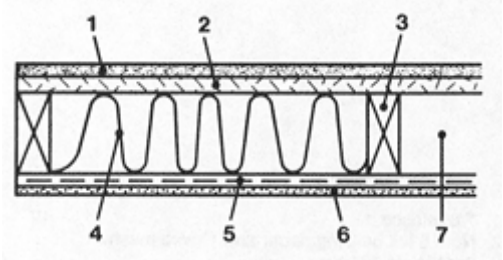
Sketch	Brief Description	STC
	1. 6x8x16″ 3-cell lightweight concrete masonry units (21 lbs./block).	44
	1. 6x8x16″ 3-cell lightweight concrete masonry units (21 lbs./block). 2. Paint both sides with primer-sealer coat and finish coat of latex.	46
	1. 6x8x18″ 3-cell dense concrete masonry units (36 lbs./block). 2. Paint both sides with primer-sealer coat and finish coat of latex.	48
	1. 6x8x16″ 3-cell lightweight concrete masonry units (21 lbs./block). 2. Paint, primer-sealer coat and finish coat of latex. 3. Resilient channels, 24″o.c. 4. ½″ gypsum board screwed to channels.	53
	1. 8x8x16″ 3-cell lightweight concrete masonry units (28 lbs./block).	45
	1. 8x8x18″ 3-cell lightweight concrete masonry units (34 lbs./block).	49

Sketch	Brief Description	STC
	1. 8x8x18″ 3-cell lightweight concrete masonry units (38 lbs./block).	49
	1. 8x8x18″ 3-cell lightweight concrete masonry units (34 lbs./block). 2. Expanded mineral loose-fill insulation.	51
	1. 8x8x18″ 3-cell lightweight concrete masonry units (38 lbs./block). 2. Expanded mineral loose-fill insulation.	51
	1. 8x8x18″ 3-cell lightweight concrete masonry units (33 lbs./block). 2. Grout in cells. 3. #5 bar in each cell.	48
	1. 8x8x18″ 3-cell lightweight concrete masonry units (33 lbs./block). 2. Grout in cells. 3. #5 bar each cell. 4. Paint two coats flat latex each side.	55
	1. 12x8x16″ 3-cell lightweight concrete masonry units (43 lbs./block).	39

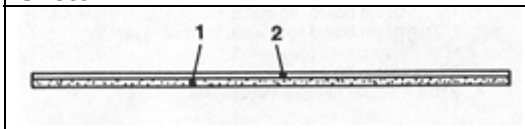
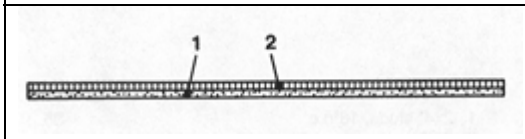
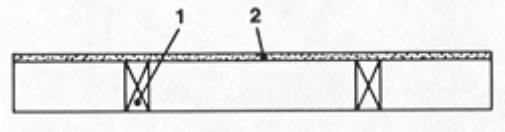
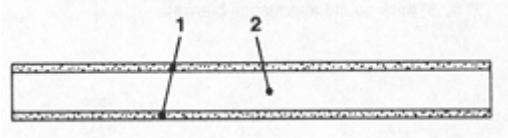
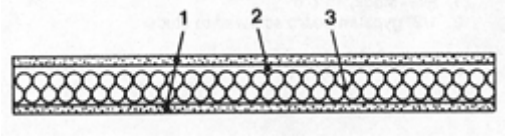
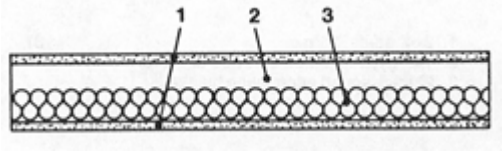
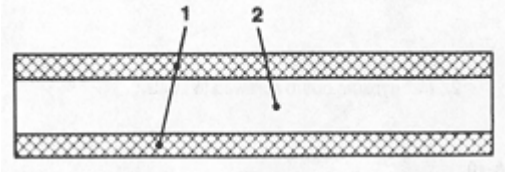
Sketch	Brief Description	STC
	1. 12x8x16. 3-cell lightweight concrete masonry units (43 lbs./block). 2. Paint both sides with 3 coats of latex block filler.	50
	1. 12x8x16” 3-cell lightweight concrete masonry units (43 lbs./block). 2. Paint one side only with 3 coats latex block filler.	51
	1. 6” cast concrete wall (71 psf).	57
	1. 6” cast concrete wall. 2. “Z” furring channels. 3. ½” gypsum board.	59
	1. 6” cast concrete wall. 2. “Z” furring channels. 3. 1”, 8-pcf rockwool. 4. ½” gypsum board.	62
	1. 6” cast concrete wall. 2. 2x2” wood furring. 3. 1 ½” 4-pcf rockwool. 4. ½” gypsum board.	63

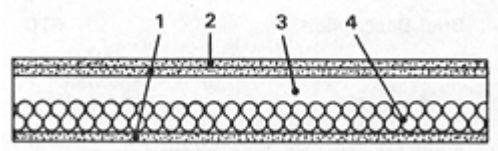
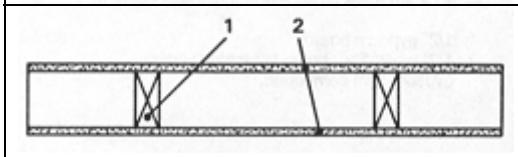
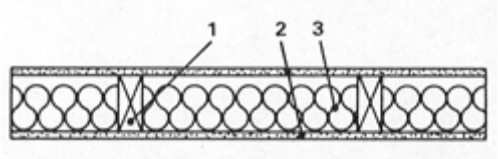
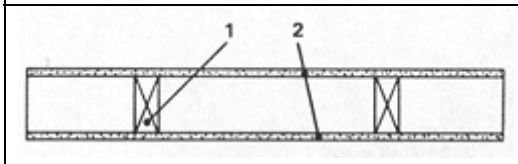
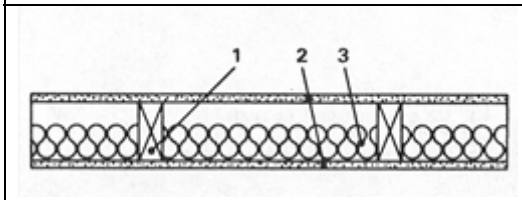
Sketch	Brief Description	STC
	1. 8″ cast concrete wall (96.6 psf).	58
	1. 8″ cast concrete wall. 2. 2x2″ wood furring. 3. ½″ gypsum board.	59
	1. 8″ cast concrete wall. 2. 2x2″ wood furring. 3. 1 ½″, 4 psf rockwall. 4. ½″ gypsum board.	63
	1. Face brick. 2. ½″ air space, with metal ties. 3. ¾″ insulation board sheathing. 4. 2x4″ studs 16″o.c. 5. Resilient channel. 6. ½″ gypsum board.	54
	1. Face brick. 2. ½″ air space, with metal ties. 3. ¾″ insulation board sheathing. 4. 2x4″ studs 16″o.c. 5. Fiberglas building insulation (3 ½″). 6. Resilient channel. 7. ½″ gypsum board.	56

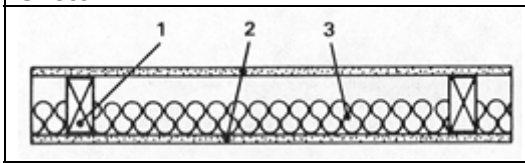
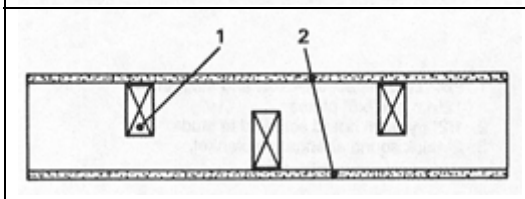
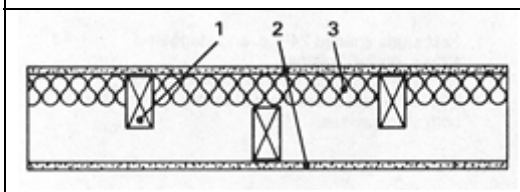
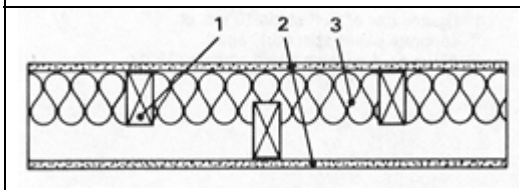
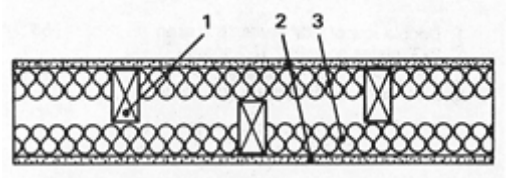
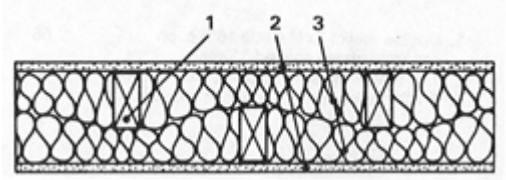
Sketch	Brief Description	STC
	1. Face brick (9x14’ wall). 2. ½” air space, with metal ties. 3. ¾” insulation board sheathing. 4. 2x4” studs 16”o.c. 5. Fiberglas building insulation (3 ½”). 6. Resilient channel. 7. ½” gypsum board. 8. Wall penetrated by 6x5' picture window 1” glazed insulating glass.	39
	1. 7/8” stucco. 2. No.15 felt building paper and 1” wire mesh. 3. 2x4” studs 16”o.c. 4. Resilient channel. 5. ½” gypsum board screwed to channel.	49
	1. 7/8” stucco. 2. No.15 felt building paper and 1” wire mesh. 3. 2x4” studs 16”o.c. 4. Fiberglas building insulation (3 ½”). 5. Resilient channel. 6. ½” gypsum board screwed to channel.	57
	1. 5/8 x 10” redwood siding. 2. ½” insulation board sheathing. 3. 2x4” wood studs 16”o.c. 4. Resilient channel. 5. ½” gypsum board screwed to channel.	43

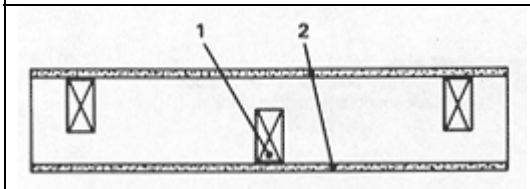
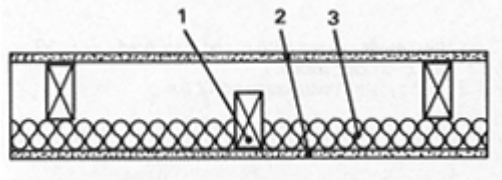
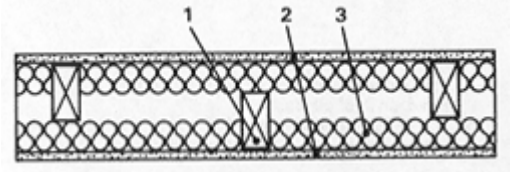
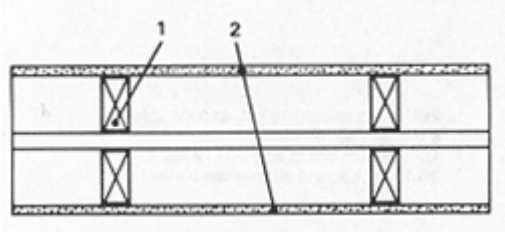
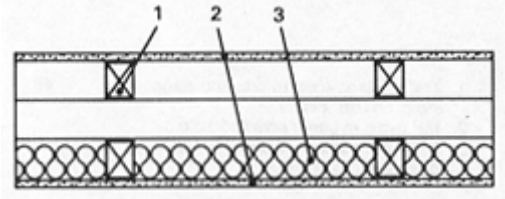
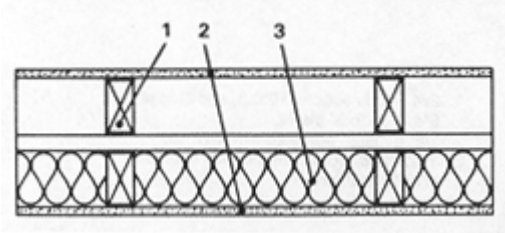
Sketch	Brief Description	STC
	1. 5/8x10” redwood siding. 2. ½” insulation board sheathing. 3. 2x4” wood studs 16”o.c. 4. Fiberglas building insulation (3 ½”). 5. Resilient channel. 6. ½” gypsum board screwed to channel.	47
	1. 5/8x10” redwood siding (9x14' wall). 2. ½” insulation board sheathing. 3. 2x4” wood studs 16.o.c. 4. Fiberglas building insulation (3 ½”). 5. Resilient channel. 6. ½” gypsum board screwed to channel. 7. a. Wall penetrated by a 6x5' picture window, 1” glazed insulating glass. b. Wall penetrated by a 6x5' 16 panel window, glazed single strength.	(a.38) (b.35)

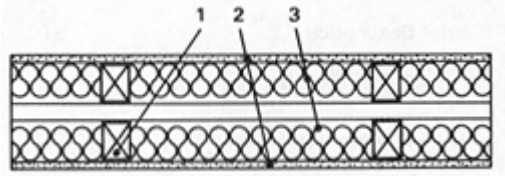
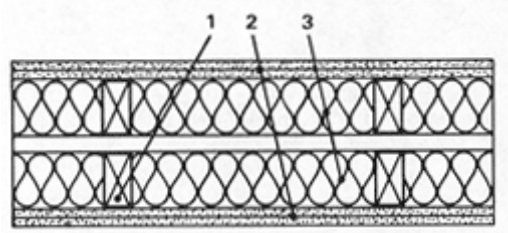
WALLS: Interior: Wooden Studs

Sketch	Brief Description	STC
	1. ½″ gypsum board. 2. 3/16″ plywood laminated with contact cement.	28
	1. ½″ gypsum board. 2. ½″ wood-fiber board laminated with gypsum joint compound.	30
	1. 2x4″ studs, 16″o.c. 2. 5/8″ gypsum board screwed to studs.	28
	1. ½″ gypsum board, no studs. 2. 2 ½″ air space.	30
	1. ½″ gypsum board, no studs. 2. 2 ½″ air space. 3. 2″ thick sound attenuation blanket.	44
	1. ½″ gypsum board, no studs. 2. 3 5/8″ air space. 3. 2″ thick sound attenuation blanket.	45
	1. 1 3/8″ thick wood-fiber board nailed to 2x4″ plates top and bottom and painted both sides. 2. 3 ½″ air cavity.	44

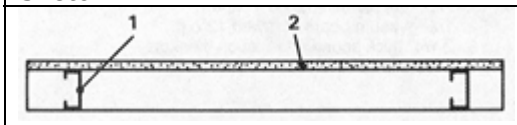
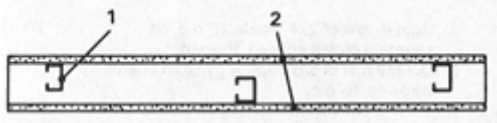
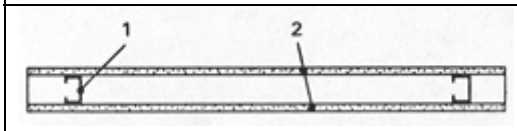
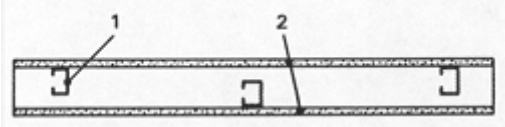
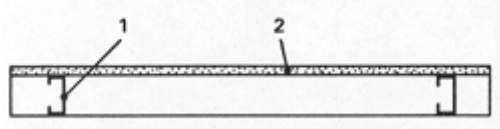
Sketch	Brief Description	STC
	1. ½” gypsum board, no studs. 2. ½” gypsum board laminated to base layer with gypsum joint compound. 3. 3 5/8” air cavity. 4. 2” thick sound attenuation blanket.	48
	1. 2x4” studs, 16”o.c. 2. 3/8” gypsum board nailed to studs.	35
	1. 2x4” studs, 16”o.c. 2. 3/8” gypsum board nailed to studs. 3. 3” thick sound attenuation blanket.	41
	1. 2x4” studs, 16”o.c. 2. ½” gypsum board screwed to studs.	34
	1. 2x4” studs, 16”o.c. 2. ½” gypsum board screwed to studs. 3. 2” thick sound attenuation blanket.	37
	1. 2x4” studs, 24”o.c. 2. ½” gypsum board screwed to studs.	36

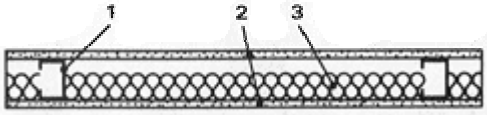
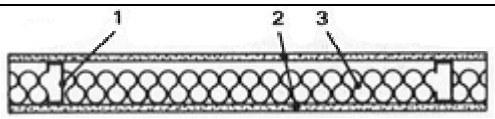
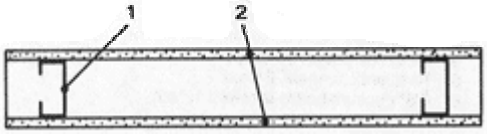
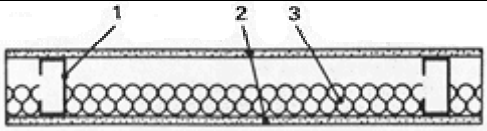
Sketch	Brief Description	STC
	1. 2x4”studs, 24”o.c. 2. ½” gypsum board screwed to studs. 3. 2” thick sound attenuation blanket.	40
	1. 2x4” studs spaced 16”o.c. and staggered 8”o.c. on 2x6” plates. 2. ½” gypsum board screwed 12”o.c.	39
	1. 2x4” studs spaced 16”o.c. and staggered 8”o.c. on 2x6” plates. 2. ½” gypsum board screwed 12”o.c. 3. 2 ¼” thick sound attenuation blanket.	48
	1. 2x4” studs spaced 16”o.c. and staggered 8”o.c. on 2x6” plates. 2. ½” gypsum board screwed 12”o.c. 3. 3 ½” thick sound attenuation blanket.	49
	1. 2x4” studs spaced 16”o.c. and staggered 8”o.c. on 2x6” plates. 2. ½” gypsum board screwed 12”o.c. 3. 2 ¼” thick sound attenuation blankets in both stud cavities.	49
	1. 2x4” studs spaced 16”o.c. and staggered 8”o.c. on 2x6” plates. 2. ½” gypsum board screwed 12”o.c. 3. 3 ½” thick sound attenuation blankets in both stud cavities.	51

Sketch	Brief Description	STC
	1. 2x4″ studs spaced 24″o.c. and staggered 12″o.c. on 2x6″ plates. 2. ½″ type X gypsum board screwed 12″o.c.	42
	1. 2x4″ studs spaced 24″o.c. and staggered 12″o.c. on 2x6″ plates. 2. ½″ gypsum board screwed to studs. 3. 2″ thick sound attenuation blanket.	46
	1. 2x4″ studs spaced 24″o.c. and staggered 12″o.c. on 2x6″ plates. 2. ½″ type X gypsum board screwed 12″o.c. 3. 2″ thick sound attenuation blankets in both stud cavities.	48
	1. Double row of 2x4″ studs 16″o.c. on separate plates spaced 1″ apart. 2. ½″ type X gypsum board screwed 12″o.c.	47
	1. Double row of 2x3″ studs 16″o.c. on 2x3″ plates spaced 2 ½″ apart. 2. ½″ gypsum board screwed 16″o.c. 3. 2 ¼″ thick sound attenuation blanket.	55
	1. Double row of 2x4″ studs 16″o.c. on separate plates spaced 1″ apart. 2. ½″ type X gypsum board screwed 12″o.c. 3. 3 ½″ thick sound attenuation blanket.	56

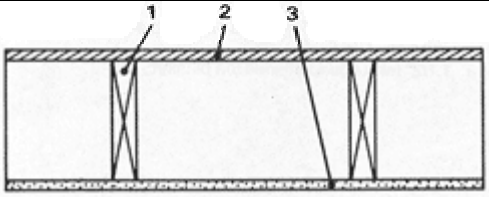
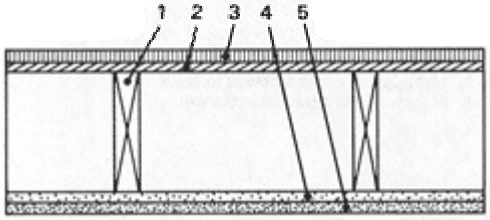
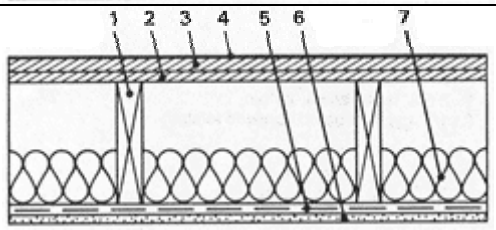
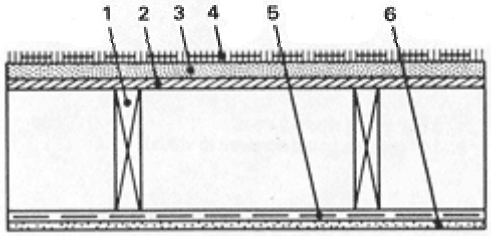
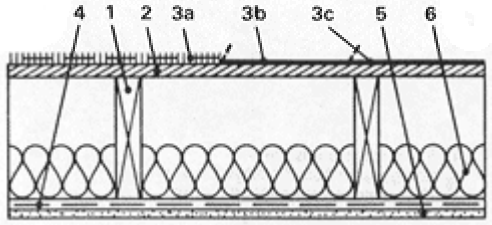
Sketch	Brief Description	STC
	1. Double row of 2x4” studs 16”o.c. on separate plates spaced 1” apart. 2. ½” gypsum board screwed 12”o.c. 3. 2 ¼” thick sound attenuation blankets in both stud cavities.	56
	1. Double row of 2x4” studs 16.o.c. on separate plates spaced 1” apart. 2. Double row of 5/8” type X gypsum board screwed 16.o.c. 3. 3 ½” thick sound attenuation blankets in both stud cavities.	63

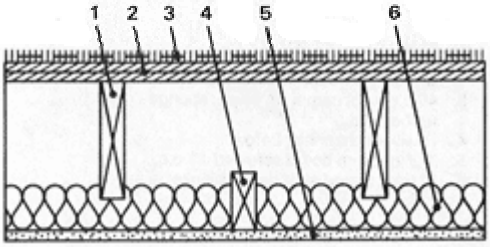
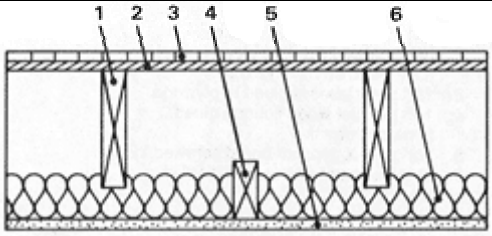
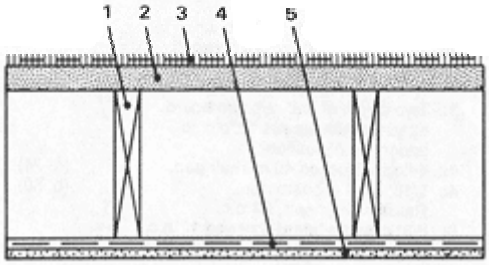
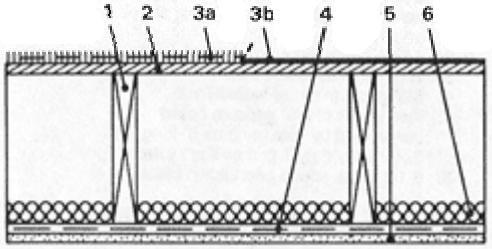
WALLS: Interior: Metal Studs

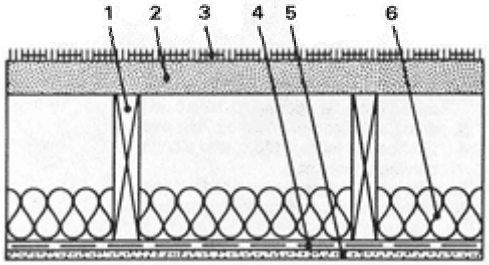
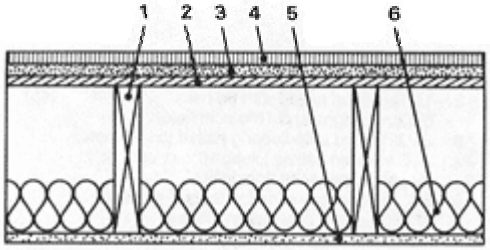
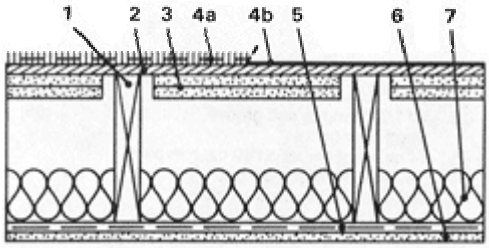
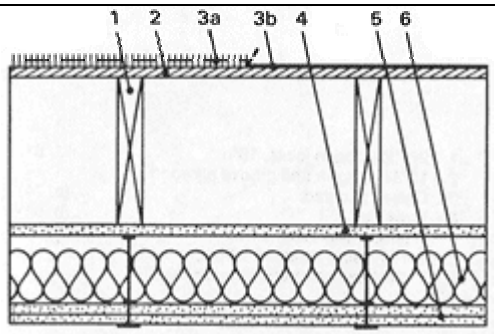
Sketch	Brief Description	STC
	1. 1 5/8″ metal studs, 24″o.c. 2. 1/2. vinyl-faced gypsum board screwed to studs.	27
	1. 1 5/8″ metal studs spaced 24″o.c. and staggered 12″o.c. on 2 ½″ metal tracks. 2. 1/2″ gypsum board screwed to studs.	34
	1. 1 5/8″ metal studs, 24″o.c. 2. 5/8″ gypsum board screwed 12″o.c. at edges and 24″o.c. in field.	37
	1. 1 5/8″ metal studs spaced 24″o.c. and staggered 12″o.c. on 21/2″ metal channels. 2. 5/8″ gypsum board screwed to studs.	38
	1. 2 ½″ metal studs, 24″o.c. 2. 1/2″ vinyl-faced gypsum board screwed to studs.	27
	1. 2 1/2″ metal studs, 24″o.c. 2. 5/8″ gypsum board screwed to studs.	37

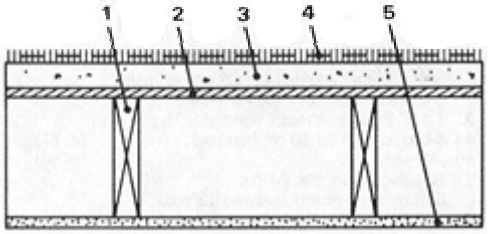
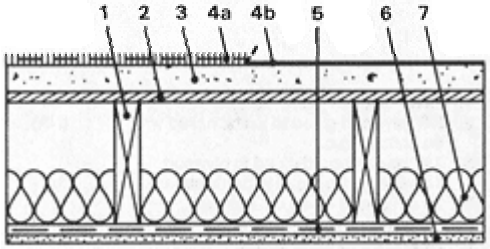
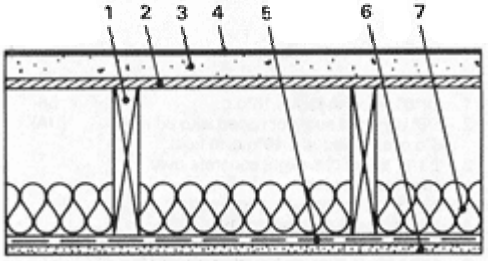
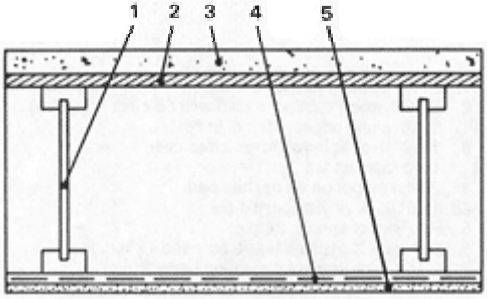
Sketch	Brief Description	STC
	1. 2 ½” metal studs, 24”o.c. 2. 5/8” gypsum board screwed 12”o.c. at edges and 24”o.c. in field. 3. 1 ½” thick sound attenuation blanket.	42
	1. 2 ½” metal studs, 24”o.c. 2. ½” gypsum board screwed to studs. 3. 2” thick sound attenuation blanket.	44
	1. 3 5/8” metal studs, 24”o.c. 2. 1/2. gypsum board screwed to studs.	27
	1. 3 5/8” metal studs, 24”o.c. 2. ½” gypsum board screwed to studs.	36
	1. 3 5/8” metal studs, 24”o.c. 2. ½” gypsum board screwed to studs. 3. 2” thick sound attenuation blanket.	44

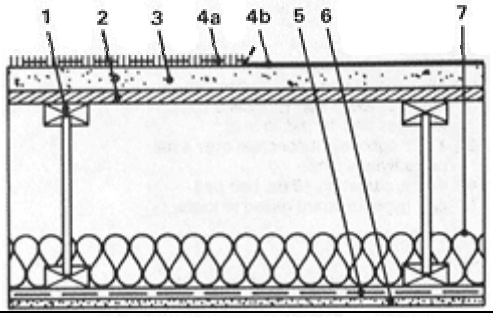
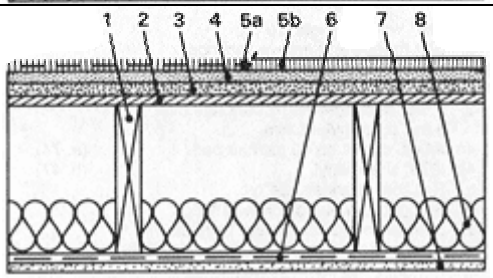
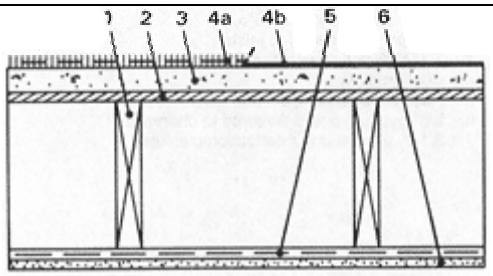
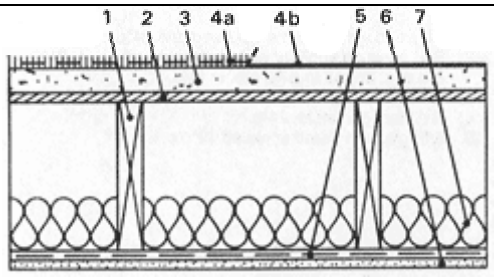
Floors: Wood

Sketch	Brief Description	STC (IIC)
	1. 2x8″ wooden joists, 16″o.c. 2. 7/8″ tongue and groove nailed to joints. 3. 3/8″ gypsum nailed to joints.	NA (32)
	1. 2x8″ wooden joists, 16″o.c. 2. ½″ plywood nailed. 3. 25/32″ hardwood flooring. 4. 1/2″ gypsum nailed to joists. 5. Ceiling tire.	NA (37)
	1. 2x8″ wooden joists, 16″o.c. 2. 5/8″ tongue and groove plywood nailed with 8d nails 6″o.c. 3. 3/8″ plywood stapled 3″o.c. at edges and 6″o.c. in field. 4. .075″ sheet vinyl. 5. Resilient channels, 24″o.c. 6. 5/8″ gypsum board screwed 12″o.c. 7. 3″ thick sound attenuation blanket.	46 (44)
	1. 2x8″ wooden joists, 16″o.c. 2. 5/8″ plywood nailed with 8d nails. 3. ½″ nominal wood-fiber board glued to plywood. 4. 44 oz. carpet on 50 oz. pad. 5. Resilient channels, 24″o.c. 6. 5/8″ gypsum board screwed 12″o.c.	48 (65)
	1. 2x8″ wooden joists, 16″o.c. 2. 19/32″ tongue and groove plywood nailed with 8d nails 6″o.c. at edges and 10″o.c. in field. 3. a. 44 oz. carpet on 40 oz. hair pad. b. .075″ sheet vinyl. c. 1/16″ sheet vinyl. 4. Resilient channels, 24″o.c. 5. 5/8″ gypsum board screwed 12″o.c. 6. 3″ thick sound attenuation blanket.	48 (a. 69) (b. 45) (c.43)

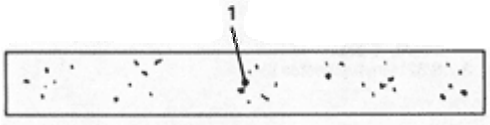
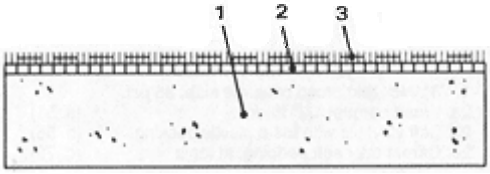
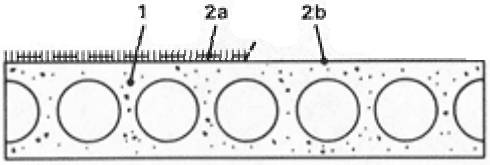
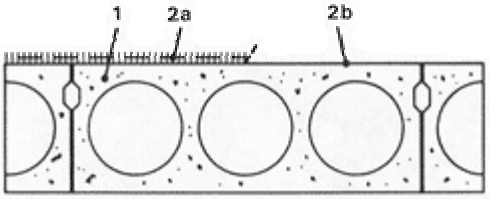
Sketch	Brief Description	STC (IIC)
	1. 2x8″ wooden joists, 16″o.c. 2. 1 1/8″ tongue and groove plywood nailed 6″o.c. at edges and 16″o.c. in field. 3. 44 oz. wool carpet on 40 oz. hair pad. 4. 2x4″ ceiling joists, 16″o.c. and staggered between floor joists. 5. 5/8″ gypsum board nailed to 2x4″ joists. 6. 3″ thick sound attenuation blanket.	53 (80)
	1. 2x8″ wooden joists, 16″o.c. 2. 1/2″ plywood nailed with 8d nails 6″o.c. at edges and 16″o.c. in field. 3. 25/32″ wood strip flooring nailed to sub floor. 4. 2x4″ wooden ceiling joists, 16″o.c. and staggered between floor joists. 5. 5/8″ gypsum board nailed to 2x4″ joists. 6. 3″ thick sound attenuation blanket.	54 (45)
	1. 2x10″ wooden joists, 16″o.c. 2. 1 11/32″ tongue and groove wood-fiber board. 3. 44 oz. wool carpet on 40 oz. hair pad. 4. Resilient channels, 24″o.c. 5. 5/8″ gypsum screwed 12″o.c.	49 (68)
	1. 2x10″ wooden joists, 16″o.c. 2. 19/32″ tongue and groove plywood. 3. a. Carpet and pad. b. Vinyl tile. 4. Resilient channels, 24″o.c. 5. 5/8″ gypsum screwed 12″o.c. 6. 1″ thick sound attenuation blanket.	51 (a. 74) (b.51)

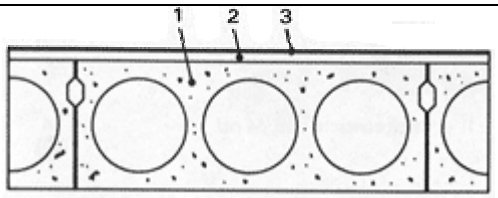
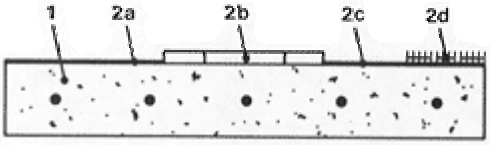
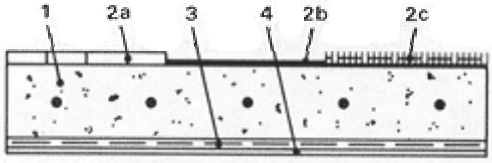
Sketch	Brief Description	STC (IIC)
	1. 2x10″ wooden joists, 16″o.c. 2. 1 11/32″ tongue and groove wood-fiber board. 3. 40 oz. wool carpet on 80 oz. sponge rubber pad. 4. Resilient channels, 24″o.c. 5. 1/2″ gypsum board screwed 12″o.c. 6. 3″ thick sound attenuation blanket.	50 (72)
	1. 2x10″ wooden joists, 16″o.c. 2. 5/8″ plywood sub floor glued to joists, nailed with 8d nails 12″o.c. 3. ¼″ particleboard glued to plywood. 4. ½″ parquet wood flooring glued to particleboard. 5. ½″ type-X gypsum board screwed 12″o.c. 6. 3″ thick sound attenuation blanket.	43 (NA)
	1. 2x10″ wooden joists, 16″o.c. 2. 5/8″ tongue and groove plywood nailed with 8d nails 6″o.c. along edges and 10″o.c. in field. 3. Two layers of 5/8″ gypsum board attached with screws 12″o.c. to underside of sub floor. 4. a. 44 oz. carpet on 40 oz. hair pad. b. 1/16″ vinyl asbestos tile. 5. Resilient channels, 24″o.c. 6. 5/8″ gypsum board screwed 12″o.c. 7. 3 ½″ thick sound attenuation blanket.	56 (a. 74) (b.50)
	1. 2x10″ wooden joists, 16″o.c. 2. 5/8″ tongue and groove plywood nailed with 8d nails 6″o.c. along edges and 10″o.c. in field. 3. a. 44 oz. carpet on 40 oz. hair pad. b. 1/16″ vinyl asbestos tile. 4. 5/8″ gypsum board nailed 7″o.c. 5. Two layers of 5/8″ gypsum board suspended by wire hangers 5″ long in a 2x4' heavy-duty T grid ceiling system. 6. 3 ½″ thick sound attenuation blanket.	49 (a. 68) (b.47)

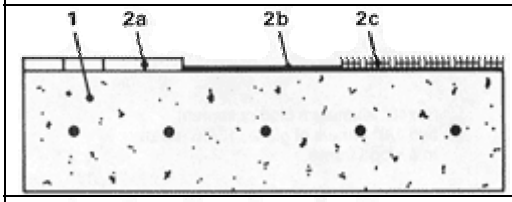
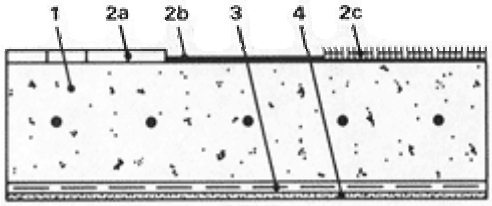
Sketch	Brief Description	STC (IIC)
	1. 2x8″ wooden joists, 16″o.c. 2. 5/8″ tongue and groove plywood nailed to joists with 8d nails 6″o.c. at edges and 10″o.c. in field. 3. 1 5/8″ lightweight concrete over 4 mil. polyethylene film. 4. 44 oz. carpet on 40 oz. hair pad. 5. 5/8″ gypsum board nailed to joists.	47 (66)
	1. 2x8″ wooden joists, 16″o.c. 2. 5/8″ tongue and groove plywood nailed to joists with 8d nails 6″o.c. at edges and 10″o.c. in field. 3. 1 5/8″ thick lightweight concrete over 4 mil. polyethylene film. 4. a. 44 oz. carpet on 40 oz. hair pad. b. .075″ sheet vinyl. 5. Resilient channels, 24″o.c. 6. 5/8″ gypsum board screwed 12″o.c. 7. 3″ thick sound attenuation blanket.	53 (a. 74) (b. 47)
	1. 2x10″ wooden joists. 16″o.c. 2. 5/8″ plywood nailed to joists. 3. 3. 1 ½″ thick lightweight concrete, 13 psf. 4. Cushioned vinyl. 5. Resilient channels, 24″o.c. 6. 5/8″ gypsum board screwed to channels. 7. 3 ½″ thick sound attenuation blanket.	NA (51)
	1. Plywood web I-beams 12″ deep and 24″o.c. 2. 3/4″ plywood sub floor nailed with 6d nails 6″o.c. at edges and 10″o.c. in field. 3. 1 ½″ thick lightweight concrete, 15 psf. 4. Resilient channels, 24″o.c. 5. 5/8″ gypsum board screwed 12″o.c.	57 (NA)

Sketch	Brief Description	STC (IIC)
	1. Plywood web I-beams 12” deep and 24”o.c. 2. 3/4” plywood sub floor nailed with 6d nails 6”o.c. at edges and 10”o.c. in field. 3. 1 1/2” thick lightweight concrete, 15 psf. 4. a. 44 oz. carpet on 40 oz. hair pad. b. .07” vinyl tile. 5. Resilient channels, 24.o.c. 6. 5/8” gypsum board screwed 12”o.c. 7. 3” thick sound attenuation blanket.	58 (a. 77) (b. 50)
	1. 2x10” wooden joists, 16”o.c. 2. 5/8” plywood glued to joists, nailed with 8d nails 12”o.c. 3. ¼” particleboard glued to plywood. 4. ½” fiberboard glued to particleboard. 5. a. 76 oz. carpet on 50 oz. hair pad. b. 1/2” parquet wood flooring. 6. Resilient channels, 24”o.c. 7. ½” type-X gypsum board screwed 12”o.c. 8. 3” thick sound attenuation blanket.	51 (NA)
	1. 2x10” wooden joists, 16”o.c. 2. 5/8” plywood sub floor nailed with 8d nails 6”o.c. along edges, 10”o.c. in field. 3. 1 1/2” thick lightweight concrete over 15 lb. asphalt felt. 4. a. 20 oz. carpet on 40 oz. hair pad. b. 1/16” thick vinyl-asbestos tile. 5. Resilient channels, 24”o.c. 6. ½” type-X gypsum board screwed 12”o.c.	56 (NA)
	1. 2x10” wooden joists, 16”o.c. 2. 5/8” plywood sub floor nailed with 8d nails 6”o.c. along edges, 10”o.c. in field. 3. 1 ½” thick lightweight concrete over 15 lb. asphalt felt. 4. a. 20 oz. carpet on 40 oz. hair pad. b. 1/16” thick vinyl-asbestos tile. 5. Resilient channels, 24”o.c. 6. 5/8” type-X gypsum board screwed 12”o.c. 7. 3 ½” thick sound attenuation blanket.	61 (NA)

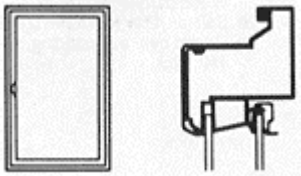
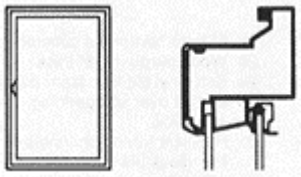
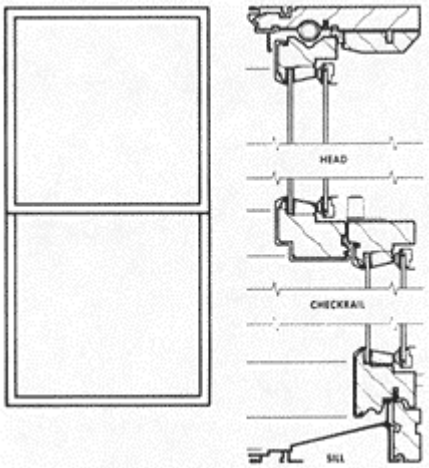
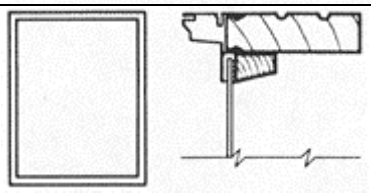
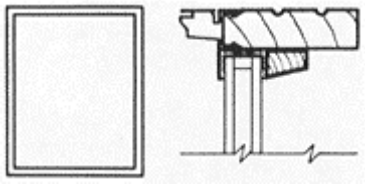
FLOORS: Concrete

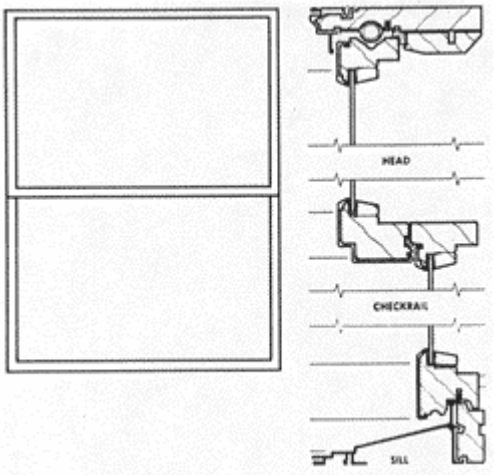
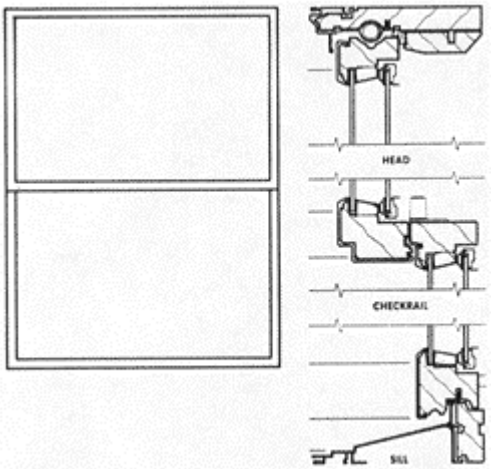
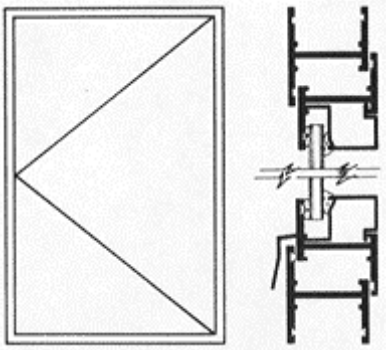
Sketch	Brief Description	STC (IIC)
	1. 4” thick concrete slab, 54 psf.	44 (25)
	1. 6” thick concrete slab, 75 psf.	55 (34)
	1. 6” thick concrete slab. 2. ½” wood-fiber board glued to concrete. 3. 44 oz. carpet on 40 oz. hair pad.	NA (81)
	1. 6” thick hollow-core concrete panel, 45 psf. 2. a. Carpet and pad. b. No floor covering.	48 (a. 69) (b. 23)
	1. 8” thick hollow-core concrete panel, 57 psf. 2. a. 66 oz. carpet on 50 oz. hair pad. b. No floor covering.	50 (a. 74) (b. 28)

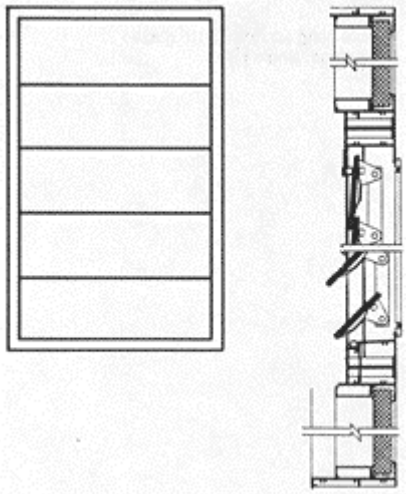
Sketch	Brief Description	STC (IIC)
	1. 8″ thick hollow-core concrete panels, 57 psf. 2. 1/4″ inorganic felt-supported underlayment board, .6 psf. 3. 3/32″ vinyl-asbestos tile.	50 (51)
	1. 3″ thick reinforced concrete slab, 35 psf, ceiling bare. 2. a. Vinyl asbestos, 0.08″ thick. b. Wood parquet 1/2″ thick. c. Soft vinyl tile with foam plastic backing. d. Carpet over soft padding, at least ¼″ thick.	45 (a. 42) (b.45) (c. 49) (d. 70)
	1. 3″ thick reinforced concrete slab, 35 psf. 2. a. Wood parquet ½″ thick. b. Soft vinyl tile with foam plastic backing. c. Carpet over soft padding, at least ¼″ thick. 3. Resilient furring channels on ½″ fiberglass blanket. 4. ½″ gypsum board.	56 (a.51) (b. 55) (c. 70)

Sketch	Brief Description	STC (IIC)
	1. 5″ thick reinforced concrete slab, 55 psf. ceiling bare. 2. a. Wood parquet ½″ thick. b. Soft vinyl tile with foam plastic backing. c. Carpet over soft padding, at least ¼″ thick.	51 (a. 46) (b. 50) (c. 70)
	1. 5″ thick reinforced concrete slab, 55 psf. 2. a. Wood parquet ½″ thick. b. Soft vinyl tile with foam plastic backing c. Carpet over soft padding, at least ¼″ thick. 3. Resilient furring channels on ½″ fiberglass blankets. 4. ½″ gypsum board.	56 (a. 51) (b. 55) (c. 75)

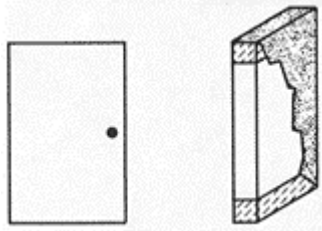
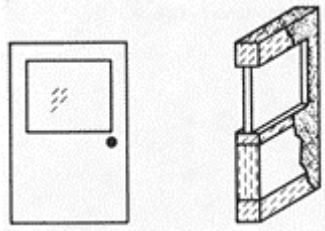
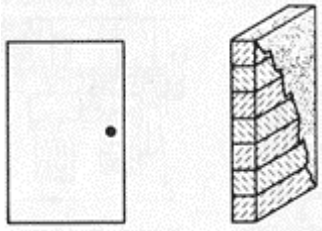
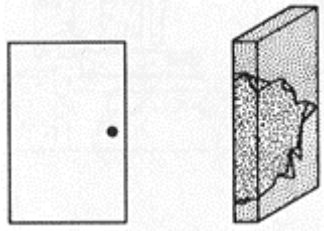
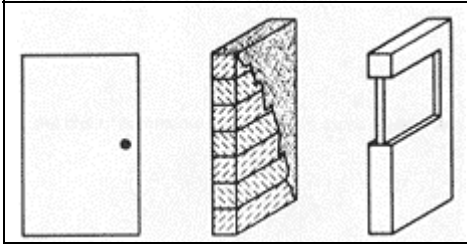
WINDOWS

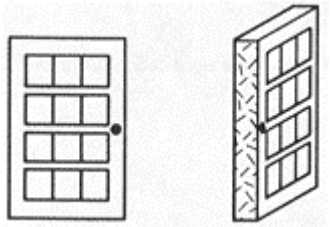
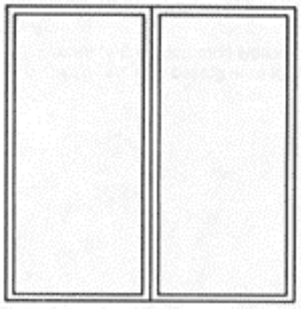
Sketch Front / Cross Section	Brief Description	STC
	30x48” aluminum clad casement, two 1/8” panels of glass, 13/16” apart in a wood frame.	29
	30x48” aluminum clad casement, one 3/32” panel and one 1/8” panel, 13/16” apart in a wood frame.	31
	32x24x24” aluminum double-hung windows (32” wide with 24” high upper sash and a 24” high lower sash), each sash has one 3/32” panel and one 1/8” panel, 13/16” apart in a wood frame.	29
	6x5' picture window glazed double strength, single panel.	29
	6x5' picture window plus storm sash, glazed double strength single panel, 3 ¾” separation between panels.	38

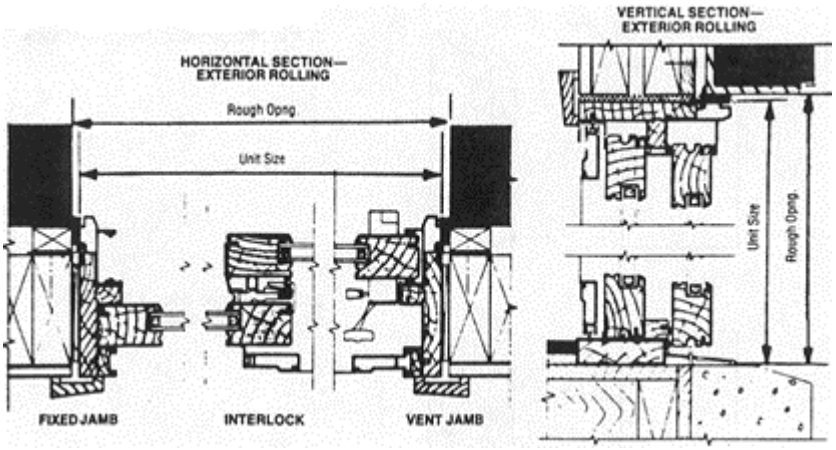
Sketch Front / Cross Section	Brief Description	STC
	3x5' double hung window, 7/16” glazed insulating glass, single panel.	26
	3x5' double hung window, 7/16” glazed insulating glass, single panel plus storm sash, glazed single strength, single sealed separation between panels: upper 1 ½”, lower 2 13/16”.	35
	3x4' awning window, glazed double strength, cranked shut.	24

Sketch Front / Cross Section	Brief Description	STC
	3x4' jalousie window, glazed ¼” glass, 4 ½” wide louvers with ½” in overlap, cranked tight shut.	20

DOORS: Exterior

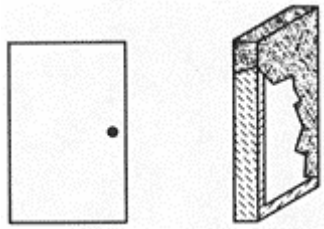
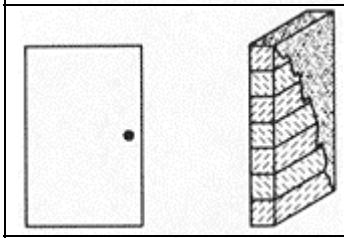
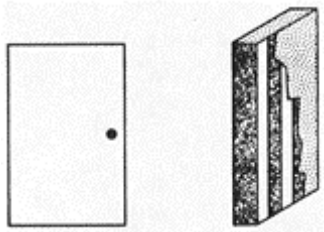
Sketch Front / Cross Section	Brief Description	STC
	3x7' hollow-core wood door, 1 ¾" thick.	20
	3x7' hollow-core door, 1 3/4" thick, 30% of area glazed with 1/8" glass.	19
	3x7' solid-core wood door, 1 ¾" thick.	27
	3x7' steel-faced door, 1 ¾" thick, rigid polyurethane core.	26
	3x7' solid-core wood door, 1 ¾" thick plus an aluminum storm door, glazed single strength.	34

Sketch Front / Cross Section	Brief Description	STC
	3x7' wood French door, 12 lights glazed single strength, mounted in frame, brass weather strip.	26
	6x6' sliding glass doors, ¾" insulating glass (2 pieces 1/8" tempered glass), one door opens, other is permanent in place.	28



*All exterior doors are sealed with a weathering strip around the frame. Interior doors do not have a weather strip and are not flush to the floor to permit the installation of a carpet.

DOORS: Interior

Sketch Front / Cross Section	Brief Description	STC
	3x7' solid-core wood door, 1 ¾" thick, weight 1.5 lb/ft².	17
	3x7' solid-core wood door, 1 ¾" thick, weight 4.0 lb/ft².	20
	3x7' hollow-core steel door, 1 ¾" thick, weight 5.0 lb/ft².	17

Appendix B References

Appendix B
General References

Books:

Acoustical and Thermal Performance of Exterior Residential Walls. Doors and Windows; NBS Building Science Series 77, U.S. Department of Commerce/National Bureau of Standards, 1975.

Acoustics Noise and Buildings; Parkin, Humphreys and Cowell; Faber and Faber; London; 1979.

Airborne Sound Transmission Loss, Characteristics of Wood Frame Construction; Fred F. Rudder, Jr.; USDA, Forest Service; General Technical Report FPL-43.

Handbook of Architectural Acoustics and Noise Control; Michael Retting; Tab Book; Blue Ridge Summit, Pa.; 1979.

Quieting: A Practical Guide to Noise Controls; U.S. Department of Commerce/National Bureau of Standards; NBS Handbook 119; 1976.

Institutions and Organizations:

Amerada Architectural Glass.
DeSco Windows.
Georgia-Pacific.
Industrial Acoustics Company.
National Concrete Masonry Association.
Office of Noise Control; California Department of Health Services.
Overly Manufacturing Company.
Paella Products.
Portland Cement Association.
U.S. Gypsum Company.

Testing Laboratories:

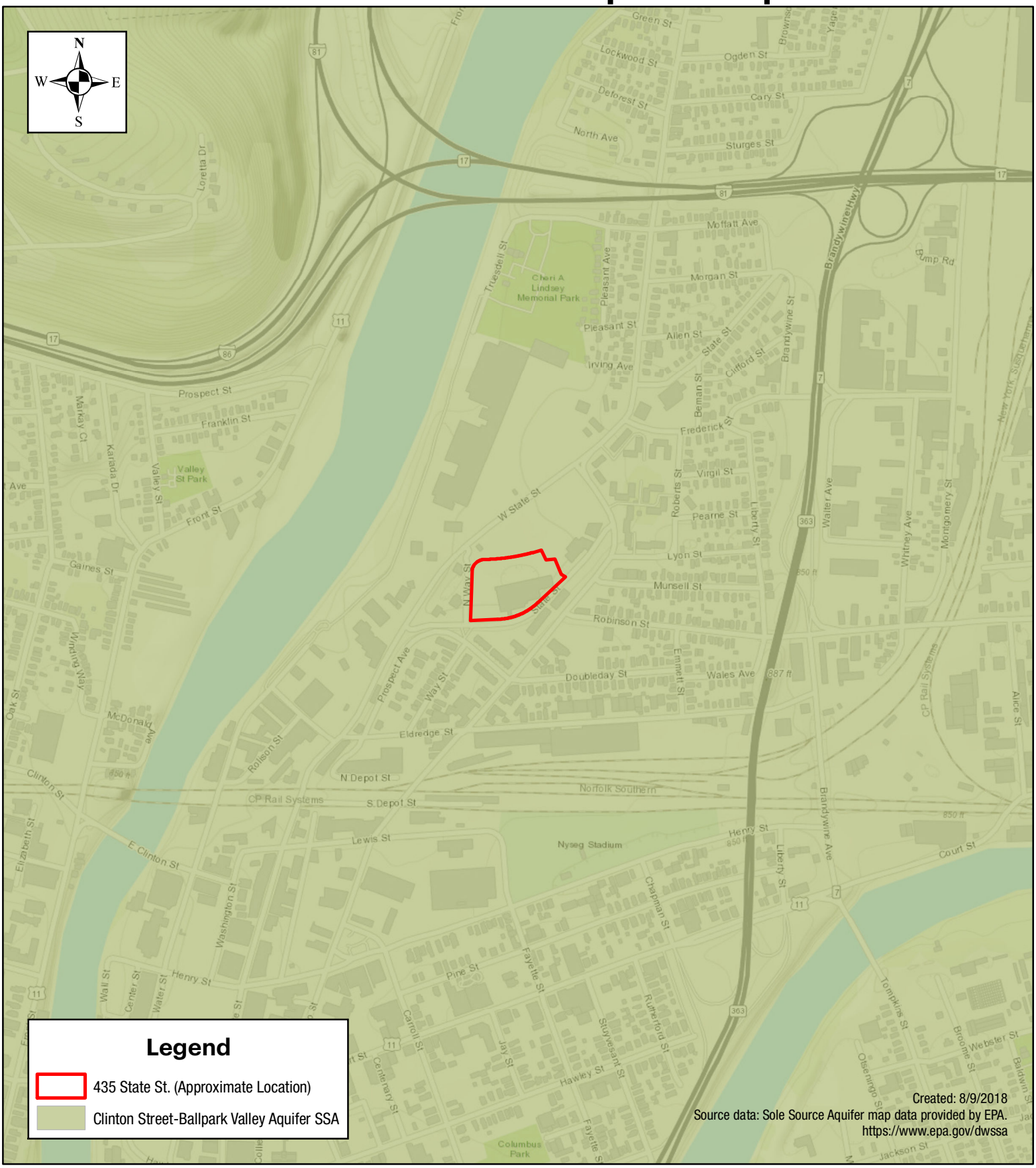
Cedar Knolls Acoustical Laboratories.
Geiger and Hamme.
Kaiser Gypsum.
Kodaras Acoustical.
National Institute of Standards and Technology.
National Research Council of Canada.
Riberbank Acoustical Laboratories.

Attachment 11

EPA Sole Source Aquifer Documents

EPA Sole Source Aquifer Map
Non-Housing / Project Activity Initial Screen (7/30/2018)
EPA Determination Response (8/17/2018)

EPA Sole Source Aquifer Map



Tectonic

1:10,000

0 500 1,000 2,000 Feet

Canal Plaza Project
435 State Street
City of Binghamton
Broome County, New York

Governor's Office of
Storm Recovery

ANDREW M. CUOMO
Governor

July 30, 2018

Ms. Grace Musemeci
Chief of the Environmental Review Section
U.S. Environmental Protection Agency
Region 2 Main Regional Office
290 Broadway
New York, NY 10007-1866

Re: Sole Source Aquifer Analysis – CDBG-DR Funding
435 State Street, Binghamton, NY, 13901

Dear Ms. Musemeci:

The New York State Governor's Office of Storm Recovery ("GOSR") received a funding application for an affordable housing project at 435 State Street, City of Binghamton, Broome County, New York (see **Figures 1 and 2**).

The proposed project will be located at 435 State Street, Binghamton (Broome County) NY, 13901, the former location of a 47,644-square foot commercial structure which was demolished in preparation for new construction of this 48-unit apartment complex. Adjacent land use is primarily office and retail commercial uses, with some multifamily housing adjacent to the east, and nearby to the northeast. This project will include 15,000 square feet of commercial space on the first floor that will be utilized by community service organizations. The proposed project consists of one, four-story building with an area of 65,276 square feet. There are two elevators serving 36 one-bedroom and 12 two-bedroom apartments. The complex will provide affordable housing to an underserved population in Binghamton.

Each residential floor will have a common laundry room. There will also be a community room for use by the residents. Each apartment will have a balcony. Additional amenities include a playground, sitting area and garden. Commercial natural gas, electric and cable television are on-site as is municipal water and sanitary sewer. A surface lot will have 122 parking spaces.

This is a community renewal project is part of a neighborhood specific revitalization plan. The site is in the EN-Zone and Governor's North Chenango River Brownfield Opportunity Area. NYS DEC has approved the project for admittance to the Brownfield Cleanup Program (BCP). By eliminating blight, it will improve development opportunities for surrounding properties. The community service component addresses an unmet community need and the services to be offered will benefit the tenants and predominately low-income population that live in the neighborhood. The location is part of a walkable community, on a regularly scheduled bus route, with existing utility infrastructure.

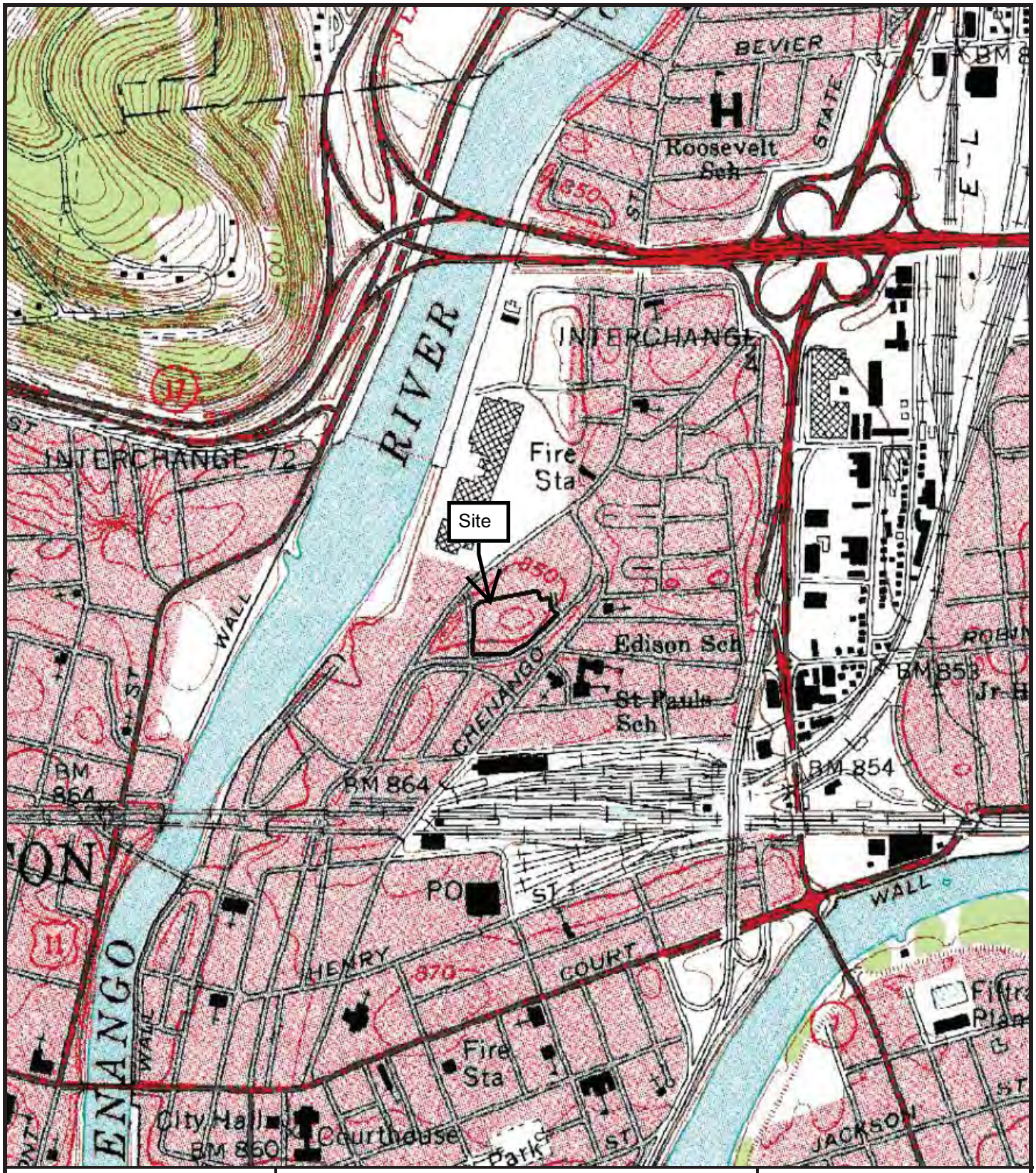
As part of the voluntary Brownfield Program the underground contamination will be remediated allowing it to be developed for the proposed mixed-use structure. The mixed-use building design is in compliance with the Binghamton commercial zoning code which does not permit residential on the first floor.

Pursuant to the Disaster Relief Appropriations Act, 2013 (Public Law 113-2) and the Housing and Community Development Act (42 U.S.C. § 5301 et seq.), GOSR is acting under the auspices of New York State Homes and Community Renewal's Housing Trust Fund Corporation as a recipient of Community Development Block Grant–Disaster Recovery ("CDBG-DR") funds from the United States Department of Housing and Urban Development ("HUD") and is the entity responsible for compliance with the HUD NEPA environmental review procedures set forth in 24 C.F.R. Part 58. 24 C.F.R. Part 58 requires GOSR to review projects for conformance with the Safe Drinking Water Act of 1974 (42 U.S.C. 201, 300(f) et seq., and 21 U.S.C. 349) as amended, and Environmental Protection Agency ("EPA") regulations pertaining to Sole Source Aquifers found at 40 C.F.R. Part 149.

In accordance with the Memorandum of Understanding ("MOU") between EPA and HUD dated August 24, 1990, GOSR hereby requests an Initial Screen/Preliminary Review for the above referenced project. Please review the attached documentation, including Attachment 2.A and Attachment 3 to the MOU. Responses can be sent to me via email at Alicia.Shultz@nyshcr.org. In accordance with the MOU, a non-response within fifteen days shall constitute a favorable review of the project/activity. If you have any questions, please feel free to contact me at (518) 474-0647. Thank you for your consideration and cooperation.

Sincerely,

Alicia Shultz
Environmental Scientist
Governor's Office of Storm Recovery
38-40 State Street, Hampton Plaza, 4N
Albany, NY 12306



NOT TO SCALE

FIGURE 1

SITE LOCATION MAP

435 State Street
Binghamton, New York 13901

LABELLA

PROJECT NO. 2172310

NOT TO SCALE

FIGURE 2
PROPERTY TAX MAP

435 State Street
Binghamton, New York 13901

LABELLA

PROJECT NO. 2172310

ATTACHMENT 2.A

NON-HOUSING/PROJECT ACTIVITY INITIAL SCREEN CRITERIA

The following list of criteria questions are to be used as an initial screen to determine which **non-housing** projects/activities should be forwarded to the Environmental Protection Agency (EPA) for Preliminary Sole Source Aquifer (SSA) Review. (For housing projects/activities, see Attachment 2.B) If any of the questions are answered affirmatively, then Attachment 3, SSA Preliminary Review Requirements, should also be completed. The application/final statement, this Attachment, Attachment 3, and any other pertinent information should then be forwarded to EPA at the address below.

Any project/activity not meeting the criteria in this Attachment, but suspected of having a potential adverse effect on the Sole Source Aquifer should also be forwarded.

CRITERIA QUESTIONS	YES	NO	N/A
1. Is the project/activity located within a currently designated or proposed groundwater sensitive area such as a special Ground Water Protection Area, Critical Supply Area, Wellhead Protection Area, etc.? [This information can be obtained from the County or Regional Planning board, the local health department, the State health department or the State environmental agency.] **See Attached Drinking Water Well Map.**	☐	☒	☐
2. Is the project/activity located within a one half mile radius (2640 feet) of a current or proposed public water supply well or wellfield? [This information can be obtained from the local health department, the State health department or the State environmental agency.] **See Attached Drinking Water Well Map.**	☐	☒	☐

3. Will the project/activity include or directly cause (check appropriate items):

	YES	NO	N/A
construction or expansion of solid waste disposal, recycling or conversion facilities	☐	☒	☐
construction or expansion or closure of landfills	☐	☒	☐
construction or expansion of water supply facilities	☐	☒	☐
construction or expansion of on-site wastewater treatment plants or sewage trunk lines	☐	☒	☐
construction or expansion of gas or petroleum trunk lines greater than 1320 feet	☐	☒	☐
construction or expansion of railroad spurs or similar extensions	☐	☒	☐
construction or expansion of municipal sewage treatment plants	☐	☒	☐

4. Will the project/activity include storage or handling of any hazardous constituents as listed in Attachment 4, Hazardous Constituents.	☐	☒	☐
5. Will the project/activity include bulk storage of petroleum in underground or above ground tanks in excess of 1,100 gallons?	☐	☒	☐
6. Will the project/activity require a federal or state discharge elimination permit or modification of an existing permit? SPDES, MS4	☒	☐	☐

This attachment was completed by:

Alicia Shultz
Senior Environmental Scientist
New York State Homes and Community Renewal
38-40 State Street, 408N, Hampton Plaza
Albany, New York 12207
(518) 474-0647
Alicia.shultz@nyshcr.org

ATTACHMENT 3

SSA PRELIMINARY REVIEW INFORMATION REQUIREMENTS

Where currently available, the information in this Attachment should be provided to the Environmental Protection Agency (see address below) along with the application/final statement; Attachment 2.A, Non-Housing Initial Screen Criteria or Attachment 2.B, Housing Initial Screen Criteria; and any other information which may be pertinent to a Sole Source Aquifer review. Where applicable, indicate the source of your information.

I. Project/Activity Location	**Enclosed?**	
	Yes	No
1. Provide the geographic location and total acreage of the project/activity site. Include a site map which identifies the site in relation to the surrounding area.	☒	☐
2. If applicable, identify which groundwater sensitive areas (Special Ground Water Protection Area, Critical Supply Area, Wellhead Protection Area, etc.) the project/activity is located within or adjacent to. **None, see attached maps.**	☒	☐

II. Nature of Project/Activity	**Enclosed?**	
	Yes	No
3. Provide a general narrative describing the project/activity including but not limited to: type of facility; type of activities to be conducted; number and type of units; number of residents, etc. Provide the general layout of the project/activity site and site-plan if available. See cover letter	☒	☐

III. Public Water Supply	**Enclosed?**	
	Yes	No
4. Provide a description of plans to provide water supply. **This project involves reconstruction of building with existing water supply. An apartment complex will replace a commercial building which has been demolished. Binghamton Water Department – Susquehanna River primarily**	☐	☒

5. Provide the location of nearby existing or proposed public water supply wells or wellfields within one half mile radius (2640 feet) of the project/activity. Provide the name of the supplier(s) of those wells or wellfields. This information should be available from the local health department, State health department or the State environmental agency. **See attached drinking water supply map.**	☒	☐

IV. Wastewater and Sewage Disposal	**Enclosed?**	
	Yes	No
6. Provide a description of plans to handle wastewater and sewage disposal. If the project/activity is to be served by existing public sanitary sewers provide the name of the sewer district. **This project involved rehabilitation and replacement of existing infrastructure only and did not involve wastewater or sewage disposal.**	☐	☒
7. Provide a description of plans to handle storm water runoff. This project involved rehabilitation of existing infrastructure only and did not involve work that would change storm water runoff conditions at the property. **This project involved rehabilitation and replacement of existing infrastructure only and did not involve work that would change storm water runoff conditions at the Subject Property.**	☐	☒
8. Identify the location, design, size of any on-site recharge basins, dry wells, leaching fields, retention ponds, etc. **This project involved rehabilitation and replacement of existing infrastructure only.**	☐	☒

V. Use, Storage, Transport of Hazardous or Toxic Materials *(Applies only to non-housing projects/activities)*	**Enclosed?**	
	Yes	No
	☐	☒

9. Identify any products listed in Attachment 4, Hazardous Constituents, of the Housing and Urban Development-Environmental Protection Agency Memorandum of Understanding which may be used, stored, transported, or released as a result of the project not related to construction **None.**		
10. Identify the number and capacity of underground storage tanks at the project/activity site. Identify the products and volume to be stored, and the location on the site. **None.**	☐	☒
11. Identify the number and capacity of above ground storage tanks at the project/activity site. Identify the products and volume to be stored, and the location on the site. **None.**	☐	☒

This form was completed by:

Alicia Shultz
Senior Environmental Scientist
New York State Homes and Community Renewal
38-40 State Street, 408N, Hampton Plaza
Albany, New York 12207
(518) 474-0647
Alicia.Shultz@nyshcr.org

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

AUG 1 7 2018

Lori A. Shirley, Director
Bureau of Environmental Review and Assessment
Governor's Office of Storm Recovery
New York State Homes & Community Renewal
38-40 State Street
Albany, NY 12207

Dear Ms. Shirley:

This is in response to your July 30, 2018 request for a review and your responses dated Aug 6th and 7th to our comments under the Sole Source Aquifer Program, of the proposed construction of 48-unit apartment complex in Binghamton, NY. The project site is located in the Clinton Street Ballpark Aquifer System, designated by EPA as a Sole Source Aquifer on January 14, 1985 (citation 50 FR 2025) and our review has been conducted in accordance with Section 1424(e) of the Safe Drinking Water Act (SDWA). The project would be funded by the Governor's Office of Storm Recovery (GOSR), which in turn receives funding under the HUD CDBG DR Program.

The four-story building at 435 State Street would have a first floor devoted to commercial space; it would be built on currently vacant land and a have footprint of 14,515 sq ft. The building would be served by public water provided by the City of Binghamton. The service connections would tap into an existing 8"-diameter water main running down State Street. Wastewater would be carried, under gravity, through an 8"-diameter, vitreous clay pipe running along North Way Street. A 6"-diameter PVC lateral would connect the housing complex with that line. Stormwater would be collected in catch basins and flow from the site via a stormwater line--to be constructed and replacing one that had been abandoned and removed. The sewer and stormwater lines would be separate, not combined. There would be no on-site retention basins or dry wells. Heat and hot water would be provided by natural gas and there would be no fuel storage on site.

Please note the site was formerly used by Stow Manufacturing, a manufacturer of machinery, and is an active site in NYSDEC's Brownfields Program (Project #C704058). Prior to proceeding with the development, the applicant must complete an environmental assessment of the site and a remediation plan approved by the NYSDEC the NYSDOH Bureau of Environmental Exposure Investigation. Provided the applicant meets these requirements from NYSDEC and NYSDOH it is anticipated that this project would not pose a significant threat to public health or ground water resources and would comply with Section 1424(e) of the SDWA.

Please be advised that meeting the requirements of 1424(e) does not preclude the need to meet National Environmental Policy Act (NEPA) requirements to address direct, indirect, and cumulative impacts. This review does not constitute a review under Section 309 of the Clean Air Act; EPA therefore reserves the right to review additional environmental documents on this project.

We would also like to take this opportunity to recommend the use of alternative/green building methods, material, and energy and water efficient products. We have thus enclosed "U.S. EPA Region 2 Green Recommendations." Some of these recommendations may be applicable to this project.

If you have any questions concerning this matter or would like additional information, please feel free to contact Michael Poetzsch of my staff at (212) 637-4147.

Sincerely yours,

Grace Musumeci, Chief
Environmental Review Section

Enclosure

EPA Region 2 Green Recommendations

To the maximum extent possible, project managers are encouraged to utilize local and recycled materials; to recycle materials generated onsite; and to utilize technologies and fuels that minimize greenhouse gas emissions.

Further, to the extent feasible, renewable energy (including, but not limited to solar, wind, geothermal, biogas, and biomass) and energy-efficient technologies should be incorporated into the design, construction, and operation of all types of projects.

To that end, the following information and internet hyperlinks are provided for your consideration and use:

- **Multi-media green building and land design practices**
  Utilize green building practices which have multi-media benefits, including energy efficiency, water conservation (see WaterSense below), and healthy indoor air quality. Apply building rating systems and no-cost online tools and guides, such as ENERGY STAR, Portfolio Manager, Target Finder, Indoor Air Quality Package, and WaterSense for building construction. The ENERGY STAR website (see below) includes, among other things, information on new single-family homes, multi-family homes, commercial and other buildings, and schools. The website also provides an ENERGY STAR "Training Center" free of charge.

  U.S. Green Building Council (USGBC) LEED Programs and Guides: http://www.usgbc.org/

  ENERGY STAR home page: http://www.energystar.gov

  ENERGY STAR Target Finder (no-cost online tool to set energy performance targets): http://www.energystar.gov/targetfinder

  Indoor Air Quality: http://www.epa.gov/iaq

- **Water conservation and efficiency in building construction**
  Promote water conservation and efficiency through the use of water efficient products (e.g., toilets, faucets, showerheads) and practices. For new building construction and restoration projects, we recommend considering the use of products with the WaterSense label where appropriate. Devices receiving the EPA WaterSense label must be at least 20% more water efficient than (and must meet or exceed the performance standards of) non-labeled devices of the same type. Additionally, when possible, consider the use of WaterSense Certified Professional Irrigation Partners and WaterSense Builder Partners. These professionals use WaterSense labeled devices where appropriate, are trained in the latest water conservation practices, and use the latest water efficiency tools and technologies, including irrigation equipment and xeriscaping for landscaping and best management practices for construction in the WaterSense New Home Specifications. Visit the WaterSense website for tips on water efficiency, a WaterSense labeled product search tool, a list of WaterSense Partners, access to the Water Budget Tool at: http://www.epa.gov/watersense/

  In addition to using WaterSense labeled products and certified professionals, there are many water conservation strategies and best management practices that can be used in new construction and/or restoration. Here are some useful links to water conservation information:

- Whole Building Design Guide:
  http://www.wbdg.org/resources/water_conservation.php

- Alliance for Water Efficiency:
  http://www.allianceforwaterefficiency.org/

- Water Use It Wisely – 100 Ways to Conserve:
  http://www.wateruseitwisely.com/100-ways-to-conserve/index.php

- Determining Energy Usage
  http://water.epa.gov/infrastructure/sustain/energy_use.cfm

- **Use Environmentally Preferable Purchasing**
  Promote markets for environmentally preferable products by referencing EPA's multi-attribute Environmentally Preferable Purchasing guidance. Products and services include: Building and Construction, Carpets, Cleaning, Electronics, Fleets, Food Services, Landscaping, Meetings and Conferences, Office Supplies, and Paper.
  http://www.epa.gov/epp

- **Purchase 'green' electronics, and measure their benefits**
  Require the purchase of desktop computers, monitors, and laptops that are registered as Silver or Gold products with EPEAT, the Electronics Product Environmental Assessment Tool at www.epeat.net. Products registered with EPEAT use less energy, are easier to recycle, and can be more easily upgraded than non-registered products. Energy savings, CO_2 emission reductions, and other environmental benefits achieved by the purchase, use and recycling of EPEAT-registered products can be quantified using the Electronics Environmental Benefits Calculator:
  http://eerc.ra.utk.edu/ccpct/eebc/eebc.html

  http://www.energystar.gov/index.cfm?c=products.pr_find_es_products

- **Consider Low Impact Development to help manage storm water**
  Low Impact Development (LID) is an approach to land development (or re-development) that works with nature to manage storm water as close to its source as possible. LID employs principles such as preserving and recreating natural landscape features, minimizing effective imperviousness to create functional and appealing site drainage that treat storm water as a resource rather than a waste product.

  Implement site planning, design, construction, and maintenance strategies to maintain or restore, to the maximum extent technically feasible, the predevelopment hydrology of the building site with regard to the temperature, rate, volume, and duration of flow.

  Additional information: http://water.epa.gov/polwaste/green/
  http://water.epa.gov/infrastructure/greeninfrastructure/
  http://www.epa.gov/nrmrl/wswrd/wq/models/swc/

- **Alternative and Renewable Energy**
  The Department of Energy's "Green Power Network" (GPN) provides information and markets that can be used to supply alternative generated electricity. The following link identifies several suppliers of renewable energy:

  Additional information:
  http://apps3.eere.energy.gov/greenpower/buying/buying_power.shtml?

- **Clean Diesel**
  For new equipment utilize contract specifications requiring advanced pollution controls and clean fuels: http://www.northeastdiesel.org/pdf/NEDC-Construction-Contract-Spec.pdf and http://www.epa.gov/cleandiesel/technologies/index.htm

  Implement diesel controls, cleaner fuel, and cleaner construction practices for on-road and off-road equipment used for transportation, soil movement, or other construction activities, including:
  - Strategies and technologies that reduce unnecessary idling, including auxiliary power units, the use of electric equipment, and strict enforcement of idling limits; and
  - Use of clean diesel through add-on control technologies like diesel particulate filters and diesel oxidation catalysts, repowers, or newer, cleaner equipment.

  For more information on diesel emission controls in construction projects, please see: http://www.northeastdiesel.org/pdf/NEDC-Construction-Contract-Spec.pdf

- **Utilizing recycled materials in construction projects**
  Many industrial and construction byproducts are available for use in road, building or infrastructure construction. Use of these materials can save money and reduce environmental impacts. The Recycled Materials Resource Center has developed user guidelines for many recycled materials and compiled existing national specifications.

  Additional information: http://rmrc.wisc.edu
  http://www.epa.gov/osw/conserve/imr/index.htm
  http://www.epa.gov/epawaste/conserve/tools/cpg/products/index.htm
  http://www.fhwa.dot.gov/pavement/recycling/rectools.cfm

- **Greening demolition projects**
  http://detroitworksproject.com/2013/11/11/dfc-and-partners-launch-pilot-deconstruction-project/

- **Encourage cost-efficient, environmentally friendly landscaping**
  EPA's GreenScapes program provides cost-efficient and environmentally friendly solutions for landscaping. For additional information, please see:
  http://www.epa.gov/wastes/conserve/tools/greenscapes/index.htm

- **Incorporate on-site energy generation and energy efficient equipment upgrades into projects at drinking water and wastewater treatment facilities**
  Consider using captured biogases in combined heat and power systems, and renewable energy (wind, solar, etc.) to generate energy for use on-site. Evaluate the potential energy savings associated with upgrading to more energy efficient equipment (pumps, motors, lighting, etc.).

  Additional information: http://water.epa.gov/infrastructure/sustain/goinggreen.cfm
  http://www.epa.gov/region9/waterinfrastructure/howto.html

- **Encourage use of Smart Growth and transit-oriented development principles**
  Smart Growth and transit oriented development (TOD) principles help preserve natural lands and critical environmental areas, and protect water and air quality by encouraging developments that are mixed-use, walkable and located near public transit. Encourage use of bicycling with bike commuter parking, storage, and changing facilities. Facilitate increased carpooling or alternative vehicles with preferable parking spaces and/or electric vehicle plug in spots.

Additional information: http://www.epa.gov/smartgrowth

- **Integrated Design Process**
  The Integrated Design Process calls for the active and continuing engagement of all stakeholders throughout the building design, development, construction, and post-construction phases including the owners, architects, engineers, building department officials, and others. This process creates a higher-performing building at lower cost, allows various building systems to work together to eliminate redundant and unnecessary capacity, and minimizes change order costs.

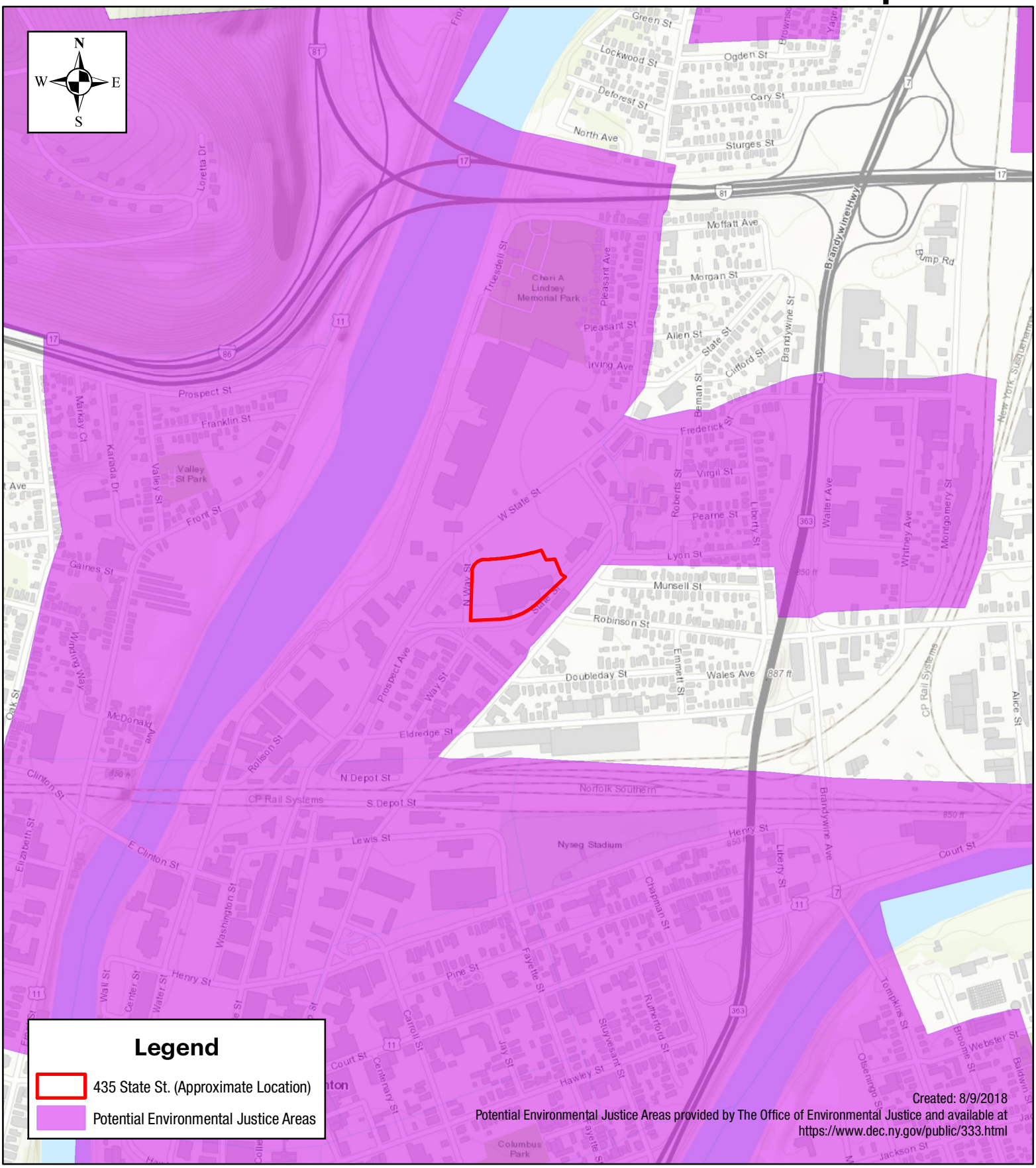
  Additional information: http://www.wbdg.org/design/engage_process.php

Attachment 12

Environmental Justice Documents

NYSDEC Potential Environmental Justice Areas Map
NYSDEC Jurisdictional Inquiry Request (7/23/2018)
EJSCREEN Report (Version 2018)
EJSCREEN ACS Summary Report

Potential Environmental Justice Areas Map



Tectonic

1:10,000

0 500 1,000 2,000 Feet

Canal Plaza Project
435 State Street
City of Binghamton
Broome County, New York

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Permits
625 Broadway, 4th Floor, Albany, New York 12233-1750
P: (518) 402-9167 | F: (518) 402-9168 | deppermitting@dec.ny.gov
www.dec.ny.gov

July 23, 2018

Ms. Lori Shirley
Governor's Office of Storm Recovery
99 Washington Avenue
Suite 1224
Albany, NY 12260

RE: 435 State Street Affordable Housing
Town of Binghamton, Broome County

Dear Ms. Shirley:

We received your jurisdictional inquiry request for 435 State Street Affordable Housing project located at 435 State Street in Binghamton, in Broome County. It is our understanding that project proposes a new 48-unit apartment complex with 15,000 square feet of commercial space. Based on our understanding of the project description dated 7/23/2018 we have the following comments on the project:

WATER

Stormwater Permit: If your project will disturb one or more acre of land, you must comply with the State Pollutant Discharge Elimination System (SPDES) Phase II regulations for Stormwater Discharges Associated with Construction Activities. Information regarding the SPDES General Permit for Stormwater Discharges can be found on the Department's website at: http://www.dec.ny.gov/chemical/8468.html.

STATE-LISTED SPECIES

DEC has reviewed the State's Natural Heritage records. This site is in close proximity to known occurrences of the following state-protected species:

Name Status

Common Name	Scientific Name	State Status	Federal Status
Brook Floater	Alasmidonta varicosa	Threatened	
Bald Eagle	Haliaeetus leucocephalus	Threatened	

All threatened or endangered species are subject to regulation under Article 11, Title 5 of the Environmental Conservation Law and a permit is required for a taking of that species pursuant to 6 NYCRR Part 182. Besides death of individuals, taking includes harassment, interference with essential behaviors, and adverse modification of habitat. Additional information on the proposal will be required for a determination on the need for a permit. If work is proposed to disturb the bed of either waters, concerns would arise for both these species.

Bald Eagle:
Impacts from loud noises or the use of cranes could be of concern. If cranes will be used, bird perch deterrents should be located at the apex. If loud noises are anticipated, they should take place outside of the nesting season which is January 1st to September 30th. Please refer to the National Bald Eagle Management Guidelines document, available at https://www.fws.gov/southdakotafieldoffice/NationalBaldEagleManagementGuidelines.pdf.

The absence of data does not necessarily mean that any other rare or state-listed species, natural communities or other significant habitats do not exist on or adjacent to the proposed site. Rather, our files currently do not contain information which indicates their presence. For most sites, comprehensive field surveys have not been conducted. We cannot provide a definitive statement on the presence or absence of all rare or state-listed species or significant natural communities. Depending on the nature of the project and the conditions at the project site, further information from on-site surveys or other sources may be required to fully assess impacts on biological resources.

CULTURAL RESOURCES

Your project/site appears to be located within an area of potential historical or archeological significance. If approvals/permits are needed from this Department, we may require consultation with the Office of Parks, Recreation and Historic Preservation (OPRHP) in order to better evaluate this project's impact to these resources.

For more information, please visit the New York State Office of Historic Preservation website at http://www.nysparks.com/shpo/.

OTHER

Environmental Justice Area: The project site is located within a potential Environmental Justice (EJ) Area. Projects that are proposed within potential EJ areas are required to actively seek public participation throughout the environmental permit review process. Commissioner Policy 29 for Environmental Justice and Permitting outlines the requirements for projects within potential EJ areas, including the need for an applicant to submit a written Public Participation Plan as part of a complete application. More

information on Environmental Justice can be found on our website at: http://www.dec.ny.gov/public/333.html.

Local Waterfront Revitalization Program: The project is mapped within New York's Coastal Area Boundary and therefore the Department will need to determine if the project is consistent with State coastal policies and the approved Local Waterfront Revitalization Program (LWRP). More information on DOS Consistency Review can be found at the following website:
http://www.dos.ny.gov/communitieswaterfronts/consistency/

MS4 Area: For construction permits, if this site is within an MS4 area (Municipal Separate Storm Sewer System), the stormwater plan must be reviewed and accepted by the municipality and the MS-4 Acceptance Form must be submitted to the Department.

It is important to note that even if Department approvals are not required for this work, the activity shall not result in the degradation or contravening of water quality standards. of the stream. Activity resulting in sedimentation and/or turbid waters may constitute a violation of water quality standards and the Environmental Conservation Law (ECL).

Please note that this letter only addresses the requirements for the following permits from the Department:

Protection of Waters State-listed Species

Other permits from this Department or other agencies may be required for projects conducted on this property now or in the future. Also, regulations applicable to the location subject to this determination occasionally are revised and you should, therefore, verify the need for permits if your project is delayed or postponed. This determination regarding the need for permits will remain effective for a maximum of one year unless you are otherwise notified. Applications may be downloaded from our website at www.dec.ny.gov under "Programs" then "Division of Environmental Permits."

Please contact this office if you have questions regarding the above information. Thank you.

Sincerely,

May O'Malley

May O'Malley
Division of Environmental Permits
may.omalley@dec.ny.gov
518-402-9154

Cc: NYSDEC Region 7 Environmental Permits

NYS Resource Map

435 State Street
Binghamton
Broome County

Prepared by MHO Date: 7/23/2018

0 1,000 2,000 Feet

1 inch equals 1,000 feet

Resources

- Local Waterfront Revitalization Program
- Potential EJ area
- All except fish
- Fish

Approximate Project Location

Area Map

Tioga
Broome

Division of Environmental Permits Projection: NAD 1983 UTM Zone 18N

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

Disclaimer: This map was prepared by the NYSDEC using the most current data available. It is deemed accurate but is not guaranteed. NYSDEC is not responsible for any inaccuracies in the data and does not necessarily endorse any interpretations or products derived from the data. This map may contain information that is considered sensitive and therefore the distribution of this map is strictly prohibited.

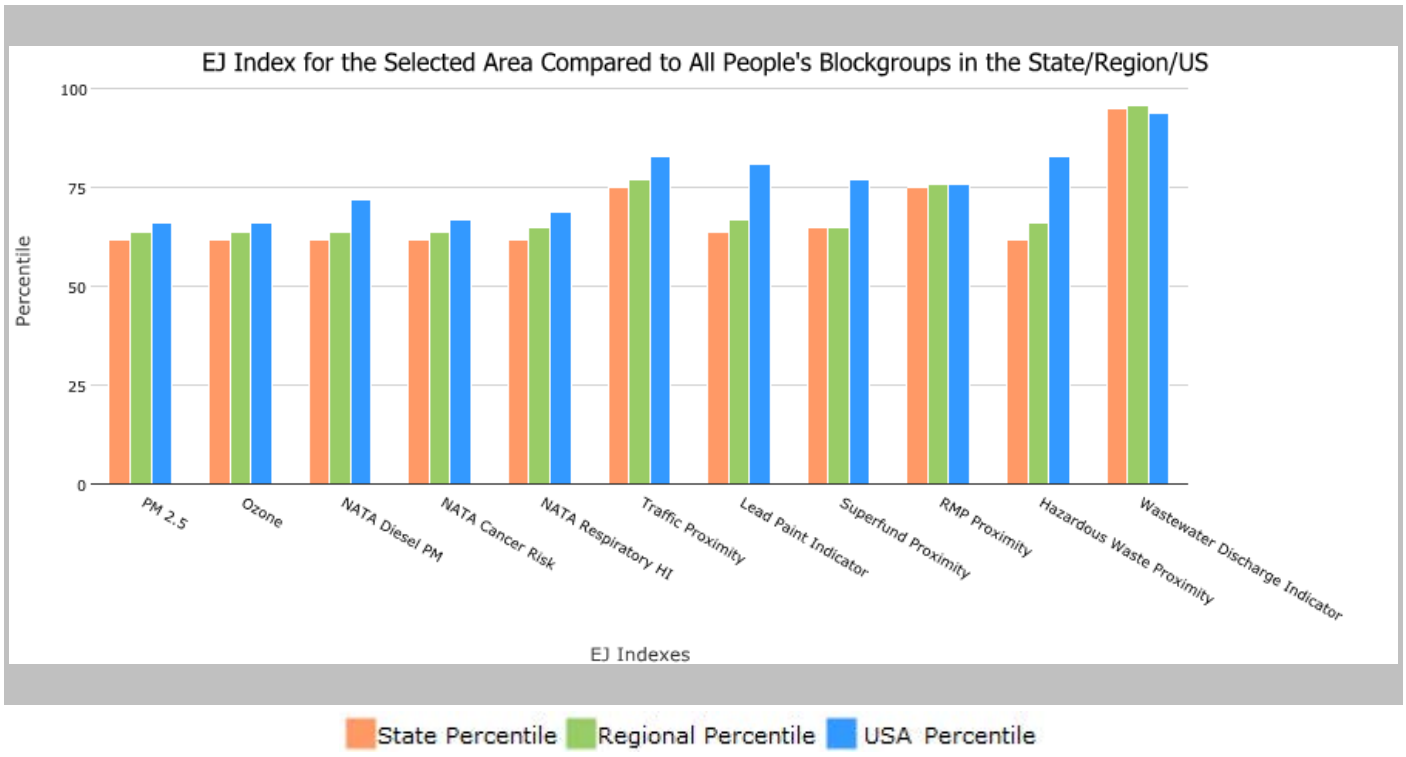
EJSCREEN Report (Version 2018)

1 mile Ring around the Area, NEW YORK, EPA Region 2

Approximate Population: 14,075

Input Area (sq. miles): 3.50

Selected Variables	State Percentile	EPA Region Percentile	USA Percentile
EJ Indexes			
EJ Index for PM2.5	62	64	66
EJ Index for Ozone	62	64	66
EJ Index for NATA* Diesel PM	62	64	72
EJ Index for NATA* Air Toxics Cancer Risk	62	64	67
EJ Index for NATA* Respiratory Hazard Index	62	65	69
EJ Index for Traffic Proximity and Volume	75	77	83
EJ Index for Lead Paint Indicator	64	67	81
EJ Index for Superfund Proximity	65	65	77
EJ Index for RMP Proximity	75	76	76
EJ Index for Hazardous Waste Proximity	62	66	83
EJ Index for Wastewater Discharge Indicator	95	96	94



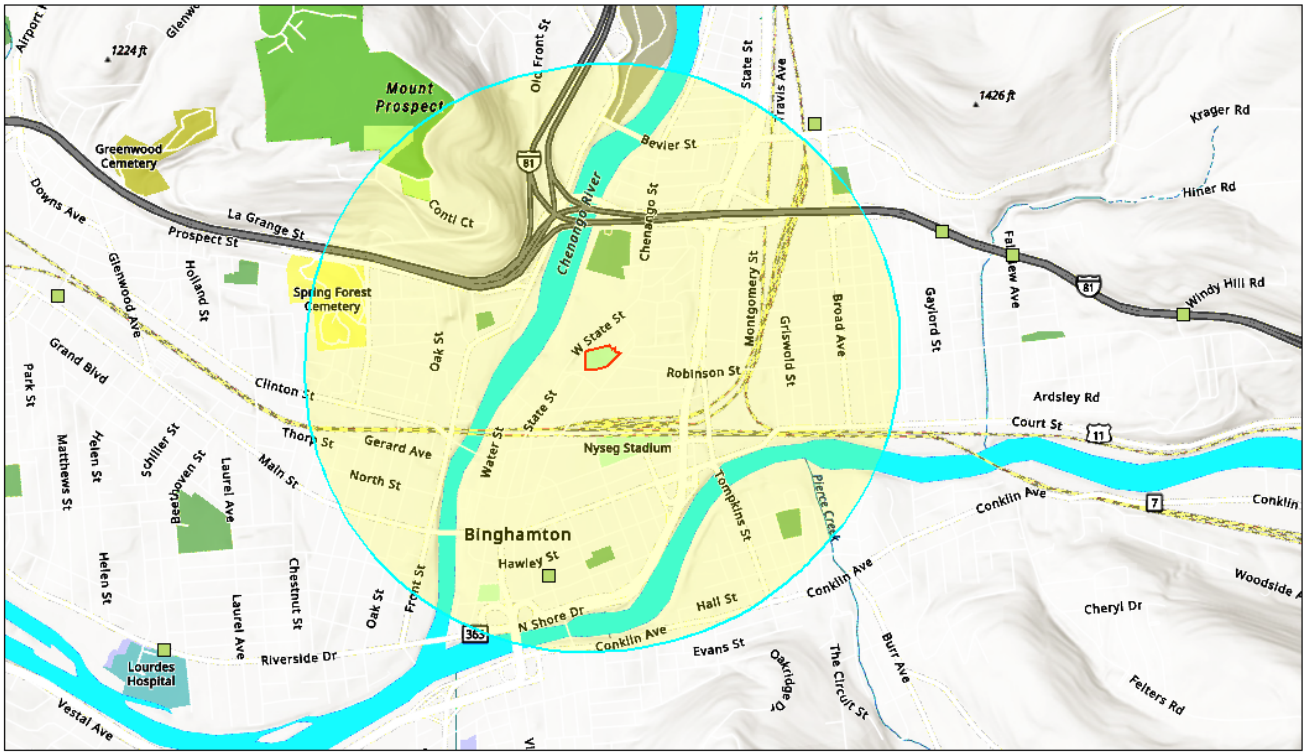
This report shows the values for environmental and demographic indicators and EJSCREEN indexes. It shows environmental and demographic raw data (e.g., the estimated concentration of ozone in the air), and also shows what percentile each raw data value represents. These percentiles provide perspective on how the selected block group or buffer area compares to the entire state, EPA region, or nation. For example, if a given location is at the 95th percentile nationwide, this means that only 5 percent of the US population has a higher block group value than the average person in the location being analyzed. The years for which the data are available, and the methods used, vary across these indicators. Important caveats and uncertainties apply to this screening-level information, so it is essential to understand the limitations on appropriate interpretations and applications of these indicators. Please see EJSCREEN documentation for discussion of these issues before using reports.

EJSCREEN Report (Version 2018)

1 mile Ring around the Area, NEW YORK, EPA Region 2

Approximate Population: 14,075

Input Area (sq. miles): 3.50



Sites reporting to EPA	
Superfund NPL	0
Hazardous Waste Treatment, Storage, and Disposal Facilities (TSDF)	1

EJSCREEN Report (Version 2018)

1 mile Ring around the Area, NEW YORK, EPA Region 2

Approximate Population: 14,075

Input Area (sq. miles): 3.50

Selected Variables	Value	State Avg.	%ile in State	EPA Region Avg.	%ile in EPA Region	USA Avg.	%ile in USA
Environmental Indicators							
Particulate Matter (PM 2.5 in µg/m^3)	8.61	9.11	30	9.21	25	9.53	30
Ozone (ppb)	38.1	41.1	13	41.9	9	42.5	20
NATA* Diesel PM (µg/m^3)	1.27	2.14	46	1.88	50-60th	0.938	70-80th
NATA* Cancer Risk (lifetime risk per million)	41	45	47	44	<50th	40	50-60th
NATA* Respiratory Hazard Index	2.1	2.5	46	2.4	<50th	1.8	60-70th
Traffic Proximity and Volume (daily traffic count/distance to road)	1200	2400	72	1800	76	600	89
Lead Paint Indicator (% Pre-1960 Housing)	0.72	0.56	63	0.51	69	0.29	88
Superfund Proximity (site count/km distance)	0.13	0.22	55	0.28	49	0.12	78
RMP Proximity (facility count/km distance)	1.2	0.5	91	0.57	88	0.72	81
Hazardous Waste Proximity (facility count/km distance)	4.1	47	50	34	56	4.3	88
Wastewater Discharge Indicator (toxicity-weighted concentration/m distance)	0.21	1.3	91	1.1	93	30	92
Demographic Indicators							
Demographic Index	51%	38%	67	37%	70	36%	74
Minority Population	32%	44%	49	44%	48	38%	53
Low Income Population	69%	32%	92	30%	93	34%	93
Linguistically Isolated Population	3%	8%	50	8%	50	4%	64
Population With Less Than High School Education	21%	14%	75	13%	78	13%	79
Population Under 5 years of age	6%	6%	54	6%	55	6%	50
Population over 64 years of age	18%	15%	69	15%	71	14%	70

* The National-Scale Air Toxics Assessment (NATA) is EPA's ongoing, comprehensive evaluation of air toxics in the United States. EPA developed the NATA to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that NATA provides broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the NATA analysis can be found at: https://www.epa.gov/national-air-toxics-assessment.

For additional information, see: www.epa.gov/environmentaljustice

EJSCREEN is a screening tool for pre-decisional use only. It can help identify areas that may warrant additional consideration, analysis, or outreach. It does not provide a basis for decision-making, but it may help identify potential areas of EJ concern. Users should keep in mind that screening tools are subject to substantial uncertainty in their demographic and environmental data, particularly when looking at small geographic areas. Important caveats and uncertainties apply to this screening-level information, so it is essential to understand the limitations on appropriate interpretations and applications of these indicators. Please see EJSCREEN documentation for discussion of these issues before using reports. This screening tool does not provide data on every environmental impact and demographic factor that may be relevant to a particular location. EJSCREEN outputs should be supplemented with additional information and local knowledge before taking any action to address potential EJ concerns.

EJSCREEN ACS Summary Report

Location: User-specified polygonal location
Ring (buffer): 0.5-mile radius
Description:

Summary of ACS Estimates	2012 - 2016
Population	3,811
Population Density (per sq. mile)	4,562
Minority Population	1,217
% Minority	32%
Households	1,696
Housing Units	2,321
Housing Units Built Before 1950	1,288
Per Capita Income	17,744
Land Area (sq. miles) (Source: SF1)	0.84
% Land Area	89%
Water Area (sq. miles) (Source: SF1)	0.10
% Water Area	11%

	2012 - 2016 ACS Estimates	Percent	MOE (±)
Population by Race			
Total	3,811	100%	274
Population Reporting One Race	3,624	95%	638
White	2,854	75%	264
Black	557	15%	196
American Indian	7	0%	14
Asian	132	3%	115
Pacific Islander	0	0%	11
Some Other Race	72	2%	38
Population Reporting Two or More Races	187	5%	97
Total Hispanic Population	439	12%	122
Total Non-Hispanic Population	3,372		
White Alone	2,594	68%	238
Black Alone	466	12%	196
American Indian Alone	6	0%	14
Non-Hispanic Asian Alone	132	3%	115
Pacific Islander Alone	0	0%	11
Other Race Alone	12	0%	29
Two or More Races Alone	161	4%	77
Population by Sex			
Male	1,832	48%	167
Female	1,979	52%	183
Population by Age			
Age 0-4	252	7%	85
Age 0-17	894	23%	113
Age 18+	2,917	77%	206
Age 65+	434	11%	135

Data Note: Detail may not sum to totals due to rounding. Hispanic population can be of any race.
N/A means not available. Source: U.S. Census Bureau, American Community Survey (ACS) 2012 - 2016 .

EJSCREEN ACS Summary Report

Location: User-specified polygonal location
Ring (buffer): 0.5-mile radius
Description:

	2012 - 2016 ACS Estimates	Percent	MOE (±)
Population 25+ by Educational Attainment			
Total	2,337	100%	179
Less than 9th Grade	125	5%	56
9th - 12th Grade, No Diploma	412	18%	89
High School Graduate	818	35%	129
Some College, No Degree	700	30%	116
Associate Degree	246	11%	92
Bachelor's Degree or more	283	12%	89
Population Age 5+ Years by Ability to Speak English			
Total	3,558	100%	272
Speak only English	3,139	88%	243
Non-English at Home[1+2+3+4]	420	12%	95
[1]Speak English "very well"	197	6%	77
[2]Speak English "well"	80	2%	36
[3]Speak English "not well"	68	2%	45
[4]Speak English "not at all"	75	2%	55
[3+4]Speak English "less than well"	143	4%	57
[2+3+4]Speak English "less than very well"	223	6%	57
Linguistically Isolated Households*			
Total	86	100%	37
Speak Spanish	23	27%	35
Speak Other Indo-European Languages	37	43%	17
Speak Asian-Pacific Island Languages	26	30%	32
Speak Other Languages	0	0%	11
Households by Household Income			
Household Income Base	1,696	100%	97
< $15,000	599	35%	77
$15,000 - $25,000	416	25%	76
$25,000 - $50,000	347	20%	74
$50,000 - $75,000	201	12%	68
$75,000 +	134	8%	52
Occupied Housing Units by Tenure			
Total	1,696	100%	97
Owner Occupied	368	22%	78
Renter Occupied	1,327	78%	97
Employed Population Age 16+ Years			
Total	2,958	100%	232
In Labor Force	1,635	55%	176
Civilian Unemployed in Labor Force	236	8%	82
Not In Labor Force	1,323	45%	157

Data Note: Datail may not sum to totals due to rounding. Hispanic population can be of any race.
N/A means not available. Source: U.S. Census Bureau, American Community Survey (ACS)
*Households in which no one 14 and over speaks English "very well" or speaks English only.

EJSCREEN ACS Summary Report

Location: User-specified polygonal location
Ring (buffer): 0.5-mile radius
Description:

	2012 - 2016 ACS Estimates	Percent	MOE (±)
Population by Language Spoken at Home*			
Total (persons age 5 and above)	3,659	100%	269
English	3,134	86%	278
Spanish	208	6%	148
French	7	0%	54
French Creole	N/A	N/A	N/A
Italian	N/A	N/A	N/A
Portuguese	N/A	N/A	N/A
German	9	0%	16
Yiddish	N/A	N/A	N/A
Other West Germanic	N/A	N/A	N/A
Scandinavian	N/A	N/A	N/A
Greek	N/A	N/A	N/A
Russian	N/A	N/A	N/A
Polish	N/A	N/A	N/A
Serbo-Croatian	N/A	N/A	N/A
Other Slavic	N/A	N/A	N/A
Armenian	N/A	N/A	N/A
Persian	N/A	N/A	N/A
Gujarathi	N/A	N/A	N/A
Hindi	N/A	N/A	N/A
Urdu	N/A	N/A	N/A
Other Indic	N/A	N/A	N/A
Other Indo-European	71	2%	54
Chinese	24	1%	27
Japanese	N/A	N/A	N/A
Korean	2	0%	11
Mon-Khmer, Cambodian	N/A	N/A	N/A
Hmong	N/A	N/A	N/A
Thai	N/A	N/A	N/A
Laotian	N/A	N/A	N/A
Vietnamese	47	1%	55
Other Asian	0	0%	11
Tagalog	15	0%	39
Other Pacific Island	N/A	N/A	N/A
Navajo	N/A	N/A	N/A
Other Native American	N/A	N/A	N/A
Hungarian	N/A	N/A	N/A
Arabic	4	0%	22
Hebrew	N/A	N/A	N/A
African	N/A	N/A	N/A
Other and non-specified	48	1%	74
Total Non-English	525	14%	387

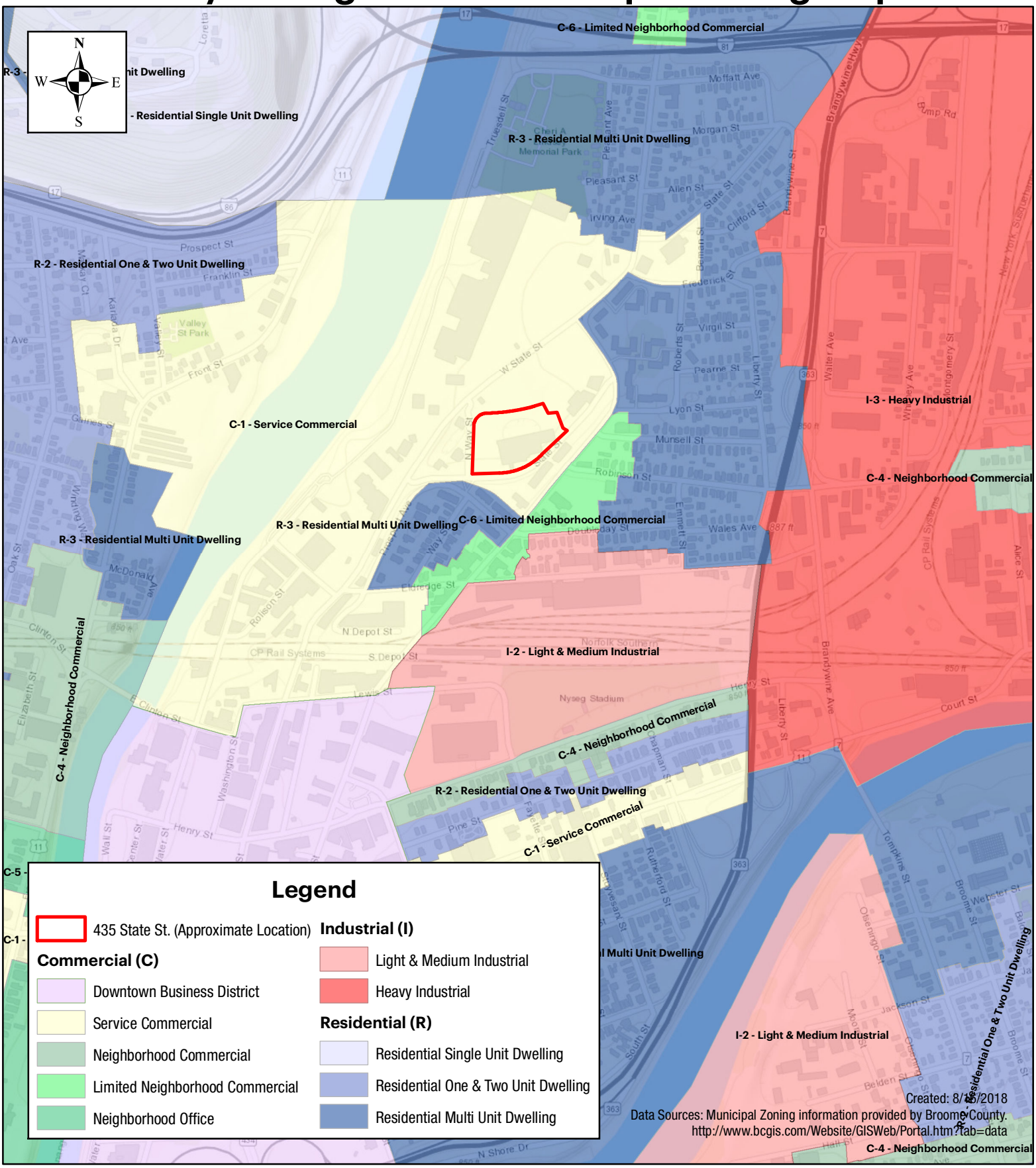
Data Note: Detail may not sum to totals due to rounding. Hispanic popultion can be of any race.
N/A means not available. Source: U.S. Census Bureau, American Community Survey (ACS) 2012 - 2016.
*Population by Language Spoken at Home is available at the census tract summary level and up.

Attachment 13

Municipal and Community Facilities and Services

City of Binghamton Municipal Zoning Map
City of Binghamton Official Zoning Map (03/2008)
City of Binghamton Planning Commission Official Decision (11/18/2016)
City of Binghamton Zoning Enforcement Letter (11/28/2016)
Storm Water Pollution Prevention Plan (10/28/2016)
Broome County Education Facilities
Binghamton City School District Letter (8/13/2018)
Broome County Emergency Services Map – Ambulance Squads & Hospitals
Broome County DPW Letter (8/3/2018)
Broome County Infrastructure Maps
City of Binghamton Water/Sewer Department Letter (8/22/2018)
Broome County Emergency Services Map – Fire Stations and Police
City of Binghamton Fire Bureau Letter (7/30/2018)
Broome County Parks & Recreation Map
Broome County Bus Stops Map

City of Binghamton Municipal Zoning Map



Tectonic

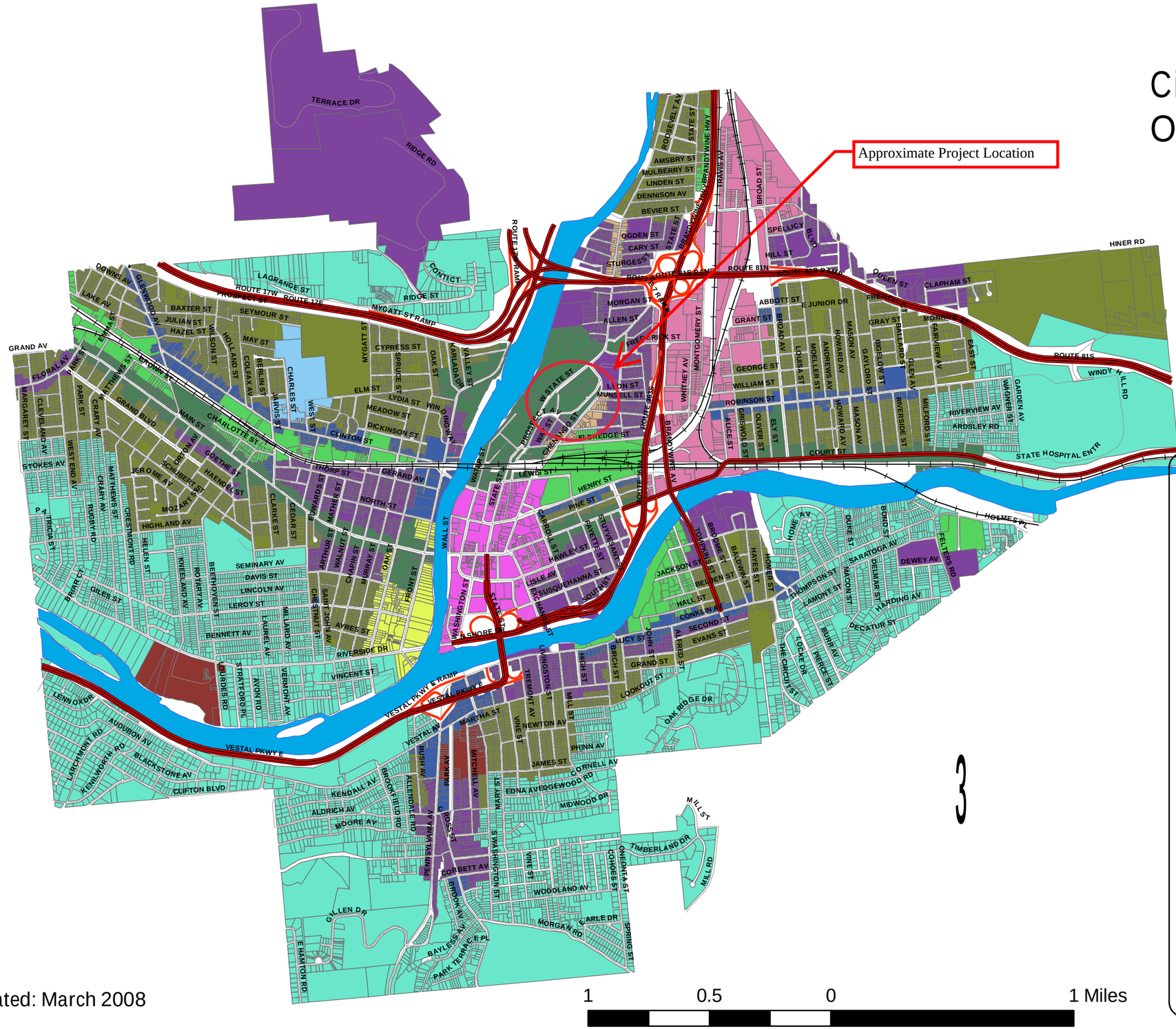
1:10,000

0 500 1,000 2,000 Feet

Canal Plaza Project
435 State Street
City of Binghamton
Broome County, New York

City of Binghamton Official Zoning Map

City of Binghamton
Restoring The Pride



Map Updated: March 2008

1 0.5 0 1 Miles

Legend

- County Road
- Federal Route
- Interstate
- State Route
- RAMP
- Railroad
- Rivers
- Roads

ZONING

- C-1 Service Commercial
- C-2 Downtown Business
- C-3 Medical
- C-4 Neighborhood Commercial
- C-5 Neighborhood Office
- C-6 Limited Neighborhood Commercial
- I-1 Urban Business Park
- I-2 Light & Medium Industrial
- I-3 Heavy Industrial
- R-1 Residential Single Unit Dwelling
- R-2 Residential One & Two Unit Dwelling
- R-3 Residential Multi-Unit Dwelling

Department of Planning, Housing, & Community Development

Mayor, Richard C. David
Director, Dr. Juliet Berling

RECEIVED
NOV 23 2016
OFFICE OF THE CITY CLERK
CITY OF BINGHAMTON

Planning Commission Official Decision

TO: Leighton Rogers, City Clerk
DATE: November 18, 2016
RE: 435 State Street; Series A Site Plan Review and Special Use Permit
TAX ID: 144.82-1-9
CASE: 2016-67

Series A Site Plan Review and Special Use Permit for the construction of a four-story building with a ground floor Human Service Agency, a 12-unit Community Residence, and a 36-unit multi-unit dwelling.

On October 17, 2016, at a duly convened, regular meeting of the Planning Commission, Elaine Miller, Bruce Levine, and Ed Keplinger, representing the applicant Community Potential Inc., appeared to provide information on the proposed project. Nicholas Corcoran made a motion, seconded by Jack Chanecka, to declare the Planning Commission as Lead Agency under the State Environmental Review Act, and to declare the proposal an Unlisted Action. Corcoran then made a motion, seconded by Chanecka, to set a public hearing at the regularly scheduled November meeting. The motions carried 5-0-0. The following Commissioners voted for the motions: Nicholas Corcoran, Paul O'Brien, Mark Grogan, Mario DiFulvio and Jack Chanecka. Thomas Scanlon, Arthur Ospelt, James McCoy, and Roger Brooks were absent.

On November 14, 2016, at a duly convened, regular meeting of the Planning Commission, a public hearing was held as required by Section 410-94(A) of the Zoning Ordinance. PHCD staff executed legal notice by U.S. mail and publication as required by Section 410-94(B) of the Zoning Ordinance. The petitioner paid the required filing fee and posted public notice signs as required.

Elaine Miller and Ed Keplinger appeared to provide information on the proposal. Chairman Nicholas Corcoran opened the public hearing. Jim Baumgartner spoke in favor of the proposal. John Solak spoke in opposition to the proposal. The public hearing was then closed.

Corcoran made a motion, seconded by Jack Chanecka, issuing a Negative Declaration under SEQR. The motion carried 6-0-0 with the following Commissioners voting in its favor: Nicholas Corcoran, Mario DiFulvio, Jack Chanecka, Paul O'Brien, Arthur Ospelt, and Mark Grogan. Thomas Scanlon, James McCoy, and Roger Brooks were absent.

Corcoran then made a motion, seconded by Jack Chanecka, waving 20% of the required number of parking spaces. The motion carried 6-0.

After due deliberation, Corcoran made a motion, seconded by Chanecka, that the requirements for Series A Site Plan Review and Special Use Permit had been met. The motion carried 6-0.

PETITION: The Series A Site Plan and Special Use Permit were APPROVED subject to the following condition:

- **That prior to the issuance of building permits, a final Stormwater Pollution Prevention Plan be review and approved by the City Engineer.**

A transcript of this meeting will be filed with the City of Binghamton Planning Department.

Petition Number: PC 2016-67

Reviewed and Approved:

Date: 11/22/2016

Tito L. Martinez, Assistant Director of PHCD

Date: 11/22/2016

Sharon A, Sorkin, Assistant Corporation Counsel

Date: 11/22/2016

Nicholas Corcoran, Planning Commission Chair

Legal Counsel Approval

RL 16-207

Introductory No. R16-112

Permanent No. R16-111

THE COUNCIL OF THE CITY OF BINGHAMTON
STATE OF NEW YORK

Date: October 19, 2016

Sponsored by Council Members: Mihalko, Matzo, Papastrat, Cronce, MacGregor, Taylor

Introduced by Committee: Finance

RESOLUTION
entitled
A RESOLUTION AUTHORIZING A PAYMENT IN LIEU OF TAXES (PILOT) AGREEMENT FOR REAL PROPERTY LOCATED AT 435 STATE STREET PURSUANT TO ARTICLE XI OF THE NEW YORK PRIVATE HOUSING FINANCE LAW

WHEREAS, the City of Binghamton (the "City") desires to encourage a sufficient supply of adequate, safe and sanitary dwelling accommodations properly planned for persons with low incomes; and

WHEREAS, Binghamton Northside Housing Development Fund Company, Inc., a to-be-formed Article XI New York Private Housing Finance Law Corporation and a New York not-for-profit corporation (the "HDFC"), and Binghamton Northside Limited Partnership, a to-be-formed New York limited partnership (the "Partnership"), have identified property located at 435 State Street, City of Binghamton, County of Broome, State of New York (the "Property"), for the purpose of the construction on the Property of a housing project for persons of low income, said project to consist of: (i) the acquisition of the Property; (ii) the construction of forty-eight (48) units of housing for persons of low income thereon and first floor community and commercial space (the "Improvements"); and (iii) the acquisition and installation therein and thereon of certain machinery, equipment, furniture, fixtures and other tangible personal property (the "Equipment", and collectively with the Property and the Improvements, the "Project"); and

WHEREAS, the HDFC will be formed for the purpose of providing residential rental accommodations for persons of low-income; and

WHEREAS, the HDFC will acquire fee title to the Property, as nominee for the Partnership, and will convey its equitable and beneficial interests in the Property to the Partnership in furtherance of the development of the Project; and

WHEREAS, the HDFC's and the Partnership's plan for the use of the Property constitutes a "housing project" as that term is defined in the Private Housing Finance Law of the State of New York ("PHFL"); and

THE COUNCIL OF THE CITY OF BINGHAMTON
STATE OF NEW YORK

Date: October 19, 2016

WHEREAS, the HDFC will be a "housing development fund company" as the term is defined in Section 572 of the PHFL and Section 577 of the PHFL authorizes the City Council to exempt the Project from real property taxes; and

WHEREAS, the HDFC will be a general partner of the Partnership; and

WHEREAS, the Partnership and the HDFC will be willing to enter into a PILOT Agreement whereby they will make annual payments in lieu of taxes to the City as set forth in the PILOT Agreement;

NOW, THEREFORE, the Council of the City of Binghamton, duly convened in regular session, does hereby:

RESOLVE that the City Council hereby exempts the Project from real property taxes to the extent authorized by Section 577 of the PHFL and approves the proposed PILOT Agreement between the City of Binghamton, the Partnership and the HDFC, in substantially the form presented at this meeting, providing for annual payments as set forth in such agreement; and be it further

RESOLVED, that upon the formation of the Partnership and the HDFC, the Mayor of the City of Binghamton is hereby authorized to execute and deliver a PILOT Agreement, approved as to form and content by the Office of Corporation Counsel, on behalf of the City of Binghamton; and be it further

RESOLVED, that this resolution shall take effect immediately.

Introductory No. R16-112

Permanent No. R16-111

Sponsored by City Council Members:
Mihalko, Matzo, Papastrat, Cronce, MacGregor, Taylor

A RESOLUTION AUTHORIZING A PAYMENT IN LIEU OF TAXES (PILOT) AGREEMENT FOR REAL PROPERTY LOCATED AT 435 STATE STREET PURSUANT TO ARTICLE XI OF THE NEW YORK PRIVATE HOUSING FINANCE LAW

The within Resolution was adopted by the Council of the City of Binghamton.

October 19, 2016
Date

Kathleen M. Moore
City Clerk

October 20, 2016
Date Presented to Mayor

10/20/16
Date Approved

Richard C. David
Mayor

	Ayes	Nays	Abstain	Absent
Councilman Scaringi		✓		
Councilman Mihalko	✓			
Councilwoman Cronce	✓			
Councilman Taylor	✓			
Councilman Matzo	✓			
Councilman MacGregor	✓			
Councilman Papastrat	✓			
Total	6	1	0	0

☐ Code of the City of Binghamton

☒ Adopted ☐ Defeated

6 Ayes 1 Nays 0 Abstain 0 Absent

I hereby certify the above to be a true copy of the legislation adopted by the Council of the City of Binghamton at a meeting held on 10/19/16. Approved by the Mayor on 10/20/16.

435 State Street

PILOT SCHEDULE

year	PILOT PAYMENT-Residential	PILOT PAYMENT COMMERCIAl	TOTAL ANNUAL PAYMENT
1	$32,800.00	$17,800.00	$50,600.00
2	$33,700.00	$18,300.00	$52,000.00
3	$34,600.00	$18,800.00	$53,400.00
4	$35,500.00	$19,300.00	$54,800.00
5	$36,400.00	$19,800.00	$56,200.00
6	$37,300.00	$20,300.00	$57,600.00
7	$38,200.00	$20,800.00	$59,000.00
8	$39,100.00	$21,300.00	$60,400.00
9	$40,000.00	$21,800.00	$61,800.00
10	$40,900.00	$22,300.00	$63,200.00
11	$41,800.00	$22,800.00	$64,600.00
12	$42,700.00	$23,300.00	$66,000.00
13	$43,600.00	$23,800.00	$67,400.00
14	$44,500.00	$24,300.00	$68,800.00
15	$45,400.00	$24,800.00	$70,200.00

AGREEMENT FOR PAYMENT IN LIEU OF TAXES (PILOT) BY AND AMONG THE CITY OF BINGHAMTON, BINGHAMTON NORTHSIDE HOUSING DEVELOPMENT FUND COMPANY, INC. AND BINGHAMTON NORTHSIDE LIMITED PARTNERSHIP

THIS AGREEMENT FOR PAYMENT IN LIEU OF TAXES (the "Agreement"), dated _____ __, 201_, by and among the **CITY OF BINGHAMTON, NEW YORK**, a New York incorporated municipality, having its principal office located at 38 Hawley Street, 4th Floor, Binghamton, New York 13901 (the "City") and **BINGHAMTON NORTHSIDE HOUSING DEVELOPMENT FUND COMPANY, INC.**, an Article XI New York private housing finance law corporation and a New York not-for-profit corporation, having its principal office located at [c/o Community Potential, Inc., 35 Exchange Street, Binghamton, New York 13901] (the "HDFC"), which HDFC will hold title to the Property (as hereinafter defined) for the benefit of **BINGHAMTON NORTHSIDE LIMITED PARTNERSHIP,** a New York limited partnership, having its principal office located at c/o [Community Potential, Inc., 35 Exchange Street, Binghamton, New York 13901] (the "Partnership").

WHEREAS, the HDFC is, or will become, the bare legal or record owner, and the Partnership is, or will become, the beneficial and equitable owner, of certain real property located in the City of Binghamton, County of Broome, State of New York, as more particularly described in Exhibit A attached hereto (the "Property"); and

WHEREAS, the HDFC will be a corporation established pursuant to Section 402 of the Not-For-Profit Corporation Law and Article XI of the Private Housing Finance Law ("PHFL"); and

WHEREAS, the HDFC will be the general partner of the Partnership; and

WHEREAS, the HDFC and the Partnership will each be formed for the purpose of providing residential rental accommodations for persons of low-income (as such term is defined in Section 42 of the Internal Revenue Code of 1986, as amended ("Code")); and

WHEREAS, the Partnership will develop, own, construct, maintain and operate a housing project for persons of low income at the Property, consisting of forty-eight (48) residential rental units for individuals and families of low income (as defined in Code Section 42), in addition to first floor community and commercial space (the "Project"); and

WHEREAS, the HDFC's and the Partnership's plan for the use of the Property constitutes a "housing project" as that term is defined in the PHFL; and

WHEREAS, the HDFC will be a "housing development fund company" as the term is defined in Section 572 of the PHFL; and

WHEREAS, pursuant to PHFL Section 577, the local legislative body of a municipality may exempt the real property of a housing project of a housing development fund company from local and municipal taxes, including school taxes, other than assessments for local

improvements, to the extent of all or a part of the value of the property included in the completed project; and

WHEREAS, the Council Members of the City of Binghamton, New York, by Agreement Resolution No. _____ adopted _____, 201_, approved and authorized the execution of this Agreement.

NOW, THEREFORE, it is agreed as follows:

1. Pursuant to Section 577 of the PHFL, the City hereby exempts from local and municipal taxes, other than assessments for local improvements (which shall be assessed in accordance with Section 3(b) hereof), one hundred percent (100%) of the value of the Property and the Project, including both land and improvements. "Local and Municipal Taxes" shall mean any and all real estate taxes levied by Broome County ("County"), the City of Binghamton ("City"), the School District ("School District") or other taxing jurisdiction (collectively, the "Taxing Jurisdictions").

2. This tax exemption will commence on the date of the HDFC's acquisition of the fee title interest in the Property and shall continue for a period of fifteen (15) years following the date on which a certificate of occupancy is issued for the Project and shall be automatically extended for a second period of fifteen (15) years ("Extension Term") provided the HDFC is in compliance with the terms and conditions hereof. This Agreement shall not limit or restrict the HDFC's or Partnership's right to apply for or obtain any other tax exemption to which it might be entitled upon the expiration of this Agreement.

3. (a) So long as the exemption hereunder continues, the Partnership shall make annual payments in lieu of taxes ("PILOT") in the amount set forth in Schedule A attached hereto, which payments shall cover all Local and Municipal Taxes owed in connection with the Property and the Project, and which payments shall be shared by the Taxing Jurisdictions on the same basis as property taxes would be shared if the Property and the Project were fully taxed. PILOT payments during the Extension Term shall be paid and shall annually increase on the same basis as is set forth in Schedule A. So long as the tax exemption remains in effect, tenant rental charges shall not exceed the maximum established or allowed by law, rule or regulation, and the Property and the Project shall be operated in conformance with the provisions of Article XI of PHFL. The first PILOT payment shall be due on the date which is one (1) year following the receipt of a final Certificate of Occupancy and shall be due and payable annually thereafter for the term hereof. Payments shall be mailed via First Class mail through the United States Postal Service or personally delivered to the City of Binghamton, Attention Tax Collector, 38 Hawley Street, Binghamton, New York 13901, or such other address as the City may specify in writing.

(b) It is understood and agreed by and between the parties hereto, that in addition to any payment in lieu of taxes due by the Partnership pursuant to Section 3(a) above, the Partnership shall be liable for the payment of any special assessments or assessments for local improvements imposed by any taxing authority for sewer, sewer rent, water, fire protection and fire district assessments and lighting and light district assessments based upon an assessment

calculated by multiplying each residential unit by $10,000 (it is agreed that for determining fair market value, that each residential unit will have a value of $10,000).

(c) If there shall be a future addition to the Project constructed or added in any manner after the date of this Agreement, the Partnership shall notify the City of such future addition ("Future Additions"). The notice to the City shall contain a copy of the application for a building permit, plans and specifications, and any other relevant evidence that the Authority may thereafter request. Upon the City's receipt of the notice, the parties hereto shall use their best efforts to agree upon additional payments in lieu of tax for such Future Additions ("Additional Payments") and shall amend this Agreement to provide for such Additional Payments.

4. The tax exemption provided by this Agreement will continue for the term described above provided that (a) the Property and the Project continue to be used as housing facilities for persons of low income, and (b) any of the following occur (i) the HDFC and the Partnership operate the Property and the Project in conformance with Article XI of the PHFL; or (ii) the HDFC assumes sole legal and beneficial ownership of the Property and the Project and operates the Project in conformance with Article XI of the PHFL; or (iii) in the event an action is brought to foreclose a mortgage upon the HDFC, and the legal and beneficial interest in the Property and the Project shall be acquired at the foreclosure sale or from the mortgagee, or by a conveyance in lieu of such sale, by a housing development fund corporation organized pursuant to Article XI of the PHFL, or by the Federal government or an instrumentality thereof, or by a corporation which is, or by agreement has become subject to the supervision of the superintendent of banks or the superintendent of insurance, such successor in interest, such successor in interest shall operate the Project in conformance with Article XI of the PHFL.

Any one or more of the following events shall constitute an "Event of Default" hereunder: (a) failure of the Partnership to pay any amount due and payable by it pursuant to this Agreement; (b) failure of the Partnership and HDFC to observe and perform any other covenant, condition or agreement on its part to be observed and performed, other than as referred to in paragraph (a) above, and continuance of such failure for a period of thirty (30) days after written notice to the Partnership and HDFC specifying the nature of such failure and requesting that it be remedied; or (c) any warranty, representation or other statement by or on behalf of the Partnership contained in this Agreement shall prove to have been false or incorrect in any material respect on the date when made or on the effective date of this Agreement. Upon the occurrence of any Event of Default hereunder, in addition to any other right or remedy the City and/or the Taxing Jurisdictions may have at law or in equity, including without limitation Section 6 hereof, the City and/or affected Taxing Jurisdictions may, immediately and without further notice to the Partnership (but with notice to the City with respect to actions maintained by the Taxing Jurisdictions) pursue any action in the courts to enforce payment or to otherwise recover directly from the Partnership any amounts so in default.

5. To the extent the Project is declared to be subject to taxation or assessment by an amendment to the PHFL, other legislative change, or by final judgment of a Court of competent jurisdiction, the obligations of the Partnership and the City hereunder shall, to such extent, be null and void.

6. The failure to make the required payment will be treated as failure to make payment of taxes and will be governed by the same provisions of law as apply to the failure to make payment of taxes, including but not limited to enforcement and collection of taxes to the extent permitted by law.

7. The Partnership does hereby represent and warrant as follows:

(a) The Partnership is a limited partnership duly organized and validly existing under the laws of the State of New York and by proper action of its general partner, has been duly authorized to execute, deliver and perform this Agreement.

(b) The Partnership is authorized and has the organizational power to enter into this Agreement and the transactions contemplated hereby and to perform and carry out all covenants and obligations on its part to be performed under and pursuant to this Agreement. The Partnership has duly authorized the execution, delivery and performance of this Agreement and the consummation of the transactions herein contemplated. The Partnership is not prohibited from entering into this Agreement and discharging and performing all covenants and obligations on its part to be performed under and pursuant to this Agreement by (and the execution, delivery and performance of this Agreement, the consummation of the transactions contemplated hereby and the fulfillment of and compliance with the provisions of this Agreement will not in any material respect conflict with or violate or constitute a material breach of or a default under) the terms, conditions or provisions of any law, rule, regulation or order of any court or other agency or authority of government, or any contractual limitation, restriction or outstanding indenture, deed of trust, mortgage, loan agreement, other evidence of indebtedness or any other agreement or instrument to which the Partnership is a party or by which it or any of its property is bound, and neither the Partnership's entering into this Agreement nor the Partnership’s discharging and performing all covenants and obligations on its part to be performed under and pursuant to this Agreement will be in any material respect in conflict with or result in a breach of or constitute (with due notice and/or lapse of time) a default under any of the foregoing, or result in the creation or imposition of any lien of any nature upon any of the property of the Partnership under the terms of any of the foregoing, and this Agreement is the legal, valid and binding obligation of the Partnership enforceable in accordance with its terms, except as enforcement may be limited by bankruptcy, insolvency, reorganization, moratorium or other similar laws affecting enforcement of creditors’ rights generally, or by general principles of equity.

(c) No consent, approval or authorization of, or filing, registration or qualification with, any governmental or public authority on the part of the Partnership is required as a condition to the execution, delivery or performance of this Agreement by the Partnership or as a condition to the validity of this Agreement.

8. The HDFC does hereby represent and warrant as follows:

(a) The HDFC is a not-for-profit corporation duly organized and validly existing under the laws of the State of New York and by proper action of its board of directors, has been duly authorized to execute, deliver and perform this Agreement.

(b) The HDFC is authorized and has the organizational power to enter into this Agreement and the transactions contemplated hereby and to perform and carry out all covenants and obligations on its part to be performed under and pursuant to this Agreement. The HDFC has duly authorized the execution, delivery and performance of this Agreement and the consummation of the transactions herein contemplated. The HDFC is not prohibited from entering into this Agreement and discharging and performing all covenants and obligations on its part to be performed under and pursuant to this Agreement by (and the execution, delivery and performance of this Agreement, the consummation of the transactions contemplated hereby and the fulfillment of and compliance with the provisions of this Agreement will not in any material respect conflict with or violate or constitute a material breach of or a default under) the terms, conditions or provisions of any law, rule, regulation or order of any court or other agency or authority of government, or any contractual limitation, restriction or outstanding indenture, deed of trust, mortgage, loan agreement, other evidence of indebtedness or any other agreement or instrument to which the HDFC is a party or by which it or any of its property is bound, and neither the HDFC's entering into this Agreement nor the HDFC's discharging and performing all covenants and obligations on its part to be performed under and pursuant to this Agreement will be in any material respect in conflict with or result in a breach of or constitute (with due notice and/or lapse of time) a default under any of the foregoing, or result in the creation or imposition of any lien of any nature upon any of the property of the HDFC under the terms of any of the foregoing, and this Agreement is the legal, valid and binding obligation of the HDFC enforceable in accordance with its terms, except as enforcement may be limited by bankruptcy, insolvency, reorganization, moratorium or other similar laws affecting enforcement of creditors' rights generally, or by general principles of equity.

(c) No consent, approval or authorization of, or filing, registration or qualification with, any governmental or public authority on the part of the HDFC is required as a condition to the execution, delivery or performance of this Agreement by the HDFC or as a condition to the validity of this Agreement.

9. All notices and other communications hereunder shall be in writing and shall be sufficiently given when delivered to the applicable address stated above (or such other address as the party to whom notice is given shall have specified to the party giving notice) by registered or certified mail, return receipt requested or by such other means as shall provide the sender with documentary evidence of such delivery.

10. This Agreement shall inure to the benefit of and shall be binding upon the City, the HDFC and the Partnership and their respective successors and assigns, including the successors in interest of the HDFC and the Partnership. There shall be no assignment of this Agreement except with consent of the other party, which consent shall not be unreasonably withheld.

11. If any provision of this Agreement or its application is held invalid or unenforceable to any extent, the remainder of this Agreement and the application of that provision to other persons or circumstances shall be enforced to the greatest extent permitted by law.

12. This Agreement may be executed in any number of counterparts with the same effect as if all the signing parties had signed the same document. All counterparts shall be construed together and shall constitute the same instrument.

13. This Agreement constitutes the entire agreement of the parties relating to payments in lieu of taxes with respect to the above described property and supersedes all prior contracts, or agreements, whether oral or written, with respect thereto.

14. Each of the parties individually represents and warrants that the execution, delivery and performance of this Agreement, (i) has been duly authorized and does not require any other consent or approval, (ii) does not violate any article, by-law or organizational document or any law, rule, regulation, order, writ, judgment or decree by which it is bound, and (iii) will not result in or constitute a default under any indenture, credit agreement, or any other agreement or instrument to which any of them is a party. Each party represents that this Agreement shall constitute the legal, valid and binding agreement of the parties enforceable in accordance with its terms.

Remainder of page intentionally left blank.

IN WITNESS WHEREOF, the City, the HDFC and the Partnership have caused this Agreement to be executed in their respective names by their duly authorized representatives and their respective seals to be hereunder affixed, all as of the date above-written.

CITY OF BINGHAMTON, NEW YORK,
a New York incorporated municipality

DATED: _____, 2016

By:_____
Name: Richard C. David
Title: Mayor

BINGHAMTON NORTHSIDE HOUSING DEVELOPMENT FUND COMPANY, INC.,
a New York not-for-profit corporation

DATED: _____, 2016

By:_____
Name:
Title: President

BINGHAMTON NORTHSIDE LIMITED PARTNERSHIP, a New York limited partnership

By: Binghamton Northside Housing Development Fund Company, Inc., its General Partner

DATED: _____, 2016

By:_____
Name:
Title: President

STATE OF NEW YORK)
) SS.:
COUNTY OF BROOME)

On the ____ day of October in the year 2016, before me personally appeared Richard C. David, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or person upon behalf of which the individual acted, executed the instrument.

_____
NOTARY PUBLIC

STATE OF NEW YORK)
) SS.:
COUNTY OF BROOME)

On the _____ day of October in the year 2016, before me personally appeared _____, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he\she executed the same in his\her capacity, and that by his\her signature on the instrument, the individual, or person upon behalf of which the individual acted, executed the instrument.

_____
NOTARY PUBLIC

EXHIBIT A

The Property

SCHEDULE A

PILOT Payment Schedule

DEPARTMENT OF PLANNING
HOUSING & COMMUNITY DEVELOPMENT

Richard David, Mayor
Juliet Berling, PhD Director

November 28, 2016

BINGHAMTON LOCAL DEV CORP
38 Hawley St
Binghamton, NY 13901

RE: 435 STATE ST TAX MAP # 144.82-1-9
Existing Use under City of Binghamton Code of Ordinances Chapter 410-Zoning

The structure and property located at **435 STATE ST** is located in a **C-1 Service Commercial District**.

The use of this structure as a **Multi-Unit Dwelling (36 units) and a Community Residence (12 Units) is a legal, conforming use** and the commercial use of this structure as a **Human Service Agency, located on the first floor, is a legal, conforming use** in accordance with applicable Zoning regulations in the **City of Binghamton Code of Ordinances, Chapter 410, ZONING** as adopted in 2006.

A Certificate of Occupancy is not being provided by this Office. Please note that a Certificate of Occupancy is only issued for new construction, renovations and change of occupancy associated with a Building Permit only. This letter does not certify compliance with any ordinances, codes, or laws outside of Chapter 410, Zoning. Furthermore, if the actual use of this property is not the use stated above, then this letter is null and void and may not be relied upon as proof of compliance with the City of Binghamton Zoning Code. All changes in use may require Planning review.

If you require further information in regard to this notice, please contact me at your earliest convenience.
Thank you.

Respectfully,

Hans Van Houten
Zoning Enforcement Officer
607.772.7240
hhvanhouten@cityofbinghamton.com

Binghamton Housing

435 State Street
City of Binghamton
Broome County, NY 13901

RZE# 16062

SWPPP

10/28/2016

Prepared for:
Binghamton Housing Authority
Elaine Miller
Executive Director
35 Exchange Street
Binghamton, NY 13901

RZ Engineering, PLLC
STORMWATER SANITARY WATER ENVIRONMENTAL TRANSPORTATION
6320 FLY ROAD SUITE 109
EAST SYRACUSE, NY 13057
PH (315) 432-1089
FAX (315) 445-7981

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Note: The above Figures and Appendixes have been removed from this report

1.0 – SUMMARY

The Binghamton Housing Authority proposes to construct a mixed use building and associated parking on a parcel located on at the intersection of North Way Street and State Street in the City of Binghamton, Broome County, NY. Currently, there are three existing parcels that are proposed to be consolidated into two proposed parcels. It should be noted that proposal for development will only be within one of these proposed parcels. However, to produce a more conservative analysis, a maximum square footage of impervious surfaces that could potentially be developed on the adjacent property was also analyzed.

Currently existing on the three parcels is impervious surfaces totaling 5.19± ac. Proposed for development within the proposed western parcel plus the maximum potential impervious surface associated with the possible future development in the undeveloped eastern parcel totals 3.88± ac. This will result in impervious surface coverage reduction of 25.4% for the proposed development when compared to existing site conditions. The disturbed area of the site is anticipated to be 5.7± acres, including all existing impervious pavement and gravel removal. The demolition process will be phased to limit disturbance under 5 acres. It should be noted that approximately 2.82± ac of this disturbance is removal of existing pavement and will be restored to grass or permeable cover in post-development conditions. The remaining 2.88± ac is proposed for development. An aerial photo and USGS Topographic Map have been provided in the report, see Figures 1 and 2.

2.0 – OBJECTIVE

The purpose of this Report is to describe the additional stormwater management and erosion control measures for the site and the rationale for their use. This Report has been prepared in accordance with the United States Department of Agriculture (USDA) - Soil Conservation Service (SCS) “NYS Standards and Specifications for Erosion and Sediment Control,” the New York State Department of Environmental Conservation (NYSDEC) “NYS Stormwater Management Design Manual,” and the NYSDEC “SPDES General Permit for Stormwater Discharges from Construction Activities.”

This report will provide a narrative description of the proposed site improvements including stormwater management structures and erosion control methods to be temporarily or permanently employed at the site.

A copy of this SWPPP shall be maintained on site by the owner/contractor for the duration of the construction process.

3.0 – EXISTING SITE CONDITIONS

Existing Site Use

The Binghamton Housing Authority proposes to construct a mixed use building and

associated parking on a parcel located on at the intersection of North Way Street and State Street in the City of Binghamton, Broome County, NY. Currently, there are three existing parcels that are proposed to be consolidated into two proposed parcels. Existing on the three parcels is impervious surfaces consisting of a department store structure and parking totaling 5.19± ac. The location of the site in relation to major roads and other points of reference are presented in Figures 1-3 along with an aerial photo of the site, general environmental mapping, and general vicinity.

For the purpose of analysis, one watershed was delineated in the pre-existing condition. The majority of the site drains to an existing catchbasin (CAB 743) on the northwestern corner of the parcel along North Way Street. A portion of the existing site along West State Street drains to several existing catchbasins and it is anticipated that these structures tie into the existing storm drainage along North Way Street. Figure 4 has been provided to show the drainage areas and time of concentrations for the existing site area.
According to soil information provided by the National Cooperative Soil Survey, the site consists of Cut and fill lands, silty materials – Type A. A summary of existing land-surface cover descriptions for the site within the watersheds are described as follows:

- Impervious Cover (Structure, parking, gravel*, etc.) – 5.19± ac
- Grass and Brush, Fair, HSG Type A – 0.07± ac
- Grass Cover, Fair, HSG A – 0.43± ac

* For purposes of analysis, gravel cover was modeled as impervious and is conservative.

4.0 – PROPOSED SITE USE AND IMPROVEMENTS

Proposed Site Use

For purposes of analysis, the site disturbed area watershed was analyzed under pre- and post-conditions to determine peak runoff conditions associated with the design of the stormwater control facilities. Further discussion of the analysis is discussed in the next few report sections. The site is connected to public water and sanitary sewer systems. Access to the site during construction will be made via a temporary construction entrance in the locations similar to the existing entrance to the site.

Site Improvements

The proposed grading and drainage plan for the site is designed to maintain the site drainageways within it, attempting to improve existing storm runoff conditions and account for differences in proposed development and possible future proposed development. Stormwater runoff from site improvements will flow to proposed stormwater management systems via sheet flow, shallow concentrated flow, and channel flow through the proposed drainage system. All stormwater runoff from the subject site eventually discharges to Chenango River.

The proposed land-surface cover descriptions and totals for this site within the site watershed are described as follows:

- 2016 Proposed Site Improvements Impervious Cover (Parking, Sidewalk, Buidling, etc.) – 1.65± ac
- Maximum Potential Future Impervious Cover (Parking, Building, etc.) 2.23± ac
- Grass Cover, Good, HSG A – 1.80± ac
- Permeable Playground, HSG A – 0.03± ac

5.0 – STORMWATER RUNOFF COMPUTATIONS

This section of the Report outlines the results of a stormwater runoff analysis that was conducted for the proposed site. The analysis includes a comparison of pre-development hydrologic conditions with those of the post-development conditions. This analysis is based on the site watershed's total area under both Pre- and Post-Development Conditions.

HydroCAD Version 10.00 was utilized in this Report for estimating runoff and peak discharges from the site disturbed area watershed. This computerized model was developed by the USDA-SCS to determine runoff volumes and peak rates of discharge, and takes into account watershed area, rainfall frequency, runoff coefficients characterizing land surfaces, flow duration or time of concentration, and average watershed slopes. Pre- and post-development calculations were generated for a 1, 2, 5, 10, 25, 50 and 100-year frequency, 24-hour storm event. Exhibits outlining stormwater runoff information referenced from the New York Standards and Specifications for Erosion and Sediment Control are presented in Appendix I.

The SCS has developed curve numbers characterizing land surfaces for urban areas and agricultural lands, which were utilized in the computer modeling of this site.

The time of concentration (t_c) value is utilized in the modeling of stormwater runoff for a site. Time of concentration is the duration that it takes for runoff to travel from the hydraulically most distant point of the watershed to a point of interest (outfall) within the watershed. It is also the sum of the travel time from the various consecutive flow segments along the flow path of the watershed to the outfall. The time of concentration is dependent on the velocity of the runoff, and is a function of the surface roughness, slope of the surface, and flow segment length.

Development Analysis

For purposes of analysis, the disturbed site watershed was analyzed to determine the existing site peak runoff rate to the downstream discharge point. This peak runoff rate at the downstream discharge point was used as the limiting factor when comparing the

post-development rates from the site.

The computer modeling results of the pre-development site conditions for a 1, 2, 5, 10, 25, 50 and 100-year, 24-hour storm event indicates that the following peak runoff rates in cubic feet per second (cfs) are anticipated to discharge from the pre-site condition drainage area. Calculations are presented in Appendix C.

Pre-Development Site Watershed

Drainage Area (I.D.)	Area (Acres)	1 Year Storm Peak Flow (cfs)	2 Year Storm Peak Flow (cfs)	5 Year Storm Peak Flow (cfs)	10 Year Storm Peak Flow (cfs)	25 Year Storm Peak Flow (cfs)	50 Year Storm Peak Flow (cfs)	100 Yr Storm Peak Flow (cfs)
EXDA-1	5.70	12.20	14.59	18.97	22.89	29.13	34.88	41.55

Post-Development Analysis

For purposes of analysis, the proposed site construction limits were analyzed under pre- and post-conditions to determine peak runoff conditions associated with the design of the stormwater control facilities. The computer modeling results of the post-development site conditions for a 1, 2, 5, 10, 25, 50 and 100-year 24-hour storm event indicates that the following peak runoff rates are anticipated to discharge from the post-site condition drainage area. Calculations are presented in Appendix D.

Proposed post-development measures for the site have been outlined in Section 4.0. Stormwater measures for the site will utilize the redevelopment plan found in section 9.2.1.B.I of the NYS Stormwater Design Manual. This plan proposes a reduction of a minimum of 25% of the total disturbed impervious area. Given the site's existing total impervious cover of 226,201 sf, a 25% reduction in would yield a required post-development impervious coverage of 169,651 sf. Planned development for the site as well as the maximum potential future impervious on the eastern parcel yields a total impervious coverage in post-development conditions of 168,838± sf. This value achieves a 25.4% reduction in impervious cover, exceeding the 25% minimum requirement.

Post-Development Site Watersheds

Drainage Area (I.D.)	Area (Acres)	1 Year Storm Peak Flow (cfs)	2 Year Storm Peak Flow (cfs)	5 Year Storm Peak Flow (cfs)	10 Year Storm Peak Flow (cfs)	25 Year Storm Peak Flow (cfs)	50 Year Storm Peak Flow (cfs)	100 Yr Storm Peak Flow (cfs)
PRDA-1	5.70	4.53	6.30	9.86	13.30	19.06	24.64	31.28

Comparison of Pre- and Post-Development Runoff

The peak flow conditions for the pre- and post-development watershed areas of the project site are summarized in the table below:

Pre-Development Watershed vs. Post-Development Watershed (Pre Routing)

Drainage Area	Drainage Area (ac)		1 Year Storm Peak Flow (cfs)		2 Year Storm Peak Flow (cfs)		5 Year Storm Peak Flow (cfs)		10 Year Storm Peak Flow (cfs)		25 Year Storm Peak Flow (cfs)		50 Year Storm Peak Flow (cfs)		100 Year Storm Peak Flow (cfs)	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
(I.D.)	Site	Site	Site	Site	Site	Site	Site	Site	Site	Site	Site	Site	Site	Site	Site	Site
DA-1	5.70	5.70	12.20	4.53	14.59	6.30	18.97	9.86	22.89	13.30	29.13	19.06	34.88	24.64	41.55	31.28

The above table reflects a decrease in peak runoff conditions for the site watershed. Decrease in impervious areas allow for more opportunities for infiltration on the site. Due to the 25.4±% impervious coverage reduction, there is no proposed storm water mitigation measures needed on the site for quantity or quality control according to current NYSDEC Standards within the NYS Stormwater Design Manual in accordance with section 9.2.B.I of the NYS Stormwater Design Manual.

6.0 – STORMWATER MITIGATION AND BMP'S

Due to impervious cover in DA-1 being reduced by 25.4% in the post development, quality and quantity criteria for the site are achieved. Therefore, no proposed storm water mitigation measures required in DA-1 for quantity or quality control according to 2015 NYSDEC Standards within Section 9.2.1.B.I of the NYS Stormwater Design Manual. Several drywells and structures have been provided for DA-1 to mitigate any non-infiltrated runoff within the proposed site watershed, see contract drawings. There are several proposed flood routes to maintain overflow to the City ROW in extreme storm events.

7.0 – PROPOSED STORMWATER DRAINAGE FACILITIES

All on site drainage facilities are designed to transmit flows from a 10 year storm event to downstream stormwater Best Management Practices. The location, size, and type of all existing and proposed pipes are provided on the contract drawings. The calculations and basis for analysis may be provided upon request.

8.0 – STORMWATER QUALITY VOLUME

Typically, the water quality volume (denoted as WQV) is designed to improve water quality, sized to capture and treat 90% of the average annual stormwater runoff volume.

It is assumed that by meeting the WQV requirements through the employment of

practices outlined in table 5.1 of the “New York State Stormwater Management Design Manual”, a project will meet water quality objectives by default. Due to the reduction in overall runoff when comparing pre and post development watershed for the site and providing more than 25% impervious coverage reduction, there are no proposed storm water mitigation measures needed on the site for quantity or quality control according to current NYSDEC Standards within Section 9.2.1.B.I the NYS Stormwater Design Manual. Therefore, Appendices E and G have been omitted.

9.0 – PHOSPHORUS REMOVAL

Chapter 10 of the NYS Stormwater Design Manual outlines the requirements for treatment of phosphorus in stormwater. Enhanced Phosphorus Removal requires calculation of the 1 year, 24 hour design storm in the post development watershed. The site is not located in a TMDL Phosphorous watershed and therefore, no additional phosphorus treatment volume for the 1 year storm event has been provided.

10.0 – RUNOFF REDUCTION VOLUME AND GREEN PRACTICES

As this site is a redevelopment site, runoff reduction practices are recommended but do not need to be employed. Since the site is reducing impervious cover by 25.4±%, the peak flow and peak volume will correspondingly decrease. These reductions will achieve the necessary runoff reduction typically required. However, to be conservative, several practices were utilized and can be seen in the table below:

Green Practices

PRACTICE	WATERSHEDS	TYPE OF REDUCTION
• Tree Planting	Post Development DA-1	Area reduction practice with RRv

Soil Restoration Requirements **

According to Section 5 of the NYS Stormwater Design Manual, soil restoration practices must be applied across the site in areas of soil disturbance. This is necessary to reclaim the origional properties and porosity of the soil before construction. The benefits of soil restoration include but are not limited to:

- Less stormwater runoff
- Increased porosity on redevelopment sites where impervious cover is converted to pervious
- Achieves performance standards on runoff reduction practices
- Healthier, asthetically pleasing landscapes
- Enhances direct groundwater recharge
- Promotes sucessful long term revegitation by restoring soil organic matter, permeability, drainage and water holding capacity for healthy root system development of trees, shrubs and deep-rooted ground covers, minimizing lawn

chemical requirements, plant drowning during wet periods, and burnout durring dry periods

** taken from the NYS Stormwater Management Manual (version 2010)

Table 5.3 Soil Restoration Requirements

Type of Soil Disturbance	Soil Restoration Requirement		Comments/Examples
No soil disturbance	Restoration not permitted		Preservation of Natural Features
Minimal soil disturbance	Restoration not required		Clearing and grubbing
Areas where topsoil is stripped only - no change in grade	HSG A &B	HSG C&D	Protect area from any ongoing construction activities.
	apply 6 inches of topsoil	Aerate* and apply 6 inches of topsoil	
Areas of cut or fill	HSG A &B	HSG C & D	
	Aerate and apply 6 inches of topsoil	Apply full Soil Restoration **	
Heavy traffic areas on site (especially in a zone 5-25 feet around buildings but not within a 5 foot perimeter around foundation walls)	Apply full Soil Restoration (de-compaction and compost enhancement)		
Areas where Runoff Reduction and/or Infiltration practices are applied	Restoration not required, but may be applied to enhance the reduction specified for appropriate practices.		Keep construction equipment from crossing these areas. To protect newly installed practice from any ongoing construction activities construct a single phase operation fence area
Redevelopment projects	Soil Restoration is required on redevelopment projects in areas where existing impervious area will be converted to pervious area.		

*Aeration includes the use of machines such as tractor-drawn implements with coulters making a narrow slit in the soil, a roller with many spikes making indentations in the soil, or prongs which function like a mini-subsoiler.

** Per "Deep Ripping and De-compaction, DEC 2008".

Many of the Runoff Reduction practices will require soil restoration measures applied in and around the practice inorder to reach the desired runoff reduction performance. Table 5.13 on page 5-22 of the NYS Stormwater Design Manual has been included below that higlights these requirements and provides guidance on when to implement soil restoration techniques. Also included is the NYS Stormwater Design Manual section on Practice implimentation, Maintenece and Inspection.

Soil Restoration Practice Implementation:

During periods of relatively low to moderate subsoil moisture, the disturbed subsoils are returned to rough grade and the following Soil Restoration steps applied:

1. Apply 3 inches of compost over subsoil
2. Till compost into subsoil to a depth of at least 12 inches using a cat-mounted ripper, tractormounted disc, or tiller, mixing, and circulating air and compost into subsoils
3. Rock-pick until uplifted stone/rock materials of four inches and larger size are cleaned off the site

Figure 5. 16 Soil aerator implement

Figure 5. 17 Soil aerator implement

4. Apply topsoil to a depth of 6 inches
5. Vegetate as required by approved plan.

Figures 5.16 and 5.17 above show two attachments used for soil decompaction. Tilling (step 2 above) should not be performed within the drip line of any existing trees or over utility installations that are within 24 inches of the surface.

Soil Restoration Inspection:

At the end of the project an inspector should be able to push a 3/8” metal bar 12 inches into the soil just with body weight.

Compost Specifications

Compost shall be aged, from plant derived materials, free of viable weed seeds, have no visible free water or dust produced when handling, pass through a half inch screen and have a pH suitable to grow desired plants.

Soil Restoration Maintenance:

A simple maintenance agreement should identify where Soil Restoration is applied, where newly restored areas are/cannot be cleared, who the responsible parties are to ensure that routine vegetation improvements are made (i.e., thinning, invasive plant removal, etc.). Soil compost amendments within a filter strip or grass channel should be located in public right of way, or within a dedicated stormwater or drainage easement.

First Year Maintenance Operations Includes:

• Initial inspections for the first six months (once after each storm greater than half- inch)
• Reseeding to repair bare or eroding areas to assure grass stabilization
• Water once every three days for first month, and then provide a half inch of water per week during first year. Irrigation plan may be adjusted according to the rain event.
• Fertilization may be needed in the fall after the first growing season to increase plant vigor

Ongoing Maintenance:

Two points help ensure lasting results of decompaction:

1. Planting the appropriate ground cover with deep roots to maintain the soil structure
2. Keeping the site free of vehicular and foot traffic or other weight loads. Consider pedestrian footpaths. (Sometimes it may be necessary to de-thatch the turf every few years)

11.0 – POSSIBLE CONTAMINANTS FROM CONSTRUCTION ACTIVITIES

During construction contaminants from materials and equipment could enter the stormwater drainage system unintentionally. The contractor should store construction materials and equipment in the designated staging area and all possible contaminants should be stored to prevent damage.

This particular project will require construction equipment such as a backhoe, drum roller, dump trucks, a grader, and bull dozer. These vehicles use oil and petroleum products which if not treated carefully could enter the storm drainage system. Accidental spills should be reported to the Department of Environmental Conservation 24 hour spill response hotline at 1-800-457-7362. On site fueling of construction equipment shall be limited to a bermed/diked area located within the project staging area. The table below

provides a guide for quantities that should be reported. Should a spill incident occur, the employee or party responsible for the spill should contain the spill, start cleanup and report the spill to his/ her superiors. The spill should be reported to the appropriate governing agency should the spill exceed the reportable quantity or enter surface waters.

Examples of Reportable Quantities		
Material	*Media Released To*	*Reportable Quantity*
Engine oil, fuel, hydraulic and brake fluid	Land Water	25 gallons Visible Sheen
Antifreeze	Land	100 lbs (13 gal.)
Battery Acid	Land, Water	100 lbs.
Refrigerant	Air	1 lb.
Gasoline	Air, Land, Water	100 lbs.
Engine Degreasers	Air, Land, Water	100 lbs.

All construction waste material such as housing materials and utility installation materials shall be disposed of as required by law.

Wastewater from concrete washout areas is prohibited from discharging directly to any site areas not managed by an appropriate stormwater control measure. Also prohibited are washouts from stucco, paint, form release oils, curing compounds, and other construction materials. Soaps, solvents, fuels, oils, or other pollutants used in vehicle operations or maintenance shall also be controlled by an appropriate stormwater control measure. Staging areas are designated on the plans for storage of equipment and vehicles. Locations subject to the above contaminants outside the staging area shall require additional measures and should be reviewed with the SWPPP inspector and MS4 representative prior to commencement of activities that may result in contamination.

12.0 – EROSION CONTROL MEASURES

Structural erosion and sediment control measures are classified as either temporary or permanent, according to how they are used. Temporary structural measures shall be used during construction of the site to prevent off-site sedimentation. Permanent structural measures shall be utilized following construction and shall be implemented to convey surface water safely to the existing drainage ways present in the pre-development condition. The permanent structural measures shall remain in-place and continue to function after the completion of construction. General construction notes and maintenance plan for implementing the temporary and permanent stormwater and erosion control structures during and after construction have been developed for the project.

Erosion control measures shall be inspected twice weekly by a Licensed Professional Engineer or Erosion Control Specialist until the site is completely stabilized. Inspections and maintenance of erosion control structures shall be in accordance with the NYS Pollution Discharge Elimination System for Construction Activities GP-0-15-002 (SPDES) program. The owner should file a Notice of Intent (NOI) with the NYS DEC prior to commencement of further construction activities. The NOI should be sent to:

NYSDEC- Notice of Intent
Bureau of Water Permits
625 Broadway
Albany, NY 12233-3505

Temporary Structural Measures

This subsection will describe the specific temporary control measures to be implemented to reduce and/or eliminate erosion and sedimentation during the construction phase of this project. Example details of the following erosion control measures are presented in Appendix I. As construction progresses more site areas may be opened after already constructed areas are permanently stabilized in accordance with the New York State Standards and Specifications for Erosion and Sediment Control.

Silt Fence

A temporary barrier of geotextile fabric (filter cloth) fence shall be used to intercept sediment-laden runoff along the borders of disturbed site areas during construction. A geotextile fabric fence shall also be placed around all permanent stormwater drainage structures, in the absence of straw bale dikes, (catch basins and manholes) to intercept sediment and protect the structure during construction. The geotextile filter fabric fence requires periodic maintenance and should be checked for tears or clogging with silt or debris. Silt can be removed from the woven filter cloth with a stiff brush if clogging occurs.

Stabilized Construction Entrance

A stabilized pad of aggregate underlain with filter cloth shall be positioned at points where traffic will be entering or leaving the construction site area onto public roads. This measure will reduce the tracking of soils onto public roads or streets.

Dust Control

Construction activities should be scheduled to minimize the amount of disturbed area at a single time. If vegetated areas can be left in tact to serve as a buffer zone these areas should be maintained where practical. During dry conditions, open soil areas may require hosing down with water to prevent excessive dust. Spray adhesives may be utilized as outlined in the NYS Standards and Specifications for Erosion and Sediment Control. Fences or vegetation may be required to minimize dust pollution to adjacent

properties and should be incorporated into the site erosion control plan as required.

Drop Inlet Protection(if required)

A temporary, somewhat permeable barrier shall be installed around inlets in the form of a fence, berm, or excavation around an opening, trapping water and to prevent heavily sediment laden water from entering a storm drain system through inlets. The barrier should be inspected after each rain event and repairs shall be made as necessary. Upon stabilization of the drainage area, remove all materials and unstable sediment and dispose of properly. Bring the area around the drop inlet to grade, smooth and compact and stabilize in the appropriate manner to the site.

Maintenance of Temporary and Permanent Control Structures

Temporary and Permanent Stormwater Facilities during Construction

Temporary stormwater and erosion control structures must be constructed in accordance with their design intent and maintained to prevent sediment-laden runoff from leaving the site during construction. In general, the temporary structures during construction should be inspected on a routine basis and maintained as follows:

- Temporary silt fences, straw bale dikes, and sediment interceptors shall be installed prior to earth disturbance to reduce runoff velocity and transportation of sediment. The stabilization structures shall be inspected weekly and after every rainfall; and the structures cleaned, repaired, or replaced as required. Temporary stabilization structures shall be removed when their contributory drainage area is stabilized.

- All permanent drainage structures, installed as part of the site improvements, shall be inspected weekly and after every rainfall to insure structural integrity, detect vandalism and damage, and for cleaning. Permanent drainage structures shall be repaired or replaced, as required.

- All disturbed soil areas, upon final grading of topsoil, shall be seeded, and mulched. All seeded areas shall be inspected monthly and after every rainfall and the areas repaired and re-seeded, as required.

- Stabilized construction entrance shall be installed to control erosion at location where traffic will be entering or leaving the construction area. The temporary construction entrance shall be inspected periodically and after each rainfall; and the entrance cleaned, repaired, or replaced, as required. The temporary construction entrance shall be removed when construction is completed and all disturbed areas are stabilized.

Permanent Stormwater Facilities after Construction

Permanent stormwater control structures must be constructed in accordance with their design intent and maintained on a routine basis to remain effective. This site has employed stormwater management facilities. Prior to submission of the Notice of Termination to NYSDEC the contractor shall provide as built drawings of all stormwater best management practices and facilities to allow verification of construction in compliance with this SWPPP and the contract drawings. **It is the responsibility of the owner to maintain these facilities as required by the NYS Stormwater Design Manual. Maintenance requirements and design information is included in Appendix K of this report.**

In general, the structures after construction should be inspected periodically and maintained as follows:

- Permanent stormwater drainage structures shall be inspected semi-annually and after every 0.5 inches of rainfall to insure structural integrity, detect vandalism and damage, and for cleaning. The structures shall be repaired or replaced, as required.

- Permanent lawns and grassed areas shall be inspected and maintained on a regular basis, consistent with favorable plant growth, soil, and climatic conditions to insure soil protection and structural integrity of the site's plant cover. Maintenance involves regular seasonal work for mowing, fertilizing, liming, watering, pruning, fire controls, weed, and pest control, re-seeding, and timely repairs, as required. Maintenance of vegetative areas shall also include removal of debris and protection from unintended uses or traffic.

- **Stormwater Best Management Practices used on this site; their design intents and inspection and maintenance punch list forms have been included in Appendix K.**

Site Stabilization

The Owner/Contractor shall initiate stabilization measures as soon as practicable in a portion of the site where construction activities have temporarily or permanently ceased, but in no case more than 7 days after the construction activity in that portion of the site has temporarily or permanently ceased. This requirement does not apply in the following instances:

a. Where the initiation of stabilization measures by the 7th day after construction activity temporarily or permanently ceased is precluded by snow cover or frozen ground conditions, stabilization measures shall be initiated as soon as possible;
b. Where disturbed area is 5 acres or more, stabilization measures must be employed no more than 7 days after construction activities have temporarily or permanently ceased.

Site Assessment and Inspection

Initial Inspection

The Owner shall have a qualified professional conduct an assessment of the site prior to the commencement of construction. The qualified professional shall certify that the appropriate erosion and sediment controls described in this SWPPP and required by the permit have been adequately installed or implemented to ensure overall preparedness of the site for commencement of construction. The “qualified professional” shall meet the requirements of the SPDES General Permit for Stormwater Runoff from Construction Activity, GP-0-15-002.

Post Construction Inspection

The Owner shall have a qualified professional conduct an assessment of the site after construction is complete. The qualified professional shall be a Licensed Professional Engineer or possess the appropriate certifications for inspection. The qualified professional shall certify that the appropriate erosion and sediment controls and stormwater BMP’s described in this SWPPP and required by the permit have been adequately installed or implemented to ensure overall preparedness of the site for commencement of construction. The “qualified professional” shall meet the requirements of the SPDES General Permit for Stormwater Runoff from Construction Activity, GP-0-15-002. If the site is located in an area governed by a traditional MS4, the MS4 must also make a final inspection and sign the Notice of Termination.

In addition, the owner must ensure that a properly qualified inspector is performing inspections of post construction stormwater practices as outlined in the NYS Stormwater Design Manual. The owner shall ensure that a binding maintenance agreement is in place for inspection and maintenance of all stormwater practices and ensure that the inspection and maintenance is performed by a qualified professional. The owner must then identify the responsible party for these inspections and maintenance on the Notice of Termination.

As-Builts

Prior to Submission of the Notice of Termination by a Licensed Professional Engineer and upon completion of the site, a surveyor or appropriate inspector shall be required to produce an Autocad or paper as-built map to the design engineer for verification that stormwater items and BMP’s were installed as per the approved plans. Topographic as-builts of all overland drainage facilities shall be prepared and submitted to the Engineer for review and approval prior to the execution of the Notice of Termination.

Stormwater BMP Inspection and maintenance punch list forms are provided behind the appropriate design intent page in Appendix K.

Inspections and Records During Construction

Inspection Frequency

After commencement of construction, site inspections shall be conducted by the qualified professional at least once per week if under 5 acres disturbance or twice per week if above 5 acres of disturbance. Two consecutive working days shall be given between site inspections per week. Prior to filing a Notice of Termination (NOT) or at the end of the permit term, the owner shall have the qualified professional perform a final site inspection.

Records During Inspection

A site map shall be maintained on site indicating the extent of all disturbed onsite areas and drainageways throughout the duration of construction. The site map shall contain all areas expected to undergo initial disturbance or significant site work within every 7-day period. The map shall indicate all areas of the site that have undergone temporary or permanent stabilization. All disturbed areas that have not undergone active site work during the previous 7-day inspection period shall be noted on the map. All sediment control measures shall be inspected and the degree of accumulation as a percentage of the sediment storage volume shall be recorded. Inspector must describe and inspect all points of discharge to natural surface water bodies located within, or immediately adjacent to property boundaries. Photographic record of inspections and any deficiencies shall be included in the inspection reports and photos of corrective action must be recorded upon compliance. Any maintenance required for installed erosion and sediment control structures shall be noted, and documentation of areas where adjustments are needed to those measures shall be provided. Any deficiencies identified with the implementation of the SWPPP shall be recorded. Erosion control measures shall be inspected weekly by a Licensed Professional Engineer or Erosion Control Specialist until the site is completely stabilized. Inspections and maintenance of erosion control structures shall be in accordance with the NYS Pollution Discharge Elimination System for Construction Activities GP-0-15-002 (SPDES) program. These inspection reports should be in compliance with the requirements set forth under part IV.C-4 of the general permit. A copy of the general permit is included in Appendix J.

Inspection Log Book

The Owner/ contractor shall maintain an inspection logbook which shall contain a record of all inspection reports. The site logbook shall be maintained **on site** and shall be made available to the permitting authority upon request. The Owner shall post at the site, in a publicly accessible location, a summary of the site inspection activities on a monthly basis.

Certifications

At the final site inspection the qualified professional shall certify that the site has undergone final stabilization using either vegetative or structural stabilization methods, and that all temporary erosion and sedimentation measures have been removed. Final certification requires completion of the Notice of Termination form. The Notice of Termination shall be signed by the qualified professional. The owner shall provide the

qualified professional with **as built drawings in AutoCAD** format so that the qualified professional can verify that all stormwater practices have been installed in accordance with the approved plans, SWPPP and the General Permit. The owner shall certify that the requirements of the permit have been satisfied within 48 hours of actually meeting such requirements and sign the Notice of Termination.

RELIANCE

Engineer's Certification

The undersigned agrees that this SWPPP has been prepared in accordance with all applicable standards outlined in this report. The undersigned understands that the owner intends to use this SWPPP to support his application for a New York State Pollutant Discharge Elimination System (SPDES) General Permit for Stormwater Runoff from Construction Activity, GP-0-15-002.

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that false statements made herein are punishable as a class A misdemeanor pursuant to Section 210.45 of the Penal Law."

Prepared By: _____ Date: 10/21/16

Helen J. Caster
RZ Engineering, PLLC
6320 Fly Road, Suite 109
East Syracuse, NY 13057
(315) 432.1089

Reviewed By: _____ Date: 10/21/16

Rudy L. Zona, P.E.
RZ Engineering, PLLC
6320 Fly Road, Suite 109
East Syracuse, NY 13057
(315) 432.1089

Owner's Certification

"I hereby certify under penalty of law that I understand and agree to comply with the terms and conditions of the SWPPP and agree to implement any corrective actions identified by the qualified inspector during a site inspection. I also understand that the owner or operator must comply with the terms and conditions of the most current version of the New York State Pollutant Discharge Elimination System ("SPDES") general permit for stormwater discharges from construction activities and that it is unlawful for any person to cause or contribute to a violation of water quality standards. Furthermore, I am aware that there are significant penalties for submitting false information, that I do not believe to be true, including the possibility of fine and imprisonment for knowing violations"

Owner: Community Potential, Inc. - David K. Tanenhaus, President

Owner's Representative: _____ Date: 10/25/16

Title: PRESIDENT

The owner or operator shall have each of the contractors and subcontractors identified on the following pages sign a copy of the following certification statement below before they commence any construction activity:

"I hereby certify under penalty of law that I understand and agree to comply with the terms and conditions of the SWPPP and agree to implement any corrective actions identified by the qualified inspector during a site inspection. I also understand that the owner or operator must comply with the terms and conditions of the most current version of the New York State Pollutant Discharge Elimination System ("SPDES") general permit for stormwater discharges from construction activities and that it is unlawful for any person to cause or contribute to a violation of water quality standards. Furthermore, I am aware that there are significant penalties for submitting false information, that I do not believe to be true, including the possibility of fine and imprisonment for knowing violations"

In addition to providing the certification statement above, the certification page must also identify the specific elements of the SWPPP that each contractor and subcontractor will be responsible for and include the name and title of the person providing the signature; the name and title of the *trained contractor* responsible for SWPPP implementation; the name, address and telephone number of the contracting firm; the address (or other identifying description) of the site; and the date the certification statement is signed. The *owner or operator* shall attach the certification statement(s) to the copy of the SWPPP that is maintained at the construction site. If new or additional contractors are hired to implement measures identified in the SWPPP after construction has commenced, they must also sign the certification statement and provide the information listed above.

Contractor's / Sub-Contractor's Certification

Contractor's/Sub-Contractor's Certification "I hereby certify that I understand and agree to comply with the terms and conditions of the SWPPP and agree to implement any corrective actions identified by the qualified inspector during a site inspection. I also understand that the owner or operator must comply with the terms and conditions of the New York State Pollution Discharge Elimination System (SPDES) general permit for stormwater discharges from construction activities and that it is unlawful for any person to cause or contribute to a violation of water quality standards. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of the referenced permit and the laws of State of New York and could subject me to criminal, civil and/or administrative proceedings."

Contractor: _____

Contractor's Representative: _____ Date:_____

Title: _____

Signature: _____ Date:_____

Contractor's "trained contractor":_____Date:_____
(must have DEC 4 hr. training, responsible for the daily implementation of SWPPP)
Contractor is responsible for SWPPP components identified:

SWPPP Inspections _____
_____
_____

Address: _____

_____

Phone: _____

Fax: _____

Sub-Contractor: _____

Sub-Contractor's Representative: _____ Date:_____

Title: _____

Signature: _____ Date:_____

Sub-Contractor's "trained contractor":_____Date:_____
(must have DEC 4 hr. training, responsible for the daily implementation of SWPPP)
Sub-Contractor is responsible for SWPPP components identified:
_____
_____
_____

Address: _____

_____

Phone: _____

Fax: _____

Sub-Contractor: _____

Sub-Contractor's Representative: _____ Date:_____

Title: _____

Signature: _____ Date:_____

Sub-Contractor's "trained contractor":_____Date:_____
(must have DEC 4 hr. training, responsible for the daily implementation of SWPPP)
Sub-Contractor is responsible for SWPPP components identified:
_____
_____
_____

Address: _____

_____

Phone: _____

Fax: _____

Sub-Contractor: _____

Sub-Contractor's Representative: _____ Date:_____

Title: _____

Signature: _____ Date:_____

Sub-Contractor's "trained contractor":_____Date:_____
(must have DEC 4 hr. training, responsible for the daily implementation of SWPPP)
Sub-Contractor is responsible for SWPPP components identified:
_____
_____
_____
Address: _____

_____

Phone: _____

Fax: _____

Sub-Contractor: _____

Sub-Contractor's Representative: _____ Date:_____

Title: _____

Signature: _____ Date:_____

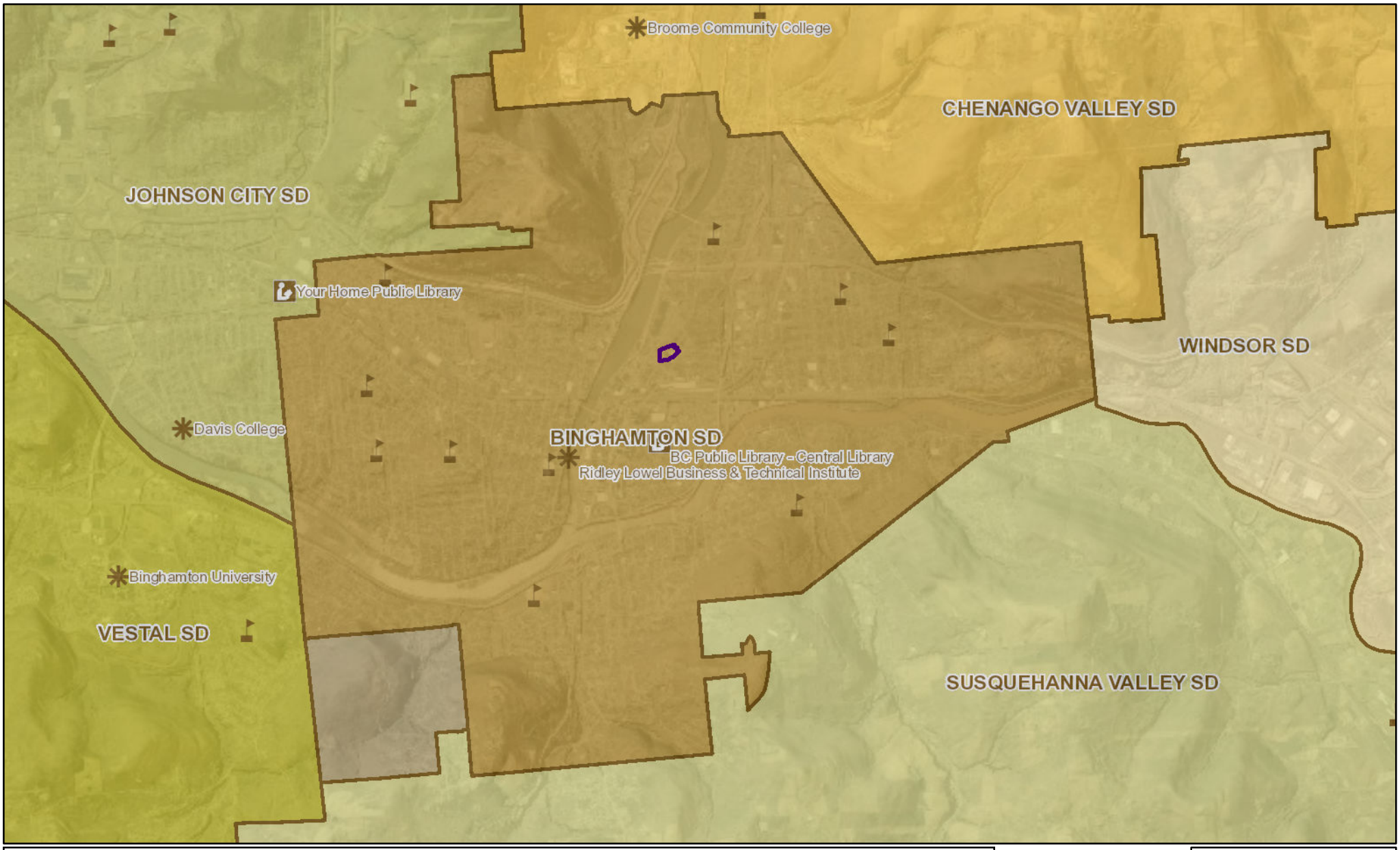
Sub-Contractor's "trained contractor":_____Date:_____
(must have DEC 4 hr. training, responsible for the daily implementation of SWPPP)
Sub-Contractor is responsible for SWPPP components identified:
_____
_____
_____
Address: _____

_____

Phone: _____

Fax: _____

Broome County Education Facilities



Schools
Libraries
Higher Education
AFTON
BAINBRIDGE-GUILFORD
BINGHAMTON
CHENANGO FORKS
CHENANGO VALLEY
CINCINNATUS
DEPOSIT
GREENE
HARPURSVILLE
JOHNSON CITY
MAINE-ENDWELL
MARATHON
NEWARK VALLEY
SOUTH MOUNTAIN
SUSQUEHANNA VALLEY
UNION-ENDICOTT
VESTAL
WHITNEY POINT
WINDSOR

1 inch = 4,055 feet

0 2,500 5,000

ft

Broome County, NY GIS www.bcgis.com

N

DISCLAIMER: Broome County does not guarantee the accuracy of the data presented. Information should be used for illustrative purposes only.

Binghamton City School District
Christopher Columbus School
164 Hawley Street
PO Box 2126
Binghamton, NY 13902-2126
(607) 762-8100
Fax: (607) 762-8112

August 13, 2018

Elaine Miller
Executive Director
Binghamton Housing Authority
35 Exchange Street
Binghamton, NY 13901

Re: 435 State Street Mixed Use Development

Dear Ms. Miller,

This letter is to confirm that the Binghamton School District is the education entity that will provide educational services to school-age children at the project proposed for 435 State Street in the City of Binghamton. The schools servicing this location are as follows:

Elementary School: Theodore Roosevelt Elementary School
9 Ogden Street, Binghamton, NY 13901

Middle School: East Middle School
167 E. Frederick Street, Binghamton, NY 13904

High School: Binghamton High School
31 Main Street, Binghamton, NY 13905

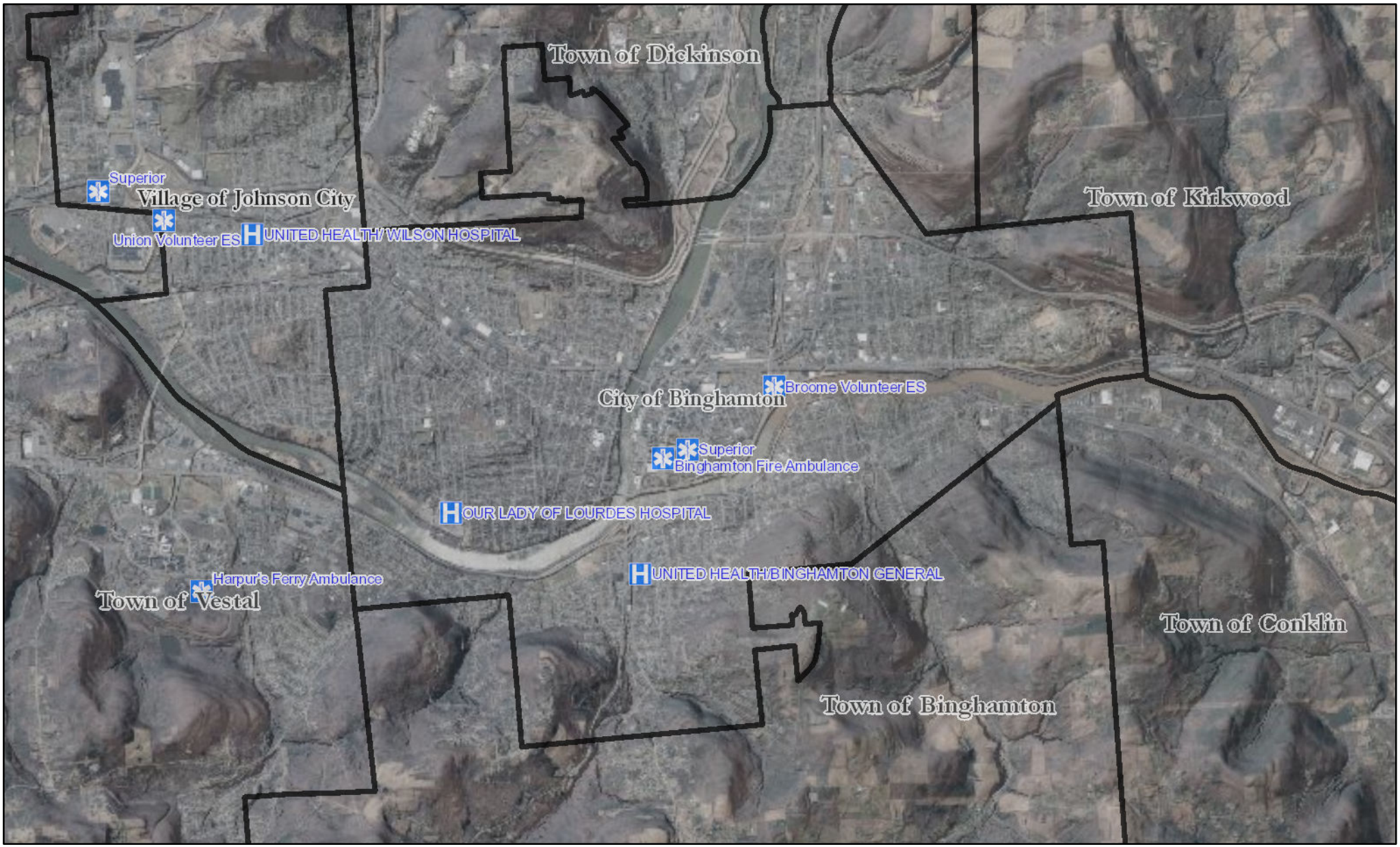
Furthermore, this is to affirm that we have been informed there are 48 one- and two-bedroom apartment units planned at 435 State Street. While my hope is that this project provides adequate housing for families currently living within the city's boundaries, we do anticipate having adequate capacity at our schools for any additional students that the project may bring to the district. Please take into consideration concentrations of families who are socio-economically disadvantaged when looking to build and attract additional families. The Binghamton City School District currently serves the largest population of socio-economically disadvantaged families in the county, with our highest rate of poverty being served by both Theodore Roosevelt and East Middle School. We continue to be challenged to create school communities that do not disproportionately represent one population of students over another. I respectfully ask that you take this into consider when looking to secure future projects.

Sincerely,

Tonia Thompson
Superintendent of Schools

Educating, empowering and challenging all students to become productive, global citizens through innovative approaches to learning.

Broome County Emergency Services



1 inch = 4,055 feet

0 2,500 5,000

ft

Broome County, NY GIS www.bcgis.com

N

Ambulance Squads

Hospitals

DISCLAIMER: Broome County does not guarantee the accuracy of the data presented. Information should be used for illustrative purposes only.

State of New York
County of Broome Government Offices

Department of Public Works
Jason T. Garnar - County Executive · Leslie G. Boulton, PE - Commissioner

August 3, 2018

Binghamton Housing Authority
35 Exchange Street
Binghamton, NY 13901

Attn: Elaine Miller – Executive Director

Re: 435 State Street Mixed Use Development

Dear Ms. Miller,

This letter is to confirm that the Broome County Landfill, operated by the Solid Waste Management Division, is the properly permitted solid waste facility in Broome County. This facility will provide for disposal of both construction debris and ongoing municipal solid waste (MSW) generated from the proposed project at 435 State Street in Binghamton, NY.

Furthermore, this is to affirm that the disposal site has adequate capacity to service the project during construction and ongoing use, and is located at:

Broome County Landfill
286 Knapp Rd
Binghamton, NY 13905

Please do not hesitate to contact me directly if you should have any further questions.

Sincerely,

Leslie G. Boulton, P.E.
Commissioner of Public Works
Broome County DPW

LGB:lgb

Broome County Office Building · 60 Hawley Street · P.O. Box 1766 · Binghamton, New York 13902
Phone: (607) 778-2909 · Fax (607) 778-6051 · www.gobroomecounty.com

Broome County Infrastructure

Manholes
Outfalls
Gravity
Force Main
Storm Sewer
Parcels

1 inch = 126 feet

0 80 160

ft

Broome County, NY GIS www.bcgis.com

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Broome County Infrastructure

Water Valves

Water Mains

Parcels

1 inch = 126 feet

0 80 160

ft

Broome County, NY GIS www.bcgis.com

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DISCLAIMER: Broome County does not guarantee the accuracy of the data presented. Information should be used for illustrative purposes only.

Water/Sewer Department

Mayor, Richard C. David
Joseph M. Yannuzzi
Water/Sewer Superintendent

August 22, 2018

3d Development Group, LLC
4549 Main St., Suite 100
Amherst, NY 14226
716-839-0549

RE: PROJECT – 435 STATE ST

Mr. Bruce Levine,

After reviewing the proposed project and calculated water supply rates, the City of Binghamton Is fully capable of supplying the required water flow to this area.

The City of Binghamton Waste Water System is also fully capable of handling the expected flow rates in our waste water collection system.

When construction begins the City of Binghamton Water Department will be on hand to offer any assistance in making this project as streamlined as possible.

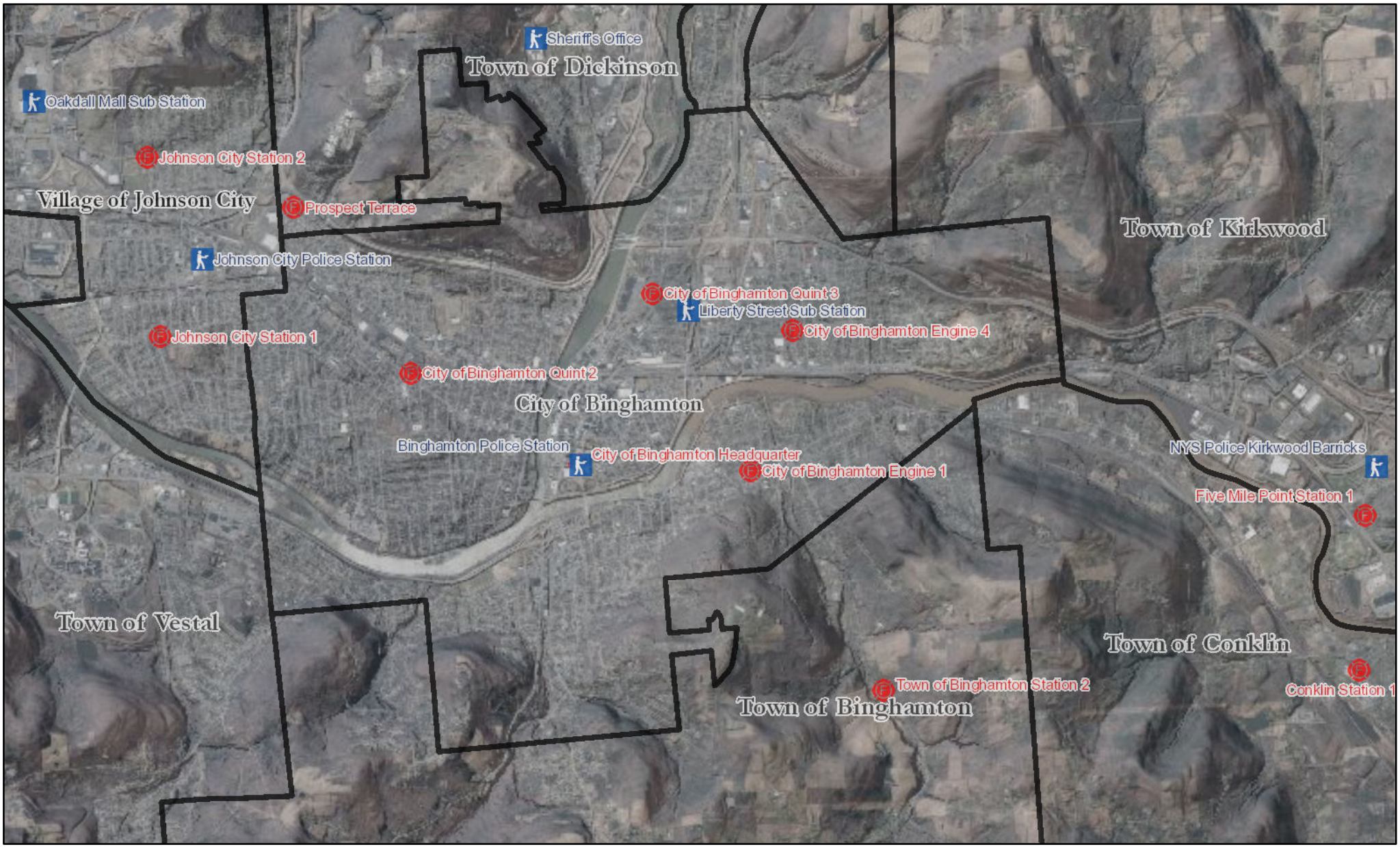
Thank you,

Joseph M Yannuzzi
Water/Sewer Superintendent

Cc: Tom Costello, Ray Standish

25 Broome Street Binghamton, NY
PH: 607-772-7210 FAX: 607-772-7229

Broome County Emergency Services



1 inch = 4,055 feet

0 2,500 5,000

ft

Broome County, NY GIS www.bcgis.com

N

Fire Stations

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