

III. EXISTING CONDITIONS, IMPACTS AND MITIGATION

I. Use and Conservation of Energy – Green Technology

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1. Existing Conditions

Energy usage for the existing site was estimated based on typical values for residential, motel and commercial uses. The estimation assumes each use in full operation. Natural gas is not available at the site. Electric usage records were not available and an estimation of the typical usage is provided in Table III.I.1.

| Table III.I.1 Existing Estimated Annual Electric Usage | | |
|--|--------------------------|-----------------------------|
| Tax Lot # | Use | Annual Electric Usage (kWh) |
| 26.18-1-17 | Residence #1 | 6,972 |
| 26.18-1-17 | Residence #2 | 6,972 |
| 26.18-1-18 | Zino's Wholesale Nursery | 88,450 |
| 26.18-1-19 | Yorktown Motor Lodge | 379,200 |
| 26.19-1-1 | King Gates & Fence | 38,200 |
| Total | Site | 519,874 |
| Notes: | | |
| (1) Usage per typical residence for northeast. Reference US Energy Information Administration website www.eia.gov . | | |
| (2) Usage of 12 kWh per square foot of motel floor area. Reference Madison Gas and Electric website www.mge.com . | | |
| (3) Usage of 29 kWh per square foot of commercial building area. Reference US Energy Information Administration website www.eia.gov . | | |

*Use
MYS DEC
Guide for
Assessing
Energy Use
and Green House
Gases*

Clean Air Act?

The existing energy use is estimated at ± 519,874 kilowatt-hours (kWh) per year in electricity consumption. This translates into 394 tons of carbon dioxide (CO₂) generated by the existing site (per <http://www.epa.gov/cleanenergy/energy-resources/calculator.html#results>).

2. Potential Impacts

Energy usage for the Proposed Costco Wholesale was estimated based on data for similar facilities as provided by Costco. Anticipated annual electric and natural gas usage is estimated to be approximately 4.124 million kWh and 76,000 Therms, respectively. The Proposed Costco will result in the increased electric and gas usage of approximately 3.6 million kWh and 76,000 Therms.

*DEC Standard
energy use*

Since natural gas service is presently not available to the project site, extension of the gas main is necessary as described in Section III.H.3 of this DEIS. Extension of the gas main along Old Crompond Road will afford approximately ten residential properties the potential to connect to the gas main. Using a typical annual gas usage of 720 Therms or 70 Mcf (thousand cubic feet) per residence, it is calculated that the gas usage for the residents along the extended gas main in Old Crompond Road would be 7,200 Therms per year.

a. Greenhouse Gas Emissions

There is general consensus in the scientific community that the global climate is changing as a result of increased concentrations of greenhouse gases (GHGs) in the atmosphere. As a consequence, government policies have begun to address GHG emissions at global, national, and local levels, including New York City's long-term sustainability program, PlaNYC 2030. GHGs are those gaseous constituents of the atmosphere, from both natural and anthropogenic (i.e., resulting from the influence of human beings) emission sources, that absorb infrared radiation (heat) emitted from the earth's surface, the atmosphere, and clouds. This property causes the general warming of the earth's atmosphere, or the "greenhouse effect." Water vapor, carbon dioxide (CO₂), nitrous oxide, methane, and ozone are the primary greenhouse gases in the earth's atmosphere.

Although the contribution of any single project to climate change is infinitesimal, the combined GHG emissions from all human activity may result in or significantly contribute to global climate change. While the emissions of criteria pollutant and toxic air emissions are assessed in the context of health based standards and local impacts, there are no established thresholds for assessing the significance of a Project's contribution to climate change. Nonetheless, the nature of the climate change impact dictates that all sectors address GHG emissions by identifying GHG sources and practicable means to reduce them.

GHGs considered include emissions resulting directly from the proposed retail development, such as on-site fuel consumption for HVAC or construction equipment, as well as indirect emissions, such as emissions from Project-generated vehicle trips and electricity consumption. The emissions would also include indirect emissions "upstream" and "downstream" from the Project in time, such as emissions associated with the production and disposal of materials used for construction, and materials sent to landfill and recycling.

Direct and Indirect GHG Emissions During Construction and Operation

Construction activities for the proposed project would result in GHG emissions from on-site construction equipment, truck trips associated with construction material, deliveries and disposal, and construction worker trips.

Large excavators, rollers, and dump trucks consume diesel fuel and produce GHGs. In addition there are GHGs emitted during the production of construction materials and delivering them to the site. Energy consumption is associated with all commercial construction projects. Short-term energy consumption impacts occur during construction of the proposed retail development, primarily due to the consumption of fossil fuels through the operation of power equipment and construction vehicles. Secondary usages also include fuel utilized by the contractor's employees to commute to the site and the energy for transportation and production of building materials.

After construction, the operation of the retail development consumes energy on a continuous basis. The energy is primarily utilized for heat and air conditioning, hot water production, lights, and the operation of appliances such as refrigerators and ovens. The forms of energy consumed directly are typically electricity and natural gas. Indirectly fossil fuel fired power plants, hydroelectric power plants, and nuclear power plants are used for electricity production. Also indirectly, GHGs will be emitted during gasoline and diesel combustion from private vehicle use and contractor delivery trucks to and from the Project site.

b. Greenhouse Gas Emissions (Completed Building)

Operational Emissions – Stationary Sources

The Project will utilize electric ^{which} and/or natural gas fired combustion equipment to provide for the heating, ventilation and air conditioning (HVAC) requirements for the proposed Costco warehouse store. As such, the Project has the potential for operational combustion emissions of CO₂. Appropriate NYSDEC air permits will be obtained for all relevant equipment, if necessary. Annual GHG emission estimates for the Costco indicate that the Project will not be classified as a major GHG air emitting source pursuant to U.S. EPA and NYSDEC air permitting regulations.

which ones?
DECE EPA
Air Permits

The proposed electric and/or natural gas fired HVAC units were based upon the requirements for a prototypical Costco. A typical Costco will have on the order of 6.8 million British thermal Units per hour (mmBtu) of heat input (i.e., hourly fuel usage) to provide for HVAC requirements.

Potential CO₂ emissions from the Project based upon natural gas combustion in the HVAC units are based upon U.S. EPA's AP-42 document, Section 1.4, "Natural Gas Combustion" in the External Combustion Sources chapter. The AP-42 emission factors in pounds per mmBtu (lb/mmBtu) were multiplied by the Project's energy requirement in units of mmBtu/hr to estimate the potential pound per hour (lb/hr) emission rate. Details of the HVAC system emission calculations are shown in the Table III.I.2. As shown in the table, total stationary source operational emissions are calculated at 3,503 tons CO₂ per year.

Table III.2
Completed Building GHG Emission Calculations

| Equipment | Model or Equivalent | Non-Road SCC / On-Road Class | Count | Annual Hours of Operation | Heat Input Rating mmBtu/hr | Miles | | Fuel | Hours of Operation (Non-Road Equipment) or Number of Vehicle-Miles-Traveled (On-Road Vehicles) | AP-42 Emission Factor (lb/mmBtu) or MOVES Emission Factor (grams/VMT) | Emissions (tons/year) |
|--------------------------------------|---------------------|------------------------------|-----------|---------------------------|----------------------------|----------|------|------|--|---|-----------------------|
| | | | | | | /Vehicle | /Day | | | | |
| Rooftop HVAC Units | Trane | NA | 17 | 8,760 | 0.4 | | X | | 8,760 | 117.6 | 3,503 |
| Subtotal (Stationary Sources) | | | | | | | | | | | |
| Delivery Trucks | | | | | | | | | | | |
| Semi trucks and trailer - Offsite | NA | HDDV | 10 | NA | NA | 40 | X | | 104,000 | 2,099 | 241 |
| Subtotal - (Delivery Trucks) | | | | | | | | | | | |
| Costco Employees and Visitors | | | | | | | | | | | |
| No. of Round Trips* | NA | LDGV | 1,181,986 | NA | NA | 30 | X | | 35,459,580 | 356 | 13,915 |
| Subtotal - (Costco visitors) | | | | | | | | | | | |

| Emissions Summary | CO ₂ |
|---------------------------------------|-----------------|
| Stationary Sources | 3,503 |
| Delivery Trucks | 241 |
| Costco Visitors | 13,915 |
| Construction (Annualized over 30 yrs) | 130 |
| TOTAL | 17,789 |

| Operating Schedule | Hours of Operation | Peak AM Hours | Peak PM Hours | Peak AM Traffic Count | Peak PM Traffic Count | Number of Visitors per Year |
|--------------------|--------------------|---------------|---------------|-----------------------|-----------------------|-----------------------------|
| Weekday | 10:00-8:30 | 2 | 8.5 | 60 | 320 | 738,400 |
| Saturday | 9:30-6:00 | 2.5 | 6 | 517 | 517 | 228,514 |
| Sunday | 10:00-6:00 | 2 | 6 | 517 | 517 | 215,072 |
| Total | | | | | | 1,181,986 |

in 30 mi trips

Source: TRC

Operational Emissions – Mobile Sources

Indirect emissions from non-stationary sources include trips generated by vehicles that are associated with the proposed Project but are not owned and operated by Costco. This includes trips of commuting employees, suppliers/vendors, and customers of the Costco as well as the transportation of waste generated at the site. To quantify these indirect emissions, the first step is to estimate net new trips to be generated by the proposed Project. Estimates of the Project's annual vehicle-miles traveled (VMT) for each category were developed based upon the expected annual operating schedule and average round trip distances for each activity.

Emission factors in units of grams per VMT for on road engine emissions of CO₂ were obtained for various vehicle categories based on the results of modeling using EPA's MOVES mobile source emission factor model. Factors were selected for Westchester County and are representative of emission factors for the Project area. Emission factors were obtained for various vehicle classes, including heavy-duty diesel vehicles ("HDDV") and light-duty gasoline vehicles ("LDGV").

Emissions from on-road vehicles were calculated for the following operational related activities:

- Light-duty gasoline vehicles driven by commuting workers to and from the Project area;
- Heavy-duty diesel vehicles and other vehicles involved in retail delivery to the Project area; and
- Light-duty gasoline vehicles driven by customers to and from the Project area.

Emissions were calculated for each activity as the product of the estimated VMT and the associated emission factor and are shown in Table III.1.2. As shown in the table, the total mobile source operational emissions are calculated at 14,156 tons of CO₂ per year.

c. Greenhouse Gas Emissions (Construction)

Emissions of CO₂ from non-road construction equipment engines used during Project construction have been estimated based on the anticipated types of non-road equipment and their associated levels of use. Emission factors in grams per horsepower-hour ("g/hp-hr") for diesel and gasoline non-road equipment engines were obtained using the most recent version of EPA's NONROAD model (NONROAD2008a). NONROAD was run to obtain annual average emission factors for the primary 2012 construction period. To be conservative, the analysis made use of the default engine population

Based on traffic study so subject to that being correct.

distribution in NONROAD. The resulting emission estimates do not account for the greater availability of newer and lower emitting construction equipment in the Project area. Therefore, emissions from non-road engines are likely overestimated. Emissions for each engine were calculated as the product of the engine hp, the load factor, the hours of engine use, and the emission factor.

Emission factors in units of grams per VMT for on road engine emissions of CO₂ were obtained for various vehicle categories based on the results of modeling using EPA's MOVES mobile source emission factor model. Factors were selected for Westchester County and are representative of emission factors for the Project area. Emission factors were obtained for various vehicle classes, including heavy-duty diesel vehicles ("HDDV"), light-duty gasoline trucks ("LDGT"), and light-duty gasoline vehicles ("LDGV").

Emissions from on-road vehicles were calculated for the following construction related activities:

- Light-duty gasoline vehicles and trucks driven by commuting construction workers to and from Project work site; and
- Heavy-duty diesel vehicles and other vehicles involved in material delivery to or removal from Project work sites.

For each vehicle category and activity, emissions were calculated as the product of the estimated VMT and the associated emission factor. The total VMT for commuting was calculated by multiplying the number of construction workers by the mileage driven per employee per day (i.e., 50 miles) and by the expected duration of the activity.

The total construction period CO₂ emissions are 3,916 tons of CO₂ as shown in Table III.I.3.

Table III.J.3
Construction GHG Emission Calculations

| On-site Road and Nonroad Construction Equipment | Rated HP | Fuel | | Schedule Equipment hours | Source Classification Code (SCC) | NONROAD2008a Emission Factor (g/hp-hr) | | Load Factor | CO ₂ Emissions (Tons) |
|--|----------|--------|-----------------------------|-----------------------------|---|--|-----------------------------------|----------------|--|
| | | Diesel | Gasoline | | | 2012 | | | |
| Nonroad construction equipment | | | | | | | | | |
| Paving equipment used to smooth and distribute paving material | 175 | X | | 286 | 2270002021 | | 535.99 | 0.59 | 17 |
| Asphalt Roller | 200 | X | | 700 | 2270002015 | | 536.07 | 0.59 | 49 |
| Soil Roller | 200 | X | | 2,600 | 2270002015 | | 536.07 | 0.59 | 181 |
| Excavators (CAT 330) | 247 | X | | 2,195 | 2270002036 | | 536.18 | 0.59 | 189 |
| Excavators (CAT 325) | 188 | X | | 1,568 | 2270002036 | | 536.18 | 0.59 | 103 |
| Self-propelled cranes | 375 | X | | 1,040 | 2270002045 | | 530.32 | 0.43 | 98 |
| Trachoe | 125 | X | | 3,540 | 2270002066 | | 623.80 | 0.21 | 64 |
| Backhoe | 100 | X | | 596 | 2270002066 | | 623.80 | 0.21 | 9 |
| Dozers | 460 | X | | 1,571 | 2270002069 | | 536.21 | 0.59 | 252 |
| Loaders | 280 | X | | 1,818 | 2270002072 | | 622.99 | 0.21 | 73 |
| Nonroad Industrial Equipment | | | | | | | | | |
| Small-wheeled forklifts | 92 | X | | 720 | 2270003020 | | 595.46 | 0.59 | 26 |
| Deliveries / Removals | | | | | | | | | |
| On-road delivery and removal vehicles | | | | | | | | | |
| | | | Trip Distance (miles) | Schedule Number of Trips | | | MOVES Emission Factors (g/VMT) | | CO ₂ Emissions (Tons) |
| Heavy duty diesel vehicles | | | 100 | 7,396 | | | 2,099 | | 1,711 |
| Construction Workers | | | | Total VMT | | | | | |
| Construction Worker Commutes | | | 50 | 52,000 | | | 399 | | 1,144 |
| TOTAL | | | | | | | | | 3,916 |

Source: TRC

Removal of Carbon Sequestration

As part of the construction process there will be lost carbon sequestration at the site in the form of trees being removed from the property. Per EPA estimates of the ability of trees to act as a carbon sink, it is expected that the lost carbon sequestration due to the removal of existing trees will be on the order of 10 tons of CO₂ per year. This equates to the approximate residential GHG emissions from only two U.S. citizens per year, or otherwise, an inconsequential amount.

d. Greenhouse Gas Emissions Summary

The annual GHG emissions from the proposed Project are predicted to be approximately 17,789 tons of CO₂. This does not represent a net increment in GHG emissions, since similar GHG emissions would occur if the proposed retail services were to be constructed elsewhere, and could be higher if constructed with less energy efficiency, at further distance from residential uses, and with less access to transit service.

The total annual inventory of GHG emissions in New York State is approximately 284 million tons of CO₂ per year as reported by the New York State Energy and Research Development Authority (NYSERDA). The annual CO₂ emissions of the Project represent only 0.006% of the total New York State emission inventory.

3. Proposed Mitigation Measures

- a. Energy Saving Green Technology - Within the Costco organization a group called the Costco Corporate Sustainability and Energy Group was created to monitor and develop company-wide sustainability related solutions to a host of environmental issues. As an outgrowth of the group and previous environmental policies, Costco has implemented many environmentally sensitive or green technologies to increase company efficiency and reduce environmental impacts. Some of those green practices typically implemented in their buildings as documented in Costco's 2009 Corporate Sustainability Report, are highlighted as follows:
- The preferred building program is the pre-engineered metal building system. The building performs more efficiently than full height masonry buildings. The metal warehouse consumes fewer building materials in construction, fewer fossil fuels in transportation of construction materials, uses over 80% recycled materials and the building is 100% recyclable.
 - Insulated textured wall panels reduce the HVAC requirements as compared to their masonry counterpart.

- Costco has a daylighting program that reduces the energy load by hundreds of kilowatt hours. The warehouse is provided with over 200 skylights placed strategically throughout the roof to provide natural lighting. Photo sensors measure the natural light entering the building and allow interior lights to automatically turn off when not needed.
- Costco employs a Heat-Reclaim system that captures heat from the refrigeration lines and uses it to heat water for the building.
- High efficient restroom fixtures are utilized, which result in a reduction of water use by as much as 40% beyond that required by industry building standards.
- Further reduction of energy load for the HVAC system is provided through the use of:
 - Ceiling fans to de-stratify interior air layers;
 - Double vestibule doors to reduce loss of heated interior air;
 - Interior HID lighting system yielding increased lighting efficiency;
 - LED lighting at the jewelry cases and freezer/coolers reduces energy consumption;
 - Night covers are placed on flower coolers and vertical deli cases after hours of operation resulting in a decreased cooling loss.

Recycling the waste stream is an important part of Costco's sustainability strategy and is discussed further in Section III.J of this DEIS. For example, cardboard boxes that products are delivered in are reused by customers to carry home their merchandise. They employ a ban on all plastic shopping bags. The waste stream is further reduced by reengineering merchandise packaging. Product packaging has become more environmentally sustainable by replacing the traditional plastic clamshell packaging with paperboard blister hybrid packaging. This new packaging is comprised of printed paperboard and recycled plastic.

Costco has been an active member of the EPA's Energy Star and Climate Protection Partnerships and is a major retailer of the Energy Star qualified Compact Florescent Lamb bulbs.

b. Public Transportation Options

Bus Service in the area is provided by the Westchester County Bee-Line Bus service operated by the Westchester County Department of Transportation. Local service is provided along NYS Route 35/U.S. Route 202 via the Route 15 Bus with the nearest bus stop to the project located at the intersection of NYS Route 35/U.S. Route 202 and Strang Boulevard. The Route 15 Bus provides service from Downtown Peekskill continuing along Route 6 to Lexington Avenue and then continuing south to NYS Route 35/U.S. Route 202. The bus service continues to the east through the Town of Yorktown and continues south along Route 118 to Route 100 in Somers. It then connects

with Route 9A further south. It terminates at the White Plains station (Metro-North Harlem Line). The Route 15 Bus Service is provided regularly during the AM and PM Hours and limited service is provided on Saturday. The Route 15 Bus Schedule and Map are included in Appendix “F” of this report.

Two other Westchester County Bee-Line busses provide service in the study area. These include the Route 10 Bus and the Route 77 Express Bus. However, these Busses do not serve the immediate area of the site. The Route 10 Bus provides commuter service between the Cortlandt Town Center and the Croton Harmon Train Station. Within the study area it has scheduled stops at the intersection of NYS Route 132 and NYS Route 35/U.S. Route 202 as well as along Commerce Street near the intersection with Downing Drive in Yorktown Heights. The Route 77 Express Bus is also a commuter bus which runs between Carmel in Putnam County and White Plains. In the town of Yorktown the bus stops at several locations including FDR State Park and at the intersection of NYS Route 132 and U.S. Route 6 in Shrub Oak.

Based on conversations with the Westchester County Department of Transportation, no specific ridership data is currently available with respect to existing bus usage. However, the Westchester County Department of Transportation indicated that the Bee-Line bus routes in the area generally have available capacity and if ridership increases, bus service is adjusted accordingly.

The addition, a bus stop in front of the site is being explored with Bee-Line. Potential improvements to public transportation could lead to reductions in traffic congestion and air emissions, including carbon and should continue to be coordinated with the County.

c. LEED Green Building Rating System

The following information is quoted or paraphrased from the LEED 2009 for Retail: New Construction and Major Renovations, published by the U.S. Green Building Council (USGBC) updated August 2011.

The USGBC reports that more than 30% of the total energy and 60% of the electricity used in the United States is consumed by buildings. Within the commercial sector approximately 5 billion gallons of potable water are used to flush toilets each day. Approximately 1.6 pounds of solid waste is generated per employee per day. Retail buildings account for the largest energy costs each year. The retail sector also generates airborne pollutants from shoppers' vehicular trips, stormwater runoff from parking facilities and noise and light pollution. The Council states that green building practices can substantially reduce environmental impacts through the implementation of green technology.

Following the formation of the USGBC in 1993 a system to define and measure green buildings was established. The LEED (Leading in Energy and Environmental Design) Green Building Rating system is purely voluntary. The rating system is organized in seven environmental categories.

Following is an outline of the seven LEED categories and a brief description of how the Proposed Action employs sustainable measures in support of each environmental category.

Sustainable Sites - The intent is to reduce pollution from construction activities by controlling soil erosion, waterway sedimentation and airborne dust generation.

* Intent correct

The Proposed Action employs several design elements and strategies intended to reduce pollution from construction and operational activities. Sustainable Site Plan design strategies include the following:

- The proposed Costco Warehouse was situated on the site with consideration of minimizing environmental impact. The building is proposed generally within the previously disturbed portion of the site. Locating the building along the eastern border minimizes the amount of required imported structural fill, thereby reducing construction traffic. A 100-foot pervious buffer has been retained adjacent to the existing watercourse; and the pervious buffer has been retained in nearly all locations adjacent to Wetland A. (See Section III.G.3.a of this DEIS for additional discussion.)
- The Proposed Action is consistent with existing zoning. The Town of Yorktown Comprehensive Plan designates the project site as C-3 zoning; therefore the proposed project is permitted as-of-right and is consistent with the Town's long-term vision. The project includes development of a previously developed site.
- The Proposed Action proposes development on a previously developed site. A major portion of the existing development includes an abandoned motel which detracts from the safety and appearance of the neighborhood character. Of the existing 18.75 acre site, approximately 10.15 acres were previously disturbed of which 2.90 acres are presently impervious (buildings and pavement). Therefore, redevelopment of the existing site will have less impact than if the Proposed Action were developed on virgin land. The Proposed Action will include demolition of existing

infrastructure and cleanup of existing environmentally hazardous conditions as described in Section III.D of this DEIS.

- Public transportation is encouraged as described in Section III.1.3.b above.
- Natural resources including wooded areas, a watercourse, wetlands and buffers have been preserved. After development, approximately 3.36 acres of wooded area, or 18% of the entire site, will remain undisturbed and is retained as open space; 6.8 acres of site or 36% of the site will remain vegetated.
- Stormwater and sediment and erosion control will be managed in accordance with the Stormwater Pollution Prevention Plan (SWPPP) as described in Section III.G and Appendix D of this DEIS. The SWPPP has been prepared to meet the requirements of the Town of Yorktown, NYS Department of Conservation and the NYC Department of Environmental Protection. Impervious area has been minimized by reducing the parking module dimensions. The stormwater management plan results in reduction of peak runoff rates and water quality treatment of stormwater runoff. See Section III.G.a of this DEIS for additional discussion.
- Heat islands have been reduced with the implementation of a solar reflectant white building roof. A Micropool Extended Detention Pond has been designed to manage stormwater runoff. As indicated in the Chapter 6.1.1 of the DEC Design Manual, this detention facility is a recommended standard practice that minimizes thermal impacts to downstream water bodies. Landscaping including shade trees is proposed along the perimeter and within the parking areas.
- Sky glow will be minimized through the implementation of “dark sky” parking lot luminaires. The proposed lights will direct lighting downward, minimizing upward illumination and perimeter lighting will have residential shields to prevent offsite light spillage. After store closure, exterior lighting will be minimized to provide only security lighting.

Intent missing

* Water Efficiency - The Proposed Action employs several design elements and strategies intended to increase water efficiency and to reduce the burden on municipal water supply and wastewater systems. Water Efficient design strategies include the following:

- All restroom fixtures are designed to minimize water usage. Specified fixtures will achieve the following water usage:

- Commercial Toilets: 1.28 gallons per flush (exceeds LEED baseline 1.6 gallons per flush).
- Commercial Lavatory: 0.5 gallons per minute (equals LEED baseline).
- Commercial Urinals: 0.5 gallons per flush (exceeds LEED baseline 1.0 gallons per flush).

Energy and Atmosphere - Costco is an organization that is always seeking ways to reduce costs and then pass those savings along to their members. Part of that philosophy is constantly searching for ways to reduce energy costs in a cost effective manor by improving the performance of the building envelope as well as the heating and cooling systems. The Proposed Action employs several design elements and strategies intended to reduce energy usage.

* intent missing

- The proposed warehouse wall will be constructed of 2” thick insulated metal panels that provide an R value of 15.9.
- To help reduce cooling loads, the Warehouse roof material will be highly reflective standing seam metal product. This not only helps reduce the heat island effect, but also significantly decreases cooling loads during the hotter months of the year.
- The proposed Costco Warehouse will also incorporate about 200 4’x8’ skylights evenly distributed over the sales floor area. Since the ceiling will be 25’ high the natural light from the skylights will spread evenly throughout the sales floor. By using photocell controlled lighting in combination with an Energy management System, Costco is able to maintain an even light level at the store interior while saving considerable amounts of energy and dollars.
- The performance of these systems at previously constructed warehouses was about 20% higher than the baseline performance criteria required by LEED for Retail.

Materials and Resources - The intent is to reduce generation of solid waste,

* Revise to correct intent. sent to landfills.

Waste stream reduction is a major focus of Costco’s Corporate Sustainability program. See Section III.J of this DEIS for discussion regarding solid waste.

The Proposed Action utilizes a pre-engineered metal building system that allows for both reduction in the amount of steel required as well as an increase in the amount of recycled material content.

- The main building structure is a pre-engineered system designed to minimize the amount of material used and is made using 80% recycled steel content.
- Walls will be textured insulated metal panels, fabricated in Pennsylvania with a high recycled steel content.
- A standing metal seam “Cool” roof will be made from recycled steel content.
- When the Warehouse has reached the end of its life cycle, all of the steel can then be recycled again – completing the “cradle to cradle” process.

Revise:
To improve
Indoor air
quality

— * Indoor Environmental Quality – The intent is to enhance indoor quality, thus contributing to the well-being of the customer.

The Proposed Action incorporates over 200 4’ x 8’ skylights covering approximately 6% of the sales floor which help connect the customer with the outdoors, thereby, enhancing the indoor experience.

- Skylights bring daylight into the Warehouse and provide an improved shopping experience.
- Skylights are used in combination with photo cell lighting controls, allowing for a greatly reduced energy usage.
- Skylights are located 25’ or more above sales floor allowing the natural light to spread evenly throughout the sales floor.

Innovation in Design – The intent is to provide project teams that help support and achieve environmentally receptive buildings.

The Architectural Project Management team will include LEED Accredited Professionals. *who are? or who will advise on what aspects of the project?*

* Regional Priority – The intent is to address geographically-specific environmental priorities.

Isn't this
Section supposed
to address if
the USBC has
any regional
priority credits
for the subject
site.

The Proposed Action incorporates 4 of the 6 sustainable strategies that are considered a priority of the USGBC.

- In order to conserve natural areas and provide habitat and promote bio-diversity, the Proposed Action will retain over 20% of the site in its natural state.

- In order to reduce pollution and land development impacts from automobile use, the Project Site is located within ¼ mile of an existing bus stop, which is located on Route 202/35 at Strang Boulevard. The addition, a bus stop in front of the site is being explored with Bee-Line Bus System.
- In order to limit disruption and pollution or natural water flows, the Proposed Action includes a storm water management plan that implements best management practices and treats the storm water run-off in accordance with NYSDEC requirements.
- In order to reduce environmental and economic impacts associated with excessive energy use, the Proposed Action will achieve an energy cost savings of 20% above the ANSI/ASHRAE/IESNA Standard 90.1-2007 baseline.

Conclusion?

- what level of LEED would the building qualify for?