

**FINAL
MICHIGAN AIRPORT DEVELOPMENT
AID PROGRAM**

FEDERAL/STATE/LOCAL
FOR

**Paul C. Miller-Sparta Airport
Sparta, Michigan**

October 12, 2016
For the years
2017 – 2022

Submitted by:

Village Manager – Village of Sparta

Prepared by:

RS&H

RS&H, Inc.

827 Willow Run Airport, 2nd Floor
Ypsilanti, MI 48198

PAUL C MILLER-SPARTA AIRPORT 8D4 MAP (10/12/16)

2017 - Construct Taxilane Connector and Extension - \$360,000

The Airport desires to continue development north of Taxiway A. The first element to be constructed is a connector provides a connection from the eastern-most developable land to the east end of Taxiway A. This project is shown on the future ALP.

1. The taxilane connector would be 25' in width and approximately 200' in length.
2. The taxilane connector will primarily serve aircraft accessing existing or future hangars north of Taxiway A, along the eastern portion of Taxiway A. This connector would also accommodate access to future tie-down positions.
3. The taxilane connector would serve existing hangars that are north of Taxiway A. Additionally, the airport would like to construct another row of T-Hangars in the future, which this connector would provide access to. In the short term, the connector taxilane would provide access to a hangar development that is planned for construction for Fall 2016.

2017 – Runway 7 approach land easement acquisition - \$75,000

The Airport would like to obtain easements in order to clear obstructions to Runway 7 approach.

2018 - Construct Taxilane and T-Hangar – Phase 1 - \$460,000

The Airport-owned T-hangars are currently at 100% capacity and the Airport has a waiting list for hangar space. The Airport would like to construct a new row of T-hangars to keep up with the demand. The T-Hangars would be placed directly to the north of the 2017 taxilane extension construction. This project would be funding through entitlements. A Revenue-Generating Facility Eligibility Evaluation Form will be submitted as further justification of this project.

2018 - Airfield Crack Sealing and Pavement Markings - \$20,000

The Airport anticipates a crack sealing and pavement marking project be needed to preserve to pavement surface and restore visible markings. Implementing a crack sealing and pavement marking project through the MDOT's statewide program will prevent further damage to the pavements and prolong their usable life.

2020 - Apron Expansion - \$270,000

Project provides for additional apron development east of the terminal in the vicinity of existing parking positions. The additional apron area would provide additional paved tie-down parking for smaller aircraft.

2021 - Terminal Area Study - \$25,000

The airport's terminal building will be close to thirty (30) years old by this time. This terminal building was a modular style when constructed. This building requires a great deal of

maintenance to try and keep its appearance and the mechanicals are also problematic and very inefficient. The terminal building is used by transient pilots, local EAA Chapter and the Civil Air Patrol on a regular basis. A quality built and energy efficient building would enhance the image of the airport and provide the needed space with the anticipated growth.

The Terminal Area Study will evaluate alternatives and provide recommendations for the facility.

2021 - Install AWOS Equipment - \$147,000

The Airport desires to install a new AWOS system to replace the existing inoperable system. Due to delay in the manufacturer providing this equipment and continuing a program of providing AWOS, this project has been pushed to 2018.

2022 - Construct Taxiway and T-Hangar – Phase 2 - \$460,000

The Airport-owned T-hangars are currently at 100% capacity and the Airport has a waiting list for hangar space. After the 2018 T-hangars are constructed, it is anticipated that the Airport-owned hangars will be at 100% capacity within a couple of years due to the high demand of hangars space at the Airport. The Airport would like to construct a new row of T-hangars to keep up with the demand. The T-Hangars would be placed directly to the north of the 2017 taxiway extension construction and adjacent to the 2018 T-hangar construction. This project would be funded through entitlements. A Revenue-Generating Facility Eligibility Evaluation Form will be submitted as further justification of this project.

MAGNETIC DECLINATION
4° 47.1' WEST
FEBRUARY, 2001
ANNUAL CHANGE 5.1' WEST



0' 100' 200'
SCALE: 1" = 200'

2022
**CONSTRUCT TAXILANE
AND T-HANGAR - PHASE 2**
2018
**CONSTRUCT TAXILANE
AND T-HANGAR - PHASE 1**

2021
**TERMINAL AREA
STUDY**

2019
**CRACK SEALING AND
PAVEMENT MARKING**

2017
**RUNWAY 7 APPROACH
EASEMENT ACQUISITION**

2017
**CONSTRUCT
TAXILANE CONNECTOR
AND EXTENSION**
2020
APRON EXPANSION

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PAUL C. MILLER
AIRPORT
SPARTA, MI

AIRPORT CAPITAL
IMPROVEMENT
PLAN

CONSULTANTS

REVISIONS

| NO. | DESCRIPTION | DATE |
|-----|-------------|------|
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DATE ISSUED: 10/12/16
REVIEWED BY: NJP
DRAWN BY: RE
DESIGNED BY: RE

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SHEET TITLE

2017-2022 CIP
EXHIBIT

SHEET NUMBER
EXHIBIT 1

MICHIGAN STATE BLOCK GRANT PROGRAM
TEN-YEAR AIRPORT CAPITAL IMPROVEMENT PROGRAM (CIP) FY-2017* to FY-2022

*ACIP includes current development year

| | |
|---|--|
| Airport Name: Paul C. Miller-Sparta Airport | Date prepared: 10/12/2016 |
| Associated City: Sparta, Michigan | Prepared By: RS&H |
| Sponsor: Village of Sparta | Sponsor email address & phone: airportmanager@spartami.org - 616-887-5744 |
| Airport Identifier: 8D4 | Julius Suchy, Village Manager |

| Development Year | Project Description | Shown on ALP? (Yes or No) | ACIP Code** | NPIAS Priority Rating** | Federal Entitlements | State Apportionment | Federal Discretionary | State | Local | Total | Remarks/Item Justification - Provide as much detail as possible. |
|------------------|---|---------------------------|-------------|-------------------------|----------------------|---------------------|-----------------------|-----------------|-----------------|--------------------|--|
| 2017 | Construct Taxilane | Yes | CA TW CO | 57 | \$324,000 | | | \$18,000 | \$18,000 | \$360,000 | See attachment |
| 2017 | Runway 7 Land/Easement Acquisition | Yes | ST LA SZ | 42 | \$67,500 | | | \$3,750 | \$3,750 | \$75,000 | See attachment |
| 2021 | Install AWOS Equipment | No | ST EQ WX | 44 | \$132,300 | | | \$7,350 | \$7,350 | \$147,000 | See attachment |
| 2018 | Construct Taxilane and T-Hangar | Yes | CA TW CO | 57 | \$414,000 | | | \$23,000 | \$23,000 | \$460,000 | See attachment |
| 2018 | Airfield Crack Sealing and Pavemnet Markings | Yes | RE RW IM | 70 | \$18,000 | | | \$1,000 | \$1,000 | \$20,000 | See attachment |
| 2020 | Expand Apron | Yes | CA AP EX | 44 | \$234,000 | | | \$13,000 | \$13,000 | \$260,000 | See attachment |
| 2021 | Construct Terminal Building (capacity) Terminal Study | Yes | CA TE CO | 45 | \$22,500 | | | \$1,250 | \$1,250 | \$25,000 | See attachment |
| 2022 | Construct Taxilane and T-Hangar | Yes | CA TW CO | 57 | \$414,000 | | | \$23,000 | \$23,000 | \$460,000 | See attachment |
| | | | | | \$1,626,300 | | | \$90,350 | \$90,350 | \$1,807,000 | |

**In accordance with FAA Order 5100.39A, Appendix 6 - Fields need to be completed

LOCATION: Paul C. Miller - Sparta Airport

RS&H

Date Prepared: 12-Oct-16

PROJECT DESCRIPTION:

2017 Construct Taxilane Connector and Extension

Prepared By: RE

Checked By: NJP

Preliminary Project Cost Estimate

File Name:

| ITEM NO. | WORK ITEM DESCRIPTION | UNIT | QUANTITY | UNIT PRICE | AMOUNT |
|--|---|------|----------|-------------|---------------------|
| <u>Taxilane Connector and Extension</u> | | | | | |
| GP-105-2 | Mobilization and General Conditions | LSUM | 1 | \$20,000.00 | \$20,000.00 |
| P-102-10.1 | Safety and Security | LSUM | 1 | \$2,000.00 | \$2,000.00 |
| G-103-5.1 | Engineer's Field Office | LSUM | 1 | \$3,000.00 | \$3,000.00 |
| P-152-4.1 | Unclassified Excavation | CYD | 2,250 | \$10.00 | \$22,500.00 |
| P-154-4.1 | Subbase | CYD | 1,280 | \$11.00 | \$14,080.00 |
| P-156-5.1 | Silt Fence | LFT | 1,500 | \$2.00 | \$3,000.00 |
| P-208-5.1 | Crushed Aggregate Base Course | CYD | 640 | \$35.00 | \$22,400.00 |
| P-403-8.1 | Bituminous Surface Course | TON | 450 | \$105.00 | \$47,250.00 |
| P-403-8.2 | Bituminous Base Course | TON | 450 | \$100.00 | \$45,000.00 |
| P-603 | Bituminous Tack Coat, Specified Emulsified Asphalt | GAL | 385 | \$2.00 | \$770.00 |
| P-620 | Airport Pavement Marking, Solid, Yellow | SF | 3,100 | \$1.50 | \$4,650.00 |
| D-701-5.1 | 24 inch RCP | LF | 150 | \$50.00 | \$7,500.00 |
| D-705-5.1 | Misc. 6" Underdrain w/ Geotextile Fabric Pipe Wrap with Porous Underdrain Backfill and Cleanouts As Specified | LFT | 2,000 | \$8.00 | \$16,000.00 |
| D-752-5.1 | 24 inch RCP End Sections | EA | 2 | \$500.00 | \$1,000.00 |
| T-901-5.1 | Seed | ACRE | 1.20 | \$1,500.00 | \$1,800.00 |
| T-905-5.1 | Topsoil, Onsite | CYD | 645 | \$3.50 | \$2,257.50 |
| T-908-5.1 | Mulch | ACRE | 1.20 | \$1,500.00 | \$1,800.00 |
| L-108-5.1 | No.8 Cable | LFT | 2,200.00 | \$1.25 | \$2,750.00 |
| L-108-5.2 | No. 6 Cable | LFT | 1,740.00 | \$1.50 | \$2,610.00 |
| L-110-5.1 | 2W-4" SCH 40 PVC Conduit | LFT | 80.00 | \$45.00 | \$3,600.00 |
| L-115-4.1 | Junction Box | EA | 2.00 | \$500.00 | \$1,000.00 |
| L-125-5.1 | Taxiway Edge Light | EA | 35.00 | \$600.00 | \$21,000.00 |
| L-125-5.2 | Guidance Signs | EA | 2.00 | \$8,000.00 | \$16,000.00 |
| Subtotal | | | | | \$270,000.00 |
| 10% Contingency | | | | | \$27,000.00 |
| Total Preliminary Construction Cost | | | | | \$297,000.00 |
| PROFESSIONAL SERVICES | | | | | |
| | Design Services | LSUM | 1 | \$30,000.00 | \$30,000.00 |
| | Construction Services | LSUM | 1 | \$25,000.00 | \$25,000.00 |
| Total Estimated Construction Cost | | | | | \$360,000.00 |

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|--|--|
| LOCATION: Paul C. Miller - Sparta Airport | RS&H |
| PROJECT DESCRIPTION: 2018 Construct Taxilane and T-Hanager - Phase 1 | Date Prepared: 05-Aug-16 Prepared By: RE Checked By: NJP |

Preliminary Project Cost Estimate

File Name:

| ITEM NO. | WORK ITEM DESCRIPTION | UNIT | QUANTITY | UNIT PRICE | AMOUNT |
|--|---|------|----------|--------------|---------------------|
| <u>Taxilane and T-Hanager - Phase 1</u> | | | | | |
| GP-105-2 | Mobilization and General Conditions | LSUM | 1 | \$15,000.00 | \$15,000.00 |
| P-102-10.1 | Safety and Security | LSUM | 1 | \$2,000.00 | \$2,000.00 |
| G-103-5.1 | Engineer's Field Office | LSUM | 1 | \$3,000.00 | \$3,000.00 |
| P-152-4.1 | Unclassified Excavation | CYD | 1,150 | \$10.00 | \$11,500.00 |
| P-154-5.1 | Subbase | CYD | 350 | \$11.00 | \$3,850.00 |
| P-156-5.1 | Silt Fence | LFT | 1,000 | \$2.00 | \$2,000.00 |
| P-208-5.1 | Aggregate Base Course | CYD | 180 | \$35.00 | \$6,300.00 |
| P-403-8.1 | Bituminous Surface Course | TON | 190 | \$105.00 | \$19,950.00 |
| P-603 | Bituminous Tack Coat, Specified Emulsified Asphalt | GAL | 110 | \$2.00 | \$220.00 |
| P-620 | Airport Pavement Marking, Solid, Yellow | SF | 250 | \$1.50 | \$375.00 |
| D-705-5.1 | Misc. 6" Underdrain w/ Geotextile Fabric Pipe Wrap with Porous Underdrain Backfill and Cleanouts As Specified | LFT | 1,000 | \$8.00 | \$8,000.00 |
| T-901-5.1 | Seed | ACRE | 0.75 | \$1,500.00 | \$1,125.00 |
| T-905-5.1 | Topsoil, Onsite | CYD | 300 | \$3.50 | \$1,050.00 |
| T-908-5.1 | Mulch | ACRE | 0.75 | \$1,500.00 | \$1,125.00 |
| | T-Hanager - 10 Unit | LSUM | 1.00 | \$300,000.00 | \$300,000.00 |
| Subtotal | | | | | \$380,000.00 |
| 10% Contingency | | | | | \$38,000.00 |
| Total Preliminary Construction Cost | | | | | \$418,000.00 |
| PROFESSIONAL SERVICES | | | | | |
| | Design Services | LSUM | 1 | \$20,000.00 | \$20,000.00 |
| | Construction Services | LSUM | 1 | \$20,000.00 | \$20,000.00 |
| Total Estimated Construction Cost | | | | | \$460,000.00 |

| | |
|---|---|
| LOCATION: Paul C. Miller - Sparta Airport | RS&H |
| PROJECT DESCRIPTION: 2020 Apron Expansion | Date Prepared: 25-Jul-16 Prepared By: JBP Checked By: NJP |

Preliminary Project Cost Estimate

File Name:

| ITEM NO. | WORK ITEM DESCRIPTION | UNIT | QUANTITY | UNIT PRICE | AMOUNT |
|---|--|------|----------|-------------|---------------------|
| <u>Expand Apron from Existing Apron to Taxiway A OFA</u> | | | | | |
| GP-105-2 | Mobilization and General Conditions | LSUM | 1 | \$35,000.00 | \$35,000.00 |
| G-102-10.1 | Safety and Security | LSUM | 1 | \$10,000.00 | \$10,000.00 |
| G-103-5.1 | Engineer's Field Office | LSUM | 1 | \$3,000.00 | \$3,000.00 |
| P-152-4.1 | Unclassified Excavation | CYD | 2,100 | \$10.00 | \$21,000.00 |
| P-154-5.1 | Subbase | CYD | 980 | \$11.00 | \$10,780.00 |
| P-156-5.1 | Silt Fence | LFT | 400 | \$2.00 | \$800.00 |
| P-209-5.1 | Crushed Aggregate Base Course Compacted in Place | CYD | 1,000 | \$35.00 | \$35,000.00 |
| P-403-8.1 | Bituminous Surface Course | TON | 520 | \$105.00 | \$54,600.00 |
| P-603 | Bituminous Tack Coat, Specified Emulsified Asphalt | GAL | 300 | \$2.00 | \$600.00 |
| P-620 | Airport Pavement Marking, Solid, Yellow | SF | 200 | \$1.50 | \$300.00 |
| D-701-5.1 | Concrete Pipe, 24" Reinforced, C76 Class IV | LFT | 250 | \$50.00 | \$12,500.00 |
| D-705-5.1 | Misc. 6" Underdrain w/ Geotextile Fabric Pipe Wrap with Porous Underdrain Backfill and Cleanouts As Specified | LFT | 400 | \$8.00 | \$3,200.00 |
| D-751-5.1 | Catch Basin, 4' Diameter, Type 3, Through 8' Depth | EACH | 2 | \$1,500.00 | \$3,000.00 |
| D-751-5.2 | Drainage Structure Cover, Design As Specified, In Place | EACH | 2 | \$500.00 | \$1,000.00 |
| T-901-5.1 | Seed | ACRE | 0.50 | \$1,500.00 | \$750.00 |
| T-905-5.1 | Topsoil, Onsite | CYD | 100 | \$3.50 | \$350.00 |
| T-908-5.1 | Mulch | ACRE | 0.50 | \$1,500.00 | \$750.00 |
| S-802-5.1 | Aircraft Tie Down | EA | 10.00 | \$600.00 | \$6,000.00 |
| Subtotal | | | | | \$200,000.00 |
| 10% Contingency | | | | | \$20,000.00 |
| Total Preliminary Construction Cost | | | | | <u>\$220,000.00</u> |
| PROFESSIONAL SERVICES | | | | | |
| | Design Services | LSUM | 1 | \$20,000.00 | \$20,000.00 |
| | Construction Services | LSUM | 1 | \$25,000.00 | \$25,000.00 |
| Total Estimated Construction Cost | | | | | \$270,000.00 |

LOCATION: Paul C. Miller - Sparta Airport RS&H
Date Prepared: 05-Aug-16
Prepared By: JBP

PROJECT DESCRIPTION:
2022 Construct Taxilane and T-Hanagar - Phase 2

| Preliminary Project Cost Estimate | | File Name: | | | |
|--|---|------------|----------|--------------|---------------------|
| ITEM NO. | WORK ITEM DESCRIPTION | UNIT | QUANTITY | UNIT PRICE | AMOUNT |
| <u>Taxilane and T-Hanagar - Phase 2</u> | | | | | |
| GP-105-2 | Mobilization and General Conditions | LSUM | 1 | \$12,500.00 | \$12,500.00 |
| P-102-10.1 | Safety and Security | LSUM | 1 | \$1,000.00 | \$1,000.00 |
| G-103-5.1 | Engineer's Field Office | LSUM | 1 | \$3,000.00 | \$3,000.00 |
| P-152-4.1 | Unclassified Excavation | CYD | 1,270 | \$10.00 | \$12,700.00 |
| P-154-5.1 | Subbase | CYD | 410 | \$11.00 | \$4,510.00 |
| P-156-5.1 | Silt Fence | LFT | 1,000 | \$2.00 | \$2,000.00 |
| P-208-5.1 | Aggregate Base Course | CYD | 210 | \$35.00 | \$7,350.00 |
| P-403-8.1 | Bituminous Surface Course | TON | 220 | \$105.00 | \$23,100.00 |
| P-603 | Bituminous Tack Coat, Specified Emulsified Asphalt | GAL | 120 | \$2.00 | \$240.00 |
| P-620 | Airport Pavement Marking, Solid, Yellow | SF | 250 | \$1.50 | \$375.00 |
| D-705-5.1 | Misc. 6" Underdrain w/ Geotextile Fabric Pipe Wrap with Porous Underdrain Backfill and Cleanouts As Specified | LFT | 1,000 | \$8.00 | \$8,000.00 |
| T-901-5.1 | Seed | ACRE | 0.57 | \$1,500.00 | \$855.00 |
| T-905-5.1 | Topsoil, Onsite | CYD | 310 | \$3.50 | \$1,085.00 |
| T-908-5.1 | Mulch | ACRE | 0.57 | \$1,500.00 | \$855.00 |
| | T-Hanagar - 10 Unit | LSUM | 1.00 | \$300,000.00 | \$300,000.00 |
| Subtotal | | | | | \$380,000.00 |
| 10% Contingency | | | | | \$38,000.00 |
| Total Preliminary Construction Cost | | | | | \$418,000.00 |
| PROFESSIONAL SERVICES | | | | | |
| | Design Services | LSUM | 1 | \$20,000.00 | \$20,000.00 |
| | Construction Services | LSUM | 1 | \$20,000.00 | \$20,000.00 |
| Total Estimated Construction Cost | | | | | \$460,000.00 |