

## AGENDA

REGULAR MEETING OF THE CITY COUNCIL OF THE CITY OF COTTONWOOD, ARIZONA, TO BE HELD SEPTEMBER 17, 2013, AT 6:00 PM., AT THE COUNCIL CHAMBERS BUILDING, 826 NORTH MAIN STREET, COTTONWOOD, ARIZONA.

- I. CALL TO ORDER
- II. ROLL CALL
- III. PLEDGE OF ALLEGIANCE
- IV. BRIEF SUMMARY OF CURRENT EVENTS BY MAYOR, CITY COUNCIL AND/OR CITY MANAGER -- THE PUBLIC BODY DOES NOT PROPOSE, DISCUSS, DELIBERATE OR TAKE LEGAL ACTION ON ANY MATTER BROUGHT UP DURING THIS SUMMARY UNLESS THE SPECIFIC MATTER IS PROPERLY NOTICED FOR LEGAL ACTION.
- V. INTRODUCTION OF NEW EMPLOYEES  
FIREFIGHTER JOHN WESBROCK
- VI. PROCLAMATIONS  
NATIONAL EMPLOYER SUPPORT OF THE GUARD AND RESERVE WEEK, SEPTEMBER 22-18, 2013.  
PROCLAIMING SEPTEMBER 2013 AS RECOVERY MONTH.
- VII. PRESENTATIONS  
PRESENTATION REGARDING THE COTTONWOOD-OAK CREEK & MINGUS UNION HIGH SCHOOL DISTRICTS' CONTINUATION OF THE 10 PERCENT BUDGET OVERRIDE ELECTION  
PRESENTATION BY SEDONA RECYCLES REGARDING THE SERVICES IT PROVIDES IN THE VERDE VALLEY.
- VIII. CALL TO THE PUBLIC--This portion of the agenda is set aside for the public to address the Council regarding an item that is not listed on the agenda for discussion. However, the Council cannot engage in discussion regarding any item that is not officially listed on the agenda for discussion and/or action (A.R.S. §38-431.02(H).) Comments are limited to a 5 minute time period.
- IX. APPROVAL OF MINUTES  
The Regular Meetings of August 6 and 20 and September 3, 2013 and the Special Meetings of August 13, 2013.

***Comments regarding items listed on the agenda are limited to a 5 minute time period per speaker.***

X. UNFINISHED BUSINESS

1. ORDINANCE NUMBER 600 - PROPOSING AN AMENDMENT TO SECTION 404.H.8.b OF THE CITY'S ZONING ORDINANCE, GOVERNING THE ALLOWABLE HEIGHT OF WIRELESS COMMUNICATIONS FACILITIES; SECOND AND FINAL READING.

XI. CONSENT AGENDA--The following items are considered to be routine and non-controversial by the Council and will be approved by one motion. There will be no separate discussion of these items unless a Council Member or a citizen so requests, in which case the item will be removed from the Consent Agenda and considered in its normal sequence on the Agenda.

1. PAYMENT OF THE FINAL INSTALLMENT FOR THE COST SHARING ARRANGEMENT WITH THE TOWN OF CAMP VERDE FOR THE SR260 LOBBYIST.
2. RESOLUTION NUMBER 2717--APPROVING A GRANT AGREEMENT WITH THE UNITED STATES OF AMERICA, ACTING THROUGH THE FEDERAL AVIATION ADMINISTRATION (FAA) FOR THE INSTALLATION OF AN AUTOMATED WEATHER OBSERVATION SYSTEM (AWOS) AT THE COTTONWOOD AIRPORT.
3. APPROVAL OF A CONTRACT WITH WOODRUFF CONSTRUCTION FOR INSTALLATION OF AN AUTOMATED WEATHER OBSERVATION STATION AT THE COTTONWOOD AIRPORT.
4. CONSIDERATION OF A PERSON TRANSFER LIQUOR LICENSE APPLICATION FOR LISA G. YOUNG, APPLICANT FOR MY DOBRO LOCATED AT 1100 HIGHWAY 260.
5. CONSENT OF ASSIGNMENT OF TENANT RIGHTS FOR LOT 133 OF COTTONWOOD AIRPARK TRACT ONE--PARTS B&C, FROM BACKUS FAMILY INVESTMENTS, L.L.C., TO FIRST SAVINGS BANK, CUSTODIAN FOR LARRY CONIFER, IRA.
6. CONSIDERATION OF A PERSON TRANSFER LIQUOR LICENSE APPLICATION FOR THOMAS E. OLIVAS, APPLICANT FOR OLIVAS MEXICAN RESTAURANT LOCATED AT 301 WEST HIGHWAY 89A.

XII. NEW BUSINESS—The following items are for Council discussion, consideration, and possible legal action.

1. CONSIDERATION OF A REQUEST FROM SEDONA/VERDE VALLEY PRIDE, FOR WAIVER OF SECTION 9.12.030, A., ALCOHOLIC BEVERAGES, OF THE MUNICIPAL CODE IN ORDER TO SERVE AND SELL BEER AND WINE AT THE OLD TOWN ACTIVITY PARK FOR AN EVENT SCHEDULED FOR SEPTEMBER 28, 2013.
2. SPECIAL EVENT LIQUOR LICENSE APPLICATION SUBMITTED BY

GREGORY LUCKEY, APPLICANT FOR SEDONA PRIDE, FOR AN EVENT SCHEDULED FOR SEPTEMBER 28, 2013, AT THE OLD TOWN ACTIVITY PARK.

3. APPROVAL OF A NEW INFORMATION TECHNOLOGY TECHNICIAN II POSITION (RANGE 21) AND ELIMINATION OF AN ACCOUNTING SPECIALIST II POSITION (RANGE 18) UNDER THE ADMINISTRATIVE SERVICES DEPARTMENT.

XIII. CLAIMS AND ADJUSTMENTS

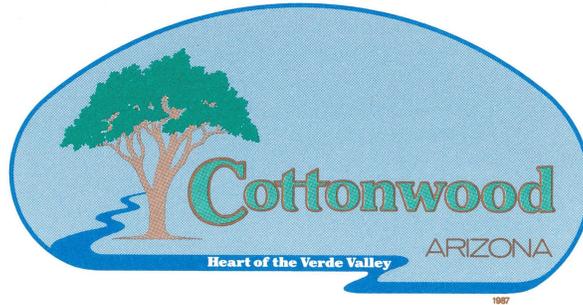
XIV. ADJOURNMENT

Pursuant to A.R.S. 38-431.03.(A) the Council may vote to go into executive session on any agenda item pursuant to A.R.S. 38-431.03.(A)(3) Discussion or consultation for legal advice with the attorney or attorneys of the public body.

The Cottonwood Council Chambers is accessible to the disabled in accordance with Federal "504" and "ADA" laws. Those with needs for special typeface print or hearing devices may request these from the City Clerk (TDD 634-5526.) All requests must be made 24 hours prior to the meeting.

Members of the City Council will attend either in person or by telephone conference call.

Notice is hereby given that pursuant to A.R.S. 1-602.A.9 , subject to certain specified statutory exceptions, parents have a right to consent before the State or any of its political subdivisions make a video or audio recording of a minor child. Meetings of the City Council are audio and/or video recorded, and, as a result, proceedings in which children are present may be subject to such recording. Parents in order to exercise their rights may either file written consent with the City Clerk to such recording, or take personal action to ensure that their child or children are not present when a recording may be made. If a child is present at the time a recording is made, the City will assume that the rights afforded parents pursuant to A.R.S. 1-602.A.9 have been waived.



## Proclamation

**Whereas**, National Guard and Reserve forces comprise nearly half of our nation's military strength, and are essential to America's national security. Reserve Component forces stand ready to answer the call to serve, whether serving alongside active duty counterparts all across the globe or responding to humanitarian crises at home and abroad; and

**Whereas**, employers provide critical support to members of the National Guard and Reserve; allowing Citizen Warriors to serve whenever the Nation calls, often foregoing financial gain and making sacrifices in the process; and

**Whereas**, employer support is stronger than ever, more than 41 years after President Richard Nixon authorized the Secretary of Defense to establish the National Committee for Employer Support of the Guard and Reserve (ESGR); and

**Whereas**, our nation is in debt to the Citizen Warriors departing the comforts of home to ensure our freedoms remain intact. Likewise, America pays special tribute to the commitment of dedicated and supportive employers who continue to make service in the Reserve Components possible; and

**NOW, THEREFORE**, I, Diane Joens, Mayor of the City of Cottonwood, Arizona, do hereby proclaim September 22 through September 28, 2013, as

### **National Employer Support of the Guard and Reserve Week**

**IN WITNESS THEREOF**, I have hereunto set my hand the 26th Day of September 2013.

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Diane Joens, Mayor



## PROCLAMATION

**WHEREAS**, on behalf of the citizens of Cottonwood, I am pleased to join the Substance Abuse and Mental Health Services Administration, the Northern Arizona Regional Behavioral Health Authority, and local mental health professionals and peers in celebrating September 2013 as “Recovery Month” in our community; and

**WHEREAS**, mental health and substance abuse disorders affect millions of Americans of all ages, races, and ethnic backgrounds and result in significant medical, societal, and economic costs; and

**WHEREAS**, acknowledging September 2013 as “Recovery Month” offers advocates of mental health and substance abuse prevention, treatment, and recovery the opportunity to help our citizens reflect on ways to prevent mental health crises, the existence of effective treatment alternatives, and the celebratory fact that people can and do recover; and

**WHEREAS**, thousands of behavioral health care providers and peers have dedicated their lives to educating the public and policymakers about prevention, treatment, and recovery.

**NOW, THEREFORE**, I, Karen Pfeifer, Vice Mayor of Cottonwood, Arizona, do hereby proclaim September 2013 as **Recovery Month** in the City of Cottonwood, and encourage all citizens to support this year’s theme – “Join the Voices for Recovery – It’s Worth It” by supporting men, women, and youth who have chosen the courageous path of recovery from mental health and substance abuse disorders.

**DATED** this 17th day of September 2013.

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Karen Pfeifer, Vice Mayor

**City of Cottonwood, Arizona  
City Council Agenda Communication**



 Print

Meeting Date:	September 17, 2013
<b>Subject:</b>	Ordinance 600 - Wireless Communications Facilities
Department:	City Clerk
From:	Steve Horton, City Attorney

**REQUESTED ACTION**

Approval of Ordinance 600, concerning the allowable height of wireless communications facilities (cell towers) within the City.

**SUGGESTED MOTION**

If the Council desires to approve this item the suggested motion is:

I move to approve Ordinance Number 600.

**BACKGROUND**

The Federal Telecommunications Act of 1996 (“TCA”) authorizes - and entitles - wireless communications companies to provide adequate coverage throughout their service areas, and sometimes requires local authorities to modify and/or waive certain zoning and land use regulations in order to accommodate that right.

There has been much litigation in the federal courts around this provision of the TCA, and what sorts of accommodations the Act does and does not require. Like any federal litigation, litigation of this type is very costly and time-consuming, and something that the City should make every effort to avoid, to the extent possible.

A New Jersey company known as Capital Telecom that develops wireless communications facilities around the country (its website indicates that it offers more than 18,000 sites in “strategic locations across the U.S.”) seeks approval to install a 90-foot tower on the VFW property by the old slag pile on behalf of AT&T. It has presented the City with “search ring” data in support of its assertions that a single tower of this height is the least intrusive means of filling a gap in its wireless coverage of the City (and particularly its coverage for the transmission of data), and that it would have to install multiple 60-foot towers at various locations within and/or around the City in order to provide an equivalent level of coverage.

The City’s in-house technical consultant, Tad Coyner, has reviewed Capital Telecom’s technical data and generally confirmed its accuracy and reasonableness.

Under Section 404.H.8.b of the City’s Zoning Ordinance, the overall height of any wireless communications structure, antenna and/or antenna array may not exceed 60 feet from the ground to the highest physical point on the structure - without exception. Staff is proposing and recommending that the City incorporate some flexibility into that section of the code, so that the Council would have the ability, after considering the findings and recommendation of the Planning and Zoning Commission following an evidentiary hearing, to allow applicants to install wireless communications facilities that exceed the 60-foot height limitation by up to 30 additional feet (up to a maximum total height of 90 feet), upon a showing that the extra height is the least intrusive/objectionable means of filling a significant gap in coverage. Under the staff proposal/recommendation, this flexibility would not extend to the R-1 zone or the Old Town Historic District, where the 60-foot height limitation would still apply without exception.

Under the staff proposal, Section 404.H.8.b of the City’s Zoning Ordinance would read as follows, if approved by the Council:

*b. The overall height of any wireless communications structure, antenna and/or antenna array shall not be greater than a maximum of sixty (60) feet from the ground to the highest physical point on the structure, provided, however, that a wireless communications structure, antenna and/or antenna array up to ninety (90) feet from the ground to the highest physical point on the structure may be permitted in any zoning district other than the R-1 District and the Old Town Historic District with the approval of the City Council, upon a showing by the applicant that the additional height is the least intrusive means of filling a significant gap in a wireless communications provider’s coverage within the City. In making this determination and allowing a wireless communications structure, antenna and/or antenna array to exceed the sixty (60) foot height limitation by up to thirty (30) additional feet, the City Council shall consider the findings and recommendations of the Planning and Zoning Commission, which shall hold a public hearing on any proposal to exceed the sixty (60) foot height limitation. The Council may or may not hold a separate hearing on the proposal following its receipt of the Commission’s findings and recommendations, and may impose reasonable conditions on its approval of any proposal to exceed the sixty (60) foot height limitation, either based on the recommendations of the Commission or on its own motion.*

**JUSTIFICATION/BENEFITS/ISSUES**

The proposed amendment does not constitute or require the approval of any specific development proposal. Rather, it would give the Council a measure of flexibility that it does not currently have, the exercise of which could in certain cases avoid the need for unnecessary litigation.

**COST/FUNDING SOURCE**

NA

**ATTACHMENTS:**

Name:	Description:	Type:
<a href="#">☐ Ordinance No. 600 - Wireless Communications Facility Height - ZO Amendment - 08-29-13.docx</a>	Ordinance 600	Ordinance

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ORDINANCE NUMBER 600

AN ORDINANCE OF THE MAYOR AND CITY COUNCIL OF THE CITY OF COTTONWOOD, YAVAPAI COUNTY, ARIZONA, RELATING TO THE PERMISSIBLE HEIGHT OF WIRELESS COMMUNICATIONS FACILITIES, AND AMENDING SECTION 404.H.8.b OF THE CITY'S ZONING ORDINANCE

WHEREAS, the City of Cottonwood Planning and Zoning Commission has recommended that the City's Zoning Ordinance be amended to allow for the possibility of allowing wireless communications facilities to exceed the current 60-foot height limitation by up to 30 additional feet in certain areas of the City, upon a specific showing of necessity similar to the showing that would entitle an applicant to relief from that limitation under the Federal Telecommunications Act of 1996; and

WHEREAS, the City Council finds that the amendment as recommended by the Planning and Zoning Commission is appropriate and in the City's best interests;

NOW, THEREFORE, BE IT ORDAINED BY THE MAYOR AND CITY COUNCIL OF THE CITY OF COTTONWOOD, YAVAPAI COUNTY, ARIZONA, AS FOLLOWS:

Section 1. That Section 404.H.8.b of the Cottonwood Zoning Ordinance is hereby amended to read as follows:

- b. The overall height of any wireless communications structure, antenna and/or antenna array shall not be greater than a maximum of sixty (60) feet from the ground to the highest physical point on the structure, provided, however, that a wireless communications structure, antenna and/or antenna array up to ninety (90) feet from the ground to the highest physical point on the structure may be permitted in any zoning district other than the R-1 District and the Old Town Historic District with the approval of the City Council, upon a showing by the applicant that the additional height is the least intrusive means of filling a significant gap in a wireless communications provider's coverage within the City. In making this determination and allowing a wireless communications structure, antenna and/or antenna array to exceed the sixty (60) foot height limitation by up to thirty (30) additional feet, the City Council shall consider the findings and recommendations of the Planning and Zoning Commission, which shall hold a public hearing on any proposal to exceed the sixty (60) foot height limitation. The Council may or may not hold a separate hearing on the proposal following its receipt of the Commission's findings and recommendations, and may impose reasonable

conditions on its approval of any proposal to exceed the sixty (60) foot height limitation, either based on the recommendations of the Commission or on its own motion.

Section 2. That if any section, subsection, sentence, clause, phrase or portion of this ordinance is for any reason held to be unlawful, invalid or unenforceable by decision of any court of competent jurisdiction, such decision shall not affect the validity of the remaining portions hereof.

PASSED AND ADOPTED BY THE CITY COUNCIL AND APPROVED BY THE MAYOR OF THE CITY OF COTTONWOOD, ARIZONA, THIS 20TH DAY OF SEPTEMBER 2013.

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Diane Joens, Mayor

APPROVED AS TO FORM:

ATTEST:

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Steven B. Horton, Esq.  
City Attorney

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Marianne Jiménez, City Clerk

**City of Cottonwood, Arizona  
City Council Agenda Communication**



 Print

Meeting Date:	September 17, 2013
<b>Subject:</b>	Cost sharing arrangement with Camp Verde for a contract consultant to lobby for the funding and completion of the improvements to Highway 260
Department:	Administrative Services
From:	Jesus R. Rodriguez, CGFM, Administrative Services General Manager

**REQUESTED ACTION**

Staff requests approval for the final installment on the cost sharing arrangement with Camp Verde for the SR260 Lobbyist in the amount of \$10,000

**SUGGESTED MOTION**

If the Council desires to approve this item the suggested motion is:

"I move to approve the final installment on the cost sharing arrangement with Camp Verde for the SR260 Lobbyist in the amount of \$10,000, to be paid for out of the City's undesignated reserves."

**BACKGROUND**

Last fiscal year the Cottonwood City Council agreed to help the Town of Camp Verde fund a lobbyist to assist the Verde Valley communities with getting the SR260 project funded by ADOT. The agreement specifies that the consultant will receive \$10,000 up front for their services and \$20,000 additional funding if they are successful in achieving the two objectives of getting the project placed on the ADOT five year capital plan and ensuring that the appropriate level of funding is allocated.

To that end, both those objectives have been achieved and we have been billed for the balance of the agreement. \$5,000 was paid in FY 2013 from council contingency as instructed on the April 16, 2013 meeting with the remaining to be paid before fiscal year end. Unfortunately, the remaining \$10,000 due to Camp Verde did not materialize before the fiscal year end and will now be paid out with FY 2014 resources.

Currently there is no budget appropriated to this cost since it was anticipated this would settle before the 2013 year end and be charged to the Council Contingency.

**JUSTIFICATION/BENEFITS/ISSUES**

The City of Cottonwood has long been waiting for the improvements to Highway 260 to provide a safer route for our citizens, visitors, and businesses to I-17. The Town of Camp Verde took the lead to get this project back on track and assumed the responsibility for the lobbying efforts to ensure the project got scheduled and funded. They approved the consultant's contract and approached Cottonwood for assistance with funding those agreements.

Camp Verde tried to contact the other stakeholders to solicit their funding support for the lobbying contract, but were not successful. Our agreement with Camp Verde was that Cottonwood would provide no more than 50% of the funding for the contract.

**COST/FUNDING SOURCE**

Currently there is no budget allocation for this item, however, staff recommends that the \$10,000 be charged to undesignated reserves which currently has a balance of \$53,800.

**ATTACHMENTS:**

Name:	Description:	Type:
 <a href="#">Camp Verde SR260 Lobbyist Billing.pdf</a>	Billing Summary	Backup Material
 <a href="#">9-17-13 April 16 Meeting Minutes Excerpt.doc</a>	April 16 Minutes Excerpt SR260 Lobbyist	Cover Memo

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# Town of Camp Verde

# INVOICE

Attn: Michael Showers, Finance Director  
395 S. Main Street  
Camp Verde, AZ 86322

Telephone: 928.554-0811 Fax: 928.567.6702

INVOICE # July 1, 2013  
3  
FOR: SR 260 Lobbying  
Cost Share

**Bill To:**

City of Cottonwood via Doug Bartosh  
827 N. Main Street  
Cottonwood, AZ 86326

DESCRIPTION	AMOUNT
SR 260 Lobbying Cost Share	\$10,000
Felipe Zubia, DBA Reseed, LLC	
\$15,000 (\$30,000/2) -	
\$5,000 FY 12/13 - invoiced under separate cover	
\$10,000 FY 13/14 -	
<b>APPROVAL FOR PAYMENT</b> Finance: _____ Vendor #: _____ Dept. Head _____ Date: _____ Re: _____ _____ Acct # _____	
<b>TOTAL</b>	<b>\$ 10,000 00</b>

**Make all checks payable to The Town of Camp Verde**

If you have any questions concerning this invoice, contact Carol Brown, 928.554.0003,  
carol.brown@campverde.az.gov

**THANK YOU FOR YOUR BUSINESS!**

Excerpt from April 16, 2013, Regular Meeting

REQUEST FROM THE TOWN OF CAMP VERDE FOR FUNDING ASSISTANCE FOR A LOBBYIST TO ENCOURAGE THE ARIZONA DEPARTMENT OF TRANSPORTATION BOARD TO INCLUDE THE CONSTRUCTION OF SR260 FROM THOUSAND TRAILS TO I-17 IN ITS FIVE-YEAR TRANSPORTATION FACILITIES CONSTRUCTION PROGRAM

Mr. Bartosh stated there has been continuing efforts to try and get Highway 260 back on the ADOT five-year capital plan and just recently a stepped up effort to try and get funding. The funding to complete the project with four lanes, two lanes each way, between Cottonwood and I-17 is estimated to be about 40 million dollars. The availability for capital funding for roadway projects was extremely limited at the state level. Consequently, it was going to be important that there is a lot of lobbying efforts to try and get the funding designated for this particular project. Camp Verde has taken a leadership role to try and get this project going again and has been meeting with various stakeholders, and feels comfortable that we can reach consensus on the design of the improvement. They have brought a consultant onboard to help with that process of meeting with the stakeholders and now they have signed a separate contract with this company to also lobby ADOT and the decision makers to make sure this project gets on the five-year project list and gets funded. They are going to be very focused on the next ADOT board meetings coming up in May and in June. The terms of the agreement indicate that there is a \$10,000 fee up front which at this point would be shared between Cottonwood and Camp Verde. Camp Verde hopes to bring additional stakeholders on such as the private property owners along 260 that stand to benefit from this, but also potentially the Town of Clarkdale, the county, and Sedona as well. At this point our commitment would be \$5,000 up front. If the lobbyist is successful in getting the project on the capital list and getting it funded, there's an additional \$20,000 that would be shared between the stakeholders, but if it was just Camp Verde and Cottonwood, our maximum exposure would be \$10,000 for a total of \$15,000. Staff would come back to the council probably in June based on what the consultant's results are at that point and what additional participation we have from other stakeholders in terms of financial support and potentially ask for additional funding at that point.

Mayor Joens stated the Town Manger of Camp Verde, Mr. Martin, would be given an opportunity to add anything. She questioned if he had heard from any of the other partners yet.

Mr. Martin stated the other partners were always relying on the two of us and if they saw us doing well they saw that as a positive step forward. The idea was to get through tonight and at that point they could team up on the other entities. Steve Ayers was with him who they recently hired as their economic development director, and Council woman Jessie Jones who went through the same thought process that they did. Steve had been in contact with the property owners and they had not been successful at nailing them down to an amount, but hoped they participate to some level. Approaching the other communities in the valley and suggesting that if they had an opportunity to commit some to that it would be helpful and also demonstrate that kind of commitment to what we're trying to accomplish. That was his charge from his council and he would assume theirs would be much the same.

Council Member Pratt stated his question was who were the other stakeholders, and assumed they were talking about Clarkdale, perhaps Jerome, and Sedona as well.

Mayor Joens stated Yavapai County.

Mr. Martin stated they were fortunate enough to have their new supervisor representative Tom Thurman there. They were very interested and from the beginning of this conversation it has been his intent to try to get it into the hands of the county in a certain way because he thought they have resources that we do not have to be able to take this to the next level and were one of the better partners when the last project went through. It was only because we were working together that the county was also willing to be there. He (Mr. Thurman) did not commit financially, but suggested that would be an opportunity we would have as this thing moves forward. There were many more steps in the process to funding they could become a player on, but they had not approached that directly again.

Mayor Joens questioned if there was \$6,000 or \$7,000 in this fund they had kept in the five-year plan in the past five years, but we need more because it was only going to do a little piece of that road.

Mr. Martin currently there was 7 million dollars in that fund to be able to do some design work and ultimately some level of construction. Ultimately they were looking at was pushing that from 7 million to 40 million which would allow from Thousand Trails to I-17 to be a four-lane and have intersections.

Mayor Joens stated it would benefit everyone in the Verde to have this.

Council Member Pratt stated it would benefit us economically and safety wise.

Mr. Martin stated tomorrow afternoon they were going to be meeting at the county office and talk with the communities again and get together with the consultant who was going to give us the game plan to make sure we were on the same page and invited whoever could possibly attend to have some representation. The next real opportunity for all of us to make a statement in the Verde Valley was on May 10. It has a lot of bearing when you had regular residents showing up saying how important it was from their safety or their commute. Any part they could encourage folks to attend and give positive feedback as to the need of it was going to be helpful.

Mayor Joens stated our citizen's count on that road and safety was paramount. It felt so good to be collaborating with you (Camp Verde) and we were more in a position and of a mind right now to cooperate and collaborate and get that road finished that should have been finished 10 years ago.

Council member Elinski stated he thought it was money well spent and would benefit all of our communities in the future.

Vice Mayor Pfeifer stated with the important meetings that were coming up with ADOT that he mentioned, it was a good time for us to jump in and join Camp Verde on this.

Mayor Joens stated as she understood it, the \$5,000 would come out of the council contingency right now and the next \$10,000, if it happened before July 1 that would be a new budget year, and questioned if we would budget it then.

Mr. Bartosh stated it would still be in the same budget year because it would be before July 1 and we could find the money if that was the council's desire at that time.

Council Member Dowling stated we ought to do whatever we can to make it the safest it can be.

Council Member Norman stated she thought we all have learned a lot of lessons from the last go around. She attended a lot of those meetings with ADOT last time and everybody had their idea of what it should be and couldn't agree.

Council member Pratt moved to approve an initial funding amount not to exceed \$5,000 to support the Town of Camp Verde consultant agreement to lobby for funding and completion of the improvements to Highway 260. The motion was seconded by Council Member Norman, and carried.

**City of Cottonwood, Arizona  
City Council Agenda Communication**



 Print

Meeting Date:	September 17, 2013
<b>Subject:</b>	Airport Automated Weather Observation System (AWOS) Grant Execution Resolution
Department:	Development Services
From:	Morgan Scott, Development Services Manager

**REQUESTED ACTION**

Consider approval of a resolution to accept a grant from the Federal Aviation Administration (FAA) for construction of an Automated Weather Observation System (AWOS) at the airport.

**SUGGESTED MOTION**

If the Council desires to approve this item the suggested motion is:

"I move to approve Resolution Number 2717, accepting a grant from the Federal Aviation Administration for majority funding for the purchase and installation of an automated weather observation system for the Cottonwood Airport, and authorizing the Mayor to execute the grant agreement."

**BACKGROUND**

At the regular City Council meeting held on September 3, 2013 the Council granted the Mayor the authority to accept a grant from the Federal Aviation Administration (FAA) for installation of an AWOS at the Cottonwood Airport. The execution of that grant is already being processed, however, the FAA has also requested a Resolution from the Council accepting the grant and authorizing the Mayor to execute the grant agreement. The purpose of this item is to provide that Resolution.

**JUSTIFICATION/BENEFITS/ISSUES**

- The AWOS will allow for safer operations at the airport especially during inclement weather conditions.
- The AWOS will open the Cottonwood area to more business opportunities by meeting the requirements of large corporations.

**COST/FUNDING SOURCE**

FAA Grant/Airport Funds/General Fund

**ATTACHMENTS:**

Name:

 [res2717.doc](#)

Description:

Resolution Number 2717

Type:

Cover Memo

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RESOLUTION NUMBER 2717

A RESOLUTION OF THE MAYOR AND CITY COUNCIL OF THE CITY OF COTTONWOOD, ARIZONA, APPROVING A GRANT AGREEMENT WITH THE UNITED STATES OF AMERICA, ACTING THROUGH THE FEDERAL AVIATION ADMINISTRATION (FAA) FOR THE INSTALLATION OF AN AUTOMATED WEATHER OBSERVATION SYSTEM (AWOS) AT THE COTTONWOOD AIRPORT.

WHEREAS, the FAA has approved the grant agreement for the City for installation of an Automated Weather Observation System at the Cottonwood Airport for a maximum obligation in the amount of \$175,836, under airport improvement program Project No. 3-04-0012-015-2013.

NOW, THEREFORE, BE IT RESOLVED BY THE MAYOR AND CITY COUNCIL OF THE CITY OF COTTONWOOD, ARIZONA:

THAT, the Agreement with the FAA for the above said grant project is hereby approved, and the Mayor is authorized and empowered to execute the Grant Agreement and City officials are authorized and directed to carry out the intent of the Agreement on behalf of the city.

PASSED AND ADOPTED BY THE CITY COUNCIL AND APPROVED BY THE MAYOR OF THE CITY OF COTTONWOOD, ARIZONA, THIS 17TH DAY OF SEPTEMBER 2013.

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Diane Joens, Mayor

APPROVED AS TO FORM:

ATTEST:

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Steven B. Horton, Esq.  
City Attorney

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Marianne Jiménez, City Clerk

## City of Cottonwood, Arizona City Council Agenda Communication



 Print

Meeting Date:	September 17, 2013
<b>Subject:</b>	Airport Automated Weather Observation Station (AWOS) Installation Contract
Department:	Development Services
From:	Morgan Scott, Development Services Manager

### **REQUESTED ACTION**

Award of contract for installation of an Automated Weather Observation Station (AWOS) at the Cottonwood Airport to Woodruff Construction.

### **SUGGESTED MOTION**

If the Council desires to approve this item the suggested motion is:

I move to approve the contract with Woodruff Construction in the amount of \$101,500.00 for the installation of an Automated Weather Observation System at the Cottonwood Airport.

### **BACKGROUND**

One of the initial goals of the Cottonwood Airport Commission was to install an Automated Weather Observation System (AWOS) at the airport. The AWOS will send out local weather information to pilots using the Cottonwood Airport Unicom frequency. An AWOS will allow pilots to be better informed of the wind and weather conditions at the runway which will allow for safer operations especially during inclement weather conditions. Also, many large corporations do not allow their aircraft to land at any airport that does not have an AWOS and an instrument approach. The installation of the AWOS will make the Cottonwood area more appealing to businesses that are considering relocating or starting up. Attracting companies will coincide with the Council's strategic initiative #3 which is to build and retain a strong diversified economy.

City staff along with the airport design consultant C&S Engineers advertised a bid to install an AWOS at the Cottonwood airport and the bids were due at 2 p.m. on Friday September 9, 2013. The apparent low bidder was Woodruff Construction and the low bid was \$101,500.00. References and prior work experience will be checked prior to the council meeting on September 17 and the council will be briefed on the contractor's experience.

This project is grant funded and the Federal Aviation Administration (FAA) will be covering 91.1% of the cost, the Arizona Department of Transportation (ADOT) will be covering 4.45%

of the cost and the City will be matching the 4.45% which will come from airport revenue and the general fund.

**JUSTIFICATION/BENEFITS/ISSUES**

- The AWOS will allow for safer operations at the airport especially during inclement weather conditions.
- The AWOS will open the Cottonwood area to more business opportunities by meeting the requirements of large corporations.

**COST/FUNDING SOURCE**

FAA Grant 91.1%  
ADOT 4.45%  
City Airport Funds/General Fund 4.45%

**ATTACHMENTS:**

Name:	Description:	Type:
 <a href="#">AWOS Recommendation for Award 9-9-13.pdf</a>	AWOS Recommendation letter	Backup Material
 <a href="#">FINAL CONTRACT as advertised 8-20-13.pdf</a>	FAA Contract	Backup Material

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**C&S Companies**  
 9200 E. Pima Center Pkwy.  
 Suite 240  
 Scottsdale, AZ 85258  
 p: (602) 997-7536  
 f: (602) 997-7592  
 www.cscos.com

September 9, 2013

Mr. Morgan Scott  
 Development Services Operations Manager  
 City of Cottonwood  
 1490 W. Mingus Ave.  
 Cottonwood, Arizona 86326

Re: AWOS Installation Project

Dear Mr. Scott,

We have reviewed the bids received on September 9, 2013, for the above referenced project. Six bid proposals were received as follows:

	<b>Total</b>
Woodruff Construction	\$101,500.00
Paul R Peterson Construction	\$105,364.00
AJP Electric, Inc.	\$107,145.00
Rural Electric, Inc.	\$113,267.00
Scenic Electric, LLC	\$118,850.00
Kinney Construction Services	\$145,789.00
<i>Engineer's Estimate</i>	<i>\$156,000.00</i>

The apparent low bidder, Woodruff Construction, Flagstaff, Arizona has a current and active Type 'A' General Engineering License No.263244 with no valid complaints on file for a two-year reporting period. Based on our review of the bid documents submitted, we recommend that the project be awarded to **Woodruff Construction** of Flagstaff, Arizona for **\$101,500.00**.

Attached, please find the Bid Tabulation sheet. If you have any questions, feel free to call.

Best regards,

C&S ENGINEERS, INC.

Richard D. Graham, P.E.  
 Managing Engineer

\Attachments

ITEM NO.	DESCRIPTION	QUANTITY	UNIT	ENGINEER'S ESTIMATE C&S ENGINEERS, INC.		Kinney Construction Services		Rural Electric Inc		Woodruff Construction		Paul R Peterson Construction	
				UNIT PRICE	EXTENSION	UNIT PRICE	EXTENSION	UNIT PRICE	EXTENSION	UNIT PRICE	EXTENSION	UNIT PRICE	EXTENSION
1	CLEARING & GRUBBING (P-151)	1	AC	\$ 2,000.00	\$ 2,000.00	\$ 17,504.00	\$ 17,504.00	\$ 8,258.00	\$ 8,258.00	\$ 7,500.00	\$ 7,500.00	\$ 6,345.00	\$ 6,345.00
2	NO. 8 AWG, 5KV, 1/C AIRPORT LIGHTING CABLE (L-108)	750	LF	\$ 1.00	\$ 750.00	\$ 9.92	\$ 7,440.00	\$ 1.30	\$ 975.00	\$ 10.00	\$ 7,500.00	\$ 3.60	\$ 2,700.00
3	COUNTERPOISE WIRE (L-108)	250	LF	\$ 1.50	\$ 375.00	\$ 9.14	\$ 2,285.00	\$ 1.80	\$ 450.00	\$ 8.00	\$ 2,000.00	\$ 2.10	\$ 525.00
4	2" PVC CONDUIT	250	LF	\$ 20.00	\$ 5,000.00	\$ 26.00	\$ 6,500.00	\$ 9.50	\$ 2,375.00	\$ 20.00	\$ 5,000.00	\$ 20.80	\$ 5,200.00
5	ELECTRIC JUNCTION CAN	2	EA	\$ 750.00	\$ 1,500.00	\$ 3,053.00	\$ 6,106.00	\$ 1,006.00	\$ 2,012.00	\$ 1,000.00	\$ 2,000.00	\$ 1,586.00	\$ 3,172.00
6	FURNISH AND INSTALL AWOS A-V SYSTEM	1	LS	\$ 135,000.00	\$ 135,000.00	\$ 90,426.00	\$ 90,426.00	\$ 91,468.00	\$ 91,468.00	\$ 68,000.00	\$ 68,000.00	\$ 81,968.00	\$ 81,968.00
7	MAINTENANCE AND PROTECTION OF TRAFFIC	1	LS	\$ 5,000.00	\$ 5,000.00	\$ 10,988.00	\$ 10,988.00	\$ 2,779.00	\$ 2,779.00	\$ 3,000.00	\$ 3,000.00	\$ 270.00	\$ 270.00
8	MOBILIZATION	1	LS	\$ 6,375.00	\$ 6,375.00	\$ 4,540.00	\$ 4,540.00	\$ 4,950.00	\$ 4,950.00	\$ 6,500.00	\$ 6,500.00	\$ 5,184.00	\$ 5,184.00
<b>GRAND TOTAL</b>					<b>\$ 156,000.00</b>		<b>\$ 145,789.00</b>		<b>\$ 113,267.00</b>		<b>\$ 101,500.00</b>		<b>\$ 105,364.00</b>
CONTRACTOR'S CERTIFICATION OF ELIGIBILITY							Y		Y		Y		Y
NON-COLLUSIVE BIDDING CERTIFICATE							Y		Y		Y		Y
RESOLUTION FOR CORPORATE BIDDERS							Y		Y		Y		Y
BUY AMERICA PREFERENCES & CERTIFICATE							Y		Y		Y		Y
CERTIFICATION OF NON-SEGREGATED FACILITIES							Y		Y		Y		Y
CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY, AND VOLUNTARY EXCLUSION							Y		Y		Y		Y
CERTIFICATION FOR RECEIPT OF ADDENDA							Y		Y		Y		Y
STATEMENT OF SURETY'S INTENT							Y		N		Y		Y
LIST OF SUBCONTRACTORS							Y		Y		Y		Y
DISADVANTAGED BUSINESS ENTERPRISE REQUIREMENTS							Y		Y		Y		Y
SAFETY PLAN COMPLIANCE DOCUMENT (SPCD) AND CERTIFICATION							Y		Y		Y		Y
CERTIFICATE OF INSURABILITY							Y		Y		Y		Y
CONTRACTOR IMMIGRATION WARRANTY							Y		Y		Y		Y
DISCLOSURE OF RESPONSIBILITY STATEMENT							Y		Y		Y		Y
LIST OF CONTRACTOR REFERENCES							Y		Y		Y		Y
BID BOND							N		Y - CHECK 0692800860		Y		Y
CONTRACTOR LICENSE CHECK							B-01 145666 / KA 206588 - Current		A 074573 - Current		A 263244 - Current		A 118664 - Current

CITY OF COTTONWOOD  
COTTONWOOD MUNICIPAL AIRPORT  
AWOS INSTALLATION PROJECT  
FAA AIP NO. 3-04-0012-015  
ADOT NO. EXFXX

ITEM NO.	DESCRIPTION	QUANTITY	UNIT	Scenic Electric LLC		AJP Electric Inc		AVERAGE COSTS
				UNIT PRICE	EXTENSION	UNIT PRICE	EXTENSION	UNIT PRICE
1	CLEARING & GRUBBING (P-151)	1	AC	\$ 3,700.00	\$ 3,700.00	\$ 3,000.00	\$ 3,000.00	\$ 7,717.83
2	NO. 8 AWG, 5KV, 1/C AIRPORT LIGHTING CABLE (L-108)	750	LF	\$ 3.00	\$ 2,250.00	\$ 2.10	\$ 1,575.00	\$ 4.99
3	COUNTERPOISE WIRE (L-108)	250	LF	\$ 2.00	\$ 500.00	\$ 2.68	\$ 670.00	\$ 4.29
4	2" PVC CONDUIT	250	LF	\$ 6.00	\$ 1,500.00	\$ 20.00	\$ 5,000.00	\$ 17.05
5	ELECTRIC JUNCTION CAN	2	EA	\$ 700.00	\$ 1,400.00	\$ 1,500.00	\$ 3,000.00	\$ 1,474.17
6	FURNISH AND INSTALL AWOS A-V SYSTEM	1	LS	\$ 93,000.00	\$ 93,000.00	\$ 78,900.00	\$ 78,900.00	\$ 83,960.33
7	MAINTENANCE AND PROTECTION OF TRAFFIC	1	LS	\$ 2,500.00	\$ 2,500.00	\$ 5,000.00	\$ 5,000.00	\$ 4,089.50
8	MOBILIZATION	1	LS	\$ 14,000.00	\$ 14,000.00	\$ 10,000.00	\$ 10,000.00	\$ 7,529.00
<b>GRAND TOTAL</b>					<b>\$ 118,850.00</b>		<b>\$ 107,145.00</b>	
CONTRACTOR'S CERTIFICATION OF ELIGIBILITY					Y		Y	
NON-COLLUSIVE BIDDING CERTIFICATE					Y		Y	
RESOLUTION FOR CORPORATE BIDDERS					Y		Y	
BUY AMERICA PREFERENCES & CERTIFICATE					Y		Y	
CERTIFICATION OF NON-SEGREGATED FACILITIES					Y		Y	
CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY, AND					Y		Y	
CERTIFICATION FOR RECEIPT OF ADDENDA					Y		Y	
STATEMENT OF SURETY'S INTENT					Y		Y	
LIST OF SUBCONTRACTORS					Y		Y	
DISADVANTAGED BUSINESS ENTERPRISE REQUIREMENTS					Y		Y	
SAFETY PLAN COMPLIANCE DOCUMENT (SPCD) AND CERTIFICATION					Y		Y	
CERTIFICATE OF INSURABILITY					Y		Y	
CONTRACTOR IMMIGRATION WARRANTY					Y		Y	
DISCLOSURE OF RESPONSIBILITY STATEMENT					Y		Y	
LIST OF CONTRACTOR REFERENCES					Y		Y	
BID BOND					N		Y	
CONTRACTOR LICENSE CHECK					K11 211889 - Current		A 146006 - Current	



**CONTRACT DOCUMENTS  
FOR THE CONSTRUCTION OF**

**AWOS INSTALLATION PROJECT**

**COTTONWOOD MUNICIPAL AIRPORT  
CITY OF COTTONWOOD**

**COTTONWOOD, AZ**

**FAA AIP No. 3-04-0012-015 (C)  
3-04-0012-014 (D)**

**ADOT No. EXFXX (C)**

**City Solicitation No. 2014-PW-02**

**AUGUST 2013**

**C&S ENGINEERS, INC.**



**Richard Graham, P.E.  
AZ PE License No. 42401**

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## FAA ADVISORY CIRCULARS

- AC 150/5370-2F Operational Safety on Airports during Construction
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## CONTRACT DRAWINGS

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*Richard D. Graham*

Expires 3/31/14

**ADVERTISEMENT**  
**NOTICE TO BIDDERS**  
**FOR THE CONSTRUCTION OF**  
**AWOS INSTALLATION PROJECT**  
**AT THE**  
**COTTONWOOD MUNICIPAL AIRPORT**

Sealed proposals for the construction of the AWOS Installation Project Contract will be received at the City of Cottonwood Purchasing Division Office, 816 N. Main St., Cottonwood, AZ 86326 until 2:00PM, local time, September 9, 2013, and there, at said office, at said time, publicly opened and read aloud. Late bids will not be accepted.

Construction consists of furnishing and installing a new AWOS A-V system and connecting it to an existing power source.

Solicitation documents are available by email by contacting the Purchasing Division at (928) 340-2714 or hard copies can be picked up at the City of Cottonwood, Administrative Services Department located at 816 N Main Street, Cottonwood, AZ 86326. Documents can also be obtained through the Public Purchase website at [www.publicpurchase.com](http://www.publicpurchase.com).

Copies of the above described Contract Documents may be examined at no expense at the

McGraw Hill – Dodge Plan Room  
iSqFt (Grand Canyon Minority Contractors Plan Room)  
[ContractorsPlanRoom.com](http://ContractorsPlanRoom.com)

Central AZ Plan Exchange  
Northern AZ Builders Exchange

Each proposal must be accompanied by a certified check or bid bond, in the amount of ten percent (10%) of the total maximum proposal price for the contract in the form and subject to the conditions provided in the Preparation of Proposal.

Every request concerning this project must be made in writing or email addressed to all of the following recipients:

Morgan Scott  
Development Services Operations Manager  
City of Cottonwood  
1490 W. Mingus Ave.  
Cottonwood, AZ 86326  
[mscott@cottonwoodaz.gov](mailto:mscott@cottonwoodaz.gov)

Richard Graham, P.E.  
C&S Engineers, Inc.  
9200 E. Pima Center Pkwy., Suite 240  
Scottsdale, AZ 85258  
[rgraham@cscos.com](mailto:rgraham@cscos.com)

To be given consideration, questions must be received at the above addresses at least four (4) days prior to the date fixed for opening of bids. Any supplemental instructions will be in the form of written addenda, which, when issued, will be sent and or posted not later than twenty-four (24) hours prior to the date fixed for the opening of bids. All addenda so issued shall become Part of the Contract and acknowledged by Bidder.

A pre-bid conference has been scheduled in order to review the specific requirements of this contract. All prospective bidders are encouraged to attend. The pre-bid conference is scheduled for September 3, 2013 at 2:00PM local time at the Cottonwood Municipal Airport, 1001 W. Mingus Ave., Cottonwood, AZ 86326.

The Owner reserves the right to waive any informality in the proposal, and to reject any and all proposals.

City of Cottonwood  
816 N. Main St.  
Cottonwood, AZ 86326

END OF ADVERTISEMENT

# **PROPOSAL**

**PROPOSAL**  
**FOR CONSTRUCTION OF THE**  
**AWOS INSTALLATION PROJECT**  
**AT**  
**COTTONWOOD MUNICIPAL AIRPORT**  
**COTTONWOOD, AZ**

**TO: City of Cottonwood, Purchasing Division Office**  
**816 N. Main St., Cottonwood, AZ 86326**

The undersigned, as bidder, hereby declares that he/she has examined the site of the work and informed himself/herself fully in regard to all conditions pertaining to the place where the work is to be done; that he/she has examined and read the Contract Documents and Contract Drawings for the work and all addenda relative thereto furnished prior to the opening of bids; that he/she has satisfied himself/herself relative to the work to be performed.

The bidder understands that the advertisement, located in the front of these Contract Documents, contains the location and a description of the proposed construction, as well as indicates the place, date, and time of the proposal opening; information about a Pre-Bid conference, if scheduled, is contained in the advertisement; the time in which the work must be completed shall be in accordance with the subsection titled FAILURE TO COMPLETE ON TIME of Section 80. If the bidder considers that the time to complete the work is inadequate, they should not submit a bid.

The bidder understands the quantities for bid items listed on the proposal sheets are estimated quantities only for the purpose of comparing bids; any difference between these estimated quantities and actual quantities required for construction shall not be taken as a basis for claims by the Contractor for extra compensation; compensation will be based upon the unit prices and actual construction quantities.

The bidder understands that the description under each item, being briefly stated, implies, although it does not mention, all incidentals and that the prices stated are intended to cover all such work, materials and incidentals as constitute bidder's obligations as described in the specifications and any details not specifically mentioned, but evidently included in the Contract shall be compensated for in the item which most logically includes it.

The bidder understands that proposal guaranty shall be in the form of a bid bond or certified check in the amount of ten percent (10%) of this bid in accordance with the subsection titled BID GUARANTEE of Section 20; the proposal guaranty shall become the property of the Owner in the event the Contract and bond(s) are not executed within the time above set forth, as liquidated damages for the delay and additional expense to the Owner caused thereby.

The bidder agrees that upon receipt of written notice of the acceptance of this proposal, bidder will execute the Contract attached within 10 days and deliver a Surety Bond or Bonds as required by the subsection titled REQUIREMENTS OF CONTRACT BONDS OF Section 30. The bidder further agrees to commence construction with an adequate work force, plant and equipment on the date stated in the written notice to proceed and will progress therewith to its completion within the time stated, and in accordance with this Contract and Specification.

ITEM NO.	FAA SPEC NO.	QUANTITY	ITEM LIST ITEM DESCRIPTION (PRICE WRITTEN IN WORD)	UNIT PRICE IN FIGURES		TOTAL AMOUNT	
				DOLLARS	CENTS	DOLLARS	CENTS
1	P-151	3 AC	CLEARING & GRUBBING AT				
2	L-108	750 LF	NO. 8 AWG, 5KV, 1/C AIRPORT LIGHTING CABLE AT PER LINEAR FOOT				
3	L-108	250 LF	COUNTERPOISE WIRE AT PER LINEAR FOOT				
4	L-110	250 LF	2" PVC CONDUIT AT PER LINEAR FOOT				
5	L-115	2 EACH	ELECTRIC JUNCTION CAN AT PER EACH				
6	L-131	1 LS	FURNISH AND INSTALL AWOS-AV SYSTEM AT PER LUMP SUM				
7	M-100	1 LS	MAINTENANCE AND PROTECTION OF TRAFFIC AT PER LUMP SUM				
8	M-200	1 LS	MOBILIZATION AT PER LUMP SUM				
<b>TOTAL PRICE (WRITTEN IN WORD)</b>						DOLLARS	CENTS

The bidder states that this proposal is based upon prevailing wages in Yavapai County, Arizona and in no case are wages considered less than those predetermined by the Federal Departments of Labor, schedules of which are contained in the Contract Documents.

The bidder proposes and agrees, if this Proposal is accepted, to contract in the form of contract specified with the City of Cottonwood (Owner), to furnish all necessary materials, equipment, machinery, tools, apparatus, means of transportation and labor necessary to complete the construction of the AWOS Installation Project in full and complete accordance with the shown, noted, described and reasonably intended requirements of the Contract Documents and Contract Drawings, to the full and entire satisfaction of the above said Owner, with a definite understanding that no money will be allowed for extra work except as set forth in the attached Contract Documents, for the unit prices listed for each item.

**BIDDER, IF AN INDIVIDUAL:**

**BY:** \_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**COMPANY NAME:** \_\_\_\_\_

**ADDRESS:** \_\_\_\_\_

\_\_\_\_\_

**PHONE NO:** \_\_\_\_\_

**DATE:** \_\_\_\_\_

**TAX ID NUMBER:** \_\_\_\_\_

**AZ CONTRACTOR'S  
LICENSE NUMBER:** \_\_\_\_\_

**BIDDER, IF A PARTNERSHIP (GIVE NAMES AND ADDRESSES OF EACH PARTNER):**

**BY:** \_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**COMPANY NAME:** \_\_\_\_\_

**ADDRESS:** \_\_\_\_\_

\_\_\_\_\_

**PHONE NO:** \_\_\_\_\_

**DATE:** \_\_\_\_\_

**TAX ID NUMBER:** \_\_\_\_\_

**AZ CONTRACTOR'S  
LICENSE NUMBER:** \_\_\_\_\_

**PARTNER'S  
NAME:** \_\_\_\_\_

**PARTNER'S  
NAME:** \_\_\_\_\_

**BUSINESS  
ADDRESS:** \_\_\_\_\_

**BUSINESS  
ADDRESS:** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**PARTNER'S  
NAME:** \_\_\_\_\_

**PARTNER'S  
NAME:** \_\_\_\_\_

**BUSINESS  
ADDRESS:** \_\_\_\_\_

**BUSINESS  
ADDRESS:** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**BIDDER, IF A CORPORATION:**

**BY:** \_\_\_\_\_  
(Printed Name & Title)

\_\_\_\_\_  
(Signature)

**CORPORATION  
NAME:** \_\_\_\_\_

**ADDRESS:** \_\_\_\_\_

(SEAL)

\_\_\_\_\_

**STATE OF CORPORATION  
CHARTER:** \_\_\_\_\_

**PHONE NO:** \_\_\_\_\_

**DATE:** \_\_\_\_\_

**TAX ID NUMBER:** \_\_\_\_\_

**AZ CONTRACTOR'S  
LICENSE NUMBER:** \_\_\_\_\_

**PRESIDENT'S  
NAME:** \_\_\_\_\_

**BUSINESS  
ADDRESS:** \_\_\_\_\_

\_\_\_\_\_

**SECRETARY'S  
NAME:** \_\_\_\_\_

**TREASURER'S  
NAME:** \_\_\_\_\_

**BUSINESS  
ADDRESS:** \_\_\_\_\_

**BUSINESS  
ADDRESS:** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## **ATTACHMENTS TO PROPOSAL**

BIDDER and his/her surety, where appropriate, have completed and executed the attached documents which are identified below.

Contractor's Certification of Eligibility

Non-Collusive Bidding Certificate

Resolution for Corporate Bidders

Buy American Preferences & Certificate

Certifications:

- Certification of Non-Segregated Facilities
- Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion

Certification for Receipt of Addenda

Statement of Surety's Intent

List of Subcontractors

Disadvantaged Business Enterprise Requirements

Safety Plan Compliance Document (SPCD) and Certification

Certificate of Insurability

Contractor Immigration Warranty

Disclosure of Responsibility Statement

List of Contractor References

**CONTRACTOR'S CERTIFICATION OF ELIGIBILITY**

The bidder/offeror certifies, by submission of this proposal or acceptance of this contract, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

The bidder/offeror further agrees by submitting this proposal that it will include this clause without modification in all lower tier transactions, solicitations, proposals, contracts, and subcontracts. Where the bidder/offer/contractor or any lower tier participant is unable to certify to this statement, it shall attach an explanation to this solicitation/proposal.

That the information above is true and complete to the best of my knowledge.

---

Printed Name and Title

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Signature

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Date

NOTE: The penalty for making false statements in offers is prescribed in 18 U.S.C. 1001.

The full names and residences of all persons interested in this proposal as principals are as follows:

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**(This form must be completed and submitted with the Proposal.)**

**NON-COLLUSIVE BIDDING CERTIFICATE**

The Signer of this Bid declares:

- A. That he/she has carefully examined the annexed form of the Agreement and Contract.
- B. That by submission of this Bid, each Bidder and each person signing on behalf of any Bidder certifies, and in the case of a joint Bid each party thereto certifies as to its own organization, under penalty of perjury, that to the best of knowledge and belief:
  - 1. The prices in this Bid have been arrived at independently without collusion, consultation, communication or agreement, for the purpose of restricting competition, as to any matter relating to such prices with any other Bidder or with any competitor;
  - 2. Unless otherwise required by law, the prices which have been quoted in this Bid have not been knowingly disclosed by the Bidder, and will not knowingly be disclosed by the Bidder prior to opening, directly or indirectly, to any other Bidder or to any competitor; and
  - 3. No attempt has been made or will be made by the Bidder to induce any other person, partnership or corporation to submit or not to submit a Bid for the purpose of restricting competition.

I hereby affirm under the penalties of perjury that the foregoing statement is true.

Affix Seal  
if Principal  
is Corporation

BIDDER: \_\_\_\_\_  
BY: \_\_\_\_\_  
TITLE: \_\_\_\_\_

**STATE OF ARIZONA)**  
**SS:**  
**COUNTY OF \_\_\_\_\_)**

On the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, before me personally came \_\_\_\_\_

\_\_\_\_\_ to me known, who, being by me duly sworn, did swear and affirm that he/she resides at \_\_\_\_\_

\_\_\_\_\_ ; that he/she is the \_\_\_\_\_ of the Bidder herein and signs the foregoing Non-Collusive Certification on behalf of such Bidder; that he/she executed the foregoing Non-Collusive Certification; and that, to the best of his knowledge and belief, the statement made in the foregoing Non- Collusive Certification is true.

\_\_\_\_\_  
NOTARY PUBLIC

MY COMMISSION EXPIRES: \_\_\_\_\_

**(This form must be completed and submitted with the Proposal.)**

**RESOLUTION FOR CORPORATE BIDDERS**

RESOLVED, that \_\_\_\_\_ be authorized  
(Name of Officer)

to sign and submit the bid or proposal of this corporation for the following project:

AWOS Installation Project

and to include in such bid or proposal the certificate as to non-collusion as the act and deed of such corporation, and for any inaccuracies or misstatements in such certificate this corporate bidder shall be liable under penalties of perjury.

The foregoing is a true and correct copy of the resolution adopted by \_\_\_\_\_

\_\_\_\_\_ Corporation at a meeting of its Board of

Directors held on the \_\_\_\_\_ day of \_\_, 20\_\_\_\_.

\_\_\_\_\_  
(Secretary)

(Seal)

**(This form must be completed and submitted with the Proposal.)**

**BUY AMERICAN PREFERENCES**

- (a) The Aviation Safety and Capacity Expansion Act of 1990 provides that preference be given to steel and manufactured products produced in the United States when funds are expended pursuant to a grant issued under the Airport Improvement Program. The following terms apply:
  - 1. Steel and manufactured products. As used in this clause, steel and manufactured products include (1) steel produced in the United States or (2) a manufactured product produced in the United States, if the cost of its components mined, produced or manufactured in the United States exceeds 60 percent of the cost of all its components and final assembly has taken place in the United States. Components of foreign origin of the same class or kind as the products referred to in subparagraphs b. (1) or (2) shall be treated as domestic.
  - 2. Components. As used in this clause, components means those articles, materials, and supplies incorporated directly into steel and manufactured products.
  - 3. Cost of Components. This means the costs for production of the components, exclusive of final assembly labor costs.
  
- (b) The successful bidder will be required to assure that only domestic steel and manufactured products will be used by the Contractor, subcontractors, materialmen and suppliers in the performance of this contract, except those:
  - 1. that the US Department of Transportation has determined, under the Aviation Safety and Capacity Expansion Act of 1990, are not produced in the United States in sufficient and reasonably available quantities and of a satisfactory quality;
  - 2. that the US Department of Transportation has determined, under the Aviation Safety and Capacity Expansion Act of 1990, that domestic preference would be inconsistent with the public interest; or
  - 3. that inclusion of domestic material will increase the cost of the overall project contract by more than 25 percent.

**BUY AMERICAN CERTIFICATE**

By submitting a bid/proposal under this solicitation, except for those items listed by the offeror below or on a separate and clearly identified attachment to this bid/proposal, the offeror certifies that steel and each manufactured product, are produced in the United States, as defined in the clause Buy American - Steel and Manufactured Products for Construction Contracts) and that components of unknown origin are considered to have been produced or manufactured outside the United States.

Offerors may obtain from the owner a listing of articles, materials and supplies excepted from this provision.

PRODUCT

COUNTRY OF ORIGIN

_____	_____
_____	_____
_____	_____

**(This form must be completed and submitted with the Proposal.)**

**CERTIFICATIONS**

**BIDDER'S NAME:** \_\_\_\_\_

**ADDRESS:** \_\_\_\_\_

**TELEPHONE NO.:** \_\_\_\_\_ **FAX NO.** \_\_\_\_\_

**IRS EMPLOYER IDENTIFICATION NUMBER:** \_\_\_\_\_

**CERTIFICATION OF NON-SEGREGATED FACILITIES - 41 CFR PART 60-1.8**

**CERTIFICATION OF NONSEGREGATED FACILITIES:**

The federally-assisted construction contractor certifies that she or he does not maintain or provide, for his employees, any segregated facilities at any of his establishments and that she or he does not permit his employees to perform their services at any location, under his control, where segregated facilities are maintained. The federally-assisted construction contractor certifies that she or he will not maintain or provide, for his employees, segregated facilities at any of his establishments and that she or he will not permit his employees to perform their services at any location under his control where segregated facilities are maintained. The federally-assisted construction contractor agrees that a breach of this certification is a violation of the Equal Opportunity Clause in this contract.

As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, restrooms, and washrooms, restaurants and other eating areas, timeclocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directives or are, in fact, segregated on the basis of race, color, religion, or national origin because of habit, local custom, or any other reason. The federally-assisted construction contractor agrees that (except where she or he has obtained identical certifications from proposed subcontractors for specific time periods) she or he will obtain identical certifications from proposed subcontractors prior to the award of subcontracts exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity Clause and that she or he will retain such certifications in his files.

**NOTICE TO PROSPECTIVE FEDERALLY ASSISTED CONSTRUCTION CONTRACTORS:**

1. A Certification of Non-segregated Facilities shall be submitted prior to the award of a federally-assisted construction contract exceeding \$10,000 which is not exempt from the provisions of the Equal Opportunity Clause.
2. Contractors receiving federally-assisted construction contract awards exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity Clause will be required to provide for the forwarding of the following notice to prospective subcontractors for supplies and construction contracts where the subcontracts exceed \$10,000 and are not exempt from the provisions of the Equal Opportunity Clause.

NOTE: The penalty for making false statements in offers is prescribed in 18 U.S.C. 1001.

**NOTICE TO PROSPECTIVE SUBCONTRACTORS OF REQUIREMENTS FOR CERTIFICATION OF NON-SEGREGATED FACILITIES:**

1. A Certification of Non-segregated Facilities shall be submitted prior to the award of a subcontract exceeding \$10,000, which is not exempt from the provisions of the Equal Opportunity Clause.
2. Contractors receiving subcontract awards exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity Clause will be required to provide for the forwarding of this notice to prospective subcontractors for supplies and construction contracts where the subcontracts exceed \$10,000 and are not exempt from the provisions of the Equal Opportunity Clause.

NOTE: The penalty for making false statements in offers is prescribed in 18 U.S.C. 1001.

**CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION**

The bidder certifies, by submission of this proposal or acceptance of this contract, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency. It further agrees by submitting this proposal that it will include this clause without modification in all lower tier transactions, solicitations, proposals, contracts, and subcontracts. Where the bidder or any lower tier participant is unable to certify to this statement, it shall attach an explanation to this solicitation/proposal.

Printed Name & Title: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

**(This form must be completed and submitted with the Proposal.)**

**CERTIFICATION FOR RECEIPT OF ADDENDA**

Receipt of the following Addenda is acknowledged:

ADDENDUM NO.: \_\_\_\_\_ DATED: \_\_\_\_\_

ADDENDUM NO.: \_\_\_\_\_ DATED: \_\_\_\_\_

ADDENDUM NO.: \_\_\_\_\_ DATED: \_\_\_\_\_

\_\_\_\_\_  
(Firm or Corporation Making Bid)

\_\_\_\_\_  
(Signature of Authorized Person)

P.O. Address: \_\_\_\_\_

Dated: \_\_\_\_\_

**(This form must be completed and submitted with the Proposal.)**

**STATEMENT OF SURETY'S INTENT**

TO: City of Cottonwood

We have reviewed the bid of \_\_\_\_\_  
(Contractor)

of \_\_\_\_\_  
(Address)

for the AWOS Installation Project,

project for which bids will be received on: September 9, 2013 at 2:00PM Local Time  
(Bid Opening Date)

and wish to advise that should this Bid of the Contractor be accepted and the Contract awarded to him, it is our present intention to become surety on the performance bond and labor and material bond required by the Contract.

Any arrangement for the bonds required by the Contract is a matter between the Contractor and ourselves and we assure no liability to you or third parties if for any reason we do not execute the requisite bonds.

We are duly authorized to do business in the State of .Arizona

ATTEST: \_\_\_\_\_

\_\_\_\_\_  
Surety's Authorized Signature(s)

(Corporate seal, if any. If no seal, write "No Seal" across this place and sign.)

**ATTACH PROPOSAL GUARANTEE**

**ATTACH POWER OF ATTORNEY**

**(This form must be complete and submitted with the Proposal.  
Copies of this form may be filled out and attached to this page.)**

## LIST OF SUBCONTRACTORS

The bidder is required to furnish the following information for all proposed Subcontractors to be used in the completion of the project. By submission of this form, Bidder certifies that all Subcontractors are eligible to perform work on public projects pursuant to A.R.S. 34-241.B.

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Name Subcontractor is licensed under: \_\_\_\_\_  
License Number: \_\_\_\_\_  
Address of Subcontractor: \_\_\_\_\_  
Percent (%) of Total Contract: \_\_\_\_\_  
Specific Description of Subcontract: \_\_\_\_\_

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Name Subcontractor is licensed under: \_\_\_\_\_  
License Number: \_\_\_\_\_  
Address of Subcontractor: \_\_\_\_\_  
Percent (%) of Total Contract: \_\_\_\_\_  
Specific Description of Subcontract: \_\_\_\_\_

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Name Subcontractor is licensed under: \_\_\_\_\_  
License Number: \_\_\_\_\_  
Address of Subcontractor: \_\_\_\_\_  
Percent (%) of Total Contract: \_\_\_\_\_  
Specific Description of Subcontract: \_\_\_\_\_

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Name Subcontractor is licensed under: \_\_\_\_\_  
License Number: \_\_\_\_\_  
Address of Subcontractor: \_\_\_\_\_  
Percent (%) of Total Contract: \_\_\_\_\_  
Specific Description of Subcontract: \_\_\_\_\_

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Name Subcontractor is licensed under: \_\_\_\_\_  
License Number: \_\_\_\_\_  
Address of Subcontractor: \_\_\_\_\_  
Percent (%) of Total Contract: \_\_\_\_\_  
Specific Description of Subcontract: \_\_\_\_\_

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Name Subcontractor is licensed under: \_\_\_\_\_  
License Number: \_\_\_\_\_  
Address of Subcontractor: \_\_\_\_\_  
Percent (%) of Total Contract: \_\_\_\_\_  
Specific Description of Subcontract: \_\_\_\_\_

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**(This form must be completed and submitted with the Proposal.  
Copies of this form may be filled out and attached to this page.)**

**DISADVANTAGED BUSINESS ENTERPRISE (DBE) STATEMENT**

The requirements of 49 CFR Part 26, Regulations of the U.S. Department of Transportation, apply to this contract. It is the policy of the Sponsor to practice nondiscrimination based on race, color, sex, or national origin in the award or performance of this contract. All firms qualifying under this solicitation are encouraged to submit proposals. Award of this contract will be conditioned upon satisfying the DBE requirements of this contract. These requirements apply to all bidders, including those who qualify as a DBE. A DBE contract goal of ten (10) percent has been established for this contract. The bidder shall make good faith efforts, as defined in Appendix A, 49 CFR Part 26, to meet the contract goal for DBE participation in the performance of this contract. Excerpts from 49 CFR Part 26 are included in Section 70-25.

Within 15 days after the opening of bids and before award of the contract, all bidders wishing to remain in competition for award of this contract shall submit The Contractor's DBE Plan to the Owner. The Contractor's DBE Plan Form and DBE Letter Of Intent Form are located at the end of Section 70.

**CERTIFICATION OF BIDDER:**

The undersigned bidder will satisfy the DBE requirements of these specifications in the following manner (please check the appropriate space):

\_\_\_\_\_ The bidder is committed to meeting or exceeding the DBE utilization goal stated above on this contract.

\_\_\_\_\_ The bidder, if unable to meet the DBE utilization goal stated above, is committed to a minimum of \_\_\_\_\_% DBE utilization on this contract, and will submit documentation demonstrating good faith efforts.

Name of Bidder's Firm: \_\_\_\_\_

Street Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Bidder's Status:            DBE:            Non-DBE:

Age of Firm: \_\_\_\_\_

Annual Gross Receipts of Firm: \_\_\_\_\_

IRS Number: \_\_\_\_\_

\_\_\_\_\_  
Signature and Title

**(This form must be completed and submitted with the Proposal.)**

## SAFETY PLAN COMPLIANCE DOCUMENT (SPCD) AND CERTIFICATION

Project Location: \_\_\_\_\_

Project Name: \_\_\_\_\_

Contract Date or Construction Safety Phasing Plan Approval: \_\_\_\_\_

Contractor's Official Name: \_\_\_\_\_

Contact Person: \_\_\_\_\_ Telephone: \_\_\_\_\_

Street Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

### General Statement:

The Construction Safety Phasing Plan (CSPP), identified as Attachment "A" to Section 80, has been prepared in accordance with FAA Advisory Circular 150/5370-2F, *Operational Safety on Airports During Construction and the requirements of the Airport Owner*. The CSPP has been submitted to the FAA for review and comment. Any comments from the FAA which were received prior to bid opening have been incorporated into the CSPP.

In the event that the FAA transmits comments which require that the CSPP be revised after bid opening, I understand that I am obligated to abide by the conditions and statements contained in the revised CSPP. I further understand that I will be given the opportunity to evaluate the revised CSPP as they relate to my contract and request appropriate compensation in accordance with the provisions of the contract.

### Supplemental Information:

Where the CSPP covers a subject and no additional information is needed, the statement below will read, "No supplemental information required". Where additional information is required by the Contractor, the information shall be provided in the spaces below.

The section numbers below correspond with the section numbers in the CSPP.

#### 3.1 Coordination

**Statement:** [Explain how you will distribute information and details of safety meetings to employees and subcontractors.]

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**3.2 Phasing**

**Statement:** [List the number of days each Work Area will take. State the start and finish of work each day.]

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**3.3 Areas and operations affected by the construction activity**

**Statement:** Information is provided in the CSPP. No supplemental information is required.

**3.4 Protection of NAVAIDs**

**Statement:** Information is provided in the CSPP. No supplemental information is required.

**3.5 Contractor Access**

**Security Statement:** [Explain how you will maintain integrity of the airport security fence at the access gate, e.g.: Gate guards, closed and locked gates, temporary fencing, etc.]

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**Communication Statement:** [Identify types of radios, if any, you will use to communicate with drivers and personnel. Identify who will be monitoring radios. Identify a contact person and phone number if ATCT cannot reach the contractor’s designated person by radio.]

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**Escort Statement:** [Explain who will escort material delivery vehicles.]

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**3.6 Wildlife Management**

**Statement:** [Identify who will be monitoring wildlife in the construction area. Identify who will be monitoring wildlife at the construction gate.]

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**3.7 Foreign Object Debris (FOD) Management**

**Statement:** [Identify who will be preparing a FOD Management Plan. (Plan must be approved prior to the start of construction activities.)]

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**3.8 Hazardous material (HAZMAT) management**

**Statement:** [Identify who will be preparing a Spill Prevention Plan. (Plan must be approved prior to the start of construction activities.)]

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**3.9 Notification of construction activities.** Provide the following:

**Key Personnel Statement:** [Identify your key personnel points of contact with phone numbers.]

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**Emergency Contacts Statement:** [Identify your emergency contacts with 24 hour phone numbers.]

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**Equipment Statement:** [Part 77: Identify equipment you will be using that is taller than 15 feet, including on-site batch plants. Identify the maximum height it will be extended to during construction for each Work Area and the expected duration. Identify when during the day it will be used.]

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**3.10 Inspection requirements.**

**Statement:** [Identify the person who will be responsible for daily inspections to ensure conformance with the CSPP. Describe additional inspections you will employ, if any, to ensure conformance.]

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**3.11 Underground utilities.**

**Statement:** [Discuss proposed methods of identifying and protecting underground utilities.]

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**3.12 Penalties**

**Statement:** Information is provided in the CSPP. No supplemental information is required.

**3.13 Special conditions.**

**Statement:** [Discuss proposed actions for each special condition identified in the CSPP.]

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**3.14 Runway and taxiway visual aids.** Including marking, lighting, signs, and visual NAVAIDs.

**Statement:** Information is provided in the CSPP. No supplemental information is required.

**3.15 Marking and signs for access routes.** Discuss proposed methods of demarcating access routes for vehicle drivers.

**Statement:** Information is provided in the CSPP. No supplemental information is required.

**3.16 Hazard marking and lighting.**

**Statement:** [Discuss proposed equipment and methods for identifying excavation areas. Identify the person who will be responsible for maintaining hazard marking and lighting. Include a 24 hour phone number.]

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**3.17 Protection of taxiway and runway safety areas.** Include object free areas, obstacle free zones, approach/departure surfaces and safety areas as required. Discuss proposed methods of identifying, demarcating, and protecting airport surfaces including:

Equipment and methods for maintaining Taxiway/Taxilane Safety Area standards.

**Statement:** Information is provided in the CSPP. No supplemental information is required.

Equipment and methods for separation of construction operations from aircraft operations, including details of barricades.

**Statement:** Information is provided in the CSPP. No supplemental information is required.

**3.18 Other limitations on construction.**

Other limitations are identified in the CSPP and do not require an entry in this document.

**Certification Statement:**

I, \_\_\_\_\_, have read the CSPP included in the Contract Documents and I will abide by its requirements as written. I certify the information which I have written in this SPCD is true and accurate and that I will provide any additional information requested by the Owner. I certify that I will abide by the requirements of this SPCD and any revisions required by the Owner.

\_\_\_\_\_  
Printed Name of Bidder

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

\_\_\_\_\_  
Date

## CERTIFICATE OF INSURABILITY

I hereby certify that as a Bidder to City of Cottonwood (City) for Solicitation No. \_\_\_\_\_, I am fully aware of insurance requirements contained in the Contract and by the submission of this bid. I hereby assure City that I am able to produce the insurance coverage required should I be selected to be awarded the Contract.

Should I be awarded the Contract by City and then become unable to produce the insurance coverage specified within ten (10) working days, I am fully aware and understand that this shall constitute a material breach of this Contract and shall be subject to penalties up to and including termination of the Contract at the sole discretion of the City. I also understand and am fully aware that I may not be considered for further projects by City.

---

Signature of Bidder

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Company

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Date

**CONTRACTOR IMMIGRATION WARRANTY**  
(To Be Completed by Contractor Prior to Execution of Contract)

**A.R.S. § 41-4401 (Government procurement, E-verify requirement, definitions) requires as a condition of your Contract, verification of compliance by the Contractor and subcontractors with the Federal Immigration and Nationality Act (FINA), all other Federal immigration laws and regulations, and A.R.S. § 23-214 related to the immigration status of its employees.**

By completing and signing this form the Contractor shall attest that it and all subcontractors performing work under the cited contract meet all conditions contained herein.

<b>Contract Number:</b>		
<b>Name (as listed in the contract):</b>		
<b>Street Name and Number:</b>		
<b>City:</b>	<b>State:</b>	<b>Zip Code:</b>

I hereby attest that:

1. The Contractor complies with the Federal Immigration and Nationality Act (FINA), all other Federal immigration laws and regulations, and A.R.S. § 23-214 related to the immigration status of those employees performing work under this Contract;
2. The Contractor shall verify, through the U.S. Department of Homeland Security’s E-Verify program, the employment eligibility of each employee who provides services or labor in Arizona for wages or other remuneration, and that it shall require its subcontractors and sub-subcontractors to provide the same warranties to Contractor.
3. All subcontractors performing work under this Contract comply with the Federal Immigration and Nationality Act (FINA), all other Federal immigration laws and regulations, and A.R.S. § 23-214 related to the immigration status of their employees.
4. The Contractor acknowledges that a breach of this warranty by the Contractor or by any subcontractor or sub-subcontractor under this Contract shall be deemed a material breach of this Contract, and is grounds for penalties, including termination of this Contract, by Owner.
5. Owner retains the legal right to inspect the papers of Contractor, and any subcontractor and sub-subcontractor employee who performs work under this Contract, and to conduct random verification of the employment records of Contractor and each subcontractor and sub-subcontractor who works on this Contract, to ensure that Contractor and each subcontractor and sub-subcontractor is complying with the warranties set forth above.

Signature of Contractor (Employer) or Authorized Designee:

\_\_\_\_\_

Printed Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date (month/day/year): \_\_\_\_\_

**DISCLOSURE OF RESPONSIBILITY STATEMENT**

A. List any convictions of any person, subsidiary, or affiliate of the company, arising out of obtaining, or attempting to obtain a public or private contract or subcontract, or in the performance of such contract or subcontract.

\_\_\_\_\_

B. List any convictions of any person, subsidiary, or affiliate of this company for offenses such as embezzlement, theft, fraudulent schemes, etc. or any other offenses indicating a lack of business integrity or business honesty, which affects the responsibility of the contractor.

\_\_\_\_\_

C. List any convictions or civil judgments under state or federal antitrust statutes.

\_\_\_\_\_

D. List any violations of contract provisions such as failing to perform (without good cause), or unsatisfactory performance, in accordance with the specifications of a contract.

\_\_\_\_\_

E. List any prior suspensions or debarments by any governmental agency.

\_\_\_\_\_

F. List any contracts not completed on time.

\_\_\_\_\_

G. List any penalties imposed for time delays and/or quality of materials and workmanship.

\_\_\_\_\_

H. List any documented violations of federal or state labor laws, regulations, or standards, occupational safety and health rules.

\_\_\_\_\_

I, \_\_\_\_\_, as \_\_\_\_\_  
Name of individual Title & Authority

of \_\_\_\_\_, declare under oath that the above statements, including  
Company Name

any supplemental responses attached hereto, are true.

By: \_\_\_\_\_  
(Signature of Individual/Representative)

STATE OF: )  
) ss.  
COUNTY OF: )

On this the \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_, before me, the undersigned NOTARY PUBLIC, personally appeared \_\_\_\_\_, who acknowledged to me that they executed the foregoing instrument for the purposes therein contained.

IN WITNESS WHEREOF I hereunto set my hand and official seal.

SEAL

\_\_\_\_\_  
NOTARY PUBLIC

My Commission Expires: \_\_\_\_\_

## LIST OF CONTRACTOR REFERENCES

The bidder is required to furnish the following reference information for similar projects.

Provide names, addresses and telephone numbers of government agencies/businesses to which you have provided similar goods or services.

A. Entity: \_\_\_\_\_  
Address: \_\_\_\_\_  
Contact: \_\_\_\_\_  
Phone: \_\_\_\_\_  
Goods or services supplied and when provided: \_\_\_\_\_  
\_\_\_\_\_

B. Entity: \_\_\_\_\_  
Address: \_\_\_\_\_  
Contact: \_\_\_\_\_  
Phone: \_\_\_\_\_  
Goods or services supplied and when provided: \_\_\_\_\_  
\_\_\_\_\_

C. Entity: \_\_\_\_\_  
Address: \_\_\_\_\_  
Contact: \_\_\_\_\_  
Phone: \_\_\_\_\_  
Goods or services supplied and when provided: \_\_\_\_\_  
\_\_\_\_\_

END OF PROPOSAL

# **AGREEMENT**

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## AGREEMENT

**THIS AGREEMENT** is dated as of the \_\_\_\_ day of \_\_\_\_\_ in the year 20\_\_ by and between the City of Cottonwood, Arizona , a municipal corporation, having an address at 816 N. Main St., Cottonwood, AZ 86326 (hereinafter called Owner) and \_\_\_\_\_ having an address at \_\_\_\_\_ (hereinafter called Contractor).

Owner and Contractor, in consideration of the mutual covenants hereinafter set forth, agree as follows:

### ARTICLE 1 - WORK

Contractor shall perform, construct and complete all Work as specified and indicated in the AWOS Installation Project Contract.

### ARTICLE 2 - CONTRACT TIMES

- 2.1 **Contract Time.** The Work shall be substantially complete within the Contract Time as stated in General Provisions Section 80-08 "Failure to Complete on Time", and accepted in accordance with General Provisions Section 50-15 "Final Acceptance". In addition, intermediate stages or sequences of the Work shall be substantially completed and accepted as in accordance with General Provisions Section 80-08.
- 2.2 **Damages for Delay in Completion.** If the Work is uncompleted after the Contract Time, including all extensions and adjustments in accordance with General Provisions Section 80-07 "Determination and Extension of Contract Time", the sum stipulated in General Provisions Section 80-08 "Failure to Complete on Time" will be deducted from any money due or to become due the Contractor or their surety. Such deducted sums shall not be deducted as a penalty but shall be considered as liquidation of a reasonable portion of damages including but not limited to additional engineering services that will be incurred by the Owner should the Contractor fail to complete the work in the Contract Time provided in this Contract.

### ARTICLE 3 - CONTRACT PRICE

- 3.1 The Owner will pay Contractor for completion of the Work in accordance with the Contract for the Total \_\_\_\_\_ in the amount of \$\_\_\_\_\_, hereby identified as the Contract Price, as shown in the Contractor's Proposal, with discrepancies corrected in accordance with General Provisions Section 30-01 "Consideration of Proposals" if applicable.
- 3.2 When unit bid price items are included in the Contract Price, the quantities of various units contained in the Proposal are estimated and payment to the Contractor will be made only for the actual quantities of units that are incorporated in the Work or materials furnished in accordance with the plans and specifications, as determined by the Engineer in accordance with General Provisions Section 90, "Measurement and Payment".

### ARTICLE 4 - PAYMENT PROCEDURES

- 4.1 **Partial Payments.** Partial payments will be made at least once per month based on the Engineer's estimate in accordance with General Provisions Section 90, "Measurement and Payment". Progress payments will be made in accordance with General Provision Section 90-06, "Partial Payments".

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4.2 **Retainage.** From the total of the amount determined to be payable on a partial payment, the amount specified in General Provisions Section 90-06, "Partial Payments", will be deducted and retained by the Owner until the final payment is made.

4.3 **Final Payment:** Final payment will be made in accordance with General Provisions Section 90-09, "Acceptance and Final Payment".

## **ARTICLE 5 - CONTRACTOR'S REPRESENTATIONS**

In executing this Agreement, Contractor makes the following representations:

5.1 Contractor has examined and carefully studied the Contract including Addenda.

5.2 Contractor has visited the site and become familiar with and is satisfied as to the general, local and site conditions that may affect cost, progress, performance or furnishing of the Work.

5.3 Contractor is familiar with and is satisfied as to all federal, state and local Laws and Regulations that may affect cost, progress, performance and furnishing of the Work.

5.4 Contractor has carefully studied all reports of explorations and tests of subsurface conditions at or contiguous to the site and all drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the site (except Underground Facilities) which have been identified in the Contract. Contractor acknowledges that such reports and drawings are not part of the Contract and may not be complete for Contractor's purposes. Contractor acknowledges that Owner and Engineer do not assume responsibility for the accuracy or completeness of information and data shown or indicated in the Contract with respect to Underground Facilities at or contiguous to the site. Contractor does not consider that any additional examinations, investigations, explorations, tests, studies or data are necessary for the performance and furnishing of the Work at the Contract Price, within the Contract Times and in accordance with the other terms and conditions of the Contract.

5.5 Contractor is aware of the general nature of work to be performed by Owner and others at the site that relates to the Work as indicated in the Contract.

5.6 Contractor has correlated the information known to Contractor, information and observations obtained from visits to the site, reports and drawings identified in the Contract and all additional examinations, investigations, explorations, tests, studies and data with the Contract.

5.7 Contractor has given Design Engineer written notice of all conflicts, errors, ambiguities or discrepancies that Contractor has discovered in the Contract and the written resolution thereof by the Design Engineer is acceptable to Contractor, and the Contract is generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

5.8 If this Project utilizes multiple prime contracts, the Contractor has examined the Contract for all prime contracts and has acquired sufficient knowledge of the required work of the other prime contractors to the extent that Contractor clearly understands his own obligations and responsibilities relative to the other prime contracts.

## **ARTICLE 6 - CONTRACT**

The Contract which comprises the entire Agreement between Owner and Contractor concerning the Work

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consists of the following:

- 6.1 The Proposal with discrepancies corrected.
- 6.2 This Agreement.
- 6.3 The Contractor's Performance Bond and Payment Bond.
- 6.4 The Contractor's Certificates of Insurance.
- 6.5 The Notice of Award and Notice to Proceed.
- 6.6 The General Provisions and the Technical Specifications, which are a part of the Contract.
- 6.7 The Contract Drawings as listed in the Table of Contents.
- 6.8 Addenda listed below:

<u>Addendum No.</u>	<u>Date</u>
—	_____
—	_____
—	_____

6.9 There are no documents other than those listed above in this Article 6. The Contract may only be modified by Supplement Agreement.

**ARTICLE 7 - MISCELLANEOUS**

- 7.1 Terms used in this Agreement shall have the meanings in the General Provision Section 10, "Definition of Terms".
- 7.2 No assignment by a party hereto of any rights under or interests in the Contract will be binding on another party hereto without the written consent of the party sought to be bound; and specifically but without limitation, moneys that may become due and moneys that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment no assignment will release or discharge the assignor from any duty or responsibility under the Contract.
- 7.3 Owner and Contractor each binds itself, its partners, successors, assigns and legal representatives to the other party hereto, his partners, successors, assigns and legal representatives in respect to all covenants, agreements and obligations contained in the Contract.
- 7.4 Any provision or part of the Contract held to be void or unenforceable under any Law or Regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon Owner or Contractor, who agree that the Contract shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

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IN WITNESS WHEREOF, Owner and Contractor have signed six (6) copies of this Agreement. This Agreement will be effective on the day and year first above written.

**OWNER**

\_\_\_\_\_  
Rudy Rodriguez  
Administrative Services General Manager

**(SEAL)**

**CONTRACTOR:**

\_\_\_\_\_  
(Company Name)

**(SEAL)**

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Printed Title)

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(ACKNOWLEDGMENT OF OFFICER OF OWNER)

STATE OF \_\_\_\_\_ }  
COUNTY OF \_\_\_\_\_ } SS:

On the \_\_\_\_\_ day of \_\_\_\_\_ in the year 20\_\_\_\_, before me, the undersigned, a Notary Public in and for said State, personally appeared \_\_\_\_\_, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name(s) is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

\_\_\_\_\_  
Notary Public

(ACKNOWLEDGMENT OF CONTRACTOR, IF A CORPORATION)

STATE OF \_\_\_\_\_ }  
COUNTY OF \_\_\_\_\_ } SS:

On the \_\_\_\_\_ day of \_\_\_\_\_ in the year 20\_\_\_\_, before me, the undersigned, a Notary Public in and for said State, personally appeared \_\_\_\_\_ to me known, who, being by me duly sworn, did depose and say that he/she/they reside(s) at \_\_\_\_\_, that he/she/they is(are) the \_\_\_\_\_ of \_\_\_\_\_, the corporation described in and which executed the above instrument; and that he/she/they know(s) the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by authority of the board of directors of said corporation, and that he/she/they signed his/her/their name(s) thereto by like authority.

\_\_\_\_\_  
Notary Public

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(ACKNOWLEDGMENT OF CONTRACTOR, IF OTHER THAN A CORPORATION)

STATE OF \_\_\_\_\_ }  
COUNTY OF \_\_\_\_\_ } SS:

On the \_\_\_\_\_ day of \_\_\_\_\_ in the year 20\_\_, before me, the undersigned, a Notary Public in and for said State, personally appeared \_\_\_\_\_, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name(s) is(are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

\_\_\_\_\_  
**Notary Public**

(CERTIFICATE OF OWNER'S ATTORNEY)

I, the undersigned, \_\_\_\_\_, the duly authorized and acting legal representative of the Owner, do hereby certify as follows:

I have examined the foregoing Contract and surety bond and the manner of execution thereof, and I am of the opinion that each of the aforesaid Agreements has been duly executed by the proper parties thereto acting through their duly authorized representatives; that said representatives have full power and authority to execute said Agreements on behalf of the respective parties named therein; and that the foregoing Agreements constitute valid and legally binding obligations upon the parties executing the same in accordance with the terms, conditions, and provisions thereof.

\_\_\_\_\_  
**Owner's Attorney**

\_\_\_\_\_  
**Date**

END OF AGREEMENT

# **SPECIFICATIONS**

# **GENERAL INFORMATION**

## GENERAL INFORMATION

### COTTONWOOD MUNICIPAL AIRPORT

#### AWOS INSTALLATION PROJECT

##### 1. General Information

**Late Bids.** Late submittals and/or unsigned bids will not be considered under any circumstances. Envelopes containing bids with insufficient postage will not be accepted by the City. It is the sole responsibility of the Bidder to see that his/her bid is delivered and received by the proper time and at the proper place.

**Public Record.** All bids submitted in response to this IFB and all evaluation related records shall become property of City and shall become a matter of public record for review, subsequent to publication by the City Clerk of the proposed award in the agenda for the City Council meeting or award by the appropriate approving authority or otherwise provided by law.

- Request for nondisclosure of data such as trade secrets and other proprietary data, must be made known to City in bids submitted, and the information sought to be protected clearly marked as proprietary.
- City will not insure confidentiality of any portion of the bid documents that are submitted in the event that a public record request is made.
- City will provide 48 hours notice before releasing materials identified by the bid as confidential or proprietary in order for the Bidder to apply for a court order blocking the release of the information.

**Cost of Bid Preparation.** City will not reimburse any Bidder the cost of responding to this IFB.

**Persons with Disabilities.** Persons with a disability may request a reasonable accommodation, such as a sign language interpreter, by contacting the Purchasing Manager. Requests shall be made as early as possible to allow time to arrange the accommodation.

**Bid Acceptance Period.** All bids shall remain open for one hundred twenty (120) days after the day of the opening of bids, but City may, at its sole discretion, release any bid and return the bid security (as applicable) prior to that date. No Bidder may withdraw his bid during this period without written permission from the City. Should any Bidder refuse to enter into a contract, under the terms and conditions of the procurement, City may retain the security (as applicable), not as a penalty, but as liquidated damages.

**Term of Contract.** Please see the attached Agreement for a description of the Term of Contract.

**Vendor Registration.** Vendors (Offerors) are encouraged to register via the on-line vendor registration system at [www.publicpurchase.com](http://www.publicpurchase.com), in order to automatically receive notification of Solicitation Addendum or notice of other solicitation opportunities. Select REGISTER OR LOG-IN NOW. A vendor who is not so registered must contact the Purchasing Office to make other arrangements to receive notice of Addenda to this Solicitation. Vendors who submit proposals without acknowledgement of addenda may have their responses rejected.

**Cooperative Use of Contract.** In addition to the City of Cottonwood, and with approval of the contracted Contractor, the Contract may be extended for use by other municipalities, school districts and government agencies of the State. A current listing of eligible entities may be found at [www.maricopa.gov/materials](http://www.maricopa.gov/materials) and then click on 'Contracts', 'S.A.V.E.' listing and 'ICPA'. Any such usage by other entities must be in accordance with the ordinance, charter and/or procurement rules and regulations of the respective political entity.

The Bidder understands that the Bidder will be responsible for and shall pay all sales, consumer, use, and other taxes. When equipment, materials or supplies generally taxable to the Bidder are eligible for a tax exemption due to the nature of the item, Bidder shall assist City in applying for and obtaining such tax credits and exemptions which shall be paid or credited to City.

## 2. **Bid Preparation**

**Exceptions to IFB.** Any exceptions to the specifications or form of Contract must be included with the bid and submitted in the 'Exceptions to IFB' area in the Bid Section or equivalent in which the Bidder clearly identifies the specific objection and/or exceptions. Failure to list an exception or objection shall preclude a request for changes to the specifications or Contract language. The proposed form of Contract is included as a part of this IFB. The bid must include a statement that the Bidder has reviewed the specifications and Contract and lists any objections to them. Any objections to specifications or the form of Contract will be considered and included in City's evaluation of the bid. If Bidder fails to list any objections to the specifications or form of Contract, Bidder will not be allowed to raise any objections later if selected for award. A bid that takes exception to a material requirement of any part of the IFB, specifications or form of Contract, shall be rejected as non-responsive.

**Disclosure.** If the firm, business or person submitting this bid has been debarred, suspended or otherwise lawfully precluded from participating in any public procurement activity, including being disapproved as a subcontractor with any Federal, state or local government, or if any such preclusion from participation from any public procurement activity is currently pending, the Bidder shall fully explain the circumstances relating to the preclusion or proposed preclusion in the bid. The Bidder shall include a letter with its bid setting forth the name and address of the governmental entity, the effective date of this suspension or debarment, the duration of the suspension or debarment, and the relevant circumstances relating to the suspension or debarment. If suspension or debarment is currently pending, a detailed description of all relevant circumstances including the details enumerated above shall be provided.

**Prices.** Prices shall be listed in the Proposal and shall include all freight, insurance, warranty costs, and any other applicable costs.

**Taxes.** Bidder must list all applicable taxes separately in the areas provided in the Bid Section.

**References.** Bidder shall list, in the Proposal, at least three references of other governmental agencies to which Bidder has supplied similar goods or services, including names, addresses and telephone numbers.

**Evidence of Intent to be Bound.** The Bid Section within the IFB shall be submitted with the bid and shall include a signature by a person authorized to sign the bid. The signature shall signify the Bidder's intent to be bound by its bid and the terms of the solicitation and that the information provided is true, accurate and complete. Failure to submit verifiable evidence of intent to be bound, such as an original signature, shall result in rejection of the bid.

**Single Award Contract.** This is an all or nothing bid. All items within this IFB have been grouped together for purposes of obtaining these items collectively from a single source due to such factors as delivery location, pricing advantage, compatibility, etc. To be considered for award of this IFB, the Bidder is required to provide prices on all items within this IFB. Failure to provide pricing for any item within the IFB shall result in the bid being declared non-responsive.

**IRS Form W-9.** The Bidder shall submit a completed Form W-9 (available on the IRS website at [www.irs.gov](http://www.irs.gov)) with its bid.

**Iran and Sudan.** By signing and submitting the bid, the Bidder certifies that pursuant to A.R.S. § 35.391.06 and § 35-393.06, contractor does not have a scrutinized business operation, as defined in A.R.S. § 35-391 and § 35-393, in either Iran or Sudan.

### 3. Protests

A protest must be in writing and be filed with the Purchasing Office. A protest of a solicitation shall be received before the solicitation opening date. A protest of a proposed award must be filed before the City Council meeting at which the recommendation will be presented. If the award is less than \$50,000, City Council approval is not needed and protests must be submitted within ten (10) days after the protestor knows or should have known the basis of the protest. City shall determine whether to issue a written response or hold an administrative hearing.

**A protest must include:**

- The name, address and telephone number of the protester.
- The signature of the protester or its representative.
- Identification of the project and the Solicitation or Contract Number.
- A detailed statement of the legal and factual grounds of the protest including copies of relevant documents.
- The form of relief requested.

**4. Comments Welcome**

The City's Purchasing Office periodically reviews the Information and Instructions to Bidders and welcomes any comments you may have. Please submit your comments to: City of Cottonwood, Purchasing Manager, 816 N. Main Street, Cottonwood, AZ 86326.

**CITY OF COTTONWOOD  
GENERAL PROVISIONS**

**CITY OF COTTONWOOD  
GENERAL PROVISIONS**

**COTTONWOOD MUNICIPAL AIRPORT**

**AWOS INSTALLATION PROJECT**

**1. Definitions**

**Amendment** -written or graphic instrument issued prior to the due date which clarifies, corrects or changes the Solicitation.

**Bonds** - bid, performance and payment bonds and other instruments of security.

**City** - means the City of Cottonwood, an Arizona municipal corporation.

**City Contract Representative** - the City official administering the Contract for the City of Cottonwood. May also be referred to as the Project Manager.

**Completion Time** - the number of consecutive calendar days agreed to by the City and Contractor for completion of the Work, which may be revised by written Change Order.

**Construction** – the process of building, altering, repairing, improving or demolishing any public structure or building or other public improvements of any kind to any real public property.

**Contract Price** - the amount payable by the City to the Contractor for satisfactory completion of the Work, and as specified in the Contract as may be amended by written Change Order.

**Drawings** -the graphic and pictorial portions of the contract, wherever located and whenever issued, showing the configuration, location and dimensions of the Work, generally including plans, elevations, sections, details, schedules and diagrams.

**Estimate for Payment** - a form furnished by the City or an approved form submitted by the Contractor in lieu of a City-furnished form, and is required to be used when submitting requests for payments for work actually performed and materials supplied during a preceding period of time. May also be referred to as an Application for Payment or Payment Application.

**Final Completion Date** -the calendar date when the Work is one hundred percent (100%) complete as determined by the City.

**Liquidated Damages** – a sum set forth in the Contract documents that will be deducted from any monies due to the Contractor, not as a penalty, but in lieu of actual damages for late completion of the work.

**Public Inspector(s)** - that person or persons provided by the public authorities having code enforcement jurisdiction and who perform inspections of the Work for compliance with applicable codes.

**Shop Drawings** -drawings, diagrams, illustrations, schedules and other data which are specifically prepared by or for the Contractor to illustrate, in detail, how some portion of the Work shall be fabricated and/or installed, and all illustrations, brochures, standard schedules, performance charts, instructions, diagrams and other information prepared by a supplier and submitted by the Contractor to illustrate material or equipment for some portion of the Work.

**Specifications** -those portions of the Contract, or Notice to Proceed if a Job Order, consisting of written technical descriptions of materials, equipment, construction systems, standards and workmanship as applied to the Work and certain administrative details applicable thereto.

**Substantial Completion** – a written declaration of the date upon which the City, in its sole discretion, determines the Work is in such a condition that the City may make beneficial use thereof and/or occupy the subject of the Work.

**The Work** -the entire completed construction or the various separately identifiable parts thereof required to be furnished under the Contract, or, in the case of a job-order contract, within individual Notices to Proceed. Work is the result of performing services, furnishing labor and furnishing and incorporating materials and equipment into the construction, all as required by the Contract and/or Notice to Proceed, as applicable.

## **2. The Contract, Its Execution and Intent**

### **2.1 The Contract**

- The documents in the Contract include the solicitation (Proposal), any amendments, drawings, change orders, the Contractor's proposal/response, and any additional, City-approved Contractor submittals.
- This Contract comprises the entire agreement between the City and the Contractor concerning the Work and supersedes any prior negotiations, representations or agreements, either written or oral. The Contract may be amended or modified only by an instrument in writing and fully executed by the authorized parties to the Contract.

### **2.2 Intent of the Contract**

- The organization of the Contract into divisions, sections or articles is merely for the purpose of convenient reference, and neither the headings nor divisions shall have any legal or contractual significance and shall not control the division of the Work by the Contractor among the various subcontractors or trades.

- The Contractor shall include all utility fees, permits, licenses, etc. including sewer connection fees in each estimate or proposal submitted.

### **2.3. Execution**

Execution of the Contract by the Contractor is a representation that the Contractor has thoroughly examined the Contract, and assents to each and every provision hereof.

### **2.4. Ownership of the Contract**

The Contract, including, but not limited to, the drawings and specifications, is the property of the City and is not to be used by the Contractor or any subcontractor on other projects outside the scope of the Work without the express written consent of the City.

## **3. Administration of the Contract**

### **3.1. Lines of Authority and Communications**

- Except where the Contract otherwise provides or where direct communication has been specifically authorized, the Contractor shall initially and primarily communicate with the City Contract Representative.
- The City Contract Representative shall conduct an initial review of, and approve or deny, requests for written Change Orders submitted by the Contractor, and may prepare Change Orders and provide field clarifications and corrections. All Change Orders must also be approved by the City's Administrative Services General Manager or his designee prior to any work being done. However, in emergencies endangering life or property, the City Contract Representative may take action and issue orders and authorizations which are deemed necessary to avert the loss of life or property.
- The City Contract Representative shall make recommendations to the Administrative Services General Manager as to all claims of the Contractor.
- The City Contract Representative will review and process the Contractor's monthly Estimates/Applications for Payment.
- The City Contract Representative will conduct inspections to determine the dates of Substantial Completion and Final Completion and will certify such dates to the Contractor and Administrative Services General Manager.
- The City Contract Representative will not have control over or charge of, and will not be responsible for, construction means, methods, techniques, sequences or procedures, or for safety precautions and programs in connection with the Work, since these items are solely the Contractor's responsibility. Failure of the City Contract Representative to note unsafe working conditions or conditions dangerous to the general public, or to stop work on account of

such conditions, shall not relieve the Contractor of its sole responsibility for such conditions.

#### **4. The Contractor's Duties and Responsibilities**

##### **4.1 Materials and Labor; Warranty**

- Unless otherwise stipulated, the Contractor shall provide and pay for all materials, labor, equipment, tools, construction equipment and machinery, water, gas, heat, utilities, transportation, and other facilities and services necessary for the execution, completion and delivery of the Work within the specified Completion Time.
- The Contractor shall pay all applicable taxes associated with the Work.

##### **4.2 Protection and Use of Site**

- The Contractor shall supply safe drinking water for all Contractor employees at the Work site. Construction water shall consist of reclaimed water and shall be hauled in by the contractor at the contractor's expense. The contractor shall coordinate with the City of Cottonwood Utility to purchase reclaimed water.

##### **4.3 Emergencies**

- In an actual emergency affecting imminently the safety of life or property, the Contractor, without special instruction or authorization from the City Contract Representative, is hereby permitted, authorized and directed to act at its own discretion to prevent threatened loss or injury.
- Except in the case of an emergency requiring immediate remedial work, any work performed after regular working hours, on Saturdays, Sundays or legal holidays, shall be performed without additional expense to the City unless such work has been specifically requested and approved by the City Contract Representative.
- The Contractor shall file with the City Contract Representative the names, addresses and telephone numbers of its representatives who can be contacted at any time in case of emergency. These Contractor representatives must be fully authorized and equipped to correct unsafe or excessively inconvenient conditions on short notice by the City or the Public Inspectors.

##### **4.4 Indemnification and Insurance**

- To the fullest extent permitted by law, Contractor, its successors, assigns and guarantors, shall pay, defend, indemnify and hold harmless City of Cottonwood, its agents, representatives, officers, directors, officials and employees from and against all allegations, demands, proceedings, suits, actions, claims, damages, losses, expenses, including but not limited to,

attorney fees, court costs, and the cost of appellate proceedings, and all claim adjusting and handling expense, related to, arising from or out of or resulting from any actions, acts, errors, mistakes or omissions caused in whole or part by Contractor relating to work or services in the performance of this Contract, including but not limited to, any Subcontractor or anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable and any injury or damages claimed by any of Contractor's and Subcontractor's employees, provided, however, that this duty to indemnify, hold harmless and defend shall not include losses, damages, claims, liabilities, costs and expenses to the arising solely out of the acts or omissions of the City.

## **5. Subcontracts and Separate Contracts**

### **5.1 Subcontracts**

- The Contractor shall ensure that the subcontractors assigned to this Contract are available throughout the term of the Contract. In the event that the Contractor requests substitution of subcontractors, the Contractor shall obtain prior approval from the City Contract Representative for subcontractor substitution. The Contractor shall ensure that substituted subcontractors are equally qualified and capable. Information on the qualifications of proposed substitutes shall be provided to the City Contract Representative for consideration and approval prior to substitution taking place.
- The Contractor agrees that each subcontractor shall be bound to the Contractor by each and all of the terms of this Contract. In the event of a conflict between the substance of a written subcontract and the language of this Contract, the language of this Contract shall prevail in every case.
- Contractor shall ensure that each subcontract shall preserve and protect the rights of the City under the Contract with respect to the work to be performed by the subcontractor. Where appropriate, the Contractor shall require each subcontractor to enter into similar agreements with sub-subcontractors. In this connection, the Contractor shall make available to each subcontractor, prior to execution of any subcontract, copies of the provisions of this Contract to which the subcontractor will be bound. Subcontractors shall also make copies of applicable portions of the Contract available to their respective subcontractors.
- Each subcontract will require the subcontractor to submit to the Contractor applications for payment in such reasonable time as to enable the Contractor to apply for payment to the City in a timely manner, including any claims for extras, extensions of time, and damages for delays or otherwise to the Contractor in the manner provided in this Contract for like claims by the Contractor upon the City.

- The Contractor further agrees:
  - To be bound to the subcontractor by all the obligations that the City assumes to the Contractor under this Contract, and by all provisions thereof affording remedies and redress to the Contractor from the City.
  - To promptly pay its subcontractors in accordance with applicable State statutes.
  - That, at all times, the subcontractors' total payments shall be proportionate to the value of the labor and materials provided by them. Payment may be preconditioned upon the subcontractors providing the Contractor with requested partial or final lien waivers.
  - To pay its subcontractors to such extent as may be provided by the Contract or the subcontract, if either of these provides for earlier or larger payments than the above.
  - To ensure timely payment to subcontractors for their work as performed and for materials fixed in place, less any applicable retention, despite any delay by the City in making payments to the Contractor for any cause not the fault of the subcontractor.
  - To share or forward, as appropriate, with its subcontractors or, as appropriate, with the City, any fire insurance monies received by the Contractor under the insurance provisions of the Contract.
  - That no claim for services rendered or materials furnished by the Contractor to its subcontractors shall be valid unless written notice thereof is given by the Contractor to the subcontractor during the first ten (10) days of the calendar month following that in which the claim originated.
  - To give its subcontractors an opportunity to be present and to submit evidence in any contract claim, controversy or dispute.
- Nothing in these provisions shall create any obligation on the part of the City to pay to, or to see to the payment of, any sums to any subcontractor, except as may otherwise be required by law.
- Each subcontract agreement for a portion of the Work is hereby assignable by the Contractor to the City provided that:
  - Assignment is effective at the sole option of the City and only upon termination of this Contract for cause and only for those subcontract agreements which the City determines to accept by notifying the subcontractor in writing, and;

- Assignment is subject to the prior rights of sureties obligated under the Bonds relating to the Contract.

## **5.2 Separate Contracts**

- The City Contract Representative shall coordinate the activities of the City's own forces and of each separate Contractor with the work of the Contractor. The Contractor and all other Contractors on the Work site shall be required to review their construction schedules and cooperate with the City Contract Representative in coordinating the various portions of the Work with the schedules of such separate contractors.
- If any part of the Contractor's work depends, for proper execution or results, upon the work of any other contractor, the Contractor shall inspect and promptly report to the City Contract Representative any defects in such work that render it unsuitable for continuance of the Contractor's Work. Failure to inspect and report may constitute an acceptance of the other contractor's work as fit and proper for the reception of the Contractor's Work, except as to defects not then reasonably discoverable.
- If the Contractor causes damage to any separate contractor on the site, the Contractor, upon due notice, agrees to settle with such separate contractor by agreement or arbitration, if he will so settle. If such separate contractor sues the City on account of any damage alleged to have been so sustained, the City shall notify the Contractor, who shall defend such proceedings and, if any judgment against the City arises therefrom, the Contractor shall pay or satisfy it.

## **6. Time Factors; Liquidated Damages**

### **6.1 Force Majeure**

- Except for payment of sums due, neither party shall be liable to the other nor deemed in default under this Contract if and to the extent that such party's performance of an obligation arising under this Contract is prevented by reason of Force Majeure. For the purposes of this Contract, the term "Force Majeure" means a major occurrence that is beyond the control of the parties affected and occurs without the delayed party's fault or negligence. Force Majeure shall not include late performance by a sub-contractor unless the delay arises out of a Force Majeure occurrence in accordance with the definition of Force Majeure set forth herein.
- If either party is delayed at any time in the progress of the work by Force Majeure, the delayed party shall immediately notify the other party in writing of such delay of the commencement thereof, and shall specify the causes of such delay in such notice. Such notice shall be hand-delivered or mailed certified-return receipt requested and shall make a specific reference to this article, thereby invoking its provisions. The delayed party shall cause such delay to cease as soon as practicable and shall notify the other party in writing

when the delay has ended. The time of completion shall be extended by contract modification for a period of time equal to the time that results or effects of such delay reasonably prevented the delayed party from performing in accordance with this Contract.

## **7. Payments to the Contractor**

### **7.1 Partial Utilization**

- The City may occupy or use any portion of the Work which the City and the Contractor agree constitutes a separately functioning and usable part of the Work that can be used by the City without significant interference with the Contractor's performance of the remainder of the Work. Such use or occupancy may commence whether or not the portion is substantially complete, provided the City and the Contractor have accepted in writing their mutual responsibilities regarding the used portion, including but not limited to insurance coverage, maintenance and utilities.
- Partial use or occupancy of the Work by the City shall not constitute acceptance of Work not complying with the requirements of the Contract.

## **8. Suspension or Termination of the Work**

### **8.1 Termination by the City for Convenience**

- The performance of the Work under this Contract may be terminated by the City, in whole or in part, in accordance with this clause whenever the City reasonably determines that such termination is in the best interest of the City. Any such termination shall be effected by delivery to the Contractor of a written Notice of Termination specifying the extent to which performance of the Work is terminated, and the date upon which such termination becomes effective.
- If the Contract is terminated by the City as provided herein, the Contractor shall receive compensation for any Work performed and accepted, together with profit in proportion to the Work performed and accepted. The compensation shall include payment for contractual obligations reasonably incurred prior to termination. No amount shall be allowed for anticipated profit on unperformed Work.
- In the event the City terminates the Work, in whole or in part, for cause and the termination is later deemed to be unjustified, then such termination shall be automatically deemed a termination for convenience and the provisions of this Section 8.1 shall apply.
- Termination of the Contract or portion thereof by the City for convenience shall not relieve the Contractor of its contractual responsibilities for the Work completed, nor shall it relieve the surety of its obligation for and concerning any just claim arising out of the Work completed.

## **8.2 Contractor's Right to Terminate Contract**

- The Contractor may terminate the Contract for any of the following reasons:
  - If the Work should be stopped under an order of any court of competent jurisdiction or other public authority for a period in excess of one (1) month through no act or fault of the Contractor or of anyone directly or indirectly employed by the Contractor, or for whom the Contractor is legally responsible.
  - If the City has failed to pay the Contractor within sixty (60) days a sum that has been certified for payment by the City Contract Representative.
  - If repeated suspensions or interruptions ordered by the City total in the aggregate more than one hundred percent (100%) of the total number of days scheduled for completion, or one hundred twenty (120) days in any three hundred sixty-five (365) day period, whichever is less.
- If one of the above reasons exists, the Contractor may, upon seven (7) additional days written notice to the City Contract Representative, stop Work and terminate the Contract and recover payment from the City for all Work executed and accepted by the City and any loss sustained upon any plant or materials and reasonable profit and damages.

## **9. Claims and Disputes**

### **9.1 City Contract Representative's Resolution of Claims and Disputes; Review by Administrative Services General Manager**

- Pending final resolution of a claim, the Contractor shall proceed diligently with performance of the Contract and the City shall continue to make payments in accordance with the Contract.
- The City Contract Representative shall, within twenty-one (21) days of receipt of a claim, do one of the following:
  - 1) Issue a decision either rejecting or approving the claim.
  - 2) Suggest an equitable compromise of the claim.
  - 3) Provide a schedule to the Contractor indicating when he expects to be able to take action, which shall be within a reasonable time.
- The City Contract Representative may require the submission of additional documentation from the Contractor to facilitate a decision.

- The Contractor shall have ten (10) days from the date of the City Contract Representative's final decision rejecting or approving a claim, or suggesting a compromise, within which to accept or object to the decision. Failure of the Contractor to accept or object to the decision in writing within such ten (10) day period shall be deemed an acceptance of the decision. If the Contractor rejects the decision of the City Contract Representative in writing within such ten (10) day period, the matter shall be referred to the City's Administrative Services General Manager for de novo review.
- The Administrative Services General Manager shall have sixty (60) days from receipt of a written objection by the Contractor to the City Contract Representative's final decision, or such longer period as the parties may stipulate in writing, to review the matter and issue a decision. During such period, the Administrative Services General Manager may require such additional documentation or testimony as deemed necessary to support his/her response.

## **10. Miscellaneous Provisions**

### **10.1 Governing Law**

This Contract shall be governed and construed according to the laws of the State of Arizona, and the Ordinances and City Code of the City of Cottonwood, Arizona.

### **10.2 Written Notice**

Written notice shall be deemed to have been duly served if delivered in person to the individual or a member of the firm or entity or to an officer of the corporation for which it was intended, or if delivered at or sent by registered or certified mail to the last known business address known to the party giving notice.

### **10.3 Conflict of Interest**

The City shall have the right to terminate this Contract pursuant to the provisions of A.R.S. Sec. 38-511 and to exercise any and all remedies provided in such statute. Without limiting the generality of the foregoing, the City may cancel this Contract if any person significantly involved in negotiating, drafting, securing or obtaining this Contract for or on behalf of the City becomes an employee of the Contractor in any capacity or a consultant to the Contractor with reference to the subject matter of this Contract.

**FAA  
GENERAL  
PROVISIONS**

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## Section 10 Definition of Terms

Whenever the following terms are used in these specifications, in the contract, or in any documents or other instruments pertaining to construction where these specifications govern, the intent and meaning shall be interpreted as follows:

**10-01 AASHTO.** The American Association of State Highway and Transportation Officials, the successor association to AASHO.

**10-02 ACCESS ROAD.** The right-of-way, the roadway and all improvements constructed thereon connecting the airport to a public highway.

**10-03 ADVERTISEMENT.** A public announcement, as required by local law, inviting bids for work to be performed and materials to be furnished.

**10-04 AIP.** The Airport Improvement Program, a grant-in-aid program, administered by the Federal Aviation Administration.

**10-05 AIR OPERATIONS AREA.** For the purpose of these specifications, the term air operations area shall mean any area of the airport used or intended to be used for the landing, takeoff, or surface maneuvering of aircraft. An air operation area shall include such paved or unpaved areas that are used or intended to be used for the unobstructed movement of aircraft in addition to its associated runway, taxiway, or apron.

**10-06 AIRPORT.** Airport means an area of land or water which is used or intended to be used for the landing and takeoff of aircraft; an appurtenant area used or intended to be used for airport buildings or other airport facilities or rights of way; and airport buildings and facilities located in any of these areas, and includes a heliport. The name of the Airport where this project is located is Cottonwood Municipal Airport.

**10-07 ASTM.** The American Society for Testing and Materials.

**10-08 AWARD.** The acceptance, by the Owner, of the successful bidder's proposal.

**10-09 BIDDER.** Any individual, partnership, firm, or corporation, acting directly or through a duly authorized representative, who submits a proposal for the work contemplated.

**10-10 BUILDING AREA.** An area on the airport to be used, considered, or intended to be used for airport buildings or other airport facilities or rights-of-way together with all airport buildings and facilities located thereon.

**10-11 CALENDAR DAY.** Every day shown on the calendar.

**10-12 CHANGE ORDER.** A written order to the Contractor covering changes in the plans, specifications, or proposal quantities and establishing the basis of payment and contract time adjustment, if any, for the work affected by such changes. The work, covered by a change order, shall be within the scope of the contract.

**10-13 CONTRACT.** The written agreement covering the work to be performed. The awarded contract shall include, but is not limited to: The Advertisement; The Proposal; The Agreement; The Performance Bond; The Payment Bond; any required insurance certificates; The Specifications; The Plans, and any addenda issued to bidders.

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**10-14 CONTRACT ITEM (PAY ITEM).** A specific unit of work for which a price is provided in the contract.

**10-15 CONTRACT TIME.** The number of calendar days or working days, stated in the proposal, allowed for completion of the contract, including authorized time extensions. If a completion date is stated in the proposal, in lieu of a number of calendar or working days, the contract shall be completed by that date.

**10-16 CONTRACTOR.** The individual, partnership, firm, or corporation primarily liable for the acceptable performance of the work contracted and for the payment of all legal debts pertaining to the work who acts directly or through lawful agents or employees to complete the contract work.

**10-17 DRAINAGE SYSTEM.** The system of pipes, ditches, and structures by which surface or subsurface waters are collected and conducted from the airport area.

**10-18 ENGINEER.** The individual, partnership, firm, or corporation duly authorized by the Owner to be responsible for engineering inspection of the contract work and acting directly or through an authorized representative. . The Engineer for this project is C&S Engineers, Inc., 9200 E. Pima Center Pkwy., Suite 240, Scottsdale, AZ,85258.

**10-19 EQUIPMENT.** All machinery, together with the necessary supplies for upkeep and maintenance, and also all tools and apparatus necessary for the proper construction and acceptable completion of the work.

**10-20 EXTRA WORK.** An item of work not provided for in the awarded contract as previously modified by change order or supplemental agreement, but which is found by the Engineer to be necessary to complete the work within the intended scope of the contract as previously modified.

**10-21 FAA.** The Federal Aviation Administration of the U.S. Department of Transportation. When used to designate a person, FAA shall mean the Administrator or his/her duly authorized representative.

**10-22 FEDERAL SPECIFICATIONS.** The Federal Specifications and Standards, Commercial Item Descriptions, and supplements, amendments, and indices thereto are prepared and issued by the General Services Administration of the Federal Government. . They may be obtained from:

DODSSP  
Standardization Document Order Desk  
700 Robbins Avenue, Bldg. 4D  
Philadelphia, PA 19111-5094

**10-23 FORCE ACCOUNT.** Force account construction work is construction that is accomplished through the use of material, equipment, labor, and supervision provided by the Owner or by another public agency pursuant to an agreement with the Owner.

**10-24 INSPECTOR.** An authorized representative of the Engineer assigned to make all necessary inspections and/or tests of the work performed or being performed, or of the materials furnished or being furnished by the Contractor.

**10-25 INTENTION OF TERMS.** Whenever, in these specifications or on the plans, the words “directed,” “required,” “permitted,” “ordered,” “designated,” “prescribed,” or words of like import are used, it shall be understood that the direction, requirement, permission, order, designation, or prescription

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of the Engineer is intended; and similarly, the words “approved,” “acceptable,” “satisfactory,” or words of like import, shall mean approved by, or acceptable to, or satisfactory to the Engineer, subject in each case to the final determination of the Owner.

Any reference to a specific requirement of a numbered paragraph of the contract specifications or a cited standard shall be interpreted to include all general requirements of the entire section, specification item, or cited standard that may be pertinent to such specific reference.

**10-26 LABORATORY.** The official testing laboratories of the Owner or such other laboratories as may be designated by the Engineer.

**10-27 LIGHTING.** A system of fixtures providing or controlling the light sources used on or near the airport or within the airport buildings. The field lighting includes all luminous signals, markers, floodlights, and illuminating devices used on or near the airport or to aid in the operation of aircraft landing at, taking off from, or taxiing on the airport surface.

**10-28 MAJOR AND MINOR CONTRACT ITEMS.** A major contract item shall be any item that is listed in the proposal, the total cost of which is equal to or greater than 20 percent of the total amount of the award contract. All other items shall be considered minor contract items.

**10-29 MATERIALS.** Any substance specified for use in the construction of the contract work.

**10-30 NOTICE TO PROCEED.** A written notice to the Contractor to begin the actual contract work on a previously agreed to date. If applicable, the Notice to Proceed shall state the date on which the contract time begins.

**10-31 OWNER.** The term “Owner” shall mean the party of the first part or the contracting agency signatory to the contract. For AIP contracts, the term “sponsor” shall have the same meaning as the term “Owner.” Where the term “Owner” is capitalized in this document, it shall mean airport owner or sponsor only.

Whenever the words “Owner”, “Sponsor”, “City”, or “Party of the first part” are used, the same are understood to mean the City of Cottonwood or its representative duly authorized to act.

**10-32 PAVEMENT.** The combined surface course, base course, and subbase course, if any, considered as a single unit.

**10-33 PAYMENT BOND.** The approved form of security furnished by the Contractor and his/her surety as a guaranty that he will pay in full all bills and accounts for materials and labor used in the construction of the work.

**10-34 PERFORMANCE BOND.** The approved form of security furnished by the Contractor and his/her surety as a guaranty that the Contractor will complete the work in accordance with the terms of the contract.

**10-35 PLANS.** The official drawings or exact reproductions which show the location, character, dimensions and details of the airport and the work to be done and which are to be considered as a part of the contract, supplementary to the specifications.

**10-36 PROJECT.** The agreed scope of work for accomplishing specific airport development with respect to a particular airport.

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**10-37 PROPOSAL.** The written offer of the bidder (when submitted on the approved proposal form) to perform the contemplated work and furnish the necessary materials in accordance with the provisions of the plans and specifications.

**10-38 PROPOSAL GUARANTY.** The security furnished with a proposal to guarantee that the bidder will enter into a contract if his/her proposal is accepted by the Owner.

**10-39 RUNWAY.** The area on the airport prepared for the landing and takeoff of aircraft.

**10-40 SPECIFICATIONS.** A part of the contract containing the written directions and requirements for completing the contract work. Standards for specifying materials or testing which are cited in the contract specifications by reference shall have the same force and effect as if included in the contract physically.

**10-41 SPONSOR.** See definition above of “Owner.”

**10-42 STRUCTURES.** Airport facilities such as bridges; culverts; catch basins, inlets, retaining walls, cribbing; storm and sanitary sewer lines; water lines; underdrains; electrical ducts, manholes, handholes, lighting fixtures and bases; transformers; flexible and rigid pavements; navigational aids; buildings; vaults; and, other manmade features of the airport that may be encountered in the work and not otherwise classified herein.

**10-43 SUBGRADE.** The soil that forms the pavement foundation.

**10-44 SUPERINTENDENT.** The Contractor’s executive representative who is present on the work during progress, authorized to receive and fulfill instructions from the Engineer, and who shall supervise and direct the construction.

**10-45 SUPPLEMENTAL AGREEMENT.** A written agreement between the Contractor and the Owner covering (1) work that would increase or decrease the total amount of the awarded contract, or any major contract item, by more than 25 percent, such increased or decreased work being within the scope of the originally awarded contract; or (2) work that is not within the scope of the originally awarded contract.

**10-46 SURETY.** The corporation, partnership, or individual, other than the Contractor, executing payment or performance bonds that are furnished to the Owner by the Contractor.

**10-47 TAXIWAY.** For the purpose of this document, the term taxiway means the portion of the air operations area of an airport that has been designated by competent airport authority for movement of aircraft to and from the airport’s runways or aircraft parking areas.

**10-48 WORK.** The furnishing of all labor, materials, tools, equipment, and incidentals necessary or convenient to the Contractor’s performance of all duties and obligations imposed by the contract, plans, and specifications.

**10-49 WORKING DAY.** A working day shall be any day other than a legal holiday, Saturday, or Sunday on which the normal working forces of the Contractor may proceed with regular work for at least 6 hours toward completion of the contract. When work is suspended for causes beyond the Contractor’s control, Saturdays, Sundays and holidays on which the Contractor’s forces engage in regular work, requiring the presence of an inspector, will be considered as working days.

**10-50 CONTRACT DRAWINGS.** The Plans.

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**10-51 DESIGN ENGINEER.** The individual(s), partnership(s), firm(s), or corporation(s) duly authorized by the Owner to be responsible for design services. The Design Engineer for this project is C&S Engineers, Inc. 9200 E. Pima Center Pkwy., Suite 240, Scottsdale, AZ, 85258.

**10-52 SUBCONTRACTOR.** The subcontractor refers any individual, firm, or corporation to whom the contractor, with approval of the Owner, sublets any part of work.

END OF SECTION 10

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## Section 20 Proposal Requirements and Conditions

**20-01 ADVERTISEMENT (Notice to Bidders).** See the Advertisement located in the front of these Contract Documents.

**20-02 PREQUALIFICATION OF BIDDERS.** Within one week of receiving a written request, the bidder shall furnish the owner satisfactory evidence of his/her competency to perform the proposed work. Such evidence of competency, unless otherwise specified, shall consist of following:

- A. Statements covering the bidder's past experience on similar work
- B. A list of equipment that would be available for the work, and
- C. a list of key personnel that would be available.
- D. Satisfactory evidence of his/her financial responsibility. Such evidence of financial responsibility, unless otherwise specified, shall consist of a confidential statement or report of the bidder's financial resources and liabilities as of the last calendar year or the Contractor's last fiscal year. Such statements or reports shall be certified by a public accountant. At the time of submitting such financial statements or reports, the bidder shall further certify whether his/her financial responsibility is approximately the same as stated or reported by the public accountant. If the bidder's financial responsibility has changed, the bidder shall qualify the public accountant's statement or report to reflect his/her (bidder's) true financial condition at the time such qualified statement or report is submitted to the Owner.
- E. A list of key personnel that would be available for the work.
- F. A list of the categories of work to be performed by the bidder's work force and a list of work to be subcontracted out (See Section 80-01).
- G. A list of construction projects completed in the past five years. The list shall include the project name, completion date, total contract value, value of bidder's portion of the work, engineer and owner contact information (names and phone numbers).
- H. A list of construction projects in progress and under contract including the project name, percent complete, estimated completion date, total contract value, value of bidder's portion of the work, engineer and owner contact information (names and phone numbers).
- I. A Schedule of Values showing the following information:
  - 1. For each lump sum bid item: Provide a breakdown of values for major products, assemblies or operations, indicating separate amounts for (a) purchased materials, (b) labor, and (c) construction equipment, which total to the lump sum price bid for each item.
  - 2. For each unit price bid item: Provide a breakdown of values for the unit price allocated to (a) purchased materials, (b) labor, and (c) construction equipment which total to the unit price bid for each item.

The Schedule of Values will be reviewed by the Design Engineer. Any additional detail or justification for cost distribution shall be provided by the apparent low bidder upon request. The Schedule of Values shall serve as a basis for computing progress payments during construction for installed portions of lump sum items, and to assist the Engineer in determining if change order costs are reasonable.

Unless otherwise specified, a bidder may submit evidence that he is prequalified with the State Highway Division and is on the current "bidder's list" of the state in which the proposed work is located. Such evidence of State Highway Division prequalification may be submitted as evidence of financial responsibility in lieu of the certified statements or reports hereinbefore specified.

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**20-03 CONTENTS OF PROPOSAL FORMS.** The Owner shall furnish bidders with proposal forms. All papers bound with or attached to the proposal forms are necessary parts and must not be detached.

The plans specifications, and other documents designated in the proposal form shall be considered a part of the proposal whether attached or not.

**20-04 ISSUANCE OF PROPOSAL FORMS.** The Owner reserves the right to refuse to issue a proposal form to a prospective bidder should such bidder be in default for any of the following reasons:

- a. Failure to comply with any prequalification regulations of the Owner, if such regulations are cited, or otherwise included, in the proposal as a requirement for bidding.
- b. Failure to pay, or satisfactorily settle, all bills due for labor and materials on former contracts in force (with the Owner) at the time the Owner issues the proposal to a prospective bidder.
- c. Contractor default under previous contracts with the Owner.
- d. Unsatisfactory work on previous contracts with the Owner.

**20-05 INTERPRETATION OF ESTIMATED PROPOSAL QUANTITIES.** An estimate of quantities of work to be done and materials to be furnished under these specifications is given in the proposal. It is the result of careful calculations and is believed to be correct. It is given only as a basis for comparison of proposals and the award of the contract. The Owner does not expressly or by implication agree that the actual quantities involved will correspond exactly therewith; nor shall the bidder plead misunderstanding or deception because of such estimates of quantities, or of the character, location, or other conditions pertaining to the work. Payment to the Contractor will be made only for the actual quantities of work performed or materials furnished in accordance with the plans and specifications. It is understood that the quantities may be increased or decreased as hereinafter provided in the subsection titled ALTERATION OF WORK AND QUANTITIES of Section 40 without in any way invalidating the unit bid prices.

**20-06 EXAMINATION OF PLANS, SPECIFICATIONS, AND SITE.** The bidder is expected to carefully examine the site of the proposed work, the proposal, plans specifications, and contract forms. He shall satisfy himself as to the character, quality, and quantities of work to be performed, materials to be furnished, and as to the requirements of the proposed contract. The submission of a proposal shall be prima facie evidence that the bidder has made such examination and is satisfied as to the conditions to be encountered in performing the work and as to the requirements of the proposed contract, plans, and specifications.

Boring logs and other records of subsurface investigations and tests are available for inspection of bidders. It is understood and agreed that such subsurface information, whether included in the plans, specifications, or otherwise made available to the bidder, was obtained and is intended for the Owner's design and estimating purposes only. Such information has been made available for the convenience of all bidders. It is further understood and agreed that each bidder is solely responsible for all assumptions, deductions, or conclusions which he may make or obtain from his/her examination of the boring logs and other records of subsurface investigations and tests that are furnished by the Owner.

**20-07 PREPARATION OF PROPOSAL.** DO NOT REMOVE the Proposal from the Contract Documents. All parts of the Contract Documents must be submitted with the proposal.

The bidder shall submit his/her proposal on the forms furnished by the Owner. All blank spaces in the proposal forms must be correctly filled in where indicated for each and every item for which a quantity is given. The bidder shall state the price (written in ink or typed) both in words and numerals for which he

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proposes to do each pay item furnished in the proposal. In case of conflict between words and numerals, the words, unless obviously incorrect, shall govern. Prices shall be written in whole dollars and cents. The extended total amount of each item should not be rounded.

The bidder shall sign his/her proposal correctly and in ink. If the proposal is made by an individual, his/her name and post office address must be shown. If made by a partnership, the name and post office address of each member of the partnership must be shown. If made by a corporation, the person signing the proposal shall give the name of the state under the laws of which the corporation was chartered and the name, titles, and business address of the president, secretary, and the treasurer. Anyone signing a proposal as an agent shall file evidence of his/her authority to do so and that the signature is binding upon the firm or corporation.

**20-08 IRREGULAR PROPOSALS.** Proposals shall be considered irregular for the following reasons:

- a. If the proposal is on a form other than that furnished by the Owner, or if the Owner's form is altered, incomplete, or if any part of the proposal form is detached.
- b. If there are unauthorized additions, conditional or alternate pay items, or irregularities of any kind that make the proposal incomplete, indefinite, or otherwise ambiguous.
- c. If the proposal does not contain a unit price for each pay item listed in the proposal, except in the case of authorized alternate pay items, for which the bidder is not required to furnish a unit price.
- d. If the proposal contains unit prices that are obviously unbalanced.
- e. If the proposal is not accompanied by the proposal guaranty specified by the Owner.

The Owner reserves the right to reject any irregular proposal and the right to waive technicalities if such waiver is in the best interest of the Owner and conforms to local laws and ordinances pertaining to the letting of construction contracts.

**20-09 BID GUARANTEE.** Each separate proposal shall be accompanied by a certified check, bid bond, or other specified acceptable collateral, in the amount specified in the proposal form. Such check, or collateral, shall be made payable to the City of Cottonwood as a guarantee that Bidder will enter into a contract with the City in accordance with the terms of the specifications in case such bidder be awarded the Contract.

In lieu of a certified check as a guarantee, a bond of ten percent (10%) of total bid price may be furnished by the Bidder; such bond to be issued by a surety authorized to do business in Arizona. Such bond shall be payable to City as guarantee that such Bidder will enter into a contract with City in accordance with the terms of the specifications in case such Bidder be awarded the Contract.

**20-10 DELIVERY OF PROPOSAL.** Each proposal submitted shall be placed in a sealed envelope plainly marked with the project number, location of airport, and name and business address of the bidder on the outside. When sent by mail, preferably registered, the sealed proposal, marked as indicated above, should be enclosed in an additional envelope. No proposal will be considered unless received at the place specified in the advertisement before the time specified for opening all bids. The official time shall be kept locally by the Owner. Proposals received after the bid opening time shall be returned to the bidder unopened. Bids may not be submitted in facsimile or electronically. A facsimile or electronic mail bid will be rejected.

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**20-11 WITHDRAWAL OR REVISION OF PROPOSALS.** A bidder may withdraw or revise (by withdrawal of one proposal and submission of another) a proposal provided that the bidder's request for withdrawal is received by the Owner in writing or by telegram before the time specified for opening bids. Revised proposals must be received at the place specified in the advertisement before the time specified for opening all bids.

**20-12 PUBLIC OPENING OF PROPOSALS.** Proposals shall be opened, and read, publicly at the time and place specified in the advertisement. Bidders, their authorized agents, and other interested persons are invited to attend. Proposals that have been withdrawn (by written or telegraphic request) or received after the time specified for opening bids shall be returned to the bidder unopened.

**20-13 DISQUALIFICATION OF BIDDERS.** A bidder shall be considered disqualified for any of the following reasons:

- a. Submitting more than one proposal from the same partnership, firm, or corporation under the same or different name.
- b. Evidence of collusion among bidders. Bidders participating in such collusion shall be disqualified as bidders for any future work of the Owner until any such participating bidder has been reinstated by the Owner as a qualified bidder.
- c. If the bidder is considered to be in "default" for any reason specified in the subsection titled ISSUANCE OF PROPOSAL FORMS of this section.

**20-14 ADDENDA AND INTERPRETATION.** No interpretation of the meaning of the Contract Documents, Contract Drawings or other portions of the Contract will be made orally. Every request for such interpretation must be in writing and addressed to C&S Engineers, Inc., 9200 E. Pima Center Pkwy., Suite 240, Scottsdale, AZ, 85258, and to be given consideration must be received at the above address at least seven (7) days prior to the date fixed for opening of bids. Any and all such interpretations and any supplemental instructions will be in the form of written addenda, which, when issued, will be sent by certified mail with return receipt requested, or by confirmed facsimile to all holders of Contract Documents at the respective addresses furnished for such purposes, not later than twenty-four (24) hours prior to the date fixed for the opening of bids. Failure of any Bidder to receive any such addenda or interpretation shall not relieve said Bidder from any obligation under his bid as submitted. All addenda so issued shall become part of the Contract.

END OF SECTION 20

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## **Section 30 Award and Execution of Contract**

**30-01 CONSIDERATION OF PROPOSALS.** After the proposals are publicly opened and read, they will be compared on the basis of the summation of the products obtained by multiplying the estimated quantities shown in the proposal by the unit bid prices. If a bidder's proposal contains a discrepancy between unit bid prices written in words and unit bid prices written in numbers, the unit price written in words shall govern. Where discrepancies in the unit bid prices occur, and where discrepancies in the product of the quantities and unit bid prices occur, and where discrepancies in the summation of the products occur, the Owner will make the necessary corrections and the corrected values will be used in the Owner's consideration of proposals.

Until the award of a contract is made, the Owner reserves the right to reject a bidder's proposal for any of the following reasons:

- a. If the proposal is irregular as specified in the subsection titled **IRREGULAR PROPOSALS** of Section 20.
- b. If the bidder is disqualified for any of the reasons specified in the subsection titled **DISQUALIFICATION OF BIDDERS** of Section 20.

In addition, until the award of a contract is made, the Owner reserves the right to reject any or all proposals, waive technicalities, if such waiver is in the best interest of the Owner and is in conformance with applicable state and local laws or regulations pertaining to the letting of construction contracts; advertise for new proposals; or proceed with the work otherwise. All such actions shall promote the Owner's best interests.

**30-02 AWARD OF CONTRACT.** The award of a contract, if it is to be awarded, shall be made within 120 calendar days of the date specified for publicly opening proposals, unless otherwise specified herein.

Award of the contract shall be made by the Owner to the lowest, qualified bidder whose proposal conforms to the cited requirements of the Owner. Where discrepancies occur that affect the bid total(s) as described in the subsection titled **CONSIDERATION OF PROPOSALS**, the contract amount awarded will reflect the corrected values.

**30-03 CANCELLATION OF AWARD.** The Owner reserves the right to cancel the award without liability to the bidder, except return of proposal guaranty, at any time before a contract has been fully executed by all parties and is approved by the Owner in accordance with the subsection titled **APPROVAL OF CONTRACT** of this section.

**30-04 RETURN OF PROPOSAL GUARANTY.** All proposal guaranties, except those of the two lowest bidders, will be returned immediately after the Owner has made a comparison of bids as hereinbefore specified in the subsection titled **CONSIDERATION OF PROPOSALS** of this section. Proposal guaranties of the two lowest bidders will be retained by the Owner until such time as an award is made, at which time, the unsuccessful bidder's proposal guaranty will be returned. The successful bidder's proposal guaranty will be returned as soon as the Owner receives the contracts bonds as specified in the subsection titled **REQUIREMENTS OF CONTRACT BONDS** of this section.

**30-05 REQUIREMENTS OF CONTRACT BONDS.** At the time of the execution of the contract, the successful bidder shall furnish the Owner a surety bond or bonds that have been fully executed by the bidder and the surety guaranteeing the performance of the work and the payment of all legal debts that may be incurred by reason of the Contractor's performance of the work. The surety and the form of the

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bond or bonds shall be acceptable to the Owner. Unless otherwise specified in this subsection, the surety bond or bonds shall be in a sum equal to the full amount of the contract.

The successful bidder shall submit in triplicate, a “Performance Bond” guaranteeing the performance of the work equal to one hundred percent (100%) of the amount of the Contract awarded, and a “Labor and Material Payment Bond” guaranteeing the payment of all legal debts that may be incurred by reason of the Contractor's performance of the work equal to one hundred percent (100%) of the amount of the Contract awarded.

**30-06 EXECUTION OF CONTRACT.** The successful bidder shall sign (execute) the necessary agreements for entering into the contract and return such signed contract to the owner, along with the fully executed surety bond or bonds specified in the subsection titled REQUIREMENTS OF CONTRACT BONDS of this section, and furnish the required insurance certificates in accordance with the subsection titled RESPONSIBILITY FOR DAMAGE CLAIMS of Section 70 within 10 calendar days from the date mailed or otherwise delivered to the successful bidder. If the contract is mailed, special handling is recommended.

The successful bidder shall recognize that the proposal included in the contract for execution may differ from the proposal which was submitted with their bid. The proposal included in the contract for execution will include corrections to discrepancies which were discovered during the Owners consideration of proposals, and will contain only the pages from the successful bidder's proposal which cover the bids which were awarded. As a result, the proposal pages in the contract to be executed may contain pages which are not consecutively numbered due to the intentional omission of those proposal pages which cover bids that were not awarded.

49 CFR Part 26 provides that each contract the owner signs with a contractor (and each subcontract the prime contractor signs with a subcontractor) shall include the following assurance:

“The contractor, sub-recipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of Department of Transportation (DOT) assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate.”

**30-07 APPROVAL OF CONTRACT.** Upon receipt of the contract and contract bond or bonds that have been executed by the successful bidder, the Owner shall complete the execution of the contract in accordance with local laws or ordinances, and return the fully executed contract to the Contractor. Delivery of the fully executed contract to the Contractor shall constitute the Owner's approval to be bound by the successful bidder's proposal and the terms of the contract.

**30-08 FAILURE TO EXECUTE CONTRACT.** Failure of the successful bidder to execute the contract, furnish an acceptable surety bond or bonds, and furnish the required insurance certificates within the 15 calendar day period specified in the subsection titled EXECUTION OF CONTRACT of this section shall be just cause for cancellation of the award and forfeiture of the proposal guaranty, not as a penalty, but as liquidation of damages to the Owner.

END OF SECTION 30

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## Section 40 Scope of Work

**40-01 INTENT OF CONTRACT.** The intent of the contract is to provide for construction and completion, in every detail, of the work described. It is further intended that the Contractor shall furnish all labor, materials, equipment, tools, transportation, and supplies required to complete the work in accordance with the plans, specifications, and terms of the contract.

**40-02 ALTERATION OF WORK AND QUANTITIES.** The owner reserves and shall have the right to make such alterations in the work as may be necessary or desirable to complete the work originally intended in an acceptable manner. Unless otherwise specified herein, the Engineer shall be and is hereby authorized to make such alterations in the work as may increase or decrease the originally awarded contract quantities, provided that the aggregate of such alterations does not change the total contract cost or the total cost of any major contract item by more than 25 percent (total cost being based on the unit prices and estimated quantities in the awarded contract). Alterations that do not exceed the 25 percent limitation shall not invalidate the contract nor release the surety, and the Contractor agrees to accept payment for such alterations as if the altered work had been a part of the original contract. These alterations that are for work within the general scope of the contract shall be covered by "Change Orders" issued by the Engineer. Change orders for altered work shall include extensions of contract time where, in the Engineer's opinion, such extensions are commensurate with the amount and difficulty of added work.

Should the aggregate amount of altered work exceed the 25 percent limitation hereinbefore specified, such excess altered work shall be covered by supplemental agreement. If the owner and the Contractor are unable to agree on a unit adjustment for any contract item that requires a supplemental agreement, the owner reserves the right to terminate the contract with respect to the item and make other arrangements for its completion.

All supplemental agreements shall be approved by the FAA and shall include valid wage determinations of the U.S. Secretary of Labor when the amount of the supplemental agreement exceeds \$2,000. However, if the Contractor elects to waive the limitations on work that increase or decrease the originally awarded contract or any major contract item by more than 25 percent, the supplemental agreement shall be subject to the same U.S. Secretary of Labor wage determination as was included in the originally awarded contract.

All supplemental agreements shall require consent of the Contractor's surety and separate performance and payment bonds.

**40-03 OMITTED ITEMS.** The Engineer may, in the Owner's best interest, omit from the work any contract item, except major contract items. Major contract items may be omitted by a supplemental agreement. Such omission of contract items shall not invalidate any other contract provision or requirement.

Should a contract item be omitted or otherwise ordered to be nonperformed, the Contractor shall be paid for all work performed toward completion of such item prior to the date of the order to omit such item. Payment for work performed shall be in accordance with the subsection titled PAYMENT FOR OMITTED ITEMS of Section 90.

**40-04 EXTRA WORK.** Should acceptable completion of the contract require the Contractor to perform an item of work for which no basis of payment has been provided in the original contract or previously issued change orders or supplemental agreements, the same shall be called "Extra Work." Extra Work that is within the general scope of the contract shall be covered by written change order. Change orders for such Extra Work shall contain agreed unit prices for performing the change order work in accordance

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with the requirements specified in the order, and shall contain any adjustment to the contract time that, in the Engineer's opinion, is necessary for completion of such Extra Work.

When determined by the Engineer to be in the Owner's best interest, he may order the Contractor to proceed with Extra Work by force account as provided in the subsection titled PAYMENT FOR EXTRA AND FORCE ACCOUNT WORK of Section 90.

Extra Work that is necessary for acceptable completion of the project, but is not within the general scope of the work covered by the original contract shall be covered by a Supplemental Agreement as hereinbefore defined in the subsection titled SUPPLEMENTAL AGREEMENT of Section 10.

Any claim for payment of Extra Work that is not covered by written agreement (change order or supplemental agreement) shall be rejected by the Owner.

Extra work to be performed on the basis of agreed prices where no applicable unit or lump sum prices have been included in the Contract shall be based upon the Contractor's price analysis for the work. The price analysis will be completed as outlined in the subsection titled PAYMENT FOR EXTRA AND FORCE ACCOUNT WORK of Section 90.

**40-05 MAINTENANCE OF TRAFFIC.** It is the explicit intention of the contract that the safety of aircraft, as well as the Contractor's equipment and personnel, is the most important consideration. It is understood and agreed that the Contractor shall provide for the free and unobstructed movement of aircraft in the air operations areas of the airport with respect to his/her own operations and the operations of all his/her subcontractors as specified in the subsection titled LIMITATION OF OPERATIONS of Section 80. It is further understood and agreed that the Contractor shall provide for the uninterrupted operation of visual and electronic signals (including power supplies thereto) used in the guidance of aircraft while operating to, from, and upon the airport as specified in the subsection titled CONTRACTOR'S RESPONSIBILITY FOR UTILITY SERVICE AND FACILITIES OF OTHERS in Section 70.

With respect to his/her own operations and the operations of all his/her subcontractors, the Contractor shall provide marking, lighting, and other acceptable means of identifying: personnel; equipment; vehicles; storage areas; and any work area or condition that may be hazardous to the operation of aircraft, fire-rescue equipment, or maintenance vehicles at the airport.

When the contract requires the maintenance of vehicular traffic on an existing road, street, or highway during the Contractor's performance of work that is otherwise provided for in the contract, plans, and specifications, the Contractor shall keep such road, street, or highway open to all traffic and shall provide such maintenance as may be required to accommodate traffic. The Contractor shall furnish erect, and maintain barricades, warning signs, flag person, and other traffic control devices in reasonable conformity with the manual of Uniform Traffic Control Devices for Streets and Highways (published by the United States Government Printing Office), unless otherwise specified herein. The Contractor shall also construct and maintain in a safe condition any temporary connections necessary for ingress to and egress from abutting property or intersecting roads, streets or highways. Unless otherwise specified herein, the Contractor will not be required to furnish snow removal for such existing road, street, or highway.

**40-06 REMOVAL OF EXISTING STRUCTURES.** All existing structures encountered within the established lines, grades, or grading sections shall be removed by the Contractor, unless such existing structures are otherwise specified to be relocated, adjusted up or down, salvaged, abandoned in place, reused in the work or to remain in place. The cost of removing such existing structures shall not be measured or paid for directly, but shall be included in the various contract items.

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Should the Contractor encounter an existing structure (above or below ground) in the work for which the disposition is not indicated on the plans, the Engineer shall be notified prior to disturbing such structure. The disposition of existing structures so encountered shall be immediately determined by the Engineer in accordance with the provisions of the contract.

Except as provided in the subsection titled RIGHTS IN AND USE OF MATERIALS FOUND IN THE WORK of this section, it is intended that all existing materials or structures that may be encountered (within the lines, grades, or grading sections established for completion of the work) shall be used in the work as otherwise provided for in the contract and shall remain the property of the Owner when so used in the work.

**40-07 RIGHTS IN AND USE OF MATERIALS FOUND IN THE WORK.** Should the Contractor encounter any material such as (but not restricted to) sand, stone, gravel, slag, or concrete slabs within the established lines, grades, or grading sections, the use of which is intended by the terms of the contract to be either embankment or waste, he may at his/her option either:

- a. Use such material in another contract item, providing such use is approved by the Engineer and is in conformance with the contract specifications applicable to such use; or,
- b. Remove such material from the site, upon written approval of the Engineer; or
- c. Use such material for his/her own temporary construction on site; or,
- d. Use such material as intended by the terms of the contract.

Should the Contractor wish to exercise option a., b., or c., he shall request the Engineer's approval in advance of such use.

Should the Engineer approve the Contractor's request to exercise option a., b., or c., the Contractor shall be paid for the excavation or removal of such material at the applicable contract price. The Contractor shall replace, at his/her own expense, such removed or excavated material with an agreed equal volume of material that is acceptable for use in constructing embankment, backfills, or otherwise to the extent that such replacement material is needed to complete the contract work. The Contractor shall not be charged for his/her use of such material so used in the work or removed from the site.

Should the Engineer approve the Contractor's exercise of option a., the Contractor shall be paid, at the applicable contract price, for furnishing and installing such material in accordance with requirements of the contract item in which the material is used.

It is understood and agreed that the Contractor shall make no claim for delays by reason of his/her exercise of option a., b., or c.

The Contractor shall not excavate, remove, or otherwise disturb any material, structure, or part of a structure which is located outside the lines, grades, or grading sections established for the work, except where such excavation or removal is provided for in the contract, plans, or specifications.

**40-08 FINAL CLEANING UP.** Upon completion of the work and before acceptance and final payment will be made, the Contractor shall remove from the site all machinery, equipment, surplus and discarded materials, rubbish, temporary structures, and stumps or portions of trees. He shall cut all brush and woods within the limits indicated and shall leave the site in a neat and presentable condition. Material cleared from the site and deposited on adjacent property will not be considered as having been disposed of satisfactorily, unless the Contractor has obtained the written permission of such property owner.

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**40-09 DEBRIS.** The Contractor shall remove all debris and rubbish resulting from his work at frequent intervals, and upon the order of the Engineer. Upon completion, Contractor shall leave the premises broom-clean and everything in perfect order and repair. Upon neglect or refusal of Contractor to keep the premises clean, the Engineer shall have the authority to have such work performed, and the cost of the same shall be charged to the Contractor in default and collected from any monies which have or may become due on this Contract; and the Engineer shall issue no certificates of payment on the Contract until premises are clean, in good order, and all claims created properly adjusted.

END OF SECTION 40

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## Section 50 Control of Work

**50-01 AUTHORITY OF THE ENGINEER.** The Engineer shall decide any and all questions which may arise as to the quality and acceptability of materials furnished, work performed, and as to the manner of performance and rate of progress of the work. The Engineer shall decide all questions that may arise as to the interpretation of the specifications or plans relating to the work. The Engineer shall determine the amount and quality of the several kinds of work performed and materials furnished which are to be paid for the under contract.

The Engineer does not have the authority to accept pavements that do not conform to FAA specification requirements.

**50-02 CONFORMITY WITH PLANS AND SPECIFICATIONS.** All work and all materials furnished shall be in reasonably close conformity with the lines, grades, grading sections, cross sections, dimensions, material requirements, and testing requirements that are specified (including specified tolerances) in the contract, plans or specifications.

If the Engineer finds the materials furnished, work performed, or the finished product not within reasonably close conformity with the plans and specifications but that the portion of the work affected will, in his/her opinion, result in a finished product having a level of safety, economy, durability, and workmanship acceptable to the Owner, he will advise the Owner of his/her determination that the affected work be accepted and remain in place. In this event, the Engineer will document his/her determination and recommend to the Owner a basis of acceptance that will provide for an adjustment in the contract price for the affected portion of the work. The Engineer's determination and recommended contract price adjustments will be based on good engineering judgment and such tests or retests of the affected work as are, in his/her opinion, needed. Changes in the contract price shall be covered by contract modifications (change order or supplemental agreement) as applicable.

If the Engineer finds the materials furnished, work performed, or the finished product are not in reasonably close conformity with the plans and specifications and have resulted in an unacceptable finished product, the affected work or materials shall be removed and replaced or otherwise corrected by and at the expense of the Contractor in accordance with the Engineer's written orders.

For the purpose of this subsection, the term "reasonably close conformity" shall not be construed as waiving the Contractor's responsibility to complete the work in accordance with the contract, plans, and specifications. The term shall not be construed as waiving the Engineer's responsibility to insist on strict compliance with the requirements of the contract, plans, and specifications during the Contractor's prosecution of the work, when, in the Engineer's opinion, such compliance is essential to provide an acceptable finished portion of the work.

For the purpose of this subsection, the term "reasonably close conformity" is also intended to provide the Engineer with the authority, after consultation with the FAA, to use good engineering judgment in his/her determinations as to acceptance of work that is not in strict conformity but will provide a finished product equal to or better than that intended by the requirements of the contract, plans and specifications.

The Engineer will not be responsible for the Contractor's means, methods, techniques, sequences, or procedures of construction or the safety precautions incident thereto.

**50-03 COORDINATION OF CONTRACT, PLANS, AND SPECIFICATIONS.** The contract, plans, specifications, and all referenced standards cited are essential parts of the contract requirements. A requirement occurring in one is as binding as though occurring in all. They are intended to be complementary and to describe and provide for a complete work. In case of discrepancy, calculated

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dimensions will govern over scaled dimensions; contract technical specifications shall govern over contract general provisions, plans, cited standards for materials or testing, and cited FAA advisory circulars; contract general provisions shall govern over plans, cited standards for materials or testing, and cited FAA advisory circulars; plans shall govern over cited standards for materials or testing and cited FAA advisory circulars.

From time to time, discrepancies within cited standards for testing occur due to the timing of changing, editing, and replacing of standards. In the event the Contractor discovers any apparent discrepancy within standard test methods, he shall immediately call upon the Engineer for his/her interpretation and decision, and such decision shall be final.

The Contractor shall not take advantage of any apparent error or omission on the plans or specifications. In the event the Contractor discovers any apparent error or discrepancy, he shall immediately call upon the Engineer for his/her interpretation and decision, and such decision shall be final.

**50-04 COOPERATION OF CONTRACTOR.** The Contractor will be supplied with three copies each of the plans and specifications. He shall have available on the work at all times one copy each of the plans and specifications. Additional copies of plans and specifications may be obtained by the Contractor for the cost of reproduction.

The Contractor shall give constant attention to the work to facilitate the progress thereof, and he shall cooperate with the Engineer and his/her construction observers and with other contractors in every way possible. The Contractor shall have a competent superintendent on the work at all times who is fully authorized as his/her agent on the work. The superintendent shall be capable of reading and thoroughly understanding the plans and specifications and shall receive and fulfill instructions from the Engineer or his/her authorized representative.

**50-05 COOPERATION BETWEEN CONTRACTORS.** The Owner reserves the right to contract for and perform other or additional work on or near the work covered by this contract.

When separate contracts are let within the limits of any one project, each Contractor shall conduct his/her work so as not to interfere with or hinder the progress of completion of the work being performed by other Contractors. Contractors working on the same project shall cooperate with each other as directed.

Each Contractor involved shall assume all liability, financial or otherwise, in connection with his/her contract and shall protect and save harmless the Owner from any and all damages or claims that may arise because of inconvenience, delays, or loss experienced by him because of the presence and operations of other Contractors working within the limits of the same project.

The Contractor shall arrange his/her work and shall place and dispose of the materials being used so as not to interfere with the operations of the other Contractors within the limits of the same project. He shall join his/her work with that of the others in an acceptable manner and shall perform it in proper sequence to that of the others.

**50-06 CONSTRUCTION LAYOUT AND STAKES.** The Design Engineer will establish horizontal and vertical control only. The Contractor must establish all layout required for the construction of the work. Such stakes and markings as the Design Engineer may have set for either his/her own or the Contractor's guidance shall be preserved by the Contractor. In case of negligence on the part of the Contractor, or his/her employees, resulting in the destruction of such stakes or markings, an amount equal to the cost of replacing the same may be deducted from subsequent estimates due the Contractor at the discretion of the Engineer.

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The Contractor will be required to furnish all lines, grades and measurements from the control points necessary for the proper prosecution and control of the work contracted for under these specifications.

If requested by the Engineer, the Contractor must give weekly copies of the survey notes to the Engineer so that the Engineer may check them as to accuracy and method of staking. All areas that are staked by the Contractor must be checked by the Engineer prior to beginning any work in the area. The Engineer will make periodic checks of the grades and alignment set by the Contractor. In case of error on the part of the Contractor, or his/her employees, resulting in establishing grades and/or alignment that are not in accordance with the plans, all construction not in accordance with the established grades and/or alignment shall be replaced without additional cost to the Owner.

Additional construction staking and layout may be required by technical specifications. Construction Staking and Layout includes at a minimum, but is not limited to:

- A. Clearing and Grubbing perimeter staking.
- B. Rough Grade slope stakes at 100-foot stations.
- C. Drainage Swales slope stakes and flow line blue tops at 50-foot stations.
- D. Subgrade blue tops at 25-foot stations and 25-foot offset distance (max.) for the following section locations:
  - 1. Runway – minimum 5 per station
  - 2. Taxiways – minimum 3 per station
  - 3. Holding apron areas – minimum 3 per station
  - 4. Roadways – minimum 3 per station
- E. Base Course blue tops at 25 foot stations and 25-foot offset distance (max.) for the following section locations:
  - 1. Runway – minimum 5 per station
  - 2. Taxiways – minimum 3 per station
  - 3. Holding apron areas – minimum 3 per station
- F. Pavement areas:
  - 1. Edge of Pavement hubs and tacks (for stringline by Contractor) at 100-foot stations
  - 2. Between Lifts at 25-foot stations for the following section locations:
    - a. Runways – each paving lane width
    - b. Taxiways – each paving lane width
    - c. Holding areas – each paving lane width

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3. After finish paving operations at 50-foot stations
    - a. All paved areas – Edge of each paving lane prior to next paving lot
  4. Shoulder and safety area blue tops at 50-foot stations and at all break points with maximum of 50 foot offsets

G. Fence lines at 100-foot stations

H. Electrical and Communications System locations, lines and grades including but not limited to duct runs, connections, fixtures, signs, lights, VASIs, PAPIs, REILs, Wind Cones, Distance Markers (signs), pull boxes and manholes.

I. Drain lines, cut stakes and alignment on 25-foot stations, inlet and manholes.

J. Painting and Striping layout (pinned with 1.5 in PK nails) marked for paint Contractor. (All nails shall be removed after painting)

Laser, or other automatic control devices, shall be checked with temporary control point or grade hub at a minimum of once per 400 feet per pass (that is, paving lane).

Note: Controls and stakes disturbed or suspect of having been disturbed shall be checked and/or reset as directed by the Engineer without additional cost to the Owner.

**50-07 AUTOMATICALLY CONTROLLED EQUIPMENT.** Whenever batching or mixing plant equipment is required to be operated automatically under the contract and a breakdown or malfunction of the automatic controls occurs, the equipment may be operated manually or by other methods for a period 48 hours following the breakdown or malfunction, provided this method of operations will produce results which conform to all other requirements of the contract.

**50-08 AUTHORITY AND DUTIES OF CONSTRUCTION OBSERVERS.** Construction Observers employed by the Owner shall be authorized to inspect all work done and all material furnished. Such observation may extend to all or any part of the work and to the preparation, fabrication, or manufacture of the materials to be used. Construction Observers are not authorized to revoke, alter, or waive any provision of the contract. Construction Observers are not authorized to issue instructions contrary to the plans and specifications or to act as foreman for the Contractor.

Construction Observers employed by the Owner are authorized to notify the Contractor or his/her representatives of any failure of the work or materials to conform to the requirements of the contract, plans, or specifications and to reject such nonconforming materials in question until such issues can be referred to the Engineer for his/her decision.

**50-09 INSPECTION OF THE WORK.** All materials and each part or detail of the work shall be subject to inspection by the Engineer. The Engineer shall be allowed access to all parts of the work and shall be furnished with such information and assistance by the Contractor as is required to make a complete and detailed inspection.

If the Engineer requests it, the Contractor, at any time before acceptance of the work, shall remove or uncover such portions of the finished work as may be directed. After examination, the Contractor shall restore said portions of the work to the standard required by the specifications. Should the work thus exposed or examined prove acceptable, the uncovering, or removing, and the replacing of the covering or making good of the parts removed will be paid for as extra work; but should the work so exposed or

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examined prove unacceptable, the uncovering, or removing, and the replacing of the covering or making good of the parts removed will be at the Contractor's expense.

Any work done or materials used without supervision or inspection by an authorized representative of the Owner may be ordered removed and replaced at the Contractor's expense unless the Owner's representative failed to inspect after having been given reasonable notice in writing that the work was to be performed.

Should the contract work include relocation, adjustment, or any other modification to existing facilities, not the property of the (contract) Owner, authorized representatives of the owners of such facilities shall have the right to inspect such work. Such inspection shall in no sense make any facility owner a party to the contract, and shall in no way interfere with the rights of the parties to this contract.

**50-10 REMOVAL OF UNACCEPTABLE AND UNAUTHORIZED WORK.** All work that does not conform to the requirements of the contract, plans, and specifications will be considered unacceptable, unless otherwise determined acceptable by the Engineer as provided in the subsection titled CONFORMITY WITH PLANS AND SPECIFICATIONS of this section.

Unacceptable work, whether the result of poor workmanship, use of defective materials, damage through carelessness, or any other cause found to exist prior to the final acceptance of the work, shall be removed immediately and replaced in an acceptable manner in accordance with the provisions of the subsection titled CONTRACTOR'S RESPONSIBILITY FOR WORK of Section 70.

No removal work made under provision of this subsection shall be done without lines and grades having been given by the Engineer. Work done contrary to the instructions of the Engineer, work done beyond the lines shown on the plans or as given, except as herein specified, or any extra work done without authority, will be considered as unauthorized and will not be paid for under the provisions of the contract. Work so done may be ordered removed or replaced at the Contractor's expense.

Upon failure on the part of the Contractor to comply forthwith with any order of the Engineer made under the provisions of this subsection, the Engineer will have authority to cause unacceptable work to be remedied or removed and replaced and unauthorized work to be removed and to deduct the costs (incurred by the Owner) from any monies due or to become due the Contractor.

**50-11 LOAD RESTRICTIONS.** The Contractor shall comply with all legal load restrictions in the hauling of materials on public roads beyond the limits of the work. A special permit will not relieve the Contractor of liability for damage that may result from the moving of material or equipment.

The operation of equipment of such weight or so loaded as to cause damage to structures or to any other type of construction will not be permitted. Hauling of materials over the base course or surface course under construction shall be limited as directed. No loads will be permitted on a concrete pavement, base, or structure before the expiration of the curing period. The Contractor shall be responsible for all damage done by his/her hauling equipment and shall correct such damage at his/her own expense.

**50-12 MAINTENANCE DURING CONSTRUCTION.** The Contractor shall maintain the work during construction and until the work is accepted. This maintenance shall constitute continuous and effective work prosecuted day by day, with adequate equipment and forces so that the work is maintained in satisfactory condition at all times.

In the case of a contract for the placing of a course upon a course or subgrade previously constructed, the Contractor shall maintain the previous course or subgrade during all construction operations.

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All costs of maintenance work during construction and before the project is accepted shall be included in the unit prices bid on the various contract items, and the Contractor will not be paid an additional amount for such work.

**50-13 FAILURE TO MAINTAIN THE WORK.** Should the Contractor at any time fail to maintain the work as provided in the subsection titled MAINTENANCE DURING CONSTRUCTION of this section, the Engineer shall immediately notify the Contractor of such noncompliance. Such notification shall specify a reasonable time within which the Contractor shall be required to remedy such unsatisfactory maintenance condition. The time specified will give due consideration to the exigency that exists.

Should the Contractor fail to respond to the Engineer's notification, the Owner may suspend any work necessary for the Owner to correct such unsatisfactory maintenance condition, depending on the exigency that exists. Any maintenance cost incurred by the Owner, shall be deducted from monies due or to become due the Contractor.

**50-14 PARTIAL ACCEPTANCE.** If at any time during the prosecution of the project the Contractor substantially completes a usable unit or portion of the work, the occupancy of which will benefit the Owner, he may request the Engineer to make final inspection of that unit. If the Engineer finds upon inspection that the unit has been satisfactorily completed in compliance with the contract, he may accept it as being completed, and the Contractor may be relieved of further responsibility for that unit. Such partial acceptance and beneficial occupancy by the Owner shall not void or alter any provision of the contract.

**50-15 FINAL ACCEPTANCE.** Upon due notice from the Contractor of presumptive completion of the entire project, the Engineer and Owner will make an inspection. If all construction provided for and contemplated by the contract is found to be completed in accordance with the contract, plans, and specifications, such inspection shall constitute the final inspection. The Engineer shall notify the Contractor in writing of final acceptance as of the date of the final inspection.

If, however, the inspection discloses any work, in whole or in part, as being unsatisfactory, the Engineer will give the Contractor the necessary instructions for correction of same and the Contractor shall immediately comply with and execute such instructions. Upon correction of the work, another inspection will be made which shall constitute the final inspection, provided the work has been satisfactorily completed. In such event, the Engineer will make the final acceptance and notify the Contractor in writing of this acceptance as of the date of final inspection.

**50-16 CLAIMS FOR ADJUSTMENT AND DISPUTES.** If for any reason the Contractor deems that additional compensation is due him for work or materials not clearly provided for in the contract, plans, or specifications or previously authorized as extra work, he shall notify the Engineer in writing of his/her intention to claim such additional compensation before he begins the work on which he bases the claim. If such notification is not given or the Engineer is not afforded proper opportunity by the Contractor for keeping strict account of actual cost as required, then the Contractor hereby agrees to waive any claim for such additional compensation. Such notice by the Contractor and the fact that the Engineer has kept account of the cost of the work shall not in any way be construed as proving or substantiating the validity of the claim. When the work on which the claim for additional compensation is based has been completed, the Contractor shall, within 10 calendar days, submit his/her written claim to the Engineer who will present it to the Owner for consideration in accordance with local laws or ordinances.

Nothing in this subsection shall be construed as a waiver of the Contractor's right to dispute final payment based on differences in measurements or computations.

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**50-17 REMOVAL OF WATER.** The Contractor shall at all times during construction, provide and maintain proper and satisfactory means and devices for the removal of all water entering the excavations, and shall remove all such water as fast as it may collect, in such manner as shall not interfere with the prosecution of the work or the proper placing of materials or other work.

Removal of water includes the construction and removal of cofferdams, sheeting and bracing, the furnishing of materials and labor necessary therefore, the excavation and maintenance of ditches and sluiceways and the furnishing and operation of pumps, well points and appliances needed to maintain thorough drainage of the work in a satisfactory manner.

Water shall not be allowed to rise over or come in contact with any masonry, concrete or mortar, until at least twenty-four (24) hours after placement and no stream of water shall be allowed to flow over such work until such time as the Engineer may permit.

Unless otherwise specified, all excavations which extend down to or below the static groundwater elevations at the sites of structures shall be dewatered by lowering and maintaining the groundwater beneath such excavations at an elevation not less than that specified herein at all times when work thereon is in progress, during subgrade preparation and the placing of the structure or other materials thereon.

Where the presence of fine granular subsurface materials and a high groundwater table may cause the upward flow of water into the excavation with a resulting quick condition, the Contractor shall install and operate a suitable dewatering system to prevent the upward flow of water during construction.

When the water table is within the capillary rise of silt/clay subsurface material, the Contractor shall select and operate his equipment in a manner to prevent the deterioration of the working surface due to the upward flow of water during construction.

The effluent pumped from the dewatering system shall be examined periodically by qualified personnel to determine if the system is operating satisfactorily without the removal of fines.

Unless otherwise directed by the Engineer or shown on the Contract Documents, the water level shall not be permitted to rise until construction in the immediate area is completed and the excavation backfilled to the original grade or proposed grade.

Where well points are used, the groundwater shall be lowered and maintained continuously (day and night) at a level not less than two (2) feet below the bottom of the excavation. Excavation will not be permitted at a level lower than two (2) feet above the water level as indicated by the observation wells.

The well point system shall be designed or installed by or under the supervision of an organization whose principal business is well pointing and has at least five (5) consecutive years of similar experience and can furnish a representative list of satisfactory similar operations. Well point headers, points and other pertinent equipment shall not be placed within the limits of the excavation in such a manner or location as to interfere with the laying of pipe or trenching operations or with the excavation for and/or construction of other structures. Standby gasoline or diesel powered equipment shall be provided so that in the event of failure of the operating equipment, the standby equipment can be readily connected to the dewatering system. The standby equipment shall be maintained in good order and actuated regularly not less than twice a week when directed.

Well points shall be installed in the center of a sand wick drain which shall be placed by means of a sanding shell or other approved means to provide a sand core not less than ten (10) inches in diameter.

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Detached observation wells of similar construction to the well points shall be installed at intervals of not less than fifty (50) feet along the opposite side of the trench from the header pipe and line of well points, or around the excavation for a structure or as shown on the Contract Drawings, to a depth of at least five (5) feet below the proposed excavation. In addition, one well point in every fifty (50) feet shall be fitted with a tee, plug and valve so that the well point can be converted for use as an observation well. Observation wells shall be not less than one and one-half (12) inch in diameter.

Water pumped or drained from excavations, or any sewers, drains, or water courses encountered in the work, shall be disposed of in a suitable manner without injury to adjacent property, the work under construction, or to pavements, roads and drives. No water shall be discharged to sanitary sewers. Sanitary sewage shall be pumped to sanitary sewers or shall be disposed of by an approved method.

Any damage caused by improper handling of water shall be repaired by the Contractor at his/her own expense.

**50-18 SHEETING AND BRACING.** The Contractor shall furnish, place and maintain such sheeting, bracing and shoring as required to support the sides and ends of excavations in such a manner as to prevent any movement which would in any way damage the pipe, sewers, masonry or other work, diminish the width necessary, otherwise damage or delay the work, or endanger existing structures, pipes or pavements, or to occasion a hazard to persons engaged on the project or to the general public.

Sheeting and bracing or other trench protection shall be utilized as required for the safety of employees exposed to the hazard of falling or sliding material from any trench or excavation in conformance with the provisions of Industrial Code Rule 23 as amended, and OSHA. Sheeting and bracing must be designed by, signed and stamped by a Professional Engineer licensed to practice in the State in which the project is located.

The Contractor shall be responsible for the adequacy of all trench support systems used and for all damage to persons or property resulting from improper quality, strength, placing, maintenance and removal.

All material used for sheeting and bracing shall be sound and free from defects which might impair its strength or effectiveness.

All timber sheeting and bracing shall be sound and straight, free from cracks, shakes and large or loose knots.

All steel sheeting and bracing shall be sound and straight, free from bends, twists or splits, having square and undamaged ends.

Sheeting shall be driven vertically from the original ground surface as the excavation progresses. Sufficient toe support shall be sustained so as to maintain pressure against the original ground at all times.

Timber sheeting shall be driven so that edges are tight together and steel sheeting driven with the individual members interlocking. All bracing shall be of such design and strength as to maintain the sheeting in its proper position.

The Contractor shall be solely responsible for the adequacy of all sheeting and bracing.

In general, all sheeting and bracing, whether of steel, timber or other material, used to support the sides of trenches or other open excavations, shall be withdrawn as the trenches or other open excavations are being refilled. That portion of the sheeting extending below the top of a pipe, sewer or structure shall be

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withdrawn, unless otherwise directed, before more than 6 inches of earth is placed above the top of the pipe, sewer or structure and before any bracing is removed. The voids left by the sheeting shall be carefully refilled with selected material and rammed tight with tools especially adapted for the purpose or otherwise as may be approved.

The Contractor shall be responsible for the adequate shoring and/or bracing of any existing utilities encountered during the excavation. Such utilities shall be braced or shored in a manner acceptable to the local jurisdictional agency having authority over the utility encountered. It shall be the responsibility of the Contractor to prevent damage to or displacement of utilities, and to work with and request the concurrence of the utility's company representative in this matter.

END OF SECTION 50

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## **Section 60 Control of Materials**

**60-01 SOURCE OF SUPPLY AND QUALITY REQUIREMENTS.** The materials used on the work shall conform to the requirements of the contract, plans, and specifications. Unless otherwise specified, such materials that are manufactured or processed shall be new (as compared to used or reprocessed).

In order to expedite the inspection and testing of materials, the Contractor shall furnish complete statements to the Engineer as to the origin, composition, and manufacture of all materials to be used in the work. Such statements shall be furnished promptly after execution of the contract but, in all cases, prior to delivery of such materials.

At the Engineer's option, materials may be approved at the source of supply before delivery is started. If it is found after trial that sources of supply for previously approved materials do not produce specified products, the Contractor shall furnish materials from other sources.

All equipment and materials covered by referenced specifications shall be subject to acceptance through manufacturer's certification of compliance with the applicable specification.

The Contractor shall prepare a project Operations and Maintenance (O&M) Manual for the Owner. The O&M Manual shall consist of approved certification submittals, approved shop and setting drawing submittals, approved catalogue data submittals, and Operations & Maintenance Manuals for equipment installed that have operating procedures and/or maintenance requirements associated with them. The O&M manual shall be neatly bound in a properly sized 3-ring binder and tabbed by specification section. The O&M Manual shall be submitted to the Engineer prior to final payment to facilitate project closeout.

**60-02 SAMPLES, TESTS, AND CITED SPECIFICATIONS.** Unless otherwise designated, all materials used in the work shall be inspected, tested, and approved by the Engineer before incorporation in the work. Any work in which untested materials are used without approval or written permission of the Engineer shall be performed at the Contractor's risk. Materials found to be unacceptable and unauthorized will not be paid for and, if directed by the Engineer, shall be removed at the Contractor's expense.

Unless otherwise designated, tests in accordance with the cited standard methods of ASTM, AASHTO, Federal Specifications, Commercial Item Descriptions, and all other cited methods, which are current on the date of advertisement for bids, will be made by and at the expense of the Owner. **THE COST OF ALL FAILING TESTS SHALL BE BORNE BY THE CONTRACTOR.**

The testing organizations performing on site field tests shall have copies of all referenced standards on the construction site for use by all technicians and other personnel, including the Contractor's representative at his/her request. Unless otherwise designated, samples will be taken by a qualified representative of the Owner. All materials being used are subject to inspection, test, or rejection at any time prior to or during incorporation into the work. Copies of all tests will be furnished to the Contractor's representative at his/her request.

The Contractor shall employ a testing organization to perform all Contractor required tests. The Contractor shall submit to the Engineer resumes on all testing organizations and individual persons who will be performing the tests. The Engineer will determine if such persons are qualified. All the test data shall be reported to the Engineer after the results are known. A legible, handwritten copy of all test data shall be given to the Engineer daily, along with printed reports, in an approved format, on a weekly basis. After completion of the project, and prior to final payment, the Contractor shall submit a final report to the Engineer showing all test data reports, plus an analysis of all results showing ranges, averages, and corrective action taken on all failing tests.

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**60-03 CERTIFICATION OF COMPLIANCE.** The Engineer may permit the use, prior to sampling and testing, of certain materials or assemblies when accompanied by manufacturer's certificates of compliance stating that such materials or assemblies fully comply with the requirements of the contract. The certificate shall be signed by the manufacturer. Each lot of such materials or assemblies delivered to the work must be accompanied by a certificate of compliance in which the lot is clearly identified. Manufacturer's certificates of compliance shall not relieve the Contractor of the Contractor's responsibility to provide materials in accordance with these specifications and acceptable to the Design Engineer. Materials supplied and/or installed that do not materially comply with these specifications shall be removed, when directed by the Engineer, and replaced with materials, which do comply with these specifications, at the sole cost of the Contractor.

Materials or assemblies used on the basis of certificates of compliance may be sampled and tested at any time and if found not to be in conformity with contract requirements will be subject to rejection whether in place or not.

The form and distribution of certificates of compliance shall be as approved by the Engineer.

When a material or assembly is specified by "brand name or equal" and the Contractor elects to furnish the specified "brand name," the Contractor shall be required to furnish the manufacturer's certificate of compliance for each lot of such material or assembly delivered to the work. Such certificate of compliance shall clearly identify each lot delivered and shall certify as to:

- a. Conformance to the specified performance, testing, quality or dimensional requirements; and,
- b. Suitability of the material or assembly for the use intended in the contract work.

Should the Contractor propose to furnish an "or equal" material or assembly, he shall furnish the manufacturer's certificates of compliance as hereinbefore described for the specified brand name material or assembly. However, the Engineer shall be the sole judge as to whether the proposed "or equal" is suitable for use in the work.

The Engineer reserves the right to refuse permission for use of materials or assemblies on the basis of certificates of compliance.

**60-04 PLANT INSPECTION.** The Engineer or his/her authorized representative may inspect, at its source, any specified material or assembly to be used in the work. Manufacturing plants may be inspected from time to time for the purpose of determining compliance with specified manufacturing methods or materials to be used in the work and to obtain samples required for his/her acceptance of the material or assembly.

Should the Engineer conduct plant inspections, the following conditions shall exist:

- a. The Engineer shall have the cooperation and assistance of the Contractor and the producer with whom he has contracted for materials.
- b. The Engineer shall have full entry at all reasonable times to such parts of the plant that concern the manufacture or production of the materials being furnished.
- c. If required by the Engineer, the Contractor shall arrange for adequate office or working space that may be reasonably needed for conducting plant inspections. Office or working space should be conveniently located with respect to the plant.

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It is understood and agreed that the Owner shall have the right to retest any material that has been tested and approved at the source of supply after it has been delivered to the site. The Engineer shall have the right to reject only material which, when retested, does not meet the requirements of the contract, plans, or specifications.

**60-05** Not Used.

**60-06 STORAGE OF MATERIALS.** Materials shall be so stored as to assure the preservation of their quality and fitness for the work. Stored materials, even though approved before storage, may again be inspected prior to their use in the work. Stored materials shall be located so as to facilitate their prompt inspection. The Contractor shall coordinate the storage of all materials with the Engineer. Materials to be stored on airport property shall not create an obstruction to air navigation nor shall they interfere with the free and unobstructed movement of aircraft. Unless otherwise shown on the plans, the storage of materials and the location of the Contractor's plant and parked equipment or vehicles shall be as directed by the Engineer. Private property shall not be used for storage purposes without written permission of the owner or lessee of such property. The Contractor shall make all arrangements and bear all expenses for the storage of materials on private property. Upon request, the Contractor shall furnish the Engineer a copy of the property owner's permission.

All storage sites on private or airport property shall be restored to their original condition by the Contractor at his/her entire expense, except as otherwise agreed to (in writing) by the owner or lessee of the property.

**60-07 UNACCEPTABLE MATERIALS.** Any material or assembly that does not conform to the requirements of the contract, plans, or specifications shall be considered unacceptable and shall be rejected. The Contractor shall remove any rejected material or assembly from the site of the work, unless otherwise instructed by the Engineer.

Rejected material or assembly, the defects of which have been corrected by the Contractor, shall not be returned to the site of the work until such time as the Engineer has approved its use in the work.

**60-08 OWNER FURNISHED MATERIALS.** The Contractor shall furnish all materials required to complete the work, except those specified herein (if any) to be furnished by the Owner. Owner-furnished materials shall be made available to the Contractor at the location specified herein.

All costs of handling, transportation from the specified location to the site of work, storage, and installing Owner-furnished materials shall be included in the unit price bid for the contract item in which such Owner-furnished material is used.

After any Owner-furnished material has been delivered to the location specified, the Contractor shall be responsible for any demurrage, damage, loss, or other deficiencies that may occur during the Contractor's handling, storage, or use of such Owner-furnished material. The Owner will deduct from any monies due or to become due the Contractor any cost incurred by the Owner in making good such loss due to the Contractor's handling, storage, or use of Owner-furnished materials.

**60-09 SHOP AND SETTING DRAWINGS AND CATALOGUE DATA.** All materials and equipment used in the work shall be submitted to the Engineer for review by the Design Engineer for approval prior to ordering the equipment. All information required for the Design Engineer's review of each particular pay item shall be sent as one submittal. In addition, if the pay item interfaces with other pay items (as in the case of electrical equipment), then the submittals covering the interfacing pay items shall be sent at the same time. Submittals consisting of marked catalog sheets or shop drawings shall be provided. Submittal data shall be presented in a clear, precise and thorough manner. Original catalog

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sheets are preferred. Photocopies are acceptable provided they are as good a quality as the original. Clearly and boldly mark each copy to identify pertinent products or models applicable to this project. Indicate all optional equipment and delete non-pertinent data. Submittals for components of electrical equipment and systems shall identify the equipment for which they apply on each submittal sheet. Markings shall be boldly and clearly made with arrows or circles (highlighting is not acceptable). Drawings and data shall be submitted sufficiently in advance of the work to permit proper review, including time for necessary revisions and re-submittals. The Contractor is solely responsible for delays in the project accruing directly or indirectly from late submissions or resubmissions of submittals.

Shop and setting drawings shall present complete and accurate information relative to all working dimensions, equipment weight assembly and sectional view, all the necessary details, pertaining to coordinating the work of the Contract, lists of materials and finishes, parts lists and the description thereof, lists of spare parts and tools where such parts or tools are required, no-scale control diagrams for control wiring and control piping, and any other items of information that are required to demonstrate detail compliance with the Plans and Specifications. Each drawing shall be dated and shall show the name of the Project, Contract Number and the name of the manufacturer of the equipment covered by the drawing or drawings. The Design Engineer will not review any drawings that are not properly identified or that do not contain complete data on the work or that have not been checked, stamped and signed by the Contractor for compliance with the Contract Documents.

The Design Engineer's review of the Contractor's Shop Drawings signifies only that such drawings appear to be in substantial conformity with the Contract Drawings and Contract Documents or with the Design Engineer's instructions. Such review does not indicate approval of every detail of the drawings nor of the work methods of the Contractor which are indicated thereon. Regardless of the corrections made in or made of such drawings by the Design Engineer, the Contractor will nevertheless be responsible for the accuracy of such drawings, for their conformity to the Plans and Specifications and for the proper fitting and construction of the work.

No work covered by shop and setting drawings shall be done until the drawings have been reviewed and found acceptable by the Design Engineer. No payment shall be made on any item for which submittals are not received and found acceptable by the Design Engineer.

**60-10 ELECTRICAL SHOP DRAWINGS.** Drawings for electrical equipment shall show physical dimensions and installation details and shall include elementary and connection diagrams for each control assembly and the interconnection diagrams for all equipment. The drawings shall show clearly the coordination of control work, shall identify the components external to electrical equipment and shall define the contact arrangement and control action of the primary and final control elements.

Where standard electrical control equipment having complex internal wiring is required, such as control panels, generator transfer panels, electric or electronic instruments and similar items, the detail shop wiring diagrams for such equipment will not be required, and, if submitted, will in general not be reviewed. The submittal for each such item of equipment shall, however, include an elementary diagram of the input and output elements which require connections to external equipment, and/or a complete step by step description of the control action of the equipment being submitted. In the event that any questions arise as to the type of information to be presented on the submittal, the supplier shall direct inquiries to the Engineer through the Prime Contractor in advance of the preparation of his/her submittal.

**60-11 SUBSTITUTE ITEMS.** If in the Design Engineer's sole judgment an item of material or equipment proposed by the Contractor does not qualify as an "or-equal" item, it will be considered a substitute item. The Contractor shall submit sufficient information as provided below to allow the Design Engineer to determine that the item of material or equipment proposed is essentially equivalent to that named and an acceptable substitute therefore. The procedure for review by the Design Engineer will

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include the following and as the Design Engineer may decide is appropriate under the circumstances. Requests for review of substitute items of material or equipment will not be accepted by the Engineer from anyone other than the Contractor. If the Contractor wishes to furnish or use a substitute item of material or equipment, the Contractor shall first make a written application through the Engineer to the Design Engineer for acceptance thereof, certifying that the substitute will perform adequately the functions and achieve the results called for by the general design, be similar in substance to that specified and be suited to the same use as that specified. The application will state the extent, if any, to which the evaluation and acceptance of the substitute will prejudice the Contractor's achievement of completion on time, whether or not acceptance of the substitute for use in the Work will require a change in any of the Contract Documents or Contract Drawings (or in the provisions of any other direct contract with the Owner for work on the Project) to adapt the design to the substitute and whether or not incorporation or use of the substitute in connection with the work is subject to payment of any license fee or royalty. If the substitute item requires modifications to any existing features or to any proposed work, the application shall also include details of proposed modifications necessary to accommodate the substitute item. Such details shall include scaled layouts, dimensions and other pertinent information to enable the Design Engineer to accurately assess the entire application. If the substitute item and proposed modifications are approved, the Contractor, at no additional cost to the Owner, shall do all work necessary to make such modifications and absorb all costs of any related changes imposed on other Contractor's. All variations of the substitute from that specified will be identified in the application and available maintenance, repair and replacement service will be indicated. The application will also contain an itemized estimate of all costs or credits that will result directly or indirectly from acceptance of such substitute, including costs of redesign and claims of other contractors affected by the resulting change, all of which will be considered by the Design Engineer in evaluating the substitute. The Design Engineer may require the Contractor to furnish additional data about the substitute.

- A. Design Engineer's Evaluation.** The Design Engineer will be the sole judge of acceptability. No substitute will be ordered, installed or utilized without the Design Engineer's prior written acceptance which will be evidenced by either a Change Order or an approved Shop Drawing. The Design Engineer will record time required by the Design Engineer and the Design Engineer's Consultants in evaluating substitutes proposed or submitted by the Contractor and in making changes in the Contract Documents or Contract Drawings (or in the provisions of any other direct contract with Owner for work on the Project) occasioned thereby. The Design Engineer's charges shall be at the same rates the Design Engineer charges for such services to the Owner.
- B. Contractor's Expense.** All data to be provided by the Contractor in support of any substitute item will be at the Contractor's expense. In order to aid the Design Engineer in determining the equality of an or substitute item (when compared to the item actually specified), the Contractor shall arrange for the performance of any tests requested by the Design Engineer. The Design Engineer shall determine the nature, extent, tester and degree of supervision of such tests. Certified test results shall be mailed directly to the Design Engineer for all tests requested. All costs of such tests, including engineering costs, shall be borne by the Contractor. The Owner may require the Contractor to furnish at the Contractor's expense a special performance guarantee or other surety with respect to any substitute. Whether or not the Design Engineer accepts a substitute item so proposed or submitted by the Contractor, the Contractor shall reimburse the Owner for the charges of the Design Engineer and the Design Engineer's Consultants for evaluating each such substitute item. The costs for evaluating substitute items shall be deducted from the Owner's payment to the Contractor.

**60-12 SUBMITTAL PROCEDURE.** The following procedure has been established for the submittal and processing of shop and setting drawings, working drawings, and catalogue data. Departures from this procedure may result in delay and misunderstandings.

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- A.** All information required for the Design Engineer's review of each particular pay item shall be sent as one submittal to the Engineer. In addition, if the pay item interfaces with other pay items (as in the case of electrical equipment), then the submittals covering the interfacing pay items shall be sent at the same time.
  - B.** In submitting certifications, drawings, catalog data, and similar items for review, at least five (5) copies shall be submitted. This number includes two copies for return to the Contractor bearing the review stamp, one of which will be incorporated into an O&M Manual prior to contract closeout. If the Contractor desires more than two copies returned, they shall submit the additional copies with the initial transmittals up to a maximum of four copies.

One (1) copy of the submitted data will be retained by the Design Engineer, two (2) copies of the submitted data will be retained by the Engineer and the remaining copies of the submitted data will be returned to the Contractor. If the need arises by the Engineer to require additional copies, the Contractor will be informed so that subsequent submittals will include the correct number of copies.

Additional copies of submittals will be required upon Engineer's request, or in cases where the subject matter shown thereon requires coordination of two or more prime Contracts. One copy of each of such submittals received will be transmitted by the Engineer, whenever possible, to each of the other prime Contractors whose work is to be correlated with such submittals. The Engineer will transmit these submittals in order to facilitate each Contractor's coordination of their own work with that of the other Contracts.

- C.** For transmitting data for review, two (2) copies of the letter of transmittal shall be sent to the Engineer's office. Form letters may be used.
- D.** All correspondence other than simple transmittal of data shall be in triplicate.
- E.** Unless otherwise requested, a single copy of the correspondence emanating from the Design Engineer's office will be sent. Additional copies of correspondence up to a maximum of four (4) copies will be provided, if requested.
- F.** Submittals will be stamped by the Design Engineer as follows:
  - 1. "Approved", if no change or rejection is made.
  - 2. "Approved as Noted", if minor changes or additions are made, but re-submittal is not considered necessary. All copies will bear the corrective marks.
  - 3. "Revise and Resubmit", if the changes requested are extensive. In this case, re-submittal after correction is necessary and the same number of copies shall be included in the re-submittal as in the first submittal.
  - 4. "Rejected", if it is considered that the data submitted cannot with reasonable revision meet the requirements of the Plans and Specifications.
  - 5. "Submit Specified Item", if the data submitted is not clear, complete, or for other reasons cannot be examined by the Engineer to establish compliance with the Plans and Specifications.

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**G.** Unless otherwise approved in specific cases, all submittals must be transmitted by the Prime Contractor, not by the Subcontractors or vendors.

Any changes in re-submittals, other than those indicated as requested, must be specifically brought to the attention of the Design Engineer. Changes or additions shall not be made in, or to, any fabricated item, part or material without having a re-review.

END OF SECTION 60

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## **Section 70 Legal Regulations and Responsibility to Public**

**70-01 LAWS TO BE OBSERVED.** The Contractor shall keep fully informed of all Federal and state laws, all local laws, ordinances, and regulations and all orders and decrees of bodies or tribunals having any jurisdiction or authority, which in any manner affect those engaged or employed on the work, or which in any way affect the conduct of the work. He shall at all times observe and comply with all such laws, ordinances, regulations, orders, and decrees; and shall protect and indemnify the Owner, the Design Engineer, the Engineer, and all of their respective directors, officers, representatives, agents, or servants against any claim or liability arising from or based on the violation of any such law, ordinance, regulation, order, or decree, whether by himself or his/her employees.

**70-02 PERMITS, LICENSES, AND TAXES.** The Contractor shall procure all permits and licenses, pay all charges, fees, and taxes, and give all notices necessary and incidental to the due and lawful prosecution of the work, unless provided for elsewhere.

**70-03 PATENTED DEVICES, MATERIALS, AND PROCESSES.** If the Contractor is required or desires to use any design, device, material, or process covered by letters of patent or copyright, he shall provide for such use by suitable legal agreement with the patentee or owner. The Contractor and the surety shall indemnify and save harmless the Owner, the Design Engineer, the Engineer, any third party, or political subdivision from any and all claims for infringement by reason of the use of any such patented design, device, material or process, or any trademark or copyright, and shall indemnify the Owner, the Design Engineer, and the Engineer for any costs, expenses, and damages which they may be obliged to pay by reason of an infringement, at any time during the prosecution or after the completion of the work.

**70-04 RESTORATION OF SURFACES DISTURBED BY OTHERS.** The Owner reserves the right to authorize the construction, reconstruction, or maintenance of any public or private utility service, FAA or National Oceanic and Atmospheric Administration (NOAA) facility, or a utility service of another government agency at any time during the progress of the work. To the extent that such construction, reconstruction, or maintenance has been coordinated with the Owner, such authorized work (by others) is indicated as follows:

“Not Applicable”

Except as listed above, the Contractor shall not permit any individual, firm, or corporation to excavate or otherwise disturb such utility services or facilities located within the limits of the work without the written permission of the Engineer.

Should the owner of public or private utility service, FAA, or NOAA facility, or a utility service of another government agency be authorized to construct, reconstruct, or maintain such utility service or facility during the progress of the work, the Contractor shall cooperate with such owners by arranging and performing the work in this contract so as to facilitate such construction, reconstruction or maintenance by others whether or not such work by others is listed above. When ordered as extra work by the Engineer, the Contractor shall make all necessary repairs to the work which are due to such authorized work by others, unless otherwise provided for in the contract, plans, or specifications. It is understood and agreed that the Contractor shall not be entitled to make any claim for damages due to such authorized work by others or for any delay to the work resulting from such authorized work.

**70-05 FEDERAL AID PARTICIPATION.** For AIP contracts, the United States Government has agreed to reimburse the Owner for some portion of the contract costs. Such reimbursement is made from time to time upon the Owner’s request to the FAA. In consideration of the United States Government’s (FAA’s) agreement with the Owner, the Owner has included provisions in this contract pursuant to the

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requirements of Title 49 of the United States Code (USC) and the Rules and Regulations of the FAA that pertain to the work.

As required by the USC, the contract work is subject to the inspection and approval of duly authorized representatives of the Administrator, FAA, and is further subject to those provisions of the rules and regulations that are cited in the contract, plans, or specifications.

No requirement of the USC, the rules and regulations implementing the USC, or this contract shall be construed as making the Federal Government a party to the contract nor will any such requirement interfere, in any way, with the rights of either party to the contract.

**70-06 SANITARY, HEALTH, AND SAFETY PROVISIONS.** The Contractor shall provide and maintain in a neat, sanitary condition such accommodations for the use of his/her employees as may be necessary to comply with the requirements of the state and local Board of Health, or of other bodies or tribunals having jurisdiction.

Attention is directed to Federal, state, and local laws, rules and regulations concerning construction safety and health standards. The Contractor shall not require any worker to work in surroundings or under conditions that are unsanitary, hazardous, or dangerous to his/her health or safety.

**70-07 PUBLIC CONVENIENCE AND SAFETY.** The Contractor shall control his/her operations and those of his/her subcontractors and all suppliers, to assure the least inconvenience to the traveling public. Under all circumstances, safety shall be the most important consideration.

The Contractor shall maintain the free and unobstructed movement of aircraft and vehicular traffic with respect to his/her own operations and those of his/her subcontractors and all suppliers in accordance with the subsection titled MAINTENANCE OF TRAFFIC of Section 40 hereinbefore specified and shall limit such operations for the convenience and safety of the traveling public as specified in the subsection titled LIMITATION OF OPERATIONS of Section 80 hereinafter.

**70-08 BARRICADES, WARNING SIGNS, AND HAZARD MARKINGS.** The Contractor shall furnish, erect, and maintain all barricades, warning signs, and markings for hazards necessary to protect the public and the work. When used during periods of darkness, such barricades, warning signs, and hazard markings shall be suitably illuminated. Unless otherwise specified, barricades, warning signs, and markings for hazards that are in the air operations area shall be a maximum of 18 in high. Unless otherwise specified, barricades shall be spaced not more than 25 feet apart. Barricades, warning signs, and markings shall be paid for under Technical Specification Item M-100, Maintenance and Protection of Traffic.

For vehicular and pedestrian traffic, the Contractor shall furnish, erect, and maintain barricades, warning signs, lights and other traffic control devices in reasonable conformity with the Manual of Uniform Traffic Control Devices for Streets and Highways (published by the United States Government Printing Office).

When the work requires closing an air operations area of the airport or portion of such area, the Contractor shall furnish, erect, and maintain temporary markings and associated lighting conforming to the requirements of AC 150/5340-1, Standards for Airport Markings.

The Contractor shall furnish, erect, and maintain markings and associated lighting of open trenches, excavations, temporary stock piles, and his/her parked construction equipment that may be hazardous to the operation of emergency fire-rescue or maintenance vehicles on the airport in reasonable conformance to AC 150/5370-2, Operational Safety on Airports During Construction.

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The Contractor shall identify each motorized vehicle or piece of construction equipment in reasonable conformance to AC 150/5370-2.

The Contractor shall furnish and erect all barricades, warning signs, and markings for hazards prior to commencing work that requires such erection and shall maintain the barricades, warning signs, and markings for hazards until their dismantling is directed by the Engineer.

Open-flame type lights shall not be permitted within the air operations areas of the airport.

**70-09 USE OF EXPLOSIVES.** When the use of explosives is necessary for the prosecution of the work, the Contractor shall exercise the utmost care not to endanger life or property, including new work. The Contractor shall be responsible for all damage resulting from the use of explosives.

All explosives shall be stored in a secure manner in compliance with all laws and ordinances, and all such storage places shall be clearly marked. Where no local laws or ordinances apply, storage shall be provided satisfactory to the Engineer and, in general, not closer than 1,000 feet (300 m) from the work or from any building, road, or other place of human occupancy.

The Contractor shall notify each property owner and public utility company having structures or facilities in proximity to the site of the work of his/her intention to use explosives. Such notice shall be given sufficiently in advance to enable them to take such steps as they may deem necessary to protect their property from injury.

The use of electrical blasting caps shall not be permitted on or within 1,000 feet (300 m) of the airport property.

**70-10 PROTECTION AND RESTORATION OF PROPERTY AND LANDSCAPE.** The Contractor shall be responsible for the preservation of all public and private property, and shall protect carefully from disturbance or damage all land monuments and property markers until the Engineer has witnessed or otherwise referenced their location and shall not move them until directed.

The Contractor shall be responsible for all damage or injury to property of any character, during the prosecution of the work, resulting from any act, omission, neglect, or misconduct in his/her manner or method of executing the work, or at any time due to defective work or materials, and said responsibility will not be released until the project shall have been completed and accepted.

When or where any direct or indirect damage or injury is done to public or private property by or on account of any act, omission, neglect, or misconduct in the execution of the work, or in consequence of the non-execution thereof by the Contractor, he shall restore, at his/her own expense, such property to a condition similar or equal to that existing before such damage or injury was done, by repairing, or otherwise restoring as may be directed, or he shall make good such damage or injury in an acceptable manner. The Contractor shall indemnify the Owner for any and all costs for the repair or replacement of the Owner's property including, but not limited to, buildings and roads, which arise from or in any manner grow out of any act or neglect on or about the Project site by the Contractor and anyone for whom the Contractor is legally liable.

**70-11 RESPONSIBILITY FOR DAMAGE CLAIMS.** In addition to the obligations to defend, indemnify, and save harmless set forth elsewhere in Section 70, the Contractor shall defend, indemnify and save harmless the Design Engineer, the Engineer and the Owner and their respective directors, officers, representatives, and employees from all suits, actions, claims, damages, costs, and expenses of any character (including attorney's fees) and liability (including statutory liability) brought because of any injuries or damage received or sustained by any person, persons, or property on account of the operations of the Contractor; or arising out of or related to any negligence of the Contractor or anyone for

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whom the Contractor is legally liable in performing or safeguarding the work; or through use of unacceptable materials in constructing the work; or because of any and all environmental impairment; or because of any act or omission, neglect, or misconduct of said Contractor or anyone for whom the Contractor is legally liable; or because of any claims or amounts recovered from any infringements of patent, trademark, or copyright; or from any claims or amounts arising or recovered under the "Workmen's Compensation Act," or any other law, ordinance, order, or decree. Money due the Contractor under and by virtue of his/her contract as may be considered necessary by the Owner for such purpose may be retained for the use of the Owner or, in case no money is due, his/her surety may be held until such suits, actions, or claims for injuries or damages as aforesaid shall have been settled and suitable evidence to that effect furnished to the Owner, except that money due the Contractor will not be withheld when the Contractor produces satisfactory evidence that he is adequately protected by public liability and property damage insurance. As a material part of the consideration to be rendered by the Owner, the Contractor hereby waives all claims against the Owner for damages to the goods, wares, and merchandise in, upon, or about the Project, and the Contractor will hold the Owner exempt and harmless from any damage and injury to any such person or to the goods, wares, or merchandise of any such person, arising from the use of the Project site by the Contractor or from failure of the Contractor to keep the Project site in good condition and repair as provided in this Section.

The Contractor, at his own expense, shall procure and maintain, until final acceptance by the Owner of the work covered by the Contract, comprehensive liability insurance for damages imposed by law of the kinds and in the amounts hereinafter provided, written by a financially solvent insurance company authorized to do such business and write such coverage in the place where the Project is located, covering all operations under the Contract, whether performed by the Contractor or by its Subcontractor(s). Before commencing the work, the Contractor shall furnish to the Owner three (3) certificates of insurance, in satisfactory form to the Owner, showing that the Contractor has complied with the requirements of this Section. The policies and certificates shall provide that the policies shall not be changed or canceled until thirty (30) days after written notice thereof has been given to each of the Additional Insureds listed below. Property damage insurance shall include coverage for explosion, collapse, and underground operations (X C U hazards).

A. The kinds and amounts of insurance are as follows:

1. General Liability insurance policies shall be Commercial General Liability Insurance (including premises operations, independent contractors, products/completed operations, explosion, collapse and underground hazard, broad form property damage, and blanket contractual liability coverages) and shall be written on an Occurrence basis with the following minimum limits:

Each Occurrence    \$1,000,000  
General Aggregate    \$3,000,000

As an alternative to the above limits for General Aggregate and Each Occurrence, Contractor may elect to provide Excess Liability Insurance. Excess Liability coverage shall likewise be written on an Occurrence basis. If the Contractor so elects, then the sum of the General Liability Each Occurrence limit and the Excess Liability Each Occurrence limit shall total at least \$1,000,000. The sum of the General Liability General Aggregate limit and the Excess Liability Aggregate limit shall total at least \$3,000,000.

2. Automobile Liability policies shall cover "All Owned", "Scheduled", "Hired" and "Non-Owned" autos. The minimum Combined Single Limit shall be \$1,000,000.

As an alternative to the above limit for Automobile Liability, Contractor may elect to provide Excess Liability Insurance. Excess Liability coverage shall be written on an Occurrence

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basis. If the Contractor so elects, then the sum of the Combined Single Limit and the Excess Liability Each Occurrence limit shall total at least \$1,000,000.

3. Policy or policies covering the obligations of the Contractor in accordance with the provisions of any applicable Worker's Compensation or Disability Benefits Law.
  4. If applicable, the Contractor and its Subcontractor(s) engaged in work involving "hazardous substances," as defined in Section 3 of PL 1993, c. 139 (C.13:1K-8), or "hazardous waste," as defined in Section 1 of PL 1976, c. 99 (C.13:1E-38), shall procure and maintain pollution liability insurance, also known as "environmental impairment liability insurance."
- B. Contractor's insurance shall be primary over all other collectible insurance.
  - C. Anti-subrogation applies to General Liability and to Automobile Liability insurance coverages.
  - D. The Certificate Holder shall be the City of Cottonwood and C&S Engineers, Inc.,
  - E. The following shall be named as Additional Insureds: City of Cottonwood; C&S Engineers, Inc.; the Federal Aviation Administration; Arizona Department of Transportation.
  - F. The General Liability policies shall provide coverage for liability for damages imposed by law upon the Contractor and its Subcontractor(s) with respect to all work performed by any of them under the Contract. The insurance company providing General Liability insurance coverage acknowledges that the Contractor has agreed in this Contract to defend, hold harmless, and indemnify the Owner, the Design Engineer, the Engineer, and their respective directors, officers, representatives and employees as set forth in this Section.
  - G. The Contractor's policies shall provide coverage for contractual liability imposed by contract, including this Contract, and completed operations liability for damages imposed by law arising between the date of the certification of completion of the work and the date of the expiration of the Contractor's guarantee.
  - H. Contractor's policy shall provide coverage for liability arising out of the acts or omissions of its Subcontractors.
  - I. Each Subcontractor employed on the Project site by the Contractor shall provide comprehensive liability insurance in accordance with the above-described requirements of the Contractor. Such insurance requirements shall be submitted to the Engineer as part of the Subcontractor approval process.

**70-12 THIRD PARTY BENEFICIARY CLAUSE.** It is specifically agreed between the parties executing the contract that it is not intended by any of the provisions of any part of the contract to create the public or any member thereof a third party beneficiary or to authorize anyone not a party to the contract to maintain a suit for personal injuries or property damage pursuant to the terms or provisions of the contract.

**70-13 OPENING SECTIONS OF THE WORK TO TRAFFIC.** Should it be necessary for the Contractor to complete portions of the contract work for the beneficial occupancy of the Owner prior to completion of the entire contract, such "phasing" of the work shall be specified herein and indicated on the plans. When so specified, the Contractor shall complete such portions of the work on or before the date specified or as otherwise specified. The Contractor shall make his/her own estimate of the difficulties involved in arranging his/her work to permit such beneficial occupancy by the Owner as described in the Construction Safety and Phasing Plan, Appendix A to Section 80.

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Upon completion of any portion of the work listed above, such portion shall be accepted by the Owner in accordance with the subsection titled PARTIAL ACCEPTANCE of Section 50.

No portion of the work may be opened by the Contractor for public use until ordered by the Engineer in writing. Should it become necessary to open a portion of the work to public traffic on a temporary or intermittent basis, such openings shall be made when, in the opinion of the Engineer, such portion of the work is in an acceptable condition to support the intended traffic. Temporary or intermittent openings are considered to be inherent in the work and shall not constitute either acceptance of the portion of the work so opened or a waiver of any provision of the contract. Any damage to the portion of the work so opened that is not attributable to traffic which is permitted by the Owner shall be repaired by the Contractor at his/her expense.

The Contractor shall make his/her own estimate of the inherent difficulties involved in completing the work under the conditions herein described and shall not claim any added compensation by reason of delay or increased cost due to opening a portion of the contract work.

Contractor shall be required to conform to safety standards contained AC 150/5370-2, Operational Safety on Airports During Construction. See the Construction Safety Phasing Plan.

Contractor shall refer to the approved safety plan to identify barricade requirements and other safety requirements prior to opening up sections of work to traffic.

**70-14 CONTRACTOR'S RESPONSIBILITY FOR WORK.** Until the Engineer's final written acceptance of the entire completed work, excepting only those portions of the work accepted in accordance with the subsection titled PARTIAL ACCEPTANCE of Section 50, the Contractor shall have the charge and care thereof and shall take every precaution against injury or damage to any part due to the action of the elements or from any other cause, whether arising from the execution or from the non-execution of the work. The Contractor shall rebuild, repair, restore, and make good all injuries or damages to any portion of the work occasioned by any of the above causes before final acceptance and shall bear the expense thereof except damage to the work due to unforeseeable causes beyond the control of and without the fault or negligence of the Contractor, including but not restricted to acts of God such as earthquake, tidal wave, tornado, hurricane or other cataclysmic phenomenon of nature, or acts of the public enemy or of government authorities.

If the work is suspended for any cause whatever, the Contractor shall be responsible for the work and shall take such precautions necessary to prevent damage to the work. The Contractor shall provide for normal drainage and shall erect necessary temporary structures, signs, or other facilities at his/her expense. During such period of suspension of work, the Contractor shall properly and continuously maintain in an acceptable growing condition all living material in newly established planting, seedings, and soddings furnished under his/her contract, and shall take adequate precautions to protect new tree growth and other important vegetative growth against injury.

**70-15 CONTRACTOR'S RESPONSIBILITY FOR UTILITY SERVICE AND FACILITIES OF OTHERS.** As provided in the subsection titled RESTORATION OF SURFACES DISTURBED BY OTHERS of this section, the Contractor shall cooperate with the owner of any public or private utility service, FAA or NOAA, or a utility service of another government agency that may be authorized by the owner to construct, reconstruct or maintain such utility services or facilities during the progress of the work. In addition, the Contractor shall control his/her operations to prevent the unscheduled interruption of such utility services and facilities.

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To the extent that such public or private utility services, FAA, or NOAA facilities, or utility services of another governmental agency are known to exist within the limits of the contract work, the approximate locations have been indicated on the plans and the owners are indicated as follows:

<u>Utility Service or Facility</u>	<u>Person to Contract</u>	<u>Telephone No.</u>
Arizona Public Service Co. (Power)	Mr. Gari Basham	(928) 634-2241
Qwest Communications (Telephone)	Ms. Linda Falas	(928) 634-7556
Citizens Utilities (Gas)	Ms. Irene Freeman	(928) 634-5556
City of Cottonwood (Reclaimed Water/Sewer)	Mr. Ken Johnson	(928) 634-8033
City of Cottonwood (Water/Sewer)	Mr. Dan Lueder	(928) 634-0186

It is understood and agreed that the Owner does not guarantee the accuracy or the completeness of the location information relating to existing utility services, facilities, or structures that may be shown on the plans or encountered in the work. Any inaccuracy or omission in such information shall not relieve the Contractor of his/her responsibility to protect such existing features from damage or unscheduled interruption of service.

It is further understood and agreed that the Contractor shall, upon execution of the contract, notify the owners of all utility services or other facilities of his/her plan of operations. Such notification shall be in writing addressed to THE PERSON TO CONTACT as provided hereinbefore in this subsection and the subsection titled RESTORATION OF SURFACES DISTURBED BY OTHERS of this section. A copy of each notification shall be given to the Engineer.

In addition to the general written notification hereinbefore provided, it shall be the responsibility of the Contractor to keep such individual owners advised of changes in his/her plan of operations that would affect such owners.

Prior to commencing the work in the general vicinity of an existing utility service or facility, the Contractor shall again notify each such owner of his/her plan of operation. If, in the Contractor's opinion, the owner's assistance is needed to locate the utility service or facility or the presence of a representative of the owner is desirable to observe the work, such advice should be included in the notification. Such notification shall be given by the most expeditious means to reach the utility owner's PERSON TO CONTACT no later than two normal business days prior to the Contractor's commencement of operations in such general vicinity. The Contractor shall furnish a written summary of the notification to the Engineer.

The Contractor's failure to give the two day's notice hereinabove provided shall be cause for the Owner to suspend the Contractor's operations in the general vicinity of a utility service or facility.

Where the outside limits of an underground utility service have been located and staked on the ground, the Contractor shall be required to use excavation methods acceptable to the Engineer within 3 feet (90 cm) of such outside limits at such points as may be required to ensure protection from damage due to the Contractor's operations.

Should the Contractor damage or interrupt the operation of a utility service or facility by accident or otherwise, he shall immediately notify the proper authority and the Engineer and shall take all reasonable

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measures to prevent further damage or interruption of service. The Contractor, in such events, shall cooperate with the utility service or facility owner and the Engineer continuously until such damage has been repaired and service restored to the satisfaction of the utility or facility owner.

The Contractor shall bear all costs of damage and restoration of service to any utility service or facility due to his/her operations whether or not due to negligence or accident. The Owner reserves the right to deduct such costs from any monies due or which may become due the Contractor, or his/her surety.

**70-15.1 FAA FACILITIES AND CABLE RUNS.** The Contractor is hereby advised that the construction limits of the project may include existing facilities and buried cable runs that are owned, operated and maintained by the FAA. The Contractor, during the prosecution of the project work, shall comply with the following:

- a. The Contractor shall permit FAA maintenance personnel the right of access to the project work site for purposes of inspecting and maintaining all existing FAA owned facilities.
- b. The Contractor shall notify the above named FAA Airway Facilities Point-of-Contact seven (7) calendar days prior to commencement of construction activities in order to permit sufficient time to locate and mark existing buried cables and to schedule any required facility outages.
- c. If prosecution of the project work requires a facility outage, the Contractor shall contact the above named FAA Point-of-Contact a minimum of 48 hours prior to the time of the required outage.
- d. If prosecution of the project work results in damages to existing FAA equipment or cables, the Contractor shall repair the damaged item in conformance with FAA Airway Facilities' standards to the satisfaction of the above named FAA Point-of-Contact.
- e. If the project work requires the cutting or splicing of FAA owned cables, the above named FAA Point-of-Contact shall be contacted a minimum of 48 hours prior to the time the cable work commences. The FAA reserves the right to have a FAA Airway Facilities representative on site to observe the splicing of the cables as a condition of acceptance. All cable splices are to be accomplished in accordance with FAA Airway Facilities' specifications and require approval by the above named FAA Point-of-Contact as a condition of acceptance by the Owner. The Contractor is hereby advised that FAA Airway Facilities restricts the location of where splices may be installed. If a cable splice is required in a location that is not permitted by FAA Airway Facilities, the Contractor shall furnish and install a sufficient length of new cable that eliminates the need for any splice.

**70-16 FURNISHING RIGHTS-OF-WAY.** The Owner will be responsible for furnishing all rights-of-way upon which the work is to be constructed in advance of the Contractor's operations.

**70-17 PERSONAL LIABILITY OF PUBLIC OFFICIALS.** In carrying out any of the contract provisions or in exercising any power or authority granted to him by this contract, there shall be no liability upon the Engineer, his/her authorized representatives, or any officials of the Owner either personally or as an official of the Owner. It is understood that in such matters they act solely as agents and representatives of the Owner.

**70-18 NO WAIVER OF LEGAL RIGHTS.** Upon completion of the work, the Owner will expeditiously make final inspection and notify the Contractor of final acceptance. Such final acceptance, however, shall not preclude or stop the Owner from correcting any measurement, estimate, or certificate made before or after completion of the work, nor shall the Owner be precluded or stopped from

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recovering from the Contractor or his/her surety, or both, such overpayment as may be sustained, or by failure on the part of the Contractor to fulfill his/her obligations under the contract. A waiver on the part of the Owner of any breach of any part of the contract shall not be held to be a waiver of any other or subsequent breach.

The Contractor, without prejudice to the terms of the contract, shall be liable to the Owner for latent defects, fraud, or such gross mistakes as may amount to fraud, or as regards the owner's rights under any warranty or guaranty.

**70-19 ENVIRONMENTAL PROTECTION.** The Contractor shall comply with all Federal, state, and local laws and regulations controlling pollution of the environment. He shall take necessary precautions to prevent pollution of streams, lakes, ponds, and reservoirs with fuels, oils, bitumens, chemicals, or other harmful materials and to prevent pollution of the atmosphere from particulate and gaseous matter. The Contractor shall perform all testing, removal of contaminated material, transportation, treatment, remediation, and disposal of contaminated materials which are the result of a spill or release caused by the Contractor, and he shall provide and properly place materials to restore the property to its original condition, all to the Owner's satisfaction and at the Contractor's expense. Refer to the subsection titled PROTECTION AND RESTORATION OF PROPERTY AND LANDSCAPE of this section.

Contractors and subcontractors agree:

- A. That any facility to be used in the performance of the contract or subcontract or to benefit from the contract is not listed on the Environmental Protection Agency (EPA) List of Violating Facilities;
- B. To comply with all the requirements of Section 114 of the Clean Air Act, as amended, 42 U.S.C. 1857 et seq. and Section 308 of the Federal Water Pollution Control Act, as amended, 33 U.S.C. 1251 et seq. relating to inspection, monitoring, entry, reports, and information, as well as all other requirements specified in Section 114 and Section 308 of the Acts, respectively, and all other regulations and guidelines issued thereunder;
- C. That, as a condition for the award of this contract, the contractor or subcontractor will notify the awarding official of the receipt of any communication from the EPA indicating that a facility to be used for the performance of or benefit from the contract is under consideration to be listed on the EPA List of Violating Facilities;
- D. To include or cause to be included in any construction contract or subcontract which exceeds \$100,000 the aforementioned criteria and requirements.
- E. Air Pollution
  - 1. No burning of combustible waste shall be permitted.
  - 2. Alternatives to Burning Land Cleared Material.
    - a. All spoil material from clearing and grubbing operations shall be disposed of in accordance with the Technical Specifications, unless otherwise directed.
    - b. Wood may be salvaged for firewood or commercial use or it may be chipped and disposed of for use as mulch.
    - c. Logs, brush, etc. may be removed to an authorized disposal area or disposed of to the general public without charge.
  - 3. Dust Control.
    - a. Common construction operations which may cause excessive dust include:

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- 1) Quarry, drilling and rock crushing.
  - 2) Clearing, grubbing and stripping.
  - 3) Excavation and placement of embankment.
  - 4) Cement and aggregate handling.
  - 5) Cement or lime stabilization.
  - 6) Blasting.
  - 7) Use of haul roads.
  - 8) Sandblasting or grinding.
- b. Other construction operations which may cause air pollution are:
- 1) Volatiles escaping from asphalt and cut back materials.
  - 2) Use of herbicides or fertilizers.
  - 3) Smoke from asphalt plants or heater/planers.
- c. Control of Dust and Other Air Pollutants shall be the responsibility of the Contractor and may include the following control methods:
- 1) Drilling apparatus equipped with water or chemical dust controlling systems.
  - 2) Exposing the minimum area of land.
  - 3) Applying temporary mulch with or without seeding.
  - 4) Use of water sprinkling trucks.
  - 5) Use of covered haul trucks.
  - 6) Use of stabilizing agents in solution.
  - 7) Use of dust palliative and penetration asphalt on temporary roads.
  - 8) Use of wood chips in traffic or work areas.
  - 9) Use of vacuum equipped sandblasting systems.
  - 10) Use of plastic sheet coverings.
  - 11) Restricting the application rate of herbicides to recommended dosage. Materials should be covered and protected from the elements. Application, equipment and empty containers shall not be rinsed and discharged to a stream, etc. or allowed to enter the groundwater.
  - 12) Use dust control measures at bituminous mixing plants, and quarry operations.
  - 13) Delay operations until climate or wind conditions dissipate or inhibit the potential pollutants in a manner satisfactory to the Engineer.

#### F. Water Pollution

1. The Contractor shall use suitable precautions to minimize water pollution during the progress of the work. Erosion control devices or methods may consist of berms, dikes, dams, drains, sediment basins, fiber mats, woven plastic filter cloths, gravel, mulches, quick growing grasses, sod, bituminous spray or other control devices.
2. The amount of surface area of erodible earth at any one time shall not exceed the area allowed by permit.
3. Pollutants such as fuels, lubricants, bitumens, raw sewage and other harmful materials shall not be discharged into or near rivers, streams, and impoundments or into natural or man-made channels leading thereto. Wash water or waste from concrete mixing and curing operations should not be allowed to enter streams, etc.

In the event of conflict between these requirements and pollution control laws, rules or regulations or other Federal, State or local agencies, the more restrictive laws, rules, or regulations shall apply.

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**70-20 ARCHAEOLOGICAL AND HISTORICAL FINDINGS.** Unless otherwise specified in this subsection, the Contractor is advised that the site of the work is not within any property, district, or site, and does not contain any building, structure, or object listed in the current National Register of Historic Places published by the United States Department of Interior.

Should the Contractor encounter, during his/her operations, any building, part of a building, structure, or object that is incongruous with its surroundings, he shall immediately cease operations in that location and notify the Engineer. The Engineer will immediately investigate the Contractor's finding and the Owner will direct the Contractor to either resume his/her operations or to suspend operations as directed.

Should the Owner order suspension of the Contractor's operations in order to protect an archaeological or historical finding, or order the Contractor to perform extra work, such shall be covered by an appropriate contract modification (change order or supplemental agreement) as provided in the subsection titled EXTRA WORK of Section 40 and the subsection titled PAYMENT FOR EXTRA WORK AND FORCE ACCOUNT WORK of Section 90. If appropriate, the contract modification shall include an extension of contract time in accordance with the subsection titled DETERMINATION AND EXTENSION OF CONTRACT TIME of Section 80.

**70-21 CIVIL RIGHTS ACT OF 1964, TITLE VI – CONTRACTOR CONTRACTUAL REQUIREMENTS.** During the performance of this contract, the contractor, for itself, its assignees and successors in interest (hereinafter referred to as the "contractor") agrees as follows:

- A. Compliance with Regulations.** The contractor shall comply with the Regulations relative to nondiscrimination in federally assisted programs of the Department of Transportation (hereinafter, "DOT") Title 49, Code of Federal Regulations, Part 21, as they may be amended from time to time (hereinafter referred to as the Regulations), which are herein incorporated by reference and made a part of this contract.
- B. Nondiscrimination.** The contractor, with regard to the work performed by it during the contract, shall not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor shall not participate either directly or indirectly in the discrimination prohibited by section 21.5 of the Regulations, including employment practices when the contract covers a program set forth in Appendix B of the Regulations.
- C. Solicitations for Subcontracts, Including Procurements of Materials and Equipment.** In all solicitations either by competitive bidding or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials or leases of equipment, each potential subcontractor or supplier shall be notified by the contractor of the contractor's obligations under this contract and the Regulations relative to nondiscrimination on the grounds of race, color, or national origin.
- D. Information and Reports.** The contractor shall provide all information and reports required by the Regulations or directives issued pursuant thereto and shall permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Sponsor or the Federal Aviation Administration (FAA) to be pertinent to ascertain compliance with such Regulations, orders, and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish this information, the contractor shall so certify to the sponsor or the FAA, as appropriate, and shall set forth what efforts it has made to obtain the information.

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**E. Sanctions for Noncompliance.** In the event of the contractor's noncompliance with the nondiscrimination provisions of this contract, the sponsor shall impose such contract sanctions as it or the FAA may determine to be appropriate, including, but not limited to:

1. Withholding of payments to the contractor under the contract until the contractor complies, and/or
2. Cancellation, termination, or suspension of the contract, in whole or in part.

**F. Incorporation of Provisions.** The contractor shall include the provisions of paragraphs A through E in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Regulations or directives issued pursuant thereto. The contractor shall take such action with respect to any subcontract or procurement as the Sponsor or the FAA may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, however, that in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or supplier as a result of such direction, the contractor may request the Sponsor to enter into such litigation to protect the interests of the sponsor and, in addition, the contractor may request the United States to enter into such litigation to protect the interests of the United States.

**70-22 AIRPORT AND AIRWAY IMPROVEMENT ACT OF 1982, SECTION 520 - GENERAL CIVIL RIGHTS PROVISIONS.** The contractor assures that it will comply with pertinent statutes, Executive orders and such rules as are promulgated to assure that no person shall, on the grounds of race, creed, color, national origin, sex, age, or handicap be excluded from participating in any activity conducted with or benefiting from Federal assistance. This provision obligates the tenant/ concessionaire/ lessee or its transferee for the period during which Federal assistance is extended to the airport a program, except where Federal assistance is to provide, or is in the form of personal property or real property or interest therein or structures or improvements thereon. In these cases the provision obligates the party or any transferee for the longer of the following periods: (a) the period during which the property is used by the airport sponsor or any transferee for a purpose for which Federal assistance is extended, or for another purpose involving the provision of similar services or benefits or (b) the period during which the airport sponsor or any transferee retains ownership or possession of the property. In the case of contractors, this provision binds the contractors from the bid solicitation period through the completion of the contract. This provision is in addition to that required of Title VI of the Civil Rights Act of 1964.

**70-23 LOBBYING AND INFLUENCING FEDERAL EMPLOYEES.**

- A. No Federal appropriated funds shall be paid, by or on behalf of the contractor, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the making of any Federal grant and the amendment or modification of any Federal grant.
- B. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with any Federal grant, the contractor shall complete and submit Standard Form-LLL, "Disclosure of Lobby Activities," in accordance with its instructions.

**70-24 ACCESS TO RECORDS AND REPORTS.** The Contractor shall maintain an acceptable cost accounting system. The Contractor agrees to provide the Sponsor, the Federal Aviation Administration and the Comptroller General of the United States or any of their duly authorized representatives access to any books, documents, papers, and records of the contractor which are directly pertinent to the specific contract for the purpose of making audit, examination, excerpts and transcriptions. The Contractor agrees

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to maintain all books, records and reports required under this contract for a period of not less than three years after final payment is made and all pending matters are closed.

**70-25 DISADVANTAGED BUSINESS ENTERPRISE.** This section contains information from various sections of 49 CFR Part 26 titled Participation by Disadvantaged Business Enterprises in Department of Transportation Financial Assistance Programs. It is not intended to be all encompassing, nor a comprehensive reiteration of the regulation.

The bidder shall submit the Contractor's DBE Plan to the owner for review and approval. The Contractor's DBE Plan shall consist of the Contractor's DBE Plan Form, a DBE Letter of Intent Form for each DBE firm, a copy of the DBE's Evidence of Certification Status, and documented good faith efforts as described below. **SEE THE CONTRACTORS DBE PLAN FORM AND DBE LETTER OF INTENT FORM FOLLOWING THIS SECTION.**

- A. The Sponsor has established a Disadvantaged Business Enterprise (DBE) program in accordance with regulations of the U.S. Department of Transportation (DOT), 49 CFR Part 26. The Sponsor has received, or will receive, Federal financial assistance from the Department of Transportation, and as a condition of receiving this assistance, the Sponsor has signed an assurance that it will comply with 49 CFR Part 26.

It is the policy of the Sponsor to ensure that DBEs as defined in part 26, have an equal opportunity to receive and participate in DOT-assisted contracts. It is also the policy of the Sponsor:

1. To ensure nondiscrimination in the award and administration of DOT – assisted contracts;
2. To create a level playing field on which DBEs can compete fairly for DOT-assisted contracts;
3. To ensure that the DBE Program is narrowly tailored in accordance with applicable law;
4. To ensure that only firms that fully meet 49 CFR Part 26 eligibility standards are permitted to participate as DBEs;
5. To help remove barriers to the participation of DBEs in DOT assisted contracts;
6. To assist the development of firms that can compete successfully in the market place outside the DBE Program.

- B. The obligation of the bidder is to make good faith efforts. The bidder can demonstrate that it has done so either by meeting the contract goal or documenting good faith efforts. Examples of good faith efforts are found in Appendix A to Part 26. Determination whether the bidder has made a good faith effort will be made by the Sponsor's DBE Liaison Officer. The Contractor's DBE Plan must be acceptable to the Sponsor before entering into a contract with the bidder.

Guidance pertaining to good faith efforts is provided in Appendix A to 49 CFR Part 26. In general, the bidder must demonstrate that they have taken all necessary and reasonable steps to achieve the identified DBE goal. The bidder should adequately document all such efforts, including contacts of DBE firms that are not interested.

Good Faith Efforts:

Bidder must demonstrate that they made good faith efforts to achieve participation with DBE firms. This requires that the bidder show that it took all necessary and reasonable steps to secure participation by certified DBE firms. Mere pro forma efforts will not be considered as a good faith effort.

Such actions constituting evidence of good faith efforts include but are not limited to:

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- Soliciting DBE participation through all reasonable and available means. This may include public advertisements and phone calls/faxes to known certified DBE firms.
  - Consult State Department of Transportation office to obtain a list of certified DBE firms.
  - Selecting portions of work that increases the likelihood that DBE firms will be available to participate.
  - Providing DBE firms with sufficient information and time to review the project plans and specifications.
  - Documenting all contacts with DBE firms. This includes name, address, phone number, date of contact and record of conversation/negotiation.

- C. Within 15 days of being informed by the Sponsor that it is not responsive because it has not documented sufficient good faith efforts, a bidder may request administrative reconsideration. Bidders should make this request in writing to the Sponsor's reconsideration official. The reconsideration official will not have played any role in the original determination that the bidder did not document sufficient good faith efforts.

As part of this reconsideration, the bidder will have the opportunity to provide written documentation or argument concerning the issue of whether it met the goal or made adequate good faith efforts to do so. The bidder will have the opportunity to meet in person with the reconsideration official to discuss the issue of whether it met the goal or made adequate good faith efforts to do so. The Sponsor will send the bidder a written decision on reconsideration, explaining the basis for finding that the bidder did or did not meet the goal or make adequate good faith efforts to do so. The result of the reconsideration process is not administratively appealable to the Department of Transportation.

- D. The Sponsor will require the contractor to make good faith efforts to replace a DBE that is terminated or has otherwise failed to complete its work on a contract with another certified DBE, to the extent needed to meet the contract goal. The Sponsor will require the prime contractor to notify the DBE Liaison officer immediately of the DBE's inability or unwillingness to perform and provide reasonable documentation.

In this situation, the Sponsor will require the prime contractor to obtain prior approval of the substitute DBE and to provide copies of new or amended subcontracts, or documentation of good faith efforts.

If the contractor fails or refuses to comply in the time specified, the Sponsor will issue an order stopping all or part of payment/work until satisfactory action has been taken. If the contractor still fails to comply, the contracting officer may issue a termination for default proceeding.

- E. The sponsor will require the contractor to maintain records and documents of payments to DBEs for three years following the performance of the contract. These records will be made available for inspection upon request by any authorized representative of the Sponsor or DOT. This reporting requirement also extends to any certified DBE subcontractor.

The Sponsor will perform interim audits of contract payments to DBEs. The audit will review payments to DBE subcontractors to ensure that the actual amount paid to DBE subcontractors equals or exceeds the dollar amounts stated in The Contractors DBE Plan.

At completion of work, the contractor will report to the Sponsor the actual amount paid to each DBE firm utilized for this contract. **SEE THE DBE PARTICIPATION SUMMARY FORM FOLLOWING THIS SECTION.**

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- F. The contractor, sub-recipient, or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate.

**70-26 ENERGY CONSERVATION REQUIREMENTS.** The contractor shall comply with mandatory standards and policies relating to energy efficiency that are contained in the state energy conservation plan issued in compliance with the Energy Policy and Conservation Act (Public Law 94-163).

**70-27 BREACH OF CONTRACT TERMS.** Any violation or breach of terms of this contract on the part of the contractor or their subcontractors may result in the suspension or termination of this contract or such other action that may be necessary to enforce the rights of the parties of the agreement. The duties and obligations imposed by the Contract and the rights and remedies available thereunder shall be in addition to and not a limitation of any duties, obligations, rights and remedies otherwise imposed or available by law.

**70-28 RIGHTS TO INVENTIONS.** All rights to inventions and materials generated under this contract are subject to regulations issued by the FAA and the Sponsor of the Federal grant under which this contract is executed.

**70-29 TRADE RESTRICTION CLAUSE.** The contractor or subcontractor, by submission of a proposal and/or execution of a contract, certifies that it:

- A. is not owned or controlled by one or more citizens of a foreign country included in the list of countries that discriminate against U.S. firms published by the Office of the United States Trade Representative (USTR);
- B. has not knowingly entered into any contract or subcontract for this project with a person that is a citizen or national of a foreign country on said list, or is owned or controlled directly or indirectly by one or more citizens or nationals of a foreign country on said list;
- C. has not procured any product nor subcontracted for the supply of any product for use on the project that is produced in a foreign country on said list.

Unless the restrictions of this clause are waived by the Secretary of Transportation in accordance with 49 CFR 30.17, no contract shall be awarded to a contractor or subcontractor who is unable to certify to the above. If the contractor knowingly procures or subcontracts for the supply of any product or service of a foreign country on said list for use on the project, the Federal Aviation Administration may direct through the Sponsor cancellation of the contract at no cost to the Government.

Further, the contractor agrees that, if awarded a contract resulting from this solicitation, it will incorporate this provision for certification without modification in each contract and in all lower tier subcontracts. The contractor may rely on the certification of a prospective subcontractor unless it has knowledge that the certification is erroneous.

The contractor shall provide immediate written notice to the sponsor if the contractor learns that its certification or that of a subcontractor was erroneous when submitted or has become erroneous by reason of changed circumstances. The subcontractor agrees to provide written notice to the contractor if at any time it learns that its certification was erroneous by reason of changed circumstances.

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This certification is a material representation of fact upon which reliance was placed when making the award. If it is later determined that the contractor or subcontractor knowingly rendered an erroneous certification, the Federal Aviation Administration may direct through the Sponsor cancellation of the contract or subcontract for default at no cost to the Government.

Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render, in good faith, the certification required by this provision. The knowledge and information of a contractor is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

This certification concerns a matter within the jurisdiction of an agency of the United States of America and the making of a false, fictitious, or fraudulent certification may render the maker subject to prosecution under Title 18, United States Code, Section 1001.

**70-30 VETERAN'S PREFERENCE.** In the employment of labor (except in executive, administrative, and supervisory positions), preference shall be given to Veterans of the Vietnam era and disabled veterans as defined in Section 515 (c) (1) and (2) of the Airport and Airway Improvement Act of 1982. However, this preference shall apply only where the individuals are available and qualified to perform the work to which the employment relates.

#### **70-31 DAVIS BACON REQUIREMENTS.**

##### **1. Minimum Wages.**

- (i) All laborers and mechanics employed or working upon the site of the work will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by the Secretary of Labor under the Copeland Act (29 CFR Part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalent thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics. **SEE THE GENERAL DECISION REGARDING THE WAGE DETERMINATION FOLLOWING THIS SECTION.**

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph (1)(iv) of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR Part 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: *Provided*, that the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under (1)(ii) of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can easily be seen by the workers.

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- (ii)(A) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:
- (1) The work to be performed by the classification requested is not performed by a classification in the wage determination; and
  - (2) The classification is utilized in the area by the construction industry; and
  - (3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.
- (ii)(B) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, D.C. 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.
- (ii)(C) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.
- (ii)(D) The wage rate (including fringe benefits where appropriate) determined pursuant to subparagraphs (1)(ii) (B) or (C) of this paragraph, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.
- (iii) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.
- (iv) If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, *Provided*, that the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

2. **Withholding.** The Federal Aviation Administration or the Sponsor shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or

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cause to be withheld from the contractor under this contract or any other Federal contract with the same prime contractor, or any other Federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of work, all or part of the wages required by the contract, the Federal Aviation Administration may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

### **3. Payrolls and basic records.**

- (i) Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual costs incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.
- (ii)(A) The contractor shall submit weekly, for each week in which any contract work is performed, a copy of all payrolls to the applicant, sponsor, or owner, as the case may be, for transmission to the Federal Aviation Administration. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under paragraph 5.5(a)(3)(i) above. This information may be submitted in any form desired. Optional Form WH-347 is available for this purpose and may be purchased from the Superintendent of Documents (Federal Stock Number 029-005-00014-1), U.S. Government Printing Office, Washington, D.C. 20402. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors.
- (ii)(B) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:
  - (1) That the payroll for the payroll period contains the information required to be maintained under paragraph (3)(i) above and that such information is correct and complete;
  - (2) That each laborer and mechanic (including each helper, apprentice and trainee) employed on the contract during the payroll period has been paid the full weekly

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wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations 29 CFR Part 3;

- (3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.
- (ii)(C) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph (3)(ii)(B) of this section.
- (ii)(D) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under Section 1001 of Title 18 and Section 231 of Title 31 of the United States Code.
- (iii) The contractor or subcontractor shall make the records required under paragraph (3)(i) of this section available for inspection, copying or transcription by authorized representatives of the Sponsor, the Federal Aviation Administration or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the Federal agency may, after written notice to the contractor, sponsor, applicant or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

#### **4. Apprentices and Trainees.**

- (i) Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Bureau of Apprenticeship and Training, or with a State Apprenticeship Agency recognized by the Bureau, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Bureau of Apprenticeship and Training or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination

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for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Bureau of Apprenticeship and Training, or a State Apprenticeship Agency recognized by the Bureau, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

- (ii) Trainees. Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.
- (iii) Equal Employment Opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR Part 30.

- 5. Compliance with Copeland Act Requirements.** The contractor shall comply with the requirements of 29 CFR Part 3, which are incorporated by reference in this contract.
- 6. Subcontracts.** The contractor or subcontractor shall insert in any subcontracts the clauses contained in 29 CFR Part 5.5(a)(1) through (10) and such other clauses as the Federal Aviation Administration may by appropriate instructions require, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR Part 5.5.
- 7. Contract Termination: Debarment.** A breach of the contract clauses in paragraph 1 through 10 of this section may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.
- 8. Compliance With Davis-Bacon and Related Act Requirements.** All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR Parts 1, 3, and 5 are herein incorporated by reference in this contract.

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**9. Disputes Concerning Labor Standards.** Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR Parts 5, 6 and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

**10. Certification of Eligibility.**

- (i) By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).
- (ii) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).
- (iii) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

**70-32 EQUAL EMPLOYMENT OPPORTUNITY - 41 CFR PART 60-1.4(b)** During the performance of this contract, the contractor agrees as follows:

1. The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to the following: Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause. **SEE THE "EQUAL EMPLOYMENT OPPORTUNITY IS THE LAW" POSTER FOLLOWING THIS SECTION.**
2. The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive considerations for employment without regard to race, color, religion, sex, or national origin.
3. The contractor will send to each labor union or representative of workers with which s/he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
4. The contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, as amended, and of the rules, regulations, and relevant orders of the Secretary of Labor.
5. The contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

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6. In the event of the contractor's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated or suspended in whole or in part and the contractor may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedure authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.
  7. The contractor will include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (7) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provision, including sanctions for noncompliance: *Provided, however*, that in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the administering agency the contractor may request the United States to enter into such litigation to protect the interests of the United States.

**70-33 NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION - 41 CFR PART 60-2.**

1. The Offeror's or Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Opportunity Construction Contract Specifications" set forth herein.
2. The goals and timetables for minority and female participation, expressed in percentage terms for the contractor's aggregate workforce in each trade on all construction work in the covered area, are as follows:

Goals for minority participation for each trade	19.6%
Goals for female participation in each trade	6.9%

- a. These goals are applicable to all the contractor's construction work (whether or not it is Federal or federally-assisted) performed in the covered area. If the contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the contractor also is subject to the goals for both its Federally involved and non-federally involved construction.
  - b. The contractor's compliance with the Executive Order and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a), and its efforts to meet the goals. The hours of minority and female employment and training shall be substantially uniform throughout the length of the contract, and in each trade, and the contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from contractor to contractor or from project to project, for the sole purpose of meeting the contractor's goals, shall be a violation of the contract, the Executive Order, and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.
3. The contractor shall provide written notification to the Director, OFCCP, within 10 working days of award of any construction subcontract in excess of \$10,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address,

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and telephone number of the subcontractor; employer identification number of the subcontractor; estimated dollar amount of the subcontract; estimated starting and completion dates of subcontract; and the geographical area in which the subcontract is to be performed.

4. As used in this notice and in the contract resulting from this solicitation, the "covered area" is Arizona, Yavapai County, City of Cottonwood.

**70-34 STANDARD FEDERAL EQUAL EMPLOYMENT OPPORTUNITY CONSTRUCTION CONTRACT SPECIFICATIONS – 41 CFR Part 60-4.3**

1. As used in these specifications:
  - a. "Covered area" means the geographical area described in the solicitation from which this contract resulted;
  - b. "Director" means Director, Office of Federal Contract Compliance Programs (OFCCP), U.S. Department of Labor, or any person to whom the Director delegates authority;
  - c. "Employer identification number" means the Federal social security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941;
  - d. "Minority" includes:
    - (1) Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);
    - (2) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin regardless of race);
    - (3) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and
    - (4) American Indian or Alaskan native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).
2. Whenever the contractor, or any subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of \$10,000 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this contract resulted.
3. If the contractor is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors shall be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each contractor or subcontractor participating in an approved plan is individually required to comply with its obligations under the EEO clause and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other contractors or subcontractors toward a goal in an approved Plan does not excuse any covered contractor's or subcontractor's failure to take good faith efforts to achieve the Plan goals and timetables.

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4. The contractor shall implement the specific affirmative action standards provided in paragraphs 7a through 7p below. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. Covered construction contractors performing construction work in a geographical area where they do not have a Federal or federally assisted construction contract shall apply the minority and female goals established for the geographical area where the work is being performed. Goals are published periodically in the Federal Register in notice form, and such notices may be obtained from any Office of Federal Contract Compliance Programs office or from Federal procurement contracting officers. The contractor is expected to make substantially uniform progress in meeting its goals in each craft during the period specified.
  5. Neither the provisions of any collective bargaining agreement nor the failure by a union with whom the contractor has a collective bargaining agreement to refer either minorities or women shall excuse the contractor's obligations under these specifications, Executive Order 11246 or the regulations promulgated pursuant thereto.
  6. In order for the non-working training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees shall be employed by the contractor during the training period and the contractor shall have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees shall be trained pursuant to training programs approved by the U.S. Department of Labor.
  7. The contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The contractor shall document these efforts fully and shall implement affirmative action steps at least as extensive as the following:
    - a. Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the contractor's employees are assigned to work. The contractor, where possible, will assign two or more women to each construction project. The contractor shall specifically ensure that all foremen, superintendents, and other onsite supervisory personnel are aware of and carry out the contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.
    - b. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.
    - c. Maintain a current file of the names, addresses, and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source, or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the contractor by the union or, if referred, not employed by the contractor, this shall be documented in the file with the reason therefore along with whatever additional actions the contractor may have taken.
    - d. Provide immediate written notification to the Director when the union or unions with which the contractor has a collective bargaining agreement has not referred to the contractor a

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minority person or female sent by the contractor, or when the contractor has other information that the union referral process has impeded the contractor's efforts to meet its obligations.

- e. Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the contractor's employment needs, especially those programs funded or approved by the Department of Labor. The contractor shall provide notice of these programs to the sources compiled under 7b above.
- f. Disseminate the contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the contractor in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.
- g. Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination, or other employment decisions including specific review of these items with onsite supervisory personnel such as superintendents, general foremen, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.
- h. Disseminate the contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the contractor's EEO policy with other contractors and subcontractors with whom the contractor does or anticipates doing business.
- i. Direct its recruitment efforts, both oral and written, to minority, female, and community organizations, to schools with minority and female students; and to minority and female recruitment and training organizations serving the contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the contractor shall send written notification to organizations, such as the above, describing the openings, screening procedures, and tests to be used in the selection process.
- j. Encourage present minority and female employees to recruit other minority persons and women and, where reasonable provide after school, summer, and vacation employment to minority and female youth both on the site and in other areas of a contractor's workforce.
- k. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3.
- l. Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel, for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.
- m. Ensure that seniority practices, job classifications, work assignments, and other personnel practices do not have a discriminatory effect by continually monitoring all personnel and

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- employment related activities to ensure that the EEO policy and the contractor's obligations under these specifications are being carried out.
- n. Ensure that all facilities and company activities are non-segregated except that separate or single user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.
  - o. Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.
  - p. Conduct a review, at least annually, of all supervisor's adherence to and performance under the contractor's EEO policies and affirmative action obligations.
8. Contractors are encouraged to participate in voluntary associations, which assist in fulfilling one or more of their affirmative action obligations (7a through 7p). The efforts of a contractor association, joint contractor union, contractor community, or other similar groups of which the contractor is a member and participant, may be asserted as fulfilling any one or more of its obligations under 7a through 7p above, provided that the contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the contractor's minority and female workforce participation, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the contractor. The obligation to comply, however, is the contractor's and failure of such a group to fulfill an obligation shall not be a defense for the contractor's noncompliance.
  9. A single goal for minorities and a separate single goal for women have been established. The contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, if the particular group is employed in a substantially disparate manner (for example, even though the contractor has achieved its goals for women generally,) the contractor may be in violation of the Executive Order if a specific minority group of women is underutilized.
  10. The contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex, or national origin.
  11. The contractor shall not enter into any subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.
  12. The contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination, and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Contract Compliance Programs. Any contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.
  13. The contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 above, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the contractor fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with 41 CFR 60-4.8.

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14. The contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government, and to keep records. Records shall at least include for each employee, the name, address, telephone number, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice, trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, contractors shall not be required to maintain separate records.
  15. Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).
  16. Standard Form 100, Employer Information Report, must be filed by:
    - A. All private employers who are:
      - (1) subject to Title VII of the Civil Rights Act of 1964 (as amended by the Equal Employment Opportunity Act of 1972) with 100 or more employees EXCLUDING State and local governments, primary and secondary school systems, institutions of higher education, Indian tribes and tax-exempt private membership clubs other than labor organizations; OR
      - (2) SUBJECT TO Title VII who have fewer than 100 employees if the company is owned or affiliated with another company, or there is centralized ownership, control or management (such as central control of personnel policies and labor relations) so that the group legally constitutes a single enterprise, and the entire enterprise employs a total of 100 or more employees.
    - B. All federal contractors (private employers), who:
      - (1) are not exempt as provided for by 41 CFR 60-1.5,
      - (2) have 50 or more employees, and
        - (a) are prime contractors or first-tier subcontractors, and have a contract, subcontract, or purchase order amounting to \$50,000 or more; or
        - (b) serve as a depository of Government funds in any amount, or
        - (c) is a financial institution which is an issuing and paying agent for U.S. Savings Bonds and Notes.
    - C. Standard Form 100 must be filed with the Joint Reporting Committee no later than September 30. Standard Form 100 is normally furnished to employers annually based on a mailing list maintained by the Joint Reporting Committee. In the event a Contractor has not received the form, it may be obtained from the Joint Reporting Committee, Post Office Box 779, Norfolk, Virginia 23501, telephone (757) 461-1213.

## **70-35 CONTRACT WORK HOURS AND SAFETY STANDARDS ACT REQUIREMENTS 29 CFR PART 5**

1. **Overtime Requirements.** No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic, including watchmen and guards, in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless

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such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

2. **Violation; Liability for Unpaid Wages; Liquidated Damages.** In the event of any violation of the clause set forth in paragraph (1) above, the contractor and any subcontractor responsible therefore shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph 1 above, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph 1 above.
3. **Withholding for Unpaid Wages and Liquidated Damages.** The Federal Aviation Administration or the Sponsor shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any monies payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other Federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph 2 above.
4. **Subcontractors.** The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraphs 1 through 4 and also a clause requiring the subcontractor to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs 1 through 4 of this section.

#### **70-36 ARIZONA DEPARTMENT OF TRANSPORTATION (ADOT) REQUIREMENTS.**

1. This contract must comply with the provisions of Arizona Executive Order 75-5 as amended by Arizona Executive Order 99-4, relating to equal opportunity.
2. The duly authorized representatives of the State shall have access to any books, documents, papers and records of the contractor which are in any way pertinent to the contract for a period of five years, in accordance with A.R.S. 35-214, for the purpose of making inspections, audits, examinations, excerpts and transcriptions.
3. That all construction contractors and sub-contractors hired to perform services, shall be in compliance with A.R.S. 32.1101 through 32.1170.03.
4. Prior to final payment of funds for work performed under this Agreement, the State may perform an inspection of the work site to assure compliance with the terms herein and to review the workmanship of the Sponsor's contractor. No inspector is authorized to change any provisions of this Agreement or any provisions of Agreements between the Sponsor and the Sponsor's contractor.
5. Any changes to the construction contract documents, authorized by the Sponsor, must be approved by the State prior to being implemented by the Sponsor in order to be eligible for reimbursement under the grant.

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**70-37 CONTRACTOR IMMIGRATION WARRANTY.** Compliance with Federal and State Laws. The Contractor understands and acknowledges the applicability to it of the Americans with Disabilities Act, the Immigration Reform and Control Act of 1986 and the Drug Free Workplace Act of 1989. The following is only applicable to construction contracts: The Contractor must also comply with A.R.S. §34-301, "Employment of Aliens on Public Works Prohibited," and A.R.S. §34-302, as amended, "Residence Requirements for Employees."

Under the provisions of A.R.S. §41-4401, Contractor hereby warrants to the City that the Contractor and each of its subcontractors ("Subcontractors") will comply with, and are contractually obligated to comply with all Federal Immigration laws and regulations that relate to their employees and A.R.S. §23-214(A) (hereinafter "Contractor Immigration Warranty").

A breach of the Contractor Immigration Warranty shall constitute a material breach of this Contract and shall subject the Contractor to penalties up to and including termination of this Contract at the sole discretion of the City.

The City retains the legal right to inspect the papers of any Contractor or Subcontractor's employee who works on this Contract to ensure that the Contractor or Subcontractor is complying with the Contractor Immigration Warranty. Contractor agrees to assist the City in regard to any such inspections.

The City may, at its sole discretion, conduct random verification of the employment records of the Contractor and any of its Subcontractors to ensure compliance with the Contractor's Immigration Warranty. Contractor agrees to assist the City in regard to any random verifications performed.

Neither the Contractor nor any Subcontractor shall be deemed to have materially breached the Contractor Immigration Warranty if the Contractor or Subcontractor establishes that it has complied with the employment verification provisions prescribed by sections 274A and 274B of the Federal Immigration and Nationality Act and the E-Verify requirements prescribed by A.R.S. §23-214 Subsection A.

The provisions of this Article must be included in any contract the Contractor enters into with any and all of its subcontractors who provide services under this Contract or any subcontract. "Services" are defined as furnishing labor, time or effort in the State of Arizona by a contractor or subcontractor. Services include construction or maintenance of any structure, building or transportation facility or improvement to real property.

## CONTRACTOR'S DBE PLAN

(Submit this form and attach one DBE Letter of Intent Form for each DBE subcontractor, supplier or manufacturer.)

Project Name/Location: AWOS Installation Project, Cottonwood Municipal Airport, Cottonwood, AZ

FAA AIP Project No: 3-04-0012-015

Total Awarded Contract Amount: \$

Name of Bidder's Firm: \_\_\_\_\_

Street Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Printed name of signer: \_\_\_\_\_

Printed title of signer: \_\_\_\_\_

### DBE UTILIZATION SUMMARY

	<u>DBE Contract Amount</u>	<u>DBE Value</u>	<u>Contract %</u>
DBE Prime Contractor	\$ _____ x 1.00 =	\$ _____	_____ %
DBE Subcontractors	\$ _____ x 1.00 =	\$ _____	_____ %
DBE Suppliers	\$ _____ x 0.60 =	\$ _____	_____ %
DBE Manufacturers	\$ _____ x 1.00 =	\$ _____	_____ %
* Total Proposed DBE Participation		\$ _____	_____ %
Established DBE Goal		\$ _____	_____ %

\* If the total proposed DBE participation is less than the established DBE goal, Bidder must provide written documentation of the good faith efforts as required by 49 CFR Part 26.

**Affirmation:**

The undersigned hereby assures that the information included herein is true and correct, and that the DBE firm(s) listed on the attached DBE Letter of Intent Forms have agreed to perform a commercially useful function in the work items noted for each firm. The undersigned further understands that no changes to this plan may be made without prior approval from the Civil Rights Staff of the Federal Aviation Administration.

By: \_\_\_\_\_  
(Signature of Bidder's representative)
(Title)



**DISADVANTAGE BUSINESS ENTERPRISE  
DBE PARTICIPATION SUMMARY**  
(Submit one form for each DBE Firm.)

**Contractor** Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

**DBE Firm** DBE Firm: \_\_\_\_\_  
Address: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

**DBE Contact Person** Name: \_\_\_\_\_ Phone: \_\_\_\_\_

**DBE Certification Agency:** \_\_\_\_\_ **Expiration Date:** \_\_\_\_\_

*Each DBE Firm shall submit evidence (such as a photocopy) of their certification status.*

**DBE Commitments/Awards  
-Breakdown By  
Ethnicity & Gender**

<input type="checkbox"/> Black American	<input type="checkbox"/> Asian-Pacific American
<input type="checkbox"/> Hispanic American	<input type="checkbox"/> Non-Minority Women
<input type="checkbox"/> Native American	<input type="checkbox"/> Other (i.e. not of any other group listed here)
<input type="checkbox"/> Subcont. Asian American	

**Classification:**

<input type="checkbox"/> Prime Contractor	<input type="checkbox"/> Supplier
<input type="checkbox"/> Manufacturer	<input type="checkbox"/> Joint Venture
<input type="checkbox"/> Subcontractor	

Work items performed by DBE	Description	Quantity	Amount Paid to DBE

The Contractor utilized the above-named DBE Firm for the work items described above.  
The actual participation is as follows:

Total amount paid to DBE Firm:	\$ _____	Percent of Contractor's total contract:	_____ %
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**Affirmation:**  
The above-named DBE Firm affirms that it has performed the work items described above and has been paid the amount stated above.

By: \_\_\_\_\_  
(Signature) (Title)

# Equal Employment Opportunity is THE LAW

## Private Employers, State and Local Governments, Educational Institutions, Employment Agencies and Labor Organizations

Applicants to and employees of most private employers, state and local governments, educational institutions, Employment agencies, and labor organizations are protected under Federal law from discrimination on the following bases.

### **RACE, COLOR, RELIGION, SEX, NATIONAL ORIGIN**

Title VII of the Civil Rights Act of 1964, as amended, protects applicants and employees from discrimination in hiring, promotion, discharge, pay, fringe benefits, job training, classification, referral, and other aspects of employment, on the basis of race, color, religion, sex (including pregnancy), or national origin. Religious discrimination includes failing to reasonably accommodate an employee's religious practices where the accommodation does not impose undue hardship.

### **DISABILITIES**

Title I and Title V of the Americans with Disabilities Act of 1990, as amended, protect qualified individuals from discrimination on the basis of disability in hiring, promotion, discharge, pay, fringe benefits, job training, classification, referral, and other aspects of employment. Disability discrimination includes not making reasonable accommodation to the known physical or mental limitations of an otherwise qualified individual with a disability who's is an applicant or employee, barring undue hardship.

### **AGE**

The Age Discrimination in Employment Act of 1967, as amended, protects applicants and employees 40 years of age or older from discrimination based on age in hiring, promotion, discharge, pay, fringe benefits, job training, classification, referral, and other aspects of employment.

### **SEX (WAGES)**

In addition to sex discrimination prohibited by Title VII of the Civil Rights Act, as amended, the Equal Pay Act of 1963, as amended, prohibits sex discrimination in payment of wages to women and men performing substantially equal work jobs that require equal skill, effort, and responsibility, under similar working conditions, in the same establishment.

### **GENETICS**

Title II of the Genetic Information Nondiscrimination Act of 2008 protects applicants and employees from discrimination based on genetic information in hiring, promotion, discharge, pay, fringe benefits, job training, classification, referral, and other aspects of employment. GINA also restricts employers' acquisition of genetic information and strictly limits disclosure of genetic information. Genetic information includes information about genetic tests of applicants, employees, or their family members; the manifestation of diseases or disorders in family members (family medical history); and requests for or receipt of genetic services by applicants, employees, or their family members.

### **RETALIATION**

All of these Federal laws prohibit covered entities from retaliating against a person who files a charge of discrimination, participates in a discrimination proceeding, or otherwise opposes an unlawful employment practice.

### **WHAT TO DO IF YOU BELIEVE DISCRIMINATION HAS OCCURRED**

There are strict time limits for filing charges of employment discrimination. To preserve the ability of EEOC to act on your behalf and to protect your right to file a private lawsuit, should you ultimately need to, you should contact EEOC promptly when discrimination is suspected:

The U.S. Equal Employment Opportunity Commission (EEOC), 1-800-669-4000 (toll-free) or 1-800-669-6820 (toll-free TTY number for individuals with hearing impairments). EEOC field office information is available at [www.eeoc.gov](http://www.eeoc.gov) or in most telephone directories in the U.S. Government or Federal Government section. Additional information about EEOC, including information about charge filing, is available at [www.eeoc.gov](http://www.eeoc.gov).

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## Employers Holding Federal Contracts or Subcontracts

Applicants to and employees of companies with a Federal government contract or subcontract, are protected under Federal law from discrimination on the following bases.

### **RACE, COLOR, RELIGION, SEX, NATIONAL ORIGIN**

Executive Order 11246, as amended, prohibits job discrimination on the basis of race, color, religion, sex or national origin, and requires affirmative action to ensure equality of opportunity in all aspects of employment.

### **INDIVIDUALS WITH DISABILITIES**

Section 503 of the Rehabilitation Act of 1973, as amended, protects qualified individuals from discrimination on the basis of disability in hiring, promotion, discharge, pay, fringe benefits, job training, classification, referral, and other aspects of employment. Disability discrimination includes not making reasonable accommodation to the known physical or mental limitations of an otherwise qualified employee, barring undue hardship. Section 503 also requires that Federal contractors take affirmative action to employ and advance in employment qualified individuals with disabilities at all levels of employment, including the executive level.

### **DISABLED, RECENTLY SEPARATED, OTHER PROTECTED, AND ARMED FORCES SERVICE MEDAL VETERANS**

The Vietnam Era Veterans' Readjustment Assistance Act of 1974, as amended, 38 U.S.C. 4212, prohibits job discrimination and requires affirmative action to employ and advance in employment disabled veterans, recently separated veterans (within

three years of discharge or release from active duty), other protected veterans (veterans who served during a war or in a campaign or expedition for which a campaign badge has been authorized), and Armed Forces service medal veterans (veterans who, while on active duty, participated in a U.S. military operation for which an Armed Forces service medal was awarded).

### **RETALIATION**

Retaliation is prohibited against a person who files a complaint of discrimination, participates in an OFCCP proceeding, or otherwise opposes discrimination under these Federal laws.

Any person who believes a contractor has violated its nondiscrimination or affirmative action obligations under the authorities above should contact immediately:

The Office of Federal Contract Compliance Programs (OFCCP), U.S. Department of Labor, 200 Constitution Avenue, N.W., Washington, D.C. 20210, 1-800-397-6251 (toll-free) or (202) 693-1337 (TTY). OFCCP may also be contacted by e-mail at [OFCCP-Public@dol.gov](mailto:OFCCP-Public@dol.gov), or by calling an OFCCP regional or district office, listed in most telephone directories under U.S. Government, Department of Labor.

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## Programs or Activities Receiving Federal Financial Assistance

### **RACE, COLOR, NATIONAL ORIGIN, SEX**

In addition to the protections of Title VII of the Civil Rights Act of 1964, as amended, Title VI of the Civil Rights Act of 1964, as amended, prohibits discrimination on the basis of race, color or national origin in programs or activities receiving Federal financial assistance. Employment discrimination is covered by Title VI if the primary objective of the financial assistance is provision of employment, or where employment discrimination causes or may cause discrimination in providing services under such programs. Title IX of the Education Amendments of 1972 prohibits employment discrimination on the basis of sex in educational programs or activities which receive Federal financial assistance.

### **INDIVIDUALS WITH DISABILITIES**

Section 504 of the Rehabilitation Act of 1973, as amended, prohibits employment discrimination on the basis of disability in any program or activity which receives Federal financial assistance. Discrimination is prohibited in all aspects of employment against persons with disabilities who, with or without reasonable accommodation, can perform the essential functions of the job.

If you believe you have been discriminated against in a program of any institution which receives Federal financial assistance, you should immediately contact the Federal agency providing such assistance.

# FEDERAL WAGE RATES

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General Decision Number: AZ130008 06/14/2013 AZ8

Superseded General Decision Number: AZ20120013

State: Arizona

Construction Type: Highway

Counties: Coconino, Maricopa, Mohave, Pima, Pinal, Yavapai and Yuma Counties in Arizona.

HIGHWAY CONSTRUCTION PROJECTS

Modification Number	Publication Date
0	01/04/2013
1	01/11/2013
2	02/22/2013
3	03/22/2013
4	06/14/2013

CARP0408-005 10/01/2012

	Rates	Fringes
CARPENTER (Including Cement Form Work).....	\$ 23.58	9.49

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ENGI0428-001 01/01/2012

	Rates	Fringes
OPERATOR: Power Equipment		
Group 1.....	\$ 19.89	9.05
Group 2.....	\$ 23.16	9.05
Group 3.....	\$ 24.24	9.05
Group 4.....	\$ 25.27	9.05

POWER EQUIPMENT OPERATORS CLASSIFICATIONS:

GROUP 1: A-frame boom truck, air compressor, Beltcrete, boring bridge and texture, brakeman, concrete mixer (skip type), conductor, conveyor, cross timing and pipe float, curing machine, dinky (under 20 tons), elevator hoist (Husky and similar), firemen, forklift, generator (all), handler, highline cableway signalman, hydrographic mulcher, joint inserter, jumbo finishing machine, Kolman belt loader, machine conveyor, multiple power concrete saw, pavement breaker, power grizzly, pressure grout machine, pump, self-propelled chip spreading machine, slurry seal machine (Moto paver driver), small self-propelled compactor (with blade-backfill, ditch operation), straw blower, tractor (wheel type), tripper, tugger (single drum), welding machine, winch truck

GROUP 2:  
ALL COUNTIES INCLUDING MARICOPA: Aggregate Plant, Asphalt

plant Mixer, Bee Gee, Boring Machine, Concrete Pump, Concrete Mechanical Tamping-Spreading Finishing Machine, Concrete Batch Plant, Concrete Mixer (paving & mobile), Elevating Grader (except as otherwise classified), Field Equipment Serviceman, Locomotive Engineer (including Dinky 20 tons & over), Moto-Paver, Oiler-Driver, Operating Engineer Rigger, Power Jumbo Form Setter, Road Oil Mixing Machine, Self-Propelled Compactor (with blade-grade operation), Slip Form (power driven lifting device for concrete forms), Soil Cement Road Mixing Machine, Pipe-Wrapping & Cleaning Machine (stationary or traveling), Surface Heater & Planer, Trenching Machine, Tugger (2 or more drums).

MARICOPA COUNTY ONLY: Backhoe < 1 cu yd, Motor Grader (rough), Scraper (pneumatic tired), Roller (all types asphalt), Screed, Skip Loader (all types 3<6 cu yd), Tractor (dozer, pusher-all).

GROUP 3:

ALL COUNTIES INCLUDING MARICOPA: Auto Grade Machine, Barge, Boring Machine (including Mole, Badger & similar type directional/horizontal), Crane (crawler & pneumatic 15>100 tons), Crawler type Tractor with boom attachment & slope bar, Derrick, Gradall, Heavy Duty Mechanic-Welder, Helicopter Hoist or Pilot, Highline Cableway, Mechanical Hoist, Mucking Machine, Overhead Crane, Pile Driver Engineer (portable, stationary or skid), Power Driven Ditch Lining or Ditch Trimming Machine, Remote Control Earth Moving Machine, Slip Form Paving Machine (including Gunnert, Zimmerman & similar types), Tower Crane or similar type.

MARICOPA COUNTY ONLY: Backhoe<10 cu yd, Clamshell < 10 cu yd, Concrete Pump (truck mounted with boom only), Dragline <10 cu yd, Grade Checker, Motor Grader (finish-any type power blade), Shovel < 10 cu yd.

GROUP 4: Backhoe 10 cu yd and over, Clamshell 10 cu yd and over, Crane (pneumatic or crawler 100 tons & over), Dragline 10 cu yd and over, Shovel 10 cu yd and over.

All Operators, Oilers, and Motor Crane Drivers on equipment with Booms, except concrete pumping truck booms, including Jibs, shall receive \$0.01 per hour per foot over 80 ft in addition to regular rate of pay

Premium pay for performing hazardous waste removal \$0.50 per hour over base rate.

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IRON0075-004 01/01/2013

COCONINO, MARICOPA, MOHAVE, YAVAPAI & YUMA COUNTIES

	Rates	Fringes
Ironworker, Rebar.....	\$ 26.52	20.65
Zone 1: 0 to 50 miles from City Hall in Phoenix or Tucson		
Zone 2: 050 to 100 miles - Add \$4.00		

Zone 3: 100 to 150 miles - Add \$5.00

Zone 4: 150 miles & over - Add \$6.50

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LABO0383-002 06/01/2010

	Rates	Fringes
Laborers:		
Group 1.....	\$ 17.61	4.35
Group 2.....	\$ 18.63	4.35
Group 3.....	\$ 19.42	4.35
Group 4.....	\$ 20.51	4.35
Group 5.....	\$ 21.49	4.35

LABORERS CLASSIFICATIONS:

GROUP 1: All Counties: Chipper, Rip Rap Stoneman. Pinal County Only: General/Cleanup Laborer. Maricopa County Only: Flagger.

GROUP 2: Asphalt Laborer (Shoveling-excluding Asphalt Raker or Ironer), Bander, Cement Mason Tender, Concrete Mucker, Cutting Torch Operator, Fine Grader, Guinea Chaser, Power Type Concrete Buggy

GROUP 3: Chain Saw, Concrete Small Tools, Concrete Vibrating Machine, Cribber & Shorer (except tunnel), Hydraulic Jacks and similar tools, Operator and Tender of Pneumatic and Electric Tools (not herein separately classified), Pipe Caulker and Back-Up Man-Pipeline, Pipe Wrapper, Pneumatic Gopher, Pre-Cast Manhole Erector, Rigger and Signal Man-Pipeline

GROUP 4: Air and Water Washout Nozzleman; Bio-Filter, Pressman, Installer, Operator; Scaffold Laborer; Chuck Tender; Concrete Cutting Torch; Gunite; Hand-Guided Trencher; Jackhammer and/or Pavement Breaker; Scaler (using boson's chair or safety belt); Tamper (mechanical all types).

GROUP 5: AC Dumpman, Asbestos Abatement, Asphalt Raker II, Drill Doctor/Air Tool Repairman, Hazardous Waste Removal, Lead Abatement, Lead Pipeman, Process Piping Installer, Scaler (Driller), Pest Technician/Weed Control, Scissor Lift, Hydro Mobile Scaffold Builder.

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\* PAIN0086-001 04/01/2013

	Rates	Fringes
PAINTER		
PAINTER (Yavapai County only), SAND BLASTER/WATER BLASTER (all Counties).....	\$ 19.35	4.75

ZONE PAY: More than 100 miles from Old Phoenix Courthouse \$3.50 additional per hour.

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SUAZ2009-001 04/20/2009

	Rates	Fringes
CEMENT MASON.....	\$ 19.28	3.99
ELECTRICIAN.....	\$ 22.84	6.48
IRONWORKER (Rebar)		
Pima County.....	\$ 23.17	14.83
Pinal County.....	\$ 20.27	8.35
LABORER		
Asphalt Raker.....	\$ 15.49	3.49
Compaction Tool Operator....	\$ 14.59	2.91
Concrete Worker.....	\$ 13.55	3.20
Concrete/Asphalt Saw.....	\$ 13.95	2.58
Driller-Core, diamond, wagon, air track.....	\$ 16.94	3.12
Dumpman Spotter.....	\$ 14.99	3.16
Fence Builder.....	\$ 13.28	2.99
Flagger		
Coconino, Mohave, Pima, Pinal, Yavapai & Yuma.....	\$ 12.35	1.59
Formsetter.....	\$ 16.09	3.97
General/Cleanup Laborer		
Coconino, Maricopa, Mohave, Pima, Yavapai & Yuma.....	\$ 14.54	3.49
Grade Setter (Pipeline)....	\$ 17.83	5.45
Guard Rail Installer.....	\$ 13.28	2.99
Landscape Laborer.....	\$ 11.39	
Landscape Sprinkler Installer.....	\$ 15.27	
Pipelayer.....	\$ 14.81	2.96
Powderman, Hydrasonic.....	\$ 16.39	2.58
OPERATOR: Power Equipment		
Asphalt Laydown Machine.....	\$ 21.19	6.05
Backhoe < 1 cu yd		
Coconino, Mohave, Pima, Pinal, Yavapai & Yuma.....	\$ 17.37	3.85
Backhoe < 10 cu yd		
Coconino, Mohave, Pima, Pinal, Yavapai & Yuma.....	\$ 18.72	3.59
Clamshell < 10 cu yd		
Coconino, Mohave, Pima, Pinal, Yavapai & Yuma.....	\$ 18.72	3.59
Concrete Pump (Truck Mounted with boom only)		
Coconino, Mohave, Pima, Pinal, Yavapai & Yuma.....	\$ 19.92	7.10
Crane (under 15 tons).....	\$ 21.35	7.36
Dragline (up to 10 cu yd)		
Coconino, Mohave, Pima, Pinal, Yavapai & Yuma.....	\$ 18.72	3.59
Drilling Machine (including Water Wells).....	\$ 20.58	5.65
Grade Checker		
Coconino, Mohave, Pima, Pinal, Yavapai & Yuma.....	\$ 16.04	3.68
Hydrographic Seeder.....	\$ 15.88	7.67

Mass Excavator.....	\$ 20.97	4.28
Milling Machine/Rotomill....	\$ 21.42	7.45
Motor Grader (Finish-any type power blade) Coconino, Mohave, Pima, Pinal, Yavapai & Yuma.....	\$ 21.92	4.66
Motor Grader (Rough) Coconino, Mohave, Pima, Pinal, Yavapai & Yuma.....	\$ 20.07	4.13
Oiler.....	\$ 18.15	8.24
Power Sweeper.....	\$ 16.76	4.44
Roller (all types Asphalt) Coconino, Mohave, Pima, Pinal, Yavapai & Yuma.....	\$ 18.27	3.99
Roller (exclt) asphalt).. Coconino, Mohave, Pima, Pinal, Yavapai & Yuma.....	\$ 15.65	3.32
Scraper (pneumatic tired) Coconino, Mohave, Pima, Pinal, Yavapai & Yuma.....	\$ 17.69	3.45
Screed Coconino, Mohave, Pima, Pinal, Yavapai & Yuma.....	\$ 17.54	3.72
Shovel < 10 cu yd Coconino, Mohave, Pima, Pinal, Yavapai & Yuma.....	\$ 18.72	3.59
Skip Loader (all types <3 cu yd).....	\$ 18.28	5.30
Skip Loader (all types 3 < 6 cu yd) Coconino, Mohave, Pima, Pinal, Yavapai & Yuma.....	\$ 18.64	4.86
Skip Loader (all types 6 < 10 cu yd).....	\$ 20.15	4.52
Tractor (dozer, pusher - all) Coconino, Mohave, Pima, Pinal, Yavapai & Yuma.....	\$ 17.26	2.65

PAINTER

Coconino, Maricopa, Mohave, Pima, Pinal & Yuma..	\$ 15.57	3.92
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TRUCK DRIVER

2 or 3 Axle Dump or Flatrack.....	\$ 16.27	3.30
5 Axle Dump or Flatrack.....	\$ 13.97	2.89
6 Axle Dump or Flatrack (< 16 cu yd).....	\$ 17.79	6.42
Belly Dump.....	\$ 14.67	
Oil Tanker Bootman.....	\$ 22.03	
Self-Propelled Street Sweeper.....	\$ 13.11	5.48
Water Truck 2500 < 3900 gallons.....	\$ 18.14	4.55
Water Truck 3900 gallons and over.....	\$ 15.92	3.33
Water Truck under 2500 gallons.....	\$ 15.94	4.16

WELDERS - Receive rate prescribed for craft performing

operation to which welding is incidental.

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Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

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The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is union or non-union.

#### Union Identifiers

An identifier enclosed in dotted lines beginning with characters other than "SU" denotes that the union classification and rate have found to be prevailing for that classification. Example: PLUM0198-005 07/01/2011. The first four letters, PLUM, indicate the international union and the four-digit number, 0198, that follows indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. The date, 07/01/2011, following these characters is the effective date of the most current negotiated rate/collective bargaining agreement which would be July 1, 2011 in the above example.

Union prevailing wage rates will be updated to reflect any changes in the collective bargaining agreements governing the rates.

0000/9999: weighted union wage rates will be published annually each January.

#### Non-Union Identifiers

Classifications listed under an "SU" identifier were derived from survey data by computing average rates and are not union rates; however, the data used in computing these rates may include both union and non-union data. Example: SULA2004-007 5/13/2010. SU indicates the rates are not union majority rates, LA indicates the State of Louisiana; 2004 is the year of the survey; and 007 is an internal number used in producing the wage determination. A 1993 or later date, 5/13/2010, indicates the classifications and rates under that identifier were issued as a General Wage Determination on that date.

Survey wage rates will remain in effect and will not change until a new survey is conducted.

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#### WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- \* an existing published wage determination
- \* a survey underlying a wage determination
- \* a Wage and Hour Division letter setting forth a position on a wage determination matter
- \* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations  
Wage and Hour Division  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION

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## **Section 80 Prosecution and Progress**

**80-01 SUBLETTING OF CONTRACT.** The Owner will not recognize any subcontractor on the work. The Contractor shall at all times when work is in progress be represented either in person, by a qualified superintendent, or by other designated, qualified representative who is duly authorized to receive and execute orders of the Engineer.

All Subcontractors shall be approved by the Owner prior to being utilized on the project. The Subcontractor shall submit a Subcontractor Approval Request to the Engineer fourteen (14) days prior to beginning work on the project. As a minimum, the information shall include the following:

- Subcontractor's legal company name.
- Subcontractor's legal company address, including County name.
- Principal contact person's name, telephone and fax number.
- Complete narrative description, and dollar value of the work to be performed by the subcontractor.
- Copies of required insurance certificates in accordance with the specifications.
- Minority/ non-minority status.

Should the Contractor elect to assign his/her contract, said assignment shall be concurred in by the surety, shall be presented for the consideration and approval of the Owner, and shall be consummated only on the written approval of the Owner. In case of approval, the Contractor shall file copies of all subcontracts with the Engineer.

The Contractor shall perform, with his organization, an amount of work equal to at least 25 percent of the total contract cost.

**80-02 NOTICE TO PROCEED.** The notice to proceed will be issued by the Owner and shall state the date on which it is expected the Contractor will begin the construction and from which date contract time will be charged. The Contractor shall notify the Engineer at least 24 hours in advance of the time actual construction operations will begin.

**80-03 PROSECUTION AND PROGRESS.** Unless otherwise specified, the Contractor shall submit his/her coordinated construction schedule showing all work activities for the Engineer's approval at least 10 days prior to the start of work. The Contractor's progress schedule, when approved by the Engineer, may be used to establish major construction operations and to check on the progress of the work. The Contractor shall provide sufficient materials, equipment, and labor to guarantee the completion of the project in accordance with the plans and specifications within the time set forth in the proposal.

The schedule shall be prepared as a network diagram in Critical Path Method (CPM), PERT, or other format, or as otherwise specified in the contract for each work area. As a minimum, it shall provide information on the sequence of work activities, start and end dates for each work area, milestone dates, and activity duration. The schedule shall reflect time for delivery of equipment that will impact the schedule as it relates to contract time. The schedule should also include overall project start and end dates.

The Contractor shall maintain the work schedule and provide an update and analysis of the progress schedule on a bi-weekly basis, or as otherwise specified in the contract. Submission of the work schedule shall not relieve the Contractor of overall responsibility for scheduling, sequencing, and coordinating all work to comply with the requirements of the contract.

If the Contractor falls significantly behind the submitted schedule, the Contractor shall, upon the Engineer's request, submit a revised schedule for completion of the work within the contract time and

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modify his/her operations to provide such additional materials, equipment, and labor necessary to meet the revised schedule. Should the prosecution of the work be discontinued for any reason, the Contractor shall notify the Engineer at least 3 days in advance of resuming operations.

The Contractor shall not commence any construction activities prior to the date stated in the notice to proceed.

The Contractor shall maintain the work schedule and provide an update and analysis of the progress schedule on a bi-weekly basis, or as otherwise specified in the contract. Submission of the work schedule shall not relieve the Contractor of overall responsibility for scheduling, sequencing, and coordinating all work to comply with the requirements of the contract.

**80-04 LIMITATION OF OPERATIONS.** The Contractor shall control his/her operations and the operations of his/her subcontractors and all suppliers so as to provide for the free and unobstructed movement of aircraft in the AIR OPERATIONS AREAS (AOA) of the airport.

When the work requires the Contractor to conduct his/her operations within an AOA of the airport, the work shall be coordinated with airport operations (through the Engineer) at least 48 hours prior to commencement of such work. The Contractor shall not close an AOA until so authorized by the Engineer and until the necessary temporary marking and associated lighting is in place as provided in the subsection titled BARRICADES, WARNING SIGNS, AND HAZARD MARKINGS of Section 70.

When the contract work requires the Contractor to work within an AOA of the airport on an intermittent basis (intermittent opening and closing of the AOA), the Contractor shall maintain constant communications as hereinafter specified; immediately obey all instructions to vacate the AOA; immediately obey all instructions to resume work in such AOA. Failure to maintain the specified communications or to obey instructions shall be cause for suspension of the Contractor's operations in the AOA until the satisfactory conditions are provided. The following AOA cannot be closed to operating aircraft to permit the Contractor's operations on a continuous basis and will therefore be closed to aircraft operations intermittently as follows:

Not Applicable

Contractor shall be required to conform to safety standards contained in AC 150/5370-2, Operational Safety on Airports During Construction (See Special Provisions).

**80-04.1 OPERATIONAL SAFETY ON AIRPORT DURING CONSTRUCTION.** All Contractors' operations shall be conducted in accordance with the project Construction Safety and Phasing Plan (CSPP) and the provisions set forth within the current version of Advisory Circular 150/5370-2. The CSPP included within the contract documents conveys minimum requirements for operational safety on the airport during construction activities. The Contractor shall prepare and submit a Safety Plan Compliance Document (SPCD) that details how it proposes to comply with the requirements presented within the CSPP.

The Contractor shall implement all necessary CSPP measures prior to commencement of any work activity. The Contractor shall conduct routine checks of the work site to assure compliance with the CSPP.

The Contractor is responsible to the Owner for the conduct of all subcontractors it employs on the project. The Contractor shall assure that all subcontractors are made aware of the requirements of the CSPP and that they implement and maintain all necessary measures.

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No deviation or modifications may be made to the approved CSPP unless approved in writing by the Owner or Engineer. If the requested changes are acceptable to all the aforementioned parties, the Engineer will request a modification to the CSPP from the FAA. The Contractor shall plan on a minimum of 90 days for this process to be completed. No deviation to the original CSPP shall be made without FAA approval.

**80-05 CHARACTER OF WORKERS, METHODS, AND EQUIPMENT.** The Contractor shall, at all times, employ sufficient labor and equipment for prosecuting the work to full completion in the manner and time required by the contract, plans, and specifications.

All workers shall have sufficient skill and experience to perform properly the work assigned to them. Workers engaged in special work or skilled work shall have sufficient experience in such work and in the operation of the equipment required to perform the work satisfactorily.

Any person employed by the Contractor or by any subcontractor who violates any operational regulations and, in the opinion of the Engineer, does not perform his work in a proper and skillful manner or is intemperate or disorderly shall, at the written request of the Engineer, be removed forthwith by the Contractor or subcontractor employing such person, and shall not be employed again in any portion of the work without approval of the Engineer.

Should the Contractor fail to remove such persons or person, or fail to furnish suitable and sufficient personnel for the proper prosecution of the work, the Engineer may suspend the work by written notice until compliance with such orders.

All equipment that is proposed to be used on the work shall be of sufficient size and in such mechanical condition as to meet requirements of the work and to produce a satisfactory quality of work. Equipment used on any portion of the work shall be such that no injury to previously completed work, adjacent property, or existing airport facilities will result from its use.

When the methods and equipment to be used by the Contractor in accomplishing the work are not prescribed in the contract, the Contractor is free to use any methods or equipment that will accomplish the work in conformity with the requirements of the contract, plans, and specifications.

When the contract specifies the use of certain methods and equipment, such methods and equipment shall be used unless others are authorized by the Engineer. If the Contractor desires to use a method or type of equipment other than specified in the contract, he may request authority from the Engineer to do so. The request shall be in writing and shall include a full description of the methods and equipment proposed and of the reasons for desiring to make the change. If approval is given, it will be on the condition that the Contractor will be fully responsible for producing work in conformity with contract requirements. If, after trial use of the substituted methods or equipment, the Engineer determines that the work produced does not meet contract requirements, the Contractor shall discontinue the use of the substitute method or equipment and shall complete the remaining work with the specified methods and equipment. The Contractor shall remove any deficient work and replace it with work of specified quality, or take such other corrective action as the Engineer may direct. No change will be made in basis of payment for the contract items involved nor in contract time as a result of authorizing a change in methods or equipment under this subsection.

**80-06 TEMPORARY SUSPENSION OF THE WORK.** The Owner shall have the authority to suspend the work wholly, or in part, for such period or periods as he may deem necessary, due to unsuitable weather, or such other conditions as are considered unfavorable for the prosecution of the work, or for such time as is necessary due to the failure on the part of the Contractor to carry out orders given or perform any or all provisions of the contract.

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In the event that the Contractor is ordered by the Owner, in writing, to suspend work for some unforeseen cause not otherwise provided for in the contract and over which the Contractor has no control, the Contractor may be reimbursed for actual money expended on the work during the period of shutdown. No allowance will be made for anticipated profits. The period of shutdown shall be computed from the effective date of the Engineer's order to suspend work to the effective date of the Engineer's order to resume the work. Claims for such compensation shall be filed with the Engineer within the time period stated in the Engineer's order to resume work. The Contractor shall submit with his/her claim information substantiating the amount shown on the claim. The Engineer will forward the Contractor's claim to the Owner for consideration in accordance with local laws or ordinances. No provision of this article shall be construed as entitling the Contractor to compensation for delays due to inclement weather, for suspensions made at the request of the Owner, or for any other delay provided for in the contract, plans, or specifications.

If it should become necessary to suspend work for an indefinite period, the Contractor shall store all materials in such manner that they will not become an obstruction nor become damaged in any way. He shall take every precaution to prevent damage or deterioration of the work performed and provide for normal drainage of the work. The Contractor shall erect temporary structures where necessary to provide for traffic on, to, or from the airport.

**80-07 DETERMINATION AND EXTENSION OF CONTRACT TIME.** The number of calendar or working days allowed for completion of the work shall be stated in the proposal and contract and shall be known as the CONTRACT TIME.

Should the contract time require extension for reasons beyond the Contractor's control, it shall be adjusted as follows:

- a. CONTRACT TIME based on WORKING DAYS shall be calculated weekly by the Engineer. The Engineer will furnish the Contractor a copy of his/her weekly statement of the number of working days charged against the contract time during the week and the number of working days currently specified for completion of the contract (the original contract time plus the number of working days, if any, that have been included in approved CHANGE ORDERS or SUPPLEMENTAL AGREEMENTS covering EXTRA WORK).

The Engineer shall base his/her weekly statement of contract time charged on the following considerations:

- (1) No time shall be charged for days on which the Contractor is unable to proceed with work on the items under construction at the time with the normal work force employed on such items. Such days on which the Contractor chooses to engage in work which require the presence of an inspector will be charged against contract time. Conditions beyond the Contractor's control such as strikes, lockouts, unusual delays in transportation, temporary suspension of the principal item of work under construction or temporary suspension of the entire work which have been ordered by the Owner for reasons not the fault of the Contractor, shall not be charged against the contract time.
- (2) The Engineer will begin charges against the contract time on the date stated in the notice to proceed.
- (3) The Engineer will begin charges against the contract time on the first working day after the effective date of the notice to proceed.

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- (4) The Engineer will not make charges against the contract time after the date of final acceptance as defined in the subsection titled FINAL ACCEPTANCE of Section 50.
  - (5) The Contractor will be allowed 1 week in which to file a written protest setting forth his/her objections to the Engineer's weekly statement. If no objection is filed within such specified time, the weekly statement shall be considered as acceptable to the Contractor.

The contract time is based on the originally estimated quantities as described in the subsection titled INTERPRETATION OF ESTIMATED PROPOSAL QUANTITIES of Section 20. Should the satisfactory completion of the contract require performance of work in greater quantities than those estimated in the proposal, the contract time shall be increased in the same proportion as the cost of the actually completed quantities bears to the cost of the originally estimated quantities in the proposal. Such increase in contract time shall not consider either the cost of work or the extension of contract time that has been covered by change order or supplemental agreement and shall be made at the time of final payment.

- b. CONTRACT TIME based on CALENDAR DAYS shall consist of the number of calendar days stated in the contract counting from the effective date of the notice to proceed and including all Saturdays, Sundays, holidays, and nonwork days. All calendar days elapsing between the effective dates of the Owner's orders to suspend and resume all work, due to causes not the fault of the Contractor, shall be excluded.

At the time of final payment, the contract time shall be increased in the same proportion as the cost of the actually completed quantities bears to the cost of the originally estimated quantities in the proposal. Such increase in the contract time shall not consider either cost of work or the extension of contract time that has been covered by a change order or supplemental agreement. Charges against the contract time will cease as of the date of final acceptance.

- c. When the contract time is a specified completion date, it shall be the date on which all contract work shall be substantially completed.

If the Contractor finds it impossible for reasons beyond his/her control to complete the work within the contract time as specified, or as extended in accordance with the provisions of this subsection, he may, at any time prior to the expiration of the contract time as extended, make a written request to the Engineer for an extension of time setting forth the reasons which he believes will justify the granting of his/her request. Requests for extension of time on calendar day projects, caused by inclement weather, shall be supported with National Weather Bureau data showing the actual amount of inclement weather exceeded which could normally be expected during the contract period. The Contractor's plea that insufficient time was specified is not a valid reason for extension of time. If the Engineer finds that the work was delayed because of conditions beyond the control and without the fault of the Contractor, he may extend the time for completion in such amount as the conditions justify. The extended time for completion shall then be in full force and effect, the same as though it were the original time for completion.

**80-08 FAILURE TO COMPLETE ON TIME.** For each partial calendar day or partial working day, as specified in the contract, that any work remains uncompleted after the contract time (including all extensions and adjustments as provided in the subsection titled DETERMINATION AND EXTENSION OF CONTRACT TIME of this Section) the sum of one thousand dollars (\$1,000) will be deducted from any money due or to become due the Contractor or his/her surety. Such deducted sums shall not be deducted as a penalty but shall be considered as liquidation of a reasonable portion of damages including but not limited to additional engineering services that will be incurred by the Owner should the Contractor fail to complete the work in the time provided in his/her contract.

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The work of this Contract and time charged shall commence on the date stated in the written Notice to Proceed. The Contract Time shall be 30 **CALENDAR DAYS** and means that all of the work of the Contract is complete and in operating order.

Permitting the Contractor to continue and finish the work or any part of it after the time fixed for its completion, or after the date to which the time for completion may have been extended, will in no way operate as a waiver on the part of the Owner of any of its rights under the contract.

**80-09 DEFAULT AND TERMINATION OF CONTRACT.** The Contractor shall be considered in default of his/her contract and such default will be considered as cause for the Owner to terminate the contract for any of the following reasons if the Contractor:

- a. Fails to begin the work under the contract within the time specified in the "Notice to Proceed," or
- b. Fails to perform the work or fails to provide sufficient workers, equipment or materials to assure completion of work in accordance with the terms of the contract, or
- c. Performs the work unsuitably or neglects or refuses to remove materials or to perform anew such work as may be rejected as unacceptable and unsuitable, or
- d. Discontinues the prosecution of the work, or
- e. Fails to resume work which has been discontinued within a reasonable time after notice to do so, or
- f. Becomes insolvent or is declared bankrupt, or commits any act of bankruptcy or insolvency, or
- g. Allows any final judgment to stand against him unsatisfied for a period of 10 days, or
- h. Makes an assignment for the benefit of creditors, or
- i. For any other cause whatsoever, fails to carry on the work in an acceptable manner.

Should the Engineer consider the Contractor in default of the contract for any reason hereinbefore, he shall immediately give written notice to the Contractor and the Contractor's surety as to the reasons for considering the Contractor in default and the Owner's intentions to terminate the contract.

If the Contractor or surety, within a period of 10 days after such notice, does not proceed in accordance therewith, then the Owner will, upon written notification from the Engineer of the facts of such delay, neglect, or default and the Contractor's failure to comply with such notice, have full power and authority without violating the contract, to take the prosecution of the work out of the hands of the Contractor. The Owner may appropriate or use any or all materials and equipment that have been mobilized for use in the work and are acceptable and may enter into an agreement for the completion of said contract according to the terms and provisions thereof, or use such other methods as in the opinion of the Engineer will be required for the completion of said contract in an acceptable manner.

All costs and charges incurred by the Owner, together with the cost of completing the work under contract, will be deducted from any monies due or which may become due the Contractor. If such expense exceeds the sum which would have been payable under the contract, then the Contractor and the surety shall be liable and shall pay to the Owner the amount of such excess.

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**80-10 TERMINATION FOR NATIONAL EMERGENCIES.** The Owner shall terminate the contract or portion thereof by written notice when the Contractor is prevented from proceeding with the construction contract as a direct result of an Executive Order of the President with respect to the prosecution of war or in the interest of national defense.

When the contract, or any portion thereof, is terminated before completion of all items of work in the contract, payment will be made for the actual number of units or items of work completed at the contract price or as mutually agreed for items of work partially completed or not started. No claims or loss of anticipated profits shall be considered.

Reimbursement for organization of the work, and other overhead expenses, (when not otherwise included in the contract) and moving equipment and materials to and from the job will be considered, the intent being that an equitable settlement will be made with the Contractor.

Acceptable materials, obtained or ordered by the Contractor for the work and that are not incorporated in the work shall, at the option of the Contractor, be purchased from the Contractor at actual cost as shown by receipted bills and actual cost records at such points of delivery as may be designated by the Engineer.

Termination of the contract or a portion thereof shall neither relieve the Contractor of his/her responsibilities for the completed work nor shall it relieve his/her surety of its obligation for and concerning any just claim arising out of the work performed.

**80-11 WORK AREA, STORAGE AREA AND SEQUENCE OF OPERATIONS.** The Contractor shall obtain approval from the Engineer prior to beginning any work in all areas of the airport. No operating runway, taxiway, or Air Operations Area (AOA) shall be crossed, entered, or obstructed while it is operational. The Contractor shall plan and coordinate his/her work in such a manner as to insure safety and a minimum of hindrance to flight operations. All Contractor equipment and material stockpiles shall be stored a minimum of 250 feet from the centerline of an active runway. No equipment will be allowed to park within the approach area of an active runway at any time. No equipment shall be within 100 feet of an active runway at any time.

END OF SECTION 80

**ATTACHMENT “A”**

**TO**

**SECTION 80**

**CONSTRUCTION SAFETY AND  
PHASING PLAN (CSPP)**

**FOR THE CONSTRUCTION OF**

**AWOS INSTALLATION PROJECT**

**AT**

**COTTONWOOD MUNICIPAL AIRPORT**

**FAA AIP NO.: 3-04-0012-015**

**ADOT NO.: \_\_\_\_\_**

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## **CONSTRUCTION AND SAFETY PHASING PLAN (CSPP)**

### **1.0 PURPOSE.**

Aviation safety is the primary consideration at airports, especially during construction. The airport owner's Construction Safety and Phasing Plan (CSPP) and the contractor's Safety Plan Compliance Document (SPCD) are the primary tools to ensure safety compliance when coordinating construction activities with airport operations. These documents identify all aspects of the construction project that pose a potential safety hazard to airport operations and outline respective mitigation procedures for each hazard.

The CSPP sets forth benchmarks and requirements for the project to help ensure the highest levels of safety, security and efficiency at the airport at the time of construction. Requirements for this CSPP were developed from FAA Advisory Circular (AC) 150/5370-2 Operational Safety on Airports During Construction, latest edition.

The CSPP is a standalone document, written to correspond with the safety and security requirements set forth in the AC, the airport safety and security requirements, and local codes and requirements. The CSPP is to be used by all personnel involved in the project. The CSPP covers the actions of not only the construction personnel and equipment, but also the action of inspection personnel and airport staff.

This document has been developed in order to minimize interruptions to airport operations, reduce construction costs, and maximize the performance and safety of construction activity. Strict adherence to the provisions of the CSPP by all personnel assigned to or visiting the construction site is mandatory.

The Contractor shall submit a Safety Plan Compliance Document (SPCD) to the airport owner describing how the Contractor will comply with the requirements set forth in this CSPP. The SPCD must be submitted to the airport owner with the Proposal.

In the event the Contractor's activities are found in non-compliance with the provisions of the CSPP or the SPCD, the Airport Owner's Representative will direct the Contractor, in writing, to immediately cease those operations in violation. In addition, a safety meeting will be conducted for the purpose of reviewing those provisions in the CSPP/SPCD which were violated. The Contractor will not be allowed to resume any construction operations until conclusion of the safety meeting and all corrective actions have been implemented.

### **2.0 SCOPE OF PROJECT AND CSPP.**

The proposed project generally includes the installation of a new AWOS system, including all associated trenching, conduit and conductor to power the system.

Safety, maintaining aircraft operations, and construction costs are all interrelated. Since safety must not be compromised, the airport owner must strike a balance between maintaining aircraft operations and construction costs. This balance will vary widely depending on the operational needs and resources of the airport and will require early coordination with airport users and the FAA. As the project design progresses, the necessary construction locations, activities and associated costs will be identified. As they are identified, their impact to airport operations must be assessed. Adjustments are made to the proposed construction activities, often by phasing the project and/or to airport operations in order to maintain operational safety. This planning effort will ultimately result in a project CSPP. The development of the CSPP takes place through the following five steps:

1. Identify Affected Areas
2. Describe Current Operations
3. Allow for Temporary Changes to Operations
4. Take Required Measures to Revise Operations
5. Manage Safety Risk

### 3.0 PLAN REQUIREMENTS.

#### 3.1 COORDINATION. The following items shall be coordinated as required:

- a. **Pre-construction Meeting.** A preconstruction meeting will be conducted to discuss operational safety, testing, quality control, quality acceptance, security, safety, labor requirements, environmental factors, and other issues. All parties affected by the construction will be asked to attend including, but not limited to, the airport owner, tenants, contractor, subcontractors and Engineer.

At the preconstruction meeting, the Contractor shall submit a plan of operation and schedule of work to the Engineer for approval. The Contractor's plan of operation shall indicate, in detail, the amount of construction planned and the number of shifts and/or overtime operations proposed for the project. The schedule of work shall clearly indicate the sequence of work to be performed. The Contractor shall conform, at all times, to the requirements of these provisions and with current safety practices, rules, regulations and security requirements of Airport Owner. The preconstruction meeting will be held prior to issuance of a Notice to Proceed.

- b. **Contractor Progress Meetings.** A minimum of one progress meeting to discuss scheduling and coordination shall be held each week unless otherwise directed by the Airport Owner, throughout the duration of the Contract, between the Airport Owner, Contractor, Engineer and any other interested parties at a time and place to be designated by the Engineer. These meetings shall include a detailed discussion of construction phasing and safety with regard to the Contractor's compliance with the requirements stipulated in the Contract Documents.

In attendance at these meetings shall be a Contractor's representative with the authority to make decisions concerning the scheduling and coordination of work. Progress meetings shall be facilitated by the Engineer. Operational safety shall be a standing agenda item during progress meetings throughout the construction project.

- c. **Scope or Schedule Changes.** Changes in the Scope of Work or Project Schedule shall be governed by Section 40 and Section 80 of the Contract Documents. Any proposed change that results in a deviation from the established CSPP as expressed by the Contract Documents must be submitted to the FAA and Owner for review and approval. FAA review and approval can be expected to take sixty business days.
- d. **FAA ATO Coordination. No adjustments to NAVAID,** encroachment on facility critical areas, or facility shutdowns are anticipated during construction, so ATO coordination will not be necessary.
- e. **Pre-Paving Meeting.** If paving is included in this project, a pre-paving meeting will be held to discuss the status of preliminary submittals, the Engineer's inspection of the plant and laboratory, test section requirements, paving plan requirements, and production requirements.
- f. **Payment.** The cost of complying with the requirements of this section, including but not limited to scheduling; construction, restoration of surfaces disturbed as a result of the Contractor's operations and all security requirements shall be included under Technical Specification Item M-100, Maintenance and Protection of Traffic.

#### 3.2 PHASING.

- a. **Phase Elements (Work Area(s))**

**Work Area Descriptions:** The work of the project has been divided into 1 area in order to coordinate construction in a way that will minimize interference with Airport operations:

Work Area "A": Includes the AWOS site

**b. Construction Safety Drawings (Construction and Operating Requirements)**

The Contractor shall obtain approval from the Engineer prior to beginning any work in all areas of the airport. No work is expected on runways or taxiways during this project. No active runway or taxiway shall be crossed, entered, or obstructed at any time. The Contractor shall plan and coordinate his/her work in such a manner as to insure safety and a minimum of hindrance to airport operations. All Contractor equipment and material stockpiles shall be stored at locations determined during construction or as shown on the Construction Safety Drawings (Appendix 1). No equipment will be allowed to park within the approach area of an active runway at any time.

During the work under this Contract, the Owner will make such arrangements to coordinate aircraft movements and Airport operations as necessary to conform to the construction procedures as outlined below and as shown on the Contract Drawings. The Contractor shall give adequate notice to the Engineer, so as to afford time to coordinate construction with the Owner. No work shall proceed in any area without prior approval.

The Contractor shall always confine construction operations to the contractor work area and designated haul routes. Contractor personnel, equipment, stored materials, subcontractors and suppliers will not be allowed on any other area within the Air Operations Area and within the Airport boundaries without prior approval of the Owner or Engineer.

The Engineer will perform a visual site assessment before the Contractor occupies the contractor work area. The Contractor shall be held responsible for all repairs and cleanup costs incurred as a result of the Contractor's construction operations. Restoration shall be the complete return of all work areas to the original conditions.

Temporary cables in grass areas shall be marked with barricades.

Prior to the start of construction operations, the Contractor shall perform the following:

- Coordinate issuing Notices to Airmen (NOTAM) with the Airport Owner and Engineer for the construction activities involved at least 48 hours in advance of the work.

At the conclusion of construction operations, the Contractor shall perform the following:

- Test and activate airfield lighting circuits.
- Clean all paved surfaces in accordance with Item M-100, Maintenance and Protection of Traffic.
- Coordinate cancellation of the NOTAMs with the Airport Owner and Engineer.

**Work Area "A":** Work in area A shall be started first. During work in this area, all Airport Operation Areas will remain open to aircraft traffic.

At the start of work in Area A, the Contractor shall perform the following:

- Verify with the Owner that a NOTAM has been issued disabling the lighted windcone at the segmented circle.
- Store equipment and materials in the staging area adjacent to the City's hangar building.
- Disconnect the windcone circuit in the electrical building.
- Access the AWOS site via the apron.

**3.3 AREAS AND OPERATIONS AFFECTED BY THE CONSTRUCTION ACTIVITY.**

Contractor, subcontractor, and supplier employees or any other unauthorized persons shall be restricted from entering an active airport operating area without previous permission from the Airport Owner.

In an emergency situation, the Owner or other designated airport representative may order the Contractor to suspend operations; move personnel, equipment, and materials to a safe location; and stand by until aircraft use is completed.

The Contractor shall cooperate with the airport users through the Engineer, in coordination with airport operations, in scheduling the operations to provide adequate clearance for safe aircraft parking, fueling, maintenance, loading or unloading, maneuvering, taxing operations, or other aircraft operations.

**a. Identification of Affected Areas**

The following is a summary of impacts to the Airport Operations Areas resulting from the proposed construction and work phasing:

Table 3.3A Construction Effect on Airport Operations		
Project	AWOS Installation Project	
Phase	Work Area 1. See Section 3.2.a for description)	
Scope of Work	Install new AWOS including all trenching, conduit and conductor.	
Operational Requirements	Normal (Existing)	Anticipated (During Construction)
RW 14-32 Average Aircraft Operations	GA: Unknown	GA: Unknown
Runway 14-32 ARC	B-1	B-1
RW 14-32 Approach Visibility Minimums	Unknown	Unknown
Runway 14-32 Visual NAVAIDS	PAPI, REIL, Primary Windcone, Secondary Windcones.	PAPI, REIL, Secondary Windcones

**b. Mitigation of effects.**

This CSPP has established specific requirements and operational procedures necessary to maintain the safety and efficiency of airport operations during the construction of this project.

All coordination pertaining to airport operations during construction will go through the Owner’s Representative and the Airport Operations Manager. Any required NOTAM’s to be issued will be sent through the Owner’s Representative and issued by Airport Operations.

**i. Temporary Changes to runway and/or taxiway operations:**

Any affected Airport Operations Areas identified in the previous section for reduced access or identified as being closed entirely to aircraft traffic, will be barricaded by the use of low profile, lighted barricades placed as shown in the exhibits provided in Appendix 1. In addition, required

NOTAM's shall be issued on the various temporary changes to aircraft access through the affected areas.

**ii. Detours for ARFF and other airport vehicles:**

The project work site shall remain open to all ARFF vehicles in emergency situations. The contractor is required to maintain access in and around the project work area for all ARFF vehicles. Proper routing of this traffic will be effectively communicated to all supervisory personnel involved in the construction project.

**iii. Maintenance of essential utilities:**

Special attention shall be given to preventing unscheduled interruption of utility services and facilities. Where required due to construction purposes, the Owner and FAA shall locate all of their underground utilities. It is the Contractor's responsibility to have the locations of cabling and other underground utilities marked prior to beginning excavation. Any locations provided by the Owner or FAA are approximate locations and the Contractor shall verify all locations prior to beginning excavations. When an underground cable or utility is damaged due to the Contractor's negligence the Contractor shall immediately repair the affected cable or utility at his/her own expense. Full coordination between airport staff, field inspectors, and construction personnel will be exercised to ensure that all airport power and control cables are fully protected prior to any excavation.

**iv. Temporary Changes to air traffic control procedures:**

Changes to air traffic control procedures have been coordinated with airport ATO. Any additional requests for changes must be made to the Owner, through the Engineer, in writing. These requested changes will be reviewed by the Engineer, Owner and ATO. If these changes are acceptable to all the aforementioned parties, the Engineer will request a modification to the CSPP previously turned into the FAA. The Contractor shall plan on a minimum 90 days for this process to be completed. No deviation to the original CSPP shall be made without final FAA approval.

**3.4 PROTECTION OF NAVIGATIONAL AIDS (NAVAIDS).**

Before commencing construction activity, parking vehicles, or storing construction equipment and materials near a NAVAID, coordination with the Airport Owner to evaluate the effects of construction activity and the required distances and direction from the NAVAID is required.

**3.5 CONTRACTOR ACCESS.**

This section of the CSPP details the areas to which the contractor must have access, and how contractor personnel will access those project work areas.

**a. Location of stockpiled construction materials.**

The Contractor shall store material and equipment and schedule his operations for work to be done so that no unauthorized interference to normal Airport operations will result there from. Construction operations shall not be conducted in a manner to cause interference with Airport Operations. Stockpiled materials and equipment storage are not permitted within the Runway Safety Area/ Taxiway Safety Area (RSA/TSA), Obstacle Free Zone (OFZ) or Object Free Area (OFA) of an operational runway or taxiway. Stockpiled construction materials must be located inside the contractor staging area as shown on the Construction Safety Drawings (Appendix 1) unless otherwise approved by the Engineer.

Stockpiled material shall be constrained in a manner to prevent movement resulting from either aircraft jet blast or wind conditions in excess of ten miles per hour. In addition, stockpiled material shall have silt fence located around the material to prevent Foreign Object Debris (FOD) from moving onto the airfield pavements or polluting watercourses.

Open trenches exceeding 3 inches in depth and 5 inches in width or stockpiled material are not permitted within the limits of safety areas of operational runways or taxiways. Stockpiled material shall not be permitted within the protected areas of the runways, or allowed to penetrate into any of the protected airspace.

Spoil and Disposal Areas: Spoil shall be disposed of onsite in accordance with the Airport Authorities unless otherwise shown or specified. Spoil shall be disposed of offsite by the contractor unless otherwise shown or specified. No direct payment will be made for spoiling and disposal operations. The cost of spoiling material on site, or of spoiling material off-site, shall be considered incidental to this Contract and the costs shall be included in the various pay items involved.

**b. Vehicle and pedestrian operations. Vehicle and pedestrian access routes for airport construction projects must be controlled to prevent inadvertent or unauthorized entry of persons, vehicles, or animals onto the Air Operations Area (AOA).**

The Airport Owner will coordinate requirements for vehicle operations with the affected airport tenants. Specific vehicle and pedestrian requirements for this project are as follows:

All construction vehicles and personnel shall be restricted to the immediate work areas specified by the contract for this project. These areas include the haul routes into the work area, the designated contractor staging area and the apron area under construction. Use of alternate haul routes or staging areas by the contractor shall not be permitted without prior notification and approval by the Owner's Representative.

**i. Construction Site Parking:**

The Contractor's personal vehicle parking area shall be in the contractor staging area, as shown on the Construction Safety Drawings (Appendix 1). Contractor personal vehicles will not be allowed inside the airport fence Air Operations Area (AOA) or secured area.

A staging area, as indicated on the Contract Drawings, will be provided where the Contractor may set up a field office and store equipment and materials. The Contractor shall make his own arrangements for, and bear all costs of required utilities. The Contractor shall use and maintain the site in accordance with requirements of the Owner. Upon completion of work, the Contractor's staging area shall be removed and the area cleaned and restored to original or better condition.

**ii. Construction Equipment Parking:**

The Contractor's equipment storage area shall be in the contractor staging area as shown on the Construction Safety Drawings (Appendix 1). The Contractor's equipment and construction vehicles shall be restricted to the construction site or storage areas during construction and parked in the equipment storage area during non-working periods. Maximum allowable equipment height in the staging area shall be 25 feet. Maximum allowable equipment height in the work areas shall be 16 feet.

Contractor must service all construction vehicles within the limits of the project work area or the Contractor's Staging Area. Parked construction vehicles must be outside the OFA and never in the safety area of an active runway or taxiway. Inactive equipment must not be parked on closed taxiways or runways. If it is necessary to leave specialized equipment on a closed taxiway or runway at night,

the equipment must be well lighted. Employees shall also park construction vehicles outside the OFA when not in use by construction personnel (for example, overnight, on weekends, or during other periods when construction is not active). Parking areas must not obstruct the clear line of sight by the ATCT, as applicable, to any taxiways or runways under air traffic control nor obstruct any runway visual aids, signs, or navigation aids.

**iii. Access and Haul Roads:**

The Contractor shall clear, construct and maintain haul routes as required for the prosecution of the work. The haul routes and access points shall only be in the locations approved by the Engineer and the Owner or as shown on the Construction Safety Drawings (Appendix 1).

Access or haul routes used by contractor vehicles must be clearly marked to prevent inadvertent entry to areas open to airport operations. Construction traffic must remain on the designated haul routes, never straying from the approved paths. Signage and marking placement shall be reviewed and approved by the Engineer and Owner prior to being put into service. The Contractor shall fully describe the appropriate access routes to all his/her employees, subcontractors and material delivery personnel.

The Contractor shall be responsible for maintaining existing haul routes. At the completion of the project, these areas shall be returned to their original lines and grades and shall be restored to a condition equal to or better than original. All non-paved areas that are disturbed by Contractor's haul roads, staging area, etc., located outside of the seeding limits shown on the plans shall be re-seeded and restored to their original or better condition by the Contractor at no additional cost to the Owner.

The Contractor shall control and coordinate the material (supplies) that are hauled to and from the work area. Delivery of equipment and materials to the area of work shall be by way of the access route shown on the Construction Safety Drawings (Appendix 1) or designated by the Owner or Engineer.

The Contractor shall maintain all haul routes and work areas in a dust free condition at all times. The Contractor shall control dust from the construction operations by vacuum type sweeping, watering or other methods as approved by the Engineer. Contractor shall have equipment (in operating condition) on site, at all times, to control dust. If the Contractor fails to comply with this requirement, construction will be suspended until a plan for controlling the dust is approved by the Engineer. Landside haul routes, boulevards and drives shall be kept clean by use of a vacuum sweeper on a daily basis as required. Application of water on dirt or gravel haul routes must be provided as often as necessary. Haul roads in any airport traffic areas must be especially monitored for dust and debris to prevent any potential Foreign Object Debris (FOD) situations.

The existing perimeter road shall remain open and accessible for airport personnel at all times. Special attention must be given to ensure that if construction traffic is to share or cross any Airport Rescue and Fire Fighting (ARFF) routes that ARFF right of way is not impeded at any time, and that construction traffic on haul roads do not interfere with NAVAIDs or approach surfaces of operational runways.

Portions of the project area(s) shall be bounded by the low profile barricades identifying Contractor personnel and vehicle area operation limits. The locations of any barricaded project limits, haul routes, Contractor Staging Areas, and associated safety and security details are also provided graphically in the attached exhibits.

**iv. Marking and Lighting of Vehicles:**

When any vehicle or piece of equipment, other than one that has prior approval from the Owner, must operate on an airport, it shall be escorted and properly identified.

The Contractor shall limit access within the airport security fence to authorized vehicles. All authorized vehicles shall have a vehicle dash board placard permit issued by the Owner or an identification sign on both sides of the vehicle containing the Contractor's company name. Private vehicles of the Contractor's personnel must be parked outside the airport security fence and will not be allowed within the airport security fence at any time.

All vehicles operating on the airport and in the general vicinity of the safety area or in aircraft movement areas must be marked with flashing yellow/amber beacons or orange and white flags during daylight hours. During hours of darkness or low visibility they shall be marked with at least flashing yellow/amber beacons.

Beacons and flags must be maintained to standards and in good working and operational condition. Beacons must be located on the uppermost part of the vehicle structure, visible from any direction, and flash 75 +/- 15 flashes per minute. Flags shall be 3' by 3' with alternating 1' by 1' international orange and white squares, and shall be replaced by the contractor if they become faded, discolored, or ragged as determined by Airport Operations or the Owner's Representative.

**v. Description of Proper Vehicle Operations:**

The Contractor shall be required to follow guidance on the additional identification and control of construction equipment per the Airport's Security Plan. No Contractor's vehicle or pedestrian crossing of active runways or taxiways will be allowed at any time during the work of this Contract, unless otherwise specified. No deviation from the pedestrian and vehicle routes to and from the Project Areas will be allowed unless specific permission has been granted by the Owner.

The ground movement of aircraft shall have the right-of-way at all times, and the Contractor's vehicles and equipment shall yield to aircraft at all times.

**vi. Required Escorts:**

Not Applicable

**vii. Training Requirements for Vehicle Drivers:**

Not Applicable

**viii. Situational Awareness:**

Aircraft traffic will continue to use existing runways, aprons, and taxiways of the Airport during the time that work under a contract is being performed. The Contractor shall, at all times, conduct the work as to create no hindrance, hazard, or obstacle to aircraft using the Airport.

Vehicle drivers must confirm by personal observation that no aircraft is approaching their position (either in the air or on the ground) when given clearance to cross a runway, taxiway, or any other area open to airport operations. In addition, it is the responsibility of the escort vehicle driver to verify the movement/position of all escorted vehicles at any given time.

**ix. Two-way Radio Communication Procedures:**

Two-way radio communications are not required between Contractors and Airport Aeronautical Advisory Stations (UNICOM/CTAF).

**x. Maintenance of the Secured Area of the Airport.**

Airport Owner and contractors must also maintain a high level of security during construction when access points are created in the security fencing to permit construction vehicle access. Temporary gates shall be equipped and/or manned by construction personnel to prevent unauthorized access by vehicles, animals or people. Procedures conforming to Airport security protocols should be in place to ensure that only authorized persons and vehicles have access to the AOA and to prohibit “piggybacking” behind another person or vehicle. Access shall be made available at all times to all airport emergency vehicles traveling to operations areas within the proximity of the construction work zone.

**c. Security.**

The Contractor shall be responsible for maintaining security at all access gates used during the project and will be held liable by the Owner for any breach of security. No gate shall be left open. Procedures should be in place to ensure that only authorized persons and vehicles have access to the AOA and to prohibit “piggybacking” behind another person or vehicle.

The Contractor shall be required to maintain security and comply with the Airport Security Plan throughout the duration of the project. The Contractor and the Surety shall indemnify and save harmless the Owner, Engineer and third party or political subdivision from any and all breaches of security and shall indemnify the Owner for any fines, expenses and damages which it may be obliged to pay by reason of any breach of security resulting from the Contractor's actions at any time during the prosecution of the work. .

**3.6 WILDLIFE MANAGEMENT.**

Construction contractors must carefully control and continuously remove waste or loose materials that might attract wildlife. Contractor personnel must be aware of and avoid construction activities that can create wildlife hazards on airports.

- a. Trash.** Food scraps from construction personnel activity must be collected and disposed of at a proper facility.
- b. Standing water.** Water shall not be allowed to collect and pool for more than any single 24-hour period. Temporary grading may be required to promote drainage during daily operations as well as between work phases.
- c. Tall grass and seeds.** The use of millet seed in turfing and seeding operations shall not be permitted.
- d. Poorly maintained fencing and gates.** The Contractor shall maintain a constant secure perimeter to the airfield, including continuous security perimeter fencing and gates (if applicable).
- e. Disruption of existing wildlife habitat.** Not applicable to this project.

Contractor shall take immediate remedial action to remove wildlife attractants should any occurrence be noted. Contractor shall immediately report to the Engineer and Owner should any wildlife congregation be noted, and in particular if mammals enter the airport through the construction gate.

### **3.7 FOREIGN OBJECT DEBRIS (FOD) MANAGEMENT.**

Special care and measures shall be taken to prevent Foreign Object Debris (FOD) damage when working in an airport environment. Waste and loose materials, commonly referred to as FOD, are capable of causing damage to aircraft landing gears, propellers, and jet engines. The Contractor shall be responsible for implementing an approved FOD Management Plan prior to the start of construction activities. The FOD Management Plan will have procedures for prevention, regular cleanup, and containment of construction material and debris. The Contractor will ensure all vehicles related to the construction project using paved surfaces in the AOA shall be free of any debris that could create a FOD hazard. Special attention will be given to the cleaning of cracks and pavement joints. All taxiways, aprons, and runways must remain clean. Waste containers with attached lids shall be required on construction sites.

Special attention should be given to securing lightweight construction material (concrete insulating blankets, tarps, insulation, etc.). Specific securing procedures and/or chainlink enclosures may be required.

Contractors will provide their own equipment for vehicle and equipment washing and clean up.

Immediate access to a power sweeper is required when construction occurs on any pavement area inside the AOA, unless an appropriate alternative has been approved by the Owner's Representative and Airport Operations Manager.

### **3.8 HAZARDOUS MATERIALS (HAZMAT) MANAGEMENT.**

Contractors operating construction vehicles and equipment on the airport must be prepared to expeditiously contain and clean-up spills resulting from fuel, hydraulic fluid, or other chemical fluid leaks. Transport and handling of other hazardous materials on an airport also requires special procedures. To that end, the Contractor is required to develop a spill prevention plan and response procedures for vehicle operations prior to the start of construction activities. This includes maintenance of appropriate MSDS data and appropriate prevention and response equipment on-site.

Fueling Procedures and Spill Recovery Procedures shall be in accordance with Fire Code, latest edition, and the National Fire Protection Association standard procedures for spill response, latest edition. If fueling is to take place in the staging area, it must be away from catch basins. Contractor must have spill containment kits on site.

In the event of a fuel spill or the spill of other hazardous materials, the Contractor shall immediately notify the Owner and the Engineer.

Contractor shall abide by the specific requirements contained in the Technical Specifications of this contract.

### **3.9 NOTIFICATION OF CONSTRUCTION ACTIVITY.**

The following is information and procedures for immediate notification of airport users and the FAA of any conditions adversely affecting the operational safety of the airport.

- a. Maintenance of a list of Responsible Representatives/ Point of contact.** A list of responsible representatives and points of contact shall be created by the Engineer, the Airport and the Contractor prior

to the start of construction. This list shall be compiled as part of the project pre-construction meeting agenda. Procedures will be established to contact all parties, including after regular work hours. Updates will be made to the list throughout the project duration by the Engineer. Contractor points of contact shall be incorporated into the contractor's SPCD.

- b. Notices to Airman (NOTAM).** Only the Airport Owner may initiate or cancel NOTAMs on airport conditions, and is the only entity that can close or open a runway or taxiway. The Airport Owner must coordinate the issuance, maintenance, and cancellation of NOTAMs about airport conditions resulting from construction activities with tenants and must provide information on closed or hazardous conditions on airport movement areas to the FAA Flight Service Station (FSS) so it can issue a NOTAM. The Airport Owner must file and maintain a list of authorized representatives with the FSS. Only the FAA may issue or cancel NOTAMs on shutdown or irregular operation of FAA owned facilities. Any person having reason to believe that a NOTAM is missing, incomplete, or inaccurate must notify the airport owner. See Section 3.14 regarding issuing NOTAMs for partially closed runways versus runways with displaced thresholds.

Any NOTAMs for planned airfield closures for this project must be coordinated through the airport manager and the airports duly appointed construction management representative. Reference Section 3.2 for planned closures for this project, which require issuance of a NOTAM.

- c. Emergency Notification Procedures.** In the event of an aircraft emergency, severe weather conditions, or any issue as determined by the Airport that may affect aircraft operations, the Contractor's personnel and/or equipment may be required to immediately vacate the area(s) affected. Points of contact for the various parties involved with the project shall be identified and shared at the pre-construction meeting among the various parties. Emergency points of contact shall be incorporated into the contractor's SPCD.
- d. Accidents.** The Contractor shall provide at the site such equipment and medical facilities as are necessary to supply first aid service to anyone who may be injured in connection with the work. The Contractor must promptly report in writing to the Engineer all accidents whatsoever arising out of, or in connection with, the performance for the work, whether on or adjacent to the site which caused death, personal injury or property damages, giving full details and statements of witnesses. In addition, if death or serious injuries or serious damages are caused, the accident shall be reported immediately by telephone or messenger to both the Engineer and the Owner.

If any claim is made by anyone against the Contractor or any Subcontractor on account of any accident, the Contractor shall promptly report the facts in writing to the Engineer giving full details of the claims.

- e. Coordination with ARFF Personnel.** The contractor shall coordinate, through the duly appointed airport representative, with ARFF personnel, mutual aid providers and other emergency services if construction requires the following:
- The deactivation and subsequent reactivation of water lines or fire hydrants, or
  - The re-routing, blocking and restoration of emergency access routes, or
  - The use of hazardous materials on the airfield.

Procedures and methods for addressing any planned or emergency response actions on the airfield concerning this project shall be established and implemented prior to the start of construction.

- e. Notification to the FAA.**
- i. Part 77.** Any person proposing construction or alteration of objects that affect navigable airspace, as defined in Part 77, must notify the FAA. This includes construction equipment and proposed parking areas for this equipment (i.e. cranes, graders, other equipment) on airports. FAA Form 7460-1, Notice

of Proposed Construction or Alteration, is used for this purpose and submitted to the appropriated FAA Airports Regional or District Office. A 7460-1 form for this project has been completed and submitted by the Airport Owner for using equipment with a maximum height of 16 feet. A new 7460-1 form must be submitted to the FAA for review and comment for any equipment which the Contractor will use which is taller than the equipment used in the above 7460-1 submission. The Owner will be responsible for submitting the new 7460-1 form to the FAA. To that end, the Contractor shall identify the equipment in his SPCD, including the maximum height it will extended to during construction, the area(s) in which the equipment will be used, and the duration the equipment will be used

- ii. **Part 157.** It is not anticipated that Part 157 notifications will be required for this project.
- iii. **NAVAIDS.** For emergency (short-notice) notification about impacts to both airport owned and FAA owned NAVAIDS, contact: 866-432-2622.

**1. Airport owned/FAA maintained.** If construction operations require a shutdown of more than 24 hours, or more than 4 hours daily on 7 consecutive days, of a NAVAID owned by the airport but maintained by the FAA, provide a 45-day minimum notice to the Airport Owner prior to facility shutdown.

**2. FAA owned.** Not Applicable.

### 3.10 INSPECTION REQUIREMENTS.

**a. Daily (or more frequent) inspections.** Inspections shall be conducted by the Contractor at least daily, but more frequently if necessary, to ensure conformance with the CSPP. A sample checklist is provided in Appendix 2 of this document. The Owner's Representative will have full-time inspectors monitoring activity throughout construction. Promptly take all actions necessary to prevent or remedy any unsafe or potentially unsafe conditions as soon as they are discovered.

**b. Final inspections.** A final inspection with the Owner's Representative, Airport and Contractor will take place prior to allowing airport operations.

### 3.11 UNDERGROUND UTILITIES.

Special attention shall be given to preventing unscheduled interruption of utility services and facilities. The Contractor shall locate and/or arrange for the location of all the underground cables. When an underground cable is damaged due to the Contractor's negligence the Contractor shall immediately repair the cable affected at his/her own expense. Full coordination between airport staff, construction observers, and construction personnel will be exercised to ensure that all airport power and control cables are fully protected prior to any excavation. Locations of cabling will be marked prior to beginning excavation.

Prior to opening an excavation, effort shall be made to determine whether underground installation: i.e., sewer, water, fuel, electric lines, etc., will be encountered, and if so, where such underground installations are located. When the excavation approaches the approximate locations of such an installation, the exact locations shall be determined by careful hand probing or hand digging, and/or use of a vacuum truck, and when it is uncovered, adequate protection shall be provided for the existing installation. All known owners of underground facilities in the area concerned shall be advised of proposed work at least 48 hours prior to the start of actual excavation.

The information concerning underground utilities was compiled from information and sketches furnished by or obtained from utility companies and the Airport. The Owner and the Engineer do not guarantee their accuracy.

The Contractor is advised to determine the exact locations from the available sources of information or provide his own means of detection. The only case in which the Engineer will consider redesign or relocation of a proposed facility in the project is when an existing utility is located within the construction limits. In this case, the Engineer will work with the Airport Owner to determine the appropriate action to resolve the conflict. If such relocation is impossible, the Engineer will consider re-design or relocation of the proposed facilities. In both cases, Contractor shall be responsible for all underground utilities and shall not be separately compensated for delays or extra cost.

Note that Blue Stake services do not include locating FAA and Owner facilities.

### **3.12 PENALTIES.**

Failure on the part of the contractor to adhere to prescribed requirements may have consequences that jeopardize the health, safety or lives of customers and employees at the airport. The Airport may issue warnings on the first offense based upon the circumstances of the incident. Individuals involved in non-compliance violations may be required to surrender their Airport ID badges and/or be prohibited from working at the airport, pending an investigation of the matter.

Penalties for violations related to airport safety and security procedures will be established by the Airport.

Note: project shutdown or misdemeanor citations may be issued on a first offense. When construction operations are suspended, activity shall not resume until all deficiencies are rectified.

### **3.13 SPECIAL CONDITIONS.**

In the event of an aircraft emergency, the Contractor's personnel and/or equipment may be required to immediately vacate the area. The Contractor will receive notification from airport operations when special conditions require the construction site to be vacated. In any event, extreme care should be exercised should construction personnel identify any ARFF (Airport Rescue and Fire-Fighting) or other emergency or rescue vehicle moving toward the Runway with emergency lights displayed. This will generally mean that an emergency situation is imminent.

Special conditions that could require suspension of the construction work include the following: aircraft in distress, aircraft accident, security breach, VIP operation, vehicle/pedestrian deviation, severe weather, or failing to abide by this Construction Safety and Phasing Plan and/or the Safety Plan Compliance Document.

### **3.14 RUNWAY AND TAXIWAY VISUAL AIDS.**

This topic includes marking, lighting, signs, and visual NAVAIDs. Those areas where aircraft will be operating shall be clearly and visibly separated from construction areas, including closed runways. Throughout the duration of the construction project, the Contractor shall inspect and verify that these areas remain clearly marked and visible at all times and that marking, lighting, signs and visual NAVAIDs remain in place and operational.

**a. General.** Airport markings, lighting, signs, and visual NAVAIDs must be clearly visible to pilots, not misleading, confusing, or deceptive. All must be secured in place to prevent movement by prop wash, jet blast, wing vortices, or other wind currents and constructed of materials that would minimize damage to an aircraft in the event of inadvertent contact.

Marking and lighting for a temporary threshold is not required.

Closed runway markings and lighting are not required.

**b. Markings.** Markings must be in compliance with the standards of AC 150/5340-1, Standards for Airport Markings, current edition, and the drawings and technical specifications of this project.

**c. Lighting and visual NAVAIDs.** All runway edge lights in those sections of runways closed to aircraft traffic will be either de-energized or blacked out by use of an appropriately cut length of PVC pipe.

**d. Signs.** Signs must be in conformance with AC 150/5345-44, Specification for Runway and Taxiway Signs and AC 150/5340-18, Standard for Airport Sign Systems, current edition. Airfield signage will be installed and/or replaced along impacted taxiways and taxilanes.

**e. Maintenance of Airport Lighting.** All existing airfield lighting circuits shall be maintained in full operation throughout the period of this Contract. Where disconnections are required, such work shall be scheduled at such times and in such a manner as approved by the Owner. The Contractor is required to allow the full use of airfield lighting circuits in open movement areas during night operations and during periods of low visibility. The Contractor shall provide such temporary lights and cables as required to maintain full use of existing airfield lighting circuits. Temporary above ground lighting cables, if approved, shall be delineated with stakes and flagging at the direction of the Engineer.

All circuits in the vicinity of the work area shall be tested prior to, during and after construction. The Contractor shall furnish all necessary equipment and appliances for testing the airport electrical systems and underground cable circuits as specified below. The Contractor shall perform all tests in the presence of the Engineer. The Contractor shall demonstrate the electrical characteristics to the satisfaction of the Engineer. All costs for testing are incidental and shall be at the sole expense of the Contractor. For phased projects, the tests must be completed by phase and results meeting the specifications below must be maintained by the Contractor throughout the entire project as well as during the ensuing warranty period.

Earth resistance testing methods shall be submitted to the Engineer for approval. Earth resistance testing results shall be recorded on an approved form and testing shall be performed in the presence of the Engineer. All such testing shall be at the sole expense of the Contractor.

Should the counterpoise or ground grid conductors be damaged or suspected of being damaged by construction activities the Contractor shall test the conductors for continuity with a low resistance ohmmeter. The conductors shall be isolated such that no parallel path exists and tested for continuity. The Engineer shall approve of the test method selected. All such testing shall be at the sole expense of the Contractor.

The test equipment for insulation resistance shall be an insulation resistance tester (1,000V megger) with a digital readout. The instrument shall provide a 500 volt test for insulation resistance with a meter range of 0 to 500 megohms. The Contractor shall test, demonstrate and record to the satisfaction of the Engineer the following:

a. Test Requirements Prior to Construction.

- (1) Test all circuits within the work area for continuity and insulation resistance to ground, at the electrical building, in the presence of the Engineer and the Owner.
- (2) Provide a copy of the test results to the Engineer and the Owner.
- (3) Check that all circuits are properly connected in accordance with applicable wiring diagrams.

b. Test Requirements During Construction. Circuit testing during construction shall be as directed and witnessed by the Engineer when the Contractor is working on existing circuitry or excavating adjacent to

or near existing circuitry. Circuit testing during construction will not be required during the times when the Contractor's operations do not affect existing airfield lighting circuitry. It is the intent of this section to ensure that airfield lighting circuitry remains operational throughout the duration of the Contract.

- (1) Test all circuits within the work area for continuity and insulation resistance to ground at the electrical building, prior to energizing any circuit.
  - (2) Insure that all circuits within the work area are operational, prior to the Contractor leaving the project at the end of the work day. Specific times for circuit checks will be determined by the Engineer relative to the Contractor's work hours each day.
  - (3) Segment test new non-grounded series circuits during installation. Length of cable segment tested shall not have more than five (5) splices, light units and/or electrical equipment between the ends being tested. Insulation resistance to ground shall be not less than 500 megohms.
  - (4) Insure that the insulation resistance to ground of each segment of new non-grounded conductors of multiple conductor circuits is not less than 500 megohms.
  - (5) That the impedance to ground of each ground rod does not exceed 25 ohms prior to establishing connections to other ground electrodes or equipment. The fall-of-potential ground impedance test shall be utilized, as described by ANSI/IEEE Standard 81, to verify this requirement. Ground rods testing higher than 25 ohms shall have a minimum extension of two feet of ground rod added, driven to the proper elevation and re-tested. Extensions shall be attached by exothermic methods and re-testing performed until the tests show 25 ohms resistance or less. Tests shall not be performed within 72 hours after a rain storm has ended or when standing water is present around the ground rod.
  - (6) Insure that all circuits are properly connected in accordance with applicable wiring diagrams.
  - (7) The Contractor shall test all circuits within the work area for continuity after backfilling cable trenches. The reading shall be logged and provided to the Engineer prior to payment of cable items.
  - (8) Provide a copy of all test results to Engineer and Owner on a daily basis.
- c. Test Requirements at the Completion of the Project. The Contractor shall test and demonstrate to the satisfaction of the Engineer the following:
- (1) Test all circuits within the work area for continuity and insulation resistance to ground, at the electrical building, in the presence of the Engineer and the Owner.
  - (2) That all original lighting power and control circuits are continuous and insulation resistance to ground is not lower than before construction.
  - (3) That all affected lighting power and control circuits (existing and new) are continuous and free from short circuits.
  - (4) That all affected circuits (existing and new) are free from unspecified grounds.
  - (5) That the insulation resistance to ground of all new non-grounded series circuits or cable segments is not less than 50 megohms.
  - (6) That the insulation resistance to ground of all non-grounded conductors of new multiple circuits or circuit segments is not less than 50 megohms.

- (7) That all affected circuits (existing and new) are properly connected in accordance with applicable wiring diagrams.
- (8) That all affected circuits (existing and new) are operable. Tests shall be conducted that include operating each control not less than 10 times and the continuous operation of each lighting and power circuit for not less than 1/2 hour.

The Contractor shall be responsible for maintaining an insulation resistance of 50 megohms minimum, with isolation transformers connected, in new circuits and new segments of existing circuits through the end of the contract warranty period.

Two copies of tabulated results of all cable tests performed shall be supplied by the Contractor to the Engineer. Where connecting new cable to existing cable, ground resistance tests shall be performed on the new cable prior to connection to the existing circuit.

### **3.15 MARKING AND SIGNS FOR ACCESS ROUTES.**

Location of haul routes on the airport site shall be as specified in the project drawing set and as provided graphically in the attached exhibits, reference Appendix 1. It shall be the Contractor's responsibility to coordinate off-site haul routes with the appropriate owner who has jurisdiction over the affected route. The haul routes, to the extent possible, shall be marked and signed in accordance with FAA airfield signage requirements, the Federal Highway Administration Manual on Uniform Traffic Control Devices (MUTCD) and/or state highway specifications, as applicable.

### **3.16 HAZARD MARKING AND LIGHTING.**

**a. Purpose.** Hazard marking and lighting prevents pilots from entering areas closed to aircraft, and prevents construction personnel from entering areas open to aircraft. To that end, comprehensible warning indicators for any area affected by construction that is normally accessible to aircraft, personnel, or vehicles shall be installed and maintained by the Contractor for the duration of construction operations.

**b. Equipment.** Low Profile Barricades of the type detailed in the project drawings with red omnidirectional flashing lights shall be placed outside the safety area of intersecting taxiways at the edge of the closed airfield surfaces and the project work limits. Layout locations for this equipment are as shown on the Work Phasing Plan and attached exhibits, reference Appendix 1.

Plastic Drum Type Barricades of the type detailed in the project drawings with omnidirectional flashing lights shall be placed. Layout locations for this equipment are as shown on the Work Phasing Plan (Construction Safety Drawings) and attached exhibits, reference Appendix 1.

The Contractor shall have a person on call 24 hours a day for emergency maintenance of airport hazard lighting and barricades. The Contractor must file the contact person's information with the airport owner. Lighting should be checked for proper operation at least once per day, preferably at dusk.

### **3.17 PROTECTION OF AIRFIELD AREAS.**

Safety area encroachments, improper ground vehicle operations and unmarked or uncovered holes and trenches in the vicinity of aircraft operation surfaces and construction areas are the three most recurring threats to safety during construction. Protection of runway and taxiway safety areas, object free areas, obstacle free zones, and approach/departure surfaces shall be a standing requirement for the duration of construction operations.

**a. Runway Safety Area (RSA).** A runway safety area is the defined surface surrounding the runway prepared or suitable for reducing the risk of damage to airplanes in the event of an undershoot, overshoot, or excursion from the runway by aircraft.

Runway	Aircraft Design Group	RSA Distance from		RSA Width	RSA Length from End of Runway
		Centerline RSA	Holdline		
14-32	B-1	60 ft.	60 ft.	120 ft.	240 ft.

No construction may occur within the existing RSA while the runway is open. Any construction between RSA and Holdline must be approved with Airport Operations prior to starting work.

The airport owner must coordinate any adjustment of RSA dimensions, to meet the above requirement, with the appropriate FAA Airports Regional or District Office and the local FAA air traffic manager and issue a NOTAM.

Open trenches or excavations are not permitted within the RSA while the runway is open. The Contractor must backfill trenches before the runway is opened. Coverings are not allowed in runway safety areas. There shall be no stockpiled materials or equipment stored within the limits of the RSA.

After the Runway has been closed, Contractors must prominently mark open trenches and excavations at the construction site with red or orange flags, as approved by the airport owner, and light them with red lights during hours of restricted visibility or darkness.

Soil erosion must be controlled to maintain RSA standards, that is, the RSA must be cleared and graded and have no potentially hazardous ruts, humps, depressions, or other surface variations, and capable, under dry conditions, of supporting snow removal equipment, aircraft rescue and firefighting equipment, and the occasional passage of aircraft without causing structural damage to the aircraft.

**b. Runway Object Free Area (ROFA).** Construction, including excavations, may be permitted in the ROFA. However, equipment must be removed from the ROFA when not in use, and material should not be stockpiled in the ROFA if not necessary. Stockpiling material in the OFA requires submittal of a 7460-1 form and justification provided to the appropriate FAA Airports Regional or District Office for approval.

Runway	Aircraft Design Group	ROFA Distance from Centerline	ROFA Width	ROFA Length from End of Runway
14-32	B-1	125 ft.	250 ft.	240 ft.

**c. Taxiway Safety Area (TSA).** The taxiway safety area is a defined surface alongside the taxiway prepared or suitable for reducing the risk of damage to an airplane unintentionally departing the taxiway. No construction may occur within the TSA while the taxiway is open for aircraft operations.

Taxiway	Aircraft Design Group	TSA Distance from Centerline	TSA Width
All	B-1	24.5 ft.	49 ft.

Open trenches or excavations are not permitted within the TSA while the taxiway is open. The Contractor must backfill trenches before the taxiway is opened. Coverings are not allowed in taxiway safety areas.

The airport owner must coordinate any adjustment of TSA dimensions, to meet the above requirement, with the appropriate FAA Airports Regional or District Office and the local FAA air traffic manager and issue a NOTAM.

After the Taxiway has been closed, Contractors must prominently mark open trenches and excavations at the construction site with red or orange flags, as approved by the airport owner, and light them with red lights during hours of restricted visibility or darkness.

Soil erosion must be controlled to maintain TSA standards, that is, the TSA must be cleared and graded and have no potentially hazardous ruts, humps, depressions, or other surface variations, and capable, under dry conditions, of supporting snow removal equipment, aircraft rescue and firefighting equipment, and the occasional passage of aircraft without causing structural damage to the aircraft.

**d. Taxiway Object Free Area (TOFA).** Unlike the Runway Object Free Area, aircraft wings regularly penetrate the taxiway/taxilane object free area during normal operations. Thus the restrictions are more stringent. No construction equipment may be parked within the TOFA while the taxiway/taxilane is open for aircraft operations.

Construction activity may be accomplished without adjusting the width of the taxiway object free area, subject to the following restrictions:

- (i) Appropriate NOTAMs are issued.
- (ii) Marking and lighting meeting the provisions above are implemented.
- (iii) Five-foot clearance is maintained between equipment and materials and any part of an aircraft (includes wingtip overhang). In these situations, flaggers must be used to direct construction equipment, and wing walkers will be necessary to guide aircraft. Wing walkers should be airline/aviation personnel rather than construction workers. If such clearance can only be maintained if an aircraft does not have full use of the entire taxiway width (with its main landing gear at the edge of the pavement), then it will be necessary to move personnel and equipment for the passage of that aircraft.

Taxiway	Aircraft Design Group	TOFA Distance from Centerline	TOFA Width
All	B-1	44.5 ft.	89 ft.

Taxilane	Aircraft Design Group	TLOFA Distance from Centerline	TLOFA Width
All	B-1	39.5 ft.	79 ft.

**e. Obstacle Free Zone (OFZ).** Construction personnel, material, and/or equipment may not penetrate the OFZ while the runway is open for aircraft operations. The OFZ is a defined volume of airspace centered about and above the runway centerline.

**f. Runway approach/departure surfaces.** All personnel, materials, and/or equipment must remain clear of the applicable threshold siting surfaces. Objects that do not penetrate these surfaces may still be obstructions to air navigation and may affect standard instrument approach procedures. Coordinate with the FAA through the appropriate FAA Airports Regional or District Office.

Construction activity in a runway approach/departure area may result in the need to partially close a runway or displace the existing runway threshold. Partial runway closure, displacement of the runway threshold, as well

as closure of the complete runway and other portions of the movement area also require coordination through the airport owner with the appropriate FAA air traffic manager (FSS if non-towered) and ATO/Technical Operations (for affected NAVAIDS) and airport users.

Runway End	Aircraft Approach Category	Airplane Design Group	Minimum Area Behind Threshold	Safety Behind	Minimum Approach Slope	Unobstructed
14	B	1	240		34:1 to 200 feet behind threshold 20:1 to threshold	
32	B	1	240		34:1 to 200 feet behind threshold 20:1 to threshold	

### 3.18 OTHER LIMITATIONS ON CONSTRUCTION.

- a. **Prohibitions.** The following prohibitions are in effect for the duration of this project:
  - i. No use of tall equipment (cranes, concrete pumps, and so on) unless a 7460-1 determination letter is issued for such equipment.
  - ii. No use of open flame welding or torches unless fire safety precautions are provided and the airport owner has approved their use.
  - iii. No use of electrical blasting caps or explosives of any kind on or within 1,000 ft (300 m) of the airport property.
  - iv. No use of flare pots within the AOA.
  
- b. **Restrictions.**
  - i. Construction suspension required during specific airport operations – Not Applicable
  - ii. Areas that cannot be worked on simultaneously – Not Applicable
  - iv. Day or night construction restrictions  
Where work on this Contract is not scheduled for night work and the Contractor requests and receives permission to work at night, there will be no additional compensation allowed for the extra costs associated with night work.
  
  - v. Seasonal Construction Restrictions – Not Applicable

**APPENDIX 1**

**LOCATION MAP**

**(Sheet 3 of the Contract Drawings)**

**GENERAL PLAN**

**(Sheet 3 of the Contract Drawings)**

**WORK PHASING PLANS**

**(CONSTRUCTION SAFETY DRAWINGS)**

**(Sheet 4 of the Contract Drawings)**

**WORK PHASING DETAILS**

**(Sheet 4 of the Contract Drawings)**

**APPENDIX 2**

**CONSTRUCTION PROJECT DAILY SAFETY INSPECTION CHECKLIST**

## Construction Project Daily Safety Inspection Checklist

The situations identified below are potentially hazardous conditions that may occur during airport construction projects. Safety Area encroachments, unauthorized and improper ground vehicle operations, and unmarked or uncovered holes and trenches near aircraft operating surfaces pose the most prevalent threats to airport operational safety during airport construction projects. The list below is one tool that the contractor may use to aid in identifying and correcting potentially hazardous conditions.

### Potentially Hazardous Conditions

Item	Action Required	or	None
Excavation adjacent to runways, taxiways, and aprons improperly backfilled.			<input type="checkbox"/>
Mounds of earth, construction materials, temporary structures, and other obstacles near any open runway, taxiway, or taxi lane; in the related Object Free area and aircraft approach or departure areas/zones; or obstructing any sign or marking.			<input type="checkbox"/>
Heavy equipment (stationary or mobile) operating or idle near AOA, in runway approaches and departures areas, or in OFZ.			<input type="checkbox"/>
Equipment or material near NAVAIDs that may degrade or impair radiated signals and/or the monitoring of navigation and visual aids. Unauthorized or improper vehicle operations in localizer or glide slope critical areas, resulting in electronic interference and/or facility shutdown.			<input type="checkbox"/>
Tall and especially relatively low visibility units (that is, equipment with slim profiles) –cranes, drills, and similar objects—located in critical areas, such as OFZ and approach zones.			<input type="checkbox"/>
Improperly positioned or malfunctioning lights or unlighted airport hazards, such as holes or excavations, on an apron, open taxiway, or open taxi lane or in related safety, approach, or departure area.			<input type="checkbox"/>
Obstacles, loose pavement, trash, and other debris on or near AOA. Construction debris (gravel, sand, mud, paving materials) on airport pavements may result in aircraft propeller, turbine engine, or tire damage. Also, loose materials may blow about, potentially causing personal injury or equipment damage.			<input type="checkbox"/>
Item	Action Required	or	None

Inappropriate or poorly maintained fencing during construction intended to deter human and animal intrusions into the AOA. Fencing and other markings that are inadequate to separate construction areas from open AOA create aviation hazards.		<input type="checkbox"/>
Wildlife attractants — such as trash (food scraps not collected from construction personnel activity), grass seeds, tall grass, or standing water — on or near airports.		
Failure to issue, update, or cancel NOTAMs about airport or runway closures or other construction related airport conditions.		<input type="checkbox"/>
Failure to mark and identify utilities or power cables. Damage to utilities and power cables during construction activity can result in the loss of runway / taxiway lighting; loss of navigation, visual, or approach aids; disruption of weather reporting services; and/or loss of communications.		<input type="checkbox"/>
Restrictions on ARFF access from fire stations to the runway / taxiway system or airport buildings.		
Lack of radio communications with construction vehicles in airport movement areas.		<input type="checkbox"/>
Objects, regardless of whether they are marked or flagged, or activities anywhere on or near an airport that could be distracting, confusing, or alarming to pilots during aircraft operations.		<input type="checkbox"/>
Water, snow, dirt, debris, or other contaminants that temporarily obscure or derogate the visibility of runway/taxiway marking, lighting, and pavement edges. Any condition or factor that obscures or diminishes the visibility of areas under construction.		<input type="checkbox"/>
Spillage from vehicles (gasoline, diesel fuel, oil) on active pavement areas, such as runways, taxiways, aprons, and airport roadways.		<input type="checkbox"/>
Failure to provide for proper electrical lockout and tagging procedures.		<input type="checkbox"/>
<b>Item</b>	<b>Action Required</b>	<b>or</b>
		<b>None</b>
		<input type="checkbox"/>

Failure to control dust. Consider limiting the amount of area from which the contractor is allowed to strip turf.		
Exposed wiring that creates an electrocution or fire ignition hazard. Identify and secure wiring, and place it in conduit or bury it.		<input type="checkbox"/>
Site burning, which can cause possible obscuration.		<input type="checkbox"/>
Construction work taking place outside of designated work areas and out of phase.		<input type="checkbox"/>

**APPENDIX 3**

**CONTRACTORS SAFETY PLAN COMPLIANCE DOCUMENT (SPCD)  
AND CERTIFICATION FORM**

(The SPCD and Certification Form are located in the Proposal Section)

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## Section 90 Measurement and Payment

**90-01 MEASUREMENT OF QUANTITIES.** All work completed under the contract will be measured by the Engineer, or his/her authorized representatives, using United States Customary Units of Measurement or the International System of Units.

The method of measurement and computations to be used in determination of quantities of material furnished and of work performed under the contract will be those methods generally recognized as conforming to good engineering practice.

Unless otherwise specified, longitudinal measurements for area computations will be made horizontally, and no deductions will be made for individual fixtures (or leave-outs) having an area of 9 sq ft (0.8 square meter) or less. Unless otherwise specified, transverse measurements for area computations will be the neat dimensions shown on the plans or ordered in writing by the Engineer.

Structures will be measured according to neat lines shown on the plans or as altered to fit field conditions.

Unless otherwise specified, all contract items which are measured by the linear foot such as electrical ducts, conduits, pipe culverts, underdrains, and similar items shall be measured parallel to the base or foundation upon which such items are placed.

In computing volumes of excavation the average end area method or other acceptable methods will be used.

The thickness of plates and galvanized sheet used in the manufacture of corrugated metal pipe, metal plate pipe culverts and arches, and metal cribbing will be specified and measured in decimal fraction of in.

The term “ton” will mean the short ton consisting of 2,000 lb (907 kg) avoirdupois. All materials that are measured or proportioned by weights shall be weighed on accurate, approved scales by competent, qualified personnel at locations designed by the Engineer. If material is shipped by rail, the car weight may be accepted provided that only the actual weight of material is paid for. However, car weights will not be acceptable for material to be passed through mixing plants. Trucks used to haul material being paid for by weight shall be weighed empty daily at such times as the Engineer directs, and each truck shall bear a plainly legible identification mark.

Materials to be measured by volume in the hauling vehicle shall be hauled in approved vehicles and measured therein at the point of delivery. Vehicles for this purpose may be of any size or type acceptable to the Engineer, provided that the body is of such shape that the actual contents may be readily and accurately determined. All vehicles shall be loaded to at least their water level capacity, and all loads shall be leveled when the vehicles arrive at the point of delivery.

When requested by the Contractor and approved by the Engineer in writing, material specified to be measured by the cubic yard (cubic meter) may be weighed, and such weights will be converted to cubic yards (cubic meters) for payment purposes. Factors for conversion from weight measurement to volume measurement will be determined by the Engineer and shall be agreed to by the Contractor before such method of measurement of pay quantities is used.

Bituminous materials will be measured by the gallon (liter) or ton (kg). When measured by volume, such volumes will be measured at 60 °F (15 °C) or will be corrected to the volume at 60 °F (15 °C) using ASTM D 1250 for asphalts or ASTM D 633 for tars.

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Net certified scale weights or weights based on certified volumes in the case of rail shipments will be used as a basis of measurement, subject to correction when bituminous material has been lost from the car or the distributor, wasted, or otherwise not incorporated in the work.

When bituminous materials are shipped by truck or transport, net certified weights by volume, subject to correction for loss or foaming, may be used for computing quantities.

Cement will be measured by the ton (kg) or hundredweight (km).

Timber will be measured by the thousand feet board measure (MFBM) actually incorporated in the structure. Measurement will be based on nominal widths and thicknesses and the extreme length of each piece.

The term “lump sum” when used as an item of payment will mean complete payment for the work described in the contract.

When a complete structure or structural unit (in effect, “lump sum” work) is specified as the unit of measurement, the unit will be construed to include all necessary fittings and accessories.

Rental of equipment will be measured by time in hours of actual working time and necessary traveling time of the equipment within the limits of the work. Special equipment ordered by the Engineer in connection with force account work will be measured as agreed in the change order or supplemental agreement authorizing such force account work as provided in the subsection titled PAYMENT FOR EXTRA AND FORCE ACCOUNT WORK of this section.

When standard manufactured items are specified such as fence, wire, plates, rolled shapes, pipe conduit, etc., and these items are identified by gauge, unit weight, section dimensions, etc., such identification will be considered to be nominal weights or dimensions. Unless more stringently controlled by tolerances in cited specifications, manufacturing tolerances established by the industries involved will be accepted.

Scales for weighing materials which are required to be proportioned or measured and paid for by weight shall be furnished, erected, and maintained by the Contractor, or be certified permanently installed commercial scales.

Scales shall be accurate within one-half percent of the correct weight throughout the range of use. The Contractor shall have the scales checked under the observation of the inspector before beginning work and at such other times as requested. The intervals shall be uniform in spacing throughout the graduated or marked length of the beam or dial and shall not exceed one-tenth of 1 percent of the nominal rated capacity of the scale, but not less than 1 pound (454 grams). The use of spring balances will not be permitted.

Beams, dials, platforms, and other scale equipment shall be so arranged that the operator and the inspector can safely and conveniently view them.

Scale installations shall have available ten standard 50-pound (2.3 km) weights for testing the weighing equipment or suitable weights and devices for other approved equipment.

Scales must be tested for accuracy and serviced before use at a new site. Platform scales shall be installed and maintained with the platform level and rigid bulkheads at each end.

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Scales “overweighing” (indicating more than correct weight) will not be permitted to operate, and all materials received subsequent to the last previous correct weighting-accuracy test will be reduced by the percentage of error in excess of one-half of 1 percent.

In the event inspection reveals the scales have been underweighing (indicating less than correct weight), they shall be adjusted, and no additional payment to the Contractor will be allowed for materials previously weighed and recorded.

All costs in connection with furnishing, installing, certifying, testing, and maintaining scales; for furnishing check weights and scale house; and for all other items specified in this subsection, for the weighing of materials for proportioning or payment, shall be included in the unit contract prices for the various items of the project.

When the estimated quantities for a specific portion of the work are designated as the pay quantities in the contract, they shall be the final quantities for which payment for such specific portion of the work will be made, unless the dimensions of said portions of the work shown on the plans are revised by the Engineer. If revised dimensions result in an increase or decrease in the quantities of such work, the final quantities for payment will be revised in the amount represented by the authorized changes in the dimensions.

**90-02 SCOPE OF PAYMENT.** The Contractor shall receive and accept compensation provided for in the contract as full payment for furnishing all materials, for performing all work under the contract in a complete and acceptable manner, and for all risk, loss, damage, or expense of whatever character arising out of the nature of the work or the prosecution thereof, subject to the provisions of the subsection titled NO WAIVER OF LEGAL RIGHTS of Section 70.

When the “basis of payment” subsection of a technical specification requires that the contract price (price bid) include compensation for certain work or material essential to the item, this same work or material will not also be measured for payment under any other contract item which may appear elsewhere in the contract, plans, or specifications.

**90-03 COMPENSATION FOR ALTERED QUANTITIES.** When the accepted quantities of work vary from the quantities in the proposal, the Contractor shall accept as payment in full, so far as contract items are concerned, payment at the original contract price for the accepted quantities of work actually completed and accepted. No allowance, except as provided for in the subsection titled ALTERATION OF WORK AND QUANTITIES of Section 40 will be made for any increased expense, loss of expected reimbursement, or loss of anticipated profits suffered or claimed by the Contractor which results directly from such alterations or indirectly from his/her unbalanced allocation of overhead and profit among the contract items, or from any other cause.

**90-04 PAYMENT FOR OMITTED ITEMS.** As specified in the subsection titled OMITTED ITEMS of Section 40, the Engineer shall have the right to omit from the work (order nonperformance) any contract item, except major contract items, in the best interest of the Owner.

Should the Engineer omit or order nonperformance of a contract item or portion of such item from the work, the Contractor shall accept payment in full at the contract prices for any work actually completed and acceptable prior to the Engineer’s order to omit or nonperform such contract item.

Acceptable materials ordered by the Contractor or delivered on the work prior to the date of the Engineer’s order will be paid for at the actual cost to the Contractor and shall thereupon become the property of the Owner.

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In addition to the reimbursement hereinbefore provided, the Contractor shall be reimbursed for all actual costs incurred for the purpose of performing the omitted contract item prior to the date of the Engineer's order. Such additional costs incurred by the Contractor must be directly related to the deleted contract item and shall be supported by certified statements by the Contractor as to the nature the amount of such costs.

**90-05 PAYMENT FOR EXTRA AND FORCE ACCOUNT WORK.** Extra work, performed in accordance with the subsection titled EXTRA WORK of Section 40, will be paid for at the contract prices or agreed prices specified in the change order or supplemental agreement authorizing the extra work. When the change order or supplemental agreement authorizing the extra work requires that it be done by force account, such force account shall be measured and paid for based on expended labor, equipment, and materials plus an allowance for overhead and profit.

**1. Agreed Price.** If the extra work is to be paid under agreed prices, the prices shall be based upon the Contractor's price analysis of the cost of the work. The price analysis shall be provided by the Contractor and shall be based upon the Contractor's estimated breakdown of his/her cost for the work, including all charges based upon the items listed in this subsection below titled "Force Account". Lump sum costs for work, without accompanying detailed price analyses, will not be acceptable. Price analyses shall be in a format which is acceptable to the Engineer.

**2. Force Account.**

**a. Miscellaneous.** No additional allowance will be made for general superintendence, the use of small tools, or other costs for which no specific allowance is herein provided.

**b. Comparison of Record.** The Contractor and the Engineer shall compare records of the cost of force account work at the end of each day. Agreement shall be indicated by signature of the Contractor and the Engineer or their duly authorized representatives.

**c. Statement.** No payment will be made for work performed on a force account basis until the Contractor has furnished the Engineer with duplicate itemized statements of the cost of such force account work detailed as follows:

(1) Name, classification, date, daily hours, total hours, rate and extension for each laborer and foreman.

(2) Designation, dates, daily hours, total hours, rental rate, and extension for each unit of machinery and equipment.

(a) Contractor Owned Equipment Trucks and Plant.- Contractor shall be reimbursed for its ownership costs and for its operating costs for self owned equipment at the rates listed in the Rental Rate Blue Book published by Dataquest, Inc. applied in the following manner as modified by the "Rate Adjustment Table":

(i) Ownership Costs -- It is mutually understood that the rates for ownership costs reimburse the Contractor for all non-operating costs of owning the equipment, truck or plant including depreciation on the original purchase, insurance, applicable taxes, interest on investment, storage, overhead, repairs, moving the equipment onto and away from the project or work site, and profit. Reimbursement will be made for the hours of actual use as described below.

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- (ii) Less than 8 hours of actual use, the product of the actual number of hours used or fraction thereof multiplied by the hourly rate, or the daily rate, whichever is less.
  - (iii) Between 8 hours and 40 hours of actual use, the product of the actual number of hours used divided by 8 multiplied by the daily rate, or the weekly rate, whichever is less.
  - (iv) Between 40 and 176 hours of actual use, the product of the actual number of hours used divided by 40 multiplied by the weekly rate, or the monthly rate, whichever is less.
  - (v) Over 176 hours of actual use, the product of the actual number of hours used divided by 176 multiplied by the monthly rate.
  - (vi) Operating Costs -- The rate for operating costs includes fuel, lubricants, other operating expendables, and preventative and field maintenance. Operating cost does not include the operator's wages. The Contractor shall be reimbursed the product of the number of hours of actual use multiplied by the Estimated Operating Cost/Hour.
  - (vii) The rates used shall be those in effect at the time the force account work is done as reflected in the then current publication of the Rental Rate Blue Book. When force account type analysis are used to establish agreed prices in accordance with paragraph A above, the rates used shall be those in effect when the agreed price is developed by the Contractor.
  - (viii) In the event that a rate is not established in the Rental Rate Blue Book for a particular piece of equipment, truck or plant, the Engineer shall establish rates for ownership costs and operating costs for that piece of equipment, truck or plant that is consistent with its cost and expected life.
- (b) Rented Equipment, Trucks and Plant –
- (i) In the event that the Contractor does not own a specific type of equipment and must obtain it by rental, it shall be paid the actual rental rate for the equipment for the time that the equipment is used to accomplish the work or is required by the Engineer to be present, not to exceed the adjusted rental rate in the Rental Rate Blue Book, plus the reasonable cost of moving the equipment onto and away from the project site.
  - (ii) The Contractor shall also be reimbursed for the operating cost of the equipment unless reflected in the rental price. Such operating cost shall be determined in the same manner as specified for Contractor Owned Equipment above.
  - (iii) In the event that area practice dictates the rental of equipment with an operator or fully fueled and maintained equipment, truck or plants, payment will be made on the basis of an invoice for the rental of the equipment with an operator, fully fueled and/or maintained equipment, trucks or plants including all costs incidental to its use, including costs of moving to and from the site, provided the rated is substantiated by area practice.

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(c) Maximum Amount Payable -- The maximum amount of reimbursement for the ownership costs of Contractor owned or the rental cost of rented equipment, trucks or plant is limited to the original purchase price of the equipment, truck or plant for any force account work as listed in the Green Guide for Construction Equipment published by the Dataquest, Inc. In the specific event when the ownership or rental reimbursement is limited by the original purchase price, the Contractor shall, nevertheless, be reimbursed for the operating Cost/Hour for each hour of actual use.

(3) Quantities of materials, prices, and extensions.

(4) Transportation of materials.

(5) Overhead and Profit. If any of the work is performed by a subcontractor, the Contractor shall be paid the actual and reasonable cost of such subcontracted work computed as outlined in a through d above, or on such other basis as may be approved by the Owner. Subcontractor profit and overhead shall be paid as outlined in this section, plus an additional allowance of five percent (5%) of materials and direct labor to cover the Contractor's profit, superintendence, administration, insurance and other overhead. For the purposes of computing overhead and profit, only one level or tier of subcontractors will be allowed.

Overhead shall be defined to include, but not be limited to:

- premium on bonds;
- premium on insurance required by workman's compensation insurance, public liability and property damage insurance, unemployment insurance, social security tax, and other payroll taxes and such reasonable charges that are paid by the Contractor pursuant to written agreement with his/her employee;
- all salary and expenses of executive officers, supervising officers or supervising employees;
- all clerical or stenographic employees;
- all charges for minor equipment, such as small tools, including shovels, picks, axes, saws, bars, sledges, lanterns, jacks, cables, pails, wrenches, etc. and other miscellaneous supplies and services;
- all drafting room accessories such as paper, tracing cloth, blueprinting, etc.

Overhead and profit cost shall be computed at 20 percent of the following:

- Total Direct Labor Cost (actual hours worked multiplied by the basic hourly wage rate) plus supplemental benefits payments, payroll taxes, insurance payments and other labor related fringe benefit payments as defined in 'a' above, but not including the overtime additive payments. Overhead and profit shall not be paid on the premium portion of overtime.
- Total Cost of Materials as defined in c and d above.

**90-06 PARTIAL PAYMENTS.** Partial payments will be made to the Contractor at least once each month as the work progresses. Said payments will be based upon estimates, prepared by the Engineer, of the value of the work performed and materials complete and in place in accordance with the contract, plans, and specifications. Such partial payments may also include the delivered actual cost of those materials stockpiled and stored in accordance with the subsection titled PAYMENT FOR MATERIALS ON HAND of this section. No partial payments will be made for work items lacking approved submittals, or lacking acceptable manufacturer's material certifications. No partial payment will be made when the amount due to the Contractor since the last estimate amounts to less than five hundred dollars.

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The Contractor is required to pay all subcontractors for satisfactory performance of their contracts no later than 30 days after the Contractor has received a partial payment. The Owner must ensure prompt and full payment of retainage from the prime contractor to the subcontractor within 30 days after the subcontractor's work is satisfactorily completed. A subcontractor's work is satisfactorily completed when all the tasks called for in the subcontract have been accomplished and documented as required by the Owner. When the Owner has made an incremental acceptance of a portion of a prime contract, the work of a subcontractor covered by that acceptance is deemed to be satisfactorily completed. Any delay or postponement of payment from the above referenced time frame may occur only for good cause following written approval of the Sponsor. This clause applies to both DBE and non-DBE subcontractors.

From the total of the amount determined to be payable on a partial payment, 10 percent of such total amount will be deducted and retained by the Owner until the final payment is made, except as may be provided (at the Contractor's option) in the subsection titled PAYMENT OF WITHHELD FUNDS of this section. The balance {(insert balance)} of the amount payable, less all previous payments, shall be certified for payment. Should the Contractor exercise his/her option, as provided in the subsection titled PAYMENT OF WITHHELD FUNDS of this section, no such percent retainage shall be deducted.

When at least 95 percent of the work has been completed, the Engineer shall, at the Owner's discretion and with the consent of the surety, prepare estimates of both the contract value and the cost of the remaining work to be done.

The Owner may retain an amount not less than twice the contract value or estimated cost, whichever is greater, of the work remaining to be done. The remainder, less all previous payments and deductions, will then be certified for payment to the Contractor.

It is understood and agreed that the Contractor shall not be entitled to demand or receive partial payment based on quantities of work in excess of those provided in the proposal or covered by approved change orders or supplemental agreements, except when such excess quantities have been determined by the Engineer to be a part of the final quantity for the item of work in question.

No partial payment shall bind the Owner to the acceptance of any materials or work in place as to quality or quantity. All partial payments are subject to correction at the time of final payment as provided in the subsection titled ACCEPTANCE AND FINAL PAYMENT of this section.

The Contractor shall deliver to the Owner a complete release of all claims for labor and material arising out of this contract before the final payment is made. If any subcontractor or supplier fails to furnish such a release in full, the Contractor may furnish a bond or other collateral satisfactory to the Owner to indemnify the Owner against any potential lien or other such claim. The bond or collateral shall include all costs, expenses, and attorney fees the Owner may be compelled to pay in discharging any such lien or claim.

**90-07 PAYMENT FOR MATERIALS ON HAND.** Partial payments may be made to the extent of the delivered cost of materials to be incorporated in the work, provided that such materials meet the requirements of the contract, plans, and specifications and are delivered to acceptable sites on the airport property or at other sites in the vicinity that are acceptable to the Owner. Such delivered costs of stored or stockpiled materials may be included in the next partial payment after the following conditions are met:

- a. The material has been stored or stockpiled in a manner acceptable to the Engineer at or on an approved site.

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- b. The Contractor has furnished the Engineer with acceptable evidence of the quantity and quality of such stored or stockpiled materials.
  - c. The Contractor has furnished the Engineer with satisfactory evidence that the material and transportation costs have been paid.
  - d. The Contractor has furnished the Owner legal title (free of liens or encumbrances of any kind) to the material so stored or stockpiled.
  - e. The Contractor has furnished the Owner evidence that the material so stored or stockpiled is insured against loss by damage to or disappearance of such materials at any time prior to use in the work.

It is understood and agreed that the transfer of title and the Owner's payment for such stored or stockpiled materials shall in no way relieve the Contractor of his/her responsibility for furnishing and placing such materials in accordance with the requirements of the contract, plans, and specifications.

In no case will the amount of partial payments for materials on hand exceed the contract price for such materials or the contract price for the contract item in which the material is intended to be used.

No partial payment will be made for stored or stockpiled living or perishable plant materials.

The Contractor shall bear all costs associated with the partial payment of stored or stockpiled materials in accordance with the provisions of this subsection.

**90-08 PAYMENT OF WITHHELD FUNDS.** At the Contractor's option, if an Owner withholds retainage in accordance with the methods described in subsection 90-06 PARTIAL PAYMENTS, the Contractor may request that the Owner deposit the retainage into an escrow account. The Owner's deposit of retainage into an escrow account is subject to the following conditions:

- a. The Contractor shall bear all expenses of establishing and maintaining an escrow account and escrow agreement acceptable to the Owner.
- b. The Contractor shall deposit to and maintain in such escrow only those securities or bank certificates of deposit as are acceptable to the Owner and having a value not less than the retainage that would otherwise be withheld from partial payment.
- c. The Contractor shall enter into an escrow agreement satisfactory to the Owner.
- d. The Contractor shall obtain the written consent of the surety to such agreement.
- e. Deposits in escrow shall be maintained for a period of time described in the subsection titled GUARANTY of this section, or the Contractor shall furnish a bond as described in the subsection titled SECURITY FOR GUARANTEE of this section.

**90-09 ACCEPTANCE AND FINAL PAYMENT.** When the contract work has been accepted in accordance with the requirements of the subsection titled FINAL ACCEPTANCE of Section 50, the Engineer will prepare the final estimate of the items of work actually performed. The Contractor shall approve the Engineer's final estimate or advise the Engineer of his/her objections to the final estimate which are based on disputes in measurements or computations of the final quantities to be paid under the contract as amended by change order or supplemental agreement. The Contractor and the Engineer shall

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resolve all disputes (if any) in the measurement and computation of final quantities to be paid within 30 calendar days of the Contractor's receipt of the Engineer's final estimate. If, after such 30-day period, a dispute still exists, the Contractor may approve the Engineer's estimate under protest of the quantities in dispute, and such disputed quantities shall be considered by the Owner as a claim in accordance with the subsection titled CLAIMS FOR ADJUSTMENT AND DISPUTES of Section 50.

After the Contractor has approved, or approved under protest, the Engineer's final estimate, final payment will be processed based on the entire sum, or the undisputed sum in case of approval under protest, determined to be due the Contractor less all previous payments and all amounts to be deducted under the provisions of the contract. All prior partial estimates and payments shall be subject to correction in the final estimate and payment.

If the Contractor has filed a claim for additional compensation under the provisions of the subsection titled CLAIMS FOR ADJUSTMENTS AND DISPUTES of Section 50 or under the provisions of this subsection, such claims will be considered by the Owner in accordance with local laws or ordinances. Upon final adjudication of such claims, any additional payment determined to be due the Contractor will be paid pursuant to a supplemental final estimate.

**90-10 CLOSEOUT DOCUMENTATION.** The following documents and information shall be completed and submitted to the Engineer prior to final payment to facilitate project closeout:

1. Weekly certified payrolls for contractor's and each subcontractor's work forces.
2. Manufacturer's certifications for all items incorporated in the work.
3. All required record drawings, as-built drawings or as-constructed drawings.
4. Project O&M Manual.
5. Contractor's Affidavit of Payment of Debts and Claims (AIA Document G706) from the Prime Contractor.
6. Contractor's Affidavit of Release of Liens (AIA Document G706A) from the Prime Contractor.
7. Contractor's Affidavit of Payment of Debts and Claims (AIA Document G706) from each subcontractor.
8. Contractor's Affidavit of Release of Liens (AIA Document G706A) from each subcontractor.
9. Consent of Surety to Final Payment (AIA Document G707) from the Prime Contractor.
10. Security for Guarantee.
11. DBE Participation Summary.

**90-11 GUARANTEE.** All equipment and materials furnished and installed under this Contract shall be guaranteed against defects in materials and workmanship for a period of at least two years from the date of final acceptance by the Owner. The defective materials and/or equipment shall be repaired or replaced within five days written notice from the Engineer, at no additional cost to the Owner.

Within the guarantee period, no certificate given nor payment made under the Contract, nor partial or entire occupancy of the premises by the Owner shall be construed as an acceptance of defective work or of improper materials or as condoning any negligence or omission.

END OF SECTION 90

# **FAA TECHNICAL PROVISIONS**

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## ITEM M-100 MAINTENANCE AND PROTECTION OF TRAFFIC

### DESCRIPTION

**100-1.1 GENERAL.** This work shall consist of maintaining aircraft and vehicular traffic and protecting the public from damage to person and property within the limits of and for the duration of the Contract.

Contractor is responsible for maintenance and repair of these items, regardless of cause of damage, until the project is accepted.

The following items are specifically included without limiting the generality implied by these Specifications and the Contract Drawings. Contractor is responsible for maintenance and repair of these items, regardless of cause of damage, until the project is accepted.

- Restoration of all surfaces disturbed as a result of the Contractor's Operations which are not otherwise paid for.
- Installation, maintenance, repair and removal of temporary access roads and maintenance and repair of existing access roads.
- Testing and maintenance of existing and new AWOS and lighted windcone circuitry.
- Cleaning and maintenance of all paved areas.
- Security requirements.

### METHOD OF MEASUREMENT

**100-2.1** Measurement for payment of maintenance and protection of traffic will be made on a lump sum basis. Measurements for partial payment may be made at the discretion of the Engineer as the work progresses based on contract time or percent of work completed.

### BASIS OF PAYMENT

**100-3.1** The lump sum price bid for maintenance and protection of traffic shall include all equipments, materials, labor and incidentals necessary to adequately and safely maintain and protect traffic.

In the event the contract completion date is extended, no additional payment will be made for maintenance and protection of traffic.

Partial payments of the lump sum price bid may be made for this item at the discretion of the Engineer as the work progresses based on contract time or work completed, less any deductions for unsatisfactory maintenance and protection of traffic.

No payment will be made under maintenance and protection of traffic for each calendar day during which there are substantial deficiencies in compliance with the Specification requirements of any subsection of this Section as determined by the Engineer.

The amount of such calendar day non-payment will be determined by dividing the lump sum amount bid for maintenance and protection of traffic by the number of calendar days between the date the Contractor commences work and the date of completion as designated in this proposal, without regard to any extension of time.

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If the Contractor fails to maintain and protect traffic adequately and safely for a period of 24 hours, the Owner shall correct the adverse conditions by any means it deems appropriate and shall deduct the cost of the corrective work from any monies due the Contractor. The cost of this work shall be in addition to the liquidated damages and non-payment for maintenance and protection of traffic listed above.

However, where major nonconformance with the requirements of this Specification is noted by the Engineer and prompt Contractor compliance is deemed not to be obtainable, all contract work may be stopped by direct order of the Engineer regardless of whether corrections are made by the Owner as stated in the paragraph above.

Payment will be made under:

Item M-100-3.1 Maintenance and Protection of Traffic - per lump sum

END OF ITEM M-100

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## ITEM M-150 PROJECT SURVEY AND STAKEOUT

### DESCRIPTION

**150-1.1** Project survey and stakeout shall be in accordance with this specifications. The Contractor shall do all necessary surveying required to construct all elements of the Project. Project survey and stakeout shall be performed by competently qualified personnel acceptable to the Engineer. The survey and stakeout shall be progressed in advance of construction operations such that the layout does not impede the construction schedule. All survey work shall be provided under the direction of a Licensed Surveyor licensed in the State in which the project is located.

### MATERIALS

**150-2.1** All instruments, equipment, stakes and any other material necessary to perform the work satisfactorily shall be provided by the Contractor. It shall be the Contractor's responsibility to maintain these stakes in their proper position and location at all times.

Upon request, the Contractor shall make available to the Engineer, a rod, level, and tripod. The rod shall be 15 feet in length with hundredth of a foot graduation. The level shall be self leveling and have documentation demonstrating it has been calibrated within one month of the project's commencement. All equipment provided shall be in good working order and maintained by the Contractor throughout the duration of the project.

### CONSTRUCTION METHODS

**150-3.1 GENERAL.** Project survey and stakeout shall be in accordance with this specification.

Contractor's surveyor shall be onsite during installation of NAVAIDS to verify elevations, alignment and siting angles.

**150-3.2 LAYOUT AND STAKEOUT.** The Contractor shall be responsible for trimming trees, brush and other objects from survey lines in advance of all survey work to permit accurate and unimpeded work by his survey crews.

The exact position of all work shall be established from control points, baseline points or other points of similar nature which are shown on the Contract Drawings. Any error, apparent discrepancy or absence in or of data shown or required for accurately accomplishing the stakeout survey shall be referred to the Engineer for interpretation or furnishing when such is observed or required. Stakes shall be clearly and legibly marked based on computations and measurements made by the Contractor. Markings shall include centerline station, offset and cut or fill marks. If markings become faded or blurred, they shall be restored by the Contractor, if requested by the Engineer. Contractor shall locate and place all cut, fill, slope, fine grade or other stakes and points for the proper progress of the work. All control points shall be properly guarded and flagged for easy identification. Reference points, baselines, stakes and benchmarks for borrow pits shall be established by the Contractor. Permanent survey marker locations shall be established and referenced by the Contractor.

The Contractor shall be responsible for the accuracy of his work and shall maintain all reference points, stakes, etc., throughout the life of the Contract. Damaged or destroyed points, benchmarks or stakes, or any reference points made inaccessible by the progress of the construction, shall be replaced or transferred by the Contractor. Any of the above points which may be destroyed or damaged shall be transferred by the Contractor before they are damaged or destroyed. All control points shall be referenced by ties to acceptable objects and recorded. Any alterations or revisions in the ties shall be so noted and the

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information furnished to the Engineer immediately. All stakeout survey work shall be referenced to the centerlines shown on the Contract Drawings indicating station and offset. All computations necessary to establish the exact position of the work from control points shall be made by the Contractor. All computations, survey notes and other records necessary to accomplish the work shall be neatly made, and shall be made available to the Engineer upon request.

The Engineer may check all or any portion of the stakeout survey work or notes made by the Contractor. Any necessary correction to the work shall be made immediately by the Contractor. Such checking by the Engineer shall not relieve the Contractor of any responsibilities for the accuracy or completeness of his work.

Existing property corners, markers, stakes, iron pins, and survey monuments defining property lines which have a high probability of being disturbed during construction shall be properly tied into fixed reference points before being disturbed and accurately reset in their proper position upon completion of the work.

#### METHOD OF MEASUREMENT

**150-4.1** No separate measurement or payment of project survey and stakeout will be made for project survey and stakeout, the cost of which shall be considered a subsidiary obligation by the Contractor and included in the Contract price for the pay items of work involved.

#### BASIS OF PAYMENT

**150-5.1** No payment will be made separately or directly for this item on any part of the work. All project survey and stakeout will be considered a necessary and incidental part of the work and its cost shall be considered by the Contractor and included in the Contract price for the pay items involved.

END OF ITEM M-150

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## **Item M-200 Mobilization**

### DESCRIPTION

**200-1.1** Under this work the Contractor shall set up his necessary general plant, including shops, storage areas, office and such sanitary and other facilities as are required by local or state law or regulation.

### MATERIALS

**200-2.1** Such materials as are required for mobilization and that are not to be a part of the completed contract shall be as determined by the Contractor, except that they shall conform to all pertinent local or state law, regulation or code.

### CONSTRUCTION DETAILS

**200-3.1** The work required to provide the above facilities and services for mobilization shall be done in a safe and workmanlike manner and shall conform with any pertinent local or state law, regulation or code. Good housekeeping consistent with safety shall be maintained.

### METHOD OF MEASUREMENT

**200-4.1** Measurement for payment of mobilization will be made on a lump sum basis. Measurements for partial payment may be made at the discretion of the Engineer as the work progresses based on contract time or percent of work completed.

### BASIS OF PAYMENT

**200-5.1** The amount bid shall include the furnishing and maintaining of services and facilities noted under 200-1, Description, to the extent and at the time the Contractor deems them necessary for his operations, consistent with the requirements of this work and the respective contract.

The amount bid shall be payable to the Contractor with the first progress estimate made for other contract work. Unless provided for elsewhere, the cost of required insurance and bonds and/or any initiation of the contract work may be included in this work.

Payment will be made under:

Item M-200-5.1      Mobilization - per lump sum

END OF ITEM M-200

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## Item P-151 Clearing and Grubbing

### DESCRIPTION

**151-1.1** This item shall consist of clearing and grubbing, including the disposal of materials, for all areas within the limits designated on the plans or as required by the Engineer.

Tree removal shall consist of the cutting and removal of isolated single trees or isolated groups of trees, and the grubbing of stumps and roots. The removal of all the trees of this classification shall be in accordance with the requirements for the particular area being cleared, as shown on the plans, or as directed by the Engineer.

Clearing and grubbing shall consist of clearing the surface of the ground of the designated areas of all trees, stumps, down timber, logs, snags, brush, undergrowth, hedges, heavy growth of grass or weeds, fences, structures, debris, and rubbish of any nature, natural obstructions or such material which in the opinion of the Engineer is unsuitable for the foundation of strips, pavements, or other required structures, including the grubbing of stumps, roots, matted roots, foundations, and the disposal from the project of all spoil materials resulting from clearing and grubbing.

### CONSTRUCTION METHODS

**151-2.1 GENERAL.** The areas denoted on the plans to be cleared or cleared and grubbed, including and trees to be removed shall be staked on the ground by by a licensed land surveyor hired by the Contractor. Each stake shall be located at an interval that allows for visual inspection from one stake to the next without the use of any special equipment. A survey map shall be provided by the Contractor's Surveyor showing the metes and bounds and all boundary stakes for the area to be cleared and grubbed. Points on the map shall be referenced to the project horizontal control. The survey map shall be approved by the Engineer prior to the Contractor commencing work on this item. Contractor's Surveyor shall also provide a point data file in ASCII format, and a digital file of the map in DXF compatible format on a CD-ROM or disk with loading and unloading instructions.

Identification of Airport property lines for the purpose of identifying work limits shall be the responsibility of the Contractor.

**151-2.3 CLEARING AND GRUBBING.** In areas designated to be cleared and grubbed, all stumps, roots, buried logs, brush, grass, and other unsatisfactory materials shall be removed. Tap roots and other projections over 1 ½ in (37 mm) in diameter shall be grubbed out to a depth of at least 18 in (45 cm) below the finished subgrade or slope elevation.

All holes remaining after the grubbing operation shall have the sides broken down to flatten out the slopes, and shall be filled with acceptable material, moistened and properly compacted .

When no other soil disturbance will occur as a result of this project, the ground shall be leveled in accordance with the requirements specified below.

**151-2.4 TREE REMOVAL ON AIRPORT PROPERTY.** All trees designated to be removed shall be field flagged or painted by the Contractor and field verified and approved by the Engineer prior to the Contractor commencing with any work of this item.

All stumps shall be removed or reduced to chips by the use of an approved chipping machine or stump grinder. Stump grinding shall be at a minimum depth of one foot below existing grade. Chips shall be

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one-half inch maximum thickness. Chips resulting there from shall be disposed of in a satisfactory manner by the Contractor as specified herein.

When no other soil disturbance will occur as a result of this project, the ground shall be leveled in accordance with the requirements specified below.

**151-2.5 DISPOSAL.** All land cleared material shall be disposed of immediately after clearing and grubbing operations. No burning of land cleared materials shall be permitted. In no case shall any materials be left in windrows or piles adjacent to or within the airport limits. No separate payment will be made for disposal. Contractor shall consider the costs of disposal in the various pay items involved. The Contractor shall dispose of all land cleared materials as follows:

- A. Excavated stumps and all remaining materials resulting from land clearing operations shall be disposed of off-site at an area designated by the Contractor.

**151-2.6 LEVELING OF GROUND SURFACE.** All areas that have been cleared and grubbed and which are outside of proposed grading limits shall be graded adequately to accommodate Sponsor owned mowing equipment. Areas of abrupt transition in grade which would not allow the passage of mowing equipment will not be allowed. Rocks and boulders which protrude above the ground surface by more than 2 inches shall be buried on site or excavated and removed from the site. All rocks or boulders that are essentially flush with the surrounding ground surface and will allow the safe passage of mowing equipment may remain.

**151-2.7 RESTORATION.** After clearing and grubbing operations are completed, the Contractor shall dispose of all surplus material, dirt and rubbish from the site.

All areas disturbed by the Contractor's operation shall be restored to its original condition at no cost to the Owner. Restoration of surfaces shall be performed in accordance with the details shown on the plans.

The Contractor shall be held responsible for maintaining all disturbed surfaces and replacements until final acceptance.

#### METHOD OF MEASUREMENT

**151-4.1** No measurement will be made for direct payment of tree removal, as the cost of performing this work shall be considered as a subsidiary obligation in the completion of work.

**151-4.2** The quantities of clearing and grubbing, as shown by the limits on the Contractor's approved survey map, and as ordered by the Engineer shall be the number of square yards, measured by the computer generated area from the map, of wetland cleared or land cleared and grubbed.

#### BASIS OF PAYMENT

**151-4.1** Payment shall be made at the contract unit price per square yard for clearing and grubbing. This price shall be full compensation for furnishing all materials and for all labor, equipment, tools, and incidentals necessary to complete the items. Partial payment may be made as the work progresses at the discretion of the Engineer.

**151-4.2** No separate payment will be made for tree removal.

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Payment will be made under:

Item P-151-4.1 Clearing and Grubbing – per square yard

#### SUBMITTALS AND CERTIFICATIONS

**151-5.1** The following "Shop and Setting Drawings", "Working Drawings", Catalogue Data" and "Certifications" shall be submitted for review:

- Survey map of the areas to be cleared and grubbed
- A point data file in ASCII format and a digital file in DXF compatible format.

END OF ITEM P-151

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## Item P-610 Structural Portland Cement Concrete

### DESCRIPTION

**610-1.1** This item shall consist of plain or reinforced structural Portland Cement Concrete (PCC), prepared and constructed in accordance with these specifications, at the locations and of the form and dimensions shown on the plans.

### MATERIALS

**610-2.1 GENERAL.** Only approved materials, conforming to the requirements of these specifications, shall be used in the work. They may be subjected to inspection and tests at any time during the progress of their preparation or use. The source of supply of each of the materials shall be approved by the Engineer before delivery or use is started. Representative preliminary samples of the materials shall be submitted by the Contractor, when required, for examination and test. Materials shall be scored and handled to insure the preservation of their quality and fitness for use and shall be located to facilitate prompt inspection. All equipment for handling and transporting materials and concrete must be clean before any material or concrete is placed therein.

In no case shall the use of pit-run or naturally mixed aggregates be permitted. Naturally mixed aggregate shall be screened and washed, and all fine and coarse aggregates shall be stored separately and kept clean. The mixing of different kinds of aggregates from different sources in one storage pile or alternating batches of different aggregates will not be permitted.

**a. Reactivity.** Aggregates shall be tested for deleterious reactivity with alkalis in the cement, which may cause excessive expansion of the concrete. Separate tests of coarse and fine aggregate shall be made in accordance with ASTM C 1260. If the expansion of coarse or fine aggregate test specimens, tested in accordance with ASTM C 1260, does not exceed 0.10 % at 28 days (30 days from casting), the coarse or fine aggregates shall be accepted.

If the expansion of any aggregate, coarse or fine, at 28 days is greater than 0.10%, tests of combined materials shall be made in accordance with ASTM C 1567 using the aggregates, cementitious materials, and/or specific reactivity reducing chemicals in the proportions proposed for the mixture design. If the expansion of the proposed combined materials test specimens, tested in accordance with ASTM C 1567, does not exceed 0.10 % at 28 days, the proposed combined materials will be accepted. If the expansion of the proposed combined materials test specimens is greater than 0.10% at 28 days, the aggregates will not be accepted unless adjustments to the combined materials mixture can reduce the expansion to less than 0.10 % at 28 days, or new aggregates shall be evaluated and tested.

**610-2.2 COARSE AGGREGATE.** The coarse aggregate for concrete shall meet the requirements of ASTM C 33. Crushed stone aggregate shall have a durability factor, as determined by ASTM C 666, greater than or equal to 95. The Engineer may consider and reserve final approval of other State classification procedures addressing aggregate durability.

Coarse aggregate shall be well graded from coarse to fine and shall meet one of the gradations shown in Table 1, using ASTM C 136.

**610-2.3 FINE AGGREGATE.** The fine aggregate for concrete shall meet the requirements of ASTM C 33.

The fine aggregate shall be well graded from fine to coarse and shall meet the requirements of Table 2 when tested in accordance with ASTM C 136:

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**Table 1. Gradation For Coarse Aggregate**

Sieve Designation(square openings)	Percentage by Weight Passing Sieves						
	2"	1-1/2"	1"	3/4"	1/2"	3/8"	No.4
No. 4 to 3/4 in. (4.75-19.0 mm)			100	90-100		20-55	0-10
No. 4 to 1 in. (4.75-25.0 mm)		100	90-100		25-60		0-10
No. 4 to 1-1/2 in. (4.75-38.1 mm)	100	95-100		35-70		10-30	0-5

**Table 2. Gradation For Fine Aggregate**

Sieve Designation (square openings)	Percentage by Weight Passing Sieves
3/8 in (9.5 mm)	100
No. 4 (4.75 mm)	95-100
No. 16 (1.18 mm)	45-80
No. 30 (0.60 mm)	25-55
No. 50 (0.30 mm)	10-30
No. 100 (0.15 mm)	2-10

Blending will be permitted, if necessary, in order to meet the gradation requirements for fine aggregate. Fine aggregate deficient in the percentage of material passing the No. 50 mesh sieve may be accepted, provided that such deficiency does not exceed 5 percent and is remedied by the addition of pozzolanic or cementitious materials other than Portland cement, as specified in 610-2.6 on admixtures, in sufficient quantity to produce the required workability as approved by the Engineer.

**610-2.4 CEMENT.** Cement shall conform to the requirements of ASTM C 150 Type II, low alkali, or Portland Pozzolan Cement, conforming with the requirements of ASTM C 595, Type IP(MS), low alkali. Pozzolonic materials shall not be used as a directly added ingredient in concrete in combination with Portland Pozzolan Cement.

The Contractor shall furnish vendors' certified test reports for each carload, or equivalent, of cement shipped to the project. The report shall be delivered to the Engineer before permission to use the cement is granted. All such test reports shall be subject to verification by testing sample materials received for use on the project.

**610-2.5 WATER.** The water used in concrete shall be free from sewage, oil, acid, strong alkalis, vegetable matter, and clay and loam. If the water is of questionable quality, it shall be tested in accordance with AASHTO T 26.

The Engineer's approval is required for any water source other than a public potable water supply.

**610-2.6 ADMIXTURES.** The use of any material added to the concrete mix shall be approved by the Engineer. Before approval of any material, the Contractor shall be required to submit the results of complete physical and chemical analyses made by an acceptable testing laboratory. Subsequent tests shall be made of samples taken by the Engineer from the supply of the material being furnished or proposed for use on the work to determine whether the admixture is uniform in quality with that approved.

Pozzolanic admixtures shall be flyash or raw or calcined natural pozzolans meeting the requirements of ASTM C 618, Class F or N with the exception of loss of ignition, where the maximum shall be less than 6

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percent. Class F or N flyash for use in mitigating alkali-silica reactivity shall have a Calcium Oxide (CaO) content of less than 13 percent and a total equivalent alkali content less than 3 percent.

Air-entraining admixtures shall meet the requirements of ASTM C 260. Air-entraining admixtures shall be added at the mixer in the amount necessary to produce the specified air content.

Water-reducing, set-controlling admixtures shall meet the requirements of ASTM C 494, Type A, water-reducing or Type D, water-reducing and retarding. Water-reducing admixtures shall be added at the mixer separately from air-entraining admixtures in accordance with the manufacturer's printed instructions.

**610-2.7 PREMOLDED JOINT MATERIAL.** Premolded joint material for expansion joints shall meet the requirements of ASTM D 1751 or ASTM D 1752.

**610-2.8 JOINT FILLER.** Not required.

**610-2.9 STEEL REINFORCEMENT.** Concrete reinforcing shall consist of deformed bars of new billet steel with a minimum yield of 60,000 psi and meeting the requirements of ASTM A 615, grade 60. Epoxy-coated reinforcing bars shall meet the requirements of ASTM A 775.

Welded wire fabric shall meet the requirements of ASTM A 185. Tie wire shall be 16 gage (minimum) annealed steel type. Chairs, bolsters, bar supports and spacers shall be sized and shaped for strength and support of reinforcement during installation and placement of concrete.

Contractor shall submit a bar list and schedule for approval prior to placing reinforcing steel. Reinforcing steel shall be delivered to the project site cut to length, bent, and in secure bundles, marked with metal tags indicating bar sizes and lengths.

**610-2.10 COVER MATERIALS FOR CURING.** Curing materials shall conform to one of the following specifications:

Waterproof paper for curing concrete	ASTM C 171
Polyethylene Sheeting for Curing Concrete	ASTM C 171
Liquid Membrane-Forming Compounds for Curing Concrete	ASTM C 309, Type 2

## CONSTRUCTION METHODS

**610-3.1 GENERAL.** The Contractor shall furnish all labor, materials, and services necessary for, and incidental to, the completion of all work as shown on the drawings and specified herein. All machinery and equipment owned or controlled by the Contractor, which he proposes to use on the work, shall be of sufficient size to meet the requirements of the work, and shall be such as to produce satisfactory work; all work shall be subject to the inspection and approval of the Engineer.

**610-3.2 CONCRETE COMPOSITION.** The concrete shall develop a compressive strength of 4,000 psi in 28 days, unless otherwise specified, as determined by test cylinders made in accordance with ASTM C 31 and tested in accordance with ASTM C 39. The concrete shall contain not less than 470 pounds of cement per cubic yard (280 kg per cubic meter). The concrete shall contain 5 percent of entrained air, plus or minus 1 percent, as determined by ASTM C 231 and shall have a slump of not more than 4 in (10 cm) as determined by ASTM C 143.

In proportioning aggregates and mixing water, compensation shall be made for the weight of moisture in the aggregates, and shall be determined on a daily basis. The net mixing water shall be adjusted for the

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moisture contained in the aggregates, and for the moisture which they will absorb, in order to determine the amount of water to be added at the mixer. The absorption of the coarse and fine aggregates shall be determined by ASTM C 127 and ASTM C 128.

**610-3.3 ACCEPTANCE SAMPLING AND TESTING.** Concrete will be accepted on the basis of the compressive strength specified in paragraph 3.2. The concrete shall be sampled in accordance with ASTM C 172. Compressive strength specimens shall be made in accordance with ASTM C 31 and tested in accordance with ASTM C 39.

Concrete cylindrical test specimens shall be made in accordance with ASTM C 31 and tested in accordance with ASTM C 39. The Contractor shall cure, protect and store the test specimens under such conditions as directed by the Engineer. The transportation of and testing of concrete cylinders and beams will be performed by a testing laboratory employed by the Owner. The Engineer will make the actual tests on the specimens at no expense to the Contractor.

**610-3.4 PROPORTIONING AND MEASURING DEVICES.** When package cement is used, the quantity for each batch shall be equal to one or more whole sacks of cement. The aggregates shall be measured separately by weight. If aggregates are delivered to the mixer in batch trucks, the exact amount for each mixer charge shall be contained in each batch compartment. Weighing boxes or hoppers shall be approved by the Engineer and shall provide means of regulating the flow of aggregates into the batch box so that the required and exact weight of aggregates can be readily obtained.

**610-3.5 CONSISTENCY.** The consistency of the concrete shall be checked by the slump test specified in ASTM C 143.

**610-3.6 MIXING.** Concrete may be mixed at the construction site, at a central point, or wholly or in part in truck mixers. The concrete shall be mixed and delivered in accordance with the requirements of ASTM C 94.

**610-3.7 MIXING CONDITIONS.** The concrete shall be mixed only in quantities required for immediate use. Concrete shall not be mixed while the air temperature is below 40 °F (4 °C) without permission of the Engineer. If permission is granted for mixing under such conditions, aggregates or water, or both, shall be heated and the concrete shall be placed at a temperature not less than 50 °F (10 °C) nor more than 100 °F (38 °C). The Contractor shall be held responsible for any defective work, resulting from freezing or injury in any manner during placing and curing, and shall replace such work at his/her expense.

Retempering of concrete by adding water or any other material shall not be permitted.

The delivery of concrete to the job shall be in such a manner that batches of concrete will be deposited at uninterrupted intervals. Maximum interval between successive truckloads of concrete discharged into the work shall not exceed 30 minutes at any one location.

**610-3.8 FORMS.** Concrete shall not be placed until all the forms and reinforcements have been inspected and approved by the Engineer. Forms shall be of suitable material and shall be of the type, size, shape, quality, and strength to build the structure as designed on the plans. The forms shall be true to line and grade and shall be mortar-tight and sufficiently rigid to prevent displacement and sagging between supports. The Contractor shall bear responsibility for their adequacy. The surfaces of forms shall be smooth and free from irregularities, dents, sags, and holes.

The internal ties shall be arranged so that, when the forms are removed, no metal will show in the concrete surface or discolor the surface when exposed to weathering. All forms shall be wetted with water or with a non-staining mineral oil, which shall be applied shortly before the concrete is placed. Forms

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shall be constructed so that they can be removed without injuring the concrete or concrete surface. The forms shall not be removed before the expiration of at least 30 hours from vertical faces, walls, slender columns, and similar structures; forms supported by falsework under slabs, beams, girders, arches, and similar construction shall not be removed until tests indicate that at least 60% of the design strength of the concrete has developed.

**610-3.9 PLACING REINFORCEMENT.** All reinforcement shall be accurately placed, as shown on the plans, and shall be firmly held in position during concreting. Bars shall be fastened together at intersections. The reinforcement shall be supported by approved metal chairs. Shop drawings, lists, and bending details shall be supplied by the Contractor when required.

**610-3.10 EMBEDDED ITEMS.** Before placing concrete, any items that are to be embedded shall be firmly and securely fastened in place as indicated. All such items shall be clean and free from coating, rust, scale, oil, or any foreign matter. Embedded items shall be covered, or otherwise protected during placement of concrete, to prevent concrete from splashing onto the exposed portions. The embedding of wood shall be avoided. The concrete shall be spaded and consolidated around and against embedded items. Contractor shall clean the exposed surfaces of embedded items of concrete prior to drying or hardening.

**610-3.11 PLACING CONCRETE.** All concrete shall be placed during daylight, unless otherwise approved. The concrete shall not be placed until the depth and character of foundation, the adequacy of forms and falsework, and the placing of the steel reinforcing have been approved. Concrete shall be placed as soon as practical after mixing and in no case later than 1 hour after water has been added to the mix. The method and manner of placing shall be such to avoid segregation and displacement of the reinforcement. Troughs, pipes, and chutes shall be used as an aid in placing concrete when necessary. Dropping the concrete a distance of more than 5 ft (1.5 m), or depositing a large quantity at one point, will not be permitted. Concrete shall be placed upon clean, damp surfaces, free from running water, or upon properly consolidated soil.

The concrete shall be compacted with suitable mechanical vibrators operating within the concrete. When necessary, vibrating shall be supplemented by hand spading with suitable tools to assure proper and adequate compaction. Vibrators shall be manipulated so as to work the concrete thoroughly around the reinforcement and embedded fixtures and into corners and angles of the forms. The vibration at any joint shall be of sufficient duration to accomplish compaction but shall not be prolonged to the point where segregation occurs. Concrete deposited under water shall be carefully placed in a compact mass in its final position by means of a tremie, a closed bottom dump bucket, or other approved method and shall not be disturbed after being deposited.

**610-3.12 CONSTRUCTION JOINTS.** When the placing of concrete is suspended, necessary provisions shall be made for joining future work before the placed concrete takes its initial set. For the proper bonding of old and new concrete, such provisions shall be made for grooves, steps, keys, dovetails, reinforcing bars or other devices as may be prescribed. The work shall be arranged so that a section begun on any day shall be finished during daylight of the same day. Before depositing new concrete on or against concrete that has hardened, the surface of the hardened concrete shall be cleaned by a heavy steel broom, roughened slightly, wetted, and covered with a neat coating of cement paste or grout.

**610-3.13 EXPANSION JOINTS.** Expansion joints shall be constructed at such points and of such dimensions as may be indicated on the drawings. The premolded filler shall be cut to the same shape as that of the surfaces being joined. The filler shall be fixed firmly against the surface of the concrete already in place in such manner that it will not be displaced when concrete is deposited against it.

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**610-3.14 DEFECTIVE WORK.** Any defective work discovered after the forms have been removed shall be immediately removed and replaced. If any dimensions are deficient, or if the surface of the concrete is bulged, uneven, or shows honeycomb, which in the opinion of the Engineer cannot be repaired satisfactorily, the entire section shall be removed and replaced at the expense of the Contractor.

**610-3.15 SURFACE FINISH.** All exposed concrete surfaces shall be true, smooth, and free from open or rough spaces, depressions, or projections. The concrete in horizontal plane surfaces shall be brought flush with the finished top surface at the proper elevation and shall be struck-off with a straightedge and floated. Mortar finishing shall not be permitted, nor shall dry cement or sand-cement mortar be spread over the concrete during the finishing of horizontal plane surfaces.

When directed, the surface finish of exposed concrete shall be a rubbed finish. If forms can be removed while the concrete is still green, the surface shall be pointed and wetted and then rubbed with a wooden float until all irregularities are removed. If the concrete has hardened before being rubbed, a carborundum stone shall be used to finish the surface. When approved, the finishing can be done with a rubbing machine.

**610-3.16 CURING AND PROTECTION.** All concrete shall be properly cured and protected by the Contractor. The work shall be protected from the elements, flowing water, and from defacement of any nature during the building operations. The concrete shall be cured as soon as it has sufficiently hardened by covering with an approved material. Water-absorptive coverings shall be thoroughly saturated when placed and kept saturated for a period of at least 3 days. All curing mats or blankets shall be sufficiently weighted or tied down to keep the concrete surface covered and to prevent the surface from being exposed to currents of air. Where wooden forms are used, they shall be kept wet at all times until removed to prevent the opening of joints and drying out of the concrete. Traffic shall not be allowed on concrete surfaces for 7 days after the concrete has been placed.

Curing shall continue until the cumulative number of days, not necessarily consecutive, during which the temperature of the air in contact with the concrete is above 45 degrees F., has totaled seven days.

Curing compound, if used, shall not cause discoloration of the concrete and shall be applied in accordance with manufacturer's directions. Curing compounds shall not be used on any surface against which additional concrete or other cementitious finishing materials are to be bonded, or on any surface which a waterproofing membrane is to be applied.

**610-3.17 DRAINS OR DUCTS.** Drainage pipes, conduits, and ducts that are to be encased in concrete shall be installed by the Contractor before the concrete is placed. The pipe shall be held rigidly so that it will not be displaced or moved during the placing of the concrete.

**610-3.18 COLD WEATHER PROTECTION.** When concrete is placed at temperatures below 40 °F (4 °C), the Contractor shall provide satisfactory methods and means to protect the mix from injury by freezing. The aggregates, or water, or both, shall be heated in order to place the concrete at temperatures between 50 °F and 100 °F (10 °C and 38 °C).

All concreting operations in cold weather, when temperatures are below 40 degrees F, or are expected to fall below 40 degrees F, shall conform to the requirements of ACI 306.

Calcium chloride shall not be used in concrete which comes in contact with aluminum or galvanized metal. Calcium chloride may be incorporated in the mixing water when directed by the Engineer. Not more than 2 pounds (908 grams) of Type 1 nor more than 1.6 pounds (726 grams) of Type 2 shall be added per bag of cement. After the concrete has been placed, the Contractor shall provide sufficient protection such as cover, canvas, framework, heating apparatus, etc., to enclose and protect the structure

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and maintain the temperature of the mix at not less than 50 °F (10 °C) until at least 60% of the designed strength has been attained.

**610-3.19 FILLING JOINTS.** All joints that require filling shall be thoroughly cleaned, and any excess mortar or concrete shall be cut out with proper tools. Joint filling shall not be started until after final curing and shall be done only when the concrete is completely dry. The cleaning and filling shall be carefully done with proper equipment and in a manner to obtain a neat looking joint free from excess filler.

**610-3.20 HOT WEATHER CONCRETING.** Care shall be taken to protect the concrete or schedule operations to avoid problems incurred with flash set or too-rapid drying conditions.

All concreting operations during hot weather shall conform to the requirements of ACI 305.

#### METHOD OF MEASUREMENT

**610-4.1** No measurement will be made for direct payment of structural concrete, as the cost of furnishing and installing shall be considered a subsidiary obligation to the completion of the work.

#### BASIS OF PAYMENT

**610-5.1** No payment will be made separately or directly for this item on any part of the work, unless otherwise listed in the various pay items. All structural concrete will be considered a necessary and incidental part of the work and its cost shall be considered by the Contractor and included in the Contract price for the pay items of work involved.

#### SUBMITTALS AND CERTIFICATIONS.

Submittals of "Shop and Setting Drawings", "Working Drawings", "Catalogue Data" and "Certifications" for review shall be submitted in accordance with appropriate sections of the General Provisions. Submittals and Certifications required are as follows:

- Certification that coarse aggregate meets the requirements specified
- Gradation sieve analyses of coarse aggregate
- Certification that fine aggregate meets the requirements specified
- Gradation sieve analyses of fine aggregate
- Vendors certified mill test report showing that cement meets the requirements specified
- Certifications and catalogue data showing that admixtures meet the requirements specified
- Certification that reinforcing steel meets the requirements specified
- Certification and catalogue data showing that curing material meets the requirements specified
- Concrete mix designs for each class and type of concrete used in the work
- Certified test results showing the minimum design strength at twenty-eight days
- Reinforcing bar list and schedule.

#### TESTING REQUIREMENTS

ASTM C 31	Making and Curing Test Specimens in the Field
ASTM C 39	Compressive Strength of Cylindrical Concrete Specimens
ASTM C 127	Specific Gravity and Absorption of Coarse Aggregate

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ASTM C 127	Specific Gravity and Absorption of Fine Aggregate
ASTM C 136	Sieve Analysis of Fine and Coarse Aggregates
ASTM C 138	Density (Unit Weight), Yield, and Air Content (Gravimetric) of Concrete
ASTM C 143	Slump of Hydraulic Cement Concrete
ASTM C 231	Air Content of Freshly Mixed Concrete by the Pressure Method
ASTM C 666	Resistance of Concrete to Rapid Freezing and Thawing
ASTM C 1077	Laboratories Testing Concrete and Concrete Aggregates for Use in Construction and Criteria for Laboratory Evaluation
ASTM C 1260	Potential Alkali Reactivity of Aggregates (Mortar-Bar Method)

#### MATERIAL REQUIREMENTS

ASTM A 184	Specification for Fabricated Deformed Steel Bar or Rod Mats for Concrete Reinforcement
ASTM A 185	Steel Welded Wire Fabric, Plain, for Concrete Reinforcement
ASTM A 497	Steel Welded Wire Fabric, Deformed, for Concrete Reinforcement
ASTM A 615	Deformed and Plain Billet-Steel Bars for Concrete Reinforcement
ASTM A 704	Welded Steel Plain Bars or Rod Mats for Concrete Reinforcement
ASTM C 33	Concrete Aggregates
ASTM C 94	Ready-Mixed Concrete
ASTM C 150	Portland Cement
ASTM C 171	Sheet Materials for Curing Concrete
ASTM C 172	Sampling Freshly Mixed Concrete
ASTM C 260	Air-Entraining Admixtures for Concrete
ASTM C 309	Liquid Membrane-Forming Compounds for Curing Concrete
ASTM C 494	Chemical Admixtures for Concrete
ASTM C 595	Blended Hydraulic Cements
ASTM C 618	Coal Flyash and Raw or Calcined Natural Pozzolan for Use as a Mineral Admixture in Concrete
ASTM D 1751	Specification for Preformed Expansion Joint Fillers for Concrete Paving and

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Structural Construction (Non-extruding and Resilient Bituminous Types)

ASTM D 1752	Specification for Preformed Sponge Rubber and Cork Expansion Joint Fillers for Concrete Paving and Structural Construction
AASHTO T 26	Quality of Water to be Used in Concrete
ACI 305	Hot Weather Concreting
ACI 306	Cold Weather Concreting

END OF ITEM P-610

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## ITEM L-108 UNDERGROUND POWER CABLE FOR AIRPORTS

### DESCRIPTION

**108-1.1** This item shall consist of furnishing and installing power cables direct buried and furnishing and/or installing power cables within conduit or duct banks-in accordance with these specifications at the locations shown on-the plans. It includes excavation and backfill of trench for direct-buried cables only. Also included are the installation of counterpoise wires, ground wires, ground rods and connections, cable splicing, cable marking, cable testing, and all incidentals necessary to place the cable in operating condition as a completed unit to the satisfaction of the Engineer. This item shall not include the installation of duct banks or conduit, trenching and backfilling for duct banks or conduit, or furnishing or installation of any cable for FAA facilities. Requirements and payment for trenching and backfilling for the installation of underground conduit and duct banks is covered under Item L-110 "Airport Underground Electrical Duct Banks and Conduits."

### EQUIPMENT AND MATERIALS

#### **108-2.1 GENERAL.**

**a.** Airport lighting equipment and materials covered by Federal Aviation Administration (FAA) specifications shall be approved under the Airport Lighting Equipment Certification Program described in Advisory Circular (AC) 150/5345-53, current version.

**b.** All other equipment and materials covered by other referenced specifications shall be subject to acceptance through manufacturer's certification of compliance with the applicable specification, when requested by the Engineer.

**c.** Manufacturer's certifications shall not relieve the Contractor of the Contractor's responsibility to provide materials in accordance with these specifications and acceptable to the Engineer. Materials supplied and/or installed that do not materially comply with these specifications shall be removed, when directed by the Engineer and replaced with materials, which do comply with these specifications, at the sole cost of the Contractor.

**d.** All materials and equipment used to construct this item shall be submitted to the Engineer for approval prior to ordering the equipment. Submittals consisting of marked catalog sheets or shop drawings shall be provided. Submittal data shall be presented in a clear, precise and thorough manner. Original catalog sheets are preferred. Photocopies are acceptable provided they are as good a quality as the original. Clearly and boldly mark each copy to identify pertinent products or models applicable to this project. Indicate all optional equipment and delete non-pertinent data. Submittals for components of electrical equipment and systems shall identify the equipment for which they apply on each submittal sheet. Markings shall be boldly and clearly made with arrows or circles (highlighting is not acceptable). Contractor is solely responsible for delays in project accruing directly or indirectly from late submissions or resubmissions of submittals.

**e.** The data submitted shall be sufficient, in the opinion of the Engineer, to determine compliance with the plans and specifications. The Engineer reserves the right to reject any and all equipment, materials or procedures, which, in the Engineer's opinion, does not meet the system design and the standards and codes, specified herein.

**f.** All equipment and materials furnished and installed under this section shall be guaranteed against defects in materials and workmanship for a period of at least twelve (12) months from final

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acceptance by the Owner. The defective materials and/or equipment shall be repaired or replaced, at the Owner's discretion, with no additional cost to the Owner. The Contractor shall be responsible to maintain an insulation resistance of 50 megohms minima, (1000V megger) with isolation transformers connected in new circuits and new segments of existing circuits through the end of the contract warranty period.

**108-2.2 CABLE.** Underground cable for airfield lighting facilities (runway and taxiway lights and signs) shall conform to the requirements of AC 150/5345-7, Specification for L-824 Underground Electrical Cable for Airport Lighting Circuits. Conductor sizes noted above shall not apply to leads furnished by manufacturers on airfield lighting transformers and fixtures.

Wire for electrical circuits up to 600 volts shall comply with Specification L-824 and/or Federal Specification J-C-30 and shall be type THWN-2.

Cable type, size, number of conductors, strand and service voltage shall be as specified on the plans.

**108-2.3 BARE COPPER WIRE (COUNTERPOISE OR GROUND) AND GROUND RODS.** Wire for counterpoise or ground-installations for airfield lighting systems shall be No. 6 AWG solid for counterpoise and or No. 6 AWG stranded for ground wire conforming to ASTM B 3 and ASTM B 8, and shall be [bare copper wire] [tinned copper] conforming to the requirements of ASTM D 33.

Ground rods shall be **copper or copper-clad steel**. The ground rods shall be of the length and diameter specified on the plans, but in no case shall they be less than 8-feet (240 cm) long nor less than 5/8 inch (15 mm) in diameter.

**108-2.4 CABLE CONNECTIONS.** In-line connections of underground primary cables shall be of the type called for on the plans, and shall be one of the types listed below. No separate payment will be made for cable connections.

**a. The Cast Splice.** A cast splice, employing a plastic mold and using epoxy resin equivalent to that manufactured by Minnesota Mining and Manufacturing Company, "Scotchcast" Kit No. 82--B, or as manufactured by Hysol Corporation, "Hyseal Epoxy Splice" Kit No. E1135, or equivalent, is used for potting the splice is acceptable.

**b. The Field-attached Plug-in Splice.** Figure 3 of AC 150/5345-26, Specification for L-823 Plug and Receptacle, Cable Connectors, employing connector kits, is acceptable-for field attachment to single conductor cable. It shall be the Contractor's responsibility to determine the outside diameter of the cable to be spliced and to furnish appropriately sized connector kits and/or adapters and heat shrink tubing with integral sealant.

**c. The Factory-Molded Plug-in Splice.** Specification for L-823 Connectors, Factory-Molded to Individual Conductors, is acceptable.

**d. The Taped or Heat-Shrunk Splice.** Taped splices employing field-applied rubber, or synthetic rubber tape covered with plastic tape is acceptable. The rubber tape should meet the requirements of ASTM D 4388 and the plastic tape should comply with Mil Spec. MIL-I-24391 or Fed. Spec. A-A-55809. Heat shrinkable tubing shall be heavy-wall, self-sealing tubing rated for the voltage of the wire being spliced and suitable for direct-buried installations. The tubing shall be factory coated with a thermoplastic adhesive-sealant that will adhere to the insulation of the wire being spliced forming a moisture- and dirt-proof seal. Additionally, heat shrinkable tubing for multi-conductor cables, shielded cables, and armored cables shall be factory kits designed for the application. Heat shrinkable tubing and tubing kits shall be manufactured by Tyco Electronics/ Raychem Corporation, Energy Division, or approved equivalent.

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e. In all the above cases, connections of cable conductors shall be made using crimp connectors utilizing a crimping tool designed to make a complete crimp before the tool can be removed. All L-823/L-824 splices and terminations shall be made in accordance with the manufacturer's recommendations and listings.

f. All connections of counterpoise, grounding conductors and ground rods shall be made by the exothermic process or approved equivalent, except the base can ground clamp connector shall be used for attachment to the base can. All exothermic connections shall be made in accordance with the manufacturer's recommendations and listings.

**108-2.5 SPLICER QUALIFICATIONS.** Every airfield lighting cable splicer shall be qualified in making cable splices and terminations on cables rated above 5,000 volts AC. The Contractor shall submit to the Engineer proof of the qualifications of each proposed cable splicer for the cable type and voltage level to be worked on. Cable splicing/terminating personnel shall have a minimum of three (3) years continuous experience in terminating/splicing medium voltage cable.

**108-2.6 CONCRETE.** Concrete for cable markers shall conform to Specification Item P-610, "Structural Portland Cement Concrete."

**108-2.7 FLOWABLE BACKFILL.** Flowable material used to backfill trenches for power cable trenches shall conform to the requirements of Item P-153 "Controlled Low Strength Material".

**108-2.8 CABLE IDENTIFICATION TAGS.** Cable identification tags shall be made from a non-corrosive material with the circuit identification stamped or etched onto the tag. The tags shall be of the type as detailed on the plans.

**108-2.9 TAPE.** Electrical tapes shall be Scotch Electrical Tapes – number Scotch 88 (1-1/2" wide) and Scotch 130C linerless rubber splicing tape (2" wide), as manufactured by the Minnesota Mining and Manufacturing Company, or approved equivalent.

**108-2.10 ELECTRICAL COATING.** Scotchkote shall be as manufactured by Minnesota Mining and Manufacturing Company, or approved equivalent.

**108-2.11 EXISTING CIRCUITS.** Whenever the scope of work requires, connection to an existing circuit, the circuit's insulation resistance shall be tested, in the presence of the Engineer. The test shall be performed in accordance with this item and prior to any activity affecting the respective circuit. The Contractor shall record the results on forms acceptable to the engineer. When the work affecting the circuit is complete, the circuit's insulation resistance shall be checked again, in the presence of the Engineer. The Contractor shall record the results on forms acceptable to the engineer. The second reading shall be equal to or greater than the first reading or the Contractor shall make the necessary repairs to the circuit to bring the second reading above the first reading. All repair costs including a complete replacement of the L-823 connectors, L-830 transformers and L-824 cable, if necessary, shall be borne by the Contractor. All test results shall be submitted in the Operation and Maintenance (O&M) Manual.

## CONSTRUCTION METHODS

**108-3.1 GENERAL.** The Contractor shall install the specified cable at the approximate locations indicated on the plans. Unless otherwise shown on the plans, all cable required to cross under pavements expected to carry aircraft loads shall be installed in concrete encased duct banks. Wherever possible, cable shall be run without splices, from connection to connection.

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Cable connections between lights will be permitted only at the light locations for connecting the underground cable to the primary leads of the individual isolation transformers. The Contractor shall be responsible for providing cable-in continuous lengths for home runs or other long cable runs without connections, unless otherwise authorized in writing by the Engineer or shown on the plans.

In addition to connectors being installed at individual isolation transformers, L-823 cable connectors for maintenance and test points shall be installed at locations shown on the plans. Cable circuit identification markers shall be installed on both sides of the L-823 connectors installed or at least once in each access point where L-823 connectors are not installed.

Provide not less than 3 feet of cable slack on each side of all connections, isolation transformers, light units, and at points where cable is connected to field equipment. Where provisions must be made for testing or for future above grade connections, provide enough slack to allow the cable to be extended at least one foot vertically above the top of the access structure. This requirement also applies where primary cable passes through empty base cans, junction and access structures to allow for future connections, or as designated by the Engineer.

**108-3.2 INSTALLATION IN DUCT BANKS OR CONDUITS.** This item includes the installation of the cable in duct banks or conduit as described below. The maximum number and voltage ratings of cables installed in each single duct or conduit, and the current-carrying capacity of each cable shall be in accordance with the latest National Electric Code, or the code of the local agency or authority having jurisdiction.

The Contractor shall make no connections or splices-of any kind in cables installed in conduits or duct banks.

Unless otherwise designated in the plans, where ducts are in tiers, use the lowest ducts to receive the cable first, with spare ducts left in the upper levels. Check duct routes prior to construction to obtain assurance that the shortest routes are selected and interferences are avoided.

Duct banks or conduits shall be installed as a separate item in accordance with Item L-110, "Airport Underground Electrical Duct Banks and Conduit." The Contractor shall run a mandrel through duct banks or conduit prior to installation of cable to insure that the duct bank or conduit is open, continuous and clear of debris. Mandrel size shall be compatible with conduit size. The Contractor shall swab out all conduits/ducts and clean base can, manhole, etc. interiors IMMEDIATELY prior to pulling cable. Once cleaned and swabbed the base cans and all accessible points of entry to the duct/conduit system shall be kept closed except when installing cables. Cleaning of ducts, base cans, manholes, etc. is incidental to the pay item of the item being cleaned. All raceway systems left open, after initial cleaning, for any reason shall be re-cleaned at the Contractor's expense. All accessible points shall be kept closed when not installing cable. The Contractor shall verify existing ducts proposed for use in this project as clear and open. The Contractor shall notify the Engineer of any blockage in the existing ducts. The cable shall be installed in a manner to prevent harmful stretching of the conductor, injury to the insulation, or damage to the outer protective covering. The ends of all cables shall be sealed with moisture-seal tape providing moisture-tight mechanical protection with minimum bulk, or alternately, heat shrinkable tubing before pulling into the conduit and it shall be left sealed until connections are made. Where more than one cable is to be installed in a conduit, all cable shall be pulled in the conduit-at the same time. The pulling of a cable through duct banks or conduits may be accomplished by handwinch or power winch with the use of cable grips or pulling eyes. Maximum pulling-tensions shall-be governed by cable manufacturer's recommendations. A non-hardening lubricant recommended for the type of cable being installed shall be used where pulling lubricant is required.

Contractor shall submit pulling tension values to the Engineer prior to any cable installation. If required by the Engineer, pulling tension values for cable pulls shall be monitored by a dynamometer in the

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presence of the Engineer. Cable pull tensions shall be recorded by the Contractor and reviewed by the Engineer. Cables exceeding the maximum allowable pulling tension values shall be removed and replaced by the Contractor at the Contractor's expense.

The manufacturer's minimum bend radius or the NEC requirements whichever is more restrictive shall apply. Cable installation, handling and storage shall be per manufacturer's recommendations. During cold weather, particular attention shall be paid to the manufacturer's minimum installation temperature. Cable shall not be installed when the temperature is at or below the manufacturer's minimum installation temperature. At the Contractor's option, the Contractor may submit a plan, for review by the Engineer, for heated storage of the cable and maintenance of an acceptable cable temperature during installation when temperatures are below the manufacturer's minimum cable installation temperature.

Cable shall not be dragged across base can or manhole edges, pavement or earth. When cable must be coiled, lay cable out on a canvas tarp or utilize other appropriate means to prevent abrasion to the cable jacket.

### **108-3.3 INSTALLATION OF DIRECT-BURIED CABLE IN TRENCHES.** Not used

**108-3.4 CABLE MARKERS FOR DIRECT-BURIED CABLE.** The location of direct buried circuits shall be marked by a concrete slab marker, 2 feet (60 cm) square and 4-6 inches (100-150 mm) thick, extending approximately 1 inch (25 mm) above the surface. Each cable run from a-line of lights and signs to the equipment vault shall be marked at approximately every 200 feet (60 m) along the cable run, with an additional marker at each change of direction of cable run. All other direct-buried cable shall be marked in the same manner. Cable markers shall be installed directly-above the cable. The Contractor shall impress the word "CABLE" and directional arrows on each cable marking slab. The letters shall be approximately 4 inches (100 mm) high and 3 inches (75 mm) wide, with width of stroke 1/2 inch (12 mm) and 1/4 inch (6 mm) deep.

The location of each underground cable connection, except at lighting units, or isolation-transformers, or power adapters shall be marked by a concrete marker slab placed above the connection. The Contractor shall impress the word "SPLICE" on each slab. The Contractor-also shall impress additional circuit identification symbols on each slab as directed-by the Engineer. All cable markers and splice markers shall be painted international orange. Paint shall be specifically manufactured for uncured exterior concrete. Furnishing and installation of cable markers is incidental to the respective cable pay item.

**108-3.5 SPLICING.** Connections of the type shown on-the plans shall be made by experienced personnel regularly engaged in this type of work and shall be made as follows:

**a. Cast Splices.** These shall be made by using crimp connectors for jointing conductors. Molds shall be assembled, and the compound shall be mixed and poured in accordance with manufacturer's instructions and to the satisfaction of the Engineer.

**b. Field-attached Plug-in Splices.** These shall be assembled in accordance with manufacturer's instructions. These splices shall be made by plugging directly into mating connectors. In all cases the joint where the connectors come together shall be wrapped with at least one layer of rubber or synthetic rubber tape and one layer of plastic tape, one-half lapped, extending at least 1-1/2 inches (37 mm) on each side of the joint.

**c. Factory-Molded Plug-in Splices.** These shall be made by plugging directly into mating connectors. In all cases, the joint where the connectors come together shall be wrapped with at least one layer of rubber or synthetic rubber tape and one layer of plastic tape, one-half lapped, extending at least 1-1/2 inches (37 mm) on each side of the joint.

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**d. Taped or Heat-Shrunked Splices.** A taped splice shall be made in the following manner:

Bring the cables to their final position and cut so that the conductors will butt. Remove insulation and jacket allowing for bare conductor of proper length to fit compression sleeve connector with 1/4 inch (6 mm) of bare conductor on each side of the connector. Prior to splicing, the two ends of the cable insulation shall be penciled using a tool designed specifically for this purpose and for cable size and type. Do not use emery paper on splicing operation since it contains metallic particles. The copper conductors shall be thoroughly cleaned. Join the conductors by inserting them equidistant into the compression connection sleeve. Crimp conductors firmly in place with crimping tool that requires a complete crimp before tool can be removed. Test the crimped connection by pulling on the cable. Scrape the insulation to assure that the entire surface over which the tape will be applied (plus 3 inches (75 mm) on each end) is clean. After scraping wipe the entire area with a clean lint-free cloth. Do not use solvents.

Apply high-voltage rubber tape one-half lapped over bare conductor. This tape should be tensioned as recommended by the manufacturer. Voids in the connector area may be eliminated by highly elongating the tape, stretching it just short of its breaking point. Throughout the rest of the splice less tension should be used. Always attempt to exactly half-lap to produce a uniform buildup. Continue buildup to 1-1/2 times cable diameter over the body of the splice with ends tapered a distance of approximately 1 inch (25 mm) over the original jacket. Cover rubber tape with two layers of vinyl pressure-sensitive tape one-half lapped. Do not use glyptol or lacquer over vinyl tape as they react as solvents to the tape. No further cable covering or splice boxes are required.

Heat shrinkable tubing shall be installed following manufacturer's instructions. Direct flame heating shall not be permitted unless recommended by the manufacturer. Cable surfaces within the limits of the heat-shrink application shall be clean and free of contaminants prior to application.

108-3.6 BARE COUNTERPOISE WIRE INSTALLATION FOR LIGHTNING PROTECTION AND GROUNDING. **Not used.**

**108-3.8 TESTING.** The Contractor shall furnish all necessary equipment and appliances for testing the airport electrical systems and underground cable circuits before and after installation. The Contractor shall perform all tests in the presence of the Engineer. The Contractor shall demonstrate the electrical characteristics to the satisfaction of the Engineer. All costs for testing are incidental to the respective item being tested. For phased projects, the tests must be completed by phase and results meeting the specifications below must be maintained by the Contractor throughout the entire project as well as during the ensuing warranty period.

Earth resistance testing methods shall be submitted to the Engineer for approval. Earth resistance testing results shall be recorded on an approved form and testing shall be performed in the presence of the Engineer. All such testing shall be at the sole expense of the Contractor.

Should the counterpoise or ground grid conductors be damaged or suspected of being damaged by construction activities the Contractor shall test the conductors for continuity with a low resistance ohmmeter. The conductors shall be isolated such that no parallel path exists and tested for continuity. The Engineer shall approve of the test method selected. All such testing shall be at the sole expense of the Contractor.

After installation, the Contractor shall test and demonstrate to the satisfaction of the Engineer the following:

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a. That all affected lighting power and control circuits (existing and new) are continuous and free from short circuits.

b. That all affected circuits (existing and new) are free from unspecified grounds.

c. That the insulation resistance to ground of all new non-grounded series circuits or cable segments is not less than 50 megohms.

d. That the insulation resistance to ground of all non-grounded conductors of new multiple circuits or circuit segments is not less than 50 megohms.

e. That all affected circuits (existing and new) are properly connected in accordance with applicable wiring diagrams.

f. That all affected circuits (existing and new) are operable. Tests shall be conducted that include operating each control not less than 10 times and the continuous operation of each lighting and power circuit for not less than 1/2 hour.

g. That the impedance to ground of each ground rod does not exceed 25 ohms prior to establishing connections to other ground electrodes. The fall-of-potential ground impedance test shall be utilized, as described by ANSI/IEEE Standard 81, to verify this requirement.

Two copies of tabulated results of all cable tests performed shall be supplied by the Contractor to the Engineer. Where connecting new cable to existing cable, ground resistance tests shall be performed on the new cable prior to connection to the existing circuit.

There are no approved "repair" procedures for items that have failed testing other than complete replacement.

#### METHOD OF MEASUREMENT

**108-4.1** Trenching shall be measured by the linear feet (meters) of trench, including the excavation, backfill, and restoration, completed, measured as excavated, and accepted as satisfactory.

When specified, separate measurement shall be made for trenches of various specified widths.

The cost of all excavation, backfill, dewatering and restoration regardless of the type of material encountered shall be included in the unit price bid for the work.

**108-4.2** Cable or counterpoise wire installed in trench, duct bank or conduit shall be measured by the number of linear feet (meters) of cable or counterpoise wire installed in trenches, duct bank or conduit, including ground rods and grounding connectors, and trench marking tape ready for operation, and accepted as satisfactory. Separate measurement shall be made for each cable or counterpoise wire installed in trench, duct bank or conduit. The measurement for this item **shall not** include additional quantities required for slack. Cable and counterpoise slack is considered incidental to this item and is included in the contractor's unit price. No separate measurement or payment will be made for cable or counterpoise slack.

#### BASIS OF PAYMENT

**108-5.1** Payment will be made at the contract unit price for trenching, cable and bare counterpoise wire installed in trench (direct-buried), or cable and equipment ground installed in duct bank or conduit, in

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place by the Contractor and accepted by the Engineer. This price shall be full compensation for furnishing all materials and for all preparation and installation of these materials, and for all labor, equipment, tools, and incidentals, including ground rods and ground connectors and trench marking tape, necessary to complete this item.

Payment will be made under:

Item L-108-5.1	No. 8 AWG, 5kV, 1/C Airport Lighting Cable (L-824C Cable, installed in trench, duct bank or conduit)—per liner foot (meter)
Item L-108-5.2	Counterpoise Wire - per linear foot

#### MATERIAL REQUIREMENTS

AC 150/5345-7	Specification for L-824 Underground Electrical Cable for Airport Lighting Circuits
AC 150/5345-26	Specification for L-823 Plug and Receptacle Cable Connectors
FED SPEC J-C-30	Cable and Wire, Electrical Power, Fixed Installation (cancelled; replaced by A-A-59544 Cable and Wire, Electrical (Power, Fixed Installation))
FED SPEC A-A-55809	Insulation Tape, Electrical, Pressure-Sensitive Adhesive, Plastic
ASTM B 3	Soft or Annealed Copper Wire
ASTM D 4388	Rubber tapes, Nonmetallic Semiconducting and Electrically Insulating

#### REFERENCE DOCUMENTS

NFPA No. 70	National Electrical Code (NEC)
MIL-S-23586C	Sealing Compound, Electrical, Silicone Rubber Building Industry Consulting Service International (BICSI)
ANSI/IEEE Std 81	IEEE Guide for Measuring Earth Resistivity, Ground Impedance, and Earth Surface Potentials of a Ground System

**END OF ITEM L-108**

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## ITEM L-110 INSTALLATION OF AIRPORT UNDERGROUND ELECTRICAL DUCT

### DESCRIPTION

110-1.1. This item shall consist of underground electrical ducts installed in accordance with this specification at the locations and in accordance with the dimensions, designs, and details shown in the plans. It shall also include all trenching, backfilling, removal and restoration of any paved areas; pull boxes, hand holes, concrete encasement, mandreling installation of nylon drag wires and duct markers, capping, and the testing of the installation as a completed duct system ready for installation of cables, to the satisfaction of the Engineer.

### EQUIPMENT AND MATERIALS

110-2.1 GENERAL. All equipment and materials covered by referenced specifications shall be subject to acceptance through manufacturer's certification of compliance with the applicable specification when so requested by the Engineer.

110-2.2 STEEL CONDUIT. Rigid steel conduit and fittings shall conform to the requirements of Underwriters Laboratories Standard 6, 514, and 1242. Conduit installed underground shall be plastic coated.

110-2.3 CONCRETE. Concrete shall conform to Item P-610, Structural Portland Cement Concrete, using 1-inch maximum size coarse aggregate.

110-2.4 PLASTIC CONDUIT. Plastic conduit and fittings shall conform to the requirements of Fed. Spec. W-C-1094 and shall be one of the following, as specified in the proposal:

- a. Type I - suitable for underground use either directly in the earth or encased in concrete. Schedule 40.
- b. Type II - suitable for either above ground or underground use.

110-2.5 JUNCTION CANS. Junction cans shall be Type L-868, 12" diameter x 24" deep, including base plate and gasket, and conform to the requirements of FAA Advisory Circular 150/5345-46D.

### CONSTRUCTION METHODS

110-3.1 GENERAL. The Contractor shall install underground ducts at the approximate locations indicated in the airport layout plans. The Engineer shall indicate specific locations as the work progresses. Ducts shall be of the size, material, and type indicated in the plans or specifications. Where no size is indicated in the plans or specifications, the ducts shall be not less than 2 inches inside diameter. All duct lines shall be laid so as to grade toward hand holes, manholes and duct ends for drainage. Grades shall be at least 3 inches per 100 feet. On runs where it is not practicable to maintain the grade all one way, the duct lines shall be graded from the center in both directions toward manholes, hand holes, or duct ends. Pockets or traps where moisture may accumulate shall be avoided.

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The Contractor shall mandrel each duct. An iron-shod mandrel, not more than 1/4-inch smaller than the bore of the duct shall be pushed through each duct by means of jointed conduit rods. The mandrel shall have a leather or rubber gasket slightly larger than the duct hole.

All ducts installed shall be provided with an approved nylon drag wire for pulling the permanent wiring. Sufficient length shall be left in pull boxes or hand holes to bend the drag wire back to prevent it from slipping back into the duct. Where spare ducts are installed, as indicated on the plans, the open ends shall be plugged with removable tapered plugs, designed by the duct manufacturers.

All ducts shall be securely fastened in place during construction and progress of the work and shall be plugged to prevent seepage of grout, water or dirt. Any duct section having a defective joint shall not be installed.

Where shown on the plans ducts, except steel conduit, installed under runways, taxiways, aprons, and other paved areas shall be encased in a concrete envelope.

Where turf is well established and the sod can be removed, it shall be carefully stripped and properly stored to be reinstalled by this Contractor when completed.

Trenches for ducts may be excavated manually or with mechanical trenching equipment. Walls of trenches shall be essentially vertical so that a minimum of shoulder surface is disturbed. Blades of road patrols or graders shall not be used to excavate the trench. The Contractor shall ascertain the type of soil or rock to be excavated before bidding. All excavation shall be unclassified.

110-3.2 DUCTS ENCASED IN CONCRETE. Unless otherwise shown in the plans, concrete-encased ducts shall be installed so that the top of the concrete envelope is not less than 18 inches below the finished subgrade where installed under runways, taxiways, aprons, or other paved areas, and not less than 18 inches below the finished grade where installed in unpaved areas. Ducts under paved areas shall extend at least 3 feet beyond the edges of the pavement or 3 feet beyond and under drains which may be installed alongside the paved area. Trenches for concrete encased ducts shall be opened the complete length before concrete is laid so that if any obstructions are encountered, proper provisions can be made to avoid them. All ducts for concrete encasements shall be placed on a layer of concrete not less than 3 inches thick prior to its initial set. Where two or more ducts are encased in concrete, the Contractor shall space them not less than 1-1/2 inches apart (measured from outside wall to outside wall) using spacers applicable to the type of duct. As the duct laying progresses, concrete not less than 3 inches thick shall be placed around the sides and top of the duct bank. End bells or couplings shall be installed flush with the concrete encasement where required.

110-3.3 DUCTS WITHOUT CONCRETE ENCASEMENT. Trenches for single-duct lines shall be not less than 6 inches nor more than 12 inches wide, and the trench for 2 or more ducts installed at the same level shall be proportionately wider. Trench bottoms for ducts without concrete encasement shall be made to conform accurately to grade so as to provide uniform support for the duct along its entire length.

A layer of fine sand material, at least 3 inches thick (loose measurement) shall be placed in the bottom of the trench as bedding for the duct. The bedding material shall consist of fine sand. It shall contain no particles that would be retained on a 1/4-inch sieve. The bedding material shall be tamped until firm. Sand slurry is not acceptable.

Unless otherwise shown in plans, ducts for direct burial shall be installed so that the tops of all ducts are at least 18 inches below the finished grade.

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When two or more ducts are installed in the same trench without concrete encasement, they shall be spaced not less than 2 inches apart (measured from outside wall to outside wall) in a horizontal direction and not less than 6 inches apart in a vertical direction.

Manufactured spacers shall be used to maintain proper spaces. Wire ties or rocks are not acceptable.

Trenches shall be opened the complete length before duct is installed so that if any obstructions are encountered, proper provisions can be made to avoid them.

Expansion couplings shall be installed every 75' of duct run and between each light or equipment location.

110-3.4 BACKFILLING. Trenches shall not be excessively wet and shall not contain pools of water during backfilling operations.

The trench shall be completely backfilled and tamped level with the adjacent surface: except that, when sod is to be placed over the trench, the backfilling shall be stopped at a depth equal to the thickness of the sod to be used, with proper allowance for settlement.

Any excess excavated material shall be removed and disposed of in accordance with instructions issued by the Engineer.

For ducts without concrete envelope, fine sand (as depicted on the plans) shall be placed around the ducts and carefully tamped around and over them with hand tampers. Sand slurry is not acceptable. The remaining trench may be filled with regular run of excavated material and thoroughly tamped as specified above.

110-3.5 RESTORATION. Where sod has been removed, it shall be replaced as soon as possible after the backfilling is completed. All areas disturbed by the trenching, storing of dirt, cable laying, pad construction and other work shall be restored to its original condition. The restoration shall include any necessary topsoiling, fertilizing, liming, seeding, sprigging, or mulching. The Contractor shall be held responsible for maintaining all disturbed surfaces and replacements until final acceptance.

#### METHOD OF MEASUREMENT

110-4.1. Underground duct and/or conduit shall be measured by the linear feet of duct or conduit installed, measured in place, completed, and accepted. Separate measurement shall be made for the various types and sizes.

110-4.2. No separate measurement or payment will be made for trench and backfill. All trenching and backfill will be considered a necessary and incidental part of the work and its cost shall be considered by the Contractor and included in the Contract price for the pay items of work involved.

110-4.3. Electrical junction cans will be measured by the number of each can installed as completed units in place, ready for operation, and accepted by the Engineer. No separate payment will be made for the ground rod installed as a part of the assembly. .

#### BASIS OF PAYMENT

110-5.1. Payment will be made at the linear foot unit price for each type and size of single-way or multi-way duct, completed and accepted. This price shall be full compensation for furnishing all materials and for all

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preparation, assembly, and installation of these materials, and for all labor, equipment, tools, and incidentals necessary to complete these items.

110-5.2. Payment will be made at the unit price for each L-868 junction can installed by the Contractor and accepted by the Engineer. This price shall be full compensation for furnishing all materials and for all preparation, assembly, and installation of these materials, and for all labor, equipment, tools, and incidentals necessary to complete this item.

Payment will be made under:

Item L-110-5.2	2" PVC Conduit-- per linear foot
Item L-110-5.3	Electrical Junction Can -- per each

## **GENERAL ELECTRICAL SPECIFICATIONS**

### **PART 1 GENERAL**

#### **1.1 DESCRIPTION OF WORK**

- A. Furnish and install all electrical Work as shown on the Drawings and specified. Work includes electrical connections to equipment, wiring devices, conduit, conductors, and communications system.

#### **1.2 RELATED WORK**

- A. Refer to all Drawing sheets for the scope of the electrical Work.

#### **1.3 QUALITY ASSURANCE**

- A. All Work completed according to the latest edition of the National Electric Code.
- B. All material to be U.L. listed.
- C. All equipment to conform to ANSI and NEMA standards.

#### **1.4 SHOP DRAWINGS**

- A. Submit complete Shop Drawings for:
  - B. Wiring Devices
  - C. Disconnects

#### **1.5 CERTIFICATES AND FEES**

- A. The Electrical Contractor will pay for all fees, connection charges, permits and inspections.

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B. Installation shall be performed by persons licensed and skilled in the trade, and shall be done under the supervision of a master electrician licensed by the State.

C. Electrical work and installation shall be inspected by the authority having jurisdiction.

#### 1.6 GROUNDING

A. All grounding, as a minimum, will be according to the latest edition of the National Electrical Code, Article 250. Provide a full-size grounding conductor in all conduits.

#### 1.7 DELIVERY, STORAGE AND HANDLING

A. Deliver all materials and equipment direct to the job site utilizing Contractor's personnel and not to the Owner's receiving area.

B. Store all materials and equipment in a dry area, protected from the weather. Verify location of storage areas with the Owner.

#### 1.8 EXISTING CONDITIONS

A. Visit the site and become familiar with existing conditions and limitations.

B. Perform all cutting necessary to install the electrical Work indicated and all patching, painting, etc. to return the finished surfaces to the original condition. All wiring devices to be installed flush unless noted otherwise.

### PART 2 PRODUCTS

#### 2.1 CONDUIT

A. Within Buildings: Electrical metallic tubing (EMT).

B. Exterior below grade: PVC.

#### 2.2 CONDUIT FITTINGS

A. Steel, insulated throat-type.

#### 2.3 CONDUCTORS

A. Copper, THHN or THWN. Minimum size is No. 12 with other sizes as shown on Drawings.

#### 2.4 OUTLET BOXES

A. Standard electrical type. Gangable boxes not allowed.

#### 2.5 DISCONNECTS

A. Heavy-duty fusible type, NEMA I enclosure. NEMA 3R enclosure where noted "W.P."

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2.6 WIRING DEVICES

- A. Equal to Hubbell, specification grade, ivory in color.

2.7 DEVICE PLATES

- A. Plastic, ivory, equal to Sierra "P" series.

**PART 3 EXECUTION**

3.1 GENERAL

- A. Wiring in existing buildings remains as is except as noted on Drawings or specified.
- B. Install all electrical Work as shown on the Drawings.
- C. Utilize conduit for all feeders, branch circuiting, telephone, intercom and communications wiring.
- D. Schedule all outage times with the Owner at least five days in advance.

**END OF ITEM L-110**

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## ITEM L-131 – Automated Weather Observing System (AWOS)

### PART 1 GENERAL

#### 1.1 GENERAL

Furnish, install, and place into operation an Automatic Weather Observing System in accordance with FAA AC 150/5220-16C.

The system shall be a fully FAA Certified AWOS-AV type, with Altitude and Visibility sensors.

Provide system to automatically download information

Provide start-up services and system commissioning. All services and commissioning shall be performed by an AWOS Manufacturer Certified Technician.

Local radio communication to pilots shall be over Unicom.

#### 1.2 WEATHER STATION FEATURES

The weather station components shall meet or exceed the requirements of AC 150/5220-16C, Automated Weather Observation (AWOS) Systems for Non Federal Applications, including Flight Standards requirements for providing official weather on Unicom or VHF frequencies, where required. The UNICOM Based Weather Station (UBWS) shall have the following features:

- Broadcast weather information via airport UNICOM radio (ie, microphone clicks, hand held device)
- 110/220 AC Power Supply connection
- 12 V DC Battery back up, including battery.
- Wind speed
- Wind Direction
- Ambient Temperature
- Dewpoint
- Relative Humidity
- Graphical Display with Wind Rose and Runway Overlay
- Dual Barometric Pressure Sensors
- Visibility Sensor (must operate below +27 degrees F for extend time)
- Telephone and Internet connection capability.
- Local recorded advisory or NOTAM broadcast capabilities.
- Expandable for future sensor upgrades (e.g. precipitation)
- Provide new UNICOM radio or Discreet VHF Radio
- **Operate at temperatures between -30<sup>0</sup> C to +65<sup>0</sup> C**

#### 1.3 SHOP DRAWINGS AND PRODUCT DATA

Clearly indicate mounting details, dimensions, electrical connections, and description of operation. Include instructions for storage, handling, site preparation, installation and starting of product.

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## PART 2 PRODUCTS (AWOS EQUIPMENT AND MATERIALS)

### 2.1 AWOS SYSTEM.

The AWOS shall be a certified FAA system in accordance with the above documents and manufactured by Belfort. Or others as manufactured by a currently approved FAA Certified manufacturer.

### 2.2 GENERAL PERFORMANCE STANDARDS

- A. Input power. AWOS equipment shall operate from a 120/240V ( $\pm 10\%$ ), 60 Hz AC ( $\pm 5$  Hz), 3-wire single-phase service. The AWOS enclosure shall be mounted to the AWOS tower or sensor suite in accordance with the manufacturer's specifications. The required amount of power consumed shall be determined by the AWOS manufacturer.
- B. Loss of power: The AWOS system will return to normal operation without human intervention after a power outage. When power is restored, the system will not output erroneous data. The system shall operate from an Uninterruptible Power Supply (UPS), which is included in this contract.

### 2.3 OPERATING ENVIRONMENT

The AWOS equipment shall meet the requirements for operating in a Class I environment defined in AC 150/5220-16C.

### 2.4 AWOS INSTRUMENTATION

The systems to be installed shall be FAA certified as AWOS. All equipment provided shall be new. The weather station shall contain the following weather monitoring instruments and shall meet the specifications contained in AC 150/5220-16C, and supplemented herein.

#### C. Pressure Sensor

1. Design. Two (2) pressure sensors should be provided for the AWOS system. The sensors shall not require heaters. Pressure sensors shall have provision for venting to the outside of the building where required. Each sensor shall have an independent venting interface.
2. Pressure range. The sensor should be capable of measuring a pressure range at any fixed location of +1.5 to -3.0 inHg from the standard atmospheric pressure at that location. High pressure should be standard atmospheric pressure at -100 feet plus 1.5 in Hg (=31.565 inHg). Low pressure should be standard atmospheric pressure at +10,000 feet minus 3.0 inHg (=17.58 inHg).
3. Accuracy. The accuracy should be 0.01 in Hg RMSE at all altitudes from -100 to +10,000 feet mean sea level (MSL), maximum error 0.02 inHg at any one pressure.
4. Resolution. The resolution should not be greater than 0.005 inHg.
5. Differential accuracy. The sensor should exhibit a differential accuracy of 0.01 inHg or less between a series of two pressure measurements taken from the same sensor 3 hours apart. Ambient temperature over this 3 hour period should not

change more than 5 degree F; ambient pressure should not vary more than 0.1 inHg (RMSE) over the 3 hour period.

6. Maximum drift with time. Each sensor should be stable and continuously accurate within 0.01 inHg RMSE for a period of not less than 6 months. The maximum error shall be 0.02 inHg.

D. Visibility sensor

1. Range. The visibility sensor should be capable of determining visibilities for less than ¼ mile to 10 miles. A method of calibration traceable to the FAA approved transmissometer shall be provided.
2. Resolution. In terms of equivalent visibility, the sensor should provide data to report visibility values as follows: less than ¼, ¼, ½, ¾, 1-1/4, 1-1/2, 2-1/2, 3, 3-1/2, 4, 5, 7 and 10 miles.
3. Time constant. The time constant should not exceed 3 times.
4. Accuracy. The sensor should agree with the transmissometer standards as follows:

Table 1. Visibility sensor accuracy requirements (all values in statute miles).

Reference Transmissometer Reading	Acceptable Sensor Variance
¼ through 1.25	+ or - 1/4
1.5 through 1.75	+ ¼, -1/2
2 through 2.5	+ or - 1/2
3 through 3.5	+ ½, -1
4 and greater than 4	+ or -1

5. Ambient light sensor. The visibility sensor should contain an ambient light sensor to measure the ambient luminance within its field of view and to generate a signal to the visibility sensor to indicate whether the ambient light level is day or night. It shall indicate day for increasing illumination between 0.5 and 3 foot-candles (FC) and night for decreasing illumination between 3 and 0.5 FC. This sensor may be exposed to ambient light levels as high as 50 FC.
6. The AWOS system shall measure and store calibration constants on operator command when the visibility calibration is installed.

## 2.5 DATA PROCESSOR

Shall meet the specifications for AWOS contained in AC 150/5220-16C. The voice message shall be provided to users via an integral automatic telephone-answering device. The system shall generate these outputs; computer generated voice transmitted to pilots; telephone port for dial-up service; personal computer access via modem, output port for a video display; and output port to one of the national weather networks. An error indication shall be provided, at an attended location and will be energized when a parameter is reported "missing" by the AWOS.

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The data reduction function shall consist of the processing of information prior to the actual algorithm processing. The AWOS data reduction software shall include quality control checks to ensure that the data received is accurate and complete and that the associated equipment is working properly before the weather algorithms are performed. If data from any sensor is erroneous or missing, (e.g., a sensor loses power, etc.) that parameter and all other parameters derived from this missing parameter shall be reported "missing" in the weather observation. The processor shall continue to sample data, and if the error condition is corrected, the weather parameter shall be reinserted in the AWOS report.

- A. The processor shall periodically check reference on calibration points which correspond to the normal operating limits of the sensor.
- B. The processor shall set upper and lower limits on the sensor output, which correspond to the normal operating limits of the sensor.

## 2.6 OPERATOR TERMINAL

Shall meet the specifications for AWOS contained in AC 150/5220-16C. Shall contain a device and the capability to manually input a voice message to the end of the computer generated voice message according to AC 150/5220-16C, Paragraph 31.a. (1)(v). The voice system shall be loud and clear when received.

- A. The OT shall have the capability to do product editing. This function allows an authorized observer to initiate or change any observation product. A specific "editing" password shall control access to this function. Manual entries of weather phenomena not automatically observed shall be placed in the remarks section of the observation and will not be included in the voice message. In the case of sensor failure or an incorrect AWOS output, an operator shall have the capability to replace the incorrect parameter value with a missing symbol.
- B. The OT shall consist of a video display monitor with keyboard, printer, battery backed ups, and audio speaker at the terminal building. The contractor/manufacturer shall provide all necessary interface equipment, video display monitor, keyboard, printer and audio speaker. The audio speaker shall be provided with an on/off switch and volume control.
- C. The system shall require the operator to enter a security code in response to system queries prior to allowing him/her to proceed with the entry of data.
- D. Where an OT is used to modify the report, all manually entered data shall be automatically time tagged by the system. The data shall be valid until the next hourly or manually entered observation. In order to retain the manually entered data in the system, the operator shall be required to revalidate his/her entries hourly. The data shall be retained in the observation until the "on-the-hour" observation, when it must be revalidated.

## 7. VOICE SUBSYSTEM

Shall meet the specifications for AWOS contained in AC 150/5220-16C. The voice system will contain an automatic telephone answering device that will permit user access to the voice

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message via the public telephone system according to AC 150/5220-16C, paragraph 32.a.(7). The voice system shall be loud and clear when received.

- A. The voice subsystem shall provide high quality, computer-generated speech for the output of the AWOS observation. A high level error-checking scheme shall be incorporated to prevent erroneous outputs. The voice subsystem should also provide the speech for the local ground-air radio broadcast and for telephone dial-up users. The system shall have the capability of hooking up to a minimum of two (2) phone lines.
- B. The voice subsystem shall have the capability for the addition of a manually input voice message. This message will be voiced at the end of the computer-generated voice message. The programming of the manual input voice message shall be accomplished using a telephone type handset. The system shall have the capability of remotely programming a voice message via telephone. A security access code shall prevent unauthorized use. The system shall automatically play back the recorded message and allow the user to reprogram, delete, or accept the message.
- C. The voice subsystem shall have the following features:
  - 1. The voice signal shall deliver a minimum of 1 milliwatt of power into a balanced 600 ohm line. The output amplitude shall be adjustable to normal 0 db.
  - 2. The voice message shall be output continuously with approximately a 5 second delay between the completion of one message and the beginning of the next.
  - 3. If the voice message is in process of output when the new AWOS observation is received, the output message should be completed without interruption; voice transmission of the new AWOS observation should begin upon completion of the next day delay time.
  - 4. The quality of the automated speech shall provide clear reception from telephone and ground-air radio transmitters.
  - 5. The format and sequence of the voice message shall be in accordance with FAA Order 7110.10, Flight Service Handbook. When any weather parameter is reported missing "MSG" due to a disabled or inoperative sensor, as determined by internal AWOS checks, the voice report shall be "(parameter) missing", e.g., "wind speed missing", "cloud height missing," etc. The UTC time of the observation will be given after the location identification.
  - 8. If a valid data update is not received prior to the start of the next voice transmission, the last valid data set received shall be used to compose the voice message. Failure to receive a data update for more than five minutes shall result in the termination of the voice output and generation of a failure message. In this event, the AWOS shall output the message "(station identification) automated weather observing system temporarily inoperative."
  - 9. The system shall contain an automatic telephone-answering device that will permit the user access to the voice message via the public telephone system. The incoming call shall be answered prior to completion of the second ring, and the audio signal in progress at the time the call is received shall be placed on line.

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The voice subsystem shall automatically disconnect when the weather observation has been completely transmitted twice.

10. Hook-up telephone audio output on an assigned dial-up telephone number shall be provided by others. The phone line and hook-up for AWOS data communication is to be terminated at the AWOS tower or operator terminal, depending on the siding conditions.
11. The system shall contain a handset or audio speaker for monitoring the voice output from the operator terminal.
12. The AWOS telephone-answering device, as supplied to the Owner, shall have the capability to answer a single phone line. The AWOS shall be equipped to answer a second phone line without the addition of any components to the Voice Subsystem.

## 2.7 VHF TRANSMITTER

- A. The AWOS generated voice shall be broadcast via the VHF equipment located at the AWOS site. This shall broadcast over the Unicom frequency.
- B. A VHF transmitter shall be equal to Global-Wulfsburg WT100, Park Air Electronics PAE 4004, or approved equal. The transmitter shall operate in the 118-136 MHz band and shall have FAA approval and FCC type acceptance. The transmitter will be tuned on the assigned frequency and placed on the air by a qualified technician possessing the required FCC credentials.
- C. VHF items, mounted as shown on the construction plans, shall be:
  1. VHF transmitter in NEMA 4 stainless steel or aluminum enclosure;
  2. VHF antenna and mounting bracket;
  3. Coaxial cable connecting the transmitter to the antenna.
- D. Equipment, material, antenna, cable, miscellaneous items, and labor required to install and place the VHF equipment on the air in compliance with the FCC license, rules, and regulations will be as recommended by the manufacturer and considered incidental to the project, no additional compensation will be allowed.

## 2.8 EQUIPMENT ENCLOSURE

- A. AWOS components not designed for outdoor use shall be located as shown in the plans and in accordance with manufacturer and FAA guidelines. All outdoor enclosures will be aluminum or stainless steel NEMA 4 enclosures. All outdoor hardware is to be constructed of material specified and shall be corrosion resistant. If no material is stated, stainless steel or aluminum may be used.

## 2.9 CONDUIT

- A. Conduit shall be used between the AWOS tower and sensor foundations for both power and signal cables. Conduit used for power and signal cables shall be galvanized rigid

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steel conduit with UL listed tight flexible metal conduit at final connections to devices. Liquid tight flexible metal conduit shall be UL listed, sunlight resistant, and listed suitable for grounding. Liquid tight flexible metal conduit shall be Anaconda Sealite Type UA as manufactured by Ananmet Electrical Inc., 1000 Broadway East, Mattoon, IL 61938-0039, Liqueatite Type LA as manufactured by Liqueatite, 222 W. Central Avenue, Roselle, IL 60172, or approved equal. All liquid tight flexible metal conduits shall include an external bonding jumper per the requirements of FAA STD 019d Section 3.12.3. This bonding jumper shall be a #6 AWG stranded copper conductor. The bonding jumper shall terminate on approved grounding fittings at each end of the flexible metal conduit. Conduit used for grounding electrode conductors, lightning protection conductors, and/or individual ground wires shall be Schedule 40 or Schedule 80 PVC. The conduit shall meet the requirements of these specifications, manufacturer's recommendations, and the National Electric Code (NEC.)

## 2.10 WIRE AND CONTROL CABLE

- A. Wire and control cables shall meet the requirements of the NEC and AWOS equipment manufacturer's recommendation. Control cables shall be the manufacturer's required number of pairs plus one spare pair for each pair utilized. All cables are to be shielded. See plan for size and configurations.

## 2.11 AWOS DATA LINK

The AWOS system shall utilize UHF radio link to the Operator Terminal. The UHF radio link shall be provided by the AWOS vendor. The AWOS Vendor shall provide and coordinate all applicable FCC license requirements.

The Contractor shall install cable, antenna, lightning protection, and termination from the AWOS site and the operator terminal.

## 2.12 UNINTERRUPTIBLE POWER SUPPLY

The Contractor shall furnish and install a UPS (Uninterruptible Power Supply) to regulate and provide a back-up power supply for power interruptions and power outages. The UPS shall be capable of powering the AWOS for a minimum of one (1) hour. UPS system shall be as recommended by the respective AWOS manufacturer for their equipment. Include primary disconnect, secondary disconnect, and battery disconnecting means with the UPS system.

## 2.13 TOWER

A self-supporting tower not to exceed the height specified in the drawings or in this specification. The tower shall conform to the AWOS manufacturer's specifications and the Telecommunications Industry Association specification TIA/EIA-222-F.

## 2.14 TOWER PAINTING

The tower shall be painted with alternating bands of aviation surface orange and white. The bandwidths shall be 1/6 of the height of the tower and perpendicular to the vertical axis of the tower with the bands at each end colored orange. Paint and aviation colors referred to in the specifications should conform to Federal Standards FED-STD-595. The colors are: Orange Number 12197, Aviation Surface Orange.

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White Number 17875, Aviation White.

The tower shall be printed in accordance with the manufacturer's specifications prior to painting.

#### 2.15 OBSTRUCTION LIGHT - LED

A Dual L-810 LED (light emitting diode type) obstruction light shall be placed within five feet of the top of the tower in accordance with FAA requirements and manufacturer's plans and specifications.

#### 2.16 TRANSIENT AND LIGHTNING PROTECTION

AWOS and all radio/communication equipment shall be protected against damage or operational upset due to lightning including induced surges on all sensor input lines, sensor supply lines and incoming power and data communication lines. Equipment (including electrical circuits of fiber optics modems) and personnel shall be protected from lightning surges and voltages, from power line transients and charges. Lightning protection systems shall be designed and installed in accordance with the Lightning Protection Code, NFPA 780, and the manufacturers' recommendations for all equipment structures. Transient and lightning protection shall be installed at the start of construction to prevent damage to the instrumentation and components.

#### 2.17 SPARE PARTS

Provide spare parts including:

Lightning Arrestors	1 each style and rating
Fuses	3 each style and rating

In addition, the AWOS manufacturer shall recommend and provide spare parts for the AWOS. These spare parts should be those with relatively low mean time between failure rates.

### 3.0 EXECUTION

#### 3.1 EXAMINATION

Verify that site is prepared, cleared, leveled, and acceptable for installation.

#### 3.2 INSTALLATION

- A. Install AWOS foundations and electrical in accordance with contract documents and manufacturers instructions.
- B. Install AWOS sensor arrays and equipment per manufacturers instruction.
- C. Make electrical connections to power source and individual sensor arrays in accordance with contract documents and manufacturers instruction.
- D. Install operator terminal and display equipment in terminal building as indicated on plans. Coordinate final locations with Owner and Engineer.

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- E. Make connections to the communication system from the AWOS site to equipment located in Terminal Building,

### 3.3 FIELD QUALITY CONTROL

- A. Provide testing in accordance with Manufacturer and FAA standards and requirements.
- B. Submit documentation certifying that the system is commissioned and meets all standards and requirements.

### 3.4 WARRANTY AND MAINTENANCE AGREEMENT

- A. Provide a maintenance agreement to warrantee all equipment, parts, and labor for a one-year period from the date of commissioning. Provide four scheduled site visits to include three quarterly inspections and 1 annual inspection.

### 3.5 MEASUREMENT AND PAYMENT

- A. The AWOS system shall be measured as a Lump Sum Unit to include all material, equipment, labor, installation and commissioning and as accepted by the engineer.

Payment will be made under:

Item L-108-5.1            Furnish and Install AWOS-AV System—per Lump Sum

END OF SECTION L-131

**FAA  
ADVISORY  
CIRCULARS**



U.S. Department  
of Transportation

Federal Aviation  
Administration

# Advisory Circular

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**Subject:** Operational Safety on  
Airports During Construction

**Date:** 9/29/11  
**Initiated by:** AAS-100

**AC No:** 150/5370-2F

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- 1. Purpose.** This AC sets forth guidelines for operational safety on airports during construction.
- 2. What this AC Cancels.** This AC cancels AC 150/5370-2E, Operational Safety on Airports During Construction, dated January 17, 2003.
- 3. Whom This AC Affects.** This AC assists airport operators in complying with Title 14 Code of Federal Regulations (CFR) Part 139, Certification of Airports (Part 139). For those certificated airports, this AC provides one way, but not the only way, of meeting those requirements. The use of this AC is mandatory for those airport construction projects receiving funds under the Airport Improvement Program (AIP) or the Passenger Facility Charge (PFC) Program. See Grant Assurance No. 34, "Policies, Standards, and Specifications," and PFC Assurance No. 9, "Standard and Specifications." While we do not require non-certificated airports without grant agreements to adhere to these guidelines, we recommend that they do so to help these airports maintain operational safety during construction.
- 4. Principal Changes.**
  - a.** Construction activities are prohibited in safety areas while the associated runway or taxiway is open to aircraft.
  - b.** Guidance is provided in incorporating Safety Risk Management.
  - c.** Recommended checklists are provided for writing Construction Safety and Phasing Plans and for daily inspections.
- 5. Reading Material Related to this AC.** Numerous ACs are referenced in the text of this AC. These references do not include a revision letter, as they are to be read as referring to the latest version. Appendix 1 contains a list of reading material on airport construction, design, and potential safety hazards during construction, as well as instructions for obtaining these documents.

**Michael J. O'Donnell**  
Director of Airport Safety and Standards

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## Chapter 1. Planning an Airfield Construction Project

**101. Overview.** Airports are complex environments, and procedures and conditions associated with construction activities often affect aircraft operations and can jeopardize operational safety. Safety considerations are paramount and may make operational impacts unavoidable. However, careful planning, scheduling, and coordination of construction activities can minimize disruption of normal aircraft operations and avoid situations that compromise the airport's operational safety. The airport operator must understand how construction activities and aircraft operations affect one another to be able to develop an effective plan to complete the project. While the guidance in this AC is primarily used for construction operations, some of the concepts, methods and procedures described may also enhance the day-to-day airport maintenance operations, such as lighting maintenance and snow removal operations.

**102. Plan for Safety.** Safety, maintaining aircraft operations, and construction costs are all interrelated. Since safety must not be compromised, the airport operator must strike a balance between maintaining aircraft operations and construction costs. This balance will vary widely depending on the operational needs and resources of the airport and will require early coordination with airport users and the FAA. As the project design progresses, the necessary construction locations, activities, and associated costs will be identified. As they are identified, their impact to airport operations must be assessed. Adjustments are made to the proposed construction activities, often by phasing the project, and/or to airport operations in order to maintain operational safety. This planning effort will ultimately result in a project Construction Safety and Phasing Plan (CSPP). The development of the CSPP takes place through the following five steps:

**a. Identify Affected Areas.** The airport operator must determine the geographic areas on the airport affected by the construction project. Some, such as a runway extension, will be defined by the project. Others may be variable, such as the location of haul routes and material stockpiles.

**b. Describe Current Operations.** Identify the normal airport operations in each affected area for each phase of the project. This becomes the baseline from which the impact on operations by construction activities can be measured. This should include a narrative of the typical users and aircraft operating within the affected areas. It should also include information related to airport operations: the Aircraft Reference Code (ACRC) for each runway; Airplane Design Group (ADG) and Taxiway Design Group (TDG)<sup>1</sup> for each affected taxiway; designated approach visibility minimums; available approach and departure procedures; most demanding aircraft; declared distances; available air traffic control services; airport Surface Movement Guidance and Control System plan; and others. The applicable seasons, days and times for certain operations should also be identified as applicable.

**c. Allow for Temporary Changes to Operations.** To the extent practical, current airport operations should be maintained during the construction. In consultation with airport users, Aircraft Rescue and Fire Fighting (ARFF) personnel, and FAA Air Traffic Organization (ATO) personnel, the airport operator should identify and prioritize the airport's most important operations. The construction activities should be planned, through project phasing if necessary, to safely accommodate these operations. When the construction activities cannot be adjusted to safely maintain current operations, regardless of their importance, then the operations must be revised accordingly. Allowable changes include temporary revisions to approach procedures, restricting certain aircraft to specific runways and taxiways, suspension of certain operations, decreased weights for some aircraft due to shortened runways,

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<sup>1</sup> Taxiway Design Group will be introduced in AC 150/5300-13A.

and other changes. An example of a table showing temporary operations versus current operations is shown in Table 3-1 Sample Operations Effects.

**d. Take Required Measures to Revised Operations.** Once the level and type of aircraft operations to be maintained are identified, the airport operator must determine the measures required to safely conduct the planned operations during the construction. These measures will result in associated costs, which can be broadly interpreted to include not only direct construction costs, but also loss of revenue from impacted operations. Analysis of costs may indicate a need to reevaluate allowable changes to operations. As aircraft operations and allowable changes will vary so widely among airports, this AC presents general guidance on those subjects.

**e. Manage Safety Risk.** Certain airport projects may require the airport operator to provide a Project Proposal Summary to help the FAA to determine the appropriate level of Safety Risk Management (SRM) documentation. The airport operator must coordinate with the appropriate FAA Airports Regional or District Office early in the development of the CSPP to determine the need for SRM documentation. See FAA Order 5200.11, FAA Airports (ARP) Safety Management System (SMS), for more information. If the FAA requires SRM documentation, the airport operator must at a minimum:

- (1) **Notify the appropriate FAA Airports Regional or District Office** during the project “scope development” phase of any project requiring a CSPP.
- (2) **Provide documents** identified by the FAA as necessary to conduct SRM.
- (3) **Participate in the SRM process** for airport projects.
- (4) **Provide a representative** to participate on the SRM panel.
- (5) **Ensure that all applicable SRM identified risks elements are recorded** and mitigated within the CSPP.

**103. Develop a Construction Safety and Phasing Plan (CSPP).** Development of an effective CSPP will require familiarity with many other documents referenced throughout this AC. See Appendix 1, Related Reading Material for a list of related reading material.

**a. List Requirements.** A CSPP must be developed for each on-airfield construction project funded by the Airport Improvement Program (AIP) or the Passenger Facility Charge (PFC) program or located on an airport certificated under Part 139. As per Order 5200.11, such projects do not include construction, rehabilitation, or change of any facility that is entirely outside the air operations area, does not involve any expansion of the facility envelope and does not involve construction equipment, haul routes or placement of material in locations that require access to the air operations area, increase the facility envelope, or impact line-of-sight. Such facilities may include passenger terminals and parking or other structures. However, extraordinary circumstances may trigger the need for a Safety Assessment and a CSPP. The CSPP is subject to subsequent review and approval under the FAA’s Safety Risk Management procedures (see paragraph 102.e above). Additional information may be found in Order 5200.11.

**b. Prepare a Safety Plan Compliance Document.** The Safety Plan Compliance Document (SPCD) details how the contractor will comply with the CSPP. Also, it will not be possible to determine all safety plan details (for example specific hazard equipment and lighting, contractor’s points of contact, construction equipment heights) during the development of the CSPP. The successful contractor must define such details by preparing an SPCD that the airport operator reviews for approval prior to issuance of a notice-to-proceed. The SPCD is a subset of the CSPP, similar to how a shop drawing review is a subset to the technical specifications.

**c. Assume Responsibility for the CSPP.** The airport operator is responsible for establishing and enforcing the CSPP. The airport operator may use the services of an engineering consultant to help develop the CSPP. However, writing the CSPP cannot be delegated to the construction contractor. Only those details the airport operator determines cannot be addressed before contract award are developed by the contractor and submitted for approval as the SPCD. The SPCD does not restate nor propose differences to provisions already addressed in the CSPP.

#### **104. Who Is Responsible for Safety During Construction?**

**a. Establish a Safety Culture.** Everyone has a role in operational safety on airports during construction: the airport operator, the airport's consultants, the construction contractor and subcontractors, airport users, airport tenants, ARFF personnel, Air Traffic personnel, including Technical Operations personnel, FAA Airports Division personnel, and others. Close communication and coordination between all affected parties is the key to maintaining safe operations. Such communication and coordination should start at the project scoping meeting and continue through the completion of the project. The airport operator and contractor should conduct onsite safety inspections throughout the project and immediately remedy any deficiencies, whether caused by negligence, oversight, or project scope change.

**b. Assess Airport Operator's Responsibilities.** An airport operator has overall responsibility for all activities on an airport, including construction. This includes the predesign, design, preconstruction, construction, and inspection phases. Additional information on the responsibilities listed below can be found throughout this AC. The airport operator must:

**(1) Develop a CSPP** that complies with the safety guidelines of Chapter 2, Construction Safety and Phasing Plans, and Chapter 3, Guidelines for Writing a CSPP. The airport operator may develop the CSPP internally or have a consultant develop the CSPP for approval by the airport operator. For tenant sponsored projects, approve a CSPP developed by the tenant or its consultant.

**(2) Require, review and approve the SPCD** by the contractor that indicates how it will comply with the CSPP and provides details that cannot be determined before contract award.

**(3) Convene a preconstruction meeting** with the construction contractor, consultant, airport employees and, if appropriate, tenant sponsor and other tenants to review and discuss project safety before beginning construction activity. The appropriate FAA representatives should be invited to attend the meeting. See AC 150/5300-9, *Predesign, Prebid, and Preconstruction Conferences for Airport Grant Projects*. (Note "FAA" refers to the Airports Regional or District Office, the Air Traffic Organization, Flight Standards Service, and other offices that support airport operations, flight regulations, and construction/environmental policies.)

**(4) Ensure contact information** is accurate for each representative/point of contact identified in the CSPP and SPCD.

**(5) Hold weekly or, if necessary, daily safety meetings** with all affected parties to coordinate activities.

**(6) Notify users, ARFF personnel, and FAA ATO personnel of construction** and conditions that may adversely affect the operational safety of the airport via Notices to Airmen (NOTAM) and other methods, as appropriate. Convene a meeting for review and discussion if necessary.

**(7) Ensure construction personnel know of any applicable airport procedures** and of changes to those procedures that may affect their work.

**(8) Ensure construction contractors and subcontractors undergo training** required by the CSPP and SPCD.

(9) **Ensure vehicle and pedestrian operations** addressed in the CSPP and SPCD are coordinated with airport tenants, the airport traffic control tower (ATCT), and construction contractors.

(10) **At certificated airports**, ensure each CSPP and SPCD is consistent with Part 139.

(11) **Conduct inspections** sufficiently frequently to ensure construction contractors and tenants comply with the CSPP and SPCD and that there are no altered construction activities that could create potential safety hazards.

(12) **Resolve safety deficiencies immediately.** At airports subject to 49 CFR Part 1542, Airport Security, ensure construction access complies with the security requirements of that regulation.

(13) **Notify appropriate parties** when conditions exist that invoke provisions of the CSPP and SPCD (for example, implementation of low-visibility operations).

(14) **Ensure prompt submittal of a Notice of Proposed Construction or Alteration** (Form 7460-1) for conducting an aeronautical study of potential obstructions such as tall equipment (cranes, concrete pumps, other.), stock piles, and haul routes. A separate form may be filed for each potential obstruction, or one form may be filed describing the entire construction area and maximum equipment height. In the latter case, a separate form must be filed for any object beyond or higher than the originally evaluated area/height. The FAA encourages online submittal of forms for expediency. The appropriate FAA Airports Regional or District Office can provide assistance in determining which objects require an aeronautical study.

(15) **Promptly notify the FAA Airports Regional or District Office** of any proposed changes to the CSPP prior to implementation of the change. Changes to the CSPP require review and approval by the airport operator and the FAA. Coordinate with appropriate local and other federal government agencies, such as EPA, OSHA, TSA, and the state environmental agency.

**c. Define Construction Contractor's Responsibilities.** The contractor is responsible for complying with the CSPP and SPCD. The contractor must:

(1) **Submit a Safety Plan Compliance Document (SPCD)** to the airport operator describing how it will comply with the requirements of the CSPP and supplying any details that could not be determined before contract award. The SPCD must include a certification statement by the contractor that indicates it understands the operational safety requirements of the CSPP and it asserts it will not deviate from the approved CSPP and SPCD unless written approval is granted by the airport operator. Any construction practice proposed by the contractor that does not conform to the CSPP and SPCD may impact the airport's operational safety and will require a revision to the CSPP and SPCD and re-coordination with the airport operator and the FAA in advance.

(2) **Have available at all times copies** of the CSPP and SPCD for reference by the airport operator and its representatives, and by subcontractors and contractor employees.

(3) **Ensure that construction personnel** are familiar with safety procedures and regulations on the airport. Provide a point of contact who will coordinate an immediate response to correct any construction-related activity that may adversely affect the operational safety of the airport. Many projects will require 24-hour coverage.

(4) **Identify in the SPCD the contractor's on-site employees** responsible for monitoring compliance with the CSPP and SPCD during construction. At least one of these employees must be on-site whenever active construction is taking place.

(5) **Conduct inspections** sufficiently frequently to ensure construction personnel comply with the CSPP and SPCD and that there are no altered construction activities that could create potential safety hazards.

**(6) Restrict movement of construction vehicles and personnel** to permitted construction areas by flagging, barricading, erecting temporary fencing, or providing escorts, as appropriate and as specified in the CSPP and SPCD.

**(7) Ensure that no contractor employees**, employees of subcontractors or suppliers, or other persons enter any part of the air operations area (AOA) from the construction site unless authorized.

**(8) Ensure prompt submittal through the airport operator of Form 7460-1** for the purpose of conducting an aeronautical study of contractor equipment such as tall equipment (cranes, concrete pumps, other equipment), stock piles, and haul routes when different from cases previously filed by the airport operator. The FAA encourages online submittal of forms for expediency.

**d. Define Tenant's Responsibilities** if planning construction activities on leased property. Airport tenants, such as airline operators, fixed base operators, and FAA ATO/Technical Operations sponsoring construction must:

**(1) Develop, or have a consultant develop, a project specific CSPP** and submit it to the airport operator for certification and subsequent approval by the FAA. The approved CSPP must be made part of any contract awarded by the tenant for construction work.

**(2) In coordination with its contractor, develop an SPCD** and submit it to the airport operator for approval to be issued prior to issuance of a Notice to Proceed.

**(3) Ensure that construction personnel are familiar with safety procedures** and regulations on the airport.

**(4) Provide a point of contact** of who will coordinate an immediate response to correct any construction-related activity that may adversely affect the operational safety of the airport.

**(5) Identify in the SPCD the contractor's on-site employees** responsible for monitoring compliance with the CSPP and SPCD during construction. At least one of these employees must be on-site whenever active construction is taking place.

**(6) Ensure that no tenant or contractor employees**, employees of subcontractors or suppliers, or any other persons enter any part of the AOA from the construction site unless authorized.

**(7) Restrict movement of construction vehicles** to construction areas by flagging and barricading, erecting temporary fencing, or providing escorts, as appropriate, and as specified in the CSPP and SPCD.

**(8) Ensure prompt submittal through the airport operator of Form 7460-1** for the purpose of conducting an aeronautical study of contractor equipment such as tall equipment (cranes, concrete pumps, other.), stock piles, and haul routes. The FAA encourages online submittal of forms for expediency.

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## Chapter 2. Construction Safety and Phasing Plans

### Section 1. Basic Considerations

**201. Overview.** Aviation safety is the primary consideration at airports, especially during construction. The airport operator's Construction Safety and Phasing Plan (CSPP) and the contractor's Safety Plan Compliance Document (SPCD) are the primary tools to ensure safety compliance when coordinating construction activities with airport operations. These documents identify all aspects of the construction project that pose a potential safety hazard to airport operations and outline respective mitigation procedures for each hazard. They must provide all information necessary for the Airport Operations department to conduct airfield inspections and expeditiously identify and correct unsafe conditions during construction. All aviation safety provisions included within the project drawings, contract specifications, and other related documents must also be reflected in the CSPP and SPCD.

**202. Assume Responsibility.** Operational safety on the airport remains the airport operator's responsibility at all times. The airport operator must develop, certify, and submit for FAA approval each CSPP. It is the airport operator's responsibility to apply the requirements of the FAA approved CSPP. The airport operator must revise the CSPP when conditions warrant changes and must submit the revised CSPP to the FAA for approval. The airport operator must also require and approve a SPCD from the project contractor.

**203. Submit the CSPP.** Construction Safety and Phasing Plans should be developed concurrently with the project design. Milestone versions of the CSPP should be submitted for review and approval as follows. While these milestones are not mandatory, early submission will help to avoid delays. Submittals are preferred in 8.5 x 11 in or 11 x 17 in format for compatibility with the FAA's Obstruction Evaluation / Airport Airspace Analysis (OE / AAA) process.

**a. Submit an Outline/Draft.** By the time approximately 25% to 30% of the project design is completed, the principal elements of the CSPP should be established. Airport operators are encouraged to submit an outline or draft, detailing all CSPP provisions developed to date, to the FAA for review at this stage of the project design.

**b. Submit a Construction Safety and Phasing Plan (CSPP).** The CSPP should be formally submitted for FAA approval when the project design is 80% to 90% complete. Since provisions in the CSPP will influence contract costs, it is important to obtain FAA approval in time to include all such provisions in the procurement contract.

**c. Submit a Safety Plan Compliance Document (SPCD).** The contractor should submit the SPCD to the airport operator for approval to be issued prior to the Notice to Proceed.

**d. Submit CSPP Revisions.** All revisions to the CSPP or SPCD should be submitted to the FAA for approval as soon as required changes are identified.

**204. Meet CSPP Requirements.**

**a. To the extent possible,** the CSPP should address the following as outlined in Section 2, Plan Requirements and Chapter 3, Guidelines for Writing a CSPP, as appropriate. Details that cannot be determined at this stage are to be included in the SPCD.

**(1) Coordination.**

- (a) Contractor progress meetings.
- (b) Scope or schedule changes.
- (c) FAA ATO coordination.
- (2) Phasing.**
  - (a) Phase elements.
  - (b) Construction safety drawings
- (3) Areas and operations affected by the construction activity.**
  - (a) Identification of affected areas.
  - (b) Mitigation of effects.
- (4) Protection of navigation aids (NAVAIDs).**
- (5) Contractor access.**
  - (a) Location of stockpiled construction materials.
  - (b) Vehicle and pedestrian operations.
- (6) Wildlife management.**
  - (a) Trash.
  - (b) Standing water.
  - (c) Tall grass and seeds.
  - (d) Poorly maintained fencing and gates.
  - (e) Disruption of existing wildlife habitat.
- (7) Foreign Object Debris (FOD) management.**
- (8) Hazardous materials (HAZMAT) management**
- (9) Notification of construction activities.**
  - (a) Maintenance of a list of responsible representatives/ points of contact.
  - (b) Notices to Airmen (NOTAM).
  - (c) Emergency notification procedures.
  - (d) Coordination with ARFF Personnel.
  - (e) Notification to the FAA.
- (10) Inspection requirements.**
  - (a) Daily (or more frequent) inspections.
  - (b) Final inspections.
- (11) Underground utilities.**
- (12) Penalties.**
- (13) Special conditions.**
- (14) Runway and taxiway visual aids.** Marking, lighting, signs, and visual NAVAIDs.

- (a) General.
- (b) Markings.
- (c) Lighting and visual NAVAIDs.
- (d) Signs.

**(15) Marking and signs for access routes.**

**(16) Hazard marking and lighting.**

- (a) Purpose.
- (b) Equipment.

**(17) Protection.** Of runway and taxiway safety areas, object free areas, obstacle free zones, and approach/departure surfaces

- (a) Runway Safety Area (RSA).
- (b) Runway Object Free Area (ROFA).
- (c) Taxiway Safety Area (TSA).
- (d) Taxiway Object Free Area (TOFA).
- (e) Obstacle Free Zone (OFZ).
- (f) Runway approach/departure surfaces.

**(18) Other limitations on construction.**

- (a) Prohibitions.
- (b) Restrictions.

**b. The Safety Plan Compliance Document (SPCD)** should include a general statement by the construction contractor that he/she has read and will abide by the CSPP. In addition, the SPCD must include all supplemental information that could not be included in the CSPP prior to the contract award. The contractor statement should include the name of the contractor, the title of the project CSPP, the approval date of the CSPP, and a reference to any supplemental information (that is, “I, Name of Contractor, have read the Title of Project CSPP, approved on Date, and will abide by it as written and with the following additions as noted:”). The supplemental information in the SPCD should be written to match the format of the CSPP indicating each subject by corresponding CSPP subject number and title. If no supplemental information is necessary for any specific subject, the statement, “No supplemental information,” should be written after the corresponding subject title. The SPCD should not duplicate information in the CSPP:

**(1) Coordination.** Discuss details of proposed safety meetings with the airport operator and with contractor employees and subcontractors.

**(2) Phasing.** Discuss proposed construction schedule elements, including:

- (a) Duration of each phase.
- (b) Daily start and finish of construction, including “night only” construction.
- (c) Duration of construction activities during:
  - (i) Normal runway operations.
  - (ii) Closed runway operations.

(iii) Modified runway “Aircraft Reference Code” usage.

(3) **Areas and operations affected by the construction activity.** These areas and operations should be identified in the CSPP and should not require an entry in the SPCD.

(4) **Protection of NAVAIDs.** Discuss specific methods proposed to protect operating NAVAIDs.

(5) **Contractor access.** Provide the following:

(a) Details on how the contractor will maintain the integrity of the airport security fence (gate guards, daily log of construction personnel, and other).

(b) Listing of individuals requiring driver training (for certificated airports and as requested).

(c) Radio communications.

(i) Types of radios and backup capabilities.

(ii) Who will be monitoring radios.

(iii) Whom to contact if the ATCT cannot reach the contractor’s designated person by radio.

(d) Details on how the contractor will escort material delivery vehicles.

(6) **Wildlife management.** Discuss the following:

(a) Methods and procedures to prevent wildlife attraction.

(b) Wildlife reporting procedures.

(7) **Foreign Object Debris (FOD) management.** Discuss equipment and methods for control of FOD, including construction debris and dust.

(8) **Hazardous material (HAZMAT) management.** Discuss equipment and methods for responding to hazardous spills.

(9) **Notification of construction activities.** Provide the following:

(a) Contractor points of contact.

(b) Contractor emergency contact.

(c) Listing of tall or other requested equipment proposed for use on the airport and the timeframe for submitting 7460-1 forms not previously submitted by the airport operator.

(d) Batch plant details, including 7460-1 submittal.

(10) **Inspection requirements.** Discuss daily (or more frequent) inspections and special inspection procedures.

(11) **Underground utilities.** Discuss proposed methods of identifying and protecting underground utilities.

(12) **Penalties.** Penalties should be identified in the CSPP and should not require an entry in the SPCD.

(13) **Special conditions.** Discuss proposed actions for each special condition identified in the CSPP.

(14) **Runway and taxiway visual aids.** Including marking, lighting, signs, and visual NAVAIDs. Discuss proposed visual aids including the following:

- (a) Equipment and methods for covering signage and airfield lights.
- (b) Equipment and methods for temporary closure markings (paint, fabric, other).
- (c) Types of temporary Visual Guidance Slope Indicators (VGSI).

**(15) Marking and signs for access routes.** Discuss proposed methods of demarcating access routes for vehicle drivers.

**(16) Hazard marking and lighting.** Discuss proposed equipment and methods for identifying excavation areas.

**(17) Protection of runway and taxiway safety areas.** including object free areas, obstacle free zones, and approach/departure surfaces. Discuss proposed methods of identifying, demarcating, and protecting airport surfaces including:

- (a) Equipment and methods for maintaining Taxiway Safety Area standards.
- (b) Equipment and methods for separation of construction operations from aircraft operations, including details of barricades.

**(18) Other limitations on construction** should be identified in the CSPP and should not require an entry in the SPCD.

## Section 2. Plan Requirements

**205. Coordination.** Airport operators, or tenants conducting construction on their leased properties, should use predesign, prebid, and preconstruction conferences to introduce the subject of airport operational safety during construction (see AC 150/5300-9). In addition, the following should be coordinated as required:

**a. Contractor Progress Meetings.** Operational safety should be a standing agenda item for discussion during progress meetings throughout the project.

**b. Scope or Schedule Changes.** Changes in the scope or duration of the project may necessitate revisions to the CSPP and review and approval by the airport operator and the FAA.

**c. FAA ATO Coordination.** Early coordination with FAA ATO is required to schedule airway facility shutdowns and restarts. Relocation or adjustments to NAVAIDs, or changes to final grades in critical areas, may require an FAA flight inspection prior to restarting the facility. Flight inspections must be coordinated and scheduled well in advance of the intended facility restart. Flight inspections may require a reimbursable agreement between the airport operator and FAA ATO. Reimbursable agreements should be coordinated a minimum of 12 months prior to the start of construction. (See 213.e(3)(b) for required FAA notification regarding FAA owned NAVAIDs.)

**206. Phasing.** Once it has been determined what types and levels of airport operations will be maintained, the most efficient sequence of construction may not be feasible. In such a case, the sequence of construction may be phased to gain maximum efficiency while allowing for the required operations. The development of the resulting construction phases should be coordinated with local Air Traffic personnel and airport users. The sequenced construction phases established in the CSPP must be incorporated into the project design and must be reflected in the contract drawings and specifications.

**a. Phase Elements.** For each phase the CSPP should detail:

- Areas closed to aircraft operations

- Duration of closures
- Taxi routes
- ARFF access routes
- Construction staging areas
- Construction access and haul routes
- Impacts to NAVAIDs
- Lighting and marking changes
- Available runway length
- Declared distances (if applicable)
- Required hazard marking and lighting
- Lead times for required notifications

**b. Construction Safety Drawings.** Drawings specifically indicating operational safety procedures and methods in affected areas (that is, construction safety drawings) should be developed for each construction phase. Such drawings should be included in the CSPP as referenced attachments and should likewise be included in the contract drawing package.

**207. Areas and Operations Affected by Construction Activity.** Runways and taxiways should remain in use by aircraft to the maximum extent possible without compromising safety. Pre-meetings with the FAA Air Traffic Organization (ATO) will support operational simulations. See Chapter 3 for an example of a table showing temporary operations versus current operations.

**a. Identification of Affected Areas.** Identifying areas and operations affected by the construction will help to determine possible safety problems. The affected areas should be identified in the construction safety drawings for each construction phase. (See 206.b above.) Of particular concern are:

(1) **Closing, or partial closing, of runways, taxiways and aprons.** When a runway is partially closed, a portion of the pavement is unavailable for any aircraft operation, meaning taxiing, landing, or taking off in either direction on that pavement is prohibited. A displaced threshold, by contrast, is established to ensure obstacle clearance and adequate safety area for landing aircraft. The pavement prior to the displaced threshold is available for take-off in the direction of the displacement and for landing and taking off in the opposite direction. Misunderstanding this difference, and issuance of a subsequently inaccurate NOTAM, can lead to a hazardous condition.

- (2) **Closing of Aircraft Rescue and Fire Fighting access routes.**
- (3) **Closing of access routes used by airport and airline support vehicles.**
- (4) **Interruption of utilities, including water supplies for fire fighting.**
- (5) **Approach/departure surfaces affected by heights of objects.**
- (6) **Construction areas, storage areas, and access routes near runways, taxiways, aprons, or helipads.**

**b. Mitigation of Effects.** Establishment of specific procedures is necessary to maintain the safety and efficiency of airport operations. The CSPP must address:

- (1) **Temporary changes to runway and/or taxi operations.**
- (2) **Detours for ARFF and other airport vehicles.**

- (3) **Maintenance of essential utilities.**
- (4) **Temporary changes to air traffic control procedures. Such changes must be coordinated with the ATO.**

**208. Navigation Aid (NAVAID) Protection.** Before commencing construction activity, parking vehicles, or storing construction equipment and materials near a NAVAID, coordinate with the appropriate FAA ATO/Technical Operations office to evaluate the effect of construction activity and the required distance and direction from the NAVAID. (See paragraph 213.e(3) below.) Construction activities, materials/equipment storage, and vehicle parking near electronic NAVAIDs require special consideration since they may interfere with signals essential to air navigation. If any NAVAID may be affected, the CSPP and SPCD must show an understanding of the “critical area” associated with each NAVAID and describe how it will be protected. Where applicable, the operational critical areas of NAVAIDs should be graphically delineated on the project drawings. Pay particular attention to stockpiling material, as well as to movement and parking of equipment that may interfere with line of sight from the ATCT or with electronic emissions. Interference from construction equipment and activities may require NAVAID shutdown or adjustment of instrument approach minimums for low visibility operations. This condition requires that a NOTAM be filed (see paragraph 213.b below). Construction activities and materials/equipment storage near a NAVAID must not obstruct access to the equipment and instruments for maintenance. Submittal of a 7460-1 form is required for construction vehicles operating near FAA NAVAIDs. (See paragraph 213.e(1) below.)

**209. Contractor Access.** The CSPP must detail the areas to which the contractor must have access, and explain how contractor personnel will access those areas. Specifically address:

**a. Location of Stockpiled Construction Materials.** Stockpiled materials and equipment storage are not permitted within the RSA and OFZ, and if possible should not be permitted within the Object Free Area (OFA) of an operational runway. Stockpiling material in the OFA requires submittal of a 7460-1 form and justification provided to the appropriate FAA Airports Regional or District Office for approval. The airport operator must ensure that stockpiled materials and equipment adjacent to these areas are prominently marked and lighted during hours of restricted visibility or darkness. (See paragraph 218.b below.) This includes determining and verifying that materials are stabilized and stored at an approved location so as not to be a hazard to aircraft operations and to prevent attraction of wildlife and foreign object damage. See paragraphs 210 and 211 below.

**b. Vehicle and Pedestrian Operations.** The CSPP should include specific vehicle and pedestrian requirements. Vehicle and pedestrian access routes for airport construction projects must be controlled to prevent inadvertent or unauthorized entry of persons, vehicles, or animals onto the AOA. The airport operator should coordinate requirements for vehicle operations with airport tenants, contractors, and the FAA air traffic manager. In regard to vehicle and pedestrian operations, the CSPP should include the following, and detail associated training requirements:

(1) **Construction site parking.** Designate in advance vehicle parking areas for contractor employees to prevent any unauthorized entry of persons or vehicles onto the AOA. These areas should provide reasonable contractor employee access to the job site.

(2) **Construction equipment parking.** Contractor employees must park and service all construction vehicles in an area designated by the airport operator outside the OFZ and never in the safety area of an active runway or taxiway. Unless a complex setup procedure makes movement of specialized equipment infeasible, inactive equipment must not be parked on a closed taxiway or runway. If it is necessary to leave specialized equipment on a closed taxiway or runway at night, the equipment must be well lighted. Employees should also park construction vehicles outside the OFA when not in use by

construction personnel (for example, overnight, on weekends, or during other periods when construction is not active). Parking areas must not obstruct the clear line of sight by the ATCT to any taxiways or runways under air traffic control nor obstruct any runway visual aids, signs, or navigation aids. The FAA must also study those areas to determine effects on airport design criteria, surfaces established by 14 CFR Part 77, Safe, Efficient Use, and Preservation of the Navigable Airspace (Part 77), and on NAVAIDs and Instrument Approach Procedures (IAP). See paragraph 213.e(1) below for further information.

**(3) Access and haul roads.** Determine the construction contractor's access to the construction sites and haul roads. Do not permit the construction contractor to use any access or haul roads other than those approved. Access routes used by contractor vehicles must be clearly marked to prevent inadvertent entry to areas open to airport operations. Pay special attention to ensure that if construction traffic is to share or cross any ARFF routes that ARFF right of way is not impeded at any time, and that construction traffic on haul roads does not interfere with NAVAIDs or approach surfaces of operational runways.

**(4) Marking and lighting of vehicles** in accordance with AC 150/5210-5, Painting, Marking, and Lighting of Vehicles Used on an Airport.

**(5) Description of proper vehicle operations** on various areas under normal, lost communications, and emergency conditions.

**(6) Required escorts.**

**(7) Training requirements for vehicle drivers** to ensure compliance with the airport operator's vehicle rules and regulations. Specific training should be provided to those vehicle operators providing escorts. See AC 150/5210-20, Ground Vehicle Operations on Airports, for information on training and records maintenance requirements.

**(8) Situational awareness.** Vehicle drivers must confirm by personal observation that no aircraft is approaching their position (either in the air or on the ground) when given clearance to cross a runway, taxiway, or any other area open to airport operations. In addition, it is the responsibility of the escort vehicle driver to verify the movement/position of all escorted vehicles at any given time.

**(9) Two-way radio communication procedures.**

(a) General. The airport operator must ensure that tenant and construction contractor personnel engaged in activities involving unescorted operation on aircraft movement areas observe the proper procedures for communications, including using appropriate radio frequencies at airports with and without ATCT. When operating vehicles on or near open runways or taxiways, construction personnel must understand the critical importance of maintaining radio contact, as directed by the airport operator, with:

(i) Airport operations

(ii) ATCT

(iii) Common Traffic Advisory Frequency (CTAF), which may include UNICOM, MULTICOM.

(iv) Automatic Terminal Information Service (ATIS). This frequency is useful for monitoring conditions on the airport. Local air traffic will broadcast information regarding construction related runway closures and "shortened" runways on the ATIS frequency.

(b) Areas requiring two-way radio communication with the ATCT. Vehicular traffic crossing active movement areas must be controlled either by two-way radio with the ATCT, escort, flagman, signal light, or other means appropriate for the particular airport.

(c) Frequencies to be used. The airport operator will specify the frequencies to be used by the contractor, which may include the CTAF for monitoring of aircraft operations. Frequencies may also be assigned by the airport operator for other communications, including any radio frequency in compliance with Federal Communications Commission requirements. At airports with an ATCT, the airport operator will specify the frequency assigned by the ATCT to be used between contractor vehicles and the ATCT.

(d) Proper radio usage, including read back requirements.

(e) Proper phraseology, including the International Phonetic Alphabet.

(f) Light gun signals. Even though radio communication is maintained, escort vehicle drivers must also familiarize themselves with ATCT light gun signals in the event of radio failure. See the FAA safety placard “Ground Vehicle Guide to Airport Signs and Markings.” This safety placard may be downloaded through the Runway Safety Program Web site at [http://www.faa.gov/airports/runway\\_safety/publications/](http://www.faa.gov/airports/runway_safety/publications/) (See “Signs & Markings Vehicle Dashboard Sticker”) or obtained from the FAA Airports Regional Office.

**(10) Maintenance of the secured area of the airport, including:**

(a) Fencing and gates. Airport operators and contractors must take care to maintain security during construction when access points are created in the security fencing to permit the passage of construction vehicles or personnel. Temporary gates should be equipped so they can be securely closed and locked to prevent access by animals and unauthorized people. Procedures should be in place to ensure that only authorized persons and vehicles have access to the AOA and to prohibit “piggybacking” behind another person or vehicle. The Department of Transportation (DOT) document DOT/FAA/AR-00/52, Recommended Security Guidelines for Airport Planning and Construction, provides more specific information on fencing. A copy of this document can be obtained from the Airport Consultants Council, Airports Council International, or American Association of Airport Executives.

(b) Badging requirements.

(c) Airports subject to 49 CFR Part 1542, Airport Security, must meet standards for access control, movement of ground vehicles, and identification of construction contractor and tenant personnel.

**210. Wildlife Management.** The CSPP and SPCD must be in accordance with the airport operator’s wildlife hazard management plan, if applicable. See also AC 150/5200-33, Hazardous Wildlife Attractants On or Near Airports, and Certalert 98-05, Grasses Attractive to Hazardous Wildlife. Construction contractors must carefully control and continuously remove waste or loose materials that might attract wildlife. Contractor personnel must be aware of and avoid construction activities that can create wildlife hazards on airports, such as:

**a. Trash.** Food scraps must be collected from construction personnel activity.

**b. Standing Water.**

**c. Tall Grass and Seeds.** Requirements for turf establishment can be at odds with requirements for wildlife control. Grass seed is attractive to birds. Lower quality seed mixtures can contain seeds of plants (such as clover) that attract larger wildlife. Seeding should comply with the guidance in AC 150/5370-10, Standards for Specifying Construction of Airports, Item T-901, Seeding. Contact the local office of the United States Department of Agriculture Soil Conservation Service or the State University Agricultural Extension Service (County Agent or equivalent) for assistance and recommendations. These agencies can also provide liming and fertilizer recommendations.

**d. Poorly Maintained Fencing and Gates.** See 209.b(10)(a) above.

**e. Disruption of Existing Wildlife Habitat.** While this will frequently be unavoidable due to the nature of the project, the CSPP should specify under what circumstances (location, wildlife type) contractor personnel should immediately notify the airport operator of wildlife sightings.

**211. Foreign Object Debris (FOD) Management.** Waste and loose materials, commonly referred to as FOD, are capable of causing damage to aircraft landing gears, propellers, and jet engines. Construction contractors must not leave or place FOD on or near active aircraft movement areas. Materials capable of creating FOD must be continuously removed during the construction project. Fencing (other than security fencing) may be necessary to contain material that can be carried by wind into areas where aircraft operate. See AC 150/5210-24, Foreign Object Debris (FOD) Management.

**212. Hazardous Materials (HAZMAT) Management.** Contractors operating construction vehicles and equipment on the airport must be prepared to expeditiously contain and clean-up spills resulting from fuel or hydraulic fluid leaks. Transport and handling of other hazardous materials on an airport also requires special procedures. See AC 150/5320-15, Management of Airport Industrial Waste.

**213. Notification of Construction Activities.** The CSPP and SPCD must detail procedures for the immediate notification of airport users and the FAA of any conditions adversely affecting the operational safety of the airport. It must address the notification actions described below, as applicable.

**a. List of Responsible Representatives/** points of contact for all involved parties, and procedures for contacting each of them, including after hours.

**b. NOTAMs.** Only the airport operator may initiate or cancel NOTAMs on airport conditions, and is the only entity that can close or open a runway. The airport operator must coordinate the issuance, maintenance, and cancellation of NOTAMs about airport conditions resulting from construction activities with tenants and the local air traffic facility (control tower, approach control, or air traffic control center), and must provide information on closed or hazardous conditions on airport movement areas to the FAA Flight Service Station (FSS) so it can issue a NOTAM. The airport operator must file and maintain a list of authorized representatives with the FSS. Refer to AC 150/5200-28, Notices to Airmen (NOTAMs) for Airport Operators, for a sample NOTAM form. Only the FAA may issue or cancel NOTAMs on shutdown or irregular operation of FAA owned facilities. Any person having reason to believe that a NOTAM is missing, incomplete, or inaccurate must notify the airport operator. See paragraph 207.a(1) above regarding issuing NOTAMs for partially closed runways versus runways with displaced thresholds.

**c. Emergency notification procedures** for medical, fire fighting, and police response.

**d. Coordination with ARFF.** The CSPP must detail procedures for coordinating through the airport sponsor with ARFF personnel, mutual aid providers, and other emergency services if construction requires:

- The deactivation and subsequent reactivation of water lines or fire hydrants, or
- The rerouting, blocking and restoration of emergency access routes, or
- The use of hazardous materials on the airfield.

**e. Notification to the FAA.**

**(1) Part 77.** Any person proposing construction or alteration of objects that affect navigable airspace, as defined in Part 77, must notify the FAA. This includes construction equipment and proposed

parking areas for this equipment (i.e. cranes, graders, other equipment) on airports. FAA Form 7460-1, Notice of Proposed Construction or Alteration, can be used for this purpose and submitted to the appropriate FAA Airports Regional or District Office. See Appendix 1, Related Reading Material, to download the form. Further guidance is available on the FAA web site at [oeaaa.faa.gov](http://oeaaa.faa.gov).

**(2) Part 157.** With some exceptions, Title 14 CFR Part 157, Notice of Construction, Alteration, Activation, and Deactivation of Airports, requires that the airport operator notify the FAA in writing whenever a non-Federally funded project involves the construction of a new airport; the construction, realigning, altering, activating, or abandoning of a runway, landing strip, or associated taxiway; or the deactivation or abandoning of an entire airport. Notification involves submitting FAA Form 7480-1, Notice of Landing Area Proposal, to the nearest FAA Airports Regional or District Office. See Appendix 1, Related Reading Material to download the form.

**(3) NAVAIDS.** For emergency (short-notice) notification about impacts to both airport owned and FAA owned NAVAIDs, contact: 866-432-2622.

(a) Airport owned/FAA maintained. If construction operations require a shutdown of more than 24 hours, or more than 4 hours daily on consecutive days, of a NAVAID owned by the airport but maintained by the FAA, provide a 45-day minimum notice to FAA ATO/Technical Operations prior to facility shutdown.

(b) FAA owned.

(i) General. The airport operator must notify the appropriate FAA ATO Service Area Planning and Requirements (P&R) Group a minimum of 45 days prior to implementing an event that causes impacts to NAVAIDs. (Impacts to FAA equipment covered by a Reimbursable Agreement (RA) do not have to be reported by the airport operator.)

(ii) Coordinate work for an FAA owned NAVAID shutdown with the local FAA ATO/Technical Operations office, including any necessary reimbursable agreements and flight checks. Detail procedures that address unanticipated utility outages and cable cuts that could impact FAA NAVAIDs. In addition, provide seven days notice to schedule the actual shutdown.

## **214. Inspection Requirements.**

**a. Daily Inspections.** Inspections should be conducted at least daily, but more frequently if necessary to ensure conformance with the CSPP. A sample checklist is provided in Appendix 3, Safety and Phasing Plan Checklist. See also AC 150/5200-18, Airport Safety Self-Inspection.

**b. Final Inspections.** New runways and extended runway closures may require safety inspections at certificated airports prior to allowing air carrier service. Coordinate with the FAA Airport Certification Safety Inspector (ACSI) to determine if a final inspection will be necessary.

**215. Underground Utilities.** The CSPP and/or SPCD must include procedures for locating and protecting existing underground utilities, cables, wires, pipelines, and other underground facilities in excavation areas. This may involve coordinating with public utilities and FAA ATO/Technical Operations. Note that “One Call” or “Miss Utility” services do not include FAA ATO/Technical Operations

**216. Penalties.** The CSPP should detail penalty provisions for noncompliance with airport rules and regulations and the safety plans (for example, if a vehicle is involved in a runway incursion). Such penalties typically include rescission of driving privileges or access to the AOA.

**217. Special Conditions.** The CSPP must detail any special conditions that affect the operation of the

airport and will require the activation of any special procedures (for example, low-visibility operations, snow removal, aircraft in distress, aircraft accident, security breach, Vehicle / Pedestrian Deviation (VPD) and other activities requiring construction suspension/resumption).

**218. Runway and Taxiway Visual Aids.** Includes marking, lighting, signs, and visual NAVAIDS. The CSPP must ensure that areas where aircraft will be operating are clearly and visibly separated from construction areas, including closed runways. Throughout the duration of the construction project, verify that these areas remain clearly marked and visible at all times and that marking, lighting, signs, and visual NAVAIDS remain in place and operational. The CSPP must address the following, as appropriate:

**a. General.** Airport markings, lighting, signs, and visual NAVAIDS must be clearly visible to pilots, not misleading, confusing, or deceptive. All must be secured in place to prevent movement by prop wash, jet blast, wing vortices, or other wind currents and constructed of materials that would minimize damage to an aircraft in the event of inadvertent contact.

**b. Markings.** Markings must be in compliance with the standards of AC 150/5340-1, Standards for Airport Markings. Runways and runway exit taxiways closed to aircraft operations are marked with a yellow X. The preferred visual aid to depict temporary runway closure is the lighted X signal placed on or near the runway designation numbers. (See paragraph 218.b(1)(b) below.)

**(1) Closed Runways and Taxiways.**

(a) **Permanently Closed Runways.** For runways, obliterate the threshold marking, runway designation marking, and touchdown zone markings, and place Xs at each end and at 1,000-foot (300 m) intervals.

(b) **Temporarily Closed Runways.** For runways that have been temporarily closed, place an X at the each end of the runway directly on or as near as practicable to the runway designation numbers. Figure 2-1 illustrates.



**Figure 2-1 Markings for a Temporarily Closed Runway**

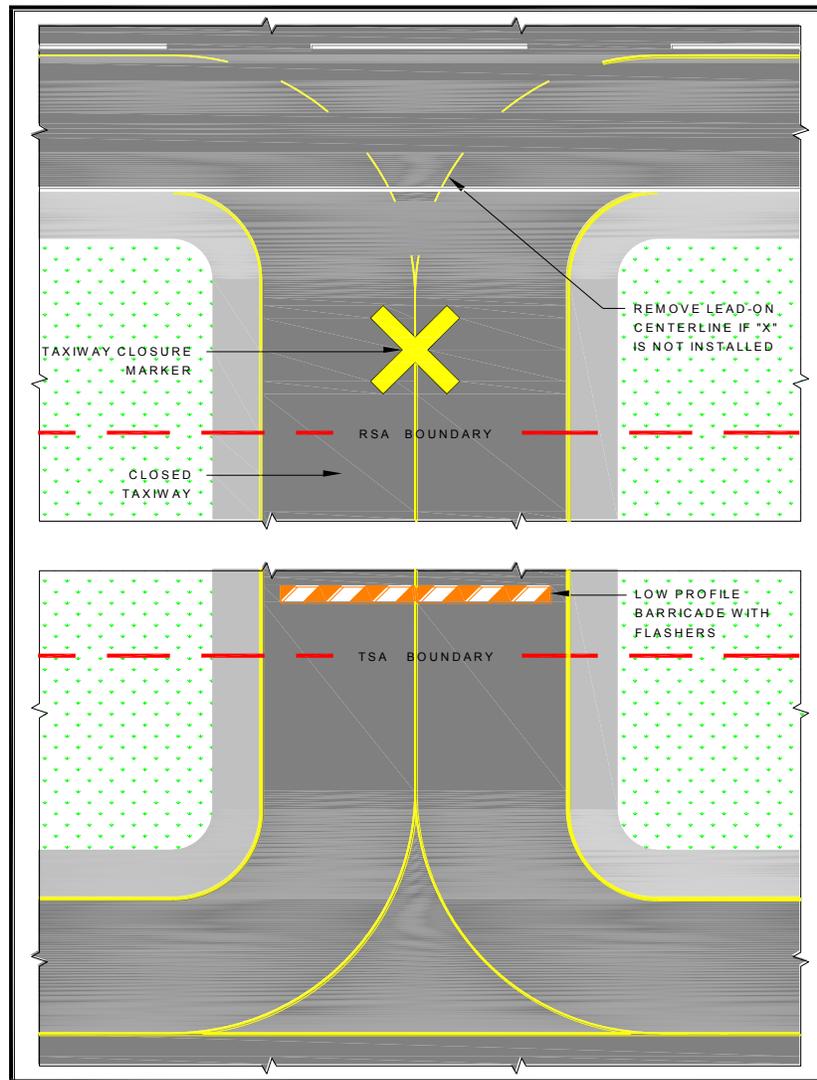
(c) **Partially Closed Runways and Displaced Thresholds.** When threshold markings are needed to identify the temporary beginning of the runway that is available for landing, the markings must comply with AC 150/5340-1. An X is not used on a partially closed runway or a runway with a displaced threshold. See paragraph 207.a(1) above for the difference between partially closed runways and runways with displaced thresholds.

(i) **Partially Closed Runways.** Pavement markings for temporary closed portions of the runway consist of a runway threshold bar and yellow chevrons to identify pavement areas that are unsuitable for takeoff or landing (see AC 150/5340-1).

(ii) **Displaced Thresholds.** Pavement markings for a displaced threshold consist of a runway threshold bar and white arrowheads with and without arrow shafts. These markings are required to identify the portion of the runway before the displaced threshold to provide centerline guidance for pilots during approaches, takeoffs, and landing rollouts from the opposite direction. See AC 150/5340-1.

## (d) Taxiways.

(i) Permanently Closed Taxiways. AC 150/5300-13 notes that it is preferable to remove the pavement, but for pavement that is to remain, place an X at the entrance to both ends of the closed section. Obliterate taxiway centerline markings, including runway leadoff lines, leading to the closed taxiway. Figure 2-2 illustrates.



**Figure 2-2 Taxiway Closure**

(ii) Temporarily Closed Taxiways. Place barricades outside the safety area of intersecting taxiways. For runway/taxiway intersections, place an X at the entrance to the closed taxiway from the runway. If the taxiway will be closed for an extended period, obliterate taxiway centerline markings, including runway leadoff lines, leading to the closed section. If the centerline markings will be reused upon reopening the taxiway, it is preferable to paint over the marking. This will result in less damage to the pavement when the upper layer of paint is ultimately removed.

(e) Temporarily Closed Airport. When the airport is closed temporarily, mark all the runways as closed.

(2) If unable to paint temporary markings on the pavement, construct them from any of the following materials: fabric, colored plastic, painted sheets of plywood, or similar materials. They must be properly configured and appropriately secured to prevent movement by prop wash, jet blast, or other wind currents.

(3) It may be necessary to remove or cover runway markings, including but not limited to, runway designation markings, threshold markings, centerline markings, edge stripes, touchdown zone markings and aiming point markings, depending on the length of construction and type of activity at the airport. When removing runway markings, apply the same treatment to areas between stripes or numbers, as the cleaned area will appear to pilots as a marking in the shape of the treated area.

(4) If it is not possible to install threshold bars, chevrons, and arrows on the pavement, temporary outboard markings may be used. Locate them outside of the runway pavement surface on both sides of the runway. The dimension along the runway direction must be the same as if installed on the pavement. The lateral dimension must be at least one-half that of on-pavement markings. If the markings are not discernible on grass or snow, apply a black background with appropriate material over the ground to ensure they are clearly visible.

(5) The application rate of paint to mark a short-term temporary runway and taxiway markings may deviate from the standard (see Item P-620, "Runway and Taxiway Painting," in AC 150/5370-10), but the dimensions must meet the existing standards.

**c. Lighting and Visual NAVAIDs.** This paragraph refers to standard runway and taxiway lighting systems. See below for hazard lighting. Lighting must be in conformance with AC 150/5340-30, Design and Installation Details for Airport Visual Aids, and AC 150/5345-50, Specification for Portable Runway and Taxiway Lights. When disconnecting runway and taxiway lighting fixtures, disconnect the associated isolation transformers. Alternately, cover the light fixture in such a way as to prevent light leakage. Avoid removing the lamp from energized fixtures because an excessive number of isolation transformers with open secondaries may damage the regulators and/or increase the current above its normal value. Secure, identify, and place any above ground temporary wiring in conduit to prevent electrocution and fire ignition sources.

**(1) Permanently Closed Runways and Taxiways.** For runways and taxiways that have been permanently closed, disconnect the lighting circuits.

(2) **Temporarily Closed Runways.** If available, use a lighted X, both at night and during the day, placed at each end of the runway facing the approach. The use of a lighted X is required if night work requires runway lighting to be on. See AC 150/5345-55, Specification for L-893, Lighted Visual Aid to Indicate Temporary Runway Closure. For runways that have been temporarily closed, but for an extended period, and for those with pilot controlled lighting, disconnect the lighting circuits or secure switches to prevent inadvertent activation. For runways that will be opened periodically, coordinate procedures with the FAA air traffic manager or, at airports without an ATCT, the airport operator. Activate stop bars if available. Figure 2-3 shows a lighted X by day. Figure 2-4 shows a lighted X at night.



**Figure 2-3 Lighted X in Daytime**



**Figure 2-4 Lighted X at Night**

(3) **Partially Closed Runways and Displaced Thresholds.** When a runway is partially closed, a portion of the pavement is unavailable for any aircraft operation, meaning taxiing and landing or

taking off in either direction. A displaced threshold, by contrast, is put in place to ensure obstacle clearance by landing aircraft. The pavement prior to the displaced threshold is available for takeoff in the direction of the displacement, and for landing and takeoff in the opposite direction. Misunderstanding this difference and issuance of a subsequently inaccurate NOTAM can result in a hazardous situation. For both partially closed runways and displaced thresholds, approach lighting systems at the affected end must be placed out of service

(a) **Partially Closed Runways.** Disconnect edge and threshold lights on that part of the runway at and behind the threshold (that is, the portion of the runway that is closed). Alternately, cover the light fixture in such a way as to prevent light leakage.

(b) **Displaced Thresholds.** Edge lighting in the area of the displacement emits red light in the direction of approach and yellow light in the opposite direction. Centerline lights are blanked out in the direction of approach if the displacement is 700 ft or less. If the displacement is over 700 ft, place the centerline lights out of service. See AC 150/5340-30 for details on lighting displaced thresholds.

(c) Temporary runway thresholds and runway ends must be lighted if the runway is lighted and it is the intended threshold for night landings or instrument meteorological conditions.

(d) A temporary threshold on an unlighted runway may be marked by retroreflective, elevated markers in addition to markings noted in paragraph 218.b(1)(c) above. Markers seen by aircraft on approach are green. Markers at the rollout end of the runway are red. At certificated airports, temporary elevated threshold markers must be mounted with a frangible fitting (see 14 CFR Part 139.309). At non-certificated airports, the temporary elevated threshold markings may either be mounted with a frangible fitting or be flexible. See AC 150/5345-39, Specification for L-853, Runway and Taxiway Retroreflective Markers.

(e) Temporary threshold lights and end lights and related visual NAVAIDs are installed outboard of the edges of the full-strength pavement only when they cannot be installed on the pavement. They are installed with bases at grade level or as low as possible, but not more than 3 in (7.6 cm) above ground. When any portion of a base is above grade, place properly compacted fill around the base to minimize the rate of gradient change so aircraft can, in an emergency, cross at normal landing or takeoff speeds without incurring significant damage. See AC 150/5370-10.

(f) Maintain threshold and edge lighting color and spacing standards as described in AC 150/5340-30. Battery powered, solar, or portable lights that meet the criteria in AC 150/5345-50 may be used. These systems are intended primarily for visual flight rules (VFR) aircraft operations but may be used for instrument flight rules (IFR) aircraft operations, upon individual approval from the Flight Standards Division of the applicable FAA Regional Office.

(g) Reconfigure yellow lenses (caution zone), as necessary. If the runway has centerline lights, reconfigure the red lenses, as necessary, or place the centerline lights out of service.

(h) Relocate the visual glide slope indicator (VGSI), such as VASI and PAPI; other airport lights, such as Runway End Identifier Lights (REIL); and approach lights to identify the temporary threshold. Another option is to disable the VGSI or any equipment that would give misleading indications to pilots as to the new threshold location. Installation of temporary visual aids may be necessary to provide adequate guidance to pilots on approach to the affected runway. If the FAA owns and operates the VGSI, coordinate its installation or disabling with the local ATO/Technical Operations Office. Relocation of such visual aids will depend on the duration of the project and the benefits gained from the relocation, as this can result in great expense.

(i) Issue a NOTAM to inform pilots of temporary lighting conditions.

**(4) Temporarily Closed Taxiways.** If possible, deactivate the taxiway lighting circuits. When deactivation is not possible (for example other taxiways on the same circuit are to remain open),

cover the light fixture in such a way as to prevent light leakage.

**d. Signs.** To the extent possible, signs must be in conformance with AC 150/5345-44, Specification for Runway and Taxiway Signs and AC 150/5340-18, Standard for Airport Sign Systems. Any time a sign does not serve its normal function; it must be covered or removed to prevent misdirecting pilots. Note that information signs identifying a crossing taxiway continue to perform their normal function even if the crossing taxiway is closed. For long term construction projects, consider relocating signs, especially runway distance remaining signs.

**219. Marking and Signs for Access Routes.** The CSPP should indicate that pavement markings and signs for construction personnel will conform to AC 150/5340-18 and, to the extent practicable, with the Federal Highway Administration Manual on Uniform Traffic Control Devices (MUTCD) and/or State highway specifications. Signs adjacent to areas used by aircraft must comply with the frangibility requirements of AC 150/5220-23, Frangible Connections, which may require modification to size and height guidance in the MUTCD.

## **220. Hazard Marking, Lighting and Signing.**

**a. Hazard Marking and Lighting Prevents Pilots** from entering areas closed to aircraft, and prevents construction personnel from entering areas open to aircraft. The CSPP must specify prominent, comprehensible warning indicators for any area affected by construction that is normally accessible to aircraft, personnel, or vehicles. Hazard marking and lighting must also be specified to identify open manholes, small areas under repair, stockpiled material, waste areas, and areas subject to jet blast. Also consider less obvious construction-related hazards and include markings to identify FAA, airport, and National Weather Service facilities cables and power lines; instrument landing system (ILS) critical areas; airport surfaces, such as RSA, OFA, and OFZ; and other sensitive areas to make it easier for contractor personnel to avoid these areas.

### **b. Equipment.**

**(1) Barricades,** including traffic cones, (weighted or sturdily attached to the surface) are acceptable methods used to identify and define the limits of construction and hazardous areas on airports. Careful consideration must be given to selecting equipment that poses the least danger to aircraft but is sturdy enough to remain in place when subjected to typical winds, prop wash and jet blast. The spacing of barricades must be such that a breach is physically prevented barring a deliberate act. For example, if barricades are intended to exclude vehicles, gaps between barricades must be smaller than the width of the excluded vehicles, generally 4 ft. Provision must be made for ARFF access if necessary. If barricades are intended to exclude pedestrians, they must be continuously linked. Continuous linking may be accomplished through the use of ropes, securely attached to prevent FOD.

**(2) Lights must be red,** either steady burning or flashing, and must meet the luminance requirements of the State Highway Department. Batteries powering lights will last longer if lights flash. Lights must be mounted on barricades and spaced at no more than 10 ft. Lights must be operated between sunset and sunrise and during periods of low visibility whenever the airport is open for operations. They may be operated by photocell, but this may require that the contractor turn them on manually during periods of low visibility during daytime hours.

**(3) Supplement barricades with signs** (for example “No Entry,” “No Vehicles”) as necessary.

**(4) Air Operations Area – General.** Barricades are not permitted in any active safety area. Within a runway or taxiway object free area, and on aprons, use orange traffic cones, flashing or steady burning red lights as noted above, collapsible barricades marked with diagonal, alternating orange and

white stripes; and/or signs to separate all construction/maintenance areas from the movement area. Barricades may be supplemented with alternating orange and white flags at least 20 by 20 in (50 by 50 cm) square and securely fastened to eliminate FOD. All barricades adjacent to any open runway or taxiway / taxilane safety area, or apron must be as low as possible to the ground, and no more than 18 in high, exclusive of supplementary lights and flags. Barricades must be of low mass; easily collapsible upon contact with an aircraft or any of its components; and weighted or sturdily attached to the surface to prevent displacement from prop wash, jet blast, wing vortex, or other surface wind currents. If affixed to the surface, they must be frangible at grade level or as low as possible, but not to exceed 3 in (7.6 cm) above the ground. Figure 2-5 and Figure 2-6 show sample barricades with proper coloring and flags.



**Figure 2-5 Interlocking Barricades**



**Figure 2-6 Low Profile Barricades**

(5) **Air Operations Area – Runway/Taxiway Intersections.** Use highly reflective barricades with lights to close taxiways leading to closed runways. Evaluate all operating factors when determining how to mark temporary closures that can last from 10 to 15 minutes to a much longer period of time. However, even for closures of relatively short duration, close all taxiway/runway intersections with barricades. The use of traffic cones is appropriate for short duration closures.

(6) **Air Operations Area – Other.** Beyond runway and taxiway object free areas and

aprons, barricades intended for construction vehicles and personnel may be many different shapes and made from various materials, including railroad ties, sawhorses, jersey barriers, or barrels.

(7) **Maintenance.** The construction specifications must include a provision requiring the contractor to have a person on call 24 hours a day for emergency maintenance of airport hazard lighting and barricades. The contractor must file the contact person's information with the airport operator. Lighting should be checked for proper operation at least once per day, preferably at dusk.

**221. Protection of Runway and Taxiway Safety Areas.** Runway and taxiway safety areas, Obstacle Free zones (OFZ), object free areas (OFA), and approach surfaces are described in AC 150/5300-13. Protection of these areas includes limitations on the location and height of equipment and stockpiled material. An FAA airspace study may be required. Coordinate with the appropriate FAA Airports Regional or District Office if there is any doubt as to requirements or dimensions (See paragraph 213.e above.) as soon as the location and height of materials or equipment are known. The CSPP should include drawings showing all safety areas, object free areas, obstacle free zones and approach departure surfaces affected by construction.

**a. Runway Safety Area (RSA).** A runway safety area is the defined surface surrounding the runway prepared or suitable for reducing the risk of damage to airplanes in the event of an undershoot, overshoot, or excursion from the runway (see AC 150/5300-13). Construction activities within the existing RSA are subject to the following conditions:

(1) **No construction may occur within the existing RSA** while the runway is open for aircraft operations. The RSA dimensions may be temporarily adjusted if the runway is restricted to aircraft operations requiring an RSA that is equal to the RSA width and length beyond the runway ends available during construction. (see AC 150/5300-13). The temporary use of declared distances and/or partial runway closures may provide the necessary RSA under certain circumstances. Coordinate with the appropriate FAA Airports Regional or District Office to have declared distances information published. See AC 150/5300-13 for guidance on the use of declared distances.

(2) **The airport operator must coordinate** the adjustment of RSA dimensions as permitted above with the appropriate FAA Airports Regional or District Office and the local FAA air traffic manager and issue a NOTAM.

(3) **The CSPP and SPCD must provide procedures** for ensuring adequate distance for protection from blasting operations, if required by operational considerations.

(4) **Excavations.**

(a) Open trenches or excavations are not permitted within the RSA while the runway is open. If possible, backfill trenches before the runway is opened. If the runway must be opened before excavations are backfilled, cover the excavations appropriately. Covering for open trenches must be designed to allow the safe operation of the heaviest aircraft operating on the runway across the trench without damage to the aircraft.

(b) Construction contractors must prominently mark open trenches and excavations at the construction site with red or orange flags, as approved by the airport operator, and light them with red lights during hours of restricted visibility or darkness.

(5) **Erosion Control.** Soil erosion must be controlled to maintain RSA standards, that is, the RSA must be cleared and graded and have no potentially hazardous ruts, humps, depressions, or other surface variations, and capable, under dry conditions, of supporting snow removal equipment, aircraft rescue and fire fighting equipment, and the occasional passage of aircraft without causing structural damage to the aircraft.

**b. Runway Object Free Area (ROFA).** Construction, including excavations, may be permitted in the ROFA. However, equipment must be removed from the ROFA when not in use, and material should not be stockpiled in the ROFA if not necessary. Stockpiling material in the OFA requires submittal of a 7460-1 form and justification provided to the appropriate FAA Airports Regional or District Office for approval.

**c. Taxiway Safety Area (TSA).** A taxiway safety area is a defined surface alongside the taxiway prepared or suitable for reducing the risk of damage to an airplane unintentionally departing the taxiway. (See AC 150/5300-13.) Construction activities within the TSA are subject to the following conditions:

(1) **No construction may occur** within the TSA while the taxiway is open for aircraft operations. The TSA dimensions may be temporarily adjusted if the taxiway is restricted to aircraft operations requiring a TSA that is equal to the TSA width available during construction (see AC 150/5300-13, Table 4-1).

(2) **The airport operator must coordinate** the adjustment of the TSA width as permitted above with the appropriate FAA Airports Regional or District Office and the FAA air traffic manager and issue a NOTAM.

(3) **The CSPP and SPCD must provide procedures** for ensuring adequate distance for protection from blasting operations.

(4) **Excavations.**

(a) Open trenches or excavations are not permitted within the TSA while the taxiway is open. If possible, backfill trenches before the taxiway is opened. If the taxiway must be opened before excavations are backfilled, cover the excavations appropriately. Covering for open trenches must be designed to allow the safe operation of the heaviest aircraft operating on the taxiway across the trench without damage to the aircraft.

(b) Construction contractors must prominently mark open trenches and excavations at the construction site with red or orange flags, as approved by the airport operator, and light them with red lights during hours of restricted visibility or darkness.

(5) **Erosion Control.** Soil erosion must be controlled to maintain TSA standards, that is, the TSA must be cleared and graded and have no potentially hazardous ruts, humps, depressions, or other surface variations, and capable, under dry conditions, of supporting snow removal equipment, aircraft rescue and fire fighting equipment, and the occasional passage of aircraft without causing structural damage to the aircraft.

**d. Taxiway Object Free Area (TOFA).** Unlike the Runway Object Free Area, aircraft wings regularly penetrate the taxiway object free area during normal operations. Thus the restrictions are more stringent. Except as provided below, no construction may occur within the taxiway object free area while the taxiway is open for aircraft operations.

(1) **The taxiway object free area dimensions** may be temporarily adjusted if the taxiway is restricted to aircraft operations requiring a taxiway object free area that is equal to the taxiway object free area width available.

(2) **Offset taxiway pavement markings** may be used as a temporary measure to provide the required taxiway object free area. Where offset taxiway pavement markings are provided, centerline lighting or reflectors are required.

(3) **Construction activity may be accomplished** without adjusting the width of the taxiway object free area, subject to the following restrictions:

- (a) Appropriate NOTAMs are issued.
- (b) Marking and lighting meeting the provisions of paragraphs 218 and 220 above are implemented.
- (c) Five-foot clearance is maintained between equipment and materials and any part of an aircraft (includes wingtip overhang). In these situations, flaggers must be used to direct construction equipment, and wing walkers will be necessary to guide aircraft. Wing walkers should be airline/aviation personnel rather than construction workers. If such clearance can only be maintained if an aircraft does not have full use of the entire taxiway width (with its main landing gear at the edge of the pavement), then it will be necessary to move personnel and equipment for the passage of that aircraft.

**e. Obstacle Free Zone (OFZ).** In general, personnel, material, and/or equipment may not penetrate the OFZ while the runway is open for aircraft operations. If a penetration to the OFZ is necessary, it may be possible to continue aircraft operations through operational restrictions. Coordinate with the FAA through the appropriate FAA Airports Regional or District Office.

**f. Runway Approach/Departure Areas and Clearways.** All personnel, materials, and/or equipment must remain clear of the applicable threshold siting surfaces, as defined in Appendix 2, "Threshold Siting Requirements," of AC 150/5300-13. Objects that do not penetrate these surfaces may still be obstructions to air navigation and may affect standard instrument approach procedures. Coordinate with the FAA through the appropriate FAA Airports Regional or District Office.

**(1) Construction activity in a runway approach/departure area** may result in the need to partially close a runway or displace the existing runway threshold. Partial runway closure, displacement of the runway threshold, as well as closure of the complete runway and other portions of the movement area also require coordination through the airport operator with the appropriate FAA air traffic manager (FSS if non-towered) and ATO/Technical Operations (for affected NAVAIDS) and airport users.

**(2) Caution regarding partial runway closures.** When filing a NOTAM for a partial runway closure, clearly state to OCC personnel that the portion of pavement located prior to the threshold is not available for landing and departing traffic. In this case, the threshold has been moved for both landing and takeoff purposes (this is different than a displaced threshold). There may be situations where the portion of closed runway is available for taxiing only. If so, the NOTAM must reflect this condition).

**(3) Caution regarding displaced thresholds.** : Implementation of a displaced threshold affects runway length available for aircraft landing over the displacement. Depending on the reason for the displacement (to provide obstruction clearance or RSA), such a displacement may also require an adjustment in the landing distance available and accelerate-stop distance available in the opposite direction. If project scope includes personnel, equipment, excavation, other work. within the existing RSA of any usable runway end, do not implement a displaced threshold unless arrivals and departures toward the construction activity are prohibited. Instead, implement a partial closure.

**222. Other Limitations on Construction.** The CSPP must specify any other limitations on construction, including but not limited to:

**a. Prohibitions.**

**(1) No use of tall equipment** (cranes, concrete pumps, and so on) unless a 7460-1 determination letter is issued for such equipment.

**(2) No use of open flame welding or torches** unless fire safety precautions are provided and the airport operator has approved their use.

**(3) No use of electrical blasting caps** on or within 1,000 ft (300 m) of the airport property.

See AC 150/5370-10.

**(4) No use of flare pots within the AOA.**

**b. Restrictions.**

**(1) Construction suspension required during specific airport operations.**

**(2) Areas that cannot be worked on simultaneously.**

**(3) Day or night construction restrictions.**

**(4) Seasonal construction restrictions.**

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### Chapter 3. Guidelines for Writing a CSPP

**301. General Requirements.** The CSPP is a standalone document written to correspond with the subjects outlined in Chapter 2, Section 1, paragraph 204. The CSPP is organized by numbered sections corresponding to each subject listed in Chapter 2, Section 1, paragraph 204, and described in detail in Chapter 2, Section 2. Each section number and title in the CSPP matches the corresponding subject outlined in Chapter 2, paragraph 204 (for example, 1. Coordination, 2. Phasing, 3. Areas and Operations Affected by the Construction Activity, and so on.). With the exception of the project scope of work outlined in Section 2. Phasing, only subjects specific to operational safety during construction should be addressed.

**302. Applicability of Subjects.** Each section should, to the extent practical, focus on the specific subject. Where an overlapping requirement spans several sections, the requirement should be explained in detail in the most applicable section. A reference to that section should be included in all other sections where the requirement may apply. For example, the requirement to protect existing underground FAA Instrument Landing System (ILS) cables during trenching operations could be considered FAA ATO coordination (Section 1. Coordination, paragraph 205.c), an area and operation affected by the construction activity (Section 3. Areas and Operations Affected by the Construction Activity, paragraph 207.a(4)), a protection of a NAVAID (Section 4. Protection of Navigational Aids (NAVAIDs), paragraph 208), or a notification to the FAA of construction activities (Section 9. Notification of Construction Activities, paragraph 210.e(3)(b)). However, it is more specifically an underground utility requirement (Section 11. Underground Utilities, paragraph 215). The procedure for protecting underground ILS cables during trenching operations should therefore be described in Section 11: “*The contractor must coordinate with the local FAA System Support Center (SSC) to mark existing ILS cable routes along Runway 17-35. The ILS cables will be located by hand digging whenever the trenching operation moves within 10 feet of the cable markings.*” All other applicable sections should include a reference to Section 11: “*ILS cables shall be identified and protected as described in Section 11*” or “*See Section 11 for ILS cable identification and protection requirements.*” Thus, the CSPP should be considered as a whole, with no need to duplicate responses to related issues.

**303. Graphical Representations.** Construction safety drawings should be included in the CSPP as attachments. When other graphical representations will aid in supporting written statements, the drawings, diagrams, and/or photographs should also be attached to the CSPP. References should be made in the CSPP to each graphical attachment and may be made in multiple sections.

**304. Reference Documents.** The CSPP must not incorporate a document by reference unless reproduction of the material in that document is prohibited. In that case, either copies of or a source for the referenced document must be provided to the contractor.

**305. Restrictions.** The CSPP should not be considered as a project design review document. The CSPP should also avoid mention of permanent (“as-built”) features such as pavements, markings, signs, and lighting, except when such features are intended to aid in maintaining operational safety during the construction.

**306. Coordination.** Include in this section a detailed description of conferences and meetings both before and during the project. Include appropriate information from AC 150/5300-9. Discuss coordination procedures and schedules for each required FAA ATO airway facility shutdown and restart and all required flight inspections.

**307. Phasing.** Include in this section a detailed scope of work description for the project as a whole and each phase of work covered by the CSPP. This includes all locations and durations of the work proposed. Attach drawings to graphically support the written scope of work. Detail in this section the sequenced phases of the proposed construction. Include a reference to paragraph 308 below, as appropriate.

**308. Areas and Operations Affected By Construction.** Focus in this section on identifying the areas and operations affected by the construction. Describe corresponding mitigation that is not covered in detail elsewhere in the CSPP. Include references to paragraphs below as appropriate. Attach drawings as necessary to graphically describe affected areas and mechanisms proposed. Tables and charts such as the following may be helpful in highlighting issues to be addressed.

**Table 3-1 Sample Operations Effects**

Project	Runway 15-33 Reconstruction	
Phase	Phase II: Reconstruct Runway 15 End	
Scope of Work	Reconstruct 1,000 ft of north end of Runway 15-33 with Portland Cement Concrete (PCC).	
Operational Requirements	Normal (Existing)	Phase II (Anticipated)
Runway 15 Average Aircraft Operations	Carrier: 52 /day GA: 26 /day Military: 11 /day	Carrier: 52 / day GA: 20 / day Military: 0 /day
Runway 33 Average Aircraft Operations	Carrier: 40 /day GA: 18 /day Military: 10 /day	Carrier: 20 /day GA: 5 /day Military: 0 /day
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	N/A
	VOR	N/A
Runway 33 Approach Procedures	ILS	Visual only
	RNAV	N/A
	VOR	N/A
Runway 15 NAVAIDs	ILS/DME, MALSR, RVR	LOC/DME, PAPI (temp), RVR

<b>Runway 33 NAVAIDs</b>	ILS/DME, MALSF, PAPI, RVR	MALSF, PAPI, RVR
<b>Taxiway G ADG</b>	IV	IV (N/A between T/W H and R/W 15 end)
<b>Taxiway E ADG</b>	IV	IV
<b>ATCT (hours open)</b>	06:00 – 24:00 local	06:00 – 24:00 local
<b>ARFF Index</b>	D	D
<b>Special Conditions</b>	Air National Guard (ANG) military operations	Military operations relocated to alternate ANG Base
	Airline XYZ requires VGSI	Airline XYZ requires VGSI

Complete the following chart for each phase to determine the area that must be protected along the runway edges:

Runway	Aircraft Approach Category* A, B, C, or D	Airplane Design Group* I, II, III, or IV	RSA Width in Feet Divided by 2*
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

\*See AC 150/5300-13 to complete the chart for a specific runway.

Complete the following chart for each phase to determine the area that must be protected before the runway threshold:

Runway End Number	Airplane Design Group* I, II, III, or IV	Aircraft Approach Category* A, B, C, or D	Minimum Safety Area Prior to the Threshold*	Minimum Distance to Threshold Based on Required Approach Slope*	
_____	_____	_____	_____ ft	_____ ft	_____: 1
_____	_____	_____	_____ ft	_____ ft	_____: 1
_____	_____	_____	_____ ft	_____ ft	_____: 1
_____	_____	_____	_____ ft	_____ ft	_____: 1

\*See AC 150/5300-13 to complete the chart for a specific runway.

**309. Navigation Aid (NAVAID) Protection.** List in this section all NAVAID facilities that will be affected by the construction. Identify NAVAID facilities that will be placed out of service at any time prior to or during construction activities. Identify individuals responsible for coordinating each shutdown and when each facility will be out of service. Include a reference to paragraph 306 above for FAA ATO NAVAID shutdown, restart, and flight inspection coordination. Outline in detail procedures to protect each NAVAID facility remaining in service from interference by construction activities. Include a reference to paragraph 314 for the issuance of NOTAMs as required. Include a reference to paragraph 316 for the protection of underground cables and piping serving NAVAIDs. If temporary visual aids are proposed to replace or supplement existing facilities, include a reference to paragraph 319. Attach drawings to graphically indicate the affected NAVAIDS and the corresponding critical areas.

**310. Contractor Access.** This will necessarily be the most extensive section of the CSPP. Provide

sufficient detail so that a contractor not experienced in working on airports will understand the unique restrictions such work will require. Due to this extent, it should be broken down into subsections as described below:

**a. Location of Stockpiled Construction Materials.** Describe in this section specific locations for stockpiling material. Note any height restrictions on stockpiles. Include a reference to paragraph 321 for hazard marking and lighting devices used to identify stockpiles. Include a reference to paragraph 311 for provisions to prevent stockpile material from becoming wildlife attractants. Include a reference to paragraph 312 for provisions to prevent stockpile material from becoming FOD. Attach drawings to graphically indicate the stockpile locations.

**b. Vehicle and Pedestrian Operations.** While there are many items to be addressed in this major subsection of the CSPP, all are concerned with one main issue: keeping people and vehicles from areas of the airport where they don't belong. This includes preventing unauthorized entry to the AOA and preventing the improper movement of pedestrians or vehicles on the airport. In this section, focus on mechanisms to prevent construction vehicles and workers traveling to and from the worksite from unauthorized entry into movement areas. Specify locations of parking for both employee vehicles and construction equipment, and routes for access and haul roads. In most cases, this will best be accomplished by attaching a drawing. Quote from AC 150/5210-5 specific requirements for contractor vehicles rather than referring to the AC as a whole, and include special requirements for identifying Hazardous Material (HAZMAT) vehicles. Quote from, rather than incorporate by reference, AC 150/5210-20 as appropriate to address the airport's rules for ground vehicle operations, including its training program. Discuss the airport's recordkeeping system listing authorized vehicle operators.

**c. Two-Way Radio Communications.** Include a special section to identify all individuals who are required to maintain communications with Air Traffic (AT) at airports with active towers, or monitor Common Traffic Advisory Frequencies (CTAF) at airports without or with closed ATCT. Include training requirements for all individuals required to communicate with AT. Individuals required to monitor AT frequencies should also be identified. If construction employees are also required to communicate by radio with Airport Operations, this procedure should be described in detail. Usage of vehicle mounted radios and/or portable radios should be addressed. Communication procedures for the event of disabled radio communication (that is, light signals, telephone numbers, others) must be included. All radio frequencies should be identified (Tower, Ground Control, CTAF, UNICOM, ATIS, and so on).

**d. Airport Security.** Address security as it applies to vehicle and pedestrian operations. Discuss TSA requirements, security badging requirements, perimeter fence integrity, gate security, and other needs. Attach drawings to graphically indicate secured and/or Security Identification Display Areas (SIDA), perimeter fencing, and available access points.

**311. Wildlife Management.** Discuss in this section wildlife management procedures. Describe the maintenance of existing wildlife mitigation devices, such as perimeter fences, and procedures to limit wildlife attractants. Include procedures to notify Airport Operations of wildlife encounters. Include a reference to paragraph 310 for security (wildlife) fence integrity maintenance as required.

**312. Foreign Object Debris (FOD) Management.** In this section, discuss methods to control and monitor FOD: worksite housekeeping, ground vehicle tire inspections, runway sweeps, and so on. Include a reference to paragraph 315 for inspection requirements as required.

**313. Hazardous Materials (HAZMAT) Management.** Describe in this section HAZMAT management procedures: fuel deliveries, spill recovery procedures, Material Safety Data Sheet (MSDS) availability, and other considerations. Any specific airport HAZMAT restrictions should also be

identified. Include a reference to paragraph 310 for HAZMAT vehicle identification requirements. Quote from, rather than incorporate by reference, AC 150/5320-15.

**314. Notification of Construction Activities.** List in this section the names and telephone numbers of points of contact for all parties affected by the construction project. We recommend a single list that includes all telephone numbers required under this section. Include emergency notification procedures for all representatives of all parties potentially impacted by the construction. Identify individual representatives – and at least one alternate – for each party. List both on-duty and off-duty contact information for each individual, including individuals responsible for emergency maintenance of airport construction hazard lighting and barricades. Describe procedures to coordinate immediate response to events that might adversely affect the operational safety of the airport (such as interrupted NAVAID service). Explain requirements for and the procedures for the issuance of Notices to Airmen (NOTAMs), notification to FAA required by 14 CFR Part 77 and Part 157 and in the event of affected NAVAIDs. For NOTAMs, identify an individual, and at least one alternate, responsible for issuing and cancelling each specific type of Notice to Airmen (NOTAM) required. Detail notification methods for police, fire fighting, and medical emergencies. This may include 911, but should also include direct phone numbers of local police departments and nearby hospitals. The local Poison Control number should be listed. Procedures regarding notification of Airport Operations and/or the ARFF Department of such emergencies should be identified, as applicable. If airport radio communications are identified as a means of emergency notification, include a reference to paragraph 310. Differentiate between emergency and nonemergency notification of ARFF personnel, the latter including activities that affect ARFF water supplies and access roads. Identify the primary ARFF contact person and at least one alternate. If notification is to be made through Airport Operations, then detail this procedure. Include a method of confirmation from the ARFF department.

**315. Inspection Requirements.** Describe in this section inspection requirements to ensure airfield safety compliance. Include a requirement for routine inspections by the resident engineer (RE) and the construction contractors. If the engineering consultants and/or contractors have a Safety Officer who will conduct such inspections, identify this individual. Describe procedures for special inspections, such as those required to reopen areas for aircraft operations. Part 139 requires daily airfield inspections at certificated airports, but these may need to be more frequent when construction is in progress. Discuss the role of such inspections on areas under construction. Include a requirement to immediately remedy any deficiencies, whether caused by negligence, oversight, or project scope change.

**316. Underground Utilities.** Explain how existing underground utilities will be located and protected. Identify each utility owner and include contact information for each company/agency in the master list. Address emergency response procedures for damaged or disrupted utilities. Include a reference to paragraph 314 above for notification of utility owners of accidental utility disruption as required.

**317. Penalties.** Describe in this section specific penalties imposed for noncompliance with airport rules and regulations, including the CSPP: SIDA violations, Vehicle/Pedestrian Deviations (VPD), and others.

**318. Special Conditions.** Identify any special conditions that may trigger specific safety mitigation actions outlined in this CSPP: low visibility operations, snow removal, aircraft in distress, aircraft accident, security breach, VPD, and other activities requiring construction suspension/resumption. Include a reference to paragraph 310 above for compliance with airport safety and security measures and for radio communications as required. Include a reference to paragraph 319 below for emergency notification of all involved parties, including police/security, ARFF, and medical services.

**319. Runway and Taxiway Visual Aids.** Include marking, lighting, signs, and visual NAVAIDS.

Detail temporary runway and taxiway marking, lighting, signs, and visual NAVAIDs required for the construction. Discuss existing marking, lighting, signs, and visual NAVAIDs that are temporarily, altered, obliterated, or shut down. Consider non-federal facilities and address requirements for reimbursable agreements necessary for alteration of FAA facilities and for necessary flight checks. Identify temporary TORA signs or runway distance remaining signs if appropriate. Identify required temporary visual NAVAIDs such as REIL or PAPI. Quote from, rather than incorporate by reference, AC 150/5340-1, Standards for Airport Markings, AC 150/5340-18, Standards for Airport Sign Systems, and AC 150/5340-30, as required. Attach drawings to graphically indicate proposed marking, lighting, signs, and visual NAVAIDs.

**320. Marking and Signs for Access Routes.** Detail plans for marking and signs for vehicle access routes. To the extent possible, signs should be in conformance with the Federal Highway Administration Manual on Uniform Traffic Control Devices (MUTCD) and/or State highway specifications, not hand lettered. Detail any modifications to the guidance in the MUTCD necessary to meet frangibility/height requirements.

**321. Hazard Marking and Lighting.** Specify all marking and lighting equipment, including when and where each type of device is to be used. Specify maximum gaps between barricades and the maximum spacing of hazard lighting. Identify one individual and at least one alternate responsible for maintenance of hazard marking and lighting equipment in the master telephone list. Include a reference to paragraph 314 above. Attach drawings to graphically indicate the placement of hazard marking and lighting equipment.

**322. Protection of Runway and Taxiway Safety Areas.** This section should focus exclusively on procedures for protecting all safety areas, including those altered by the construction: methods of demarcation, limit of access, movement within safety areas, stockpiling and trenching restrictions, and so on. Reference AC 150/5300-13: Airport Design as required. Include a reference to paragraph 310 above for procedures regarding vehicle and personnel movement within safety areas. Include a reference to paragraph 310 above for material stockpile restrictions as required. Detail requirements for trenching, excavations, and backfill. Include a reference to paragraph 321 for hazard marking and lighting devices used to identify open excavations as required. If runway and taxiway closures are proposed to protect safety areas, or if temporary displaced thresholds and/or revised declared distances are used to provide adequate Runway Safety Area, include a reference to paragraphs 314 and 319 above. Detail procedures for protecting the runway OFZ, runway OFA, taxiway OFA and runway approach surfaces including those altered by the construction: methods of demarcation, limit of cranes, storage of equipment, and so on. Quote from, rather than incorporate by reference, AC 150/5300-13: Airport Design as required. Include a reference to paragraph 323 for height (i.e. crane) restrictions as required. One way to address the height of equipment that will move during the project is to establish a three-dimensional “box” within which equipment will be confined that can be studied as a single object. Attach drawings to graphically indicate the safety area, OFZ, and OFA boundaries.

**323. Other Limitations on Construction.** This section should describe what limitations must be applied to each area of work and when each limitation will be applied: limitations due to airport operations, height (i.e. crane) restrictions, areas which cannot be worked at simultaneously, day/night work restrictions, winter construction, and other limitations. Include a reference to paragraph 307 above for project phasing requirements based on construction limitations as required.

### Appendix 1. Related Reading Material

Obtain the latest version of the following free publications from the FAA on its Web site at <http://www.faa.gov/airports/>.

AC	Title and Description
AC 150/5200-28	Notices to Airmen (NOTAMs) for Airport Operators
	Guidance for using the NOTAM System in airport reporting.
AC 150/5200-30	Airport Winter Safety and Operations
	Guidance for airport owners/operators on the development of an acceptable airport snow and ice control program and on appropriate field condition reporting procedures.
AC 150/5200-33	Hazardous Wildlife Attractants On or Near Airports
	Guidance on locating certain land uses that might attract hazardous wildlife to public-use airports.
AC 150/5210-5	Painting, Marking, and Lighting of Vehicles Used on an Airport.
	Guidance, specifications, and standards for painting, marking, and lighting vehicles operating in the airport air operations areas.
AC 150/5210-20	Ground Vehicle Operations on Airports
	Guidance to airport operators on developing ground vehicle operation training programs.
AC 150/5300-13	Airport Design
	FAA standards and recommendations for airport design, establishes approach visibility minimums as an airport design parameter, and contains the Object Free area and the obstacle free-zone criteria.
AC 150/5310-24	Airport Foreign Object Debris Management
	Guidance for developing and managing an airport foreign object debris (FOD) program
AC 150/5220-4	Water Supply Systems for Aircraft Fire and Rescue Protection.
	Guidance on selecting a water source and meeting standards for a distribution system to support aircraft rescue and fire fighting service operations on airports.
AC 150/5320-15	Management of Airport Industrial Waste
	Basic information on the characteristics, management, and regulations of industrial wastes generated at airports. Guidance for developing a Storm Water Pollution Prevention Plan (SWPPP) that applies best management practices to eliminate, prevent, or reduce pollutants in storm water runoff with particular airport industrial activities.
AC 150/5340-1	Standards for Airport Markings
	FAA standards for markings used on airport runways, taxiways, and aprons.
AC 150/5340-18	Standards for Airport Sign Systems
	FAA standards for the siting and installation of signs on airport runways and taxiways.
AC 150/5345-28	Precision Approach Path Indicator (PAPI) Systems
	FAA standards for PAPI systems, which provide pilots with visual glide slope guidance during approach for landing.

AC	Title and Description
AC 150/5340-30	Design and Installation Details for Airport Visual Aids
	Guidance and recommendations on the installation of airport visual aids.
AC 150/5345-39	Specification for L-853, Runway and Taxiway Retroreflective Markers
AC 150/5345-44	Specification for Runway and Taxiway Signs
	FAA specifications for unlighted and lighted signs for taxiways and runways.
AC 150/5345-53	Airport Lighting Certification Program
	Details on the Airport Lighting Equipment Certification Program (ALECP).
AC 150/5345-50	Specification for Portable Runway and Taxiway Lights
	FAA standards for portable runway and taxiway lights and runway end identifier lights for temporary use to permit continued aircraft operations while all or part of a runway lighting system is inoperative.
AC 150/5345-55	Specification for L-893, Lighted Visual Aid to Indicate Temporary Runway Closure
AC 150/5370-10	Standards for Specifying Construction of Airports
	Standards for construction of airports, including earthwork, drainage, paving, turfing, lighting, and incidental construction.
FAA Order 5200.11	<a href="#">FAA Airports (ARP) Safety Management System (SMS)</a>
	Basics for implementing SMS within ARP. Includes roles and responsibilities of ARP management and staff as well as other FAA lines of business that contribute to the ARP SMS.
FAA Certalert 98-05	Grasses Attractive to Hazardous Wildlife
	Guidance on grass management and seed selection.
FAA Form 7460-1	<a href="#">Notice of Proposed Construction or Alteration</a>
FAA Form 7480-1	<a href="#">Notice of Landing Area Proposal</a>

Obtain the latest version of the following free publications from the Electronic Code of Federal Regulations at <http://ecfr.gpoaccess.gov/>.

Title 14 CFR Part 139	Certification of Airports
Title 49 CFR Part 1542	Airport Security

Obtain the latest version of the Manual on Uniform Traffic Control Devices from the Federal Highway Administration at <http://mutcd.fhwa.dot.gov/>.

## Appendix 2. Definition of Terms

Term	Definition
7460-1	Notice Of Proposed Construction Or Alteration. For on-airport projects, the form submitted to the FAA regional or airports division office as formal written notification of any kind of construction or alteration of objects that affect navigable airspace, as defined in 14 CFR Part 77, safe, efficient use, and preservation of the navigable airspace. (See guidance available on the FAA web site at <a href="http://oeaaa.faa.gov">oeaaa.faa.gov</a> .) The form may be downloaded at <a href="http://www.faa.gov/airports/resources/forms/">http://www.faa.gov/airports/resources/forms/</a> , or filed electronically at: <a href="https://oeaaa.faa.gov">https://oeaaa.faa.gov</a> .
7480-1	Notice Of Landing Area Proposal. Form submitted to the FAA Airports Regional Division Office or Airports District Office as formal written notification whenever a project without an airport layout plan on file with the FAA involves the construction of a new airport; the construction, realigning, altering, activating, or abandoning of a runway, landing strip, or associated taxiway; or the deactivation or abandoning of an entire airport The form may be downloaded at <a href="http://www.faa.gov/airports/resources/forms/">http://www.faa.gov/airports/resources/forms/</a> .
AC	Advisory Circular
ACRC	Aircraft Reference Code
ACSI	Airport Certification Safety Inspector
ADG	Airplane Design Group
AIP	Airport Improvement Program
ALECP	Airport Lighting Equipment Certification Program
ANG	Air National Guard
AOA	Air Operations Area. Any area of the airport used or intended to be used for the landing, takeoff, or surface maneuvering of aircraft. An air operations area includes such paved or unpaved areas that are used or intended to be used for the unobstructed movement of aircraft in addition to its associated runways, taxiways, or aprons.
ARFF	Aircraft Rescue and Fire Fighting
ARP	FAA Office of Airports
ASDA	Accelerate-Stop Distance Available
ATCT	Airport Traffic Control Tower
ATIS	Automatic Terminal Information Service
ATO	Air Traffic Organization
Certificated Airport	An airport that has been issued an Airport Operating Certificate by the FAA under the authority of 14 CFR Part 139, Certification of Airports.
CFR	Code of Federal Regulations
Construction	The presence and movement of construction-related personnel, equipment, and materials in any location that could infringe upon the movement of aircraft.
CSPP	Construction Safety And Phasing Plan. The overall plan for safety and phasing of a construction project developed by the airport operator, or developed by the airport operator's consultant and approved by the airport operator. It is included in the invitation for bids and becomes part of the project specifications.

Term	Definition
CTAF	Common Traffic Advisory Frequency
Displaced Threshold	A threshold that is located at a point on the runway other than the designated beginning of the runway. The portion of pavement behind a displaced threshold is available for takeoffs in either direction or landing from the opposite direction.
DOT	Department of Transportation
EPA	Environmental Protection Agency
FOD	Foreign Object Debris
HAZMAT	Hazardous Materials
IFR	Instrument Flight Rules
ILS	Instrument Landing System
LDA	Landing Distance Available
LOC	Localizer antenna array
Movement Area	The runways, taxiways, and other areas of an airport that are used for taxiing or hover taxiing, air taxiing, takeoff, and landing of aircraft, exclusive of loading aprons and aircraft parking areas (reference 14 CFR Part 139).
MSDS	Material Safety Data Sheet
MUTCD	Manual on Uniform Traffic Control Devices
NAVAID	Navigation Aid
NAVAID Critical Area	An area of defined shape and size associated with a NAVAID that must remain clear and graded to avoid interference with the electronic signal.
Non-Movement Area	The area inside the airport security fence exclusive of the Movement Area. It is important to note that the non-movement area includes pavement traversed by aircraft.
NOTAM	Notices to Airmen
Obstruction	Any object/obstacle exceeding the obstruction standards specified by 14 CFR Part 77, subpart C.
OE / AAA	Obstruction Evaluation / Airport Airspace Analysis
OFA	Object Free Area. An area on the ground centered on the runway, taxiway, or taxi lane centerline provided to enhance safety of aircraft operations by having the area free of objects except for those objects that need to be located in the OFA for air navigation or aircraft ground maneuvering purposes. (See AC 150/5300-13, for additional guidance on OFA standards and wingtip clearance criteria.)
OFZ	Obstacle Free Zone. The airspace below 150 ft (45 m) above the established airport elevation and along the runway and extended runway centerline that is required to be clear of all objects, except for frangible visual NAVAIDs that need to be located in the OFZ because of their function, in order to provide clearance protection for aircraft landing or taking off from the runway and for missed approaches. The OFZ is subdivided as follows: Runway OFZ, Inner Approach OFZ, Inner Transitional OFZ, and Precision OFZ. Refer to AC 150/5300-13 for guidance on OFZ.
OSHA	Occupational Safety and Health Administration
P&R	Planning and Requirements Group

Term	Definition
PAPI	Precision Approach Path Indicators
PFC	Passenger Facility Charge
PLASI	Pulse Light Approach Slope Indicators
Project Proposal Summary	A clear and concise description of the proposed project or change that is the object of Safety Risk Management.
RE	Resident Engineer
REIL	Runway End Identifier Lights
RNAV	Area Navigation
ROFA	Runway Object Free Area
RSA	Runway Safety Area. A defined surface surrounding the runway prepared or suitable for reducing the risk of damage to airplanes in the event of an undershoot, overshoot, or excursion from the runway, in accordance with AC 150/5300-13.
SIDA	Security Identification Display Area
SMS	Safety Management System
SPCD	Safety Plan Compliance Document. Details developed and submitted by a contractor to the airport operator for approval providing details on how the performance of a construction project will comply with the CSPP.
SRM	Safety Risk Management
Taxiway Safety Area	A defined surface alongside the taxiway prepared or suitable for reducing the risk of damage to an airplane unintentionally departing the taxiway, in accordance with AC 150/5300-13.
TDG	Taxiway Design Group
Temporary	Any condition that is not intended to be permanent.
Temporary Runway End	The beginning of that portion of the runway available for landing and taking off in one direction, and for landing in the other direction. Note the difference from a displaced threshold.
Threshold	The beginning of that portion of the runway available for landing. In some instances, the landing threshold may be displaced.
TODA	Takeoff Distance Available
TOFA	Taxiway Object Free Area
TORA	Takeoff Run Available. The length of the runway less any length of runway unavailable and/or unsuitable for takeoff run computations. See AC 150/5300-13 for guidance on declared distances.
TSA	Taxiway Safety Area Transportation Security Administration
UNICOM	A radio communications system of a type used at small airports.
VASI	Visual Approach Slope Indicators

<b>Term</b>	<b>Definition</b>
VGSI	Visual Glide Slope Indicator. A device that provides a visual glide slope indicator to landing pilots. These systems include precision approach path indicators (PAPI), visual approach slope indicators (VASI), and pulse light approach slope indicators (PLASI).
VFR	Visual Flight Rules
VOR	VHF Omnidirectional Radio Range
VPD	Vehicle / Pedestrian Deviation

### Appendix 3. Safety and Phasing Plan Checklist

This appendix is keyed to Section 2. Plan Requirements. In the electronic version of this AC, clicking on the paragraph designation in the Reference column will access the applicable paragraph. There may be instances where the CSPP requires provisions that are not covered by the list in this appendix.

This checklist is intended as an aid, not as a required submittal.

Coordination	Reference	Addressed			Remarks
<b>General Considerations</b>					
Requirements for predesign, prebid, and preconstruction conferences to introduce the subject of airport operational safety during construction are specified.	205	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	
Operational safety is a standing agenda item for construction progress meetings.	205	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	
Scheduling of the construction phases is properly addressed.	206	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	
<b>Areas and Operations Affected by Construction Activity</b>					
Drawings showing affected areas are included.	207.a	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	
Closed or partially closed runways, taxiways, and aprons are depicted on drawings.	207.a(1)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	
Access routes used by ARFF vehicles affected by the project are addressed.	207.a(2)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	
Access routes used by airport and airline support vehicles affected by the project are addressed.	207.a(3)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	
Underground utilities, including water supplies for fire fighting and drainage.	207.a(4)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	
Approach/departure surfaces affected by heights of temporary objects are addressed.	207.a(5)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	
Construction areas, storage areas, and access routes near runways, taxiways, aprons, or helipads are properly depicted on drawings.	207.a	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	
Temporary changes to taxi operations are addressed.	207.b(1)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	

Coordination	Reference	Addressed			Remarks
Detours for ARFF and other airport vehicles are identified.	207.b(2)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	
Maintenance of essential utilities and underground infrastructure is addressed.	207.b(3)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	
Temporary changes to air traffic control procedures are addressed.	207.b(4)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	
<b>NAVAIDS</b>					
Critical areas for NAVAIDS are depicted on drawings.	208	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	
Effects of construction activity on the performance of NAVAIDS, including unanticipated power outages, are addressed.	208	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	
Protection of NAVAID facilities is addressed.	208	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	
The required distance and direction from each NAVAID to any construction activity is depicted on drawings.	208	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	
Procedures for coordination with FAA ATO/Technical Operations, including identification of points of contact, are included.	208, 213.a, 213.e(3)(a), 218.a	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	
<b>Contractor Access</b>					
The CSPP addresses areas to which contractor will have access and how the areas will be accessed.	209	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	
The application of 49 CFR Part 1542 Airport Security, where appropriate, is addressed.	209	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	
The location of stockpiled construction materials is depicted on drawings.	209.a	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	
The requirement for stockpiles in the ROFA to be approved by FAA is included.	209.a	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	
Requirements for proper stockpiling of materials are included.	209.a	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	

Coordination	Reference	Addressed			Remarks
Construction site parking is addressed.	209.b(1)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	
Construction equipment parking is addressed.	209.b(2)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	
Access and haul roads are addressed.	209.b(3)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	
A requirement for marking and lighting of vehicles to comply with AC 150/5210-5, Painting, Marking and Lighting of Vehicles Used on an Airport, is included.	209.b(4)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	
Proper vehicle operations, including requirements for escorts, are described.	209.b(5), 209.b(6)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	
Training requirements for vehicle drivers are addressed.	209.b(7)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	
Two-way radio communications procedures are described.	209.b(9)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	
Maintenance of the secured area of the airport is addressed.	209.b(10)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	
<b>Wildlife Management</b>					
The airport operator's wildlife management procedures are addressed.	210	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	
<b>Foreign Object Debris Management</b>					
The airport operator's FOD management procedures are addressed.	211	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	
<b>Hazardous Materials Management</b>					
The airport operator's hazardous materials management procedures are addressed.	212	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	
<b>Notification of Construction Activities</b>					
Procedures for the immediate notification of airport user and local FAA of any conditions adversely affecting the operational safety of the airport are detailed.	213	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	

Coordination	Reference	Addressed			Remarks
Maintenance of a list by the airport operator of the responsible representatives/points of contact for all involved parties and procedures for contacting them 24 hours a day, seven days a week is specified.	213.a	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	
A list of local ATO/Technical Operations personnel is included.	213.a	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	
A list of ATCT managers on duty is included.	213.a	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	
A list of authorized representatives to the OCC is included.	213.b	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	
Procedures for coordinating, issuing, maintaining and cancelling by the airport operator of NOTAMS about airport conditions resulting from construction are included.	208, 213.b, 218.b(4)(i)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	
Provision of information on closed or hazardous conditions on airport movement areas by the airport operator to the OCC is specified.	213.b	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	
Emergency notification procedures for medical, fire fighting, and police response are addressed.	213.c	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	
Coordination with ARFF personnel for non-emergency issues is addressed.	213.d	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	
Notification to the FAA under 14 CFR parts 77 and 157 is addressed.	213.e	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	
Reimbursable agreements for flight checks and/or design and construction for FAA owned NAVAIDs are addressed.	213.e(3)(b)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	
<b>Inspection Requirements</b>					
Daily inspections by both the airport operator and contractor are specified.	214.a	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	
Final inspections at certificated airports are specified when required.	214.b	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	
<b>Underground Utilities</b>					
Procedures for protecting existing underground facilities in excavation areas are described.	215	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	

Coordination	Reference	Addressed			Remarks
<b>Penalties</b>					
Penalty provisions for noncompliance with airport rules and regulations and the safety plans are detailed.	216	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	
<b>Special Conditions</b>					
Any special conditions that affect the operation of the airport or require the activation of any special procedures are addressed.	217	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	
<b>Runway and Taxiway Visual Aids - Marking, Lighting, Signs, and Visual NAVAIDS</b>					
The proper securing of temporary airport markings, lighting, signs, and visual NAVAIDS is addressed.	218.a	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	
Frangibility of airport markings, lighting, signs, and visual NAVAIDS is specified.	218.a, 218.c, 219, 220.b(4)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	
The requirement for markings to be in compliance with AC 150/5340-1, Standards for Airport Markings is specified.	218.b	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	
The requirement for lighting to conform to AC 150/5340-30, Design and Installation Details for Airport Visual Aids, AC 150/5345-50, Specification for Portable Runway and Taxiway Lights , and AC 150/5345-53 Airport Lighting Certification Program, is specified.	218.b(1)(f)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	
The use of a lighted X is specified where appropriate.	218.b(1)(b), 218.b(3)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	
The requirement for signs to conform to AC 150/5345-44, Specification for Runway and Taxiway Signs, AC 50/5340-18, Standards for Airport Sign Systems, and AC 150/5345-53, Airport Lighting Certification Program, is specified.	218.c	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	
<b>Marking and Signs For Access Routes</b>					
The CSPP specifies that pavement markings and signs intended for construction personnel should conform to AC 150/5340-18 and, to the extent practicable, with the MUTCD and/or State highway specifications.	219	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	
<b>Hazard Marking and Lighting</b>					
Prominent, comprehensible warning indicators for any area affected by construction that is normally accessible to aircraft, personnel, or vehicles are specified.	220.a	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	

Coordination	Reference	Addressed			Remarks
Hazard marking and lighting are specified to identify open manholes, small areas under repair, stockpiled material, and waste areas.	220.a	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	
The CSPP considers less obvious construction-related hazards.	220.a	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	
Equipment that poses the least danger to aircraft but is sturdy enough to remain in place when subjected to typical winds, prop wash and jet blast is specified.	220.b(1)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	
The spacing of barricades is specified such that a breach is physically prevented barring a deliberate act.	220.b(1)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	
Red lights meeting the luminance requirements of the State Highway Department are specified.	220.b(2)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	
Barricades, temporary markers, and other objects placed and left in areas adjacent to any open runway, taxiway, taxi lane, or apron are specified to be as low as possible to the ground, and no more than 18 in high.	220.b(4)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	
Barricades marked with diagonal, alternating orange and white stripes are specified to indicate construction locations in which no part of an aircraft may enter.	220.b(4)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	
Highly reflective barriers with lights are specified to barricade taxiways leading to closed runways.	220.b(5)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	
Markings for temporary closures are specified.	220.b(5)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	
The provision of a contractor's representative on call 24 hours a day for emergency maintenance of airport hazard lighting and barricades is specified.	220.b(7)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	
<b>Protection of Runway and Taxiway Safety Areas</b>					
The CSPP clearly states that no construction may occur within a safety area while the associated runway or taxiway is open for aircraft operations.	221.a(1), 221.c(1)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	
The CSPP specifies that the airport operator coordinates the adjustment of RSA or TSA dimensions with the ATCT and the appropriate FAA Airports Regional or District Office and issues a local NOTAM.	221.a(2), 221.c(2)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	

Coordination	Reference	Addressed			Remarks
Procedures for ensuring adequate distance for protection from blasting operations, if required by operational considerations, are detailed.	221.c(3)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	
The CSPP specifies that open trenches or excavations are not permitted within a safety area while the associated runway or taxiway is open.	221.a(4)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	
Appropriate covering of excavations in the RSA or TSA that cannot be backfilled before the associated runway or taxiway is open is detailed.	221.a(4)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	
The CSPP includes provisions for prominent marking of open trenches and excavations at the construction site.	221.a(4)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	
Grading and soil erosion control to maintain RSA/TSA standards are addressed.	221.c(5)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	
The CSPP specifies that equipment is to be removed from the ROFA when not in use.	221.b	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	
The CSPP clearly states that no construction may occur within a taxiway safety area while the taxiway is open for aircraft operations.	221.c	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	
Appropriate details are specified for any construction work to be accomplished in a taxiway object free area.	221.d	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	
Measures to ensure that personnel, material, and/or equipment do not penetrate the OFZ or threshold siting surfaces while the runway is open for aircraft operations are included.	221.e	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	
Provisions for protection of runway approach/departure areas and clearways are included.	221.f	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	
<b>Other Limitations on Construction</b>					
The CSPP prohibits the use of open flame welding or torches unless adequate fire safety precautions are provided and the airport operator has approved their use.	222.a(2)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	
The CSPP prohibits the use of flare pots within the AOA at any time.	222.a(4)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	
The CSPP prohibits the use of electrical blasting caps on or within 1,000 ft (300 m) of the airport property.	222.a(3)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	



**Appendix 4. Construction Project Daily Safety Inspection Checklist**

The situations identified below are potentially hazardous conditions that may occur during airport construction projects. Safety area encroachments, unauthorized and improper ground vehicle operations, and unmarked or uncovered holes and trenches near aircraft operating surfaces pose the most prevalent threats to airport operational safety during airport construction projects. The list below is one tool that the airport operator or contractor may use to aid in identifying and correcting potentially hazardous conditions. It should be customized as appropriate for each project.

**Potentially Hazardous Conditions**

Item	Action Required	or	None
Excavation adjacent to runways, taxiways, and aprons improperly backfilled.			<input type="checkbox"/>
Mounds of earth, construction materials, temporary structures, and other obstacles near any open runway, taxiway, or taxi lane; in the related Object Free area and aircraft approach or departure areas/zones; or obstructing any sign or marking.			<input type="checkbox"/>
Runway resurfacing projects resulting in lips exceeding 3 in (7.6 cm) from pavement edges and ends.			<input type="checkbox"/>
Heavy equipment (stationary or mobile) operating or idle near AOA, in runway approaches and departures areas, or in OFZ.			<input type="checkbox"/>
Equipment or material near NAVAIDs that may degrade or impair radiated signals and/or the monitoring of navigation and visual aids. Unauthorized or improper vehicle operations in localizer or glide slope critical areas, resulting in electronic interference and/or facility shutdown.			<input type="checkbox"/>
Tall and especially relatively low visibility units (that is, equipment with slim profiles) — cranes, drills, and similar objects — located in critical areas, such as OFZ and approach zones.			<input type="checkbox"/>
Improperly positioned or malfunctioning lights or unlighted airport hazards, such as holes or excavations, on any apron, open taxiway, or open taxi lane or in a related safety, approach, or departure area.			<input type="checkbox"/>
Obstacles, loose pavement, trash, and other debris on or near AOA. Construction debris (gravel, sand, mud, paving materials) on airport pavements may result in aircraft propeller, turbine engine, or tire damage. Also, loose materials may blow about, potentially causing personal injury or equipment damage.			<input type="checkbox"/>

Item	Action Required	or	None
Inappropriate or poorly maintained fencing during construction intended to deter human and animal intrusions into the AOA. Fencing and other markings that are inadequate to separate construction areas from open AOA create aviation hazards.			<input type="checkbox"/>
Improper or inadequate marking or lighting of runways (especially thresholds that have been displaced or runways that have been closed) and taxiways that could cause pilot confusion and provide a potential for a runway incursion. Inadequate or improper methods of marking, barricading, and lighting of temporarily closed portions of AOA create aviation hazards.			<input type="checkbox"/>
Wildlife attractants — such as trash (food scraps not collected from construction personnel activity), grass seeds, tall grass, or standing water — on or near airports.			<input type="checkbox"/>
Obliterated or faded temporary markings on active operational areas.			<input type="checkbox"/>
Misleading or malfunctioning obstruction lights. Unlighted or unmarked obstructions in the approach to any open runway pose aviation hazards.			<input type="checkbox"/>
Failure to issue, update, or cancel NOTAMs about airport or runway closures or other construction related airport conditions.			<input type="checkbox"/>
Failure to mark and identify utilities or power cables. Damage to utilities and power cables during construction activity can result in the loss of runway / taxiway lighting; loss of navigation, visual, or approach aids; disruption of weather reporting services; and/or loss of communications.			<input type="checkbox"/>
Restrictions on ARFF access from fire stations to the runway / taxiway system or airport buildings.			<input type="checkbox"/>
Lack of radio communications with construction vehicles in airport movement areas.			<input type="checkbox"/>
Objects, regardless of whether they are marked or flagged, or activities anywhere on or near an airport that could be distracting, confusing, or alarming to pilots during aircraft operations.			<input type="checkbox"/>
Water, snow, dirt, debris, or other contaminants that temporarily obscure or derogate the visibility of runway/taxiway marking, lighting, and pavement edges. Any condition or factor that obscures or diminishes the visibility of areas under construction.			<input type="checkbox"/>
Spillage from vehicles (gasoline, diesel fuel, oil) on active pavement areas, such as runways, taxiways, aprons, and airport roadways.			<input type="checkbox"/>

Item	Action Required	or	None
Failure to maintain drainage system integrity during construction (for example, no temporary drainage provided when working on a drainage system).			<input type="checkbox"/>
Failure to provide for proper electrical lockout and tagging procedures. At larger airports with multiple maintenance shifts/workers, construction contractors should make provisions for coordinating work on circuits.			<input type="checkbox"/>
Failure to control dust. Consider limiting the amount of area from which the contractor is allowed to strip turf.			<input type="checkbox"/>
Exposed wiring that creates an electrocution or fire ignition hazard. Identify and secure wiring, and place it in conduit or bury it.			<input type="checkbox"/>
Site burning, which can cause possible obscuration.			<input type="checkbox"/>
Construction work taking place outside of designated work areas and out of phase.			<input type="checkbox"/>

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U.S. Department  
of Transportation

Federal Aviation  
Administration

# Advisory Circular

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**Subject:** Painting, Marking, and Lighting of  
Vehicles Used on an Airport

**Date:** April 1, 2010

**AC No:** AC 150/5210-5D

**Initiated by:** AAS-100

**Change:**

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1. **PURPOSE.** This advisory circular (AC) provides guidance, specifications, and standards for painting, marking, and lighting of vehicles operating in the airport air operations area (AOA). The approved lights, colors, and markings herein assure the conspicuity of vehicles operating in the AOA from both the ground and the air.

2. **CANCELLATION.** This AC cancels AC 150/5210-5C, Painting, Marking, and Lighting of Vehicles Used on an Airport, dated August 31, 2007.

3. **APPLICATION.** The Federal Aviation Administration (FAA) recommends the guidelines and standards in this Advisory Circular for vehicles operating in the airport AOA. In general, use of this AC is not mandatory. *However*, use of this AC is mandatory for vehicles funded with federal grant monies through the Airport Improvement Program (AIP) and/or with revenue from the Passenger Facility Charges (PFC) Program. See Grant Assurance No. 34, "Policies, Standards, and Specifications," and PFC Assurance No. 9, "Standard and Specifications."

Vehicles covered by this AC that do not meet this standard may be used until the vehicle is repainted or replaced, but no later than **December 31, 2010**.

4. **PRINCIPAL CHANGES.** This AC contains new specifications and recommendations for the painting, marking, and lighting of Towbarless Tow Vehicles (TLTVs).

5. **METRIC UNITS.** To promote an orderly transition to metric units, this AC includes both English and metric dimensions. The metric conversions may not be exact equivalents, and until there is an official changeover to the metric system, the English dimensions will govern.

6. **COMMENTS OR SUGGESTIONS** for improvements to this AC should be sent to:

Manager, Airport Engineering Division  
Federal Aviation Administration  
ATTN: AAS-100  
800 Independence Avenue, S.W.  
Washington, DC 20591

Michael J. O'Donnell  
Director of Airport Safety and Standards

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## **PAINTING, MARKING, AND LIGHTING OF VEHICLES USED ON AN AIRPORT**

### **1. SOURCES OF APPLICABLE DOCUMENTS.**

- a.** American National Standards Institute, Inc. (ANSI), 25 West 43rd St. 4<sup>th</sup> Floor, New York, NY 10036. Website: [www.ansi.org](http://www.ansi.org)
- b.** American Society for Testing & Materials (ASTM), ASTM International, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428-2959. Website: [www.astm.org](http://www.astm.org)
- c.** The National Fire Protection Association (NFPA), 1 Batterymarch Park, Quincy, Massachusetts 02169-7471. Website: [www.nfpa.org](http://www.nfpa.org)
- d.** The U. S. General Services Administration (GSA), Centralized Mailing List Services, 501 West Felix Street, Whse 9, South End P.O. Box 6477, Fort Worth, Texas 76115-6477. Website: [www.gsa.gov](http://www.gsa.gov)
- e.** The Superintendent of Documents, U.S. Government Printing Office, 732 North Capitol St. NW, Washington, DC 20401.
- f.** Society of Automotive Engineers, Inc. (SAE), 400 Commonwealth Drive, Warrendale, PA 15096-0001. Website: [www.sae.org](http://www.sae.org)
- g.** FAA Advisory Circulars: U.S. Department of Transportation, Subsequent Distribution Office, Ardmore East Business Center, 3341 Q 75<sup>th</sup> Ave., Landover, MD 20785. Website: [www.faa.gov](http://www.faa.gov)
- h.** FAA Engineering Briefs: [www.faa.gov/airports/engineering/engineering\\_briefs/](http://www.faa.gov/airports/engineering/engineering_briefs/)

### **2. DEFINITIONS.** The following definitions apply in this AC:

- a. Vehicle** – All conveyances, except aircraft, used on the ground to transport persons, cargo, equipment or those required to perform maintenance, construction, service, and security duties.
- b. Air Operations Area (AOA)** – The portion of airport that encompasses the landing, take off, taxiing, and parking areas for aircraft.
- c. Airport Emergency Vehicles** – Vehicles that are authorized in the AOA for emergency purposes (e.g., ambulances, aircraft rescue and fire fighting (ARFF) vehicles and emergency response vehicles) as authorized by the airport traffic control tower (ATCT) or an authorized on-site accident/incident commander.
- d. Airport Operations Vehicles** – Vehicles routinely used by airport operations personnel for airport inspection and duties associated with airfield operations (such as airfield condition reporting and Incident Command) on the AOA and Movement Area.
- e. Airport Security Vehicles** – Vehicles that are authorized in the AOA for security purposes, as needed (e.g. police cars).

- f. Airfield Service Vehicles** – Vehicles that are routinely used in the AOA for airfield service, maintenance, or construction (e.g. snow blowers, snowplows, maintenance trucks, and tractors).
- g. Aircraft Support Vehicles** – Vehicles that are routinely used in the AOA to support aircraft operations (e.g. aircraft pushback tractors, baggage/cargo tractors or trucks, air conditioning and aviation fuel trucks). These vehicles are typically owned by airlines, vendors, or contractors and are not eligible for Federal funding.
- h. Reduced Visibility** – Prevailing visibility is less than one statute mile (1609 meters) and/or the runway visual range (RVR) is less than 6,000 feet (1830 meters).
- i. Movement Area** – The runways, taxiways, and other areas of an airport/heliport that are used for taxiing/hover taxiing, air taxiing, takeoff, and landing of aircraft, exclusive of loading ramps and parking areas. At those airports/heliports with an operating airport traffic control tower (ATCT), specific approval for entry onto the movement area must be obtained from air traffic control (ATC).
- j. Other Vehicles** – Vehicles that are not routinely authorized in the AOA (e.g. construction vehicles). These vehicles are typically owned by airlines, vendors, or contractors and are not eligible for Federal funding.
- k. Peak Intensity** – Peak intensity, for purposes of this document, means the maximum magnitude of luminescence as measured in candela.
- l. Towbarless Tow Vehicle (TLTV)** – a type of aircraft support vehicle whose main purpose is to tow aircraft in the AOA by way of nose gear capture.

### 3. VEHICLE PAINTING.

**NOTE:** *Airport vehicle paint and markings are a safety of flight requirement. The approved colors/markings herein assure conspicuity of vehicles operating in the AOA from both the ground and air.*

#### **a. Airport Emergency Vehicles.**

**(1) Ambulances.** Ambulance vehicles are painted per the most current version of Federal Specification KKK-A-1822, *Federal Specification for the Star-of-Life Ambulance*. Ambulances are not considered vehicles routinely operating on the AOA.

**(2) Aircraft Rescue and Fire Fighting (ARFF) Vehicles.** Yellowish-green is the vehicle color standard. Color specifications are per Appendix A.

**NOTE:** *A yellowish-green color provides optimum visibility during all light levels encountered during a 24-hour day and under variations of light that result from weather and seasonal changes.*

**b. Airport Operations Vehicles.** Airport operations vehicles may be painted in colors designated by the airport operator. The characteristics must be coordinated with the respective ATCT and identified in the tower letter of agreement.

**c. Airport Security Vehicles.** Comply with specific state or local requirements.

**d. Airfield Service Vehicles.** Chrome yellow is the vehicle color standard. Color specifications are per Appendix A. When vehicles are equipped with bumper bars 8 inches (200 mm) or more in depth, the bars must be painted in alternate stripes 4 inches (100 mm) in width of chrome yellow and black inclined 45° to the vertical.

**e. Aircraft Support Vehicles.**

(1) Any color or combination of colors other than yellowish-green or chrome yellow. The bumper bar paint scheme in paragraph 3.d (of alternating chrome yellow and black stripe) is recommended.

(2) **TLTVs.** International orange is the vehicle color standard. Retroreflective tape covering more than 25 percent of the vehicle's vertical surfaces may be used as a temporary measure to meet this standard prior to scheduled vehicle painting.

**f. Other Vehicles.** Any color or combination of colors other than solid black or white.

#### 4. VEHICLE MARKING.

**a. Airport Emergency Vehicles.**

(1) **Ambulances.** Ambulances are marked per the most current version of Federal Specification KKK-A-1822.

(2) **ARFF Vehicles.** Emergency rescue and fire fighting vehicles are marked with the letters "ARFF," "Fire," or "Rescue" and in accordance with 4.c.(1)-(5) of this AC.

**b. Airport Operations Vehicles.** Airport operations vehicles may be marked as designated by the airport operator. Marking must be coordinated with the respective ATCT and identified in the tower letter of agreement.

**c. Airfield Service Vehicles and Aircraft Support Vehicles.**

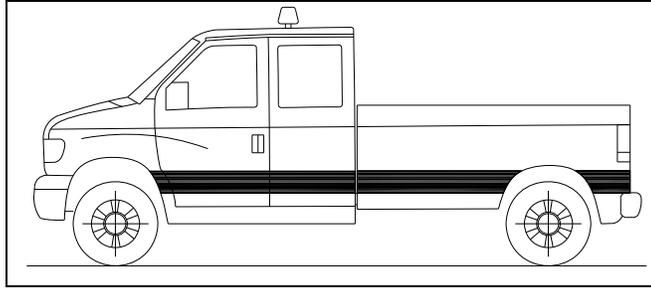
(1) Airport operator owned vehicles must display an identification number on each side and on the roof (the hood should be used if the vehicle has no roof).

(2) Side numbers will be a minimum of 16 inches (410 mm) in height and conspicuously located.

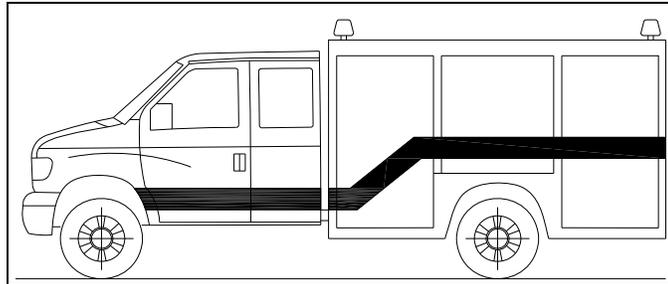
(3) Roof numbers will be a minimum of 24 inches (610 mm) in height and affixed with their bases toward the front of the vehicle. The identification numbers should provide sharp color contrast to the vehicle color.

(4) In addition to the identification numbers, airport operator-owned vehicles must display either the name of the airport and/or the airport insignia.

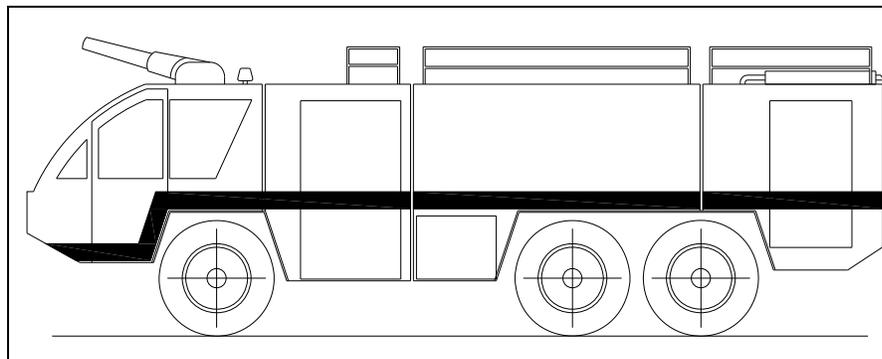
(5) To further improve night-time recognition of vehicles, a minimum 8 inch (200 mm) wide horizontal band of high gloss white paint or white reflective tape (Retroreflective, ASTM-D 4956-09, *Standard Specification for Retroreflective Sheeting for Traffic Control*, Type III & above) must be used around the vehicle's surface. Figures 1, 2, and 3 show suggested locations for the horizontal reflective band.



**Figure 1: Suggested location for the horizontal reflective band, Option 1**

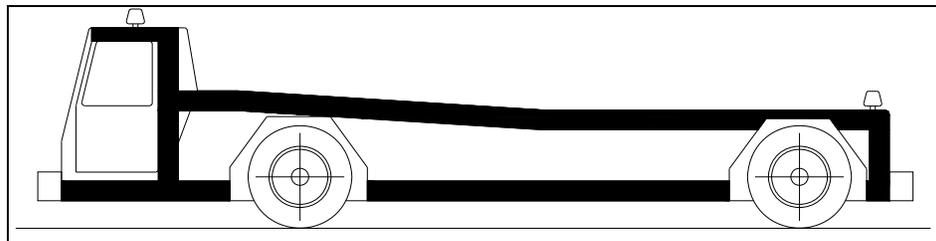


**Figure 2: Suggested location for the horizontal reflective band, Option 2**



**Figure 3: Suggested location for the horizontal reflective band, Option 3**

**(6) TLTVs.** Retroreflective tape is used to outline the shape of a TLTV. If the vertical edge of the vehicle is rounded, the tape should be placed on the rounded portion to reflect light in both the horizontal and vertical planes. Where the placement of the tape may interfere with, or may be worn down by, maintenance or operational activities, tape is not required. Suggested locations for the retroreflective bands are shown in Figure 4.



**Figure 4: Suggested placement of retroreflective tape on a TLTV**

**d. Airport Security and Other Vehicles.**

- (1) Vehicles other than those that routinely traverse any portion of the AOA under the control of ATC, which are not escorted by a vehicle in constant two-way radio communication with ATC and properly equipped and authorized to operate in the AOA, must be provided with a flag on a staff attached to the vehicle so that the flag will be readily visible.
- (2) At airports without air traffic control facilities, flags must be provided on all vehicles.
- (3) The flag must be at least a 3-foot by 3-foot (0.9 meter by 0.9 meter) square having a checkered pattern of international orange and white squares at least 1 foot (300 mm) on each side (see Appendix A for the fabric color specification).

**5. VEHICLE LIGHTING.**

**a. Airfield Service, Aircraft Support, and Airport Operations Vehicles.**

- (1) The standard for identification lighting is a yellow flashing light that is mounted on the uppermost part of the vehicle structure. A steady yellow light designates vehicles limited to non-movement areas.
- (2) The light must be visible from any direction, day and night, including from the air.
- (3) Color specifications for vehicle identification lights are per Appendix B.
- (4) **TLTVs.** An LED light bar placed above the operator's cab may be used in place of the rotating yellow flashing light. In addition, a yellow flashing light (of any type) must be installed on the upper left-rear and right-rear corners of the TLTV, and must be activated when an aircraft is in tow. The size of the rear flashing lights must be large enough to meet the requirements of Section 5.c, but not so large as to interfere with the normal or towing operations of the TLTV.

**b. Airport Emergency, Security, and Other Vehicles,** which are not escorted by a properly lighted vehicle, must be identified during periods of low visibility by a light.

**c. Characteristics of Flashing Lights:**

- (1) Ambulance lights must meet the specifications in the most current version of Federal Specification KKK-A-1822, and ARFF vehicles must meet NFPA, state, and local requirements.
- (2) Lights must have peak intensity within the range of 40 to 400 candelas (effective) from 0° (horizontal) up to 10° above the horizontal and for 360° horizontally. The upper limit of 400 candelas (effective) is necessary to avoid damage to night vision.
- (3) From 10° to 15° above the horizontal plane, the light output must be 1/10<sup>th</sup> of peak intensity or between 4 and 40 candelas (effective).

- (4) Lights must flash at  $75 \pm 15$  flashes per minute.

**NOTES:**

1. *The effective intensity of a flashing light is equal to the intensity of a steady-burning (fixed) light of the same color that produces the same visual range under identical conditions of observation.*

2. *If xenon flashtubes are used, refer to AC 150/5345-43, Specification for Obstruction Lighting Equipment, for guidance concerning methods of calculating effective intensity.*

**d. Light Colors.**

**(1) Airport Emergency Vehicles.**

(a) **Ambulances.** Per the most current version of Federal Specification KKK-A-1822.

(b) **ARFF Vehicles.** Red or a combination of red-and-white flashing lights per the chromaticity requirements in Appendix B.

**(2) Airport Security Vehicles.** Signal blue or a combination of red and signal blue flashing light per the chromaticity requirements in Appendix B.

**(3) Airfield Service, Aircraft Support, Airport Operations, and Other Vehicles.** Yellow flashing light per the chromaticity requirements in Appendix B.

## APPENDIX A. COLOR SPECIFICATIONS

**A-1. SPECIFICATIONS.** Colors specified in Table A-1 are per the Commission Internationale de l'Eclairage (CIE) L\*a\*b\* system of color specification. For a description of this system, refer to American Society for Testing & Materials (ASTM) D 2244, *Standard Practice for Calculation of Color Tolerances and Color Differences from Instrumentally Measured Color Coordinates*.

**Table A-1. Specification for vehicle and flag colors**

Standard Illuminant D65 Usage	Chrome Yellow			Yellowish-Green			International Orange		
	Vehicle Paint			Vehicle Paint			Vehicle Paint / Flag Fabric		
CIELAB DATA	L*	a*	b*	L*	a*	b*	L*	a*	b*
<b>Centroid Color</b>	72.8	24.4	77.6	78.3	-10.2	80.4	45.0	53.5	52.0
<b>Point 1</b>	72.8	31.8	82.9	78.3	-9.0	92.0	45.0	61.4	47.8
<b>Point 2</b>	72.8	25.5	66.7	78.3	-7.6	73.2	45.0	53.9	41.4
<b>Point 3</b>	72.8	18.0	69.3	78.3	-11.0	69.3	45.0	53.5	53.4
<b>Point 4</b>	72.8	22.4	86.0	78.3	-13.4	86.2	45.0	49.7	60.4
<b>Light Limit</b>	77.8			83.3			49.9		
<b>Dark Limit</b>	67.8			73.3			41.6		
<b>Max ΔE</b>	11.1			11.7			10.7		

**A-2. COLOR TESTS.** Acceptable colors are those that meet the gloss rating test and either a visual or an instrumental color test as follows:

**NOTE:** *Flag fabric colors must meet either the instrumental tests in Table A-1 or the visual method described in paragraph A-2b(1).*

**a. Gloss Rating Test.** This test is performed per ASTM D 523, *Standard Test Method for Specular Gloss*, on a paint sample of the color to be applied on the vehicle. An acceptable color sample is high gloss with a minimum gloss rating of 70 units, for 60° geometry.

**b. Color Test Methods:**

**(1) Visual.** Prepare a master specimen of the color (per Table A-1) and gloss (per paragraph A-2a). This specimen will be the master color and be used as the basis of comparison per ASTM D 5531-05, *Standard Guide for the Preparation, Maintenance, and Distribution of Physical Product Standards for Color and Geometric Appearance of Coatings*. To verify the paint color of a vehicle visually, vehicle paint samples must be

prepared and viewed per ASTM D 1729-96 (Reapproved 2009), *Standard Practice for Visual Appraisal of Colors and Color Differences of Diffusely-Illuminated Opaque Materials*.

**(2) Instrumental.** This test requires a test specimen sample and reference to Table A-1. All test specimen measurements should be conducted per ASTM E 1164-09a *Standard Practice for Obtaining Spectrometric Data for Object-Color Evaluation*. Test specimen tolerances must be per Table A-1 per the following:

(a) Plot the centroid color using the a\* and b\* CIELAB coordinate data from Table A-1 on graph paper or by entry of the coordinate data into a computer program. Plot and connect points 1 through 4 from the same table to form a quadrilateral; noting that the centroid color is within this figure. See Figure A-1 for plots of all three color specifications in Table A-1.

(b) Perform color sample measurements per ASTM E 1164-09a. If necessary, convert measurements to CIELAB L\*, a\*, and b\* color space. See ASTM E 308-08, *Standard Practice for Computing the Colors of Objects by Using the CIE System*, for color space conversion formulae.

(c) An acceptable color is one that meets:

(i) the chromaticity requirements of the color samples a\* and b\* CIELAB coordinate data by falling within the quadrilateral;

(ii) the L\* data lightness requirement by falling within the range defined by the light and dark data of Table A-1;

(iii) the total color difference ( $\Delta E$ ) by not exceeding the limits in Table A-1 when the CIELAB data are computed in the following formula:

$$\Delta E = (\Delta L^{*2} + \Delta a^{*2} + \Delta b^{*2})^{\frac{1}{2}}$$

where  $\Delta L^*$ ,  $\Delta a^*$ , and  $\Delta b^*$  values are the differences between those values for the centroid color in Table A-1 and those of the color sample measurements.

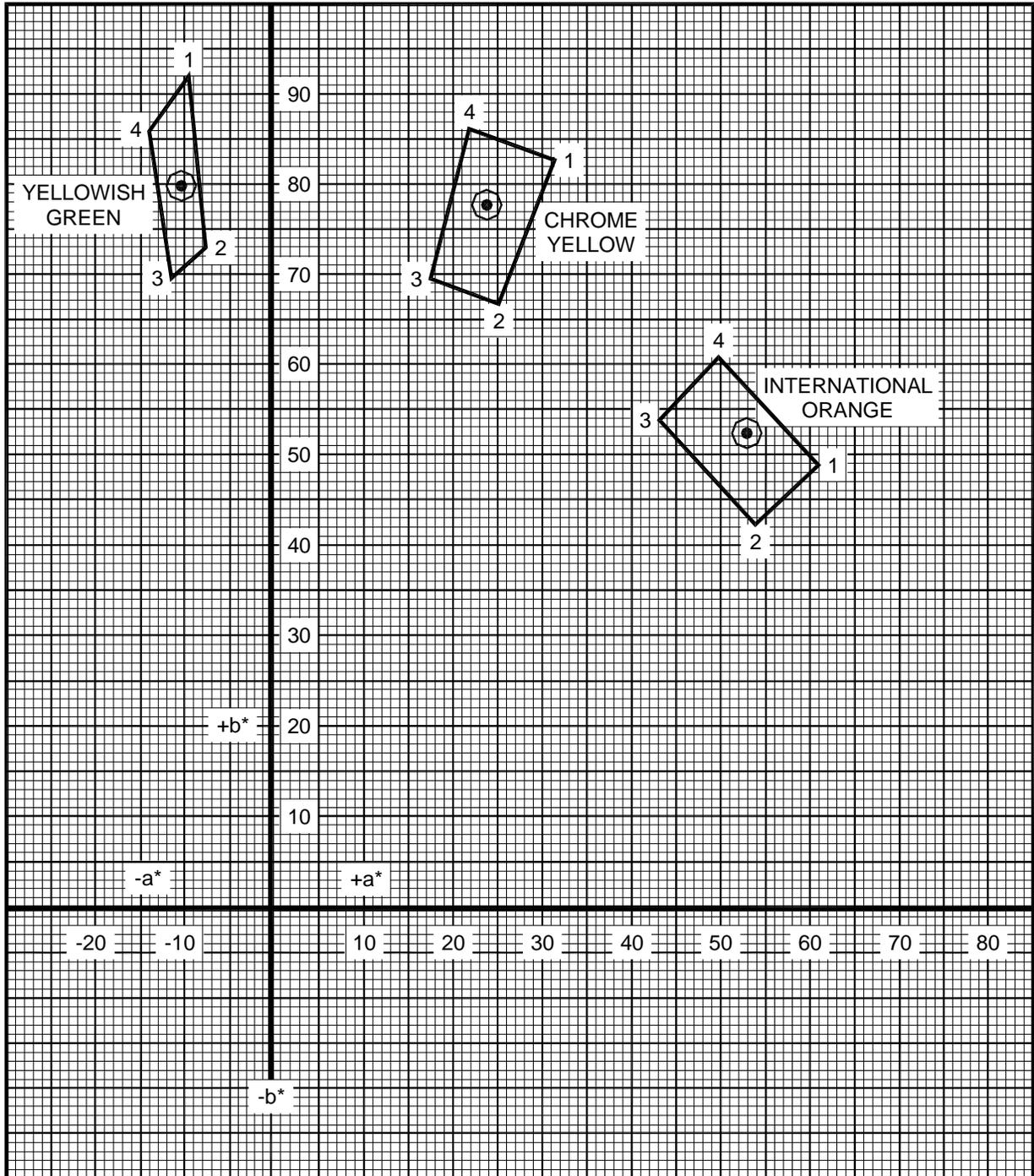


Figure A-1. Plot of selected color paint specifications

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## **APPENDIX B. COLOR SPECIFICATIONS FOR VEHICLE IDENTIFICATION LIGHTS**

**B-1. SPECIFICATIONS.** The Society of Automotive Engineers (SAE) Standard J578 Revised December 2006, *Color Specification*, defines the acceptable color boundary limits and measurement of emitted red, white, signal blue, and yellow light for vehicle lights. This standard applies to the overall emitted color of light from the device in lieu of emitted light from any small area of the lens. The color of emitted light must fall within the color boundaries per SAE J578 Revised December 2006 (color boundary equations are in the standard) using color measurement methods detailed in the standard. See FAA Engineering Brief #67, *Light Sources Other Than Incandescent and Xenon for Airport and Obstruction Lighting Fixtures*, for additional information and *Alternative Lighting Devices*.

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**City of Cottonwood, Arizona  
City Council Agenda Communication**



 Print

Meeting Date:	September 17, 2013
<b>Subject:</b>	"Person Transfer" Liquor License Application for Lisa G. Young, applicant for My Dobro located at 1100 Highway 260.
Department:	City Clerk
From:	Marianne Jiménez, City Clerk

**REQUESTED ACTION**

Council consideration of recommending approval or denial of a "Person Transfer" Liquor License Application for Lisa G. Young, applicant for My Dobro located at 1100 Highway 260.

**SUGGESTED MOTION**

If the Council desires to approve this item the suggested motion is:

"I move to recommend approval of the Person Transfer Liquor License Application for Lisa G. Young, applicant for My Dobro located at 1100 Highway 260."

**BACKGROUND**

A Person Transfer Liquor License Application was received from the Arizona Department of Liquor Licenses & Control for Lisa G. Young, applicant for My Dobro located at 1100 Highway 260. No comments for or against the application have been received.

**JUSTIFICATION/BENEFITS/ISSUES**

All Liquor License applications that are submitted to the Arizona Department of Liquor Licenses & Control (ADLLC) for establishments located within the City of Cottonwood are presented to the Council for its recommendation of approval or denial of the application. The Council's recommendation is taken into consideration by the ADLLC prior to their final approval of the application.

**COST/FUNDING SOURCE**

N/A

**ATTACHMENTS:**

Name:

Description:

Type:

 [9-17-13 My Dobro LL Application.pdf](#)

Liquor License Application--My Dobro

Cover Memo

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Arizona Department of Liquor Licenses and Control  
 800 West Washington, 5th Floor  
 Phoenix, Arizona 85007  
 www.azliquor.gov  
 602-542-5141

13006-1419-lic-0004

**APPLICATION FOR LIQUOR LICENSE**  
 TYPE OR PRINT WITH BLACK INK

Notice: Effective Nov. 1, 1997, All Owners, Agents, Partners, Stockholders, Officers, or Managers actively involved in the day to day operations of the business must attend a Department approved liquor law training course or provide proof of attendance within the last five years. See page 5 of the Liquor Licensing requirements.

**SECTION 1** This application is for a:

- MORE THAN ONE LICENSE
- INTERIM PERMIT *Complete Section 5*
- NEW LICENSE *Complete Sections 2, 3, 4, 13, 14, 15, 16*
- PERSON TRANSFER (Bars & Liquor Stores ONLY)  
*Complete Sections 2, 3, 4, 11, 13, 15, 16*
- LOCATION TRANSFER (Bars and Liquor Stores ONLY)  
*Complete Sections 2, 3, 4, 12, 13, 15, 16*
- PROBATE/WILL ASSIGNMENT/DIVORCE DECREE  
*Complete Sections 2, 3, 4, 9, 13, 16* (fee not required)
- GOVERNMENT *Complete Sections 2, 3, 4, 10, 13, 15, 16*

**SECTION 2** Type of ownership:

- J.T.W.R.O.S. *Complete Section 6*
- INDIVIDUAL *Complete Section 6*
- PARTNERSHIP *Complete Section 6*
- CORPORATION *Complete Section 7*
- LIMITED LIABILITY CO. *Complete Section 7*
- CLUB *Complete Section 8*
- GOVERNMENT *Complete Section 10*
- TRUST *Complete Section 6*
- OTHER (Explain) \_\_\_\_\_

**SECTION 3** Type of license and fees LICENSE #(s): 06130008

1. Type of License(s): #6 Bar
2. Total fees attached: \$ Department Use Only  
244.00

**APPLICATION FEE AND INTERIM PERMIT FEES (IF APPLICABLE) ARE NOT REFUNDABLE.**  
 The fees allowed under A.R.S. 44-6852 will be charged for all dishonored checks.

**SECTION 4** Applicant

1. Owner/Agent's Name: Ms. YOUNG, Lisa Gayle  
(Insert one name ONLY to appear on license) Last First Middle
2. Corp./Partnership/L.L.C.: MY DOBRO, L.L.C.  
(Exactly as it appears on Articles of Inc. or Articles of Org.)
3. Business Name: MY DOBRO  
(Exactly as it appears on the exterior of premises)
4. Principal Street Location: 1100 Hwy 260 South, Cottonwood, Yavapai 86326  
(Do not use PO Box Number) City County Zip
5. Business Phone: 928-634-3800 Daytime Phone: 928-202-6664 Email: lyoung412@gmail.com
6. Is the business located within the incorporated limits of the above city or town?  YES  NO
7. Mailing Address: 608 E. Bow Maker Trail, Cottonwood, AZ 86326  
City State Zip
8. Price paid for license only bar, beer and wine, or liquor store: Type 6 \$ 45,000.00 Type \_\_\_\_\_ \$ \_\_\_\_\_

DEPARTMENT USE ONLY				
Fees:	<u>100.00</u> Application	<u>100.00</u> Interim Permit	<u>44.00</u> Site Inspection	<u>44.00</u> Finger Prints
				\$ <u>244.00</u>
<b>TOTAL OF ALL FEES</b>				
Is Arizona Statement of Citizenship & Alien Status For State Benefits complete? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO				
Accepted by: <u>Jb</u>	Date: <u>08-14-13</u>	Lic. # <u>06130008</u>		

**SECTION 5 Interim Permit:**

1. If you intend to operate business when your application is pending you will need an Interim Permit pursuant to A.R.S. 4-203.01.
2. There **MUST** be a valid license of the same type you are applying for currently issued to the location.
3. Enter the license number currently at the location. 06130008
4. Is the license currently in use?  YES  NO If no, how long has it been out of use? \_\_\_\_\_

**ATTACH THE LICENSE CURRENTLY ISSUED AT THE LOCATION TO THIS APPLICATION.**

I, <sup>Wayne</sup> LARRY TRITCHER, declare that I am the CURRENT OWNER, AGENT, CLUB MEMBER, PARTNER, MEMBER, STOCKHOLDER, OR LICENSEE (circle the title which applies) of the stated license and location.

X [Signature]  
(Signature)

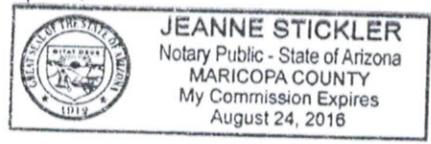
My commission expires on: 8/24/16

State of Arizona County of Yavapai

The foregoing instrument was acknowledged before me this

7<sup>th</sup> day of August, 2013  
Day Month Year

[Signature]  
(Signature of NOTARY PUBLIC)



**SECTION 6 Individual or Partnership Owners:**

EACH PERSON LISTED MUST SUBMIT A COMPLETED QUESTIONNAIRE (FORM LIC0101), AN "APPLICANT" TYPE FINGERPRINT CARD, AND \$22 PROCESSING FEE FOR EACH CARD.

1. Individual:

Last	First	Middle	% Owned	Mailing Address	City State Zip

Partnership Name: (Only the first partner listed will appear on license) \_\_\_\_\_

General-Limited	Last	First	Middle	% Owned	Mailing Address	City State Zip
<input type="checkbox"/> <input type="checkbox"/>						
<input type="checkbox"/> <input type="checkbox"/>						
<input type="checkbox"/> <input type="checkbox"/>						
<input type="checkbox"/> <input type="checkbox"/>						

) Y R A S S E C E N F I T

2. Is any person, other than the above, going to share in the profits/losses of the business?  YES  NO  
If Yes, give name, current address and telephone number of the person(s). Use additional sheets if necessary.

Last	First	Middle	Mailing Address	City, State, Zip	Telephone#

**SECTION 7 Corporation/Limited Liability Co.:**

EACH PERSON LISTED MUST SUBMIT A COMPLETED QUESTIONNAIRE (FORM LIC0101), AN "APPLICANT" TYPE FINGERPRINT CARD, AND \$22 PROCESSING FEE FOR EACH CARD.

CORPORATION Complete questions 1, 2, 3, 5, 6, 7, and 8.

L.L.C. Complete 1, 2, 4, 5, 6, 7, and 8.

1. Name of Corporation/L.L.C.: MY DOBRO, L.L.C.  
(Exactly as it appears on Articles of Incorporation or Articles of Organization)

2. Date Incorporated/Organized: 7/25/2013 State where Incorporated/Organized: Arizona

3. AZ Corporation Commission File No.: \_\_\_\_\_ Date authorized to do business in AZ: \_\_\_\_\_

4. AZ L.L.C. File No: L-1862608-9 Date authorized to do business in AZ: 7/29/2013

5. Is Corp./L.L.C. Non-profit?  YES  NO

6. List all directors, officers and members in Corporation/L.L.C.:

Last	First	Middle	Title	Mailing Address	City State Zip
Young	Michael	J	member manager	608 E. Bow Maker Trl,	Cottonwood, AZ 86326
Young	Lisa	Gayle	member manager	608 E. Bow Maker Trl.	Cottonwood, AZ 86326

(ATTACH ADDITIONAL SHEET IF NECESSARY)

7. List stockholders who are controlling persons or who own 10% or more:

Last	First	Middle	% Owned	Mailing Address	City State Zip
Young	Michael	J	50	608 E. Bow Maker Trl.	Cotton wood AZ 86326
Young	Lisa	Gayle	50	608 E. Bow Maker Trl.	Cotton wood AZ 86326

(ATTACH ADDITIONAL SHEET IF NECESSARY)

8. If the corporation/L.L.C. is owned by another entity, attach a percentage of ownership chart, and a director/officer/member disclosure for the parent entity. Attach additional sheets as needed in order to disclose personal identities of all owners.

**SECTION 8 Club Applicants:**

EACH PERSON LISTED MUST SUBMIT A COMPLETED QUESTIONNAIRE (FORM LIC0101), AN "APPLICANT" TYPE FINGERPRINT CARD, AND \$22 PROCESSING FEE FOR EACH CARD.

1. Name of Club: \_\_\_\_\_ Date Chartered: \_\_\_\_\_  
(Exactly as it appears on Club Charter or Bylaws) (Attach a copy of Club Charter or Bylaws)

2. Is club non-profit?  YES  NO

3. List officer and directors:

Last	First	Middle	Title	Mailing Address	City State Zip

(ATTACH ADDITIONAL SHEET IF NECESSARY)

**SECTION 9 Probate, Will Assignment or Divorce Decree of an existing Bar or Liquor Store License:**

1. Current Licensee's Name: \_\_\_\_\_  
(Exactly as it appears on license) Last First Middle
2. Assignee's Name: \_\_\_\_\_  
Last First Middle
3. License Type: \_\_\_\_\_ License Number: \_\_\_\_\_ Date of Last Renewal: \_\_\_\_\_
4. ATTACH TO THIS APPLICATION A CERTIFIED COPY OF THE WILL, PROBATE DISTRIBUTION INSTRUMENT, OR DIVORCE DECREE THAT SPECIFICALLY DISTRIBUTES THE LIQUOR LICENSE TO THE ASSIGNEE TO THIS APPLICATION.

**SECTION 10 Government: (for cities, towns, or counties only)**

1. Governmental Entity: \_\_\_\_\_
2. Person/designee: \_\_\_\_\_  
Last First Middle Contact Phone Number

**A SEPARATE LICENSE MUST BE OBTAINED FOR EACH PREMISES FROM WHICH SPIRITUOUS LIQUOR IS SERVED.**

**SECTION 11 Person to Person Transfer:**

**Questions to be completed by CURRENT LICENSEE (Bars and Liquor Stores ONLY-Series 06,07, and 09).**

1. Current Licensee's Name: FRITCHARD LARRY WAYNE Entity: AGENT  
(Exactly as it appears on license) Last First Middle (Indiv., Agent, etc.)
2. Corporation/L.L.C. Name: L&N Investments LLC  
(Exactly as it appears on license)
3. Current Business Name: PLAYERS SPORTS BAR + GRILL  
(Exactly as it appears on license)
4. Physical Street Location of Business: Street 1100 Hwy 260 South  
City, State, Zip COTTONWOOD, AZ 86326
5. License Type: #6 BAR License Number: 06130008
6. If more than one license to be transferred: License Type: \_\_\_\_\_ License Number: \_\_\_\_\_
7. Current Mailing Address: Street 4741 E WINDMILL LN  
(Other than business) City, State, Zip COTTONWOOD AZ 86326
8. Have all creditors, lien holders, interest holders, etc. been notified of this transfer?  YES  NO
9. Does the applicant intend to operate the business while this application is pending?  YES  NO If yes, complete Section 5 of this application, attach fee, and current license to this application.

10. I, LARRY PRITCHARD, hereby authorize the department to process this application to transfer the  
(print full name)

privilege of the license to the applicant, provided that all terms and conditions of sale are met. Based on the fulfillment of these conditions, I certify that the applicant now owns or will own the property rights of the license by the date of issue.

I, LARRY PRITCHARD, declare that I am the CURRENT OWNER, AGENT, MEMBER, PARTNER  
(print full name)  
STOCKHOLDER, or LICENSEE of the stated license. I have read the above Section 11 and confirm that all statements are true, correct, and complete.

[Signature]  
(Signature of CURRENT LICENSEE)

State of Arizona County of Yavapai  
The foregoing instrument was acknowledged before me this  
24 Day August, 2013 Year  
[Signature]  
(Signature of NOTARY PUBLIC)

My commission expires on: 8/24/16  
**JEANNE STICKLER**  
Notary Public - State of Arizona  
MARICOPA COUNTY  
My Commission Expires  
August 24, 2016

13 AUG 14 11:41 AM 1004

**SECTION 12 Location to Location Transfer: (Bars and Liquor Stores ONLY)**

APPLICANTS CANNOT OPERATE UNDER A LOCATION TRANSFER UNTIL IT IS APPROVED BY THE STATE

1. Current Business: Name \_\_\_\_\_  
(Exactly as it appears on license) Address \_\_\_\_\_
2. New Business: Name \_\_\_\_\_  
(Physical Street Location) Address \_\_\_\_\_
3. License Type: \_\_\_\_\_ License Number: \_\_\_\_\_
4. If more than one license to be transferred: License Type: \_\_\_\_\_ License Number: \_\_\_\_\_
5. What date do you plan to move? \_\_\_\_\_ What date do you plan to open? \_\_\_\_\_

**SECTION 13 Questions for all in-state applicants excluding those applying for government, hotel/motel, and restaurant licenses (series 5, 11, and 12):**

A.R.S. § 4-207 (A) and (B) state that no retailer's license shall be issued for any premises which are at the time the license application is received by the director, within three hundred (300) horizontal feet of a church, within three hundred (300) horizontal feet of a public or private school building with kindergarten programs or grades one (1) through (12) or within three hundred (300) horizontal feet of a fenced recreational area adjacent to such school building. The above paragraph DOES NOT apply to:

- a) Restaurant license (§ 4-205.02)
- b) Hotel/motel license (§ 4-205.01)
- c) Government license (§ 4-205.03)
- d) Fenced playing area of a golf course (§ 4-207 (B)(5))

1. Distance to nearest school: 2600 ft. Name of school MINGUS Union High School  
Address 1801 E. FIRST. Cottonwood AZ 86326  
City, State, Zip

2. Distance to nearest church: 500 ft. Name of church Restoration Church  
Address 1100 S. Hwy 260 #12, Cottonwood AZ 86326  
City, State, Zip

3. I am the:  Lessee  Sublessee  Owner  Purchaser (of premises)

4. If the premises is leased give lessors: Name PLP Cottonwood, LLC  
Address PO Box 6166, Scottsdale, AZ 85261  
City, State, Zip

4a. Monthly rental/lease rate \$ 4325.75 What is the remaining length of the lease 5 yrs. 0 mos.

4b. What is the penalty if the lease is not fulfilled? \$ \_\_\_\_\_ or other Default  
(give details - attach additional sheet if necessary)

5. What is the total **business** indebtedness for this license/location excluding the lease? \$ 0  
Please list lenders you owe money to.

Last	First	Middle	Amount Owed	Mailing Address	City State	Zip

(ATTACH ADDITIONAL SHEET IF NECESSARY)

6. What type of business will this license be used for (be specific)? Bar & Grill

13 AUG 14 11:19 AM '10 05

**SECTION 13 - continued**

- 7. Has a license or a transfer license for the premises on this application been denied by the state within the past one (1) year?  
 YES  NO If yes, attach explanation.
- 8. Does any spirituous liquor manufacturer, wholesaler, or employee have any interest in your business?  YES  NO
- 9. Is the premises currently licensed with a liquor license?  YES  NO If yes, give license number and licensee's name:

License # 06130008 (exactly as it appears on license) Name ~~LEN Investments, LLC~~ Larry Wayne Pritchard

**SECTION 14 Restaurant or hotel/motel license applicants:**

- 1. Is there an existing restaurant or hotel/motel liquor license at the proposed location?  YES  NO  
 If yes, give the name of licensee, Agent or a company name:

\_\_\_\_\_ and license #: \_\_\_\_\_  
Last First Middle

- 2. If the answer to Question 1 is YES, you may qualify for an Interim Permit to operate while your application is pending; consult A.R.S. § 4-203.01; and complete SECTION 5 of this application.
- 3. All restaurant and hotel/motel applicants must complete a Restaurant Operation Plan (Form LIC0114) provided by the Department of Liquor Licenses and Control.
- 4. As stated in A.R.S. § 4-205.02.G.2, a restaurant is an establishment which derives at least 40 percent of its gross revenue from the sale of food. Gross revenue is the revenue derived from all sales of food and spirituous liquor on the licensee premises. By applying for this  hotel/motel  restaurant license, I certify that I understand that I must maintain a minimum of 40 percent food sales based on these definitions and have included the Restaurant Hotel/Motel Records Required for Audit (form LIC 1013) with this application.

\_\_\_\_\_ applicant's signature

As stated in A.R.S § 4-205.02 (B), I understand it is my responsibility to contact the Department of Liquor Licenses and Control to schedule an inspection when all tables and chairs are on site, kitchen equipment, and, if applicable, patio barriers are in place on the licensed premises. With the exception of the patio barriers, these items are not required to be properly installed for this inspection. Failure to schedule an inspection will delay issuance of the license. If you are not ready for your inspection 90 days after filing your application, please request an extension in writing, specify why the extension is necessary, and the new inspection date you are requesting. To schedule your site inspection visit [www.azliquor.gov](http://www.azliquor.gov) and click on the "Information" tab.

\_\_\_\_\_ applicants initials

**SECTION 15 Diagram of Premises: (Blueprints not accepted, diagram must be on this form)**

- 1. Check ALL boxes that apply to your business:  
 Entrances/Exits     Liquor storage areas    Patio:  Contiguous  
 Service windows     Drive-in windows     Non Contiguous
- 2. Is your licensed premises currently closed due to construction, renovation, or redesign?  YES  NO  
 If yes, what is your estimated opening date? Sept. 7, 2013  
month/day/year
- 3. Restaurants and hotel/motel applicants are required to draw a detailed floor plan of the kitchen and dining areas including the locations of all kitchen equipment and dining furniture. Diagram paper is provided on page 7.
- 4. The diagram (a detailed floor plan) you provide is required to disclose only the area(s) where spiritous liquor is to be sold, served, consumed, dispensed, possessed, or stored on the premises unless it is a restaurant (see #3 above).
- 5. Provide the square footage or outside dimensions of the licensed premises. Please do not include non-licensed premises, such as parking lots, living quarters, etc.

As stated in A.R.S. § 4-207.01(B), I understand it is my responsibility to notify the Department of Liquor Licenses and Control when there are changes to boundaries, entrances, exits, added or deleted doors, windows or service windows, or increase or decrease to the square footage after submitting this initial drawing.

\_\_\_\_\_ applicants initials

**SECTION 15** Diagram of Premises

4. In this diagram please show only the area where spirituous liquor is to be sold, served, consumed, dispensed, possessed or stored. It must show all entrances, exits, interior walls, bars, bar stools, hi-top tables, dining tables, dining chairs, the kitchen, dance floor, stage, and game room. Do not include parking lots, living quarters, etc. When completing diagram, North is up ↑.

If a legible copy of a rendering or drawing of your diagram of premises is attached to this application, please write the words "diagram attached" in box provided below.

Diagram attached.

13 AUG 14 09:11 AM 1005

**SECTION 16** Signature Block

I, <sup>Gayle</sup> Lisa G. Young, hereby declare that I am the OWNER/AGENT filing this application as stated in Section 4, Question 1. I have read this application and verify all statements to be true, correct and complete.

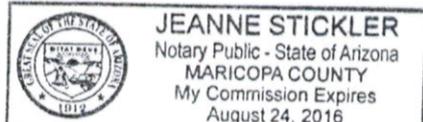
X *Lisa G. Young*  
(signature of applicant listed in Section 4, Question 1)

State of Arizona County of Yavapai

The foregoing instrument was acknowledged before me this 7<sup>th</sup> of August, 2013  
Day Month Year

My commission expires on : 8 / 24 / 16  
Day Month Year

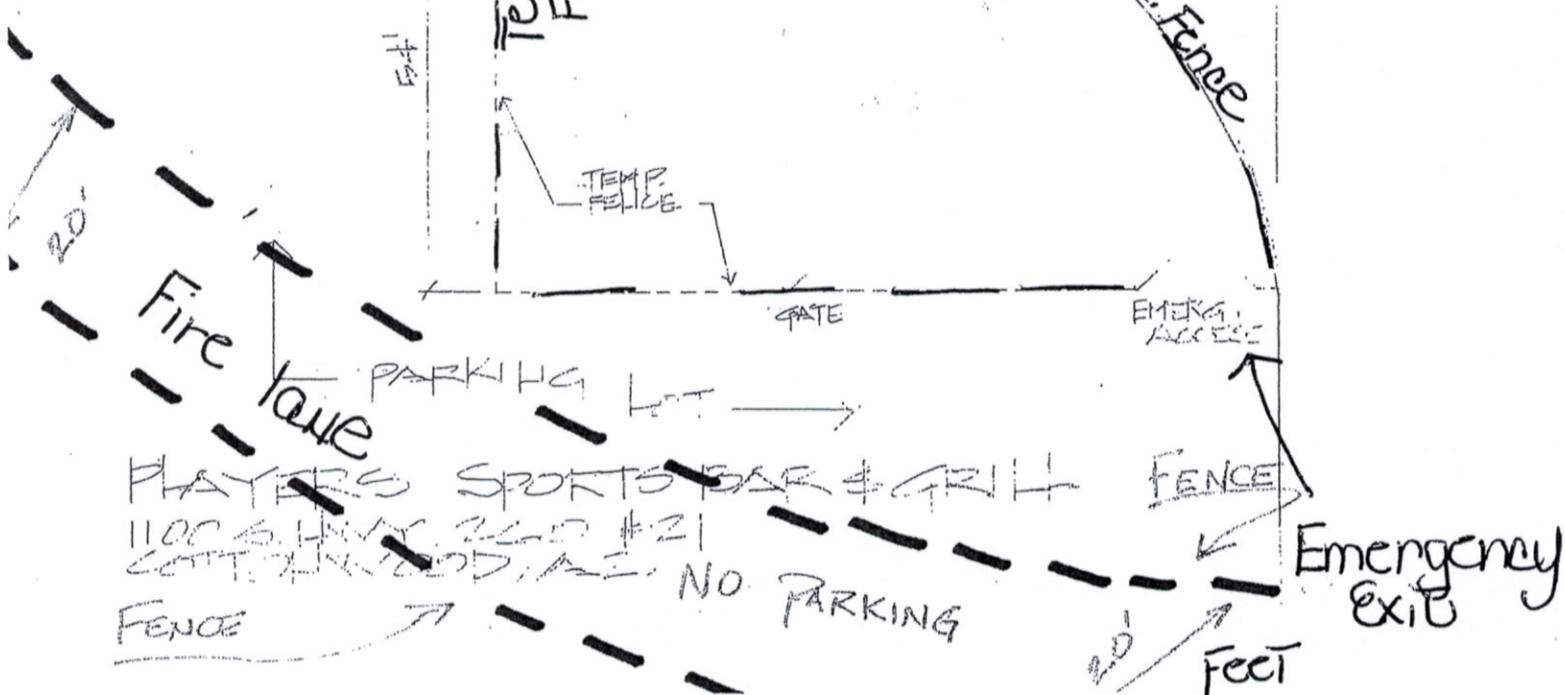
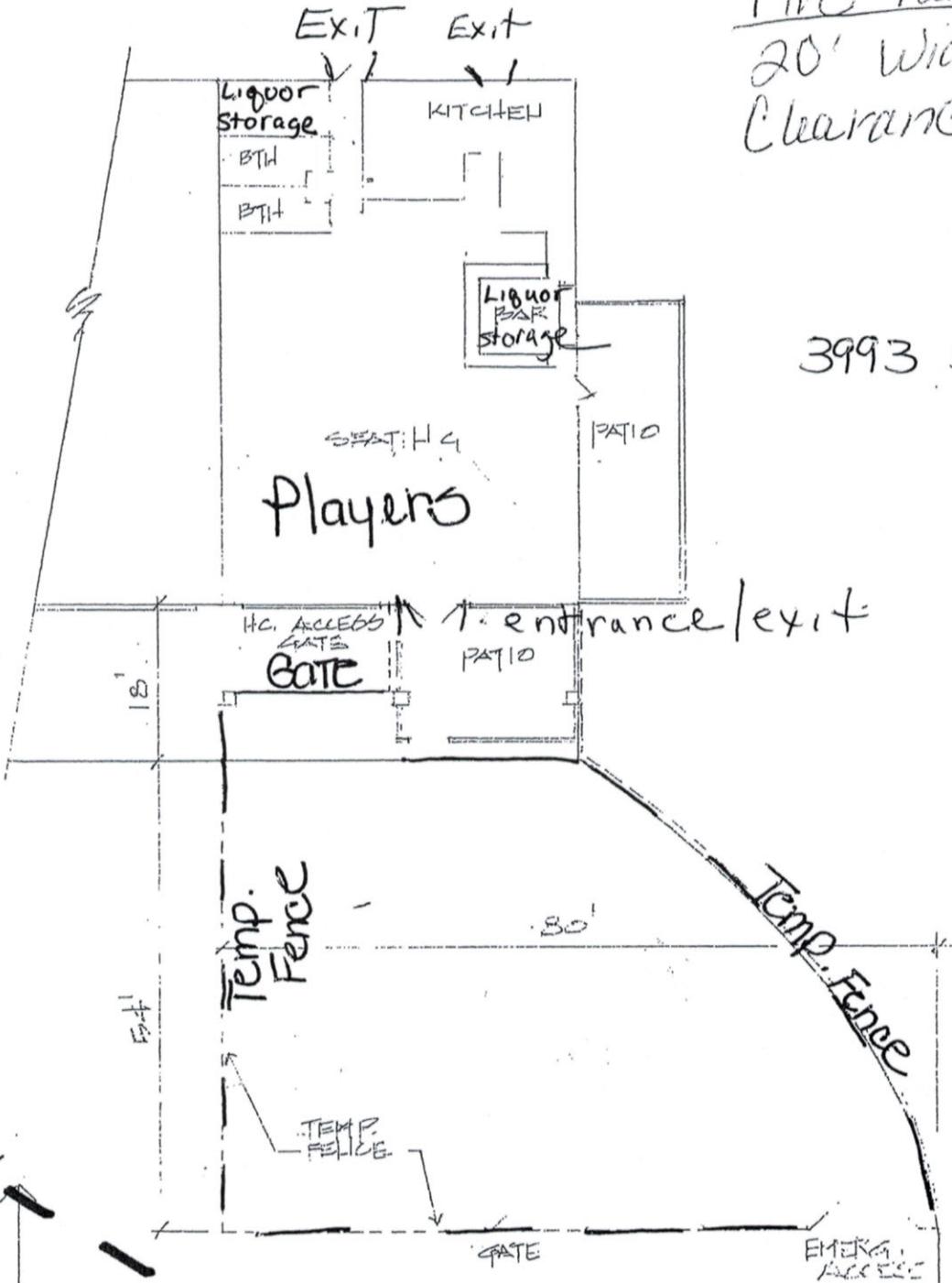
*Jeanne Stickler*  
signature of NOTARY PUBLIC



# PLAYERS SPORTS BAR & GRILL FIRE LANE

Fire lane  
20' wide  
Clearance 13'6"

3993 sq ft  
13 AUG 14 11:47 AM 1005



PLAYERS SPORTS BAR & GRILL  
1100 S. HWY 260 #21  
COTT. AND LODGING

NO PARKING

Emergency Exit

20' Feet

**City of Cottonwood, Arizona  
City Council Agenda Communication**



 Print

Meeting Date:	September 17, 2013
<b>Subject:</b>	Consent of Assignment of Tenant Rights in Lot 133 of Cottonwood Airpark Tract One-Parts B&C
Department:	City Clerk
From:	Marianne Jiménez, City Clerk

**REQUESTED ACTION**

Consideration of approval of the Consent of Assignment of Tenant Rights of Lot 133 of Cottonwood Airpark Tract One--Parts B&C from Backus Family Investments L.L.C., to First Savings Bank, Custodian for Larry Conifer, IRA.

**SUGGESTED MOTION**

If the Council desires to approve this item the suggested motion is:

"I move to approve the Consent of Assignment of Tenant Rights for Lot 133 of Cottonwood Airpark from Backus Family Investments, L.L.C., to First Savings Bank, Custodian for Larry Conifer, IRA.

**BACKGROUND**

Backus Family Investments is the current lease holder of Lot 133 of Cottonwood Airpark. The Airpark Ground Lease provides for the assignment of the lease to another party subject to City Council approval, not unreasonably withheld.

**JUSTIFICATION/BENEFITS/ISSUES**

When Backus Family Investments entered into a Ground Lease with the City through the approval of the Tenth Amendment to the Ground Lease with Cottonwood Airpark L.C., it was with the understanding of their intent to subdivide and develop the lots and provide an opportunity for the end user to purchase their position in the Ground Lease and have a direct lease with the City. Subsequently, in the past the City Council has approved several consent of assignments of the leasehold position that was assumed by Backus Family Investments.

**COST/FUNDING SOURCE**

N/A

**ATTACHMENTS:**

Name:

Description:

Type:

 [9-17-13 Backus First Savings Bank Consent of Assignment.doc](#)

Consent of Assignment Lot 133

Cover Memo

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**“CONSENT”**

**CONSENT OF CITY OF COTTONWOOD TO  
ASSIGNMENT OF TENANT RIGHTS IN  
LOT #133, OF COTTONWOOD AIRPARK TRACT ONE—PARTS B&C  
PARCEL NUMBER 406-08-066**

When recorded return to:  
City Clerk  
City of Cottonwood  
827 North Main Street  
Cottonwood, AZ 86362

CONSENT OF CITY OF COTTONWOOD TO  
ASSIGNMENT OF TENANT RIGHTS IN  
LOT #133 OF COTTONWOOD AIRPARK TRACT ONE – PARTS B & C  
PARCEL NUMBER 406-08-066

Once fully executed, this Consent is legally binding as of \_\_\_\_\_  
\_\_\_\_\_ 2013 (the "Effective Date").

BACKGROUND

The Ground Lease

- A. The City of Cottonwood, formerly known as the Town of Cottonwood, an Arizona municipality, is the "Landlord" under a Ground Lease Agreement dated May 5, 1983, which seeks to serve the public interest by providing opportunities for industrial development, and by promoting economic development and the creation of new employment opportunities.
- B. Cottonwood Airpark L.C. ("CALC") is the successor in interest to Cottonwood Airpark I, L.C. as successor in interest to Cottonwood Airpark, Inc., which was originally named as "Tenant" under the Ground Lease Agreement.
- C. A memorandum of the Ground Lease dated May 23, 1983, was recorded January 4, 1984 in Book 1597, pages 576-581 and thereafter corrected by an instrument recorded July 1, 1985 in Book 1734, pages 11-15 of the records of the Yavapai County Recorder (the "Memorandum of Ground Lease").
- D. The Ground Lease Agreement recorded in Book 4797, Page 649; which was amended by the First Amendment dated November 30, 1983; the Second Amendment dated March 12, 1985; the Third Amendment dated August 21, 1985; the Fourth Amendment dated February 7, 1989; and the Fifth Amendment dated January 1, 1993; the Sixth Amendment dated July 5, 1994; the Seventh Amendment dated September 16, 1997; the Eighth Amendment recorded December 22, 1998, in Book 3626, Page 140; the Ninth Amendment recorded October 1, 2001, in Book 3867, Page 214; the Tenth Amendment recorded March 17, 2003, in Book 4011, Page 367; the Eleventh Amendment recorded July 20, 2005, in Book 4288, Page 640; the

Twelfth Amendment recorded July 20, 2005, in Book 4288, Page 644; the Thirteenth Amendment recorded July 20, 2005, in Book 4288, Page 649; the Fourteenth Amendment recorded January 20, 2006, in Book 4356, Page 475; the Fifteenth Amendment recorded August 21, 2006, in Book 4427, Page 538; the Sixteenth Amendment which was recorded September 3, 2008, in Book 4619, Page 633; and the Seventeenth Amendment which was recorded on February 27, 2009, in Book B-4651, Page 879. The Ground Lease Agreement and all Amendments are collectively referred to as the "Ground Lease".

- E. Thereafter by Assignment, recorded January 20, 2006, in Book 4356, Page 473 of Official Records, CALC assigned an interest as tenant under the Ground Lease of approximately 8.91 acres located south of Lot #122 of the Replat of Cottonwood Airpark Tract One Parts A & B described on the Results of Survey performed by SEC dated June 16, 2005, together with all rights, privileges, easements, appurtenances and improvements thereon to Backus Family Investments, L.L.C. an Arizona Limited Liability Company.
- F. The City of Cottonwood and Backus Family Investments thereafter subdivided the above mentioned parcel of land which is now legally described as Cottonwood Airpark Tract One-Parts B & C, recorded in the office of the Yavapai County Recorder in Book 59, Page 57, dated March 13, 2007.
- H. The Ground Lease requires the written consent of the City of Cottonwood to the assignment by BFI of its rights as Tenant under the Ground Lease to ASSIGNEE. The City of Cottonwood has indicated that it will grant its consent to this transaction by execution and delivery of this Consent, in consideration for and subject to the covenants and conditions recited below.

#### AGREEMENT

Now, therefore, for valuable consideration received, The City of Cottonwood agrees that:

1. Consent. The City of Cottonwood hereby consents to the Assignment by BFI to First Savings Bank, Custodian for Larry Conifer IRA (ASSIGNEE) of its rights under the Ground Lease to Lot #133 of the Cottonwood Airpark Tract One—Parts B&C, Parcel #406-08-066. BFI specifically reserves all other rights to all other parcels which it possesses as Tenant under the Ground Lease.

2. Acceptance of Assignment and Promise to Perform. By its signature below, ASSIGNEE hereby accepts, reaffirms and agrees to faithfully perform all of BFI's duties, obligations and undertakings with respect to the Lot.
  
3. Release. In exchange for ASSIGNEE's faithful performance hereunder, and as of Effective Date of this Agreement, the City as Landlord under the Ground Lease, hereby:
  - 3.1 Certifies that formal approval of the Assignment to ASSIGNEE is hereby granted by the City;
  
  - 3.2 Acknowledges and agrees that BFI has assigned its rights, duties and obligations to Lot #133 to ASSIGNEE. Landlord agrees to look solely to ASSIGNEE for collection of all rents and other amounts arising from the Ground Lease for the Lot after the Effective Date of this Consent and releases BFI (and its predecessors) as Tenant from all obligations or duties arising under the Ground Lease relative to the Lot;
  
  - 3.3 Acknowledges receipt of all rent and other amounts owed by Tenant to Landlord under the Ground Lease with respect to the Lot as of the Effective Date;
  
  - 3.4 Ratifies, affirms and confirms the validity of all other terms and conditions of the Ground Lease;
  
  - 3.5 Confirms that, to Landlord's knowledge, there are no uncured defaults or breaches by Tenant under the Ground Lease;
  
  - 3.6 Agrees that the property taxes for the Lot shall be separately assessed and paid by ASSIGNEE;
  
  - 3.7 Acknowledges that ASSIGNEE may encumber its leasehold interest in the Lot to Purchase or construct certain improvements which may be subject to an encumbrance in favor of a Lender. Landlord agrees to provide notice to the Lender and in the event of a default by ASSIGNEE under the Ground Lease pertaining to the Lot if requested by such Lender, and will execute a separate instrument to that effect if asked to do so.
  
  - 3.8 Acknowledges that pursuant to Section 20 of the Ground Lease the address for the Tenant of the Lot is;  
2605 E. Flamingo Rd., Las Vegas, NV 89121
  
  - 3.9 NAME OF ASSIGNEE:

First Savings Bank, custodian for Larry Conifer IRA

3.10 Affirms that the Term of the Lease to the Lot runs until December 31, 2033.

4. Ratification of Ground Lease with Respect to the Unit. Except as modified herein, the terms and conditions contained in the Ground Lease with respect to the Lot are hereby ratified, confirmed and continue in full force and effect. The Term Commencement date of December 1983 began a 25-year term as to certain portions of the Lease and a 50-year Term as to certain other portions. The Lease also granted options for renewal. The parties intend to ratify and affirm the length of the Term and of all other rights and obligations under the Ground Lease with respect to the Lot. The parties represent that to the best of their knowledge and belief, there are no other amendments, modifications, supplements or other agreements or understandings with respect to the subject matter of this Consent (i.e., the Lot) except for those identified herein. The City as Landlord further acknowledges (i) that BFI as Tenant has paid all rent due with respect to the Lot, and (ii) that, to the City's knowledge, BFI has fully performed all of its obligations and is in good standing under the Ground Lease with respect to the Lot.
5. Further Documentation. The City agrees in good faith to execute such further or additional documents as become necessary or appropriate to carry out the intent and purpose of this Consent.
6. Counterparts and Facsimiles. This Consent may be executed by facsimile or in any number of counterparts, each of which shall be an original but all of which together shall constitute one and the same instrument.

This Consent is legally binding as of the Effective Date regardless of the actual date of signing, provided that it shall not take effect until it is fully executed by both the City and ASSIGNEE.

The undersigned Representatives of the City of Cottonwood hereby personally affirm and certify that there has been full compliance with all requirements for approval of the Assignment by the City and do further affirm and certify that this Consent is hereby approved, ratified and accepted by the City of Cottonwood.

**THE CITY OF COTTONWOOD:**

---

Diane Joens, Mayor

Approved as to Form:

Attest:

\_\_\_\_\_  
Steve Horton, Esq.  
City Attorney

\_\_\_\_\_  
Marianne Jiménez, City Clerk

The undersigned ASSIGNEE hereby personally affirms and accepts the duties of ASSIGNEE as outlined above.

**NAME OF ASSIGNEE:**

First Savings Bank

By: \_\_\_\_\_  
Susan O'Connor

Date: \_\_\_\_\_

State of Nevada    )  
  ) ss.  
County of \_\_\_\_\_ )

On this the \_\_\_\_\_ of \_\_\_\_\_, 2013, before me, the undersigned Notary Public, personally appeared Susan O'Connor, who is personally known to me or satisfactorily proved himself to be the person who executed the foregoing Consent, acknowledging that he executed the same for the purposes therein contained, being authorized so to do.

\_\_\_\_\_  
Notary Public

My Commission Expires:

**City of Cottonwood, Arizona  
City Council Agenda Communication**



 Print

Meeting Date:	September 17, 2013
<b>Subject:</b>	New Liquor License Application for Thomas E. Olivas, Applicant for Olivas Mexican Restaurant.
Department:	City Clerk
From:	Marianne Jiménez, City Clerk

**REQUESTED ACTION**

Council consideration of recommending approval or denial of a new Liquor License Application for Thomas E. Olivas, applicant for Olivas Mexican located at 301 W. Highway 89A.

**SUGGESTED MOTION**

If the Council desires to approve this item the suggested motion is:

"I move to recommend approval of the new liquor license application submitted by Thomas E. Olivas, applicant for Olivas Mexican Restaurant located at 301 W. Highway 89A."

**BACKGROUND**

A new Liquor License Application was received from the Arizona Department of Liquor Licenses & Control for Thomas E. Olivas, applicant for Olivas Mexican restaurant located at 301 W. Highway 89A. No comments for or against the application have been received.

**JUSTIFICATION/BENEFITS/ISSUES**

All Liquor License applications that are submitted to the Arizona Department of Liquor Licenses & Control (ADLLC) for establishments located within the City of Cottonwood are presented to the Council for its recommendation of approval or denial of the application. The Council's recommendation is taken into consideration by the ADLLC prior to their final approval of the application.

**COST/FUNDING SOURCE**

N/A

**ATTACHMENTS:**

Name:

Description:

Type:

 [9-21-13 LL Olivas Mexican Restaurant.pdf](#)

Liquor License Application--Olivas Mexican Restaurant

Cover Memo

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Arizona Department of Liquor Licenses and Control  
 800 West Washington, 5th Floor  
 Phoenix, Arizona 85007  
 www.azliquor.gov  
 602-542-5141

**APPLICATION FOR LIQUOR LICENSE**  
 TYPE OR PRINT WITH BLACK INK

Notice: Effective Nov. 1, 1997, All Owners, Agents, Partners, Stockholders, Officers, or Managers actively involved in the day to day operations of the business must attend a Department approved liquor law training course or provide proof of attendance within the last five years. See page 5 of the Liquor Licensing requirements.

**SECTION 1** This application is for a:

- MORE THAN ONE LICENSE
- INTERIM PERMIT *Complete Section 5*
- NEW LICENSE *Complete Sections 2, 3, 4, 13, 14, 15, 16*
- PERSON TRANSFER (Bars & Liquor Stores ONLY)  
*Complete Sections 2, 3, 4, 11, 13, 15, 16*
- LOCATION TRANSFER (Bars and Liquor Stores ONLY)  
*Complete Sections 2, 3, 4, 12, 13, 15, 16*
- PROBATE/WILL ASSIGNMENT/DIVORCE DECREE  
*Complete Sections 2, 3, 4, 9, 13, 16* (fee not required)
- GOVERNMENT *Complete Sections 2, 3, 4, 10, 13, 15, 16*

**SECTION 2** Type of ownership:

- J.T.W.R.O.S. *Complete Section 6*
- INDIVIDUAL *Complete Section 6*
- PARTNERSHIP *Complete Section 6*
- CORPORATION *Complete Section 7*
- LIMITED LIABILITY CO. *Complete Section 7*
- CLUB *Complete Section 8*
- GOVERNMENT *Complete Section 10*
- TRUST *Complete Section 6*
- OTHER (Explain) \_\_\_\_\_

**SECTION 3** Type of license and fees LICENSE #(s):

1. Type of License(s): # 12
2. Total fees attached: \$ \_\_\_\_\_

12133500

Department Use Only

**APPLICATION FEE AND INTERIM PERMIT FEES (IF APPLICABLE) ARE NOT REFUNDABLE.**

**The fees allowed under A.R.S. 44-6852 will be charged for all dishonored checks.**

**SECTION 4** Applicant

1. Owner/Agent's Name:  Mr. Olivas Thomas Evans  
 (Insert one name ONLY to appear on license) Last First Middle
2. Corp./Partnership/L.L.C.: T&C Olivas Cottonwood LLC B1050770  
 (Exactly as it appears on Articles of Inc. or Articles of Org.)
3. Business Name: T&C Olivas Mexican Restaurant B1012431  
 (Exactly as it appears on the exterior of premises)
4. Principal Street Location: 301 W ~~W~~ Hwy 89A Cottonwood Yavapai 86326  
 (Do not use PO Box Number) City State Zip
5. Business Phone: 928 634-4207 Daytime Phone: 928 634-4207 Email: thomasolivas@yahoo.com
6. Is the business located within the incorporated limits of the above city or town?  YES  NO
7. Mailing Address: 301 W ~~W~~ Hwy 89A Cottonwood Az 86326  
 City State Zip
8. Price paid for license only bar, beer and wine, or liquor store: Type 0 \$ \_\_\_\_\_ Type \_\_\_\_\_ \$ \_\_\_\_\_

**DEPARTMENT USE ONLY**

Fees: 100 Application 50 Interim Permit 44.00 Site Inspection 194.00 Finger Prints \$ 194.00  
**TOTAL OF ALL FEES**

Is Arizona Statement of Citizenship & Alien Status For State Benefits complete?  YES  NO

Accepted by: m.c Date: 8/20/2013 Lic. # 12133500

**SECTION 5 Interim Permit:**

1. If you intend to operate business when your application is pending you will need an Interim Permit pursuant to A.R.S. 4-203.01.
2. There **MUST** be a valid license of the same type you are applying for currently issued to the location.
3. Enter the license number currently at the location. \_\_\_\_\_
4. Is the license currently in use?  YES  NO If no, how long has it been out of use? \_\_\_\_\_

**ATTACH THE LICENSE CURRENTLY ISSUED AT THE LOCATION TO THIS APPLICATION.**

I, \_\_\_\_\_, declare that I am the CURRENT OWNER, AGENT, CLUB MEMBER, PARTNER,  
(Print full name)  
 MEMBER, STOCKHOLDER, OR LICENSEE (circle the title which applies) of the stated license and location.

State of \_\_\_\_\_ County of \_\_\_\_\_

X \_\_\_\_\_  
(Signature)

The foregoing instrument was acknowledged before me this

My commission expires on: \_\_\_\_\_

\_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_  
 Day Month Year

\_\_\_\_\_  
(Signature of NOTARY PUBLIC)

**SECTION 6 Individual or Partnership Owners:**

EACH PERSON LISTED MUST SUBMIT A COMPLETED QUESTIONNAIRE (FORM LIC0101), AN "APPLICANT" TYPE FINGERPRINT CARD, AND \$22 PROCESSING FEE FOR EACH CARD.

1. Individual:

Last	First	Middle	% Owned	Mailing Address	City State Zip

Partnership Name: (Only the first partner listed will appear on license) \_\_\_\_\_

General-Limited	Last	First	Middle	% Owned	Mailing Address	City State Zip
<input type="checkbox"/> <input type="checkbox"/>						
<input type="checkbox"/> <input type="checkbox"/>						
<input type="checkbox"/> <input type="checkbox"/>						
<input type="checkbox"/> <input type="checkbox"/>						

) Y R A S S E C E N F I T

2. Is any person, other than the above, going to share in the profits/losses of the business?  YES  NO  
 If Yes, give name, current address and telephone number of the person(s). Use additional sheets if necessary.

Last	First	Middle	Mailing Address	City, State, Zip	Telephone#

**SECTION 7 Corporation/Limited Liability Co.:**

EACH PERSON LISTED MUST SUBMIT A COMPLETED QUESTIONNAIRE (FORM LIC0101), AN "APPLICANT" TYPE FINGERPRINT CARD, AND \$22 PROCESSING FEE FOR EACH CARD.

- CORPORATION Complete questions 1, 2, 3, 5, 6, 7, and 8.  
 L.L.C. Complete 1, 2, 4, 5, 6, 7, and 8.

1. Name of Corporation/L.L.C.: T+C Olivas Cottonwood, LLC  
 (Exactly as it appears on Articles of Incorporation or Articles of Organization)
2. Date Incorporated/Organized: June 26 2013 State where Incorporated/Organized: Arizona
3. AZ Corporation Commission File No.: ~~L 1856622-7~~ Date authorized to do business in AZ: \_\_\_\_\_
4. AZ L.L.C. File No: L 1856622-7 Date authorized to do business in AZ: June 26 2013
5. Is Corp./L.L.C. Non-profit?  YES  NO
6. List all directors, officers and members in Corporation/L.L.C.:

Last	First	Middle	Title	Mailing Address	City State Zip
Olivas	Thomas	Evans	Member President	34412 N. Dale Dr.	Prescott Valley Az 86314
Olivas	Cassiopeia	Jeanette	Member President	34412 N. Dale Dr.	Prescott Valley Az 86314
p 1069920					

(ATTACH ADDITIONAL SHEET IF NECESSARY)

7. List stockholders who are controlling persons or who own 10% or more:

Last	First	Middle	% Owned	Mailing Address	City State Zip
Olivas	Thomas	Evans	50%	34412 N. Dale Dr.	Prescott Valley Az 86314
Olivas	Cassiopeia	Jeanette	50%	34412 N. Dale Dr.	Prescott Valley Az 86314

(ATTACH ADDITIONAL SHEET IF NECESSARY)

8. If the corporation/L.L.C. is owned by another entity, attach a percentage of ownership chart, and a director/officer/member disclosure for the parent entity. Attach additional sheets as needed in order to disclose personal identities of all owners.

**SECTION 8 Club Applicants:**

EACH PERSON LISTED MUST SUBMIT A COMPLETED QUESTIONNAIRE (FORM LIC0101), AN "APPLICANT" TYPE FINGERPRINT CARD, AND \$22 PROCESSING FEE FOR EACH CARD.

1. Name of Club: \_\_\_\_\_ Date Chartered: \_\_\_\_\_  
 (Exactly as it appears on Club Charter or Bylaws) (Attach a copy of Club Charter or Bylaws)
2. Is club non-profit?  YES  NO
3. List officer and directors:

Last	First	Middle	Title	Mailing Address	City State Zip

(ATTACH ADDITIONAL SHEET IF NECESSARY)



**SECTION 12 Location to Location Transfer: (Bars and Liquor Stores ONLY)**

APPLICANTS CANNOT OPERATE UNDER A LOCATION TRANSFER UNTIL IT IS APPROVED BY THE STATE

1. Current Business: Name \_\_\_\_\_  
(Exactly as it appears on license) Address \_\_\_\_\_
2. New Business: Name \_\_\_\_\_  
(Physical Street Location) Address \_\_\_\_\_
3. License Type: \_\_\_\_\_ License Number: \_\_\_\_\_
4. If more than one license to be transferred: License Type: \_\_\_\_\_ License Number: \_\_\_\_\_
5. What date do you plan to move? \_\_\_\_\_ What date do you plan to open? \_\_\_\_\_

**SECTION 13 Questions for all in-state applicants excluding those applying for government, hotel/motel, and restaurant licenses (series 5, 11, and 12):**

A.R.S. § 4-207 (A) and (B) state that no retailer's license shall be issued for any premises which are at the time the license application is received by the director, within three hundred (300) horizontal feet of a church, within three hundred (300) horizontal feet of a public or private school building with kindergarten programs or grades one (1) through (12) or within three hundred (300) horizontal feet of a fenced recreational area adjacent to such school building. The above paragraph DOES NOT apply to:

- a) Restaurant license (§ 4-205.02)
- b) Hotel/motel license (§ 4-205.01)
- c) Government license (§ 4-205.03)
- d) Fenced playing area of a golf course (§ 4-207 (B)(5))

1. Distance to nearest school: 13200 ft. Name of school Mingus Union High School  
Address 1801 E. First Cottonwood Az 86320  
City, State, Zip
2. Distance to nearest church: 12144 ft. Name of church Peace Lutheran  
Address 14150 E. First Cottonwood Az 86326  
City, State, Zip
3. I am the:  Lessee  Sublessee  Owner  Purchaser (of premises)
4. If the premises is leased give lessors: Name Iqbal Zafar  
Address 9823 E. Lompa Ave Mesa Az 85209  
City, State, Zip
- 4a. Monthly rental/lease rate \$ 6100 What is the remaining length of the lease 3 yrs. 0 mos.
- 4b. What is the penalty if the lease is not fulfilled? \$ \_\_\_\_\_ or other remaining lease  
(give details - attach additional sheet if necessary)
5. What is the total **business** indebtedness for this license/location excluding the lease? \$ 0  
Please list lenders you owe money to.

Last	First	Middle	Amount Owed	Mailing Address	City State	Zip

(ATTACH ADDITIONAL SHEET IF NECESSARY)

6. What type of business will this license be used for (be specific)? Mexican Restaurant

13 AUG 20 10:39 AM Dept #1224

**SECTION 13 - continued**

- 7. Has a license or a transfer license for the premises on this application been denied by the state within the past one (1) year?  
 YES  NO If yes, attach explanation.
- 8. Does any spirituous liquor manufacturer, wholesaler, or employee have any interest in your business?  YES  NO
- 9. Is the premises currently licensed with a liquor license?  YES  NO If yes, give license number and licensee's name:

License # \_\_\_\_\_ (exactly as it appears on license) Name \_\_\_\_\_

**SECTION 14 Restaurant or hotel/motel license applicants:**

- 1. Is there an existing restaurant or hotel/motel liquor license at the proposed location?  YES  NO  
 If yes, give the name of licensee, Agent or a company name:

\_\_\_\_\_ and license #: \_\_\_\_\_  
Last First Middle

- 2. If the answer to Question 1 is YES, you may qualify for an Interim Permit to operate while your application is pending; consult A.R.S. § 4-203.01; and complete SECTION 5 of this application.
- 3. All restaurant and hotel/motel applicants must complete a Restaurant Operation Plan (Form LIC0114) provided by the Department of Liquor Licenses and Control.
- 4. As stated in A.R.S. § 4-205.02.G.2, a restaurant is an establishment which derives at least 40 percent of its gross revenue from the sale of food. Gross revenue is the revenue derived from all sales of food and spirituous liquor on the licensed premises. By applying for this  hotel/motel  restaurant license, I certify that I understand that I must maintain a minimum of 40 percent food sales based on these definitions and have included the Restaurant Hotel/Motel Records Required for Audit (form LIC 1013) with this application.

Thomas Cer  
applicant's signature

As stated in A.R.S § 4-205.02 (B), I understand it is my responsibility to contact the Department of Liquor Licenses and Control to schedule an inspection when all tables and chairs are on site, kitchen equipment, and, if applicable, patio barriers are in place on the licensed premises. With the exception of the patio barriers, these items are not required to be properly installed for this inspection. Failure to schedule an inspection will delay issuance of the license. If you are not ready for your inspection 90 days after filing your application, please request an extension in writing, specify why the extension is necessary, and the new inspection date you are requesting. To schedule your site inspection visit [www.azliquor.gov](http://www.azliquor.gov) and click on the "Information" tab.

TEO  
applicants initials

**SECTION 15 Diagram of Premises: (Blueprints not accepted, diagram must be on this form)**

- 1. Check ALL boxes that apply to your business:  
 Entrances/Exits       Liquor storage areas      Patio:  Contiguous  
 Service windows       Drive-in windows       Non Contiguous
- 2. Is your licensed premises currently closed due to construction, renovation, or redesign?  YES  NO  
 If yes, what is your estimated opening date? 10/12/13  
month/day/year
- 3. Restaurants and hotel/motel applicants are required to draw a detailed floor plan of the kitchen and dining areas including the locations of all kitchen equipment and dining furniture. Diagram paper is provided on page 7.
- 4. The diagram (a detailed floor plan) you provide is required to disclose only the area(s) where spiritous liquor is to be sold, served, consumed, dispensed, possessed, or stored on the premises unless it is a restaurant (see #3 above).
- 5. Provide the square footage or outside dimensions of the licensed premises. Please do not include non-licensed premises, such as parking lots, living quarters, etc.

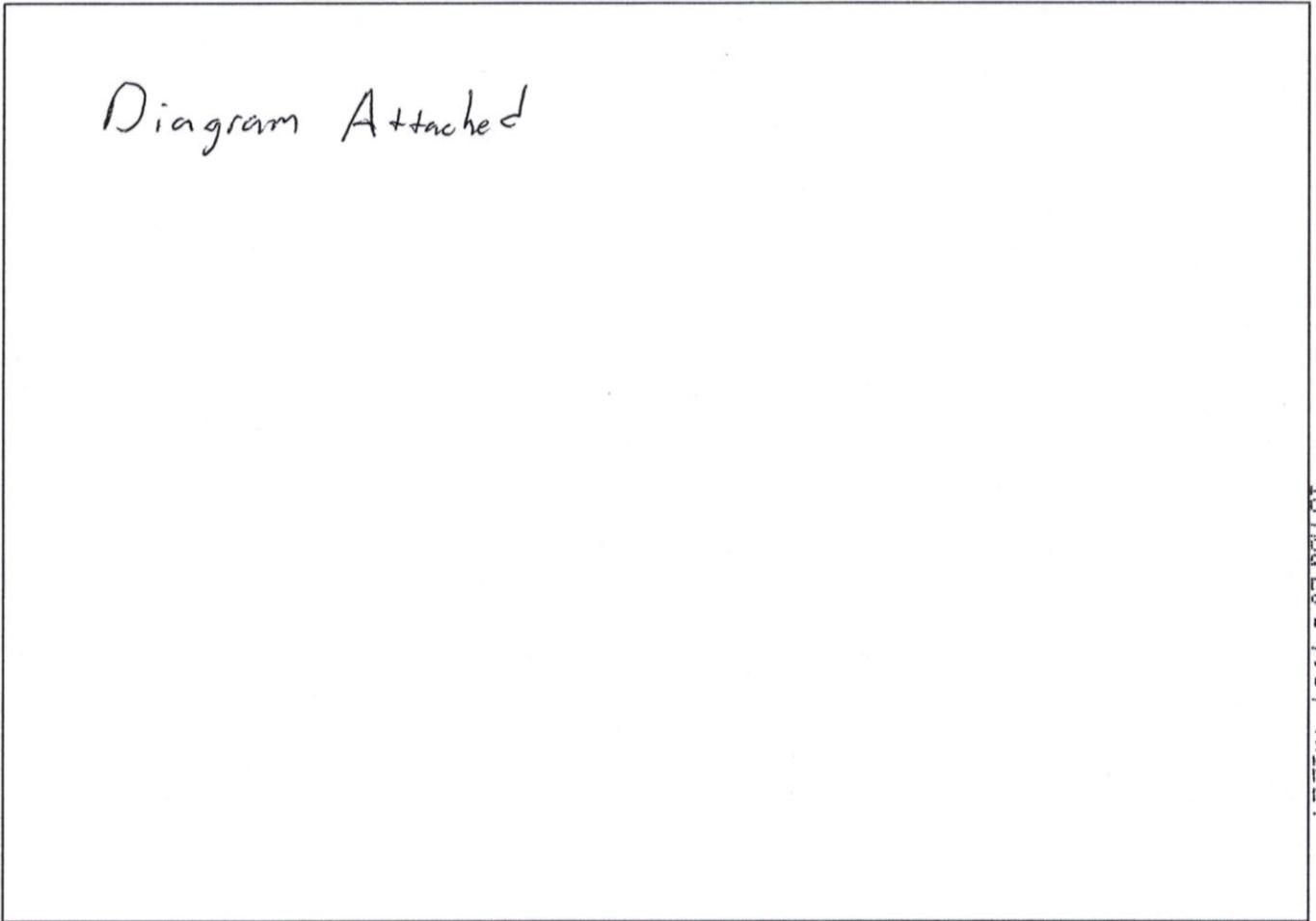
**As stated in A.R.S. § 4-207.01(B), I understand it is my responsibility to notify the Department of Liquor Licenses and Control when there are changes to boundaries, entrances, exits, added or deleted doors, windows or service windows, or increase or decrease to the square footage after submitting this initial drawing.**

TEO  
applicants initials

**SECTION 15 Diagram of Premises**

4. In this diagram please show only the area where spirituous liquor is to be sold, served, consumed, dispensed, possessed or stored. It must show all entrances, exits, interior walls, bars, bar stools, hi-top tables, dining tables, dining chairs, the kitchen, dance floor, stage, and game room. Do not include parking lots, living quarters, etc. When completing diagram, North is up ↑.

If a legible copy of a rendering or drawing of your diagram of premises is attached to this application, please write the words "diagram attached" in box provided below.



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**SECTION 16 Signature Block**

I, Thomas Evans Olivas, hereby declare that I am the OWNER/AGENT filing this application as stated in Section 4, Question 1. I have read this application and verify all statements to be true, correct and complete.

X Thomas Olivas  
(signature of applicant listed in Section 4, Question 1)

State of Ariz County of Maricopa



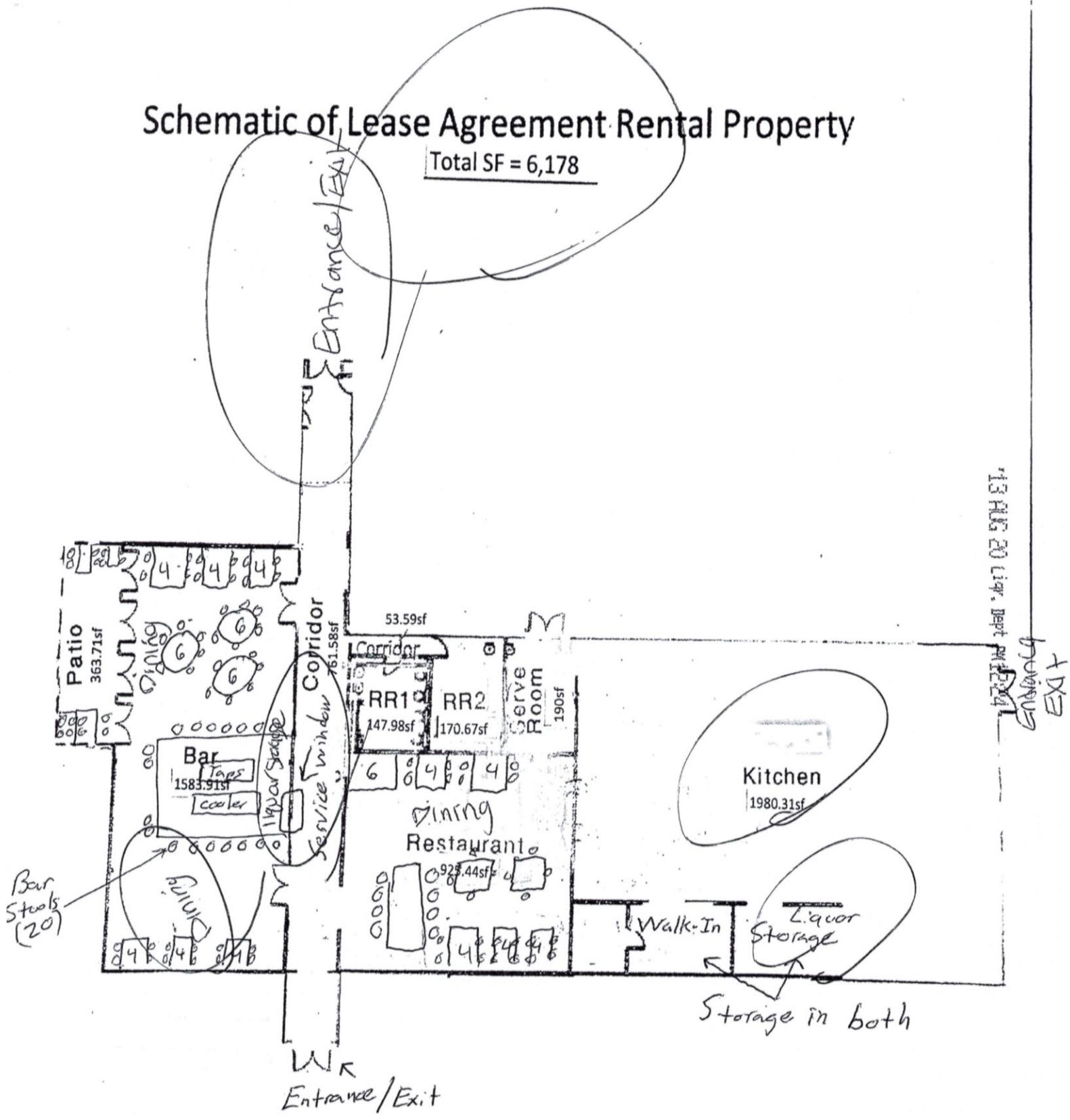
My commission expires on: \_\_\_\_\_  
Day Month Year

The foregoing instrument was acknowledged before me this  
20 of August, 2013  
Day Month Year  
[Signature]  
signature of NOTARY PUBLIC



# Schematic of Lease Agreement Rental Property

Total SF = 6,178





**City of Cottonwood, Arizona  
City Council Agenda Communication**



 Print

Meeting Date:	September 17, 2013
<b>Subject:</b>	Request from Sedona/Verde Valley Pride to Serve Beer and Wine at the Old Town Activity Park.
Department:	City Clerk
From:	Marianne Jimenez, City Clerk

**REQUESTED ACTION**

Consideration of a request from Sedona/Verde Valley Pride to serve and sell beer and wine at the Old Town Activity Park for an event scheduled for September 28, 2013.

**SUGGESTED MOTION**

If the Council desires to approve this item the suggested motion is:

I move to waive Section 9.12.030 A. of the Municipal Code to allow Sedona/Verde Valley Pride to serve and sell beer and wine at the Old Town Activity Park for an event scheduled for September 28, 2013, subject to approval by the Arizona Department of Liquor Licenses and Control.

**BACKGROUND**

Section 9.12.030, A., of the Municipal Code prohibits the possession and consumption of any alcoholic beverage in any city park or building, other than beer and other malt beverages at the Riverfront Park Softball Field Complex.

A letter of request was received from Sedona/Verde Valley Pride to serve and sell beer and wine at the Old Town Activity Park for an event scheduled for September 28, 2013.

**JUSTIFICATION/BENEFITS/ISSUES**

This request is similar to other requests that have been made and granted in the past, such as the Verde Valley Sanctuary's event scheduled for October 5 at the Old Town Activity Park.

**COST/FUNDING SOURCE**

N/A

**ATTACHMENTS:**

Name:	Description:	Type:
 <a href="#">7-17-12 Municipal Code Section 9.12.030.pdf</a>	Municipal Code Section 9.12.030	Cover Memo

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## Chapter 9.12 - OFFENSES AGAINST PUBLIC PEACE

### Sections:

9.12.010 - Noise regulations.

9.12.020 - Throwing or shooting arrows and stones.

9.12.030 - Alcoholic beverages.

### **9.12.010 - Noise regulations.**

Section 9.12.010, Noise Regulations, which was declared to be a public record by Resolution Number 2430, and which is hereby incorporated into this section as if fully set forth herein, is hereby adopted by reference.

Any person who shall violate any of the provisions of this section shall be guilty of a misdemeanor and upon conviction thereof shall be punished by a fine not to exceed two thousand five hundred dollars or by imprisonment in the county jail for a period not exceeding six months, or by both such fine and imprisonment, and each day of violation continued shall be a separate offense, punishable as hereinabove described.

*(Ord. No. 543, §§ 1, 2, 3-17-2009)*

### **9.12.020 - Throwing or shooting arrows and stones.**

It is unlawful for any person to throw or shoot any object, arrow, stone, snowball or other missile or projectile, by hand or by any other means, in such a manner as to constitute danger to life, limb or property.

*(Prior code § 10- 1-26)*

### **9.12.030 - Alcoholic beverages.**

- A. Except as provided in subsections B and C below, it shall be unlawful for any person to possess or consume any alcoholic beverage in any city park or building.
- B. It shall not be unlawful for persons of legal age to possess and consume non-intoxicating quantities of beer, and other malt beverages at the Riverfront Park Softball Field Complex, provided that such beverages are transported to and from the Complex in their original, non-glass containers.
- C. The city manager and/or community services general manager may authorize the possession and consumption of wine, beer, and other malt beverages by persons of legal age at the Cottonwood Recreation Center Banquet Hall and Cottonwood Civic Center, at events held in connection with the rental of those facilities by private individuals, groups and organizations; provided, however, that such authorization shall not include the authority to sell any alcoholic beverage unless the applicant also holds or obtains a license to do so from the Arizona Department of Liquor Licenses and Control.
- D. Before authorizing the possession and consumption of wine, beer, and other malt beverages as provided in subsection C above, the city manager or community services general manager shall ensure that the individual, group or organization responsible for the event will provide adequate security for the event, and that such individual, group or organization also provides adequate insurance against city liability and/or damage to city facilities and property.
- E. As a condition of the privilege of possessing, dispensing, and consuming wine, beer, and other malt beverages on city property in accordance with subsections B and C above, an individual, group, or organization that is granted this privilege shall accept any and all responsibility for injury or damage to persons or property resulting from the exercise of that privilege, and shall indemnify the city against any and all claims, demands, suits, costs, losses, damages, judgments and expenses of any kind arising in connection therewith.

*(Ord. 377 §1, 1999; Ord. 277 §3, 1991; Ord. 242 §2, 1989)*

*(Ord. No. 563, § 1, 4-20-2010)*

**City of Cottonwood, Arizona  
City Council Agenda Communication**



 Print

Meeting Date:	September 17, 2013
<b>Subject:</b>	Special Event Liquor License for Sedona Pride (Gregory Luckey, Applicant).
Department:	City Clerk
From:	Marianne Jiménez, City Clerk

**REQUESTED ACTION**

Council consideration and recommendation of approval or denial of a Special Event Liquor License Application submitted by Gregory Luckey, applicant for Sedona Pride.

**SUGGESTED MOTION**

If the Council desires to approve this item the suggested motion is:

I move to recommend approval the Special Event Liquor License application submitted by Gregory Luckey, applicant for Sedona Pride, for an event scheduled for September 28, 2013, at the Old Town Activity Park.

**BACKGROUND**

Gregory Luckey has submitted a Special Event Liquor License application on behalf of Sedona Pride for an event scheduled for September 28, 2013, from 11 a.m. to 9 p.m., at the Old Town Activity Park.

**JUSTIFICATION/BENEFITS/ISSUES**

All Special Event Liquor License applications that are submitted to the Arizona Department of Liquor Licenses & Control (ADLLC) for events held in the City of Cottonwood are presented to the Council for its recommendation of approval or denial of the application. The Council's recommendation is taken into consideration by the ADLLC prior to their final approval of the application.

**COST/FUNDING SOURCE**

N/A

**ATTACHMENTS:**

Name:

[📄 Sedona Gay Pride 9-28-13.pdf](#)

Description:

Sedona Pride Liqour License

Type:

Backup Material

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10. Has the applicant been convicted of a felony in the past five years, or had a liquor license revoked?  
 YES  NO (attach explanation if yes)

11. This organization has been issued a special event license for \_\_\_\_\_ days this year, including this event  
(not to exceed 10 days per year).

12. Is the organization using the services of a promoter or other person to manage the event?  YES  NO  
If yes, attach a copy of the agreement.

13. List all people and organizations who will receive the proceeds. Account for 100% of the proceeds.  
**THE ORGANIZATION APPLYING MUST RECEIVE 25% OF THE GROSS REVENUES OF THE SPECIAL  
EVENT LIQUOR SALES.**

Name Sedona Bay Pride 100%  
Percentage

Address P.O. Box 3231 Sedona AZ 86340

Name \_\_\_\_\_ Percentage

Address \_\_\_\_\_

(Attach additional sheet if necessary)

14. Knowledge of Arizona State Liquor Laws Title 4 is important to prevent liquor law violations. If you have any questions regarding the law or this application, please contact the Arizona State Department of Liquor Licenses and Control for assistance.

**NOTE: ALL ALCOHOLIC BEVERAGE SALES MUST BE FOR CONSUMPTION AT THE EVENT SITE ONLY.  
"NO ALCOHOLIC BEVERAGES SHALL LEAVE SPECIAL EVENT PREMISES."**

15. What security and control measures will you take to prevent violations of state liquor laws at this event?  
(List type and number of security/police personnel and type of fencing or control barriers if applicable)

\_\_\_\_\_ # Police  Fencing  
10 # Security personnel  Barriers

The small park has a 3 foot chain link fence all the way around. The small entrance/exits will be monitored by security. All people who consume will be ID'd and have wristbands

16. Is there an existing liquor license at the location where the special event is being held?  YES  NO  
If yes, does the existing business agree to suspend their liquor license during the time period, and in the area in which the special event license will be in use?  YES  NO

**(ATTACH COPY OF AGREEMENT)**

\_\_\_\_\_  
Name of Business ( ) Phone Number

17. Your licensed premises is that area in which you are authorized to sell, dispense, or serve spirituous liquors under the provisions of your license. The following page is to be used to prepare a diagram of your special event licensed premises. Please show dimensions, serving areas, fencing, barricades or other control measures and security positions.

**SPECIAL EVENT LICENSED PREMISES DIAGRAM**  
**(This diagram must be completed with this application)**

Special Event Diagram: (Show dimensions, serving areas, and label type of enclosure and security positions)  
NOTE: Show nearest cross streets, highway, or road if location doesn't have an address.

*See Attached*





E. Pima St.

emergency exit

Tent  
10x20

Generator

Ramada

volunteer entrance

30x60 Tent

30x60 Tent

vendors/exhibitors

Kids Play zone

Main Entrance

Ticket sales  
ID check

emergency exit

Beverage sales

vendors

vendors

loading /  
unloading access

Generator

Potties

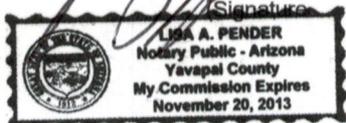
city yard

Main St.

**THIS SECTION TO BE COMPLETED ONLY BY AN OFFICER, DIRECTOR OR CHAIRPERSON OF THE ORGANIZATION NAMED IN QUESTION #1**

18. I, MARC J. APPLEHILL declare that I am an Officer/Director/Chairperson appointing the  
 (Print full name)  
 applicant listed in Question 6, to apply on behalf of the foregoing organization for a Special Event Liquor License.

X [Signature] SECRETARY 8-1-13 928254-8112  
 (Signature) (Title/Position) (Date) (Phone #)



State of Arizona County of Yavapai  
 The foregoing instrument was acknowledged before me this

1st August 2013  
 Day Month Year

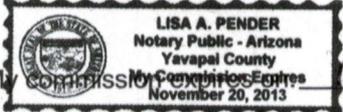
My Commission expires on: 11/20/2013  
 (Date)

[Signature]  
 (Signature of NOTARY PUBLIC)

**THIS SECTION TO BE COMPLETED ONLY BY THE APPLICANT NAMED IN QUESTION #6**

19. I, Gregory C Luckey declare that I am the APPLICANT filing this application as  
 (Print full name)  
 listed in Question 6. I have read the application and the contents and all statements are true, correct and complete.

X [Signature] State of Arizona County of Yavapai  
 (Signature) The foregoing instrument was acknowledged before me this



1st August 2013  
 Day Month Year

My Commission Expires 11/20/2013  
 (Date)

[Signature]  
 (Signature of NOTARY PUBLIC)

**You must obtain local government approval. City or County MUST recommend event and complete item #20. The local governing body may require additional applications to be completed and submitted 60 days in advance of the event. Additional licensing fees may also be required before approval may be granted.**

**LOCAL GOVERNING BODY APPROVAL SECTION**

20. I, \_\_\_\_\_ hereby recommend this special event application  
 (Government Official) (Title)  
 on behalf of \_\_\_\_\_  
 (City, Town or County) (Signature of OFFICIAL) (Date)

**FOR DLLC DEPARTMENT USE ONLY**

Department Comment Section:  
 \_\_\_\_\_  
 \_\_\_\_\_ (Employee) \_\_\_\_\_ (Date)

APPROVED  DISAPPROVED BY: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_ (Title) \_\_\_\_\_ (Date)

INTERNAL REVENUE SERVICE  
P. O. BOX 2508  
CINCINNATI, OH 45201

DEPARTMENT OF THE TREASURY

Date: **JAN 10 2011**

SEDONA GAY PRIDE  
PO BOX 3231  
SEDONA, AZ 86340-3231

Employer Identification Number:  
26-3874768  
DLN:  
17053035306000  
Contact Person:  
SHEENA L BREWER ID# 31270  
Contact Telephone Number:  
(877) 829-5500  
Accounting Period Ending:  
June 30  
Public Charity Status:  
509(a)(2)  
Form 990 Required:  
Yes  
Effective Date of Exemption:  
September 8, 2009  
Contribution Deductibility:  
Yes  
Addendum Applies:  
No

Dear Applicant:

We are pleased to inform you that upon review of your application for tax exempt status we have determined that you are exempt from Federal income tax under section 501(c)(3) of the Internal Revenue Code. Contributions to you are deductible under section 170 of the Code. You are also qualified to receive tax deductible bequests, devises, transfers or gifts under section 2055, 2106 or 2522 of the Code. Because this letter could help resolve any questions regarding your exempt status, you should keep it in your permanent records.

Organizations exempt under section 501(c)(3) of the Code are further classified as either public charities or private foundations. We determined that you are a public charity under the Code section(s) listed in the heading of this letter.

Please see enclosed Publication 4221-PC, Compliance Guide for 501(c)(3) Public Charities, for some helpful information about your responsibilities as an exempt organization.

Letter 947 (DO/CG)

SEDONA GAY PRIDE

We have sent a copy of this letter to your representative as indicated in your power of attorney.

Sincerely,



Robert Choi  
Director, Exempt Organizations  
Rulings and Agreements

Enclosure: Publication 4221-PC

Letter 947 (DO/CG)

**SERIES:**

**15 SPECIAL EVENT LICENSE (Temporary)**

**Non-transferable**

**On-sale retail privileges**

**PURPOSE:**

**Allows a charitable, civic, fraternal, political or religious organization to sell and serve spirituous liquor for consumption only on the premises where the spirituous liquor is sold, and only for the period authorized on the license. This is a temporary license.**

**ADDITIONAL RIGHTS AND RESPONSIBILITIES:**

**The applicant for a special event license must request a special event application from the Department and file the application with the governing body of the city or town, or Board of Supervisors of an unincorporated area of a county (where the special event is to take place) for approval or disapproval. Some local governing bodies may require approximately 60 days prior notice.**

**If the application is approved by the local authority, and the event meets the requirements for granting the license, the Director will issue a special event license to the qualifying organization.**

**Qualifying organizations will be granted a special event license for no more than ten (10) days in a calendar year. Events must be held on consecutive days and at the same location or additional licenses will be required. The license is automatically terminated upon closing of the last day of the event or the expiration of the license, whichever occurs first.**

**The qualified organization must receive at least twenty-five percent (25 %) of the gross revenues of the special event liquor sales.**

**A person selling spirituous liquor under a special event license must purchase the spirituous liquor from the holder of a license authorized to sell off-sale; *except that*, in the case of a non-profit organization which has obtained a special event license for the purpose of charitable fund raising activities, a person may receive the spirituous liquor from a wholesaler as a donation.**

**AVERAGE APPROVAL TIME: One (1) to seven (7) days.**

**PERIOD OF ISSUANCE:**

**Issued for no more than a cumulative total of ten (10) days in a calendar year. A special event may be held for more than one (1) day, but it must be held on consecutive days and at the same location or additional licenses will be required.**

**FEES: \$25.00 per day.**

**ARIZONA STATUTES AND REGULATIONS:**

**ARS 4-203.02, 4-244, 4-261; Rule R19-1-228, R19-1-235, R19-1-309.**

**Disabled individuals requiring special accommodations please call (602) 542-9027**

**City of Cottonwood, Arizona  
City Council Agenda Communication**



 Print

Meeting Date:	September 17, 2013
<b>Subject:</b>	Proposed New Position in IT Department and Elimination of Current Accounting Position
Department:	HR
From:	Iris Dobler, Human Resources Manager, and Rudy Rodriguez, Administrative Services General Manager

**REQUESTED ACTION**

Approval of a new IT Technician II position and elimination of an accounting position.

**SUGGESTED MOTION**

If the Council desires to approve this item the suggested motion is:

"I move to approve a new position in the City service for an IT Technician II, at a Range 21, and to eliminate the current Accounting Specialist II position, effective September 18, 2013."

**BACKGROUND**

Currently the IT Department has one IT Manager and one IT Technician I. The IT requirements in the Police Department are changing with the new planned Communications Center opening within the next year. In addition, more of the Police Department IT work will be done in-house, rather than relying on external consultants to the degree we have in the past.

With the promotion of Helen Bartels to the Budget Analyst and with the new Enterprise Resource Planning (ERP) software starting to come on line in the next couple of months, much of the Accounting Specialist II's responsibilities will be automated and those remaining will be divided among current remaining staff.

Part of the City's approach to hiring over the last several years involves performing a careful assessment of any vacancies that occur to either confirm the need to continue that position, or whether those responsibilities can be performed by one or more other individuals and job classifications. The ERP software coming on line allows us to make such a proposal in this case, while meeting an increasing need for IT staff.

**JUSTIFICATION/BENEFITS/ISSUES**

It will be more efficient and productive to have a second IT Technician on staff vs. continuing to contract with outside consultants. The extra staff position will also be available to support

other City departments in addition to responding to the Police Department's IT needs.

**COST/FUNDING SOURCE**

There will be some cost savings when the use of consultants is reduced in the Police Department. In addition, through some reorganization of duties in Administrative Services, and the prospect of more efficiency due to the Springbrook ERP software coming on-line this year, one position in the Finance Department can be eliminated. The funding already approved for that position would be moved to the IT Department to fund the new proposed position.

**ATTACHMENTS:**

Name:	Description:	Type:
<a href="#">☐ 233-IT Technician II AUG 2013 - sbh_revs_09-12-13.doc</a>	IT Tech II Job Description - Revised (sbh 09-12-13)	Cover Memo

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Job Description  
Job Code: 233  
Range: 21

## INFORMATION TECHNOLOGY TECHNICIAN II

**DEFINITION:** Under direct supervision by the Information Technology Manager (ITM), this position is responsible for providing technical solutions in support of software and hardware, operating systems, advanced PC applications, and Internet and website services. Position requires detailed knowledge of local and wide area network hardware and software; network technology; server and workstation configuration; and operating system installation and maintenance.

**CLASSIFICATION:** This is a non-exempt, full-time, classified position with full benefits.

**ESSENTIAL FUNCTIONS:** Essential functions, as defined under the Americans with Disabilities Act, may include the following tasks, knowledge, skills and other characteristics. This list is illustrative only, and is not a comprehensive listing of all functions and tasks performed by incumbents of this classification.

### TASKS:

- Install, set up and monitor local area network (LAN).
- Perform a variety of maintenance, evaluation, installation and training tasks to ensure LAN performance meets City and user requirements.
- Diagnose software and hardware failures; analyzes issues, develop and document solutions. Inform users of system-wide issues and resolutions.
- Document trouble calls in a call tracking system and assign calls involving extended research to appropriate group for resolution as needed.
- Install, configure and maintain personal computers, servers, Ethernet networks, network cabling, and other related equipment, devices, and systems; add or upgrade and configure workstations, printers, and related equipment.
- Plan, lead, and manage hardware, software, and application project rollouts.
- Add, maintain, and remove users from Active Directory, Exchange, Lync, and SharePoint.
- Troubleshoot networks, systems, and applications to identify and correct malfunctions and other operational difficulties.
- Determine users' needs for hardware and software; obtain quote, prepares requisition request, and send to I.T.M. for approval.
- Anticipate communication and networking problems and implement preventative measures. Establish and perform maintenance programs following company and vendor standards.
- Ensure timely user notification of maintenance requirements and effects on system availability. Investigate, recommend and install enhancements and operating procedures that optimize network availability.
- Document network problems and resolutions for future reference.
- Coordinate and manage projects for departmental computer moves, new system installations and software upgrades.
- Assist in evaluating and making recommendations regarding the performance and needs of City computing resources.
- Deploy software applications and software upgrades using remote network deployment technology. Develop and maintain procedures manuals as required; obtain training manuals from vendors as needed.
- Maintain software and hardware inventory across the City enterprise.
- Maintain the City website, adding/removing information; and ensure proper security is in place for the website.

## Information Technology Technician – (Continued)

- Development and administration of Microsoft SharePoint Server.
- Perform other duties/ projects as assigned.

### SECURITY

- Must be able to obtain DPS Level D Terminal Operator Certification (TOC).
- Must pass background check equivalent to that performed on police officers.
- Must pass polygraph.
- Must pass fingerprint check.

### KNOWLEDGE, SKILLS, AND OTHER CHARACTERISTICS:

- Knowledge in Network Design, Development and Administration.
- Must have technical knowledge of smart phones and their capabilities.
- Knowledge of security fundamentals including public safety security protocols.
- Must be familiar with Voice Over Internet Protocol (VoIP) technology.
- Must have familiarity with the following: All Windows operating systems, including those dating back to Windows 95, Server/MS SQL, MS Office Professional, Microsoft Exchange, Microsoft SharePoint, IPX and TCP/IP protocols, Cat-5/6 cabling/punch down, and Ethernet 10/100/1000 topology.
- Ability to communicate in non-technical terminology.
- AIX Operating System a plus.
- Must possess good analytical skills.
- Must be able to travel some.
- Ability to learn and support new systems and applications.
- Requires good interpersonal skills.
- (Preferred) Microsoft Certified Systems Engineer Certification (MCSE).
- (Preferred) Cisco Certified Network Administrator (CCNA).
- (Preferred) Wi-Fi knowledge.
- (Preferred) Working knowledge of Virtual Private Networks (VPNs) and domains.

**PHYSICAL REQUIREMENTS:** The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions. While performing the duties of this job, the employee is occasionally required to stand, walk, use hands to finger, handle, feel or operate objects, tools or controls, and reach with hands and arms. The employee is occasionally required to sit, climb or balance, stoop, kneel, crouch or crawl, talk, and hear. The employee must occasionally lift and/or move heavy packages and equipment. Specific vision abilities required by this job include close vision and the ability to adjust focus.

**MINIMUM QUALIFICATIONS:** Associate of Arts Degree with major course work in computer information systems or a related field or any combination of experience and training that would provide the required knowledge and abilities. Bachelor's Degree in Computer Information Systems or related field is highly desirable. Minimum of 2 years work experience with computer systems and/or networks. Must possess and maintain a valid Arizona driver's license. May be required to work other than normal business hours, including weekends and holidays.

Employee's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Prepared by: B.Kinney/R.Rodriguez 8/23/13

Reviewed by: Iris Dobler 8/23/13

**CLAIMS REPORT OF SEPTEMBER 17, 2013**

<b>FUND TOTAL</b>	<b>VENDOR NAME</b>	<b>DESCRIPTION</b>	<b>TOTAL</b>
			\$ -
<b>CLAIMS EXCEPTIONS REPORT OF SEPTEMBER 17, 2013</b>			
<b>FUND</b>	<b>VENDOR NAME</b>	<b>DESCRIPTION</b>	<b>TOTAL</b>
All	City of Cottonwood	Payroll 9/13/13	\$ 485,824.40
Water	Catholic Charities Community Services	Water Fund Annual Assistance	\$ 10,500.00
Water	Envirogen Technologies	Aresenic Treatment	\$ 34,760.95
Utilities	Hanson Aggregates of AZ Inc	Materials	\$ 6,639.95
Water	HD Supply Waterworks	Meters and Supplies	\$ 9,254.31
Gen Fund	National Business Furniture Inc	Admin Services Furniture	\$ 12,473.52
Gen Fund	Sedona Fire District	Sept 2013 Dispatching Services	\$ 8,199.56
Gen Fund	The Van Wyck Law Firm	Aug 2013 Prosecuting Attorney	\$ 7,000.00
Gen Fund	Town of Camp Verde	SR 260 Lobbying Cost Share	\$ 5,000.00
Utilities	Wood Patel & Associates Inc	Engineering Consulting	\$ 9,997.50
All	APS	Electricity	\$ 96,392.07
All	Accurate Building Maintenance	Janitorial Services	\$ 18,936.00
Capital	Arrington Watkins Architects	Emergency Communications Center	\$ 13,157.88
Gen Fund	Arizona State Treasurer	Court Remittance	\$ 20,009.60
Gen Fund	Cottonwood-Oak Creek School District #6	CMS Ball Park Lights (April - July 2013)	\$ 6,089.28
Sewer	D & K Farming Enterprises LLC	Biosolids Removal	\$ 6,923.76
Airport	EPIC Aviation	Avgas 100LL	\$ 37,326.53
Water	KP Ventures Drilling & Pump Co	Well 2-1 Emergency Pump Replacement	\$ 17,535.72
All	Reese and Sons Tire Co Inc	Vehicle Repair & Maintenance	\$ 6,561.50
All	SC Fuels	Gasoline	\$ 14,913.66
Airport	Southwest Risk Services	Airport Liability Insurance	\$ 8,200.00
<b>TOTAL</b>			<b>\$ 835,696.19</b>