Chapter 7: Action Plan

Implementation Overview

The most important aspect of any plan is its implementation. For land use planning, future outcomes depend on decisions taken and policies initiated over time by various interests. Tonawanda’s goals and strategies, which were outlined in Chapter 2, provide the framework for implementation. This chapter includes a range of recommended actions within each of the goal areas, reflect community priorities, and provide a basis for the future land use decisions outlined in this plan report.

The actions include both recommendations for physical alterations to both the built and natural environment (natural landscapes, water bodies, etc.) as well as policy/regulatory recommendations to facilitate desired outcomes. Where applicable, each action item includes a general timeframe for the length of time involved to complete each item, estimated cost, and potential stakeholders.

This chapter does not describe or include every possible action or probable outcome. The actions set forth are a culmination of community input, economic feasibility, and best practices in community planning, design, and development. They are intended to guide future investment and decisions and provide a reference point as new, perhaps even unforeseen, opportunities emerge.

However, this plan is intended to be a working document to be actively used and referenced during the redevelopment of the waterfront. As such, space is provided for the Town to “mark off” when specific actions have been achieved or are significantly underway. This provides the Town with a way to track progress over time and highlight where action has been taken.

In addition to these broad recommendations, this chapter contains targeted site recommendations for several key areas within the study area that outline various levels of improvements. These target areas include Aqua Lane Park, Cherry Farm, Riverfront Park, Sheridan Park and a new east-west trail connection.

Action Plan Key

For each goal area, a series of actions have been outlined. The following key will help municipal leaders and interested stakeholders track the goal area to which the strategies and proposed actions correspond.

- [Image of waterfront]
  - Waterfront
- [Image of globe]
  - Sustainability
- [Image of tree]
  - Environmental Stewardship
- [Image of building]
  - Economic Development
- [Image of house]
  - Community Design

Some of the actions could be easily categorized under more than one goal area. For implementation purposes, the actions were placed in the goal area deemed most reasonably connected to the idea or concept. Timeframes are generally broken down into short (1-2 years), medium (3-5 years) and long (5-10 years). Funding sources are based on current/known sources available. Economic and political issues can impact availability of these funds; existing funds can be revised or suspended or new funds may become available.
Chapter 7 - Action Plan

Waterfront Action Items

Strategies: (summarized from Chapter 2)

1. Increase public access to and views of the waterfront.
2. Encourage water-dependent uses and expanded passive recreation along the water’s edge.
3. Relocate ill-suited development as opportunity and resources are available.
4. Engage regional partners to pursue joint initiatives.

WF-1. Expand public lands along waterfront

Timeframe: Medium-Long
Stakeholders: BNRK
Estimated Costs: Dependent on market value
Funding Sources: CFA, NRGC

Action Achieved/Underway

Detail: Several significant parcels located along the waterfront have been identified as potential/future public parks, including Cherry Farm and Riverfront. The Town has initiated talks with outside sources regarding partnerships and avenues for converting these lands from private to public. Continue to actively pursue developing these lands into public resources with direct access to the waterfront. Conceptual development plans and other details are provided at the end of this chapter.

WF-2. Trail interconnections

Timeframe: Short-Medium
Stakeholders: Planning, Town Board
Estimated Costs: Unknown
Funding Sources: Private, NRGC, EPF, MAP-21

Action Achieved/Underway

Detail: Trail spurs in the form of loops, vantage points, connecting boardwalks or other means of public access should be incorporated into the development of all properties immediately adjacent to the river. Where any public or private development is located adjacent to the Riverwalk Trail, a connection to the trail should be a
condition of final approval, through easements, dedications or other means. For private development, this connection to the waterfront can terminate at a boardwalk, trail loop, or other public access / vantage point agreed upon between the Town and developer/applicant. Incentive zoning can be utilized in which access is the benefit in exchange for an agreed upon incentive to the developer/applicant. It is recommended that incentive zoning text be added to the zoning code to address not only trail interconnections, but to also allow other kinds of flexibility in overall site design (see sidebar).

**WF-4. Coordinate waterfront efforts**

**Timeframe:** Short  
**Stakeholders:** Planning, Town Board  
**Estimated Costs:** None  
**Funding Sources:** None

*Detail:* Continue to coordinate efforts with Buffalo Niagara Riverkeeper, Niagara River Greenway Commission, and other Niagara River communities about efforts to preserve views and access, including joint policy statements, consistent zoning and site development requirements, shoreline stabilization, water quality improvements, and habitat restoration.

**WF-5. Engage special interests**

**Timeframe:** Short  
**Stakeholders:** Town Board, TTDC  
**Estimated Costs:** None  
**Funding Sources:** None

*Detail:* Although every effort was made during this plan to engage outside interests, opportunities still exist to engage other special interest groups in the region, including those related to trails, biking, fishing, birding, rowing/kayaking, and others. To help increase the visibility and potential marketability of the waterfront, informal meetings with representatives from these groups will help to highlight improvements made to the waterfront, identify opportunities for organized activities and further promote Tonawanda’s waterfront to a wider audience.

**Incentive Zoning: Carrots and Sticks**

The purpose of incentive zoning is to empower the Town to grant incentives (carrots) in exchange for a private developer to provide a public benefit or amenity (stick). The incentives offered by the Town must be in accordance with documented policies, strategies, or mechanisms outlined in a community-based comprehensive or other land use management plan. Incentives can include, but is not limited to conservation of features or land, land donation, and construction of recreational amenities. Permitted incentives can include increase in density, changes in lot dimensional requirements, or changes in use. The Town Board is responsible for review and final approval of any incentive zoning - Town Law §261-b provides specific procedures and requirements for this process. Incentive zoning does not take the place of existing zoning regulations in a district, but supplements it and needs to be agreed upon by all involved parties. In Tonawanda’s case, this form of zoning would provide a mechanism for increasing public access to the waterfront while also increasing the prominence of the waterfront to the community in the form of increased development.
WF-6. Expand and market small boat launches

*Timeframe: Medium*

*Stakeholders: Town Board, TTDC, Erie Co.*

*Estimated Costs: Unknown*

*Funding Sources: NRGC, CDBG, EPF, CFA*

**Detail:** Personal-powered watercraft (kayaks, canoes, rowboats, etc.) boat launches should be pursued at any Town property along the waterfront. Aqua Lane Park and Cherry Farm are two key locations for this type of facility, as is the Town’s Water Treatment Plant, depending on its status in the near future. (Although a launch currently exists at Aqua Lane Park, room for expansion and enhancements exists.) In addition, creating a user-friendly map or flyer illustrating public access points and description of activities and amenities at key public entry points and destinations along the riverfront would provide good publicity for the Town’s waterfront.

WF-7. Revise waterfront zoning districts

*Timeframe: Short - Medium*

*Stakeholders: Planning Board*

*Estimated Costs: $15,000-$45,000*

*Funding Sources: Local budget, CFA (LWRP)*

**Detail:** Currently, there are 10 different zoning districts within the study area. Along River Road, there are five different districts; six including the River Road Overlay and eight when taking the River Road Overlay subareas into consideration. This variation does not provide a consistent, desired objective for the waterfront. Additionally, although the overlay district was intended to implement the goals of the LWRP, it has generally underperformed for various reasons.

New zoning districts and/or revised boundaries should be developed that more accurately reflect the goals and objectives of the Town for the waterfront, including those within the Brownfield Opportunity Area (BOA) Pre-Nomination Study and LWRP. A Waterfront Priority District would one of the more important districts to establish to transform the area from primarily heavy industry and vacant lands to a mix of uses with open spaces. This district would
mirror the LWRP boundary by extending 500 feet beyond River Road on the upland (east) side. The Future Land Use map provides a useful starting point for these revisions.

The design standards contained within the existing Overlay District are valuable and should be retained in any revised zoning text, albeit in a different format and outline specific requirements, criteria, and recommendations for design. (See action item CD-1)

**WF-8. Engage waterfront landowners**

*Timeframe: Short*
*Stakeholders: Town Board, private landowners*
*Estimated Costs: None*
*Funding Sources: None*

**Action Achieved/Underway**

*Detail: In addition to the input provided by the companies involved with the Town’s E3 Sustainability Initiative as well as the waterfront corridor landscaping study currently underway, periodically conduct confidential surveys of property owners on the waterfront and along the east side of River Road to learn about short and long-term plans for their properties, including potential site improvements, expansions and/or relocation. Share the goals, strategies, and recommendations contained within this plan with them to build up cooperative efforts at rebranding and redeveloping the waterfront in an effective and sustainable manner.*

**WF-9. Expand local redevelopment efforts regionally**

*Timeframe: Medium*
*Stakeholders: TTDC, Erie Co, Sustainability Council, Planning Board, NYS*
*Estimated Costs: None*
*Funding Sources: NYSESD*

**Action Achieved/Underway**

*Detail: Coordinate and strengthen cooperative efforts with other County and regional entities such as Erie County Office of Economic Development or the IDA in regards to business attraction and retention. If these entities are not involved in the E3 Initiative, consider inviting them or establishing secondary meetings with them to gather*
Tactical Urbanism

This style of community-backed design and implementation has grown in recent years thanks to grassroots efforts by community groups and designers to experiment with change. In Tonawanda, these efforts should include, at a minimum:

- Walkability
- Road diets
- Increased pedestrian access
- Multimodal access

"Guerrilla bumpouts" and crosswalks in Hamilton, Canada...

Detailed image

...which led to real crosswalks and tighter, painted “curbs.”

The more commonly seen “parklets” on PARK-ing Day.

Reflectors added by residents to existing bike lanes to improve safety.

additional input and coordinate growth and redevelopment of the waterfront.

WF-10. Expand/develop interpretive sites

Timeframe: Short - Medium
Stakeholders: Planning Board, private landowners
Estimated Costs: Unknown
Funding Sources: CFA, NRGC

Detail: Whether integrated into private development or developed as part of a public project, interpretive sites provide a valuable connection to the waterfront beyond just general observation. Interpretive sites can be as simple as a small descriptive plaque describing a specific environmental feature or a large kiosk with detailed information on an entire habitat. With assistance from local schools or conservation groups, the Town can map out key locations in the waterfront and, through the site plan development process and incentive zoning, require new development to include these amenities. Any public spaces or connections to the waterfront should also include interpretive elements. (See call out box on following page)

WF-11. Explore avenues for “tactical urbanism”

Timeframe: Short - Medium
Stakeholders: Planning Board, Town Board, DPW, local entertainment groups and businesses
Estimated Costs: Varies
Funding Sources: Unknown

Detail: “Tactical urbanism” is an approach that allows a group or entity the ability to test a larger scale project in incremental steps at lower cost and effort; “experimentation informs design.” For example, striping curb bumpouts on a street to gauge motorist and pedestrian behavior prior to actual construction or setting up an impromptu event at an area that could conceptually become a community facility. These types of actions are much lower in cost than full implementation, are reversible/temporary, and provide a concrete answer to determining whether to move forward with a larger project.

CFA - Consolidated Funding Application, NRGC - Niagara River Greenway Commission
Opportunities for Observation and Interpretation

The Niagara River and its environs provides natural habitats and passageway for diverse birds and animals. Strawberry Island, a u-shaped river island located between the shores of Tonawanda and Grand Island, also supports a variety of birds and marine life. There are large concentrations of waterfowl, nesting for Ring-billed Gull, Canada Geese, American Pigeon, Mallard and nesting and feeding for Great Blue Heron, Common Tern, Black-crowned Night Heron, Double-crested Cormorant and the North American Bald Eagle. Great Egrets can commonly be observed feeding in the area. Shoals and marshes supply winter resting and feeding sites for American Black Duck, Canvasback, Common Goldeneye, Common Merganser, Scaup and spawning shoals for bass, muskellunge, and other fish.

Tonawanda’s waterfront should be a premier location to observe and learn about the natural assets of the community. Natural promenades and look out points would provide locations for birders to observe the native species in and near the river. Interpretative signage could teach residents and visitors more about the characteristics that draw diverse wildlife and aquatic life to this part of the river.

The Town may also want to work with NYS DEC and other partners to interpret the strategies being implemented to restore natural habitats and the development techniques utilized to support the Town’s sustainability objectives.

Examples of interpretative signage detailing waterfront features and signage outlining sustainable systems utilized in a recent enhancement project.
The Village of Williamsville recently undertook a similar approach by shutting down Main Street (State highway) to not only draw attention to Main Street, but also to see how traffic would be impacted if Main Street became more active. In addition, the Parkside Avenue neighborhood in Buffalo staged a similar event to draw attention to the traffic and high speeds on the roadway and signal their support for traffic calming measures.

Cherry Farm would be a prime location for a tactical urbanist event in order to draw attention to the waterfront and make implementation of the plan more active. Examples for this might include setting up an impromptu concert, sponsoring a nature or other outdoor recreation fair, or any other similar event or action that would bring the attention to the area.
## Sustainability Action Items

*Strategies* (summarized from Chapter 2)

1. Implement green building and site design standards.
2. Encourage adaptive and beneficial reuse of vacant industrial facilities and landfill sites.
3. Encourage and expand green technology businesses.
4. Expand connectivity to and through the study area.

### S-1. Use municipal facilities as test sites

<table>
<thead>
<tr>
<th>Action Achieved/Underway</th>
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*Timeframe: Short - Medium*
*Stakeholders: Town Board, Parks Dept.*
*Estimated Costs: Dependent on material/use*
*Funding Sources: NYSERDA, CFA, USEPA*

*Detail:* Various types of green infrastructure and sustainable building materials are available that could be utilized on a larger scale for public and private development. In some cases, pilot sites are needed to test the feasibility of materials and designs prior to larger deployment, especially with the varied weather in Western New York. For example, the use of pervious pavement materials (grid pavers, porous concrete, etc.) could be implemented in parking areas or trails at Aqua Lane Park or Sheridan Park. These pilots areas could serve as demonstrations points that can be referred to during site plan review in order to encourage additional development throughout the waterfront as well as neighboring communities. The Town has already done this in select locations (e.g. cistern at highway garage) and should continue to do so where feasible and warranted.

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*CFA - Consolidated Funding Application, NYSERDA - NYS Energy and Research Dev. Authority, USEPA - US Environmental Protection Agency*
Going “Green” Development Strategies

Native Landscaping
The addition of landscaping to any otherwise blank, grassy area adds not only aesthetic value but also valuable habitats for animals and additional vegetation to absorb and filter rainwater. However, not all plants are created equal. Native plants should be utilized in both commercial and residential landscaping projects. Native plants and trees are uniquely adapted to the local weather and climate, water and soil conditions. Choosing these types of plants decreases the amount of water needed, maintenance, fertilization and also decreases the likelihood of diseases or untimely death. In addition, some native species are specially suited to unique local conditions, such as compacted soils around parking lots or salt prone areas near high-volume roadways.

Rain Gardens
Rain gardens contain native vegetation and allow water to be naturally infiltrated into the ground. They are usually located adjacent to impervious surfaces, such as parking lots, buildings. Rainfall during a storm can carry sediment and pollutants as it travels along impervious surfaces. Native plantings and soil filter out these pollutants and allows natural breakdown. In a rain garden, the plantings also provide a visually appealing landscaped buffer.

Rainwater Harvesting
Utilizing barrels and cisterns, rainwater harvesting captures and stores rainwater. After being filtered to remove any sediment, this water can then be pumped to an irrigation system and/or used for watering landscaping. Rainwater cisterns can easily be disguised aboveground or landscaped or be placed below ground if space and design allows. Commercial and residential applications are viable options.

Living or Green Roof
Green roofs utilize a low-growing, low maintenance, tolerant vegetation installed over a specially-designed roofing system. Although this method is more expensive than traditional roofing systems (e.g. asphalt) during design and construction, green roofs provide many valuable benefits. The vegetation on green roofs absorb the water or delays the time and amount of runoff that occurs. In addition, green roofs also help to insulate the ceiling of the structure from heat loss and sound, provide an extended habitat for birds, help to regulate temperatures and provide a
unique area for workers or employees if roof access or views are incorporated into the design.

**Pervious Pavements**
Pervious, or porous, pavements allow liquids such as rainwater to pass through to the subsoil below and eventually be naturally filtered and returned to the groundwater. The most common types of these surfaces are made with bricks or pavers as they have joints and cracks between them that allow liquids to pass through. New pervious concrete and asphalt products are also being produced. The benefit of this type of surface is to decrease the strain on stormwater systems, allow nature to naturally filter out pollutants and to recharge the groundwater system. This can be used in various applications; not only parking lots, but also trails, sidewalks, and access roads.

**Vegetated Swale or Bio-Swale**
Traditional swales are shallow, grassy ditches that are sloped to carry excess stormwater from developed areas to a retention pond, field drain or other man-made stormwater management system. Bio-swales are designed to capture surface runoff and slowly allow it to permeate into the soil below. Bio-swales incorporate native vegetation, which allows the water to be further absorbed and filtered on site. Bio-swales are built to accommodate everyday storm events. However, to ensure that site designs can handle larger rain events, they typically include underground drainage pipes that can accommodate excessive stormwater runoff.

**High-albedo Surfaces**
High-albedo surfaces refers to surfaces that are typically lighter in color to reflect, rather than absorb the suns rays and heat. Lighter colored surfaces are especially important on large expanses such as buildings roofs and parking lots. On building roofs, by reflecting the sun’s rays and heat, the internal heating, ventilation and cooling (HVAC) system can more efficiently maintain a comfortable temperature and there is less degradation to the roofing materials. For parking lots, reflected heat also decreases material degradation as well as reduces the “heat island” effect - areas where temperatures are noticeably higher despite the actual temperature.

**“Dark Sky” Compliant Lighting**
Commercial uses typically require lighting for safety and security around their buildings and in parking lots. “Dark sky” compliant lighting fixtures are designed to shed light only onto the ground and not beyond the property on which it is located. These fixtures decrease unwanted glare for pedestrians, bicyclists and motorists who may be traveling nearby; saves energy by concentrating the light only where needed; and increases visibility at night. Compliant lighting can be applied in residential settings, including street lighting.
“Green” and sustainable development

There are various standards around today that deal with “green” and sustainable building. Identifying the most appropriate one can itself be a challenge. LEED (Leadership in Energy and Environmental Design) is probably the most popular one. Although it has a site component, it does mainly pertain to structures. Another guideline that exists that deals predominantly with a site and land development is the Sustainable Sites Initiative. The vision for these guidelines are clear:

“any landscape, whether the site of a large subdivision, a shopping mall, a park, an abandoned rail yard, or a single home, holds the potential both to improve and to regenerate the natural benefits and services provided by ecosystems in their undeveloped state.”

Although it is still in the pilot phase, these guidelines (and eventual standards) would complement the Town’s desire to enhance and improve the waterfront and should be referenced during development review with incentives to encourage their use.

See Sustainable Sites Initiative at: www.sustainablesites.org/

S-2. Incorporate green building standards and practices into future development.

| Timeframe: Short |
| Stakeholders: Town, Planning Board, Sustainability Council |
| Estimated Costs: $5,000-$10,000 |
| Funding Sources: Local budget |

Detail: Although “green” building practices are practical throughout the Town, the sensitive nature of the waterfront makes it even more important to incorporate these types of building practices into future development and redevelopment efforts.

The Town can start this process by adopting a resolution requiring green building practices in any municipal or municipally-supported buildings and sites. Using the incentive zoning approach, these practices can also be used in private development in exchange for density, signage, or permit processing, for example. Parking lots, stormwater control, alternative energy for primary or supplementary on-site use, increased vegetation for shade and stormwater, and water conservation are some of the more common elements to incorporate into the site plan development and processes.

S-3. Develop local database for available green programs and incentives.

| Timeframe: Short |
| Stakeholders: TTDC* |
| Estimated Costs: None |
| Funding Sources: NYSERDA, NYSEFC, USEPA |

Detail: Various programs and incentives, both technical and financial, are available for businesses to increase or implement green practices in design and operation. While the E3 Initiative is catered mainly to the larger industries and businesses in the waterfront area, smaller businesses can be included by providing a central database for them. The Town can work with NYSERDA and Erie County (and others as they are identified) to develop this resource. A number of programs currently exist that would potentially fit with the proposed uses for the waterfront including

* TTDC - Town of Tonawanda Development Corporation. NYSERDA - NYS Energy Research and Development Authority, NYSEFC - NYS Environmental Facilities Corporation, USEPA - US Environmental Protection Agency
manufacturing technology development and on-site power applications and building research & development programs.

**S-4. Continue to explore “green” alternatives for redevelopment of closed landfills.**

*Timeframe: Short - Medium*

*Stakeholders: TTDC*, Planning, Town Board, Private landowners*

*Estimated Costs: None*

*Funding Sources: CFA, NYSERDA, USEPA*

**Detail:** The intent to redevelop Cherry Farm from a former landfill to the recreational park is a good adaptive reuse for the community. There already has been some interest generated for the other landfills by outside agencies (e.g. EPA) and creative redevelopment options should be explored with an emphasis on green strategies such as solar arrays, wind energy generation, additional recreational amenities or other green pursuits. As a champion for successful redevelopment, the Town can become an integral liaison, resource, and provide support between interested agencies and the private companies that own the landfills. Additional examples, case studies and information on landfill redevelopment is found in Appendix E.

**S-5. Expand trail network**

*Timeframe: Short – Medium*

*Stakeholders: Planning Board, GBNRTC, Erie Co, Parks Dept., CSX, National Grid*

*Estimated Costs: $20,000-$40,000 (planning) $1.5-2.5 million (development @ $400,000/mile)*

*Funding Sources: GBNRTC UPWP, CFA, TAP/MAP 21*

**Landfills as Green Energy?**

Although often considered the antithesis of sustainability, landfills offer opportunities to be retooled for renewable energy. The EPA’s RE-Powering America’s Land Initiative (2011) partners the agency and the U.S. Dept. of Energy’s National Renewable Energy Laboratory (NREL) in evaluating the feasibility of siting renewable energy facilities on brownfields, Superfund sites and former landfill or mining sites. Several sites throughout the country, including the Bethlehem Steel Winds site in Lackawanna, NY (below), have successfully been reused for renewable energy generation. While development on landfills present several challenges (e.g. settlement, landfill caps, regulations, etc.), potential remedies and opportunities are being evaluated and designed to make redevelopment of these areas possible.


*Steel winds site viewed from Lake Erie © New York Times*
the Riverwalk Trail. The trail master plan would explore the feasibility of specific alignments, provide preliminary engineering analysis and indicate associated costs. This information would be used to develop a prioritized trail linkages project list to guide public and grant funds investments over the next decade.

Environmental Stewardship Action Items

Strategies (summarized from Chapter 2)

1. Continue and expand efforts to improve environmental and human health conditions at existing industrial facilities.

2. Encourage best practices for shoreline stabilization and restoration.

3. Work with State and Federal partners and private landowners to implement environmental remediation at known sites.

4. Consider human health impacts of proposed projects.

ES-1. Implement & expand “greening” strategy

Timeframe: Short - Medium
Stakeholders: NYS DOT, NYSTA*, Planning, Town Board, National Grid, Erie County
Estimated Costs: $10,000-$40,000
Funding Sources: TEP, CFA, NRGC, NYSDEC

Detail: Building on the roadway streetscaping improvement and prioritization recommendations outlined in Chapter 6 (Roadway Characteristics), the Town should establish an overall “greening” strategy to significantly increase the amount of trees within the study area. Although the Town only has jurisdiction within the right-of-way on Town roads, providing support and links to funding opportunities to private landowners can encourage additional planting on the private side of the road. The local Boys and Girls Club has an existing tree farm program that could be further supported and expanded in cooperation with the Town which can then be used in both public and private plantings.

* NYSTA - NYS Thruway Authority. CFA - Consolidated Funding Application, TEP - Transportation Enhancement Program, NRGC - Niagara River Greenway Commission, NYSDEC - NYS Dept of Environmental Conservation (Urban Forestry)
Waterfront Corridor Landscape Project

The area’s industrial heritage has profoundly impacted the waterfront area’s character and sense of place. Much of this area’s development occurred at a time when little attention or funding was dedicated to well designed streetscapes and adequately buffered parcels. Landscaping and design were not high priorities in community development efforts, especially in the design of new roadways and highways. Additionally, landscape design was not addressed significantly, if at all, in the site planning of industrial and commercial enterprises. Unfortunately, the current conditions along River Road and its connecting corridors illustrate the unfortunate effects of missed landscaping opportunities in infrastructure and site design.

The Town is currently and should continue to seek funding from the Niagara River Greenway Commission to study, design and construct landscaping improvements to the River Road corridor and surrounding main roadways, such as Grand Island Blvd, Sheridan Drive and Sawyer Avenue.

The project would be an important part of the Town’s efforts to create a better Tonawanda waterfront. In addition to complimenting the natural beauty of the Niagara River, landscaping the waterfront area’s key corridors will:

- Enhance environmental conditions
- Support the Town’s sustainability initiatives
- Improve community character
- Change negative perceptions of the Town’s waterfront
- Create a better climate for future investment

The proposed landscape project could be divided into multiple phases to allow for incremental implementation over time. The first phase of the project, which is now underway, includes a feasibility study and preliminary design. This initial phase would allow the Town and future project partners to clearly understand the current condition of the natural and built environments, assess the best design approach and practices, define an implementation plan and outline associated costs of subsequent phases. The feasibility study would also assess the possibility of burying overhead utilities and deconstructing any defunct above-grade utility structures.

This project and others like it would allow Tonawanda to better support the Niagara River Greenway Vision:

“The Niagara River Greenway is a world-class corridor of places, parks and landscapes that celebrates and interprets our unique natural, cultural, recreational, scenic and heritage resources and provides access to and connections between these important resources while giving rise to economic opportunities for the region.”
ES-2. Expand and build upon E3 Initiative

*Timeframe: Short – Med*

*Stakeholders: Sustainability Council, Town Board*

*Estimated Costs: None*

*Funding Sources: None*

**Detail:** The E3 initiative (discussed further in Chapter 1) has provided a valuable mechanism for identifying and improving environmental conditions in large industries within the study area. The Town should continue to engage with local industries and invite others to join in order to improve conditions in the waterfront and beyond. In addition, the Town should continue to work with industries and E3 partners to help enhance and renew their delivery of services.

ES-3. Conduct E3 Assessments and expand to outside entities

*Timeframe: Short*

*Stakeholders: Sustainability council, Chamber of Commerce, Town Board, TTDC* *

*Estimated Costs: None*

*Funding Sources: USEPA, NYSDEC, NYSERDA*

**Detail:** A key component of the E3 initiative is the “Lean and Green” assessment, which identifies waste and inefficiencies and recommends business operations and environmental improvements for the participating companies. For businesses not included in the E3, but associated with the Tonawanda Sustainability Council, the Town Chamber of Commerce, or the Town Development Corporation (especially within the waterfront area) the Town could encourage the use of a similar assessment using the E3 as a model. This would help to expand the overall sustainability portfolio of the Town and improve environmental conditions of smaller companies and other industries which have a multiplying effect on the economic and environmental condition of the waterfront.

*TTDC - Town of Tonawanda Dev. Corp. NYSERDA - NYS Energy and Research Dev. Authority, NYSDEC - NYS Dept. of Environmental Conservation, USEPA - US Environmental Protection Agency*
ES-4. Identify preferred shoreline stabilization methods

**Timeframe:** Short

**Stakeholders:** Planning Board, BNRK

**Estimated Costs:** None to $10,000

**Funding Sources:** Local budget

**Detail:** Shoreline erosion contributes to decreased water quality and property loss, among other impacts. Where new development is proposed adjacent to the River and shoreline stabilization is identified as an issue, the use of bioengineering techniques should be the primary recommendation as part of development review. The Town should incorporate reference to bioengineering techniques into the site plan review process as well as identifying examples in design standards to ensure its use. The use of rip-rap and retaining walls should be discouraged and replaced where feasible.

Bioengineering is a combination of structural components and plant material to produce a dense stand of vegetation that serves as a “living system” to protect streambanks and shorelines. This technique works to stabilize many, but not all, erosion problems. One challenge in bioengineering is protecting the bank from erosion until the vegetation becomes established, which could take one to two years. There are a number of structural components available to provide temporary protection while the plant growth becomes established.

ES-5. Enhance shoreline setbacks

**Timeframe:** Short

**Stakeholders:** Planning Board, BNRK

**Estimated Costs:** None

**Funding Sources:** None

**Detail:** Currently, the Town requires a 50 foot buffer (setback) from the high water mark only along Two Mile Creek and Rattlesnake Creek within the Waterfront Business (WB) and Waterfront Industrial (WID) districts. In coordination with the recommendations from the Buffalo Niagara Riverkeeper, this buffer should be expanded or further enhanced to preserve water quality.
Within the first 50 feet from the high water mark, no clearing of vegetation should take place and no structures should be placed. The second 25-50 feet should be significantly limited in vegetative clearing and only allow footpaths, permeable trails, or other low-impact recreational amenities within this area. At a minimum, a 100’ buffer zone should be applied to the Niagara River and a 75’ zone for Two-Mile and Rattlesnake Creeks, measured from the mean high-water mark. Rather than have these dimensions and standards buried within specific districts, it would be more pertinent to have them as a separate subsection in Article III (Provisions Applicable to All Districts).

**ES-6. Actively engage brownfield property owners**

*Timeframe: Medium - Long*  
*Stakeholders: Town Board, private landowners*  
*Estimated Costs: Dependent on extent of cleanup*  
*Funding Sources: NYSDOS/CFA, EPA RLFG*

**Detail:** The Town has several brownfield or potential brownfield sites in various stages of clean up, including 3445 River Road (Polymer Applications). The Town should continue to work with the NYS DOS and DEC to continue planning and implementing projects identified in the Town BOA. Additionally, regular meetings with key property owners of such properties should be convened to review available funding resources and find out what remedial actions can or will be taken at the property.

**ES-7. Continue BOA process (Step 2 and 3)**

*Timeframe: Short*  
*Stakeholders: Town Board*  
*Estimated Costs: $275,400*  
*Funding Sources: NYSDOS/CFA*

**Detail:** Momentum has built up around the waterfront in the past few years with the completion of the BOA Pre-Nomination Study, this updated waterfront land use plan, and the development of the Niagara River Watershed Management Plan by Buffalo Niagara Riverkeeper. The Town has been included in the 2013 announcement of

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**Floodplains and Wetlands**

In addition to protecting riparian areas adjacent to creeks and other named waterbodies, protection zones around wetlands and within floodplains are equally important. As indicated in Chapter 4, both of these resources naturally help to absorb excess and filter stormwater as well as provide unique habitats for various flora and fauna. Current buffers around NYS DEC wetlands (100’) should be strictly enforced and similar buffers around Federal wetlands should be considered. In addition, a Town-wide policy for “no net decrease” in wetlands should also be considered. In terms of floodplains, FEMA NFIP mapping is currently being updated and an updated floodplain management ordinance will be developed by the Town to replace their existing regulations (adopted 1982). Currently, development within a special hazard floodway area is severely limited and this is expected to continue with the revised regulations. The Town may wish to expand limited development to the 100-year floodplain as well to minimize damage to private property and natural resources.
Using Landscaping to Improve Environmental Integrity

This planning effort renewed the Town’s long-time interest in creating a greener waterfront. Urban landscaping improves air quality, creates additional wildlife habitats, helps naturally manage stormwater, and restores the integrity of natural resources.

Although all of the potential environmental benefits of trees are important to the Town’s future, improved air quality may be one of the highest priorities. Installation of dense tree cover along corridors and on development sites can offset greenhouse gases, which is an identified goal of the Town. According to a USDA Forest Service report, urban trees impact air quality in four ways:

- Temperature reduction and other microclimatic effects
- Removal of air pollutants
- Emission of volatile organic compounds (VOCs) and tree maintenance emissions
- Energy effects on buildings

According to the Urban Forestry Network, one acre of new forest can sequester about 2.5 tons of carbon annually. Trees reach their most productive stage of carbon storage at about 10 years, at which point they are estimated to absorb 48 pounds of CO₂ per year.

Trees also remove other gaseous pollutants through the stomata in the leaf surface by absorbing them with normal air components. Some of the other major air pollutants and their primary sources are:

- Sulfur Dioxide (SO₂) – Sixty percent of sulfur dioxide comes from coal burning for electricity and home heating while 21 percent comes from refining and the combustion of petroleum products.
- Ozone (O₃) – Ozone is a naturally occurring oxidant that exists in the upper atmosphere. O₃ may be brought to earth by turbulence during severe storms. Also, small amounts are formed by lightning. Automobile emissions and industrial emissions mix in the air and undergo photochemical reactions in sunlight releasing ozone and another oxidant, peroxycetyl nitrate (PAN). Naturally, high concentrations of these two oxidants build up where there are many automobiles.
- Nitrogen Oxides (NOₓ) – Probably the largest producer of nitrogen oxide is automotive exhaust. These are also formed by high temperature combustion when two natural air components are present; nitrogen and oxygen.
- Particulates – These are small particles emitted in smoke from burning fuel, particularly diesel, which enters our lungs and causes respiratory problems. With trees present, there is up to a 60 percent reduction in street-level particulates.

Tonawanda needs to ensure that tree plantings are a critical element of every future development and redevelopment project in the future.
additional funding for Step 2 of the BOA process. The Town needs to continue to pursue cleanup and redevelopment strategies and opportunities following completion of Step 2.

**ES-8. Incorporate human health impacts in the waterfront**

*Timeframe: Short*

*Stakeholders: Planning, Town Board*

*Estimated Costs: None (applicant prepared)*

*Funding Sources: None*

**Detail:** As recently indicated in the Tonawanda Coke lawsuit, heavy industry and manufacturing can have a significant impact on human health. Although SEQRA provides a mechanism for reviewing some health impacts associated with development, another type of assessment is gaining ground throughout the country that is specifically tailored towards this - a HIA or human health assessment. The overall goal of a HIA is to ensure that health is considered when a decision is made regarding a policy or development in a community. The process is similar to the SEQRA process with public outreach and the completion of an assessment form. Due to the history of the waterfront, HIAs should be required with new development, especially light industrial and manufacturing businesses to ensure health impacts are addressed. This requirement can be included within the site plan review process by the Town.

**ES-9. Prioritize property remediation**

*Timeframe: Medium - Long*

*Stakeholders: Planning, Town Board, TTDC*

*Estimated Costs: Unknown*

*Funding Sources: NYSDOS/CFA, EPA RLFG*

**Detail:** The Town needs to continue to take active steps to remediate vacant and underutilized properties, making on-site improvements where feasible to create shovel ready development. When deciding on site remediation and targeted investments, priority should be given to parcels in corridors with high visibility, such as River Road, Sheridan Drive, Grand Island Boulevard, and Sawyer Avenue.
ES-10. Grand Island tollbooth conversion

**Timeframe:** Medium - Long  
**Stakeholders:** Planning, Town Board, NYSTA, Province of Ontario  
**Estimated Costs:** Unknown  
**Funding Sources:** Unknown

**Detail:** Air quality is a concern in the Town not only from the various industries located on the waterfront, but also from the high volume of traffic from the Grand Island tollbooth. Conversion to an all-electronic toll (AET) would help to significantly reduce emissions and congestion and improve local air quality. Pilot programs are already underway in select locations on I-87 and I-95 in southeastern New York.

ES-11. Work with NYS DOH on biomonitoring project proposal

**Timeframe:** Short - Medium  
**Stakeholders:** Planning, Town Board  
**Estimated Costs:** Unknown  
**Funding Sources:** Unknown

**Detail:** The NYS DOH Health Outcomes Review recommended a biomonitoring project to provide further research and analysis in regards to chemicals noted in the NYS DEC’s air quality study and community health concerns as result of the DOH review. The Town should continue to work with the State on implementing this recommendation to further quantify air quality impacts to residents.

**Economic Development Action Items**

1. Pursue brownfield redevelopment funding and encourage more eco-friendly industries (e.g. Riverview Solar Tech Park).

2. Invest in public improvements to improve the Town’s “climate” for private investment.

3. Develop a brand - either locally or regionally - to attract future business investment.
ED-1. Permit limited housing along the waterfront

**Timeframe:** Short  
**Stakeholders:** Planning, Town Board  
**Estimated Costs:** None (if done with zoning updates)  
**Funding Sources:** Local budget

**Detail:** In order to transform the waterfront into a multi-faceted, active destination, there should be more human presence. Permitting multi-family housing in the form of townhouses and condominiums would provide additional mass for a commercial presence and move away from industrial uses along the water. The waterfront would not be the best location for single-family housing developments. Care needs to be taken in the design of such uses so that views are not obstructed, public access is incorporated, the waterfront environment is protected, and aesthetics are held to a high standard. In addition, Health Impact Assessments (pg 95) should be performed based on the environmental concerns with the area and additional site remediation should be taken as needed. In general, housing should be marketed towards older couples downsizing and singles, as identified in the market analysis, to provide a higher potential for success.

ED-2. Identify potential space for green business incubator.

**Timeframe:** Short - Medium  
**Stakeholders:** TTDC  
**Estimated Costs:** Land acquisition costs vary  
**Funding Sources:** NYSERDA, CFA

**Detail:** The Town of Tonawanda's various business parks in the waterfront (Riverview, North Youngman, & Fire Tower) are prime locations for establishing a green business incubator or a diverse collection of industry start-ups under one roof. A designated space will help to promote the waterfront even more and attract additional green industry, especially when coupled with the promotion of available land in the waterfront area. A public-private partnership is one widely used method for establishing business incubators.
ED-3. Inter-municipal branding and visibility

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**Timeframe:** Short  
**Stakeholders:** Planning, Town Board  
**Estimated Costs:** $15,000-$20,000  
**Funding Sources:** CFA, TEP, local budget

**Detail:** The Town of Tonawanda shares its name with the City of Tonawanda and the Town of North Tonawanda. The three communities should explore opportunities to collaborate on a signage and/or branding strategy. Shared signage along the waterfront will help connect points of interest and destinations along the Niagara River, especially as trails along the riverway expand and improve. In addition, the Town should work with the City of Buffalo on complementary gateway treatments at border areas along the waterfront.

ED-4. Identify locations for strategic public infrastructure investment.

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**Timeframe:** Medium  
**Stakeholders:** TTDC, Town Board  
**Estimated Costs:** Unknown  
**Funding Sources:** CFA

**Detail:** The North Youngman Commerce Center is recent example of a location in which the Town is making a strategic investment in infrastructure in order to encourage private development. This is a similar situation that many communities, whether a municipality itself or through its development agency, have undertaken or taken the lead on development and has been a success in many instances.

ED-5. Permit light industry in the Waterfront Business zone under special conditions.

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**Timeframe:** Short  
**Stakeholders:** Planning, Town Board  
**Estimated Costs:** None (if done with zoning updates)  
**Funding Sources:** Local budget

**Detail:** The Riverview Solar Technology, North Youngmann Commerce, and Fire Tower Industrial Parks are good examples of successful development projects.

CFA - Consolidated Funding Application, TEP - Transportation Enhancement Program
examples of a lighter industrial uses that have a positive land use impact with limited or minimal environmental impacts when compared with general or heavy industry. By permitting these types of uses under special conditions (i.e. building & site design, landscaping, buffering, lighting, etc.), they can provide a positive contribution to the waterfront area by increasing exposure and economic potential to the area. This would entail combining some regulations from the Waterfront Business and Waterfront Industrial districts to ensure existing uses do not become nonconforming.

Local Business Parks

The Town of Tonawanda has had great success locally with the formation of various business parks in the study area, most recently Riverview Solar. The latest endeavor for the Town is North Youngmann Commerce Center, which is currently under construction north of I-290. Although preliminary analysis of the park indicates that the highest and best uses include traditional industrial uses such as manufacturing and warehousing space, the design of the park should not be an after thought. Similar levels of quality design and materials similar to Riverview should be incorporated along with landscaping and efficient internal access as shown in the example images above.
**ED-6. Encourage land assembly where feasible.**

*Timeframe: Medium-Long*

*Stakeholders: Town Board, private landowners, BENLIC*

*Estimated Costs: Unknown*

*Funding Sources: Private funding*

*Detail:* The majority of the parcels on the east side of River Road consist of long, linear parcels that could be potentially difficult to redevelop. The Town should encourage land assembly and resubdivisions along the east side of River Road to provide more manageable properties by minimizing excessive review and/or conditions with the exception of any necessary remediation or mitigation needed for environmental or other significant community concerns.

**ED-7. Permit and encourage appropriate water-dependent uses along the waterfront.**

*Timeframe: Short*

*Stakeholders: Planning Board*

*Estimated Costs: None (if done with zoning updates)*

*Funding Sources: Local budget*

*Detail:* In order to expand water-dependent uses in the area and based on the market analysis for the waterfront area, an opportunity exists for excursion and charter tour uses. The former Wickwire- Spencer steel plant (also referred to as the Riverworld site) was identified as a potential area for a use such as this, whether established as a new business venture or providing a secondary berth for existing ventures such as the Miss Buffalo operated by Buffalo Harbor Cruises. If a new marina is required, or as part of maintaining existing marinas, the Town’s LWRP should be consulted for various policies and BMP’s to follow.

*BENLIC - Buffalo Erie Niagara Land Improvement Corporation*
Chapter 7 - Action Plan

Community Design Action Items

Strategies. (summarized from Chapter 2)

1. Implement greening and buffering strategies throughout the study area.
2. Utilize and enhance design standards to achieve better site and building designs.
3. Develop design themes to distinguish and connect attractions and destinations.

CD-1. Develop comprehensive design standards

| Action Achieved/Underway |

Timeframe: Short - Medium  
Stakeholders: Planning, Town Board  
Estimated Costs: $15,000-$25,000  
Funding Sources: Local budget, CFA (LWRP)

Detail: The new zoning districts that resulted from the 1992 rezoning study, and the subsequent overlay districts from recently, each included specific design standards for landscaping, fencing, parking, lighting, and circulation, among others. The standards included both requirements (“shall statements” and recommendations (“should” statements). This intertwining of language within the text as well as the overall length of the standards may have contributed to their difficulty in enforcement by the Town and general confusion during plan review.

Rather than the existing text-based criteria found scattered throughout the code (see §215-152 and §215-70.30), true design standards would be comprehensive to address the entire Town with specific sub categories for land uses (waterfront, industrial, commercial, etc.). This would condense design standards and make it easier for both applicants and the reviewing Board(s). The standards would include not only a narrative description of the desired features and layout of a site, but also visual descriptions. Many of the criteria contained in the existing code are still pertinent and would be expanded upon in the document. The combination of narrative and visual...
representations provides a clearer direction for both the approving Board and the applicant and the document would be directly referenced in the site plan approval process.

**CD-2. Equal aesthetic treatment for waterfront properties**

*Timeframe: Short*

*Stakeholders: Planning Board*

*Estimated Costs: None (if done with design standards)*

*Funding Sources: Local budget*

**Detail:** Properties between the Niagara River and River Road are in a unique position in that they essentially have double frontages, with both needing equal design emphasis to improve the appearance of the waterfront corridor. Development in this area should include architectural details for both water facing and road facing facades. For development on the east side of River Road, road frontage facades would have primary architectural emphasis. The specific architectural details for each façade would be outlined in the design standards mentioned previously.

**CD-3. Revise landscape plan regulations.**

*Timeframe: Short*

*Stakeholders: Planning Board*

*Estimated Costs: None (if done with zoning updates)*

*Funding Sources: Local budget*

**Detail:** The current landscape plan regulations are included within each separate district. While this does provide a “one-stop shop” for determining requirements within a specific district, providing a single section related to landscaping, buffering and screening (including fences) would help to streamline the code and establish greater uniformity throughout the Town and especially the waterfront area. Specific requirements for landscaping in the waterfront area should include, but not be limited to:

- Use of native species in landscaping materials

**Improving waterfront visibility**

Design standards can be used to improve not only views of the waterfront, but also other key viewpoints throughout the Town. For the waterfront specifically, this can be achieved through the following:

- Smaller building footprints to open up views
- Grouping of structures
- Strategic siting to create interactions with the waterfront
- Higher amounts of windows
- Large walls without windows, service areas, and utilities should not be located on water-oriented facades.
- Maximum heights of 3 stories or 50 feet for residential or 2 stories for commercial
- Include interior landscaping and trees, but not excessive amounts that fully obscure waterfront views.
• Requiring a vegetated buffer of both trees and groundcover within a minimum of 25 feet of the high water mark of a waterbody
• Including landscaping as part of stormwater retention/detention facilities, especially in areas of high visibility. At a minimum evergreen trees along the top bank and aquatic vegetation along the interior edges would soften the facility
• Shade trees along public roadways or main access roads at a spacing of 30-50 feet on center

Landscaping plans would be prepared by a licensed landscape architect (preferred) or engineer and submitted with site plans during the review and approval process if not already required.

**CD-4. Establish architectural review board**

*Timeframe: Short*  
*Stakeholders: Planning, Town Board*  
*Estimated Costs: None*  
*Funding Sources: None*

*Detail: “Reinventing” the waterfront from one of primarily industrial endeavors to a more mixed use area with greater connection to the River requires not only closer examination of site design changes, but also building architecture. Establishing an architectural review advisory board would provide a means for the Town to review development projects and ensure that certain aesthetic guidelines are met to preserve and promote residential and commercial streetscapes. These boards are typically advisory in nature and provide counsel and recommendations to the approving board(s). Whether the board is a stand alone one or a spin off of the approving board that meets on a separate day is the decision of the Town. The Town Code would be updated to provide regulations on the board’s formation, membership, extent of power, etc. much the same way as the formation of the Town Planning Board. The Towns of Orchard Park and Grand Island and Villages of Hamburg and Williamsville have dedicated review boards as local examples.*
CD-5. Develop marketing design themes to link assets and resources

**Timeframe:** Short

**Stakeholders:** Planning Board, NRGC*, NYSES D*

**Estimated Costs:** None to $15,000

**Funding Sources:** Local budget, NRGC

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*NYSES D - NYS Empire State Development, NRGC - Niagara River Greenway Commission*
What is Good Community Design?

Good community design is based on some commonly accepted “rules” of physical form. As Tonawanda refines and defines its baseline “rules” it must address a wide range of topics, from building and site design to facades and details. The following should serve as the baseline for future design standards.

Context

- Appropriately relate proposed development and redevelopment to existing designs, styles, building forms and land uses.
- Encourage and promote the sensitive and contextual design of buildings, signs, sites and public spaces through the use of design elements, details, styles and architectural features as well as other amenities, materials or treatments that may be appropriate to further the design standards.
- Encourage and promote a sense of design continuity that appropriately relates the historic past of the area to ongoing revitalization and redevelopment efforts.

Site Planning

- The scale of buildings should reflect the context of the surrounding area.
- Building orientation should be aligned with the primary roadway it faces.
- Paved surfaces should be limited to what is reasonably needed for safety and flow.
- Parking should be placed at the side or rear of the lot and screened from view whenever possible.
- Encourage shared access, shared parking, and cross access between lots.
- Entrances should be easily visible from the roadway.
- Parking lots should be regularly shaped rectangles; parking lots should not follow irregularly shaped lot lines.
- Provide pedestrian linkages from building entrances to nearby roadways, parking areas and adjacent pedestrian systems. The use of public easements along and connecting to the waterfront should be explored and required where feasible.
- Dark sky compliant site lighting and fixtures

Form, Scale and Massing

- Place a majority of the building mass as close to the road as possible to help define the street edge.
- High-access, public functions (e.g. entryways, public art, displays) should be located
prominently at the front of buildings, with less public uses (e.g., storage, loading, drive-throughs) located to the side or rear of buildings. For waterfront properties, riverside treatments should receive equal treatment.

- Encourage different massing at building entries to enhance human-scaled appearance and improve visibility from many directions.

Facade

- Distinguish facades via the elaboration of architectural or ornamental details.
- Incorporate a visible entrance facing the sidewalk or street and/or the waterfront.
- Place windows, doors and architectural details symmetrically.
- Provide adequate glass to allow transparency between interior and exterior.
- Exterior lighting should be designed and arranged to reflect light away from and not impinge upon adjoining properties or streets.

Details

- Protect existing landscapes and habitats by integrating them into new development.
- Further enhance the natural landscape in public and private development with design details such as trees, lawns, plantings, fountains and public gathering areas.
- Pedestrian areas and vehicle parking areas should have lighting of an appropriate scale, design, color, and intensity.

Materials

- Attractive, durable materials affect the quality of the physical environment and the public's perception of the area and community. They instill pride and convey that people care about the area. Inexpensive building envelope materials deteriorate quickly and convey an unfavorable image. The materials used should relate to the local vernacular (e.g. vertical metal siding not applicable for retail commercial, but may be for waterfront industrial use).

  ◦ **Walkways**: Concrete (porous, stamped or colored) recommended. Avoid asphalt and gravel.

  ◦ **Façades**: Natural veneers (brick, stone), stucco, ground/split face concrete block, fiber cement siding, cedar clapboard and cultured stone recommended. Avoid plain concrete block, vinyl siding, EIFS (exterior insulation finish siding), metal siding.

  ◦ **Trim**: Painted/stained finish grade wood, fiber cement panels, aluminum recommended. Avoid bare wood, rough lumber, pressure treated wood.

  ◦ **Details**: Traditional style opaque awnings recommended. Avoid internally illuminated vinyl awnings.