



February 19, 2015

Cardno, Inc.

Cathy Draeger-Williams
Archaeologist
Indiana Department of Natural Resources
Division of Historic Preservation and Archaeology
402 W. Washington Street, W274
Indianapolis, Indiana, 46204-2739

3901 Industrial Blvd.
Indianapolis, Indiana 46254
USA

Phone 317 388 1982
Fax 317 388 1986

www.cardno.com

Subject: Work plan concerning the restoration of the pavilion and construction of a banquet center and comfort center at the Indiana Dunes State Park, Porter County, Indiana (DHPA #17035)

Dear Ms. Draeger-Williams:

In response to a request from Luke Oil and Virtue Architects, Cardno proposes the following Work Plan to conduct Archaeological Monitoring of soil core sampling at the proposed locations of a banquet center and comfort center at the Indiana Dunes State Park (IDSP) in Porter County, Indiana. The proposed project is located approximately 300' upstream of the Dunes Creek Confluence with Lake Michigan, in Westchester Township, Section 13, Township 37N, Range 6W on the Dune Acres 7.5' USGS quadrangle map (Figure 1). The proposed restoration and construction project will occur within an Indiana State Park and is subject to the requirements of Indiana Code 14-21-1 and 312 IAC 21.

The proposed project will alter the Indiana Dunes Beach House Pavilion (IHSSI Site # 127-175-05001), which was rated "Outstanding" in the Indiana Historic Sites and Structures Inventory, and is considered a historic property. Proposed alterations include constructing a new structure marginally connected to the Pavilion as well as a new comfort center that incorporates previously existing water treatment facilities. In a letter dated January 28, 2015, Mitchell K. Zoll, Director of the Division of Historic Preservation and Archaeology (DHPA) indicated that a permit pursuant to Indiana Code 12-21-1-16 is granted with the following conditions¹:

Archaeological investigations consisting of coring samples are necessary and must be completed by a qualified professional archaeologist. Secondly, if any archaeological resources are identified, DHPA must be notified within two (2) days of the discovery. The third condition outlines the restoration of the Pavilion in regards to the window replacements, and terra-cotta masonry preservation and storage. The fourth and final condition clarifies that the new proposed Banquet Center is an addition to the Pavilion due to the upper story connecting

¹ Zoll, Mitchell, IDNR Letter to Chuck Williams, 2015

bridge and functional integration with the Pavilion's kitchens, and states that plans remain tentative regarding material types, color, etc. to be consistent with the characteristics of the Pavilion. This Work Plan addresses the first two conditions; those pertaining to the archaeological monitoring and resource identification/notification.

Background Information

A traditional cultural resources literature review was not conducted for this project; however, in 2010, JFNew and Associates, now Cardno, Inc., completed Archaeological Monitoring for the Dunes Creek Daylighting Project, which is adjacent to a portion of the current project area². This project was conducted in response to the partial collapse of the parking lot near the confluence of Dunes Creek and Lake Michigan at IDSP. After stabilizing the area, the IDNR recommended the remaining channelized portion of the creek be restored to a natural draining channel. Archaeological monitoring was required due to the potential for buried cultural deposits. Monitoring occurred between fall 2009 and spring 2010, and no cultural deposits or archaeological sites were identified as a result of the monitoring³.

The cultural resources literature review conducted in 2009 by Cardno, Inc. indicated that numerous archaeological sites have been recorded in the vicinity of the project area, including 12-Pr-1 and 12-Pr-119. Site 12-Pr-1 represents a multicomponent unidentified prehistoric burial and French fur trade or military post, and 12-Pr-119 is a prehistoric site with Late Archaic, Middle Woodland, Late Woodland, and Mississippian components. In addition to these documented archaeological sites, the prehistoric and historic context of the area suggests that additional unidentified archaeological sites may be located within the project area. Archaeological sites at IDSP are difficult to identify through traditional investigative techniques, due to the nature and composition of dunal topography.

Bedrock in the project area consists of shale, limestone, and sandstone which date to the Devonian Period – 419,200,000 to 358,900,000 years ago⁴ (Figure 2). The *Quaternary geologic map of Indiana* indicates that the deposits associated with the project area consist of lacustrine beach and dune sand along present and recently abandoned beaches, which date from the Wisconsinian to the Holocene⁵ (Figure 3). The project area is further located within the Oakville-Maumee-Brems Soil Association, which consists of nearly level to very steep well drained, very poorly drained, and moderately well drained sandy soils on outwash plains, lake plains, beach ridges, and sand dunes⁶. Soils in the proposed project area consist of loamy Udorthents (UcG – 3 to 30% slopes) and Dune land (Du) (Figure 4). Udorthents soil is characterized as nearly level to steep on outwash plains, lake plains, till plains and moraines. In some areas the surface layer and some of the underlying layers have been mixed, or the upper layer has been completely stripped for use in earthmoving projects⁷. Cardno therefore anticipates the upper portions of the soil beneath the extant parking lot will be disturbed and therefore unlikely to contain intact

² Duddleson, J. Ryan, and Veronica [Harper] Parsell, *Archaeological Monitoring Report for the Dunes Creek Daylighting Project (DHPA #5761)*, Porter County, Indiana, JFNew and Associates [Cardno, Inc.], 2010

³ Duddleson & Parsell 2010

⁴ Indiana Geological Survey, *Indiana Bedrock Geology Map*, Electronic document, <http://igs.indiana.edu/Bedrock/>, accessed February 19, 2015

⁵ H.H. Gray, *Quaternary Geologic Map of Indiana*. Miscellaneous Map 49, Geological Survey, Department of Natural Resources 1989

⁶ US Department of Agriculture [USDA]/Soil Conservation Service [SCS], *Soil Survey of Porter County, Indiana*, 1981

⁷ USDA/SCS 1981

archaeological resources. Dune land is characterized by steep and very steep, deep, excessively drained sand located on low sand dunes and beach ridges. The sands move with the wind and shift constantly⁸.

Archeological Monitoring Plan

The objective of the archaeological monitoring is to determine the presence or absence of intact cultural landforms and to look for any archaeological deposits that may be impacted by the proposed project. Prior to construction activities, soil samples will be taken from the proposed locations of the foundation piers for the Banquet Center and Comfort Center. Based on the Floodplain Analysis and Regulatory Assessment from the Indiana Department of Natural Resources-Division of Water, the Base Flood Elevation (BFE) is located at 585' above mean sea level (amsl). A qualified archaeologist will monitor all core sampling associated with the proposed foundation pier locations below 585' amsl. Cardno will require 24 hours' notice prior to any such activity, and will notify DHPA when monitoring is to commence. Based on available information, Cardno assumes the monitoring will require no more than one (1) business day.

In their letter dated January 28, 2015, DHPA indicated that two to four inch-diameter soil core sampling must occur at each of the proposed foundation piers for the proposed Banquet Center and Comfort Center. In subsequent correspondence between Scott Virtue of Virtue Architects and Cathy Draeger-Williams of DHPA, both parties agreed to a reduced number of borings at the Banquet Center and Comfort Center⁹. As a result, Cardno will monitor soil core sampling at five (5) locations for the Banquet Center, each to a depth of approximately 35 feet below ground surface. These soil borings will be placed at the center and each corner of the proposed Banquet Center (Figure 5). At the proposed location of the Comfort Center, Virtue Architects plan to use the existing foundations below the extant restrooms, as well as the retaining walls built in 2003. Therefore, Cardno will monitor three (3) shallow 15 foot borings in this area; one below the new wall, and the others at each of the two (2) proposed outdoor shower walls (Figure 5). Cardno staff will have the authority to halt soil boring activity to assess suspected archaeological deposits.

The archaeologist will measure the total length of each core and will record information about each core, including the color, texture, and distribution of all soils within the core. All cores will be sampled to the depth of the pier foundations. If a buried soil horizon or archaeological feature is identified within any core sample, Cardno will immediately advise DHPA. In the event archaeological features are identified, excavation and evaluation is beyond the scope of this work plan.

Managing Archaeological Discoveries

A variety of methods are available to manage the discovery of archaeological deposits identified during construction, including avoidance, salvage and documentation, and the use of temporary or long term protection measures. Cardno staff will complete documentation measures if archaeological deposits are encountered within any soil borings; Cardno assumes that any additional work would be completed upon consultation with DHPA and the client. Cardno will document findings with photographs, profile drawings, and soil samples.

Due to the nature of boring, Cardno is not expecting to encounter artifacts, though archaeological deposits, middens, and features may be identified. Should construction activity uncover archaeological resources, staff will document these elements in consultation with DHPA.

⁸ USDA/SCS 1981

⁹ Scott Virtue and Cathy Draeger-Williams (Email Communication, February 16, 2015), provided to Veronica Parsell

Construction personnel and sub-contractors may not collect or disturb archaeological materials. If contractors inadvertently discover archaeological materials or human remains in the monitoring area, they must stop work to allow for examination by the archaeologist on-site. If the discovery occurs outside the monitoring area or subsequent to the monitoring activities, the contractor must stop work within a 33 m (100 ft) buffer of the area and notify DHPA within two (2) business days.

Report of Investigations

Upon completion of the soil core sampling, Cardno will submit a report of investigations detailing the results of the archaeological monitoring to the DHPA for their review and comment. Following receipt of comments Cardno will submit a final report of investigations. Following concurrence of the report of investigations by the DHPA, Cardno will curate any recovered artifacts and associated records at a facility agreeable to the DHPA and the Indiana Department of Natural Resources – Division of State Parks and Reservoirs (DSPR).

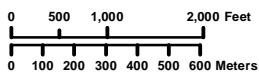
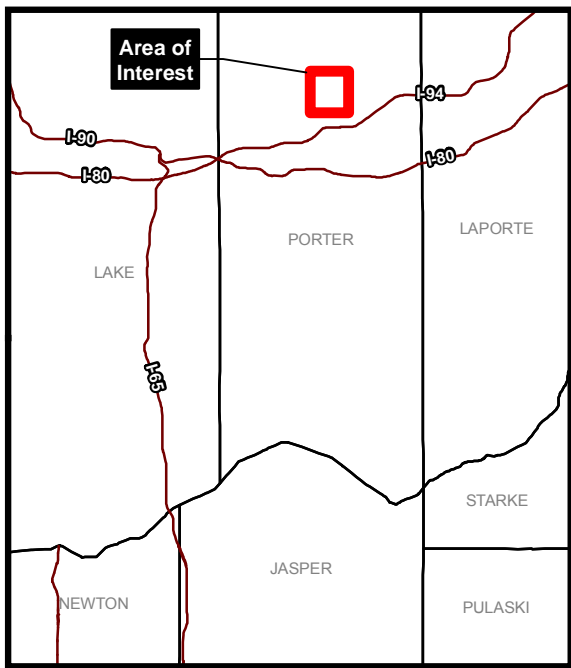
If you have any questions, please do not hesitate to contact me.

Sincerely,




Veronica Parsell, MA
Senior Project Scientist
Cardno, Inc.
Cell: 574 229 8747
Email: veronica.parsell@cardno.com

Enc: Figures 1-5; DHPA correspondence dated January 28, 2015; February 16, 2015 Email correspondence between Scott Virtue and Cathy Draeger-Williams regarding reduced core sampling
ecc: Elmer Embry, Luke Oil; Scott Virtue, Virtue Architects
File: DHPA #17035, Cardno #J152572800



 Project Area

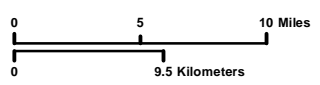
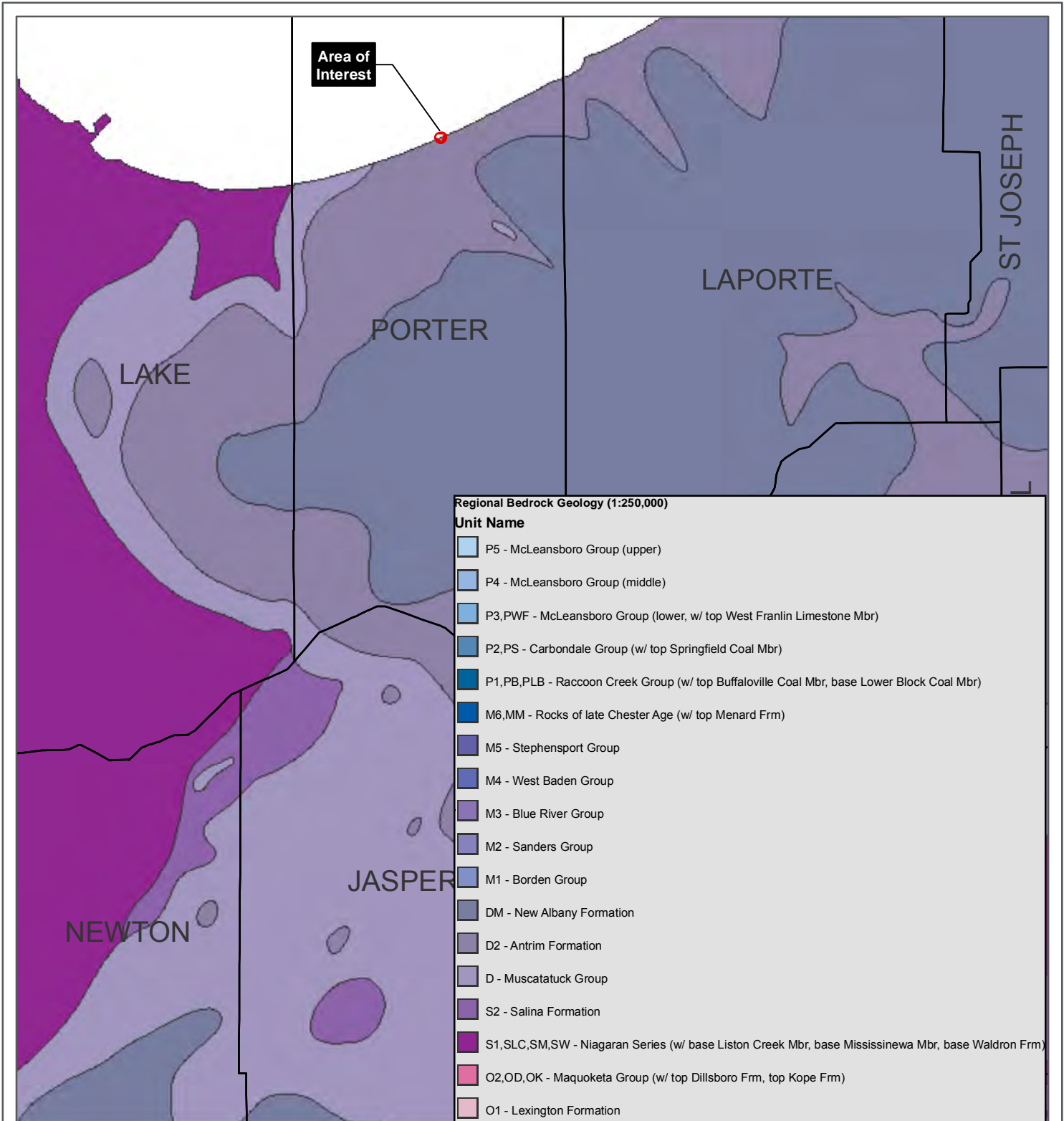

 Township: 37 N
 Range: 6 W
 Section: 13
 Project No.
 J152572800


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Figure 1: Project Location
Indiana Dunes State Park
Archaeological Monitoring
Porter County, Indiana



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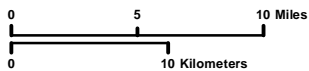
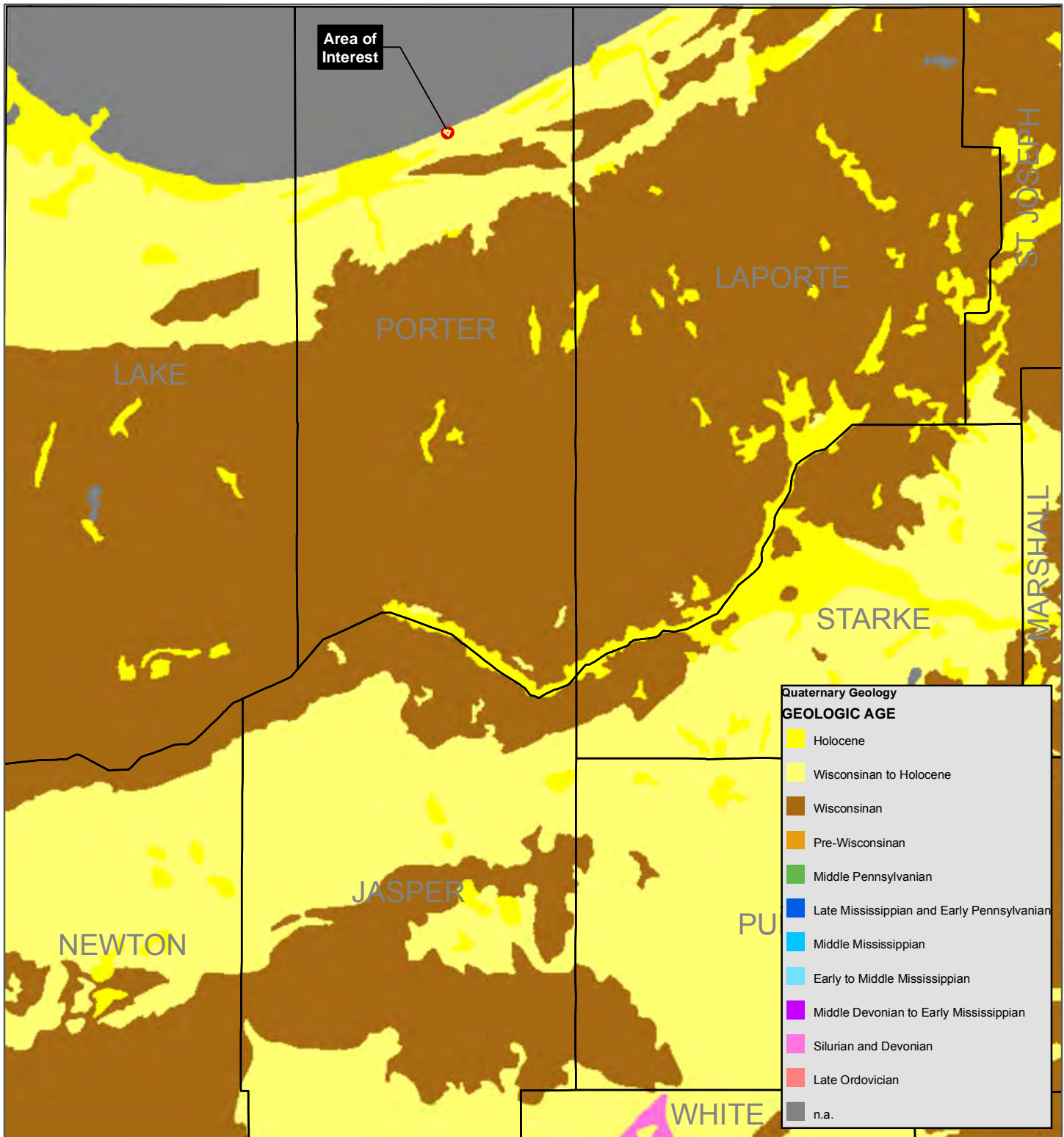



 Township: 37 N
 Range: 6 W
 Section: 13
 Project No.
 J152572800

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**Figure 2: Bedrock Geology
Indiana Dunes State Park
Archaeological Monitoring
Porter County, Indiana**

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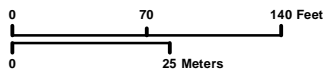
Township: 37 N
Range: 6 W
Section: 13
Project No.
J152572800

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**Figure 3: Quaternary Geology
Indiana Dunes State Park
Archaeological Monitoring
Porter County, Indiana**



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-  Soil Unit
-  Project Area


Township: 37 N
Range: 6 W
Section: 13
Project No. J152572800

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Figure 4: Project Area Soils
Indiana Dunes State Park
Archaeological Monitoring
Porter County, Indiana



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INDIANA DUNES STATE PARK BEACHFRONT BANQUET CENTER

PAVILION ADDITION
CHESTERTON, INDIANA 46304

PROJECT DATA:

CONSTRUCTION TYPE: 1-B
 OCCUPANCY CLASSIFICATION: GROUP 'A' (ASSEMBLY)
 FACILITY USE: RESTAURANT
 TOTAL BUILDING AREA: +/- 11,000 SF
 OCCUPANT LOAD: 11,000 SF DIVIDED BY
 8 SF PER OCCUPANT = 1,375 OCCUPANTS

FIRE PROTECTION:

THE ENTIRE BUILDING WILL BE PROTECTED BY AN AUTOMATIC FIRE SPRINKLER SYSTEM.


APPLICABLE CODES:

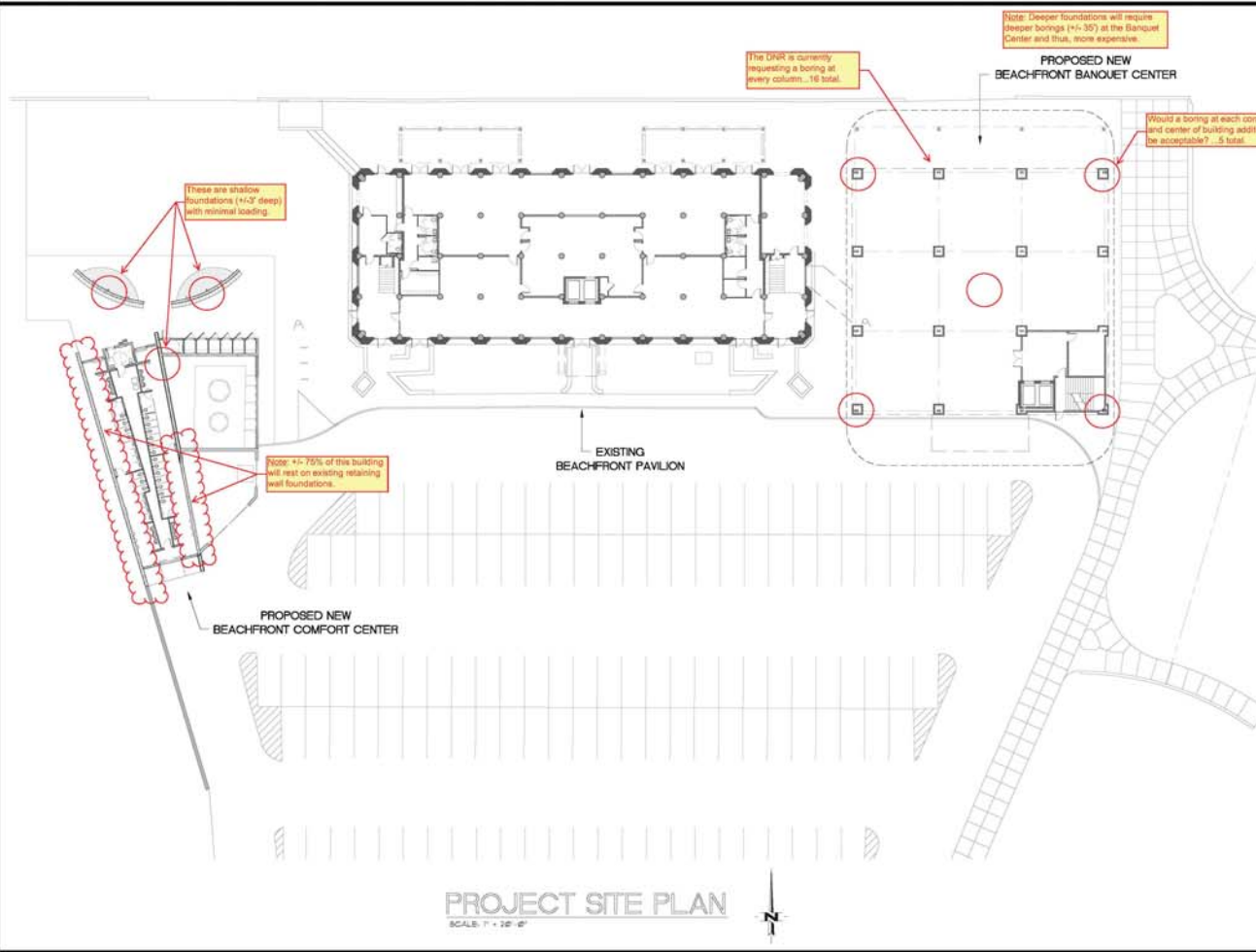
- INDIANA BUILDING CODE 2014 (IBC 2012)
- ACCESSIBILITY CODE - ANSI A117-2008 (ADA)
- INDIANA PLUMBING CODE 2009
- INDIANA MECHANICAL CODE 2014 (IMC 2009)
- INDIANA ELECTRICAL CODE 2008 (NFPA 70-2008)
- INDIANA FIRE CODE 2014 (FC 2012)
- INDIANA ENERGY CONSERVATION CODE 2012 (ASHRAE 90.1, 2007)

DRAWING SHEET INDEX:

NO.	NAME
CS-13	COVER SHEET, PROJECT INFO, INDEX OF DRAWINGS & SITE PLAN
BC-11	BANQUET CENTER - EXTERIOR ELEVATIONS
BC-21	BANQUET CENTER - FOUNDATION PLAN
BC-31	BANQUET CENTER - FIRST FLOOR PLAN
BC-32	BANQUET CENTER - 2ND FLOOR PLAN
BC-33	BANQUET CENTER - 3RD FLOOR PLAN
BC-34	BANQUET CENTER - ROOF PLAN
BC-41	BANQUET CENTER - N to S CROSS-SECTION
BC-42	BANQUET CENTER - E to W CROSS-SECTION

KEY

 Proposed Soil Boring Location



PROJECT SITE PLAN
SCALE: 1" = 12' 0"

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DATE	DESCRIPTION

INDIANA DUNES STATE PARK
BEACHFRONT BANQUET CENTER
PAVILION ADDITION
CHESTERTON, INDIANA 46304

VIRTUE ARCHITECTS
300 Waverly Road
Porter, Indiana 46304
(317) 509-4395
www.VirtueArchitects.com



COVER SHEET,
INDEX OF DRAWINGS
& SITE PLAN

DRAWING NUMBER
CS-13

DRAWN BY: SV & JB
SHEET 1 OF
JOB No. VA4-24

Project Number:
J152572800

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Figure 5: Proposed Boring Locations

Indiana Dunes State Park
Archaeological Monitoring
Porter County, Indiana



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Phone 317-232-1646 • Fax 317-232-0693 • dhpa@dnr.IN.gov



January 28, 2015

Chuck Williams
Pavilion Partners, LLC
212 Lincolnway
Valparaiso, Indiana 46383

State Agency: Indiana Department of Natural Resources, Division of State Parks and Reservoirs

Re: Information concerning the restoration of the pavilion and construction of a banquet center and comfort center at the Indiana Dunes State Park (DHPA #17035)

Dear Mr. Williams:

Pursuant to Indiana Code 14-21-1-16 the Indiana Department of Natural Resources, Division of Historic Preservation and Archaeology ("DHPA") has conducted a review of the materials dated January 13, 2015 and received by the DHPA on January 22, 2015, for the above indicated project at the Indiana Dunes State Park, Porter County, Indiana.

Thank you for your submission for the above indicated project. The proposed project will alter the Indiana Dunes Beach House Pavilion (IHSSI Site #127-175-05001), which was rated "Outstanding" in the Indiana Historic Sites and Structures Inventory, and is considered a historic property, as that term is used in IC 14-21-1-16.

While a Certificate of Approval is not required due to the proposed undertaking being funded privately in its entirety, a permit remains required for alteration of a historic property (IC 14-21-1-16). For purposes of this permit, the boundaries of the "historic property" are empirically observed as within the viewshed of the historic building, the Pavilion, being the area between adjacent dunes and including the beach and parking area immediately contiguous with the Pavilion. Alterations proposed in this application affect the Pavilion and include construction of a new structure marginally connected to the Pavilion and a new Comfort Center that incorporates previously existing water treatment facilities. Though requiring permit for disturbance, the proposed Comfort Center lies at sufficient distance from the Pavilion and is of sufficiently small scale as to not require further comment regarding its formal and material harmonization with the themes of the Pavilion and its addition.

A permit pursuant to Indiana Code 14-21-1-16 is granted with the following conditions:

1. Archaeological investigations are necessary and must be completed by a qualified professional archaeologist with an approved plan (see list of qualified professional archaeologists at the DHPA website link <http://www.in.gov/dnr/historic>). These investigations should be 2-4 inch coring samples at each of the proposed foundation piers for the proposed banquet center and comfort center to determine the presence or absence of intact cultural landform and for any archaeological deposits. The coring can be completed in coordination with other soil inspections. If intact archaeological deposits are encountered, please coordinate with our office regarding additional archaeological investigations that may be necessary.
2. If any prehistoric or historic archaeological artifacts, features, or human remains are uncovered during construction, state law (Indiana Code 14-21-1-27 & 29) requires that the discovery must be reported to the Department of Natural Resources within two (2) business days. In that event, please call (317) 232-1646. In that event, please call (317) 232-1646. Be advised that adherence to Indiana Code 14-21-1-27 and 29 does not obviate the need to adhere to applicable federal statutes and regulations.

3. The historic Pavilion retains substantial historical integrity on its exterior with the exception of replacement windows and loss of its entry canopy. The interior of the Pavilion, historically undecorated except for one restaurant space (no longer extant), has been substantially and repeatedly affected by remodeling. Proposed work, as represented in the revised design development plan documents dated 1-13-15, affecting the Pavilion interior would retain the basic historical elements and treatments that remain including essential spatial relationships and circulation systems. The proposed exterior treatments including replacement of windows and doors are generally consistent with the historical character of the building. Alteration of several "punch openings" by removal of sections of tapestry terra-cotta masonry and replacement with door or window panels will increase functionality while retaining formal motifs. Proposed window treatments restore historical appearance of existing windows to better reflect historical documentation. Sufficient areas of terra-cotta tapestry masonry are retained to preserve this architectural theme. Terra-cotta masonry represents a craft detail of considerable value. Areas of this material indicated for demolition should be removed with care for its preservation and this material should be provided to State Park management for its storage and potential re-use. (This material should remain stored either at the subject building complex or elsewhere at Dunes State Park.) Two new balcony additions on the lake side of the pavilion have been designed to minimally intrude upon the historical structure and to integrate the Pavilion's appearance with the new addition discussed below. New construction also increases the area of existing penthouses on the Pavilion but retains their existing low-profile, reducing visibility behind the historical parapet. A canopy extending toward the parking lot effectively restores the canopy element found in early historical photographs.
4. Although substantially a new structure, the proposed "Banquet Center" is technically an addition to the Pavilion due to the connecting bridge at the upper story and functional integration with the Pavilion's kitchen(s). This facility has been designed to reflect architectural themes from the Pavilion, including pilasters to uniform height and spacing. Its lakeside appearance is further integrated with the Pavilion by consistent treatment of balcony additions across both. Design development presentation dated 1-13-15 remains tentative regarding precise specification for materials, color, etc. Material selection(s) should harmonize with the materiality of the preserved Pavilion features, though replication of specific material is not required.

If you have any further questions regarding this determination, please contact the DHPA. Questions about archaeological issues should be directed to Cathy Draeger-Williams at (317) 234-3791 or cdraeger-williams@dnr.IN.gov. Questions about historic buildings or structures pertaining to this project should be directed to Dave Duvall at (317) 232-1635 or dduval@dnr.IN.gov. Additionally, in all future correspondence regarding the above indicated project, please refer to DHPA #17035.

Very truly yours,



Mitchell K. Zoll
Director, Division of Historic Preservation & Archaeology

MKZ:CDW:DBD:cws

emc: Ben Clark, Division of State Parks and Reservoirs
Brandt Baughman, Division of State Parks and Reservoirs
Scott Virtue, Virtue Architects
Chuck Williams, Pavilion Partners, LLC

Veronica Parsell

From: Scott@VirtueArchitects.com
Sent: Monday, February 16, 2015 5:30 PM
To: Veronica Parsell
Cc: Elmer Embry
Subject: Fw: DHPA #17035
Attachments: Pavilion Site - Soil Borings.pdf

Dear Veronica,

I've attached a plan showing where we want to take soil borings at the site. I sent this same plan to Cathy earlier and she was okay with. I'm sharing this with you so that you are aware of our plans. I'm also not sure if this information will affect your plan submittal that's required for approval (noted below). I'm not familiar with archaeological investigations on state property. So, please let me know if there's anything else you may need and I'll make every attempt at supplying it to you.

Sincerely,
Scott Virtue

Virtue Architects

300 Waverly Road
Porter, IN 46304
Ph: (219) 508-4395

www.VirtueArchitects.com

----- Original Message -----

From: Draeger-Williams, Cathy
To: Scott@VirtueArchitects.com
Sent: Monday, February 16, 2015 3:08 PM
Subject: RE: DHPA #17035

I talked to Veronica the other day. We should be receiving a plan for the archaeological investigations on state property. That permit/approval will be required before the coring can take place.

*Cathy Draeger-Williams
Archaeologist
Indiana Department of Natural Resources
Division of Historic Preservation and Archaeology
(317) 234-3791*

From: Scott@VirtueArchitects.com [<mailto:scott@virtuearchitects.com>]
Sent: Monday, February 16, 2015 4:01 PM
To: Draeger-Williams, Cathy
Subject: Re: DHPA #17035

Thank you Cathy. We'll schedule the borings soon. I'm told that our archaeologist is the same one who prepared the report during the recent Dunes Creek daylighting project. So, I'm assuming they know what's required.

Sincerely,
Scott

Virtue Architects

(219) 508-4395

----- Original Message -----

From: [Draeger-Williams, Cathy](mailto:Cathy.Draeger-Williams@dnr.in.gov)
To: Scott@VirtueArchitects.com
Sent: Monday, February 16, 2015 2:50 PM
Subject: RE: DHPA #17035

The proposed methodology sounds fine.

Cathy Draeger-Williams
Archaeologist
Indiana Department of Natural Resources
Division of Historic Preservation and Archaeology
(317) 234-3791

From: Scott@VirtueArchitects.com [<mailto:scott@virtuearchitects.com>]
Sent: Monday, February 16, 2015 2:43 PM
To: Draeger-Williams, Cathy
Subject: Re: DHPA #17035

Dear Cathy,

The DHPA letter written to Chuck Williams from Mitchell Zoll on 1-28-15 (copy attached) notes several conditions. The first condition requires that a 2-4 inch coring sample be taken at each proposed foundation pier. This condition would require 16 borings in a 90'x90' area (see attached site plan). We are requesting permission to provide fewer borings. For our foundation design, we would normally request five (5) soil borings...one at each corner of the building and one at the center. We believe this would provide us with a good sampling of the soil make-up below the building. Enough for us to properly design the size and bearing capacity of the new foundation piers. We understand that, archaeologically, you are looking for different information. However, the soil borings taken below the proposed Banquet Center could be 35' deep, if not more. These are expensive borings and, if possible, we would like to minimize that cost.

Also, most of the foundations below the proposed Comfort Center are existing. The existing retaining walls were built in 2003. So, perhaps you already have core samples from this area of the site? If not or if you still want more, we're suggesting three (3) shallow borings (+/- 15') in this area...one below the new wall of the Comfort Center building and the others at each of the two (2) outdoor shower walls.

A quick response to, and/or confirmation of, these requests would be greatly appreciated. We are wanting to schedule the soil engineer and archaeologist for next week...at the latest. Thank you.

Sincerely,

Scott Virtue

Virtue Architects

300 Waverly Road
Porter, IN 46304
Ph: (219) 508-4395

www.VirtueArchitects.com