APPENDIX I. CULTURAL RESOURCES INVENTORY REPORT

CULTURAL RESOURCE INVENTORY OF THE

LIBERTY CENTER HOUSING PROJECT

Pennington County, South Dakota

T2N, R7E, Section 17

By Lina Ramirez, Mandy Woods & Sydney Boos

Jana Morehouse, editor

Quality Services, Inc. *Project #ERSD20003*

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Jana Morehouse
Principal Investigator, Archeology

Quality Services, Inc.

Archeology, Architectural History, Biology, Geophysics, GIS,
History, LIDAR, NEPA, Paleontology, Tribal Consultation, Wetland Studies
1621 Sheridan Lake Road, Suite A
Rapid City, SD 57702-3432
Phone 605-388-5309
Fax 605-388-5319
Email: info@qualityservices.us.com
www.qualityservices.us.com

Abstract

On November 24, 2020, ***Quality Services, Inc.*** (***QSI***) performed a cultural resource inventory for Dream Design International, Inc.'s proposed Liberty Center Development project. A total of 111.62 acres were inventoried. No cultural resources were identified in the records search or during pedestrian inventory within the proposed project area. The area is not a high probability for buried cultural resources based on soils, topography, and current disturbance.

A determination of no historic properties affected is recommended.

In the unlikely event that cultural resources are located during development, it is recommended that the South Dakota State Historic Preservation Office (SHPO), Dream Design, Inc., the Department of Defense, and ***QSI*** be contacted immediately.

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Introduction

Dream Design International, Inc. proposes to develop vacant land near the intersection of North Ellsworth Road and Liberty Boulevard in Box Elder, South Dakota. The project, known as the Liberty Center Development, is located on land administered by Department of Defense (DoD). This cultural resource inventory was conducted in order to comply with DoD requirements for Lease Proposals, as part of a National Environmental Policy Act (NEPA) review. It was conducted to fulfill the requirements of Section 106 of the National Preservation Act of 1966 (P.L. 89-665) as amended, and 36 CFR Part 800 which serves to implement the Act. The Area of Potential Effect (APE) is defined as the land parcels which may be impacted by any future developments.

Location

The project consists of 111.62 acres of federally administered land in Box Elder, South Dakota.

Table 1. Location of project.

Township	Range	Section(s)	USGS 7.5' Topographic Quadrangle
2N	9E	17	Bend, South Dakota 1953, Photorevised 1978

Figure 1. Project location within South Dakota.

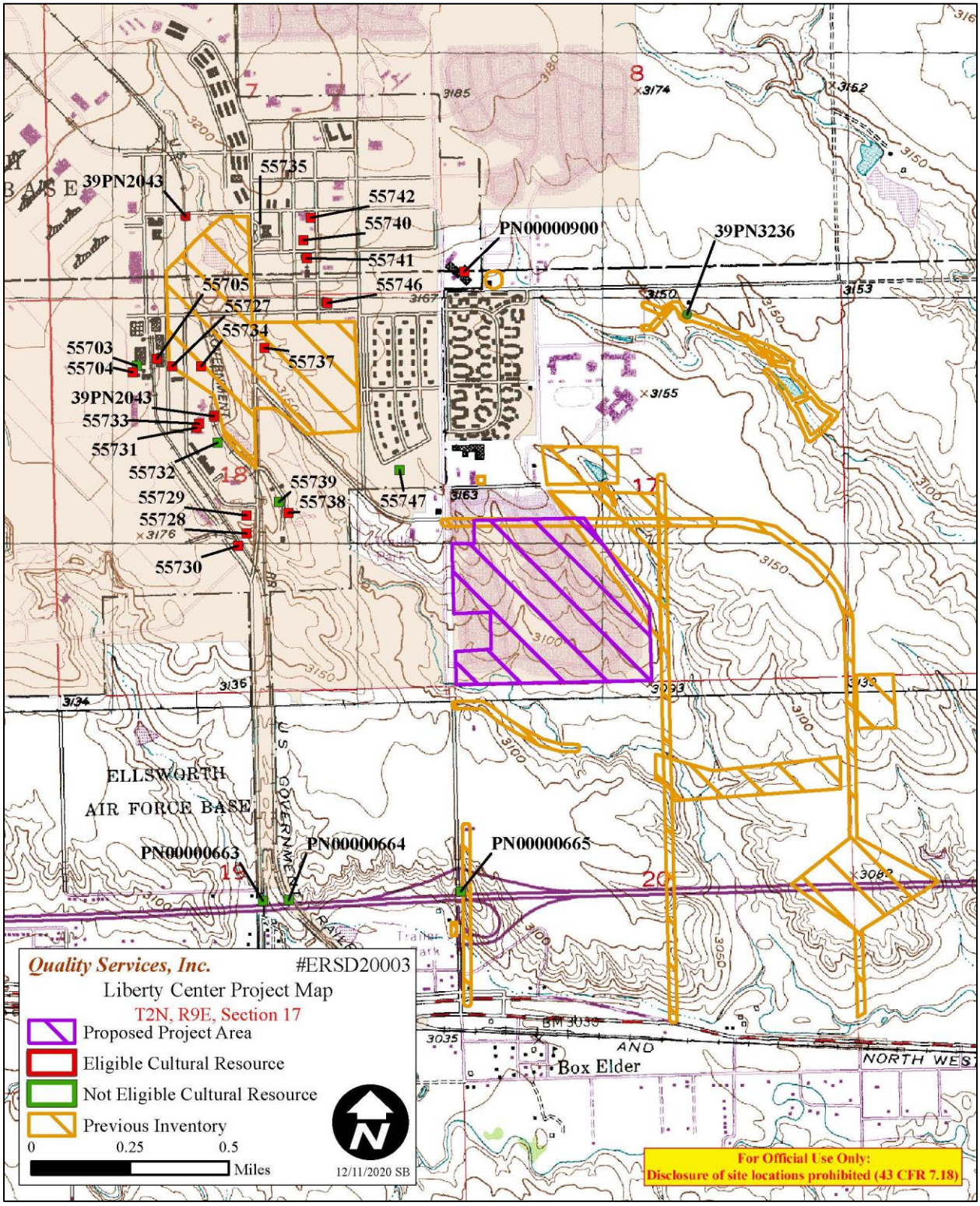

Figure 2. Liberty Center Development Project, 1:24,000.
USGS 7.5' Bend, South Dakota topographic quadrangle 1953, photorevised 1978

Environmental Overview

The project area is located within the Semiarid Pierre Shale Plains of the Northwestern Great Plains ecoregion. This region consists of semiarid rolling plains of sandstone, silt, and shale with occasional badlands and buttes. Vegetation is chiefly mixed short prairie grasses with native grasslands remaining in areas of steep or broken topography (Bryce et al. 1996).

Soils

According to the NRCS Web Soil survey (Soil Survey Staff 2020), three soil types (Nunn-Urbanland complex, Nunn loam, and Kyle clay) are present in the project area. Urbanland are areas heavily disturbed by urbanization. Nunn soils consists of well drained grayish brown and pale brown clay loam forming in loess and mixed alluvium on terraces, alluvial fans, and drainageways. Kyle soils are grayish brown clays that are well drained with slow permeability that form in clay shale on uplands.

Figure 3. Overview of project area facing southwest.
E. Celentano 11/24/2020.

Culture History Overview

The South Fork Cheyenne archaeological region encompasses the South Fork of the Cheyenne River drainage basin in the southwestern portion of South Dakota with the exception of the Black Hills, southeastern Pennington County, and Shannon County (Winham and Hannus 1991: 28-2). This area consists of southeastern Meade County, and portions of Pennington, Custer, and

Fall River Counties (Winham and Hannus 1991: 28-2). The area is characterized by rolling grasslands broken by deeply entrenched stream channels (Winham and Hannus 1991: 28-2).

The First Americans c. 15,000 B.P.

Between 25,000 to 11,000 years ago, bitter cold temperatures during the late Wisconsin glaciation caused water to become trapped in advancing ice sheets. The result was a drop in world sea levels that effectively exposed low-lying landmasses, and the original immigrants to the Americas are believed to have arrived by means of an exposed land bridge connecting Siberia with Alaska.

The pathway for further migration south is still under debate. Since the 1950s, conventional understanding was that an "ice-free corridor" existed between the Cordilleran and Laurentide ice sheets as they retreated north when warmer temperatures returned around 15,000 years ago. Without this pathway, many scholars felt that migration into the New World would have been impossible due to the existing glaciers. However, a "growing body of evidence indicates that pathway between the great glaciers of the Last Ice Age was closed – in fact, the way south may have been blocked until the centuries after the dawn of Clovis" (Dixon 2000).

Another recent and popular hypothesis is that Early Americans migrated to the New World via a Pacific Ocean coastal route. Recent work by archeologists and paleontologists has shown that the Northwest coast of North America was not always covered by ice as once thought (Dixon 2000; Dixon and Heaton 2000). In fact, there is evidence that ancient life existed along this coast for tens of thousands of years. Jim Dixon and Tim Heaton's excavation of the coastline has uncovered a continuous record of caribou, fox, and bear bones dating back 50,000 years (Dixon and Heaton 2000). Furthermore, the western coastline was likely more extensive during ice ages. Sea levels were significantly lowered as much of the earth's water was trapped in glacial ice. This, along with the isostatic effects on land masses from the weight of the glaciers, would have exposed substantial tracts of land along coastline providing a route further south.

Archeological sites dating to such antiquity are extremely rare, and only a handful of these sites exist in the Americas. The most notable and intensely investigated site is the Monte Verde site in Chile, South America (Dillehay 1997). This site contained wooden huts, hearths, a wish-bone-shaped structure, and several bone and stone artifacts that date to between 14,050 and 13,600 years ago [cal]. Other sites include the Chesrow Complex in Southeastern Wisconsin (Overstreet 1993, 2000), the La Sena and Jensen site in central Nebraska (Holen 1994, 1995; Holen and May 2002), the Meadowcroft Rockshelter site in southwestern Pennsylvania (Adovasio et al. 1978; Adovasio and Page 2002), sites from the Old Crow Basin in Canada's Yukon Basin (Bonnichsen 1979; Irving et al. 1989), and the Cactus Hill Site in southern Virginia (Dixon 1999; Monastersky 2000; Adovasio and Page 2002).

Although many of these sites have not received complete scientific acceptance, the archaeological evidence appears to support regional adaptation underway 12,000 years ago, and the Early Americans emphasized the local environments for subsistence, which included both a variety of floral and faunal resources (Dixon 1999). Furthermore, both genetic and linguistic studies are providing mounting evidence that there were multiple migrations of people, and they

were not of a shared, single biological or cultural stock (e.g., Schurr and Wallace 1999; Nichols 1990). In other words, the first Americans were likely made up of several people and cultures that migrated from the Old World, and they adapted to many different environments in several different ways.

Clovis, Folsom, & Paleo-Indian c. 13,400[cal]-7600 B.P.

Towards the end of the Wisconsin glaciation, the Plains environment harbored big-game species such as the mammoth and Ice-age bison adapted to the periglacial environment and the seasonal extremes of the times. During this time a new culture, named Clovis after the early archaeological excavations in Clovis, New Mexico, began in the Americas. Based on the lack of any definite occurrence of the Clovis material culture, such as the Clovis projectile point, north of the ice sheets or in the Artic, Clovis is believed to be the first truly indigenous North American culture.

The Clovis tradition people likely lived in highly mobile small bands of people armed with a shared tool kit that included the diagnostic fluted lanceolate Clovis point, a diagnostic crescent moon-shaped biface, gravers, a variety of end scrapers, and a blade-technology with cutting and scraping tools made from the blades. The discovery of kill sites in the western United States have tended to emphasize a lifeway based on specialized hunting of now extinct Ice-age big-game animals such as mastodons and mammoths. However, more recent research has convincingly demonstrated that this type of subsistence was not a widespread important role in Clovis subsistence, and the Clovis people appear to have emphasized a variety of flora and fauna (Anderson and Sassaman 1996; Griffin et al. 1988; Bryan 1991).

Archaeological manifestations associated with the Clovis time period are rare and usually consist of isolated surface-find projectile points. Well known in Plains archaeology, the Lange-Ferguson site in Shannon County is the only Clovis site to be investigated in the State to date (Hannus 1994). This Clovis site is a mammoth kill/butchery locality with direct evidence for the use of mammoth bone tools in the butchering process. No Clovis sites have been found in the South Fork Cheyenne archaeological region to date. However, a site containing a Goshen component (39FA1277) has been found and recorded within the South Fork Cheyenne region. The Goshen cultural complex is an early Paleo-Indian cultural complex that is known to date to about 11,000 B.P. and is thought by many Plains archaeologists to represent a transitional culture between Clovis and Folsom (Frison 1991: 45). It may be suggested that Goshen is a transitional culture between Clovis and Folsom given the fact that some Goshen sites have been found associated with mammoth remains whereas it appears that by Folsom times mammoth had become extinct (Frison 1991: 45). At the lowest level of Kaufman cave in northern Wyoming, a Goshen point was found in direct association with a broken mammoth scapula (Frison 1991: 74). In addition, Goshen points are typologically and morphologically neither Clovis nor Folsom but do retain characteristics of each (Frison 1991: 45). Goshen points demonstrate a pressure flaking technology and final edge retouch like Folsom but are basally thinned and not fluted (Frison 1991: 45).

The Younger Dryas cold snap characterized by a worldwide cold interval followed Clovis times and lasted between 11,000 and 9650 B.C. [cal]. As a drier climatic regime resulted in the retreat

of spruce forest and the expansion of grassland on the northern plains, many of the Ice-age megafauna died. Bison, however, became well adapted to this environment and the size and mobility of the herds likely increased significantly. Similar to the landscape today, in the Black Hills proper pine forests characterized this area while grasslands surrounded the Hills at the lower elevations.

During this time period, the Folsom complex emerged. This complex is known to date from about 11,000-10,000 B.P. and is easily identified by well-made lanceolate points fluted entirely up to their tips, and the people relied heavily on the bison herds and other big game for subsistence. Bamforth (1988) hypothesizes that as bison herds grew in size; this food resource became more predictable. Folsom groups reacted by using regular and preferred locations, engaging in communal hunts, and concentrating into larger social groups. As evidenced by their specialized point production, this may have led to greater social complexity from Clovis to Folsom.

Like Clovis, Folsom archeological remains are rare and are typically surface finds. No Folsom sites have been reported or recorded within the South Fork Cheyenne archaeological region.

Following and partly overlapping the Folsom period around 10,500 to 9,000 B.P. in addition to a climatic shift more similar to modern times, many regional adaptations appeared in North America. Many Plains archaeologists refer to this period as the Middle Paleo-Indian period (see Frison 1991). This period includes the Alberta, Hell Gap, and Agate Basin cultural complexes. These groups continued to emphasize a subsistence based on bison hunting and were involved in massive bison drives that probably required intimate knowledge of the landscape and several people. Beginning at about 9,000 B.P. and continuing on to about 8,000 B.P., it appears that Plains groups began to develop a hunting/gathering subsistence mode that was focused on a more generalized resource base. “There is an abrupt change from the stemmed projectile points with transverse pressure flaking of the Middle Paleo-Indian period to the lanceolate style with parallel-oblique flaking that followed” (Frison 1991: 66). This period is referred to as the Late Paleo-Indian period (9,000-8,000 B.P.) and several variations of parallel-oblique flaked, unfluted, lanceolate point forms existed including the Jimmy Allen, Frederick Allen, Pryor Stemmed, Lovell Constricted, Angostura, Lusk, and many others. In addition, the Cody complex is known to date to the Late Paleo-Indian period and includes finely made stemmed spear points such as the Scottsbluff and Eden types. The use of local stones for tool manufacture and the limited distribution of the projectile point types relative to earlier times may suggest that cultural boundaries also were present to some degree.

Four sites (39FA11, 39FA833, 39FA1074, and 39FA1452) have been recorded within the South Fork Cheyenne archaeological region that date to the Paleo-Indian period. Of these four sites, one is associated with the Eden cultural complex (39FA1452), one is associated with the Jimmy Allen cultural complex (39FA11), one is types as a Paleo-Indian artifact scatter (39FA833), and one is an isolated find consisting of a single parallel-oblique flaked lanceolate projectile point (39FA1074).

Plains Archaic c. 7600 B.P. to 1500 B.P.

The Plains Archaic is defined by a marked subsistence focus on broad based hunting and gathering whereas the preceding Paleo-Indian period is thought to have been focused primarily on big game hunting. A marked increase of groundstone tools such as manos and metates used for processing and grinding plant material is evident in the archaeological record and reflects a major subsistence shift to a more generalized subsistence base (Frison 1998). While this lifeway existed to some degree in the late Paleo-Indian times, it was not as widespread. Frison (1998) writes that the term 'Archaic,' in one sense of the word, is meant to denote an adaptation dominated by hunting and gathering rather than a cultural time period. In fact, many Plains groups continued the Archaic lifestyle well into historic times, and Archaic temporal periods are defined much more by changes in projectile point styles rather than significant changes in lifeways.

Early Plains Archaic c. 7600 to 5000 B.P.

The Early Plains Archaic coincides with an extremely warm and dry climatic episode known as the Hypsithermal or Altithermal. Though the effects of this episode on plants, animals, and people are still debated, Frison (1998) suggests that severe droughts caused plant communities to shift to higher elevations; and, as a result, many Early Plains Archaic people occupied foothill-mountain areas. Frison (ibid.) points to the presence of several Early Archaic sites in low elevation intermontane settings in addition to Early Plains Archaic bison kill sites in the Wyoming Black Hills as mounting evidence for this hypothesis on the human response to the Altithermal. In addition, very few Early Archaic sites have been found on the plains proper and bison remains dramatically decrease in Altithermal aged deposits, reflecting the almost desert like conditions that were thought to exist on the plains during the Early Archaic (Frison 1998:272). Size diminution of bison has been a gradual process throughout the Holocene, and there is some indication of a slight acceleration of this trend through the Altithermal (Frison 1998: 272).

Habitation features, known as pit house features, also first appear during this time (Frison 1991:83). They date toward the end of the Late Archaic period and extend into the Middle Archaic. These features "usually appear as deep, circular stains; sometimes with central post molds… others are oval with multiple post molds along the long axis" (Sundstrom 1996: 2c-16). Cache pits, fire pits, and grinding stone are commonly found in the pit houses. Most of these features are found in the intermountain basins of the northern plains. The presence of these fairly significant habitation features may be associated with some level of sedentism.

Relative to the Paleo-Indian times, Early Archaic bison kill sites are typically small consisting of only 10-20 bison. Hunting strategies included the use of arroyo traps and jumps (much later in the period) and probably required small groups or bands to accomplish. However, many sites such as the Spring Creek site in south-central Nebraska and the Coffey site in northern Kansas contain much more small game and plant remains than large herbivores. Certainly, this is an indication of the more generalized resource base.

Other than groundstone implements, the Early Archaic also included the arrival of a new type of projectile point. These projectile points are distinctly side notched although there are many regional variations of this form. The technological innovation of notching offered a much stronger binding to the foreshaft of a spear while reducing the bonding mass at the same time (Howard 1995).

Early Plains Archaic archaeological sites are fairly rare; however, three were on file within the South Fork Cheyenne region. These sites are 39CU417, 39FA1045, and 39FA1159. 39FA1045 and 39FA1159 contain diagnostic Hawken projectile points and 39CU417 contains an early side notch point with at least six associated stone circles.

Middle Plains Archaic c. 4900 to 3000 B.P.

The end of the Altithermal and the return to modern climatic condition marks the beginning of the Middle Archaic Period. Bison populations again proliferated (Frison 1998:89). In addition to a refinement in bison hunting strategies, the Middle Plains Archaic period witnessed an even greater emphasis on plant foods. Reused sandstone plant grinders as well as roasting pits are common at sites dating to this time period. While small bison kill sites are the most typical of the period, Middle Archaic people continued to use bison jumps. One noteworthy innovation by Middle Archaic hunters was the use of bison corrals like that seen at the Scoggin Site in Wyoming. This strategy is very different in that it likely needed much fewer people to operate relative to the other strategies. Overall, Middle Archaic groups developed a carefully planned scheduling of economic activities based on seasonal plants and movements of game.

During this time period, the Plains also witnessed the widespread appearance of stone circles. The features typically measure between 13 and 23 feet in diameter. Although the function of them has been debated, it is generally agreed that most represent a circular anchor “to hold down the cover of a conical (or some other type) lodge” (Frison 1998:154).

The McKean Complex is the most notable Plains Middle Archaic archaeological manifestation, and McKean sites have an extremely wide distribution across the Plains. These site types are most readily recognized by the lanceolate McKean point with an indented base and convex blade edges. However, there are many variations of the McKean point and include side-notched and stemmed forms. Common Middle Archaic site types are bison kills, open occupations, and cave/rock shelters.

There have been 21 Middle Archaic sites recorded within the South Fork Cheyenne region. Of these 21 sites, 11 have been assigned to the McKean complex. Most of these sites are typed as either artifact scatters or occupations; however, a Middle Archaic stone circle site (39PN375) has also been recorded.

Late Plains Archaic 3000 to 1500 B.P.

The Late Plains Archaic is marked by the appearance of corner-notched points on the Plains. This notching technique produced flared edges with sharp points where the base and edge intersect. In general, Late Archaic people appeared to shift back to a focus on large, upland

game (Deaver and Deaver 1988:96), although other resources were certainly exploited to some extent.

The earliest Late Archaic manifestations are the Pelican Lake and the Yonkee phases (see Frison 1991:105). To date, there have been no Yonkee sites identified in the Sandstone Buttes region. The reason for this may be that the term "Yonkee" is commonly used by archaeologists working on the Northwest Plains but is not usually used in South Dakota. On the other hand, the Pelican Lake cultural complex is commonly used in South Dakota, especially in the western part of the state. The Pelican Lake cultural complex is thought to represent the earliest of the Late Archaic cultural manifestations on the Plains and is represented in the South Fork Cheyenne archaeological region.

There are 18 sites that have been assigned to the Late Archaic period within the South Fork Cheyenne archaeological region. Of these 18 sites, only four are assigned to the Pelican Lake cultural complex. In addition, one extensively occupied site (39PN1034) is recommended eligible for the National Register of Historic Places (NRHP).

The Late Prehistoric 1500 B.P. to 16th Century A.D.

The Great Plains witnessed significant changes during the Late Prehistoric Period. The innovation of the bow and arrow as indicated by small delicate projectile points was introduced around this time. In addition, ceramics first appear on the Plains during this period (Frison 1991: 116). Although ceramics are present in relatively small amounts on the Northwest Plains, they are valuable cultural makers between the Late Archaic and Late Prehistoric periods (Frison 1991: 116).

Besant and Avonlea phases are typically associated with the continuation of a general Archaic-based lifestyle. Besant represented a highly sophisticated bison hunting culture. Bison kill sites associated with this phase often consist of complicated, skillfully constructed bison corrals similar to modern cattle corrals. The use of these corrals would have required great knowledge and understanding of stampeding animals (Fagan 2000:125). At the Ruby site along the Powder River in Wyoming, a structure at the southern end of this bison corral site is interpreted to be a ceremonial structure. If this is true, this could represent the importance of ritual at communal hunts similar to the rituals documented in historical accounts.

No Besant sites have been recorded within the South Fork Cheyenne region as of May 2005.

Around A.D. 1, the Avonlea phase began on the Plains and continued well into the Late Prehistoric Period. Avonlea points are typically side-notched points with slightly concave bases. Based on their smaller sizes, it is believed that the Avonlea people were the first to use the bow and arrow. It is also widely believed that Avonlea peoples were the first to extensively utilize ceramics on the Plains. Avonlea ceramic styles include net impressed, spiral channeled and smooth surfaces (Dyck 1983:123).

Two Avonlea sites, 39FA25 and 39FA1450, have been recorded within the South Fork Cheyenne region as of May 2005. Both are described as small artifact scatters.

It is generally accepted that Eastern Woodland groups introduced horticulture onto the Plains. As the name implies, the introduction of horticulture likely spread from the east. These Woodland groups are characterized by fixed settlements, more complex societies, seed horticulture, pottery/ceramic production, and the construction of burial mounds. The Woodland Tradition is generally sub-divided into Early, Middle, and Late Woodland periods as well as other phases and cultures. These further divisions are mainly identified through ceramic types, geographic locales, and temporal ranges.

No sites assigned to the Woodland period were on file with the South Dakota Archaeological Research Center (SARC) within the South Fork Cheyenne region.

The Plains Village period supplanted or continued the Woodland culture in the Middle Missouri around 900 A.D and extended throughout the eastern Plains. The transition is generally marked by larger villages (sometimes with fortifications) and greater horticulture produce including corn, beans, squash, and sunflowers. This period is typically divided into "sub-traditions" and variants based on dates, ceramics, house types, and other characteristics. This includes, in order of antiquity, the Initial (IMM), Extended (EMM), and Terminal (TMM) Middle Missouri Variants and the (IC), Extended (ExC), Post-Contact (PCC), and Disorganized Coalescent Variants.

Seven sites have been assigned to the Plains Village period within the South Fork Cheyenne region. Three of these seven sites (39FA45, 39FA860, and 39FA861) were typed as Extended Coalescent sites based upon diagnostic ceramics.

The Protohistoric or Contact Period c.1600-1804

The Protohistoric Period marks the beginning of even greater change on the Plains. The term Protohistoric is associated with the onset of Euro-American presence on the Plains, even though this does not imply there was full-scale or even frequent direct contact with Euro-Americans. Certainly, the greatest impact was the arrival of trade goods including horses and firearms. Horses were provided indirectly by the Spanish from the southwest, and firearms came later indirectly from the French, English, and American fur-traders from the northeast. Both trade goods greatly increased the ease of bison hunting and also influenced other once semi-sedentary horticulture groups from the east such as the Cheyenne, Crow, and the Lakota/Dakota to become Plains equestrian nomadic Bison hunters. The Mandan, Hidatsa, and Arikara along the Missouri River also became central providers of firearms to tribes further west.

Many of the Protohistoric Plains groups were highly mobile focusing intensely on bison hunting with only a supplemental emphasis on other resources, although others certainly continued village farming. The need to cover the large migration ranges of bison coupled with the influx of other groups competing for the same resource created much competition between tribes. As a result, intertribal conflict became more common, and the power of tribes as well as individuals became defined by the accumulation of European trade goods.

Protohistoric sites are recognized by the occurrence of both native artifacts such as stone tools mixed in with European trade goods such as gun parts, trade beads, metal projectile points, and other metal items.

The SARC database indicates that there is only one site within the South Fork Cheyenne region that can be assigned to the Proto-Historic period. Site 39CU498 is an extensive lithic scatter with both stone tool artifacts and a gun flint.

The Historic Period 1800-1950

Although smaller trading operations under the control of the Missouri Company were present in the Dakotas and the Middle Missouri during the late 18th century, the purchase of the Louisiana Territory in 1803 and arrival of Lewis and Clark in 1804 signaled the beginning of the Historic Period and full-scale interaction between Native American groups and Euro-Americans. Euro-American fur traders and trappers were the first to enter the region after Lewis and Clark, and the Missouri River became an increasingly important trading locale.

In the early half of the 19th century, permanent settlements of forts and trade posts began to be set up along the Missouri River. The first trading fort was set up by the Missouri Company in 1794 and focused on trapping beaver and otter; this industry did not shift focus to buffalo robes until around 1815 (Hanenberger et al 2004). By 1840, buffalo were the most sought-after skins in the fur trading business (Hanenberger et al 2004).

Conflicts between the tribes and Euro Americans also escalated. Although once considered "Indian Territory," the United States looked to the west for expansion and settlement. During the 1800s, several treaties aimed at acquiring these Indian lands. While lands cessations were small at first, these could not keep up with the influx of migrants to these areas. Hoping to curtail the growing hostilities between the Northwestern tribes and the American frontier, the Fort Laramie Treaty of 1851 was signed between the United States and the Lakota, Arapaho, Cheyenne, Crow, Assiniboine, Mandan, Arikara, and Shoshone.

This "Great Treaty" and others, however, did little to assuage the conflicts since they were often breached or altogether ignored. In the 1860s, several tribes declared war on the Americas. The United States reacted by establishing several forts in the region.

The second "Great Treaty," the Fort Laramie Treaty of 1868, established the Great Sioux reservation in middle South Dakota, and all lands east of the Missouri River were ceded and officially opened for settlement.

Only a few years later, expansion ambitions to the west of the Missouri River again threatened the tribal lands. Political attempts focused at breaking up the Great Sioux Reservation. Two key events accomplished this. The General Allotment Act of 1887, or Dawes Act, allotted 160 to 320 acres to tribal families. The tracts of land were intended to "encourage" the Native Americans to take up farming in order to assimilate them into American economy and society. Surplus reservation lands were then available to be sold to non-Indian settlers. Under fear and broken promises, the state of South Dakota also officially divided the Great Reservation in the

five present-day reservations of Standing Rock, the Lower Brule, the Rosebud, the Pine Ridge, and the Cheyenne River Reservations. The National Historic Landmark Wounded Knee in the White River Badlands is the site of the last armed conflict between Native Americans and United States government troops, fought on December 29, 1890. Following this, most areas to the west were completely opened for settlement.

Ranchers, Farmers, Miners, and entrepreneurs from all over the U.S. began to settle South Dakota in the late 19th century. Most sites that are assigned to the historic period are associated with ranching, farming, railroad, and/or industrial activities. There are several hundred historic period sites on file within the South Fork Cheyenne archaeological region. These site types include dumps, depressions, foundations, well/cisterns, farmsteads, non-farm ruins, artifact scatters, cairns, schools, railroads, cabins, monuments, industrial sites, burials, earthworks, dams, and roads.

Cultural Resource Records Review

Quality Services, Inc. GIS specialist Olan Rom conducted records search for previous inventories, and previously recorded archeological and historic period resources with the South Dakota State Historic Society November 16, 2020. The National Register of Historic Places (NRHP) and National Historic Landmark online databases were also checked. Results are listed in the tables below.

Table 2. Cultural resources within one mile of the project area.

ID#	Name/ Type	NRHP	Potential Effect & Relationship to Project
39PN2003	Railroad	***Eligible***	**No Effect** – Out of APE
39PN2043	Railroad	***Eligible***	**No Effect** – Out of APE
39PN3236	Foundation	***Not Eligible***	Out of APE
55701	Base Engineering Maintenance and Inspection Building	***Eligible***	**No Effect** – Out of APE
55702	Boiler House – Building 602	***Not Eligible***	Out of APE
55703	Readiness Building	***Not Eligible***	Out of APE
55704	Flight Simulator Building	***Eligible***	**No Effect** – Out of APE
55705	A.C. Warehouse Miscellaneous (Bass Supply)	***Eligible***	**No Effect** – Out of APE
55711	Well House No. 1	***Eligible***	**No Effect** – Out of APE
55727	Warehouse	***Eligible***	**No Effect** – Out of APE
55728	Pumphouse, Bulk Storage	***Eligible***	**No Effect** – Out of APE
55729	Pumphouse, Bulk Storage Tank	***Eligible***	**No Effect** – Out of APE
55730	Pumphouse, Tank Car Unloading	***Eligible***	**No Effect** – Out of APE
55731	Warehouse	***Eligible***	**No Effect** – Out of APE
55732	Deep Well Pump	***Not Eligible***	Out of APE

ID#	Name/ Type	NRHP	Potential Effect & Relationship to Project
	House & Tower		
55733	Warehouse	***Eligible***	**No Effect** – Out of APE
55734	Storage Ammo & Shop	***Eligible***	**No Effect** – Out of APE
55735	Base Headquarters	***Not Eligible***	Out of APE
55737	P.X. Service Station	***Eligible***	**No Effect** – Out of APE
55738	Control Building	***Eligible***	**No Effect** – Out of APE
55739	PWTP Secondary Treatment Building	***Not Eligible***	Out of APE
55740	Bowling Alley	***Eligible***	**No Effect** – Out of APE
55741	Base Chapel	***Eligible***	**No Effect** – Out of APE
55742	Ellsworth Air Force Base Building	***Eligible***	**No Effect** – Out of APE
55746	Admin Office	***Eligible***	**No Effect** – Out of APE
55747	Alert Hanger		Out of APE
PN00000663	Bridge 52-485-275	***Not Eligible***	Out of APE
PN00000664	Bridge 52-486-275	***Not Eligible***	Out of APE
PN00000665	Bridge 52-490-275	***Not Eligible***	Out of APE
PN00000900	Box Elder School	***Eligible***	**No Effect** – Out of APE

Table 3. Previous inventories within one mile of the project area.

Resource#	Author(s)	Year	Title
APN-0037	Hackbarth, M. R.	1977	A Cultural Resources Survey of a Proposed School Administration Building, Douglas School District, Ellsworth AFB Pennington County, South Dakota.
APN-0183	Malone, P. A., and J. V. Buechler	1986	An Intensive Cultural Resource Inventory Survey of Selected Portions of West River Electric Association, Inc.'s Proposed Buried Cable and Overhead Line Construction Routes in Pennington County, South Dakota.
APN-0324	Nowak, T.	1982	Cultural Resource Reconnaissance Survey for 22.33 Acres of Land Proposed for Disposal, T2N, R9E, Section 17 at Ellsworth Air Force Base, Pennington County, South Dakota.
APN-0499	Buechler, J. V.	1997	Letter Format Report of a Cultural Inventory - Box Elder Arterial Corridor, Pennington County, South Dakota.
APN-0732	Buechler, J. V.	2004	Letter Format Report of a Cultural Resources Inventory Survey of Box Elder Infrastructure Improvements Near I-90 Exit 67, Pennington County, South Dakota.
APN-0746	Rom, L.	2005	Letter Report Documenting a Level III Cultural Resources Survey of Proposed RCYC Ellsworth Air Force Base Communication Alternate #1, Williams 190 Ft. Monopole Communication Tower Lease, Access, & Utilities in the City of Box Elder, Pennington Co, SD.

Resource#	Author(s)	Year	Title
APN-0773	Buechler, J. V.	2006	Letter Format Report of a Cultural Resources Inventory Survey of Box Elder Water System Improvements, Pennington County, South Dakota.
APN-0909	Buechler, J. V.	2009	Letter Format Report of a Cultural Resources Survey of the Recreational Hiking Trail for the City of Box Elder, Pennington County, South Dakota.
APN-0916	Buechler, J. V.	2009	Letter Format Report of a Cultural Resources Record Search and Inventory Survey of the City Hall Construction Site for the City of Box Elder, Pennington County, South Dakota.
APN-0957	Buechler, J. V.	2010	Letter Format Report of the 2010 Cultural Resources Inventory Survey of Three Segments of a Proposed Recreational Hiking Trail for the City of Box Elder, Pennington County, South Dakota.
APN-0986	Byrne, D.	2011	An Intensive Cultural Resources Survey of a Proposed Materials Borrow for SDDOT Small Roads Project PCN 01QQ, Pennington County, South Dakota.
APN-0992	Holst, D.	2011	An Intensive Cultural Resources Survey of a Proposed Materials Stockpile Site for SDDOT Small Roads Project PCN 01QQ, North of I-90, Pennington County, South Dakota.
BLH-0049	Buechler, J. V.	1987	A Short Format Report of an Intensive Cultural Resource Inventory Survey of West River Electric Association, Inc.'s 1987 Projects in Meade and Pennington Counties, South Dakota.
WSD-0459	Buechler, J. V.	2015	Letter Format Report of a Cultural Resources Inventory Survey of Two Underground Conversion Projects for West River Electric Association, Inc. in Meade and Pennington Counties, South Dakota (W.O. 31626 & 31627).
WSD-0542	Hufstetler, M., M. McCormick, and J. V. Buechler	1997	Ellsworth Air Force Base Cultural Resources Survey Report.

Survey Methods & Results

Quality Services, Inc. Principal Investigators Elizabeth Celentano and Lina Ramirez, along with archeologist Mandy Woods, conducted a pedestrian cultural resource inventory of the proposed Liberty Center Development project area for five hours on November 24, 2020. The project area was located using a global positioning system (GPS) application, aerial and topographic maps, and project information provided by the client. Field investigation consisted of visual inspection, photography, and subsurface testing to determine the potential effects of the proposed project.

Pedestrian inventory of the project area was conducted in 15 meter transects. A total of 111.62 acres were inventoried. The project area consists of rolling hills with drainages cutting through

the project area. Disturbances from livestock use, transmission line construction, tree removal, and fencing are noted throughout the project area. Modern refuse and a single historic can were noted to be present. No prehistoric cultural resources were observed.

Ground surface visibility ranges from 0 to 70 percent with prairie grasses, shrubs, and scattered trees covering the ground surface. Four subsurface tests were conducted on different landforms in the project area, in order to determine whether there was a high potential for buried cultural resources. Subsurface tests one and three consisted of rocky brown clay loam. Dark brown loamy sand was observed in test four. Test two consisted of dark brow silt loam and contained glass shards and a can pull tab in the top 5 cm below the surface. The artifacts were likely modern refuge that had been covered by erosion and were not linked to a specific feature or site. No other cultural resources were encountered.

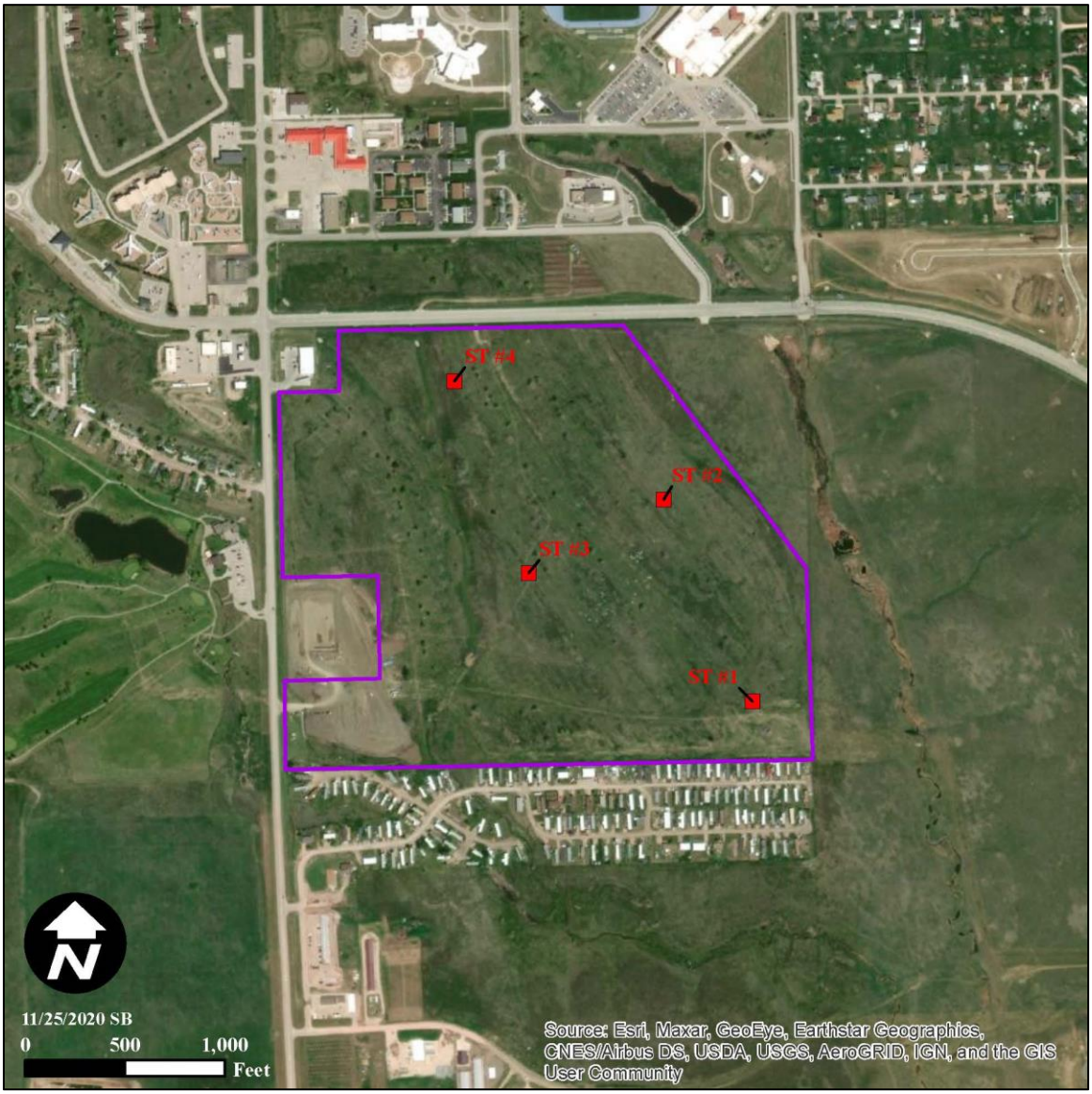

Figure 4. Liberty Center Development Testing Project.

Table 4. Subsurface Test #1.

Location: N/4887731 E/655067 **Size & Depth**: 50x50x30cm		
Stratigraphy: 0-30 cm 10YR 3/3 dark brown clay loam with a large number of rocks.		
Contents: No cultural materials		
Screen Sizes: 1/4"	**Liners**: No	**Backfilled**: Yes

Table 5. Subsurface Test #2.

Location: N/4888044E/654932 **Size & Depth**: 48x48x33cm		
Stratigraphy: 0-33 cm 10YR 4/3 brown silt loam.		
Contents: 4 glass shards, 1 can pull tab at approximately 5 cm. below the surface		
Screen Sizes: 1/4"	**Liners**: No	**Backfilled**: Yes

Table 6. Subsurface Test #3.

Location: N/4887932 E/654726 **Size & Depth**: 50x50x47cm		
Stratigraphy: 0-47 cm 10YR 4/3 brown clay loam with rocks increasing from pebbles to cobbles		
Contents: No cultural materials		
Screen Sizes: 1/4"	**Liners**: No	**Backfilled**: Yes

Table 7. Subsurface Test #4.

Location: N/4888225 E/654613 **Size & Depth**: 49x49x38 cm		
Stratigraphy: 0-38 cm 10YR 3/3 dark brown loamy sand		
Contents: No cultural materials		
Screen Sizes: 1/4"	**Liners**: No	**Backfilled**: Yes

Figure 5. Single historic can within inventory area.
M. Woods 11/24/2020.

Figure 6. Two-track in project area, facing north.
M. Woods 11/24/2020.

Figure 7. Two-track in project area, facing west.
E. Celentano 11/24/2020.

Figure 8. Two-track along fence line, facing east.
E. Celentano 11/24/2020.

Recommendations and Determination of Project Effect

A total of 111.62 acres were inventoried for the proposed Liberty Center Development project. Four subsurface tests were conducted, which yielded potential historic refuge at approximately 5 cm., which should not be considered an archeological site. No other cultural resources were identified in the records search or during pedestrian inventory within the proposed project area. Portions of the project area have been disturbed by development and current construction activities. Because of the results of the subsurface testing, the topography of the area, and the disturbance, it is not likely that buried cultural resources exist.

A determination of no historic properties within the APE is recommended.

In the unlikely event that cultural resources are located during development, it is recommended that the South Dakota State Historic Preservation Office (SHPO), Dream Design, Inc., the Department of Defense, and ***QSI*** be contacted immediately.

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south dakota
STATE HISTORICAL SOCIETY
DEPARTMENT OF EDUCATION

March 25, 2021

Scott Landguth
South Dakota Ellsworth Development Authority
PO Box 477
Rapid City, SD 57709

SECTION 106 CONSULTATION
Project: 210205002F – Ellsworth Development Authority Liberty Plaza North – T2N, R9E, Sec 17
Location: Pennington County
(DOD)

Dear Mr. Landguth:

Thank you for the opportunity to comment on the above-referenced project pursuant to 54 U.S.C. § 306108, also known as Section 106 of the National Historic Preservation Act of 1966 (as amended). The South Dakota Office of the State Historic Preservation Officer (SHPO) concurs with your determination regarding the effect of the proposed undertaking on the non-renewable cultural resources of South Dakota.

On February 5, 2021, we received your letter and the report titled "Cultural Resource Inventory of the Liberty Center Housing Project" by Lina Ramirez, Mandy Woods, and Sydney Boos of Quality Services, Inc. The report indicates that no properties were identified during the survey efforts. In a response dated February 25, 2021, SHPO provided only preliminary comments on the project, as our office had no record of the Department of Defense delegating responsibility for Section 106 consultation to Ellsworth Development Authority. On March 22, 2021, our office received a letter from James Holland, Deputy Director for Compliance of the Office of Local Defense Community Cooperation, in which the Department delegated Section 106 responsibility to the South Dakota Ellsworth Economic Development Authority.

Based upon the information provided, SHPO concurs with your determination of "No Historic Properties Affected" for the proposed undertaking. Should there be any changes to the nature or location of the activities associated with the proposed undertaking, your agency is required to submit additional documentation pursuant to 36 C.F.R. § 800.4 and § 800.5.

If historic properties are discovered or unanticipated effects on historic properties are found after the agency official has completed the Section 106 process, the agency official shall avoid, minimize or mitigate the adverse effects to such properties and notify the SHPO and Indian tribes that might attach religious and cultural significance to the affected property within 48 hours of the discovery, pursuant to 36 C.F.R. § 800.13.

Concurrence of the SHPO does not relieve the federal agency official from consulting with other appropriate parties, as described in 36 C.F.R. § 800.2(c).

Should you require additional information, please contact Jenna Carlson Dietmeier at Jenna.CarlsonDietmeier@state.sd.us or at (605)773-8370. Your concern for the non-renewable cultural heritage of our state is appreciated.

Sincerely,

Ted M. Spencer
State Historic Preservation Officer

Jenna Carlson Dietmeier
Review & Compliance Coordinator

CC: Lynn Kendall – South Dakota Ellsworth Development Authority
Margit Myers – Department of Defense, Office of Local Defense Community Cooperation

APPENDIX II. THREATENED AND ENDANGERED SPECIES DOCUMENTATION

Quality Services, Inc.

Archeology, Architectural History, Forestry, Geophysics, History & Paleontology

1621 Sheridan Lake Road, Suite A, Rapid City, South Dakota 57702-3432

Email info@qualityservices.us.com

Phone: 605-388-5309 Fax: 605-388-5319 Cell: 605-209-0265

December 14, 2020

Re: SD – Dream Designs International, Inc. – Liberty Center Phase I Threatened and Endangered Species

Dream Designs International, Inc. in conjunction with the South Dakota Ellsworth Development Authority, intends to construct a recreation facility, referred to as Phase I of the Liberty Center (the Project). The facility will consist of a 59,183 square foot building and 273 parking spaces. ***Quality Services, Inc.*** has been retained to write the environmental report to assess the environmental impacts of the project. We are recommending a determination of **no effect** on all federally listed species.

We carefully reviewed (on December 11, 2020) the US Fish and Wildlife Section 7 Consultation website for a list of species and critical habitat that may be present within the project area, and received an official species list through the IPaC process (consultation tracking number (06E14000-2021-SLI-0115). The list identified a total of four species potentially present within the project areas (see table, below), and no critical habitats.

Table 1. Federally listed species identified in the Project area.

Common Name	Scientific Name	Federal Status	Habitat Possible in Action Area?	Listed species affected?	Effect on listed species?
Northern long-eared bat	*Myotis septentrionalis*	Threatened	Species **not present**	**No**	n/a
Least tern	*Sterna antillarum*	Endangered	Species **not present**	n/a	n/a
Red knot	*Calidris canutus rufa*	Threatened	Species **not present**	n/a	n/a
Whooping crane	*Grus americana*	Endangered	Species **not present**	n/a	n/a

Northern Long-Eared Bat: This species hibernates in caves, mines, or tunnels, and typically spends the summer inhabiting old-growth forests, roosting in cavities or under the bark of trees and snags. Northern long-eared bats have also been known to roost in buildings. Spring migration from hibernacula to these summer habitats occurs from March through May, and fall migration occurs from August through October. This species is not known to be a long-distance

migrant, averaging 35 to 55 miles between hibernacula and summer habitat.[1] However, distances of over 150 miles have been recorded.[2] The project area and surrounding parcels of land are entirely devoid of forests and suitable hibernacula. Thus, it is not likely this species is present in or near the project area.

Least Tern: This species typically nests on sandy shores and sandbars of rivers and large reservoirs. Terns may also occasionally nest on industrial sites, sand pits, and even rooftops, provided they are near water bodies with abundant fish for foraging. Preferred nest sites are sand or gravel islands with little or no vegetation.[3] As no rivers or large water bodies with sandbars or sandy shores are located nearby, this species is unlikely to be present in or near the project area.

Red Knot: This species is known only as a passage migrant in South Dakota, with breeding grounds in northern Canada and a wintering range along the Gulf Coast and further south into South America. In North America, this species typically migrates along coastal pathways, but some populations are known to migrate through the interior United States. These inland migrants are thought to utilize saline lakes as stopover sites in the northern Great Plains region, though sightings have also been observed along the Missouri River in North Dakota. Sightings in South Dakota, however, are sporadic and rare,[4] but are also concentrated along the Missouri River and further east, where prairie lakes are much more common. There are no suitable lakes situated close enough to the proposed project area for this species to be affected by the project.

Whooping Crane: The whooping crane is known to migrate over South Dakota along the Missouri River drainage area. Stopover habitat utilized by this species includes wetlands and small lakes with good horizontal visibility. As with the red knot, there are no suitable habitats for this species near the project area.

We conclude that all species listed as potentially present in the project area will not be present in or near the project areas, due to lack of suitable habitats. We recommend a determination of "No Effect" in regards to all species discussed above.

Sincerely,

Sarah Giles
Environmental Scientist

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[1] U.S. Fish and Wildlife Service. 2015. Endangered and Threatened Wildlife and Plants; Threatened Species Status for the Northern Long-Eared Bat with 4(d) Rule. Federal Register (Vol. 80, No. 63, pp. 17974-18033).
[2] U.S. Fish and Wildlife Service. 2014. Northern Long-eared Bat Interim Conference and Planning Guidance. 68pp.
[3] U.S. Fish and Wildlife Service. 2013. Interior Least Tern (*Sternula antillarum*) 5-Year Review: Summary and Evaluation. Jackson, MS. 71 pp.
[4] U.S. Fish and Wildlife Service. 2014. Rufa Red Knot Background Information and Threats Assessment. Supplement to Endangered and Threatened Wildlife and Plants; Final Threatened Status for the Rufa Red Knot (*Calidris canutus rufa*) [Docket No. FWS-R5-ES-2013-0097; RIN AY17]. 383 pp.

United States Department of the Interior

FISH AND WILDLIFE SERVICE
South Dakota Ecological Services Field Office
420 South Garfield Avenue, Suite 400
Pierre, SD 57501-5408
Phone: (605) 224-8693 Fax: (605) 224-1416
http://www.fws.gov/southdakotafieldoffice/

In Reply Refer To: December 08, 2020
Consultation Code: 06E14000-2021-SLI-0115
Event Code: 06E14000-2021-E-00333
Project Name: Liberty Plaza

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Please be aware that bald and golden eagles are protected under the Migratory Bird Treaty Act (16 U.S.C. 703-712, as amended), as well as the Bald and Golden Eagle Protection Act (16 U.S.C. 668 et seq.). Projects affecting these species may benefit from the development of an Eagle Conservation Plan (ECP), see guidance at this website (http://www.fws.gov/windenergy/eagle_guidance.html). An ECP can assist developers in achieving compliance with regulatory requirements, help avoid “take” of eagles at project sites, and provide biological support for eagle permit applications. Additionally, we recommend wind energy developments adhere to our Land-based Wind Energy Guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

We have recently updated our guidelines for minimizing impacts to migratory birds at projects that have communication towers (including meteorological, cellular, digital television, radio, and emergency broadcast towers). These guidelines can be found at:

http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm
http://www.towerkill.com

According to National Wetlands Inventory maps, (available online at http://wetlands.fws.gov/) wetlands exist adjacent to the proposed construction corridor. If a project may impact wetlands or other important fish and wildlife habitats, the U.S. Fish and Wildlife Service (Service), in accordance with the National Environmental Policy Act of 1969 (42 U.S.C. 4321-4347) and other environmental laws and rules, recommends complete avoidance of these areas, if possible. If this is not possible, attempts should be made to minimize adverse impacts. Finally if adverse impacts are unavoidable, measures should be undertaken to replace the impacted areas. Alternatives should be examined and the least damaging practical alternative selected. If wetland impacts are unavoidable, a mitigation plan addressing the number and types of wetland acres to be impacted, and the methods of replacement should be prepared and submitted to the resource agencies for review.

Please check with your local wetland management district to determine whether Service interest lands exist at the proposed project site, the exact locations of these properties, and any additional restrictions that may apply regarding these sites. The Offices are listed below. If you are not sure which office to contact, we can help you make that decision.

U.S. Fish and Wildlife Service, Huron Wetland Management District, Federal Building, Room 309, 200 4th Street SW, Huron, SD 57350; telephone (605) 352-5894. Counties in the Huron WMD: Beadle, Buffalo, Hand, Hughes, Hyde, Jerauld, Sanborn, Sully.

U.S. Fish and Wildlife Service, Lake Andes Wetland Management District, 38672 291st Street, Lake Andes, South Dakota; telephone (605) 487-7603. Counties in the Lake Andes WMD: Aurora, Bon Homme, Brule, Charles Mix, Clay, Davison, Douglas, Hanson, Hutchinson, Lincoln, Turner, Union, Yankton.

U.S. Fish and Wildlife Service, Madison Wetland Management District, P.O. Box 48, Madison, South Dakota, 57042, telephone (605) 256-2974. Counties in the Madison WMD: Brookings, Deuel, Hamlin, Kingsury, Lake, McCook, Miner, Minnehaha, Moody.

U.S. Fish and Wildlife Service, Sand Lake Wetland Management District, 39650 Sand Lake Drive, Columbia, South Dakota, 57433; telephone (605) 885-6320. Counties in the Sand Lake WMD: Brown, Campbell, Edmunds, Faulk, McPherson, Potter, Spink, Walworth.

U.S. Fish and Wildlife Service, Waubay Wetland Management District, 44401 134A Street, Waubay, South Dakota, 57273; telephone (605) 947-4521. Counties in the Waubay WMD: Clark, Codington, Day, Grant, Marshall, Roberts.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

You are welcome to contact our office at the address or phone number above for more information.

Thank you.

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Migratory Birds
- Wetlands

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

South Dakota Ecological Services Field Office
420 South Garfield Avenue, Suite 400
Pierre, SD 57501-5408
(605) 224-8693

Project Summary

Consultation Code: 06E14000-2021-SLI-0115

Event Code: 06E14000-2021-E-00333

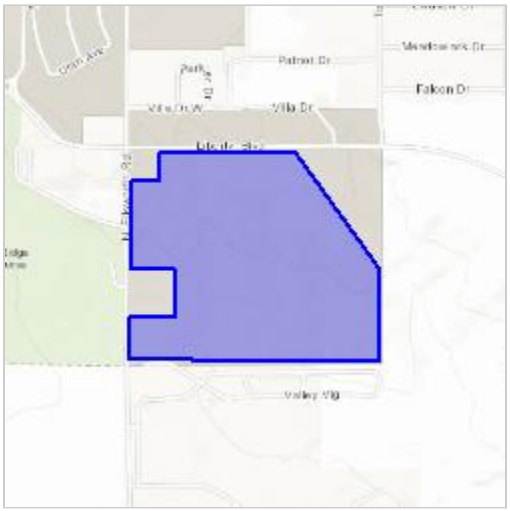
Project Name: Liberty Plaza

Project Type: DEVELOPMENT

Project Description: The proposed project is a mixed use commercial development.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/44.1285858591176N103.06585215727509W



Counties: Pennington, SD

Endangered Species Act Species

There is a total of 4 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Northern Long-eared Bat *Myotis septentrionalis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Threatened

Birds

NAME	STATUS
Least Tern *Sterna antillarum* Population: interior pop. No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/8505	Endangered
Red Knot *Calidris canutus rufa* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1864	Threatened
Whooping Crane *Grus americana* Population: Wherever found, except where listed as an experimental population There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/758	Endangered

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

USFWS National Wildlife Refuge Lands And Fish Hatcheries

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

Migratory Birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

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1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle *Haliaeetus leucocephalus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Dec 1 to Aug 31
Lark Bunting *Calamospiza melanocorys* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds May 10 to Aug 15

Probability Of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ “Proper Interpretation and Use of Your Migratory Bird Report” before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

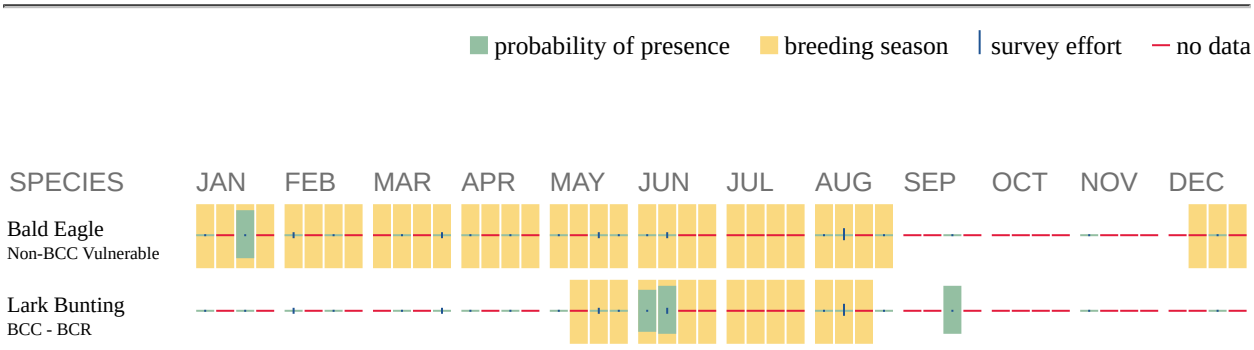
Breeding Season (■)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



Additional information can be found using the following links:

- Birds of Conservation Concern http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php
- Measures for avoiding and minimizing impacts to birds http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php
- Nationwide conservation measures for birds http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf

Migratory Birds FAQ

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.
Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures and/or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?
The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the AKN Phenology Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?
The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets .

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?
To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: The Cornell Lab of Ornithology All About Birds Bird Guide, or (if you are unsuccessful in locating the bird of interest there), the Cornell Lab of Ornithology Neotropical Birds guide. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?
Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects
For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?
If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report
The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ “What does IPaC use to generate the migratory birds potentially occurring in my specified location”. Please be aware this report provides the “probability of presence” of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the “no data” indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ “Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds” at the bottom of your migratory bird trust resources page.

Wetlands

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

FRESHWATER EMERGENT WETLAND

- PEM1Cx

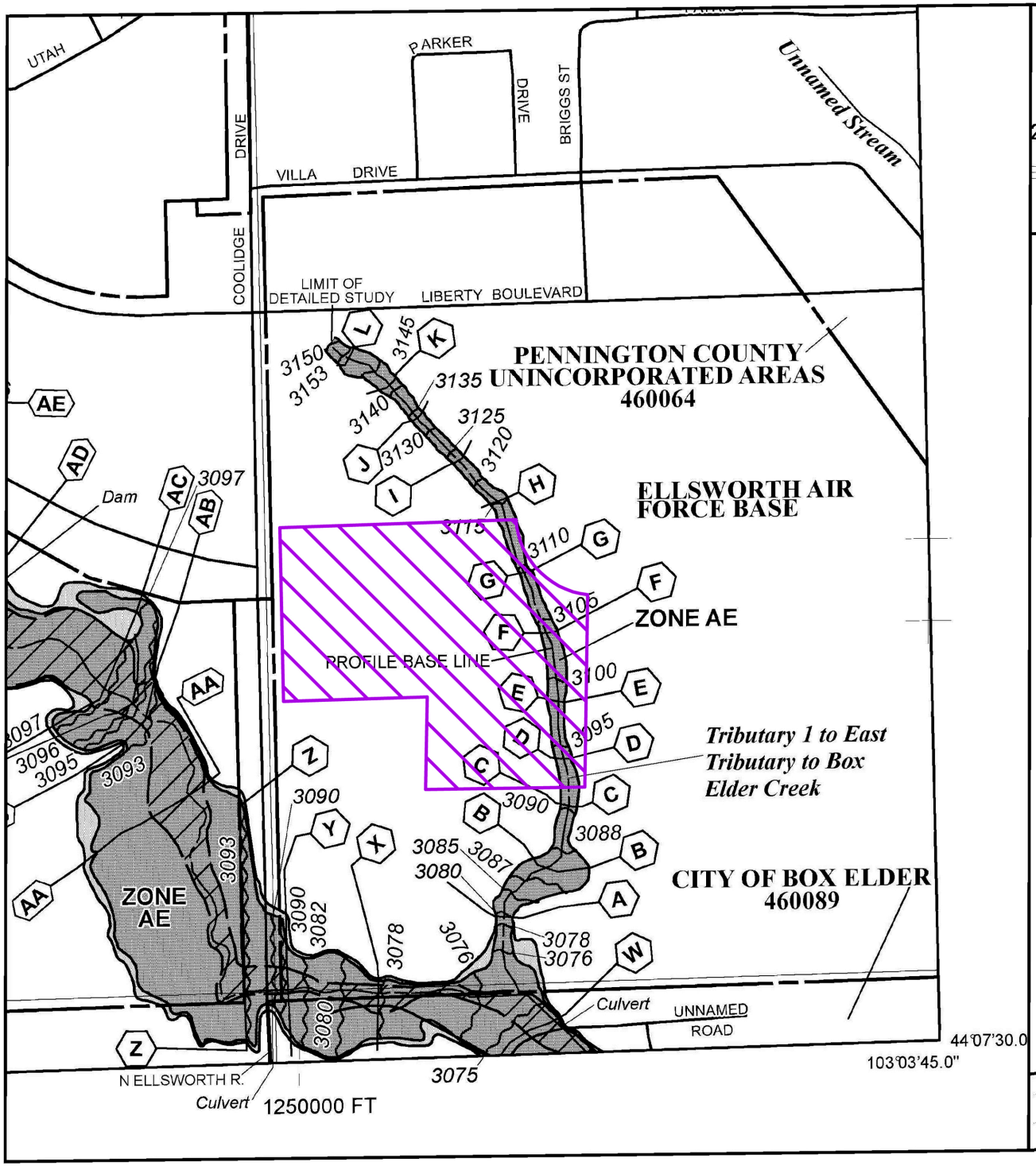
RIVERINE

- R5UBH

APPENDIX III. NWI WETLANDS MAP


Quality Services, Inc.
#ERSD20003
Liberty Plaza Wetland Map
T2N, R9E, Section 17
Proposed Project Area
NWI Indicated Wetlands
0
750
1,500
Feet
N
12/10/2020 OR
Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

APPENDIX IV. FEMA FLOOD INSURANCE RATE MAP PANEL



MAP SCALE 1" = 500'

250 0 500 1000 FEET

METE

PANEL 0389H

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

FIRM

FLOOD INSURANCE RATE MAP

PENNINGTON COUNTY, SOUTH DAKOTA

AND INCORPORATED AREAS

PANEL 389 OF 2050

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
PENNINGTON COUNTY	460064	0389	H
BOX ELDER, CITY OF	460089	0389	H

Project Boundary

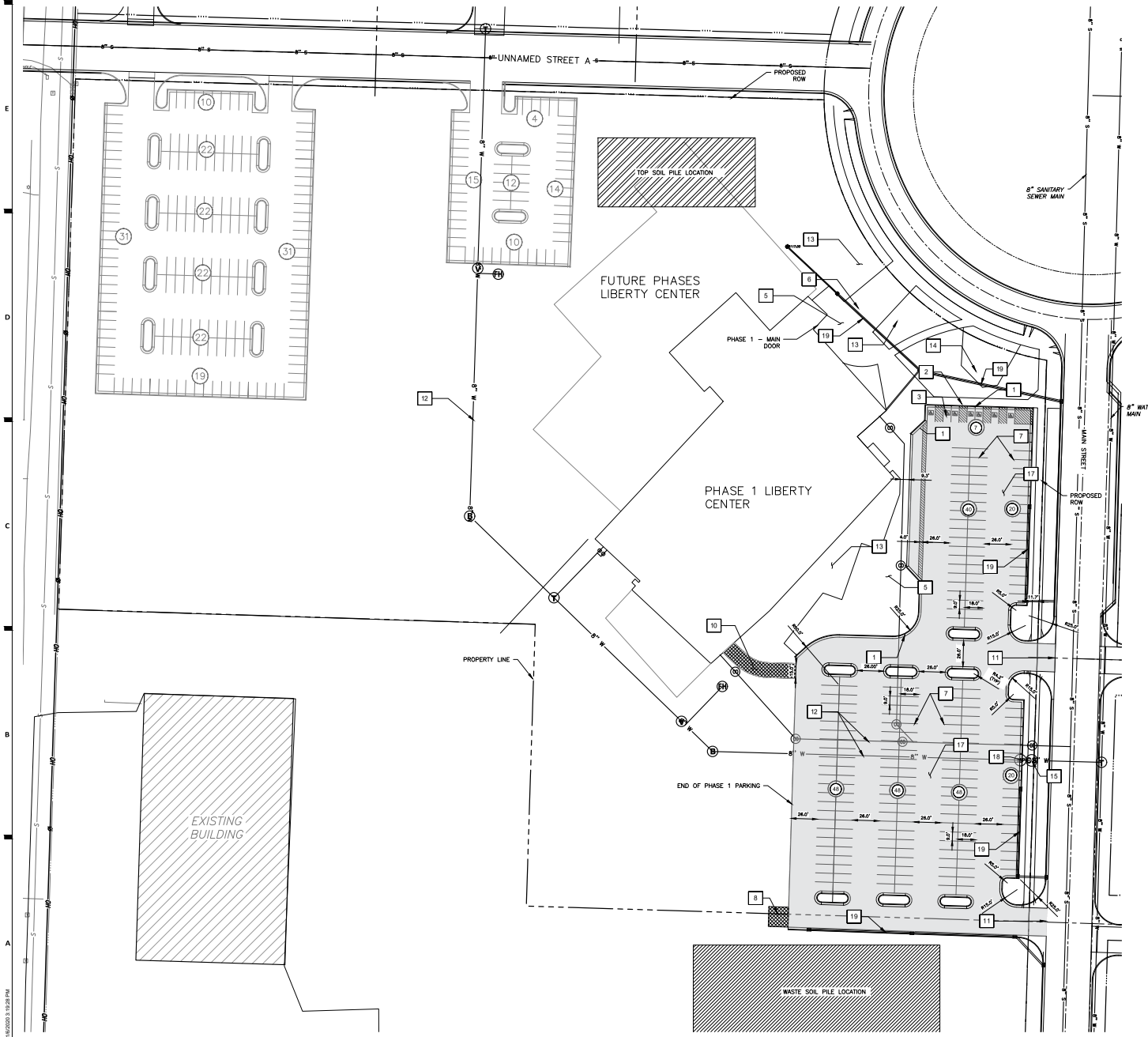
Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
46103C0389H

EFFECTIVE DATE
JUNE 3, 2013

Federal Emergency Management Agency

APPENDIX V. SITE PLAN



SITE LAYOUT NOTES
LEGAL: LOT __ BLOCK ___

ZONING: PLANNED DEVELOPMENT

MINIMUM SETBACKS:
FRONT = 25': SIDE = 8': BACK = 25' - ACCESSORY - 5'

LOT COVERAGE
MAXIMUM PERMISSIBLE =
PROPOSED =

PROPOSED BUILDING
USE: RECREATION CENTER
SIZE (SF): 59,183

PARKING REQUIREMENTS:
BOX ELDER REQUIREMENTS
4 SPACES PER 1,000 SQ.FT. (BUILDING)
TOTAL REQUIRED = 237 SPACES

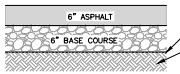
TOTAL SPACES PROVIDED = 273 SPACES

LEGEND

1. INSTALL TYPE B OR BL CONCRETE CURB & GUTTER PER DETAIL 60-2 ON SHEET C110
2. INSTALL HANDICAP ACCESSIBLE RAMP PER DETAIL 61-5 ON SHEET C110
3. INSTALL HANDICAP PARKING SPACE PER DETAIL B ON SHEET C110
4. INSTALL HANDICAP PARKING SIGN PER DETAIL C ON SHEET C110
5. INSTALL 5" THICK CONCRETE PAVING WITH 18" REBAR AT 18" O.C.
6. CONCRETE JOINTING
7. INSTALL 4" PAINTED WHITE PAVEMENT MARKING (TYP.)
8. INSTALL DUMPSTER ENCLOSURE PAD (PAD DETAIL SHOWN ON SHEET XXX DETAIL A)
9. SIGNAGE (BY OTHERS)
10. DRIVEWAY TO ACCESS DOOR
11. INSTALL CONCRETE PAN & FILLET PER DETAIL 60-1 ON SHEET C110
12. INSTALL WATER AND SEWER SERVICES SEE SHEETS XXX-XXX
13. LANDSCAPE AREAS
14. ART/PLANE PEDESTAL
15. INSTALL CURB STOP
16. INSTALL FIRE HYDRANT ASSEMBLY SEE DETAIL 8-1 ON SHEET C110
17. ASPHALT PAVEMENT, SECTION THIS SHEET
18. INSTALL METER PIT PER DETAIL SHEET C110
19. INSTALL STORM SEWER PER SHEETS C107-C108
(231) PARKING TOTALS

INSTALL CONCRETE PAVEMENT PER DETAIL THIS SHEET

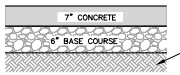
INSTALL ASPHALT PAVEMENT PER DETAIL THIS SHEET



STANDARD ASPHALT SECTION

MIRAFI RS380I GEOGRID

*SCARIFY AND RECOMPACT SUBGRADE TO MINIMUM 95% OF MAXIMUM DENSITY (MODIFIED PROCTOR) VALUE AND ±3% OF OPTIMUM MOISTURE.



CONCRETE SECTION

*SCARIFY AND RECOMPACT SUBGRADE TO MINIMUM 95% OF MAXIMUM DENSITY (MODIFIED PROCTOR) VALUE AND ±3% OF OPTIMUM MOISTURE.

40' 20' 0 40'
SCALE: 1" = 40'

PRELIMINARY FOR REVIEW ONLY

JLG architects
510 9th Street, Suite #202
Rapid City, SD 57701
phone 605.394.8831
www.jlgarchitects.com

PRELIMINARY

REVISION SCHEDULE

NO.	DESCRIPTION	DATE

SD ELLSWORTH DEVELOPMENT AUTHORITY
LIBERTY CENTER
BOX ELDER, SD

DATE 11/20/2020
PHASE 65% DESIGN DEVELOPMENT
PROJECT 20-1116
SHEET **C105**
SITE PLAN

KTM DESIGN SOLUTIONS, INC.

11/6/2020 9:19:28 PM

APPENDIX VI. MASTER GRADING PLAN

LEGEND

- 3245 — PROPOSED INDEX CONTOUR
- 3242 — PROPOSED INTERMEDIATE CONTOUR
- 3245 - - - EXISTING INDEX CONTOUR
- 3242 - - - EXISTING INTERMEDIATE CONTOUR

CONTOUR INTERVAL 1'

20' 10' 0 40'
SCALE: 1" = 40'

PRELIMINARY
FOR REVIEW ONLY

JLG architects
510 9th Street, Suite #202
Rapid City, SD 57701
phone 605.394.8831
www.jlgarchitects.com

PRELIMINARY
NOT FOR CONSTRUCTION

REVISION SCHEDULE

NO.	DESCRIPTION	DATE

SD ELLSWORTH DEVELOPMENT AUTHORITY
LIBERTY CENTER
BOX ELDER, SD

DATE
11/20/2020
PHASE
65% DESIGN DEVELOPMENT
PROJECT
20-1116
SHEET
C103
MASTER GRADING PLAN

KTM DESIGN SOLUTIONS, INC.
618 1/2 9th Street, Suite 201
Rapid City, SD 57701
[P] (605) 791-3566
[F] (605) 791-3567
[E] engineers@ktmdesign.com
www.ktmdesignsolutions.com

11/6/2020 3:19:28 PM

APPENDIX VII. ELLSWORTH AIR FORCE BASE APPROVAL

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS 28TH MISSION SUPPORT GROUP (AFGSC)
ELLSWORTH AIR FORCE BASE SOUTH DAKOTA

8 June 2021

Mr. Glenn Meyer, Deputy Base Civil Engineer
28 CES/CD
28th Civil Engineer Squadron
2125 Scott Drive
Ellsworth AFB, SD 57706

Mr. Scott Landguth, Executive Director
South Dakota Ellsworth Development Authority
14 St Joseph Street
Rapid City, SD 57709

Dear Mr. Landguth,

Ellsworth Air Force Base (EAFB) Environmental, NEPA, and Legal specialists have reviewed the Environmental Assessment (EA) for the Liberty Center Phase 1 Project in Pennington County, South Dakota. The EA was prepared by Quality Services, Inc. for Dream Designs International, Inc. in conjunction with The South Dakota Ellsworth Development Authority. After review, EAFB has no substantive comments on the Environmental Assessment. I do not see any reason the project should not proceed.

Should you have any questions or comments please contact Dr. Gary Brundige at (605) 385-2690 or by email at gary.brundige@us.af.mil.

GLENN A. MEYER, GS-14, DAFC
Deputy Base Civil Engineer