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Eisenhower National Historic Site
Gettysburg, Pennsylvania

Eisenhower National Historic Site
Visitor Transportation and Access Study
EISE 241538

The Eisenhower Home

Source: Project Team

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Acknowledgments

Eisenhower National Historic Site
Ahna Wilson, EISE Site Manager
William T. Justice, Acting EISE Superintendent
Ed Clark, EISE/GETT Superintendent
Zach Bolitho, Chief, Resource Management
Michael Florer, Curator
John Joyce, Interpretive Ranger
Richard Lemmers, Interpretive Ranger
Winona Peterson, Cultural Resources Program Manager
Marc Pratt, Chief, Maintenance
John A. D. Tarbet, Interpretive Ranger

U.S. DOT Volpe Center
Jessica Baas, Community Planner, Project Manager
Eric Burkman, Community Planner
Danielle Kittredge, Community Planner
Adam Perruzzi, Community Planner
Heather Hannon, On-site Contractor

National Park Service Denver Service Center
Patrick Shea, Transportation Technical Specialist, Project Manager

Acronyms

The following terms are used in this report:

ABA	Architectural Barriers Act
CUA	Commercial Use Authorization
CY	Calendar Year
DSC	Denver Service Center
EISE	Eisenhower National Historic Site
GETT	Gettysburg National Military Park
LRIP	Long Range Interpretive Plan
NEPA	National Environmental Policy Act
NPS	National Park Service
PAOT	People at one time
VUM	Visitor Use Management
WWII	World War II

Executive Summary

The Eisenhower National Historic Site (EISE) has seen a decline in visitation since its peak of 182,000 visitors in 1981, the first full year of operation after the site initially opened to the public in 1980. Today there are approximately 55,500 visitors annually. Visitors arrive to the site solely via shuttle from Gettysburg National Military Park Visitor Center (GETT), which has been standard practice since the site opened to the public over 35 years ago. The only exceptions are the winter months of January and February when the shuttle does not operate and visitors can drive directly to EISE and park on-site. The Eisenhower Home is the primary attraction of EISE, but visitors can also explore the grounds, Reception Center, Farm #2, and other buildings on the property. EISE is not an entrance fee park, and the shuttle ticket fee is considered a transportation fee.

The project team was tasked to analyze the benefits and impacts of the current shuttle systems, as well as alternative options for visitors to gain access to EISE. While a discussion of pedestrian and bicyclist access is included, the shuttle service and direct site access through on-site parking are the primary focus of this study.

Occurring concurrent with this study is the *Visitor Use Management Plan* (VUM Plan) and visitor survey, which will be used to create the vision and guide future visitor experiences and park operations. The VUM Plan is anticipated to be completed in 2018 and this study will be used to inform the transportation portion of the VUM Plan.

The *Visitor Transportation and Access Study* began with a review of previously completed reports and studies, visitation data, and information from EISE staff and partners. The project team conducted a site visit and interviews in February 2017 to gain a better understanding of the visitor's experience, current shuttle operations, anticipated future visitation demand, and on-site parking alternatives. Based on the analysis of existing data and interviews, a second site visit was conducted in April 2017 to discuss visitor use capacity and scenarios, on-site parking analysis, shuttle analysis, and observe shuttle operations.

The shuttle provides benefits and challenges for both visitors and the park. While the shuttle allows for the cultural and pastoral landscape to be preserved at EISE, not having on-site parking options for visitors can restrict opportunities for spontaneous visits and the flexibility in the amount of time visitors spend at the site. Removing the shuttle service completely and providing access by private vehicle only also creates challenges by needing to construct on-site parking and considering the additional management implications of allowing direct access to the site.

To analyze the current shuttle operations three service metrics were used for the analysis, including cost per round trip, cost per revenue mile, and cost per revenue hour. All three metrics have seen increases of 16-20 percent from 2011 to 2016. Operation and maintenance cost for the shuttle have steadily been increasing while at the same time visitation has been declining. Currently, approximately 35 percent of the $9 shuttle fee goes to the shuttle operator, Gettysburg Tours. The shuttle operator has experienced a net loss for 2011-2016, due to declining revenue and capital and depreciation costs. The shuttle analysis indicates that the main reasons the shuttle operator experienced net losses is a combination of declining visitation and the proportion of the fare it receives from the ticket sales, not necessarily any operational deficiencies.

Maximum future visitation to EISE is primarily limited by the capacity of the Eisenhower Home, which is the main attraction of the site. The maximum capacity of the Eisenhower Home, determined by the VUM Plan team, is 125 people, which includes people waiting to enter the Eisenhower Home, on the tour of the Eisenhower Home, and finishing the tour. While this number is lower than the upwards of 270 visitors at the site at one time in the early 1980s, visitor experience and preservation of the site have been taken into consideration for determining the current maximum capacity of the Eisenhower Home.

Visitor demand scenarios were created to inform the analysis of future transportation options at the site. The four scenarios include visitation decreasing by 25 percent, remaining at a steady state, increasing by 25 percent, and achieving a maximum increase of 50 percent. The shuttle's current capacity was found to be sufficient even under the maximum increase in visitation scenario. An increase in ridership through visitation would help off-set the current shuttle financial loses. To see an increase in visitation, there likely needs to be improvements at both the GETT Visitor Center and at the park site, such as increased marketing, programming and amenities.

An analysis of direct access through on-site parking was conducted using two of the four visitor demand scenarios – visitation remaining at steady state and maximum increase in visitation – to provide on-site parking lot design alternatives. The smaller sized parking lot, of approximately 25,300 square feet, would have 33 regular parking spaces, 3 bus spaces, and 2 accessible spaces. The larger sized parking lot, of approximately 33,000 square feet, would have 49 regular parking spaces, 4 bus spaces, and 2 accessible spaces. Each parking lot was evaluated in two different locations – Location 1 at the Skeet Range and Location #2 at Millerstown Road. If an on-site parking lot is constructed, consideration should be given to an entrance fee that would offset the construction and maintenance of the parking lot, and generate revenue for the site.

Allowing access to EISE by any other means than the shuttle will require additional wayfinding signage, assessment of how fees are structured and collected, and access management.

Below are the recommendations of *Visitor Transportation and Access Study*. This set of recommendations can be pursued simultaneously, and some are currently being pursued:

- Re-evaluate the current shuttle contract and restructure the fare breakdown. The operator receives approximately 35 percent of the cost of each ticket. This model may have been appropriate when visitation was higher, but now needs to be revisited.
- Consider enhancements for the GETT Visitor Center for EISE visitors that may include: improved EISE information on shuttle access, wayfinding, dedicated parking, service adjustments, and shuttle stop improvements for shade and seating.
- Consider the findings from the VUM Plan and adapt the recommendations of this study accordingly. The VUM Plan includes a visitor use survey that will provide valuable information on how visitors view the transportation options to the site.
- Consider further analysis into contracting options for the shuttle and vehicle replacement. Further analysis into potential options for the contracting method and also vehicles replacement options for the buses may help identify how to provide an adequate service at a reasonable cost to visitors. A restructuring of the fee breakdown may help ensure profitability of the shuttle operator and, therefore, the appeal for them to continue providing services.
- Allow for direct access of pedestrians and bicyclists to the site. This recommendation can be implemented regardless of shuttle changes or direct vehicle access.
- A final recommendation is to consider constructing a new on-site parking lot for direct vehicular access. Of the two locations identified for parking within this study, Location 1 near the Skeet Range, although more visible, has the benefit of easier access to the Eisenhower Home. Location 2 near Millerstown Road is better obscured from view of the house, but due to the distance from the Eisenhower Home, would require shuttle service and, therefore may negate the cost savings of eliminating the shuttle service from GETT. Either parking lot location could be considered in tandem with other transportation options. This study offers a preliminary analysis of allowing direct access to the site, and recommends further coordination and evaluation if this option is pursued.

Introduction

Project Purpose

The purpose of this project is to analyze the current shuttle operations and visitation at the Eisenhower National Historic Site (EISE), and conduct a feasibility analysis to analyze the benefits and challenges of changing the transportation options to the site. Visitation at EISE has declined over the past 20 years, a trend observed at other mid-20th century presidential homes and cultural sites in general. The decline in visitation at EISE is likely influenced by a number of factors, such as changing demographics of the visitation, and possibly including how visitors access the site.

EISE staff and the Northeast Region Senior Management have requested a study to evaluate the benefits and impacts of the current shuttle system, and potential conversion to direct vehicle access through on-site parking. Additionally, the current EISE shuttle service concession agreement with Gettysburg Tours expired December 31, 2016, and the site is now under contract for the first of three one-year extensions with the shuttle operator.

The *Visitor Access and Transportation Study* looks at the implications of enhancing the current shuttle system, the possibility of removing the shuttle system and creating visitor parking on-site, and providing direct bicyclist and pedestrian access on-site. This study will:

- Investigate why the shuttle was implemented and review recent assessments of the shuttle;
- Evaluate the current shuttle operations, including the benefits and potential challenges for the park and visitors;
- Document current EISE goals and objectives related to visitor access;
- Assess the use capacity of the Eisenhower Home and site;
- Identify whether potential changes to the contracting mechanism, shuttle operations or marketing/information could improve system efficiency/cost effectiveness;
- Analyze the transportation-related impacts of allowing direct vehicle access to the site, including an evaluation of several on-site parking locations;
- Evaluate the potential benefits and challenges of shuttle access and direct access, including recommendations for consideration; and
- Inform the Visitor Use Management Study (see below).

This study is not intended to be an exhaustive analysis of all transportation options at EISE, and is a preliminary study on the transportation components listed above.

Other Eisenhower NHS Planning Initiatives

There are several previously completed reports and studies that helped inform this study. They include the *Eisenhower Foundation Document* (2016), *Eisenhower Cultural Landscape Report* (2005), and Tom Crikelair and Associates' assessment of the shuttle service (2013), among others. A complete list can be found in the Appendix.

Concurrent with this *Visitor Transportation and Access Study*, the Denver Service Center, Planning Division (DSC) is working with EISE staff to develop a *Visitor Use Management Plan* (VUM Plan). The VUM Plan will establish a vision for the future of visitor experiences and park operations, including strategies to improve ease of visitor access, further assess whether site infrastructure can/should accommodate visitors driving to the site, and improve visitor interpretive services on site. The plan will provide guidance that decision makers may use for capital improvements, preservation, and development.

The VUM Plan will be completed in 2018, and also includes public outreach, a visitor survey and workshops to gather input for the development of the alternatives in the final plan. The *Visitor Transportation and Access Study* was not scoped to be a comprehensive evaluation of all transportation options for the site, and focuses on evaluating the current shuttle operations and a preliminary analysis of direct access. Further evaluation of transportation at the site will take place through the VUM Plan or additional studies.

The VUM Plan will be informed by a visitor use survey, which was be administered in July 2017. The survey asks questions about how visitors planned their visit, arrived at the site, suggestions for shuttle improvements, their experience on site, and their interest in additional informational programs. The results of this survey will not be available until after the *Visitor Transportation and Access Study* is complete. However, the findings from the visitor use survey should be considered alongside the recommendations from this study in decision making.

The VUM Plan and the Transportation and Access teams have coordinated on tasks, and held joint meetings and site visits to align transportation goals for future EISE improvements. This study will ultimately feed into the VUM Plan work and help guide the transportation related alternatives.

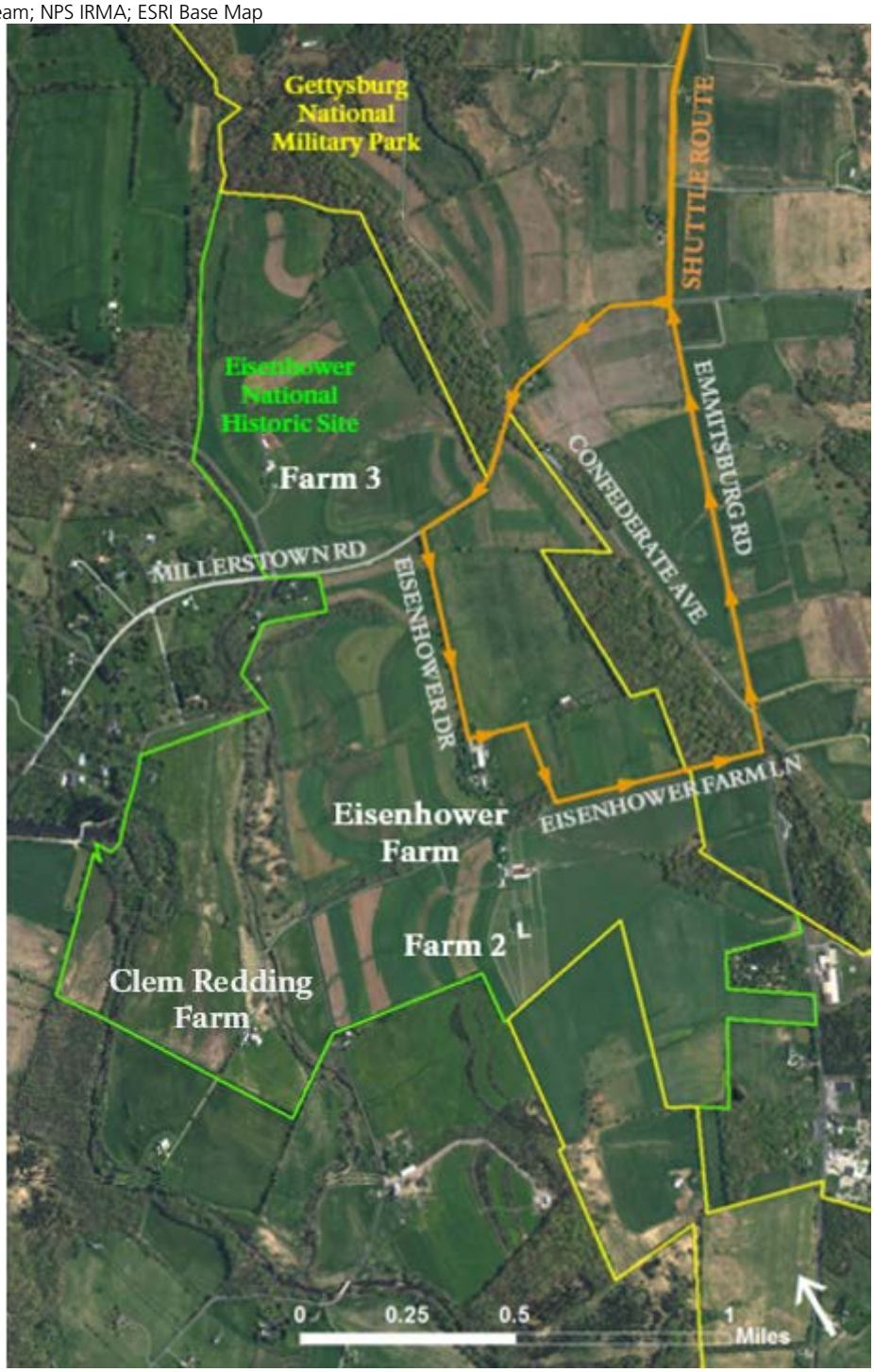
While the VUM Plan is underway, the NPS is also developing an update to the 2015 joint Gettysburg National Military Park and Eisenhower National Historic Site Trails Plan, as well as the forthcoming 2018 Long Range Interpretive Plan (LRIP) for EISE.

Site Background

General Dwight D. and Mamie Eisenhower purchased the property (previously called the Allen Redding farm) in 1951 with the intention of using the farmhouse and agricultural lands as a retirement farm. Two adjoining farms were later purchased by Eisenhower's associate W. Alton Jones and farmed in partnership. The site also includes an additional adjoining farm donated to the federal government to preserve the historic setting. In total EISE consists of 690 acres.

The farmhouse had been modified several times before the Eisenhowers purchased the property, but originally began as a log farmhouse built by Quintain Armstrong in the 1750s. Later updates in the mid-1850s included a brick addition and brick facing, a detached summer kitchen, and Dutch oven. In the 1920s the Reddings modernized the house with new plumbing and heating, and the enclosure of the back porch. The Eisenhowers began their own renovations in 1953, which involved razing the old farmhouse and building a new house on the site. A few original features were preserved such as the Dutch oven, wooden beams and paneling, and the brick section from the mid-1800s. The Eisenhowers moved into the renovated farmhouse in 1955 and visited often during Eisenhower's Presidency (1953-1961), using it as a weekend retreat and even as a "temporary White House" while he recovered from a heart attack. Following his presidency, General Eisenhower retired to the farm in 1961. For a brief summary of how the Eisenhowers altered the roads and access to the site, see the Appendix.

Figure 1
Eisenhower National Historic Site Boundary
Source: Project Team; NPS IRMA; ESRI Base Map



Access History

EISE opened to the public in 1980, less than one year after the death of Mrs. Eisenhower (General Eisenhower passed away in 1969). Visitor access to the site was provided via a shuttle, and at this time it was also envisioned that a Visitor Center would be built on the corner of Millerstown and Black Horse Tavern Roads. Shuttle access to the site was implemented quickly to give visitors access, with the intention that there would be further analysis on making the shuttle the sole access option. Visitors going to EISE board the shuttle at Gettysburg National Military Park (GETT) Visitor Center to travel to the site. In the 1980s the NPS collected a park fee that was a combination of entrance fee and shuttle fee. Later Eastern National, a non-profit organization that partners with the NPS and other public lands, collected the fees. Currently, ticketing is collected by the Gettysburg Foundation, and is only a shuttle/transportation fee. The Gettysburg Foundation owns and manages the GETT Visitor Center and Museum, and also provides limited support to the Eisenhower site.

The shuttle has provided the primary method for accessing the site since it opened in 1980. In the early days of the site, the shuttle was used to meet the high demand for visiting the site, and allowed for a large volume of visitors without having private vehicles encroach on the site. As shown in the Visitation Trends section below, visitation has declined at the site over the years, while the shuttle access has remained the same, with adjustments in response to the demand. While it is appropriate to reassess the access method and visitor experience, it is not possible to pinpoint any one reason for the decline in visitation.

Existing Site Access and Visitation Trends

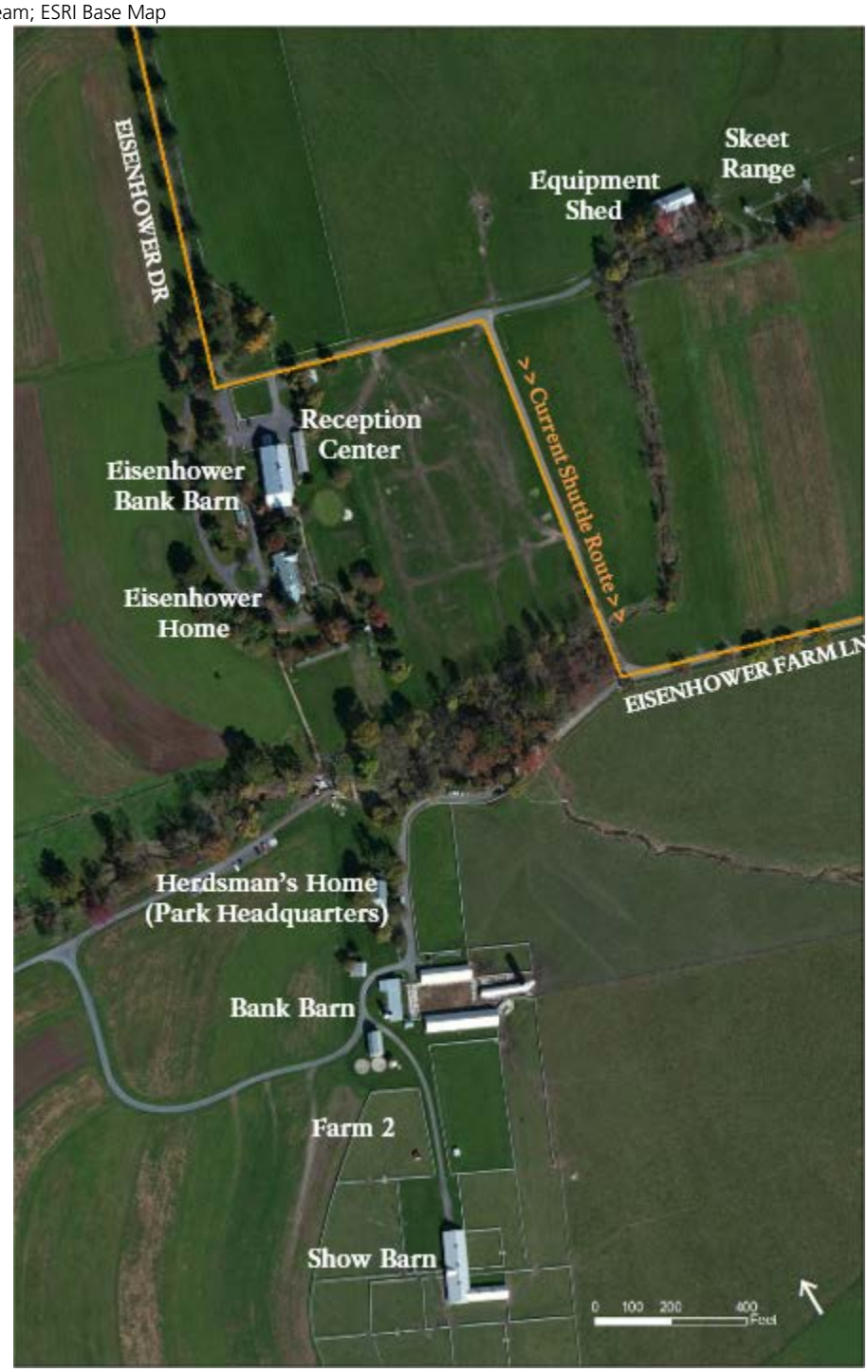
Visitor Site Access and Experience

Current access to the site for visitors varies depending on the time of year. From March through December visitors arrive via the shuttle, which leaves from the GETT Visitor Center. Visitors are allowed to drive and park at the site in January and February. When the shuttle is running, car-free access is possible, as regional transit is available from the Harrisburg International Airport and Harrisburg Amtrak station to GETT. Local transit buses also operate between the Gettysburg bus center and GETT Visitor Center. Figure 2 shows a site map of the Eisenhower Farm and Farm #2.

There are a few special event days where additional on-site parking is permitted, including the World War II (WWII) weekend in September.

Bicycles are not currently permitted on the site, and direct pedestrian access from the road or GETT is not encouraged.

Figure 2
Eisenhower National Historic Site
Source: Project Team; ESRI Base Map



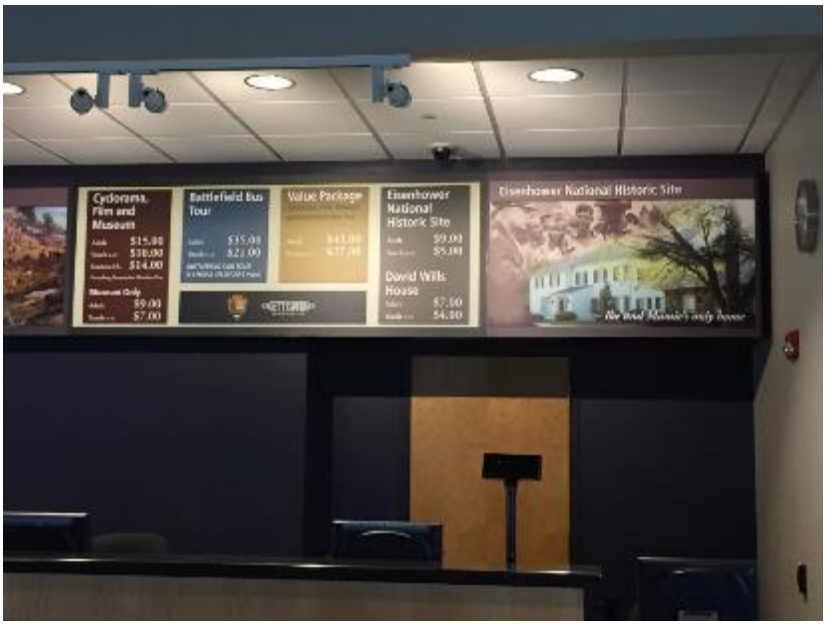
Pre-Arrival

From March to December, most EISE visitors arrive and park their private vehicles at the GETT Visitor Center (Figure 3), purchase a round trip shuttle bus ticket for $9.00, and travel four miles (approximately 10 minutes) to EISE with an understanding of the trip to EISE being a 1.5 to 2 hour time commitment (Figure 4). When visitors first arrive at the GETT Visitor Center site, they must navigate a complex parking lot, and then the GETT Visitor Center, in which EISE has a relatively low profile. EISE is listed alongside GETT attractions on the display where park activity tickets are sold, and shuttle access to EISE is presented to visitors as part of the park information and trip planning activities. EISE shuttle tickets are purchased at the Gettysburg Foundation desk (Figure 5) and then visitors assemble at the shuttle stop for departure (Figure 6).

Figure 3
Gettysburg Visitor Center, Parking Lots, and Shuttle Areas
Source: Project Team; ESRI Base Map

Figure 4
EISE Shuttle Route Map
Source: Project Team; ESRI Base Map

Figure 5
GETT Ticketing Area
Source: Project Team



During the peak season (April to October), the shuttle departs from GETT hourly from 9am to 4pm, with service available twice an hour during peak visitation times, from approximately 10:00am to 1:30pm, on Saturdays. During March, November, and December, there are two shuttle trips, one departing GETT at 10am and the other at 2pm. At EISE, the shuttle drops off and picks up passengers in front of the Reception Center and the Eisenhower Bank Barn. The shuttle fleet includes two vehicles with capacities of 43 and 57 passengers (one vehicle is wheelchair accessible). The shuttle can also be reserved in advance by tour groups for trips departing on the half hour.

Figure 6
EISE Shuttle Stop at GETT Visitor Center
Source: Project Team

In January and February, visitors arrive by car and park at the north end of the Eisenhower Bank Barn. There is no fee to enter the Eisenhower Home in January and February. The shuttle runs for two holiday weekends in the winter when visitation is higher (Martin Luther King, Jr. Day and Presidents' Day). EISE has its highest visitation for WWII weekend (third weekend in September, ~3,500 total visitors and ~600 living history volunteers), and visitors can drive to the site and park on the field south of the Skeet Range. During WWII weekend, if the parking fills up, visitors are sent back to the GETT Visitor Center to get on the shuttle to return to the site, and must also pay the shuttle fee. Overflow parking is also available at the Outlet Mall, from which visitors then take the Freedom Transit to the GETT Visitor Center.

Arrival

The paved lot at the north end of the Eisenhower Bank Barn serves as the drop-off and pick-up location for the shuttles and winter parking. The small lot in this area contains one handicap parking space. On Farm #2, visitors needing accessible parking can use the large grass/gravel area next to the Show Barn. There is currently no universal access to the Show Barn or an accessible entrance.

When visitors arrive at the site, they are greeted by an NPS interpreter or volunteer, and are either taken to the tour of the Eisenhower Home, or sent to the Reception Center prior to accessing the Eisenhower Home.

On-site Experience

The primary attraction of EISE is the Eisenhower Home, which is well preserved in its 1967 historic character. Either before or after completing the House tour (depending on how busy the site is), visitors are also directed to the Reception Center. The Reception Center, located next to the Eisenhower Bank Barn, offers a short introductory video, as well as an exhibit highlighting General Eisenhower's life from his boyhood days in Abilene, Kansas, through his military and presidential years, to retirement at his Gettysburg farm. The site's Reception Center is located in a historic building near the bus drop-off and pick-up location. Visitors are encouraged to tour the grounds, visit the Skeet Range, and walk to Farm #2

to view the Show Barn and cattle pens via a self-guided walk or audio tour. Ranger-led programs are offered seasonally, and children can participate in the Junior Secret Service Agent Program.

During the peak season (April to October), there are approximately eight tours per day of the Eisenhower Home. The number of tours offered daily varies from November to March. In January and February, tours are only offered at 10am and 2pm, Friday-Monday. Staff estimated that visitors spend on average one to two hours at the site, and so the average length of stay is estimated to be 1.5 hours.

The Reception Center has a small museum store that sells water and light snacks; there are no other food/beverage amenities available on the site.

Departure

The shuttle departs every hour and returns visitors to GETT, except for Saturdays during peak hours when it departs every half hour (this is a new schedule starting in 2017). The shuttle operator is flexible and will send more buses to the site if necessary.

According to park staff, the shuttle schedule can at times seem limiting to visitors; as they may not feel that they have sufficient time to explore Farm #2 after the tour of the Eisenhower Home and return on the next available shuttle.

Staff Access

Current access to the site for staff is off of Red Rock Road or Emmitsburg Road by car. Staff park their vehicles in a gravel area near EISE Headquarters, which are located on Farm #2. Staff formerly accessed the site via shuttle, but the Staff Parking Lot was added in the 1980s. Currently a pedestrian path (approximately 400 feet long) connects Farm #2 where staff park with Eisenhower Farm.

Visitation Data

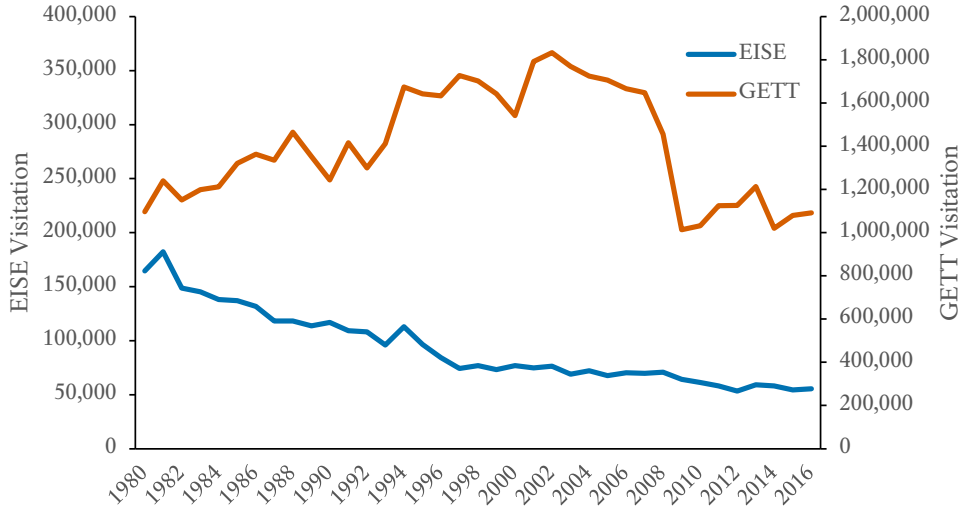
Visitation data was available for EISE on yearly, monthly, daily, and hourly levels. Additionally, visitation data for GETT was available on the yearly and monthly levels.

Yearly Visitation Data

Yearly visitation data is publicly available for both EISE and GETT, from 1980 until the present.[*] Yearly visitation at EISE has declined steadily since its peak of 182,000 in 1981. In 2016, the yearly visitation for EISE was 55,500. GETT saw an overall increase in visitation from 1980 until its peak of 1.83M in 2002. After 2002, visitation at GETT declined until 2010, and then increased from 2011-2013. Visitation hovered around 1.1M from 2014-2016 (Figure 7).

[*] Available at https://irma.nps.gov/Stats/

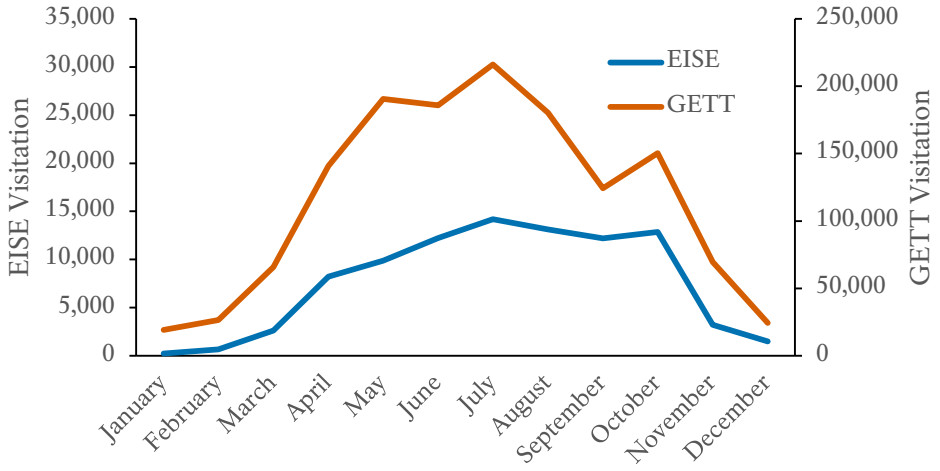
Figure 7
EISE and GETT Yearly Visitation
Source: NPS Visitation Data, 1980-2016



Monthly Visitation Data

Monthly visitation data is also publically available for both EISE and GETT. Both parks experience similar seasonal variations in visitation. Visitation increases at both parks in April, and continues at elevated levels through October. The off-season for both parks is roughly the same, from November through March (Figure 8).

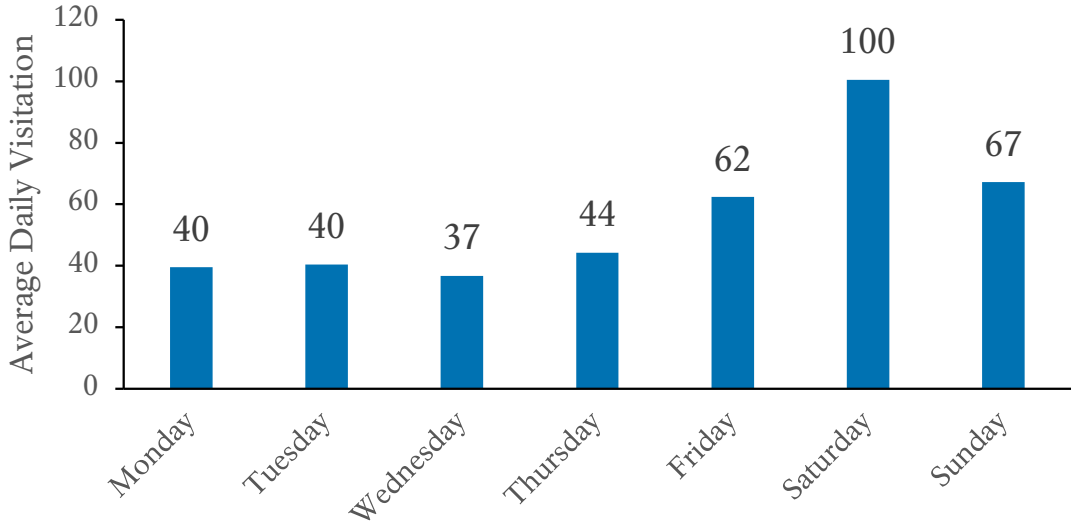
Figure 8
EISE and GETT Monthly Visitation
Source: NPS Visitation Data, 1980 to present



Daily Visitation Trends

In addition to the publicly available yearly and monthly data, EISE park staff provided daily visitation data for Calendar Years (CY) 2014–2016. Average daily visitation is higher on the weekends than during the week, and is the highest on Saturday. Average daily visitation on Saturday is 70 percent higher than on Wednesday, the day with the lowest average visitation. These trends are the same for both the peak and off-peak seasons (Figure 9).

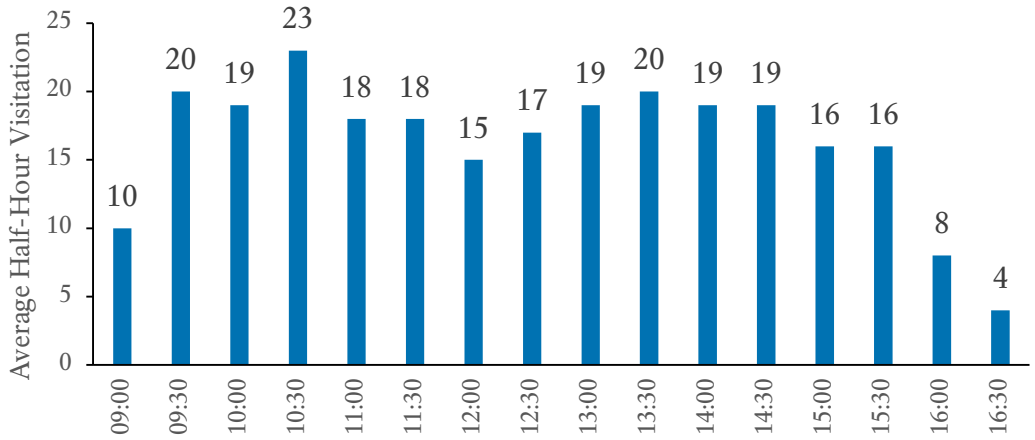
Figure 9
EISE Daily Visitation
Source: EISE Park Staff, CY 2014—2016



Hourly Visitation Data

EISE park staff also provided daily visitation data for CY 2014–2016 broken down into 30-minute increments. During the peak season (April to October), there is a morning peak in visitation around 10:30am, and another afternoon peak at around 1:30pm (Figure 10). The off-peak season data shows similar peaks, with increased variation around those peaks. The daily visitation peaks are important to note for this study, as well as future planning for visitor programming at the site.

Figure 10
EISE Peak Season Daily Visitation, by Half Hour
Source: EISE Park Staff



Existing Shuttle Analysis

Current Shuttle Access

Contract Mechanisms

The EISE shuttle is currently operated by Gettysburg Tours under a concessions contract, which is a contracting mechanism used for many interpretive transportation services across the NPS. Gettysburg Tours also operates transportation services for GETT under a Commercial Use Authorization (CUA).

A main difference between these two contracting mechanisms is that concessions contracts are envisioned to encourage commercial service providers to partner with NPS for the benefit of visitors, whereas CUA holders are approved by the NPS for commercial activities within parks.

Recent Service Changes

In order to build a more viable service from the EISE shuttle, Gettysburg Tours has recently implemented some changes to improve profitability. Despite low visitation in winter months, the EISE shuttle used to operate year-round. In 2014 the service stopped operating in January and February, at which time, the park allows the relatively few number of visitors to park on-site. For the 2017 season, headways (frequency of scheduled bus trips) were increased to 60 minutes instead of 30 minutes in an effort to save on fuel costs and decrease the number of low-volume vehicle trips.

Tour Group Accommodations

Tour groups are able to call the GETT Visitor Center and reserve space on the EISE shuttle ahead of time, to ensure that the entire group is able to visit in the same trip. Some tour groups use their own hired vehicle and driver to get to GETT Visitor Center and then transfer to the EISE shuttle. In 2016, Gettysburg Tours started direct pick-ups of tour groups from their hotels for visitation to EISE. Gettysburg Tours charges a per-person premium for these direct pick-ups, but they are more convenient for tour groups. Direct tour group pick-ups are dropped off at the site on the half hour, so they do not conflict with the regular shuttle runs.

Financial and Operational Analysis

Service Metrics

Based on financial reports provided by Gettysburg Tours (the shuttle operator) three service metrics were calculated to understand the shuttle system's financial and operational performance: cost per round trip, cost per revenue mile, and cost per revenue hour.

Cost per round trip calculates the total operation and maintenance cost of the shuttle per passenger round trip. A comparable metric for public transit systems is cost per unlinked passenger trip. Due to the unique structure of the EISE shuttle, however, passenger round trips were used to calculate the metric.

Cost per revenue mile is the total operations and maintenance cost of the shuttle per mile while it is operating on its designated route, whether or not there are actually any passengers on board the vehicle. Cost per revenue hour is the same metric, calculated with hours of service instead of miles of service.

Table 1 shows these metrics from 2011 to 2016. Over the six year period, cost per round trip increased from $3.63 to $4.44, or 22 percent; cost per revenue mile increased from $6.34 to $7.34, or 16 percent; and cost per revenue hour increased from $116.74 to $135.07, or 16 percent.

Because the cost per round trip increased at a higher rate than costs per revenue mile and revenue hour, the data suggest that falling ridership – not increased operations costs – is the primary factor contributing to lack of profitability. If changes in ridership and level of service were commensurate with increased costs, percent increases for each metric would be similar. While the percent increase in costs per revenue mile and per revenue hour are similar, the percent increase in cost per round trip is higher. Because the operations and maintenance costs are the same for each annual metric, and there were no major changes in service provided over this time period, this suggests that the decrease in ridership is outpacing other changes within the system.

Table 1
Shuttle Cost and Percent Increase per Round Trip, Revenue Mile, and Revenue Hour
Source: Gettysburg Tours Financial Reports

Financial Metric	2011	2012	2013	2014	2015	2016	Total Percent Increase
Cost per Round Trip	$3.63	$4.15	$3.84	$3.97	$4.70	$4.44	**22.3%**
Cost per Revenue Mile	$6.34	$6.77	$7.38	$7.23	$8.11	$7.34	**15.8%**
Cost per Revenue Hour	$116.74	$124.50	$135.78	$133.00	$149.23	$135.07	**15.7%**

Capital Costs

Coupled with decreasing fare revenue, capital costs and depreciation expenses contribute to a net loss for 2011-2016 for Gettysburg Tours. A linear estimate based on trends over the past six years projects that the operator will again experience a net loss in 2017

Table 2 shows EISE shuttle fare revenue, operations and maintenance cost, and net revenue from 2011 to 2016. Gettysburg Tours procured a new vehicle in 2012 and another one in 2015, and also had to perform a major repair on a vehicle in 2015. These purchases and repairs led to higher losses in those years. Table 7 in the Capital Assistance section shows net revenue with operations and maintenance cost separated from capital and depreciation costs. Without these capital and depreciation costs, the EISE shuttle would have been profitable in every year except 2015, and the losses in 2015 would have been less than $2,000.

For 2017, the projected fare revenues will be approximately $186,000 and operations and maintenance costs will be $211,000. The net loss is estimated to be approximately $25,000.

Table 2
EISE Shuttle Net Revenue, 2011-16
Source: Gettysburg Tours Financial Reports

Financial Item	2011	2012	2013	2014	2015	2016
Fare Revenue	$164,726	$160,331	$182,108	$184,332	$179,918	$181,653
Operations and Maintenance Cost	$178,843	$191,227	$191,581	$192,378	$216,464	$204,838
Net Revenue	($14,117)	($30,896)	($9,473)	($8,046)	($36,546)	($23,185)

Fare Structure

Although the EISE shuttle's round trip fare increased from $7.50 to $9.00 in 2017, Gettysburg Tours does not receive any portion of the increase. This is due in part to Gettysburg Tours setting contracted trip reimbursement rates and the Gettysburg Foundation setting shuttle fares on separate time schedules. A round trip fare to EISE costs $9.00 per adult. The fare types are shown in Table 3.

Gettysburg Tours receives about 35 percent of the $9.00 for each adult fare. Most of the remaining amount goes to the Gettysburg Foundation to help cover ticket sales, maintenance of the GETT Visitor Center, interpretation, and indirect costs including credit card and bank fees and marketing costs. EISE also receives a small amount per ticket. EISE is not an entrance fee park, and none of the money from the shuttle goes directly to the NPS.

With declining revenues and increasing capital costs for purchasing the buses, the shuttle has become less profitable over time. Gettysburg Tours requested a $0.20 increase to their portion of the share, which will go into effect in 2018.

Table 3
EISE Shuttle Fare Types, 2017 Season
Source: Gettysburg Foundation

Visitor Type	Fare
Adult, 13 years and older	$9.00
Groups of 16+ (per person)	$7.00
Youth, 6 to 12 years old	$5.00
Groups of 16+ (per person)	$5.00

Visitor Experience Analysis

The financial and operational analyses above demonstrate that there are no major operational issues with the shuttle, and that the main reasons for the negative net revenue is due to the percentage of the fare that Gettysburg Tours receives, coupled with the decline in ridership. In order to round out the analysis of the current shuttle operations, the section below evaluates the experience visitors have riding the shuttle, and benefits and challenges the shuttle presents to both visitors and EISE staff.

Alternative Transportation Access Analysis (Tom Crikelair Associates)

Tom Crikelair Associates conducted an analysis of the existing visitor experience via shuttle service in 2013. The report scores the park access on a variety of criteria, for most of which it scored high or above mid-range. Although a few aspects of the shuttle have changed since the time of that report, the themes still apply and are relevant for understanding the overall benefits that the shuttle provides to visitors and the park. The report is also useful to assist with benchmarking the existing shuttle operations. The goal categories below are taken from the Crikelair report and highlight relevant information about how the shuttle service meets those goals.

Critical Access: The current shuttle provides the only visitor access to the site during most of the year.

Cultural Resource Protection: The shuttle reduces impacts on wildlife and vegetation, and the cultural and historic landscapes. The report also cautions that any addition of pavement for on-site parking would need to be carefully considered to minimize disruption to the cultural landscape.

Air quality protection could be increased by the use of alternative fuel vehicles instead of diesel, which would be a large upfront cost, but would demonstrate a commitment to environmental stewardship and be an educational opportunity for visitors.

Visitor Experience: The shuttle enhances visitor experience by providing a short and scenic bus ride to the farm, and by preserving the landscape and avoiding the need for parking lots. The shuttle ride also helps visitors understand the proximity between the farm and the battlefield, and avoids the need for

wayfinding. The visitor experience could be improved if the shuttle also provided access to restaurants, shops, or other cultural locations.

Visitor Diversity and Car-free Travel: The shuttle allows local residents without cars to arrive at the GETT Visitor Center via free local bus and then take the shuttle to EISE. Visitors can also arrive to the site by making connections from regional buses or trains at the nearby Amtrak station or from the Harrisburg Airport. If the shuttle was removed and direct pedestrian access allowed, it would be important to consider whether the site could be reached directly by local bus, since this is helpful for those without access to a personal vehicle.

Recreation and Education: The report states that during the summer the shuttle is well-utilized and provides the sole access to the recreation and education at EISE. A diversity of access type could be achieved by allowing visitors to access the site through hiking and biking. This would also expand the recreational opportunities at Farm #2.

Crikelair Associates made several recommendations to improve transportation access to EISE that are still relevant, including providing a printed brochure with shuttle times for visitors, increasing awareness and ridership for direct access to Visitor Center from area hotels and to GETT via local bus, and possibly increasing the ticket share that goes to the shuttle contractor if visitation does not increase.

Benefits and Challenges of the Shuttle

Sole access to the Eisenhower Home and Farm via shuttle from the GETT Visitor Center has a range of benefits and challenges for both visitors and NPS. These must be weighed against the goals of the site so that transportation access serves visitors, and also protects the cultural landscape. The tables below outline the benefits (Table 4) and challenges (Table 5) of the current shuttle system in its existing state and explains the current access issues to which EISE is responding. Overall there are many positive aspects of the shuttle service, and there is the potential to address challenges the site faces through frequency of service, outreach, and additional programming on site.

Table 4
Benefits of Shuttle

For Visitors	For Park
• Preserves the cultural and pastoral landscape for visitors to enjoy • Provides opportunity to orient and prepare visitors for the site • Simplifies wayfinding for visitors • Allows for car-free access from airport and bus station to EISE from GETT	• Provides opportunity to orient and prepare visitors for the site • Park staff know when visitors are coming • Provides opportunity to manage and monitor visitor access and the load on the house • Reduces impact to cultural resources • Limited intrusion of visual/soundscape (cars are an intrusion on a historic landscape) • Reduces trips by personal vehicles • Eliminates potential roadway congestion

Table 5
Challenges of Shuttle

For Visitors	For Park
• Shuttle timing (some visitors have anxiety about length of stay) • Limited provisions on site to allow visitors to spend more time • Ticket details are ambiguous • Shuttle may be perceived as a time and cost burden/barrier • While the shuttle is accessible, it may be perceived as a barrier for people with mobility impairments • Shuttle may be perceived a barrier for families, particularly for families with children with sensory-processing issues • May experience roadway/parking availability and congestion while parking at GETT Visitor Center • May not align with modern-day expectations of visiting historical sites	• Difficult to encourage visitors to stay and fully explore the property • Misalignment between timing of shuttle with tour programs • Contributes to roadway and parking congestion at GETT Visitor Center

The VUM Plan will conduct a more detailed analysis of visitor experience, including specific survey data the team will collect from visitors. Using the survey data, the VUM Plan will highlight specific aspects of the visitor experience related to transportation and access that work for visitors and those that could be improved upon.

Goals for Visitor Access and Demand Scenarios

The remainder of the report considers options for transportation and access in the future, and also considers scenarios for future visitation, including the maximum visitation level that the site can accommodate.

Goals for Visitor Access

This report uses the combined transportation-related goals from the Eisenhower *Cultural Landscape Report* and those determined by EISE staff during site visits in February and April 2017. Further detail about the site visits and meeting materials can be found in the Appendix. It is apparent that some of the goals below regarding preserving the site and allowing increased on-site access conflict with one another, and the proposed changes to the shuttle and/or the addition of parking on-site require considering tradeoffs among the goals.

Goals Related to Transportation and Access from the Eisenhower *Cultural Landscape Report*

- Protect pastoral/agricultural viewsheds;
- Maintain site security (access points after hours);
- Limit visitor-use impacts (including erosion and landscape damage);
- Avoid modern infrastructure not compatible with historic fabric or materials;
- Avoid modern visual intrusions;
- Protect pastoral soundscapes; and
- Work to expand the park's meadows and grasslands.

Goals Related to Transportation and Access Developed by EISE Staff

- Provide visitors with an entrance experience along the lane or allée;
- Provide opportunities for spontaneous arrival;
- Provide transportation options that are barrier-free, as well as barrier-free movement within the site;
- Provide transportation options that are sensitive to the cultural landscapes;
- Ensure visitation levels are appropriate for site capacity;
- Ensure visitors are greeted at the site by NPS staff and engage with staff/volunteers as desired by visitors; and
- Provide opportunities that encourage visitors to wander and explore the site.

Visitation Demand Scenarios

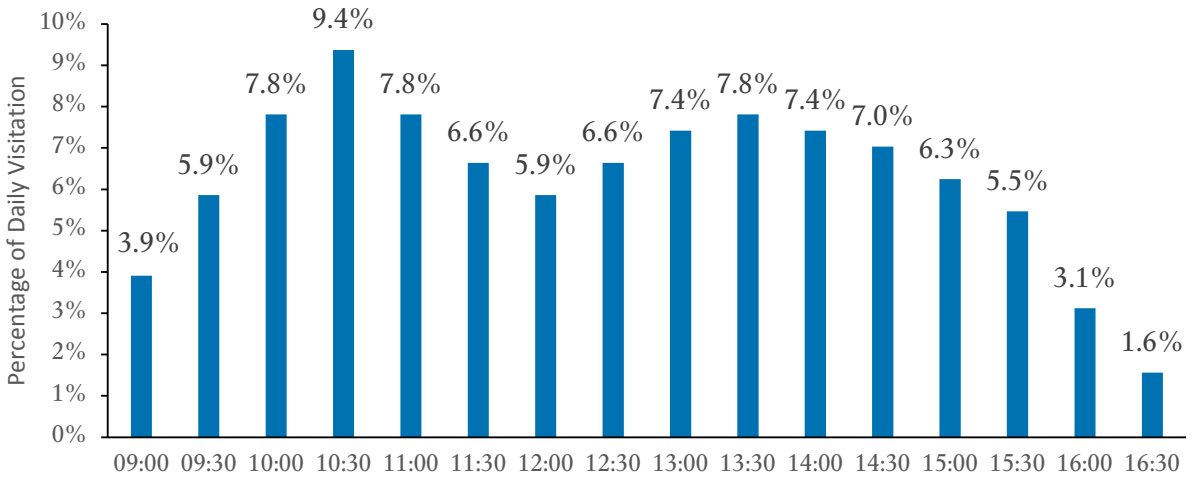
Visitation Use Capacity Analysis

In order to inform future recommendations for visitor access at EISE, the visitation and site capacity are used to understand possible future visitation levels. The possible visitation estimates inform the size of the potential parking lots in the direct access analysis, and the recommendations for future shuttle service. In order to produce and analyze future visitation demand scenarios, the team made a number of assumptions based on the distribution of the current visitation, the average duration of stay at the site, and the capacity of the site (which is constrained by the Eisenhower Home). These assumptions are outlined below. The visitor use capacity analysis in turn informs the visitation demand scenarios, which consider possible future levels of visitation that can be accommodated by the site.

Distribution of Visitation

As a first step in developing the demand scenarios, the daily distribution of visitors needs to be analyzed to understand how visitation levels vary throughout the day. EISE park staff provided information on hourly visitation from CY 2014-2016, which was presented in Figure 10. The analysis that follows uses a modified version of that average hourly visitation data. The distribution of visitors below dictates what percentage of daily volume is assigned to a given half-hour time period (Figure 11). This demand pattern follows the trends presented previously, but smooths out irregularities surrounding both the morning and afternoon peaks.

Figure 11
Modified Breakdown of Daily Visitation, by Half Hour
Source: EISE Park Staff



EISE park staff also provided daily visitation information from the same time period of CY 2014-2016. This information was used to approximate the number of daily visitors that can be expected on an average day, given a yearly demand volume. During the CY 2014-2016 period, the average yearly visitation was 56,000 visitors. When investigating increasing and decreasing future visitation scenarios, the daily visitation numbers were scaled proportionally to the difference between yearly visitation volumes. In other words, the percent of visitors by hour stays the same but the number of visitors increases or decreases depending on the scenario.

Average Visit Duration

In addition to when visitors are expected to arrive, it is necessary to account for how long they will spend at the site. This duration measures from when they arrive at the site—either by private vehicle or by shuttle—to when they leave the site by the same means. The demand scenarios presented below are based on an average visit duration of 90 minutes, which EISE staff confirmed to be consistent with what they observe on a day-to-day basis.

Site Capacity

The project team worked with the VUM Plan team to determine the maximum capacity of the site, which is based on the maximum capacity of the Eisenhower Home. Although Farm #2 is underutilized and could handle more visitors, at this point it is assumed that every visitor that comes to the site will visit the Eisenhower Home. The maximum capacity of the Eisenhower Home is 125 people, which assumes ~50 people at one time (PAOT) in the Home, ~25 PAOT waiting for a tour, ~25 people finishing their tour, ~25 people coming to and going from the Skeet Range. This number was used as an upper limit when determining the maximum demand scenario discussed below. The distribution and average visit duration discussed above are both combined with this limit to determine how many visitors can be on site at the busiest time of day.

In the early 1980s, when the park first opened, yearly visitation was consistently above 130,000 visitors. When analyzed on a daily level, this meant an average busy day had almost 270 visitors on site at any one time, well exceeding the now established capacity. While staff permitted this volume, it resulted in a crowded, rushed tour experience with visitors moving through the Eisenhower Home in a continuous

stream. The high visitation that occurred during the early years of the site was beyond the structural capacity of the Home; staff have indicated that they wish to manage any increases in future visitation to be in line with the site capacity estimated above.

Demand Scenario Analysis

The demand scenarios consider possible future trends for visitation, taking into consideration the visitor use capacity analysis above. The project team recognizes that any changes to programming or amenities on the site may also impact visitation levels, along with changes to the transportation options. The VUM Plan and LRIP will investigate programming and site planning changes, such as the addition of a new Visitor Center, and more recreational and educational opportunities at the site.

For the purposes of this report, the project team identified four possible visitation demand scenarios based on historical data and the site capacity constraints. The four scenarios are summarized in Table 6 below. Each scenario includes the associated yearly visitation, peak weekend visitation, and the design volume. The design volume is close to the maximum daily volume expected for the given demand scenario. It is slightly under the maximum to produce a parking lot that is adequately sized while not oversized for the typical demand over most of the year. The design volume leads to a parking lot where the capacity is exceeded 11 days of the year. Mitigation strategies for these days are discussed under the Demand Management Considerations section.

Table 6
Visitor Demand Scenarios

Demand Scenario	Yearly Visitation	Average Peak-Season Weekend Visitation	Daily Design Visitation Volume
25% Decrease	40,000	161	240
Steady State	55,000	222	330
25% Increase	68,750	278	415
Maximum Increase	82,500	333	495

The first scenario assumes that the current declining visitation trend continues, leading to a 25 percent decline in visitation over the next ten years. This would mean a yearly visitation of around 40,000 visitors, and proportionally smaller peak weekend and daily design volumes. The second scenario uses the current yearly visitation volume of 55,000.

The third and fourth scenarios project visitation growth. The third assumes an increase of 25 percent from current visitation levels, and the fourth looks at the maximum possible increase, which is approximately a 50 percent increase from current visitation levels. The maximum increase scenario is driven by the assumptions listed above, including the site capacity, and average visit duration. If visitation encroached on the maximum increase under the current assumptions, EISE staff would likely need to implement demand management measures (discussed later in the report) to ensure the capacity of the Eisenhower Home was not exceeded.

Only the steady state and maximum increase scenarios are carried forward for future direct access and shuttle analyses. EISE staff and the project team agreed that it did not make sense to plan for declining

visitation, as a number of studies are currently underway to mitigate the current trends in visitation. Additionally, a parking lot sized for decreased future visitation would be immediately over capacity until the decrease was realized. Of the two increase scenarios, the parking lot sizes needed to accommodate a 25 percent increase and the maximum site capacity are similar, and so planning for the maximum site capacity provides the most flexibility for future usage.

Future: Shuttle Service Improvements

The sections below discuss considerations and improvements for the future shuttle operations at EISE. The analyses in the Existing Shuttle Access sections demonstrate that the main reasons for the declining revenue for the shuttle operator are due to declining visitation and the fare structure, not any major operational issues with the shuttle. Gettysburg Tours has also initiated measures to counteract the low revenue from declining visitation of the site such as ceasing operations in the winter months, altering the daily shuttle schedule, and by picking up tour groups directly from their hotels.

Shuttle Operations under Visitation Demand Scenarios

In each visitation demand scenario discussed above, the current operations and capacities of the buses are sufficient to support the maximum increase in visitation, or the visitation capacity of the site. In order for the EISE shuttle to break even under the current contract, the service would have to provide approximately 6,300 additional full-fare adult round trips. This additional ridership represents a 14 percent increase in passenger volume from 2016 (due to the decreased operations of the shuttle in 2017 to hour headways, the break-even number may be slightly less if the shuttle operations are more efficient in terms of cost on the hourly headway schedule). The current structure and capacity of the EISE shuttle is able to accommodate such an increase in volume without changes to its operations.

If the visitation were to increase to the 25 percent or maximum visitation scenarios, the shuttle operations would need to operate on a 30-minute headway schedule in order to accommodate the visitation. The current fleet size of two buses is adequate to serve an increase in visitation to the maximum scenario, however, additional drivers may be needed for the increased service frequency. Additionally, maintenance costs are likely to increase with increased use of the vehicles.

If visitation continues to decline, EISE staff and the shuttle operator may consider additional changes to the shuttle operations, such as running the shuttle only at peak visitation times or only running one bus for the operations.

Freedom Transit

The Central Pennsylvania Transportation Authority, also known as Freedom Transit or Rabbit Transit, is the municipal transit system provider for Gettysburg. The system provides transportation to and from the Gettysburg Visitor Center's parking areas via its Lincoln Line fixed-route service. The Gettysburg Foundation pays all fares for this route in order to provide free transportation to and from the GETT Visitor Center.

On peak weekends, including WWII weekends, Freedom Transit also provides transportation to and from overflow parking areas at neighboring outlet malls to the GETT Visitor Center.

Although there is no current plan to expand service to include EISE, Freedom Transit could contract with NPS to provide service to the site, as long as the service was on a set schedule and open to the general public. As a public entity, Freedom Transit does not respond to competitive Requests for Proposals.

Park staff have partnered with Freedom Transit, and often rely on them during periods of high visitation for overflow parking transportation. Because of this positive relationship, Freedom Transit would likely be open to discussing further transportation initiatives surrounding EISE NHS.

Considerations for Future Shuttle Operations

Fare Structure

The fare for the shuttle was increased by $1.50 in 2017 (from $7.50 in 2016), with the increase going largely to the Gettysburg Foundation, and not the shuttle operator. The purpose of the increase was to cover the Gettysburg Foundation's costs, and there was no enhancement of the service for visitors with the increase. The current fare structure could be cost-prohibitive to some visitors who are already taking on the expense of visiting Gettysburg's attractions. For example, a family of four (two adults and two youth) might not be willing to pay an additional $28.00 to visit EISE when already paying $125.00 for a battlefield tour, cyclorama viewing, and museum entry at GETT.

In addition, because of the declining visitation, the recent fare increase poses more challenges for EISE. Generally, the purpose of increasing fares is to capture more revenue, but for many transit agencies increased fares result in decreased ridership, therefore resulting in decreased revenue. In these cases, increasing fares to increase revenues actually results in the opposite of the intended effect.

Alternatively, transit agencies often reduce service to reduce costs, which also creates challenges. When service is reduced, transit options can become less convenient for riders, who in turn find other methods of transportation. In that case, reducing service to reduce costs can actually result in decreased ridership and therefore decreased fare revenue.

The combination of these two effects is challenging to deal with because it traps agencies or operators in a cycle of reducing service to reduce costs, then increasing fares to increase revenues. In both approaches, ridership may decrease because the service becomes less convenient for passengers while also becoming more costly. This issue is pertinent to EISE because of the recent fare increase and declining visitation.

Some agencies have mitigated this by providing some additional value for the increased fare, or by bolstering some services while cutting it in some other more expensive way. For example, an agency might offer more frequent service on higher-ridership routes and cuts to lower-ridership routes in conjunction with a fare increase. While the contract Gettysburg Tours has for the EISE shuttle is for a single route, Gettysburg Tours also has the contract for tours for GETT, and benefits from some efficiencies by having contracts with both sites. It may be worth exploring further efficiencies or benefits in the future.

In the short term, profitability for the EISE shuttle operator could also be preserved by increasing the operator's cut of each fare, but it could come at a cost to other areas of EISE's finances. Out of each $9.00 fare, Gettysburg Tours receives approximately 35 percent and Gettysburg Foundation receives most of the remaining amount for an interpretive fee, which covers the Foundation's indirect costs. The Gettysburg Foundation also makes an annual donation to EISE, which is funded by collection of such fees. The shuttle service provides an inherent value to EISE, and this structure could possibly be revaluated and adjusted to react to the current visitation levels.

GETT Visitor Center Enhancements

To assist the EISE visitor, additional wayfinding and dedicated parking could assist, inform and encourage park visitation. Dedicated parking, between 30-45 spaces with welcoming wayside exhibit containing visit preparation information and park overview could improve pre-trip preparations. Additional shade and seating at the shuttle stop could enhance shuttle passengers wait experience.

Alternative Vehicles Options

While smaller vehicles or alternative fuel vehicles may be an option for the EISE shuttle, the major operational (non-capital) cost in providing a transportation service is the driver's wage. Smaller vehicles are less expensive to procure and often result in lower fuel costs, but the additional vehicles (and drivers) required to provide the same capacity would consume any savings.

For example, replacing a 45-passenger bus with three 15-passenger cutaway vehicles would require three times as many trips to carry the same number of passengers. It would also require three times as many vehicles and three times as many drivers. There would also need to be enough space to store and service the higher number of vehicles.

If EISE staff were considering reducing the capacity of the shuttle system in response to declining visitation, smaller vehicles may be an option to consider when the current shuttles are in need of replacement. However, there would need to be further in depth analysis into any potential cost savings of procuring smaller vehicles and operational cost savings.

Another option EISE may consider when the current buses need replacement are alternative-fuel vehicles, which can help save on fuel costs. However, full-size hybrid-electric or full-electric buses can cost significantly more to procure than conventional-fuel vehicles. Additional infrastructure for charging (for electric vehicles), servicing, and diesel exhaust fluid storage and re-filling (required for hybrid-electric vehicles) is also required, adding to the cost of conversion. Again, further analysis into a vehicle replacement study would be needed to evaluate potential cost savings and benefits.

Service Scheduling Alternatives

Gettysburg Tours has initiated changes to the shuttle schedule in response to changes in visitation levels. The operator implemented operational efficiencies by not operating in January and February beginning in 2014, and by reducing the schedule from 30 to 60-minute headways beginning in 2017. The less frequent schedule may pose challenges to the EISE visitor, however, as they may feel the less frequent headways are too restrictive. With more frequent headways, more visitors might feel that they have the flexibility needed to make the trip to EISE.

Gettysburg Tours has demonstrated their willingness to work with staff to adjust the shuttle schedule as needed, and generally a more frequent shuttle schedule will provide more flexibility to the visitor if it can be supported by adequate visitation levels. If visitation levels continue to decline, staff may wish to consider having the shuttle operate only during the mid-day peak, and limiting the hours the site is open.

Marketing

The GETT Visitor Center provides a welcoming and impressive experience for visitors, and there is some marketing for EISE within the GETT Visitor Center. However, the EISE message could potentially be lost among the GETT marketing. As visitors are likely already visiting GETT without considering EISE, marketing efforts for EISE within GETT should be increased.

Additional events or promotions at EISE could also help alleviate this issue by drawing more visitors for a specific special event. This issue will be further explored in the VUM Plan.

Capital Assistance

There were two notable increases in non-capital and capital costs over the study period. Vehicle procurement in 2012 and 2015 led to increased capital cost due to depreciation starting in 2012. In 2015 Gettysburg Tours also had to perform a major repair on a current vehicle, resulting in much higher non-capital costs in that year, as well.

Without capital and depreciation costs, the EISE shuttle would be profitable all but one year during the study time period (Table 7). NPS could consider providing capital assistance to a concessioner in order to make the service more attractive to the operator.

At many park units, the shuttles or transportation services do not make a profit, and are subsidized by the NPS. The services are subsidized through providing NPS funding for vehicles, or other elements of the operations of the service. While it is preferable for the transportation service to operate without such subsidies, not all services do.

Table 7
Net Revenues and Capital Expense
Source: Gettysburg Tours Financial Reports

		2011	2012	2013	2014	2015	2016
Fare Revenue		$164,726	$160,331	$182,108	$184,332	$179,918	$181,653
Operations and Maintenance Cost	**Non-capital**	$162,578	$154,556	$157,007	$157,804	$181,890	$170,264
	Capital	$16,265	$36,671	$34,574	$34,574	$34,574	$34,574
Net Revenue		($14,117)	($30,896)	($9,473)	($8,046)	($36,546)	($23,185)
Net Revenue without Capital Costs		$2,148	$5,775	$25,101	$26,528	($1,972)	$11,389

Re-evaluate the Contracting Model

The current shuttle operation is under a concessions contract with Gettysburg Tours and the Gettysburg Foundation. In the short term, EISE staff can consider re-evaluating the fare structure, and the percentage of each ticket that the Gettysburg Tours receives. In the long term, EISE staff may wish to have the concessions contract evaluated by contracting experts to see how it compares to other contracts across the NPS, and if there is any other type of contract that would be more suitable. Staff may also consider if there is any possibility or benefit to combining the service provided by Gettysburg Tours at GETT with the EISE service.

Future: Direct Access Analysis

The sections below discuss considerations for on-site parking as an alternative to the shuttle from the GETT Visitor Center. The benefits and challenges of allowing on-site access are evaluated as well as potential locations for the construction of parking lots. This alternative can be further pursued on its own, or combined with other transit options.

Considerations for On-Site Parking Alternatives

Another transportation option under consideration is allowing direct vehicle access to the site. This would involve the construction of a parking area, along with accompanying infrastructure and programming needs. There are benefits and drawbacks to allowing direct access, which are outlined in Table 8 below.

Table 8
Benefits and Challenges of Direct Access

Benefits	Challenges
Simplified visitor access to EISE, allowing for a customized arrival and departure time	Impacts physical and cultural landscape of the park
Eliminates or reduces shuttle costs, depending on parking lot location	Conflicts with some of the goals of the Eisenhower *Cultural Landscape Report* (creates modern visual intrusions, interrupts pastoral viewshed, intrudes on pastoral soundscapes)
Reduces congestion in GETT visitor center parking lot and surrounding area	Requires a capital investment and yearly operating and maintenance
Park staff may have the ability to encourage visitors to stay longer and further explore the site	May still require a shuttle, depending on the location of the parking lot
Creates more flexibility of timing for programs	Park staff won't know when visitors are arriving
Could make site more self-directed	Need for on-site ticketing if there is a fee for entrance or tour
More in-line with modern, on-demand visitor services, and could attract more diverse visitor types	

Allowing direct access to the site would simplify the visitor experience. Instead of beginning their visit from GETT, boarding and returning on a shuttle, and adhering to the shuttle schedule itself, visitors would have more freedom in choosing when they visit the park. This may reduce the visitor's worries about when the shuttle is scheduled to arrive and leave from the site. The addition of a parking lot would also replace the existing shuttle service, and therefore the parking load on the GETT Visitor Center.

However, depending on the location of the parking lot, a shuttle may still be required. While the route would be shorter, it would still incur a cost to own, operate, and maintain the service, potentially offsetting the savings from eliminating the other route. Additional costs would also be incurred to build and maintain the parking lot itself. Any parking lot location on-site would disrupt the site's landscape, and needs to be carefully balanced with the park's cultural values.

Aside from the benefits and drawbacks discussed above, there are a number of specific design elements that need to be considered before allowing direct access. Key elements are listed below:

Environmental Considerations

The construction of a parking lot will impact more than just the area that is paved. Depending on where the lot is placed and what materials are used, there will be stormwater management considerations for runoff and watershed quality issues. The construction of a parking lot will need to comply with National Environmental Policy Act (NEPA) and Historic Preservation, Section 106.

Landscape and Cultural Considerations

If the parking lot is located next to the Skeet Range, it will be visible from the Eisenhower Home. To help mitigate the impact to the viewshed, additional trees could be planted along the existing tree line, although the tree line was recently thinned to be more historically accurate. Species and location selections would need to be in line with the *Cultural Landscape Report*. In addition to visually obscuring the parking lot, this tree line may also serve as a partial sound barrier, reducing the impact of engine noise. The lanes and roadways at EISE are on the National Register of Historic Places, and any alterations to these roads would need to consider such a designation.

Wayfinding Requirements

Wayfinding materials are necessary to help visitors orient themselves when they arrive at the parking lot, especially for parking lots that are farther removed from the immediate area of the Eisenhower Home. This may include markers and signs indicating the parking lot as the entrance to the site, maps and overviews of the site itself, and directions for how to get between the parking lot and the buildings.

Pedestrian Facilities

Aside from the area required for the parking lot itself, walkways and other pedestrian facilities will take up additional space. These facilities could include walkways around the parking lot, walkways to the Eisenhower Home and other parts of the site, benches, and waste receptacles.

Capacity Overflow Issues

As was discussed in the previous Demand Scenario Analysis section, the parking lot designs are adequately sized to accommodate a majority of the demand, without being oversized for a majority of the year. This means that there will be some days where visitation exceeds the lot capacity. To help mitigate the effects of this overflow, signage could be posted in the lot to indicate what to do when the lot is full. Alternate parking areas or off-peak times may be suggested. This information should also be placed online for trip planning purposes. Further considerations for demand management considerations for on-site parking are discussed below.

Lighting and Security

Though EISE is a day-use park, there are days—especially during the off-season—when the park is operating during dusk or evening settings. With this in mind, lighting should be installed to aid visitors in locating the pathways and their vehicles safely. Where the park is not intended for night-time use, this lighting would not need to be extensive. The lighting would also add to the security of the parking lot, especially for locations further from the House, and at the later times mentioned previously.

Potential Reconstruction of the Bank Barn on Farm #2

The original Bank Barn located on Farm #2 is was damaged in a fire and burned to the foundation. EISE staff have discussed the possible reconstruction of the Bank Barn into a new Visitor Center or learning/conference center, and the opportunity that this could present to attract new visitors. The location of a potential parking lot should consider this opportunity, although staff noted that the reconstruction of the Bank Barn would likely not change access patterns for the everyday visitor, and that the site will remain centered around the Eisenhower Farm.

Assumptions for Direct Access Analysis

Passengers per Vehicle

For planning parking lot dimensions for direct access scenarios, it is assumed that the average number of passengers per private passenger vehicle entering the national historic site is 2.6.[*] This statistic is similar to the regional and local statistic for parks in the area.

Tour Group Size and Visitation Proportion

A majority of EISE visitors arrive in small groups, but some arrive in tour groups. Tour groups account for approximately 20 percent of annual visitation, and this is assumed to be the case on the monthly and daily levels as well. To provide the most conservative estimate for parking requirements, the average tour group is assumed to be 25 people.

Parking Spot Dimensions

The dimensions of the parking spots are needed to calculate the space required for the necessary number of parking spaces. In the United States and in Pennsylvania, there is a range of acceptable parking space dimensions and not a standard set of dimensions. With this in mind, the Federal Highway Administration's recommendations on parking spot dimensions were used for the analysis.[†] It is also possible that compact spaces could be included to minimize the parking lot footprint, pending further analyses.

ABA Parking Requirements

In addition to passenger vehicle and tour bus parking, there are also national requirements for van-accessible parking. As outlined by the Architectural Barriers Act (ABA), parking lots must contain an appropriate volume of van-accessible parking to match the volume of other parking available. The requirements followed during this direct access analysis are available from the Department of Justice.[‡]

Potential On-site Parking Locations

During the site visits, EISE staff brainstormed potential parking lot locations. Three sites were initially selected, and staff narrowed the options down to two for the team to study in further detail. The initial three locations were 1) near the Skeet Range 2) Millerstown Road and 3) Farm #3 (Figure 12). EISE staff eliminated the Farm #3 location due to the distance from the Eisenhower Home, and the desire to keep the visitor experience centered on the Eisenhower Home. There is also the potential for the reconstruction of the Bank Barn on Farm #2. The tradeoffs among the locations are shown in Table 9. For this report the team investigated the costs, logistics, and impacts of the first two locations.

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[*] Available at https://irma.nps.gov/Stats/FileDownload/1074

[†] Available at https://www.fhwa.dot.gov/environment/recreational_trails/publications/fs_publications/07232816/page14.cfm

[‡] Available at https://www.usdoj.gov/crt/ada/adahom1.htm

Figure 12
Parking Lot Locations
Source: Project Team; ESRI Base Map

Table 9
Parking Lot Location Tradeoffs

Criteria	Location 1 *Skeet Range*	Location 2 *Millerstown Road*	Location 3 *Near Farm #3*
Distance to walk to House	.25 miles	.5 miles	1.0 miles
Walkability	Very good	Possible Need additional pedestrian infrastructure	Unlikely Located across Millerstown Road
Need for shuttle?	Golf cart for elderly and low-mobility visitors; Operate informally	Yes - Shuttle recommended for most visitors; 2 cutaway vehicles - 1 in continuous operation 23 passengers or 17 with 2 wheelchairs; 5-10 min. roundtrip	Yes - Shuttle needed for most visitors
Visibility from house	Yes, High Landscape barrier	Yes, Medium-Low Landscape barrier	No
Visitor experience of arrival via allée?	Possible to have visitors enter through main gate	Yes - arrive by foot or shuttle through allée	Yes
Monetary cost	Lowest	Higher due to shuttle	Higher due to shuttle

Parking Area Requirements by Scenario

The steady state and maximum increase scenarios have different parking area requirements, with more parking required for the maximum visitation increase scenario. The requirements for both scenarios are outlined in Table 10 below. The preliminary parking lot designs have a minimum of three tour bus spaces, and the number of ABA spaces appropriate for the size of the lot, as discussed above. The total parking area includes area for general circulation and the increased circulation needs for the accommodation of tour buses. The walkways and areas needed for other pedestrian accommodations are included in Table 11.

Table 10
Parking Area Requirements by Scenario

Scenario	Yearly Visitation	Daily Design Visitation Volume	Vehicle Parking Spaces	Tour Bus Parking Spaces	ABA Spaces	Total Parking Area (ft^2)
Steady State	55,000	330	33	3	2	~32,000
Maximum Increase	82,500	495	49	4	2	~37,000

As the parking area requirements for the maximum increase lot did not differ significantly from the steady state scenario, cost estimates are displayed below only for the maximum increase scenarios.* The estimated material requirements and associated costs are summarized in Table 11 below. These material requirements include parking area, access driveways, concrete bus loading and unloading platforms, and walkways from the parking lot to the site. The estimates also do not include ongoing maintenance, such as periodic resurfacing, leaf removal, and snow removal, as needed.

Table 11
Parking Material Requirements by Location

Location	Asphalt Required (ft^2)	Concrete Required (ft^2)	Walkway Required (ft^2)	Total Gross Cost ($)†
Location 1 Skeet Range	37,800	5,280	1,200	$1,453,379
Location 2 Millerstown Road	37,200	5,040	5,950	$1,465,414

The two parking lot configurations and locations are shown in Figures 13-20. Figures 13-16 show Location 1 near the Skeet Range. The view from the Eisenhower Home towards the location is shown in Figure 13, and the view back towards the house is shown in Figure 14. Figure 15 and Figure 16 show two possible parking lot orientations for Location 1 for the maximum demand scenario (the parking configurations are initial concepts, subject to additional input, evaluation and refinement). Compared to Location 2 near Millerstown Road, this location requires a much shorter walkway to connect to the existing driveway, but requires a significantly longer driveway to access the parking lot. The existing driveway may need to be widened, to accommodate two-way traffic to the parking lot.

* A cost estimate was prepared for the steady state lot size, and found it to be 9 percent less expensive than the maximum increase lot size.

† Class C Cost Estimate includes probable costs for design, compliance, FY 19 net construction, construction management, and construction contingency tasks.

Figure 13
View from the Eisenhower Home towards Parking Lot Location 1
Source: Project Team

Figure 14
View from Parking Lot Location 1, towards the Eisenhower Home
Source: Project Team

Figure 15
Parking Lot Location 1, North-South Orientation
Source: ESRI Basemap

Figure 16
Parking Lot Location 1, East-West Orientation
Source: ESRI Basemap

The second location on Millerstown road requires a much shorter driveway, but a significantly longer pedestrian pathway for those choosing to walk to the site directly. If all visitors are required to use the shuttle, this path could be eliminated. A view of this proposed parking lot site is shown in Figure 17, with an aerial view shown in Figure 18. Again, the aerial photo shows the largest parking lot option.

Figure 17
Parking Lot Location 2, from Millerstown Road
Source: Project Team

Figure 18
Parking Lot Location 2, Southbound Driveway
Source: ESRI Basemap

Conceptual drawings of the potential parking lot locations are shown in Figure 19 and Figure 20. These two figures demonstrate the largest required parking lot size at the two proposed locations. Preliminary locations, subject to further analysis, for all the combinations of lot size, lot location, and parking lot orientation are available in the Appendix.

Figure 19
Large Parking Lot Configuration for Location 1
Source: ESRI Basemap

Figure 20
Large Parking Lot Configuration for Location 2
Source: ESRI Basemap

Demand Management Considerations

If EISE staff chose to allow direct access by personal vehicle, there are demand management considerations to contend with, mainly collecting entrance fees and managing the capacity of the parking lot. Elimination of shuttle operations also eliminates the shuttle ticket revenue stream. An entrance fee could be considered to offset this loss of revenue. These fees could cost less per person than the current shuttle ticket, and be per vehicle. The current yearly visitation of 55,000 visitors translates to approximately 21,150 vehicles, using the figure of 2.6 occupants per vehicle, the table below also shows the number of vehicles for the maximum visitation scenario (31,730 vehicles per year).[*] With an entrance fee of $5.00 per vehicle, this translates into $105,770 per year from entrance fees (Table 12). Revenue could be as high as $475,950 a year, with a $15.00 fee per vehicle, at the maximum visitation scenario. These fees would help offset the construction, maintenance, and administrative costs of the parking lot, and could also save money for the site's visitors, who currently pay nearly $10.00 per person for the shuttle service.

Table 12
Entrance Fee Revenue by Fee and Scenario

Entrance Fee	Visitation Scenario (Vehicles)	Yearly Revenue
$5.00	21,150	$105,770
	31,730	$158,650
$10.00	21,150	$211,540
	31,730	$317,300
$15.00	21,150	$317,310
	31,730	$475,950

Staff would need to consider how the entrance fees would be collected, and how they would integrate with other possible parking lot and site users. There is potential for people to use the parking lot to go hiking or cycling nearby, and not visit the EISE attractions; this needs to be considered. The entrance fee could be collected at the lot itself through an honor system fare box or an automated parking pass system. Alternatively, the fees could also be collected at the Reception Center.

The other concern relating to direct vehicle access is the handling of overflow days. As discussed earlier, the proposed parking lots were sized to accommodate demand throughout most of the year, but a few days are expected to exceed this capacity. WWII weekend is an example of a time when the parking lot would not be able to accommodate all visitors. On that weekend or on days like those, demand could be controlled using a reservation system. In such a system, visitors would reserve visit times online or via phone in advance of their visit. This would modify the demand curve on the busiest days, making more use of the parking lot on off-peak times. Another alternative—especially for events like WWII weekend—would be to operate a temporary shuttle from the GETT Visitors Center to handle the overflow. This could be designated on a day-by-day basis ahead of time, or dynamically, as the parking lot fills. Freedom

[*] Available at https://irma.nps.gov/Stats/

Transit could be a potential partner for a service like this as they currently serve overflow parking areas at the outlet mall. The cost of the creation and maintenance of this system should be considered when determining the entrance fee.

It is also possible that the construction of a parking lot changes visitor demand patterns and/or volume considerably. With easier access to the site, more visitors may be drawn to visit, or they may choose different visitation times than they otherwise would under the current shuttle schedule. Demand management may need to be implemented for a larger proportion of days if the demand patterns change significantly. Similar to the expected overflow days, additional investigation would be required to determine what system is the most feasible to monitor the capacity of the lot and any overflow redirection.

Bicycle and Pedestrian Access

In addition to direct access to the site by private motor vehicles, there are additional opportunities for visitors to arrive on foot or on bicycle. The *Gettysburg/Eisenhower Comprehensive Trail System Study* (2015) explores some of the possible connections that the parks could create. From the study:

> *Recently, there has been an increase in visitors wanting to experience the Gettysburg National Military Park and access the Eisenhower farm via hiking trails or the use of bicycles, Segways, horses or mopeds. The Borough of Gettysburg is encouraging the use of bicycles and visitors have expressed the desire for hiking and biking trails.*
>
> *The over-arching goal of the project is to create a conscientious plan that provides for safe pedestrian and bicycle-oriented travel within the Parks and linking Eisenhower National Historic Site and Gettysburg National Military Park that allows visitors opportunities to experience and reflect upon the Parks' landscapes and their resources without reliance on automobiles.*

Since increased direct access is a goal for the site, there are several improvements that could be made regardless of whether the shuttle continues or on-site parking is available. Wayfinding signage is needed for personal vehicles, bicyclists and pedestrian direct access. Paved paths or trails to enter and navigate through the site are also needed for these users. Supporting increased access for bicyclists and pedestrians would also include making infrastructure improvements. Depending on the location, designated trails or paved lanes might be appropriate, as well as the addition of bike racks at common destinations.

The Comprehensive Trails Plan outlines four options to access EISE. The first option is no action, the second is to establish a pedestrian trail network from the Eisenhower Home and Farm to additional farms within the site; the third is to establish a pedestrian and bicycle trail network that connects to community bicycle routes for visitors after they have arrived by shuttle; and the fourth option allows visitors to enter and exit the site on foot or bike and purchase House tour tickets on-site. The Comprehensive Trails study recommends the fourth option, which would provide the most flexibility for visitors and the best option for promoting walking/hiking and biking to/from and through the site. For more detail, see the Appendix.

Summary

There are both pros and cons of continuing the shuttle service or providing direct access to the site. First, as a quiet site in a pastoral/agricultural location, the addition of a parking lot will have a negative impact on the cultural landscape of the site. A parking lot not only requires conversion of field space into parking lot and associated infrastructure, but it also introduces significantly more vehicle traffic to the site. These vehicles produce noise, and may also obstruct the viewshed, depending on the location of the lot. The continued use of the shuttle keeps the vehicle presence on site at the same levels as are currently

experienced, adding no further damage to the cultural integrity of the site. The alignment of each scenario with the goals is shown in Table 13. A hybrid scenario is also possible, combining elements from the shuttle operations and direct access scenarios. This scenario could have different pros and cons, depending on the exact structure of the combination.

Table 13
Parking and Shuttle Comparison with Eisenhower *Cultural Landscape Report* and Staff Goals

Criteria	On-Site Parking	Shuttle from Gettysburg Visitor Center
Protect pastoral/agricultural viewsheds	-	+
Limit visitor-use impacts (including erosion and landscape damage)	-/+	+
Avoid modern infrastructure not compatible with historic fabric or materials	-	+
Avoid modern visual intrusions	-	+
Protect pastoral soundscapes	-	+
Desire to expand park's meadows and grasslands	-	+
Provide visitors with an entrance experience along the lane or allée	-/+	+
Provide opportunities for spontaneous arrival	+	-
Provide transportation options that are barrier-free, as well as barrier-free movement within the site	-/+	-/+
Ensure visitation levels are appropriate for site capacity	-/+	+
Provide opportunities for visitors to wander and explore the site	-/+	-/+
Have visitors greeted at the site by NPS and engage with visitors throughout their visit	-/+	-/+

+ Supports the goals

- Does not support the goals

-/+ May be positively or negatively related to the goals

The options of shuttle service or on-site parking provide different levels of visitor access. Direct vehicle access through the use of a parking lot provides the easiest access to the site for visitors traveling by car.

Visitors would be able to arrive and depart at the times they feel are the most convenient, using their own vehicle or their group's tour bus. They would not have to park at the GETT Visitor Center, which would both alleviate the congestion at the GETT Visitor Center, and shorten the trip for EISE visitors. However, a shuttle alleviates the need to navigate to and from the site from the center of town. For those who prefer not to drive or are unable to, it would be more difficult to get to the site if the shuttle no longer operated from GETT.

An investigation into visitor types and preferences would help determine if the access benefits of direct access outweigh the potential drawbacks. The visitor use survey will assist with determining visitor preferences.

The construction of a parking lot would have a significant capital cost (estimates are included in Table 11). With either parking lot, there would also need to be conveyance for some or all visitors from the parking lot location to the Eisenhower Home, which would add cost to this access scenario as well. The analysis in this report for allowing direct access is preliminary, however, and additional evaluation is needed.

Recommendations

Below is a set of recommendations based on review of the site's history and goals for the future, the analysis of the current shuttle operations, projections of potential changes in visitor demand, and finally drafting potential direct vehicle access options and parking lot locations. This report did not analyze decreasing visitation in detail since the assumption was that the VUM Plan would result in enhancements and programming to increase visitation or keep it steady.

The recommendations begin with an evaluation of the shuttle contract in the near term and end with the creation of an on-site parking lot. These recommendations may also be pursued simultaneously, as desired. The recommendations of the study are as follows:

- Re-evaluate the fare structure of the current shuttle contract
- Consider GETT Visitor Center site improvements and enhanced information and wayfinding
- Consider findings from VUM Plan
- Consider further analysis into contracting options for the shuttle and vehicle replacement
- Allow direct access for visitors on foot or bike
- If direct vehicle access for visitors is eventually pursued, consider the trade-offs in locating the parking lot at Location 1 or Location 2. Additional analysis will be needed if this option is further pursued.

Re-evaluate the Fare Structure of the Current Shuttle Contract

The first recommendation is to re-evaluate the fare breakdown in the current shuttle contract. This would involve re-evaluating the proportion of each ticket that is allotted to the shuttle operator versus the Gettysburg Foundation. One way for staff to reach an appropriate value may be to consider the breakeven point plus a percent profit for the operator. The current shuttle contract was acceptable when visitation was higher, but needs to be adjusted given the decline in visitation. If visitation goes up then park staff can revisit the fare breakdown structure.

Consider Improvements to the GETT Visitor Center

In the short-term, improvements could be made to enhance the experience of EISE visitors at the GETT Visitor Center. Enhancements may include: improved EISE information on shuttle access, wayfinding, dedicated parking, service adjustments, and shuttle stop improvements for shade and seating.

Consider Findings from Visitor Use Management Plan

The VUM Plan will highlight issues and desires around visitor access to the site, as well as potential improvements. The VUM Plan will also discuss potential future programming (events, amenities, food) at the site and projected changes in visitor demand. This will all have an effect on what makes the most sense for transportation options and access to the site. Staff can take the findings from the VUM Plan and adapt this report's recommendations accordingly. Possible changes might include alterations to the shuttle including vehicle type, schedule and frequency. More programming on the site may encourage visitors to explore the site more comprehensively, as well as induce increased visitation. Other possibilities might be a focus on bicycling and hiking as recreational opportunities at the site.

Consider Further Analysis into Contracting Options for Shuttle and Vehicle Replacement

If EISE decides to continue shuttle operations in a similar manner to how they are presently conducted, staff might consider a few possible modifications to the operating structure so that it is most beneficial to visitors, the operator, and the NPS. EISE staff may wish to further consider different business models for the shuttle contract, and also further research into replacements for the buses for when they reach the end of their service life.

The current shuttle operates through a concessions contract, where the Gettysburg Foundation collects the revenue from the shuttle and distributes it to the operator, as negotiated with EISE. Other shuttle systems at NPS units operate through a service contract, where the NPS collects the revenue from the service, and then distributes it to the involved parties. Additionally, Gettysburg Tours operates under a CUA contract for GETT. CUAs are typically initiated by the private operator, which pay a fee to operate in NPS units with oversight of the NPS. Although it was outside of the scope of this study to evaluate the contracting model in detail, EISE staff could look into these contracting methods, and request that their current concessions and CUA contract with Gettysburg Tours be evaluated for contracting efficiencies.

For the actual operating schedule of the shuttle the contract should be structured to provide adequate service frequency at a reasonable cost to visitors. Thus far, the operator has been flexible in working with staff to determine the frequency of the shuttle and adjust as appropriate to visitation levels. EISE staff may also consider a more frequent service over a smaller operating day, if the visitor use survey results indicate that many visitors have anxiety regarding the frequency of the bus schedules. Under a structure like this, the same number of runs would be completed in a given day, but spaced closer together. This would ensure that visitors were able to leave the site closer to when they wanted to, without worrying about being stranded. Since a fare increase was recently put into effect, it may not be possible to increase the fare revenue for the next few years. Therefore, shuttle operation cost concerns should not be addressed exclusively through a fare increase.

A new contract should also address some of the concerns that the shuttle operator may have. While it may not be feasible to increase the total fare revenue, the existing fare revenue could be distributed in a different manner. As discussed above, revisiting the current fare breakdown with all of the involved stakeholders would allow for a fair negotiation of the existing fare revenue, ensuring profitability of the shuttle operation, and therefore attractiveness to the shuttle operator. If the schedule is revised to provide more frequent service for visitors, it is important to balance this change with the strain placed on the

operator to provide increased service. A balance—such as decreasing the length of service for the day or increasing the operators share of the fees—may provide the benefits that visitors desire, without negative repercussions for the shuttle operator. An example of this would be a shuttle every half hour between 10am and 2pm. Changes in service characteristics should be discussed during any re-negotiation of the contract.

Finally, EISE staff may wish to consider further analysis into potential vehicle replacements for the buses. EISE staff could consider a vehicle replacement study to look at how any new vehicle purchase may impact the operator's profitability, and also which vehicles would be best to meet the needs of the site and its visitors.

Increase/Allow Direct Access for Pedestrians/Hikers and Bicyclists

The report discussed recommendations from the *Gettysburg/Eisenhower Comprehensive Trail System Study* to allow for direct access to the site by visitors on foot or bicycle. This is a recommendation that EISE can implement regardless of shuttle changes or a consideration of a future parking lot. By allowing hikers and bicyclists to enter the site directly, visitors have more flexible access, as well as increased recreational opportunities at the site. Pursuing this recommendation would involve some improved infrastructure such as wayfinding signage and trails, as well as bicycle racks. Food concessions on site would also help increase comfort and length of stay for these visitors. This would also create new connections between GETT and EISE with the potential implication of a new mode split to reduced burden on both the shuttle and any consideration of a parking lot.

Allow Direct Vehicular Access and Construct New Parking Lot

This option would allow direct vehicular access to the site, which presents its own challenges and potential conflict with the NPS goals for the site. There is currently an insufficient volume of on-site parking to support visitor demand, ruling that out as a short term alternative. Therefore, this option would require the construction and maintenance of a parking lot. Visitors would be able to travel directly to the site in their personal vehicle, and tour groups would be able to access the lot directly via their tour buses. Once at the on-site parking lot, depending on the location of the parking lot, visitors could walk to the house and the rest of the site or would then be shuttled from the on-site parking lot to the Eisenhower Home.

If this scenario is selected, parking lot site Location 1 near the Skeet Range offers a number of benefits. This location allows for pedestrian access, with the availability of light vehicle transportation, if required. These benefits are offset by the fact that the lot would be visible from the Eisenhower Home, and the noise of the parking lot may also be audible. The second location along Millerstown Road would be well out of view from the Eisenhower Home but would require a shuttle. This reduces the cost savings that would come from eliminating the other shuttle service, as those savings would be at least partially directed towards operating the new service. Additionally, the introduction of a new shuttle would not eliminate the shuttle scheduling anxiety that some visitors may experience. While this second location may be better concealed from view from the Eisenhower Home, the tree line adjacent to the first location would provide some cover for this lot as well. For any proposed parking lot, staff will need to develop an in depth landscape plan in line with the history of the site, in order to hide views of arriving and parked cars. Ultimately both locations should be considered, with the pros and cons discussed above weighed carefully to determine the ideal location to meet the site's access goals.

If selecting the direct vehicular access scenario, all of the parking lot considerations highlighted in the previous section need to be addressed, including specific location, layout, driveway access, connection to the rest of the site, stormwater management, and environmental impact. Appropriate consideration of all of these factors will enhance the visitor experience, making access to the site easier while not substantially

degrading the cultural integrity of the site. It also may be possible to incorporate this scenario with one of the previously mentioned scenarios. Further analyses would be needed to determine how to best integrate this scenario with other scenarios.

Next Steps

During draft document review by the park, region and Olmstead Center, numerous thoughtful comments were provided that considered issues and interests beyond this *Visitor Transportation and Access Study* request, which was intended to provide existing shuttle and direct access evaluations to improve the visitor experiences to EISE (see Appendix for comments). The multiple office review demonstrated an interest to broaden transportation evaluations and planning to include:

- A menu of transportation options, including a blending of shuttle and direct access options;
- Provide additional direct access alternatives;
- Determine total cost of facility, operations and replacement for each transportation option;
- Investigate cost sharing;
- Impacts to park operations, demand management challenges; and
- Other park transportation challenges between and within GETT and EISE.

To address, evaluate, and provide input for the VUM planning, additional transportation planning is appropriate to expand EISE transportation and visitor access scenarios. A transportation feasibility study, either as a part of the VUM Planning efforts, or a separate effort to inform and support the VUM Plan may be warranted.

Expanding this study's work to date, incorporating recent multiple NPS office and visitor survey inputs, and collaborating with the VUM Planning team, a feasibility study could:

- Develop multimodal transportation access alternatives, within and adjacent to park lands to increase visitor access choices and experiences;
- Incorporate additional resource, operational, and partnering inputs;
- Explore cooperative partnering and operating opportunities with public and private organizations;
- Develop demand management strategies for efficiencies and partnering scenarios;
- Develop business and financial modeling for capital, operational, fee collection and contracting requirements analysis and efficiencies;
- Establish financial feasibility via pro forma for operations;
- Provide a range of recommendations and alternatives for agency, public and partner considerations; and,
- Facilitate NPS Alternative Transportation Program approvals.

The feasibility study could confirm coordination between existing and proposed transportation improvements and operations, and consider adjacencies and collaborations for future visitor experience and access opportunities. Specifically, coordination with existing Adams County/Freedom Transit, the upcoming GETT hiker shuttle, and EISE transportation needs could be integrated and coordinated to reduce redundancy and inefficiencies that challenge visitor experiences, operator issues and contribute to incremental development or resource impacts.

The transportation feasibility study would respond to evolving visitor, agency and partner interests and support multi-year actions to enhance and protect visitor and resource values.

Appendix

Background Documents

Planning Documents

- EISE Enabling Legislation
- Cultural Landscape Report for EISE National Historic Site, Vol 1: Site History, Existing Conditions, and Analysis (2005)
- Cultural Landscape Report for EISE National Historic Site, Vol 2: Treatment (2006)
- Eisenhower Foundation Document (August 2016)
- GETT Foundation Document (May 2016)
- GETT-EISE Comprehensive Trail System Study, Phase I (November 2015) + EISE Options document
- GETT Comprehensive Trail Plan, Potential GETT Transit Routes

EISE Transportation/Shuttle Documents

- EISE Access Discussion and Background (June 2016)
- EISE Visitation and Shuttle Data
- EISE Alternative Transportation Management System, Tom Crikelair Associates
- EISE Shuttle Fees 2005 – 2014
- Eisenhower Shuttle System Information

EISE Visitor Use Management Plan & Survey

- EISE Visitor Use Management Plan Project Agreement with DSC
- EISE Visitor Survey draft questions
- Visitor Use Management Plan (March 2014)

Referenced text from Comprehensive Trails System Study

EISE Options

• Option A: No Action

• Option B: Establish pedestrian trail network from Eisenhower house and farm to additional farms within site. Option B would open a larger portion of Eisenhower NHS to visitors by establishing a pedestrian trail network throughout the site. Opening up more of the site would allow for increased educational opportunities such as the Eisenhowers' life in Gettysburg as well as various agricultural themes. This option would maintain the existing management of visitor access to the site as visitation would still be limited to purchasing tickets at the Gettysburg NMP Museum & Visitor Center and riding the shuttle to the site. Option B would establish a formal pedestrian trail network to allow visitor access to

the entire Eisenhower NHS landscape while maintaining access to and from the site via the Eisenhower Shuttle. Once on-site, pedestrians would have access to a formalized trail network which allows them to walk to Farm #3 and Clement Redding Farm thereby providing additional interpretive value to the site.

• Option C: Establish pedestrian and bicycle trail network; maintain shuttle access to/from site; allow opportunity to hike or bike out with new trailhead. The objective of Option C is to maintain the current management of visitor access to the site, but would allow visitors to leave Eisenhower NHS on their own thereby strengthening the physical connection to Gettysburg NMP. Establishing bicycle access between the main two farms and the auxiliary farms creates an ease of access which may increase visitation. Option C would establish the pedestrian trail network discussed in Option B while increasing the opportunity for visitor access to the larger farm landscape by allowing visitors to use bicycles to connect to the two non-Eisenhower farms. Bicycle connections would only be permitted on established farm lanes, drives or roads. The trail network in this option would also include connections to community bicycle routes. The trail network would allow access to the Iron Bridge and the Sachs Covered Bridge by using Red Rock and Waterworks Roads, and could use the western portion of Eisenhower Farm Lane for bicycle to access Red Rock Road. Option C would maintain access to the site via the Eisenhower Shuttle. With the addition of bike racks on the shuttles, pedestrians and cyclists would have the opportunity to hike/walk/bike to Farm #3 and Clement Redding Farm and/or back to Gettysburg NMP. (Approximately 3.5 miles to the M&VC.) Shuttle rides back to the M&VC would still be a possibility for visitors.

• Option D: Increased opportunities for visitor access to the site. Option D would increase visitor access to Eisenhower NHS by augmenting the methods by which visitors can access the site and therefore would provide greater flexibility as to how visitors can incorporate Eisenhower NHS into their Gettysburg travel experience. Option D would allow visitors to access Eisenhower NHS on foot or bicycle while maintaining the shuttles from the M&VC. Ticketing for the Eisenhower House tours could be purchased at a location within the Eisenhower NHS (potentially at the Reception Center) and/or the M&VC. Requiring ticket sales for the house tours would maintain control of admissions into the Eisenhower House while allowing increased visitor access to the landscape. This option would also incorporate the pedestrian trail network established in Option B for visitation to the entire farm landscape and the opportunity for bicycle access between the farms. This would require installation of bike racks at the Reception Center as well as the other farm locations.

History of Access/Roads on the Farm

In 1954 the Eisenhowers began renovating the property, which included improvements to the entry gate and drive as well as smaller farm roads and paths. The original entry drive from Waterworks Road (now Millerstown Road) to the barn and farmhouse was originally gravel, and the Eisenhowers kept its alignment but regraded it and replaced it with asphalt paving. The darker asphalt finish was eventually changed to a light colored chip coat which created almost a white surface, to align with the preferences of Mrs. Eisenhower. Two other drives were paved, from the driveway to the garage south of the barn, and a pullout from the drive south of the Eisenhower Home. By the late 1960s there were three paved roads on the Eisenhower Farm including the entry drive, the road to the eastern fields, and Nevins Lane.

Other gravel roads and lanes were extended or added around the property during the Eisenhower years.

When the Eisenhowers renovated in 1954 they removed the southern extension of the original drive which connected the Eisenhower Farm, Farm #2 and Emmitsburg Road. During renovations this road was used as the primary access road for heavy trucks, but by 1956 the gravel road connecting the Eisenhower Farm and Farm #2 was removed for security purposes.

Vehicular patterns on Farm #2 changed slightly during the Eisenhower years with the removal of the connection to the Eisenhower Farm and the addition of a new road heading west through the fields and then north. The original gravel entry road remained.

The lanes and roadways at the Eisenhower National Historic Site are part of the National Register of Historic Places.

EISE Project Team Site Visits

Site Visit #1: February 28- March 2, 2017

Joint meetings with EISE and team responsible for Visitor Use Management Plan.

Agenda

Background (9:00-9:30)

- Introduce transportation study and agenda for the session
- Outline conceptual desired visitor experiences that transportation actions support
- Recall 1970's shuttle planning problem statement- what problems were to be solved?

Current Shuttle Operations (9:30 – 10:15)

- Overview of existing shuttle service, contract requirements, operations, annual evaluations
- Confirm relationships between *Cultural Landscape Report* and Trail Study
- Outline shuttle benefits and shortfalls for visitors, operator, NPS staff, others

Future Transportation at EISE (10:30 – 12:00)

- Assess existing and future visitation demand for shuttle or parking operations
- Discuss potential shuttle refinements and improvements
  - What has been considered in the past?
- Discuss relationship and connections between EISE and GETT
- Discuss the parking alternative development
  - Define the parking alternative opportunities and constraints
  - Outline a program for parking alternative
  - How would the park handle large events in this scenario?
- Confirm any outstanding considerations

Participants

Eisenhower National Historic Site
Ahna Wilson, EISE Site Manager
Ed Clark, EISE/GETT Superintendent
Zach Bolitho, Chief, Resource Management
Michael Florer, Curator
John Joyce, Interpretive Ranger
Richard Lemmers, Interpretive Ranger
Winona Peterson, Cultural Resources Program Manager
Marc Pratt, Chief, Maintenance
John A. D. Tarbet, Interpretive Ranger

U.S. DOT Volpe Center
Jessica Baas, Community Planner, Project Manager

National Park Service Denver Service Center
Patrick Shea, Transportation Technical Specialist, Project Manager
Kim Shafer, Project Manager
Wes Mize, Cultural Resource Specialist
Rachel Collins, Visitor Use Management Specialist

Site Visit #2: April 10-12, 2017

Agenda

Monday, April 10

- Volpe and DSC Travel to Gettysburg
- Visit GETT Visitor Center if time allows

Tuesday, April 11

- 8:30AM: Arrive at GETT Visitor Center
- 9:00AM: Ride shuttle to EISE
- 11:00AM: Return to GETT Visitor Center
- 2:00PM: Meeting with Gettsyburg Tours at EISE HQ
- Afternoon: Drive to parking sites to ground truth

Wednesday, April 12

- 9:00AM – 12:00PM Meeting with Staff
    - Transportation Goals and Benefits Challenges from February Site Visit (9:00-9:15)
    - Visitor Use Capacity & Scenarios (9:15 – 10:15)
    - Break (10:15 – 10:30)
    - Shuttle Analysis (10:30 – 11:00)
    - On-site Parking Analysis (11:00 – 12:00)
- 12:00PM: Depart for airport

EISE Visitor Transportation and Access Study, Site Visit 2 – Gettysburg Tours Meeting

April 11, 2017

Location

Eisenhower National Historic Site
Gettysburg, Pennsylvania

Participants

Eisenhower National Historic Site
Ahna Wilson, EISE Site Manager
Ed Clark, EISE/GETT Superintendent
John Joyce, Interpretive Ranger

Winona Peterson, Cultural Resources Program Manager
Marc Pratt, Chief, Maintenance

U.S. DOT Volpe Center
Jessica Baas, Community Planner, Project Manager
Eric Burkman, Community Planner

National Park Service Denver Service Center
Patrick Shea, Transportation Technical Specialist, Project Manager

Gettysburg Tours
Max Felty, Owner, Gettysburg Tours
Carol Metzler, Vice President, Gettysburg Tours

Parking Lot Layouts

This Appendix contains all parking lot size and orientation combinations, between the two locations, two parking lot orientations for location 1, and two lot sizes in each location. The parking configurations are initial concepts, subject to additional input, evaluation and refinement.

Location 1 – Skeet Range

Figure 21
Location 1 Overview, North-South Orientation
Source: ESRI Basemap

Figure 22
Location 1 Small Parking Lot, North-South Orientation
Source: ESRI Basemap

Figure 23
Location 1 Large Parking Lot, North-South Orientation
Source: ESRI Basemap

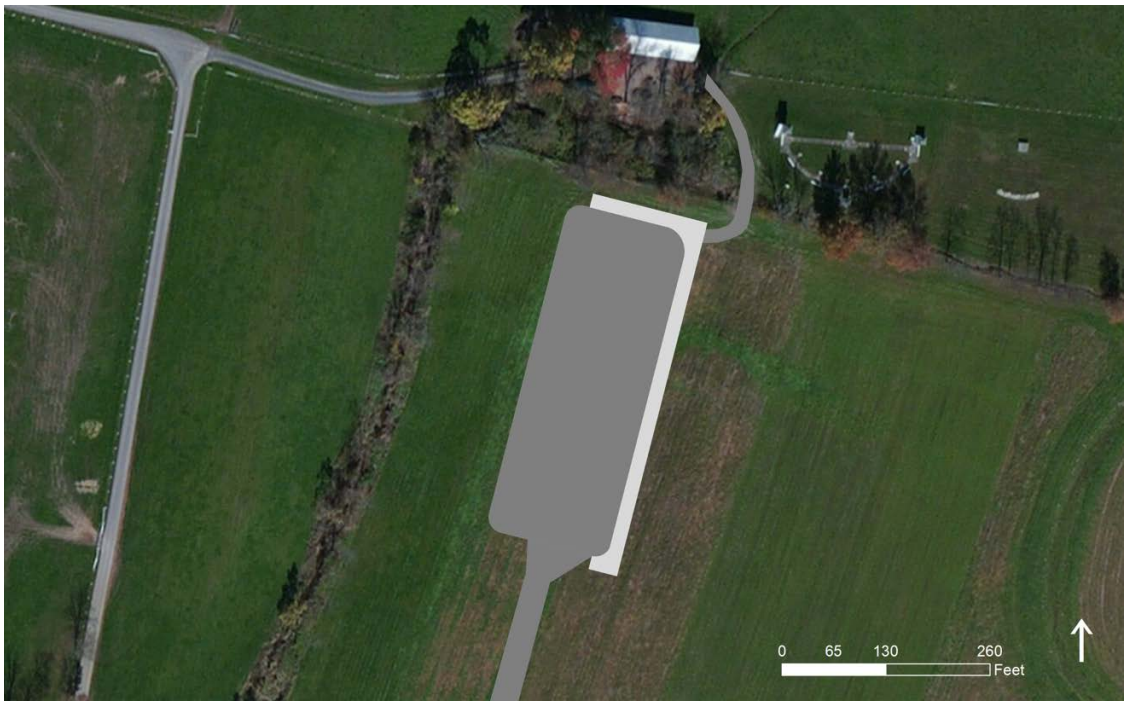


Figure 24
Location 1 Overview, East-West Orientation
Source: ESRI Basemap

Figure 25
Location 1 Small Parking Lot, East-West Orientation
Source: ESRI Basemap

Figure 26
Location 1 Large Parking Lot, East-West Orientation
Source: ESRI Basemap

Location 2 – Millerstown Road

Figure 27
Location 2 Overview
Source: ESRI Basemap

Figure 28
Location 2 Small Parking Lot
Source: ESRI Basemap

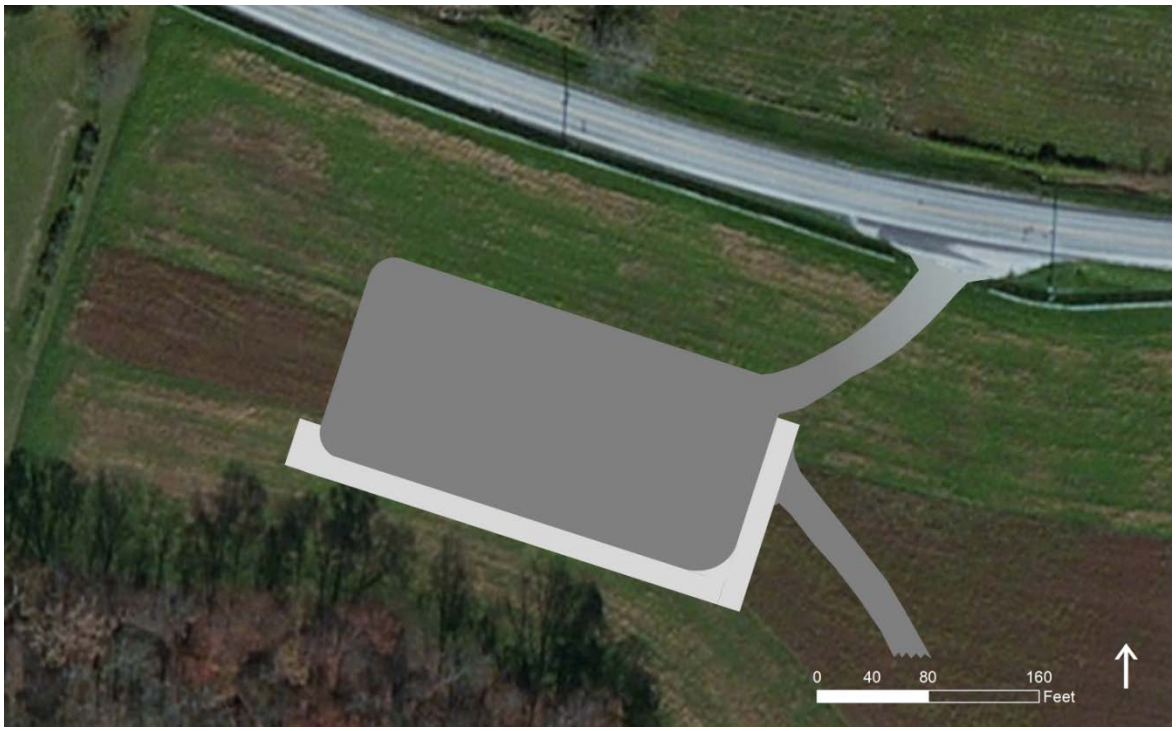
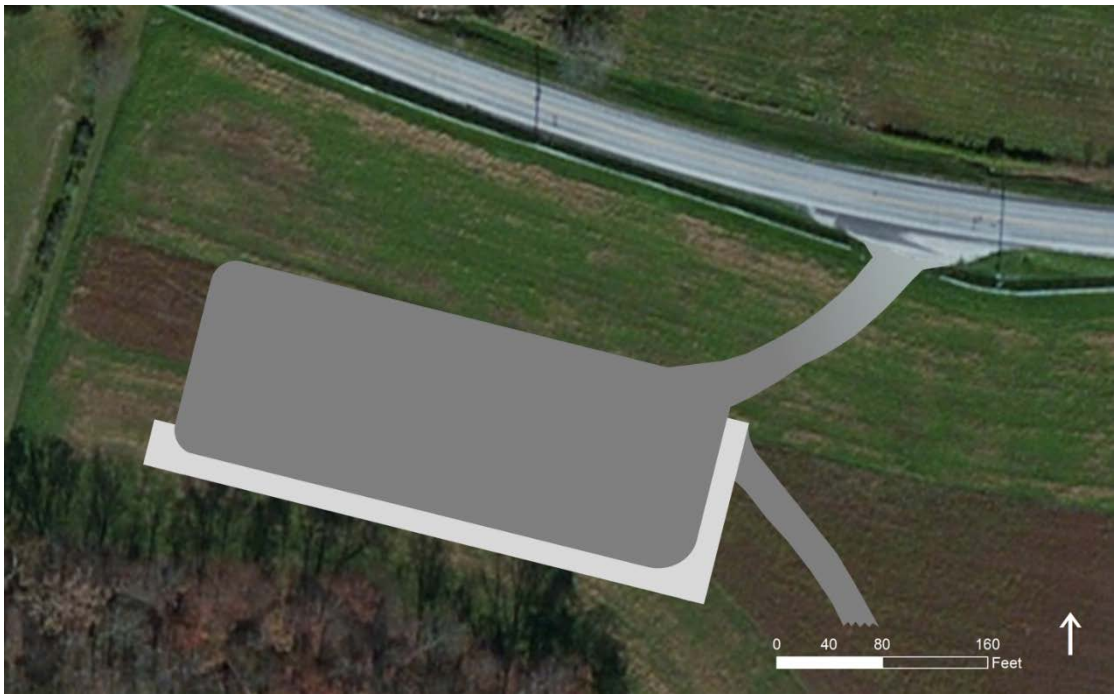


Figure 29
Location 2 Large Parking Lot
Source: ESRI Basemap



Review Comments

This Appendix contains substantive comments from the report review process. These comments were synthesized to create the Next Step section added to this report. These comments can be referred to when determining the next phases of transportation planning at EISE.

More Options to Consider:

- If on-site parking is pursued, the two parking locations included in this report should not be considered the end-all two choices. Further exploration should be undertaken to fully evaluate each proposed parking location in terms of preserving the cultural landscape and the character of the Eisenhower Home.
- Explore a hybrid approach that would provide transportation alternatives for visitors in a way that mitigates some of the challenges or creates better outcomes than could be accomplished by a single solution. For example, explore a model with cost estimates associated with some onsite parking and still continuing to run the shuttle either on its own or incorporated in to the GETT shuttle stops.
- EISE and GETT shuttle services are currently separate. There may be efficiencies in potentially combining the services as part of the reevaluation of the contract model.
- Explore overflow parking solutions including adding grass pavers by future parking lot for peak demand or bring in a parking team for temporary parking on peak days. Explore and evaluate the continued use of the fields as overflow parking lots and fee collection (currently no fee is charged when the fields are used for special events).
- Explore variations in service time frames with shorter shuttle hours of operation, but more frequent trips to alleviate the concern about missing the only bus leaving the farm.
- Future trail systems plans should be evaluated for compatibility with the cultural landscape and historic resources on the site. Potential impacts should be reviewed and addressed. Bike access would need to comply with the Bike Rule regulations.

Additional Cost Estimating:

- Include cost estimates (initial capital cost, operating cost, total cost of facility ownership for all options and improvement). Form a more complete cost package to be able to compare options and utilized for the next 5-10 years in the VUM Plan. Options and scenarios should evaluate alternative vehicle options, service scheduling alternatives, marketing, re-evaluating the contract model, parking lot options (including cost associated with running a shuttle from a more distant on-site parking lot and the type of vehicles/frequency needed), etc.
- Detailed financial breakdown of capital and operating cost for continuing the shuttle system should be compared to direct access alternatives.
- Another cost not addressed in this report is the impact on park roads required by the shuttles. That cost should be included in order to make a fair Total Cost of Facility Ownership cost analysis between the shuttle alternative and the direct access alternative.
- Review different types of shuttle contract models. Understand what fee structure needs to look like under each contract type to have the shuttle operating in the black and how changes in visitation and operation can affect this bottom line number.
- Explore reservations and parking fees to manage parking.

Parking Lot Issues to Further Explore:

- If a parking lot is pursued further it is recommend that EISE coordinate with the Olmsted Center more about potential parking lot locations to discuss the least impact to the site.
- Selected parking lot location(s) can go beyond the two locations described within this report. To maintain compatibility with the cultural and historic landscape of the site, parking lot locations should include schematics showing various historic viewshed impacts. Consideration should also be given in mock-up illustrations showing the proposed height of vehicles from cars to buses in any proposed parking lot location. Any screening of vehicles to mitigate visibility impacts should also be considered in the assessment of the impact to the historic viewshed of the property and of another adjacent historic properties. EISE has documented historic viewsheds (see 2006 Cultural Landscape Report for EISE) that should be recognized in planning for a parking lot.
- Parking Lot Locations 1 and 2 do not have previously recorded archaeological sites but are in areas that have been characterized as potential site locations in the EISE Archaeological Overview and Assessment. Of particular concern to us are the possible troop interment locations that have been identified in the field just east of Location 1. Given the project areas potential sensitivity it is not unreasonable to assume that a thorough Section 106 assessment of the sites will result in an adverse effect determination.
- Any parking lot option not adjacent to the house should consider assistance for elderly or disabled to travel from the parking lot to the Eisenhower Home such as a golf cart, etc. and how such services would be operated. Consideration of ABA spaces, which may be separated from the main lot and placed closer to the Eisenhower Home should also be considered.

Items to Address in the VUM Plan:

- Is the goal to increase visitation? Attract different types of (younger) visitors? Provide more modern services? Better customer service or satisfaction? What is the overall goal? Are there metrics in mind that would equate to success? Can we develop some metrics?
- Are there any statistics on how many people utilize car-free travel to the visitor center from the Amtrak Station or other locations nearby? While this is a lofty and important goal and perhaps something the park wants to expand, if the number of people taking advantage of it is extremely small, it may not be an important factor in making this decision.
- What are the visitor demographics? Are there an age preference for shuttles? Would personal vehicles attract younger visitors?
- The ticket structure for the site overall needs to be better explained to understand the drawbacks, if any.
- What are the impacts of a shuttle verses private vehicle on the "entrance experience" to EISE? What type of entrance experience does EISE want to cultivate?
- What are the impacts of reservations and parking fees to manage parking?
- If implementing on-site parking consider how to incorporate a possible visitor contact station to assist with navigating the site.
- Consideration for future trail connection to the site should include management of site access for how and when people using the trail can access the site.

REPORT DOCUMENTATION PAGE

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Jessica Baas, Eric Burkman, Heather Hannon, Adam Perruzzi, Danielle Kittredge, (USDOT Volpe Center), Patrick Shea (NPS)

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U.S. Department of Transportation
John A. Volpe National Transportation Systems Center
Transportation Planning Division
55 Broadway
Cambridge, MA 02142-1093

Denver Service Center
National Park Service
2795 Alameda Parkway
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Mark Alexander
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13. ABSTRACT
This study evaluates the current shuttle system and Eisenhower National Historic Site, which is currently the sole access to the site. Visitation at Eisenhower has been declining since the site opened, and the study looks at the impacts of this trend on the shuttle system. The study provides a preliminary analysis on the impacts of allowing direct access to the site, and what would need to be considered if parking lot were to be constructed. This study also develops visitation demand scenarios based on the capacity of the site, and uses these scenarios to consider the future of the shuttle system, or of allowing visitors to park on-site. The study concludes with recommendations to improve the current shuttle system, re-evaluate the contracting mechanism for the shuttle, and items for consideration if the park pursues on-site parking at Eisenhower.

14. SUBJECT TERMS
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