

Chapter 10: Energy & Telecommunications

A. PROPOSED ZONING ACTION (GENERIC ANALYSIS)

EXISTING CONDITIONS

ENERGY

The MOD Zoning Area is served by Consolidated Edison Company of New York (Con Edison). There are currently numerous overhead electric utility poles that extend along Route 202/35/Crompond Road from the western edge of the MOD boundary at Dayton Lane to the eastern edge of the MOD boundary near Tamarack Avenue. The utility poles are located on the north side of Route 202/35/Crompond Road between Dayton Lane and the western edge of the NYPH Campus near the driveway to Holy Spirit Church where they cross Route 202/35/Crompond Road and extend along the southern frontage to the MOD Boundary at Tamarack Avenue. An existing 8-inch high pressure gas main is located within Route 202/35/Crompond Road and Lafayette Avenue.

TELECOMMUNICATIONS

Telecommunication services are currently provided to the MOD Zoning Area by Verizon and Optimum (Altice).

FUTURE WITHOUT THE PROPOSED ACTION (NO-BUILD CONDITION)

ENERGY

In the Future Without the Proposed Zoning Action, no changes are currently planned to the existing utility infrastructure within the MOD Zoning Area and no new significant energy demand is projected to be generated by the MOD Zoning Area.

TELECOMMUNICATIONS

In the Future Without the Proposed Zoning Action, no new significant telecommunication demand is projected to be generated by the MOD Zoning Area.

PROBABLE IMPACTS OF THE PROPOSED ZONING (BUILD CONDITION)

ENERGY

Any new electric or gas service to the proposed MOD Zoning Area would likely require a new service connection to the existing overhead Con Edison electrical distribution system or gas line

in Route 202/35/Crompond Road. Any proposed new electric or gas service would require approval from Con Edison. Since the exact location and demand for electric and/or gas service resulting from the Proposed MOD Zoning is not known at this time, it is expected that any MOD application would conduct a site specific SEQR review to determine that no significant adverse impacts would result from these new electric and gas connections. **Table 10-1** shows the estimated electric and gas demand of the Proposed MOD Zoning based on a theoretical build out that includes the proposed MOD Development Plan’s uses and densities (see details in Section B below) and the remaining MOD density leftover if both Evergreen Manor and Gyrodyne are constructed as proposed (see Table 1-1, “Project Description.”)

Table 10-1
Proposed Electric and Gas Demand for MOD Zoning

| Proposed Parcel | Proposed Use | Square Footage (Approximate) | Estimated Electric Load Kilowatts (KW) | Estimated Gas Load | |
|---|---|------------------------------|---|---|----------------|
| | | | | Cubic Feet per Hour (CFH) | per Hour (CFH) |
| 1 | Remaining Medical Office (after MOD Development Plan build out) | 85,000 | @ 12 W/sf – 1,020 kW | 4,548 CFH | |
| 2 | Remaining Retail/Commercial | 34,000 | @ 12 W/sf – 408 kW | 1,658 CFH | |
| 3 | Proposed MOD Development Plan* | NA | 7,908 KW *See Table 10-2 and 10-3 in Section B below | 69,256 CFH *See Table 10-2 and 10-3 in Section B below | |
| Total Energy Demand | | -- | 9,336 KW | 75,462 CFH | |
| *Note: Assumes full build out of MOD Zoning includes MOD Development Plan densities and uses. | | | | | |

The proposed MOD Zoning would require any MOD application to consider the design, construction, and arrangement of buildings in such a way as to promote energy efficiency and encourage the use of alternative energy sources, such as geo-thermal and active or passive solar systems. In addition, any proposed project would be required to confirm with Con Edison that available capacity within the existing distribution system and equipment exists to service the Project. Once the proposed project designs are developed, a service request would be made to Con Edison, and Con Edison would provide a service plan for the Project, which may identify system infrastructure improvements required to be completed by the utility. Con Edison is required to provide gas and electric service to the customers within Westchester County in accordance with its tariff requirements and subject to Con Edison’s final engineering approvals. Therefore, no significant energy impacts are expected to result from the Proposed MOD Zoning.

TELECOMMUNICATIONS

It is anticipated that any demand for telephone, cable and communication services resulting from project proposed under MOD Zoning would be met by the current service providers. It is anticipated that any MOD project would be required to place telephone, cable and communication services underground from the existing poles to any proposed buildings to reduce the potential for visual impacts resulting from overhead wires.

MITIGATION

The proposed MOD Zoning would require that any plan for development of any site designated MOD shall consider the design, construction, and arrangement of buildings in such a way as to promote energy efficiency and encourage the use of alternative energy sources, such as geothermal and active or passive solar systems. All applicants shall be required to complete an energy analysis that quantifies the estimated reduction in electric and gas measured against a baseline scenario of standards consumption patterns that the proposed conservation measures are anticipated to achieve.

To reduce the potential for visual and community character impacts, any new energy service or telecommunications connections would be required to be placed underground in the manner prescribed by the Town or service provider.

A. MOD DEVELOPMENT PLAN

EXISTING CONDITIONS

EVERGREEN

Energy

Existing electric and gas service is available from Con Edison. Overhead electric utility poles are currently located on the south side of Route 202/35/Crompond Road and the east side of Lafayette Avenue running the length of the Evergreen Manor Project Site frontage. An existing 8-inch high pressure gas main is located within Route 202/35/Crompond Road and Lafayette Avenue.

Telecommunications

Telecommunication services are provided by Verizon and Optimum along Route 202/35/Crompond Road.

GYRODYNE

Energy

The structures currently existing on the Gyrodyne Project Site are serviced by Con Edison for electricity. The electrical service to Buildings A, B and C of the existing medical office complex is estimated to approximately be a 200A, 208V, 3 phase service with a peak demand of approximately 60kW. Buildings D and E of the existing medical office complex are metered separately by the occupying tenants and their service size is unknown at this time. The utility

poles currently located on Route 202/35/Crompond Road will remain for use by the proposed Gyrodyne Project. None of the existing poles will be removed or relocated.

According to information received from the current tenants, Buildings A, B and C of the existing medical office complex do not currently utilize natural gas for heating. Their heating needs are served by heating oil delivered and stored on site. However, Buildings D and E of the existing medical office complex do receive natural gas service for their heating, provided by Con Edison. While the existing loads and service are unknown at this time, surveys of the site indicate that an 8” high pressure gas main exists around the perimeter of the site along both Route 202/35/Crompond Road and Lafayette Avenue.

Telecommunications

Telecommunication services are currently provided to the existing structures located on the Gyrodyne Project Site by Verizon and Optimum (Altice). These service providers will continue to provide service to the proposed medical office building and multi-family residential building once they are constructed.

PROBABLE IMPACTS OF MOD DEVELOPMENT PLAN

EVERGREEN

Energy

Based upon the proposed uses on the Evergreen Manor Project Site, it is estimated that the Evergreen Manor project will result in the electric and gas utility demands shown in **Table 10-2**.

Table 10-2
Proposed Electric and Gas Demand for Evergreen Manor

| Proposed Parcel | Proposed Use | Square Footage (Approximate) | Estimated Electric Load Kilowatts (KW) | Estimated Gas Load Cubic Feet per Hour (CFH) |
|-----------------|---|------------------------------|--|--|
| 1 | Restaurant | 7,000 | 157 KW | 2,277 CFH |
| 2 | Two-Story Retail / Medical & Dental Lab | 30,000 | 760 KW | 2,340 CFH |
| 3 | Five-Story Hotel (100 rooms) | 68,000 | 1,156 KW | 1,488 CFH |
| 4 | Residential (166 units) | 168,000 | 1,594 KW | 11,629 CFH |
| 5 | Assisted Living (120 units) | 135,500 | 836 KW | 11,062 CFH |
| Total | | | 4,503 KW | 28,796 CFH |

The new primary electric service to the Evergreen Manor Project Site would be provided from a new service connection to the existing overhead Con Edison electrical distribution system. That new primary service connection shall extend underground to new electrical transformers located on each of the five (5) development parcels. The new secondary services extending from each new electrical transformer to the new on-site structures would also be run underground. The final configuration of the electrical system would be completed in coordination with the Consolidated Edison Engineering Group. It is expected that at least one existing utility pole along Route 202/35/Crompond Road at the approximate location of the new main entry roadway would require relocation.

The load requirements for the Evergreen Manor Project will be submitted to Con Edison to confirm that available capacity within the existing distribution system and equipment exists to service the Project. No significant impacts are expected upon completion of the project, as the existing infrastructure network is expected to be either capable of or upgraded to support the utility demands of the Evergreen Manor Project.

Telecommunications

Existing telephone, cable and communication services would be removed and placed underground from the existing poles to the proposed buildings.

GYRODYNE

Energy

Based upon the proposed uses on the Evergreen Manor Project Site, it is estimated that the Gyrodyne project site will result in the electric and gas utility demands shown in **Table 10-3**.

**Table 10-3
Proposed Electric and Gas Demand for Gyrodyne**

| Proposed Parcel | Proposed Use | Square Footage (Approximate) | Estimated Electric Load Kilowatts (KW) | Estimated Gas Load Cubic Feet per Hour (CFH) |
|------------------------|--------------------------------------|-------------------------------------|---|---|
| 1 | Medical Office Building w/retail (4) | 104,000 | @ 12 W/sf – 1,200 kW | Medical: 5,565 CFH |
| 2 | Multi-family Residential (5 stories) | 200,000 | @ 11 W/sf – 2,200 kW | 34,700 CFH |
| 3 | Open Space | NA | @ 12 W/sf – 5 kW | NA |
| | | -- | 3,405 KW | 40,460 CFH |

Note: Surface and subsurface parking lighting are included within the estimates above.

These values are based upon values seen in buildings of relatively similar size and occupancy category. A more precise estimate is not feasible at this time due to the uncertain nature of the equipment in use at the site. In both buildings, especially the medical offices, the electrical loads can vary significantly based upon the final equipment chosen and installed. In addition, energy

efficiency measures, such as those listed below can reduce estimated load and service requirements. The estimated service requirements for the medical office building and the multi-family residential building would be 208V, 3 phase - 4,000 Amps.

Based upon the anticipated building uses on the Gyrodyne Project Site and comparisons with buildings of a similar size and occupancy, the anticipated heating energy (natural gas) consumption was tabulated. While the final consumption values will depend highly on actual equipment selections and occupant behavior, this estimate should capture a conservative view of the anticipated natural gas demand to feed heating, hot water, laundry, pool and cooking equipment.

The anticipated energy demand created by the Gyrodyne project has been submitted to representatives at Con Edison in order to receive a confirmation notice that there is supply available to meet the project's anticipated demand. Con Edison has agreed to serve the Gyrodyne Project Site based upon the request that was submitted. Site work to bring utilities from the perimeter of the site up to the proposed new building locations may be required along with new interconnections, but there are no other major anticipated improvements to be made.

Telecommunications

The telecommunication demand projected to be generated by the proposed medical office building and the multi-family residential building will be met by the current service providers. The demand generated by the Gyrodyne Project will be larger than the current demand generated by the existing uses, but the capacity exists to handle the expanded demand.

MITIGATION

EVERGREEN

Once the building designs have been further developed, a service request will be made to Con Edison, and Con Edison will provide a service plan for the Project, which may identify system infrastructure improvements required to be completed by Con Edison. Con Edison is required to provide gas and electric service to the customers within Westchester County, in accordance with its tariff requirements and subject to Con Edison's final engineering approvals.

All buildings will be designed to comply with the latest New York State Energy Conservation Code and New York State Building Code. Utilization of energy efficient fixtures, smart technology, LED lighting fixtures, and solid state reduced voltage frequency-controlled motor starters will help reduce the electric demands as well as overall energy demands.

Telecommunications

The telecommunication providers will make the appropriate decisions regarding the need for any infrastructure improvements to provide the necessary service demanded by the Evergreen Manor Project. Final configuration of the telecommunication service will be determined by Verizon and Optimum during the site plan approval process.

GYRODYNE

While we have conservatively estimated the anticipated electrical load requirements, we have submitted these load requirements to Con Edison to confirm that there is available capacity to serve these loads using existing equipment and transmission wires that neighbor the site on both Route 202/35/Crompond Road and Lafayette Avenue. Con Edison has agreed to serve the Gyrodyne Project Site based upon the request that was submitted. The arrangement of the buildings on the site may require new conduit to bring power to the new building locations, but that is to be anticipated since the site is being cleared (**See Appendix 10 for correspondence from Con Edison**).

As it is anticipated that the buildings will be designed to apply for LEED Green Building Certification, there are a number of categories of energy efficiency measures that could be investigated and implemented in order to reduce both electric and natural gas consumption and demand including the following:

- 1) High-efficiency HVAC systems
- 2) High-efficiency boilers and hot water heaters
- 3) Energy recovery ventilators and economizers
- 4) Building energy management systems for HVAC and lighting systems
- 5) Automatic occupancy and CO2 controlled space temperature and lighting controls
- 6) Daylight harvesting
- 7) Enhanced and thermally insulated envelop and fenestration assemblies
- 8) High-efficiency water fixtures
- 9) High-efficiency equipment (ex. Washers/dryers, refrigerators, computer, medical and entertainment equipment)

Telecommunications

The telecommunication providers will make the appropriate decisions regarding the need for any infrastructure improvements to provide the necessary service demanded by the Gyrodyne Project. The main infrastructure is already in place, but some minor improvements may need to be made based upon the final site plan and what is constructed (**See Appendix 10 for Letters from Verizon and Altice**).