3. ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION

3.1 LAND (GEOLOGY, SOILS, AND TOPOGRAPHY)

The proposed action may have an impact on land. The following potential impacts, identified in the scoping process, are evaluated in this section:

Construction

- Physical alteration of >10-acres of land and construction that continues for more than one year or in multiple phases
- Excavation and removal of more than 1,000 tons of material including removal and disposal of unsuitable fill material and/or impacted soil, if encountered
- Increase in erosion, whether from physical disturbance or vegetation removal (including from treatment by herbicides)

Operation

- No significant adverse impacts anticipated; proposed post-construction conditions will result in an increase in pervious greenspace

3.1.1 Existing Conditions

Soils. Soil mapping for the proposed project area was obtained using the United States Department of Agriculture – National Resource Conservation Service's (USDA NCRS) Web Soil Survey (WSS).[52] Based on data from the WSS, the major soil component within the project footprint consists of "Urban Land," which is defined as areas where at least 50% of the land surface is covered with impervious materials or buildings, including parking lots, shopping centers, industrial parks, highways, and institutional sites (Soil Survey of Oneida County 2008). Minor soil components existing between buildings and other structures consist of Udorthents (6%), Alton (4%), Honeoye (4%), Castile (3%), Lima (3%), Windsor (3%) and Canandaigua (2%). A soil map of the proposed project area is included as Figure 5, and the properties of the soil units are summarized in Table 3, below.

Table 3. Soil Properties within Proposed Project Area

Soil Name	% Project Area	Depth to bedrock (inches)	Percent Slopes	Depth to Seasonal High Water Table (feet)
Major Soils				
Urban Land	75	---	0-5	---
Minor Soils				
Udorthents	6	>60	0-3	Variable
Alton	4	>60	3-8	>6.0
Honeoye	4	>60	2-8	4.0-6.0
Castile	3	>60	0-3	1.5-2.0
Lima	3	>60	0-3	1.5-2.0
Windsor	3	>60	0-3	>6.0
Canandaigua	2	>60	0-3	0-1.0

Source: USDA NRCS Soil Survey of Oneida County, New York (2008)

Geology. Based on data from the WSS, the bedrock underlying the proposed project site consists of Utica Shale. In May 2017, CME Associates, Inc. (CME) performed a screening level geotechnical study (Appendix G) to characterize the stratigraphy and quality of the surrounding area by examining historic boring logs. Results of the geotechnical screening report are summarized in Table 4.

[52] https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm

Table 4. Generalized Subsurface Profile

Approximate Depth Range (feet)	Approximate Thickness (feet)	Deposit Description/Characterization
0 to 10	0 to 10	**Urban Fill**, existing structures, miscellaneous materials, unsuitable soils, random materials and buried or remnant pre-existing topsoil horizon.
2 to 40	7 to 39	**Natural Overburden** soils consisting chiefly of silts and sands with minor proportions of gravel and clay are generally soft to medium compact. In the northern portion of the site, plastic clays, deposited as sediment from a prehistoric lake, intervenes. These clays are subject to compression and long-term consolidation (volume loss). Overburden soils generally exhibit low bearing capacity which may be limited by settlement tolerance.
12 to 44	0 to 6	**Glacial Till** is discontinuous across the project area and where present consists of a mixture of soils overridden by Glacier. Till is generally firm or compact and exhibits moderate bearing capacity. Till contains shale rock in areas.
12 to 44	unknown	**Utica Shale Bedrock** is poor quality and exhibits moderate bearing capacity. The upper several feet of bedrock may exist as highly weathered rock exhibiting little structure and very poor quality and/or decomposed rock consisting of Residual Soil (*i.e.* silt and clay) and/or interlayered rock-like and soil-like materials. Utica Shale may exhibit expansive characteristics.

Source: CME (May 2017)

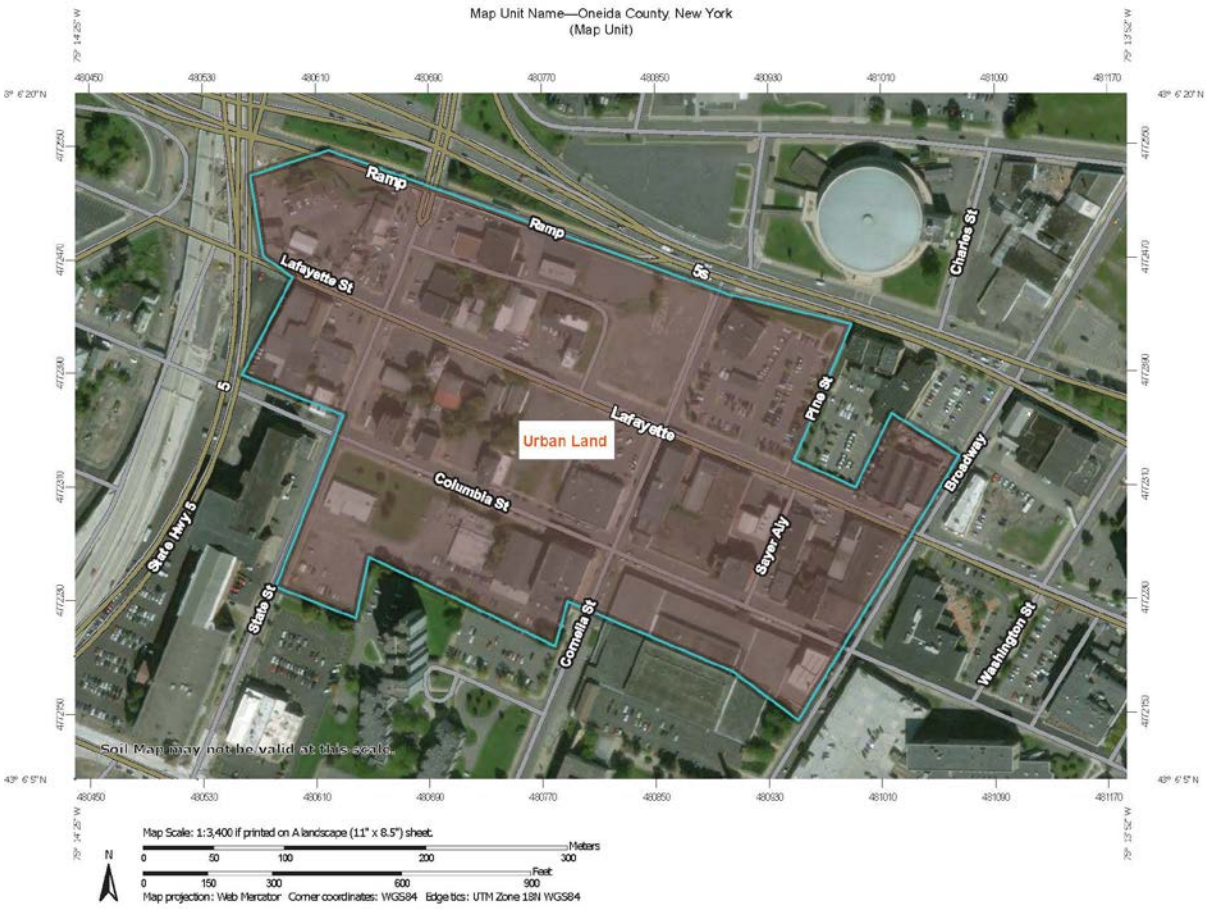


Figure 5. Soil Map

Topography. A topographic survey of the proposed project area was performed by Delta Engineers, Architects & Land Surveyors, DPC (Delta) (Delta 2018). The survey indicates that the site generally slopes from the south to the north towards the Mohawk River, with slopes ranging from 0 to 5% across the site. Elevations range from ±435 feet above mean sea level (amsl) at the southern boundary to ±425 feet amsl at the northern boundary.

3.1.2 Potential Impacts

Precluding implementation and maintenance of appropriate mitigation measures, the following adverse impacts could occur from construction and operation of the project.

Construction[53]

Physical Alteration of Land, Extended Construction, Increases in Erosion

The current foundation design consists of drilled caissons and grade beams, with a non-structural slab; significant adverse impacts on the foundation design from existing geotechnical conditions are not anticipated. Without proper mitigation, construction activities involving the physical alteration of land, such as grading and filling, can drastically reduce soil quality on construction sites, especially over long periods of time. Left unprotected, sites will be further degraded by erosion and begin to adversely affect the surrounding environment both on-site (*e.g.,* loss of topsoil) and off-site (*e.g*., migration of sediments and reduction in water quality).

Excavation of and Disposal of Impacted Soils

Due to the pre-existing urban setting, and information obtained in CME's screening level geotechnical study, it is expected that soils, impacted from past land uses, will be encountered during the construction phase.

Unmitigated, impacted soils can contribute to secondary impacts such as air quality issues, human health consequences to both the construction workers and the public, degradation of surface water and groundwater, and impacts associated with the transport and disposal of such wastes.

Excavation of and Disposal Unsuitable Fill

Excavations from the proposed project area will likely result in the generation of fills (*e.g.,* soils, building ruble and refuse), that are unsuitable for reuse within the project area. In addition to previously described potential erosion and sedimentation impacts, this could potentially require the storage, ultimate removal and disposal of large quantities of fill, leading to: stockpiles of soils and materials and other visual signs of construction that result in longer-term visual changes to the character of the area, use of heavy equipment with high noise levels, generation of truck traffic to and from site, and the influx of fill material and debris to local landfills.

Operation

The buildout of the site is consistent with the pre-existing urban setting; therefore, no significant adverse impacts to the geology or soils are anticipated. Building designs, including foundations, will account for existing subsurface geologic conditions. Proposed post-construction conditions will result in an increase in pervious greenspace.

3.1.3 Mitigation Measures

The following mitigation measures are proposed to minimize or eliminate the potential for, and/or significance of, potential adverse impacts.

[53] The potential for construction phase impacts is typically short-term and limited to the project's construction phase.

Construction

Physical Alteration of Land, Extended Construction, Increases in Erosion

Mitigation measures will be implemented and maintained by the contractor(s) to prevent temporary impacts from soil erosion due to construction-related activities. Project activities requiring site clearing, grading, excavation and trenching operations will include stabilization practices to minimize soil erosion. Coverage under NYSDEC's State Pollutant Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Construction Activity (GP-0-15-002[54]) will be obtained, requiring the preparation, implementation and maintenance of a Stormwater Pollution Prevention Plan (SWPPP). The SWPPP will be prepared in accordance with the New York State Standards and Specifications for Erosion and Sediment Control (2005) and New York State Stormwater Management Design Manual (2015). The SWPPP will include E&SC measures as well as Best Management Practices (BMPs) to prevent stormwater pollutants from migrating off-site and impacting down-gradient surface waters. Mitigation measures and BMPs that may be utilized to limit erosion and sedimentation include:

- Installation of temporary and permanent structural and vegetative measures that will be used to control erosion and sedimentation for each stage of the project from land clearing to the finished stage
- Physically marking limits of land disturbances on the site with tape, signs, or fencing, so that workers can see the areas to be protected
- Diversion of off-site runoff from erodible soils and steep slopes to stable areas
- Sequencing construction activities to avoid mass clearings and gradings, and clearing only what is required for immediate construction activity
- Restabilizing disturbed areas as soon as possible after construction is completed
- Utilization of perimeter sediment control systems (silt fencing, hay bales, *etc.*) around stockpile areas, roadway improvements, and areas within 50 feet of buildings under construction
- Use of plastic or geotextile fabric to prevent soil loss in highly exposed disturbed areas, such a construction entrances/exits
- Appropriate management of chemicals (*e.g.*, herbicides) and petroleum products with spill potential (*i.e.*, secondary containment or storage indoors in sealed, non-leaking containers which have appropriate secondary containment)
- Cleaning and/or sweeping of affected roadways daily, or more frequently if otherwise required based on periodic inspections
- Weekly inspections of E&SCs to ensure Contractor's adherence to SWPPP requirements

In addition, after construction activities are completed, the following restoration measures will be implemented:

- Subsoil will be properly graded and scarified before topsoil is added (loosening the soil surface where heavy equipment has been used by contour furrowing, imprinting with dozer, or scarification to facilitate subsequent vegetative growth or plantings)
- Seeding and mulching (site restoration will occur earlier in areas where no further disturbance is anticipated)
- Temporary erosion control devices will be removed from the site upon final site stabilization.

[54] http://www.dec.ny.gov/docs/water_pdf/gp015002.pdf

Adherence to the General Permit (GP-0-15-002) and associated SWPPP, as well as BMPs identified above should provide sufficient mitigation to eliminate potential significant adverse impacts to land.

Refer to Sections 3.5 – *Aesthetic Resources*, 3.7 – *Transportation*, 3.10 – *Noise and Odor,* and 3.13 – *Solid Waste Management* for further discussion of the mitigation measures associated with physical alteration of land, extended construction and soil erosion.

Excavation of and Disposal of Impacted Soils

Surface and subsurface soils will be sampled and analyzed prior to site disturbance activities. The resulting data will be utilized to prepare soil (and groundwater) management and health and safety plans. The Construction Health and Safety Plan (CHASP) will incorporate measures to protect construction workers and the community from exposure to potential impacted materials. If impacted materials are encountered, they will be removed, transported and disposed at an approved off-site facility in accordance with applicable local, state and federal regulations. Removal of any encountered ASTs and USTs will be conducted in accordance with NYSDEC-regulated PBS and/or CBS closure requirements. E&SCs outlined above will be maintained throughout the construction phase (start-up through site restoration). Adherence to these requirements should provide sufficient mitigation to eliminate potential significant adverse impacts related to land.

Refer to Sections 3.2 – *Surface Waters*, 3.3 – *Groundwater*, 3.4 – *Air,* 3.11 – *Human Health,* and 3.13 – *Solid Waste Management* for further discussion of the mitigation measures associated with impacted soils.

Excavation of and Disposal Unsuitable Fill

An organized, integrated and systematic approach to effectively address spoil management issues during the project will be implemented to mitigate potential impact. Contractor(s) will be required to adhere the following guidelines:

- Spoils generated during the project will be managed in accordance with the hierarchy of avoidance, minimization, reuse, recycling and, ultimately, disposal
- Material, which can be re-used on-site but cannot be directly re-placed, will be stored in designated stockpile areas. Where space is restricted material may require temporary storage off-site prior to re-use
- E&SC measures, as well as BMPs to prevent stockpiles of fill from migrating off-site and impacting down-gradient surface waters, will be utilized, as discussed above.

This approach should provide sufficient mitigation to eliminate potential significant adverse impacts on land from the excavation, management and disposal of unsuitable fill.

Refer to Sections 3.5 – *Aesthetic Resources*, 3.7 – *Transportation*, 3.10 – *Noise and Odor*, and 3.13 – *Solid Waste Management* for further discussion of mitigation measures associated with unsuitable fill.

Operation

No significant adverse operation phase impacts on land are anticipated; therefore, no special mitigation measures are warranted.

3.2 SURFACE WATER

The proposed action may have an impact on surface water. The following potential impacts, identified in the scoping process, are evaluated in this section:

Construction

- Potential temporary impacts (sediment-laden runoff) to surface waters from demolition/construction activities including ground disturbances (*e.g.*, excavation or installation of utilities), construction of facilities, grading, and landscaping

- Potential to encounter impacted surface/groundwater due to past land use(s)

Operation

- Potential impacts on stormwater runoff including existing combined sewer overflows (CSOs)
- Potential impacts from outdoor storage of materials (if any) and runoff from impervious areas (including rooftops and parking lots)

3.2.1 Existing Conditions

Surface Water Features. As indicated on Figure 6, the proposed project area is located in the vicinity of several water bodies. The Mohawk River is located approximately one-third of a mile north of the project site's northern boundary. The Mohawk River serves as one of the primary feed waters for the NYS Barge Canal System, which is located immediately adjacent to the river, and is connected to the river by a series of locks and dams. Surface water runoff from the project site is currently collected in a series of storm sewers and combined CSOs[55], which ultimately convey runoff to the river and canal.

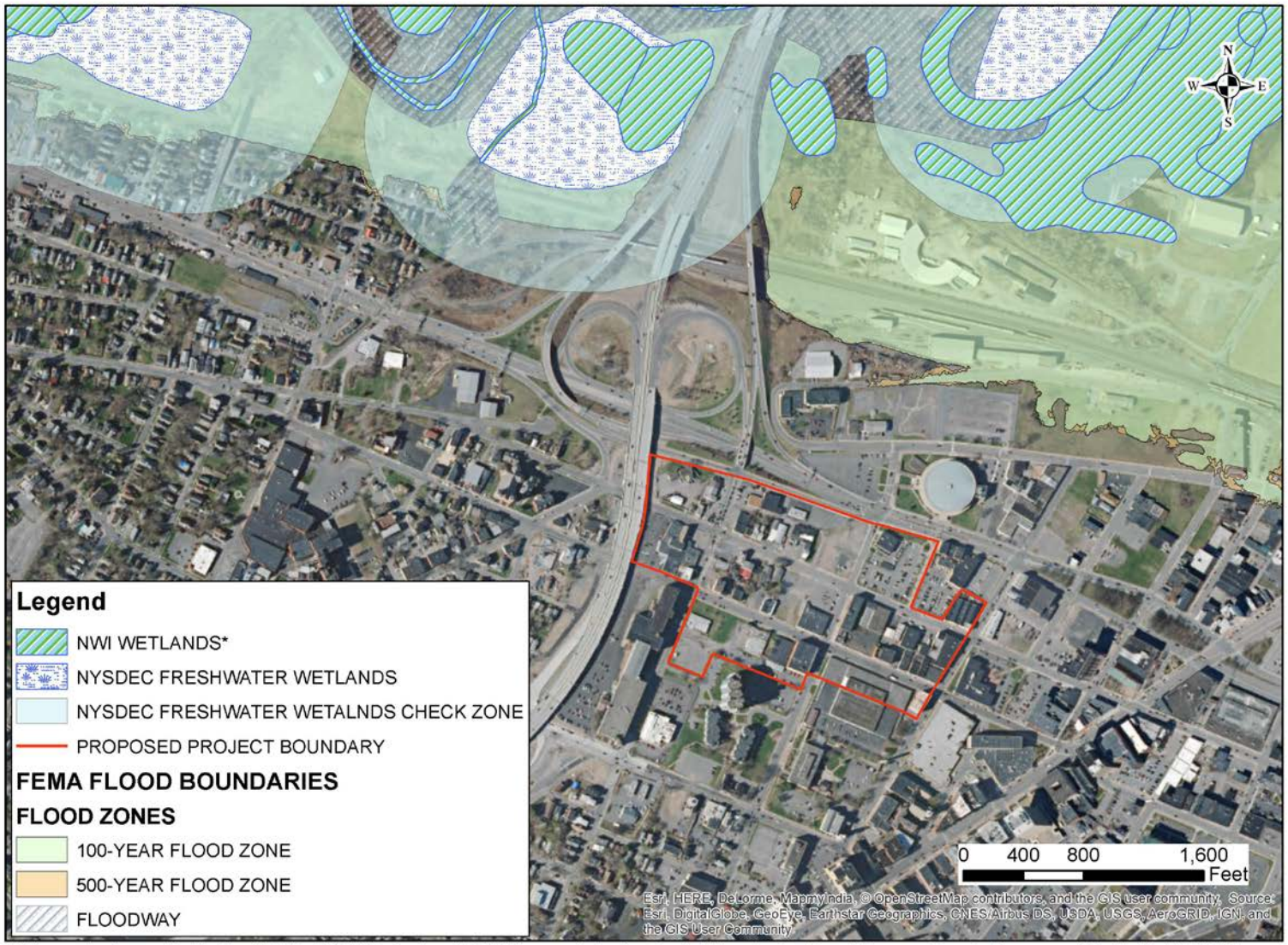
Surface Water Quality. Based on a review of NYSDEC's Final 2016 Clean Water Act (CWA) Section 303(d) List of Impaired/Total Maximum Daily Load (TMDL) Waters56, the Mohawk River Segment H-240 (portion 12), the NYS Barge Canal (portion 12a), and Utica Harbor (portion 12b), located downgradient from the proposed project area, are all listed as impaired water bodies for specific pollutants, as identified in Table 5, below.

Freshwater Wetlands. Based on a review of the NYSDEC-published freshwater wetlands mapping (Figure 6), no New York State (NYS)-jurisdictional freshwater wetlands (and associated check zones/buffers) were identified within or immediately adjacent to (*i.e.,* 100 feet) the project area. Additionally, the National Wetlands Inventory (NWI)[57] mapping, which provides an indication of potential federal wetlands, was reviewed. Based on a review of the NWI maps, which was supported by field reconnaissance by a wetland biologist, no potential federal wetlands were identified within or proximal to the project area (Figure 6).

Floodplains. The Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) for the project area (Community Panel No. 36065C0751F effective September 27, 2013, Panel 751 of 926, Suffix F)[58] was reviewed to evaluate flood potential within the project area. Based on the current map (Figure 6), the project area is located near, but not within or contiguous to, the 100-year flood hazard area associated with the Mohawk River and Barge Canal.

While no recent flooding has occurred within the project area, a July 2017 rain event forced the temporary closure of the adjacent North-South Arterial from Oriskany Street to Burrstone Road.

[55] See Section 3.9 regarding recent City-sponsored infrastructure efforts to decrease CSO events in the vicinity of the project site.
[56] http://www.dec.ny.gov/docs/water_pdf/303dListfinal2016.pdf
[57] NWI mapping is provided by the US Fish & Wildlife Service (USFWS) as an indicator of potential wetlands. Descriptions and boundaries are provided by the USFWS for informational purposes only. Permitting requirements are based on actual field delineations conducted in accordance with the United States Army Corps of Engineers (USACE) guidelines under Section 404 of the Clean Water Act.
[58] https://msc.fema.gov/portal/home



*NWI mapping is provided by the US Fish & Wildlife Service (USFWS) as an indicator of potential wetlands. Descriptions and boundaries are provided by the USFWS for informational purposes only. Permitting requirements are based on actual field delineations conducted in accordance with the United States Army Corps of Engineers (USACE) guidelines under Section 404 of the Clean Water Act.

Figure 6. Surface Water Features

Table 5. Final 2016 CWA Section 303(d) List of Impaired/TDML Waters

Water Body Name / Segment	Type of Pollutants	Sources of Pollutants
Mohawk River, Main Stem (portion 12)	*Known:* Aesthetics (odors, floatables), Priority Organics (PCBs) Pathogens Metals (copper, other) *Suspected:* Dissolved Oxygen/Oxygen Demand Nutrients Silt/Sediment	*Known:* Combined Sewer Overflow Landfill/Land Disposal (Utica/Leland Ave Landfill) Toxic/Contaminated Sediment *Suspected:* Industrial Urban/Storm Runoff Sanitary Discharges
NYS Barge Canal (portion 12a)	*Known:* Dissolved Oxygen/Oxygen Demand Pathogens *Suspected:* Water Level/Flow Nutrients Priority Organics (PCBs) Silt/Sediment	*Known:* Combined Sewer Overflow *Suspected:* Landfill/Land Disposal Sanitary Discharges Urban/Storm Runoff Agriculture Hydro Modification Streambank Erosion Toxic/Contaminated Sediment
Utica Harbor (portion 12b)	*Known:* Aesthetics (odors, floatables), Priority Organics (PCBs, PAHs, *etc.*) Pathogens *Suspected:* Dissolved Oxygen/Oxygen Demand Metals (copper, other) Silt/Sediment	*Known:* Combined Sewer Overflow Landfill/Land Disposal (Niagara Mohawk/Harbor Point) Toxic/Contaminated Sediment *Suspected:* Urban/Storm Runoff

Source: NYSDEC (2016)

3.2.2 Potential Impacts

Barring implementation and maintenance of appropriate mitigation measures, the following adverse impacts could occur from construction and operation of the project.

Construction

Surface Water Features/Quality

If left unmitigated, demolition/construction activities including ground disturbances (*e.g.*, excavation or installation of utilities), construction of roads and facilities, grading, and landscaping could result in temporary impacts to surface water quality (sedimentation) of downgradient waterbodies (*i.e.*, Mohawk River, NYS Barge Canal, freshwater wetlands).

Excavation of and Disposal of Impacted Soils

As previously discussed in Section 3.1.2, due to the pre-existing urban setting, and information obtained in CME's screening level geotechnical study, it is expected that impacted soils from past land uses will be encountered during the construction phase. If unmitigated, these soils could become exposed to stormwater and conveyed off-site, potentially reaching downgradient surface waterbodies (*i.e.*, Mohawk River, NYS Barge Canal, freshwater wetlands), some of which are currently impaired. This would compound the effects of already

contributing known and suspected pollutant types (aesthetics, priority organics, pathogens, silt/sediment, metals, nutrients, water levels) and sources (CSO, toxic/contaminated sediment, sanitary discharges, urban/stormwater runoff), which could lead to the further contravention of New York State water quality standards.

Operation

Stormwater Runoff, CSOs

Potential increases in stormwater runoff at full buildout could exacerbate flood potential to downgradient areas during storm events.

As urban development increases, impervious surfaces like concrete and asphalt cover more and more area. These surfaces prevent water from percolating into the ground and disrupt the natural water cycle. The amount of stormwater runoff in areas with these surfaces is much higher than natural, undeveloped areas. Left unmitigated (water quantity and quality), this disruption can have detrimental environmental impacts on the surrounding area and the groundwater table.

Outdoor Storage of Materials

Based on the preliminary design, the IHC will be served by one 50,000-gallon UST containing fuel oil, to serve as a secondary fuel source for the facility's boilers, and a primary fuel source for the facility's emergency generators. Additionally, the hospital will have support equipment and containers (*i.e.,* elevator reservoirs, transformers, emergency generator crank cases, *etc.*) containing petroleum based oils. Left unmitigated, spills or leaks from these facilities could negatively affect stormwater quality.

3.2.3 Mitigation Measures

The following mitigation measures are proposed to minimize or eliminate the potential for, and/or significance of, potential adverse impacts.

Construction

Surface Water Features/Quality

As previously described in Section 3.1.3, it is anticipated that coverage under the General Permit (GP-0-15-002) will be required. Therefore, a SWPPP (and E&SC Plan) will also be prepared and implemented in accordance with the General Permit as well as New York State guidance documents. Preparation and implementation of the SWPPP will include stormwater management practices and components to control the post-construction rate and quality of runoff, as well as measures to minimize sedimentation to downgradient surface waters during construction.

Adherence to the requirements of the General Permit (GP-0-15-002) and associated SWPPP should provide sufficient mitigation to eliminate potential significant adverse impacts related to adjacent surface waters.

Excavation and Disposal of Impacted Soils

If impacted materials are encountered they will be promptly removed and disposed of at an approved off-site facility in accordance with applicable local, state and federal regulations. If it is not possible to remove all contaminated soils at one time, BMPs identified in the site-specific SWPPP will be utilized to prevent the materials from being exposed to stormwater.

Adherence to these requirements should provide sufficient mitigation to eliminate potential significant adverse impacts related to adjacent surface waters.

Operation

Stormwater Runoff, CSOs

Due to the existing urban nature of the proposed site, the majority of the land is already covered with impervious materials with few exceptions. The project proposes to increase the amount of pervious area in comparison to existing conditions (*i.e.*, an increase in greenspace). Consequently, the amount of runoff is expected to decrease under the proposed buildout. However, the project sponsor will still be required to control the rate of runoff, as well as the quality of runoff, from the site as indicated below.

To mitigate impacts on the rate of and quality of stormwater runoff from the site during operations, the following practices, designed in accordance with Chapter 9 of the NYS Stormwater Design Manual for redevelopment projects, will be implemented:

- Treatment of 75% (at minimum) of stormwater from disturbed areas with proposed impervious surfaces.
- The water will be treated by Vortech Treatment Units (see Appendix I) as approved by NYSDEC, which will be placed at each connection point to the City's existing stormwater system. The proposed Vortech Treatment Units provide treatment by a swirl concentrator that separates trash, sediment, and hydrocarbons from the stormwater runoff. The units provide a sump for cleanout, which becomes part of the site-specific Operations and Management (O&M) plan. The units are placed inline on the outlet of each stormwater conveyance system prior to connection with the City of Utica's stormwater system. The unit is installed below grade and provides access for inspection and cleanout.

In addition to project-specific efforts to mitigate potential project-related impacts on and from stormwater runoff, the City of Utica is implementing a program to reduce CSOs within the City system; these efforts are summarized in Section 3.9.

Outdoor Storage of Materials

Based on anticipated project fuel storage needs, MVHS could be subject to both federal and state regulations governing the design and registration of underground storage tanks (USTs) and other oil containers. The following regulations could apply:

- United States Environmental Protection Agency (USEPA) Underground Tank Regulations - 40 CFR Part 280
- USEPA Oil Pollution Prevention – 40 CFR Part 112
- NYS Petroleum Bulk Storage (PBS) – 6 NYCRR Part 613

Installation and operation of tanks will be conducted in accordance with applicable NYSDEC regulations, including design requirements. Stationary fuel tanks and associated unloading areas will be designed with secondary containment specifications in accordance with federal and state regulations to minimize the potential for release, including the preparation of a Spill Prevention, Control & Countermeasure (SPCC) Plan, and PBS registrations.

Adherence to federal and state regulations should provide sufficient mitigation to eliminate potential significant adverse impacts related to adjacent surface waters.

3.3 GROUNDWATER

The proposed action may have an impact on ground water. The following potential impacts, identified in the scoping process, are evaluated in this section:

Construction

- Potential impacts to groundwater associated with dewatering during construction activities
- Potential to encounter aboveground and/or underground storage tanks (ASTs and USTS, respectively) during demolition/excavation activities, as well as, impacted soil/groundwater from past land use(s)

Operation

- Potential impacts relating to the bulk storage of oil/fuel and/or chemicals

3.3.1 Existing Conditions

Groundwater Elevation. Groundwater elevations within the project area were obtained from both the Soil Survey of Oneida County (NRCS *et al.*, 2007), and CME's 2017 screening level geotechnical investigation (Appendix G). Data from both resources indicated that the water table varies throughout the project area. As shown in Table 3, approximate depths to groundwater based on the soil survey range from the surface to greater than 6 feet, depending on the soil type. Results of the geotechnical screening report regarding groundwater observations are as follows:

- The historic groundwater observations indicate a hydraulic gradient oriented approximately northerly at 10 feet to 20 feet below existing grade. The groundwater table may be a confined aquifer in areas, and if the upper confining layer is removed or penetrated, artesian conditions may be exposed. At the City Courthouse, once the confining layer was removed to accommodate a basement level, groundwater flowed vertically upward inside parts of the sheeted excavation creating a quick-sand condition. At the City Hall Project, construction delays and difficult dewatering conditions were reported by the inspecting engineer during drilled pier foundation construction (Appendix G).

Groundwater Quality. The project is located in an existing urban environment with a history of prior industrial use (see Section 3.6). Although the existing quality of the groundwater within the project area is uncertain, it is anticipated, based upon information obtained in CME's screening level geotechnical study, as well as records of past industrial land uses, storage tanks, and spills, that soils and/or groundwater adversely impacted from past land uses will be encountered during the construction phase.

Sole Source Aquifers. According to the USEPA's interactive map of Sole Source Aquifers[59], no Sole Source Aquifers exist within the vicinity of the project area. In addition, based on NYSDEC-published data, no primary aquifers[60] exist within the project area.[61]

3.3.2 Potential Impacts

Precluding implementation and maintenance of appropriate mitigation measures, the following adverse impacts could occur from construction and operation of the project.

Construction

Dewatering

Based upon CME's screening level geotechnical investigation, groundwater will likely be encountered during construction activities, which may require dewatering to accomplish the work. Dewatering can lead to a multitude of impacts including geotechnical impacts, contamination, and water dependent impacts. Geotechnical impacts include ground settlements, potentially resulting in distress or damage to surrounding structures. Contamination can occur by drawing groundwater through contaminated soils, or if the existing groundwater is already contaminated, creating a waste that must be managed. Water dependent feature impacts can result from depleting or drawing down aquifers that serve as sources to surface waterbodies such as wetlands, rivers and streams, or that are used as drinking water supplies.

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[59] https://epa.maps.arcgis.com/apps/webappviewer/index.html?id=9ebb047ba3ec41ada1877155fe31356b

[60] Primary aquifers are defined in the NYSDEC's Division of Water Technical & Operational Guidance Series (TOGS) 2.1.3 as "highly productive aquifers presently utilized as sources of water supply by major municipal water supply systems." (http://www.dec.ny.gov/docs/water_pdf/togs213.pdf)

[61] http://www.dec.ny.gov/docs/water_pdf/primary.pdf

Impacted Soils/Groundwater

As previously discussed in Section 3.1.2, the potential exists to encounter impacted soils caused by past industrial land uses, such as leaking ASTs and USTs. If dewatering is required, groundwater could be exposed to such soils, thereby impacting the water. Additionally, groundwater that was previously impacted could be drawn to the surface. Impacted groundwater could result in secondary impacts including air quality issues, human health consequences, and creation of a waste stream that must be managed off-site.

Operation

Bulk Storage of Oil/Fuel and/or Chemicals

As previously discussed in Section 3.2, potential exists that the hospital may require the storage of fuels to support facility operations, which could potentially impact groundwater resources in the event of a leak or spill. Based on the preliminary design, the IHC will be served by one 50,000-gallon UST containing fuel oil, to serve as a secondary fuel source for the facility's boilers, and a primary fuel source for the facility's emergency generators. Additionally, the hospital will have support equipment and containers (*i.e.,* elevator reservoirs, transformers, emergency generator crank cases, *etc.*) containing petroleum-based oils. These equipment/ tanks/containers could negatively affect groundwater quality in the event of a spill or leak.

3.3.3 Mitigation Measures

The following mitigation measures are proposed to minimize or eliminate the potential for, and/or significance of, potential adverse impacts.

Construction

Dewatering

Prior to commencing the work, a geotechnical investigation will be completed to assess and identify the most significant potential groundwater impacts that could result from the proposed dewatering. The geotechnical investigation will address the following:

- The types of groundwater aquifers and potential vulnerability to groundwater impacts
- The depth and extent of excavation, and proposed method(s) of groundwater control
- The presence of any nearby sensitive groundwater receptors (*e.g.*, third party wells, *etc.*)
- The geotechnical properties at the site (existing fills, compressibility of the strata, *etc.*)
- The presence of any groundwater contamination in the vicinity of the site.

If it's determined that the volume of groundwater to be withdrawn will be greater than an average of 100,000 gallons per day (GPD) in any consecutive thirty-day period (*i.e.,* 3 million gallons during a 30-day period), a water withdrawal permit will be obtained through the NYSDEC in accordance with 6 NYCRR Part 601. If the quantity of water to be withdrawn is less, the project will be exempt from NYSDEC water withdrawal permitting; however, management of groundwater will still be controlled by appropriate measures in accordance with the General Permit (GP-0-15-002) and associated SWPPP (as discussed in Section 3.1.3 and 3.2.3), in addition to site-specific engineering practices.

The following site-specific engineering measures could be applied as needed to minimize the impacts associated with dewatering:

- Artificial Recharge – Groundwater from the pumped discharge can be re-injected back into the ground either to prevent lowering of groundwater levels and corresponding ground settlement, or to prevent depletion of groundwater resources. This will prevent the possibility of depleting groundwater resources and will avoid any geotechnical issues associated with lowering the groundwater table

- Temporary or Permanent Barriers – Sheet steel piles or grout curtains can temporarily or permanently be installed to prevent groundwater from entering construction areas

Adherence to NYS requirements for groundwater withdrawals, adherence to the General Permit (GP-0-15-002) and associated SWPPP, and site-specific engineering practices should provide sufficient mitigation to eliminate potential significant adverse impacts related to groundwater from dewatering activities.

Impacted Soils/Groundwater

Surface and subsurface soils and encountered groundwater will be sampled and analyzed prior to the initiation of site disturbance activities. The resulting data will be utilized to prepare construction phase soil and groundwater management pans, as well as the CHASP. If groundwater is encountered, it will be characterized to identify the appropriate method of management. If determined to be impacted, it will be managed and disposed of off-site in accordance with applicable local, state, and federal requirements. If deemed clean, the groundwater will be managed in accordance with standard dewatering practices identified in the General Permit and site-specific SWPPP, as previously discussed in Sections 3.1.3 and 3.2.3.

Refer to Sections 3.4 – *Air*, 3.11 – *Human Health*, and 3.10 – *Solid Waste Management* for further discussion on mitigation measures related to impacted soils and/or groundwater.

Operation

Bulk Storage of Oil/Fuel and/or Chemicals

Design, installation and operation of bulk storage tanks will be conducted in accordance with applicable NYSDEC regulations. Stationary fuel tanks and associated unloading areas will be designed with secondary containment specifications in accordance with federal and state regulations to minimize the potential for release, including the preparation of an SPCC Plan and PBS registration, if regulatory quantity thresholds are met or exceeded.

Adherence to federal and state regulations should provide sufficient mitigation to eliminate potential significant adverse impacts related to groundwater.

3.4 AIR

The proposed action may have an impact on air. The following potential impacts, identified in the scoping process, are evaluated in this section:

Construction

- Dust generation during construction (including demolition activities)
- Short-term emissions from construction equipment
- Excavation and management of impacted soils/groundwater (potential secondary impacts from Sections 3.1 – *Land*, 3.2 – *Groundwater*, and 3.3 – *Surface Waters*)

Operation

- Operation phase emissions including combustion sources (*e.g.*, boilers, emergency back-up generators) and process sources (*e.g.*, sterilizers, refrigeration equipment)
- The proposed action will include state regulated air emission sources
- Potential increase in mobile source emissions due to project-related increases in traffic and road closures

3.4.1 Existing Conditions

In New York State, air quality is regulated by the NYSDEC. Pursuant to the 1970 Clean Air Act and the 1977 and 1990 Clean Air Act Amendments, the USEPA has established National Ambient Air Quality Standards (NAAQS) to protect public health and welfare. Currently, NAAQSs exist for six criteria pollutants: particulate matter (PM_{10} and $PM_{2.5}$), carbon monoxide (CO), sulfur oxides (SO_x), nitrogen dioxide (NO_2), ozone (O_3) and lead (Pb). Primary

standards were established to protect more "sensitive" groups (*e.g.,* children), while secondary standards were developed to protect public welfare (*e.g.,* crops, vegetation).

A summary of NAAQS is provided below:

Table 6. NAAQS

Pollutant		Primary/ Secondary	Averaging Time	Level	Form
Carbon Monoxide		Primary	8-hour	9 ppm	Not to be exceeded more than once per year
			1-hour	35 ppm	
Lead		Primary and Secondary	Rolling 3-month average	0.15 μg/m^3	Not to be exceeded
Nitrogen Dioxide		Primary	1-hour	100 ppb	98th percentile, averaged over 3 years
		Primary and Secondary	Annual	53 ppb	Annual Mean
Ozone		Primary and Secondary	8-hour	0.070 ppm	Annual fourth-highest daily maximum 8-hr concentration, averaged over 3 years
Particulate Matter	**$PM_{2.5}$**	Primary	Annual	12 μg/m^3	annual mean, averaged over 3 years
		Secondary	Annual	15 μg/m^3	annual mean, averaged over 3 years
		Primary and Secondary	24-hour	35 μg/m^3	98th percentile, averaged over 3 years
	PM_{10}	Primary and Secondary	24-hour	150 μg/m^3	Not to be exceeded more than once per year on average over 3 years
Sulfur Dioxide		Primary	1-hour	75 ppb	99th percentile of 1-hour daily maximum concentrations, averaged over 3 years
		Secondary	3-hour	0.5 ppm	Not to be exceeded more than once per year

ppm - parts per million
ppb - parts per billion
μg/m^3 - micrograms per cubic meter
Source: USEPA (www.epa.gov/criteria-air-pollutants/ naaqs-table)

Revisions to the Clean Air Act (1990) recognized the importance of regulating upwind from non-attainment areas and set out specific requirements for a group of northeast states that make up the Ozone Transport Region (OTR), which includes New York State (NYS). Nitrogen oxides (NO_X) and volatile organic compounds (VOC) are considered precursors to ozone. Consequently, in New York State, emissions of NO_x and VOC are limited to 100 tons per year (tpy) NO_x and 50 tpy VOC. Oneida County is in attainment or considered unclassifiable (and, therefore, considered in attainment) for other criteria pollutants.

Ambient air quality standards. The NYSDEC (2018) provides summary tables of annual ambient air quality as well as real-time air quality data for criteria pollutants[62] separated by region within New York. State monitoring is conducted at several stations[63] located within the Western Adirondacks/Upper Mohawk Valley/Eastern Lake

[62] The USEPA uses six "criteria pollutants" as indicators of air quality, and has established for each of them a maximum concentration above which adverse effects on human health may occur. These threshold concentrations are called National Ambient Air Quality Standards (NAAQS). The six criteria pollutants are Ozone (O_3), Carbon Monoxide (CO), Nitrogen Dioxide (NO_2), Sulfur Dioxide (SO_2), Particulate Matter (PM, 10 and 2.5 micrometers), and Lead. The NYSDEC has established corresponding State Ambient Air Quality Standards (6 NYCRR Part 257).
[63] The nearest monitoring stations within the abovementioned Air Quality Control Region are located in Perch River (Ozone), Utica (PM2.5), Nick's Lake (Ozone, SO2,).

Ontario Air Quality Control Region, which includes Herkimer County Jefferson County, Lewis County, Oneida County, and St. Lawrence County. Impairment of air quality is based on comparison with State and National Ambient Air Quality Standards (NAAQS). Based on a review of data available during the preparation of this document, there were no exceedances of these standards at the monitoring stations, indicating that existing air quality in these areas are not impaired for the monitored constituents. Regional data is summarized in Table 7.

Table 7. Existing Air Quality Data

Pollutant		Primary/ Secondary	Averaging Time	NAAQS Level	2017 Observations (Averaging Time)
Carbon Monoxide		Primary	8-hour	9 ppm	No data
			1-hour	35 ppm	No data
Lead		Primary and Secondary	Rolling 3-month average	0.15 μg/m^3	No data
Nitrogen Dioxide		Primary	1-hour	100 ppb	No data
		Primary and Secondary	Annual	53 ppb	No data
Ozone		Primary and Secondary	8-hour	0.070 ppm	0.066 ppm
Particulate Matter	**$PM_{2.5}$**	Primary	Annual	12 μg/m^3	6.0 μg/m^3
		Secondary	Annual	15 μg/m^3	6.0 μg/m^3
		Primary and Secondary	24-hour	35 μg/m^3	16.7 μg/m^3
	PM_{10}	Primary and Secondary	24-hour	150 μg/m^3	No data
Sulfur Dioxide		Primary	1-hour	75 ppb	2.5 ppb
		Secondary	3-hour	0.5 ppm	No data

ppm - parts per million
ppb - parts per billion
μg/m^3 - micrograms per cubic meter

Source: NYSDEC 2017 (http://www.dec.ny.gov/docs/air_pdf/2017airqualreport.pdf)

Based on available data summarized in Table 7, ambient air monitoring conducted by the NYSDEC indicates that there have been no violations of the State or National Ambient Air Quality Standards (NYSDEC 2017).

Sensitive receptors. The following sensitive receptors (*i.e.*, churches/synagogues/mosques, schools, senior homes, public access areas, *etc.*) were identified proximal to the project area:

Proximal to Proposed Project[64]

- Westminster Moriah Olivet Presbyterian Church (730 Broadway)
- Bosnian Islamic Association of Utica (306 Court Street)
- Beit Shalom (49 Franklin Square)
- Mohawk Valley Montessori, LLC (714 Washington Street)
- Marlon's Daycare (Kennedy Plaza)
- The Children's Center (415 Court Street)

[64] Several sensitive receptors are located within the project footprint, but would be relocated as part of the IHC project. Facilities to be relocated consist of: Turning Point Church (438 Columbia Street), and John Bosco House (closed; 425 Lafayette Street). A few residences will also be relocated.

3.4.2 Potential Impacts

Precluding implementation and maintenance of appropriate mitigation measures, the following adverse impacts could occur from construction and operation of the project.

Construction

Dust generation during construction (including demolition activities)

- Dust generation associated with demolition and construction activities within the project footprint
- Dust generation associated with access and egress to and from the site by construction workers, as well as equipment and materials over the 40-month construction schedule

The potential for dust-related impacts is considered short-term; limited to the construction phase when bare soils are exposed.

Short-term emissions from construction equipment

- Release of exhaust from the combustion of fossil fuels in construction vehicles and equipment and workers accessing and egressing the project area

Fugitive emissions from regulated materials/impacted soils

Due to the age of existing buildings within the project footprint, it is likely that building materials will contain hazardous materials such as asbestos-containing materials (ACMs) and lead-based paint (LBP), which would need to be identified and managed prior to initiation of demolition activities.

In addition, as previously stated in Section 3.1, soils and other substrates may have been adversely impacted by prior or existing land uses. Cumulatively, these existing conditions have the potential to result in the following impacts during construction:

- Dust generation and migration during project-related demolition activities (*i.e.,* ACM, LBP), as well as from soils, which may have been impacted by prior or existing land use

Operation

Operation phase emissions

New York's air permitting program identifies and controls sources of air emissions. The air permitting program is required by the Clean Air Act and under New York State law and regulation, most notably 6 NYCRR Part 201. The program is administered by the NYSDEC's Division of Air Resources, which evaluates the type and magnitude of proposed emissions to identify permit applicability. Permitting options consist of:

- **Title V facility permits** – Title V permits are issued to facilities that are judged to be major emission sources under the department's regulations, or that are subject to New Source Performance Standards (NSPSs), to a standard or other requirement regulating hazardous air pollutants or to federal acid rain program requirements.
- **State facility permits** – State facility permits are issued to facilities that are not considered to be major (as defined in the department's regulations), but are generally large facilities with the following characteristics:
  - Their actual emissions exceed 50 percent of the level that would make them major, but their potential to emit as defined in 6NYCRR Part 200 does not place them in the major category
  - They require the use of permit conditions to limit emissions below thresholds that would make them subject to certain state or federal requirements
  - They have been granted variances under the department's air regulations
  - They are new facilities that are subject to New Source Performance Standards (NSPS) or that emit hazardous air pollutants

- **Registrations** – Non-major facilities that meet the criteria of Subpart 201-4 can register under the department's permitting program, rather than obtain a permit. Registrations are ministerial in nature and have no formal notice requirements.
- **Permit exempt and trivial activities** – The owner or operator of an emission source listed as an exempt or trivial activity[65] is exempt from the NYSDEC registration and permitting provisions.

IHC operations will result in air emissions from boilers, emergency generators, and additional minor sources. In accordance with New York State regulations[66], the proposed emission sources are exempt from permitting (*i.e.*, exempt and trivial activities). In addition, the annual potential to emit (PTE) is below the Title V major source thresholds. Based on the expected air emission sources, it is likely that the proposed hospital will not require an air permit or registration.[67] MVHS-IHC will still be required to meet the requisite air quality standards regardless of the need for permitting. Adherence to these standards will mitigate potential significant adverse impacts.

Mobile Sources

- The project will generate vehicular emissions from employees and visitors accessing and egressing the IHC. Carbon monoxide (CO) is the major pollutant emitted by motor vehicle exhaust systems
- Potential increase in mobile source emissions due to project-related increases in traffic and road closures and its potential adverse impact on traffic flow within the local road network

3.4.3 Mitigation Measures

The following mitigation measures are proposed to minimize or eliminate the potential for, and/or significance of, potential adverse impacts.

Construction

Dust generation during construction (including demolition activities)

The potential for dust generation will be minimized by E&SCs identified in Section 3.1. Based on regular inspections, the contractor(s) will also implement, as necessary, dust suppression measures throughout the construction phase. Means and methods may include:

- Water truck(s)
- Cleaning and/or sweeping of affected roadways
- Stabilized construction entrances, tracking pads and/or tire wash systems.

Short-term emissions from construction equipment

The contractor(s) will be required to implement the following measures to minimize impacts:

- Preparation and implementation of a maintenance and protection of traffic plan in accordance with the Manual on Uniform Traffic Control Devices (MUTCD) for Streets and Highways[68] (see Section 3.7) to minimize traffic delays and queued vehicle exhaust emissions
- Proper maintenance of vehicles and equipment including mufflers and other required emissions control devices

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[65] 6 NYCRR Subpart 201-3 (Permit Exempt and Trivial Activities).
[66] Title 6 of the New York Code, Rules and Regulations (6 NYCRR) Section 201-3.2.
[67] The proposed individual air emissions sources are expected to be exempt from permitting pursuant to 6 NYCRR 201-3.2 (1)(i), (6), (7) and (21). The facility-wide potential emissions are less than the Title V major source thresholds and the projected facility-wide actual emissions are less than 50% of the major source threshold. As such, the facility is not expected to be required to obtain an air facility registration or permit.
[68] https://mutcd.fhwa.dot.gov/kno-overview.htm

- Use of low sulfur diesel fuel
- Best available technology to achieve the greatest reduction in particulate emissions
- Adherence to New York State ECL, which prohibits heavy duty vehicles, including diesel trucks, from idling for more than five minutes at a time.[69]

Fugitive emissions from regulated materials/impacted soils

Prior to the initiation of construction activities, a hazardous building materials survey will be conducted to identify the potential presence of hazardous materials such as ACM and LBP in buildings to be demolished. In addition, an additional environmental subsurface investigation will be conducted (including soil and groundwater sampling) to evaluate potential impacts from past or existing land use, if any, that would require special handling and disposal during construction activities. Samples will be analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), Target Analyte List (TAL) metals and total petroleum hydrocarbons (TPH). Soil sampling results will be compared to NYSDEC Part 375 Soil Cleanup Objectives (SCOs) for Unrestricted Use and for Restricted Commercial Use; groundwater sampling results will be compared to NYSDEC Division of Water Technical and Operational Guidance Series (TOGS 1.1.1[70]) Ambient Water Quality Standards and Guidance Values for Class GA waters.

Based on the data, wastes will be removed, stockpiled, handled, transported and disposed in accordance with applicable local, state[71] and federal regulations. Waste management protocols (including reporting and manifesting) will be implemented in addition to E&SCs and dust suppression measures previously identified.

Operation

Operation phase emissions

As noted above, the type of proposed emissions currently contemplated from the IHC are considered trivial and/or exempt activities; no air permit or registration is required. As design activities continue, proposed combustion operations may trigger additional the need for a permit and/or emission controls. The need for emission controls, if any, will be identified through continued consultation with the NYSDEC.

Mobile Sources

The following measures will be implemented to mitigate or avoid potential impacts from mobile sources:

- Optimization of signal timings at the following intersections to facilitate the adequate flow of traffic adjacent to the project area (see also Appendix F):
  - State Street & Lafayette Street/Emergency Department Access (PM)
  - State Street & Court Street (PM)
  - Cornelia Street & Oriskany Street (AM & PM)
  - Broadway & Oriskany/Liberty Street (AM)
  - Oriskany Street & Genesee Street (PM)

[69] 6 NYCRR, Subpart 217-3.
[70] http://www.dec.ny.gov/docs/water_pdf/togs111.pdf
[71] For ACM abatement projects, the New York State Department of Labor's Code Rule 56 requires that all work that disturbs ACM be done by trained workers following special procedures and engineering controls (including air monitoring) to prevent the spread of asbestos into the air and ensure ACM has been properly removed.

- The locations of heating, ventilation and air conditioning (HVAC) systems, as well as the direction of prevailing winds, will be identified. Helipad operations will be located sufficiently away from ventilation systems to prevent impacts from helicopter engine exhaust fumes and rotor-wash.[72]
- The helipad and adjacent area will be kept free of debris to prevent flying objects and significant dust from the high winds created by rotor-wash. Landscape mulch will not be utilized in the area surrounding the helipad.

Based on implementation of construction and operation phase mitigation measures described above no significant adverse impacts to air quality associated with construction activities or operations are anticipated.

3.5 AESTHETIC RESOURCES (INCLUDING LIGHT)

The proposed action may have an impact on aesthetic resources. The following potential impacts, identified in the scoping process, are evaluated in this section:

Construction

- Temporary construction-related lighting impacts from mobile sources (*e.g.*, trucks, heavy machinery)
- Visible signs of construction (secondary impact from Section 3.1 – *Land*)

Operation

- Outdoor lighting will include signage, lamp posts and building-mounted fixtures in exterior parking areas, walkways and entrances to the hospital, hospital helipad operations, and other project-related facilities, as applicable, which may result in light shining onto adjoining properties and creating sky-glow brighter than existing area conditions
- Potential impacts on viewshed due to the proposed height of the building

3.5.1 Existing Conditions

The proposed IHC will be constructed in the northwest corner of the City's Central Business District (CBD), which has also been designated as a Federal "Historically Underutilized Business" (HUB) Zone. Land uses within this district are subject to the applicable standards codified in the City of Utica's Zoning Code (Section 2-29-193).

The existing building scale within the CBD and the surrounding area is a diverse mixture of building heights, consisting of mostly low rise (1-4 stories) and mid-rise (5-10 stories) buildings, with a few high-rises (11+ stories) buildings located to the east of Genesee Street. The area is gently sloping (~5%). While the project area is characterized by buildings greater than 50+ years in age, many of them have undergone 20th and 21st century modifications (see Section 3.6; including Appendix E, which contains a photolog of existing buildings).

The project footprint contains approximately 80± tax parcels and a diversity of property types including mixed use, commercial, offices/warehouses and parking; some properties are vacant/abandoned. The property types are further broken down as summarized in Figure 7.

[72] Rotor-wash is a column of downward moving air produced by helicopters during the approach or departure phase of a flight. Rotor-wash can carry dust and exhaust several hundred feet and can also be influenced by air currents and building architecture (NEMSPA 2010; http://slideplayer.com/slide/1422568/).

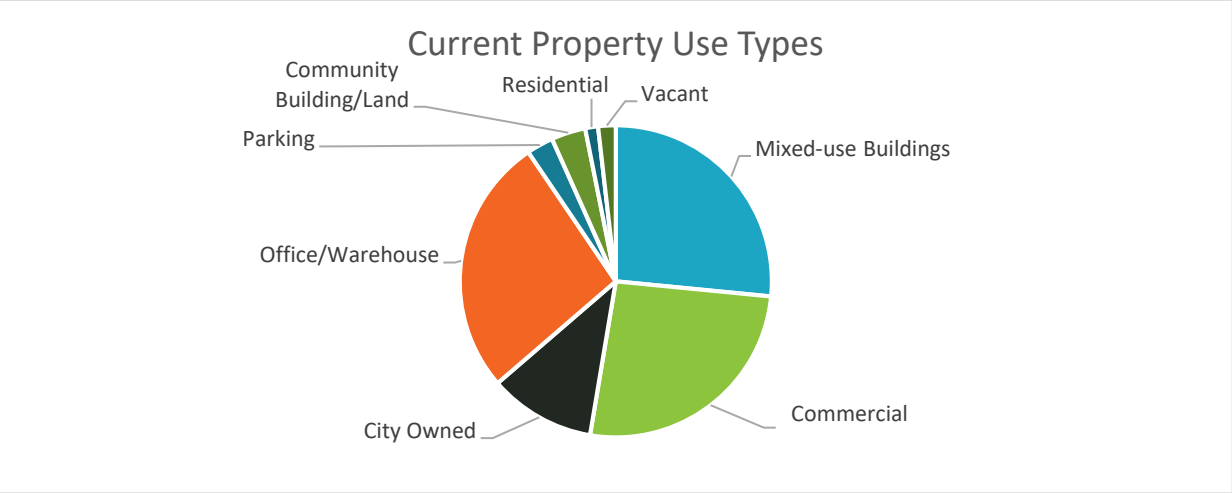

Figure 7. Current Property Use Types

Exterior lighting within and adjacent to the project area is currently used for safety and security along streets, parking areas and buildings. The City has enacted a municipal glare standard (§ 2-29-526 of the City Code[73]). An excerpt from the ordinance, which summarizes the glare standards by zoning districts, is provided below.

Sec. 2-29-526. Glare standards. [Ord. No. 313, §§ 17-601—17-604, 12-7-1994; Ord. No. 326, § 13, 9-4-1996]

(a) Required performance level. All uses, operations and activities shall be conducted so as to comply with the performance standards governing glare prescribed below.

(b) Method of measurement. Illumination levels shall be measured with a photoelectric photometer having a special response similar to that of the human eye, following the standard spectral luminous efficiency curve adopted by the International Commission on Illumination.

(c) General requirements. Uses subject to Group I and Group II standards shall not produce glare so as to cause illumination in any R District in excess of 0.5 footcandle. Flickering or bright sources of illumination shall be controlled so as not to be a nuisance in any R District.

(d) Group I and Group II glare standards. Uses subject to Group I and Group II standards shall limit the use of light sources and illuminated surfaces which are located in or are within 500 feet of any R district so as to comply with the light intensities indicated in Table III below.

Table III
Maximum Intensity of Light Sources

Source	Group I	Group II
Bare incandescent bulbs	150 watts	400 watts
Illuminated buildings	15 footcandles	30 footcandles
Backlighted or luminous background signs	150 footcandles	250 footcandles
Outdoor illuminated signs and poster panels	25 footcandles	50 footcandles

Table IV
Required Performance Standards
(Group I or Group II)

		Zoning District			
Topic	All R Districts	C-N, C-C	C-H, C-CBD	I-1	I-2
Vibration	I	I	I	II	II
Glare	I	I	II	II	II

Note: Required performance standards for uses in a PUD District shall equate to those standards for uses in the most similar R, C, I District, as determined by the Zoning Administrator.

Figure 8. Glare Standards (City of Utica)

[73] https://ecode360.com/ut2994#ut2994

3.5.2 Potential Impacts

Precluding implementation and maintenance of appropriate mitigation measures, the following adverse impacts could occur from construction and operation of the project.

Construction

Construction-related Lighting

Lighting needed during the project construction-phase has the potential to generate light spillover to off-site land uses within the Project vicinity, including the residential apartment complex to the south, and hotel uses to the east of the project area.

Visible Signs of Construction

As identified in Section 3.1 – *Land*, extended periods of construction can result in excavated areas, stockpiled soils, and other materials, as well as heavy equipment and other visual signs of construction that could temporarily impact the visual character of the area.

Operation

Light and Glare

Outdoor lighting will be provided for on-site safety and security. Outdoor lighting will include signage, building-mounted fixtures and lamp posts to promote safe and secure access/egress to buildings, parking areas and other IHC and MOB project elements/operations, as well as connectivity to adjacent communities. If unmitigated, lighting has the potential to spillover to adjacent properties and contribute to urban glare (see Section 3.5.3).

Viewshed

The proposed action will replace the predominant 19th and 20th century architectural building styles, which currently characterize the project footprint. While the IHC will replace these existing styles, the current design[74] is consistent with recent City-approved and completed modifications to the Utica Memorial Auditorium (Aud) and Landmarc buildings, as well as styles proposed for the Utica Inner Harbor Redevelopment and NEXUS projects.

Architectural renderings illustrating the proposed viewshed from various adjacent vantage points are provided below (Figure 9 through Figure 11).

[74] The design of the "podium" (1st and 2nd floors) will emulate the masonry paradigm of the local architecture.

Figure 9. View of the Proposed IHC from the Northeast
(Source: NBBJ 2018)

Figure 10. View of the Proposed IHC from the Northwest
(Source: NBBJ 2018)

Figure 11. View of the Proposed IHC from the Southeast
(Source: NBBJ 2018)

3.5.3 Mitigation Measures

The following mitigation measures are proposed to minimize or eliminate the potential for, and/or significance of, potential adverse impacts.

Construction

To reduce or eliminate construction phase aesthetic impacts, the following measures may be implemented:

Construction-related Lighting

Construction would occur primarily during daylight hours, and construction lighting would only be used for the duration needed if construction were to occur during evening hours. Construction-related illumination would be used for safety and security purposes only, and would be shielded and/or aimed so that no direct beam illumination is provided outside of the project site boundary.

Visible Signs of Construction

To mitigate the visual effects of construction and provide for site safety, contractor(s) may implement means and methods to shield direct views of, and to minimize potential pedestrian and vehicular distractions from, on-going construction activities. Following the completion of construction activities, disturbed pervious areas will be graded, seeded and landscaped.

Operation

To reduce or eliminate post-construction aesthetic impacts, the following measures may be implemented:

Light and Glare

To mitigate light migration and glare, the project will be designed to conform with City Code requirements (City Code Section 2-29-387), which require the following:

- The illumination of off-street parking facilities shall be designed so that the light from lighting fixtures in such facilities does not reflect direct rays or spill over into adjacent residential districts. Lighting arrangements for all off-street parking facilities shall be approved by the City
- Lighting fixtures shall not be placed higher than 12 feet above the finished grade, except that in business districts the Planning Board may approve lighting fixtures of a greater height, but not exceeding 25 feet above the finished grade
- Fixtures shall be of the non-spill type, hooded/shielded with reflective cut-offs to reduce glare
- Candle power per fixture shall not exceed 3 foot-candles measured at grade level directly under the fixture.

Outdoor site lighting for the proposed IHC will consist of a combination of pole-mounted, bollard-mounted, or wall-mounted LED lighting. Lighting of the surface parking lots and access roadways will be accomplished using approximately 127-watt LED fixtures mounted on 25-foot high poles. The poles will be spaced appropriately to provide acceptable lighting levels, no greater than 3 foot-candles measured at grade directly under the fixture. The fixtures will be hooded to reduce glare, and direct light downward to the parking lot surface.

Walkways will be lit using both bollard and pole mounted LED light fixtures. Pole mounted walkway lighting will be approximately 66-watt fixtures on 12-foot poles, and bollard lighting will be 28-watt fixtures.

To further minimize light or glare impacts, the following additional measures will be considered:

- Building design would use low-reflective glass and other materials, window recesses and overhangs, and façade modulation
- The amount of reflective surfaces may be limited
- Landscaping, screens, and “green walls” may obstruct light from shining to off-site locations
- Nighttime illumination of the site and selected buildings may be restricted and provided only when function or safety requires it
- Interior lighting, if appropriate, would be equipped with automatic shut-off times. Automatic shades may be installed where lighting is required for emergency egress
- Parking lots and structures may include screens or landscaping to obstruct glare caused by vehicle headlights.

Adherence to New York Building Code requirements for outdoor lighting, as well as the use of the mitigation measures described above should provide sufficient mitigation to eliminate potential significant adverse impacts related to aesthetics from light and glare. Specific information relative to stationary building fixtures and signage would be provided as part of the construction level plans associated with the City’s Building Permit process.

Viewshed

The project will require City Planning Board approval of the IHC site plan, as well as City issuance of building permits based on compliance with the New York State Building Code. As provided above, preliminary architectural renderings were prepared by MVHS to illustrate future views from various vantage points

surrounding the proposed IHC. MVHS's objective is to provide a campus-like setting, which is consistent with, and provides connectivity to, existing, adjacent land uses. The design also considers:

- Scale-reducing elements, particularly at areas exposed to people activity (*e.g.*, building entrances, adjacent to walkways, places of high visibility)
- Pedestrian amenities such as wayfinding, benches, historic markers, and bike racks
- A landscape design, which promotes pedestrian interest, scale, partial building screening and building contrast
- The long-term maintenance of landscaped areas.

3.6 HISTORIC AND ARCHAEOLOGICAL RESOURCES

The proposed action may have an impact on cultural and/or archaeological resources. The following potential impacts, identified in the scoping process, are evaluated in this section:

Construction

- Potential impacts to archaeological resources due to ground disturbances

Operation

- Potential impacts to historic properties located within or substantially contiguous to the project area including:
  - parcels listed or eligible for listing on the State or National Registers of Historic Places
  - parcels located in the Upper Genesee Street Historic District
- The proposed action will result in the destruction or alteration of all or part of the site or property
- The proposed action may result in the introduction of visual elements, which are out of character with the site or property, or may alter its setting (see Sections 3.5 and 3.12)

3.6.1 Existing Conditions

Phase 1A Archaeological Investigation

Purpose

In September 2016, OBG provided the New York State Office of Parks, Recreation and Historic Preservation (OPRHP) – Field Services Bureau (also known as the State Historic Preservation Office or SHPO) with preliminary information for the proposed project. An OPRHP Project Review Cover was submitted in October 2016 and assigned an OPRHP/SHPO Project Review Number (16PR06600). In their October 2016 correspondence (see Appendix E), OPRHP indicated that:

> *Based on available information, your project is located in an archaeologically sensitive area. Because of the size of the proposed project, the hypothesized intersection of the Erie and Chenango Canals within your project area, the presence of a previously identified archaeological site (06540.001655), and the potential for cultural resource deposits to be intact within the subject parcels, OPRHP recommends that a Phase IA Archaeological Survey is warranted for all portions of the project that will involve ground disturbance. A Phase IA survey is a literature search and sensitivity study, designed to systematically assess the significance of, and overall sensitivity for cultural resources within your project area's Area of Potential Effect (APE). This study will subsequently be used to make recommendations regarding whether or not any further, subsurface investigations are warranted.*

In April 2018, Panamerican Consultants, Inc. (Panamerican) conducted a Phase 1A[75] Archaeological Investigation of the APE (project area) (Appendix E). The study was conducted to assess the APE for:

- Archaeological sensitivity
- The presence of any existing State or National Register of Historic Places-listed or -eligible resources (individual and historic districts).

The purpose of the Phase 1A investigations were to identify previously recorded cultural and archaeological resources and that may be impacted by the proposed project and to assess the likelihood that unrecorded resources may be present within the APE of the proposed project (New York Archaeological Council NYAC] 1994). The investigations included preparation of prehistoric and historic contexts of the project area; a site file and literature search, documentary and historical map search, as well as the examination of properties listed in the New York State and National Registers of Historic Places (S/NRHP), each of which are summarized below.

Prehistoric and Historic Contexts

The major cultural traditions manifested in central New York State during the Prehistoric Period through the Twentieth Century are described in full report provided as Appendix E. Excerpts from the report are provided below:

- **Prehistoric (Precontact) Period** - The three major cultural traditions in central New York State during the prehistoric era were the Paleo-Indian (ca 12,000-8000 BC), Archaic (ca 8000-1000 BC), and Woodland (1000 BC-AD 1500). Cultural development of the area can be summarized as a gradual increase in social complexity, marked by several important cultural or technological innovations.
- **Contact Period (AD 1500-1650)** – During the late prehistoric and Contact periods, tribal clusters of Iroquoian-speaking peoples were distributed throughout New York State and lower Ontario. Comprising several thousand people in at least one, and usually several, villages in proximity to one another, each tribal cluster was separated from the others by extensive and widespread hunting and fishing areas. Native American groups in central New York were profoundly affected by the introduction of the fur trade, long before the arrival of a permanent European-American population in the area. This period dates the beginning of the end of traditional native cultural patterns due to ever-increasing political, military, religious and economic interactions with Europeans.
- **Historic Period** – As a result of the increasing supply of workers, factories in Utica flourished between ca. 1890 and 1950. Textile mills and knitting factories were especially robust. Industry expansion included the emergence of Oneida Mills, Frisbie-Stansfield Knitting Company, and Utica Knitting Company as national leaders in the knit goods industry. Other large companies included the Mohawk Valley Cotton Mill which merged with the Utica Steam Cotton Company in 1901. The height of the Utica textile industry was 1910 when nearly two-thirds of the city's inhabitants worked in textile-related industries. Transportation changes facilitated the industrial development as establishment of the textile industry emerged with the completion of the Erie and Chenango canal. Beginning in 1886 streets of the city began to be paved with asphalt, beginning with Rutger Street. In 1887, the Utica Electric Light Company began to provide street lighting, "starting in the business section, although lighting for residential districts…soon followed". The electric streetcar was introduced in the 1890s and an interurban electric line, Utica & Mohawk Valley, ran between Rome and Little Falls during the early twentieth century. The Utica Belt Line Railroad system ran along Lafayette, Columbia, and State streets. With the closure of the Chenango canal, the northern end of the former

[75] The Phase I survey is designed to determine the presence or absence of cultural resources in the project's potential impact area. A Phase 1A study is the initial level of survey and is carried out to evaluate the overall sensitivity of the project area for the presence of cultural resources, as well as to guide potential future field investigation. The Phase IA work includes a literature search and an initial field inspection. The field inspection is conducted to assess previous disturbance and the level of testing which may be necessary. The resulting document contains a cultural history of the project area, and an evaluation of the area's known and potential sensitivity for cultural resources which might be affected by possible construction impacts.

canal was gradually turned into a reservoir for the Erie canal. The abandoned canal channel was ultimately filled, although it was still depicted as open in 1888. As noted the canal system was reimagined and modernized during the early twentieth century and the subsequent Barge Canal was completed in 1917 through Utica. Gradually filled, the former Erie Canal channel was leveled through the city by 1923 and became Oriskany Street. The North Genesee Arterial was completed in the 1970s.

The textile industry began a slow decline after World War I as the industry was plagued by over supply and northern textile operations shifted work to mills in the South. While Utica supported more than 40 mills in 1910, only six survived in 1922. Further, transportation improvements like the trolley and later the automobile freed workers from living in proximity to their places of employments. This freedom resulted in workers, especially the better paid, seeking to find living arrangements in less crowded and noisy places and gave rise to suburban housing areas. By 1940 the city had a population of 100,518. After the war, General Electric opened a factory in Utica which expanded during the 1950s as the Cold War intensified. This factory helped offset the loss of textile jobs as GE employed more than 5,800 people at the close of the 1950s. During this period large infrastructure projects like the construction of the North- South Arterial (NYS Route 12), the East-West Arterial (NYS Route 5S), and the Sauquoit Valley Arterial (NYS Route 8) helped speed the development of residential suburbs and draw residents from the central city. In addition, the completion of the New York State Thruway (Interstate-90) north of the city in the mid- 1950s helped commerce bypass the area. During the late 1950s and 1960s, urban renewal plans led to the demolition of numerous city buildings, which became vacant lots when proposed projects did not materialize. In 2006, structures in the area were demolished for a police support facility. A major economic development in the area during the twentieth century was the construction of the U.S. Air Force repair and maintenance depot, which served the entire northeastern section of the nation. This facility would develop into Griffiss Air Force Base, northeast of the City of Rome. The base closed in the late 1990s, although Rome Laboratories (now the Air Force Research Laboratory) continued to utilize buildings within the facility, which has become the Griffiss Business and Technology Park. The City of Utica had a population of 62,235 in 2010.

Site File and Literature Search

A review of archaeological site files on the New York State Office of Parks, Recreation, and Historic Preservation (OPRHP)/New York State Historic Preservation Office's (SHPO) Cultural Resource Information System (CRIS) (https://cris.parks.ny.gov) was performed. Early archaeological surveys by Beauchamp (1900) and Parker (1922) were consulted. Later archaeological investigations by Ritchie (1980) and Ritchie and Funk (1973) do not report the presence of archaeological sites in the project area. One archaeological investigation (PIN 2134.41.121, New York State Routes 5, 8, and 12) was conducted within the APE according to the OPRHP/SHPO CRIS, which resulted in the identification of one archaeological site previously reported within the project's APE. The site is summarized below. Additional sites (48) were identified within one-mile of the APE.

- **442 Lafayette Street** – The archaeological site reported within the APE is a historic period site (NYSM 12153; USN A06540.001655). A scatter of historic materials (*e.g.*, ceramics, glass, nails, and bricks) was found at the site. National Register eligibility of the site is undetermined. Based on field reconnaissance, the site is located within the yard of the extant building. Access was not available during the Phase 1A field reconnaissance, but aerial imagery and site photographs show this to be a small grass yard. A view toward the site from outside the property limits is presented in Appendix E, Photograph 18).

Precontact Archaeological Sensitivity

The former natural setting of the project area in proximity to the Mohawk River indicates that the APE is sensitive for precontact archaeological sites. Three precontact archaeological sites (or sites with a precontact component) were previously found within one mile of the APE including: 617 Cooper Street Historic & Precontact Site (USN A06540.001660; NYSM 12158); 613 Court Street Historic and Precontact Site (USN A06540.001668; NYSM 12166); and 613 Court Street Historic and Precontact Site (USN A06540.001668; NYSM 12166).

However, years of urban development very likely disturbed or destroyed any precontact sites if any are or were present. The overlay comparison of historic maps identified only four small locations where no structures were ever recorded and thus are presumably the least disturbed (see Appendix E, Figure 15). It is possible that archaeological sites could be covered by fill and pavement but due to the size of the APE, mechanical removal of fill/pavement is not logistically practical. The possibility of finding archaeological sites beneath fill is too low to warrant the level of effort required to conclusively determine their presence or absence. The most practical approach to assess the extent of soil disturbances and archaeological sensitivity would be the review of soil-boring data which recorded the depth of fill and stratigraphy.

Historic Archaeological Sensitivity

The project area is sensitive for the presence of a variety of historic archaeological resources associated with, but not exclusive to, urban centers. As noted above, an historic site identified as 442 Lafayette Street Historic Site (NYSM 12153; USN A06540.001655), is within the APE. The site's National Register eligibility is presently undetermined and, therefore, the site will likely require Phase 2 investigation to assess its significance. Although it's possible that historic structural foundations and other cultural features could be present beneath pavement and/or fill, the likelihood of intact historically significant cultural resources is considered low.

Phase 1A Architectural Inventory

Purpose

In addition to the Phase 1A Archaeological Investigation (Appendix E), Panamerican conducted a preliminary architectural survey of existing buildings within the APE. The purpose of the Phase 1A architectural inventory (Appendix E) was to identify if any existing State/National Register of Historic Places-listed or -eligible resources (individual and historic districts) are present within the APE for the project and to provide an inventory of architectural resources (structures) in the Project APE as per the request of the ORHP. Building information provided in this report will assist the OPRHP with their evaluation of the historic significance of all buildings/structures/historic districts within or adjacent to the project area. The Phase 1A Architectural Inventory included the following:

- Documentary and historical map research
- An online search of the SHPO's CRIS
- Identification of properties listed or eligible in the New York State and National Registers of Historic Places (S/NRHP) in the APE
- A pedestrian survey[76] of buildings in the project area

The inventory included photographic documentation of the existing conditions characterizing the APE (see Appendix E).

Findings

A tabular list of all buildings in the Project APE and their current S/NRHP eligibility information was presented in the Panamerican report (see Appendix E, Table 4.1). The building inventory includes an annotated list arranged in alpha-numerical street address order. Building descriptions and current photographs are included in the inventory. The locations of documented buildings are identified by street address on a project map included in the report (see Appendix E). Recommendations of S/NRHP eligibility were not provided in this Phase 1A inventory.

[76] A pedestrian survey limited to visual inspection of the exterior of buildings from public rights-of-way in the APE was conducted in March 2018. All buildings in the Project APE were photographed with a digital camera. Information gathered for each building included the following: location, approximate date of construction (*i.e.*, circa date); architectural style; physical characteristics; building materials; integrity of the resource; and other defining features.

Forty-nine architectural resources were identified in the Project APE; 43 buildings older than 50 years of age and six buildings less than 50 years of age (see Appendix E, Table 4.1). Three contributing resources to the State/National Register-Listed Downtown Genesee Street Historic District are also located in the Project APE:

- 301 Columbia Street (USN 06540.002010)
- 608 Broadway (building section in APE at 335 Columbia Street per parcel data [USN 6540.002007])
- 401-407 Columbia Street (USN 6540.002011)

Four existing National Register-eligible architectural resources are in the Project APE:

- 440 Lafayette Street (USN 06540.001491)
- 442 Lafayette Street (USN 06540.001490)
- 444 Lafayette Street (USN 06540.001489)
- 506 Columbia Street (shares address with 509 Lafayette Street (USN 06540.001555])

The survey documented thirty-four resources that are not presently in the OPRHP historic resource database (CRIS). The locations of all documented buildings are identified on the survey map included in Appendix E (Figure 4.1).

The report (and inventory) was subsequently submitted to SHPO via CRIS to obtain recommendations as to each building's S/NRHP eligibility. In correspondence dated July 17, 2018 (see Appendix E), SHPO indicated that the project area includes a portion of the Downtown Genesee Street Historic District, which is listed in the New York State and National Registers of Historic Places. The project area also includes 10 other buildings, which have been identified by SHPO as eligible for inclusion in the registers. The properties are summarized in Table 8, below.

Table 8. List of Historic Resources

SHPO USN	Address	Property Name	SHPO Determination of Eligibility
06540.002010	301 Columbia Street	Brick Commercial	NR Listed in the Downtown Genesee Street Historic District
06540.002095	326-334 Columbia Street	Haberer Building	S/NR Eligible
06540.002011	401 Columbia Street	Brick Commercial	NR Listed in the Downtown Genesee Street Historic District
06540.002107	460-464 Columbia Street	Witzenberger Building	S/NR Eligible
06540.000101	300 Lafayette Street	Former Utica & Mohawk Valley Railway Car Barn/Electric Express/Girrard Chevrolet Service Garage	S/NR Eligible
06540.02114	333 Lafayette Street	Childs Building	S/NR Eligible
06540.002119	437 Lafayette Street		S/NR Eligible
06540.001489	440 Lafayette Street	L. Snyder House	S/NR Eligible
06540.001490	442 Lafayette Street	S. Isele House	S/NR Eligible
06540.001491	444 Lafayette Street	C & A Eichmeyer House	S/NR Eligible
06540.001555	509 Lafayette Street	Utica Turn Hall/Utica Turnverein	S/NR Eligible

Source: SHPO (July 2018)

3.6.2 Potential Impacts

Implementation of the IHC project would result in substantial demolition and new construction within a majority of the APE, as well as the elimination of several city streets (or portions thereof) (see Figure 3). In the absence of appropriate mitigation measures, the following adverse impacts could occur from construction of the project.

Archaeological Sensitivity

In correspondence dated June 18, 2018 (Appendix E), SHPO identified the following potential project-related impacts on archaeological resources:

- Disturbance of a known archaeological site – 442 Lafayette Street (NYSM 12153; USN A06540.001655)
- Potential impacts to sections of the Chenango Canal and associated Huntington Basin, which may remain intact with the project's APE (possibly deeply); the area includes the following properties within the APE:
  - Chenango Canal: 318-333 Oriskany Street, 402 Oriskany Street, 514-524 Lafayette Street, 506 Columbia Street, and depending on the degree of disturbance related to recent arterial construction, possibly 509 Lafayette Street
  - Huntington Basin: 401 & 402 State Street, and the section of State Street between these addresses.
- Potential site disturbance impacts to parcels deemed archaeologically sensitive by SHPO, which recommended further testing:
  - 437 Lafayette Street
  - 458 Columbia Street
  - Witzenberer Building (460-464 State Street)
  - 450-454 State Street (SHPO notes that a foundation associated with a structure on this property was previously partially exposed during some sidewalk related impacts).

Architectural Inventory

Based on information provided above and in Appendix E, at least two contributing buildings within the listed district and ten eligible historic resources may be demolished during implementation of the project. These resources are identified in Table 8; resource locations are illustrated on Figure 4.1, Appendix E.

3.6.3 Mitigation Measures

To mitigate, minimize or eliminate the potential for, and/or significance of, potential adverse impacts, the Dormitory Authority of the State of New York (DASNY)[77], OPRHP and MVHS have commenced the consultation process as required by the State Historic Preservation Act ("SHPA"). The first step in that process involved the preparation and submission of the surveys prepared by Panamerican (Appendix E). OPRHP, DASNY and MVHS are now in the process of developing a Letter of Resolution (LOR) that will set forth the mitigation measures that minimize the effects on known and as of yet unknown historic properties. It is anticipated that some of the mitigation measures will include the following:

<u>Buildings</u>

- Once site control of the project's Project Impact Area (PIA) is secured, MVHS will complete an assessment of the conditions of each of the buildings identified as historic and listed in the LOR (see Table 8 and Appendix E) that will be proposed for removal

[77] DASNY administers grant funding for construction of the IHC (see Section 1.2.2).

- The assessment will include photographs of exterior and interior conditions. Sufficient (10 to 20) images should be prepared to provide OPRHP with a general understanding of the state of the resource. These images along with a written assessment of the general condition of the building will be submitted to OPRHP via the CRIS program

Archaeology

- Archaeological testing, as previously requested by OPRHP (see Section 3.6.2 and Appendix E), will commence once MVHS obtains site control
- No ground disturbing activities in the PIA will commence until all archaeological testing has been completed at each identified site and the results of the testing have been reviewed by OPRHP
- Associated archaeological survey reports must be filed with OPRHP in a timely manner and must meet New York State Archaeological Standards
- Unanticipated discoveries, including the discovery of human remains during construction, will follow the protocol outlined in Appendix E

Treatment Measures (Buildings)

In accordance with Section 14.09, efforts that would avoid or minimize impacts to historic buildings should be explored and documented. An alternatives analysis relating to the disposition of historic buildings in the PIA will be submitted to OPRHP for review and comment prior to any activity on the site that might damage the resources. This analysis should explore the following opportunities:

- ***Avoidance***: If practicable, efforts to avoid the removal or direct impacts to buildings identified as historic (see Table 8 and Appendix E) will be explored. Documentation outlining this exploration of alternatives will be provided to OPRHP prior to any action that would directly impact the involved resource(s)
- ***Minimization***: If practicable, efforts that would include options to lessen the overall, as of yet to be fully documented, impacts to historic resources will need to be explored. This assessment should include efforts to retain some or all of the historic resources in situ as part of the development planning
- ***Mitigation Options***: Where it has been determined by the parties that some or all of the historic resources must be removed from the site, with appropriate justification and documentation as noted above, the following mitigation measures may be applied:
  - MVHS will follow OPRHP's standard resource documentation process outlined in Appendix E
  - Other appropriate mitigation for the loss of historic resources as agreed to by the parties

3.7 TRANSPORTATION

The proposed action may have an impact on transportation. The following potential impacts, identified in the scoping process, are evaluated in this section:

Construction

- Temporary road and/or sidewalk closures
- Construction vehicle & equipment/material staging
- Impacts to bus service (routes, stops)
- Increased demand for parking (construction workers)

Operation

- Increased traffic flow and operating conditions, which may exceed capacity of existing road network
- Impacts to bus service (routes, stops, capacity)

- Impacts to pedestrian facilities (sidewalk, crosswalks)
- Increased demand for parking (employees, patients) resulting in the construction of parking area/garage for 500 or more vehicles
- Alterations to the present pattern of movement of people or goods (including road closures)

3.7.1 Existing Conditions

A traffic impact study (TIS) was prepared by C&S Engineers, Inc. (C&S) to evaluate the existing traffic conditions within and adjacent to the project area, and to assess the potential transportation impacts to the highway system from implementation of the IHC project. A summary of the TIS is provided below; the complete report is included as Appendix F.

Roadway & Intersection Characteristics

The study area limits were defined based on discussions with NYSDOT Region 2 staff. Information for the roadway and intersection characteristics within and adjacent to the proposed IHC was provided by C&S via a field visit, desktop analysis in Google Maps, and the NYSDOT Functional Class Viewer[78]. Existing roadways are summarized in Table 9, and key intersections within the study area are shown on Figure 12.

Table 9. Existing Study Area Roadways

Road Name	Description
Bank Place	An urban local street situated at the eastern edge of the study area. Bank Place is a one-way road running southeast from Genesee Street to outside of the study area onto Union Street. Curb-cut buffered parking is provided on the southern side of Bank Place.
Blandina Street	An urban local street situated on the eastern edge of the study area that becomes Washington Lane at its intersection with Genesee Street. This one-lane road runs southeast from Genesee Street towards Charlotte Street (located outside of the study area). Street parking is available on both sides of the street.
Bleecker Street	An urban major collector. This two-way roadway has one travel lane in each direction and runs east/west. This roadway becomes Lafayette Street west of Genesee Street and eventually becomes County Road 241 to the east, outside of the city limits. On-street parking is available on both sides of the street within the study area. Bleecker Street includes bus stops for the CENTRO[79] UT 12 and UT 14 bus lines outside of the study area.
Broadway	A two-way urban local street. Broadway has one travel lane in each direction and runs northeast/southwest, terminating at Court Street and Whitesboro Street (outside of the study area). Broadway provides direct access to NYS Route 5S, an urban arterial.
Columbia Street	An urban major collector. Columbia Street runs southeast/northwest from Whitesboro Street and Genesee Street (both outside of the study area). It is a two-way roadway with one travel lane in either direction. On-street parking is available on both sides of the street and has bus stops for the CENTRO UT 20, UT 11, and UT 111 bus lines.
Cornelia Street	A two-way urban street that cuts through the center of the study area. Cornelia Street runs southwest/northeast and terminates at Oriskany Street and Mandeville Street (both outside of the study area). On-street parking is available on portions of the street.
Court Street	An urban minor arterial. Within the study area, it is a two-way street with two travel lanes in each direction. This street terminates at Whitesboro Street (outside of the study area) and Genesee Street, east of which it becomes Hopper Street. Within the study area, there are no bus lines on this street or on-street parking.

[78] https://www.dot.ny.gov/gisapps/functional-class-maps
[79] https://www.centro.org/service_schedules/schedules-utica

Road Name	Description
Elizabeth Street	An urban major collector that becomes Columbia Street west of Genesee Street. Elizabeth Street runs southeast/northwest, terminating at Genesee Street and Nichols Street (outside of the study area). It is a two-way road with a travel lane in both directions. There is on-street parking available on both sides of the street and the street is serviced by the CENTRO UT 12 bus line outside of the study area.
Genesee Street	An urban principal arterial. It has two travel lanes that run northeast through the study area and feeds into Oriskany Street (an urban arterial) after which it becomes North Genesee Street and feeds into I-790/I-90 (principal arterial-interstates) north of the study area. It also has two travel lanes that run southwest through the study area towards NYS Route 8 (a principal arterial expressway) and eventually terminates at NYS Route 12/Seneca Turnpike (a principal arterial) and Highway 5 (a principal arterial expressway) outside of the study area. There is on-street parking on both sides of the street throughout the study area. CENTRO bus lines that service this street include UT 15, UT 22, UT 24, UT 40, and UT 31.
Hopper Street	An urban minor arterial. Hopper Street has two travel lanes in either direction and runs northwest/southeast, connecting Steuben Park (outside of the study area) to Genesee Street. West of Genesee Street, Hopper Street becomes Court Street. On-street parking is available on both sides of Hopper Street and it is serviced by the CENTRO bus line UT 22 outside of the study area.
Lafayette Street	An urban major collector. It becomes Bleecker Street east of Genesee Street and also terminates at Whitesboro Street (west of the study area). Lafayete Street is a two-way street with one travel lane in each direction. There is on-street parking available on both sides of the street. CENTRO bus stops on this street are for the following routes: UT 11, UT 20, and UT 111 lines.
NYS Route 5S	Also known as Oriskany Street West, Oriskany Street East, and Liberty Street. Oriskany Street West begins in Yorkville and ends at the Genesee Street Intersection. Oriskany Street East begins at the Genesee Street Intersection and ends at the Broad Street Intersection. Liberty Street begins adjacent to the northern portion of Genesee Street and extends to Broadway along the one-way westbound portion of NYS Route 5S (Oriskany Street West). Although this street is not located in the study area, it is located directly to its north and runs east/west, so many of the streets running north/south in the study area do feed into it. It is an urban principal arterial and contains two travel lanes in each direction with a dividing barrier.
NYS Routes 5/8/12	NYS Routes 5/8/12 (also known as the North-South Arterial), is located on an elevated roadway west of the study area. It is an urban principal arterial other, running north/south that connects to Oriskany Street/NYS Route 5S and eventually I-790 and I-90 (all north of the study area). This road has two travel lanes in both directions with a dividing barrier.
Sayer Alley	A one-way local alley that connects Lafayette Street with Columbia Street. Sayer Alley has a bi-directional single travel lane.
Seneca Street	A two-way urban local street that dead-ends mid-block south of Lafayette Street to provide on-street parking to local businesses. North of Lafayette Street, Seneca Street is a two-way urban street with on-street parking available on both sides. This portion of the street provides access to Oriskany Street outside of the study area before becoming Water Street. It has one travel lane in each direction.

Road Name	Description
State Street	An urban minor arterial. State Street runs along the western edge of the study area and terminates outside of the study area on Genesee Street to the south and Oriskany Street to the north where it provides the only direct access to I-790 and I-90 via NYS Routes 5/8/12 since the northbound access at Court Street was eliminated. Within the study area, it has two travel lines in each direction. On-street parking is only available on the 700-block of the street.
Washington Street	An urban local street located in the northern portion of the study area. This two-way street has one travel lane in each direction to provide access from Lafayette Street to Oriskany Street. It terminates to the north of the study area on Whitesboro Street. Within the study area, parking is available on the western side of the street.
Washington Lane	A two-way, one-block urban local street. East of Genesee Street, Washington Lane becomes Blandina Street. At its termination to the west, it becomes Washington Street. Washington Lane mainly provides access to the Washington Street Parking Garage and does not have on-street parking available.

Source: C&S (TIS, Appendix F)

Figure 12. Study Intersections
Source: C&S (TIS, Appendix F)

Existing traffic and pedestrian data was collected during peak commuter travel periods at key intersections within the study area on July 18th and 19th, 2018. While peak hours for individual intersections varied, the overall study peak morning and evening hours were determined to be from 7:45 am – 8:45 am and 4 pm – 5 pm, respectively. The highest pedestrian volumes were noted along the Genesee Street intersections, as well as along Columbia Street at Cornelia Street and State Street. There were very few bicyclists observed during the peak hours. The existing AM and PM peak hour traffic and pedestrian volumes for the study area intersections are shown on Figures 2.2 and 2.3 of Appendix F, respectively.

The study intersections were analyzed using SYNCHRO 10[80], a computer program that implements the methods presented in the Highway Capacity Manual[81] (HCM). SYNCHRO determines the level of service (LOS[82]), which is defined in terms of delay, as well as anticipated queue lengths. The LOS for both signalized and unsignalized intersections are defined in terms of control delay. Control delay is a measure of the total travel time lost and includes slowing delay, stopped delay, queue move-up time, and start-up lost time. LOS thresholds are defined as average delay in seconds per vehicles over a fifteen-minute analysis period and range from LOS A to F for both signalized and unsignalized intersections. An overall intersection LOS D or better is generally considered acceptable at a signalized intersection. An overall intersection LOS E or better is generally considered acceptable at an unsignalized intersection. The following table provides a summary of the LOS thresholds as defined in the HCM (2010).

Table 10. Intersection Level of Service Criteria

Level of Service (LOS)	Signalized Intersection Delay (sec)	Unsignalized Intersection Delay (sec)
A	0-10	0-10
B	> 10-20	> 10-15
C	> 20-35	> 15-25
D	> 35-55	> 25-35
E	> 55-80	> 35-50
F	over 80	over 50

Source: HCM 2010

The SYNCHRO 10 capacity analysis for the existing intersections within the study area, showed that each of the intersections operate as a LOS C or better during the peak hours, with a few exceptions noted below.

- 6 – Cornelia Street & Oriskany Street (PM)
  - Northbound LT/THRU/RT = LOS F (96.2 sec)
- 17 – Seneca Street & Liberty Street (AM)
  - Northbound LT/THRU/RT = LOS E (38.2 sec)

The complete results of the existing condition capacity analyses are included in Appendix B of the TIS (Appendix F).

Accident Analysis

According to data extracted from the NYSDOT Accident Location Information System (ALIS) for Oneida County, New York for the period between March 1, 2015 and February 28, 2018, there have been 75 vehicular accidents

[80] SYNCHRO 10, Traffic Signal Coordination Software, Version 10.1, Trafficware LLC, Albany, California, 1993-2017.
[81] The fifth edition of the Highway Capacity Manual is a publication of the Transportation Research Board of the National Academies of Science in the United States. The HCM contains concepts, guidelines, and computational procedures for computing the capacity and quality of service of various highway facilities, including highways, freeways, arterial roads, roundabouts, signalized and unsignalized intersections, rural highways, and the effects of mass transit, pedestrians, and bicycles on the performance of these systems.
[82] Level of service (LOS) is a qualitative measure used to relate the quality of motor vehicle traffic service. LOS is used to analyze roadways and intersections by categorizing traffic flow and assigning quality levels of traffic based on performance measures (i.e., vehicle speed, density, congestion, etc.). The following LOS grades are based on North American highway LOS standards as identified in the Highway Capacity Manual (HCM) and AASHTO Geometric Design of Highways and Streets ("Green Book"), using letters A through F, with A being the best and F being the worst, similar to academic grading: A = free flow; B = reasonably free flow; C = stable flow, at or near free flow; D = approaching unstable flow; E = unstable flow, operating at capacity; and F = forced or breakdown flow. An overall intersection LOS D or better is generally considered acceptable at a signalized intersection. An overall intersection LOS E or better is generally considered acceptable at an unsignalized intersection.

reported within the study area, not including NYS Route 5S, which was analyzed separately by the NYSDOT. Accident occurrence by street location during this period are summarized in Table 11.

Table 11. Accident Occurrence

Street	# of Accidents	% of Total
Bleeker St.	2	2.67%
Broadway	2	2.67%
Columbia St.	4	5.33%
Cornelia St.	4	5.33%
Court St.	12	16.00%
Devereau St.	3	4.00%
Elizabeth St.	3	4.00%
Genesee St.	17	22.67%
Hopper St.	4	5.33%
Kennedy Plz.	2	2.67%
Lafayette St.	6	8.00%
Seneca St.	3	4.00%
NYS Route 5S	1	1.33%
State St.	9	12.00%
Washington St.	3	4.00%
Total	75	100%

Source: NYSDOT ALIS, Oneida County for 3/1/15-2/28/18
Compiled by C&S (TIS, Appendix F)

Of the accidents presented, approximately 23% occurred during inclement weather conditions (rain, snow, sleet, hail, or freezing rain) and approximately 17% occurred during non-daylight conditions (dusk or dark road/lighted conditions). In addition, 76% of these accidents occurred on roads that were straight and level, as opposed to those that occurred on curved or graded roads. Overall, this is indicative that the majority of accidents that occurred within the study area were under weather and visibility conditions not conducive to vehicular accidents.

As indicated by the NYSDOT ALIS data, 69% of the accidents reported in the study area occurred at intersections. Of the accidents that occurred at intersections, 64% occurred in the same exact geographic location as another reported accident. Intersection "hot spots" where accidents have occurred more than once are indicated on Figure 2.4 of Appendix F.

Accident data was also analyzed by collision type. As indicated by Figure 2.5 of Appendix F, approximately 24% of recorded accidents were rear ends, 23% were collisions from right angles, 19% were collisions from overtaking, and 17% were from other causes.

Traffic control types were associated by collision type. For rear end collisions, 50% occurred in association to traffic lights and 39% occurred when there was no traffic control type present. The remaining rear end collisions occurred at stop signs and flashing lights. Right angle collisions followed similar trends, with 53% occurring at traffic lights, 35% under no traffic control type, and the remaining from stop signs and flashing lights. Accident type information was also associated with the NYSDOT ALIS data:

- A majority (88%) of accidents documented were from collisions with other vehicles.
- Three (4%) of accidents were collisions with pedestrians and occurred under traffic signal control conditions.
- Six accidents (8%) occurred from collisions with fixed objects, fire hydrants, and guide rails.
- No accidents were reported with bicyclists.

Overall, the data indicated that vehicle accidents are less likely to occur on the weekend than on a weekday. In addition, 89% of accidents within the study area resulted in zero injuries (18 resulted in an injury). No accidents within the study area for this set of data resulted in fatalities.

3.7.2 Potential Impacts

Construction

Construction of project elements will require the use of local roads by construction worker vehicles and equipment for the duration of the construction phase. Construction activities are expected to temporarily increase traffic volumes within and adjacent to the project area. The need for equipment and vehicles (including material flow from staging/laydown areas to project sites and transportation of C&D from the project area) to access and egress sites may cause temporary, short-term delays in traffic flow on local roads. With the implementation of appropriate mitigation (see Section 3.7.3), such impacts are not anticipated to be significant.

Operations

Increased Parking Demand

Using the Institute of Engineers (ITE), Parking Generation Manual, 3rd Edition, the anticipated parking supply and demand associated with the proposed MVHS IHC was estimated. Land use codes 610 – Hospital and 720 – Medical-Dental Office were used to estimate the parking supply needed and anticipated peak (weekday) parking demand. Based on the anticipated number of employees for the hospital and size of the MOB, the parking supply and demand is estimated as shown in the table below:

Table 12. Parking Supply and Demand

ITE Land Use Code	Description	Unit	Urban Supply/ Unit	Urban Peak Demand/ Unit	MVHS Unit	Urban Supply	Urban Peak Demand
610	Hospital	Employees	0.72	0.6	2,400	1,728	1,440
720	Medical-Dental Office	GFA (kSF)[1]	3.9	3.53	80	312	283
					Totals	**2,040**	**1,723**

1. GFA – gross floor area kSF – thousands of square feet

Source: C&S (TIS, Appendix F)

While the calculation for the hospital is based on the total number of employees, it takes into account all parking demand associated with the land use such as patients, visitors, as well as staff in an urban setting. This analysis indicates that hospitals with 2,400 employees along with an 80,000± sf MOB typically provide approximately 2,000 parking spaces to accommodate their demand. The peak demand for the IHC project is estimated at just over 1,700 spaces for a typical weekday.

The proposed development proposes a total of 1,830 spaces. While it is less than the ITE demand, it is more than is anticipated to be needed for their peak demand. Table 13 summarizes how the proposed parking supply and estimated demand compare for the MVHS IHC development. Based on this analysis, the hospital could consider allocating some hospital employees to the parking lot adjacent to the MOB to more equally distribute demand amongst the MVHS IHC facilities.

Table 13. Parking Summary

	Proposed Supply	Anticipated Peak Demand	Estimated Surplus
Hospital	1,455	1,440	15
MOB	375	283	92
Total	**1,830**	**1,723**	**107**

Source: C&S (TIS, Appendix F)

Bus Services

As previously indicated, bus service stops are located within and adjacent to the project area, as follows:

- Bleecker Street – Bus stops for CENTRO UT 12 and UT 14
- Columbia Street – Bus stops for CENTRO UT 20, UT 11, and UT 111
- Elizabeth Street – Bus stops for CENTRO UT 12
- Genesee Street – Bus stops for CENTRO UT 15, UT 22, UT 24, UT 40, and UT 31
- Hopper Street – Bus stops for CENTRO UT 22
- Lafayette Street – Bus stops for CENTRO UT 11, UT 20, and UT 111

Street closures associated with implementation of the project will require coordination with CENTRO to provide for route adjustments necessary to account for the changing street grid. MVHS' goal is to coordinate with CENTRO to maintain sufficient service (routes, stops, capacity) during the construction and operation phases.

Pedestrian Facilities

As previously indicated, the highest existing pedestrian volumes within the study area occur along the Genesee Street intersections, as well as along Columbia Street at Cornelia Street and State Street. Without proper mitigation, pedestrian flow could be impeded by the changing street grid and building layout.

Traffic Flows and Operating Conditions

The TIS included analyses to assess the additional traffic flow anticipated to be generated due to the proposed development as well as changes in traffic distribution.

The 10th Edition of ITE's Trip Generation Manual was used to estimate the traffic that will be generated by the proposed development during the typical weekday AM and PM peak hours. Using the same land use codes and variables as the parking analysis (hospital employees and square footage of the MOB), the trip generation for the IHC is summarized below:

Table 14. Trip Generation

ITE Land Use Code	Description	Unit	AM Peak Hour			PM Peak Hour		
			Entering	Exiting	Total	Entering	Exiting	Total
610	Hospital	Employees	476	176	652	185	500	685
720	Medical Office	GFA (kSF)[1]	143	40	183	76	197	273
		Totals	619	216	835	261	697	958

Source: C&S (TIS, Appendix F)

The proposed project includes the acquisition of parcels within the study area. These properties currently, or have in the recent past, generated traffic in the study area that will be removed when the properties are acquired. To be conservative, the current traffic associated with these properties was not included in the TIS.

As previously discussed, the NYSDOT is currently coordinating the "Route 5S Safety Project", which incorporates intersection and safety improvements from Cornelia Street to Broad Street, including miscellaneous work on the side streets; work is scheduled to be completed in 2020.

As part of the analysis included for the NYS Route 5S project, an initial trip generation and distribution for the proposed MVHS IHC project was developed to be incorporated in their future conditions modeling. A letter memo was developed by GTS Consulting in March 2016 that used initial development assumptions and data provided by the MVHS regarding employee and patient zip code information to determine peak hour regional distributions. While the project information has changed since the memo was developed, the employee and patient information and routing assumptions are still valid. Therefore, the regional distribution from that memo was used for the TIS. Figure 13 illustrates the regional trip distribution to the study area.

The local distribution of project-generated trips within the study area is based on the most logical routing to/from the larger/busier highways and roadways to/from each individual parking facility access. The future AM and PM peak hour trips associated with the proposed development are shown on Figures 4.3 and 4.4 of Appendix F, respectively.

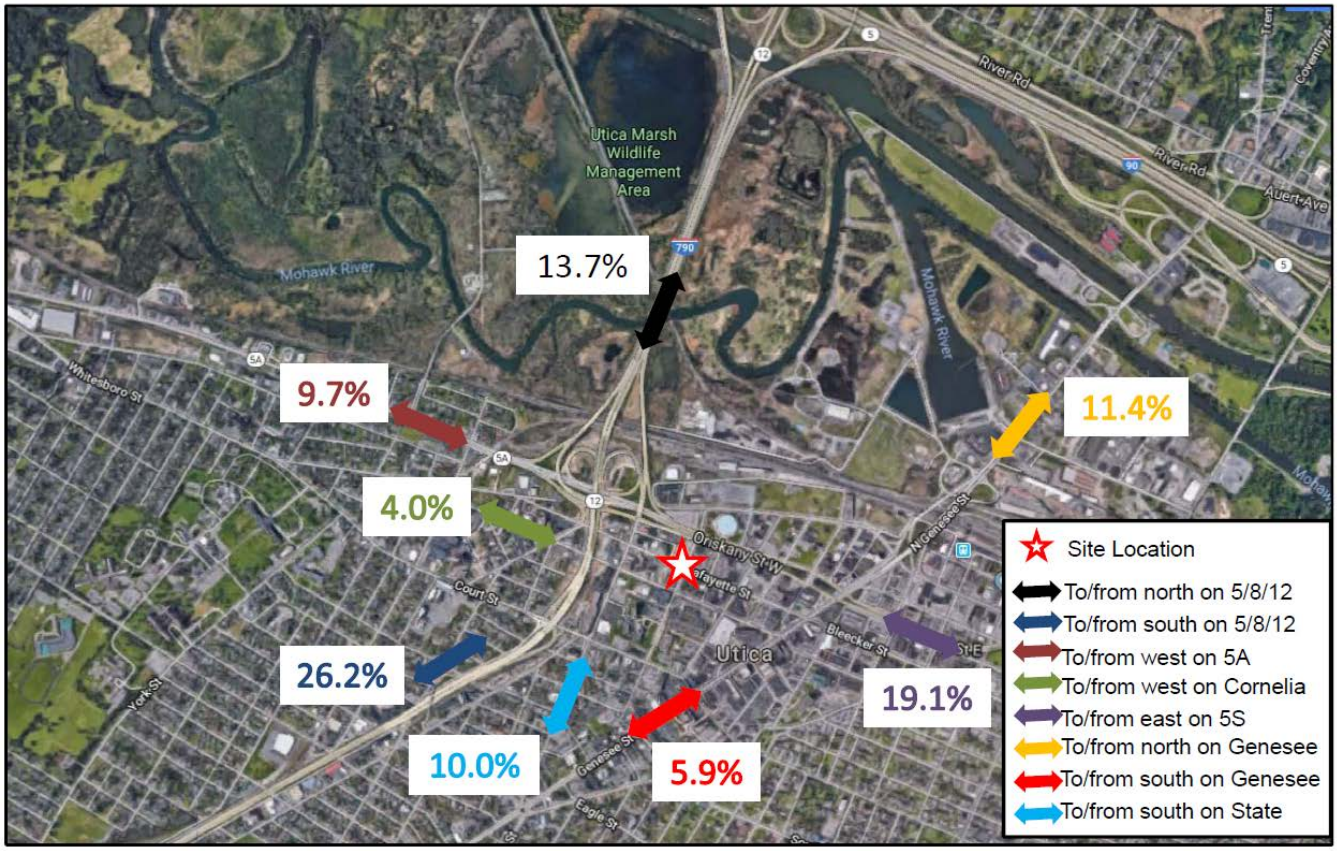

Figure 13. Regional Trip Distribution
Source: C&S (TIS, Appendix F)

Alterations to Present Pattern of Movement

A future build capacity analysis was performed to compare the transportation settings resulting from the future IHC operations to the existing (baseline) conditions. When analyzing the AM and PM peak hour future condition LOS, all of the study intersections operate at LOS C or better except for the following intersections (both during the PM peak hour):

- State Street & Lafayette Street /Emergency Department Access (average intersection LOS F [85.6 sec] previously LOS D [43.8 sec])
- Cornelia Street & Oriskany Street (average intersection LOS D [42.4 sec] previously LOS C [21.8 sec])

Under proposed conditions (IHC build-out), the following movements are expected to operate at a LOS E or F:

- State Street & Lafayette Street/ED Access (PM)
  - Northbound THRU/RT = LOS F (101.4 sec) previously LOS F (84.1 sec) when Lafayette Street continued eastbound through State Street
  - Southbound THRU/RT = LOS F (91.9 sec) previously LOS B (19.5 sec)

- State Street & Court Street (PM)
  - Northbound LT = LOS E (63.9 sec) previously LOS C (22.1 sec)
- Cornelia Street & Oriskany Street (AM)
  - Northbound LT/THRU/RT = LOS E (72.2) previously LOS D (53.4 sec)
- Cornelia Street & Oriskany Street (PM)
  - Northbound LT/THRU/RT = LOS F (176.3) previously LOS E (63.9 sec)
- Broadway & Oriskany/Liberty Street (AM)
  - Southbound LT = LOS E (55.9 sec) previously D (52.7 sec)
- Oriskany Street & Genesee Street (PM)
  - Northbound THRU = LOS E (74.1 sec) previously D (52.8 sec)

In addition, there is expected to be some delay during the PM peak hour for vehicles exiting the new parking garage onto State Street (LOS F [79.2 sec]). It is not anticipated that this delay, internal to the garage, will impact operations of the adjacent roadways. The future build condition model reports are included in Appendix B of the TIS (Appendix F).

3.7.3 Mitigation Measures

The following mitigation measures are proposed to minimize or eliminate the potential for, and/or significance of, potential adverse impacts.

Construction

To minimize impacts on traffic flow (including delays and queued vehicle exhaust emissions) from project-related activities within road rights-of-way (*i.e.*, off-site utility work), and project-related vehicles, equipment and materials accessing and egressing the site, the contractor(s) will be required to prepare, implement and maintain a maintenance and protection of traffic plan.

The maintenance and protection of traffic plan would be prepared to mitigate project-specific impacts. The plan would be developed to conform to highway work permits, local guidelines, and the MUTCD for Streets and Highways. As applicable, mitigation measures may include the use of:

- Post mounted traffic control and informational/work zone warning signs – As necessary, traffic signs in conformance with Part 201 of the MUTCD will be installed at crossroads, detours, parking areas, and elsewhere, as needed, to direct construction and affected public traffic. Signs will be relocated as work progresses to maintain effective traffic control
- Traffic cones and drums, flares and lights – As specified in the MUTCD, contractors will be required to use flares and lights during hours of low visibility to delineate traffic lanes to guide traffic
- Flag persons – Construction contractors will be responsible for providing trained and equipped flag persons to regulate traffic when construction operations or traffic encroach on public traffic lanes and shoulders
- Staging/laydown areas – Construction contractors will be responsible for identifying material staging and laydown areas proximal to the work area. Material staging and laydown area locations will be incorporated into the maintenance and protection of traffic plan.

The contractor(s) will be required to repair roads including the replacement of subbase and new asphalt where the original road is impacted by utility work (including entrances and exits). Work will be coordinated with both the City and NYSDOT and performed in accordance with the highway work permits and the project SWPPP.

Construction-phase access to the project area will be controlled. Figure 14 illustrates the primary path proposed for material deliveries. Project engineers will coordinate with contractors to utilize the North-South Arterial Highway to avoid traffic through the downtown area. Excess materials (including spoils and Construction and Demolition [C&D] debris) will be removed from the site from staging areas along State and Columbia Streets; with quick access to the North-South Arterial Highway.

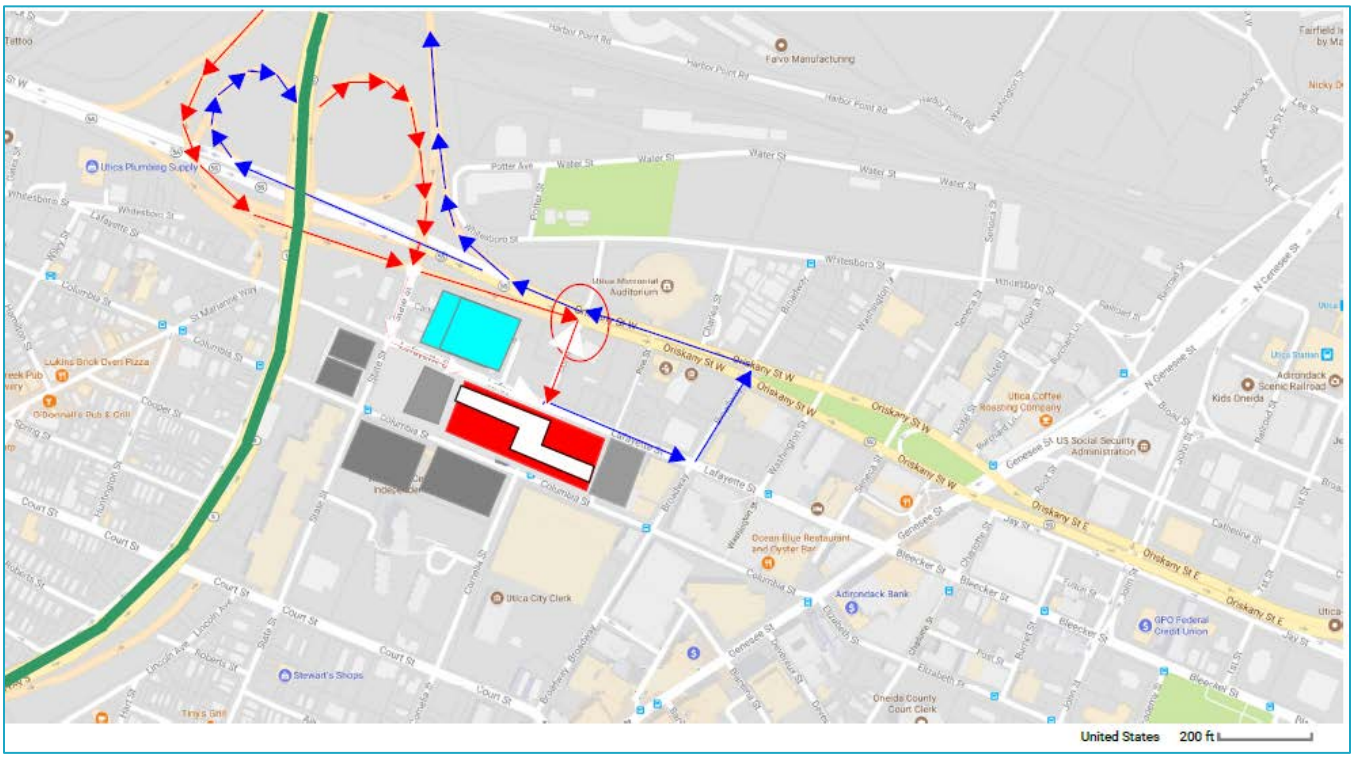

Figure 14. Construction-Phase Access and Egress
(Source: Turner Construction)

Vehicular parking allocated to construction workers will be limited to project staging and laydown areas. Contractors will be responsible for controlling construction-related parking to prevent interference with public traffic and parking, and access by emergency vehicles. Parking on or adjacent to entrance roads or in non-designated areas will be prohibited. Contractors will be required to remove equipment and devices no longer required for construction purposes from the project area.

Operations

Based on the analysis provided in the TIS (Appendix F), it was determined that the proposed development will not have a significant adverse impact on the adjacent transportation network with the following mitigation measures implemented beyond what is expected as part of the development plan for the project:

- Coordination with CENTRO Utica to accommodate any necessary changes in bus services (routes, stops, capacity) within the project area, as a result of the IHC project
- Ensure adequate pedestrian facilities are available from each proposed parking area to the access points of the main hospital building
- Construction of a pedestrian/utility bridge over Columbia Street
- Incorporation of a pedestrian walkway to replace a portion of Lafayette Street; this walkway is proposed to extend from the main IHC entrance to the west, terminating at State Street
- Incorporation of sidewalks and crossings along the reconfigured city streets

- Implementation of optimized signal timings at the following intersections (to be coordinated with the City and NYSDOT):
  - State Street & Lafayette Street/Emergency Department Access (PM)
  - State Street & Court Street (PM)
  - Cornelia Street & Oriskany Street (AM & PM)
  - Broadway & Oriskany/Liberty Street (AM)
  - Oriskany Street & Genesee Street (PM)

3.8 ENERGY

The proposed action may have an impact on energy. The following potential impacts, identified in the scoping process, are evaluated in this section (also see Section 4 – Effects on the Use and Conservation of Energy):

Construction

- Significant adverse impacts to energy are not anticipated.

Operation

- The peak electrical demand load for the proposed MVHS IHC is estimated to be 4.2 Megavolt-Amperes ("MVA"). Although upgrades to the exiting electrical distribution system may be required to adequately service the IHC, the electrical demand is not anticipated to significantly impact the grid
- The proposed action will involve heating and/or cooling of more than 100,000 sf of building area when completed
- Diesel-fueled emergency generators will also be used at the proposed MVHS IHC

3.8.1 Existing Conditions

Electrical and Natural Gas Service

Electric[83] and natural gas utilities exist extensively within and adjacent to the project area and are operated and maintained by National Grid. The gas mains and underground electric conductors are owned by National Grid. The underground conduits and vaults are owned by the City of Utica, and leased to National Grid for use.

Existing Electric and Natural Gas Demand

Energy use within and proximal to project area is primarily driven by the need for heat and electrical power for the current property owners and businesses.

3.8.2 Potential Impacts

Construction

Construction-related activities will require the use of electricity, as well as fuels to power equipment and vehicles. Construction vehicles are typically powered by diesel fuel; however, potential alternatives include natural gas (CNG and LNG), biodiesel, or LPG (propane). Consumption activities are expected to continue throughout the construction phase, but are not expected to significantly impact existing reserves.

To service the project, existing electric and natural gas infrastructure will be relocated out of the IHC footprint, into public rights-of-way. Locations will be identified through on-going coordination between MVHS, National Grid and the City. Impacts will be short-term; extending through a portion of the construction phase.

[83] Includes a 13.2 kV underground feed in Cornelia and Lafayette Streets, as well as an electrical substation located at National Grid's Harbor Point site (Terminal Substation).

Operation

Electrical Demand

Based on preliminary calculations (SSR 2018), the peak electrical demand load for the proposed IHC is estimated at 4,304.27 kilowatts (kW). An estimated electrical demand load summary is provided below (Table 15). The summary is based on a 685,000-sf facility utilizing a chilled water plant that will maintain 68-degree air in most of the facility. Electric heating load is minimal, consisting primarily of electric heat tracing cable. The demand summary was produced using estimated power density values, which is consistent with the current level of project design development.

Table 15. Estimated Electrical Demand Load Summary

Load Category	Load (kW)
Lighting (100% LED)	479.50
Receptacles	1,027.50
Miscellaneous Equipment	274.00
Electric Heating	68.50
Motors (Chillers, Pumps, Cooling Towers, HVAC)	2,218.50
Fire Pump (assumed 250 HP)	236.27
Total Estimated Demand Load	**4,304.27**

Source: Smith Seckman Reid, Inc. (SSR)

Two 15 kV utility electric services will enter the CUP and be distributed to four switchgear rooms on the hospital roof, where the service will be transformed down to 480 and 120-volt distribution branches.

National Grid has verbally indicated, in consultation with the design team, that existing infrastructure proximal to the project site (*e.g.*, substation, transformers, and feeders) are adequate to support the hospital's proposed electrical demand, and will have no adverse impact to current capacity or service levels to others in the network.

Although, the existing infrastructure and electrical capacity of the grid will be sufficient to operate the IHC and supporting elements, the potential exists that the hospital will receive dedicated feeders, which would require upgrades to the existing National Grid substation and approximately 1.5 miles of new feeders; however, this option is solely based on MVHS's discretion and is not necessary for service.

Natural Gas Demand

The peak natural gas load and annual natural gas usage for the proposed IHC is estimated at 50 mcf/hour and 90,000 mcf/year, respectively (SSR 2018). To meet demand and minimize disturbances to existing customers, an 80 psi, 6-inch diameter gas main will be installed and extended approximately 2,500 lf to the site from National Grid's existing 80 psi supply main[84]; no significant adverse impacts to the capacity or service levels to others in the network are anticipated.

Heating/Cooling

The hospital HVAC system consists of roof-mounted central air handling units, which supply conditioned and filtered air to variable volume terminal reheat boxes. Return air is ducted back to the unit. Sound attenuating elbows will be located at strategic locations in the ductwork. Roof-mounted exhaust fans remove air from restrooms, kitchen and laboratory hoods. Water chillers provide chilled water to the air handling units and gas-fired (with fuel oil-backup) condensing boilers provide hot water to the terminal reheat boxes. Chillers, boilers and associated equipment will be located in the CUP. Natural gas for the boilers will be piped in from the existing utility grid located within the street.

[84] Extension of the gas main may require crossing underneath an existing railroad. If necessary, National Grid will coordinate the crossing with CSX.

Emergency Generators

In accordance with code requirements, the IHC will be served by two 2,500 kW diesel-fueled emergency generators with automatic transfer (located in the CUP) supplied by a 50,000-gallon UST (installed adjacent to the CUP). The generators will have sufficient capacity to power the hospital in the event of a power failure[85]. The generators will be housed within noise-attenuating enclosures; and will be regularly tested, maintained, exercised, and inspected in accordance with code and manufacturer specifications. Use of the generators will not adversely impact energy supplies.

3.8.3 Mitigation Measures

The proposed project would be constructed in accordance with the New York State Energy Conservation Code, which is also the basis for the State and City energy policy. The following mitigation measures are proposed to minimize or eliminate the potential for, and/or significance of, potential adverse impacts.

Construction

While no significant adverse impacts on existing energy resources/capacities are anticipated from construction-phase activities, contractors can select and implement alternative options and methodologies to reduce/minimize energy use. Measures include:

- Implementation of a maintenance and protection of traffic plan including the scheduling of activities to reduce traffic delays and associated fuel consumption
- Use of alternative fuels or energy-saving equipment
- Evaluation of material selection for interior and exterior building materials for recycled content and local material
- Evaluation of interior material selection for indoor air quality impacts
- Diversion of construction and land clearing debris from landfill disposal
- Redirecting recyclable-recovered resources back to the manufacturing process
- Redirecting reusable materials to appropriate sites (other projects)
- Buying and hiring locally to avoid or minimize delivery and travel costs.

Reuse and recycling of materials will result in a further reduction in energy use that might otherwise be expended to produce new materials.

Mitigation related to secondary impacts resulting from the extension of electric and/or natural gas lines within road or railroad rights-of-way is identified in Section 3.7.

Operation

No significant adverse impacts on energy are anticipated as a result of project-related operations. Energy requirements will be consistent with energy policy recommendations established in the New York State Energy Conservation Construction Code.[86] Additional BMPs could include:

- Promotion of "green" product purchases including the use of recycled and reusable materials

[85] 72-hours of operation for the boilers in case of interruption of the natural gas service.
[86] https://www.dos.ny.gov/DCEA/pdf/2016%20EC%20Supp-Revised-2016-08-12-approved%20bycouncil%20V-A.pdf

- Building design and efficiency
  - Facilities include energy-efficient lighting (including spacing) and other equipment
  - Purchase of equipment based on life-cycle costs rather than initial costs of equipment
  - Proposed facility designs which promote sustainable building practices using the United States Green Building Council's "Leadership in Energy and Environmental Design" (LEED) program or a similar system; elements currently proposed include:
    - Heat recovery chiller that puts "waste" heat to use year-around (in CUP)
    - Low temperature hot water heating system with high efficiency (condensing) hot water boilers (in CUP)
    - Green islands within the parking areas
    - Use of energy efficient mechanical, electrical and plumbing systems
- Urban forestry
  - Promote tree planting to increase shading and to absorb CO_2 (*i.e.*, creation of GHG emission offsets at facilities)
- Energy conservation measures (construction and operation phases).
  - Purchase of electricity generated from renewable resources
  - Implementation of "plug-load" audit recommendations to identify operation-phase power management strategies (*i.e.*, automatic turn-off of computers during non-business hours or into "sleep" mode when not in use for a certain period of time during normal work hours)
  - Energy conservation employee training
  - Optimization of vehicle usage (*i.e.*, promotion of carpooling, access to and use of mass/public transit, encouragement of efficient driving techniques, use of active modes of transportation including walking, bicycling, *etc.*).

3.9 UTILITIES

The proposed action may have an impact on utilities. The following potential impacts, identified in the scoping process, are evaluated in this section:

Construction

- Temporary impacts due to the abandonment/removal; and installation of utilities (*e.g.*, sanitary and storm sewer, water, electric and natural gas). Specific construction-related impacts are identified elsewhere in this scoping document

Operation

- Although improvements/modifications to the existing utility infrastructure will be necessary to provide adequate services to the IHC, the utility systems themselves currently have sufficient capacity to service the IHC. Therefore, no significant adverse impacts on utility infrastructure capacities are anticipated

3.9.1 Existing Conditions

Sanitary Sewers – Existing

The proposed project area is currently served by the City of Utica's sanitary sewer system. The City of Utica is a member of the Oneida County Sewer District (OCSD). The OCSD is administered through the Oneida County Department of Water Quality and Pollution Control (WQ&PC). The City of Utica is responsible for operation and management of the collection system sewers within the City, while WQ&WPC is responsible for the operation and management of the sewer district infrastructure, including approximately 45 miles of interceptor sewers, the Sauquoit Creek and the Barnes Avenue Pumping Stations, and the Oneida County Water Pollution Control Plant (WPCP) (Shumaker *et al*. 2012). Sanitary sewers servicing the project area are shown on Figure 15, below.

Storm Sewers – Existing

Many of the storm sewers within the City of Utica, including some within the proposed project area are combined with the sanitary sewage system. During times of heavy rainfall or snow melt, the combination of wastewater and stormwater surpasses the capacity of the sewers. The excess flow then overflows and discharges into surface water bodies (*e.g.*, Mohawk River) via NYSDEC-permitted outfalls. This type of occurrence is known as a CSO, and is a major contributor of pollution to surface water bodies across the country. In response, the City of Utica is implementing a NYSDEC-approved Long Term Control Plan requiring the City to increase its percent capture of CSO to 85% (Shumaker *et al*. 2012).

To achieve its CSO capture goal, the City is replacing its combined infrastructure with separate storm and sanitary sewer systems through a series of CSO Control Projects. Currently, CSO Control Project A9.1, which is being conducted in the vicinity of the project, is in the early planning stages. The CSO project includes the construction of a new outfall under the existing CSX railroad, downstream from the existing 42-inch diameter storm sewer currently located in Cornelia Street (at Oriskany Street). The new outfall will increase the amount of stormwater that can be routed through this existing storm sewer, as the new outfall will bypass a known hydraulic limitation at the CSX bridge over Nail Creek. These proposed improvements, as well as the existing storm sewers within the project area are shown on Figure 16.

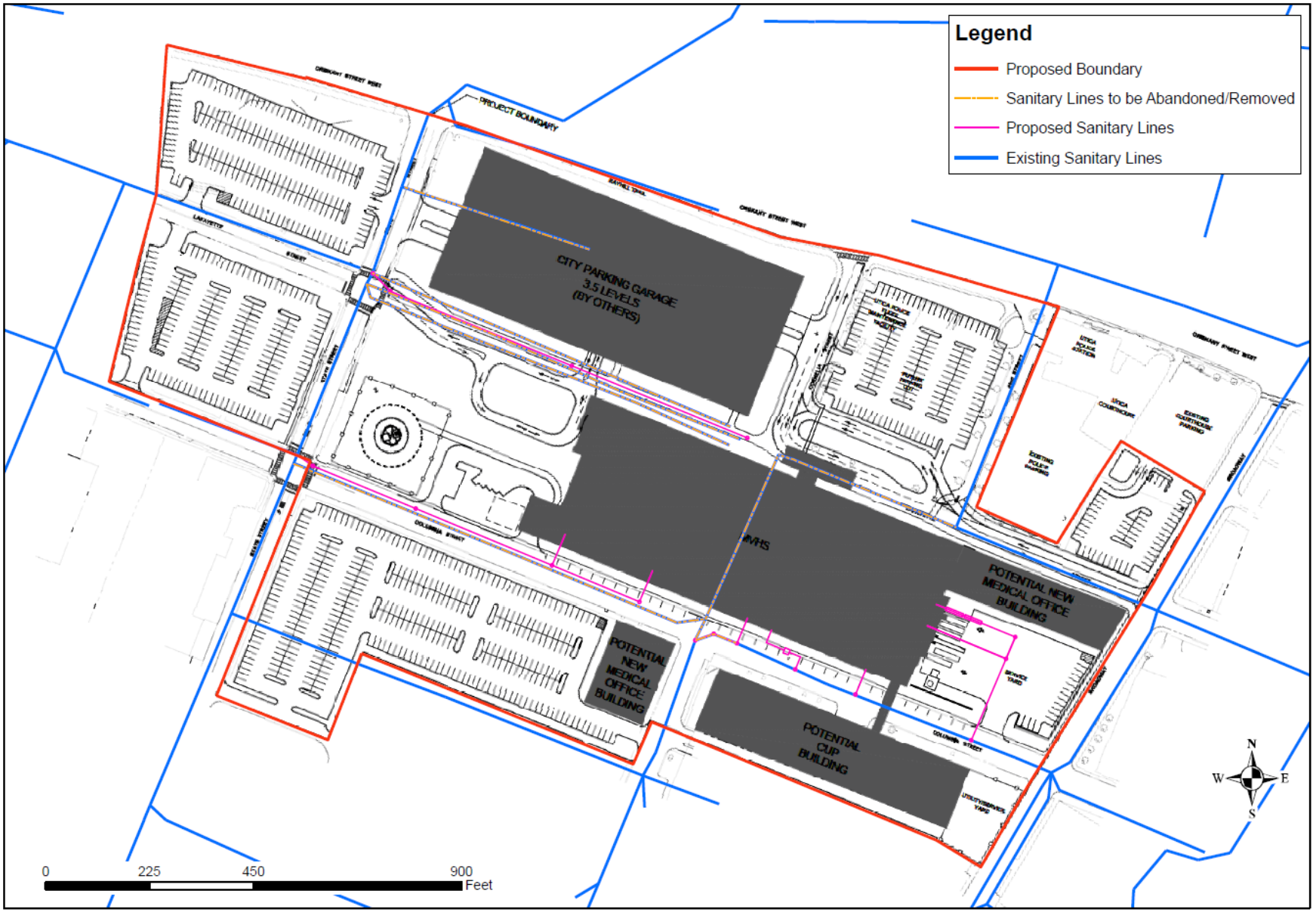

Figure 15. Existing and Proposed Sanitary Sewers

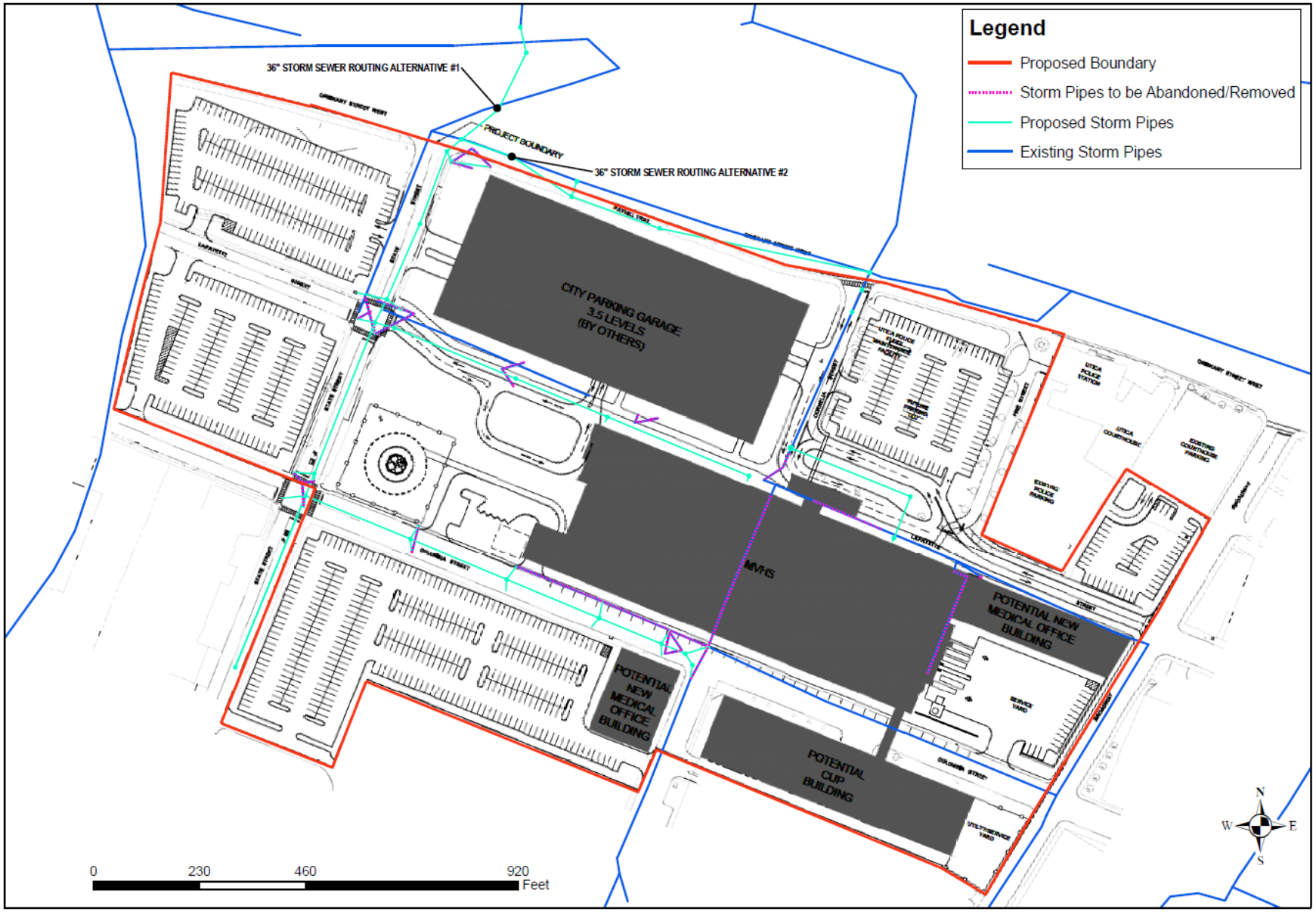

Figure 16. Existing and Proposed Storm Sewers

Water – Existing

According to the Mohawk Valley Water Authority (MVWA), water is supplied to the downtown area by a 16" primary feed, which extends west along Oriskany Street, south on State Street to Lafayette Street. A secondary feed with a strong flow is the 10" main on Columbia Street that is fed by a 20" main on Genesee Street. According to the MVWA, both feeds can supply large amounts of water. Existing static pressure in the area is approximately 88 psi, which varies with the area surface elevation between 426 and 434 feet. Redundancy is provided for the Genesee Street main fed by the Deerfield Reservoir. If a system break occurs, a pressure regulating valve in Yorkville can open to supply water to a 20" main coming down Erie Street to the 16" primary on Oriskany Street. Locations of existing water mains are illustrated on Figure 17.

Telecommunications – Existing

Existing telecommunications (*i.e.*, phone, fiberoptic/cable, and high-speed internet) are currently available within the proposed project area, and are serviced by a variety of providers including Verizon, Spectrum and Northland Communications.

3.9.2 Potential Impacts

Precluding implementation and maintenance of appropriate mitigation measures, the following adverse impacts could occur from construction and operation of the project.

Construction

Sanitary Sewers – Proposed Improvements

Wastewater associated with hospital operations is anticipated to be 187,000± gallons per day (gpd) and will be discharged to the WPCP via City sanitary sewers and Oneida County interceptor sewers. Based on the proposed building layout, it is believed that the following modifications will be made to the sanitary infrastructure within the proposed project area, as shown on Figure 15:

- All existing sewers in Lafayette Street, between State Street and Cornelia Street will be abandoned/removed, including 12", 15", and 18" diameter sewer piping
- A new 15" diameter sewer on Columbia Street would need to flow in the reverse direction of the existing 15" and tie-into the 48" trunk sewer on State Street
- A new section of 18" sewer will divert upstream flow from Cornelia Street to the existing 24" sewer in Columbia, discharging to the 33" sewer in Broadway

Other potential new sewers include new 15" diameter pipe in Lafayette Street, on the north side of the hospital. The location and size of sanitary laterals and connections will depend on the plumbing/mechanical design of the new hospital buildings. It is assumed each new structure will have its own service lateral(s) connecting to the City mains.

Storm Sewers – Proposed Improvements

To provide sufficient capacity and drainage for the proposed project, sections of existing storm sewers within the project area will be abandoned/removed and new storm sewers will be installed, as shown on Figure 16. The modifications will include:

- Abandonment/removal of 12" and 15" pipe on Lafayette Street
- Removal of 36" trunk sewers from Cornelia Street, between Columbia Street and Lafayette Street
- Removal of 12" storm sewer from Columbia Street

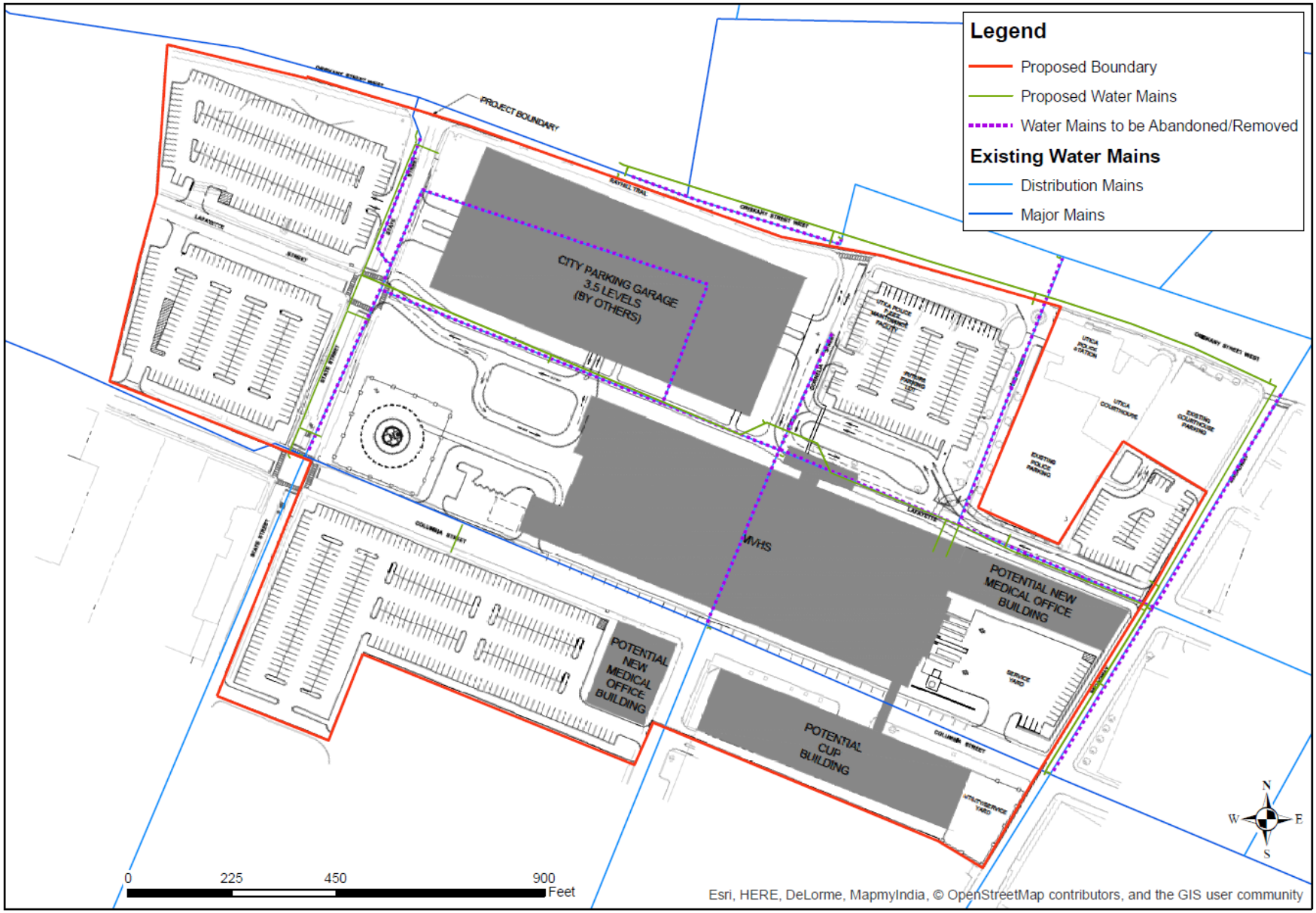

Figure 17. Existing and Proposed Water Mains

- Installation of new 36" diameter storm sewer on Columbia Street, State Street, and potentially along Oriskany Street connecting back to the existing 42" line crossing Oriskany Street West/Route 5S at Cornelia Street, or boring under Oriskany Street to connect to an existing storm sewer on the north side of Oriskany Street.
- Installation of new storm sewer, as needed to tie-in catch basins along the route of the new storm sewer mains.

Water – Proposed Improvements

Water demand for the IHC is estimated at approximately 500 gallons per minute (gpm). Due to the configuration of the hospital in regard to current infrastructure, the abandonment and rerouting of some water mains will be required. Water mains to be replaced or installed are shown on Figure 17 and proposed improvements will consist of the following:

- Older 6" and 16" mains on State Street will be replaced with a new 16" water main
- A 6"/8" main on Broadway will be replaced with a 12" pipe between Columbia Street and Oriskany Street
- Installation of a 12" water main along Oriskany Street East between State Street and Broadway
- Installation of a 12" water main (private) along Lafayette Street, between State Street and Broadway to serve the hospital
- Potential installation of booster pumps to increase flow rates and pressures necessary for fire protection, as well as domestic water, to the upper floors of the proposed hospital.

Telecommunications – Proposed Improvements

Utility purveyors will extend connections to facilities within the project footprint. Potential impacts will be limited to construction-related impacts associated with extending service connections to proposed project facilities; these short-term impacts are not considered significant and can be mitigated consistent with other work within road rights-of-way (ROWs).

Utility Installations/Removals

Potential secondary impacts, which may occur during utility-related construction consist of:

- Potential to encounter groundwater during below-grade construction activities (*e.g.,* utility trenching), which will require temporary dewatering (as discussed in Section 3.3 – *Groundwater*).
- Potential to encounter impacted soil/groundwater from past land use(s) (as discussed in Sections 3.1 – *Land*, and 3.3 – *Groundwater*)
- Potential temporary impacts (sediment laden runoff) to downgradient waterbodies (*i.e.*, Mohawk River, NYS Barge Canal) resulting from disturbances to the soil profile, and exposure of bare soils, from construction activities (as discussed in Section 3.2 – *Surface Water*)

Operation

Utility Capacities

- **Sanitary Sewers** – In correspondence dated September 28, 2018 (see Appendix J), the Oneida County Department of WQ&PC indicated that:

  > *"Current County facilities can accommodate the estimated sanitary sewage design flow of 360 gallons per minute from the proposed healthcare facility. The proposed healthcare facility operations can be supported with no adverse impact on utilities or expansion of existing infrastructure."*

- **Storm Sewers** – The project will result in a net decrease in impervious surfaces in comparison to existing conditions (15±% decrease). The stormwater management system for the project will be designed to control the rate of runoff from the site to at, or below, the rate of runoff during existing conditions. In addition, the system will manage the quality of runoff to eliminate any potential impacts on receiving water bodies. The stormwater system will be designed in accordance with local, state and federal requirements as described in Section 3.2; and, so, no significant adverse impacts are anticipated.
- **Water** – In correspondence dated August 8, 2018 (see Appendix J), the MVWA indicated that they can meet the water demands of the project. The MVWA summarized that:

  "…the average water demands of 500 gpm can be met with existing water system delivery capacity and storage reserves. There will be no adverse impact on current capacity or service levels to others. Final Campus configuration will require abandonment and rerouting of some water mains. Furthermore, fire quantity demands can be supported in terms of water storage capacity however, the required flow rates and pressures may require booster pumping dependent upon the final demand.

- **Telecommunications** – IHC operations will result in additional demand for telecommunications and fiber optic services. The proposed improvements would utilize capacity for phone, cable, and internet services; additional capacity needs would be off-set by the termination of services to existing facilities, which will be relocated. No significant adverse impacts on existing capacities are anticipated.

3.9.3 Mitigation Measures

The following mitigation measures are proposed to minimize or eliminate the potential for, and/or significance of, potential adverse impacts.

Construction

- If groundwater is encountered during utility removal or installation, it will be characterized to identify the appropriate method of management. If determined to be impacted, it will be managed and disposed of off-site in accordance with applicable local, State, and Federal requirements. If deemed clean, the groundwater will be managed in accordance with standard dewatering practices identified in the General Permit and site-specific SWPPP, as previously discussed in Sections 3.1 and 3.3.
- If impacted soils are encountered they will be removed and disposed of at an approved off-site facility in accordance with applicable local, state and federal regulations.
- Measures will be put in place to prevent temporary impacts to soil erosion and downgradient water bodies (sediment laden runoff) due to excavation and trenching operations associated with utility installations or removals. E&SC measures and BMPs identified in the General Permit and site-specific SWPPP will be employed, as previously discussed in Section 3.1.

Adherence to these measures should provide sufficient mitigation to eliminate potential significant adverse impacts related to utility removal/installations.

Operation

No significant adverse impacts to the capacity or service levels to others in the network are anticipated from hospital operations., therefore no mitigation measures relative to utility service and capacities are warranted. Service connections will be coordinated with respective purveyors. Stormwater management measures, designed in accordance with local, state and federal requirements, will be implemented as described in Section 3.2.

3.10 NOISE AND ODOR

The proposed action may have an impact on noise and odor. The following potential impacts, identified in the scoping process, are evaluated in this section:

Construction

- Temporary construction-related noise impacts from the following:
  - Equipment necessary to prepare the project area (including demolition) and construct the proposed MVHS IHC
  - Vehicles and equipment accessing and egressing the site including trucks hauling C&D debris for off-site management
  - Temporary power generators
- Significant adverse odor impacts are not anticipated.

Operation

- Sporadic noise in excess of existing ambient levels during operation may be generated by incoming ambulances and helicopter flights
- Significant adverse odor impacts are not anticipated.

3.10.1 Existing Conditions

Noise

For the purposes of this assessment, noise is defined as "unwanted sound." Some noise (*e.g.,* police sirens, garbage trucks) are essential to the health, safety and well-being of the city. Other noise emanates from many different sources including traffic, businesses, residences, construction, people and animals. Existing noise sources in the proposed project area include traffic, businesses, residences and humans.

Many factors impact the perception of sound. These include the level of sound, the frequencies involved, the duration of exposure, and the variations in noise level during exposure. Levels of noise are measured in units called decibels (dB). A-weighted decibels (dBA) refers to noise and its effects on humans and other animals. Based on information from the USEPA, existing ambient day-night sound levels may be expected to range from 70 (urban row housing on major avenue) to 80 dBA (downtown with some construction activity.[87] In addition, a significant portion of the project is located near Oriskany Street and the North-South Arterial Highway, which are influenced by noise generated from vehicular traffic and local businesses.

Sensitive receptors within or proximal to the project area (*i.e.,* residences, churches/synagogues/mosques, schools, senior homes, schools, *etc.*) were identified in Section 3.4.

The City of Utica has enacted a municipal noise ordinance (§ 2-15-63 of the City Code, Permissible Noise Levels in Zoning Districts). An excerpt from the ordinance, which summarizes City noise limits, as presented in Figure 18.

[87] http://www.nonoise.org/library/levels/levels.htm (USEPA 1979)

Sec. 2-15-63. Permissible noise levels in zoning districts. [Code 1964, § 16-9(c)-(e)]

A noise measured or registered as provided in this division from any source other than as provided in Section 2-15-67 at a level which is equal to or in excess of the db(A) established for the time period and zones listed in this section is declared to be excessive and unusually loud and is unlawful.

Zone	7:00 a.m. to 10:00 p.m. (db(A), Lmax)	10:00 p.m. to 7:00 a.m. (db(A), Lmax)
Residential	55	50
Commercial	60	55
Light industrial	70	65
Industrial	80	75

When a noise source can be measured from more than one zone, the permissible sound level of the more restrictive zone shall govern.

Between the hours from 7:00 a.m. to 10:00 p.m., the noise levels permitted in Subsection (b) may be increased by 10 db(A) for a period of not to exceed 15 minutes in any one-hour period.

Where noise is periodic, impulsive or shrill, the permitted sound level for these noises shall be fi db(A) less than those listed in Subsection (b) of this section.

Figure 18. Permissible Noise Levels in Zoning Districts (City of Utica)

Odor

No significant or long-term sources of odor currently exist within the project area.

3.10.2 Potential Impacts

Precluding implementation and maintenance of appropriate mitigation measures, the following adverse impacts could occur from construction and operation of the project.

Construction

Construction-related Noise

Noise will be generated during demolition and construction activities associated with the proposed project. Construction-related noise will be short-term, intermittent and limited to the construction phase. Common construction equipment sound levels may be expected to range from 70 to 90 dBA at a distance of 50 feet (NYSDEC 2001[88]). Off-site noise will be generated by construction-related traffic accessing and egressing the site, and traveling on local roads.

Construction-related Odor

No significant construction-related odors are anticipated. Short-term impacts from construction-related emissions and soil disturbances were previously addressed in Sections 3.4.

[88] http://www.dec.ny.gov/docs/permits_ej_operations_pdf/noise2000.pdf

Operation

IHC, MOB and Parking Garage Operations

Operation phase activities associated with the project are not anticipated to result in noise levels substantially different than existing noise sources and levels generated from existing operations within the project area. The primary sources of noise will be vehicular traffic entering and egressing project elements (*i.e.*, IHC, MOB, parking garage). Normal operations (including facility mechanical equipment) will be required to comply with the City's noise ordinance; no significant adverse noise impacts are anticipated. Periodic, episodic events such as helicopter arrivals and departures (*i.e.*, 40/year) and ambulances are described below.

Helicopter/Ambulance Noise

Maximum sound levels from individual helicopter operations are expected to be short in duration. As with some existing community noise sources, helicopter arrivals and departures would have the potential to affect speech intelligibility for short periods of time. Lower ambient levels at night could make the helicopter noise more prominent. The community will hear the helicopter operations just as they currently hear buses and trucks on the local roads, but since helicopters (and ambulance sirens) have a unique sound and are episodic, the community will perceive the sound source as unique.

Noise generated from helicopter and ambulance operations are episodic. Episodic noise is infrequent and short-term, with durations lasting only as long as the arrival and departure duration of the equipment. Significant adverse long-term impacts are not anticipated.

Odor

No significant operations-related odor sources were identified.

3.10.3 Mitigation Measures

The following mitigation measures are proposed to minimize or eliminate the potential for, and/or significance of, potential adverse impacts.

Construction

Construction-related Noise

To mitigate construction-related noise, the following mitigation measures may be implemented:

- Contractors will be responsible for using appropriate mufflers on machinery to mitigate potential construction-related noise impacts
- Limiting workday construction activities to normal hours (the NYSDEC program policy suggests that limiting activity to normal workday hours is an effective mitigation [NYSDEC 2001])
- Compliance with the requirements identified in Chapter 2-15 of the City of Utica's Municipal Code and Ordinances

Construction-related Odor

No significant adverse odor impacts are anticipated during the construction phase. Short-term construction-related emissions from equipment and vehicles will be mitigated as indicated in Section 3.4. If petroleum-impacted soils are encountered during excavations, they will be managed in accordance with state and federal regulations, as outlined in Sections 3.1, 3.2, and 3.3.

Operation

IHC, MOB and Parking Garage Operations

To mitigate operations-related noise, the following mitigation measures may be implemented:

- Use of noise attenuation devices/building materials, as necessary (acoustic panels and fully grouted concrete masonry units to attenuate sound transmission through facility walls)
- The housing of roof-top or externally located HVAC system elements in noise attenuating enclosures, as necessary; sound attenuating elbows will be located at strategic locations in the ductwork
- Sound attenuation will be provided at the emergency generator discharge louvers
- Utilization of engineering controls that minimize noise generation and allow employees to work in designated areas without hearing protection (designed to an occupational exposure limit <85 dBA)
- Maintaining day and night time operation phase sound levels at the nearest sensitive receptor (*i.e.*, the property line) in accordance with local code
- Use of landscaping and/or berming for noise abatement.

Helicopter/Ambulance Noise

To mitigate intermittent, episodic noise from periodic helicopter and ambulance operations, the following mitigation measures and best practices may be implemented:

- MHVS will coordinate with helicopter companies to identify optimum arrival and departure flight procedures and paths to minimize episodic noise impacts.

Operations-related Odor

No significant or long-term sources of odor are anticipated from long-term operations within the IHC. Solid waste management practices (see Section 3.13) will incorporate good housekeeping and best management practices including proper storage (*i.e.*, covered receptacles, bins, and dumpsters), transport and off-site management of waste materials.

In addition, the project will adhere to the City's zoning code, which indicates that "no emission shall be permitted of odorous gases or other odorous matter in such quantities as to be readily detectable without instruments at the property line of the zone lot from which they are emitted" (§ 2-29-529 of the Utica City Code).

3.11 HUMAN HEALTH

As noted in Section 1, implementation of the project is based on a desire and need to build a facility with the newest technology, services and advancements in patient safety and quality so that our community can receive the most up-to-date healthcare services that rivals those found in large cities. Attainment of this objective will have a significant beneficial impact on human health. As identified in the scoping process, construction and implementation of the project could also result in the following impacts, which are evaluated in this section:

Construction

- Vehicles and equipment accessing and egressing the project site
- Disturbance of hazardous building materials during demolition activities (*e.g.*, asbestos, lead, *etc.*)
- Potential to encounter impacted soils/groundwater (from past or existing land use).

Operation

- Impacts on sensitive receptors (*i.e.*, proximity to three licensed daycare centers and religious centers)
- Proximity to existing impacted sites (*i.e.*, completed or on-going remediation or spill response)
- Increase in the rate of disposal or processing of solid and other types of waste
- Use of pesticides or herbicides.

This section also evaluates "reasonably foreseeable catastrophic impacts" (even if the probability of such an occurrence is small). During the public scoping process, several commenters identified concerns relative to the proposed project site's proximity to the existing CSX railroad, including the potential impacts resulting from a train derailment. This section includes a general discussion of the likelihood that the catastrophic impact would occur.

3.11.1 Existing Conditions

Preliminary Environmental Due Diligence Review

Existing and past land uses were previously described in Sections 3.5 and 3.6, respectively. Existing and past operations, including activities conducted in accordance with prior regulations and acceptable practices, may have resulted in environmental impacts (Recognized Environmental Conditions, RECs[89]) within and adjacent to the project footprint. These RECs could be encountered during construction phase activities (see Sections 3.1, 3.2, and 3.3).

To provide a preliminary environmental review of the project area, OBG obtained an environmental database search package (see Appendix H) in 2016 to identify potential RECs associated with past and existing land uses; the following records were reviewed:

- Sanborn® Maps
- Aerial Photos
- Historical Topographic Maps
- Federal and state environmental databases:
  - National Priority List (NPL) – identified priority cleanup sites within the Superfund Program
  - Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) – releases, clean-ups and enforcement activities under the Superfund Act of 1980
  - Resource Conservation and Recovery Act (RCRA) Generators List – generators of hazardous waste
  - LTANKS – Leaking storage tanks
  - UST Registry – for both petroleum and chemical bulk storage
  - AST Registry – for both petroleum and chemical bulk storage
  - BROWNFIELDS – New York State Brownfields sites

[89] The American Society of Testing and Materials defines a REC as the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, ground water, or surface water of the property. The term includes hazardous substances or petroleum products even under conditions in compliance with laws. The term is not intended to include *de minimis* conditions that generally do not present a threat to human health or the environment and that generally would not be the subject to an enforcement action if brought to the attention of appropriate governmental agencies. Conditions determined to be *de minimis* are not RECs.

- NY SPILLS – Records of emergency release reports and subsequent remedial actions
- NY DRYCLEANERS – Records of dry cleaning businesses.

The 2016 literature search resulted in the following potential RECs:

- Spills – The database records indicate 10 spill numbers issued by the NYSDEC within the project area. Nine of those numbers are listed as closed and one number remains open. The one active spill number is associated with 401 State Street, owned by the City of Utica. The spill was reported as a tank test failure during the removal of a gasoline UST registered to B&G Diversified, Inc. in June 1993. Notes within the NYSDEC file indicate that 100 cubic yards of contaminated soil was removed with the tanks and "may have been disposed of at an unapproved site." The file also noted that a subsurface investigation is needed to define contamination in groundwater and soils, and that the site has been paved over and is no longer an active managed spill.
- USTs – The NYSDEC PBS database identifies 7 registered PBS facilities within the study area. All 7 of the facilities are closed and all registered USTs were removed. The former locations of the facilities are summarized in Appendix H. It should be noted that USTs may still be present at locations that pre-date registration requirements.
- Cleaners – Historical cleaning operations are identified in the NY DRYCLEANERS database. One property at 432 Lafayette Street was identified by the database search: Mutchlers Chem Dry Carpet & Upholstery; cleaning is the business type reported with the record. Cleaners historically used solvents that, if released to the environment can impact soil and groundwater. The presence of volatile organic compounds in soil and groundwater resulting from chemical or petroleum spills can potentially create a vapor intrusion concern. Vapor intrusion occurs when soil vapors migrate into a building through foundation cracks and penetrations, potentially creating nuisance odors or exposure to building occupants. No known spills were identified at this property or in relation to the business name noted above.
- Sanborn® Map Review – Sanborn® Maps were ordered as part of the environmental database search package. Coverage was available for the subject area for 1884, 1888, 1899, 1925, 1950, 1952, 1970, 1973, and 1986. The maps were reviewed for environmental indicators such as past industrial use and the presence of gasoline tanks. The findings of the map review are summarized in Table 16, below.

Table 16. Summary of Sanborn® Map Review

Address	Parcel	Map Date	Observations
501 Lafayette St.	318.033-3-14	1884	Lumber, Coal Shed, dwellings
		1888	Coal shed, dwellings
		1899	Blacksmith Shop, Stable, dwelling
		1925	Auto storage and Radiator shop Gas Tank depicted in State Street east of parcel
		1950	Paints in southern buildings Gasoline filling station northern portion Gas Tank seen in 1925 map not depicted
		1952	Image not legible, appears similar to 1950
		1970 1973	Paints in southern buildings Building on northern portion – no longer labeled filling station
		1986	Southern building remains – no label Firmer filling station building no longer present – area labelled as parking

Address	Parcel	Map Date	Observations
502 506 Lafayette St.	318.033-3-15	1884 to 1899	Furniture, Warehouse
		1925	Auto top factory
		1950	No buildings or use depicted
		1952 to 1973	Auto Sales – no buildings depicted
		1986	Parking– no buildings depicted
402 State St.	318.033-3-16	1884 1888	Coal storage (no structures depicted)
		1899	Star Coal & Wood Yard – W. H. Everts & Co.
		1925	No structures depicted, no labels
		1950 1952	Auto wrecking
		1970 to 1986	Building on western half of parcel – Auto repair
514 Lafayette St. **524 Lafayette St.** **524 Lafayette St.**	318.033-3-17 318.033-3-17.1 318.033-3-17.2	1884 1888	Coal storage shed & silos present Chenango Canal present
		1899	Coal & wood yard Chenango Canal has been filled on parcels Paints shop on eastern side of parcel
		1925	Gas tanks (3) depicted on eastern edge of parcel Cleaning & Dyeing
		1950	N0 gas tanks depicted on parcels Structure only on eastern portion – labeled as welding
		1952	Sign Painting – northern portion of parcel Structure on eastern portion labeled as warehouse
		1970 1973	Sign Painting – northern portion of parcel Structure on eastern portion labeled as auto body repair
		1986	Sign Painting – northern portion of parcel Structure on eastern portion not labeled Used Auto Sales on southeast corner
510 512 Lafayette St.	318.033-3-18	1925	Auto Repair
		1950 to 1973	Auto Topping
		1986	Building remains – no label
508 Lafayette St.	318.033-3-19	1925	Taxi Garage, auto service
		1950 1952	Mission
		1970	Building no longer present
		1986	Parking
506 Columbia St.	318.033-3-9	1884	Chenango Canal on parcel along with canal barn, lumber yard, and coal shed
		1888	Chenango Canal – Abandoned; canal barn, coal shed
		1899	Chenango Canal – Abandoned; canal barn, coal shed; Photo
		1925	Former canal labelled as “Spray Pond” Auto truck body manufacturing – northeast portion

Address	Parcel	Map Date	Observations
		1950	Former canal labelled as "Parking" Electric Motor Repair – northeast portion
		1952	Image poor, appears similar to 1950
		1970 to 1986	Northern half of former canal covered with building Electric Motor Repair – north portion Storage and machine shop – southern portion
501 Oriskany St.	318.034-1-21	1884	Russell Wheeler & Co. woodworking
		1888 1899	Utica Electric Light Co. Tin shop
		1925	Utica Gas & Electric Company Eastern portion is an electrical sub-station
		1950	Niagara Mohawk Power Corp. – Same as 1925, but portion of the building labeled as Transformer room
		1952	Niagara Mohawk Power Corp – Buildings no longer depicted. Sub-station on eastern portion remains
		1970 to 1986	Niagara Mohawk Power Corp – Buildings no longer depicted. Sub-station on eastern portion remains Transformer Yard noted just west of sub-station
Source: EDR (2016) (Appendix H)			

Prior Phase 1 Environmental Site Assessments (ESAs)

The following prior Phase I ESA and environmental reports, prepared by others, were identified and reviewed[90] (Appendix H):

- Prior Phase I ESA (401-407, 409 Columbia Street) (2002)
- Mold Report (409 Columbia Street) (2014).

Conclusions relative to the Columbia Street properties are summarized below:

- Potential RECs associated with past land use at 401-407 Columbia Street, which reportedly included oil cloth factory operations during the late 19th century; car sales and services at 409 Columbia Street during the first half of the 20th century
- Potential RECs associated with the storage and subsequent removal of up to 30 drums in the basement of 401-407 Columbia Street. A spill report was filed; a follow-up inspection by the NYSDEC documented the removal and noted no evidence of spillage
- Indoor air quality issues at 401-407 Columbia Street reported by building employees in 1987 and mid-1990s
- Potential presence of ACM and LBP
- Indoor mold growth (409 Columbia Street)

[90] These prior assessments (2002, 2014) are associated with the facility currently owned by the Resource Center for Independent Living (RCIL).

3.11.2 Potential Impacts

Precluding implementation and maintenance of appropriate mitigation measures, the following adverse impacts could occur from construction and operation of the project.

Construction

Vehicles and Equipment Accessing and Egressing the Project Site

Vehicles and equipment accessing and egressing the construction zone could contribute to human health consequences related to pedestrian safety, exposure to air emissions from vehicle exhaust and nuisance dust, as well as from noise.

Disturbance of Hazardous Building Materials During Demolition Activities

Based on the urban setting, age of existing structures, prior land uses, and known RECs, it is likely that ACM, LBP, and other regulated substances will be encountered during the project's demolition and construction phases. Management of these materials will require conformance with applicable state and federal regulations.

Potential to Encounter Impacted Soils/Groundwater

As previously discussed in Sections 3.1, 3.2, and 3.3, it is expected that impacted soils and/or groundwater from existing or past land uses will be encountered during the construction phase. Management of these materials will require conformance with applicable state and federal regulations.

Operations

Impacts on Sensitive Receptors

Sensitive receptors located proximal to the project site were previously identified in Section 3.4. The IHC is also a sensitive receptor. Based on information provided in other sections (3.4, 3.7, 3.10), it is not anticipated that project-related operations will result in significant adverse impacts on remaining sensitive receptors.

Proximity to Existing Impacted Sites

State and/or federally sponsored remediation activities are on-going at various locations in the Mohawk Valley, including National Grid's Harbor Point site[91]; remediation activities are coordinated with oversight by the USEPA and/or NYSDEC. Based on site distances and topography (including available data), it is unlikely that conditions at these sites would adversely impact the project.

Increase in the Rate of Disposal or Processing of Solid and Other Types of Waste

Once operational, the proposed hospital will generate solid waste, RMW and other specialty wastes. As described in Section 3.13, quantities are not expected to exceed current waste production at the existing MVHS facilities and will be managed in accordance with applicable state and federal regulations. Based on this information, no significant adverse impacts on human health are anticipated from the management of these wastes.

Use of Pesticides or Herbicides

The IHC will be required to maintain healthy and sanitary conditions. Consequently, it is likely that pesticides and/or herbicides will be utilized to control vectors, nuisance animals and insects, as well as to maintain landscaping.

3.11.3 Mitigation Measures

The following mitigation measures are proposed to minimize or eliminate the potential for, and/or significance of, potential adverse impacts.

[91] http://www.harborpointsite.com/

Construction

To provide for human health and safety during construction activities, the following mitigation measures (also identified in other sections) will be implemented:

- Performance of due diligence evaluations to identify the potential presence of ACM[92], LBP and other regulated materials, which could be encountered during construction phase activities
- Preparation, implementation, and maintenance of a "Maintenance and Protection of Traffic Plan" including provisions and measures to accommodate pedestrians and adjacent vehicular traffic surrounding the work zone
- Compliance with state and federal regulations regarding the handling, transportation and disposal of ACM, LBP, and other regulated materials encountered during construction phase activities
- Adherence to construction schedule restrictions (days and hours)
- Proper maintenance of vehicles and equipment including mufflers and other required emissions control devices (including adherence to state-mandated vehicle idling restrictions)
- Proper storage and handling of petroleum and chemical products
- Implementation of a site security plan (*i.e.*, fencing, lighting, use of secure material storage containers, monitoring of site during off-hours)
- Preparation and implementation of a CHASP to protect construction workers and the community from exposure to potentially impacted materials
- Spill response measures, training and reporting
- Compliance with City Code requirements

Operation

To provide for human health and safety during operational activities, the following mitigation measures (also identified in other sections) will be implemented:

- Provision of safe access/egress (vehicles and pedestrians) to and from the IHC and other project elements (see Section 3.7 and Appendix F)
- Compliance with the City's noise ordinance
- Proper storage, handling, transportation and disposal of wastes generated from project operations
- Storage, application (including proper licensing) and disposal of pesticides/herbicides in accordance with applicable local, state and federal requirements
- Proper storage and use of chemicals, medicines, and other regulated materials and substances including conformance with applicable state and federal requirements
- Compliance with petroleum bulk storage requirements including the preparation and implementation, as necessary, of a Spill Prevention, Control and Countermeasure (SPCC) Plan.

[92] As previously stated in this DEIS, for ACM abatement projects, the New York State Department of Labor's Code Rule 56 requires that all work that disturbs ACM be done by trained workers following special procedures and engineering controls (including air monitoring) to prevent the spread of asbestos into the air and ensure ACM has been properly removed.

3.11.4 Reasonably Foreseeable Catastrophic Impacts

As defined in the SEQR Handbook[93], a catastrophic impact is "one which is life threatening to a number of individuals; would cause extreme hardship to their physical well-being; or would cause widespread destruction of natural resources as a result of a proposed action."[94] The handbook, developed by the NYSDEC, further states that an impact is "reasonably foreseeable" if it could occur as a result of the action, even if the probability of such an occurrence is small.

It is important to note that potential extreme hazards are not inherent to the nature of the proposed action. While hospital-related activities can result in hazards (*i.e.*, lifting and moving patients; needle sticks; slips, trips, and falls; and the potential for agitated or combative patients or visitors), they do not, regardless of their location, typically include activities, which would reasonably result in catastrophic impacts.

Consistent with the Final Scoping Document (Appendix C), the issue addressed in this section focuses on potential secondary impacts associated with the proximity of the project to the existing, active CSX railroad located approximately 1,400± lf northeast and downgradient (20± feet) of the project area, including its use to provide for periodic pass-through transport of Bakken oil[95] and other hazardous substances. During the scoping process, commenters, expressed concerns relative to the proximity of the hospital to the railroad, and potential impacts associated with a derailment and release of chemicals, oils or other hazardous substances.

Overview

Site access is an important consideration for critical facilities such as hospitals. The ability for emergency medical service (EMS) personnel, patients, medical personnel, staff and visitors to quickly access the site often places hospitals proximal to the cross-roads of municipal highway systems (*i.e.*, Utica's North-South and East-West Arterials). Highways are also used daily to advance commerce, which often depends on multiple transportation modes including highway and rail (*i.e.*, multi-modal corridors of commerce) to bring goods and services to customers. Consequently, the proximity of rail and highway systems and their use in transporting goods (including hazardous substances) is a common occurrence through the United States.

While the location of hospitals adjacent to highways and railroads, which are utilized for interstate commerce, are common[96], it does not preclude the need for planners and decision-makers to be diligent in implementing measures to prevent adverse impacts, even if the probability of such an occurrence is small.

Consistent with SEQR implementing regulations regarding the content of an EIS (6 NYCRR § 617.9), this section will provide for an evaluation of the potential secondary impact, limited to:

- A general discussion of the likelihood that the catastrophic impact would occur
- The consequences of the potential impact
- A discussion of alternatives and mitigation measures intended to prevent such catastrophic impacts

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[93] The SEQR Handbook provides agencies, project sponsors, and the public with a practical reference guide to the procedures prescribed by the SEQRA – Article 8 of the Environmental Conservation Law (http://www.dec.ny.gov/docs/permits_ej_operations_pdf/seqrhandbook.pdf).

[94] https://www.dec.ny.gov/permits/55215.html

[95] Bakken oil is a type of 'light sweet crude," a relatively high quality oil, which is produced and transported, predominantly by rail, from North Dakota. Trains transporting Bakken oil pass through Utica on their way to the Port of Albany. The Material Safety Data Sheet (MSDS) for Bakken oil is available at https://www.msdsdigital.com/bakken-crude-oil-sweet-msds.

[96] Proximity to active railroads: St. Johns Riverside Hospital (Yonkers, NY) – 1,000± lf; Rochester Regional Health (St. Mary's Campus) (Rochester, NY) – 1,500± lf; St. Joseph's Medical Center (Yonkers, NY) – 1,500± lf).

The assessment was based on coordination with the following agencies:

- Oneida County Department of Emergency Services[97]
- City of Utica Fire Department

In addition, the following plans were reviewed:

- New York State Comprehensive Emergency Management Plan (CEMP)[98]
- Oneida County CEMP (2017)[99]
- Emergency Response Guidebook (2016)[100]
- Executive Order (EO) 125 (2014)[101]
- MVHS Emergency Operations Plan (EOP)[102]

The resultant evaluation is provided below.

Likelihood the Impact Would Occur

Freight train accident statistics are compiled by the USDOT's Federal Railroad Administration (FRA). The primary role of the FRA is to strategically monitor, inspect, and assess track conditions to determine whether a railroad is complying with federal safety standards (40 CFR Part 213). Investments in infrastructure and equipment, new technologies, safety training, and stringent FRA oversight have significantly improved the safety record of America's freight railroads. Figure 19 illustrates historical trends in national train accidents per 1

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[97] The Oneida County Department of Emergency Services is responsible for implementing the County's Comprehensive Emergency Management Plan (CEMP), which is recognized by local governments as a fundamental strategy for community disaster preparedness and response, and is endorsed by the State of New York and the federal government as an essential policy for effective public safety. The Department coordinates with local, regional, state and federal emergency management stakeholders to provide for the region's emergency preparedness and response. Department staff anecdotally indicated that their largest emergency response concern (*e.g.*, most likely to occur) in the region is an ice storm.

[98] http://www.dhses.ny.gov/planning/cemp/

[99] http://www.ocgov.net/sites/default/files/E911/CEMP/911%20-%20CEMP%20-%202017.pdf

[100] Published by the United States Department of Transportation (USDOT), the guidebook (USDOT 2016) is intended for use by first responders during the initial phase of a transportation incident involving dangerous goods/hazardous materials.

[101] In 2014, at the direction of Governor Cuomo, New York State agencies conducted a coordinated review of safety procedures and emergency response preparedness related to increased shipments of Bakken oil across nearly 1,000 miles of the State. A report containing 27 recommendations for state government, federal government and industry to take to reduce risks and increase public safety in the transport of crude oil was subsequently released (http://www.dhses.ny.gov/crude-oil/preparation.cfm). State implemented actions include: preparing and training first responders, establishment of a New York State Foam Task Force, provision of spill response equipment, updating and enhancing response plans, and creation of an interagency (local, state and federal) work group to further integrate emergency response plans across all levels of government.

[102] MVHS' EOP is activated during a situation/disaster and provides the necessary tools for Hospital Incident Command (HIC) to manage the incident. The EOP establishes full compliance with applicable provisions of the National Integrated Accreditation for Healthcare Organizations (NIAHO) accreditation requirements for emergency management systems, the elements of National Incident Management Systems (NIMS) implementation for hospitals, and National Fire Protection Association (NFPA) Standard 1600 (*Standard on Disaster/Emergency Management and Business Continuity Programs*). Plan review and evaluation is performed through the MVHS Emergency Preparedness Committee meetings, quality management performance improvement reviews, periodic emergency operations drills and exercises, and through response to actual events. The EOP includes a facility-specific vulnerability assessment as a comprehensive assessment of preparedness for naturally occurring, technological, human, and hazardous materials events.

million train-miles from 1980 to 2017[103]. In general, train accidents have decreased from over 11 accidents per 1 million train-miles in 1980, to approximately 2.3 train accidents per 1 million train-miles in 2017; a 79% decrease. Extrapolating this latest national safety data, the likelihood of a train accident occurring along the one-mile stretch of railroad northeast of the project area (or along any one-mile stretch of railroad between North Dakota and the Port of Albany) would be negligible.[104] The probability of a train accident involving Bakken oil is less. The probability of a train accident involving Bakken oil and a fire is even less, and so on.[105] The likelihood that such an event would impact the hospital is further influenced by additional variables including:

- Weather (*i.e.*, wind direction, wind speed, *etc.*)
- Nearby construction material/density
- Natural and man-made barriers (*i.e.*, highways, topography, *etc.*)
- Other local variables (training, preparedness, pre-positioning of fire suppression/response assets, *etc.*; see below).

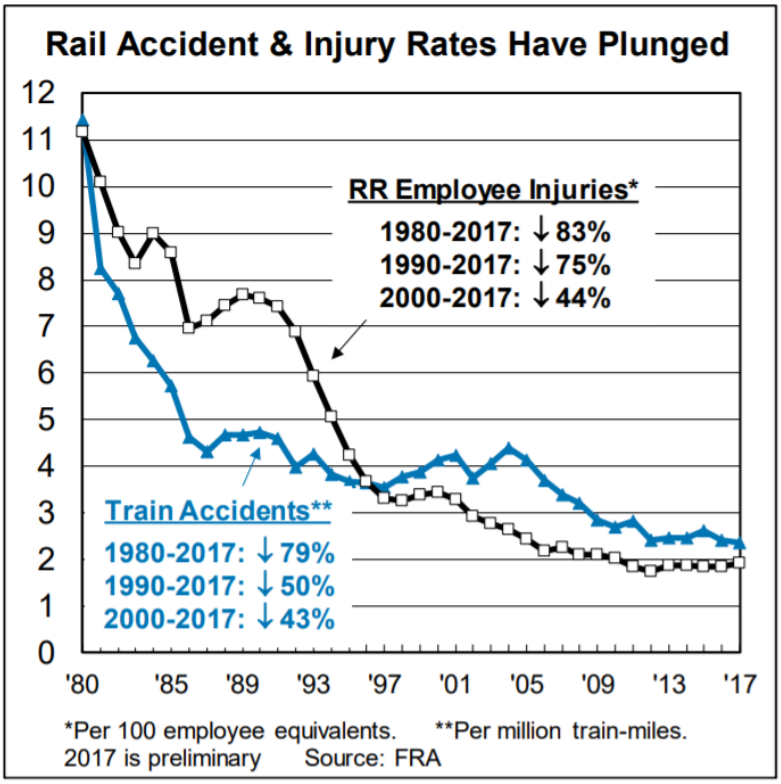

Figure 19. Historical Trends in National Train Accidents

[103] https://www.aar.org/wp-content/uploads/2018/05/AAR-Railroads-Moving-America-Safely.pdf
[104] 2.3 train accidents per 1 million train-miles equates to $2.3X10^{-6}$ train accidents per 1 train-mile.
[105] The NFPA compiled statistics of rail vehicle fires in the United States from 2003-2007. On average, tank cars only accounted for 2% of total fires involving rail vehicles (NFPA 2010, https://www.nfpa.org/-/media/Files/News-and-Research/Fire-statistics-and-reports/Fact-sheets/railvehiclefires.ashx?la=en).

Consequences of the Potential Impact

While the likelihood of an impact is negligible, due diligence and preparedness are prudent and necessary. Consistent with the USDOT's ERG and New York States' EO 125, the IHC will be identified as a special receptor within the site-specific Geographic Response Plan (GRP). GRPs are planning documents and spill response tools, prepared by the NYSDEC, in consultation with the New York State Division of Homeland Security and Emergency Services, NYSDOH, and local, regional and federal stakeholders, that are used to guide initial emergency response efforts associated with a major oil spill. The GRP for railroad mile-mark "QC 238" represents the area surrounding the existing railroad inclusive of the project area. To facilitate planning and training, the proximity of IHC operations will be accounted for in future training, preparedness and asset management activities guided by the County's CEMP. MVHS will coordinate with Oneida County to update and implement appropriate sections of the MVHS' EOP and the County's CEMP, respectively.

Alternatives and Mitigation Measures

While no alternatives were identified, the following mitigation measures have been or will be implemented:

- USDOT identified Bakken oil transport measures[106] agreed to, and implemented by, railroad companies including:
  - Lowering speed limits for oil trains
  - Increasing the frequency of track inspections
  - Adding more brakes on trains
  - Improving the training of emergency medical workers
- Continuation of regular, coordinated training programs[107] including:

  Oneida County Department of Emergency Services CEMP Emergency Response Training/Hazmat Drills
  - Coordinated with other local, regional, state and federal stakeholders

  U.S. National Response Team (NRT) Training[108]
  - Emerging Risks Responder Awareness Training: Bakken Crude Oil
  - Transportation Rail Incident Preparedness & Response Training
  - Transportation Emergency Response Preparedness Training
  - Office of Response and Restoration Hazardous Materials Training

  New York State Office of Fire Prevention and Control (OFPC) Training Programs
  - Flammable and Combustible Liquid Emergencies
  - Foam Trailer Training
  - Live Fire Class B Foam Operations

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[106] https://www.transportation.gov/briefing-room/us-dot-announces-comprehensive-proposed-rulemaking-safe-transportation-crude-oil

[107] The New York State Division of Homeland Security and Emergency Services operates the State Preparedness Training Center (SPTC) at the former Oneida County Airport. The mission of the SPTC is to "Provide first responders and governmental officials with the very best knowledge, skills and abilities necessary to safely and effectively prevent, prepare for, respond to and recover from terrorist acts and other man-made and natural disasters."

[108] The NRT is made up of 15 agencies including the USEPA (https://www.nrt.org/).

- Hazardous Materials Technician
- Hazardous Materials Incident Command

Private Industry Training Programs

- CSX Safety Train: Mobile classroom for first responders
- The Association of American Railroads (AAR) Training[109]

- Incident response measures including:

Federal Responders and Support Organizations

- Federal Emergency Management Agency (FEMA)
- U.S. Public Health Service
- Federal Centers for Disease Control (CDC)
- Federal Bureau of Investigation (FBI)
- U.S. Army Corps of Engineers (USACE)
- USEPA

State Responders and Support Organizations

- NYS Division of Homeland Security and Office of Emergency Services
- OFPC
- NY State Police
- NYSDOH
- NYSDEC
- NYSDOT
- NYS Disaster Human Needs Task Force

County and Local Responders and Support Organizations

- Oneida County Department of Emergency Services
- City of Utica Fire Department (and Mutual Aid Departments)
- Area EMS
- Area Law Enforcement
- Oneida County Health Department
- Area Hospitals and Medical Providers
- Private Industry
- CSX Hazardous Materials Response Team

Other Support Services

- American Red Cross

[109] Provides member railroads, fire service and emergency responder training (at no cost) at their Transportation Technology Center (http://www.aar.com/).

  - Salvation Army
  - Volunteer Organizations Active in Disaster (VOAD)
- Pre-Positioned Emergency Response Assets[110] within GRP including:
  - High Volume Class B Foam Trailer
  - Utica Fire Department (552 Bleecker Street)

3.12 COMMUNITY CHARACTER

The proposed action may have an impact on community character. The following potential impacts, identified in the scoping process, are evaluated in this section:

Construction

- Acquisition (via voluntary negotiation and eminent domain) and demolition or alteration of properties in the proposed project area

Operation

- Land-use components will be different from current surrounding land use pattern(s); impact on City-owned and privately-owned lands within the project footprint
- Potential to result in secondary economic development impacts[111] (*e.g.*, residential or commercial development)
- Potential to replace or eliminate existing facilities, structures, or areas of historic importance to the community
- Potential to displace affordable or low-income housing
- Potential secondary impacts resulting from the relocation and/or displacement of existing businesses/services (at proposed downtown and existing FSLH and SEMC locations)
- The proposed action may be inconsistent with the predominant architectural style and character of the area

3.12.1 Existing Conditions

The MVHS IHC will encompass approximately 25-acres within the City's CBD. The proposed location is proximal to the City's urban core, as well as the City's proposed "U" District, existing Brewery District, Bagg's Square and Utica Harbor Point. Land uses within this district are subject to the applicable standards codified in the City of Utica's Zoning Code (Section 2-29-193). As stated in Section 3.5, the project footprint contains approximately 80± tax parcels and a diversity of property types including mixed use, commercial, offices/warehouses, vacant/abandoned buildings, and parking. The existing building scale within the CBD and the surrounding area is a diverse mixture of building heights, consisting of mostly low rise (1-4 stories) and mid-rise (5-10 stories) buildings, with a few high-rise (11+ stories) buildings located to the east of Genesee Street. While the project area is characterized by buildings greater than 50+ years in age, many of them have undergone 20th and 21st century modifications (see Section 3.6; including Appendix E, which contains a photolog of existing buildings).

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[110] According to the Oneida County Department of Emergency Services, the first responders also have access to 3 hazmat trailers (2 County, 1 State).

[111] The DEIS will address the potential, non-speculative, decrease or increase in tax revenue resulting from the project only as it relates to the City's ability to continue to provide socio-economic services and infrastructure support. Disposition of City-owned land, as it relates to the project, will also be identified. Potential effects that a proposed project may have in drawing customers and profits away from established enterprises, possible reduction of property values in a community, or potential economic disadvantage caused by competition or speculative economic loss, are not environmental factors and will not be addressed in the DEIS.

3.12.2 Potential Impacts

The proposed healthcare related land use is consistent with allowable uses designated for the CBD. In addition, the design character of the project is consistent with other community projects under development in the area (*i.e.*, "U" District and Utica Harbor Point redevelopment). To accommodate the proposed MVHS IHC, the proposed project will involve the acquisition of properties, modifications to existing public/private utility infrastructure, and closure of city streets. As stated in Section 1.1.4, it is anticipated that most of the property will be acquired through voluntary negotiation. However, it is likely that some property may need to be acquired via *eminent domain*. Many of the existing property owners and businesses will be required to relocate to other parts of Utica or Oneida County. The magnitude of the acquisition of 25± acres will be large, but most impacts are expected to be beneficial because it will better position the hospital to serve the largest and most diverse population in Oneida County, as well as creating the potential for secondary economic development opportunities, in a historically underutilized section of the city.

3.12.3 Mitigation Measures

The following mitigation measures are proposed to minimize or eliminate the potential for, and/or significance of, potential adverse impacts:

- MVHS, with the assistance of Mohawk Valley EDGE, obtained appraisal reports for each of the properties that would need to be acquired for the project. These appraisal reports provided the basis for MVHS to make offers to acquire the needed properties that were based on fair market value. Offers were sent to property owners between December 2017 and February 2018. Each property owner was afforded the opportunity to discuss their individual needs and concerns with MVHS or its representatives. In addition, representatives from the City of Utica, Oneida County and EDGE reached out to the property owners to discuss relocation needs and to offer assistance. MVHS, together with the City, the County and EDGE, worked with the Community Foundation of Herkimer and Oneida County to fund a position dedicated to assisting property owners with relocation. This individual immediately began coordinating the efforts between the City, County, EDGE and the property owner including: one on one meetings with owners to determine specific needs and to review potential alternate locations, creation of a catalog of available properties within the City and County to streamline the assessment of alternate properties. Finally, MVHS committed an additional $1 million to the project dedicated for relocation assistance and has been negotiating relocation assistance payments with each of the owners. As a result, many of the property owners have agreed to sell their property(ies) to MVHS and the amount of property that will need to be acquired by eminent domain has been minimized
- Potential visual impacts will be mitigated as discussed in Section 3.5
- Potential cultural resource impacts will be mitigated as discussed in Section 3.6
- Growth-inducing aspects of the project will be managed as discussed in Section 8

3.13 SOLID WASTE MANAGEMENT

The proposed action may have an impact on solid waste. The following potential impacts, identified in the scoping process, are evaluated in this section:

Construction

- Temporary increase in the rate of disposal or processing of solid waste from construction/demolition activities
- The need to manage impacted soils/groundwater and/or hazardous building materials

Operation

- Waste generation, handling, transportation, and disposal (solid waste, hazardous waste and regulated medical waste [RMW])

3.13.1 Existing Conditions

Solid Waste Management – Oneida County

Solid waste management within the City of Utica is controlled by the Oneida-Herkimer Solid Waste Authority (OHSWA). The OHSWA Planning Unit is 2,708 square miles comprised of all towns, cities and villages within Oneida and Herkimer Counties, and consists of the following disposal facilities:

- The Oneida-Herkimer Recycling Center
- Green Waste Compost Facility
- Household Hazardous Waste Collection Facility
- Three transfer stations located in Webb, Utica, and Rome
- Two land clearing debris landfills located in Utica and Rome
- A wood pallet processing facility located in Utica
- A brush processing facility in Rome, NY
- A regional landfill in Ava, NY

Oneida and Herkimer County's Local Law No. 1 of 1990 establishes regulations for the collection and disposition of solid waste and recyclables within the two-county region. The laws mandate the separation of residential and commercial/industrial recyclable material from the waste stream, and requires all entities engaged in waste and/or recyclables collection to obtain a permit from OHSWA. The laws also have flow control provisions requiring waste generated within the county to be disposed of within the county.

Commercial/Industrial Waste

According to the Final 2010 Local Solid Waste Management Plan[112], there are approximately 20,000 operating businesses, industrial enterprises and commercial entities within the Planning Unit, which collectively make up approximately 50% of the region's waste. Businesses typically pay a hauler on an as needed or contract basis for waste and recyclables transportation to an OHSWA facility or private recycling center.

Recycling is also mandatory for local businesses and industries within the OHSWA service area. The local plan states that local industries and commercial establishments have been recycling their discards and benefiting financially from it for years; these entities are free to market their own materials, with OHSWA acting as the market of last resort for these generators during market down turns.

To promote recycling and waste reduction from local businesses, OHSWA established a no charge, comprehensive on-site waste characterization, reduction, and recycling evaluation program. Upon request, the Authority performs waste assessment/audits, which evaluates current solid waste and recycling practices, identifies waste generator points, assesses participation and compliance rates, and identifies potential opportunities for increasing recyclable material recovery.

Current & Future Projections

OHSWA projections indicate a continued decrease in solid waste generation through 2020. Estimates are based on census data, which indicates decreases in the region's population; as well as success through OHSWA's waste reduction and recycling programs. These programs have also decreased the rate at which landfill capacity is consumed at the Ava Landfill, which currently has a NYSDEC permit to receive solid waste into March 2019; as well as land to develop and permit additional landfill cells beyond. Current and future projections through 2020 from the Solid Waste Management Plan are included in Table 17, below. In summary, municipal solid waste, construction and demolition waste, and sewage sludge are projected to slightly decrease by approximately 0.2%

[112] https://www.ohswa.org/about-us/final-local-solid-waste-management-plan/

per year, as a result of the population decreasing, waste reduction efforts, and recyclables/organics recovery. OHSWA does not expect development or lack thereof to have a major impact in solid waste planning efforts.

Table 17. Current and Future Solid Waste Projections – Oneida County

Year	2018	2019	2020
Population Estimate	287,467	286,892	286,318
Municipal Solid Waste (tons)	158,101	154,146	151,338
Construction & Demolition Waste (tons)	47,969	46,892	44,755
Sewage Sludge (tons)	13,741	13,713	13,686
Industrial Waste (tons)	11,786	11,763	11,739
Total (tons)	231,597	226,484	221,519
Recyclables Recovered (tons)	292,748	295,248	298,248
Recycling Rate	56%	57%	57%

Source: https://www.ohswa.org/about-us/final-local-solid-waste-management-plan/

Regulated Medical Waste

New York State has provided regulatory oversight of Regulated Medical Waste (RMW) since the early 1980s, which covers all aspects of handling, storage, treatment and disposal of this waste.[113] RMW activities are governed jointly by the NYSDOH and the NYSDEC, under the following regulatory framework:

- Title 15 of Article 27 of the ECL
- 6 NYCRR Subpart 360-10
- 6 NYCRR Subpart 360-17
- 6 NYCRR Part 364
- Public Health Law 1389 aa-gg
- 10 NYCRR Part 70

The NYSDOH is responsible for on-site waste management procedures for hospitals, freestanding diagnostic and treatment centers, residential health care facilities and clinical laboratories. In addition, the NYSDOH is responsible for developing treatment standards and approving alternate treatment technologies. The NYSDEC is responsible for overseeing storage, treatment and destruction processes for facilities not covered under NYSDOH jurisdiction, as well as off-site transport of RMW for all generators, tracking, responding to illegal disposal incidents, and for all off-site storage, transfer, treatment and disposal facilities.

Current Waste Streams & Quantities – MVHS

The existing MVHS medical center's waste streams and quantities are identified in Table 18.

Table 18. Estimated MVHS Waste Streams and Quantities

Waste Stream	FSLH & SEMC[114] (Annual)
Solid Waste	1,800 tons
Regulated Medical Waste (RMW)	365 tons
Hazardous Waste[115]	3 tons
Sharps	28 tons

Source: MVHS

[113] https://www.dec.ny.gov/chemical/8789.html
[114] Combined FSLH and SEMC totals, unless noted.
[115] Includes pharmacology waste.

MVHS currently operates a RMW autoclave at its St. Luke's facility. RMW generated at FSLH and SEMC is currently shredded and autoclaved at the St. Luke facility, making it inert prior to being hauled off-site for disposal at a municipal solid waste management facility. Other wastes generated at these facilities are also stored on-site prior to transportation off-site by permitted vendors to regulated/permitted disposal facilities.

3.13.2 Potential Impacts

Construction

C&D Debris

Construction activities will result in the generation of several types of waste streams requiring management, including:

- Land clearing debris (including organic material and excess soils [spoils])
- C&D[116]
- Solid waste (as defined in 6 NYCRR § 360-1.2(a)(1))
- Recyclables (including construction and demolition materials, which could be reused or repurposed on other construction sites)

Based on the magnitude of proposed demolition and construction activities, approximately 63,000± tons of C&D[117] will be generated during the construction phase. C&D may also consist of potentially hazardous building materials (*e.g.,* ACM, LBP, *etc*.) and impacted soils and groundwater. The generation of such waste streams will temporarily increase the rate of disposal and processing of wastes within the local area.

Operation

Once operational, the proposed IHC will generate solid waste (including food processing wastes), RMW and hazardous wastes. Wastes will be similar in character and magnitude to wastes currently generated at FSLH and SEMC. These wastes will require efforts on-site related to source separation, handling and storage, as well as transportation off-site for management at facilities permitted to receive such wastes. It is likely that the autoclave and shredding operations at the St. Luke's facility will cease operations upon the migration of health services to the IHC.

3.13.3 Mitigation Measures

The following mitigation measures are proposed to minimize or eliminate the potential for, and/or significance of, potential adverse impacts.

Construction

C&D Debris

Contractors will be required to comply with local and state requirements regarding the handling, disposal and/or management of waste streams and recyclables including on-site storage and transportation of materials to facilities permitted to handle the specific waste or recyclable stream. A CHASP will be developed, implemented and maintained to protect worker safety. Contractor(s) will be responsible for appropriately separating, handling, transporting, and disposing waste streams in accordance with applicable regulations; all waste streams will be disposed off-site at facilities permitted to receive such wastes. In addition, contractors may implement the following additional waste reduction measures:

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[116] Concrete, wood, asphalt, metals, bricks, glass, plastics, *etc*.

[117] It is anticipated that approximately 28% of the C&D (18,000± tons) would be recycled by contractors using strategies of stacking and sorting metals to be salvaged; stacking brick, block and concrete; and potentially crushing for use as fill. Material would require testing to confirm that it is non-hazardous.

- An evaluation of material selection for interior and exterior building materials for recycled content and local material
- Diversion of construction and land clearing debris from landfill disposal
- Redirecting recyclable-recovered resources back to the manufacturing process
- Redirecting reusable materials to beneficial applications.

Operation

Waste generation rates at the proposed IHC are not expected to surpass quantities at the existing MVHS facilities. Solid waste and recyclables will be managed in accordance with applicable local, state, and federal requirements, including consistency with the county's Solid Waste Management Plan. RMW (including specialty wastes) and solid waste management practices will incorporate good housekeeping and best management practices including proper storage. Solid waste will be stored in covered receptacles, bins, and dumpsters, as appropriate, until it is transported by permitted haulers to an off-site, permitted facility for final disposal. RWM and other specialty wastes will also be hauled by NYSDEC-permitted waste transporters to facilities permitted to receive such wastes.