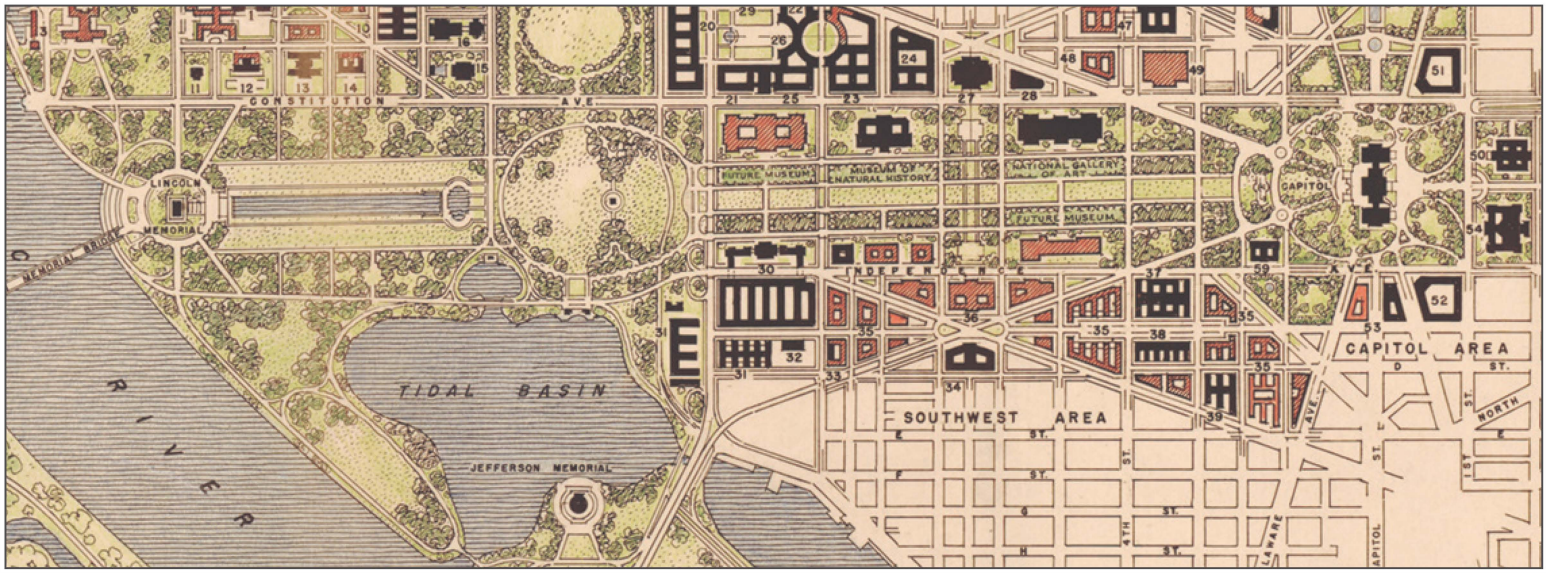
Event Operations Guidelines

The National Mall and Memorial Parks Event Use and Resource Protection Guidelines for Turfgrass



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Superintendent, National Mall and Memorial Parks

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THE NATIONAL MALL AND MEMORIAL PARKS EVENT USE AND RESOURCE PROTECTION GUIDELINES FOR TURFGRASS

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1 Protecting the National Mall and Memorial Parks Turfgrass Assets: Introductory Mission Statement

The National Mall and Memorial Parks (NAMA) turfgrass is a critical component of the nation's most iconic landscapes that host over 35 million visitors each year and thousands of permitted events. The National Mall's turf panels, known as "America's Lawn," accommodate various activities, including family leisure, recreation, First Amendment activities, national celebrations, and presidential inaugurations. Recognizing the significance of this space, Congress allocated $5.2 million for soil and turf improvements between 3rd and 14th Streets as part of a $43.3 million restoration project completed in 2016. These guidelines aim to protect that investment and uphold Congress's intent.

Turfgrass is a living organism with seven essential needs for survival, which are:

1. Air (oxygen and carbon dioxide)
2. Water
3. Nutrients/food
4. Sunlight
5. Proper soil
6. Air temperatures conducive to growth (varying by grass species and season)
7. Rest and recovery from abiotic and biotic stress.

Permitted events can severely damage turfgrass health by limiting one or more of its seven critical needs. These events may reduce light availability, affecting the plant's ability to produce food, and may also restrict air or gas exchange due to soil compaction, increasing stress from abiotic factors related to wear and tear. Given normal growth challenges like drought, excessive moisture, disease, and insect pressures, healthy turf can deteriorate significantly in as little as 24 hours.

NAMA must protect turfgrass as a valuable asset given its importance to the visual aesthetic of the National Mall, which serves as a platform for thousands of visitors and permitted activities each year. The intensive turfgrass maintenance-based system is funded by the National Park Service and developed and overseen by a NAMA Turf Manager. The park strives to maintain "America's Lawn" for patron uses in a manner befitting all the Memorials and Monuments These guidelines establish science-based "Best Management Practices" used throughout the turfgrass industry, incorporating cutting-edge turf protection measures such as flooring and volumetric soil moisture monitoring, along with scheduling and rotational strategies for event use to further protect the turfgrass from overuse.

"Here orchestrated events involving thousands of people or spontaneous ones with just a few participants are equally fitting. Space here is ever changing – at one point defined, at the next open and casual-but it is seldom limited to a single or even predominating use. In this sense the Mall's space is neutral, allowing people freely to engage themselves in myriad ways…" The Mall in Washington, 1791-1991 15 (Richard Longstreth, ed.) (2002).

1.1 The National Mall and Memorial Parks Turfgrass Level Designations

The National Mall and Memorial Parks manages turfgrass by categorizing it according to level designations that maximize event access while safeguarding critical resources. These designations indicate the level of protection needed based on turf durability and location in alignment with best management practices for turfgrass. Areas associated with highly visible landscapes and commemorative sites, such as memorials or monuments, or those requiring significant maintenance, receive designations requiring the highest level of protection. Conversely, turfgrass areas outside the monumental core or characterized by species durability may have designations with less stringent protections.

1.1.1 NAMA Turf Level Designation

Level 1 Turf: Turfgrass areas requiring the highest protection are critical components of historic landscapes, support memorials and monuments, or lack sufficient infrastructure to manage events without causing significant damage and costly repairs. Public surveys indicate that these areas are expected to meet the highest quality standards. Level 1 Turfgrass areas, characterized by Kentucky Bluegrass and Tall Fescue, are cool-season grasses that thrive in spring and fall but have minimal to moderate durability, making them vulnerable to damage from permitted events. Level 1 turf guidelines will be detailed further in the Level 1 Turf Chapter.

Level 1A Turf: Turfgrass areas that allow for modified Level 1 guidelines based upon the duration and complexity of a permitted event. For instance, small-scale permitted activities may allow for greater flexibility depending on the location and will be more fully addressed within the Level 1 Turf guidelines Chapter.

Level 2 Turf: Turfgrass areas that are highly maintained, but that consist of Improved Bermudagrass, which is a warm season type that grows aggressively in the summer months and tolerates traffic and wear from all types of activities well. Due to the robustness of this grass type, Level 2 Turf requires less restrictive protection guidelines than Level 1. Level 2 Turf guidelines will be more fully addressed within the Level 2 Turf Chapter.

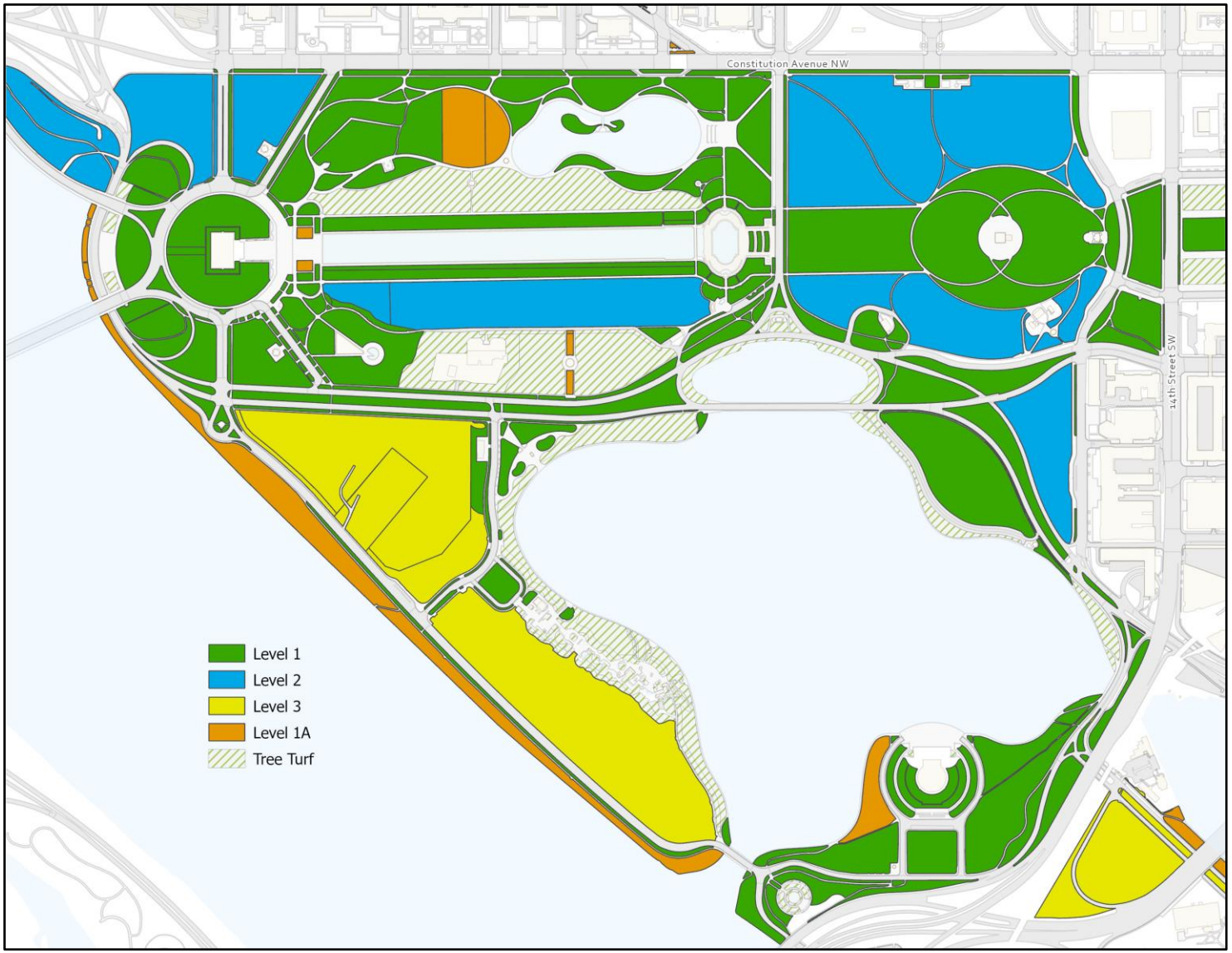
Level 2A Turf: From November 1 to April 30 each year, all normal Level 2 areas are categorized as the more protective Level 2A due to the growth habit of Improved Bermudagrass entering or exiting dormancy during this period. While dormant,

Bermudagrass is highly susceptible to significant damage that can be time-consuming to repair, potentially impacting scheduled permitted events. Level 2A guidelines will be more fully addressed within the Level 2 Turf Chapter.
Level 3 Turf: Turfgrass areas that consist of Common Bermudagrass, which is a warm-season grass type that grows aggressively in summer and tolerates traffic and wear well. Due to the grass robusticity, these areas require less restrictive protection guidelines compared to Level 2. Level 3 Turf guidelines will be more fully addressed within the Level 3 Turf Chapter.

Level 3A Turf: From November 1 to April 30 each year, all normal Level 3 areas are categorized as the more protective Level 3A due to the dormancy of species of Bermudagrass during this time. While dormant, Bermudagrass is highly susceptible to significant damage that can be time-consuming to repair, potentially affecting scheduled permitted events. Therefore, this protective measure is necessary to alleviate such issues. Level 3A guidelines will be more fully addressed within the Level 3 Turf Chapter.

Tree/Turf Located in Tree Panels or Stands: No permitted events are allowed within the designated “Urban Forest” areas within NAMA due to the fragility of these ecosystems.

1.2 Turf Level Designations Within the Monumental Core



2 The Permitting Process: A Step-by-Step Guide and the Factors that may Affect the Applicant Permit

The NPS issues public gathering permits on a **first-come, first-served basis** through an application process that can be completed online or at the Division of Permits Management at 1000 Ohio Drive SW, Washington, D.C. 20242. Applications are accepted no more than **one year in advance** of the first day of setting up of the proposed event. Details regarding the permit process can be found in the Events Planning Guide for the National Capital Region available online at: https://www.nps.gov/nama/learn/management/event-planning-guide.htm

The National Mall and Memorial Parks Use and Resource Protection Guidelines for Turfgrass, along with the Event Planning Guide and National Park Service regulations in 36 CFR, guide NAMA's review of potential impacts and resource protection measures for proposed activities involving turf within the park. This document advises Permit Applicants on turf considerations as they prepare applications for permitted events and engage in the permitting process. The NAMA Division of Permits Management provides information to potential applicants and will discuss turf requirements upon receiving a permit application.

A smooth and coordinated relationship between NAMA staff and the Permit Applicant is essential for successful event planning. To foster collaboration, NAMA and the NPS established this guide—The National Mall and Memorial Parks Event Use and Resource Protection Guidelines for Turfgrass—to outline the impacts of permitted activities on turf and detail protection measures throughout the planning process. Permit Applicants should be aware of the NAMA personnel resources available to assist them in the permitting process for turfgrass areas. Below are the primary NAMA personnel and their roles to ensure the success of the Permit Applicant.

- **Permit Specialist:** This position serves as the primary guide and knowledge source for the Permit Applicant throughout all stages of the permitting process. The Permit Specialist coordinates meetings and informs the Permit Applicant of all rules and regulations related to permitting, including asset protection, in consultation with technical experts such as the NAMA Turf Manager or NAMA Urban Forester. Additionally, based on event complexity and the Level of Turf, the position assigns a Permit Monitor or monitors as on-site resources to provide knowledge and protect park resources. **Note: All communications, unless otherwise directed, should go through the Permit Specialist assigned to the permitted activity. If the Permit Specialist is unavailable, the Applicant should contact the Division of**

Permits Management or the assigned Permit Monitor directly. Communication should be conducted via email for tracking and records management for the event.

- **NAMA Turf Manager and NAMA Urban Forester:** These positions serve as technical experts to assist the Permit Specialist in providing guidelines and regulations related to NAMA assets, turf, and trees. They will determine the necessary resource protection measures to safeguard both NAMA assets and the Applicant from costly repairs related to the event. **Note: All communications, unless directed otherwise by the Permit Specialist, should go through the Permit Specialist. The Applicant should not directly contact the NAMA Turf Manager or NAMA Urban Forester without prior approval from the assigned Permit Specialist.**

- **Permit Monitor:** This position will assist the Applicant on-site with event logistical setup, performance, and load-out. Familiar with all NAMA guidelines and regulations, the Permit Monitor serves as the point of contact for the Permit Applicant once the event has begun. The Applicant may bring any questions or concerns to the Permit Monitor, who will consult with the appropriate knowledge source for clarification if needed. **Note: The Applicant should not request the Permit Monitor to deviate from any guidelines or regulations outlined in the issued NAMA Park Permit.**

2.1 Event Checklist, Procedures and Responsibilities

The following table will ensure that the Permit Applicant/Permittee meets all deadlines outlined in the manual and complies with the guidelines and regulations relevant to the issued permit.

- The NAMA Permit Specialist will assist the Permit Applicant in determining available areas, dates, and event schedules.
- This table outlines timelines and responsibilities for the Permit Applicant, Permitting Management Office, and NAMA Turf Manager concerning the event.
- Please note that the complexity and scale of the event can affect the timeline.

Table 2.1.1 Event Checklist: Procedures and Responsibilities

Steps	Permit Application Process	Permit Applicant	Division of Permits Management	Turf Manager
PRE-EVENT PREPARATION (DETERMINED THROUGH CONFERENCE MEETINGS NECESSARY AS SCHEDULED BY PERMIT SPECIALIST)				
Planning	▪ Process shall highlight the scale, complexity and expected attendance of the event. ▪ Process shall identify schedules relating to load-in, load-out and resource protection measures. ▪ Process shall identify deposit necessary for Cost Recovery dependent upon area and Turf Level.	▪ Shall highlight the scale, complexity and expected attendance of the event at the Division of Permits Management. ▪ Shall identify schedules relating to load-in, load-out and resource protection measures.	▪ Shall inform Turf Manager of all events taking place on turfgrass resources. ▪ Shall set the schedule of meetings and interactions necessary to ensure successful event and resource protection.	▪ Shall identify concerns and work with the Division of Permits Management to ensure all necessary turf protective measures are in place. ▪ Shall plan advance strategy to maintain turf in appropriate condition.
Turf Conditions				▪ Shall document soil and turf conditions on a regular basis and inform Division of Permits Management of any conditions that may affect Resource Protection or Event Scheduling.

Steps	Permit Application Process	Permit Applicant	Division of Permits Management	Turf Manager
Irrigation	▪ Process shall identify if irrigation will be affected in any manner from scheduling, coverage adjustment, to flagging in place.		▪ Shall notify Facility Management Software System (FMSS) Manager of the need to disable irrigation heads or system for specific period based upon event load in and load out schedule. This shall be based upon Turf Level protective decking seasonal periods (this timeframe includes tents located on gravel around panel).	▪ Shall adjust irrigation schedule accordingly to allow turf to be in optimum health for the period of the scheduled event. ▪ Shall adjust irrigation accordingly to not interfere with the permitted event. ▪ Shall have irrigation flagged if necessary to prevent damage to asset. ▪ Shall adjust heads to not hit extended tent or display events with understanding that Permit Applicant will need to pay appropriate Pre-Cost Recovery within Deposit.
SCHEDULED PRE-EVENT WALKTHROUGH (48 HOURS)				
Pre-Event Walkthrough	▪ Permit System shall identify which stakeholders must attend.	▪ Shall attend if identified.	▪ Permit Specialist and Permit Monitor shall attend.	▪ Turf Manager shall attend if identified.
Condition Assessment of Turf and Other Assets Pre-Event	▪ Permit System shall require photo documentation for the benefit of all parties. ▪ Permit System shall identify and require stakeholders to sign off on assessment document.	▪ Shall sign-off on condition assessment document.	▪ Shall confirm turf conditions. ▪ Shall confirm non turf related asset conditions. ▪ Shal sign-off on condition assessment document. ▪ Shall prepare condition assessment report. ▪ Shall archive condition assessment report with issued permit.	▪ Shall confirm turf conditions. ▪ Shall photo document turf conditions. ▪ Shall document findings of walk-through and share with Permit Specialist. ▪ Shall sign-off on condition assessment document.

Steps	Permit Application Process	Permit Applicant	Division of Permits Management	Turf Manager
SCHEDULED EVENT LOAD-IN PROCEDURES				
Logistical Load in Schedule	▪ Permit System shall require and provide to NAMA stakeholders to ensure asset protection.	▪ Shall follow and not deviate from load-in schedule in accordance with issued Permit.	▪ Permit Monitor shall ensure that load-in schedule is followed and not deviated from in any manner unless in consultation with appropriate NAMA stakeholders and Permit Applicant.	▪ Shall be available if required to determine if scheduling needs adjustment due to unforeseen events primarily related to weather or other status conditions.
Asset Protection Measures	▪ Permit System shall identify during planning for event.	▪ Shall abide by all guidelines established regarding asset protection as determined in accordance with issued Permit.	▪ Permit Monitor shall ensure that load-in schedule is followed and not deviated from in any manner unless in consultation with appropriate NAMA stakeholders and Permit Applicant.	▪ Shall be available if required to determine if scheduling needs adjustment due to unforeseen events primarily related to weather or other status conditions.
Weather Monitoring	▪ Permit Process shall inform all stakeholders of contingencies relating to extreme weather policies that could affect patron safety or asset protection.	▪ Shall coordinate with Division of Permits Management, Turf Manager, and Park Police in the event of extreme weather conditions exist and questions arise to safety of patrons and assets.	▪ Shall coordinate cancellations, delays, or other requirements with the Permit Applicant, Turf Manager, Park Police, and NAMA Superintendent.	▪ Shall make determinations of probable damages to turf assets based upon available in ground soil moisture monitoring devices and on-site TDR measurements. ▪ Shall make recommendations to all stakeholders regarding options available.

Steps	Permit Application Process	Permit Applicant	Division of Permits Management	Turf Manager
SCHEDULED EVENT PROCEDURES				
Daily Event Monitoring		▪ Shall follow and not deviate from the event schedule in accordance with issued Permit. ▪ Shall abide by all guidelines established in accordance with issued Permit.	▪ Permit Monitor shall ensure that event schedule is followed and not deviated from in accordance with issued Permit. ▪ Permit Monitor shall ensure that asset protection measures are followed in accordance with issued Permit.	▪ Shall be available if required to determine if scheduling needs adjustment due to unforeseen events primarily related to weather or other status conditions.
Weather Monitoring	▪ Permit Process shall inform all stakeholders of contingencies relating to extreme weather policies that could affect patron safety or asset protection.	▪ Shall coordinate with Division of Permits Management, Turf Manager, and Park Police in the event of extreme weather conditions exist and questions arise to safety of patrons and assets.	▪ Shall coordinate cancellations, delays, or other requirements with the Permit Applicant, Turf Manager, Park Police, and NAMA Superintendent.	▪ Shall make determinations of probable damages to turf assets based upon available in ground soil moisture monitoring devices and on-site TDR measurements. ▪ Shall make recommendations to all stakeholders regarding options available.
SCHEDULED EVENT LOAD-OUT PROCEDURES				
Logistical Load-Out Schedule	▪ Permit System shall require and provide to NAMA stakeholders to ensure asset protection.	▪ Shall follow and not deviate from load-in schedule in accordance with issued Permit.	▪ Permit Monitor shall ensure that load-out schedule is followed and not deviated from in any manner unless in consultation with appropriate NAMA stakeholders and Permit Applicant.	▪ Shall be available if required to determine if scheduling needs adjustment due to unforeseen events primarily related to weather or other status conditions.

Steps	Permit Application Process	Permit Applicant	Division of Permits Management	Turf Manager
Asset Protection Measures	▪ Permit System shall identify during planning for event.	▪ Shall abide by all guidelines established regarding asset protection as determined in accordance with issued Permit.	▪ Permit Monitor shall ensure that load-out schedule is followed and not deviated from in any manner unless in consultation with appropriate NAMA stakeholders and Permit Applicant.	▪ Shall be available if required to determine if scheduling needs adjustment due to unforeseen events primarily related to weather or other status conditions.
Weather Monitoring	▪ Permit Process shall inform all stakeholders of contingencies relating to extreme weather policies that could affect patron safety or asset protection.	▪ Shall coordinate with Division of Permits Management, Turf Manager, and Park Police in the event of extreme weather conditions exist and questions arise to safety of patrons and assets.	▪ Shall coordinate cancellations, delays, or other requirements with the Permit Applicant, Turf Manager, Park Police, and NAMA Superintendent.	▪ Shall make determinations of probable damages to turf assets based upon available in ground soil moisture monitoring devices and on-site TDR measurements. ▪ Shall make recommendations to all stakeholders regarding options available.
SCHEDULED POST-EVENT PROCEDURES (48 HOURS)				
Post-Event Walkthrough	▪ Permit System shall identify which stakeholders must attend.	▪ Permittee shall attend if identified.	▪ Permit Specialist and Permit Monitor shall attend.	▪ Turf Manager shall attend if identified.

Steps	Permit Application Process	Permit Applicant	Division of Permits Management	Turf Manager
Condition Assessment of Turf and Other Assets Post-Event	▪ Permit System shall require photo documentation for the benefit of all parties. ▪ Permit System shall identify and require stakeholders to sign off on assessment document.	▪ Shall sign-off on condition assessment document.	▪ Shall confirm turf conditions. ▪ Shall confirms non turf related asset conditions. ▪ Shal sign-off on condition assessment document. ▪ Shall prepare condition assessment report. ▪ Shall archive condition assessment report with permit. ▪ Shall schedule after action meeting as needed for all stakeholders.	▪ Shall confirm turf conditions. ▪ Shall photo document turf conditions. ▪ Shall document findings of walk-through and share with Permit Specialist. ▪ Shall sign-off on condition assessment document.

Steps	Permit Application Process	Permit Applicant	Division of Permits Management	Turf Manager
Cost Recovery	▪ Permit System shall identify process and need, if necessary, whether pre or post dependent upon situational requirements.	▪ Shall respond to the Letter of Asset Remediation and Recovery within the period specified. ▪ Shall follow instructions given in Letter of Asset Remediation and Recovery from Permit Specialist outlining damages with photo documentation, NAMA Contractor contact information to make the repairs, and the Scope of Work necessary to restore asset back to original condition.	▪ Shall assist Turf Manager in developing and issue Letter of Asset Remediation and Recovery to Permit Applicant. ▪ Shall collaborate with appropriate stakeholders to ensure process is documented and fully implemented in timely manner.	▪ Shall assist in developing Letter of Asset Remediation and Recovery. ▪ Shall develop Scope of Work, that NAMA contractor shall follow, necessary to return NAMA turf assets back to original condition. ▪ Shall work closely with Permit Applicant and NAMA contractor to ensure that turf assets are restored following the Scope of Work. ▪ In the condition that the Permit Applicant fails to follow prescribed Letter of Asset Remediation and Recovery guidelines relating to Permit Applicant voluntary repair, shall coordinate and track using SURPA reporting metrics all repairs necessary to return NAMA turf assets back to original condition.

Steps	Permit Application Process	Permit Applicant	Division of Permits Management	Turf Manager
Turf Remediation and Reporting	▪ Permit System shall archive copy of report with issued Permit	▪ If Cost Recovery is determined, shall work closely with Turf Manager to restore turf assets to full capabilities. ▪ Shall assist in determination of lessons learned for reporting. ▪ Shall receive copy of final report relating to issuance of Permit.	▪ Shall work with Turf Manager and SMT to inform of the level of impact on permitted events if Record of Determination is used to close the turf area of damage. ▪ Shall prepare and archive report identifying lessons learned from observations and practices of event. ▪ Shall determine if updates in the permitting process as it relates to procedures are necessary.	▪ Shall identify all needs relating to turf remediation and put in proper formatting, contract, or small purchase if tasks are to be completed by NAMA through SURPA. ▪ Shall identify all needs relating to turf remediation and put in proper formatting if tasks are to be completed by Permit Applicant. Shall assist Permit Applicant as needed to ensure turf asset remediation is successful. ▪ Shall identify the necessity of turf closure, length of such closure, and prepare and route Record of Determination to appropriate stakeholders. ▪ Shall determine if updates to permitting process as it relates to turf factors are necessary.

2.2 Cost Recovery Deposits for Special Events

Event Size Classifications
Minor Event: Fewer than 100 attendees
Small Event: 101 to 1,500 attendees
Medium Event: 1,501 to 4,999 attendees
Large Event: 5,000 to 50,000 attendees
Very Large Event: 50,000 to 249,000 attendees
Extreme Event: Over 250,000 attendees

The following information and table will assist the Permit Specialist and NAMA Turf Manager in calculating a Cost Recovery Deposit for Turf Assets. This deposit is based on turf level, area impacted, event crowd capacity, and the required timeframe for restoring the area to its pre-damage state. The area of impact is determined by the number of attendees and the proposed layout measured in acres, with NAMA crowd standards accounting for six square feet per person standing and eighteen square feet per person seated. Special events designated as small or medium may require a deposit of $2,500 for potential turf cost recovery.

Event Deposit for Cost Recovery Based Upon Level of Turf and Area Impacted (Type of Repair Will Focus on Return to Patron and Event Scheduling Needs) (A Center Turf Panel on the National Mall Costs $125,000 per Acre to Repair)			
Mall Leve1 1 (Thick Cut Sod)	Memorial Level 1A or 1 (Thick Cut Sod to Normal Cut Sod)	Level 2A or 2 (Regular Cut Sod to Seeding)	Level 3A or 3 (Regular Cut Sod to Seeding)
$12,500 per Acre	$12,500 - $6,250 per Acre	$6,250 – $1,000 per Acre	$6,250 – $1,000 per Acre

2.3 NAMA Procedures for Cost Recovery

NAMA will not approve permit applications that violate turf guidelines as these activities would potentially cause significant damage requiring extensive remediation. Turf remediation involves closing the area for an extended period and

permitting such actions—even if funded by the Permit Applicant— would restrict access for others.

To protect and preserve park turfgrass and other resources, Permit Applicants may need to conduct pre- and post-event turf work. Permit Applicants may only use the assigned NPS Contractually Obligated Landscape Contractor for this work, if applicable. This requirement fulfills NPS contractual obligations and aims to efficiently return turf to usable service for park patrons and other interested parties.

Cost Recovery may apply both pre- and post-event, determined by procedures and inspections of turfgrass within the event footprint. Examples of both types of Cost Recovery include (but are not limited to):

2.3.1 Pre-Cost Recovery Examples

- NAMA Landscape Contractor installing post and rope for the event beyond contractual duties.
- NAMA Landscape Contractor adjusting irrigation head patterns for the event.
- NAMA Landscape Contractor hand-watering turf due to adjusting irrigation heads to keep turf healthy during the event beyond contractual duties.
- NAMA Landscape Contractor raking mall gravel for event beyond contractual duties.
- NAMA Landscape Contractor doing any type of compaction relief, or other turf maintenance tasking, pre-event to help minimize possible more costly procedures post-event.
- NAMA personnel removing benches or trash receptacles for the event.
- NAMA personnel installing post, fence, and rope for the event.
- NAMA personnel assigned to assist in planning, monitoring, or advising on asset protection measures.

Pre-Cost Recovery needs are identified during the permitting process through meetings and onsite inspections. Costs associated with NAMA park personnel are determined by the Permit Specialist and outlined in the issued permit. Turf maintenance costs are assessed by the NAMA Turf Manager, who will refer the Permit Applicant to the assigned NAMA Landscape Contractor for a negotiated price. **This negotiation is solely between the Permit Applicant and the NAMA Landscape Contractor, with NAMA personnel having no role in determining the price.**

2.3.2 Post-Cost Recovery Examples

- NAMA park turf assets are damaged in any way from the permitted event.
- NAMA infrastructure assets are damaged in any way from the permitted event.
- NAMA Landscape Contractor is tasked with maintenance activities beyond the contractual agreement due to the permitted event or their frequency.
- NAMA personnel are assigned maintenance activities, such as trash removal, due to the permitted event in a post-event context.

Post-Cost Recovery associated with NAMA park personnel is determined by the Permit Specialist and assigned as part of the post-permitting process, which may be deducted from a Cost Recovery Deposit. If the deposit does not cover the required expenses for NAMA personnel, a formal Letter of Asset Remediation and Recovery is sent to the Permit Applicant to recover the costs.

Post-Cost Recovery of turf assets is discovered during the onsite pre and post inspections of turfgrass with all parties involved for the best determination. The costs associated with Cost Recovery for the turf assets are assigned by the NAMA Turf Manager as part of the post Permitting Process and may be deducted from a Cost Recovery Deposit. If the Cost Recovery Deposit does not cover the Cost Recovery needed for the Contractually Obligated Landscape Contractor, then a formal Letter of Asset Remediation and Recovery is sent to the Permit Applicant to recover costs.

Post-Cost Recovery to tree assets is discovered during the onsite pre and post inspections of such assets with all parties involved for the best determination. The costs associated with Cost Recovery the tree assets are assigned by the Urban Forester as part of the post Permitting Process and may be deducted from a Cost Recovery Deposit. If the Cost Recovery Deposit does not cover the Cost Recovery needed for the Contractually Obligated Landscape Contractor, then a formal Letter of Asset Remediation and Recovery is sent to the Permit Applicant to recover costs.

Post-Cost Recovery to structural assets is discovered during the onsite pre and post inspections of such assets with all parties involved for the best determination. The costs associated with Cost Recovery the structural assets are assigned by the Division Chiefs of Facilities and Resource Management, depending on responsibility of asset, as part of the post Permitting Process and may be deducted from a Cost Recovery Deposit. If the Cost Recovery Deposit does not cover the Cost Recovery needed for NAMA personnel expenses, then a formal Letter of Asset Remediation and Recovery is sent to the Permit Applicant to recover costs.

If the Permit Applicant refuses to follow these guidelines, NAMA will refer the case for enforcement under the System Unit Resource Protection Act (SURPA) as outlined in the formal Letter of Asset Remediation and Recovery. In this situation, all costs associated with asset repairs and the person-hours dedicated to Cost Recovery will be enforced through a civil legal process assigned to the Resource Protection SURPA Program Office. Additionally, if the Permit Applicant chooses to use an outside landscape contractor instead of the approved NAMA Contractually Obligated Landscape Contractor, they must obtain a special use permit from NAMA Professional Services, and all costs incurred for the length of the asset remediation process will be the responsibility of the Permit Applicant.

2.4 Records of Determination

A Record of Determination (ROD) is required to limit or restrict public access to parkland. The NPS will close or restrict areas for construction or turf rehabilitation. In such cases, the Permit Specialist will notify the Permit Applicant as soon as possible and work with them to secure another venue or adjust event setup if only a portion of the area is subject to the ROD.

2.5 Weather and Effects to Event Procedures

Weather can significantly impact event procedures, including load-in, event performance, and load-out. All parties involved in planning should closely monitor weather conditions to adjust procedures for patron safety and asset protection. The Permit Applicant is strongly encouraged to consider a makeup date for inclement weather and to discuss and apply for this option in the original permit application.

The following types of weather events may affect the Event Process:

- High Winds
- Rain
- Hail/
- Lightning
- Snow
- Frost
- High Soil Moisture
- Severe Drought

Depending on the severity of the listed weather conditions, NAMA reserves the right to modify load-in, event performance, and load-out procedures. Modifications may include adjusting processes to protect patrons and assets, pausing procedures, or canceling the event in extreme conditions.

Examples of modifications to event procedures include (but are not limited to):

- Delays/Pauses in procedures to allow for situational change towards improvement.
- Adjustments of weight allowances on turf in relation Load-In and Load-Out Procedures.
- Downsizing the Event to protect patrons and turf assets.
- Movement of Event Location if possible.
- Additional resource protection measures for patrons and turf assets.

High winds may necessitate a pause in activities or events. The Permit Applicant must share structural wind limitations, such as those for stages and press risers, with the Permit Specialist to facilitate informed decisions regarding this weather issue.

Rain/Moisture: Depending on real-time rainfall volume and duration, situations leading to pooling water or mud—whether protective turf measures are in place or not—will require an immediate pause in event operations to address the issue. Permit Monitors will make this determination in consultation with the Turf Manager and Permit Specialist.

Load-in, load-out processes, and event operations may be delayed or adjusted due to weight restrictions. NAMA utilizes installed in-ground soil water volumetric devices and a portable measurement tool to aid in decision-making. Soil is composed of various combinations of sand, silt, and clay, each with specific moisture thresholds. This saturation threshold, known as "field capacity," indicates that the soil has reached its maximum water-holding capacity and must drain before accepting more. By using the previously mentioned devices, these metrics can be measured, allowing event operations to adjust accordingly to protect assets.

Hail: Hail is a dangerous phenomenon that can indicate the likelihood of more severe weather events, including tornadoes. Permit Applicants should immediately direct all event attendees and personnel to seek shelter.

Lightning: Lightning within 10 miles of the event location may necessitate a pause in activities. The onsite permit monitor(s) will use various tools and resources to monitor weather conditions.

Snow: If a permitted event held with protective decking to shield turf assets experiences snow, the Permit Applicant must manage snow accumulation to no more than two inches in depth to ensure patron safety and protect turf assets. Various standard methods may be employed to control or remove the snow, such as blowers and brooms, but the equipment must not exceed 800 lbs. The Permit Applicant must supply the NAMA Turf Manager or Permit Monitor with written specifications from the equipment manufacturer. Additionally, the Permit Applicant must coordinate with Permitting and the NAMA Turf Manager to determine appropriate locations for snow disposal that do not compromise patron or asset safety.

Frost: In the Washington, D.C. area, frost conditions typically occur from mid-October to late April. These conditions are caused by varying atmospheric factors, primarily when temperatures range between 33-38 degrees, and are influenced by wind, humidity, and cloud cover. During such weather conditions, all event permit processes must pause until the NAMA Turf Manager determines that the conditions have ended. This duration may vary from one to several hours, depending on the changing weather and how quickly warmer air dissipates the frost.

High Soil Moisture: The Turf Manager utilizes weather forecasting, installed ground soil volumetric moisture sensors in the National Mall Center Turf Panels, a Spectrum TDR 350 handheld moisture sensor, and experience to make science-based decisions aimed at protecting NAMA assets during the event process. Varying soil types may present different levels of water saturation, guiding the Turf Manager's protective choices. It's important to note that the Center Turf Panels on the National Mall are specifically designed for rapid drainage, which should be considered in your planning. Weather events may lead to delays, logistical load restrictions, or pauses to ensure adequate drainage and promote a safe environment for patrons and turf assets.

Severe Drought: The percentage of irrigated turf areas on NAMA properties is small,

primarily covering key memorials and the National Mall Center Turf Panels. Therefore, severe drought can cause catastrophic damage to turf areas, depending on the complexity and duration of the permitted event. Adjustments may be necessary to prevent damage to non-irrigated areas, which could involve relocation or cancellation of activities.

3 Crowd Capacity of Park Areas

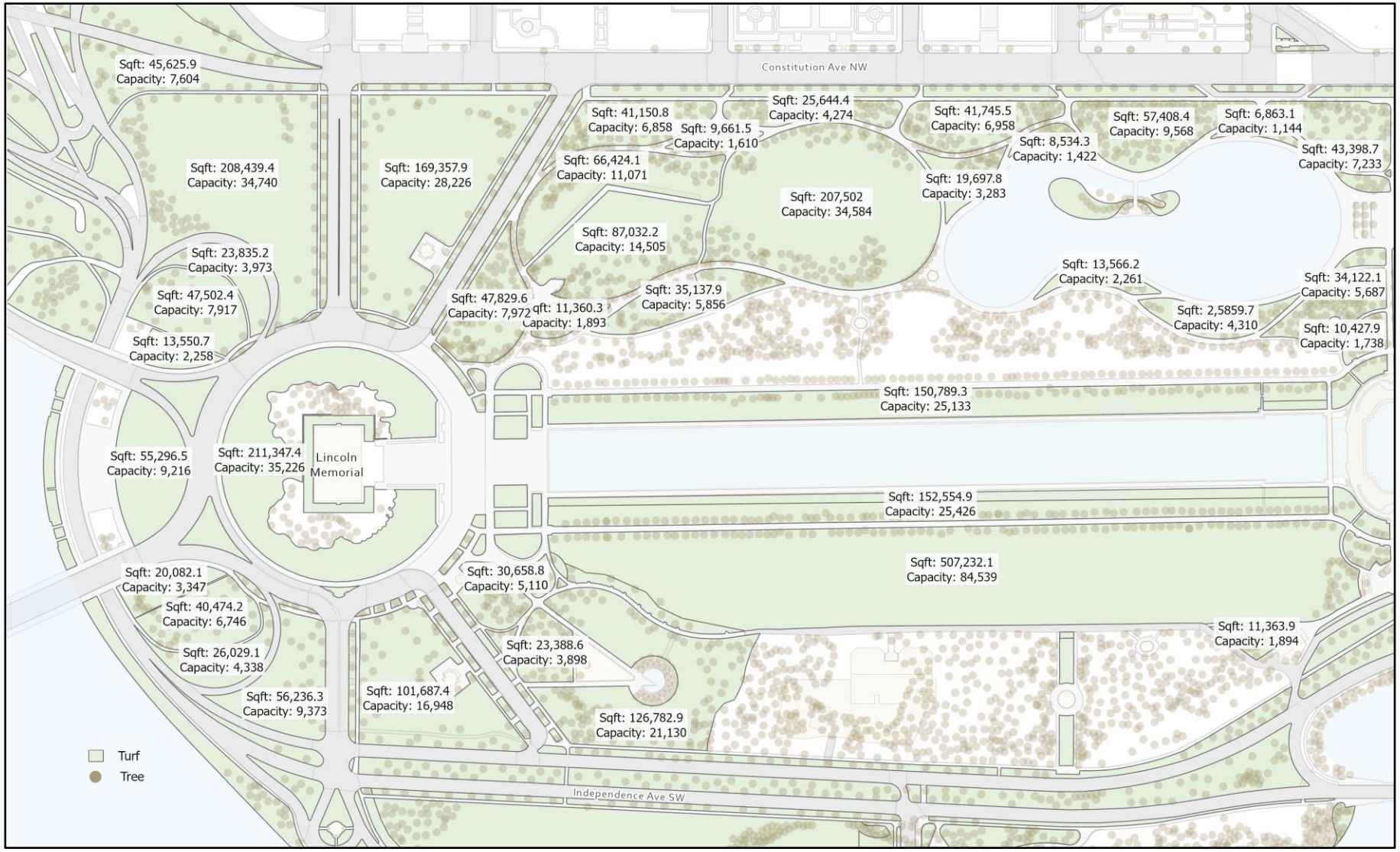
The Permit Applicant should reference park area event capacity maps during planning, as they provide guidelines on crowd capacities for each location. Crowd capacity limits are set at one (1) person per six (6) square feet standing and/or one person per eight (8) square feet seated. Areas expected to reach crowd capacity will require protective flooring on Turf Levels 1, 1A, 2, 2A, 3, and 3A. This requirement is to mitigate potential damage to turf and other park assets from event operations including:

- Size and complexity of the layout of the event.
- Structures placed on the turf.
- Vehicles placed on the turf.
- Event activities between the front of the house and the stage.
- Seating set up in rows.
- Cueing lines.

3.1 Washington Monument Grounds Capacity Map

3.2 West Potomac Park Capacity Map

3.3 Monumental Core Area Capacity Map



3.4 Mall Area Capacity

Table 3.4.1: Panel Use Crowd Limitations to Protect Mall Turf, Trees, Soil, and Irrigation

Panel	Description	Area (SF)	Maximum Estimated Capacity – Seated	Maximum Estimated Capacity – Standing	Temporary Structures
Suggested capacity calculation metric: 8 SF per person seated, with tables and chairs; 6 SF per person standing[1]					
1	Tree	58,848	Not permitted	9,808	Not permitted
2	Hardscape	5,722	715	954	Permitted
3	Tree	64,129	Not permitted	10,689	Not permitted
4	Hardscape	20,071	2,509	3,346	Permitted
5	Tree	62,580	Not permitted	10,430	Not permitted
6	Hardscape	5,766	721	962	Permitted
7	Tree	66,283	Not permitted	11,048	Not permitted
8	Tree	15,910	Not permitted	2,652	Not permitted
9	Tree	19,123	Not permitted	3,188	Not permitted
10	Hardscape	19,171	2,396	3,196	Permitted
11	Tree	20,161	Not permitted	3,361	Not permitted
12	Tree	65,928	Not permitted	10,988	Not permitted
13	Hardscape	5,847	731	975	Permitted
14	Tree	77,153	Not permitted	12,859	Not permitted
15	Tree	66,859	Not permitted	11,144	Not permitted
16	Turf	84,704	11,088	14,118	Use Limits
17	Hardscape	7,052	882	1,176	Permitted
18	Turf	83,370	10,421	13,895	Use Limits
19	Hardscape	26,931	3,366	4,489	Permitted
20	Turf	88,947	11,118	14,825	Use Limits
21	Hardscape	6,883	860	1,148	Permitted
22	Turf	87,857	10,982	14,643	Use Limits
23	Hardscape	22,604	2,825	3,768	Permitted
24	Turf	70,324	8,791	11,721	Use Limits

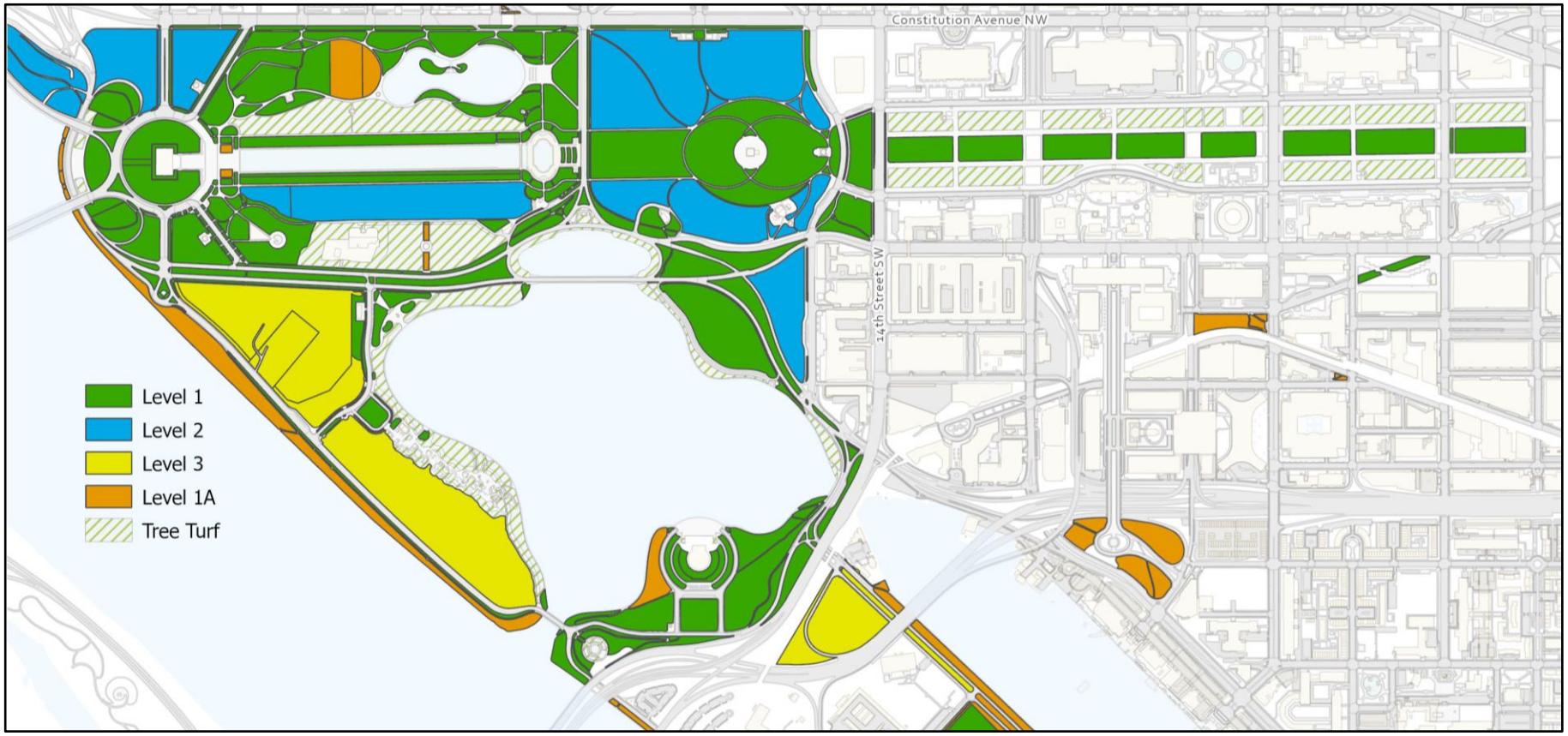
[1] Capacity calculation metrics assume no structures are on the panel due to NAMA activities or that a panel or portion of the panel is not closed due to a Record of Determination Closure.

Panel	Description	Area (SF)	Maximum Estimated Capacity – Seated	Maximum Estimated Capacity – Standing	Temporary Structures
25	Hardscape	15,699	1,962	2,617	Permitted
26	Hardscape	6,131	766	1,022	Permitted
27	Turf	87,469	10,934	14,579	Use Limits
28	Hardscape	7,164	896	1,195	Permitted
29	Turf	101,964	12,746	16,995	Use Limits
30	Hardscape	5,944	743	991	Permitted
31	Turf	91,950	11,494	15,325	Use Limits
32	Hardscape	8,135	1,017	1,356	Permitted
33	Tree	65,684	Not permitted	10,948	Not permitted
34	Hardscape	5,417	677	903	Permitted
35	Tree	63,622	Not permitted	10,604	Not permitted
36	Hardscape	20,208	2,526	3,368	Permitted
37	Tree	25,015	Not permitted	4,170	Not permitted
38	Tree	10,022	Not permitted	1,671	Not permitted
39	Tree	22,649	Not permitted	3,775	Not permitted
40	Tree	66,948	Not permitted	11,159	Not permitted
41	Hardscape	5,939	742	990	Permitted
42	Tree	72,506	Not permitted	12,085	Not permitted
43	Tree	69,721	Not permitted	11,621	Not permitted

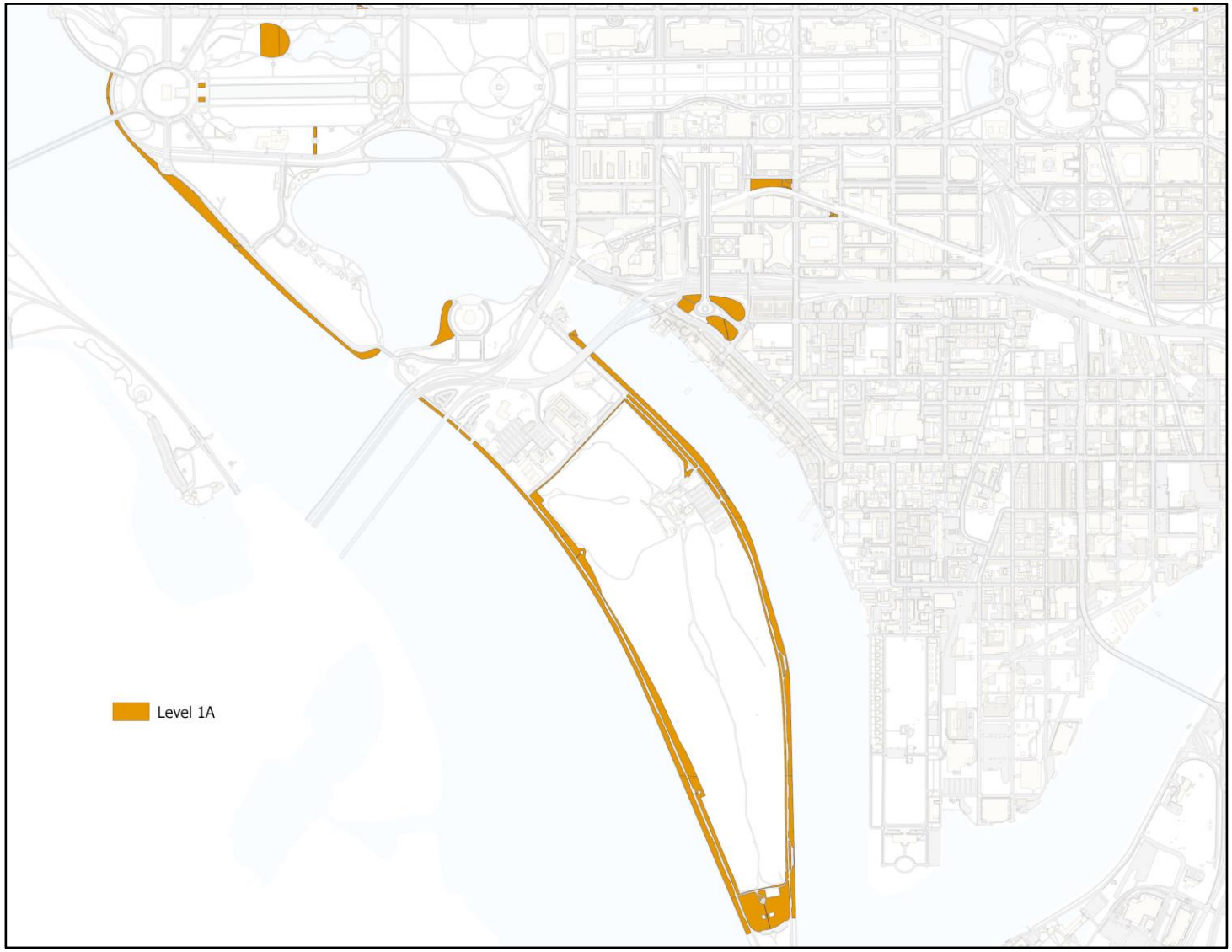
4 Turf Protection Planning Guide – A Primer for Applicants

The Permit Applicant should reference the large-scale maps included in this chapter during event planning to understand the guidelines for required turf protection levels at specific sites in the park. By consulting the information provided in this document and detailed in the appropriate Turf Level chapters, the Permit Applicant can assess the necessary protection for turf assets, with Level 1 requiring the most protection and Level 3 the least.

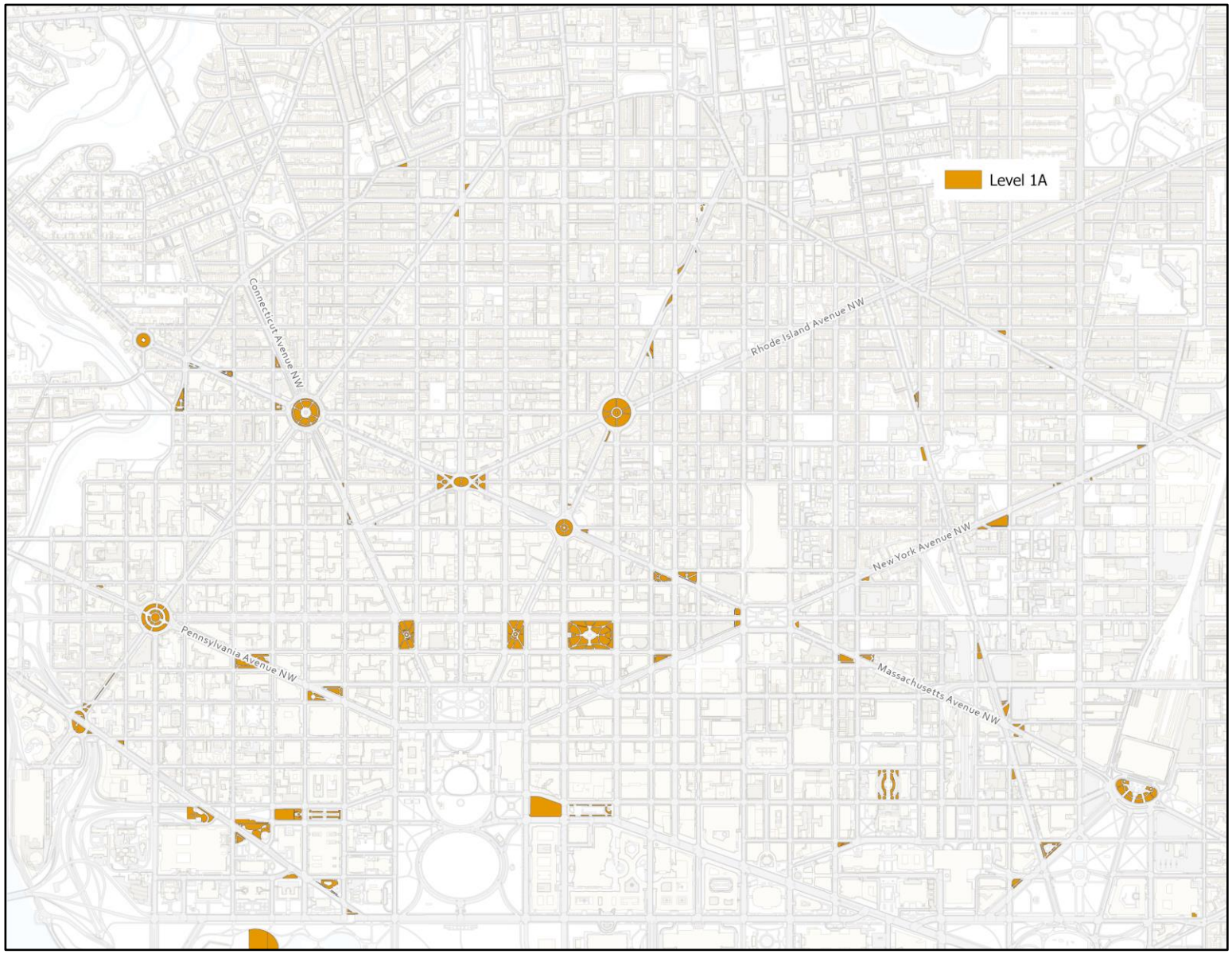
4.1 Turf Level Parkwide NAMA Primer – Monumental Core Where Most Permitted Events Take Place



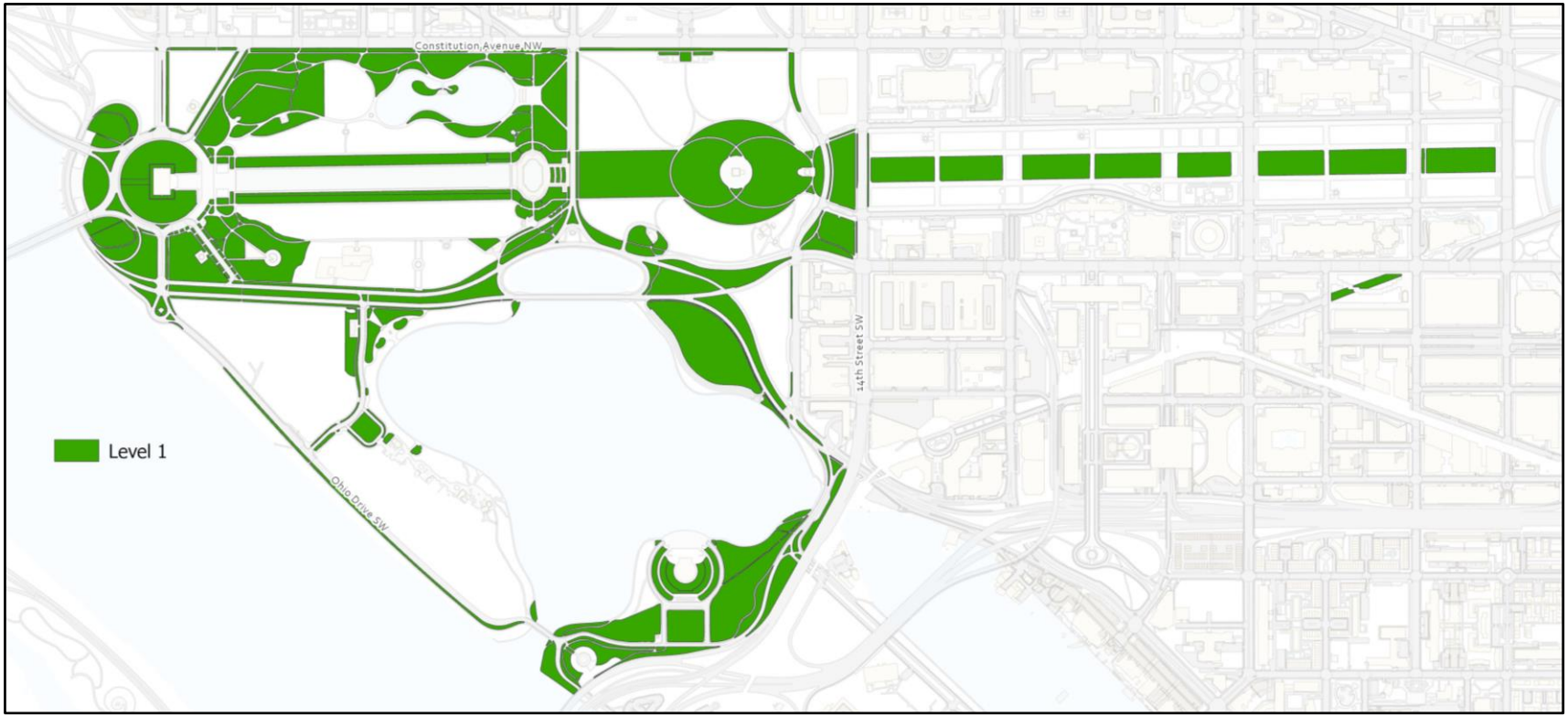
4.2 Level 1A Monument Core and East Town Parks NAMA Primer



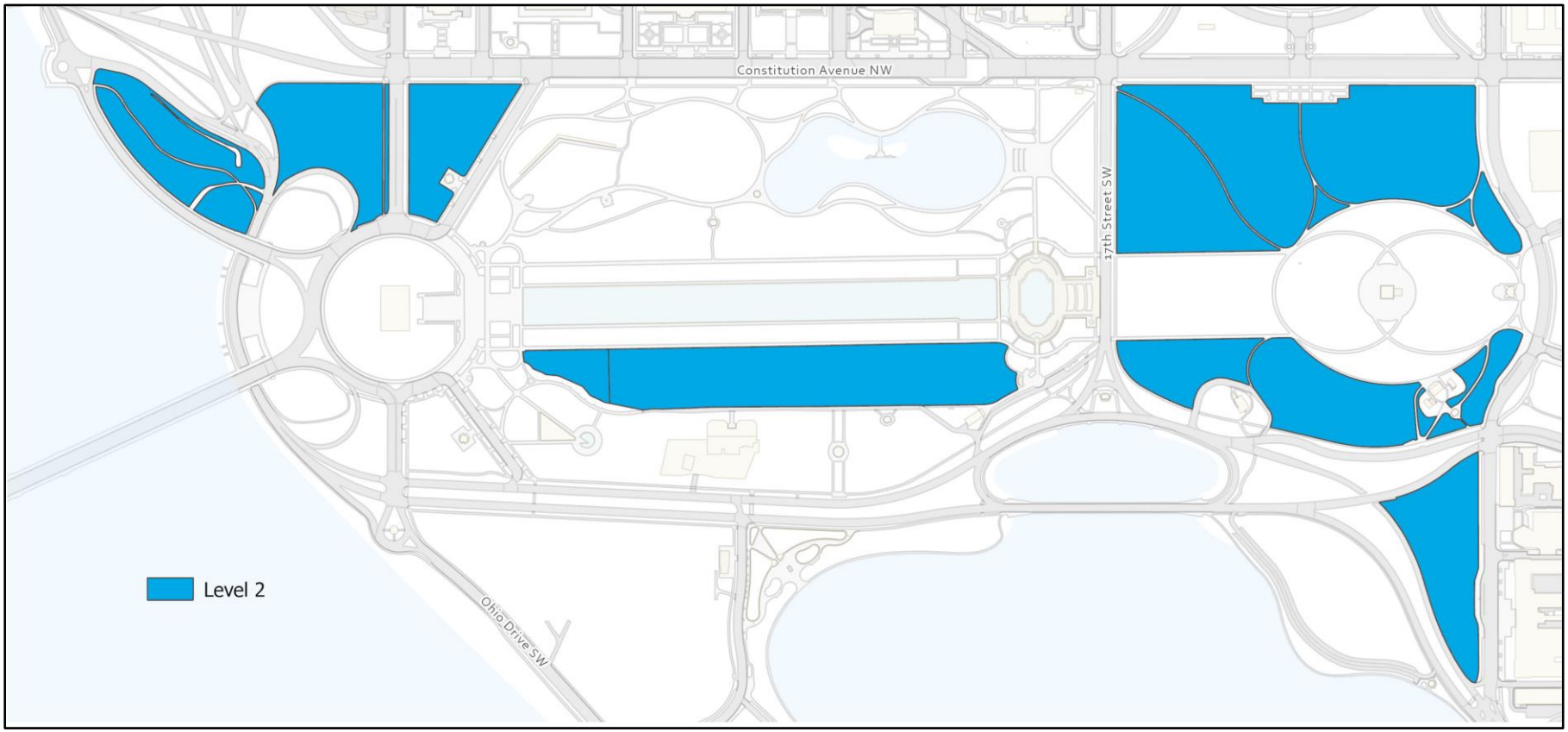
4.3 Level 1A Uptown Parks NAMA Primer



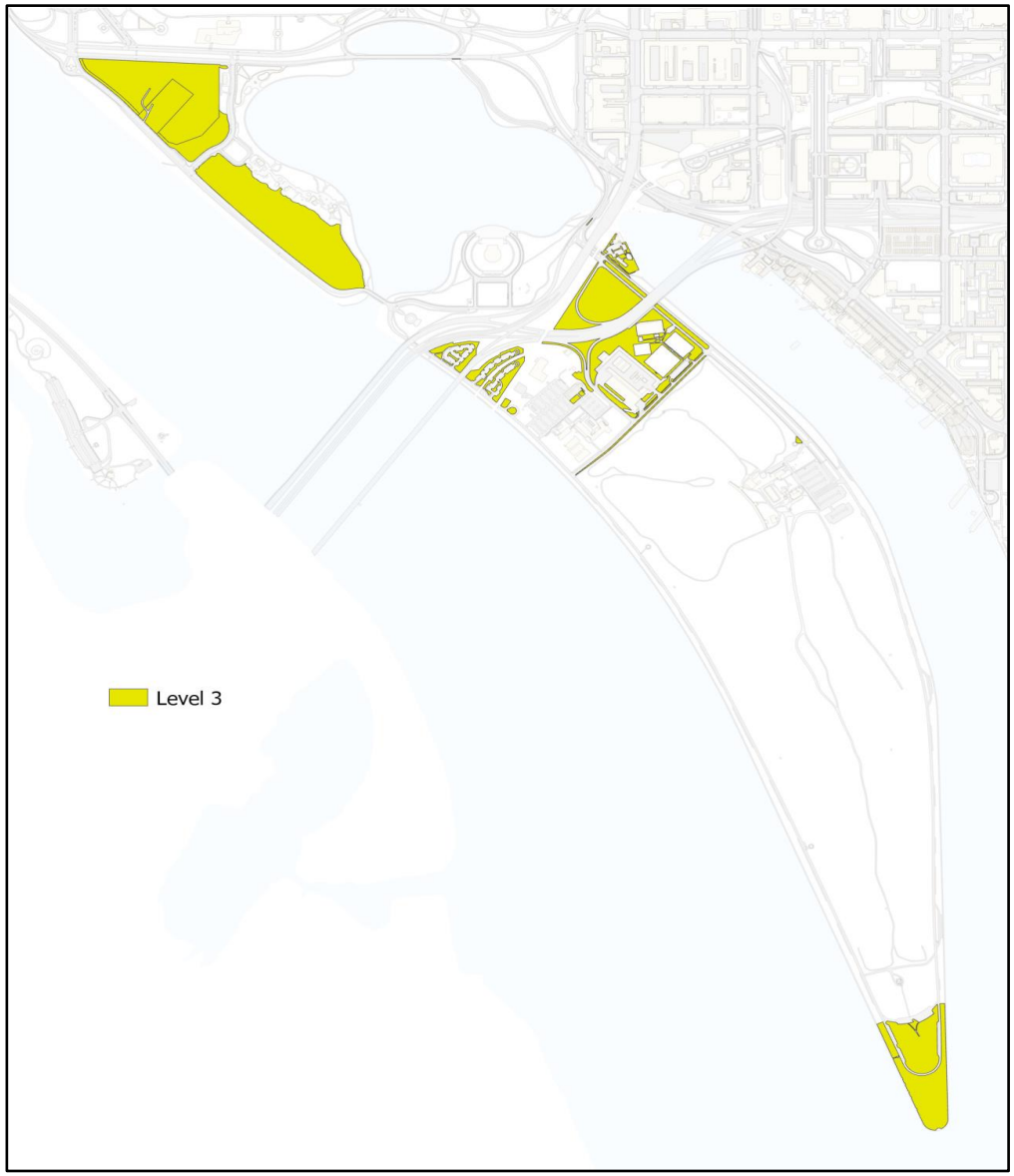
4.4 Level 1 NAMA Primer



4.5 Level 2A and 2 NAMA Primer

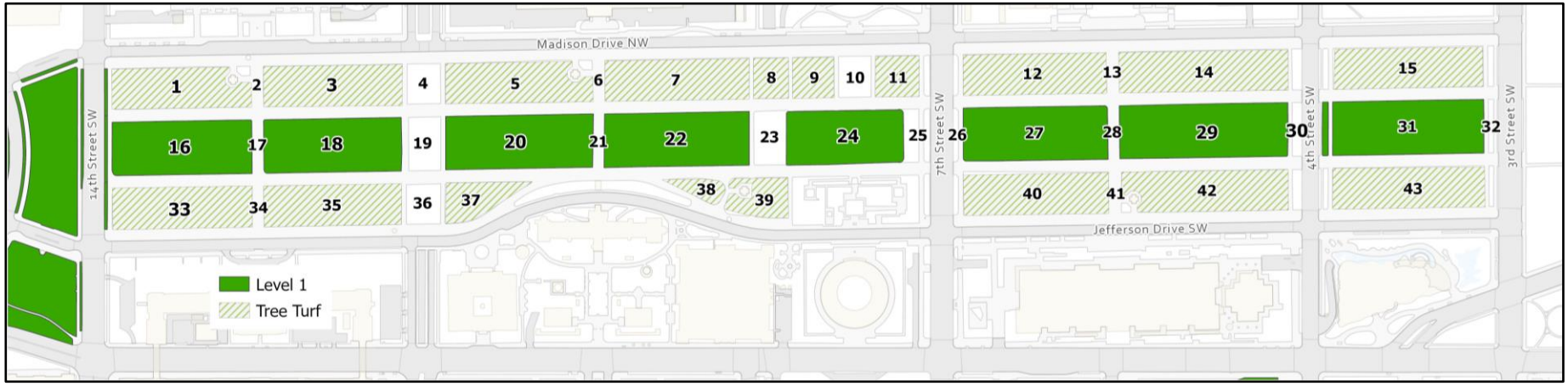


4.6 Level 3 NAMA Primer

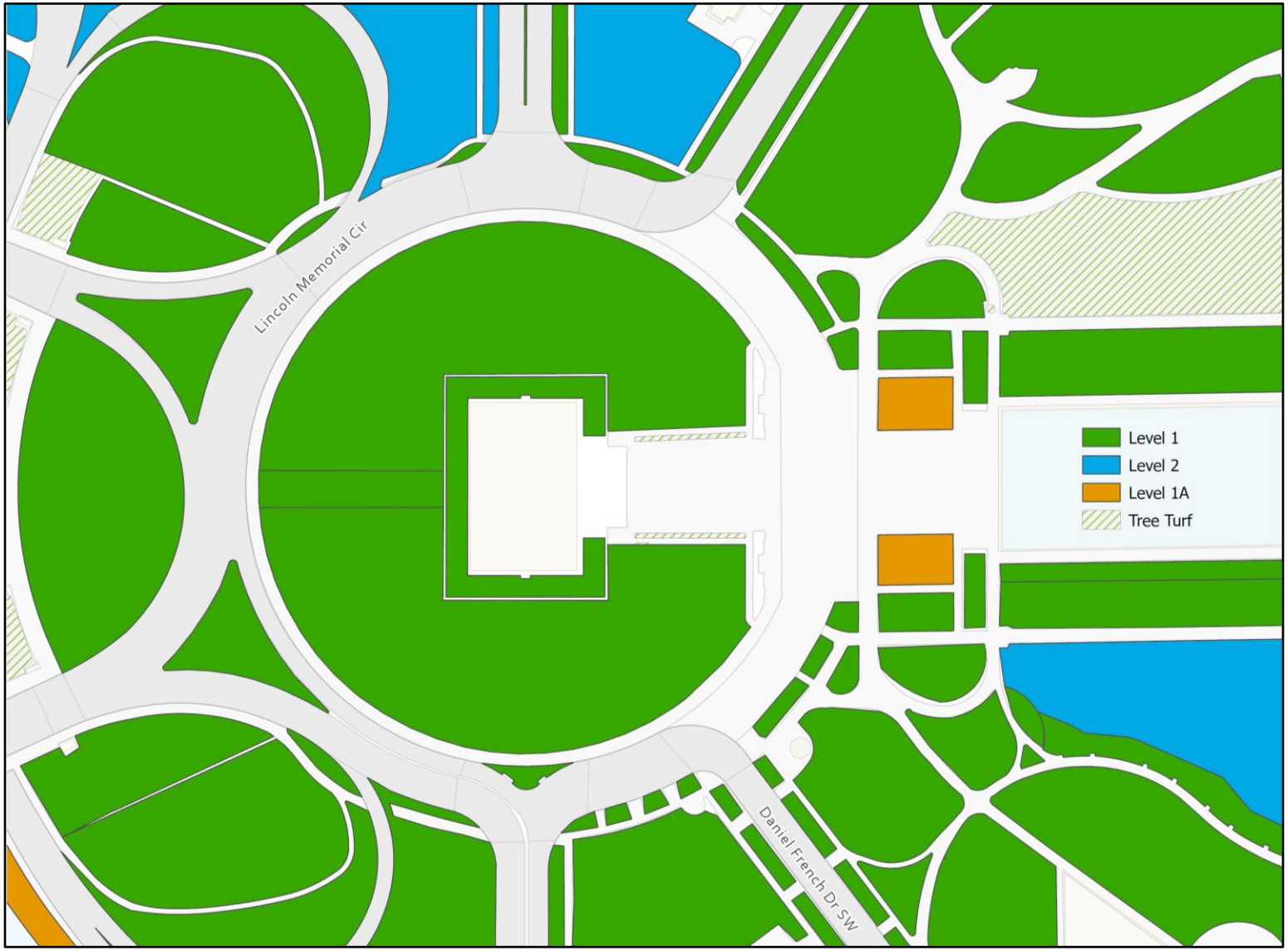


4.7 Tree/Turf NAMA Primer

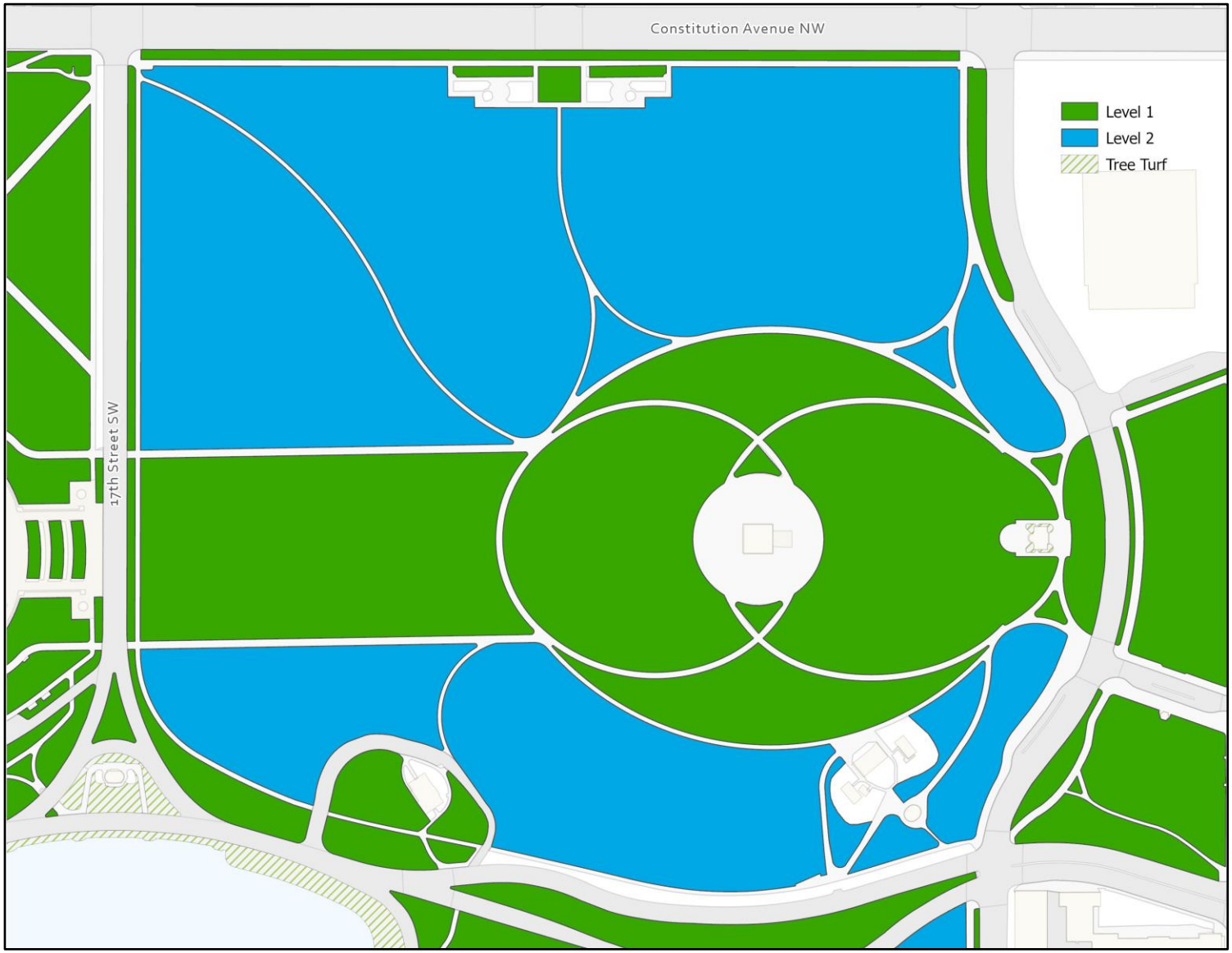
4.8 Level 1 and Tree/Turf National Mall NAMA Primer



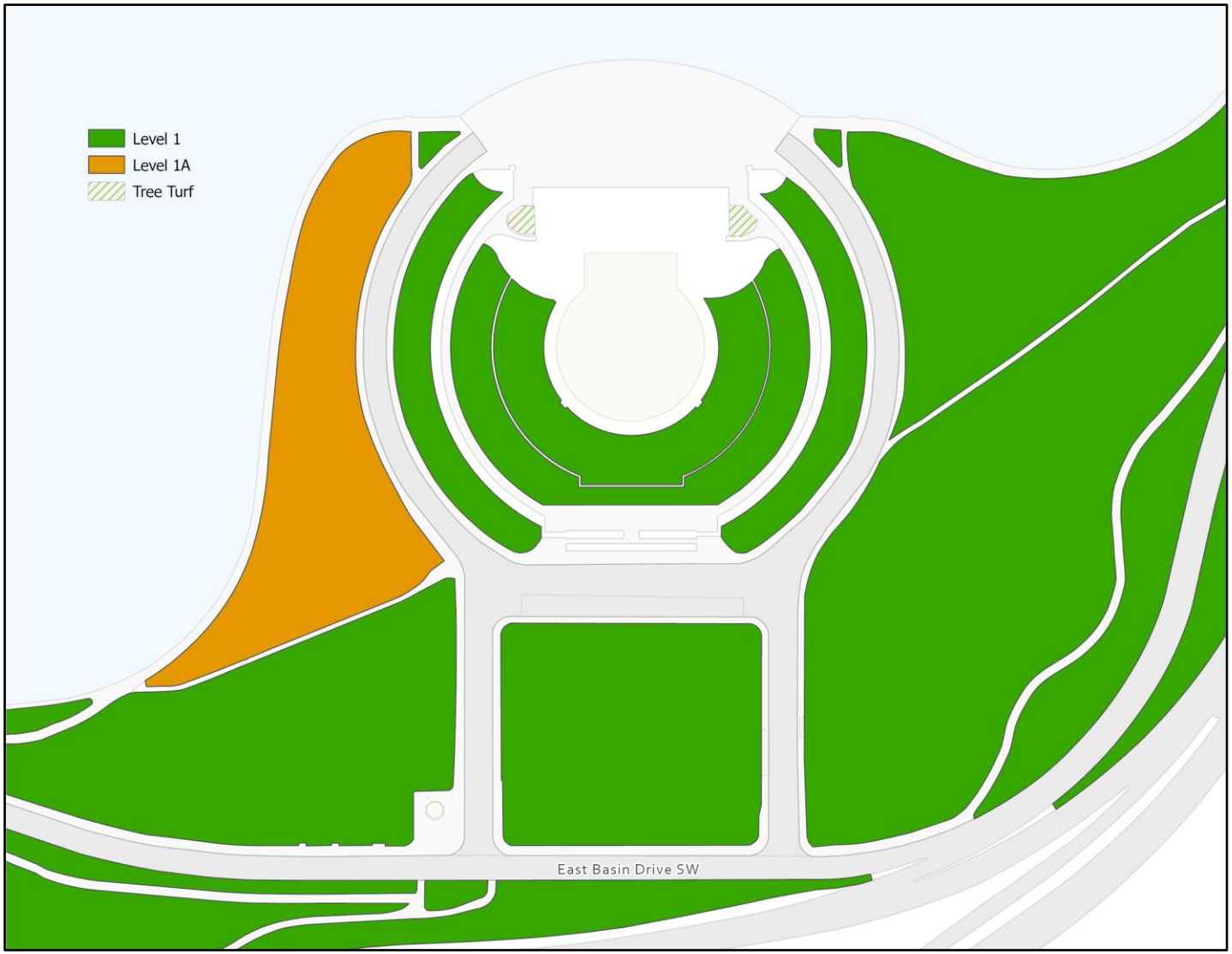
4.9 Level 1A and 1 Lincoln Memorial NAMA Primer



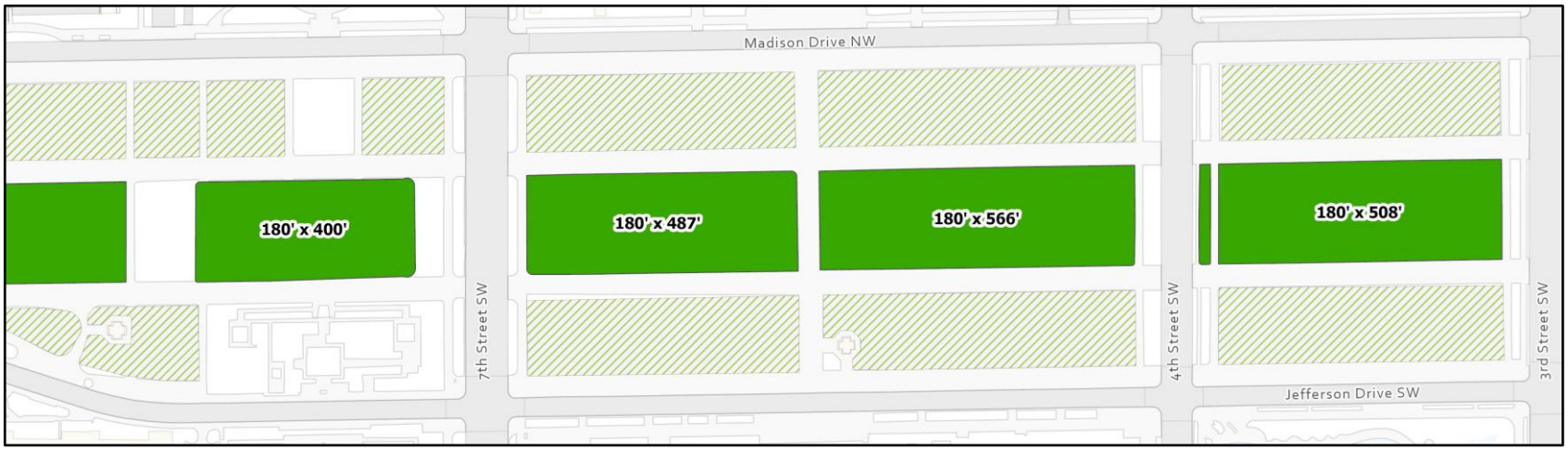
4.10 Level 1 & 2 Turf Washington Memorial NAMA Primer



4.11 Level 1A & 1 Turf Thomas Jefferson Memorial NAMA Primer

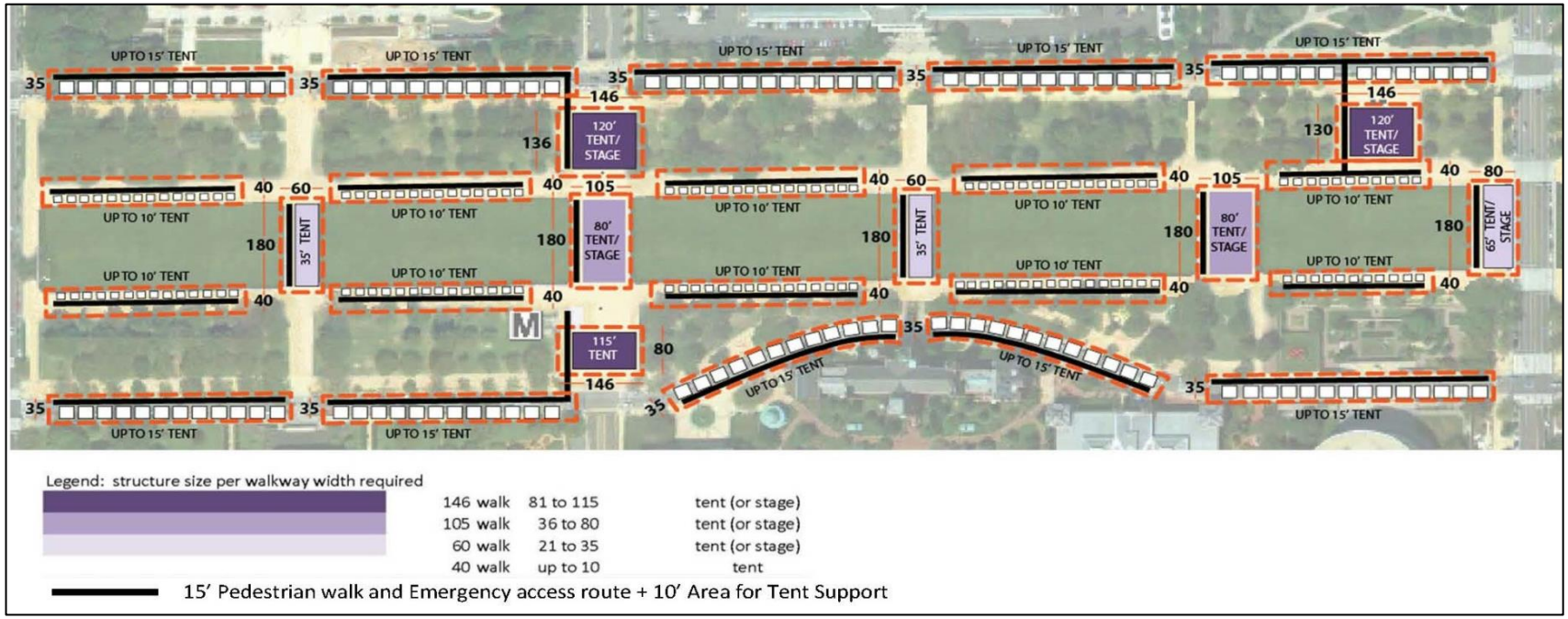


4.12 National Mall Center Turf Panel Area Measurements



4.13 National Mall Gravel Panel Area Measurement

4.14 National Mall Gravel Panel Tent Placement Metrics



5 Level 1 Turf Guidelines

5.1 Level 1A Turf Guidelines:

Level 1A Turf areas can accommodate small events, as determined by NAMA Events Permitting, without the extensive turf protection measures required for Level 1, provided the following conditions are met:

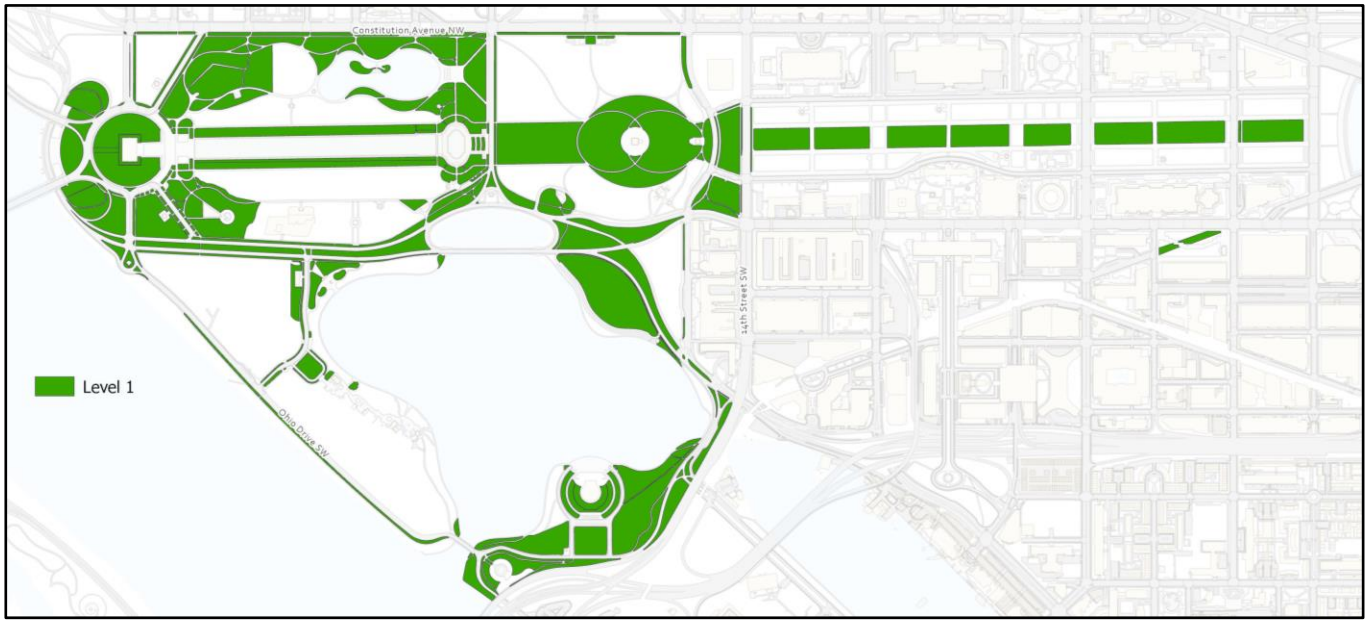
- The event timeline does not exceed 12 hours.
- Tents no larger than 10' x 20' are used.
- Chairs, tables, and light portable equipment are allowed on the turf without protection measures.
- No other structures, such as stages or press risers, are permitted on the turf; if necessary for the event, Level 1 protection measures must be implemented for such structures.
- Staking of any kind is prohibited in these areas.5.2 Level 1 Turf Guidelines:
- As explained in the opening chapter, Level 1 Turf is a critically important asset for NAMA to successfully complete its mission to provide patrons and Permit Applicant with the best possible atmosphere to enjoy all the park has to offer. One of the primary ways of protecting these assets is this manual of guidelines that provides measures to mitigate or even prevent damage in the first place. Additionally, it has been demonstrated throughout the country in literally thousands of events that temporary covering of turf through protective decking reduces wear injury to the turf by protecting the plant from abiotic stressors, which are manmade, such as compaction or abrasive wear to the leaf, stem, and crown areas of the turf plant.

Permit Applicants should understand that turf protective decking not only safeguards NAMA turf assets but also protects them from potentially costly recovery damages. The average cost per square foot for turf protection is significantly lower than the cost of rehabilitation. Turf rehabilitation costs range from two to five times higher than turf protection measures depending on the area and repair timeline. Therefore, Permit Applicants should carefully consider and discuss measures to minimize potential asset damage liabilities as a cost-saving strategy. **Each permitted activity is unique, so turf protection measures are determined based on the size, scope, and location of the specific event. Previous resource protection measures for similar events may not apply.**

Protective pedestrian decking products such as Terraplas, Supa Trac Translucent, Clear Road, Groundshield, RGT Panel Pedestrian, and Matrax may be used to protect Level 1 Turf assets. These ADA-compliant, interlocking mats are translucent, allowing UV light to pass through to the grass below. Considered leading turf protection systems, they are suitable for stadia and other venues, including public parks, racecourses, and

private events, and are used for walkways, exhibitions, show stands, and hospitality areas. Approved alternatives must also be translucent and interlock with adjoining pieces. These products are quick to install, permit the passage of air, light, and water, meet high public safety standards, and protect turf from large crowds and structures. **Drivable decking of any kind is not permitted on Level 1 Turf Assets for any duration, as determined by the NAMA Turf Manager.**

5.2.1 Primary Level 1 Turf Areas Used for Event Permitting



5.2.2 Pedestrian Protective Decking Specifications

Permit Applicants must reference and follow the pedestrian protective decking specifications listed below. Failure to adhere to these guidelines will result in denial of the use of decking and to any permit processes related to turf protection measures, such as structures or patrons on the turf during the event.

- Pedestrian protective decking must consist of single-sided, high-density translucent polypropylene in white or light gray that allows sunlight to pass through.
- A minimum clearance cavity of 1.75 inches must be maintained between the decking and the crown of the plant at the soil substrate, which may vary depending on the time of year and weather conditions.
- The decking must feature uniformly spaced holes for air, light, and water to permeate, as determined by the manufacturing process.
- The decking should not damage the turf during installation, use, or removal due to its basic design characteristics.
- Dirty panels will not be accepted at the load-in process, as this limits translucence.

- No fabric or other obstructions that may affect hole performance or light translucence are allowed beneath the pedestrian protective decking.
- The Permit Applicant must submit the type of manufactured decking chosen from the approved examples during the permitting process, prior to the issuance of the permit.
- Approved equivalents or substitute products must be approved by the NAMA Turf Manager, with a representative sample submitted for review prior to installation.

Temporary use of protective turf decking can help prevent damage during brief periods; however, covering the turf still introduces additional stressors such as reduced airflow, restricted moisture infiltration, heat buildup, and decreased light. Therefore, seasonally adjusted turf cover time limits are necessary for Level 1 Turf Assets, as follows:

Time Limits for Protective Decking. Note: These time limits also cover the irrigation downtime seasonal interval

- November 15 to March 14: 10 days
- March 15 to May 14: 5 days
- May 15 to September 14: 3 days
- September 15 to November 14: 5 days

Time Limits for Blocking Light from Structures

- November 15 to March 14: 5 days
- March 15 to May 14: 3 days
- May 15 to September 14: 2 days
- September 15 to November 14: 3 days

Time Limits for Carpets Above the Decking

- April 01 – August 30 6:00 pm to 6:00 am with a rest interval of 12 Hours
- September 01 – March 31 for 24 Allowed for 24 Hours with a rest interval of 24 Hours.

Mall Irrigation Run Times for Events Placed on Gravel

- Year-round Dusk until Dawn except for Winter down period

Plywood is never an acceptable temporary turf protective covering. Plywood blocks all irradiance, thereby shutting down the photosynthetic process within the turfgrass plants. This results in an unacceptable decline of turfgrass health.

5.2.3 Pedestrian Protective Decking Requirements for Use on Level 1 Turf

Permit Applicants must comply with the pedestrian protective decking requirements for Level 1 Turf, as follows:

- The laydown timeframe for pedestrian protective decking will begin once the first panel is placed during the load-in process.

- The Permit Applicant may install and remove decking after 5:00 PM through the night, with approval from the Permit Specialist routed to the Superintendent's Office, to minimize coverage times.
- Carpet may be placed on top of the decking under seasonally defined time restrictions:
  - From April 1 to August 30, covering is permitted from 6:00 PM to 6:00 AM, with a 12-hour rest period between intervals.
  - From September 1 to March 31, covering is allowed for 24 hours, with a one-day rest between intervals.
- No self-powered equipment, such as generators, lights, or audio equipment, is permitted on protective decking for Level 1 Turf assets.
- No vehicles of any kind are allowed on pedestrian protective decking.
- Decking must be installed using hand power or pallet jacks.
- Pedestrian protective decking must not be dragged across the turf during placement or removal.
- Decking is required under any structures, including tables and chairs, placed on Level 1 Turf, except when screw jacks are used to support stages or similar structures directly on the turf (refer to the guidelines for such parameters under the appropriate heading).

Pedestrian protective decking is required for events expected to exceed 1 person per 6 square feet, based on the setup plan and factors assessed by the NAMA Turf Manager. It is crucial for the Permit Applicant to provide accurate crowd estimates to ensure optimal protection of turf assets. **The Permit Applicant may be liable for any damages to park assets, including turf, resulting from inaccurate crowd estimates that lead to inadequate protection.** Factors that may influence the determination of crowd size related to decking use include:

- Weather forecasts prior to the load-in process for the event are essential. As discussed in section 2.4, weather can significantly impact the amount of protective decking required, and NAMA must prioritize the most protective turf decking in these situations.
- The length of scheduled days on turf in relation to crowd participation is important. Larger crowds and longer production schedules will necessitate greater measures to protect the turf assets.
- The complexity of the event layout and the relationship between structures and crowd capacity must be considered. This applies to both structures on the turf and adjacent hardscapes.
- The interaction of the crowd with the turf asset environment concerning movement is crucial. This refers to whether the crowd is stationary or expected to move in a controlled manner due to structures placed on or adjacent to the turf and hardscapes.

The following examples of pedestrian decking requirements are provided to assist Permit Applicants in planning event operations. These examples pertain to the National Mall Center Turf Panels, where many permitted events take place. Please refer to 3.4 Table 1: Panel Use Crowd Limitations to Protect Mall Turf, Trees, Soil, and Irrigation.

Note that these examples are for planning purposes only and that each event is unique, requiring specific planning and protection measures. Additionally, be aware that the significant costs associated with protective decking will not be considered by NAMA when implementing measures to mitigate damages to turf assets.

Example #1: An event with a small crowd of fewer than 750 people, lasting less than 4 hours, may not require any protective decking if the area allows for crowd dispersal and has no structures on the turf. In such cases, it is essential for the Permit Applicant to implement crowd control measures, including ushers or volunteers, to prevent crowd concentration around any structures—whether placed on turf or adjacent to hardscapes—that could lead to turf damage. **The Permit Applicant is responsible for any damages resulting from non-compliance with these crowd control procedures.**

Example #2: An event featuring a single focal point placed either on the hardscape adjacent to the panel or on the panel itself, with an estimated crowd of 5,000, may require covering one-third of the panel, as the average panel accommodates 15,000 patrons. Factors influencing crowd control, such as posts and ropes, bike racks, or ushers, may help reduce this area if enforced effectively to prevent crowd concentration that could damage the turf. **The Permit Applicant is responsible for any damages resulting from non-compliance with these crowd control procedures.**

Example #3: An event with multiple focal points placed either on the hardscape adjacent to the panel or on the panel itself, with an estimated crowd of 2,500, may require covering one-third or more of the panel. This necessity is not solely based on the panel's average capacity, but also due to the complexity of the proposed site plan. Factors influencing crowd control, such as posts and ropes, bike racks, ushers, and volunteers, may help reduce this area if enforced effectively to prevent crowd concentration that could damage the turf. **The Permit Applicant is responsible for any damages resulting from non-compliance with these crowd control procedures.**

Example #4: An event with single or multiple focal points placed on the hardscape adjacent to the panel or on the panel itself, with an estimated crowd of 15,000 or more, may require covering the entire panel or even multiple panels based on their average capacity. Factors influencing crowd control, such as posts and ropes, bike racks, ushers, and volunteers, can help reduce this area if enforced effectively to prevent crowd concentration that could damage the turf. **The Permit Applicant is responsible for any damages resulting from non-compliance with these crowd control procedures.**

5.3 Temporary Structures Located on Level 1 Turf Assets Upon Protective Decking

The Permit Applicant must provide drawings for all structures, including foundation and anchoring systems, for review by the Permit Specialist and NAMA Turf Manager to determine the best process for protecting turf assets. Permit Applicants must adhere to the following guidelines if temporary tent structures are placed on Level 1 Turf assets:

- Temporary structures such as tents, stages, press risers, video boards, and sound/light towers may be placed directly on the decking but must not exceed a weight footprint of 4 lbs. per square inch at surface contact. **The Permit Applicant must provide weight load calculations to the Permit Specialist and NAMA Turf Manager prior to the issuance of the permit; otherwise, structures will be denied placement during the load-in process.**
- Temporary structures must not be self-powered in any manner requiring fueling.
- Structures shall not be staked in place while on protective decking.
- Protective decking must be at least one panel wider than the entire structure.
- Posts or screw jacks should be placed on top of the decking. If screw jacks are used for support, they must have two layers of Enkamat underneath to ensure air permeability.
- Tent walls and stage skirting should be added just before the event to allow for air circulation and light penetration necessary for turf health. Refer to the preceding table for guidance on light-blocking time requirements.
- If ballasts are used for stabilization, they may be water-filled with a maximum weight of 3,000 lbs. and a weight footprint of no more than 4 lbs. per square inch. Two layers of Enkamat 7010 or 7020, cut to fit the dimensions, must be placed on the decking beneath the ballast for air permeability. Water ballasts must be emptied off NAMA property and not into the stormwater drainage system of adjacent roadways. **The Permit Applicant must submit weight load calculations to the Permit Specialist and NAMA Turf Manager prior to the issuance of the permit; otherwise, structures will be denied placement during the load-in process.**
- Ballasts may also be solid concrete, with the same weight limitations and requirements for air permeability as above. **The Permit Applicant must provide weight load calculations to the Permit Specialist and NAMA Turf Manager prior to the issuance of the permit; otherwise, structures will be denied placement during the load-in process.**
- All screws, fasteners, and ties must be monitored during construction and retained during removal, using non-aluminum or non-plastic materials. A magnetic sweeper is required during the load-out process to ensure all fasteners and screws are collected.
- Steel, lumber, vinyl, and other construction materials should be placed on hardscapes whenever possible. If this is not feasible, materials must not remain on the turf for more than two hours.

5.4 Temporary Structures Placed Directly on Level 1 Turf

The park has numerous locations where temporary structures, such as stages, tents, and light towers, can be set up on hardscapes adjacent to Level 1 Turf assets, particularly at the National Mall along the Center Turf Panels. This method is preferred by NAMA and will be strongly recommended if hardscape options are available. However, structures with appropriate turf protection measures may be set up in turf areas if approved by NAMA during the permitting process, ensuring that turf is protected.

If temporary structures are placed on Level 1 Turf assets, they must adhere to the following guidelines:

- Temporary structures are limited to the following placement durations on Level 1 Turf assets due to the high risk of turf damage, which could delay or deny use of the area to park patrons or other scheduled events.
- A maximum of 2 days from April 15 to September 14, and a maximum of 3 days from September 16 to April 14.
- Temporary structures must not exceed a weight footprint of 4 lbs. per square inch at surface contact. The Permit Applicant must share weight load calculations with the Permit Specialist and NAMA Turf Manager prior to the issuance of the permit; otherwise, structures will be denied placement during the load-in process.
- Structures must minimize all points of contact with the turf for weight distribution and stability.
    - Plywood is allowed to protect the turf from screw jacks or ballasts, and the Permit Applicant should plan for some turf replacement with thick-cut sod where plywood supports structure weight.
    - Each screw jack must have a 16-inch x 16-inch wooden pad (3/4-inch plywood) and four layers of Enkamat 7010 or 7020 double-sided, measuring 18-inch x 18-inch, placed beneath the wooden pad.
- Ballasts for structures, whether water or concrete, should be placed on hardscapes. If this is not possible, protect the turf with four layers of Enkamat 7010 or 7020 double-sided and two layers of plywood (3/4 inch), ensuring weight distribution results in less than 4 lbs. per square inch of ground pressure. These protective measures must be cut to fit the dimensions of the ballast, and cost recovery estimates should include sodding with thick-cut sod. **The Permit Applicant must share weight load calculations with the Permit Specialist and NAMA Turf Manager prior to the issuance of the permit; otherwise, structures will be denied placement during the load-in process.**
- Tent walls and stage skirting, if used, should be applied just before the event to allow for air circulation and light penetration, promoting turf health.

- Protective decking must be installed under stages if they are three feet or more above the ground and if the area is used for storage.
- An industrial magnet will be used over the entire area to recover screws, fasteners, and other debris during the load-out process.

5.5 Structures Placed Adjacent to Level 1 Turf Assets

The following guidelines apply to structures placed adjacent to Level 1 Turf areas:

- Structures such as stages, tents, or displays that require adjustments to irrigation systems may incur a cost recovery deposit. This includes additional hand watering needed to protect Level 1 Turf assets due to changes in irrigation coverage.
- The use of post and rope for crowd control around stages, tents, or displays will result in a Cost Recovery Fee assigned to the Permit Applicant.
- NAMA strongly prefers that all tents have open access to hardscapes and be positioned away from Level 1 Turf assets. If the Permit Applicant's setup necessitates that tents be open to the turf, they should anticipate additional protective measures, including decking and crowd control measures such as bike racks or post and rope, as determined by the NAMA Turf Manager.

5.6 Self-Powered Equipment on Hardscapes

The Permit Applicant may use self-powered equipment such as generators, lighting, sound, and video equipment during event production depending on location. **However, no self-powered equipment may be placed on Level 1 Turf Assets.** Refer to the staking maps provided to determine equipment availability for each Level 1 Turf location, as all self-powered equipment must be grounded on NAMA property during use (see section 5.9).

Self-powered equipment may be placed on hardscapes to meet the Permit Applicant's production needs. This equipment must adhere to the following requirements while on NAMA hardscapes, which applies to:

- Generators
- Portable Lighting Towers
- Portable Sound Towers
- Portable Video Screens
- Other applicable equipment

Each piece of self-powered equipment, including generators, portable lighting towers, portable sound towers, and portable video screens, must comply with the following requirements:

- Complete manufacturer information regarding make and model specifications of each piece of self-powered equipment must be shared with the Permit Specialist and NAMA Turf Manager prior to the issuance of the permit. **Failure to comply with this requirement will result in denial of use during the loading-in process.**
- Self-powered equipment must be surrounded by bike racks to prevent patron interaction.
- Self-powered equipment must be enclosed within a spill containment system to prevent incidents on NAMA property.
- A Class B Fire Extinguisher must be assigned based on fuel capacity:
    - 5B-10B for less than 1 gallon, placed no farther than 30 feet from the equipment.
    - 10B-20B for 1-5 gallons, placed no farther than 30 feet from the equipment.
    - 20B-40B for more than 5 gallons, placed no farther than 30 feet from the equipment.
    - Multiple extinguishers up to 80B in size may be required for very large generators, such as those the length of a trailer attached to a Bobtail delivery vehicle.
- Self-powered equipment must be grounded, and grounding must adhere to the following requirements:
    - A grounding rod must be set a minimum depth of 18 inches into the soil substrate.
    - A 10-gauge wire must be attached between the equipment lug terminal and the grounding rod.
    - The grounding rod must be 1 inch in diameter and a minimum of 24 inches in length.
    - The grounding rod should have a safety rebar cap to help prevent injuries to park patrons.
    - The grounding rod must be driven vertically into the soil, not placed at an angle or along the ground surface.
- Self-powered equipment must be fueled on hardscapes only during the times of 5-8 a.m. and 10 p.m. to 12 a.m. for multi-day events.

5.7 Cabling Requirements on Level 1 Turf Assets or Hardscapes

- Cables or wire runs must utilize two layers of Enkamat 7010 or 7020 double-sided and should be moved every 24 hours if necessary when placed on Level 1 Turf assets. The Permit Applicant should make every effort to place cables on decking or hardscapes.
- Cable or wire runs may be placed on protective decking or NAMA hardscapes as an alternative to turf.
- In the case of a stage or other structure, cables should be flown over the steel and tied to the stage or structure, ensuring they do not touch any grass areas.
- All cables (power, audio, etc.) must be encased in ADA-compliant Yellow Jacket wire troughs (or an approved equivalent):

- Where a cable path crosses a pedestrian pathway due to event setup.
- Where a cable path crosses a thoroughfare used for traffic of any sort.

5.8 Logistical or Display Vehicles Used on NAMA Hardscapes

All vehicles used during the Event Process must have their complete make and model specifications shared with the Permit Specialist and NAMA Turf Manager prior to the issuance of the permit. **Failure to comply with this requirement will result in denial of use during the loading-in process**. Permit Applicant must adhere to the following requirements related to vehicles:

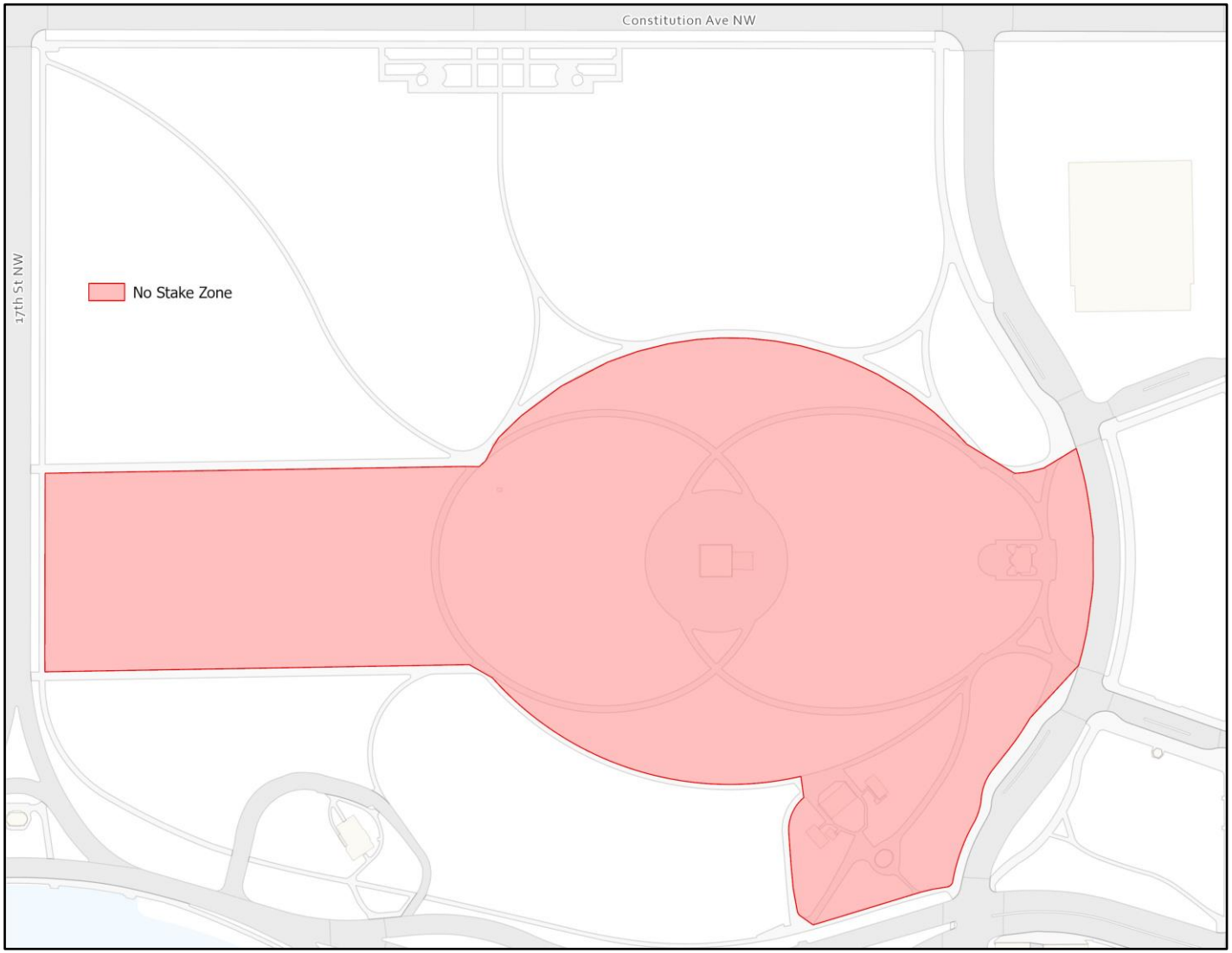
- All vehicles or display vehicles must remain on hardscapes at all times and are not permitted on Level 1 Turf assets for any reason.
- Vehicles or display vehicles must maintain a minimum distance of 2.5 feet from benches, light poles, and trash receptacles while on hardscapes.
- Vehicles or display vehicles must remain at least 2.5 feet from the granite boundary surrounding the Center Turf Panels.
- The maximum vehicle weight for NAMA hardscapes (sidewalks or similar) is 60,000 lbs. If this weight limit is exceeded, the Permit Applicant must use crane mats, such as Mega Deck or Signaroad, to traverse or set up stationary. **Crane mat manufacturer specifications must be shared with the Permit Specialist and NAMA Turf Manager prior to permit issuance; failure to comply will result in denial of use during the loading-in process.**
- The maximum vehicular weight for NAMA Mall gravel thoroughfares is 120,000 lbs. If this limit is exceeded, the Permit Applicant must use crane mats to traverse or set up stationary. **Crane mat manufacturer specifications must be shared with the Permit Specialist and NAMA Turf Manager prior to permit issuance; failure to comply will result in denial of use during the loading-in process.**
- The Mall gravel thoroughfares contain utility, sewer, and similar surface enclosures that may not withstand the specified weights due to design characteristics. Prior to loading in or out, it is strongly recommended that the Permit Applicant inspect the proposed route and use flaggers or route directors for navigation. **The Permit Applicant is liable for any damage to utilities or enclosures during the event process.**
- If cranes are used for installation, removal, or construction, they must remain on permitted hardscapes at all times. During use, the outriggers must be placed on appropriately sized pads, crane mats, or approved alternate methods. **The Permit Applicant must share outrigger protection methods with the Permit Specialist and NAMA Turf Manager prior to permit issuance; failure to comply will result in denial of use during the loading-in process.**

5.9 Staking On Level 1 Turf Assets

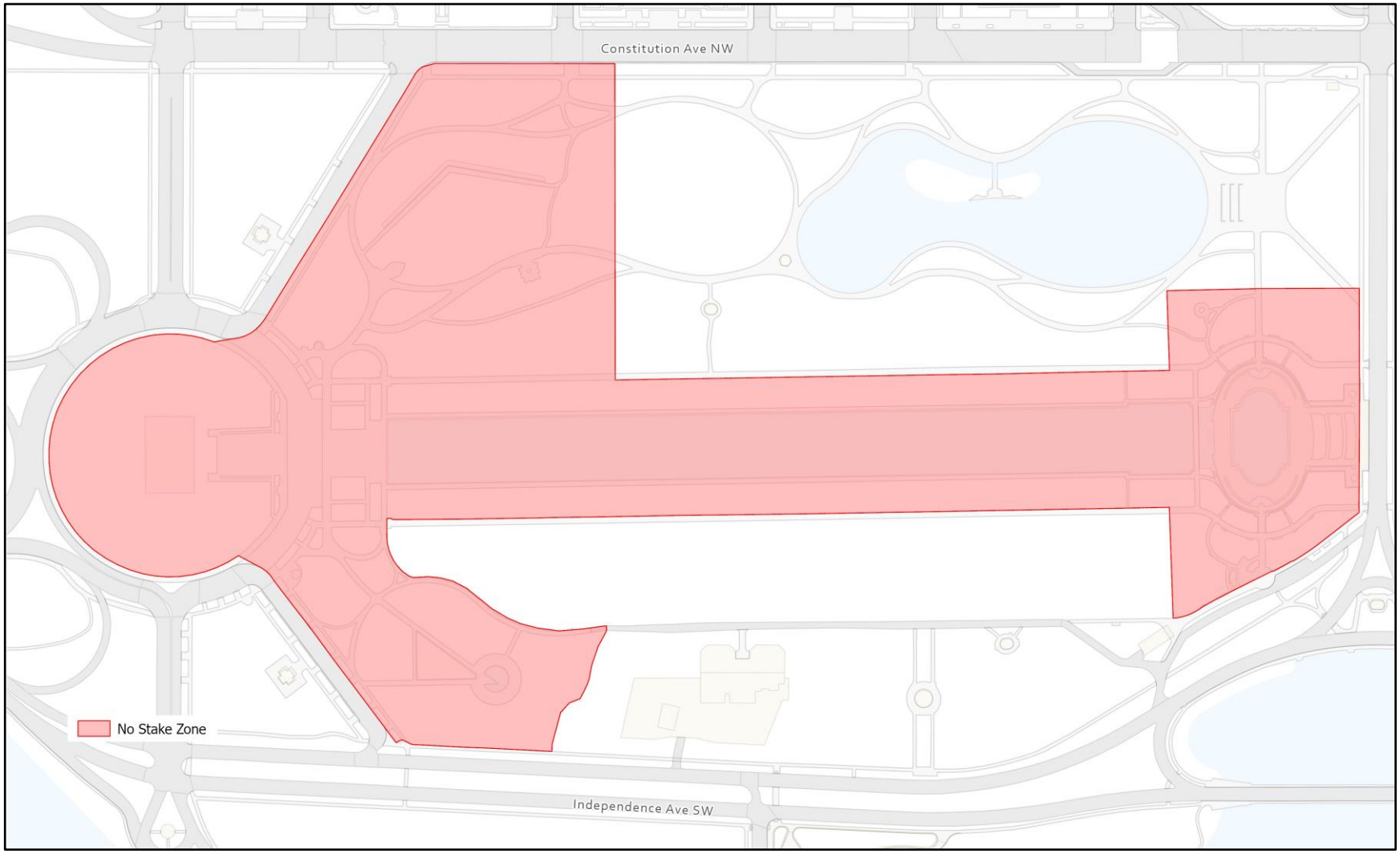
Permit Applicants must adhere to Level 1 staking requirements. Please refer to the staking maps below:

- Flags, signs, and similar display items may be inserted into Level 1 Turf on the Center Turf Panels to a maximum depth of 10 inches. The Permit Applicant must coordinate with the NAMA Turf Manager to ensure all irrigation heads are flagged prior to operation.
- Staking for grounding purposes must be set at a minimum depth of 18 inches. Refer to the appropriate self-powered equipment section for further clarification and guidelines.
- Staking for self-powered equipment on the National Mall Center Turf Panels must occur in the adjacent tree panels to Jefferson and Madison Streets. The grounding rod must be placed a minimum of two feet from the outer edge and not within the dripline of any tree. The dripline is defined as the area where water drips from the outermost circumference of the tree canopy onto the soil.
- Any staking exceeding 18 inches in depth on NAMA property must be inspected by a utility marking company. The Permit Applicant must communicate such intentions and share the utility marking inspection document with the Permit Specialist and NAMA Turf Manager prior to staking. **Failure to follow these guidelines may result in delays or denial of permit issuance for the event. The Permit Applicant will be held responsible for any damages to utilities or similar underground assets during this process.**

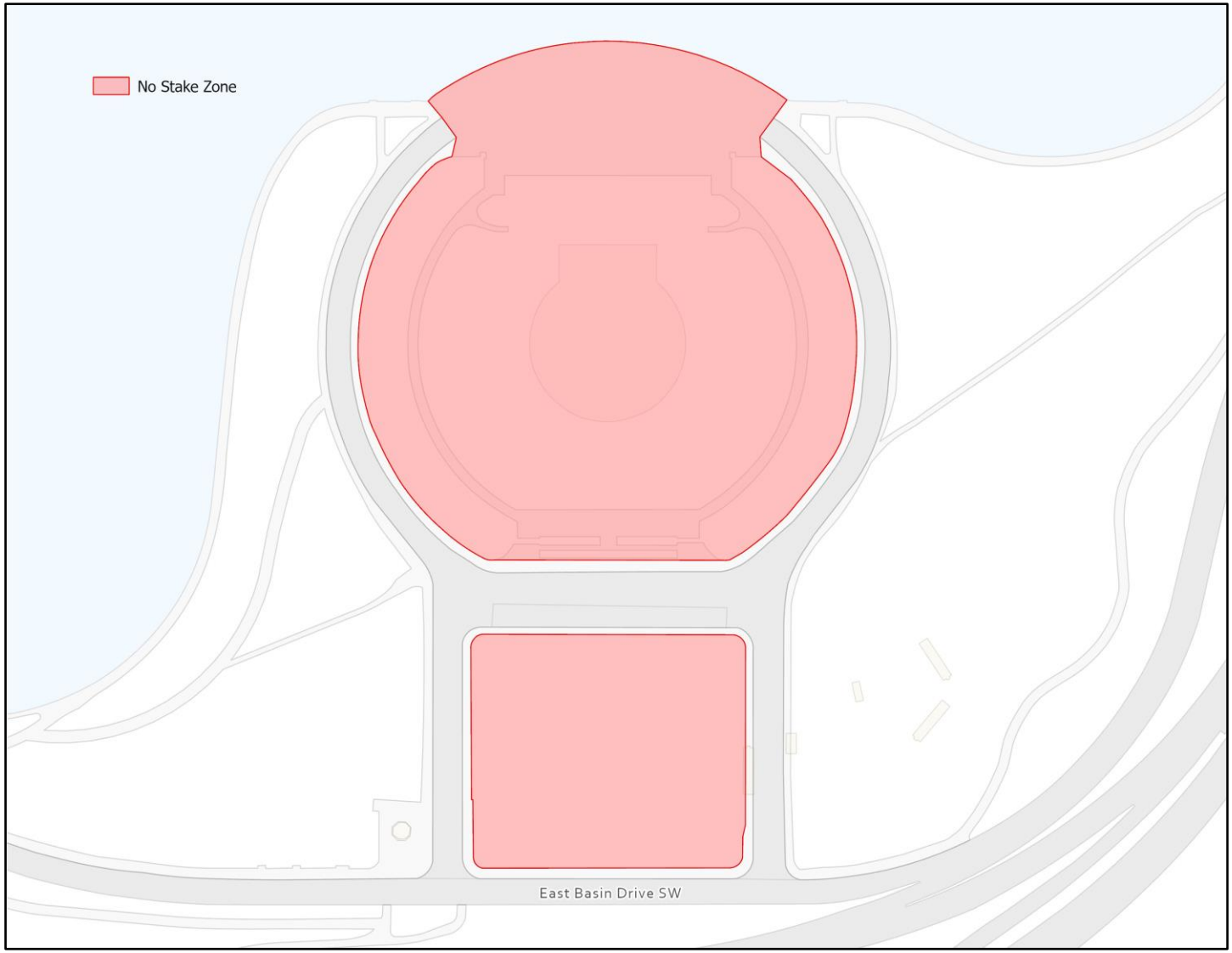
5.9.1 No Staking Zones for Washington Memorial



5.9.2 No Staking Zones Monumental Core Memorials (Korean, Lincoln, Vietnam, and WW II)



5.9.3 No Staking Zones Thomas Jefferson Memorial



5.10 Animals on Level 1 Turf Assets

No hooved animals are allowed on Level 1 Turf assets that have an irrigation system. Hooved animals, due to the concentrated weight at the surface and the shape of their hoof pads, can damage irrigation heads, potentially causing injuries to humans or animals from the high water pressures associated with these systems. Additionally, other animals, such as elephants, will be reviewed and approved on a case-by-case basis in light of weight restrictions.

5.11 Level 1 Turf Assets Timelines for Temporary Structures

Table 5.11.1 Quick Reference Guide to Temporary Structures on Level 1 Turf

Structure or Equipment	SPRING March 15 – May 14	SUMMER May 15 – Sept 14	FALL Sept 15 – Nov 14	WINTER Nov 15 – March 14
Vehicles of any kind (delivery, cranes, forklifts, golf carts, trailers, exhibit trailers, etc.)	Not allowed on turf	Not allowed on turf	Not allowed on turf	Not allowed on turf
Items blocking sunlight but allowing ambient light such as tents, certain stage configurations	3 days inclusive of set up & removal	2 days inclusive of set up & removal	3 days inclusive of set up & removal	5 days inclusive of set up & removal
Items directly blocking sunlight such as carpets on protective decking	24 hours	5 pm to 6 am	24 hours	24 hours
Back of house, trailers, bone yards, generators, portable toilets, etc.	Not allowed on turf	Not allowed on turf	Not allowed on turf	Not allowed on turf
Vehicle mounted equipment such as signs, stages, LED screens, media towers and light towers	Not allowed on turf	Not allowed on turf	Not allowed on turf	Not allowed on turf

5.12 Allowable Temporary Structures on Other Areas

The following table includes allowable temporary facilities in other Mall areas. The definitions referenced in the table are as follows:

- **Tree verge:** A circular planting zone located at the back of a curb adjacent to a roadway. This definition also includes other tree verges or tree planters along sidewalks and streets.
- **Turf verge:** A narrow turf grass planting zone at the back of a curb adjacent to a roadway. Efforts should be made to span the verge with structures when possible.
- **NPS roads along Level 1 Turf areas:** These include, but are not limited to, Madison Drive, Jefferson Drive, 14th Street, 15th Street, and Daniel French Drive.

Table 5.12.1: Quick Reference Guide to Allowable Temporary Facilities on Other Park Areas

Structure or Equipment	Walkways and Non-turf Areas	NPS Roads	Tree and Turf Areas	Tree Verges	Turf Verges	Welcome Plaza/ Smithsonian Metro	Concession Stand Areas
Tents	Yes – but no staking	Yes – but no staking	No	No	No	Yes – but no staking	No
Stages	Yes	Yes	No	No	Yes	No	No
Other temporary structures[1]	Per conditions	Per conditions	No	No	Per conditions	Per conditions	Per conditions
Back of house, trailers, bone yards, generators, etc.	Yes	Yes	No	No	No	No	No
Vehicles (golf carts) as per permit conditions[2]	Yes	Yes	No	No	No	Per conditions	No

[1] Temporary structures beyond tents, stages, and fencing might include elements such as lighting towers, audio towers, AV towers, displays, platforms, and portable restroom facilities, among others.
[2] Vehicle parking areas or corrals shall be identified in plans related to permit conditions.

Structure or Equipment	Walkways and Non-turf Areas	NPS Roads	Tree and Turf Areas	Tree Verges	Turf Verges	Welcome Plaza/ Smithsonian Metro	Concession Stand Areas
Cranes and delivery vehicles[1]	Yes	Yes	No	No	No	No	No
Vehicle mounted signs, stages, LED screens, media towers, light towers	Yes	Yes	No	No	No	Yes	No
Portable toilets/toilet trucks[2]	Designated areas only	Designated areas only	No	No	No	No	No
Dumpsters	Per conditions	Yes	No	No	No	No	No
Barriers/bike racks[3]	Yes	Yes	Yes	Yes	Yes	Per conditions	No
NPS fencing that is staked[4]	No	No	Yes	Yes	Yes	No	No
Security Checkpoints	Yes	Yes	No	No	No	No	No

[1] Cranes and delivery vehicles must obey designated routes in permit conditions; cranes and delivery vehicles must remain 2.5 foot away from granite curbs and turf; No vehicle with a gross vehicle weight greater than 60,000 pounds is allowed on the concrete sidewalks, because of the likelihood the vehicle would damage the concrete. Vehicle axle loading of 15,000 pounds per axle or less is allowed. Allowable concentrated load is four hundred pounds per square foot.
[2] Portable restroom facilities are not permitted on Level 1 Turf or Tree panels and must be in hardscape areas.
[3] Event barriers shall not be secured using stakes. Ground protection not needed for bike rack.
[4] NPS staking will follow guidelines as outlined for within this chapter for Level 1 Turf.

6 Level 2 Turf Guidelines

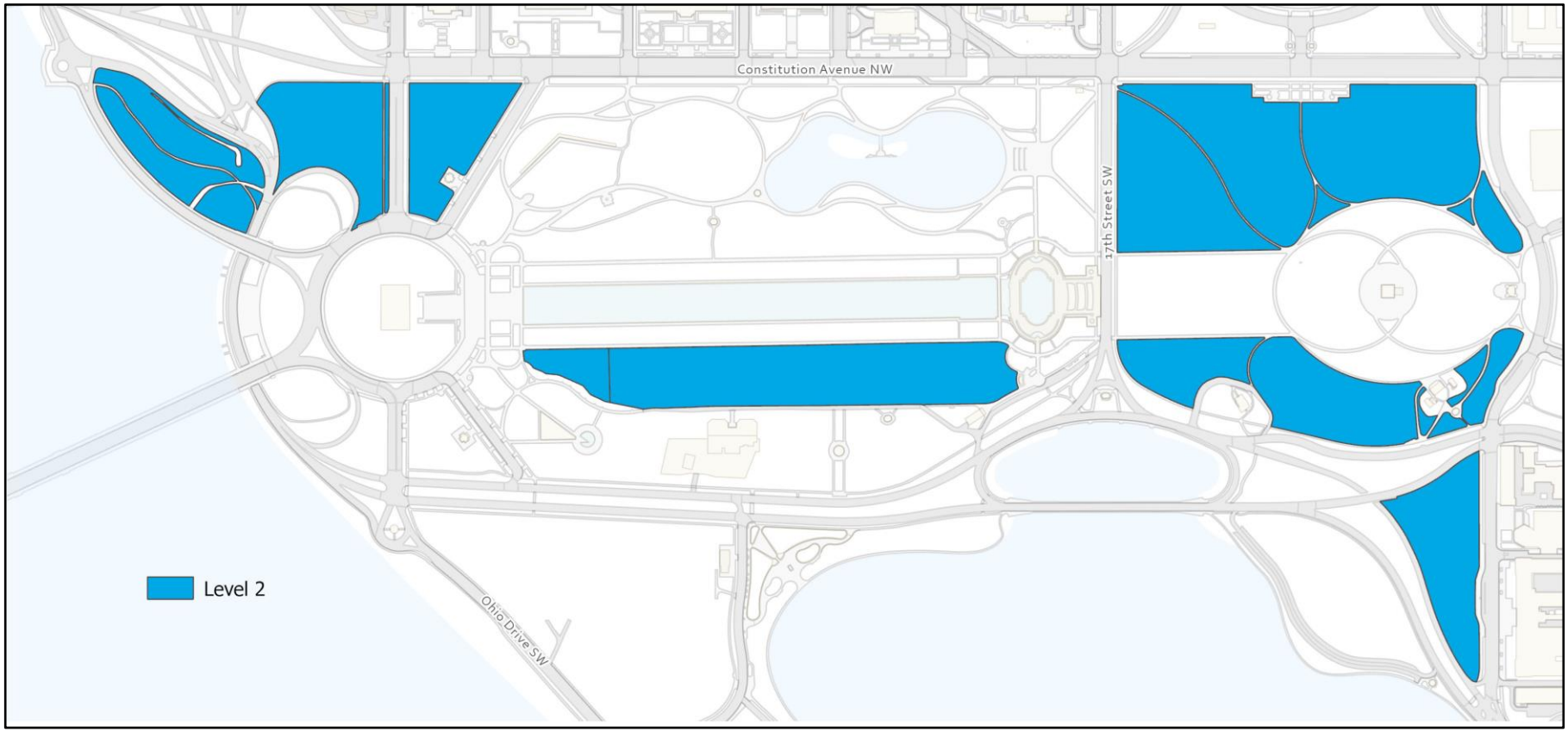
Due to the growth habit of Hybrid, Seeded, and Common Bermudagrass in Level 2 Turf asset areas, a more protective posture must be implemented during certain times of the year to prevent significant damage. Bermudagrass enters a state of hibernation from late fall through early spring, making the turf highly susceptible to damage and unable to repair itself. Any damage during this period may delay or prevent "green-up" or regrowth in the following season, potentially leading to area closures for park patrons and special events. Therefore, from October 16 to April 30 each year, Level 2A Turf asset restrictions will be enforced to mitigate damages.

Bermudagrass's aggressive growth habit and its ability to heal during the primary growing season allow for a less restrictive approach to protective decking and photosynthetic light blocking timelines for a significant portion of the peak event permitting cycle.

Level 2 Turf guidelines closely resemble Level 1 Turf guidelines, with the following less stringent conditions:

- Larger equipment with appropriate tread (as shown in 6.6), wide balloon turf tires, and ground pressure set to manufacturer tire inflation specifications is allowed to drive directly on drivable protective flooring (weather permitting). This includes turf tractors, forklifts, telehandlers, lifts, and similar equipment.
- Vehicles such as golf carts or utility vehicles with appropriate tread (as shown in 6.6), wide balloon turf tires, and ground pressure set to manufacturer tire inflation specifications may operate on both drivable protective flooring and turf (weather permitting).
- Self-powered equipment is permitted on drivable protective decking.
- Small tents, tables, chairs, and similar items may be placed directly on turf, depending on the event's timeframe and complexity of setup.

6.1 Primary Level 2A and 2 Turf Areas Used for Event Permitting



6.2 Level 2A Turf Guidelines

From November 1 to May 1, no protective decking may be placed on the ground surface to prevent Bermudagrass from emerging from dormancy. The only exception is for logistical loading purposes, which cannot exceed six hours per day. This restriction will significantly limit the type of events that can be held in these areas during this period, primarily allowing for small and simple events as determined by Event Permitting and the NAMA Turf Manager.

Events during this timeframe will be limited to small 10-foot x 20-foot tents, chairs, tables, and light portable equipment. Small stages may be constructed directly on the turf using screw jacks, with two layers of Enkamat 7010 or 7020 double-sided beneath a 3/4-inch plywood pad. The placement of such stages is limited to no longer than 48 hours. If needed, ballast for tents and stages may be placed directly on the turf with four layers of Enkamat 7010 or 7020 double-sided beneath two 3/4-inch plywood pads. Ballast weight shall be limited to the minimum necessary to safely anchor the structures. No vehicles are permitted to drive directly on the turf during this timeframe.

6.3 Level 2 Turf Guidelines

Bermudagrass, owing to its aggressive growth during the season, allows for fewer restrictions during the peak event season. Permit Applicants are strongly encouraged to consider these areas for their flexibility, which may be more accommodating of events anticipated to have large crowds or complex set-ups. Additionally, Level 2 turf areas are characterized by larger areas for event operations.

- Level 2 Turf area guidelines follow all Level 1 Turf guidelines, with the exception of the following:
- Approved vehicles are permitted on drivable protective decking.
- A vehicle may deliver a portable stage weighing no more than 10,000 lbs. for load-in and must immediately exit the decking until later removal for load-out. The delivery vehicle must not exceed 10,000 lbs. and is permitted only on drivable protective decking.
- Articulating forklifts, telehandlers, and lifts not exceeding 10,000 lbs. (including load), fitted with turf balloon tires that do not exceed the manufacturer’s specified ground pressure, are allowed on drivable decking.
- Turf vehicles, such as golf carts and utility vehicles, that do not exceed 800 lbs. may operate on turf and protective decking if they have turf tread and tires inflated to no more than 75% of the manufacturer’s rated pressure.
- Protective flooring, whether pedestrian or drivable, is only required where a concentration of crowd capacity is anticipated.
- Small tents (10-foot x 10-foot), chairs, tables, and other small, non-self-powered equipment may be placed directly on turf if the NAMA Turf Manager deems the potential for turf and soil damage minimal.

- Self-powered equipment is allowed only on drivable protective decking. If refueling is necessary, the equipment must be removed and refueled on the nearest available hardscape.

On Level 2 Turf, Permit Applicants should maximize the use of protective decking to safeguard turf and reduce the potential for cost recovery damage expenses. The average cost per square foot to protect turf is significantly less than the cost to rehabilitate it. Therefore, all Permit Applicants should carefully consider and discuss measures to protect themselves from liability related to asset damages, viewing these measures as cost-saving investments rather than burdensome expenses.

NAMA will not consider cost factors when determining the necessary level of turf protection for an event and will analyze each specific event separately without considering prior events in decision-making.

The manufacturers listed below produce both pedestrian and drivable decking that can interlock for combined use. NAMA recommends a dual system, when feasible.

Acceptable Turf Decking Systems (Drivable): There are conditions that warrant a solid back such as vehicle use, some soft soil conditions, or hot weather. In this case MatraxHD, ArmorDeck 3, RGT Panel Flat back, or equal is acceptable; but plywood is not ever an acceptable material.

Acceptable Pedestrian Turf Decking Systems (Pedestrian): Products such as Terraplas, ArmorDeck 1, Supa Trac Translucent, Clear Road, Groundshield, RGT Panel Pedestrian and Matrax LD.

6.3.1 Pedestrian Protective Decking Specifications

The following requirements apply to pedestrian protective decking. **Failure to comply with these guidelines will result in denial of decking use and any permit processes related to turf protection measures for structures or patrons on the turf during the event.**

- Pedestrian protective decking must be made of single-sided, high-density translucent polypropylene in white or light gray, allowing sunlight to pass through.
- The decking must maintain a minimum clearance of 1.75 inches between the decking and the crown of the plant at the soil substrate, though this may vary with the time of year and weather conditions.
- The decking must feature uniformly spaced holes for air, light, and water to permeate, as determined by the manufacturing process.
- The decking must not damage the turf during installation, use, or removal due to its design characteristics.
- Dirty panels will not be accepted at the loading process, as this limits translucence.
- No fabric or obstructions that could affect hole performance or light translucence are permitted beneath the pedestrian protective decking.

- The Permit Applicant must submit the type of manufactured decking chosen (from the approved examples provided) during the permitting process and prior to the issuance of the permit.
- Approved substitutes must be authorized by the NAMA Turf Manager through a representative sample submitted for review before installation.

6.3.2 Drivable Protective Decking Specifications

The following requirements apply to drivable protective decking. **Failure to comply with these guidelines will result in denial of decking use and any permit processes related to turf protection measures for structures or patrons on the turf during the event.**

- Drivable protective decking must consist of double-sided, flat-backed (no cavities), high-density translucent polypropylene in white or light gray, allowing sunlight to pass through.
- The decking must not damage the turf during installation, use, or removal due to its basic design characteristics.
- Dirty panels will not be accepted at the load-in process, as this limits translucence.
- Permit Applicants must submit the type of manufactured decking chosen from the approved examples during the permitting process and prior to permit issuance.
- Approved equivalents or substitute products must be authorized by the NAMA Turf Manager through a representative sample submitted for review before installation.

Temporary use of protective turf decking can help prevent damage when used for brief periods. However, covering the turfgrass still introduces stressors such as reduced airflow, restricted moisture infiltration, heat buildup, and decreased light. Therefore, seasonally adjusted turf cover time limits are required for Level 2 Turf Assets, as follows:

Time Limits for Protective Decking

- May 1 to October 15: 5 Days
- November 1 to April 30: Not required except for logistical loading purposes not to exceed 6 hours per day.

Time Limits for Blocking Light from Structures

- 3 Days Year-round. Structures must rotate to new positions if remaining longer than 3 Days.

Carpets Above the Decking with Seasonally Defined Time Limits

- April 15 to October 15: 6:00 pm to 6:00 am

Plywood is never an acceptable temporary turf protective covering. blocks all irradiance, thereby halting the photosynthetic process in the turfgrass plants, leading to unacceptable declines in turfgrass health.

6.3.3 Pedestrian Protective Decking Requirements for Use on Level 2 Turf

- Pedestrian protective decking laydown timeframe calculations will begin once the first panel is laid in the Load-In process.
- Permit Applicant may work to install and remove decking after 5:00 pm through the night to minimize coverage times to meet laydown timeframes with approval from the Permit Specialist routed to the Superintendent's Office.
- Carpet may be allowed on top of the decking with seasonally defined time restrictions:
  - During the period of May 1 – October 15 from 6:00 pm to 6:00 am with a 12-hour rest period between covering intervals.
- No self-powered equipment such as generators, light, audio or other are allowed to be placed on pedestrian protective decking on Level 2 Turf assets.
- No vehicles of any kind are allowed on top of pedestrian protective decking.
- No vehicles of any kind are allowed to drive on pedestrian protective decking.
- Pedestrian protective decking shall be installed using hand power or pallet jacks.
- Pedestrian protective decking shall not be dragged across the turf to be either placed or removed during logistical operations.
- Pedestrian protective decking shall be required to be placed below event crowds once it is determined they exceed one person per six square feet based upon setup plan and factors as determined by the NAMA Turf Manager. It is imperative that the Permit Applicant share accurate crowd estimates so that the best possible protection of the turf assets take place. **Permit Applicant is responsible for any damages to turf assets based upon non-accurate information given based upon crowd size being in excess of that given which prevented NAMA to dictate proper turf protection measures.**
  - Factors that may affect the determination process for crowd size related decking use are:
    - Weather forecast prior to Load-In process of the event. As discussed earlier in the section 2.4, weather can have a dramatic effect on the amount of protective decking required and NAMA must always err on the side of having the most protective turf decking in these situations.
    - Length of scheduled days on turf in relation to crowd participation. Larger crowds and longer production schedules shall require greater measures to protect the turf assets.
    - The complexity of the event layout and how structures and crowd capacity relate to each other. This affect applies to both structures on the turf and adjacent hardscapes.
    - How the crowd interacts with the turf asset environment in relation to movement. Meaning is the crowd stationary or expected to move in an anticipated or controlled manner due to structures placed on or adjacent to the turf on hardscapes.

6.3.4 Drivable Protective Decking Requirements for Use on Level 2 Turf

- Drivable protective decking laydown time calculations will begin once the first panel is laid during the load-in process.
- The Permit Applicant may install and remove decking after 5:00 PM through the night, with approval from the Permit Specialist routed to the Superintendent's Office, to minimize coverage times and meet laydown timeframes.
- Carpet may be allowed on top of the decking with seasonally defined time restrictions:
    - From May 1 to October 15, covering is allowed from 6:00 PM to 6:00 AM, with a 12-hour rest period between covering intervals.
- Self-powered equipment, such as generators, lights, and audio, may be placed on drivable protective decking on Level 2 Turf assets, following all guidelines for such equipment on hardscapes. However, refueling must occur on a hardscape; absolutely no refueling is allowed over NAMA Turf of any protection level.
- Drivable protective decking must be installed using hand power, pallet jacks, or forklifts/telehandlers. Forklifts/telehandlers must have turf balloon tires with a tread pattern similar to that shown in illustration 6.6.1. All logistical loading equipment manufacturer information must be shared with the Permit Specialist and NAMA Turf Manager prior to permit issuance.
- Scissor lifts and human lifts may be used when no other safe method exists for building specific structures. Their use is strictly limited to the immediate need, after which the equipment must depart the drivable decking. NAMA encourages Event Patrons to check for turf-type tire availability for greater flexibility in use.
- Turf vehicles, such as golf carts and utility vehicles, may drive on the turf and protective decking if they have turf tread and are equipped with tires inflated to no more than 75% of the manufacturer's rated pressure per square inch.
- Turf vehicles, such as golf carts or utility vehicles, may tow a small work trailer on drivable protective decking only if they have turf tread and tires inflated to no more than 75% of the manufacturer's rated pressure per square inch.
- A vehicle may deliver a portable stage weighing no more than 10,000 lbs. for load-in purposes and must immediately exit the decking until later removal for load-out on drivable protective decking only. The delivery vehicle must not exceed 10,000 lbs.
- Drivable protective decking must not be dragged across the turf during placement or removal.
- Drivable protective decking must be used if the anticipated event attendance will exceed one person per six square feet based on the setup plan and factors determined by the NAMA Turf Manager. The Permit Applicant must provide accurate crowd estimates to ensure optimal protection of the turf assets. The Permit Applicant is responsible for any damages to turf assets resulting from inaccurate crowd size information that prevented NAMA from implementing proper protection measures. Factors that may affect the determination process for crowd size related decking use are:
    - **Weather forecast:** Prior to the load-in process for the event, NAMA must consider the weather forecast, as discussed in section 2.4. As discussed in section 2.4, weather can significantly impact the amount of protective

decking required, and NAMA must prioritize the most protective turf decking in these situations.

- **Length of scheduled days on turf:** The duration of turf usage relative to crowd participation is important. Larger crowds and longer production schedules will necessitate greater measures to protect the turf assets.
- **Complexity of event layout:** The relationship between the layout of structures and crowd capacity can affect turf protection measures. This consideration applies to both structures on the turf and those on adjacent hardscapes.
- **Crowd movement:** Expectations for crowd movement impact potential turf protection measures, including whether the crowd is anticipated to be stationary or expected to move in an anticipated or controlled manner due to structures placed on or adjacent to the turf.

6.4 Temporary Structures Located on Level 2 Turf Assets Upon Protective Decking

The Permit Applicant must provide drawings for all structures (including foundation and anchoring systems) for the Permit Specialist and NAMA Turf Manager to review in order to determine the best process for protecting turf assets. If temporary tent structures are placed on Level 2 Turf assets, they must adhere to the guidelines below:

- Temporary structures, such as tents, stages, press risers, video boards, and sound/light towers, may be placed directly on the decking, provided their weight footprint does not exceed 4 lbs. per square inch at surface contact. **The Permit Applicant must share weight load calculations with the Permit Specialist and NAMA Turf Manager prior to permit issuance, or structure placement will be denied during the load-in process.**
- Temporary structures must not be staked in any manner while on protective decking.
- Protective decking must be at least one panel wider than the entire structure.
- Posts or screw jacks must be placed directly on the decking. If screw jacks are used for support, they must have two layers of Enkamat 7010 or 7020 double-sided, cut to fit, placed underneath for air permeability.
- Tent walls and stage skirting should be applied at the last possible moment before the event to allow for air circulation and light penetration, promoting turf health. Please refer to the preceding table for time requirements regarding light blocking.
- If ballasts are used for stabilization, they may be water-filled with a maximum weight of 3,000 lbs. and a weight footprint of no more than 4 lbs. per square inch. Two layers of Enkamat 7010 or 7020 double-sided, cut to fit, must be placed on the decking beneath the ballast to allow for air permeability. Water ballasts must be emptied off NAMA property and not into the stormwater drainage system of adjacent roadways. **The Permit Applicant must share weight load calculations with the Permit Specialist and NAMA Turf**

Manager prior to permit issuance, or structure placement will be denied during the load-in process.

- Ballasts may also be solid concrete with a maximum weight of 3,000 lbs. and a weight footprint of no more than 4 lbs. per square inch. Similar to water ballasts, two layers of Enkamat 7010 or 7020 double-sided, cut to fit, must be placed on the decking beneath the ballast for air permeability. **The Permit Applicant must share weight load calculations with the Permit Specialist and NAMA Turf Manager prior to permit issuance, or structure placement will be denied during the load-in process.**
- All screws, fasteners, and ties must be monitored during construction and retained during removal. These should be made of non-aluminum and non-plastic materials. A magnetic sweeper is required to ensure all fasteners and screws are collected during the load-out process.
- Steel, lumber, vinyl, and other construction materials should be placed on hardscapes whenever possible during construction. If this is not feasible due to configuration, materials should not remain on the turf for more than two hours.

6.5 Temporary Structures Placed Directly on Level 2 Turf

The park offers many locations where temporary structures (such as stages, tents, and light towers) can be set up on hardscapes adjacent to Level 2 Turf assets. NAMA strongly recommends structure set-up on hardscape, if available. However, structures with appropriate turf protection measures may be set up in turf areas if approved by NAMA during the permitting process. The structure must be arranged to maximize the protection of the turf. If temporary structures are placed on the Level 2 Turf assets, they must follow the guidelines below:

- Temporary structures on Level 2 Turf assets are subject to time length guidelines for placement due to the high probability of turf damage, which could delay or deny access to park patrons or scheduled permitted events.
- Structures may be placed for a maximum of 3 days, after which they must be rotated if they are to remain in place longer.
- Temporary structures must not exceed a weight footprint of 4 lbs. per square inch at surface contact. The Permit Applicant must share weight load calculations with the Permit Specialist and NAMA Turf Manager prior to permit issuance; otherwise, structures will be denied placement during the load-in process.
- Temporary structures must minimize contact points with the turfgrass for weight distribution and stability.

- Plywood is allowable to protect the turf from screw jacks or ballasts due to its adaptability for proper sizing. The Permit Applicant should plan for some turf replacement with thick-cut sod where plywood is used to support the weight of structures.
- Each screw jack must have a 16-inch x 16-inch wooden pad (3/4-inch plywood) with four layers of Enkamat 7010 or 7020 double-sided, cut to 18 inches x 18 inches, placed beneath the wooden pad.

- Ballasts (water or concrete) should be placed on hardscapes when possible. If not, the turf must be protected with four layers of Enkamat 7010 or 7020 double-sided and two layers of plywood (3/4 inch), with weight distributed to maintain less than 4 lbs. per square inch of ground pressure. These protective measures must be cut to fit the dimensions of the ballast, and cost recovery estimates should include sodding with thick-cut sod in these areas. The Permit Applicant must share weight load calculations with the Permit Specialist and NAMA Turf Manager prior to permit issuance; otherwise, structures will be denied placement during the load-in process.
- Tent walls and stage skirting, if used, should be applied at the last possible moment before the event to allow for air circulation and light penetration, promoting turf health.
- Protective decking must be installed under stages that are three or more feet above the ground if the area is used for storage.
- An industrial magnet will be used over the entire area to recover screws, fasteners, and other metal objects during the load-out process.

6.6 Turf Tires

Illustration 6.6.1 Standard Turf Tire Shape and Tread Patterns

All vehicles used for logistical purposes, such as turf vehicles, golf carts, utility vehicles, forklifts, telehandlers, and scissor/human lifts that drive on turf or protective decking, must be equipped with turf-type tires appropriate for each vehicle. Vehicles must adhere to the following requirements:

- Turf vehicles, including golf carts and utility vehicles, may operate on turf as long as they have turf tread and tires inflated to no more than 75% of the manufacturer's rated tire pressure per square inch.
- Forklifts, telehandlers, and lifts may drive on drivable protective decking placed on turf, provided they have turf tread and tires inflated to the manufacturer's rated tire pressure.
- All vehicular information for turf vehicles must be submitted to the Permit Specialist and Turf Manager for review prior to permit issuance. **Failure to comply with this requirement will result in refusal of use during the loading-in process.**

6.7 Self-Powered Equipment on Hardscapes and Drivable Protective Decking

The Permit Applicant may use self-powered equipment during event production, depending on the Level 2 Turf location. Please refer to the provided staking maps to determine the availability of use for each Level 2 Turf location, as detailed in section 6.10.

Self-powered equipment, such as generators, lighting, sound, and video (this list is not exhaustive, as these guidelines apply to any self-powered equipment not specifically listed), may be placed on hardscapes or drivable decking to meet the Permit Applicant's production needs. This equipment must comply with the following requirements while on NAMA hardscapes or drivable decking:

- Complete manufacturer information regarding make and model specifications of each piece of self-powered equipment must be shared with the Permit Specialist and NAMA Turf Manager prior to the issuance of the permit. **Failure to comply with this requirement will result in denial of use during the loading-in process.**
- Self-powered equipment must be surrounded by bike racks to prevent patron interaction.
- Self-powered equipment must be enclosed within a spill containment system to prevent incidents on NAMA property.
- A Class B Fire Extinguisher must be assigned based on fuel capacity:
    - 5B-10B for less than 1 gallon, placed no farther than 30 feet from the equipment.
    - 10B-20B for 1-5 gallons, placed no farther than 30 feet from the equipment.
    - 20B-40B for more than 5 gallons, placed no farther than 30 feet from the equipment.
    - Multiple extinguishers up to 80B in size may be required for very large generators, such as those the length of a trailer attached to a Bobtail delivery vehicle.

- Self-powered equipment must be grounded, and grounding must adhere to the following requirements:
    - A grounding rod must be set a minimum depth of 18 inches into the soil substrate.
    - A 10-gauge wire must be attached between the equipment lug terminal and the grounding rod.
    - The grounding rod must be 1 inch in diameter and a minimum of 24 inches in length.
    - The grounding rod should have a safety rebar cap to help prevent injuries to park patrons.
    - The grounding rod must be driven vertically into the soil, not placed at an angle or along the ground surface.
    - Self-powered equipment must be fueled on hardscapes only during the times of 5-8 a.m. and 10 p.m. to 12 a.m. for multi-day events only.

6.8 Cabling Requirements on Level 2 Turf Assets or Hardscapes

Permit Applicants must adhere to the following requirements on cables and wires:

- Cables or wire runs must use two layers of Enkamat 7010 or 7020 double-sided and should be moved every 24 hours if necessary when placed on Level 2 Turf assets. The Permit Applicant should prioritize placing them on decking or hardscape.
- Cable or wire runs may also be placed on protective decking or NAMA hardscapes as an alternative to turf.
- For stages or other structures, cables should be routed over the steel and tied to the stage or structure, avoiding contact with any grass areas.
- All cables (power, audio, etc.) must be encased in ADA-compliant Yellow Jacket wire troughs (or an approved equivalent) when they cross pedestrian pathways or thoroughfares for any traffic.

6.9 Logistical or Display Vehicles Used on NAMA Hardscapes

All vehicles used during the Event Process must have their complete make and model specifications shared with the Permit Specialist and NAMA Turf Manager prior to permit issuance. **Failure to comply will result in refusal of use during the loading-in process.**

- All vehicles and display vehicles must remain on hardscapes at all times and are not allowed on Level 2 Turf assets for any reason.
- Vehicles and display vehicles must maintain a minimum distance of 2.5 feet from benches, light poles, and trash receptacles while on hardscapes.
- The maximum vehicle weight for NAMA hardscapes (sidewalks or similar) is 60,000 lbs. If this limit is exceeded, the Permit Applicant must use crane mats to traverse or set up in a stationary manner. The manufacturer specifications for the crane mats must be shared with the Permit Specialist and NAMA Turf Manager prior to permit issuance. **Failure to comply will result in refusal of use during the loading-in process.**

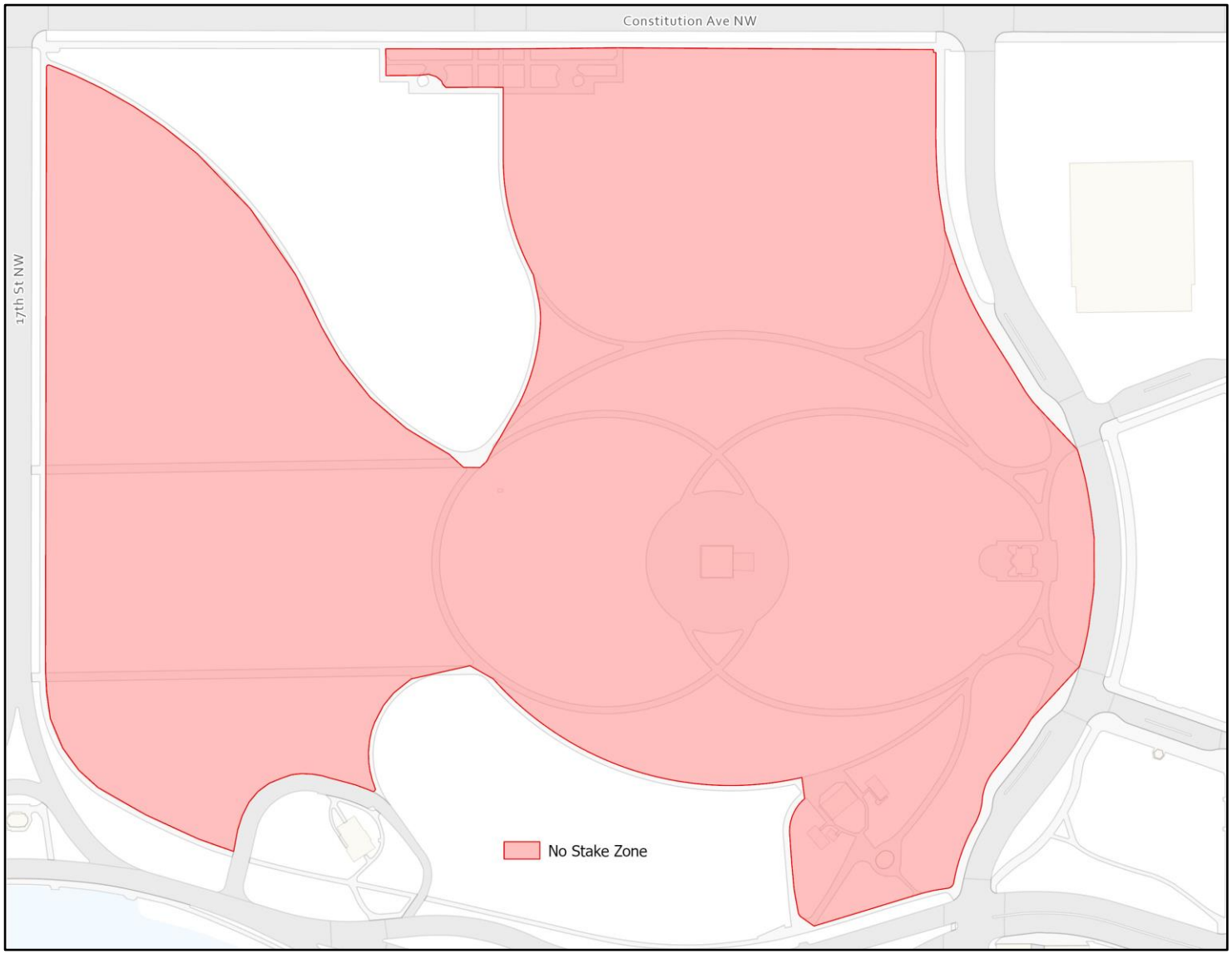
- If cranes are used for installation, removal, or construction, they must remain on the permitted hardscape at all times. When in use, the outriggers must be placed on appropriately sized pads, crane mats, or approved alternate methods. The Permit Applicant must provide outrigger protection methods to the Permit Specialist and NAMA Turf Manager prior to permit issuance. **Failure to comply will result in refusal of use during the loading-in process.**

6.10 Staking Zones on Level 2 Turf

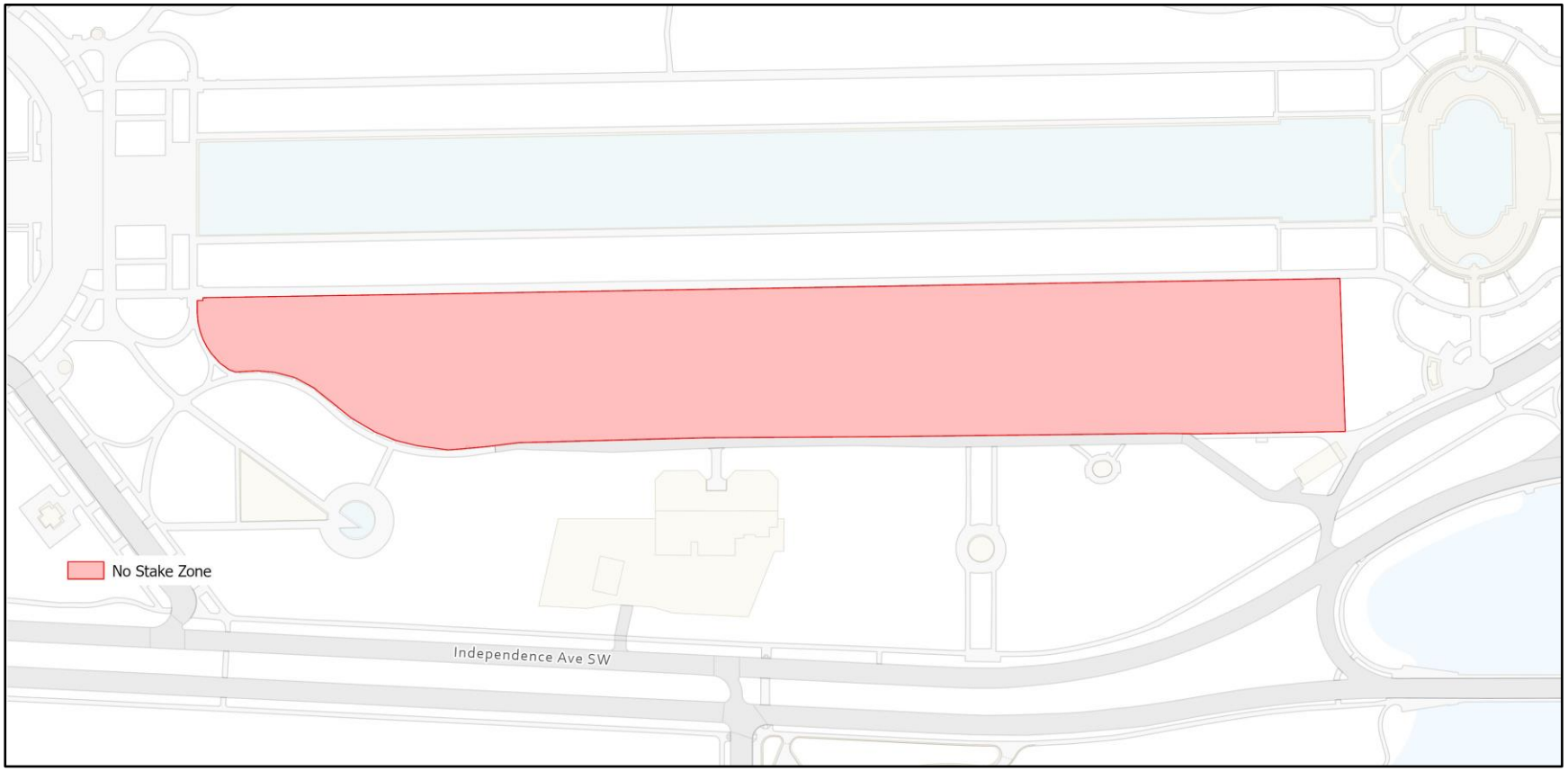
The following requirements apply to staking. Please refer to staking maps located below:

- Staking for grounding purposes must be set at a minimum depth of 18 inches. Please refer to the appropriate self-powered equipment section for further clarification and guidelines.
- Any staking exceeding 18 inches in depth on NAMA property must be inspected by a utility marking company. The Permit Applicant must inform the Permit Specialist and NAMA Turf Manager of these intentions and provide the utility marking inspection document prior to the staking event. **Failure to comply will result in delays or denial of permit issuance for the event. The Permit Applicant will be held responsible for any damages to underground utilities or similar assets.**

6.10.1 No Staking Zones Washington Memorial



6.10.2 No Staking Zones JFK Hockey Field



6.11 Animals on Level 2 Turf Assets

No hooved animals are allowed on Level 2 Turf assets with an irrigation system. The weight concentration at the surface point and the shape of the hoof pad can break irrigation heads, leading to potential injuries for both humans and animals due to the high water pressures associated with these systems.

6.12 Level 2 Turf Assets Timelines for Temporary Structures

Table 6.12.1 Quick Reference Guide to Temporary Structures on Level 2 Turf

	Level 2 In-Season May 01- October 31	**Level 2A Out-Season November 01 – April 30**
One vehicle allowed to deliver and remove mobile stage not to exceed 10,000 lbs. in static weight. Delivery vehicle shall also not exceed 10,000 lbs. in static weight.	Allowed on protective decking	Not allowed on turf
Protective Decking	5 days inclusive of setup and removal	6 hours per day for logistical purposes
Temporary facilities/structures exhibits, displays, media towers, LED screens, light towers and similar.	3 days inclusive of set up and take down	Not allowed on turf
Items blocking sunlight but allowing ambient light such as tents and stages	3 days inclusive of set up and take down allowed on turf or protective decking	3 days inclusive of set up and takedown allowed on turf. Shall be rotated after 3 days if longer period required.
Items directly blocking sunlight such as carpets placed on protective decking	12 Hours 5 pm to 6 am	Not allowed

	Level 2 In-Season May 01- October 31	Level 2A Out-Season November 01 – April 30
Bike Rack	5 days inclusive of setup and removal	6 hours per day for logistical purposes
Golf Carts or Utility Vehicles-following guidelines as outlined in section 6.6	Allowed on protective decking	Allowed on protective decking during 6-hour period
Telehandlers or Forklifts following guidelines as outlined in section 6.6	Allowed on protective decking	Allowed on protective decking during 6-hour period
Scissor or Human Lifts following guidelines as outlined in section 6.6	Allowed on protective decking	Allowed on protective decking during 6-hour period
Dumpsters	Allowed on protective decking	Not allowed on turf
Portable Restrooms	Allowed on turf outside CRZ	Not allowed on turf
Back of house for production trailers and boneyards (no structures shall exceed turf permissible static weight or load bearing restrictions)	Allowed on protective decking	Not allowed on turf

6.13 Allowable Temporary Structures on Other Areas

The following table includes allowable temporary facilities in specific park areas. The definitions referenced in the table are as follows:

- **Tree verge:** A circular planting zone located at the back of a curb adjacent to a roadway. This definition also includes other tree verges or tree planters along sidewalks and streets.
- **Turf verge:** A narrow turf grass planting zone at the back of a curb adjacent to a roadway. Efforts should be made to span the verge with structures when possible.
- **NPS roads along Level 2 Turf areas:** These include, but are not limited to, Henry Bacon, Constitution, Raul Wallenberg, and Ash Road.

Table 6.13.1: Quick Reference Guide to Allowable Temporary Facilities on Other Park Areas

Structure or Equipment	Walkways and Non-turf Areas	NPS Roads	Tree and Turf Areas	Tree Verges	Turf Verges	Welcome Plaza/ Smithsonian Metro	Concession Stand Areas
Tents	Yes – but no staking	Yes – but no staking	No	No	No	Yes – but no staking	No
Stages	Yes	Yes	No	No	Yes	No	No
Other temporary structures[1]	Per conditions	Per conditions	No	No	Per conditions	Per conditions	Per conditions
Back of house, trailers, bone yards, generators, etc.	Yes	Yes	No	No	No	No	No
Vehicles (golf carts) as per permit conditions[2]	Yes	Yes	No	No	No	Per conditions	No

[1] Temporary structures beyond tents, stages, and fencing might include elements such as lighting towers, audio towers, AV towers, displays, platforms, and portable restroom facilities, among others.
[2] Vehicle parking areas or corrals shall be identified in plans related to permit conditions.

Structure or Equipment	Walkways and Non-turf Areas	NPS Roads	Tree and Turf Areas	Tree Verges	Turf Verges	Welcome Plaza/ Smithsonian Metro	Concession Stand Areas
Cranes and delivery vehicles[1]	Yes	Yes	No	No	No	No	No
Vehicle mounted signs, stages, LED screens, media towers, light towers	Yes	Yes	No	No	No	Yes	No
Portable toilets/toilet trucks[2]	Designated areas only	Designated areas only	No	No	No	No	No
Dumpsters	Per conditions	Yes	No	No	No	No	No
Barriers/bike racks[3]	Yes	Yes	Yes	Yes	Yes	Per conditions	No
NPS fencing that is staked[4]	No	No	Yes	Yes	Yes	No	No
Security Checkpoints	Yes	Yes	No	No	No	No	No

[1] Cranes and delivery vehicles must obey designated routes in permit conditions; cranes and delivery vehicles must remain 2.5 foot away from granite curbs and turf; No vehicle with a gross vehicle weight greater than 60,000 pounds is allowed on the concrete sidewalks, because of the likelihood the vehicle would damage the concrete. Vehicle axle loading of 15,000 pounds per axle or less is allowed. Allowable concentrated load is four hundred pounds per square foot.
[2] Portable restroom facilities are not permitted on Level 1 Turf or Tree panels and must be in hardscape areas.
[3] Event barriers shall not be secured using stakes. Ground protection not needed for bike rack.
[4] NPS staking will follow guidelines as outlined for within this chapter for Level 1 Turf.

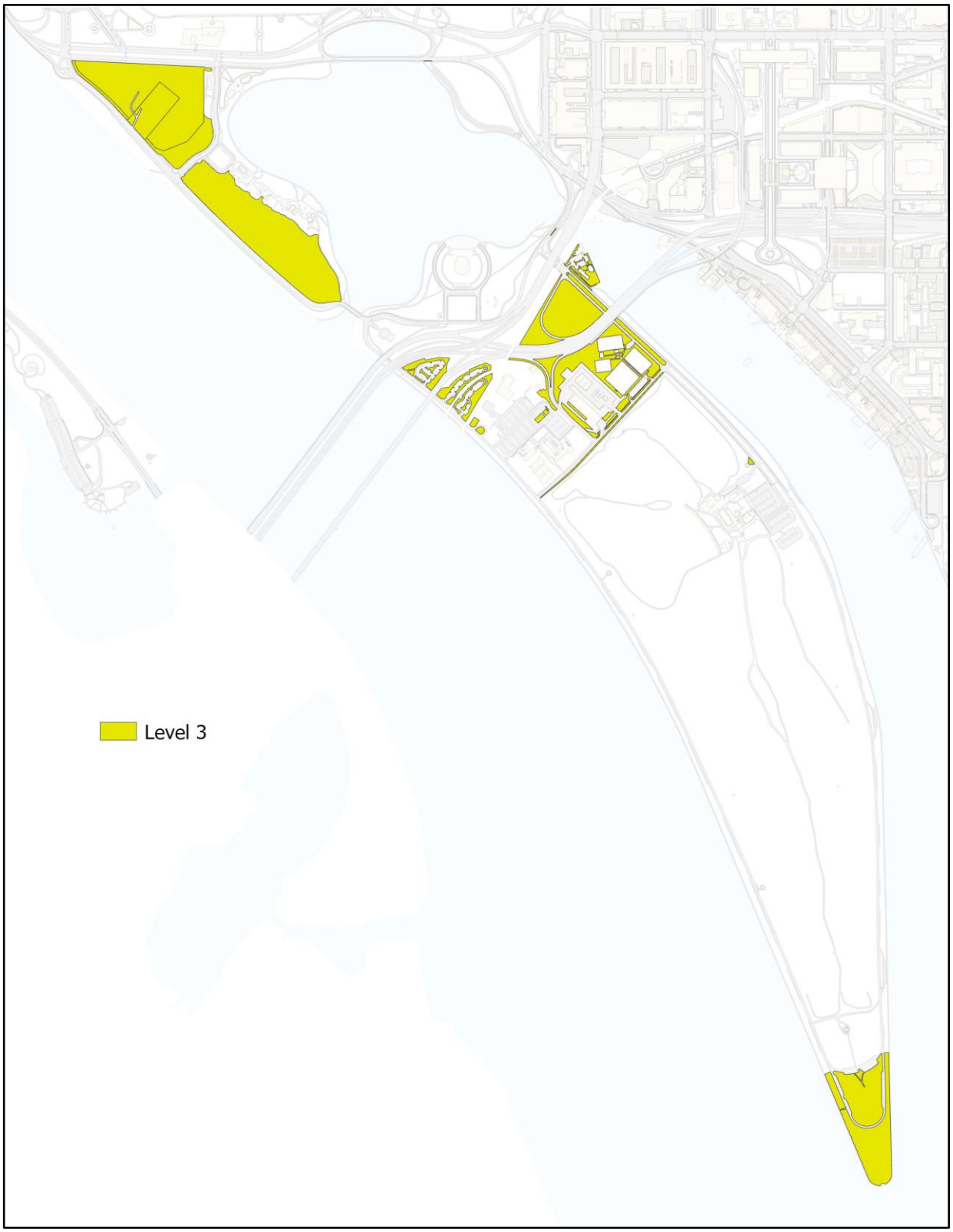
7 Level 3 Turf Guidelines

In Level 3 turf areas, a less restrictive approach is allowed for protective decking and photosynthetic light blocking during much of the peak event permitting cycle, due to the aggressive growth and healing capabilities of Hybrid, Seeded, and Common Bermudagrass in the primary growing season. However, a more protective approach is necessary from late fall through early spring when Bermudagrass becomes dormant and highly susceptible to damage. Damage during this period can delay "green-up" and regrowth in the following season, potentially leading to closures for park patrons and special events. Therefore, from October 16 to April 30 each year, more restrictive Level 3A turf asset requirements will be enforced to mitigate damages.

Level 3 Turf guidelines closely resemble Level 2 Turf guidelines, with the following less stringent exceptions:

- Larger stages and similar event displays are permitted on protective decking within specific parameters. The maximum static weight limit is 60,000 lbs. or pounds per square inch for weight-bearing loads.
- Tractor trailers with a maximum loaded weight of 60,000 lbs. are allowed with protective flooring and proper traffic dispersal (each route in and out may be used only once) for logistical purposes within specific parameters.
- Aluminum deck flooring is permitted for up to 4 hours a day before 10 AM and after 6 PM.
- Articulating forklifts and telehandlers, not exceeding 10,000 lbs. with load and outfitted with turf balloon tires, may be used on drivable decking if ground pressure does not exceed the manufacturer’s tire inflation rating.
- Scissor lifts and human lifts, not exceeding 6,000 lbs. without turf tires, must follow telehandler guidelines when equipped with turf tires. These lifts may be used only when no other safe method for building structures is available. Their use is strictly limited to immediate needs, after which the equipment must leave the turf area for hardscape. NAMA encourages the Permit Applicant to check for availability of equipment with turf-type tires for greater flexibility.

7.1 Primary Level 3A and Level 3 Turf Areas Used for Event Permitting



7.2 Level 3A Turf Guidelines

From November 1 to May 1, no protective decking may be placed on the ground to prevent Bermudagrass from exiting dormancy, except for logistical loading purposes, which are limited to 6 hours per day. This restriction will significantly reduce the types of events that can be held in these areas, which will primarily be small and not complex, as determined by Event Permitting and the NAMA Turf Manager.

Events during this timeframe will be limited to small 10-foot by 20-foot tents, chairs, tables, and light portable equipment. Small stages may be constructed directly on the turf using screw jacks with two layers of Enkamat 7010 or 7020 double-sided beneath a 3/4-inch plywood pad, with placement limited to no longer than 48 hours. If ballast is needed for tents and stages, it may be placed directly on the turf with four layers of Enkamat 7010 or 7020 double-sided beneath two 3/4-inch plywood pads. The ballast weight shall be limited to the minimum necessary to safely anchor the structure. No vehicles of any kind will be allowed to drive directly on the turf during this timeframe.

7.3 Level 3 Turf Guidelines

Bermudagrass, due to its aggressive growth habits during the peak season, allows for fewer restrictions, making Level 3 Turf areas more flexible for large events with significant crowd capacity or complex setups. Additionally, the extensive acreage of these Level 3 Turf areas provides more flexibility and space for various types of permitted events.

In Level 3 Turf areas, efforts should be made to maximize pedestrian flooring because it offers superior survivability for the turf. Several manufacturers listed below produce both pedestrian and drivable decking that are interlockable for combined use. It is strongly recommended to use a dual system for crowds and logistics to enhance turf survivability and reduce potential Cost Recovery expenses.

Permit Applicants should understand that turf protective decking not only safeguards NAMA turf assets but also protects them from potentially costly recovery damages. The average cost per square foot for turf protection is significantly lower than the cost of rehabilitation. Turf rehabilitation costs range from two to five times higher than turf protection measures depending on the area and repair timeline. Therefore, Permit Applicants should carefully consider and discuss measures to minimize potential asset damage liabilities as a cost-saving strategy. **Each permitted activity is unique, so turf protection measures are determined based on the size, scope, and location of the specific event. Previous resource protection measures for similar events may not apply.**

Acceptable Drivable Turf Decking Systems: Certain conditions, such as vehicle use, soft soil, or hot weather, may require a solid backing. In such cases, MatraxHD, ArmorDeck 3, RGT Panel Flat Back, or equivalents are acceptable; however, plywood is never permissible.

Acceptable Pedestrian Turf Decking Systems: Products like Terraplas, ArmorDeck 1, Supa Trac Translucent, Clear Road, Groundshield, RGT Panel Pedestrian, and Matrax LD are approved for use.

7.3.1 Pedestrian Protective Decking Specifications

The following requirements apply to pedestrian protective decking. **Failure to comply with these guidelines will result in denial of decking use and any permit processes related to turf protection measures for structures or patrons on the turf during the event.**

- Pedestrian protective decking must be made of single-sided, high-density translucent polypropylene in white or light gray, allowing sunlight to pass through.
- The decking must maintain a minimum clearance of 1.75 inches between the decking and the crown of the plant at the soil substrate, though this may vary with the time of year and weather conditions.
- The decking must feature uniformly spaced holes for air, light, and water to permeate, as determined by the manufacturing process.
- The decking must not damage the turf during installation, use, or removal due to its design characteristics.
- Dirty panels will not be accepted at the loading process, as this limits translucence.
- No fabric or obstructions that could affect hole performance or light translucence are permitted beneath the pedestrian protective decking.
- The Permit Applicant must submit the type of manufactured decking chosen (from the approved examples provided) during the permitting process and prior to the issuance of the permit.
- Approved substitutes must be authorized by the NAMA Turf Manager through a representative sample submitted for review before installation.

7.3.2 Drivable Protective Decking Specifications

The following requirements apply to drivable protective decking. **Failure to comply with these guidelines will result in denial of decking use and any permit processes related to turf protection measures for structures or patrons on the turf during the event.**

- Drivable protective decking must consist of double-sided, flat-backed (no cavities), high-density translucent polypropylene in white or light gray, allowing sunlight to pass through.
- The decking must not damage the turf during installation, use, or removal due to its basic design characteristics.
- Dirty panels will not be accepted at the load-in process, as this limits translucence.
- Permit Applicants must submit the type of manufactured decking chosen from the approved examples during the permitting process and prior to permit issuance.

- Approved equivalents or substitute products must be authorized by the NAMA Turf Manager through a representative sample submitted for review before installation.

Temporary use of protective turf decking helps prevent damage if used for a brief period, however covering the turfgrass still results in additional stressors such as reduced airflow, restricted moisture infiltration, heat buildup, and reduced light, so seasonally adjusted turf cover time limits are needed and are as follows for Level 3 Turf Assets:

Time Limits for Protective Decking

- May 1 to October 15: 5 Days
- November 1 to April 30: Not required except for logistical loading purposes not to exceed 6 hours per day.

Time Limits for Blocking Light from Structures

- 3 Days Year-round. Structures must rotate to new positions if remaining longer than 3 Days.

Carpets Above the Decking with Seasonally Defined Time Limits

- April 15 to October 15: 6:00 pm to 6:00 am

Plywood is never an acceptable temporary turf protective covering. Plywood blocks all irradiance, thereby shutting down the photosynthetic process within the turfgrass plants. This results in an unacceptable decline of turfgrass health.

7.3.3 Pedestrian Protective Decking Requirements for Use on Level 3 Turf

- Pedestrian protective decking laydown timeframe calculations will begin once the first panel is laid in the Load-In process.
- Permit Applicant may work to install and remove decking after 5:00 pm through the night to minimize coverage times to meet laydown timeframes with approval from the Permit Specialist routed to the Superintendent's Office.
- Carpet may be allowed on top of the decking with seasonally defined time restrictions:
  - During the period of May 1 – October 15 from 6:00 pm to 6:00 am with a 12-hour rest period between covering intervals.
- No self-powered equipment such as generators, light, audio or other are allowed to be placed on pedestrian protective decking on Level 2 Turf assets.
- No vehicles of any kind are allowed on top of pedestrian protective decking.
- No vehicles of any kind are allowed to drive on pedestrian protective decking.
- Pedestrian protective decking shall be installed using hand power or pallet jacks.
- Pedestrian protective decking shall not be dragged across the turf to be either placed or removed during logistical operations.
- Pedestrian protective decking shall be required to be placed below event crowds once it is determined they exceed one person per six square feet based upon

setup plan and factors as determined by the NAMA Turf Manager. It is imperative that the Permit Applicant share accurate crowd estimates so that the best possible protection of the turf assets take place. **Permit Applicant is responsible for any damages to turf assets based upon non-accurate information given based upon crowd size being in excess of that given which prevented NAMA to dictate proper turf protection measures.**

- Factors that may affect the determination process for crowd size related decking use are:
  - Weather forecast prior to Load-In process of the event. As discussed earlier in the section 2.4, weather can have a dramatic effect on the amount of protective decking required and NAMA must always err on the side of having the most protective turf decking in these situations.
  - Length of scheduled days on turf in relation to crowd participation. Larger crowds and longer production schedules shall require greater measures to protect the turf assets.
  - The complexity of the event layout and how structures and crowd capacity relate to each other. This affect applies to both structures on the turf and adjacent hardscapes.
  - How the crowd interacts with the turf asset environment in relation to movement. Meaning is the crowd stationary or expected to move in an anticipated or controlled manner due to structures placed on or adjacent to the turf on hardscapes.

7.3.4 Drivable Protective Decking Requirements for Use on Level 3 Turf

- Drivable protective decking laydown time calculations will begin once the first panel is laid during the load-in process.
- The Permit Applicant may install and remove decking after 5:00 PM through the night, with approval from the Permit Specialist routed to the Superintendent's Office, to minimize coverage times and meet laydown timeframes.
- Carpet may be allowed on top of the decking with seasonally defined time restrictions:
  - From May 1 to October 15, covering is allowed from 6:00 PM to 6:00 AM, with a 12-hour rest period between covering intervals.
- Self-powered equipment, such as generators, lights, and audio, may be placed on drivable protective decking on Level 2 Turf assets, following all guidelines for such equipment on hardscapes. However, refueling must occur on a hardscape; absolutely no refueling is allowed over NAMA Turf of any protection level.
- Drivable protective decking must be installed using hand power, pallet jacks, or forklifts/telehandlers. Forklifts/telehandlers must have turf balloon tires with a tread pattern similar to that shown in illustration 6.6.1. All logistical loading equipment manufacturer information must be shared with the Permit Specialist and NAMA Turf Manager prior to permit issuance.
- Scissor lifts and human lifts may be used when no other safe method exists for building specific structures. Their use is strictly limited to the immediate need,

after which the equipment must depart the drivable decking. NAMA encourages Event Patrons to check for turf-type tire availability for greater flexibility in use.

- Turf vehicles, such as golf carts and utility vehicles, may drive on the turf and protective decking if they have turf tread and are equipped with tires inflated to no more than 75% of the manufacturer's rated pressure per square inch.
- Turf vehicles, such as golf carts or utility vehicles, may tow a small work trailer on drivable protective decking only if they have turf tread and tires inflated to no more than 75% of the manufacturer's rated pressure per square inch.
- A vehicle may deliver a portable stage weighing no more than 10,000 lbs. for load-in purposes and must immediately exit the decking until later removal for load-out on drivable protective decking only. The delivery vehicle must not exceed 10,000 lbs.
- Drivable protective decking must not be dragged across the turf during placement or removal.
- Drivable protective decking must be used if the anticipated event attendance will exceed one person per six square feet based on the setup plan and factors determined by the NAMA Turf Manager. The Permit Applicant must provide accurate crowd estimates to ensure optimal protection of the turf assets. The Permit Applicant is responsible for any damages to turf assets resulting from inaccurate crowd size information that prevented NAMA from implementing proper protection measures. Factors that may affect the determination process for crowd size related decking use are:
    - **Weather forecast:** Prior to the load-in process for the event, NAMA must consider the weather forecast, as discussed in section 2.4. As discussed in section 2.4, weather can significantly impact the amount of protective decking required, and NAMA must prioritize the most protective turf decking in these situations.
    - **Length of scheduled days on turf:** The duration of turf usage relative to crowd participation is important. Larger crowds and longer production schedules will necessitate greater measures to protect the turf assets.
    - **Complexity of event layout:** The relationship between the layout of structures and crowd capacity can affect turf protection measures. This consideration applies to both structures on the turf and those on adjacent hardscapes.
    - **Crowd movement:** Expectations for crowd movement impact potential turf protection measures, including whether the crowd is anticipated to be stationary or expected to move in an anticipated or controlled manner due to structures placed on or adjacent to the turf.

7.4 Temporary Structures Located on Level 3 Turf Assets Upon Protective Decking

The Permit Applicant must provide drawings for all structures (including foundation and anchoring systems) for the Permit Specialist and NAMA Turf Manager to review in order to determine the best process for protecting turf assets. If temporary tent structures are placed on Level 3 Turf assets, they must adhere to the guidelines below:

- Temporary structures, such as tents, stages, press risers, video boards, and sound/light towers, may be placed directly on the decking, provided their weight footprint does not exceed 4 lbs. per square inch at surface contact. **The Permit Applicant must share weight load calculations with the Permit Specialist and NAMA Turf Manager prior to permit issuance, or structure placement will be denied during the load-in process.**
- Temporary structures must not be staked in any manner while on protective decking.
- Protective decking must be at least one panel wider than the entire structure.
- Posts or screw jacks must be placed directly on the decking. If screw jacks are used for support, they must have two layers of Enkamat 7010 or 7020 double-sided, cut to fit, placed underneath for air permeability.
- Tent walls and stage skirting should be applied at the last possible moment before the event to allow for air circulation and light penetration, promoting turf health. Please refer to the preceding table for time requirements regarding light blocking.
- If ballasts are used for stabilization, they may be water-filled with a maximum weight of 3,000 lbs. and a weight footprint of no more than 4 lbs. per square inch. Two layers of Enkamat 7010 or 7020 double-sided, cut to fit, must be placed on the decking beneath the ballast to allow for air permeability. Water ballasts must be emptied off NAMA property and not into the stormwater drainage system of adjacent roadways. **The Permit Applicant must share weight load calculations with the Permit Specialist and NAMA Turf Manager prior to permit issuance, or structure placement will be denied during the load-in process.**
- Ballasts may also be solid concrete with a maximum weight of 3,000 lbs. and a weight footprint of no more than 4 lbs. per square inch. Similar to water ballasts, two layers of Enkamat 7010 or 7020 double-sided, cut to fit, must be placed on the decking beneath the ballast for air permeability. **The Permit Applicant must share weight load calculations with the Permit Specialist and NAMA Turf Manager prior to permit issuance, or structure placement will be denied during the load-in process.**
- All screws, fasteners, and ties must be monitored during construction and retained during removal. These should be made of non-aluminum and non-plastic materials. A magnetic sweeper is required to ensure all fasteners and screws are collected during the load-out process.
- Steel, lumber, vinyl, and other construction materials should be placed on hardscapes whenever possible during construction. If this is not feasible due to configuration, materials should not remain on the turf for more than two hours.

7.5 Temporary Structures Placed Directly on Level 3 Turf

The park offers numerous locations where temporary structures, such as stages, tents, and light towers, can be set up on hardscapes adjacent to Level 3 Turf assets. This method is preferred by NAMA and will be strongly recommended if hardscapes are available. However, structures with appropriate turf protection measures may be placed in turf areas if approved by NAMA during the permitting process. The arrangement of the structures must prioritize the protection of as much turf as possible.

If temporary structures are placed on Level 3 Turf assets, they must adhere to the following guidelines:

- Temporary structures are limited to a maximum placement of 3 days, after which they must be rotated for continued use, due to the high probability of turf damage that could restrict access for park patrons or scheduled events.
- Structures must not exceed a weight footprint of 4 lbs. per square inch at surface contact.
- The Permit Applicant must share weight load calculations with the Permit Specialist and NAMA Turf Manager prior to permit issuance; otherwise, structures will be denied placement during the load-in process.
- Temporary structures should minimize contact points with the turf for weight distribution and stability.
    - Plywood is allowed to protect the turf from screw jacks or ballasts, but the Permit Applicant should plan for potential turf replacement with thick-cut sod where plywood supports structures.
    - Each screw jack must have a 16-inch by 16-inch wooden pad (3/4-inch plywood) and four layers of Enkamat 7010 or 7020 double-sided, cut to 18 inches by 18 inches, placed beneath the wooden pad.
- Ballasts, whether water or concrete, should be placed on hardscapes. If that is not possible, the turf must be protected with four layers of Enkamat 7010 or 7020 double-sided and two layers of 3/4-inch plywood, ensuring weight distribution maintains less than 4 lbs. per square inch of ground pressure. Protective measures should be cut to fit the ballast dimensions, and cost recovery estimates should account for sodding these areas with thick-cut sod. The Permit Applicant must share weight load calculations prior to permit issuance; otherwise, structures will be denied placement during the load-in process.
- Tent walls and stage skirting, if used, should be applied just before the event to allow for air circulation and light penetration for turf health.
- Protective decking is required under stages that are three or more feet above the ground if the area is used for storage.

- An industrial magnet will be employed to recover screws, fasteners, and other debris during the load-out process.

7.6 Turf Tires

Illustration 7.6.1 Standard Turf Tire Shape and Tread Patterns

All vehicles used for logistical purposes, including turf vehicles, golf carts, utility vehicles, forklifts, telehandlers, and scissor or human lifts that drive on turf or protective decking, must be equipped with turf-type tires suitable for each vehicle.

All vehicular information for turf vehicles of any kind shall be shared with Permit Specialist and Turf Manager for review prior to issuance of Permit. **Failure to follow this guidance will result in refusal of use at the Loading-In process.**

7.7 Self-Powered Equipment on Hardscapes and Drivable Protective Decking

The Permit Applicant may use self-powered equipment during event production, depending on the Level 3 Turf location. Please refer to the provided staking maps to determine the availability of use for each Level 3 Turf location, as detailed in section 7.10.

Self-powered equipment, such as generators, lighting, sound, and video (this list is not exhaustive, as these guidelines apply to any self-powered equipment not specifically listed), may be placed on hardscapes or drivable decking to meet the Permit Applicant's

production needs. This equipment must comply with the following requirements while on NAMA hardscapes or drivable decking:

- Complete manufacturer information regarding make and model specifications of each piece of self-powered equipment must be shared with the Permit Specialist and NAMA Turf Manager prior to the issuance of the permit. **Failure to comply with this requirement will result in denial of use during the loading-in process.**
- Self-powered equipment must be surrounded by bike racks to prevent patron interaction.
- Self-powered equipment must be enclosed within a spill containment system to prevent incidents on NAMA property.
- A Class B Fire Extinguisher must be assigned based on fuel capacity:
    - 5B-10B for less than 1 gallon, placed no farther than 30 feet from the equipment.
    - 10B-20B for 1-5 gallons, placed no farther than 30 feet from the equipment.
    - 20B-40B for more than 5 gallons, placed no farther than 30 feet from the equipment.
    - Multiple extinguishers up to 80B in size may be required for very large generators, such as those the length of a trailer attached to a Bobtail delivery vehicle.
- Self-powered equipment must be grounded, and grounding must adhere to the following requirements:
    - A grounding rod must be set a minimum depth of 18 inches into the soil substrate.
    - A 10-gauge wire must be attached between the equipment lug terminal and the grounding rod.
    - The grounding rod must be 1 inch in diameter and a minimum of 24 inches in length.
    - The grounding rod should have a safety rebar cap to help prevent injuries to park patrons.
    - The grounding rod must be driven vertically into the soil, not placed at an angle or along the ground surface.
    - Self-powered equipment must be fueled on hardscapes only during the times of 5-8 a.m. and 10 p.m. to 12 a.m. for multi-day events only.

7.8 Cabling Requirements on Level 3 Turf Assets or Hardscapes

Permit Applicants must adhere to the following requirements on cables and wires:

- Cables or wire runs must use two layers of Enkamat 7010 or 7020 double-sided and should be moved every 24 hours if necessary when placed on Level 2 Turf assets. The Permit Applicant should prioritize placing them on decking or hardscape.
- Cable or wire runs may also be placed on protective decking or NAMA hardscapes as an alternative to turf.
- For stages or other structures, cables should be routed over the steel and tied to the stage or structure, avoiding contact with any grass areas.

- All cables (power, audio, etc.) must be encased in ADA-compliant Yellow Jacket wire troughs (or an approved equivalent) when they cross pedestrian pathways or thoroughfares for any traffic.

7.9 Logistical or Display Vehicles Used on NAMA Hardscapes

All vehicles used during the Event Process must have their complete make and model specifications shared with the Permit Specialist and NAMA Turf Manager prior to permit issuance. **Failure to comply will result in refusal of use during the loading-in process.**

- All vehicles and display vehicles must remain on hardscapes at all times and are not allowed on Level 2 Turf assets for any reason.
- Vehicles and display vehicles must maintain a minimum distance of 2.5 feet from benches, light poles, and trash receptacles while on hardscapes.
- The maximum vehicle weight for NAMA hardscapes (sidewalks or similar) is 60,000 lbs. If this limit is exceeded, the Permit Applicant must use crane mats to traverse or set up in a stationary manner. The manufacturer specifications for the crane mats must be shared with the Permit Specialist and NAMA Turf Manager prior to permit issuance. **Failure to comply will result in refusal of use during the loading-in process.**
- If cranes are used for installation, removal, or construction, they must remain on the permitted hardscape at all times. When in use, the outriggers must be placed on appropriately sized pads, crane mats, or approved alternate methods. The Permit Applicant must provide outrigger protection methods to the Permit Specialist and NAMA Turf Manager prior to permit issuance. **Failure to comply will result in refusal of use during the loading-in process.**

7.10 Staking Zones on Level 3 Turf

The following requirements apply to staking. Please refer to staking maps located below:

- Staking for grounding purposes must be set at a minimum depth of 18 inches. Please refer to the appropriate self-powered equipment section for further clarification and guidelines.
- Any staking exceeding 18 inches in depth on NAMA property must be inspected by a utility marking company. The Permit Applicant must inform the Permit Specialist and NAMA Turf Manager of these intentions and provide the utility marking inspection document prior to the staking event. **Failure to comply will result in delays or denial of permit issuance for the event. The Permit Applicant will be held responsible for any damages to underground utilities or similar assets.**

7.11 Level 3 Turf Assets Timelines for Temporary Structures

Table 7.11.1 Quick Reference Guide to Temporary Structures on Level 2 Turf

	Level 2 In-Season May 1- October 31	**Level 2A Out-Season November 1– April 30**
One vehicle allowed to deliver and remove mobile stage not to exceed 10,000 lbs. in static weight. Delivery vehicle shall also not exceed 10,000 lbs. in static weight.	Allowed on protective decking	Not allowed on turf
Protective Decking	5 days inclusive of setup and removal	6 hours per day for logistical purposes
Temporary facilities/structures exhibits, displays, media towers, LED screens, light towers and similar.	3 days inclusive of set up and take down	Not allowed on turf
Items blocking sunlight but allowing ambient light such as tents and stages	3 days inclusive of set up and take down allowed on turf or protective decking	3 days inclusive of set up and takedown allowed on turf. Shall be rotated after 3 days if longer period required.
Items directly blocking sunlight such as carpets placed on protective decking	12 Hours 5 pm to 6 am	Not allowed
Bike Rack	5 days inclusive of setup and removal	6 hours per day for logistical purposes
Golf Carts or Utility Vehicles- following guidelines as outlined in section 6.6	Allowed on protective decking and turf	Allowed on protective decking during 6-hour period

	Level 2 In-Season May 1- October 31	Level 2A Out-Season November 1– April 30
Telehandlers or Forklifts following guidelines as outlined in section 6.6	Allowed on protective decking and turf	Allowed on protective decking during 4-hour period
Scissor or Human Lifts following guidelines as outlined in section 6.6	Allowed on protective decking and turf	Allowed on protective decking during 4-hour period
Dumpsters	Allowed on protective decking	Not allowed
Portable Restrooms	Allowed on turf outside CRZ	Not allowed
Back of house for production trailers and boneyards (no structures shall exceed turf permissible static weight or load bearing restrictions)	Allowed on protective decking and turf	Not allowed

7.12 Allowable Temporary Structures on Other Areas

The following table includes allowable temporary facilities in specific park areas. The definitions referenced in the table are as follows:

- **Tree verge:** A circular planting zone located at the back of a curb adjacent to a roadway. This definition also includes other tree verges or tree planters along sidewalks and streets.
- **Turf verge:** A narrow turf grass planting zone at the back of a curb adjacent to a roadway. Efforts should be made to span the verge with structures when possible.
- **NPS roads along Level 3 Turf areas:** These include, but are not limited to, Ohio Drive and West Basin Drive.

Table 7.12.1: Quick Reference Guide to Allowable Temporary Facilities on Other Park Areas

Structure or Equipment	Walkways and Non-turf Areas	NPS Roads	Tree and Turf Areas	Tree Verges	Turf Verges	Welcome Plaza/ Smithsonian Metro	Concession Stand Areas
Tents	Yes – but no staking	Yes – but no staking	No	No	No	Yes – but no staking	No
Stages	Yes	Yes	No	No	Yes	No	No
Other temporary structures[1]	Per conditions	Per conditions	No	No	Per conditions	Per conditions	Per conditions
Back of house, trailers, bone yards, generators, etc.	Yes	Yes	No	No	No	No	No
Vehicles (golf carts) as per permit conditions[2]	Yes	Yes	No	No	No	Per conditions	No
Cranes and delivery vehicles[3]	Yes	Yes	No	No	No	No	No
Vehicle mounted signs, stages, LED screens, media towers, light towers	Yes	Yes	No	No	No	Yes	No
Portable toilets/toilet trucks[4]	Designated areas only	Designated areas only	No	No	No	No	No

[1] Temporary structures beyond tents, stages, and fencing might include elements such as lighting towers, audio towers, AV towers, displays, platforms, and portable restroom facilities, among others.
[2] Vehicle parking areas or corrals shall be identified in plans related to permit conditions.
[3] Cranes and delivery vehicles must obey designated routes in permit conditions; cranes and delivery vehicles must remain 2.5 foot away from granite curbs and turf; No vehicle with a gross vehicle weight greater than 60,000 pounds is allowed on the concrete sidewalks, because of the likelihood the vehicle would damage the concrete. Vehicle axle loading of 15,000 pounds per axle or less is allowed. Allowable concentrated load is four hundred pounds per square foot.
[4] Portable restroom facilities are not permitted on Level 1 Turf or Tree panels and must be in hardscape areas.

Structure or Equipment	Walkways and Non-turf Areas	NPS Roads	Tree and Turf Areas	Tree Verges	Turf Verges	Welcome Plaza/ Smithsonian Metro	Concession Stand Areas
Dumpsters	Per conditions	Yes	No	No	No	No	No
Barriers/bike racks[1]	Yes	Yes	Yes	Yes	Yes	Per conditions	No
NPS fencing that is staked[2]	No	No	Yes	Yes	Yes	No	No
Security Checkpoints	Yes	Yes	No	No	No	No	No

[1] Event barriers shall not be secured using stakes. Ground protection not needed for bike rack.
[2] NPS staking will follow guidelines as outlined for within this chapter for Level 1 Turf.

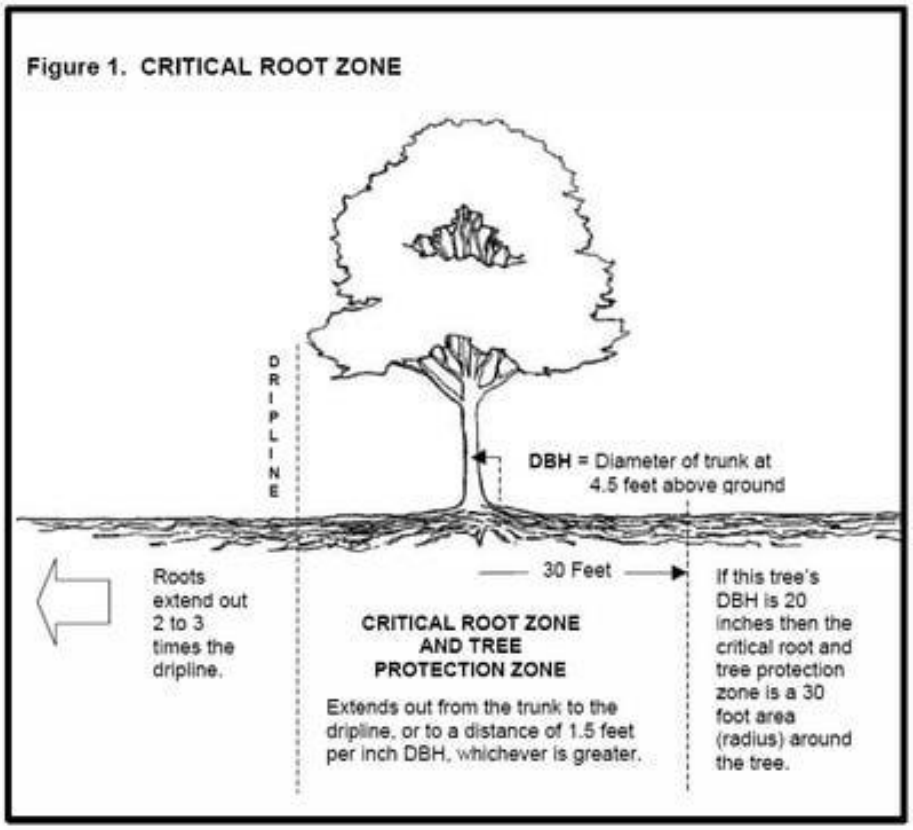
8 Tree Protection

8.1 Tree Protection Zone

A tree protection zone should be established using protective fencing (bike rack or equivalent) if a permitted event may impact a tree due to structures or crowds exceeding one person per six feet. It is recommended that the protective fence be erected 1.25 feet away from the tree for every inch of stem diameter, measured 4.5 feet above the ground (known as DBH). This distance is referred to as the “critical root radius,” and the resulting circle is called the “critical root area.” For planning purposes, this typically aligns with the tree's dripline.

As setup progresses and plans change, workers or visitors may attempt to move or remove these protective measures. To mitigate these issues, the Permit Applicant should maintain the tree protection zone by assigning a crowd control usher.

Due to the density of trees in certain areas of the park, events may not take place in designated Tree/Turf zones, as outlined in section 4.7 of the Tree/Turf primer. Tree survival approaches 100 percent when the entire critical root area is protected; as the percentage of protected area decreases, the likelihood of a tree's survival diminishes.



9 Appendix

9.1 Code of Federal Regulations

36 CFR 1.5 through 1.10, available online at: http://www.ecfr.gov/cgi-bin/text-idx?c=ecfr&SID=c2f1e94aa72e04fff4a29e36307f154a&tpl=/ecfrbrowse/Title36/36cfr1_main_02.tpl
36 CFR 7.96 - National Capital Region, available online at: http://www.ecfr.gov/cgi-bin/textidx?c=ecfr&SID=c2f1e94aa72e04fff4a29e36307f154a&rgn=div8&view=text&node=36:1.0.1.1.7.0.1.95

9.2 Events Planning Guide for the National Capital Region

The most recent version of the *Events Planning Guide for the National Capital Region* is available online at: https://www.nps.gov/nama/learn/management/event-planning-guide.htm

9.3 Event Applications

Applications can be found online at: http://www.nps.gov/nama/planyourvisit/permits.htm

9.4 Event Resources

9.4.1 Policy References

Refer to the following resources for additional information on policies:

- Events Planning Guide Events Planning Guide for the National Capital Region
- Americans with Disabilities Act: http://www.ada.gov/
- EPA Hazardous Materials Guidelines: http://www.epa.gov/osw/laws-regs/regs-haz.htm
- Concessions Policy Act (Public Law 105-391): http://www.doi.gov/ocl/2003/npsconman.htm
- Public Law 108-108, Title I, § 145: http://www.gpo.gov/fdsys/pkg/PLAW-108publ108/pdf/PLAW-108publ108.pdf
- NPS Management Policies 8.6.2.2: http://www.nps.gov/applications/npspolicy/index.cfm

9.4.2 Reference Sources

The following sources were consulted in the creation of this Guide.

- Best Management Practices Used at Urban Parks in National and International Locations: A Background Report for the National Mall Plan. NPS (March 2007).
- Draft Elms of the Monumental Core History and Management Plan, NPS Natural Resource Report, NPS/NCR/NRR-2009/001.
- Evaluation of the Effects on Turf of Different Terraplas Pitch Protection Systems, Sports Turf Research Institute (July 2010).

- Event Impact Observation Study, HOK (2011).
- NAMA 151515 Specification Section 329219 part 3.11(2011).
- *National Mall Trafficked Turf Systems Report for the National Park Service,* Virginia Polytechnic Institute and State University Department of Crop and Soil Environmental Sciences (Fall 2010).
- NPS NCR Requirements 36 CFR 7.96 (g)
- Report on the National Mall Soil Compaction Evaluation (April 4, 2008).
- Requirements for Special Events Held on Parkland, National Park Service (Version 8-6-07-A).
- Resource Conservation Practice; Understanding and Managing Soil Compaction, Iowa State University (2009).
- *Soils of the Mall in Washington, DC*, 50 Soil Science Society of America Journal No. 3 (May-June 1986).
- *Soil Compaction and Its Effects upon Urban Vegetation*, Better Trees for Metropolitan Landscapes Symposium Proceedings, USA Forest Service Tech. Rep. NE-22 (1976).
- Summer 1992 Studies by CUE Confirm Compacted Mall Soils Memo, Center for Urban Ecology (1992).
- The Elms of the National Mall: Studies, Findings and Recommendations. Center for Urban Ecology (August 10, 1993).
- Trial to Evaluate Turf Protection Systems, Sports Turf Institute (2010).

9.4.3 Websites

The following websites may be visited for additional information on the agencies and services discussed in this guide.

- National Park Service – Permitting Information: http://www.nps.gov/nama/planvisit/permits.htm/
- National Park Service – Permitting FAQs: http://www.nps.gov/nama/planyourvisit/permits-faqs.htm/
- National Park Service – Public Gathering Application: http://www.nps.gov/nama/planyourvisit/upload/NPS-Form-10-930-2010-special-use-new-phone-numberse.pdf/
- District Department of Transportation (DDOT): http://ddot.dc.gov/
- U.S. Park Police: http://www.nps.gov/uspp/
- Metropolitan Police Department: http://mpdc.dc.gov/
- DC Mayor's Special Events Task Group: http://mpdc.dc.gov/mpdc/cwp/view,a,1241,q,548278.asp
- Metrorail/Metrobus: http://www.wmata.com/
- Circulator: http://www.dccirculator.com/
- District of Columbia Department of Fire & Emergency Medical Services: http://fems.dc.gov/
- Department of Health: http://dchealth.dc.gov

INTERNAL DOCUMENT CONTROLS – VERSION AND REVIEW TRACKERS

Version Control

The following table documents major revisions to this document.

Version	Review Date	Primary Point of Contact	Description of Changes
3.0	11/29/2024	Marisa Richardson and James Snell	Update to document

Document Review Tracker

The following table documents all reviewers for all versions. The current version is listed last.

Name	Bureau/Office	**REVIEW TYPE** • **Author** • **Reviewed with Comments** • **Review without Comments** • **Info Only**	Version Reviewed	Review Date
Jeff Hitchcock	NAMA/FM	Reviewed with Comments	3.0	11/14/2024
Jason Theuer	NAMA/RM	Reviewed with minor copy edits	3.0	11/20/2024
Aly Baltrus	NAMA/IE	Reviewed w/ minor copy edits	3.0	11/20/2024
Lori Swafford	NAMA/Admin	Reviewed with comments	3.0	11/22/2024
Chad Tinney	NAMA/Super Office	Reviewed with no comments	3.0	11/27/2024
Sophie Kelly	NAMA/Super Office	Reviewed with comments	3.0	11/27/2024