



DATE: 15 September 2021 **DRAFT**

TO: Lanette M. Phillips  
Development Manager  
STREAM  
Tennessee Tower, 24<sup>th</sup> Floor  
312 Rosa L Parks Avenue  
Nashville, Tennessee 37243

RE: Observation Summary Narrative & Program Document  
Henry Horton State Park Lodge  
4201 Nashville Highway  
Chapel Hill, Tennessee 37034  
SBC #: 529-000-02-2019

Dear Lanette,

Per your request, EOA Architects held an on-site meeting with Marty Gentry and Ryan Jenkins to review the current conditions of the Lodge at Henry Horton State Park. This meeting also included a walk-through tour of several guest rooms, public common spaces, support spaces, and mechanical / plumbing spaces, and adjacent exterior space.

The following includes meeting minutes and observations made during the site visit on August 24<sup>th</sup>, 2021:

## **Meeting Minutes**

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### **Attendees:**

Ryan Jenkins – Henry Horton State Park  
Marty Gentry – Henry Horton State Park  
Lanette Phillips - STREAM  
Zac DuFour – Kimley-Horn  
Madison Moitoso – Kimley-Horn  
Jud Adams – Power Management Corporation  
Richard Begin – EMC Structural Engineers  
Keith Bush – EOA Architects

**General Background:**

Henry Horton State Park was constructed in the 1960's on the estate of the former governor of Tennessee, Henry Hollis Horton with a focus on recreation. The overall park contains a golf course, large swimming pool, campgrounds, walking trails, trap & skeet range, tennis courts, cabins, conference center, and new visitor's center & restaurant soon to open. The lodge was built on the former location of the original homeplace. Below is an image of a painting of the house that is currently located at the check-in desk.



**Motor Court** - The single-story motor court was built in 1961. (12 Guest Rooms)

- Slab on grade foundation
- P-Tac Units
- Wood deck ceilings
- Color plumbing fixtures
- Front and Back Entrances
- Brick masonry head wall
- Standing seam metal roof

**Lodge** - The two-story lodge building was started and 1969 with construction completing in 1971. (74 Guest Rooms)

- Slab on grade foundation
- High ceilings of the first floor
- Sloped wood ceiling on the second floor
- Brick masonry head walls
- Standing seam metal roof

The age of the facility is a problem. General issues of the facility include but not limited to the following: roofing and leaks, old wiring, asbestos wrapping on plumbing pipes, old bathroom tile that with areas of deteriorating substrate, plumbing system not isolated for maintenance work – entire system must be shut down to perform maintenance work, Boiler and HVAC issues. Thermostats are hard to use.

The chiller was replaced two years ago at a cost of \$86K.

It was noted that there has been little preventative maintenance over the years.

There are ADA designated rooms on the first floor, however, they are not fully accessible. Ryan noted that the Commissioner would like the facility to be a model for accessibility.

Some guest rooms are now offices since because of plumbing issues.

Guestroom phones do not work.

The exterior envelope needs various repairs. There is visible rotting wood and corroded metal on the exterior of the buildings. Problems persist at the chimney stack at the lodge lobby.

The lodge is more popular for group meetings and weddings, as opposed to a destination vacation like Fall Creek Falls.

The blowers for the HVAC system in the lodge building are noisy, particularly, in the guest rooms.

I.T. servers are located at the balcony level at the upper part of the lobby. It is in an open area screen by a curtain partition. A portable fan is being used to keep the equipment cool.

The pool has been very popular over the years but is currently closed due to Covid-19.

It was noted that there are no flooding issues. Stormwater drainage is tied into one system.

The parking areas adjacent to the lodge and motor court need re-topping and striping as well as sidewalk work.

Exterior gutters need work and are hard to keep clean.

Furniture and fixtures are dated and need replacing.

The desire is to have a level of finishes like the recently renovated Montgomery Bell State Park Lodge.

Shannon Bowles, Director of Hospitality for Tennessee State Parks, will be involved in the project.

### **Utilities & Services**

Services are fed from nearby Chapel Hill and Lewisburg.

The sewer is pumped to Chapel Hill. There is a pump station on the opposite side of Nashville Highway. The current fire line is 6" along Nashville Highway and will eventually be increased to a 12" line in approximately 3 years.

The Fire Alarm System does not have a direct dialer – fully manned.

Power is via Duck River Electric.

Direct TV is currently utilized.

## **Facility**

### **Approach and Layout:**

The current lodge entrance faces east which is opposite from the approach entrance to the west. This presents some confusion and difficulty for guests easily identifying the location of the main entrance. The lodge building is 'L' shaped in plan with the entrance facing east. There are two guest room wings, one extending to the west and the other to the south. Both wings are two stories.

### **Stairs and Elevator:**

The second floor of the lodge building can be accessed by three stairs. The most prominent is an open staircase in the two-story high lobby space. The other stairs are enclosed and located at the ends of the guest room wings. At the main lobby, there is a Dover Elevator with single sliding door, weight capacity of 2,500 lbs, and two stops. The elevator floor is carpet tiles, plastic laminate wall panels with a stainless-steel rail, and acrylic panel light.





### Detailed Aerial View of Lodge Area

The entrance to the Lodge area is located south of the Duck River along the Nashville Highway. The approach is from the west and one must pass the former restaurant and west wing of the lodge to get to the main entrance that faces east on the property.





# Lodge Building – (1969-1971)

## Exterior Images

**1) Lodge Exterior** – View entry side which faces east away from the approach from the west.



**2) Lodge Exterior** - View of main entry doors to the lodge lobby.



**3) Lodge Exterior** – Side view of the main entrance from the north parking lot.



**4) Lodge Exterior** – View of the north façade at the lobby and fireplace chimney. Note masonry staining and efflorescence below eave line.



**5) Lodge Exterior** - View of the north façade and sidewalk leading to the side entry to the lobby.



**6) Lodge Exterior** – View of north facing rooms on the west wing.



**7) Lodge Exterior** - View of north facing rooms on the west wing.



**8) Lodge Exterior** – Sidewalk along north parking lot looking west. Post lights have more than a 4” projection and are a possible ADA obstruction.





**9) Lodge Exterior** - View from the north looking south at the connexor canopy between the lodge and motor court. Ramp is not ADA compliant.



**10) Lodge Exterior** – View from the south looking north at the connexor canopy between the lodge and motor court.



**11) Lodge Exterior** – View from the southwest.



**12) Lodge Exterior** – Close up view from the southwest. Note location of linen delivery parking near the exterior door to the first floor housekeeping room.



**13) Lodge Exterior** - View looking at the south side of the west guestroom wing.



**14) Lodge Exterior** - View looking at the south side of the west guestroom wing.



**15) Lodge Exterior** – View looking north along the west side of the south guestroom wing.



**16) Lodge Exterior** - View along the southeast façade looking north.





**17) Lodge Exterior** – View of guestrooms facing east. Note masonry staining and efflorescence.



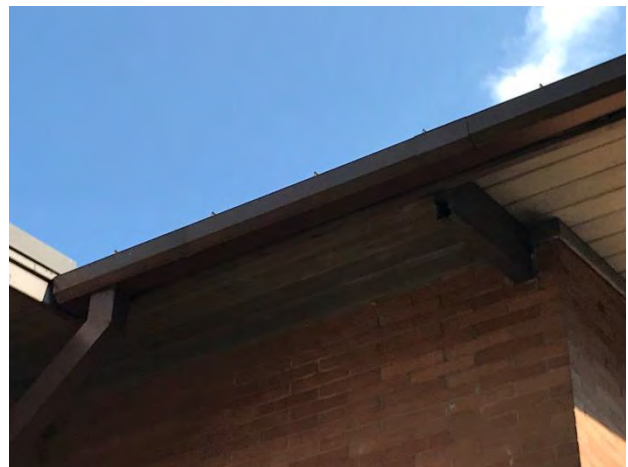
**18) Lodge Exterior** – View along the southeast façade looking north.



**19) Lodge Exterior** – View of rotting wood at the north facing façade.



**20) Lodge Exterior** - View of rotting wood at the north facing façade.



## Lodge Lobby

**21) Lobby** – View looking west to the reception desk.



**22) Lobby** – View of wood deck ceiling, beams, and lighting.





**23) Lobby –** View of open stair to the second floor. The original stair was re-configured when the elevator was added in the late 1990's.



**24) Lobby –** View of open stair to the second floor.



**25) Lobby -** View of lower fireplace.



**26) Lobby -** View of upper fireplace.



**27) Lobby** – View of fireplace hearth showing gap in stone joint.



**28) Lobby** – View of fireplace with gas log system..



**29) Lobby Gift Shop** –



**30) Lobby Gift Shop** -





**31) Lobby** – Drink and information display adjacent to the reception desk.



**32) Lobby** – View of glass facing east above main entry doors. Morning light can be harsh for staff.



**33) Lobby** – View from upper level.



**34) Lobby** – View from upper level.



## Elevator at Lobby

**35) Elevator** – The Dover elevator was added in the late 1990's and has a 2,500 lbs. weigh capacity.



**36) Elevator** – Carpet tile floor finish and stainless steel hand rail'



**37) Elevator** - Floor indicator and 2,500 lbs weigh capacity.



**38) – Elevator** – Cab interior control panel.





## Lodge Offices

**39) Lodge Office** – Office space directly behind the reception desk.



**40) Lodge Office** – Existing Honeywell fire alarm control panel.



**41) Lobby Office - Air distribution grille.**



**42) Lobby Office**



**43) Lobby Office**



**44) Lobby Office**



45) Office-



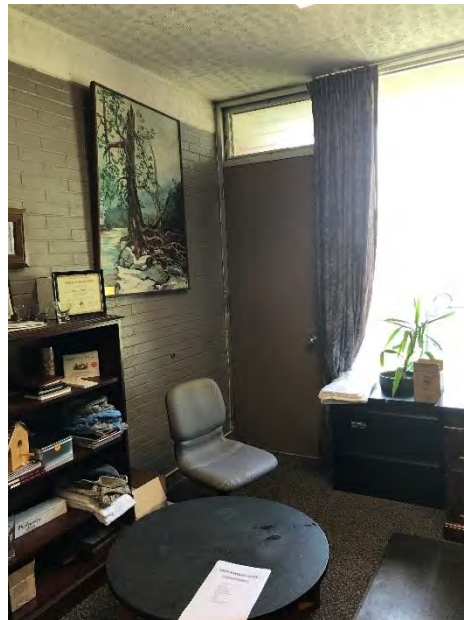
46) Office



47) Office



48) Office





## Board Room – First Floor

**49) Board Room** – A former guest room is currently being used as the board room.



**50) Board Room Restroom** –



**51) Board Room Restroom** –



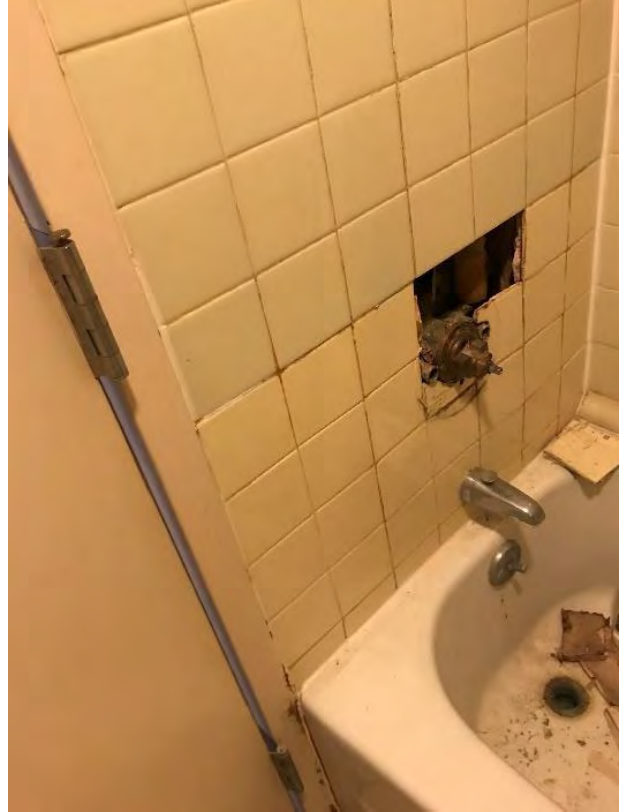
**52) Board Room Restroom** -



53) Board Room Restroom -



54) Board Room Restroom -



55) Board Room Restroom -



56) Board Room Restroom -





## First Floor - Large Conference Room

**57) Large Conference Room** – Chairs are stacked in the space and not in a separate room.



**58) Large Conference Room** – Lighting is dated



**59) Large Conference Room** –



**60) – Large Conference Room** – Lack of proper exit signs for an assembly space that can hold over 50 occupants.





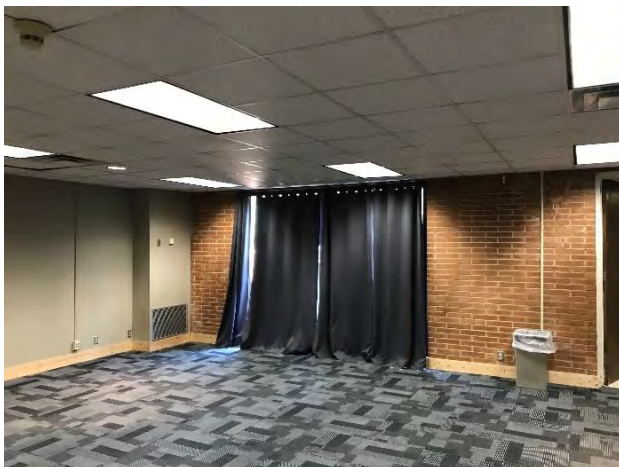
**61) – Large Conference Room – Movable wall panel partition was reported to now operate properly.**



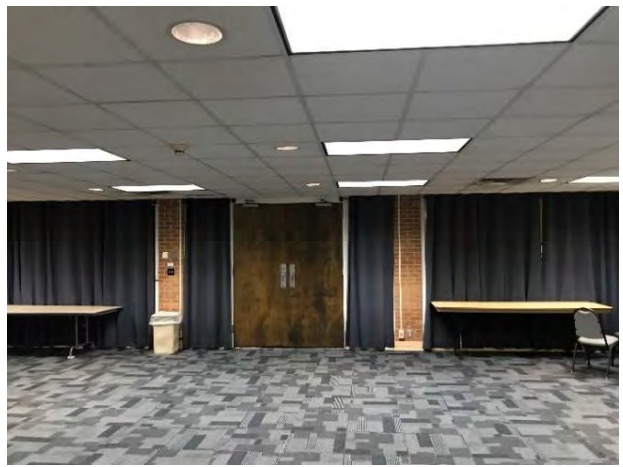
**62) – Large Conference Room – View of movable wall panel track.**



**63) – Large Conference Room**



**64)– Large Conference Room**



## First Floor - Kitchenette

65) First Floor Kitchenette



66) First Floor Kitchenette



## First Floor Public Restrooms

**67) First Floor Men's Room** – Restroom is dated and does not meet ADA requirements



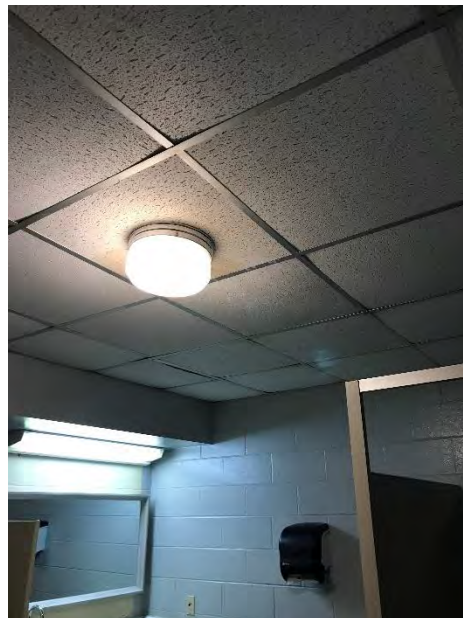
**68) First Floor Men's Room**



**69) First Floor Men's Room** –



**70) First floor Men's Room -**





**Guest Room 102 (Semi - Accessible)**

**71) Guestroom 102 – View of living area**



**72 – Guest Room 102 - View of living area**



**72) Guest Room 102 - View of Kitchenette –  
Location of microwave is not accessible.**



**73) Guest Room 102 – View of Kitchenette**



**74) Guest Room 102 – View of bathroom and grab bars at toilet.**



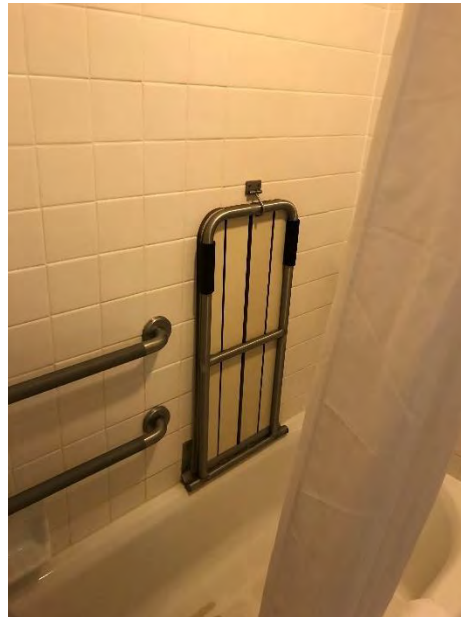
**75) MGuest Room 102 – View of bathroom showing signs of leaks on ceiling tiles.**



**76) Guest Room 102 - View of tub and shower controls.**



**77) Guest Room 102 – View of tub with fold down seat.**



**78) Guest Room 102 – View of entry door with ADA handle. Note: Room is still accessed by key operation.**



**79) Guest Room 102 – View of patio area. Step down from doorway is too tall to make this properly accessible.**





**Guest Room 107**

**80) Guest Room 107 –** This room is currently not in use.



**81) Guest Room 107 –** View of headboard lighting.



**82) Guest Room 107 –** View of air distribution grille.



**83) Guest Room 107 –** Sink counter – Note plumbing pipes below are not wrapped.



**84) Guest Room 107 – View from sink to toilet area.**



**85) Guest Room 107 – Resting of bathroom door jamb at base.**



**86) Guest Room 107 – View of deteriorating wall substrate at control valve.**



**87) Guest Room 107 – Miss-matched tile color from previous repairs.**





**Guest Room 118 – (Office)**

**88) Guest Room 118 (Office) -**



**89) Guest Room 118 (Office) -**



**90) Guest Room 118 (Office)**



**91) Guest Room 118 (Office) –**



## First Floor Housekeeping

92) First Floor Housekeeping - recommended.



93) First Floor Housekeeping –



94) First Floor Housekeeping -



95) First Floor Housekeeping -





96) First Floor Housekeeping - .



97) First Floor Housekeeping -



98) First Floor Housekeeping -



99) First Floor Housekeeping - .



## Second Floor Lounge

101) Second Floor Lounge -



102) Second Floor Lounge -



103) Second Floor Lounge -





## Second Meeting Rooms

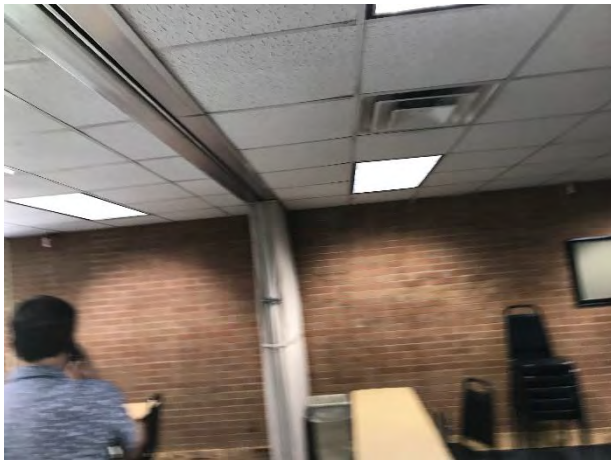
104) Second Floor Meeting Room



105) Second Floor Meeting Room -



106) Seconf Floor Meeting Room -



## Second Floor Public Restrooms

107) Second Floor Men's Room



108) Second Floor Men's Room –



109) Second Floor Men's Room –



110) Second Floor Men's Room –





111) Second Floor Men's Room -



112) Second Floor Men's Room -



113) Second Floor Men's Room



114) Second Floor Men's Room -



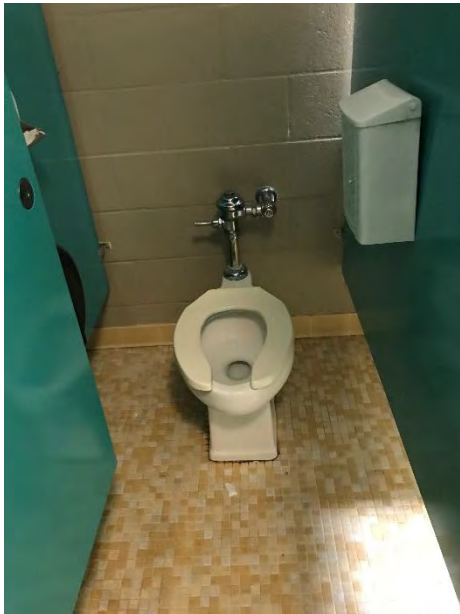
115) Second Floor Women's Room



116) Second Floor Women's Room –



117) Second Floor Women's Room



118) Second Floor Women's Room –





119)

Second Floor Women's Room -



120)

Second Floor Women's Room -



### Second Floor Corridors

121)

North-South Corridor



122 North -South Corridor



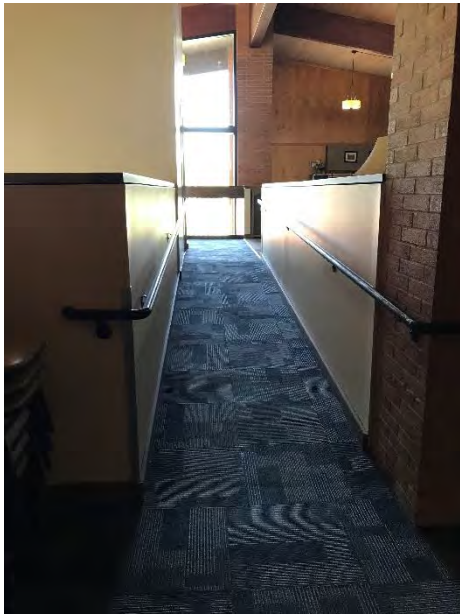
122) North-South Corridor



123) North-South Corridor



124) East West Corridor



125) East West Corridor





## Second Floor Housekeeping

126)



127)



128)



129)



130)



131)



**Guest Room 221 (Double Queen)**

132)



133)





134)



135)



136)



137)



138)



139



140)



141)





142)



143)



144)



145)



146)



147)



148)



149)





150)



151)



152)



153)



154)



**Guest Room 222 (King)**

155)



156)

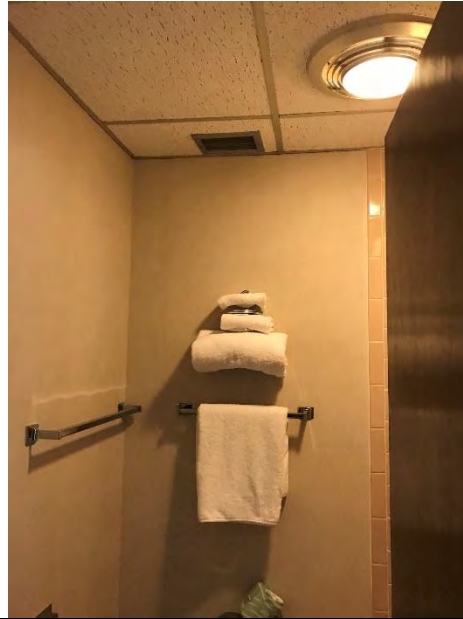




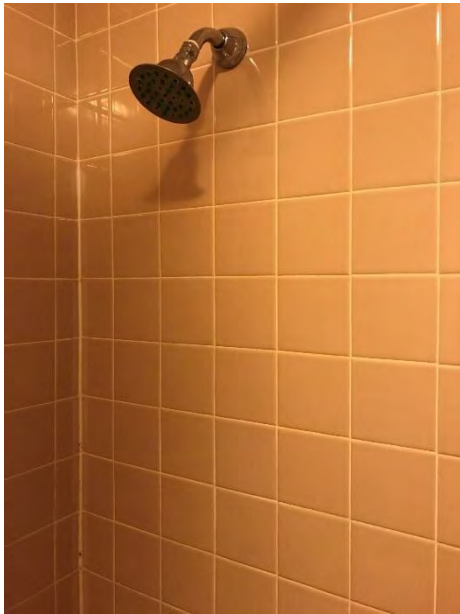
157)



158)



159)



160)



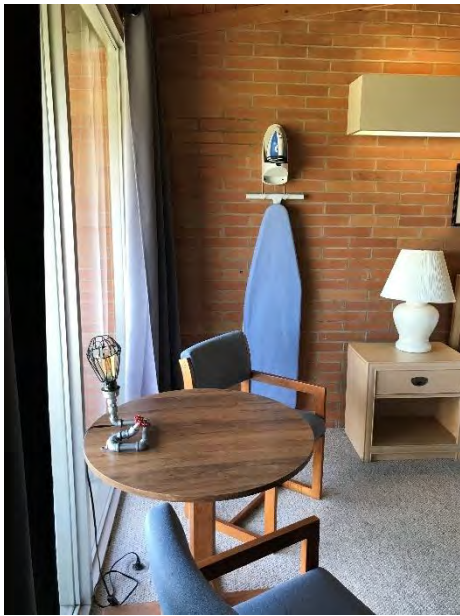
161)



162)



163)



164)





165)



166)



167)



168)



169)



### Second Floor I.T. Space

170)

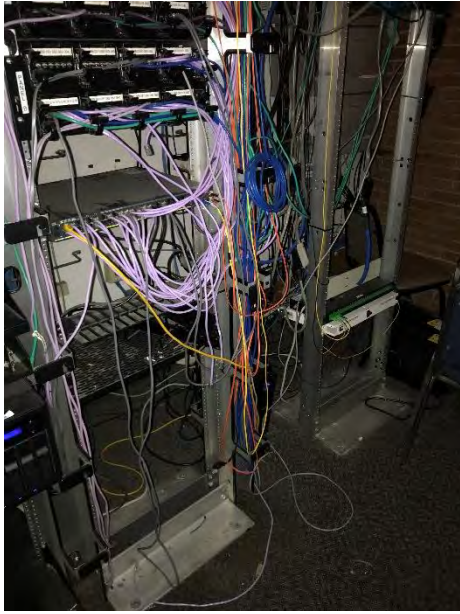


171





172)



173)



### Lodge Support Spaces

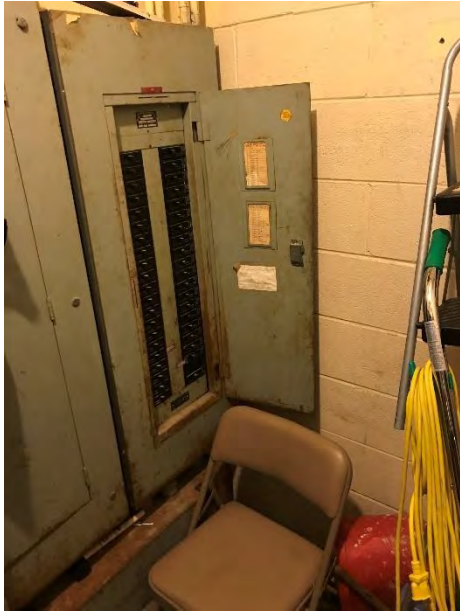
174) First Floor Janitor / Electrical



175) First Floor Janitor / Electrical



176) First Floor Janitor / Electrical



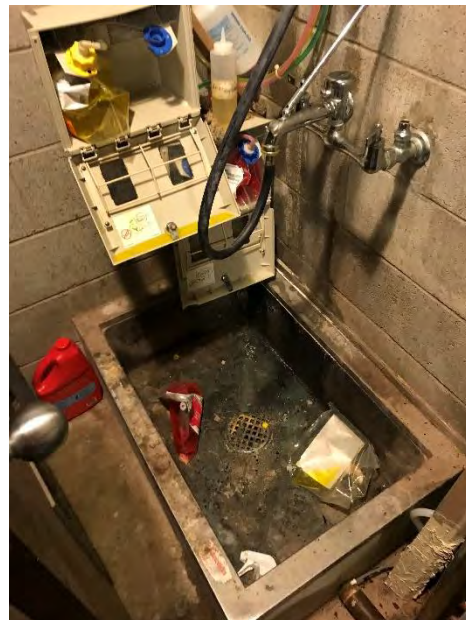
177) First Floor Janitor / Electrical



178) Second Floor Janitor / Electrical



179) Second Floor Janitor / Electrical





180) Second Floor Janitor / Electrical



181) Second Floor Janitor / Electrical



182) Second Floor Mechanical Room



183) Second Floor Mechanical Room



184) Second Floor Mechanical Room



185) Second Floor Mechanical Room



186) Second Floor Mechanical Room



187) Second Floor Mechanical Room





188) Second Floor Mechanical Room



189) Second Floor Mechanical Room



## Motor Court Building – (1961)

### Exterior Images

190) Motor Court



191) **Motor Court** – View of the west side facing the park.



192)



193)



194)



195)





196)



197)



198)



199)



**Guest Room 145 – Motor Court**

200)



201)



202)



203)





204)

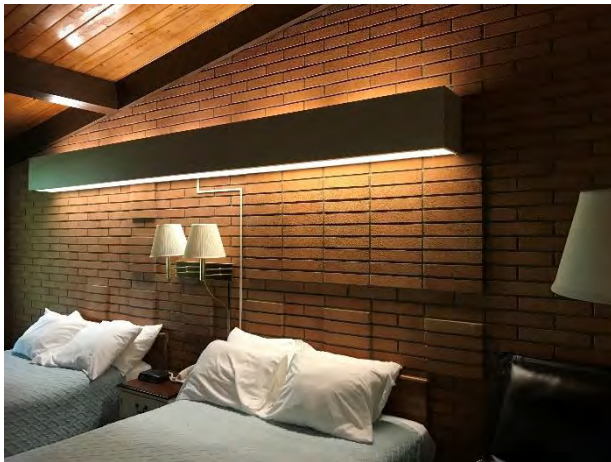


205)



### Guest Room 146 – Motor Court

**204) Guest Room 146** – View of masonry headboard wall and lighting.



**205) Guest Room 146** - Rpoom view looking west to door leading to patio park side.



206)



207)



208)

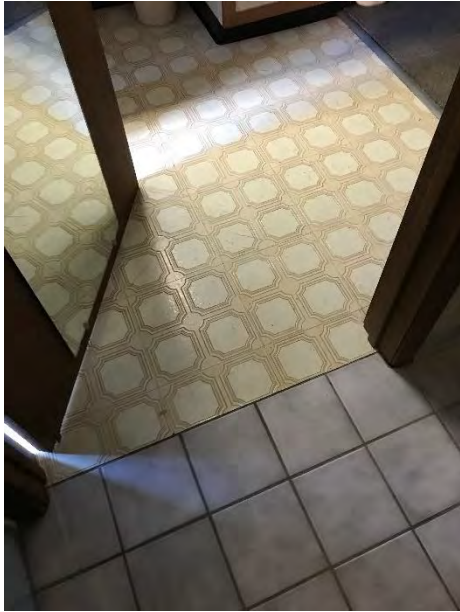


209)





210)



211)



212)



213)



214)



215)



216)



**Motor Court Support Spaces**



217) Motor Court Mechanical Room



218) Motor Court Mechanical Room



219) Motor Court Mechanical Room



220) Motor Court Mechanical Room



221) Motor Court Mechanical Room



222) Motor Court Mechanical Room



223) Motor Court Storage Room



224) Motor Court Storage Room





## Civil Observations

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### **Utilities and Services:**

The facilities at Henry Horton State Park are fed from nearby Chapel Hill and Lewisburg.

Sanitary sewer is pumped to Chapel Hill. The closest pump station is located across Nashville Highway on the Henry Horton golf course.

Water is provided by Lewisburg. The current line is 6" and runs along the opposite side of Nashville Highway. An additional 12" water line will be constructed on the opposite side of Duck River in approximately 3 years. Increased water capacity will likely be required to provide fire protection and to upgrade washer/drier services to an industrial scale.

Gas is provided by the Horton Highway Utility District.

Electricity is provided by Duck River Electric.

Internet is provided by United Wi-fi.

The fire alarm system does not have direct dial capacity, and instead the lodge is manned 24-hours per day.

Direct TV is currently utilized.

Lodge and motor court security is minimal. The entry doors lock, and a few cameras are placed around the safe in the lodge lobby.

### **Stormwater Infrastructure:**

The current stormwater pipe network runs beneath the lodge building. Staff noted that they do not have any major flooding problems.

The motor court and lodge gutters are difficult to clean and are prone to clogging.

Downspouts on the east side of the motor court building discharge directly onto the pavement in the central parking lot with limited nearby stormwater drainage availability, leading to excessive sheet flow across the parking lot (see image 1). These downspouts should be tied into the pavement.

Stormwater eventually outfalls to Duck River to the west.

### **Parking and ADA Compliancy:**

The number of existing parking spaces appears to be sufficient for their current use and was noted that it was sufficient prior to the pandemic. However, if new facilities are added that increase capacity for hotel rooms or conferences then additional parking may be necessary. Most of the parking area will need new curbing, paving and pavement markings if it is to remain. If a new lodge is built then all new parking areas will be constructed with the new lodge.

The parking lot located north of the lodge was recently re-stripped and repaved (see image 2) and includes two ADA designated parking spots with proper signage and striping (see image 3). However, the old ADA parking signs have not been removed (see image 4). These ADA spaces have up to 3.5% running slopes and must be repaved to slopes of less than 2% in every direction.

The ramp running from the ADA parking spots to the sidewalk is too steep, with a 10% running slope (see image 5). This ramp must either be redesigned to decrease the slope significantly; or removed and the sidewalk redesigned to slope down flush to the parking lot at this location. Additionally, the ramp from this sidewalk to the landing between the motor court and the lodge has a running slope of approximately 9% and

a handrail on the east side only (see image 5). The ramp should have decreased running slopes, railing on both sides, and landings every 30" of rise to maintain ADA compliancy.

The landing between the motor court and the lodge is also accessible via a path with stairs that is located at southwest corner of the north parking lot (see image 6). The parking lot is flush with the stairs landing (see image 7). The four steps lead up to the path, which runs southeast toward the motor court (see image 8).

The central parking lot located south of the west wing of the lodge, as well as the southern lot located southwest of the south wing of the lodge, need to be re-paved. The asphalt is severely cracked in multiple locations and is not level throughout (see images 9-11).

There are no ADA designated spots within the central parking lot. The sidewalk running along the south side of the west wing of the lodge building is only accessible from this parking lot via one asphalt "ramp" located at the north side of the parking lot (see image 12). The sidewalk running along the east side of the motor court building is only accessible from this parking lot via one asphalt "ramp" located at the southwest corner of the parking lot (see images 13 and 14). However, these structures appear to be in disrepair and are not ADA compliant. Additionally, all of this sidewalk is narrow, further limiting ADA accessibility from the central parking lot to the lodge, as well as to the motor court building (see images 15 and 16).

There are no ADA designated spots within the southern parking lot. The sidewalk running along the north border of this parking lot is not ADA accessible (see images 17 and 18).

Sidewalk maneuverability is limited throughout much of the sidewalk network surrounding the central parking lot, with narrow sidewalks and sharp turns throughout (see image 19).

The butterfly garden, located east of the lodge lobby, is cut by a path that is not ADA accessible (see image 20).

#### **Building ADA Accessibility:**

The lodge lobby is accessible via two entrances – one front door located on the east side of the lobby, and one back door located in the northwest corner of the lobby. The front entrance ramp is slightly too steep, and a handrail would be required to maintain proper ADA accessibility (see image 21). The back door has access from two paths – one ramp, and one path with stairs. The back entrance ramp, leading from the primary parking lot north of the lodge, maintains a 6-7% running slope throughout, and would also require a handrail to maintain proper ADA compliancy (see image 22). The back entrance path with stairs leads from the same location as the ramp and includes four steps (see image 23).

The lodge is also accessible in two locations in the northwest corner of the building. The first is a door located on the west side of the building, oriented towards the motor court, and is accessible via a ramp with a 5% + running slope. This ramp requires handrails to maintain ADA compliancy. The second is the balcony of one of the first-floor lodge rooms and is accessible via a ramp with 3-4% running slopes and 6% cross slopes. This ramp would need to be redesigned to decrease the cross slopes to maintain ADA compliancy (see image 24).

The motor court rooms are only ADA accessible via ramps leading to the back entrance of each room, located on the west side of the building (see images 25-27). The front entrance to each room has a step from the sidewalk into the building (see images 28-30).

The Park Ranger noted that the TDEC Commissioner would like to create accessibility between the lodge and the campground across Duck River to the west, and for the facility to be a model of ADA accessibility.



Image 1



Image 2



Image 3



Image 4



Image 5



Image 6



Image 7

Image 8





Image 9



Image 10



Image 11



Image 12



Image 13



Image 14





Image 15



Image 16



Image 17



Image 18



Image 19



Image 20





Image 21



Image 22



Image 23



Image 24

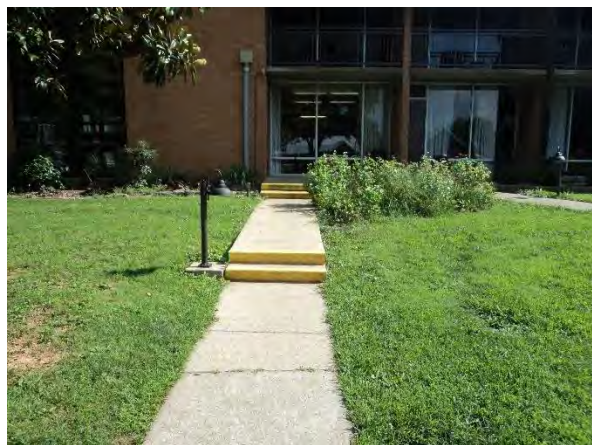


Image 25



Image 26





Image 27



Image 28



Image 29



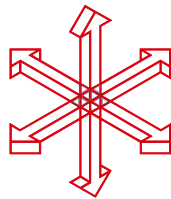
Image 30



# Mechanical and Electrical Systems Observations Report

Henry Horton State Park Lodge  
4201 Nashville HWY  
Chapel Hill, TN

September 15, 2021



**Power Management Corporation**  
**CONSULTING ENGINEERS**

60 Music Square East  
Nashville, TN  
615-383-6949  
[www.powermgmt.com](http://www.powermgmt.com)



## PURPOSE AND SCOPE OF WORK

The State of TN is considering renovation/replacement of the Henry Horton State Park Lodge in Chapel Hill. The facility includes two structures that are approximately 52 years old. Power Management Corporation (PMC) was asked to visit the facility and document the condition of the HVAC, Plumbing, and Electrical systems (MEP systems) supporting the buildings. We visited the facility on August 24, 2021, with the STREAM design team. This report includes our observations from the site visit.

## BACKGROUND

The HHSP Lodge consists of two lodging structures - The single-story, 12-room Motor-Lodge, constructed in 1961, and the two-story, 60-room Main Lodge, constructed in 1969. Both structures have been maintained with minor cosmetic updates and equipment replacement as needed, but they are generally in the original configuration with no major additions, renovations, or other modifications.

## MEP SYSTEMS OBSERVATIONS

### Motor Lodge

1. All original plumbing piping systems are still in service, with some minor modifications;
2. Plumbing fixtures are in fair condition, but past their useful life and in need of replacement;
3. HVAC systems consist of modern packaged through-wall heat pump units (PTACs) that in in good and serviceable condition;
4. The original fan coil units above the entry vestibule have been abandoned;
5. Exhaust fans are local (one per guest room) and controlled with a wall switch;
6. The electrical power distribution system is a mix of original and newer panelboards;
7. The electrical service is 600-amps, 120/208V, three-phase. It was reworked and updated in 1998. The power distribution system is in fair and serviceable condition, but some of the panelboards are past their useful life and in need of replacement;
8. Lighting fixtures and wiring devices are in fair condition, but past their useful life and in need of replacement;
9. Smoke detectors are stand-alone, and there is no fire alarm system;
10. There is no fire sprinkler system in the building.

## **Main Lodge**

1. The water service is a 4" line with shutoff in the janitors closet on the first level;
2. Plumbing piping systems are original and are in poor condition. There are multiple leaks in the system and not many isolation valves available to isolate sections without shutting off water throughout the guest wings;
3. Plumbing fixtures are in fair condition, but past their useful life and in need of replacement;
4. The natural gas-fired water heaters are modern and in good serviceable condition;
5. The central heating and cooling plant consists of a chiller and boiler system, with a 4- pipe distribution system to air handlers and fan coil units throughout;
6. The boiler plant is in poor condition and has many maintenance issues;
7. The 90-ton air-cooled chiller was recently replaced. It is modern and in good serviceable condition;
8. Pumping is constant volume on both the heating and cooling systems. Hydronic pumps are in fair and serviceable condition, but the systems both have multiple maintenance issues and leaks;
9. A large air handler (not original) with heating and cooling coils serves the common areas and lobby;
10. All guest rooms and offices are served by four-pipe fan coil units and local thermostats;
11. The building controls system is pneumatic, with some modernized DDC upgrades. Guest comfort is difficult to achieve given the pneumatic controls and thermostats. The system is expensive to maintain and is past its useful life;
12. Exhaust systems are centralized with two or three large fans on the room, constant volume;
13. The electrical service is 2,500-amps, 120/208V to the original Westinghouse Switchboard in the mechanical room;
14. The power distribution system is in poor but serviceable condition. The switchboard and all the panelboards are past their useful life;
15. Lighting fixtures and wiring devices are in fair condition, but past their useful life and in need of replacement;
16. The fire alarm system is a modern addressable system in fair and serviceable condition. Area coverage does not meet the modern fire alarm code;
17. There is no fire sprinkler system in the building.

## **Structural Observations**





September 2, 2021

Mr. Keith Bush, AIA  
EOA Architects PLLC  
515 Main Street  
Nashville, Tennessee 37206

**Henry Horton State Park Lodge – Verification Report  
Chapel Hill, Tennessee  
EMC Project No. 21264**

Dear Keith:

The following structural observations are based on EMC Structural Engineer's site visit on Tuesday, August 24, 2021. It is our understanding the current program consists of evaluating the existing Lodge and Motel for potential renovation and improvements. The existing buildings were observed based on this program and with additional information provided by the park manager and staff. The one-story Motel was built in the early 1960's and the two-story Lodge was built in the late 1960's.

**Lodge**

The lodge is a two-story L-shaped building. The lobby is an open double-height space with monumental stair and elevator. Guest rooms are located on two wings of the building and accessed from double loaded corridors. The sloping roof structure consists of 3"x6" wood decking supported by glue-lam wood beams and load-bearing masonry walls. The second floor structure consists of flat reinforced concrete slabs supported by CMU and multi-wythe brick walls. Concrete slabs at the second floor extend out to frame exterior balconies. There is a mezzanine above the second floor mechanical room framed with a reinforced concrete slab. There are composite steel beams and concrete slab framing the second floor structure above a conference room at the first floor. The first floor consists of concrete slab-on-grade. Foundations are shallow continuous walls footings and isolated column footings per the original structural drawings provided by the State.

No significant structural issues were observed at the lodge. Some wood decay was observed at the roof structure where wood beams extend past the exterior walls and frame the roof eaves (see photos 5 & 6). There were signs of water stains at the roof structure and decking around the fireplace in the lobby (see photo 7). Overall, the lodge structure appears to be in good condition.

Henry Horton State Park  
EMC Project No. 21264  
September 2, 2021  
Page 2

### **Motel**

The motel is a one-story rectangular shaped building. Guest rooms are accessed from building exterior. There are no interior corridors. The sloping roof structure consists of wood decking supported by wood beams and load-bearing masonry walls. The first floor consists of concrete slab-on-grade. Foundations are anticipated to be shallow continuous walls footings.

No significant structural issues were observed at the motel. There is a canopy and covered walkway between the lodge and motel where wood decay was observed (see photo 18). Overall, the motel structure appears to be in good condition.

Please call if you have any questions or if we can be of additional assistance.

Sincerely,

**EMC Structural Engineers, P.C.**

Richard D. Begin, P.E.  
Principal

Attachments





**Photograph 1 – Plaque in lodge lobby.**



**Photograph 2 – Lodge rooms and lobby from exterior north view.**





**Photograph 3 – Typical lodge balconies.**

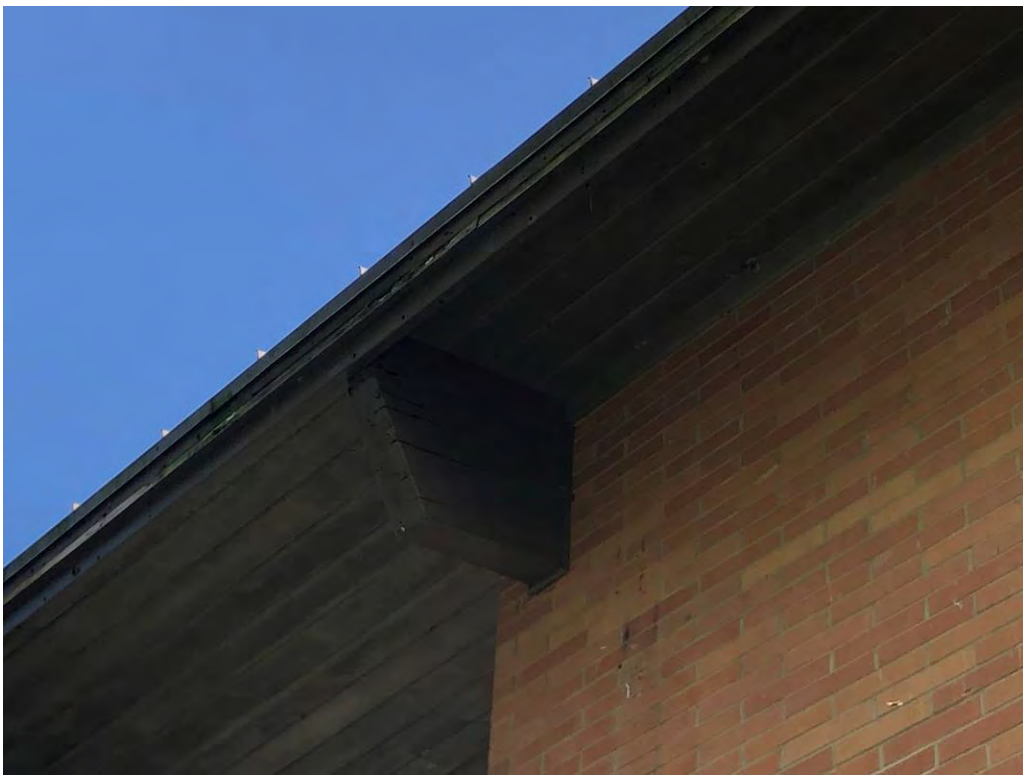


**Photograph 4 – Second floor concrete balconies bearing on masonry walls.**





**Photograph 5 – Decay at wood beam at lodge roof eave.**



**Photograph 6 – Decay at end of wood beam at lodge near fireplace.**



**Photograph 7 – Roof framing at fireplace in lodge lobby. Potential water damage at roof decking and wood beams.**



**Photograph 8 – Stair and elevator beyond at lodge lobby.**





**Photograph 9 – Roof framing at lodge lobby.**



**Photograph 10 – Typical second floor room at lodge. Wood roof decking and load bearing masonry walls**



**Photograph 11 – Load-bearing walls at second floor corridor.**



**Photograph 12 – Concrete slab supporting mechanical equipment above second floor mechanical room at lodge.**





**Photograph 13 – Lodge conference room. Structural steel beams and concrete slab structure above.**



**Photograph 14 – Canopy between lodge and motel.**





**Photograph 15 – Exterior covered walkway.**



**Photograph 16 – Exterior view of motel from west side.**





**Photograph 17 – Typical roof structure in motel room.**



**Photograph 18 – Wood decay at covered walkway between lodge and motel.**

## Existing and Proposed Space Program

Refer to exhibit A for existing spatial program with net square footages.  
Refer to exhibit B for proposed spatial program with net square footages.

## Site Diagram Options

Refer to exhibit C for site layout option A  
Refer to exhibit D for site layout option B  
Refer to exhibit E for site layout option C

## Anticipated Design Durations Per Phase

Programming	06 weeks
Schematic Design	08 weeks
Design Development	10 weeks
Construction Documents	14 weeks
<b>Total Design Duration</b>	<b>38 weeks or 9.5 months</b>

## Anticipated Construction Duration

Bidding / Negotiation	08 weeks
Construction Administration	77 weeks
Project Closeout	04 weeks
<b>Total Construction Duration</b>	<b>89 weeks or 22.25 months</b>
<b>Total Project Duration</b>	<b>127 weeks or 31.75 months*</b>

\*Note: Does not include review time by STREAM and Stakeholders between design phases.

## Opinion of Probable Cost

Refer to exhibit F for existing spatial program with net square footages.



# EXHIBIT A - EXISTING SPACE PROGRAM

## Henry Horton State Park - Existing Space Program

SBC # 529-000-02-2019

September 15, 2021

	ROOM	Patio	Kitchenette	Support Space	Accessible	Connecting Rooms
Room Number	Square Feet	Square Feet	Square Feet	Square Feet	ADA	
Level 1	<b>LODGE FIRST FLOOR</b>					
101	420	84				103
102	448	112	120		ADA Suite	104
103	420	84				101
104	420	84			ADA Suite	102
105	420	84				
106	420	84				
107	420	84				
108	420	84				
109	420	84				
110	420	84			ADA Room	
111	420	84				
112	420	84				
113	420	84				
See Board Room						116
See Office						
116	420	84				114
See Office						
118	420	84				
119	420	84				
120	420	84				
121	420	84				
122	420	84				
123	420	84				
124	420	84				
125	420	84				
126	420	84				

127	420	84				
128	420	84			ADA Room	130
129	420	84				131
130	420	84				128
131	448	117	120			129
Lobby		704		1,472		
Reservation				150		
Gift Shop				140		
Info				80		
Office		84		420		
Office		84		420		
Office		84		420		
Men				170		
Board Room		84		420		
Women				182		
Meeting Room				2,552		
Warming Kit.				338		
Storage				322		
Janitor				54		
Housekeeping				696		
Water Heater				130		
Water Heater				160		
Stair				200		
Stair				200		
Stair				200		
Circulation				2,268		
Elevator				88		
<b>Sub Total</b>	<b>11,816</b>	<b>3,453</b>	<b>240</b>	<b>11,082</b>		

	Room	Balcony	Kitchenette	Support Space	Accessible	
Room Number	Square Feet	Square Feet	Square Feet	Square Feet	ADA	Which Room
Level 2	<b>LODGE SECOND FLOOR</b>					
201	420	84				



202	448	177	120			204
203	420	84				
204	420	84				202
205	420	84				
206	420	84				
207	420	84				
208	420	84				
209	420	84				
210	420	84				
211	420	84				
212	420	84				
213	420	84				
214	420	84				
215	420	84				
216	420	84				
217	420	84				
218	420	84				
219	420	84				
220	420	84				
221	420	84				
222	420	84				
223	420	84				
224	420	84				
225	420	84				
226	420	84				
227	420	84				
228	420	84				
229	420	84				
230	420	84				
231	420	84				
233	448	177	120			
Upper Lounge				1,344		
Meeting Room				546		
Meeting Room				546		
Elev. Equip				48		

I.T.				306		
Men				170		
Women				182		
Main Mechanical				420		
Housekeeping				720		
Janitor				160		
Mech.				180		
Circulation				2,408		
<b>Subtotal</b>	<b>13,496</b>	<b>2,874</b>	<b>240</b>	<b>7,030</b>		
<b>Lodge Totals</b>	<b>25,312</b>	<b>6,327</b>	<b>480</b>	<b>18,112</b>	<b>50,231</b>	

	Bed Type	Balcony	Kitchenette	Support Space	Accessible	Which Room
Room Number					ADA	
Level 1	<b>MOTOR COURT</b>					
141	448	80			ADA Room	
142	448	80				
143	448	80				
144	448	80				
145	448	80				
146	448	80				
147	448	80				
148	448	80				
149	448	80				
150	448	80				
151	448	80				
152	448	80				
Mech				266		
Storage				224		
<b>Subtotal</b>	<b>5,376</b>	<b>960</b>		<b>490</b>		
<b>Motor Court Totals</b>	<b>5,376</b>	<b>960</b>	<b>0</b>	<b>490</b>	<b>6,826</b>	

<b>Grand Totals</b>	<b>30,688</b>	<b>7,287</b>	<b>480</b>	<b>18,602</b>	<b>57,057</b>	<b>Net SF</b>
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EXHIBIT A - PROPOSED SPACE PROGRAM

<b>Henry Horton State Park - Proposed Space Program</b>
<b>SBC # 529-000-02-2019</b>
<b>September 15, 2021</b>
<b>The following space program proposes renovating the existing Motor Court and demolishing and constructing a new Lodge</b>

	ROOM	Patio	Kitchenette	Support Space	Accessible
Room Number	Square Feet	Square Feet	Square Feet	Square Feet	ADA
Level 1	<b>(NEW) LODGE FIRST FLOOR</b>				
1	520	90			
2	520	200	175		ADA
3	520	90			
4	520	90			
5	520	90			
6	520	90			
7	520	90			
8	520	90			
9	520	90			
10	520	90			
11	520	90			
12	520	90			
13	520	90			
14	520	90			
15	520	90			
16	520	90			
17	520	90			
18	520	90			
19	520	90			
20	520	90			
21	520	90			
22	520	90			
23	520	90			
24	520	90			
25	520	90			
26	520	90			
27	520	90			
28	520	90			
29	520	90			

30	520	90			
31	520	200	150		ADD
Entry Canopy				1,400	
Lobby				200	
Reservation				250	
Gift Shop				150	
Info				100	
Office				420	
Office				420	
Office				420	
Men				300	
Board Room				500	
Women				300	
Meeting Room				3,000	
Warming Kit.				450	
Storage				400	
Janitor				80	
Housekeeping				800	
Water Heater				130	
Water Heater				160	
Stair				200	
Stair				200	
Stair				200	
Circulation				3,000	
Elevator				90	
<b>Sub Total</b>	<b>16,120</b>	<b>3,010</b>	<b>325</b>	<b>13,170</b>	

	Room	Balcony	Kitchenette	Support Space	Accessible
	Square Feet	Square Feet	Square Feet	Square Feet	ADA
Level 2	<b>(NEW) LODGE SECOND FLOOR</b>				
32	520	90			
33	520	200	120		ADA
34	520	90			
35	520	90			
36	520	90			
37	520	90			

38	520	90			
39	520	90			
40	520	90			
41	520	90			
42	520	90			
43	520	90			
44	520	90			
45	520	90			
46	520	90			
47	520	90			
48	520	90			
49	520	90			
50	520	90			
51	520	90			
52	520	90			
53	520	90			
54	520	90			
55	520	90			
56	520	90			
57	520	90			
58	520	90			
59	520	90			
60	520	90			
61	520	90			
62	520	90			
63	520	200	120		ADA
Upper Lounge				2,000	
Meeting Room				600	
Meeting Room				600	
Elev. Equip				75	
I.T.				300	
Men				300	
Women				300	
Main Mechanical				420	
Housekeeping				720	
Janitor				160	
Mech.				180	
Circulation				3,000	



<b>Subtotal</b>	<b>16,640</b>	<b>3,100</b>	<b>240</b>	<b>8,655</b>	
<b>Lodge Totals</b>	<b>32,760</b>	<b>6,110</b>	<b>565</b>	<b>21,825</b>	<b>61,260</b>

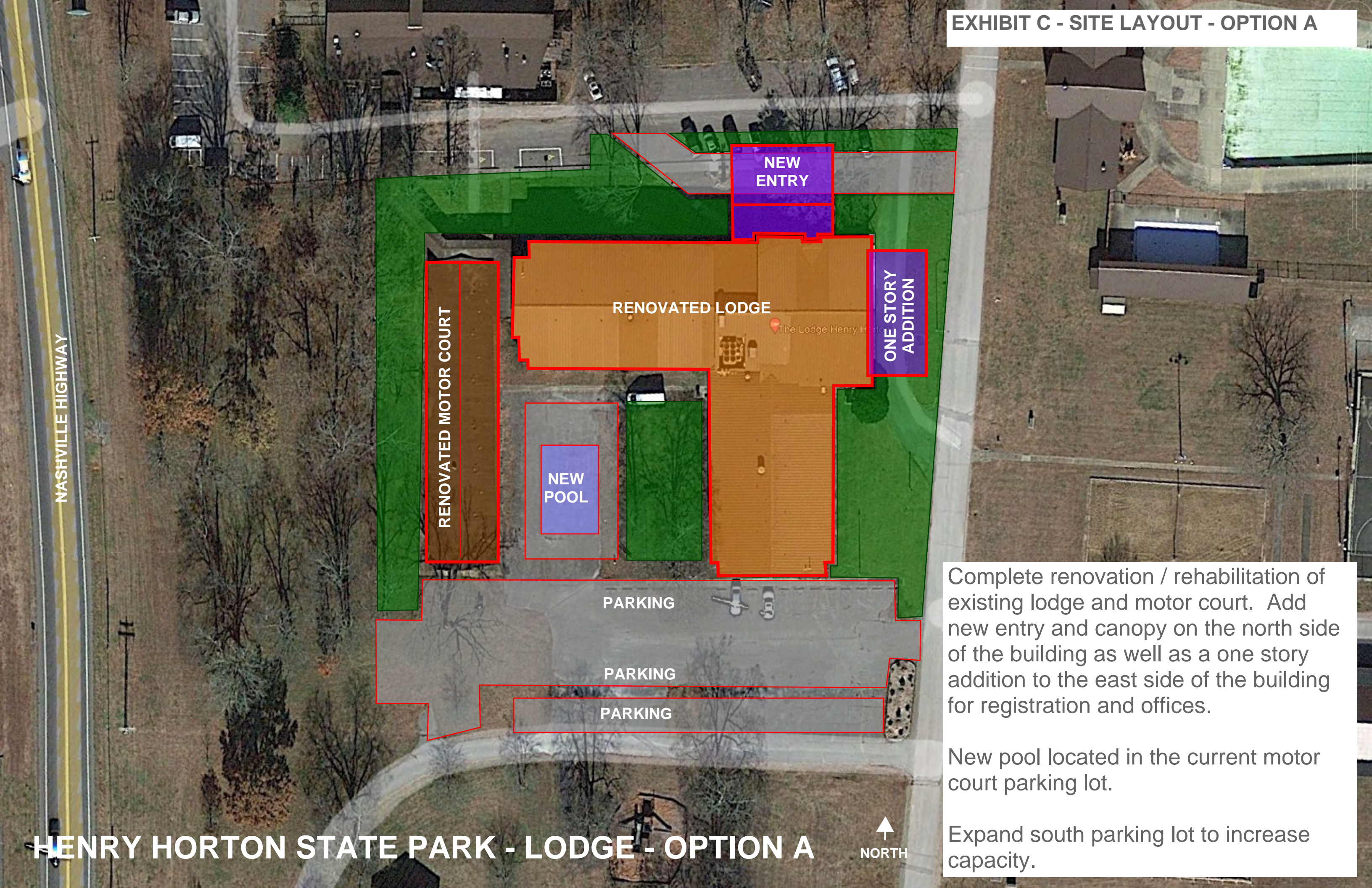
	Bed Type	Balcony	Kitchenette	Support Space	Accessible
					ADA
<b>Level 1</b>	<b>MOTOR COURT - EXISTING RENOVATED</b>				
64	448	80			ADA Room
65	448	80			
66	448	80			
67	448	80			
68	448	80			
69	448	80			
70	448	80			
71	448	80			
72	448	80			
73	448	80			
74	448	80			
75	448	80			
Mech				266	
Storage				224	
<b>Subtotal</b>	<b>5,376</b>	<b>960</b>		<b>490</b>	
<b>Motor Court Totals</b>	<b>5,376</b>	<b>960</b>	<b>0</b>	<b>490</b>	<b>6,826</b>

<b>Building Totals</b>	<b>38,136</b>	<b>7,070</b>	<b>565</b>	<b>22,315</b>	<b>68,086</b>
					<b>NET SF</b>

<b>SWIMMING POOL</b>					
25 x 50	<b>1,250</b>				
Deck Area	<b>1,750</b>				
Pool Equipment	<b>300</b>				
<b>Total</b>	<b>3,300</b>	Pool Area			

<b>PARKING</b>					
125 @ 185 SF	23,125	Parking			
25 x 150	3750	Access Drives			
<b>Total</b>	<b>26,875</b>	<b>Paved Area</b>			





NASHVILLE HIGHWAY

**HENRY HORTON STATE PARK - LODGE - OPTION A**

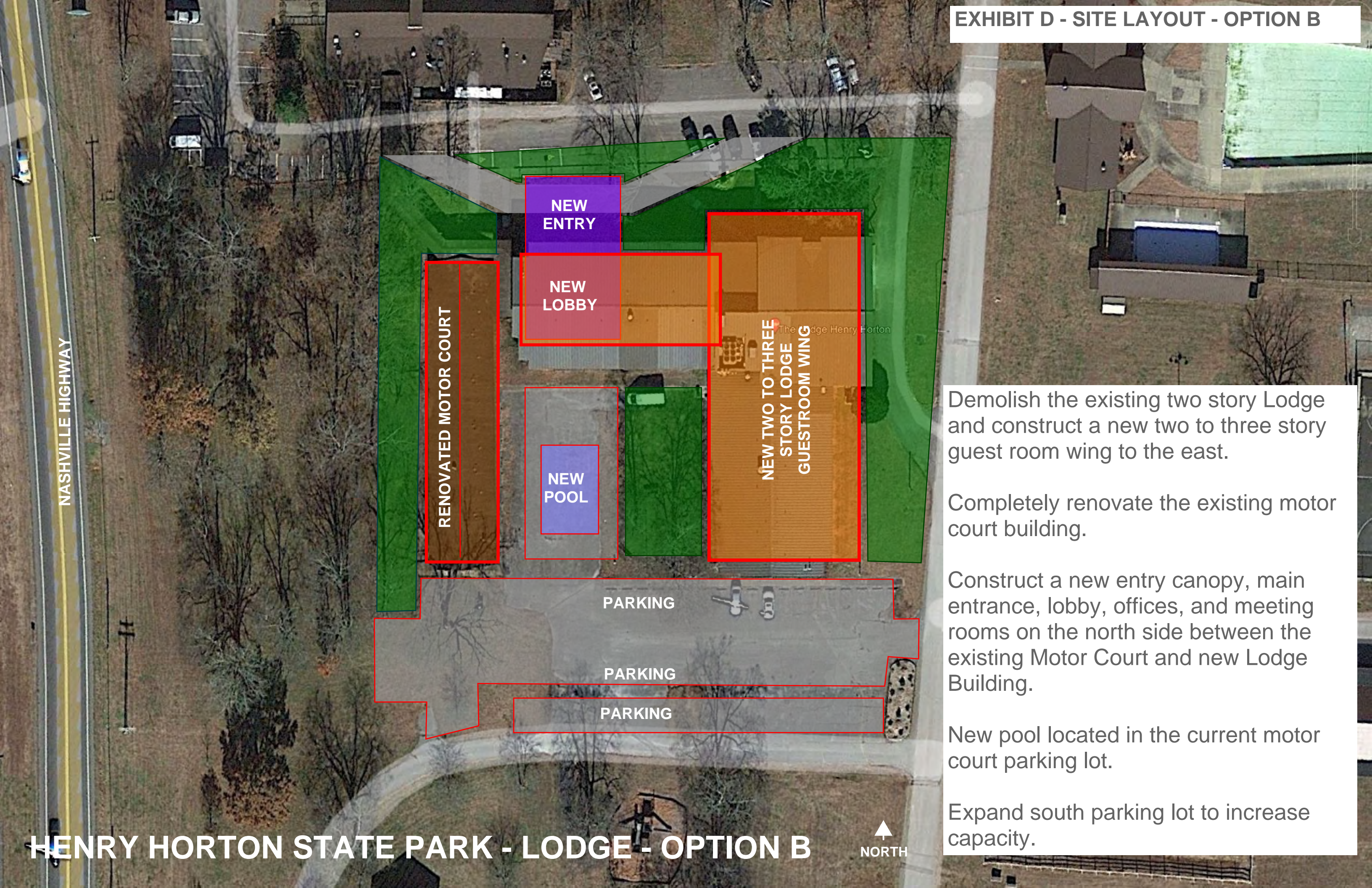


Complete renovation / rehabilitation of existing lodge and motor court. Add new entry and canopy on the north side of the building as well as a one story addition to the east side of the building for registration and offices.

New pool located in the current motor court parking lot.

Expand south parking lot to increase capacity.





NASHVILLE HIGHWAY

NEW ENTRY

NEW LOBBY

RENOVATED MOTOR COURT

NEW POOL

NEW TWO TO THREE STORY LODGE GUESTROOM WING

PARKING

PARKING

PARKING

Demolish the existing two story Lodge and construct a new two to three story guest room wing to the east.

Completely renovate the existing motor court building.

Construct a new entry canopy, main entrance, lobby, offices, and meeting rooms on the north side between the existing Motor Court and new Lodge Building.

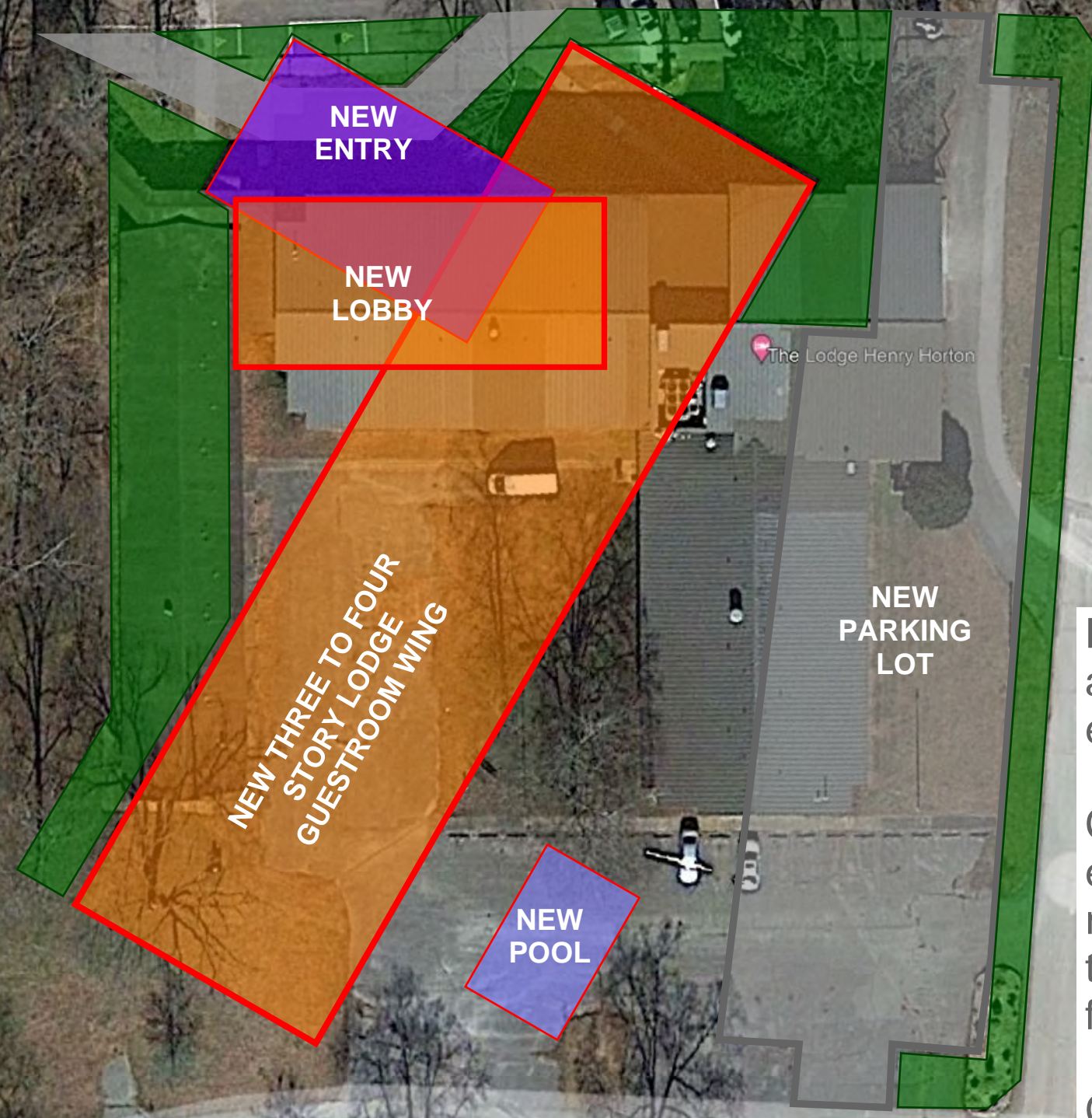
New pool located in the current motor court parking lot.

Expand south parking lot to increase capacity.





NASHVILLE HIGHWAY



Demolish both the existing Motor Court and Lodge buildings and construct an entirely new facility.

Construct a new entry canopy, main entrance, lobby, offices, and meeting rooms on the northwest side of the site that faces the approach drive to the facility.

Construct a new pool located at the south end of the site.

Create a new parking lot along the east side of the site.





## EXHIBIT F - OPINION OF PROBABLE COST

Option A				
	count	unit	cost	total
<b>Lodge Improvements</b>				
Room Renovation	64	each	\$ 45,000.00	\$ 2,880,000.00
Common & Support Space	21825	sqft	\$ 275.00	\$ 6,001,875.00
New Pool	1	each	\$ 400,000.00	\$ 400,000.00
Site Improvements	1	lump sum	\$ 500,000.00	\$ 500,000.00
			Subtotal	\$ 9,781,875.00
<b>Motorcourt Improvements</b>				
Room Renovation	12	each	\$ 45,000.00	\$ 540,000.00
Common & Support Space	500	sqft	\$ 250.00	\$ 125,000.00
			Subtotal	\$ 665,000.00
			Total	\$ <b>10,446,875.00</b>
			Escalation 15%	\$ <b>1,567,031.25</b>
			Option A Total	\$ <b>12,013,906.25</b>

Option B				
	count	unit	cost	total
<b>Lodge Improvements</b>				
New Lodge	61260	sqft	\$ 350.00	\$ 21,441,000.00
New Pool	1	each	\$ 400,000.00	\$ 400,000.00
Site Improvements	1	lump sum	\$ 700,000.00	\$ 700,000.00
			Subtotal	\$ 22,541,000.00
<b>Motorcourt Improvements</b>				
Room Renovation	64	each	\$ 40,000.00	\$ 2,560,000.00
Common & Support Space	500	sqft	\$ 250.00	\$ 125,000.00
			Subtotal	\$ 2,685,000.00
			Total	\$ <b>25,226,000.00</b>
			Escalation 15%	\$ <b>3,783,900.00</b>
			Option B Total	\$ <b>29,009,900.00</b>

Option C				
	count	unit	cost	total
<b>Lodge Improvements</b>				
New Lodge	68260	sqft	\$ 365.00	\$ 24,914,900.00
New Pool	1	each	\$ 400,000.00	\$ 400,000.00
Site Improvements	1	lump sum	\$ 900,000.00	\$ 900,000.00
			Subtotal	\$ <b>26,214,900.00</b>
			Escalation 15%	\$ <b>3,932,235.00</b>
			Option C Total	\$ <b>30,147,135.00</b>



# PROGRAM DOCUMENT

## HENRY HORTON STATE PARK - LODGE RECONSTRUCTION

4201 NASHVILLE HIGHWAY, CHAPEL HILL, MARSHALL COUNTY, TENNESSEE 37034



SBC PROJECT NO.  
529/000-02-2019-03

| 01

### HENRY HORTON STATE PARK LODGE RECONSTRUCTION - COVER

4201 NASHVILLE HIGHWAY, CHAPEL HILL, MARSHALL COUNTY, TENNESSEE - | 31 AUGUST 2022



TENNESSEE  
State Parks



EOA  
ARCHITECTS  
*humanizing design®*

# EXECUTIVE SUMMARY

## HENRY HORTON STATE PARK - LODGE RECONSTRUCTION - RECAP OF 2021 STUDY

By the request of STREAM, EOA is re-evaluating the program document and recommendations.

The following is a recap of the options from the 2021 report:

**Option A:** Complete renovation / rehabilitation of the existing lodge and motor court. Add a new entry and canopy on the north side of the building as well as a one story addition to the east side of the building for registration and offices.

**Option B:** Demolish the existing two story lodge and construct a new two to three story guest room wing to the east. Completely renovate the existing motor court building. Construct a new entry canopy, main entrance, lobby, offices, and meeting rooms on the north side between the existing motor court and new lodge building. Build a new pool located in the current motor court parking lot. Expand the south parking lot to increase capacity.

**Option C:** Demolish both the existing motor court and lodge buildings and construct an entirely new facility. Construct a new entry canopy, main entrance, lobby, offices, and meeting rooms on the northwest side of the site that faces the approach drive to the facility. Construct a new pool located at the south end of the site. Create a new parking lot along the east side of the site.

Factors related to the re-evaluation include the following: The options listed above would require that the lodge be closed during the construction process; the age of the facility, approximately 52 years, building systems are aging; architectural restrictions with solid masonry wall partitions between most guest rooms prevent enlargement; aesthetic disconnect of the existing facility as compared to the new visitor's center and restaurant completed in 2021, and the success of recently completed lodges in the State Park System.



# EXECUTIVE SUMMARY

## HENRY HORTON STATE PARK - LODGE RECONSTRUCTION - 2021 OPTION DIAGRAMS AND OPINION OF PROBABLE COST



Option A				
	count	unit	cost	total
<b>Lodge Improvements</b>				
Room Renovation	64	each	\$ 45,000.00	\$ 2,880,000.00
Common & Support Space	21825	sqft	\$ 275.00	\$ 6,001,875.00
New Pool	1	each	\$ 400,000.00	\$ 400,000.00
Site Improvements	1	lump sum	\$ 500,000.00	\$ 500,000.00
			Subtotal	\$ 9,781,875.00
<b>Motorcourt Improvements</b>				
Room Renovation	12	each	\$ 45,000.00	\$ 540,000.00
Common & Support Space	500	sqft	\$ 250.00	\$ 125,000.00
			Subtotal	\$ 665,000.00
			<b>Total</b>	<b>\$ 10,446,875.00</b>
			Escalation: 2021 to 2022	15.00% \$ 1,567,031.25
			Escalation: 2022 to 2023	13.00% \$ 1,561,807.81
			Escalation: 2023 to 2024	12.00% \$ 1,629,085.69
			Escalation: 2024 to 2025	10.00% \$ 1,520,479.98
			Escalation: 2025 to 2026	10.00% \$ 1,672,527.97
			<b>Option A Total</b>	<b>\$ 18,397,807.70</b>



Option B				
	count	unit	cost	total
<b>Lodge Improvements</b>				
New Lodge	61260	sqft	\$ 350.00	\$ 21,441,000.00
New Pool	1	each	\$ 400,000.00	\$ 400,000.00
Site Improvements	1	lump sum	\$ 700,000.00	\$ 700,000.00
			Subtotal	\$ 22,541,000.00
<b>Motorcourt Improvements</b>				
Room Renovation	64	each	\$ 40,000.00	\$ 2,560,000.00
Common & Support Space	500	sqft	\$ 250.00	\$ 125,000.00
			Subtotal	\$ 2,685,000.00
			<b>Total</b>	<b>\$ 25,226,000.00</b>
			Escalation: 2021 to 2022	15.00% \$ 3,783,900.00
			Escalation: 2022 to 2023	13.00% \$ 3,771,287.00
			Escalation: 2023 to 2024	12.00% \$ 3,933,742.44
			Escalation: 2024 to 2025	10.00% \$ 3,671,492.94
			Escalation: 2025 to 2026	10.00% \$ 4,038,642.24
			<b>Option B Total</b>	<b>\$ 44,425,064.62</b>



# EXECUTIVE SUMMARY

## HENRY HORTON STATE PARK - LODGE RECONSTRUCTION - 2021 OPTION DIAGRAMS AND OPINION OF PROBABLE COST



Option C				
	count	unit	cost	total
<b>Lodge Improvements</b>				
New Lodge	68260	sqft	\$ 365.00	\$ 24,914,900.00
New Pool	1	each	\$ 400,000.00	\$ 400,000.00
Site Improvements	1	lump sum	\$ 900,000.00	\$ 900,000.00
			Subtotal	\$ 26,214,900.00
			Escalation: 2021 to 2022	15.00% \$ 3,932,235.00
			Escalation: 2022 to 2023	13.00% \$ 3,919,127.55
			Escalation: 2023 to 2024	12.00% \$ 4,087,951.51
			Escalation: 2024 to 2025	10.00% \$ 3,815,421.41
			Escalation: 2025 to 2026	10.00% \$ 4,196,963.55
			<b>Option C Total</b>	<b>\$ 46,166,599.01</b>



# PROGRAM

## HENRY HORTON STATE PARK - LODGE RECONSTRUCTION - GENERAL SCOPE

The following are recommendations for the construction of a new lodge, demolition of existing structures and site improvements.

**Lodge:** Construct as new lodge on the site while the existing lodge remains open: Three locations are suggested on the next page. The new lodge would contain 74 guest rooms and two ADA rooms for a total of 76. Other program spaces include, entry canopy, lobby, reception / reservation desk, gift shop, lounge, offices, IT room, meeting rooms, warming kitchen, board room and support spaces. Refer to space program document.

**Lodge Pool:** Provide a new resort pool approximately 25 ft x 50ft, a surrounding deck area of approximately 1,750 sf., and a nearby pool mechanical and equipment of approximately 300 sf.

**Parking:** Increase and improve existing parking and drive areas.

**Demolition of Existing Structures:** Four structures are targeted for demolition. They include the following: The former restaurant building located near the current entrance, the existing two story lodge building, and one story motor court.

**Site Roadway Improvements:** Create a new park entrance that aligns with the entry to the gold course parking lot. This re-alignment will create a direct drive to access parking to the recently constructed visitors center, restaurant, and proposed new lodge. Improve inner loop road that circles the existing pool. Refer to site diagram document.

# PROGRAM

## HENRY HORTON STATE PARK - LODGE RECONSTRUCTION - LODGE SPACE PROGRAM

(NEW) LODGE PROGRAM					
ROOM	QANTITY	ROOM SQ. FT.	SUB TOTAL	PATIO	KITCHENETTE
Guest Rooms	74	520	38,480	6660	
ADA Guest Rooms	2	550	1,100	600	475
Entry Canopy	1	1,400	1,400		
Lobby	1	200	200		
Upper Lounge	1	200	200		
Reservation	1	250	250		
Gift Shop	1	150	150		
Information Area	1	100	100		
Office	3	420	1,260		
Staff Break Room	1	350	350		
Staff Restrooms	2	80	160		
I.T Room	1	300	300		
Men	1	300	300		
Board Room	1	600	600		
Women	1	300	300		
Large Meeting Room	1	3,000	3,000		
Medium . Meeting Room	2	600	1,200		
Warming Kit.	1	450	450		
Storage	1	400	400		
Janitor	1	80	80		
Housekeeping / Laundry	1	1,000	1,000		
Mechanical Room	1	600	600		
Water Heater	1	130	130		
Water Heater	1	160	160		
Stair	1	200	200		
Stair	1	200	200		
Stair	1	200	200		
Circulation	1	3,000	3,000		
Elevator	2	90	180		
Elevator Equipment	2	80	160		
<b>Sub Total</b>			<b>56,110</b>	<b>7,260</b>	<b>475</b>
<b>Lodge Totals</b>					<b>63,845</b>

SWIMMING POOL				
25 x 50		1,250		
Deck Area		1,750		
Pool Equipment		300		
<b>Total</b>		<b>3,300</b>		Pool Area



# PROGRAM

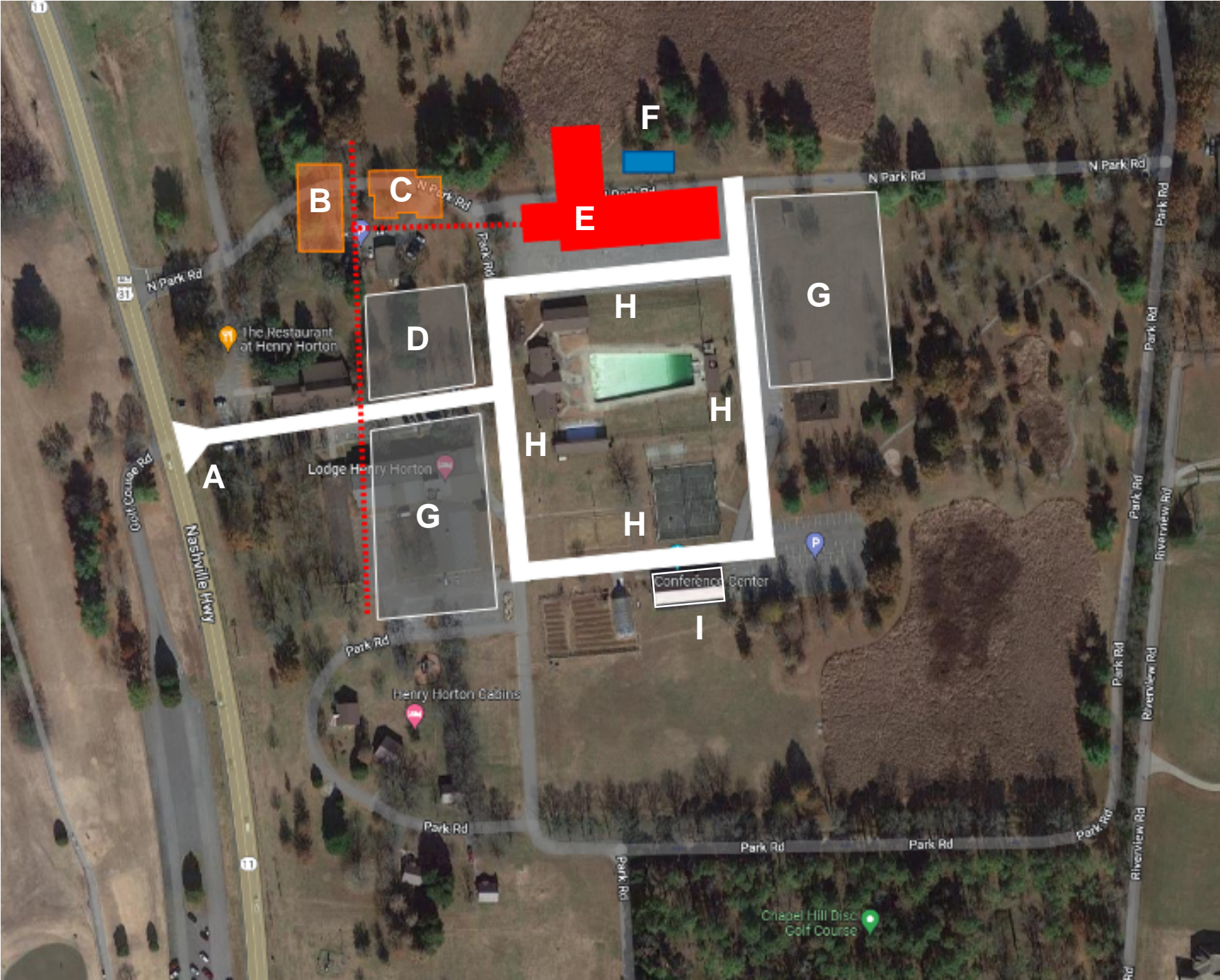
## HENRY HORTON STATE PARK - LODGE RECONSTRUCTION - OVERALL SITE





# PROGRAM

## HENRY HORTON STATE PARK - LODGE RECONSTRUCTION - SITE A



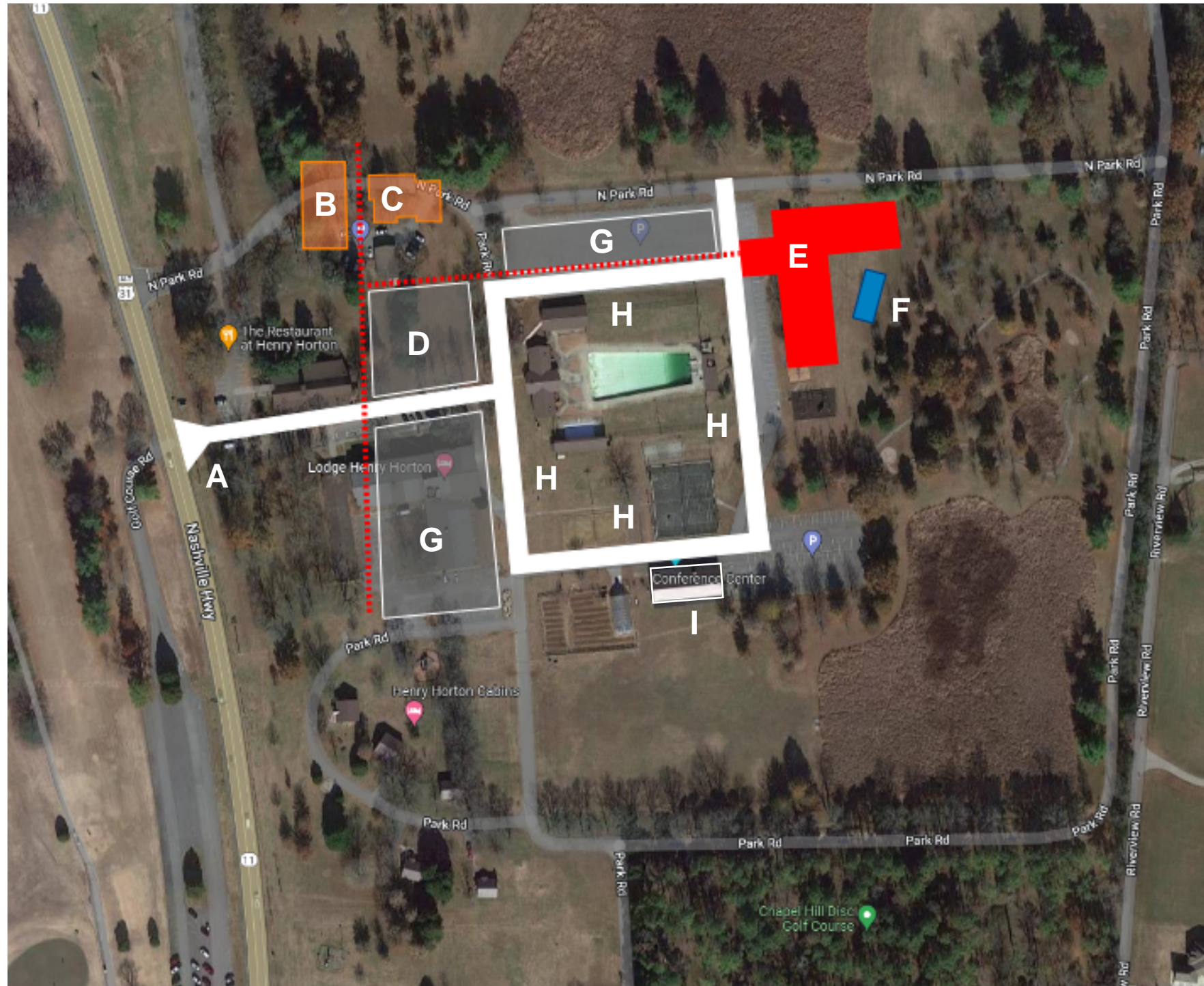
### Legend:

- A. New Park Entrance
- B. Existing Visitors Center
- C. Existing Restaurant
- D. Existing Parking Lot
- E. New Lodge
- F. New Lodge Pool
- G. New Parking Lot
- H. Driveway Improvements
- I. Existing Conference Center



# PROGRAM

## HENRY HORTON STATE PARK - LODGE RECONSTRUCTION - SITE B



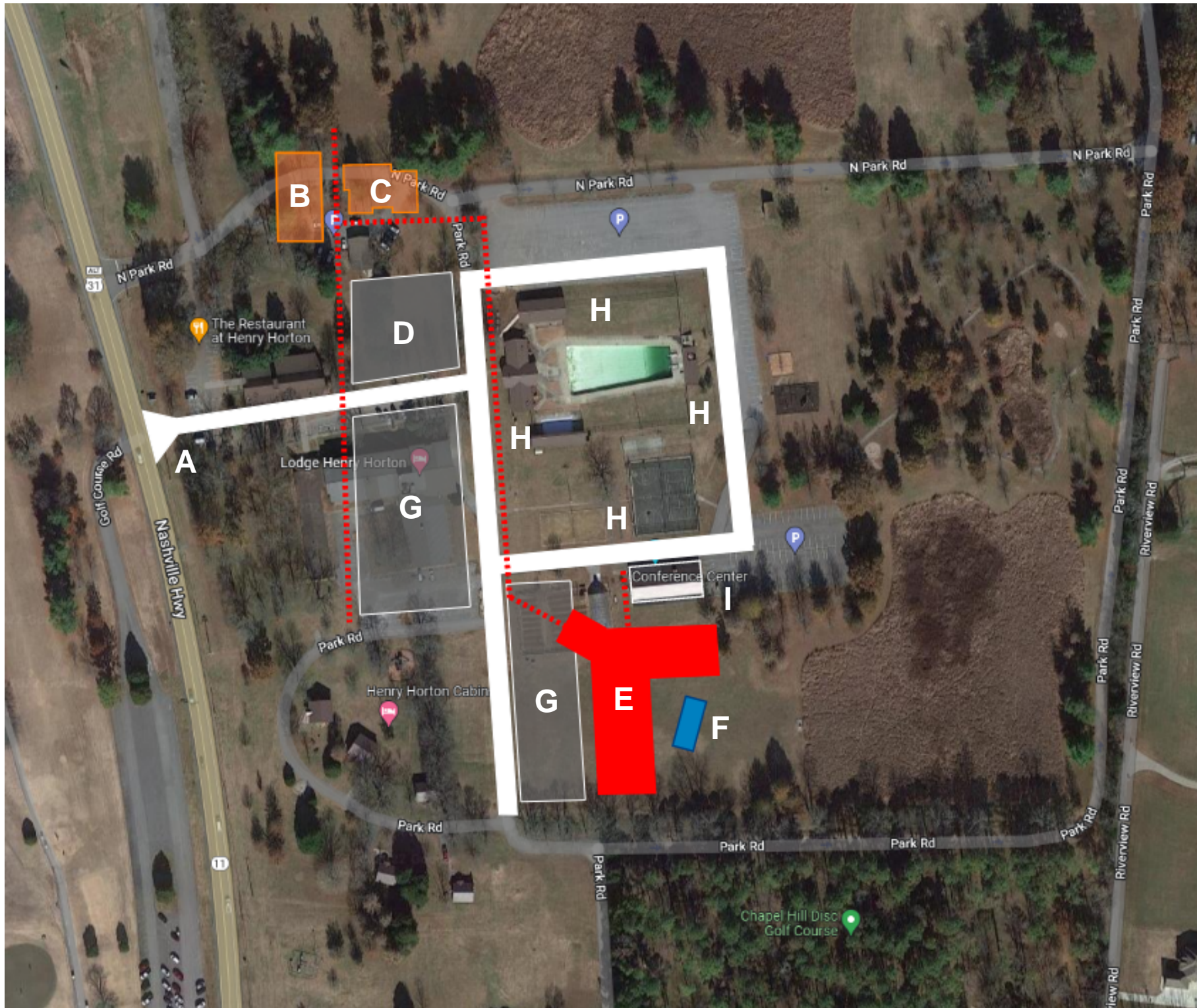
### Legend:

- A. New Park Entrance
- B. Existing Visitors Center
- C. Existing Restaurant
- D. Existing Parking Lot
- E. New Lodge
- F. New Lodge Pool
- G. New Parking Lot
- H. Driveway Improvements
- I. Existing Conference Center



# PROGRAM

## HENRY HORTON STATE PARK - LODGE RECONSTRUCTION - SITE C



### Legend:

- A. New Park Entrance
- B. Existing Visitors Center
- C. Existing Restaurant
- D. Existing Parking Lot
- E. New Lodge
- F. New Lodge Pool
- G. New Parking Lot
- H. Driveway Improvements
- I. Existing Conference Center



# DESIGN & CONSTRUCTION DURATION

## HENRY HORTON STATE PARK - LODGE RECONSTRUCTION

### Anticipated Design Duration by Phase

Programming - Six Weeks

Schematic Design – Eight Weeks

Design Development – Ten Weeks

Construction Documents – Fourteen Weeks

**Total Design Duration - Thirty Eight Weeks or 9.5 Months**

### Anticipated Construction Duration

Bid / Negotiation - Eight Weeks

Construction Administration – Seventy Seven Weeks

Project Closeout - Four Weeks

**Total Bid & Construction Duration Eighty Nine Weeks or 22.25 Months**

**Total Project Duration One Hundred Twenty Seven Weeks or 31.75 Months\***

\*Note: Does not include review time by STREAM and Stakeholders between design phases.

# OPINION OF PROBABLE COST

## HENRY HORTON STATE PARK - LODGE RECONSTRUCTION

### Attachment A

Opinion of Probable Cost-Henry Horton State Park Lodge Reconstruction

Date: 9/2/22

Divisional Breakdown			
		Cost per GSF	Estimate Amount
Division 1	General Requirements	\$ 20.00	\$ 1,260,700
Division 2	Existing Conditions	\$ 15.94	\$ 1,005,000
Division 3	Concrete	\$ 44.00	\$ 2,773,540
Division 4	Masonry	\$ 50.00	\$ 3,151,750
Division 5	Metals	\$ 25.00	\$ 1,575,875
Division 6	Wood, Plastic, Composites	\$ 14.00	\$ 882,490
Division 7	Thermal & Moisture Protection	\$ 11.00	\$ 693,385
Division 8	Openings	\$ 26.00	\$ 1,638,910
Division 9	Finishes	\$ 48.00	\$ 3,025,680
Division 10	Building Specialties	\$ 4.00	\$ 252,140
Division 11	Equipment	\$ 1.59	\$ 100,000
Division 12	Furnishings	\$ 31.73	\$ 2,000,000
Division 13	Special Conditions	\$ 7.93	\$ 500,000
Division 14	Conveying Systems	\$ 3.97	\$ 250,000
Division 21	Fire Suppression	\$ 7.00	\$ 441,245
Division 22	Plumbing	\$ 28.00	\$ 1,764,980
Division 23	Mechanical	\$ 32.00	\$ 2,017,120
Division 26	Electrical & Communication	\$ 45.00	\$ 2,836,575
Division 31	Earthwork	\$ 15.86	\$ 1,000,000
Division 32	Exterior Improvements	\$ 15.86	\$ 1,000,000
<b>Subtotal Direct Cost of Work</b>			<b>\$ 28,169,390</b>
General Conditions			\$ 1,408,470
Construction Contingency			\$ 2,816,939
Design Contingency			\$ 2,816,939
Builder's Risk			\$ 422,541
Bond			\$ 422,541
Contractor's Fee			\$ 2,816,939
<b>Subtotal Soft Costs</b>			<b>\$ 10,704,368</b>
Escalation to 2023		13%	\$ 5,053,589
Escalation to 2024		12%	\$ 5,271,282
Escalation to 2025		10%	\$ 4,919,863
Escalation to 2026		10%	\$ 5,411,849
<b>Total Construction Cost</b>			<b>\$ 59,530,340</b>





# PROGRAM

## HENRY HORTON STATE PARK - LODGE RECONSTRUCTION - OVERALL SITE

