



Parks and Public Works Committee

Regular Meeting

May 27, 2025 – 10:00 am

This is an in-person meeting at Saugatuck City Hall, 102 Butler St, Saugatuck, MI 49453.

The meeting will also be available live, virtually on Zoom.

- 1. Call to Order**
- 2. Roll Call**
- 3. Approval of Agenda**
- 4. Approval of Minutes:**
 - A. Regular Meeting – April 22, 2025
- 5. Public Comment on Agenda Items Only (Limit 3 minutes)**
- 6. Discussion:**
 - A. Council Priorities:**
 - A. Restore Mount Baldhead Vegetation
 - B. Invasive Species
 - C. Wayfinding and Signage
 - B. PPW Projects:**
 - A. Invasive Species Website
 - B. Pocket Prairies
 - C. Playground Spinner Placement
 - D. Streetscaping
 - E. Dark Sky Research
 - F. Cook Park Review
 - C. Miscellaneous Updates:**
 - A. Bike Racks
- 7. Public Comment (Limit 3 Minutes)**
- 8. Correspondence**
- 9. Committee Member Closing Comments**
- 10. Adjourn (Voice Vote)**

NOTICE:

Join online by visiting:

<https://us02web.zoom.us/j/2698572603>

Join by phone by dialing:

**(312) 626-6799 -or-
(646) 518-9805**

Then enter "Meeting ID":

2698572603

Please send questions or comments regarding meeting agenda items prior to meeting to:

rcummins@saugatuckcity.com

Requests for accommodations or interpretive services must be made 48 hours prior to this meeting. Please contact Saugatuck City Clerk at 269-857-2603 or sara@saugatuckcity.com for further information.



PARKS AND PUBLIC WORKS COMMITTEE MEETING MINUTES

April 22, 2025

The Parks and Public Works Committee met for a Regular Meeting at 10:00 a.m.

Saugatuck City Hall

102 Butler St., Saugatuck, MI 49453.

Call to Order:

The meeting was called to order by Chair Kimble at 10:00 a.m.

Attendance:

Present: Committee members Charak, Kimble, Roche, Stanton, Thiel.

Absent: Committee Member Hoffman.

Others Present: DPW Superintendent Herbert, DPW Supervisor Kerridge & Clerk Wolters.

Approval of Agenda:

Motion by Stanton, second by Roche, to approve the agenda for the meeting April 22, 2025. Via voice vote, motion carried 4-0.

Approval of Minutes:

Motion by Stanton, second by Roche, to approve the minutes from the March 25, 2025, regular meeting. Via voice vote, motion carried 4-0.

Public Comments (agenda items only):

Bill Lint commented on agenda item #D2.

Review/Discussion:

A. Potential Projects:

1. Council Priorities:

a. Mt. Baldhead Vegetation Restoration:

The discussion on Mount Bald Head vegetation restoration centered on addressing the damage caused by an herbicide treatment about a decade ago that killed native vegetation. Scott Herbert explained that Michigan State University had attempted to eradicate Asian bittersweet, which resulted in widespread plant destruction.

The key points included:

1. The area covers approximately two acres.
2. Previous tree plantings had mixed success due to sandy soil conditions.
3. Erosion is a growing concern, especially near the radar dome.
4. The group wants to consult professional services like Allegan County Conservation District for recommendations.
5. Potential restoration strategies include:
 - Ground cover planting
 - Smaller tree plantings
 - Professional assessment of current erosion levels
 - Consideration of root structures to mitigate erosion

The committee agreed this is a council priority and that Scott Herbert would reach out to conservation experts for guidance. Kelly Roche suggested involving the community and focusing on deer-resistant plantings. Kimble was assigned to this priority.

b. Invasive Species:

The discussion on invasive species covered two main aspects:

1. Website Development.

- Create a city website page about invasive species.
- The Clerk department offered to build the webpage.
- Keith Charak volunteered to develop content.

2. Invasive Species Management in City Parks:

- Identified specific invasive species in parks (e.g., Japanese knotweed, Purple Loosestrife).
- Discussed consulting professional organizations like: Allegan County Conservation District, Outdoor Discovery Center, West Michigan Land Conservancy.
- Goals include:
 - i. Develop systematic eradication plan.
 - ii. Budget for treatment.
 - iii. Prioritize areas like Peterson Preserve and street rights-of-way.

Scott Herbert emphasized the need for professional guidance to create an effective, targeted approach to managing invasive species in the city's parks and public spaces. Kimble was assigned to this priority. Charak assigned to website information.

c. Wayfinding/Signage:

The discussion on wayfinding signage focused primarily on Saugatuck Harbor Natural Area.

Key points included:

1. Current Signage Status:
 - Existing trail markers are narrow brown signs with white lettering.
 - Limited and inadequate current signage.
2. Mapping and Trail Management:
 - Land Conservancy of West Michigan has already provided mapping.

- New unauthorized trails have been created due to lack of clear signage.
 - Need to legitimize desired trails and prevent access to sensitive areas.
3. Project Approach:
 - Goal is to create clear, strategic signage.
 - Prevent creation of unauthorized trails.
 - Protect low-lying and sensitive areas.
 - Ensure proper trail definition.
 4. Next Steps:
 - Consult with Land Conservancy of West Michigan.
 - Develop a comprehensive trail and signage plan.
 - Focus initially on Saugatuck Harbor Natural Area and create signs that guide visitors and protect the natural environment.

The committee agreed this was a priority project with potential for immediate implementation. Roche was assigned to this priority.

2. Public Works:

a. Streetscaping:

The streetscaping discussion focused on creating uniform downtown standards and improving maintenance.

Key points included:

1. Current Challenges:
 - Inconsistent landscaping due to frequent property turnover.
 - Lack of clear maintenance standards.
 - Varied approaches by different property owners and businesses.
2. Goals:
 - Develop uniform streetscaping standards.
 - Create easier maintenance protocols for public works.
 - Improve downtown's aesthetic appearance.
 - Establish consistent landscaping guidelines.
3. Inspiration and Research:
 - Look at streetscaping examples from nearby towns like:
 - a. Allegan (most aggressive example)
 - b. Hastings
 - c. Douglas
 - Gather photos and ideas from successful downtown renovations
 - Consider elements like:
 - a. Flower planters
 - b. Benches
 - c. Shaded areas
 - d. Tree placements
4. Implementation Strategy:
 - Long-term approach integrated with road projects
 - Potential future ordinance development

- Piece-by-piece implementation as maintenance needs arise
- Scott Herbert volunteered to lead the project
- Lauren will collect inspirational photos from other communities

5. Potential Considerations:

- Utility placement
- Coordination with property owners
- Budget constraints
- Maintaining small-town unique character

The committee viewed this as a gradual, strategic process of improving downtown's visual consistency and functionality. Stanton was assigned to this priority.

b. Playground Spinner:

The playground spinner discussion explored potential locations and implementation challenges:

1. Potential Locations Considered:

- Oval Beach (initially suggested, then discouraged).
- Saugatuck Wilds Nature Preserve.
- Coughlin Park.
- Concerns about Oval Beach included:
 - a. Sand blasting issues.
 - b. Unstable dune terrain.
 - c. Maintenance challenges.

2. Key Considerations:

- Need for a flat, stable location.
- Minimal interference with existing park features.
- Potential for future park development plans.
- Accessibility for families with children.

3. Recommended Next Steps:

- Judy volunteered to lead the project.
- Consult with Sinclair about:
 - a. Appropriate installation size.
 - b. Potential relocation costs.
 - c. Impact on future park development.
 - d. Explore feasibility of placement at different park locations.
 - e. Estimate relocation costs if needed.

4. Specific Suggestions:

- Consider adding a play feature near the gazebo at Saugatuck Wilds.
- Ensure the spinner doesn't disrupt existing park use.
- Create an option that provides entertainment for children during park visits.

The committee approached the project with flexibility, focusing on finding the most suitable and practical location. Thiel was assigned to this priority.

3. PPW Charter:

a. **Property Acquisition:**

The property acquisition discussion was brief and focused on clarifying existing property boundaries and easements:

1. Primary Objectives:

- Create a comprehensive spreadsheet of city-owned properties.
- Clearly define park boundaries and easements.
- Prevent unauthorized development on city-owned land.

2. Current Status:

- A preliminary spreadsheet has already been started with parcel numbers and acreage.
- Existing development near some park boundaries.

3. Recommended Actions:

- Review existing street end license agreements.
- Consult with Zach Luke (zoning official) about property maps.
- Potentially hire a consultant to:
 - a. Verify property boundaries.
 - b. Pull additional mapping.
 - c. Conduct individual surveys of park properties.

4. Specific Areas of Interest:

- Cook Park boundaries
- Singapore Yacht Club lease agreements.
- Street end properties.
- Potential encroachments on parklands.

5. Key Participants:

- Kelly Roche will continue developing the property spreadsheet.
- Scott Herbert will be involved in reviewing the information.
- The goal is to create a clear, comprehensive understanding of city-owned properties.

The discussion emphasized careful documentation and verification of property boundaries to prevent future conflicts. Stanton is assigned to this priority.

b. **Native Plantings/Pocket Prairies:**

The native plantings and pocket prairies discussion centered on promoting ecological diversity and community education:

1. Motivation and Inspiration:

- Recent 60 Minutes segment on monarch butterflies.
- Importance of supporting local ecosystems.
- Potential for educational opportunities.

2. Current Efforts:

- Kimble shared a pilot project at Peterson Preserve.
- Demonstrated successful native planting strategies.
- Showed potential for transforming previously unused spaces.

3. Implementation Strategies:

- Consult Allegan County Conservation District for plant recommendations.

- Focus on native, deer-resistant species.
- Consider creating educational signage about native plantings.
- 4. Community Engagement Potential:
 - Involve community groups like Wild Ones.
 - Explore grant opportunities for youth involvement.
 - Create awareness about native plant importance.
- 5. Practical Considerations:
 - Scott Herbert noted limited availability of native plants at nurseries.
 - Recommended consulting experts for appropriate species selection.
 - Consider seasonal and location-specific planting requirements.
- 6. Project Goals:
 - Create pocket prairies in city parks.
 - Educate residents about native plant benefits.
 - Improve local biodiversity.
 - Potentially create community planting events.

The committee viewed native plantings as an opportunity for ecological restoration and community education.

c. Cook Park Review:

The Cook Park review discussion was brief and primarily focused on clarifying property boundaries and ownership:

1. Property Ownership Clarification:
 - Singapore Yacht Club has lease agreements for certain areas.
 - City owns some parcels, but the exact boundaries are unclear.
 - Clerk Wolters showed a map demonstrating property lines.
2. Current Status:
 - The area includes multiple small parcels.
 - Some areas are leased to the Yacht Club.
 - Existing agreements allow for boat slips and maintenance.
3. Key Observations:
 - The Yacht Club sign is located on what appears to be city property.
 - Exact boundaries need further investigation.
 - Existing lease agreements determine usage and maintenance.
4. Next Steps:
 - Scott Herbert suggested reviewing the specific lease agreements.
 - Need to clarify precise property lines.
 - Defer detailed review until property boundaries are confirmed.

The committee decided to postpone a comprehensive review of Cook Park until they could definitively determine the exact property boundaries and existing lease agreements.

4. Secondary Projects:

a. Dark Skies Research:

The dark skies research discussion focused on raising awareness about light pollution:

1. Key Objectives:
 - Educate residents about responsible lighting.
 - Reduce artificial light pollution.
 - Understand environmental impacts of excessive lighting.
2. Current Status:
 - No existing city ordinances related to street lighting.
 - Consumers Energy owns most streetlights.
 - International Dark Skies week was ongoing during the meeting.
3. Proposed Approach:
 - Create a webpage with information about responsible lighting.
 - Use resources from Dark Skies International.
 - Highlight five principles of responsible lighting.
 - Explain ecological impacts of artificial light.
4. Potential Community Engagement:
 - Partner with local library for educational events.
 - Host a stargazing evening.
 - Develop informational materials.
 - Potentially explore future ordinances about lighting
5. Project Leadership:
 - Judy Thiel volunteered to lead the initiative.
 - Kelly Roche suggested creating content for city communications.
 - Aim to build community awareness gradually.
6. Specific Concerns:
 - Impact on wildlife.
 - Disruption of migratory patterns.
 - Effects on ecosystem and animal behavior.

The committee viewed this as an educational initiative with potential for broader environmental awareness.

b. Kayak Launches:

The kayak launches discussion revealed significant challenges:

1. Current Limitations:
 - Most waterfront areas are under lease agreements.
 - Limited public access points for kayak launches.
 - Existing launch locations include:
 - a. Spear Street (boat launch).
 - b. Shoppers dock area.
 - c. Potential areas near sea wall
2. Key Challenges:
 - Most waterfront areas have annual leases.
 - Lack of dedicated parking for kayak launches.
 - Restricted access due to private property agreements.
 - Limited city-owned waterfront spaces.

3. Potential Locations Discussed:

- Spear Street (existing boat launch).
- Near shopper's dock.
- Areas with broken concrete near sea wall.
- Potential locations in Douglas.

4. Project Approach:

- Keith Charak volunteered to lead research.
- Clerk Wolters offered to share street end lease agreements.
- Recommended reviewing annual lease terms.
- Focus on identifying potential future launch sites.

5. Constraints:

- Scott Herbert emphasized staff cannot prioritize this project.
- Significant infrastructure and parking challenges.
- Requires long-term planning and potential grant funding.

The committee viewed this as a future possibility requiring careful investigation of existing agreements and potential locations.

B. Tree Work:

1. Tree Plantings:

The tree planting discussion covered several key points:

a. Annual Tree Risk Assessment:

- Nine trees were identified for removal.
- Nine new trees will be planted.
- Locations include Main Street and Grand Street.
- Replacement species include sugar maple, silver maple, and hackberry.

b. Arbor Day Celebration:

- Scheduled for Friday at 10am.
- Marking 20th anniversary as Tree City USA.
- Planting a Princeton American Elm at Cook Park.
- Elm variety is resistant to Dutch elm disease.

c. Replacement Strategy:

- Focus on maintaining tree diversity.
- Consider native species.
- Replace trees that are dead or hazardous.
- Consult with local nurseries and experts.

d. Additional Considerations:

- Scott Herbert noted limited availability of native tree species.
- Aim to maintain park and street aesthetics.
- Replace trees with appropriate species for location.

The discussion emphasized a systematic approach to tree management and urban forestry.

2. Arbor Day Celebration – April 25, 2025

The Arbor Day celebration discussion focused on these key points:

1. Event Details:

- Scheduled for Friday at 10am.
- Marking the 20th anniversary of being a Tree City USA member.

2. Tree Selection:

- Chose a Princeton American Elm as the Arbor Day tree.
- Replacement for the beloved black willow tree at Cook Park.
- Tree specifications:
 - a. 4-inch diameter.
 - b. 18 feet tall.
 - c. Resistant to Dutch elm disease.

3. Tree Selection Challenges:

- Difficult to find a black willow tree.
- Consulted with Eric Morrow from Great Lakes Ornamentals.
- Considered soil conditions and growth characteristics.

4. Significance:

- Symbolic replanting after the loss of the previous tree.
- Demonstrate commitment to urban forestry.
- Opportunity to educate community about tree diversity and conservation.

The celebration was presented as a meaningful event to commemorate the city's ongoing commitment to urban tree management.

C. Historical Marker at Coghlin Park:

The historical marker discussion at Coghlin Park covered these key points:

1. Project Details:

- Collaboration with the historical center.
- Part of an ongoing city-wide historical marker initiative.
- Located at the northeast corner of Coughlin Park.

2. Marker Content:

- Will feature information about:
 - Harris Pie Factory.
 - Local jazz club (described as an LGBTQIA+ environment)

3. Implementation:

- City Council has already approved the marker.
- Historical society will.
 - a. Pour a concrete pad.
 - b. Install the new sign.
 - c. Will replace an existing outdated stormwater sign.

4. Context:

- Part of a broader effort to install historical markers throughout the city.
- Similar markers already exist at Wicks Park and other locations.

The discussion was brief and presented the marker as a straightforward historical documentation project with council support.

D. Project Updates:

1. Saugatuck Wilds Nature Preserve:

The Saugatuck Wilds Nature Preserve discussion highlighted these key points:

- a. Name Confirmation:
 - City council approved the proposed name.
- b. Current Progress:
 - Outdoor Discovery Center (ODC) has begun work.
 - Initial work includes:
 - i. Installed asphalt milling driveway.
 - ii. Preparing for further development.
- c. Next Steps:
 - Prepare for public opening this spring.
 - Develop signage.
 - Scott Herbert will be the primary contact with ODC.

The discussion was brief but optimistic, indicating the project is moving forward and nearing completion for public access.

2. Village Square Courts:

The Village Square courts discussion was brief and focused on the DNR passport grant application:

- a. Grant Application Status:
 - Submitted on April 1st.
- b. Timeline:
 - Preliminary scoring expected late summer/early fall.
 - Opportunity to make adjustments during this period.
 - Final scoring anticipated around December.
- c. Additional Considerations:
 - Keith Charak asked about adding letters of support.
 - Lauren Stanton confirmed some letters have already been collected.
 - Potential for further supporting documentation.

The discussion was primarily an update on the grant application process, with no detailed deliberations about the courts themselves. The committee is waiting for the DNR's evaluation and scoring of the project.

3. Invasive Species Website:

The invasive species website discussion covered these key points:

- a. Website Development:
 - Create a dedicated page on the city website.
 - Provide educational content about local invasive species.
 - Include seasonal guidance on identification and management.
- b. Content Strategy:
 - Keith Charak volunteered to develop content.
 - Jamie Wolters offered to build the webpage on the City webpage.
- c. Potential Features:
 - Photos of invasive species.
 - Detailed descriptions.

- Links to expert resources.

The committee saw this as an accessible way to help residents understand and address invasive species in the community.

4. Kalamazoo River Greenway:

The Kalamazoo River Greenway discussion focused on these key points:

a. Background:

- Original plan developed in 2018.
- Involved over 300 stakeholders.
- Broken into seven distinct areas.

b. Current Status:

- Individual municipalities and nonprofits have been working independently.

c. Ongoing Efforts:

- Outdoor Discovery Center (ODC) is now taking a more active role.

d. Project Goals:

- Improve river usability.
- Enhance recreational opportunities.
- Coordinate efforts across different organizations and municipalities.

Kelly Roche will work on potential next steps for the Kalamazoo River Greenway initiative and report back.

Public Comments (Limit 3 mins): None.

Correspondence: None.

Member Closing Comments:

- Thiel – She thought it was a good meeting.
- Charak – Agreed with Judy, offered no additional comments.
- Stanton – Added nothing, also describing it as a good meeting.
- Kimble – Concluded by agreeing the meeting was good.

Adjournment:

Motion by Charak, second by Thiel, to approve adjournment of the meeting. Via voice vote, motion carried unanimously. Chair Kimble adjourned the meeting at 11:26 p.m.

Respectfully Submitted,

Sara Williams, City Deputy Clerk & DPW Admin. Assistant

Mount Baldhead Revegetation Project Charter

Goal: Determine if additional plantings are required to limit erosion on Mount Baldhead.

Objectives

- Inventory vegetation at Mount Baldhead's "bald spot" – an area previously denuded of all vegetation
- Determine if additional plantings are required

Participants

Saugatuck Staff – Scott Herbert

PPW Committee Members - Nancy Kimble

External Resources –Allegan Conservation District (ACD)

Community Volunteers - TBD

Background

Mount Baldhead Park has a history of significant numbers of invasive species including Asian bittersweet. Several years ago, to eradicate the bittersweet, targeted herbicide was applied. Unfortunately, the herbicide did not perform as anticipated, and nearly all plant species in the application area were destroyed. New plants were installed but the vegetation is not yet as robust as that in other areas of the park.

Scott Herbert contacted the Allegan Conservation District and representative(s) _____ and _____ have surveyed the site. A report will be prepared with their assessment of the current situation and recommendations for any remediation required.

Approach

- Receive ACD report
- Determine next steps, if any

Project Exclusions

Other areas of Mount Baldhead are excluded from this project

Project Risks and Mitigation:

Risks: none

Target End Date: 12/31/2025

Charter Date: 5/12/2025

Charter Prepared by: Nancy Kimble

Saugatuck Invasive Species Evaluation and Eradication Project Charter

Goal: Identify all invasive species in Saugatuck City public areas including all parks and street rights-of-way. Develop comprehensive plans to replace invasive species with non-invasive species with an emphasis on native plants and wildlife benefits.

Objectives

- Inventory invasive species in all public spaces and identify suitable non-invasive replacement plantings that support wildlife
- Develop eradication/replacement plans including associated costs

Participants

Leader – Nancy Kimble

PPW Committee Members - TBD

External Resources –ODC, Allegan Conservation District, West Michigan Land Conservancy

Community Volunteers - TBD

Saugatuck Staff – Scott Herbert, Chad _____

Background

Many areas of Saugatuck have significant quantities of invasive species. The ODC inventoried invasives in Saugatuck Wilds Natural Area in July of 2023 and the West Michigan Land Conservancy inventoried the Saugatuck Harbor Natural Area in October 2024. The list of previously identified invasives is long. A comprehensive list of identified invasives is attached along with their current known locations. In addition to invasive plants, the Hemlock Woolly Adelgid has previously been identified and treated in some areas.

The Allegan Conservation District has been consulted regarding preparing an assessment of all plant invasive species and any additional invasive insects in Saugatuck's other parks and roadsides. A new staff member will be joining their team in June and will be able to complete the work this summer.

Approach

- Prepare a contract with the Allegan Conservation District to complete a comprehensive inventory of invasive species in Saugatuck City (exclude Saugatuck Wilds Natural Area and Saugatuck Harbor Natural Area?)
- Have Allegan Conservation District staff inventory invasive species in the following:
 - Mount Baldhead Park
 - Mildred E. Peterson Nature Preserve
 - Remaining Parks (these are manicured so few invasives are anticipated)
 - Saugatuck Roadsides
- Identify appropriate eradication plan for each species and location (manual removal, herbicide, other?)
- Determine which species can be removed by volunteers
- Draft RFP that describes removal efforts requiring professional assistance
- Identify vendors that can provide removal services and request RFP submission
- Determine where replacement plants are required to ensure new invasives do not occupy areas cleared of current invasives
- Develop plan identifying replacement plants and planting approach
- Draft RFP that describes replacement plantings requiring professional assistance
- Develop maintenance plans

Saugatuck Invasive Species Evaluation and Eradication Project Charter

Project Exclusions

Deep water aquatic areas are excluded from this project

Project Risks and Mitigation:

Risks:

Costs for species removal and replacement plants could be significant. Budgeted funds may not be available in 2025.

External resources may not be available in our timeframe.

Target End Date: 12/31/2025

Charter Preparation Date: 5/12/2025

Charter Prepared by: Nancy Kimble



Article 9. Lighting

Section 9.10 Intent and Purpose

Section 9.20 General Requirements

Section 9.30 Light Fixture Requirements

Section 9.40 Parking Lot and Site Lighting Plans

Section 9.50 Site Lighting Levels

Section 9.60 Lighting Modifications

Section 9.10 Intent and Purpose

- A. **Intent and Purpose.** The intent and purpose of this article are to:
1. Implement the Five Principles for Responsible Outdoor Lighting, published by DarkSky and the Illuminating Engineering Society;
 2. Conserve energy;
 3. Protect the natural environment from the adverse effects of artificial light;
 4. Curtail the degradation of the nighttime visual environment;
 5. Ensure that all site lighting is designed and installed to maintain adequate lighting levels on-site;
 6. Prevent light spillage;
 7. Prevent glare directed at adjacent properties, neighboring areas, and motorists; and
 8. Provide security for people, buildings, and land.

Section 9.20 General Requirements

- A. **Applicability.** This section applies to all properties in the Township.
- B. **Limitations.** Light shall be confined on-site by the direction of the fixture, shielding, or adjustment of the level of brightness.
- C. **Glare.** Lighting shall not be directed in any manner that causes glare onto neighboring residential property or distraction to drivers.
- D. **Direction.** All outdoor lighting shall be directed down or directly onto the object being illuminated. Lighting or glare shall not be directed toward streets, adjacent properties, or the night sky.
- E. **Prohibited Light Sources.** The following light sources are prohibited:
1. **Laser Source.** The use of laser source light or any similar high-intensity light for outdoor advertising or entertainment is prohibited.
 2. **Searchlights.** The operation of searchlights for advertising purposes is prohibited.

- 3. Flashing Lights. Except for motion-activated security lighting and temporary holiday lighting, permanent lights that flash, move, revolve, rotate, scintillate, blink, flicker, vary in intensity or color, or use intermittent electrical pulsation are prohibited.
- 4. Public Safety. Lighting that is similar to that used for traffic control devices or emergency vehicles is prohibited.

F. **Required Lighting.**

- 1. All non-residential and multi-family residential parking lots shall be illuminated for customer and resident safety.
- 2. Lighting shall be provided throughout any parking lot.
- 3. Lights to illuminate parking lots shall not be attached to any building except for illuminating parking spaces that are within 10 feet of building walls.
- 4. For commercial and industrial properties, light levels shall be reduced 50 percent after the close of business.

Section 9.30 Light Fixture Requirements

- A. **Color Temperature.** The lighting color temperature of new and replacement light fixtures shall not exceed 2,700 Kelvins.
- B. **Fixture Type.** Lighting fixtures for non-residential and multi-family residential uses shall be a down-lighted type and fully cut off, and the light shall not be allowed to be emitted above the fixture. For LED lighting, up-light shall be zero for “B.U.G.” ratings. Fixtures shall comply with the following requirements:
 - 1. A full cut off fixture shall have no direct up-light and shall reduce glare by limiting the light output to less than 10 percent at and below 10 degrees below the horizontal.
 - 2. If the applicant cannot provide manufacturer confirmation of full cut off characteristics of light fixtures, the fixture shall be fully shielded, which will be determined by visual inspection of the fixture or a specification sheet. Fully shielded light fixtures are constructed and installed in such a manner that all light emitted by it, either directly from the lamp or a diffusing element or indirectly by reflection or refraction from any part of the fixture, is projected below the horizontal.
 - 3. Under-canopy lighting shall be mounted flush with the canopy surface.
 - 4. Examples of compliant and noncompliant light fixtures are shown in Figures 9-1 and 9-2.
- C. **Mounting Height.** Light fixture mounting heights shall not exceed the following:

Table 9.30: Light Fixture Mounting Height		
Zoning District		Maximum Height (ft).
Residential		15
Commercial and Industrial	Less than 100 feet from a residential zoned lot	20
	100 feet or more from residential zoned lot	25

Noncompliant: Fixtures that produce light trespass and glare

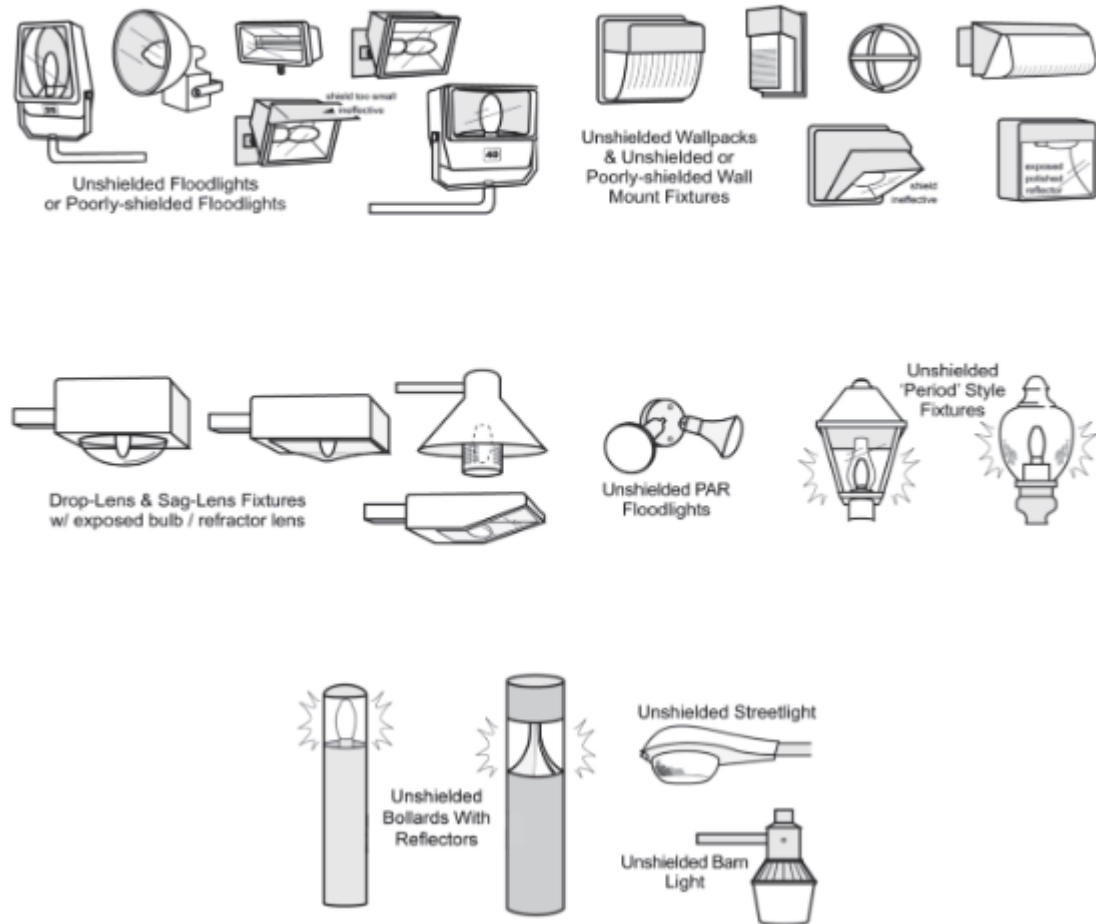


Figure 9-1 Noncompliant Light Fixtures

Compliant: Fixtures that shield the light source to minimize glare and light trespass and to facilitate better vision at night

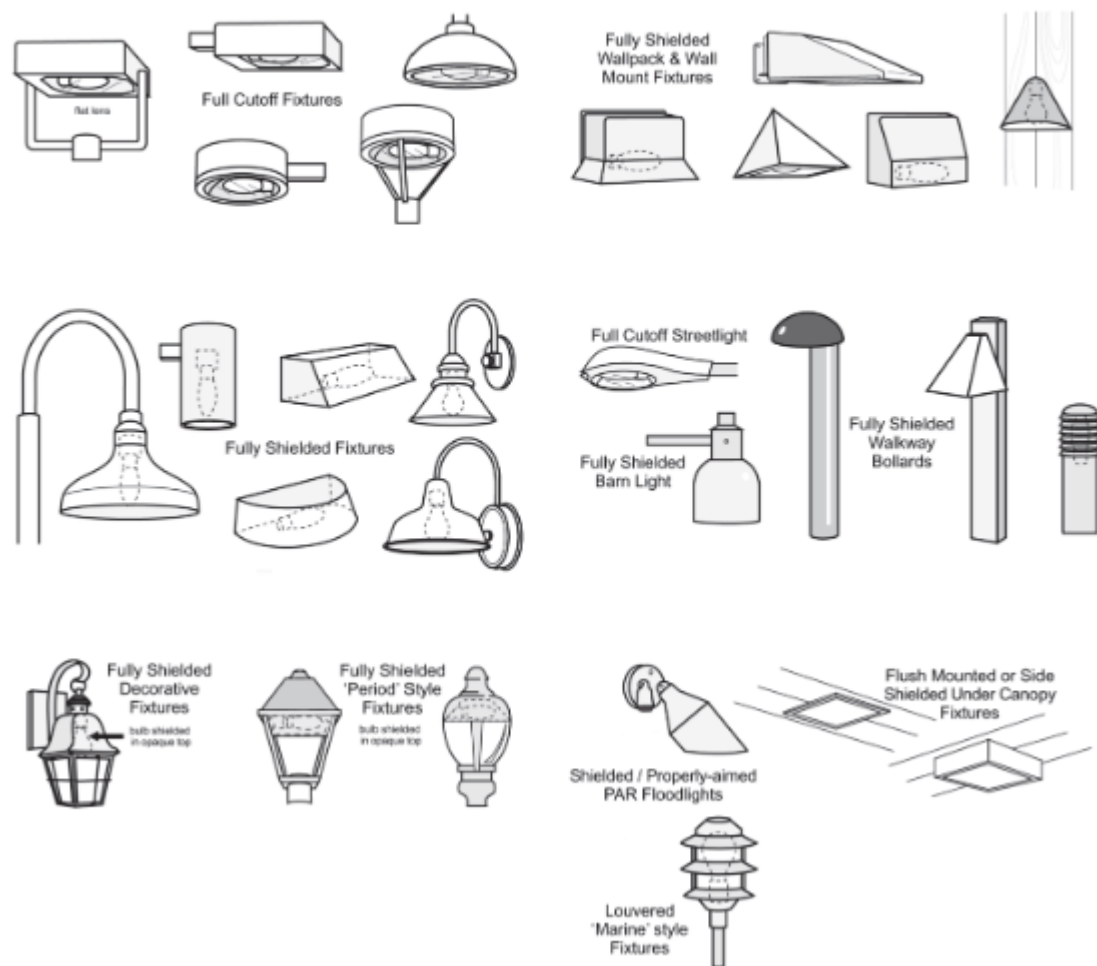


Figure 9-2 Compliant Light Fixtures

Section 9.40 Parking Lot and Site Lighting Plans

- A. **Lighting Plan Submittal.** An overall lighting plan is required for all non-residential and multi-family parking lots. The Zoning Administrator or Planning Commission shall require a photometric plan for other areas illuminated on a site to ensure that the intent and requirements of this section are met.
- B. **Submittal Requirements.** Compliance with the lighting design criteria shall be demonstrated by submitting the following information as part of the required site plan:
1. Lighting plan (as part of the site plan package) showing light fixture locations and type designations.
 2. Fixture mounting height(s).
 3. Type and number of lighting fixtures.
 4. Lamp source type (bulb type, i.e. high-pressure sodium, LED, etc.), lumen output, color temperature, and wattage.
 5. Lighting manufacturer-supplied specifications (cut sheets) that include photographs or illustrations of the fixture(s), indicating the certified full cut off characteristics or B.U.G. rating of the fixture or demonstration that the fixture is fully shielded.
 6. Photometric Plan. A photometric plan shall include the following:
 - a. Maximum illuminance levels should be expressed in ground-level footcandle measurements on a grid of the site showing footcandle readings in every five or ten-foot square.
 - b. The grid shall include light contributions from all sources (i.e. pole-mounted, wall-mounted, sign, and street lights).
 - c. Footcandle measurements shall be shown five feet beyond the property lines.
 - d. A calculation summary indicating footcandle levels on the lighting plan, noting the maximum, average, and minimum, as well as the uniformity ratio of maximum to minimum, and average to minimum levels. Average and uniformity ratios shall only be calculated within the parking spaces and drive aisles and shall exclude other illuminated areas of the site.

Section 9.50 Site Lighting Levels

A. **Illumination Levels.** Light levels shall meet the requirements in Table 9.50.

Table 9.50: Required Site Illumination				
Location on Site	Min. fc	Max. fc	Ave. fc	Uniformity Ratio Max. to Min./ Ave. to Min.
Parking Lots	.5 fc	5 fc	1 fc	10:1 / 4:1
Under Canopies Such as Gas Stations, Drive-Thru Bank Porte-Cochere	3 fc	20 fc	-	-
Along Front Lot Line Adjacent to the Street Frontage	0 fc	1 fc	-	-
Along a Lot line Adjoining a Non- Residential Use or District	0 fc	1 fc ¹	-	-
Along a Lot line Adjoining a Residential Use or District	0 fc	0 fc	-	-
Non-Residential Outdoor Storage	0 fc	10 fc	-	-

Section 9.60 Lighting Modifications

- A. **Authority.** The Planning Commission may modify the illumination requirements in Table 9.50 and other lighting requirements based on a review of the applicant's proposal against industry standards and advanced lighting technology, so long as lighting plans ensure safe conditions and minimize impact on adjacent properties.
- B. **Unique Land Uses.** As part of site plan review by the Planning Commission, lighting systems not complying with the technical requirements of this article but consistent with its intent may be installed for the following land uses:
1. Sports fields and stadiums.
 2. Specialized lighting for outdoor recreational uses.
 3. Other unanticipated uses.
- C. **Considerations.** The Planning Commission shall consider the following during the review of lighting modification requests:
1. The amount of space on the site available for lighting.
 2. Existing lighting on the site and on adjacent properties.
 3. The type of land use on the site and the size of the development.
 4. The potential impact on existing and proposed adjacent land uses.
 5. The effect that the required lighting would have on the operation of the existing or proposed land use.

¹ The light level along a non-residential lot line may be increased to the maximum footcandle level where there is shared access/vehicular connections or the adjacent use is a similar use.