



Department of Transportation

Division of Secretariat

Office of Air, Rail & Transit

700 East Broadway Avenue

Pierre, South Dakota 57501-2586

OFFICE: 605/773-3574

FAX: 605/773-2804

TO: South Dakota Aeronautics Commission
 FROM: Jack Dokken, Office of Aeronautics
 DATE: May 10, 2021
 SUBJECT: Financial Assistance Agreements

Airport sponsors are requesting funding from the State Aeronautics Fund for the AIP projects below.

Aberdeen 3-46-0001-043-2021

Reconstruction of Taxiway D, D1 B; closure of taxiway C between 13/31 and F; reconstruction of phase I apron.

Federal Share	\$5,000,000.00
State Share	\$
Local Share	\$
Total	\$5,000,000.00

Brookings 3-46-0005-034-2021

Pavement maintenance including route/seal, emulsified asphalt seal coat, runway friction testing, runway/taxiway painting on runway 12/30 and connector taxiway.

Federal Share	\$ 265,000.00
State Share	\$ 0
Local Share	\$ 0
Total	\$ 265,000.00

Gregory 3-46-0018-018-2021

Construct runway 13/31; connector taxiway to runway OFA, partial parallel taxiway to ROFA of 13.

Federal Share	\$ 2,685,000.00
State Share	\$ 0
Local Share	\$ 0
Total	\$ 2,685,000.00

Lemmon 3-46-0027-016-2021

Upgrade existing fuel system with additional tanks, new equipment, 24-hour card reader.

Federal Share	\$ 70,000.00
State Share	\$
Local Share	\$
Total	\$ 70,000.00

Rosebud 3-46-0082-014-2021

Pavement maintenance runway and taxiway.

Federal Share	\$ 231,000.00
State Share	\$
Local Share	\$
Total	\$ 231,000.00

Sisseton 3-46-0057-017-2021

Reimburse for beacon and wind cone.

Federal Share	\$ 50,000.00
State Share	\$
Local Share	\$
Total	\$ 50,000.00

Sturgis 3-46-0054-019-2021

Design and construction of hangar taxi lane expansion.

Federal Share	\$ 390,000.00
State Share	\$
Local Share	\$
Total	\$ 390,000.00

Tea 3-46-0078-017-2021

Reimburse for land appraisals and review appraisals, land acquisition, exhibit A and ALP updates.

Federal Share	\$ 1,040,000.00
State Share	\$
Local Share	\$
Total	\$ 1,040,000.00

Wessington Springs 3-46-0080-013-2021

Design connector taxiway (eliminate direct access), hangar taxilane reconstruction, hangar taxilane expansion & level III cultural resources survey.

Federal Share	\$ 80,000.00
State Share	\$
Local Share	\$
Total	\$ 80,000.00

SDDOT Pavement Maintenance 3-46-4600-027-2021

Conduct airport pavement maintenance at airports across the state. Airports include Harding County, Canton, Custer County, Highmore, Hoven, Lemmon, McLaughlin, Onida, Pine Ridge, Vermillion.

Federal Share	\$ 577,502.00
State Share	\$
Local Share	\$
Total	\$ 577,502.00

SDDOT Pavement Index Inspections 3-46-4600-028-2021

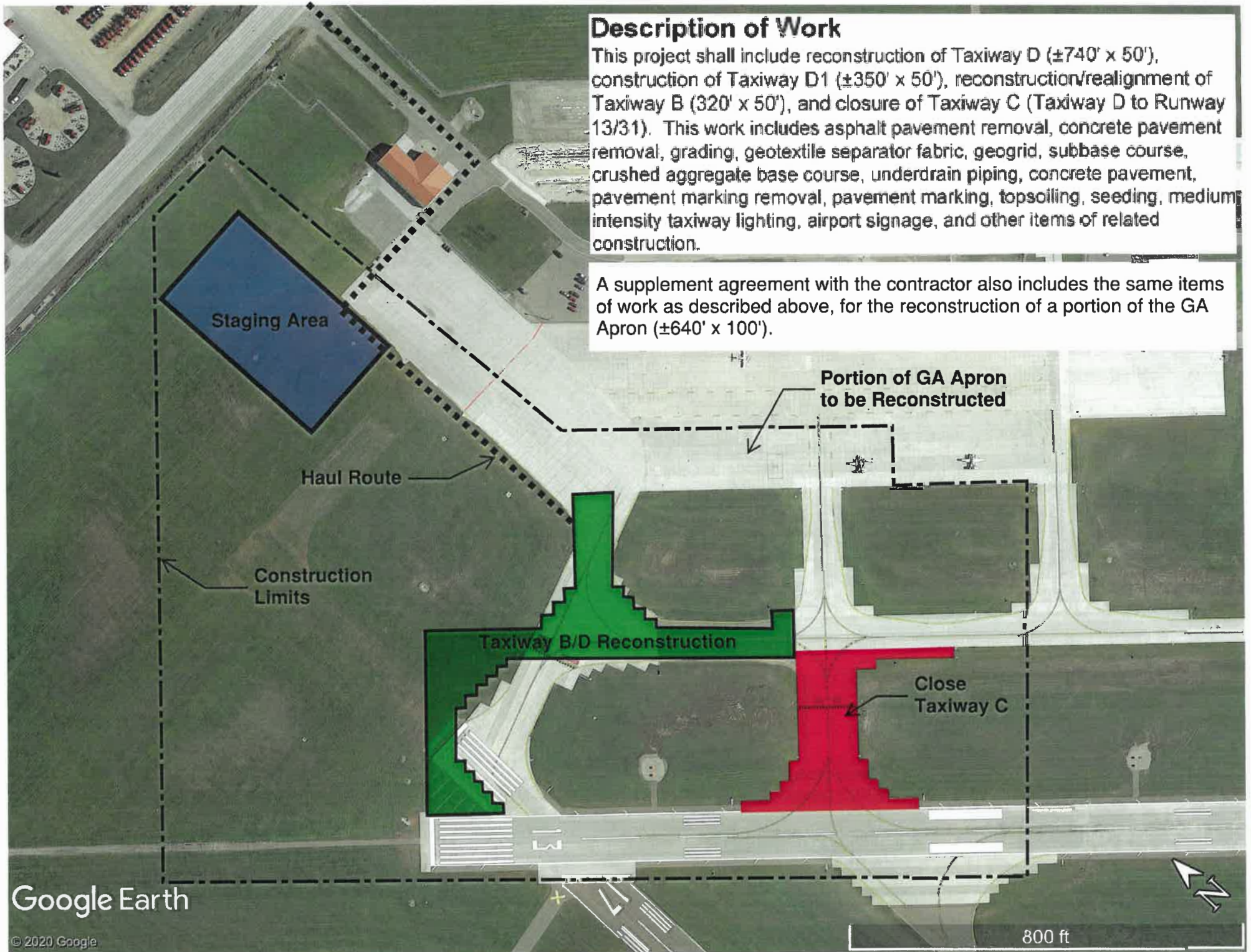
Conduct airport pavement condition inspections at airports across the state, and update Paver pavement management software.

Federal Share	\$ 390,000.00
State Share	\$
Local Share	\$
Total	\$ 390,000.00

Description of Work

This project shall include reconstruction of Taxiway D ($\pm 740' \times 50'$), construction of Taxiway D1 ($\pm 350' \times 50'$), reconstruction/realignment of Taxiway B ($320' \times 50'$), and closure of Taxiway C (Taxiway D to Runway 13/31). This work includes asphalt pavement removal, concrete pavement removal, grading, geotextile separator fabric, geogrid, subbase course, crushed aggregate base course, underdrain piping, concrete pavement, pavement marking removal, pavement marking, topsoiling, seeding, medium intensity taxiway lighting, airport signage, and other items of related construction.

A supplement agreement with the contractor also includes the same items of work as described above, for the reconstruction of a portion of the GA Apron ($\pm 640' \times 100'$).

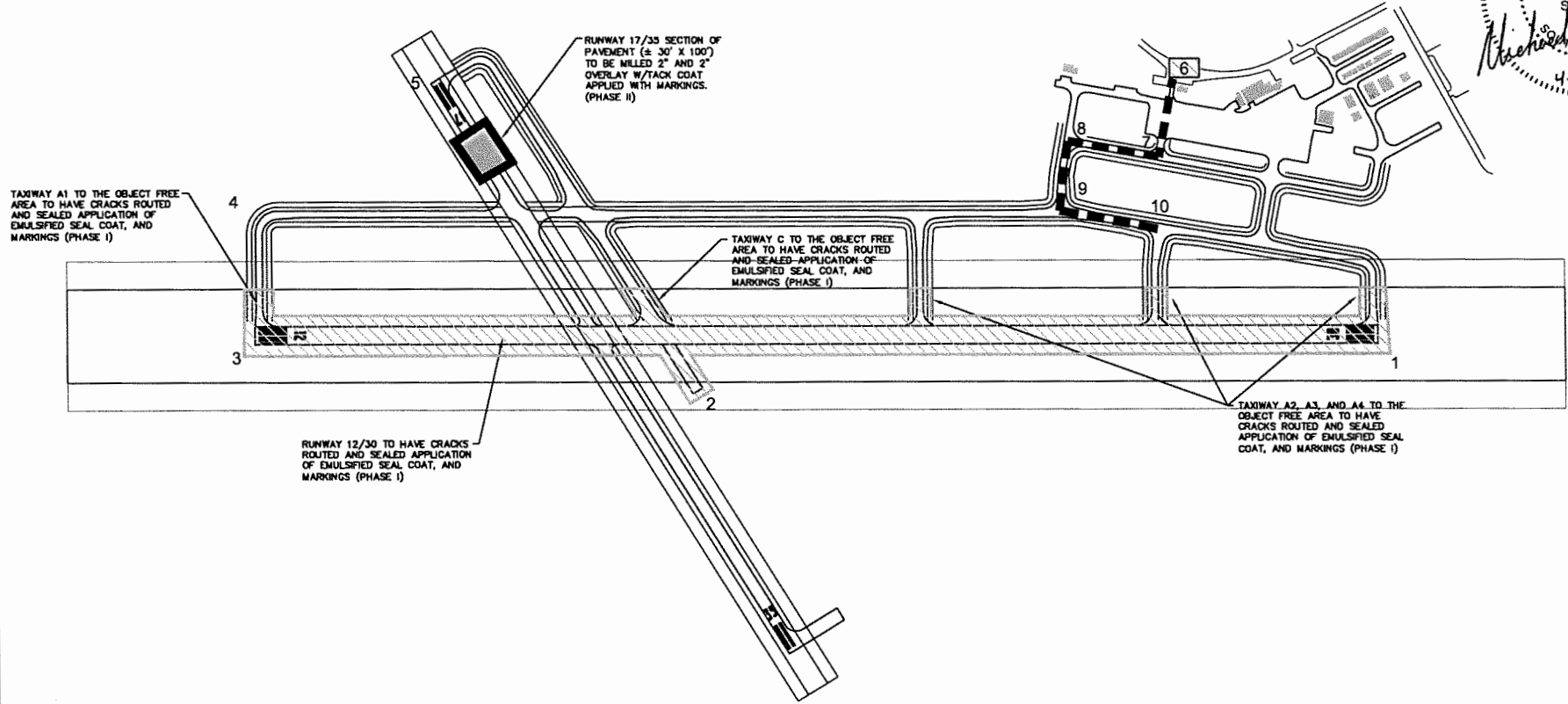
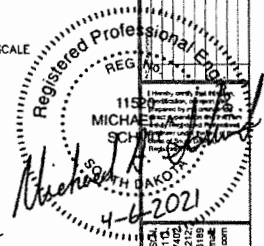


Description of Work

This project shall include pavement maintenance of Runway 12/30, Taxiway A1, A2, A3, A4, and Taxiway C to Runway Object Free Area (ROFA). This work shall include routing and sealing of cracks, emulsified seal coat, pavement markings, and other items of related construction. This project shall also include patchwork on Runway 17/35. This work shall include milling two inches of existing asphalt (±30' x 100') and two inch thick asphalt pavement overlay.



NOT TO SCALE



RUNWAY 17/35 SECTION OF PAVEMENT (± 30' X 100') TO BE MILLED 2" AND 2" OVERLAY W/TACK COAT APPLIED WITH MARKINGS. (PHASE II)

TAXIWAY A1 TO THE OBJECT FREE AREA TO HAVE CRACKS ROUTED AND SEALED APPLICATION OF EMULSIFIED SEAL COAT, AND MARKINGS (PHASE I)

TAXIWAY C TO THE OBJECT FREE AREA TO HAVE CRACKS ROUTED AND SEALED APPLICATION OF EMULSIFIED SEAL COAT, AND MARKINGS (PHASE I)

RUNWAY 12/30 TO HAVE CRACKS ROUTED AND SEALED APPLICATION OF EMULSIFIED SEAL COAT, AND MARKINGS (PHASE I)

TAXIWAY A2, A3, AND A4 TO THE OBJECT FREE AREA TO HAVE CRACKS ROUTED AND SEALED APPLICATION OF EMULSIFIED SEAL COAT, AND MARKINGS (PHASE I)

<p>Helm & Associates CIVIL ENGINEERS & LAND SURVEYORS</p>	
<p>418 Production Sq. P.O. Box 102 Brookings, SD 57003 Phone: 605.226.1212 Fax: 605.226.3189 Email: info@helmsandassociates.com</p>	
<p>PROJECT LAYOUT PAVEMENT MAINTENANCE/REHABILITATION BROOKINGS REGIONAL AIRPORT BROOKINGS, SOUTH DAKOTA</p>	
Drawn By:	WRD
Chk By:	BOC
Proj No:	A-8098
Draw No:	8098-01
Rev. No:	BROOK LAY
Date:	2/2021
<p>2 OF 11</p>	

Project Narrative (Justification)

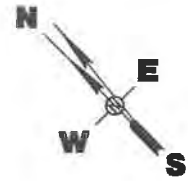
Pavement Maintenance including route and seal cracks, emulsified asphalt seal coat, runway friction testing, and runway and taxiway painting on Runway 12/30 & Connector Taxiways

Runway 12/30 and its connecting taxiways were reconstructed in 2014 and after six years of wear on the pavement a seal coat is recommended to extend the life of the asphalt surfacing. With a seal coat the runway markings will have to be reapplied.

The contractor will stage in the old terminal parking lot and be escorted onto the Runway 12/30 as Runway 17/35 will remain open to traffic while maintenance is being performed outside the safety areas.

PART IV – PROGRAM NARRATIVE
(Suggested Format)

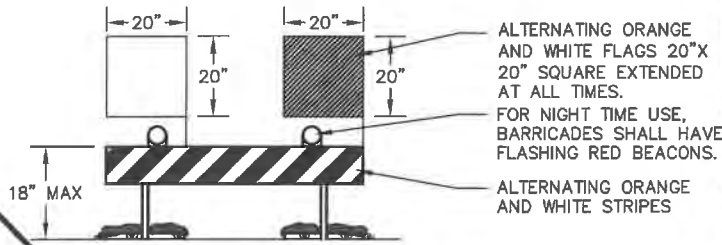
PROJECT:
AIRPORT:
1. Objective:
2. Benefits Anticipated:
3. Approach: (See approved Scope of Work in Final Application)
4. Geographic Location:
5. If Applicable, Provide Additional Information:
6. Sponsor's Representative: (include address & telephone number)



SCALE
11X17 1"=400'
24X36 1"=200'

DESCRIPTION OF WORK:

This project shall include reconstruction/rehabilitation of Runway 13/31 (±60' x 3,800'), connector taxiway construction to the Runway Object Free Area (ROFA), and partial parallel taxiway construction to the ROFA on the 13 end. This work includes mill and salvage existing asphalt, grading, disposal of excess material, geotextile separator fabric, recycled subbase course, furnished subbase course, aggregate base course, underdrain piping, storm sewer, asphalt pavement, pavement marking, topsoiling, seeding, mulching, medium intensity taxiway lighting, taxiway reflectors, airport signage, and other items of related construction.

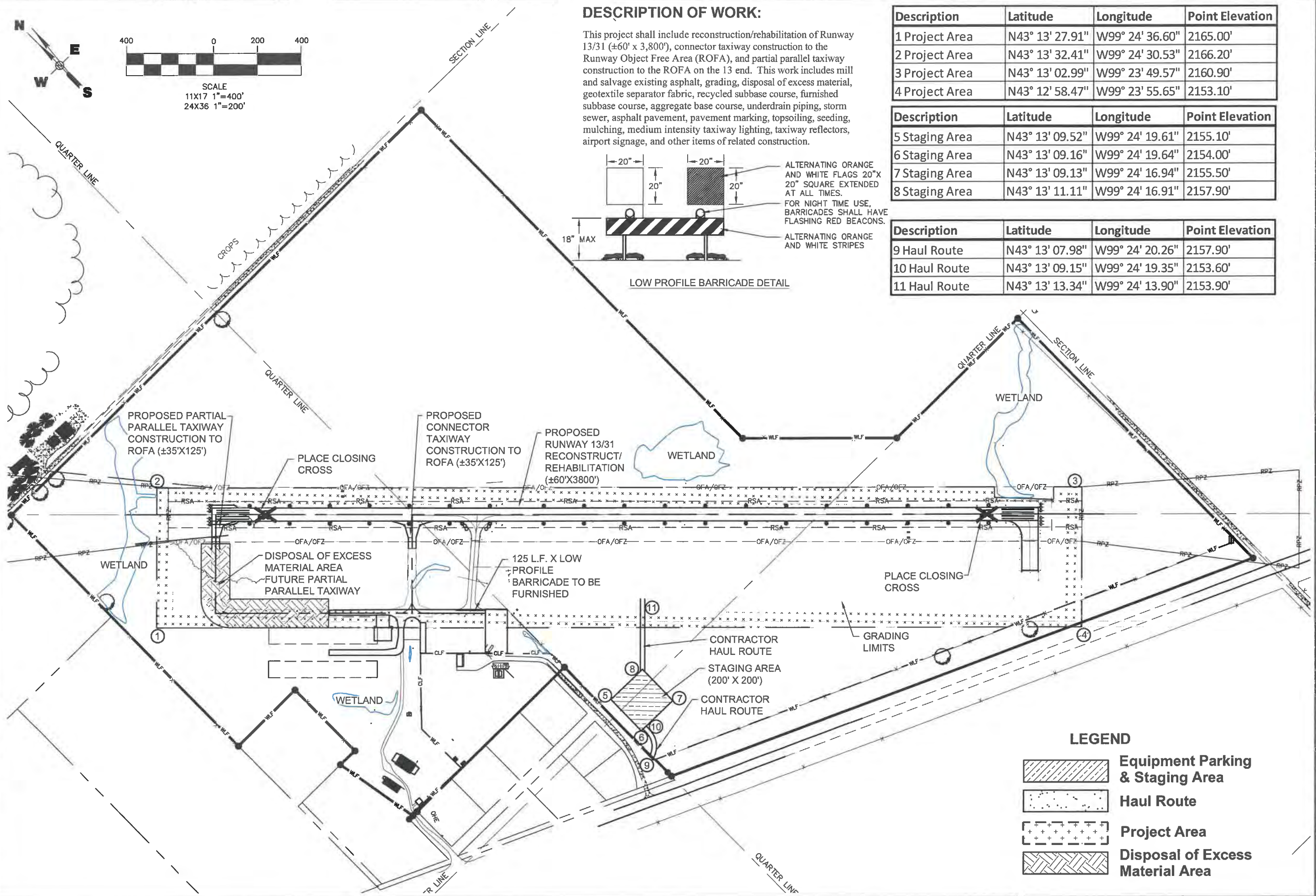


LOW PROFILE BARRICADE DETAIL

Description	Latitude	Longitude	Point Elevation
1 Project Area	N43° 13' 27.91"	W99° 24' 36.60"	2165.00'
2 Project Area	N43° 13' 32.41"	W99° 24' 30.53"	2166.20'
3 Project Area	N43° 13' 02.99"	W99° 23' 49.57"	2160.90'
4 Project Area	N43° 12' 58.47"	W99° 23' 55.65"	2153.10'

Description	Latitude	Longitude	Point Elevation
5 Staging Area	N43° 13' 09.52"	W99° 24' 19.61"	2155.10'
6 Staging Area	N43° 13' 09.16"	W99° 24' 19.64"	2154.00'
7 Staging Area	N43° 13' 09.13"	W99° 24' 16.94"	2155.50'
8 Staging Area	N43° 13' 11.11"	W99° 24' 16.91"	2157.90'

Description	Latitude	Longitude	Point Elevation
9 Haul Route	N43° 13' 07.98"	W99° 24' 20.26"	2157.90'
10 Haul Route	N43° 13' 09.15"	W99° 24' 19.35"	2153.60'
11 Haul Route	N43° 13' 13.34"	W99° 24' 13.90"	2153.90'



LEGEND

- Equipment Parking & Staging Area
- Haul Route
- Project Area
- Disposal of Excess Material Area

By: _____ Date: _____
No. _____
Revisions: _____

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the law of the State of South Dakota. Registration No. _____

416 North Production Street
P.O. Box 111
Aberdeen, S.D. 57401
Phone: 605.225.1212
Fax: 605.225.3189
Email: bob@helmsengineers.com
bob@helmsengineers.com



CONSTRUCTION SAFETY PHASING PLAN LAYOUT
RUNWAY 13-31 RECONSTRUCTION
GREGORY MUNICIPAL AIRPORT
GREGORY, SOUTH DAKOTA

Drawn By: WRD
Chk' By: CDH
Proj. No: A-7537
Dwg. No: 7537-01
VP. No: SAFE
Date: 2/23/21

PART IV – PROGRAM NARRATIVE
(Suggested Format)

PROJECT: Upgrade Existing Fuel System with Additional Tanks, New Equipment and 24-hour Card Reader

AIRPORT: Lemmon Municipal Airport

1. Objective:

Upgrade Existing Fuel System with Additional Tanks, New Equipment and 24-hour Card Reader.

2. Benefits Anticipated:

The existing fuel tanks are inadequate in size for existing airport operations. Frequent fills are required during summer months and each fill is costly because the City can only take a tenth of a truckload at a time. New 6,000 gallon above-ground tanks will allow the City to receive a half-load or split a load with one other local Airport. The project will also include a fuel management system with 24-hour credit reader to allow self-service for pilots.

3. Approach: (See approved Scope of Work in Final Application)

This design project will be completed through a traditional consultant design contract. After contract negotiations with the Sponsor, KLJ of Bismarck, ND will lead the efforts.

Bidding, construction observation, and construction costs will be included in a separate grant in the future.

4. Geographic Location:

City of Lemmon, Perkins County, State of South Dakota

5. If Applicable, Provide Additional Information:

6. Sponsor's Representative: (include address & telephone number)

Mike Ginther
303 1st Ave West, Lemmon, SD 57638
605-374-5281

PART IV – PROGRAM NARRATIVE
(Suggested Format)

PROJECT: AIP #3-46-0082-014-2021
AIRPORT: Rosebud Sioux Tribal Airport
1. Objective: Design and Construction of Pavement Maintenance Project
2. Benefits Anticipated: The project includes spall repairs, replacing joint sealant, and replacing the pavement markings.
3. Approach: (See approved Scope of Work in Final Application) Helms & Associates of Aberdeen, SD will serve as the airport's consultant to complete design of the project. Helms will perform a survey, and prepare a preliminary estimate of probable construction costs. An Engineer's Design Report and Construction Safety Phasing Plan will be submitted in April 2021. 90% plans and specifications shall be submitted by April of 2021.
4. Geographic Location: Rosebud Sioux Tribal Airport Rosebud, Todd County, South Dakota
5. If Applicable, Provide Additional Information:
6. Sponsor's Representative: (include address & telephone number) Rodney Bordeaux 605-854-3731 PO Box 430 Rosebud, SD 57570

AIRPORT SHALL BE CLOSED DURING CONSTRUCTION



NOT TO SCALE

Shorly Jordan
Airport Manager
Phone: 605-828-1280

Legal Description

The Airport is Located in Sections 15 and 22, T38N - R20W of the 6th P. M., Todd County, South Dakota.

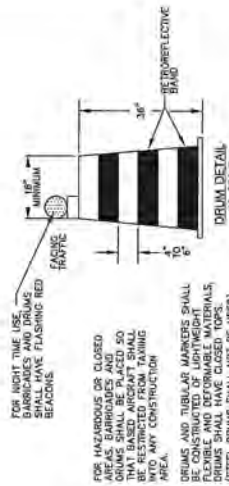
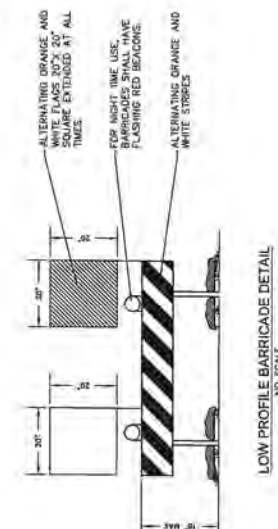
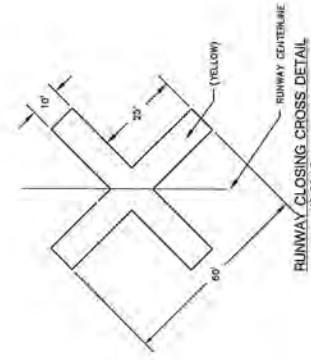
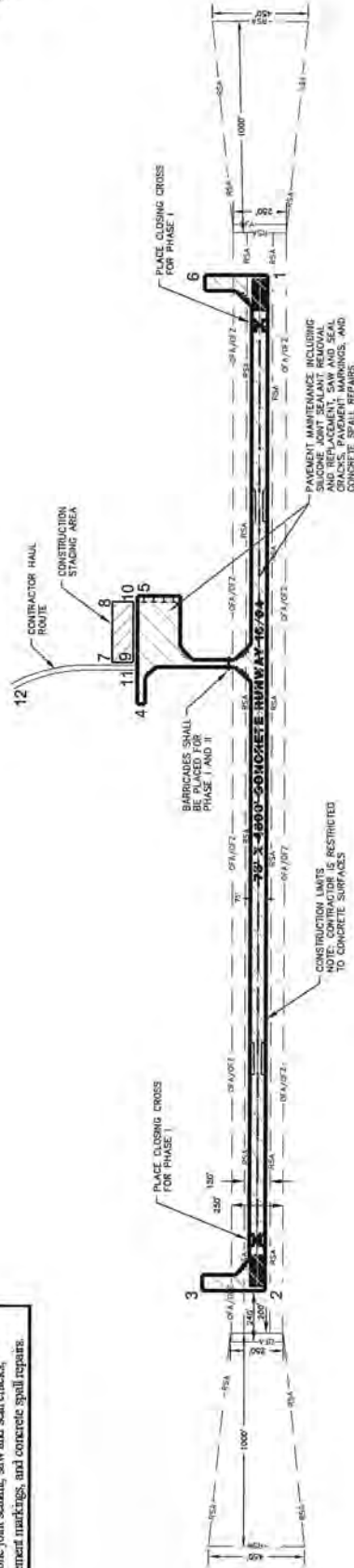
Description of Work

Perform Pavement Rehabilitation on the Runway, Taxiway, and Apron which includes the following: slot joint sealing, saw and seal cracks, pavement markings, and concrete spill repairs.

PHASE I: PAVEMENT MAINTENANCE ON RUNWAY 16/34 AND CONNECTOR TAXIWAY
AIRPORT SHALL BE CLOSED DURING PHASE I

PHASE II: PAVEMENT MAINTENANCE ON APRON AND HANGAR TAXIWAY
APRON AND CONNECTOR TAXIWAY SHALL BE CLOSED FOR PHASE II

AIRPORT CONSTRUCTION SAFETY PLAN INFORMATION			
DESCRIPTION	LATITUDE	LONGITUDE	ELEVATION
RUNWAY END 16	N43°15'52.76"	W100°51'40.02"	2681.00
RUNWAY END 34	N43°15'07.13"	W100°51'28.35"	2724.00
1. WORK AREA CORNER	N43°15'07.78"	W100°51'27.78"	2720.00
2. WORK AREA CORNER	N43°15'53.05"	W100°51'39.90"	2676.00
3. WORK AREA CORNER	N43°15'54.16"	W100°51'36.59"	2681.00
4. WORK AREA CORNER	N43°15'27.84"	W100°51'25.73"	2702.00
5. WORK AREA CORNER	N43°15'22.96"	W100°51'24.25"	2702.00
6. WORK AREA CORNER	N43°15'07.57"	W100°51'24.95"	2702.00
7. STAGING AREA CORNER	N43°15'25.93"	W100°51'23.65"	2702.00
8. STAGING AREA CORNER	N43°15'23.56"	W100°51'22.89"	2702.00
9. STAGING AREA CORNER	N43°15'23.29"	W100°51'24.55"	2702.00
10. STAGING AREA CORNER	N43°15'25.74"	W100°51'25.17"	2706.00
11. HAUL ROUTE	N43°15'25.99"	W100°51'25.99"	2704.00
12. HAUL ROUTE	N43°15'27.03"	W100°51'17.33"	2700.00



ROSEBUD SIOUX TRIBAL PROJECT
CONSTRUCTION SAFETY PHASING
PLAN
KUNAW PAVEMENT MAINTENANCE
ROSEBUD SIOUX TRIBAL AIRPORT
SOUTH DAKOTA

Drawn By: WED
Cdr: Mr. NBE
Proj. No: A-1134
Date: 2/20/21
416 Production Street North
Aberdeen, SD 57501
Phone: 605.225.1212
Email: info@helsmassociates.com



South Dakota DOT, Office of Air, Rail and Transit Statewide Pavement Maintenance Project

The Office of Air, Rail and Transit has been conducting airfield pavement maintenance projects since 2001. The State has taken on these projects to maintain records of airports completing their duty to preserving airfield pavements and to group the projects together to potentially get better bid prices for the work.

The 2021 pavement maintenance project consists of ten (10) airports: Harding County, Canton Municipal, Custer County, Highmore Municipal, Hoven Municipal, Lemmon Municipal, McLaughlin Municipal, Onida Municipal, Pine Ridge and Harold Davidson Field (Vermillion). Pavements were constructed between 1997 and 2018, all have had routine pavement maintenance completed, including crack sealing and seal coats. All have Pavement Condition Indexes above State threshold minimums of 60 for runways, 50 for taxiways and 45 for aprons. All projects will be completed on airfield pavements, haul routes, materials storage and employee parking will be done on existing pavement. Airfield pavement is the most expensive projects at General Aviation airports, preserving the pavement and extending its life is being good stewards for federal, state and local dollars invested to complete the improvements. The state completing these projects also maintain compliance with grant assurance 11, Pavement Preventative Maintenance. These sponsor all do not have the means to complete these projects without federal assistance. Certification of Economic Necessity will be completed for each sponsor.

Harding County Airport in Buffalo reconstructed their runway, apron and taxiway in 2008 and they constructed a hangar taxilane in 2013. Asphalt pavement cracks have been routed and sealed in previous projects. This year will include routing and sealing of new cracks and resealing cracks which were previously sealed on all airport pavements. Estimated quantities include nearly 11,000 LF of route and seal and another 2,000 LF of resealing. The latest available PCIs for Harding County pavements are all in the 90s, except the connecting taxiway, which is shown as 89, all in good condition.

Canton Municipal reconstructed their airfield pavements in 2011. Asphalt pavement cracks have been routed and sealed in previous projects. This year will include routing and sealing of new cracks and resealing cracks which were previously sealed on the runway, apron and taxilane. Estimated quantities include nearly 13,000 LF of route and seal and another 2,000 LF of resealing and pavement markings. The latest available PCIs for Canton pavements are all in the 90s, good condition.

Custer County in Custer last reconstructed their runway, the connecting taxiway, east taxilane and portion of the apron are shown in 1997. The apron was expanded with concrete in 2005, the remaining taxilane and apron was reconstructed in 2017. PCIs range from fair (68 for the runway) to good for the 2017 pavement. Previous pavement maintenance projects have routed and sealed cracks. The connecting taxiway and east taxilane show signs of some rehabilitation, because their PCIs are shown in the 90s, generally not expected for 20+ year old asphalt pavement. This year will include routing and sealing of new cracks and resealing cracks which were previously sealed on all airport pavements. Estimated quantities include 16,000 LF of route and seal, 3,000LF of sealing with overband and 1,000LF of crack leveling. The county should be planning for a major rehabilitation project for the runway within the coming years.

Highmore Municipal was had a turf runway, which was relocated and paved in 2005, the connecting taxiway, apron and taxilanes were constructed at the same time. In 2011, the partial parallel taxiway was constructed and the hangar taxilane widened and extended. The parallel taxiway was completed in 2017. Since original construction, the pavements have had numerous maintenance projects. This year will include routing and sealing of new cracks and resealing cracks which were previously sealed on all airport pavements. Estimated quantities for this years' project include 34,000 LF of route and seal and 3,000 LF of crack leveling. The latest PCIs available are between 45 for the apron, 73 for the connecting taxiway and runway, over 86 for the parallel taxiway.

Hoven Municipal has completed major pavement projects in 2012, hangar taxilane; 2016, the runway and portion of the taxiway; 2018 for the remaining taxiway and apron. All the pavements are new, the earlier pavements have undergone maintenance in the past. All PCIs are in the good category, above 86. This year will include routing and sealing of new cracks and resealing cracks which were previously sealed on all airport pavements. Estimated quantities include 10,000LF of route and seal, 3,000LF of reseal with overband.

Lemmon Municipal last completed reconstruction of the apron and taxilane in 2001. PCIs for these pavements are categorized as Fair (PCIs of 59 and 63). This year will include routing and sealing cracks and resealing cracks which were previously sealed on the apron and taxilane. Estimated quantities include 3,000LF of route and seal, 7,000LF of crack seal with overband and 850LF of crack leveling.

McLaughlin Municipal last completed reconstruction of all airfield pavements in 2012. The airport has undergone pavement maintenance in the past, including routing and sealing cracks and a microsurfacing in 2019. PCIs for the apron and runway satisfactory, 76 and 78, taxiway and taxilane are good, 90 and 92. The project will include route and sealing cracks and seal with overband on all airport pavements. Estimated quantities include 2,000 LF of route and seal and 2,000 LF of crack sealing with overband.

Onida Municipal last completed reconstruction of the taxilanes and apron in 2007, the hangar taxilane was extended in 2016. The PCIs of these pavements range from 77 to 98, the project will include routing and sealing cracks, resealing with overband for previously sealed cracks on all pavements except the runway. Estimated quantities include 6,000LF of route and seal and 3200LF of crack leveling.

Pine Ridge Oglala Sioux Airport all the pavements were constructed in 2013, the exception being the apron which was completed in 2017. Cracks were routed and sealed in 2020. PCIs range from 83 on the runway to 100 for the newest section of apron. The project this year will be to apply an emulsified asphalt seal coat and remark all airport pavements. Estimated quantities include 54,500 SY of sealcoat.

Harold Davidson Field, Vermillion. Current PCI maps do not indicate pavement histories. The project this year will include routing and sealing of cracks on a portion of the parallel taxiway and apron. Estimated quantities include 16,000LF of route and seal and remarking taxiway and apron pavements.

Project Schedule

Task Description	2020		2021									
	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct
Notice to Proceed	★											
CatEx Submittals (December 5, 2020)		◆										
Site Visits- Brookings , Canton, Vermillion, Platte (December 1-3, 2020)		◆										
Site Visits- Winner, Rosebud , Pine Ridge, Custer County (December 8-12, 2020)		◆										
Site Visits-Onida, Hoven, McLaughlin, Lemmon, Buffalo (December 14-19, 2020)			◆									
Preliminary Engineering		■										
Preliminary Design			■									
Sponsor/SDDOT/FAA Review			■									
Final Design/PS&E				■								
Sponsor/SDDOT/FAA Review					■							
Prepare Bidding Docs					■							
Bid Advertisements						◆						
Open Bids							◆					
Prepare Award Memo							◆					
Submit Grant Application							■					
Contract Documents ▪ Signed, Bonds, Insurance Certificates								■				
Grant Issued									◆			
Notice to Proceed - Construction										◆		
Construction											■	
Construction Complete												◆

Grant closure, warranty items to be completed by FY2025

Part IV - Program Narrative

(Suggested Format)

PROJECT: South Dakota Pavement Condition Index Survey

AIRPORT: Statewide South Dakota

1. Objective:

The State will hire a consultant to conduct the Statewide Airport Pavement Condition Index Inspectins of all publicly-owned, paved airports in South Dakota and update the pavement maintenance software.

2. Benefits Anticipated:

The PCI Survey will provide current pavement condition status to inform the pavement maintance program.

3. Approach: *(See approved Scope of Work in Final Application)*

A consultant is selected to perform the PCI, All NPIAS airports will be surveyed, however those surfaces that had been constructed in the last construction season, and those that have construction planned this construction season will not be surveyed.

4. Geographic Location:

State of South Dakota

5. If Applicable, Provide Additional Information:

6. Sponsor's Representative: *(include address & telephone number)*

Jack Dokken 605-773-3574
700 E Broadway Ave.
Pierre, SD 57501

Project Narrative (Justification)

Complete the South Dakota Statewide Airport Pavement Condition Inspections, Update Feature Maps, and Update Individual Airport PCI Maps

The State will hire a consultant to conduct Statewide Airport Pavement Condition Index inspections of all publicly-owned, paved airports in South Dakota and update the pavement maintenance software.

Airports to be included are: Aberdeen, Belle Fourche, Bison, Britton, Brookings, Buffalo, Canton, Chamberlain, Clark County, Custer County, De Smet, Eagle Butte, Edgemont, Eureka, Faith, Faulkton, Flandreau, Gettysburg, Gregory, Highmore, Hot Springs, Hoven, Huron, Lemmon, Madison, Martin, McLaughlin, Milbank, Miller, Mitchell, Mobridge, Murdo, Onida, Parkston, Philip, Pierre, Pine Ridge, Platte, Rapid City, Redfield, Rosebud Sioux Tribal, Sioux Falls, Sisseton, Spearfish, Springfield, Sturgis, Tea Lincoln County, Vermillion, Wagner, Wall, Watertown, Webster, Wessington Springs, Winner, and Yankton.

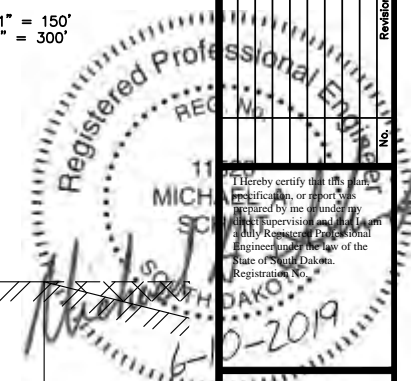
Newly constructed pavements in 2019 and 2020 will not be evaluated in the inventory as their PCI is assumed to be 100. These newly constructed pavements are: Brookings Hangar taxilane, Canton South Taxilane, Clark Runway 13/31 and Taxiway, Faulkton Lounge Apron, Gettysburg Hangar Taxilanes, Lemmon Runway 12/30 and Taxiway , Philip South Apron, Pierre Taxiways near Terminal, Sioux Falls Deicing Apron, Sisseton Runway 16/34, Vermillion, Hangar Taxilanes, Watertown Terminal Apron, Wessington Springs Runway 12/30, Winner lower Apron Expansion, and Yankton Runway 1/19 and south Apron. All others will be evaluated.

The last PCI inspections were completed in 2018 and the SDDOT has established a three-year rotation on updating the PCI maps throughout South Dakota.

DESCRIPTION OF WORK:

This project shall consist of the Reconstruction of Runway 16/34 (60' x 3400'), Runway Turnarounds (±1,160' x 35'), and Connector Taxiway (±125' x 35'). This work shall consist of Full Depth Reclamation, Excavation, Subbase Course, Aggregate Base Course, Hot Mix Asphalt Pavement, Underdrain Piping, Storm Sewer Inlets and Piping, Marking, Topsoiling, Seeding, Medium Intensity Runway and Taxiway Lighting, Precision Approach Path Indicators, Electrical Duct and Conductors, Junction Boxes, and other items of related construction.

N
E
W
S
24" X 36" = 1" = 150'
11" X 17" = 1" = 300'

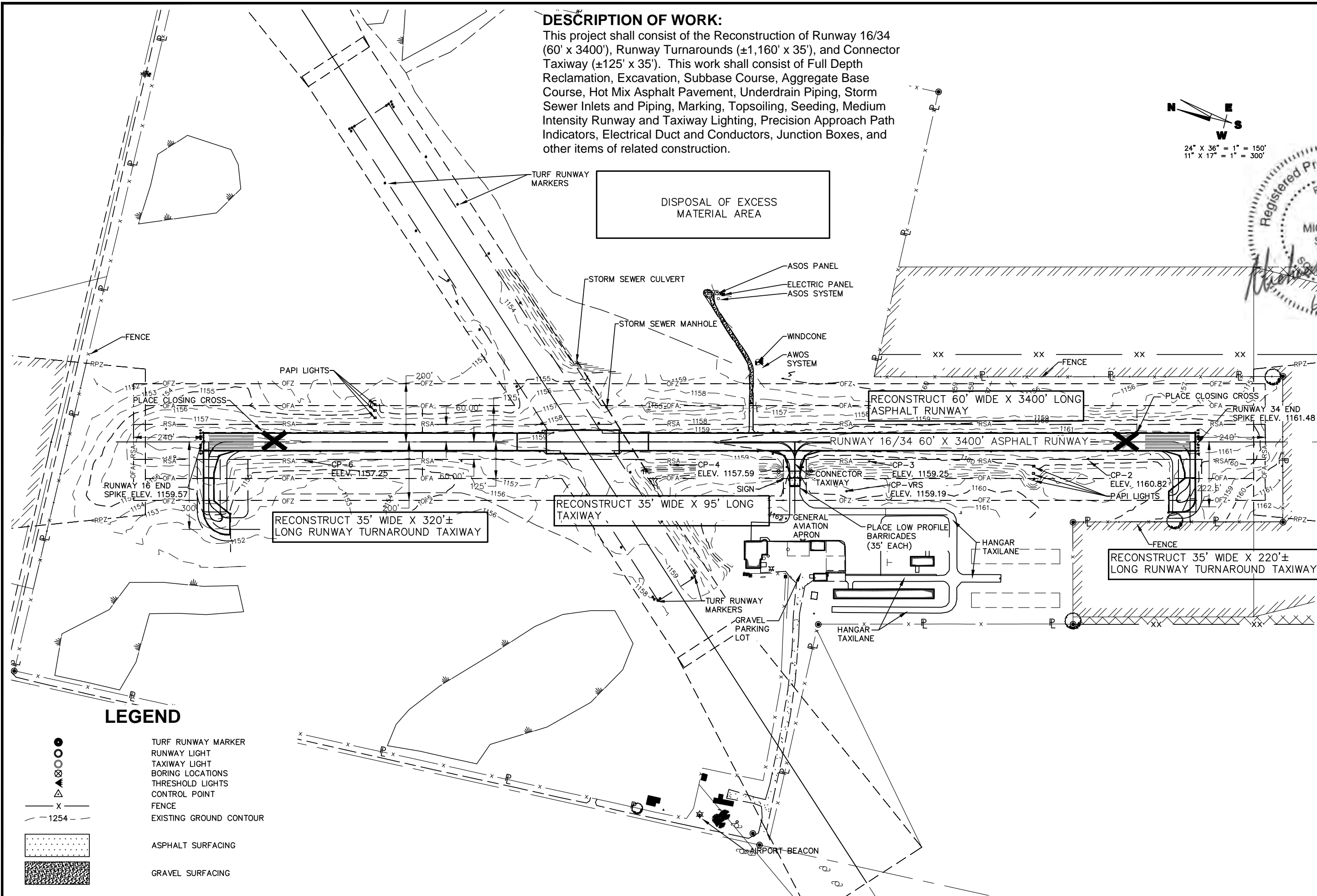


221 Brown County
Highway 19
P.O. Box 111,
Aberdeen, S.D. 57401
Phone: 605.225.1212,
Fax: 605.225.3189
Email: terryl@helmsengineering.com

Helms & Associates
CIVIL ENGINEERS & LAND SURVEYORS

Drawn By: MAS
Chk. By: CLB
Proj. No: A-6625
Dwg. No: 6026/PRT
VP. No: PLS
Date: 2/5/18

PROJECT LAYOUT
RUNWAY 16/34 RECONSTRUCTION
SISSETON MUNICIPAL AIRPORT
SISSETON, SOUTH DAKOTA



DISPOSAL OF EXCESS MATERIAL AREA

RECONSTRUCT 60' WIDE X 3400' LONG ASPHALT RUNWAY

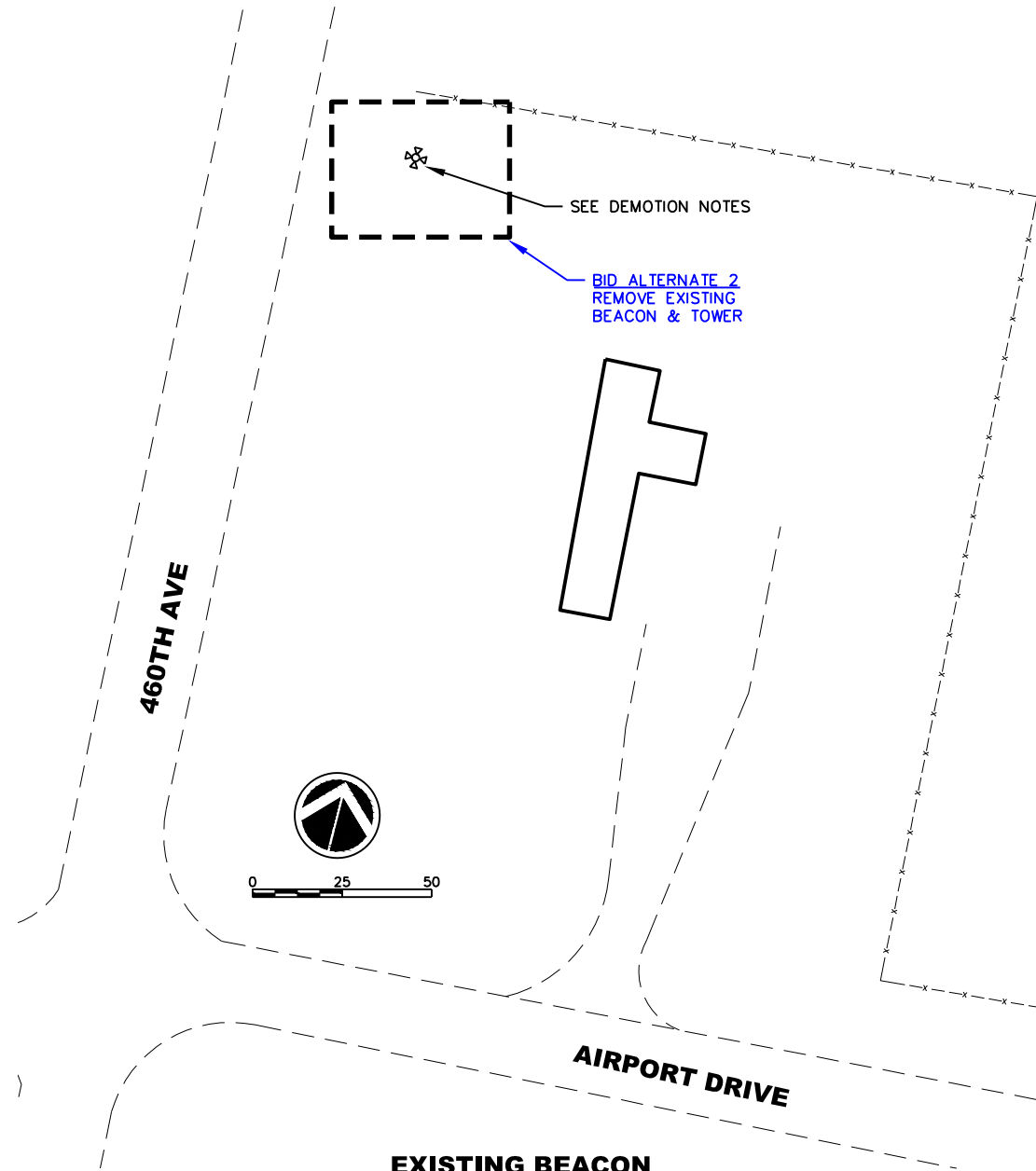
RECONSTRUCT 35' WIDE X 320'± LONG RUNWAY TURNAROUND TAXIWAY

RECONSTRUCT 35' WIDE X 95' LONG TAXIWAY

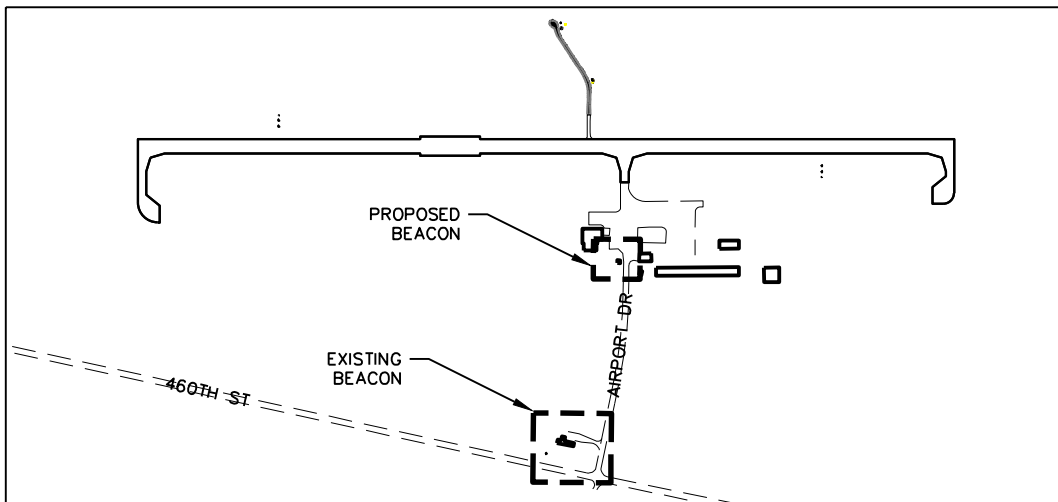
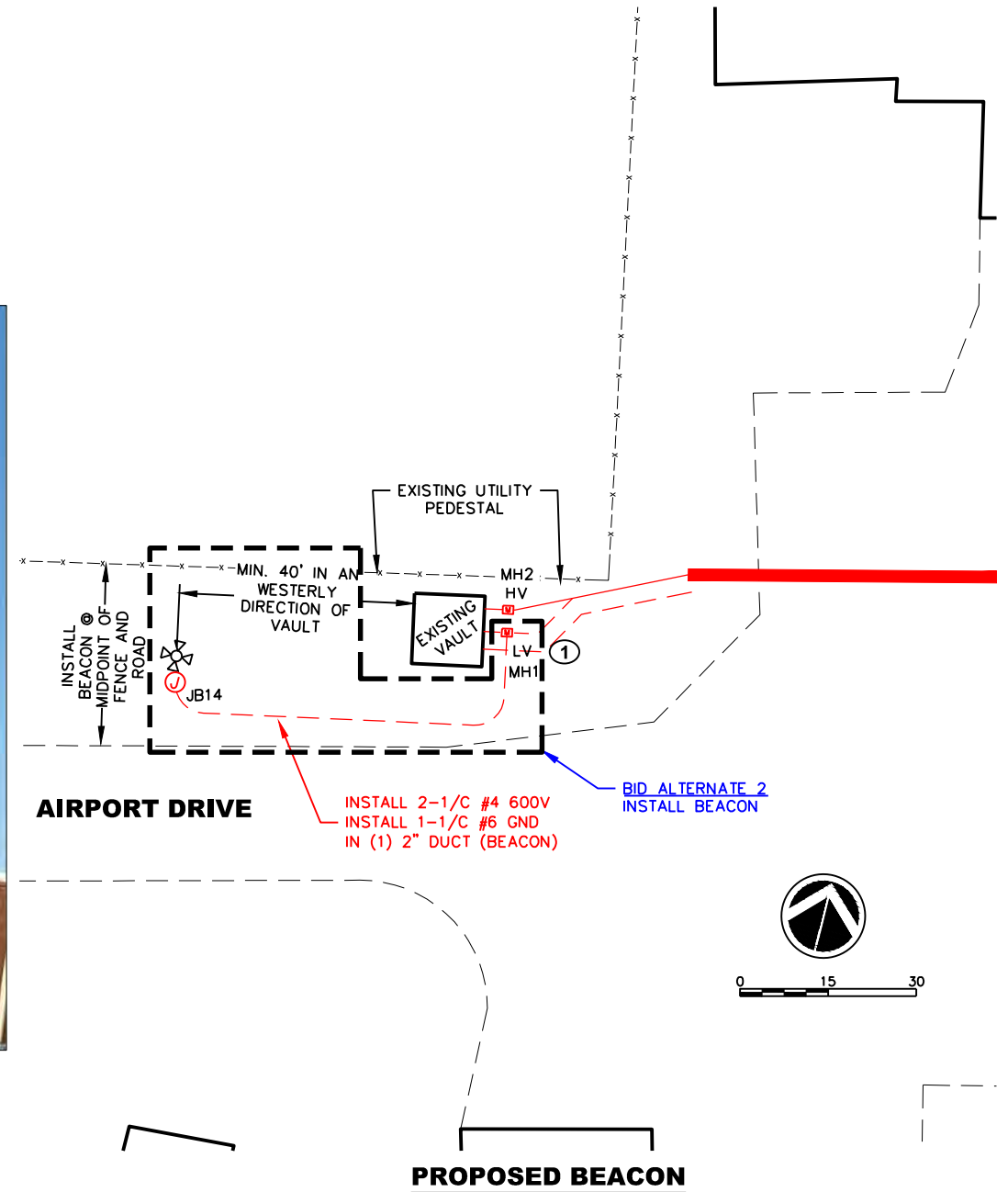
RECONSTRUCT 35' WIDE X 220'± LONG RUNWAY TURNAROUND TAXIWAY

LEGEND

- TURF RUNWAY MARKER
- RUNWAY LIGHT
- TAXIWAY LIGHT
- BORING LOCATIONS
- THRESHOLD LIGHTS
- CONTROL POINT
- FENCE
- EXISTING GROUND CONTOUR
- ASPHALT SURFACING
- GRAVEL SURFACING



EXISTING BEACON



VICINITY MAP

LEGEND

- RP - RADIUS POINT
- TP - TAPER POINT
- TI - TAPER INTERSECTION
- MP - MID POINT
- AL - ALIGNED ACROSS
- CL - CENTERLINE
- 50 - 50' SPACING
- LV - LOW VOLTAGE
- HV - HIGH VOLTAGE
- T# - TAXIWAY SIGN DESIGNATION

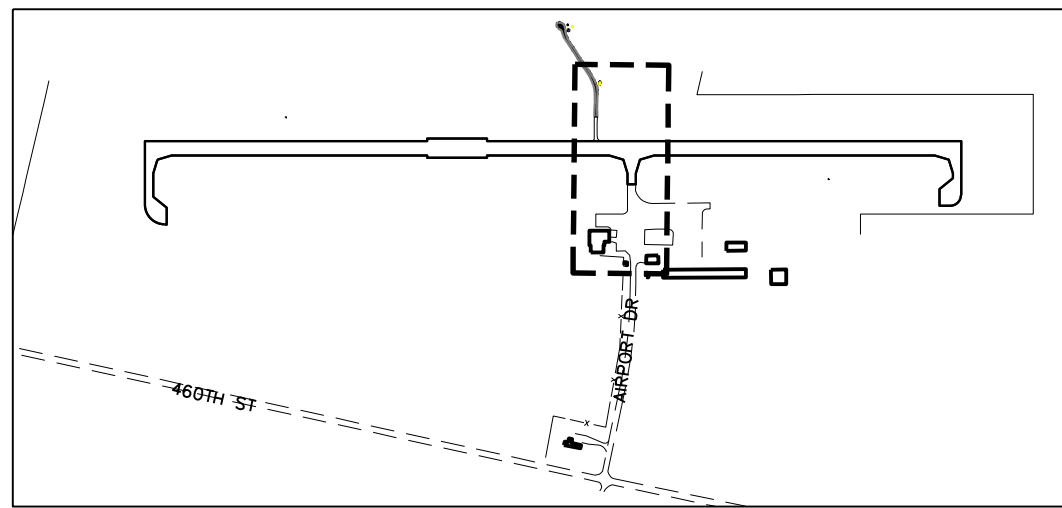
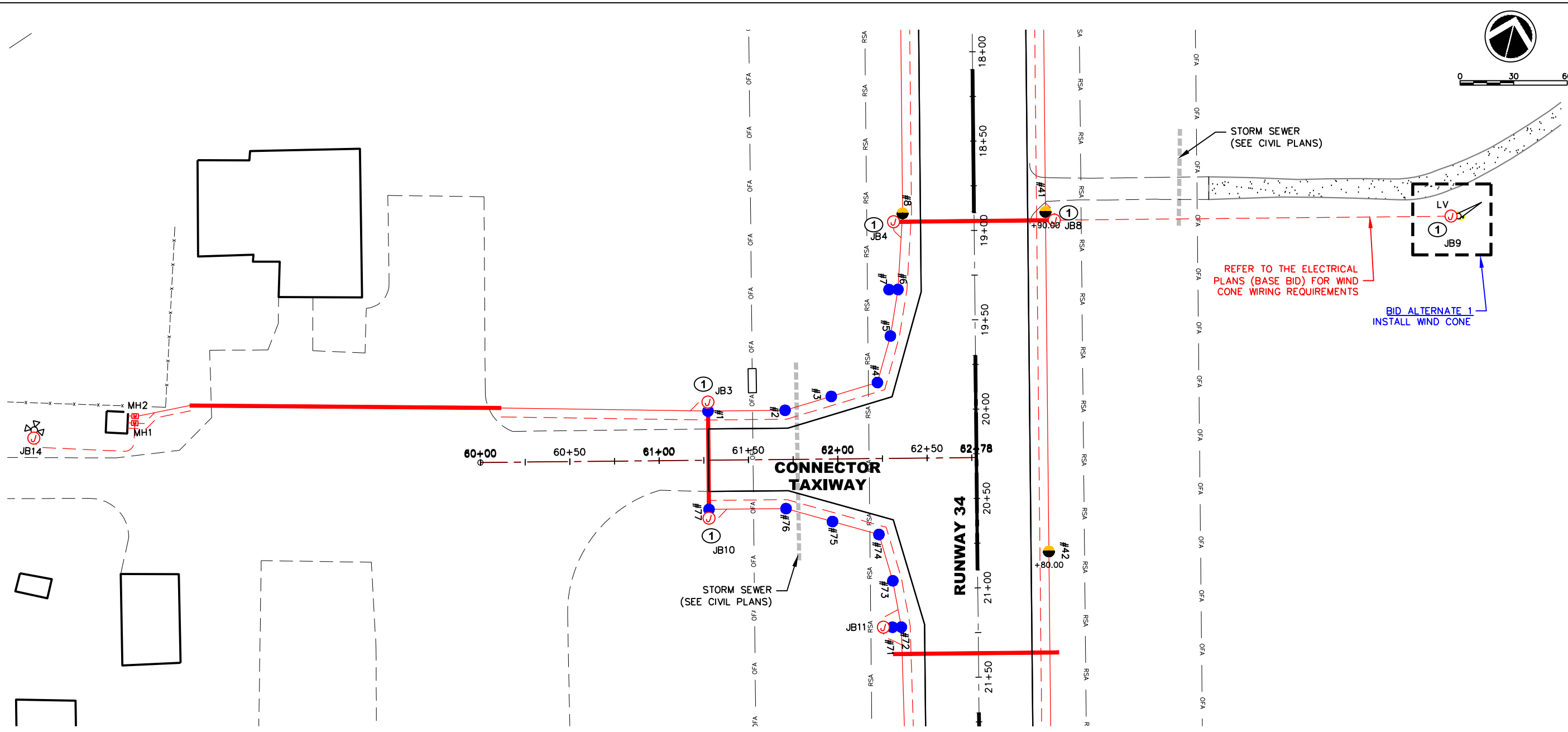
NOTES:

- ① LOW VOLTAGE CONDUITS SHALL NOT BE INSTALLED IN HIGH VOLTAGE MANHOLES, CANS, JUNCTION BOXES, ETC.

LEGEND

- RUNWAY EDGE LIGHT (YELLOW/WHITE)
- RUNWAY EDGE LIGHT (YELLOW/YELLOW)
- RUNWAY THRESHOLD LIGHT (RED/GREEN)
- ★ RETRO-REFLECTIVE EDGE MARKERS
- TAXIWAY EDGE LIGHT (BLUE)
- GUIDANCE SIGN
- Ⓧ ELECTRICAL JUNCTION CAN
- ② CABLE MARKER
- Ⓧ EXISTING RWY EDGE MARKERS





VICINITY MAP

LEGEND

- RP - RADIUS POINT
- TP - TAPER POINT
- TI - TAPER INTERSECTION
- MP - MID POINT
- AL - ALIGNED ACROSS
- CL - CENTERLINE
- 50 - 50' SPACING
- LV - LOW VOLTAGE
- HV - HIGH VOLTAGE
- T# - TAXIWAY SIGN DESIGNATION

NOTES:

- ① LOW VOLTAGE CONDUITS SHALL NOT BE INSTALLED IN HIGH VOLTAGE MANHOLES, CANS, JUNCTION BOXES, ETC.

LEGEND

- RUNWAY EDGE LIGHT (YELLOW/WHITE)
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- TAXIWAY EDGE LIGHT (BLUE)
- GUIDANCE SIGN
- ⊕ ELECTRICAL JUNCTION CAN
- ② CABLE MARKER
- ⊙ EXISTING RWY EDGE MARKERS

STORM SEWER (SEE CIVIL PLANS)

REFER TO THE ELECTRICAL PLANS (BASE BID) FOR WIND CONE WIRING REQUIREMENTS

BID ALTERNATE 1 INSTALL WIND CONE



Project Narrative (Justification)

Reimbursement for Windcone and Beacon

By including the electrical replacement in with the reconstruction project, the City had great potential for cost savings and only impacted the runway once. The runway would have had to be shut down for the windcone installation in the future.

The runway reconstruction project was a discretionary grant and the windcone and beacon were ineligible for those dollars. This grant will reimburse costs of the installation as part the previous project.

Description of Work
 This project shall include the construction of approximately 25' wide by 500' hangar taxi lane expansion. This work includes full depth, grading, disposal of excess material, geotextile separator fabric, subbase course, aggregate base course, asphalt paving, perforated underdrain piping, pavement marking, topsoiling, seeding and other items of related construction.

PROJECT LEGEND

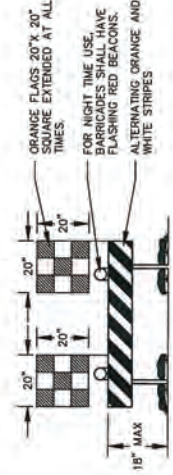
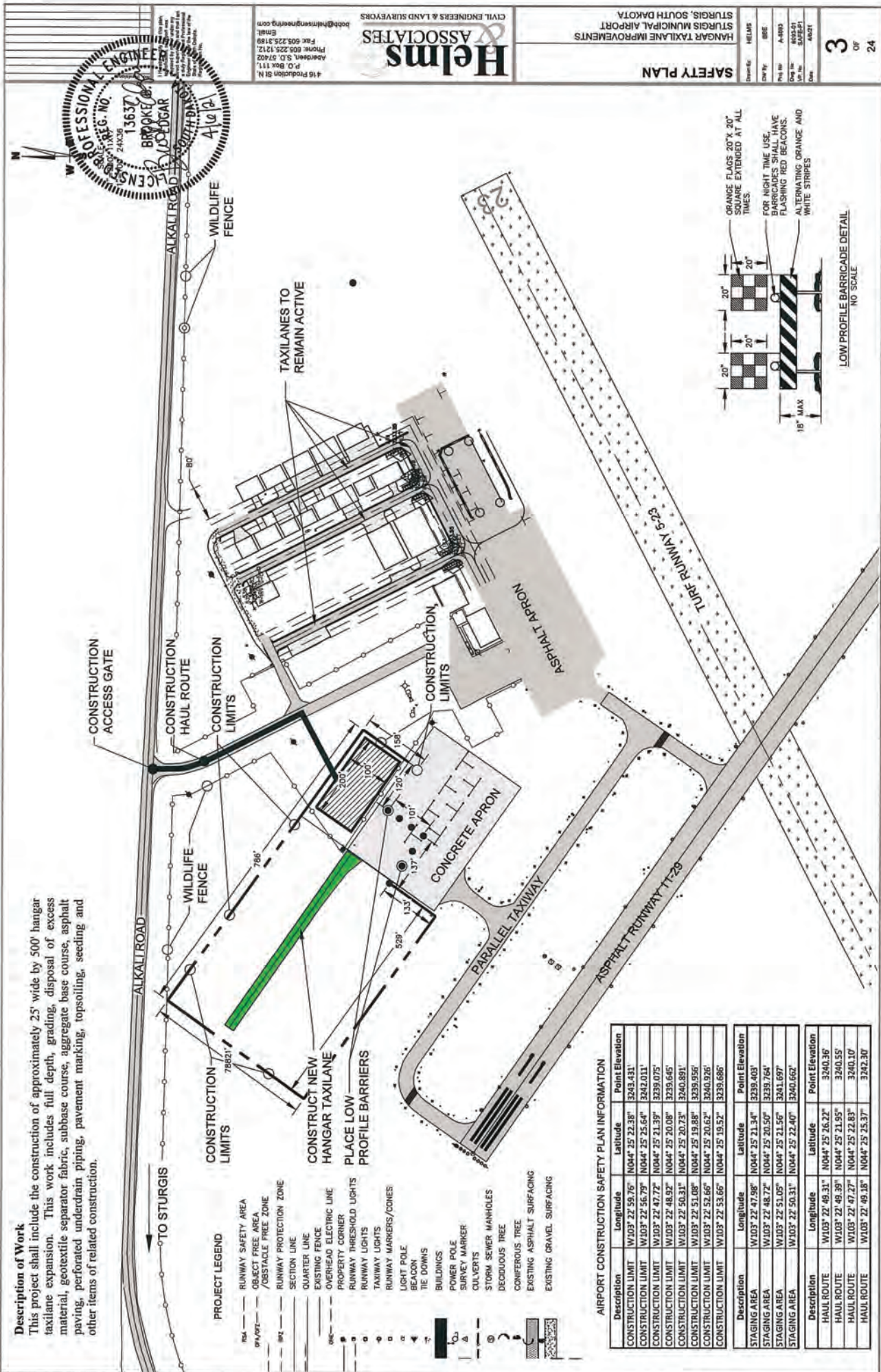
- RUNWAY SAFETY AREA
- OBJECT FREE AREA / OBSTACLE FREE ZONE
- RUNWAY PROTECTION ZONE
- SECTION LINE
- QUARTER LINE
- EXISTING FENCE
- OVERHEAD ELECTRIC LINE
- PROPERTY CORNER
- RUNWAY THRESHOLD LIGHTS
- TAXIWAY LIGHTS
- RUNWAY MARKERS/CONES
- LIGHT POLE
- BEACON
- TE DOWN'S
- BUILDINGS
- POWER POLE
- SURVEY MARKER
- CULVERTS
- STORM SEWER MANHOLES
- DECIDUOUS TREE
- CONFERENTIAL TREE
- EXISTING ASPHALT SURFACING
- EXISTING GRAVEL SURFACING

AIRPORT CONSTRUCTION SAFETY PLAN INFORMATION

Description	Longitude	Latitude	Point Elevation
CONSTRUCTION LIMIT	W103° 22' 59.76"	N044° 25' 22.38"	3243.431'
CONSTRUCTION LIMIT	W103° 22' 56.79"	N044° 25' 25.64"	3242.011'
CONSTRUCTION LIMIT	W103° 22' 47.72"	N044° 25' 21.39"	3239.075'
CONSTRUCTION LIMIT	W103° 22' 48.92"	N044° 25' 20.08"	3235.645'
CONSTRUCTION LIMIT	W103° 22' 51.08"	N044° 25' 19.88"	3239.956'
CONSTRUCTION LIMIT	W103° 22' 52.66"	N044° 25' 20.62"	3240.926'
CONSTRUCTION LIMIT	W103° 22' 53.66"	N044° 25' 19.52"	3239.686'

Description	Longitude	Latitude	Point Elevation
STAGING AREA	W103° 22' 47.98"	N044° 25' 21.34"	3239.403'
STAGING AREA	W103° 22' 48.72"	N044° 25' 20.50"	3239.764'
STAGING AREA	W103° 22' 51.05"	N044° 25' 21.56"	3241.697'
STAGING AREA	W103° 22' 50.31"	N044° 25' 22.40"	3240.662'

Description	Longitude	Latitude	Point Elevation
HAUL ROUTE	W103° 22' 49.31"	N044° 25' 26.22"	3240.36'
HAUL ROUTE	W103° 22' 49.39"	N044° 25' 21.55"	3240.55'
HAUL ROUTE	W103° 22' 47.27"	N044° 25' 22.83"	3240.10'
HAUL ROUTE	W103° 22' 49.18"	N044° 25' 25.37"	3242.30'



PROFESSIONAL ENGINEER
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 ALKALI ROAD SOUTH DAKOTA
 BROOKE JOHNSON
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 416 PRODUCTION ST. N.
 ABERDEEN, S.D. 57402
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 FAX: 605.225.1189
 Email: bob@hnlmsengineering.com

SAFETY PLAN
 HANGAR TAXI LANE IMPROVEMENTS
 STURGIS MUNICIPAL AIRPORT
 STURGIS, SOUTH DAKOTA
 SHEET NO. A-1003
 DATE: 10/05/21
 DRAWN BY: HELMS
 3 OF 24

Project Narrative (Justification)

Sturgis Municipal Airport (49B) **Sturgis, SD**

Design and Construction of Hangar Taxilane Expansion

The project shall include construction of 500 feet of hangar taxilane with gravel surfacing and asphalt prime coat. This work includes grading, disposal of excess material, subbase course, aggregate base course, asphalt prime coat, topsoiling, seeding and other items of related construction. The site will be accessed from Alkali Road onto the asphalt access road to the gate within the wildlife fence. The staging area will be located just inside the gated entrance. The haul route will extend from the staging area to the south end of the hangar taxilanes and continue on the gravel access road north to the hangar taxilane expansion as shown in project sketch.

GA pilots within the Rapid City area are moving to non-commercial airports. Sturgis recently constructed a 6-Unit T-Hangar with all stalls filled prior to construction completion. The airport has had at least 7 more calls from pilots looking for space to construct a hangar. These pilots plan to start construction immediately in 2021 if space is made available. Construction of 500 feet of taxilane to the west of the concrete apron would make room for 11 - 80' box hangars. The hangar taxilane expansion will be constructed to B-II standards at 35 feet wide. Due to the vast amount of transferred entitlement received on the last project and the State unable to provide apportionment funds, the hangar taxilane will be paved in 2023.

REVIEW APPRAISAL SCOPE OF WORK

Project: Tea Airport Expansion

COUNTY: Lincoln

Client: Lincoln County Commissioners

Intended Users: Lincoln County Commissioners & FAA

Confidentiality: All appraisals are subject to the review and recommendation by a review appraiser prior to the commencement of negotiations. The appraiser and review appraiser are authorized to discuss confidential information or assignment results. In addition, the review appraiser is authorized to discuss the appraisal and review appraisal with the client.

Intended Use: For the acquisition of real estate and/or property rights due to the above airport expansion project.

Purpose of the review appraisal: The purpose of the review is to ensure that the appraisal was prepared in accordance with the intended use, the applicable laws of the State of South Dakota, meets the standards of the 49 CFR 24.103, and the US Department of Transportation, Federal Aviation Administration, AC No: 150/5100-17 - Land Acquisition and Relocation Assistance for Airport Improvement Program Assisted Projects.

The South Dakota Department of Transportation ROW Manual will be used for appraisal guidance.

Review Appraisal Standards: The review appraisal will be performed and the review report prepared in accordance with the intended use, the applicable laws of the State of South Dakota, 49 CFR 24.104, and the US Department of Transportation, Federal Aviation Administration, AC No: 150/5100-17 - Land Acquisition and Relocation Assistance for Airport Improvement Program Assisted Projects.

The South Dakota Department of Transportation ROW Manual will be used for review appraisal guidance.

Scope of Work: Appraisal reviews for highway or airport purposes are technical meaning the review goes beyond an administrative checklist, instead requiring the review appraiser to develop and report an opinion as to the quality of the appraiser's work. The reviewer appraiser's opinion of quality encompasses the completeness, adequacy, relevance, appropriateness, and reasonableness of the work under review, developed in the context of the requirements applicable to the work. It is the review appraiser's job to determine if the work in question provides an adequate supporting basis for the city's offer of just compensation. The review appraiser should inspect the project, subject property(s), and any property(s) used for market comparisons. (SD ROW Manual)

The review appraiser will examine the appraisal report to determine:

1. Conforms to the following regulatory definition of appraisal [per 49 CFR 24.2(a)]: note that the term appraisal means a written statement, independently and impartially prepared by a qualified appraiser, setting forth an opinion of defined value of an adequately described property, as of a specific date, supported by the presentation and analysis of relevant market information.
2. Meet applicable FAA and 49 CFR 24 appraisal requirements
3. Provide adequate documentation and support of the appraiser's opinion of value.
4. Prior to acceptance, the review appraiser must seek necessary corrections or revisions.
5. Inspect the subject property as well as the comparable sales.
5. The review appraiser must report the appraised value, if accepted, as the recommended amount of just compensation to be offered to the property owner.

The review appraiser must identify the appraisal report reviewed as one of the following classifications:

- a. Recommended, as the basis for the establishment of the amount is believed to be just compensation
- b. Accepted and meets all requirements, but not selected as approved
- c. Not Accepted, as the appraisal failed to meet requirements for acceptance and the opinion of value is not considered correct or supported.

Such actions do not constitute an opinion of value on the part of the review appraiser, nor do they infer that the reviewing appraiser has taken ownership of, or is responsible for, the value opinion expressed in the appraisal report under review.

Client Responsibilities: The client will furnish the review appraiser with the necessary exhibits and project appraisal. Exhibits may include drawings, plats, construction plans, right of way plans, cross sections, easement agreements, or title certificates. The review appraiser shall notify the client immediately if there are any discrepancies between the exhibits. The client shall promptly relay any revisions or changes to these exhibits.

49 CFR 24.102(n)(2) - Conflict of Interest: No person shall attempt to unduly influence or coerce an appraiser, review appraiser, or waiver valuation preparer regarding any valuation or other aspect of an appraisal, review or waiver valuation. Persons functioning as negotiators may not supervise or formally evaluate the performance of any appraiser or review appraiser performing appraisal or appraisal review work, except that, for a program or project receiving Federal financial assistance, the Federal funding Agency may waive this requirement if it determines it would create a hardship for the Agency.

This includes instructions regarding the appraisal problem, highest and best use analysis (including determining the larger parcel) and market data to be utilized.

Submission of the Reports: Upon completion of the review, both the review and appraisal reports will be submitted to the Lincoln County Commissioners

Payment: Fees for review appraisal services are \$125 per hour plus the Federal rate for lodging, meals, and mileage with a maximum cost as follows:

Actual hours & expenses not to exceed the following

	<u>Hours</u>	<u>\$125 Per Hour</u>
<u>Hours</u>		
Pierre to Tea	4	\$500
Tea to Pierre	4	\$500
Inspection of subject & sales	3	\$375
Read & Analyze Appraisal	3	\$375
Verify data within appraisal	3	\$375
Consult with appraiser	1	\$125
Review revised appraisal	1	\$125
Prepare review report	1	<u>\$125</u>
Total Hours		\$2,500

<u>Expenses</u>		
Per diem	(2 days @ \$41.25 per day)	82.5
Mileage	(500 miles @ .56)	280
No lodging necessary		<u>0</u>
Total Expenses		362.5

Maximum cost for review \$2,863

Vouchers for payment of review services should be submitted to Lincoln County Commissions

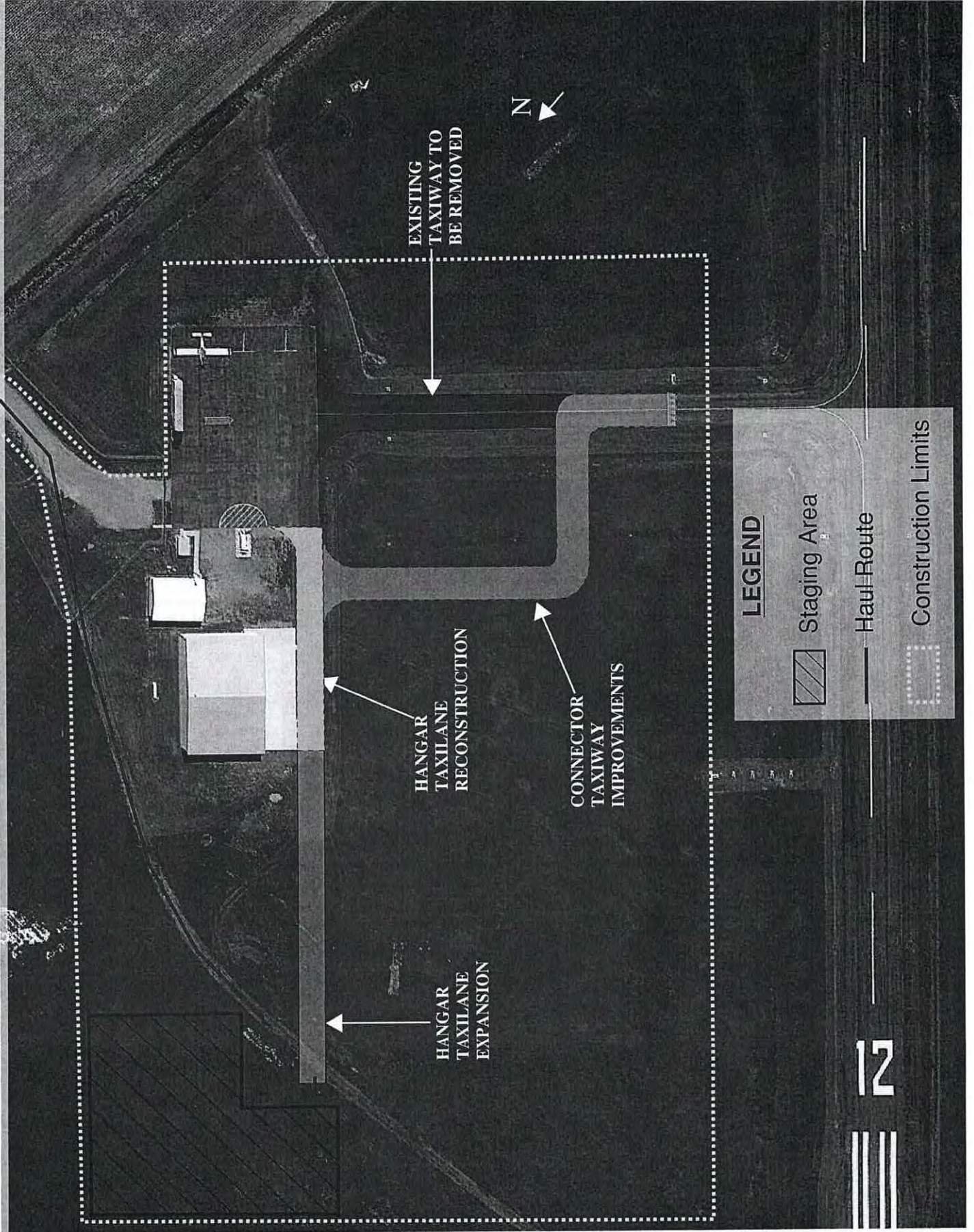
Deadline:

2021 SD-588 CG

Nelson Valuation Services, LLC

Audrey L. Nelson, Member/Owner

WESSINGTON SPRINGS MUNICIPAL AIRPORT 2021 PROJECT SKETCH



LEGEND

- Staging Area
- Haul Route
- Construction Limits

Project Narrative (Justification)

Design of Connector Taxiway (Eliminate Direct Access), Hangar Taxilane Reconstruction, and Hangar Taxilane Expansion

Level III Cultural Resource Survey

Design of Connector Taxiway (Eliminate Direct Access), Hangar Taxilane Reconstruction, and Hangar Taxilane Expansion

The connector taxiway and hangar taxilane pavements have exceeded or are near the end of their useful lives and are in need of reconstruction. The latest results from the Pavement Condition Index (PCI) surveys indicated a 59 for the connector taxiway and a 39 for the hangar taxilane. In 2020 a portion of the connector taxiway was reconstructed with the runway reconstruction, up to the hold line. The remainder of the connector taxiway will be designed to eliminate direct access to the runway from the apron. Implementing an additional curve in the taxiway will slow aircraft and increase safety for pilots currently using the airport as well as transient users.

The existing hangar taxilane will be reconstructed to B- II clearances. Wessington Springs has frequent Ag spray operators that are moving to the larger 602s and 802s, which require B-II clearances. The hangar taxilane expansion is necessary to provide access for aircraft owners planning to construct a hangar at 4X4. The table below shows the gradual degradation of the taxiway and taxilane since 2009.

WESSINGTON SPRINGS (4X4)										
Branch ID	Pavement		2009		2012		2015		2018	
	Age	Material	PCI	Condition	PCI	Condition	PCI	Condition	PCI	Condition
Connector Taxiway	2003	Asphalt	79	Satisfactory	79	Satisfactory	65	Fair	59	Fair
Hangar Taxilane	2003	Asphalt	71	Satisfactory	61	Fair	46	Poor	39	Very Poor

It is proposed that the connector taxiway and the hangar taxilane reconstruction and expansions will be reconstructed to an adequate depth (up to 65% of frost depth) and include underdrain along both edges of the pavement to reduce the susceptibility to frost heaves and extend the life of the pavement.

Level III Cultural Resource Survey

The cultural resource survey will be used in environmental clearance for future expansion at the airport.