This Construction Safety and Phasing Plan (CSPP) does not endorse or intend to advertise any airport or consultant's work. The purpose of this document is to show sample work to assist in the preparation of a CSPP.

CONSTRUCTION SAFETY & PHASING PLAN

CONSTRUCT RUNWAY SAFETY AREA (RSA) IMPROVEMENTS FOR RUNWAY 24 END

AIP X-XX-XXXX-XXXX-2013

MUNICIPAL AIRPORT
CITY, STATE

PREPARED BY: ACME CONSULTANTS
CITY, STATE

DATE

Construct RSA Improvements at Runway 24 End Municipal Airport

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Construct RSA Improvements at Runway 24 End
Municipal Airport

Appendix List

1. Coordination:

Predesign / Scoping Meeting:

- Held 15 January 2012, at Airport.
- Key Attendees: Kathryn Janeway, Airport Manager
  Jean-Luc Picard, Design Engineer
  James Kirk, FAA Airports Project Manager.
- Runway 6-24 availability emphasized.
- Escalating deer hazard and airport's Wildlife Hazard Management Plan (WHMP) discussed.

FAA NAVAIDs Coordination Meeting:

- Held 28 February 2013, at FAA PVD SSC Office.
- Key Attendees: Will Riker, Assistant Airport Manager
  Jean-Luc Picard, Design Engineer
  Benjamin Sisko, FAA PVD SSC Coordinator
- Affected FAA NAVAID: Runway 24 (FLR) REIL.
- SSC requests cable layout drawings in CSPP.

Prebid Meeting:

- Draft CSPP to be reviewed and discussed.
- Key Attendees: Airport Manager
  Design Engineer
  Bidding Contractors

Preconstruction Conference:

- CSPP & SPCD to be reviewed and discussed.
- Key Attendees: Airport Manager
  Design Engineer
  Resident Engineer
  Contractor Superintendent
  Subcontractor representative(s)
  FAA PVD SSC Coordinator/Technician
  FAA Airports Project Manager.

2. Phasing:

Phase 1, Clearing, Grubbing & Embankment:

- Phase 1A: Clear and grub vegetation in future Runway 24 ROFA. Fill Runway 24 RSA embankment to elevation 161 feet MSL.
- Phase 1B: Establish temporary Runway 24 displaced threshold.
- See Drawing CSD 1.1.

Phase 2, Grading & Fence Construction:

- Complete Runway 24 RSA embankment.
- Regrade existing Runway 24 RSA.
- Install partial wildlife fence.
- See Drawing CSD 2.1.

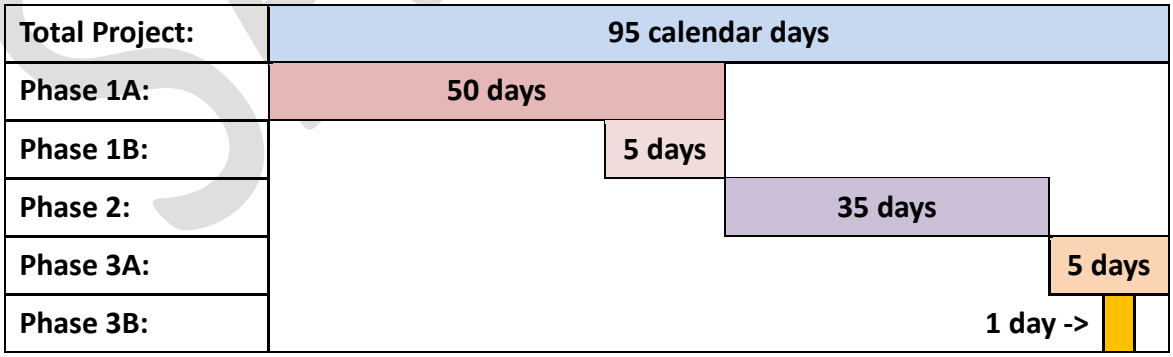
Phase 3, Pavement Markings:

- Phase 3A: Remove temporary Runway 24 displaced threshold & apply new permanent pavement markings on Runway 6-24 (excluding Runway 15-33 intersection).
- Phase 3B: Apply new permanent pavement markings on Runway 6-24 at Runway 15-33 intersection.
- See Drawing CSD 3.1.

Sequence of Work:

Estimated Start Date: 1 July 2013

Estimated Completion Date: 3 October 2013



3. Areas and Operations Affected by Construction:

Areas Affected:

Phase 1, Clearing, Grubbing, & Embankment:
See Drawing CSD 1.1.

Phase 2, Grading & Fence Construction:
See Drawing CSD 2.1.

Phase 3, Pavement Markings:
See Drawing CSD 3.1.

Operations Affected:

Operational Requirements		Normal	Phase 1A	Phase 1B	Phase 2
R/W 6-24 Estimated Aircraft Ops		GA: 65/day	GA: 65/day	GA: 0	GA: 55/day
R/W 15-33 Estimated Aircraft Ops		GA: 8/day	GA: 8/day	GA: 26/day	GA: 8/day
R/W 6-24 Status: Active Length		Open: 3,948 feet	Open: 3,948 feet	Closed	Open: 3,948 feet
R/W 15-33 Status: Active Length		Open: 1,600 feet	Open: 1,600 feet	Open: 1,600 feet	Open: 1,600 feet
R/W 24 Displaced TH: Length		No	No	-	Yes: 300 feet
R/W 24 Approach Procedure		RNAV	RNAV	-	Visual
R/W 6 NAVAIDs		VASI	VASI	-	VASI
R/W 24 NAVAIDs		REIL, VASI	REIL, VASI	-	-
R/W 6 Declared Distances	TORA:	3,948 feet	3,948 feet	-	3,948 feet
	TODA:	3,948 feet	3,948 feet	-	3,948 feet
	ASDA:	3,948 feet	3,948 feet	-	3,648 feet
	LDA:	3,948 feet	3,948 feet	-	3,648 feet
R/W 24 Declared Distances	TORA:	3,948 feet	3,948 feet	-	3,948 feet
	TODA:	3,948 feet	3,948 feet	-	3,948 feet
	ASDA:	3,948 feet	3,948 feet	-	3,948 feet
	LDA:	3,948 feet	3,948 feet	-	3,648 feet

3. Areas and Operations Affected by Construction (continued):

Operations Affected (continued):

Operational Requirements		Normal	Phase 3A	Phase 3B
R/W 6-24 Estimated Aircraft Ops		GA: 65/day	GA: 0	GA: 0
R/W 15-33 Estimated Aircraft Ops		GA: 8/day	GA: 26/day	GA: 0
R/W 6-24 Status: Active Length		Open: 3,948 feet	Closed	Closed
R/W 6-24 Status: Active Length		Open: 1,600 feet	Open: 1,600 feet	Closed
R/W 24 Displaced TH: Length		No	-	-
R/W 24 Approach Procedure		RNAV	-	-
R/W 6 NAVAIDs		VASI	-	-
R/W 24 NAVAIDs		REIL, VASI	-	-
R/W 6 Declared Distances	TORA:	3,948 feet	-	-
	TODA:	3,948 feet	-	-
	ASDA:	3,948 feet	-	-
	LDA:	3,948 feet	-	-
R/W 24 Declared Distances	TORA:	3,948 feet	-	-
	TODA:	3,948 feet	-	-
	ASDA:	3,948 feet	-	-
	LDA:	3,948 feet	-	-

4. Navigational Aid (NAVAID) Protection:

Airport Owned NAVAIDs:

- The Resident Engineer will coordinate Runway 6 VASI and Runway 24 VASI shutdown and restart with Airport 24 hours in advance. See Section 3, *Areas and Operations Affected by Construction*, for shutdown schedule by phase. See Section 9, *Notification of Construction Activities*, for contact list.
- The Airport Manager will issue NAVAID OTS NOTAMs at least 2 hours prior to each shutdown. See Section 9, *Notification of Construction Activities*, for NOTAM procedures.

4. Navigational Aid (NAVAID) Protection (continued):

FAA Owned NAVAIDs:

- FAA procedures were reviewed at the FAA NAVAIDs Coordination Meeting. See Section 1, *Coordination*.
- The Airport will submit an *Airport Operator Strategic Event Submission Form* to FAA ATO for the Runway 24 (FLR) REIL at least 45 days prior to scheduled shutdown. See Section 9, *Notification of Construction Activities*, for notification procedures and Appendix B.
- The RE will notify the FAA PVD SSC by email 30 days prior to scheduled shutdown and by phone 5 days prior to shutdown and startup. See Section 3, *Phasing*, for shutdown schedule by phase. See Section 9, *Notification of Construction Activities*, for notification procedures.
- The FAA PVD SSC will issue NAVAID OTS NOTAMs.

Runway 24 (FLR) REIL:

- No construction work will be conducted within 30 feet of REIL facility while operational.
- Re-grading operations will be conducted in vicinity of underground power and control cables. See Section 11, *Underground Utilities*, for cable protection procedures.

5. Contractor Access:

Stockpile Locations:

- No stockpile will be located on the airfield.
- See drawings CSD 1.1, 2.1, and 3.1 for stockpile locations by phase.

Site Access:

- See drawings CSD 1.1, 2.1, and 3.1 for site access points and haul routes by phase.

Phase 1A & 2:
Site access will be via the northeast terminus of the landfill access road. A temporary chain-link fence and gate will be installed at the site entrance. Haul roads on airport property will be delineated with snow fence on each side. See Sections 15, *Markings and Signs for Access Routes*, for haul route signage information. See Appendix C for fence details.

Phase 1B & 3A:
Site access will be via Gate 1 at terminal building. The Airport Manager's designated employee(s) will escort all construction vehicles at all times.

5. Contractor Access (continued):

Site Access (continued):

Phase 3B:

Site access will be via Gate 1 at terminal building. No escort is required as the airfield will be closed.

Ingress and Egress Procedures:

- The Airport Management will unlock and lock all airport gates at the beginning and end of all shifts.
- The Resident Engineer will contact Airport Management via telephone 30 minutes prior to leaving the worksite. See Section 9, *Notification of Construction Activities*, for notification procedures.
- The Contractor will provide a gate guard at each gate during working hours. Airport Management will train all gate guards on airport ingress and egress procedures.

Radio Communications:

- Airport Management will monitor CTAF frequency 122.9 at all times during the construction period and will communicate with and update pilots as required.
- The Resident Engineer and Contractor superintendent will monitor CTAF frequency 122.9 at all times for unauthorized take-off and landing announcements and aircraft in distress. See Section 13, *Special Procedures*.

6. Wildlife Management

The Airport will mitigate wildlife hazards during construction as follows:

Trash:

- All construction personnel will dispose food scraps in closed containers proved by the Contractor.
- The Contractor will empty all containers off-site.

Standing Water:

- The Contractor will immediately re-grade any area with standing water remaining more than three (3) hours after rainfall.

6. Wildlife Management (continued):

Tall Grass and Seed:

- The seed mixture specified for grass restoration is compliant with the Airport's Wildlife Hazard Management Plan (WHMP).
- The Airport will mow all restored grass per the WHMP.

Temporary fencing:

- The Contractor will erect a temporary chain-link fence as shown on Drawing CSD 1.1 and Appendix C at the beginning of Phase 1A.
- The Contractor will remove the temporary fence upon completion of the permanent wildlife fence during Phase 2.

Wildlife Sightings:

- The RE and/or Superintendent will immediately notify Airport Management by phone of wildlife sited on the airfield.
- The RE and/or Superintendent will immediately notify pilots via CTAF of wildlife sighted on the runway.
- See Section 9, *Notification of Construction Activities*, for notification procedures.

7. FOD Management:

The Airport will manage FOD control during construction as follows:

Housekeeping:

- All construction personnel will secure all items that may be carried by wind onto an air operations area (AOA). See Section 5, *Contractor Access*, regarding stockpile locations.

Airfield:

- All construction vehicle drivers will enter AOA paved areas from local streets only; construction vehicles will not transverse from non-paved surfaces to AOA paved surfaces. See Section 5, *Contractor Access*, for access routes.
- The Contractor will immediately sweep or otherwise remove any FOD located on an AOA paved surface. See Section 10, *Inspection Requirements*.

8. HAZMAT Management:

The Airport will manage hazard material transported during construction as follows:

Fuel or Hydraulic Fluid Spills:

- The Contractor will have available a spill kit capable of containing and removing leaked fluids.
- The Contractor will immediately notify the Airport Manager or Assist. Manager by phone of all spills. See Section 9, *Notification of Construction Activities*, for notification procedures.

Fueling:

- All construction vehicles will be fueled off-site.

Other HAZMAT:

- No other hazardous material is expected to be transported on-site during construction.

9. Notification of Construction Activities:

Contact List and Emergency Notification:

- The Contract List of Airport and Consultant personnel and emergency contacts is located in Appendix A. Contractor contacts will be included in the SPCD.

FAA Notification:

- The Airport submitted 7460 case 2013-ANE-999-NRA for construction equipment.
- The Airport will notify PVD SSC officials (see *Contact List*, Appendix A, and *Airport Operator Strategic Event Submission Form*, Appendix B) as required by Section 4, *NAVAID Protection*, and Section 11, *Underground Utilities*.

Airport User Notification:

- The Airport hosted user meeting on 15 February 2013, at airport.
  - Reviewed project goals and proposed scope of work.
  - Discussed tentative runway and taxiway closure schedule.
- The Airport will mail the finalized runway and taxiway closure schedule to all airport tenants and participants in February user meeting.
- The Airport expects to host tentative user meeting at airport immediately prior to Phase 1B. See Section 2, *Phasing*.

NOTAMs:

- Airport Management will issue all NOTAMs through the eNOTAM system, except as noted below.
- The FAA will issue all FAA facility related and Flight Procedure related NOTAMs.

10. Inspection Requirements:

Airport Requirements:

- Airport Management will inspect all closed paved surfaces prior to opening to air traffic operations.
- Airport Management will inspect each lighted X and lighted barrier between 22:00 and 24:00 each night.
- The Airport Manager will conduct a final inspection.

Resident Engineer (RE) Requirements:

- The RE will conduct inspection of the worksite(s) at the end of all daily work shifts using the daily inspection checklist attached in Appendix I and at the request of the Airport Manager.
- The RE will attend the final inspection.

Contractor Requirements:

- The Contractor Superintendent will conduct routine inspections of the worksite(s) to ensure compliance with the CSPP and SPCD.
- The Contractor Superintendent will attend the REs daily inspections and the final inspection.

11. Underground Utilities:

FAA Utilities:

- Existing FAA underground utilities are as indicated in Appendix J.
- The PVD SSC will locate and mark all underground utilities with 48 hour notification. See Section 9, *Notification of Construction Activities*, for SSC notification requirements.
- The Contractor will hand dig to locate FAA utilities within 10 feet of each marking.

City Utilities:

- The Airport will delineate all airport utilities upon Notice to Proceed. The Contractor will not conduct any excavation until notified by the Airport Manager to proceed.
- The Contractor superintendent will contact Dig Safe to delineate all municipal utilities a minimum of seven days prior to any excavation work. See Section 9, *Notification of Construction Activities*, for Dig Safe contact information.

Utility Damage:

- The Contractor Superintendent will suspend all construction activity upon the damage of any underground utility until the owner is identified and the utility repaired. See Section 9, *Notification of Construction Activities*, for notification requirements.

12. Penalties:

Construction Suspension:

- Airport Management will immediately suspend all construction if and when:
  - A Contractor or subcontractor employee enters the Air Operations Area (AOA) outside of the designated work area.
  - Any unescorted construction vehicle operates on any active AOA surface.
- The Airport Manager will allow construction work to resume only when the discrepancy is corrected to her satisfaction.

Expulsion of Non-compliant Employees:

- The Airport Manager may permanently prohibit any consultant or contract employee acting in violation with airport rules and regulations from entering or working on airport property.

13. Special Conditions:

Aircraft in Distress:

- Airport Management, the Resident Engineer, and/or the Contractor Superintendent will immediately clear all construction personnel of all runways and approach areas upon monitoring a distress call on CTAF. See Section 5, *Contractor Access*, for CTAF monitoring requirements.

Aircraft Accident:

- All construction personnel will immediately vacate airport property and remain off until cleared by the Airport Manager.

Vehicle / Pedestrian Deviation (V/PD):

- The Airport Manager may temporarily suspend construction on the Air Operations Area (AOA) in the event of a non-construction related V/PD. See Section 12, *Penalties*, for construction related V/PD procedures.

14. Runway and Taxiway Visual Aids:

Phase 1B & 2:

- The Contractor will establish a displaced threshold for Runway 24 in the location, and with temporary markings and MIRL edge lighting, indicated on Drawings CSD 1.1 and 2.1. The Contractor will eradicate all existing markings requiring removal prior to placing the temporary markings.
- See Appendix D for temporary MIRL L-861 light fixture details.
- See Section 4, *NAVAID Protection*, for NAVAID shutdown procedures.

14. Runway and Taxiway Visual Aids (*continued*):

Phase 3:
- The Contractor will eradicate all temporary markings and will restore temporarily altered airfield lighting to its original configuration. See Drawing CSD 3.1.

15. Markings and Signs for Access Routes:

Markings:
- No temporary roadway markings will be used.

Signs:
- See Appendix E for temporary sign schedule.
- See Drawings CSD 1.1 and 2.1 for sign locations.

16. Hazard Marking and Lighting

Phase 1A & 2:
- The temporary wildlife fence described in Section 6, *Wildlife Management*, will identify the southwestern perimeter of the Phase 1A worksite. The Contractor will erect snow fence around the remaining perimeter of the worksites as shown on Drawings CSD 1.1 and 2.1.
- See Appendix C for wildlife fence details.
- See Appendix F for snow fence details.

Phase 1B & 3:
- The Airport will place and maintain L-893 runway closure markers (lighted X's) over the Runway 6 and Runway 24 designations during the runway closures.
- The Contractor will place and maintain lighted interlocking barriers across each taxiway leading to Runway 6-24 and across Runway 6-24 at the Runway 15-33 intersection during the runway closures.
- See Drawings CSD 1.1 & 3.1 and Appendix F.

17. Protection of Areas, Zones, & Surfaces:

All Phases:
- Construction equipment will not penetrate any approach or departure surface. See Section 9, *Notification of Construction Activities*, for 7460 case file information.

17. Protection of Areas, Zones, & Surfaces (*continued*):

Phase 1A:

- All Safety Areas (SAs), Object Free Areas (OFAs) and Obstacle Free Zones (OFZs) will be protected from construction activity by the temporary wildlife fence and snow fence described in Section 6, *Wildlife Management*, and Section 16, *Hazard Marking & Lighting*, and depicted on Drawing CSD 1.1.

Phase 1B & 3A:

- Runway 6-24 will be closed to air operations.
- Runway 15-33 SA, OFA, and OFZ will be protected from construction activity by the temporary wildlife fence and snow fence described in Section 6, *Wildlife Management*, and Section 16, *Hazard Marking & Lighting*, and depicted on Drawing CSD 1.1.

Phase 2:

- The Runway Safety Area (RSA), Runway Object Free Area (ROFA) beyond the departure end of Runway 6 will be adjusted by temporary declared distances. See Section 3, *Areas and Operations Affected by Construction*.
  The RSA and ROFA prior to the Runway 24 threshold will be adjusted by temporarily displacing the threshold. See Drawing CSD 2.1.
- All Safety Areas (SAs), Object Free Areas (OFAs) and Obstacle Free Zones (OFZs) will be protected from construction activity by the temporary wildlife fence and snow fence described in Section 6, *Wildlife Management*, and Section 16, *Hazard Marking & Lighting*, and depicted on Drawing CSD 2.1.
- The Taxiway A TOFA following the sweep of the centerline will be protected by the snow fence described in Sections 16, *Hazard Marking & Lighting*. See drawing CSD 2.1.

Phase 3B:

- Both runways will be closed to air operations.

18. Other Limits on Construction:

Prohibitions:

- Cranes and other tall equipment will not be deployed without a 7460 approval determination letter.
- Open flame welding, torches, electrical blast caps, and flare pots will not be used at any time.

Restrictions:

- No construction activity will take place between 22:00 and 06:00 EDT.