

Construction Safety & Phasing Plan Requirements per AC 150/5370-2F

Presented to: New England Sponsors & Consultants

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Federal Aviation
Administration



Objective

Review of AC 150-5370-2F requirements to facilitate better Construction Safety & Phasing Plan (CSPP) planning, development, and execution.



Operational Safety on Airports During Construction

Common Themes:

Airport Operations

&

Construction on Airports



AC 150/5370-2F Highlights

AC 150/5370-2F includes:

- ❖ **A Consolidated List of 18 CSPP Subjects.**
- ❖ **Rules and Best Practices Organized by Subject.**
- ❖ **Detailed CSPP Checklist w/ Subject Cross References.**



AC 150/5370-2F Highlights



AC 150/5370-2F introduces:

- ❖ Safety Risk Management (SRM) Coordination.
- ❖ Safety Plan Compliance Documents (SPCDs).
- ❖ Guidelines to Writing CSPPs.

AC 150/5370-2F Highlights

AC 150/5370-2F:

- ❖ Emphasizes Planning.
- ❖ Emphasizes Airport Operations.
- ❖ Requires CSPPs for all tenants including FAA Airway Facilities.
- ❖ Determined RSA dimensions & RSA requirements apply for construction and maintenance.



Construction Safety and Phasing Plan (CSPP)

- ❖ **The CSPP is the primary tool used to ensure operational safety on the airport during construction.**
- ❖ **The CSPP is a PLAN not a specification.**
- ❖ **The CSPP describes how *everyone* will support operational safety on the airport during construction, not just the construction contractor.**

Construction Safety and Phasing Plan Requirements & Contents by Subject

Eighteen (18) CSPP Subjects

Coordination	Phasing	Areas & Operations Affected by Construction
Navigational Aid (NAVAID) Protection	Contractor Access	Wildlife Management
FOD Management	HAZMAT Management	Notification of Construction Activities
Inspection Requirements	Underground Utilities	Penalties
Special Conditions	Runway & Taxiway Visual Aids	Marking and Signs for Access Routes
Hazard Marking, Lighting & Signing	Protection of Runway & Taxiway Areas, Zones, & Surfaces	Other Limitations on Construction



Construction Safety and Phasing Plan Requirements & Contents by Subject

1. Coordination Requirements:

- ❖ Predesign, Prebid, & Preconstruction meetings (i.e. HIT).
- ❖ Contractor progress meetings.
- ❖ Scope or schedule changes.
- ❖ FAA ATO & airport user coordination as required.



Construction Safety and Phasing Plan Requirements & Contents by Subject

1. Coordination CSPP Contents:

- ❖ Description of past coordination efforts.
- ❖ Description of proposed future coordination.

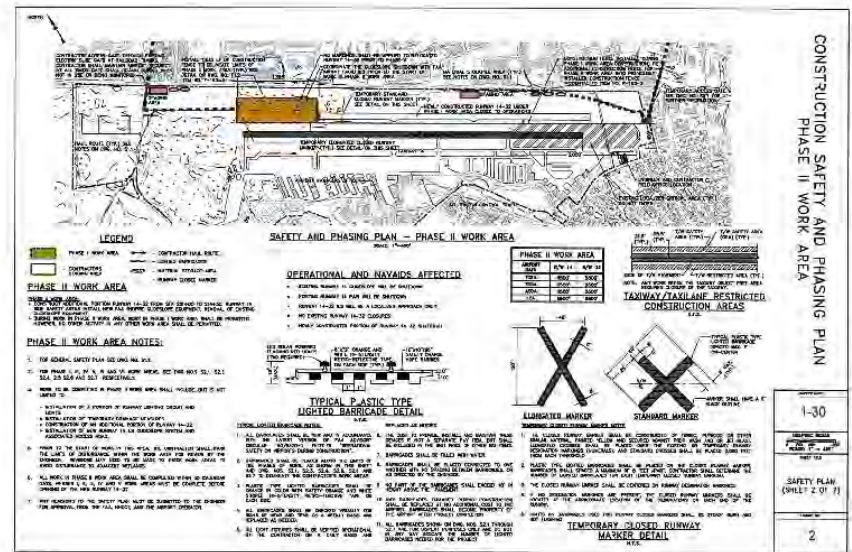


Construction Safety and Phasing Plan Requirements & Contents by Subject

2. Phasing

Requirements:

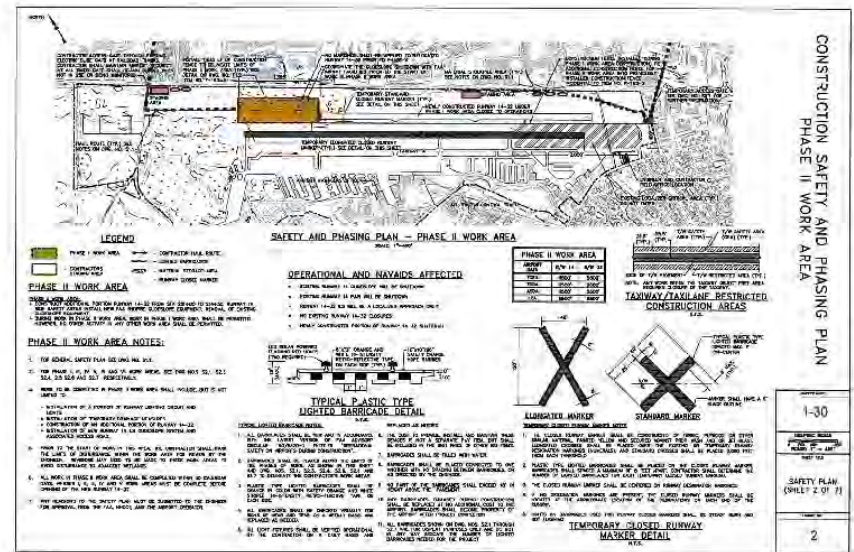
- ❖ Establish phases by balancing aircraft operations with construction activities.
- ❖ Identify phase elements (impacts, closures, etc.)



Construction Safety and Phasing Plan Requirements & Contents by Subject

2. Phasing CSPP Contents:

- ❖ Scope of Work by phase.
- ❖ **Construction Safety Drawings (CSDs):** usually at least one drawing per phase.



Construction Safety and Phasing Plan Requirements & Contents by Subject

3. Areas & Operations Affected by the Construction Activity Requirements:

- ❖ Identify affected areas by phase.
- ❖ Determine operational impacts by phase.
- ❖ Establish mitigation of effects by phase.

Project	Runway 15-33 Reconstruction	
Phase	Phase II: Reconstruct Runway 15 End	
Scope of Work	Reconstruct 1,000 feet of north end of Runway 15-33 with Portland Cement Concrete (PCC).	
Operational Requirements	Normal	Phase II
Runway 15-33 ARC:	C-IV	C-IV
Runway 15 Approach Visibility Minimums	¾ mile	1 mile
Runway 33 Approach Visibility Minimums	¾ mile	1 mile
Runway 15 Declared Distances	TORA: 7,820	TORA: 6,420
	TODA: 7,820	TODA: 6,420
	ASDA: 7,820	ASDA: 6,420
	LDA: 7,820	LDA: 6,420
Runway 33 Declared Distances	TORA: 8,320	TORA: 6,920
	TODA: 8,320	TODA: 6,920
	ASDA: 8,320	ASDA: 6,920
	LDA: 7,820	LDA: 6,420
Runway 15 Approach Procedures	ILS	LOC only
	RNAV	
	VOR	
Runway 33 Approach Procedures	ILS	Visual only
	RNAV	
	VOR	
Taxiway G ADG	IV	IV (N/A between T/W H and R/W 15 end)
Taxiway E ADG	IV	IV
ATCT (hours open)	06:00 – 24:00 local	06:00 – 24:00 local
ARFF Index	D	D
Special Conditions	Airline XYZ requires VGSI	Airline XYZ requires VGSI

Construction Safety and Phasing Plan Requirements & Contents by Subject

3. Areas & Operations Affected by the Construction Activity CSPP Contents:

- ❖ Affected areas in each phase shown on **CSDs**.
- ❖ Tables with **NORMAL** vs. **AFFECTED** operations for each phase.

Project	Runway 15-33 Reconstruction	
Phase	Phase II: Reconstruct Runway 15 End	
Scope of Work	Reconstruct 1,000 feet of north end of Runway 15-33 with Portland Cement Concrete (PCC).	
Operational Requirements	Normal	Phase II
Runway 15-33 ARC:	C-IV	C-IV
Runway 15 Approach Visibility Minimums	¾ mile	1 mile
Runway 33 Approach Visibility Minimums	¾ mile	1 mile
Runway 15 Declared Distances	TORA: 7,820	TORA: 6,420
	TODA: 7,820	TODA: 6,420
	ASDA: 7,820	ASDA: 6,420
	LDA: 7,820	LDA: 6,420
Runway 33 Declared Distances	TORA: 8,320	TORA: 6,920
	TODA: 8,320	TODA: 6,920
	ASDA: 8,320	ASDA: 6,920
	LDA: 7,820	LDA: 6,420
Runway 15 Approach Procedures	ILS	LOC only
	RNAV	
	VOR	
Runway 33 Approach Procedures	ILS	Visual only
	RNAV	
	VOR	
Taxiway G ADG	IV	IV (N/A between T/W H and R/W 15 end)
Taxiway E ADG	IV	IV
ATCT (hours open)	06:00 – 24:00 local	06:00 – 24:00 local
ARFF Index	D	D
Special Conditions	Airline XYZ requires VGSI	Airline XYZ requires VGSI

Construction Safety and Phasing Plan Requirements & Contents by Subject

4. Navigational Aid (NAVAID) Protection Requirements:

- ❖ Identify affected NAVAID facilities.
- ❖ Protect NAVAID Critical Areas.
- ❖ Prevent visual NAVAID obstructions.
- ❖ Coordinate NAVAID shutdowns & startups.



Construction Safety and Phasing Plan Requirements & Contents by Subject

4. Navigational Aid (NAVAID) Protection CSPP Contents:

- ❖ List of affected NAVAID facilities.
- ❖ NAVAID Critical Areas identified on the **CSDs**.
- ❖ NAVAID shutdown & start-up procedures.



Construction Safety and Phasing Plan Requirements & Contents by Subject

5. Contractor Access Requirements:

- ❖ Establish vehicle & pedestrian requirements (training, site escorts, communications, vehicle marking & lighting, security, etc.)
- ❖ Determine storage & stockpile locations.



Construction Safety and Phasing Plan Requirements & Contents by Subject

5. Contractor Access CSPP Contents:

- ❖ Site access, haul routes & stockpile locations indicated on the **CSDs**.
- ❖ Vehicle requirements.
- ❖ Procedures for driver & pedestrian training & communications.
- ❖ Security badging as required.



Construction Safety and Phasing Plan Requirements & Contents by Subject

6. Wildlife Management Requirements:

- ❖ Identify construction related wildlife attractants:
 - ❖ Trash.
 - ❖ Standing water.
 - ❖ Tall grass & seed.
- ❖ Maintain fence & gates.
- ❖ Address potential disruption of habitats.
- ❖ Abide by airport's WHMP.



Construction Safety and Phasing Plan Requirements & Contents by Subject

6. Wildlife Management CSPP Contents:

- ❖ Procedures to prevent wildlife attractants.
- ❖ Permanent & temporary wildlife fences & gates indicated on **CSDs**.
- ❖ Procedures to address disrupted wildlife entering into active AOA's.
- ❖ Any special WHMP procedures.



Construction Safety and Phasing Plan Requirements & Contents by Subject

7. Foreign Object Debris (FOD) Management Requirements:

- ❖ Identify construction related FOD sources.
- ❖ Determine FOD control methods.



Construction Safety and Phasing Plan Requirements & Contents by Subject

7. Foreign Object Debris (FOD) Management CSPP Contents:

- ❖ Description of FOD control methods:
 - ❖ Worksite housekeeping.
 - ❖ Vehicle tire inspections.
 - ❖ Pavement sweeps.
- ❖ Procedures to address FOD entering into active AOAs.



Construction Safety and Phasing Plan Requirements & Contents by Subject

8. Hazardous Material (HAZMAT) Management Requirements:

- ❖ Identify potential HAZMAT & HAZMAT sources.
- ❖ Determine procedures for transport and handling of HAZMAT & spill control.
- ❖ Comply with AC 150/5320-15, *Management of Airport Industrial Waste*.



Construction Safety and Phasing Plan Requirements & Contents by Subject

8. Hazardous Material (HAZMAT) Management CSPP Contents:

- ❖ Description of HAZMAT management methods (fuel delivery, spill recovery, MSDS availability, etc.)
- ❖ Specific HAZMAT transport and handling procedures.
- ❖ HAZMAT restrictions.



Construction Safety and Phasing Plan Requirements & Contents by Subject

9. Notification of Construction Activities Requirements:

- ❖ Notify airport users.
- ❖ Issue NOTAMs.
- ❖ Develop list of responsible reps. & points of contacts.
- ❖ Establish emergency notification procedures.
- ❖ Notify ARFF & FAA as required.



Construction Safety and Phasing Plan Requirements & Contents by Subject

9. Notification of Construction Activities CSPP Contents:

- ❖ NOTAM procedures.
- ❖ List of OE/AAA 7460 & 7480 submissions.
- ❖ FAA NAVAID shutdown/restart forms (copies).
- ❖ Emergency notification procedures.
- ❖ List of responsible representatives & points of contacts (completed via the SPCD).



Construction Safety and Phasing Plan Requirements & Contents by Subject

10. Inspection Requirements Requirements:

- ❖ Identify construction safety elements requiring daily inspections.
- ❖ Establish final inspection procedures such as prior to reopening areas to air operations.



Construction Safety and Phasing Plan Requirements & Contents by Subject

10. Inspection Requirements

CSPP Contents:

- ❖ List of construction safety elements requiring inspection & maintenance.
- ❖ Schedule of inspections.
- ❖ Role of certificated airport self-inspections regarding construction.
- ❖ Remedial actions to correct deficiencies.
- ❖ Safety Officer (identified in the SPCD)



Construction Safety and Phasing Plan Requirements & Contents by Subject

11. Underground Utilities Requirements:

- ❖ Establish procedures for locating & identifying underground utilities.
- ❖ Establish procedures for protecting underground utilities.
- ❖ Establish procedures for repairing damaged utilities.



Construction Safety and Phasing Plan Requirements & Contents by Subject

11. Underground Utilities CSPP Contents:

- ❖ Methods of locating & protecting utilities on-site.
- ❖ List of utility owners & emergency contacts.
- ❖ Procedures for reporting & repairing damaged utilities.
- ❖ Utility drawings, *if requested*.



Construction Safety and Phasing Plan Requirements & Contents by Subject

12. Penalties Requirements:

- ❖ Determine enforcement procedures for non-compliance with airport regs. & CSPP.
- ❖ Penalties listed in ACM apply at certificated airports.



Construction Safety and Phasing Plan Requirements & Contents by Subject

12. Penalties

CSPP Contents:

- ❖ List penalties for specific non-compliance:
 - ❖ VP/Ds
 - ❖ SIDA Violations
 - ❖ Security breach.
- ❖ Reference applicable ACM sections regarding penalties at certificated airports.



Construction Safety and Phasing Plan Requirements & Contents by Subject

13. Special Conditions Requirements:

- ❖ Determine applicable special conditions:
 - ❖ Low visibility operations.
 - ❖ Severe weather.
 - ❖ Aircraft in distress / accident.
 - ❖ Security breach.
 - ❖ Restricted access (i.e. dignitary visits).
 - ❖ V/PODs.
- ❖ Establish Corresponding Procedures



Construction Safety and Phasing Plan Requirements & Contents by Subject

13. Special Conditions CSPP Contents:

- ❖ List of applicable special conditions.
- ❖ Corresponding procedures including suspension & resumption of construction activities as applicable.



Construction Safety and Phasing Plan Requirements & Contents by Subject

14. Runway & Taxiway Visual Aids Requirements:

- ❖ Determine areas restricted from aircraft operations (by phase).
- ❖ Determine most effective visual aids to guide pilots away from such areas:
 - ❖ Temporary or altered pavement markings.
 - ❖ Temporary or altered airfield lighting.
 - ❖ Temporary or altered airfield signs.
 - ❖ Temporary or altered visual NAVAIDs & lighted X's.



Construction Safety and Phasing Plan Requirements & Contents by Subject

14. Runway & Taxiway Visual Aids

CSPP Contents:

- ❖ Description of temporary visual aids including graphic diagrams.
- ❖ Visual aid locations indicated on **CSDs**.
- ❖ Existing visual aids temporarily altered, removed, or disconnected indicated on **CSDs**.
- ❖ Visual aid maintenance procedures.
- ❖ Responsible individuals (identified in SPCD).



Construction Safety and Phasing Plan Requirements & Contents by Subject

15. Marking and Signs for Access Routes Requirements:

- ❖ Determine roadway markings & signs to indicate access routes to construction vehicle drivers.
- ❖ Markings must meet AC 150/5340-1.
- ❖ Signs must meet AC 150/5340-18 & should comply with MUTCD.



Construction Safety and Phasing Plan Requirements & Contents by Subject

15. Marking and Signs for Access Routes CSPP Contents:

- ❖ Sign schedule (separate sheet or included on **CSDs**).
- ❖ Temporary markings indicated on **CSDs**.
- ❖ Signs locations indicated on **CSDs**.



Construction Safety and Phasing Plan Requirements & Contents by Subject

16. Hazard Marking and Lighting Requirements:



- ❖ Identify potential construction hazards to aircraft.
- ❖ Determine most effective means to isolate & identify such hazards:
 - ❖ Barriers - highly visible/reflective & preferably interlocking.
 - ❖ Red lights - steady burning or flashing.
 - ❖ Signs.

Construction Safety and Phasing Plan Requirements & Contents by Subject

16. Hazard Marking and Lighting CSPP Contents:



- ❖ Description of hazard marking & lighting equipment to be used including graphic diagrams.
- ❖ Equipment locations indicated on **CSDs**.
- ❖ Equipment maintenance procedures.
- ❖ Responsible individuals (identified in SPCD).

Construction Safety and Phasing Plan Requirements & Contents by Subject

17. Protection of Runway & Taxiway Areas, Zones, & Surfaces Requirements:

- ❖ Determine affected areas:
 - ❖ Safety Areas.
 - ❖ Object Free Areas.
 - ❖ Obstacle Free Zones.
 - ❖ Approach / Departure Surfaces.
- ❖ Determine requirements:
 - ❖ Construction activity restrictions during aircraft operations.
 - ❖ Open excavation restrictions & erosion control.



Construction Safety and Phasing Plan Requirements & Contents by Subject

17. Protection of Runway & Taxiway Areas, Zones, & Surfaces

CSPP Contents:

- ❖ Areas, zones, & surfaces depicted on **CSDs**.
- ❖ Methods of demarcation.
- ❖ Construction activity restrictions during aircraft operations.
- ❖ Open excavation restrictions.
- ❖ Erosion control methods.



Construction Safety and Phasing Plan Requirements & Contents by Subject

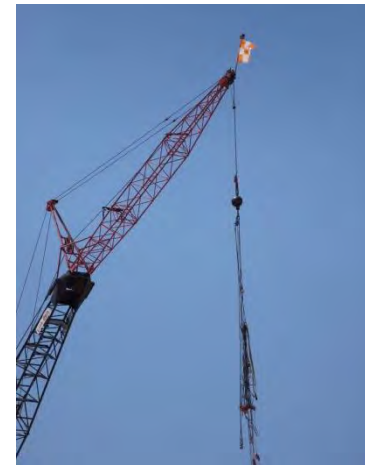
18. Other Limitations on Construction Requirements:

- ❖ Determine prohibitions:

- ❖ Tall equipment (w/o 7460).
- ❖ Open flame welding.
- ❖ Electrical blasting caps.

- ❖ Determine restrictions:

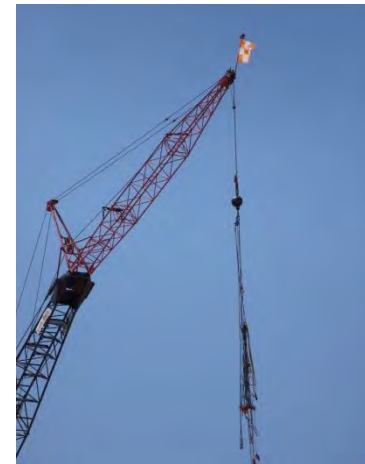
- ❖ Construction suspension during certain airport operations.
- ❖ Areas that cannot be worked on simultaneously.
- ❖ Day or night construction restrictions.
- ❖ Seasonal construction restrictions.



Construction Safety and Phasing Plan Requirements & Contents by Subject

18. Other Limitations on Construction CSPP Contents:

- ❖ List of applicable prohibitions.
- ❖ Description of applicable restrictions (other than those indicated in other sections) including where & when they apply.



Construction Safety and Phasing Plan Key Points PLAN

- ❖ **Start the CSPP development at the Project Scoping Meeting.**
- ❖ **Develop the CSPP in concert with the design effort.**



Construction Safety and Phasing Plan Key Points

COORDINATE



- ❖ **Key Coordination: Sponsor & Consultant.**
- ❖ **Involve FAA ATO & users.**
- ❖ **Conduct design review *independent* of the CSPP.**
- ❖ **Sponsor a SRM panel per AC 150/5200-37 if required.**

Construction Safety and Phasing Plan Key Points **CREATE**

- ❖ **Organize CSPP by subject.**
- ❖ **Use headings with section (subject) numbers and titles.**
- ❖ **Choose the most appropriate section for subject matter and cross reference other sections to it.**
- ❖ **Include CSDs! Keep them clear and concise.**



Construction Safety and Phasing Plan Key Points **SUBMIT**



- ❖ Submit an *optional* draft CSPP directly to the FAA Project Manager at 30% +/- design.
- ❖ Submit final CSPP through OE/AAA (7460) at 90% +/- design. Include *optional* CSPP checklist.

Construction Safety and Phasing Plan Key Points **EXECUTE**

- ❖ **Request a SPCD from the awarded contractor.**
- ❖ **Require routine Safety Meetings for contractor employees.**
- ❖ **Submit revisions to the CSPP as required.**



Construction Safety and Phasing Plan Key Points

KEEP IN MIND

- ❖ **The only way to reduce RSA dimensions is to temporarily change the runway ARC.**
- ❖ **Taxiway Safety Areas protect wheels.
Taxiway Object Free Areas protect wings.**
- ❖ **Forty-five (45) days is required for FAA review after OE/AAA (7460) submission.**
- ❖ **CSPP Determination Letter must be issued prior to Notice to Proceed.**

Construction Safety and Phasing Plan Key Points

REMEMBER

The CSPP is designed to enforce aircraft operational safety during construction.

If a subject matter does not involve *both* aircraft operational safety *and* construction, it should not be included in the CSPP.

Construction Safety and Phasing Plan INTERACTIVE GROUP EXERCISE



In the PLAN

or

NOT in the PLAN



Construction Safety and Phasing Plan EXERCISE

In the **PLAN** or **NOT in the PLAN**

1. Coordination:

The airport sponsored a coordination meeting with airport tenants and operators on 15 May 2011.

If the airport requires input from affected tenants and users, users meetings are a highly effective coordination tool. Note that an informative user meeting would be included in Section 9, Notification of Construction Activities, instead.

Construction Safety and Phasing Plan EXERCISE

In the **PLAN** or **NOT** in the **PLAN**

12. Penalties:

The Contractor must agree to pay the Owner liquidated damages for each and every calendar day the work remains incomplete beyond the specified time.

Liquidated damages are not a penalty.

Construction Safety and Phasing Plan EXERCISE

In the **PLAN** or **NOT in the PLAN**

6. Wildlife Management:

Grass in the construction area will be mowed routinely to reduce deer tick exposure.

*Deer ticks do not pose a danger to aircraft.
This is an OSHA concern, not an operational safety concern.*

Construction Safety and Phasing Plan EXERCISE

In the **PLAN** or **NOT in the PLAN**

4. Navigational Aid (NAVAID) Protection:

Reference Section 11, *Underground Utilities*, for FAA ILS cable identification and protection methods.

The identification and protection of underground cables is best described in Section 11, not Section 4. But because they are NAVAID related, a cross reference to Section 11 in Section 4 is appropriate.

Construction Safety and Phasing Plan EXERCISE

In the **PLAN** or **NOT in the PLAN**

17. Protection of Runway and Taxiway Areas, Zones, & Surfaces:

The new EMAS will protect aircraft from overrunning the Runway Safety Area (RSA). *EMAS may be part of the scope of work, but the statement does not describe how the RSA will be protected during the construction.*



Construction Safety and Phasing Plan EXERCISE

In the **PLAN** or **NOT in the PLAN**

14. Runway and Taxiway Visual Aids:

The Runway 6 VASI will remain in service during the full 60 day Runway 6 shutdown.

Though written correctly in the correct section, an operational visual aid serving a closed runway is misleading to pilots. This is a poor practice!

Construction Safety and Phasing Plan EXERCISE

In the **PLAN** or **NOT in the PLAN**

1. Coordination:

FAA Technical Operations will be notified 30 days prior to the shutdown of the Runway 35 ILS.

This is a notification, not a coordination activity. It should be included in Section 9, Notification of Construction Activities, instead.

Construction Safety and Phasing Plan EXERCISE

In the **PLAN** or **NOT in the PLAN**

6. Wildlife Management:

Disrupted wildlife observed moving toward the Air Operations Area (AOA) will be immediately reported to Air Traffic Control and Airport Operations by the full time Resident Engineer.

Wildlife disrupted by construction near an AOA is a hazard to aircraft. An action plan is required.

Construction Safety and Phasing Plan EXERCISE

In the **PLAN** or **NOT in the PLAN**

9. Notification of Construction Activities:

The following OE/AAA cases were filed
on 29 March 2012:

2012-ANE-25-NRA (crane)

2012-ANE-26-NRA (const. vehicles)

*Listing other related OE/AAA cases in the CSPP is a
best practice and is highly recommended.*

Construction Safety and Phasing Plan EXERCISE

In the **PLAN** or **NOT in the PLAN**

14. Runway and Taxiway Visual Aids:

The direction signs for T/W A and the outbound destination sign for R/W 6 at T/W A will be disconnected and covered by Airport Maintenance prior to the **T/W A closure**. *This statement describes removing information that would otherwise be misleading to pilots. What will be done, when it will be done, and who is responsible is indicated.*

Construction Safety and Phasing Plan EXERCISE

In the **PLAN** or **NOT in the PLAN**

12. Penalties:

Non-compliance with airport rules and regulations by contractor personnel will result in suspension or revocation of their vehicle operating privileges and may subject the contractor to fines as described in the ACM. *Well, yes.*



Construction Safety and Phasing Plan EXERCISE

In the **PLAN** or **NOT in the PLAN**

5. Contractor Access:

Temporary personnel shall be escorted at all times.

The responsible party for escorting temporary personnel is not indicated. This also reads like a specification rather than a plan (“shall” versus “will”).

Construction Safety and Phasing Plan EXERCISE

In the **PLAN** or **NOT in the PLAN**

7. Foreign Object Debris (FOD) Management:

Mud, dirt, sand, loose aggregate, debris, rubber deposits, and other contaminants shall be removed as soon as practical.

The source of the FOD is not identified as construction related, the responsible party is not identified, and the statement reads like a specification not a plan.

Construction Safety and Phasing Plan EXERCISE

In the **PLAN** or **NOT in the PLAN**

13. Special Conditions:

Snow is removed off movement area surfaces so that all air carrier aircraft propellers, engine pods, and wingtips may clear any snowdrift.

Clearing snow from movement areas usually has little or nothing to do with construction.

Construction Safety and Phasing Plan EXERCISE

In the **PLAN** or **NOT in the PLAN**

14. Runway and Taxiway Visual Aids:

**Runway markings will meet AC
150/5340-1K.**

It is not clear whether the markings are temporary or permanent; only temporary markings should be mentioned in the CSPP. The statement also points out the obvious (all markings meet AC 150/5340-1K).

Construction Safety and Phasing Plan EXERCISE

In the **PLAN** or **NOT in the PLAN**

5. Contractor Access:

Badges?

We don't need no stinking badges!



Construction Safety and Phasing Plan EXERCISE

In the PLAN or NOT in the PLAN

**17. Protection of Runway and Taxiway
Areas, Zones, & Surfaces:**

**Trenching operations between 200
and 250 feet of the runway centerline
will immediately stop and all
contractor personnel will vacate the
RSA when instructed by ATC.**

***Aircraft cannot operate on a runway with open
trenches in the Runway Safety Area (RSA).***

Construction Safety and Phasing Plan EXERCISE

In the PLAN or NOT in the PLAN

3. Areas and Operations Affected by the Construction Activity:

Operational Requirements	Normal	Phase I
Runway 15-33 ARC:	C-IV	B-II

This partial example clearly shows a construction related aircraft restriction during Phase I.

Construction Safety and Phasing Plan EXERCISE

In the **PLAN** or **NOT in the PLAN**

16. Hazard Marking and Lighting:

Interlocking barriers will be as indicated on Drawing CS 1.2.

This statement is fine as long as Drawing CS 1.2 is a CSD included in the CSPP.

Construction Safety and Phasing Plan EXERCISE

In the **PLAN** or **NOT in the PLAN**

13. Special Conditions:

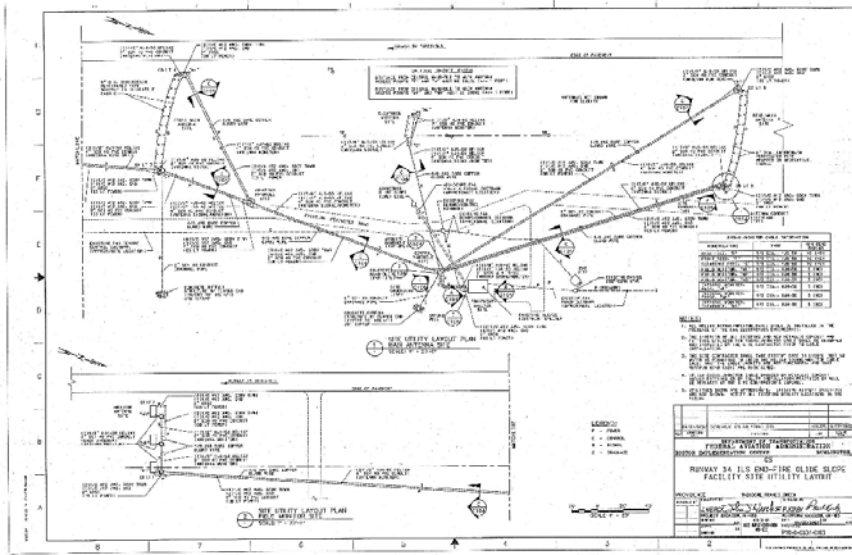
All construction activity will be immediately suspended after any construction related Vehicle/Pedestrian Deviation (V/PD) until an FAA investigation is concluded.

You can count on this!

Construction Safety and Phasing Plan EXERCISE

In the **PLAN** or **NOT in the PLAN**

11. Underground Utilities:



*Maybe, maybe not:
a utility drawing
should not be
included in the
CSPP, unless
requested.*

Drawing Title: *Facility Site Utility Layout*

Construction Safety and Phasing Plan EXERCISE

In the **PLAN** or **NOT in the PLAN**

18. Other Limitations on Construction:

No construction will take place during the months of June, July, and August, as this is the airport's "high season" for activity.

This is often a restriction at summer resort airports (Cape and Islands airports, for example).

Construction Safety and Phasing Plan EXERCISE

In the **PLAN** or **NOT in the PLAN**

8. Hazardous Materials (HAZMAT) Management:

At least one emergency fuel shutoff control station shall be conveniently accessible to each fueling position.

The location of emergency fuel shutoff stations has nothing to do with construction Hazmat management.

Construction Safety and Phasing Plan EXERCISE

In the **PLAN** or **NOT in the PLAN**

5. Contractor Access:

The Contractor shall enter and exit the airport only at designated points established at the Preconstruction Conference.

The designated entry and exit points need to be established in the CSPP, not during the Precon.

Construction Safety and Phasing Plan EXERCISE

In the **PLAN** or **NOT in the PLAN**

16. Hazard Marking and Lighting:

The project includes three hazard beacon replacements.

The hazard beacons will not protect aircraft from construction related hazards.

Construction Safety and Phasing Plan EXERCISE

In the **PLAN** or **NOT in the PLAN**

9. Notification of Construction Activities:

Phone numbers (*partial list*):

Airfield operations: (111) 123-4567

ATCT cab: (111) 987-6543 ← *a best practice!*

ARFF: (111) 345-6789

Construction Safety and Phasing Plan EXERCISE

In the **PLAN** or **NOT in the PLAN**

16. Hazard Marking and Lighting:

Contractor personnel responsible for the maintenance of the lighted barriers will be as indicated in the SPCD. *Because the CSPP will be finalized prior to the award of the contract, the name(s) of the responsible contract individual(s) cannot be identified until the SPCD submission by the contractor.*

Construction Safety and Phasing Plan EXERCISE

In the **PLAN** or **NOT in the PLAN**

10. Inspection Requirements:

Unless otherwise directed, all materials used in the work area shall be inspected, tested, and approved by the Engineer before incorporation in **the work**. *Construction material inspection has nothing to do with airport operations.*

Construction Safety and Phasing Plan EXERCISE

In the **PLAN** or **NOT in the PLAN**

2. Phasing:

Phases 1 through 6 are indicated on drawing CS1.1, which will be included in the bid drawing package.

Incorporating six (6) phases on one CSD will be nearly impossible to decipher. Also, all CSDs must be included with the CSPP.

Construction Safety and Phasing Plan EXERCISE

In the **PLAN** or **NOT in the PLAN**

4. NAVAID Protection:

See Section 9 for NAVAID NOTAM requirements.

9. Notification of Construction Activities:

See Section 4 for NAVAID NOTAM requirements. *Beware of circular references!*

Construction Safety and Phasing Plan EXERCISE

In the **PLAN** or **NOT in the PLAN**

13. Special Conditions:

All construction personnel will be required to wear hard hats and other personal protection at all times at the worksite.

Personal protection equipment is usually an OSHA requirement, not an operational safety requirement.

Construction Safety and Phasing Plan EXERCISE

In the **PLAN** or **NOT in the PLAN**

15. Marking and Signs for Access Routes:

All signs will be as indicated in the airport's ACM sign and marking plan.

Only permanent signs are included in the ACM sign and marking plan. Signs for access routes are temporary and must be indicated in the CSPP.

Construction Safety and Phasing Plan EXERCISE

In the **PLAN** or **NOT in the PLAN**

10. Inspection Requirements:

Airport Operations personnel will use a supplemental inspection checklist, listing all construction phase elements requiring inspection, during each airport self-inspection. *An inspection checklist is a best practice, especially at certificated airports. Include the checklist(s) in the CSPP if possible.*

Construction Safety and Phasing Plan EXERCISE

In the **PLAN** or **NOT in the PLAN**

13. Special Conditions:

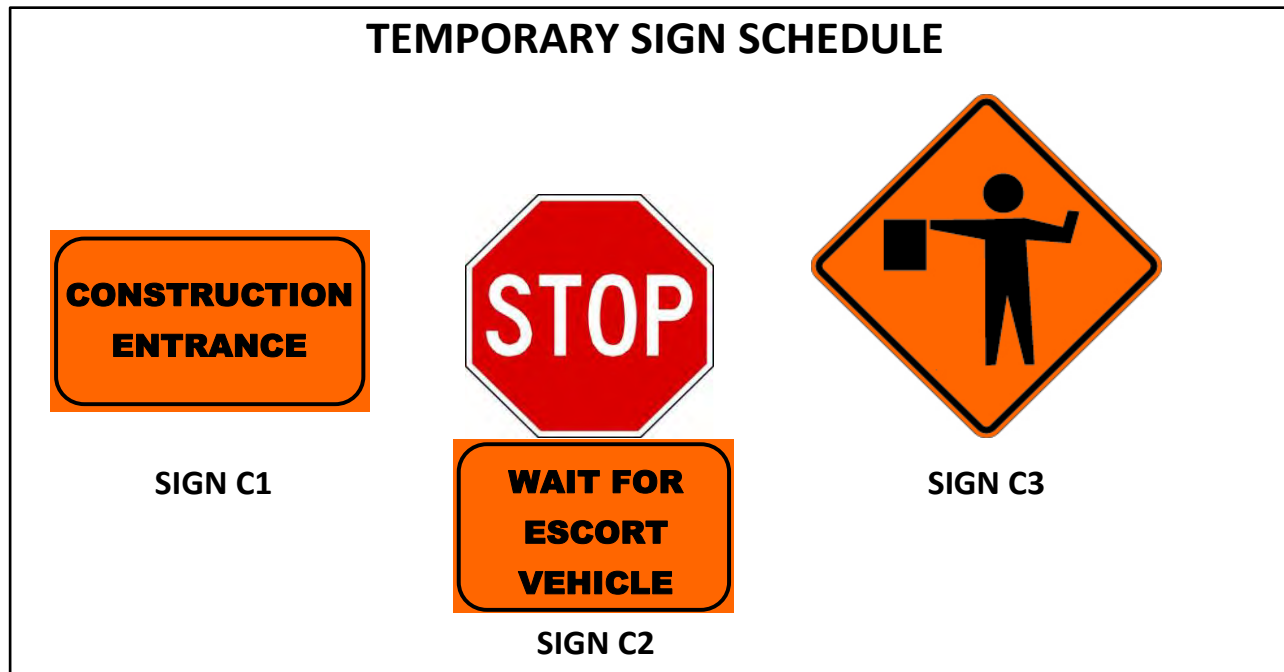
All construction will be suspended during periods when Air Force One is operating or parked at the airport.

If unique or special events are expected to interrupt the construction, mention them in the CSPP.

Construction Safety and Phasing Plan EXERCISE

In the **PLAN** or **NOT in the PLAN**

Appendix A: Temporary Sign Schedule



Good!


Construction Safety and Phasing Plan EXERCISE

In the **PLAN** or **NOT in the PLAN**

Appendix C: Contract Specifications

INSTALLATION OF AN END-FIRE GLIDE SLOPE (EFGS)
FACILITY SERVING RUNWAY 34 AT THE T. F. GREEN
AIRPORT, WARWICK, RI.

REQUEST FOR OFFERS NO: RFO NO. NE110:01



PROPOSAL CLOSE DATE: June 5, 2007
2:00 PM EASTERN TIME

Prepared by:
Parsons Infrastructure and Technology Group Inc.
Parsons TSSC-III
C/o Federal Aviation Administration
12 New England Executive Park
Burlington, MA 01803

For:
Federal Aviation Administration – New England Region

MAGNITUDE OF CONSTRUCTION: Between \$250,000 and \$500,000

Specifications do not normally discuss airport operations (except where CSPP compliance is specified). Please do not include contract specs with the CSPP.

Construction Safety and Phasing Plan Acronym Glossary

AC – Advisory Circular
ACM – Airport Certification Manual
AOA – Air Operations Area
ARC – Airport Reference Code
ARFF – Aircraft Rescue and Firefighting
ATO – Air Traffic Organization (FAA)
CSD – Construction Safety Drawing
CSPP – Construction Safety & Phasing Plan
FOD – Foreign Object Debris
HAZMAT – Hazardous Material
HIT – Horizontal Integration Team
MSDS – Material Safety Data Sheet
MUTCD – Manual of Uniform Traffic Control Devices
NAVAID – Navigational Aid
NOTAM – Notice to Airmen
OE/AAA – Obstruction Evaluation / Airport Airspace Analysis
RSA – Runway Safety Area
SIDA – Security Identification Display Area
SPCD – Safety Plan Compliance Document
SRM – Safety Risk Management
V/PD – Vehicle / Pedestrian Deviation
WHMP – Wildlife Hazard Management Plan



Construction Safety and Phasing Plan References

AC 150/5200-28, Notice to Airmen (NOTAMs) for Airport Operators
AC 150/5200-30, Airport Winter Safety Options
AC 150/5200-33, Hazardous Wildlife Attractants On or Near Airports
AC 150/5200-37, Introduction to Safety Management Systems (SMS) for Airport Operators
AC 150/5210-5, Painting, Marking, and Lighting of Vehicles Used on an Airport
AC 150/5210-20, Ground Vehicle Operations on Airports
AC 150/5300-13, Airport Design
AC 150/5310-24, Airport Foreign Object Debris Management
AC 150/5320-15, Management of Airport Industrial Waste
AC 150/5340-1, Standards for Airport Markings
AC 150/5340-18, Standards for Airport Sign Systems
AC 150/5340-30, Design and Installation Details for Airport Visual Aids
AC 150/5370-2, Operational Safety on Airports During Construction
AC 150-5370-10, Standards for Specifying Construction of Airports
Form 7460-1, Notice of Proposed Construction or Alteration
Form 7480-1, Notice of Landing Area Proposal
Manual of Uniform Traffic Control Devices (Federal Highway Administration)
Title 14 CFR Part 77, Safe, Efficient Use, and Preservation of the Navigable Airspace
Title 14 CFR Part 139, Certification of Airports
Title 49 CFR Part 1542, Airport Security



Construction Safety and Phasing Plan Summary

**Tell the story
- through words and illustrations -
about how you will protect Aviation
from the dangers of Construction
on your Airport.**

**This is your
*Construction Safety & Phasing Plan.***

Construction Safety and Phasing Plan Acknowledgements

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- ❖ **Craig Bailey, Ruben Cabalbag, Laurie J. Dragonas, Barry Hammer, Peter Hasslinger, Michael Meyers, Bryon Rakoff, Bob Siris & Cliff Vacirca**
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- ❖ **Ned London, Parsons / TSSC**
- ❖ **Gale Associates, Inc.**
- ❖ **Nashua Municipal Airport**

