A G E N D A

WORK SESSION OF THE CITY COUNCIL OF THE CITY OF COTTONWOOD, ARIZONA, TO BE HELD JUNE 28, 2012, AT 6 P.M., AT THE COTTONWOOD COUNCIL CHAMBERS BUILDING LOCATED AT 826 NORTH MAIN STREET, COTTONWOOD, ARIZONA.

I. CALL TO ORDER

II. ROLL CALL

III. ITEMS FOR DISCUSSION, CONSIDERATION, AND POSSIBLE DIRECTION TO STAFF:

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

1. PRESENTATION BY THE VERDE RIVER CITIZENS ALLIANCE REGARDING THEIR PLAN FOR A NATIVE PLANT DISPLAY NEAR THE CISTERN ON THE SIDE OF THE BUSINESS ASSISTANCE CENTER BUILDING.

2. PROPOSED AMENDMENTS TO THE COTTONWOOD MUNICIPAL CODE, TITLE 6, ANIMALS, BY ADDING A NEW SECTION 6.04.080--REMOVAL OF ANIMAL WASTE; AND TITLE 12, SIDEWALKS AND PUBLIC PLACES, BY ADDING A NEW SUBSECTION C. TO SECTION 12.08.040--DEPOSITING MATERIAL ON THOROUGHFARES.

3. PROPOSED AMENDMENTS TO THE COTTONWOOD MUNICIPAL CODE, TITLE 10, TRAFFIC; PERTAINING TO WORKING ON VEHICLES WITHIN PUBLIC RIGHT-OF-WAY OR PUBLIC PROPERTY, VEHICLE REPAIRS ON RESIDENTIAL PROPERTY, CASUAL DISPLAY OF VEHICLES FOR SALE ON PUBLIC PROPERTY OR RESIDENCES; PARKING VEHICLES ON SIDEWALKS, AND STORAGE OF ABANDONED OR INOPERABLE VEHICLES.

4. PROPOSED AMENDMENT TO THE COTTONWOOD ZONING ORDINANCE, SECTION 404. GENERAL PROVISIONS, M. STORAGE, PARKING, AND OCCUPANCY OF MOBILE HOMES AND TRAILERS; PERTAINING TO THE REGULATION OF THE RESIDENTIAL USE OF RVS AND TRAILERS.

5. DIRECTION REGARDING THE DESIGN AND CONSTRUCTION OF A COTTONWOOD PUBLIC SAFETY COMMUNICATIONS CENTER.

IV. 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.

City of Cottonwood, Arizona
City Council Agenda Communication

Print

Meeting Date:	June 28, 2012
Subject:	PRESENTATION REGARDING THE PLANS FOR A NATIVE PLANT DISPLAY NEAR THE CISTERN ON THE BACK SIDE OF THE BUSINESS ASSISTANCE CENTER.
Department:	
From:	Marianne Jimenez, City Clerk for Mayor Diane Joens

REQUESTED ACTION

N/A--PRESENTATION ONLY.

SUGGESTED MOTION

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

N/A

BACKGROUND

As the Council may recall, a rainwater harvesting cistern was installed on the side of the Business Center a few months ago. The Verde River Citizens Alliance would like to present plans to the council for a native plant display on the side of the Business Assistance Center near the cistern.

JUSTIFICATION/BENEFITS/ISSUES

COST/FUNDING SOURCE

ATTACHMENTS:

Name:	Description:	Type:
No Attachments Available		

City of Cottonwood, Arizona
City Council Agenda Communication

Print

Meeting Date:	June 28, 2012
Subject:	Removal of Animal Waste on Public Sidewalks or Property.
Department:	Development Services
From:	Charlie Scully, Planner

REQUESTED ACTION

Review a proposed amendment to Cottonwood Municipal Code, Title 6 Animals, adding a new Section 6.04.080 - Removal of Animal Waste; and amending Title 12 Sidewalks, by adding a new Sub-section C. to Section 12.08.040 - Depositing material on thoroughfares and provide direction to staff on whether to bring back the proposed ordinance for adoption.

SUGGESTED MOTION

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

BACKGROUND

The Municipal Code does not directly address the issue of pets, dogs, horses or other privately owned or controlled animals defecating on public sidewalks or property, or the responsibility for the owner to remove such animal waste from public areas. The Public Nuisance section under Title 8 Health and Safety has some general language prohibiting the unauthorized depositing of debris or waste on public property but the specific condition of animal waste is not directly described.

In some areas of the city, horses, dogs and other animals under control of an owner or custodian use public sidewalks for travel. The proposed regulations provide a clear policy and expectation that the owner, operator or custodian on any horse, dog or other animal using a public sidewalk shall be required to immediately remove any animal waste from such sidewalk or similar publicly accessible property.

JUSTIFICATION/BENEFITS/ISSUES

Various citizens have expressed concerns over the condition of animal waste on public sidewalks and pathways. There is a need for a clear policy and set of regulations regarding this issue.

COST/FUNDING SOURCE

N/A

ATTACHMENTS:

Name:	Description:	Type:
Animal_Waste_Amendment.docx	Animal Waste Amendment	Cover Memo

ADD NEW SECTION

Cottonwood Municipal Code
Title 6 - ANIMALS

6.04.080 – Removal of Animal Waste.

A. The owner or custodian of every animal, including dogs, household pets, livestock, horses or any other animal under their control within the City of Cottonwood, shall be responsible for the immediate removal of any defecation deposited by such animals on public property, including sidewalks, walkways, trails, and recreation areas and parks, or on any private property without the consent of the owner.

B. It is unlawful for any person whose animals defecate on property they do not own or have authorized use of to fail to immediately clean up and properly dispose of the waste.

C. Exceptions: This section shall not apply to unsighted persons while relying on a guide dog; or police officers or other law enforcement officers accompanied by police dogs; or for users of public equestrian centers and dog parks that have rules and regulations regarding the removal of waste; or for horses or livestock that take part in authorized public events or parades.

AMEND EXISTING SECTION

Title 12 Sidewalks

12.08.040 - Depositing material on thoroughfares.

A. It is unlawful for any person, either willfully and maliciously to carelessly and negligently to drop, throw, place or scatter upon any street, alley, sidewalk or public place in the city any nails, tacks, broken glass, glass bottles or any instrument or thing whatsoever of such nature as to be capable of injuring persons or property.

B. No person shall deposit in or upon or permit to drain into any street, alley or public place of the city from any premises owned or occupied by such person, any refuse, slop, filth, garbage or debris of any kind or nature or any matter or thing which is offensive to sight or smell or is derogatory to health, except at such times and places, and under such regulations as may be adopted by the council.

C. It is unlawful for any person whose animals defecate on public property, sidewalks, or similar public thoroughfares which are dedicated and open to the public to fail to immediately clean up and properly dispose of the waste.

City of Cottonwood, Arizona
City Council Agenda Communication

Print

Meeting Date:	June 28, 2012
Subject:	Amendment to Municipal Code, Title 10 Traffic, adding new section regarding working on vehicles and display of vehicles for sale in the public right-of-way.
Department:	Development Services
From:	Charlie Scully, Planner

REQUESTED ACTION

Discussion and direction to staff regarding proposed amendments.

SUGGESTED MOTION

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

BACKGROUND

It does not appear that there are any clear guidelines regarding doing repair work on vehicles in the street in Cottonwood. This includes substantial repair work on engines, body repair, and major dismantling of vehicles. This would not include minor repair, such as replacing small parts or checking fluids or similar minor activities. The question comes up in relation to more substantial repairs taking place on public streets and property over a period of time.
Most municipalities have codes that directly prohibit vehicle repair on public streets and property. Exceptions are granted for emergency repairs and minor activities.

JUSTIFICATION/BENEFITS/ISSUES

The code language would provide guidelines for the use of the public street.

COST/FUNDING SOURCE

No associated cost to the city is anticipated.

ATTACHMENTS:

Name:	Description:	Type:
Working_on_Vehicles.docx	Working on Vehicles Amendment	Cover Memo
Working_on_Vehicles_Background_(1).docx	Working on Vehicles Background	Cover Memo

Cottonwood Municipal Code
PROPOSED AMENDMENTS: TITLE 10 VEHICLES AND TRAFFIC

ADD NEW SECTIONS – Final Numbering of Sections To Be Determined.

Vehicle Repairs:

10- Working on vehicle within public right-of-way or property.
No person shall park a vehicle on a public roadway, right-of-way or public property for washing, greasing, or repairing such vehicle, except for repairs necessitated by emergency, such as a flat tire or similar minor condition. In no case shall such vehicle be left on a public roadway for more than 24 hours. Where such vehicle is a safety hazard or upon completion of emergency repairs, such vehicle shall be removed immediately.

10- Vehicle Repairs on residential property.
Ongoing vehicle repairs at the same residence are prohibited. Any vehicle that is undergoing repairs must be titled to the owner or occupant of the property. Vehicle repairs other than minor maintenance are limited to three times within a 12-month period and can be no more than 14 days in duration when the vehicle is visible from any public street or sidewalk.

Casual Display of Vehicles for Sale:

10- Parking for sales display on public property.
No person shall park a vehicle on a public roadway, right-of-way or public property for the principal purpose of displaying such vehicle for sale.

10- Parking for sales display at residence.
Ongoing vehicle sales from residential properties are prohibited. The sale of a vehicle from a residence is permitted when the vehicle is titled to the owner or occupant of the property, is parked on an improved surface such as a driveway and is not being sold in connection with a business. Only three vehicles can be displayed for sale from the same residence within a 12-month period and only one vehicle can be displayed for sale at one time.

Parking on Sidewalks:

10- Parking Vehicles on Sidewalks.
It is unlawful for any person to park any vehicle on a public sidewalk for any purpose, including temporary loading or unloading, except where such temporary activity is authorized by the City.

Abandoned or Inoperable Vehicles:

10- Storage of abandoned or inoperable vehicles.
Where permitted, no more than two (2) abandoned, inoperable or junk vehicles may be stored in the rear portion of a property if fully screened from view from any public street.

EXISTING
COTTONWOOD ZONING ORDINANCE

SECTION 404.

L. OUTDOOR STORAGE AND JUNK AUTOMOBILES.

1. Definitions:

a. Outdoor Storage: The location of any goods, services, wares, merchandise, commodities, junk, debris, vehicles or any other item outside of a completely enclosed building for a continuous period longer than twenty four (24) hours.

b. Junk Automobile: A vehicle or any other major portion thereof which is incapable of movement on its own power and will remain so without major repair, or does not have a valid and current State of Arizona registration certificate and/or which does not conform to the State of Arizona Motor Vehicle Division standards for operation of a motor vehicle on public streets or highways.

3. Junk Automobiles: Junk automobiles shall be stored between the rear of the main structure and the rear lot line and shall not be visible from any public street. In no case shall junk automobiles be stored on a lot, tract or parcel unless screened from view from any public street by a screened fence in accordance with the screened fencing provisions of the Zoning Code pertaining to height and materials. No more than two (2) junk automobiles shall be stored on any lot, tract or parcel unless authorized by Conditional Use Permit granted by the Planning and Zoning Commission.

4. **Existing Outdoor Storage and Junk Automobiles:** All outdoor storage and junk automobiles existing at the time of the passage of this Ordinance shall, within twelve (12) months of its passage, be made to comply fully with these requirements or be removed.

Phoenix CITY Code

Title 36 Vehicles and Traffic

36-138 Parking for display or working on vehicle.

No person shall park a vehicle upon any roadway for the principal purpose of displaying such vehicle for sale; displaying advertising; displaying commercial exhibits; or washing, greasing, or repairing such vehicle, except repairs necessitated by emergency.

Parking for sale in residential areas, driveways or private property: Section(s) (14-106-a-1, 14-106-b)

It is unlawful for any person to stop, stand or park any vehicle, recreational vehicle, hobby vehicle or utility trailer, whether in usable condition or not, for any of the following purposes:

(1) Displaying such vehicle for sale upon any right of way.

(b) No person shall park, or permit to be parked, any motor vehicle, trailer, boat, camper, recreational vehicle, hobby vehicle or utility trailer (hereafter "vehicle") for the purpose of sale upon any lot or area within the City. This section shall not apply to: (1) The display of one vehicle for sale when the vehicle is owned by the resident of the property and is not being sold in connection with a vehicle sales business. (2) Property which has a zoning classification which permits the sale of vehicles and the sale of vehicles is by the property owner, his lessee or tenants

Arizona Revised Statutes

Title 28 Transportation

28-4831. Abandonment prohibited
A person shall not abandon a vehicle on any street or highway or on any other public, federal, state trust, national forest, state park or bureau of land management land or private property.

28-4833. Local ordinances
Subject to the limitations imposed by section 28-4832, an incorporated city or town may provide by ordinance for the removal and custody of abandoned vehicles on public or private property within its jurisdiction. The disposal of these vehicles shall be pursuant to this chapter.

City of Cottonwood, Arizona
City Council Agenda Communication

Print

Meeting Date:	June 28, 2012
Subject:	Amendments to the Zoning Ordinance Section 404. M. regarding occupancy of RVs and Trailers.
Department:	Development Services
From:	Charlie Scully, Planner

REQUESTED ACTION

Discussion and direction to Staff regarding proposed ordinance.

SUGGESTED MOTION

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

BACKGROUND

Section 404. X. Camping Within the City Limits, prohibits living in backyard RVs and trailers but allows exceptions for short stays by family and friends. The regulation of the residential use of RVs and Trailers would be improved with a clear policy statement that covers regulations, prohibitions and exceptions. The proposed amendment is intended to directly address the residential use of recreational vehicles and any exceptions.

JUSTIFICATION/BENEFITS/ISSUES

The amendment would provide a direct policy regarding this use.

COST/FUNDING SOURCE

No cost is anticipated.

ATTACHMENTS:

Name:	Description:	Type:
Living_in_RVs.docx	Living in Trailers	Cover Memo
Living_in_RV_Background.docx	Living in RVs Background	Cover Memo

COTTONWOOD ZONING ORDINANCE
SECTION 404. GENERAL PROVISIONS.

M. STORAGE, ~~AND~~ PARKING **AND OCCUPANCY** OF ~~MOBILE HOMES,~~ **RECREATIONAL VEHICLES** AND TRAILERS.

1. Storage: ~~Mobile homes,~~ **Recreational vehicles,** house trailers, commercial trailers, boat trailers, campers or travel trailers shall not be stored, parked, or located in any zone other than as listed in the zone regulations or as otherwise provided herein, except that the storage of one (1) boat trailer and not more than one (1) uninhabited camper**, recreational vehicle** or uninhabited travel trailer shall be allowed for each residence. Such vehicles may not be **stored, parked or** located in the front yard of a residence **and shall be screened from view from any public street by a solid 6 ft. fence or wall or landscape screening as approved by the Community Development Director**.

2. Use Limitations for Storage: No living quarters shall be maintained or any business carried on in any recreational vehicle, camper, or travel trailer while the same is so parked or stored.

3. Occupancy: No person shall occupy, live in or take up residence in any recreational vehicle, camper, travel trailer or similar vehicle in the city except as authorized by this Ordinance. No person shall occupy any mobile home or travel trailer in the city except as permitted in an authorized mobile home park or campground. Use of such vehicles as an ongoing or permanent residence is prohibited in all zoning districts in the City of Cottonwood.

4. Construction Office Trailer or Security Personnel Housing: As per Section 307. F. 5. (Temporary Use Permits) occupancy of a manufactured home, recreational vehicle or travel trailer may be allowed during construction to conduct related business or to provide housing for security personnel, a night watchman or caretaker, subject to obtaining a Temporary Use Permit. Temporary occupancy of a recreational vehicle or trailer is not permitted for individual residential projects except where permitted with a Conditional Use Permit.

~~2. Construction Office or Security Personnel Housing: A mobile home or trailer may be allowed in any zone to conduct business or provide housing for security personnel, during the construction of permanent building when a valid building permit is in effect. Such mobile home or trailer shall be removed immediately after completion of the building.~~

SECTION 417. "MH" ZONE, MANUFACTURED HOME.

F. LOCATIONS OUTSIDE OF PARKS AND SUBDIVISIONS:

1. Manufactured homes that are not located in an MH (Manufactured Home) Zone shall be subject to the development standards of the zoning district in which they are located.

2. Manufactured homes that are located in the MH (Manufactured Home) Zone but are not in a Manufactured Home Park or Subdivision shall be subject to the development standards of the R-1 (Single Family Residential) Zone.

3. A manufactured home may be allowed as a construction field office or temporary quarters for security personnel during construction, **as per the requirements of Section 307. F. 5. (Temporary Use Permits)** provided no person other than the caretaker or night watchman occupies the unit.

EXITING - SECTION 307. F. 5. (TEMPORARY USE PERMITS)

5. Temporary Construction Uses, Construction Office Trailer, Construction Watchperson's Trailer, and/or Construction Storage Yards.

   a. Temporary construction trailer, construction office, watchperson's trailer and/or construction storage yard located on-site for approved construction projects are allowed with a Temporary Use Permit in commercial, industrial or planned development zoning districts or with a multi-unit residential development or subdivision;

   b. Length of permit shall be one (1) year with additional extensions of one (1) year for active projects;

   c. The temporary use or structure shall be removed from the property upon issuance of a Certificate of Occupancy or cessation of construction activities;

   d. Watchperson trailers shall be limited to one (1) per construction site; and

   e. Water and sanitary facilities shall be provided, as required by the City.

EXISTING - DEFINITIONS –Section 201.

MOBILE HOME – A structure built prior to June 15, 1976, on a permanent chassis, capable of being transported in one (1) or more sections and designed to be used with or without a permanent foundation as a dwelling when connected to on-site utilities including an adequate sanitary sewage disposal system approved, installed and operational. The term "Mobile Home" does not include recreational vehicles, travel trailers, manufactured homes, or factory built buildings.

RECREATIONAL VEHICLE - A vehicular type unit primarily designed as temporary living quarters for recreational, camping or travel use; which either has its own motive power or is mounted on or drawn by another vehicle.

TRAVEL TRAILER - A vehicle without motive power, portable structure with wheels built on a chassis, designed as a temporary dwelling for travel, recreation and vacation purposes, having a body width not exceeding eight (8) feet and its body length does not exceed thirty two (32) feet.

GLENDALE

Sec. 23-2. - Occupancy of mobile homes and recreational vehicles prohibited except in authorized areas.

No person shall occupy any mobile home in the city except in a mobile home park or mobile home subdivision, and no person shall occupy any travel trailer in the city except in a mobile home park.

(Ord. No. 1407, § 1, 4-8-86)

Sec. 23-3. - Limitation on parking or storage of mobile homes or recreational vehicles.

No person shall park any mobile home on any lot or parcel of land which is situated outside of an approved mobile home park or mobile home subdivision. Recreational vehicles may be parked or stored on any lot or parcel of land subject to the provisions of section 82, Article XXV, Appendix A of the Glendale City Code, provided that no living quarters shall be maintained or any business carried on in such recreational vehicle while the same is so parked or stored.

Sec. 23-4. - Permit required for operation, etc. of mobile home park or subdivision.

It shall be unlawful for any person to establish, operate or maintain, or permit to be established, operated or maintained upon any property owned or controlled by him, a mobile home park or mobile home subdivision or combination of the two (2) within the city limits, without first having secured a permit therefor and for each of them from the development services center and after first having complied with the terms and conditions of this chapter.

MESA

11-34-5: General Provisions

A. Locations Outside of Parks and Subdivisions

B. Temporary Parking. Manufactured homes and recreational vehicles shall not be parked, stored, or occupied on any property which is not part of an approved manufactured home or recreational vehicle park, subdivision, sales, or storage lot or approved under this Chapter. Temporary Parking of a manufactured home or recreational vehicle outside of an approved Manufactured Home Park, Manufactured Home Subdivision, Recreational Vehicle Park or Recreational Vehicle Subdivision is limited to the following:

1. Emergency parking of a manufactured home or recreational vehicle for a period of not longer than one (1) hour is permitted on any public thoroughfare subject to the provisions of the parking and traffic regulations of the City of Mesa.

2. The temporary parking of a recreational vehicle on a public street in a residential area for the purposes of loading, unloading, or cleaning for a period of time not to exceed 48 hours shall also be permitted subject to the parking and traffic regulations of the City of Mesa and provided the vehicle is not parked so as to create a traffic hazard or obstruct traffic visibility.

3. On-site parking or storage of a recreational vehicle in accordance with the following, provided such recreational vehicle is not used for living quarters or commercial purposes:

a. Within an enclosed accessory building or garage in all zoning districts.

b. Where outdoor storage is otherwise allowed in the commercial and industrial districts.

c. On residential lots containing less than 5 dwelling units:

i. For Lots of a minimum 15,000 sqft or greater, anywhere within the buildable area behind the front line of the dwelling unit; or anywhere within the rear yard; or in the side yard behind the front line of the dwelling unit provided such recreational vehicle does not exceed 40-ft in length exclusive of tongue.

ii. For Lots less than a minimum 15,000 sq ft or greater, anywhere within the buildable area behind the front line of the dwelling unit; or anywhere within the rear yard; or in the side yard behind the front line of the dwelling unit provided such recreational vehicle does not exceed 30 ft in length exclusive of tongue.

iii. A recreational vehicle parked in the side yard which exceeds 6 feet in height as measured from grade and is visible from a public street shall be screened from such public street by a 6 ft high opaque fence.

d. On residential lots containing 5 or more dwelling units: only on an approved parking space; or within an approved, designated storage area.

4. The temporary parking of a recreational vehicle in the front yard on a residential lot for the purposes of loading, unloading, or cleaning shall be permitted for a period of time not to exceed 72 hours provided the recreational vehicle is not used for living quarters or business purposes. While temporarily located as provided herein, the recreational vehicle shall not be parked so as to obstruct traffic visibility.

C. **Conversion.** The conversion of an existing manufactured home or recreational vehicle park to another residential use shall be subject to approval set forth in the amendment requirements established in Chapter 67 Common Procedures. When an existing manufactured home or recreational vehicle park is converted to another residential use, the area so converted shall be

zoned to limit the number of dwelling units per area that can be constructed thereon to a density compatible with existing residential development in the surrounding area.

D. **Permits.**

1. It shall be unlawful for any person to install a manufactured home, park trailer, recreational vehicle awning, recreational vehicle patio enclosure, manufactured home room addition, or any electrical, plumbing, or mechanical component without first obtaining a permit or permits from the Building Official or his designee as specified in Mesa Administrative Code, Title 4, Chapter 1 of the Mesa City Code.

2. No person shall install any park trailer or recreational vehicle awning or construct any recreational vehicle patio enclosure without approval of the property.

YAVAPAI COUNTY

SECTION 571 RVs AND TRAVEL TRAILERS TEMPORARY CAMPING

A. Temporary occupancy of one (1) travel trailer or RV as defined in Section 301 (Definitions) on a lot without a primary use must meet the following standards:

1. Lot size of two (2) acres or more.
2. Occupancy limited to ten (10) consecutive days.
3. Frequency may not exceed three (3) times per calendar year with a minimum of thirty (30) day intervals between stays.
4. Occupancy limited to property owner. Rental is prohibited.
5. Travel trailer or RV must be serviced by an approved on-site wastewater system or be fully self-contained.
6. Travel trailer or RV may not be connected to any utilities.
7. Unit must meet the same setbacks applicable to a primary residence.
8. Unit may only be stored on the lot during occupancy term. No storage of non-occupied travel trailers or RVs is allowed.

TRAILER (TRAVEL) - A travel trailer mounted on wheels, designed to provide temporary living quarters for recreational, camping or travel use, of a size or weight that may or may not require special highway movement permits when towed by a motorized vehicle and has a trailer area of less than three hundred twenty (320) square feet. This definition includes fifth wheel trailers and other like recreational vehicles. (See also VEHICLE (RECREATIONAL))

VEHICLE (RECREATIONAL) - Means a motor vehicle that is designed and customarily used for private pleasure, including vehicles commonly called motor homes, pickup trucks with campers and pickup trucks with a fifth wheel trailing device. (See also TRAILER (TRAVEL))

PEORIA
Recreation Vehicles

Where can recreational vehicles be stored on private property? (at a Single Family Residence) Section(s) (14-110, 14-111)

Recreational vehicles and utility trailers may be stored on private property when located in the side or rear yard and screened by a minimum (6) foot block wall, wood fence or gate. Recreational vehicles may be in public view only during active loading and unloading up to a maximum of 24 hours.

Does the purpose of the RV code apply to winter visitors? Section(s) (14-110, 14-111)

Yes. Visitors must abide by the same RV codes as a Peoria resident.

Where can winter visitors park their RV? (Section(s) (14-110, 14-111)

Visitors with RV's are subject to the same City Codes as residents within the City of Peoria. See above.

Can an RV be used for living purposes in a single-family residential zoning district? Section (14-3-2-B-2)

No. The Peoria City Code prohibits anyone living in an RV within a single family residential zoning district.
No mobile home or recreational vehicle outside an approved mobile home or recreational vehicle development shall be used as a dwelling unit at any time in any zoning district.

If an RV is parked in the street, can an electrical cord, water hose, or sanitation disposal hose run across a city sidewalk? Section (23-40-b-4)

No. The owner, lessee or other person in control of any land abutting a sidewalk, alley or street shall maintain such sidewalk, alley or street on which such land abuts in a clean condition in such a manner as to be free from conditions that present a health, fire or safety hazard.

PEORIA ZONING ORDINANCE

ARTICLE 14-3 GENERAL PROVISIONS

14-3-2 GENERAL USE PROVISIONS

A. General Use Restrictions

B. Restrictions On Occupation for Dwelling Purposes

1. No cellar, garage, tent, basement with unfinished structure above, or accessory building shall at any time be used as a dwelling unit. This provision shall not apply to guest houses or to quarters for night watchmen where such are allowed.
2. No mobile home or recreational vehicle outside an approved mobile home or recreational vehicle development shall be used as a dwelling unit at any time in any zoning district.

PEORIA
CHAPTER 14 – MOTOR VEHICLES AND TRAFFIC
Sec. 14-110. Parking; recreational vehicles; utility trailers; private property parking.
(a) Recreational vehicles and Utility trailers, as defined above, shall be allowed to be parked within the garage or carport in the single family residential zoning districts. Recreational vehicles and Utility trailers shall also be permitted to be parked within a side or rear yard when located within a single family residential zoning district and appropriately screened in accordance with the provisions of the zoning ordinance and section 14-111 of this code.

(b) Recreational vehicles located on properties zoned for single family residential uses may not be utilized for living purposes by any person.

(c) Properties located within a single family residential zoning district and used primarily for commercial agricultural purposes and boats anchored or docked on water shall be exempt from the regulations contained in sections 14-110 through 14-111 of this code.
(d) Recreational vehicles and Utility trailers used for a non-commercial purpose and located on properties zoned for single family residential uses may be parked in the front yard only when in the process of loading or unloading. There shall be a rebuttable presumption that parking in the front yard for a period in excess of twenty-four continuous hours is not for the purpose of loading and unloading.
(e) Utility trailers used for a commercial purpose shall not be parked in the front yard or upon any public right of way, street, alley or easement between the hours of 6:00 p.m. and 8:00 a.m. Notwithstanding the foregoing, such utility trailers that are the property of the state, a political subdivision of this state, the City, a public service corporation regulated by the Arizona Corporation Commission or a telecommunications corporation may be parked upon a public right of way, street, alley or easement for the purposes of street and utility repair.
(f) There shall be no limit on the number of Recreational vehicles or Utility trailers lawfully permitted on any parcel of land and where not otherwise prohibited.
(g) All Recreational vehicles and Utility trailers shall be maintained in good repair as required by this code and all parking areas shall be maintained in accordance with this code; zoning
ordinances and the city's subdivision regulations as applicable.
(h) The regulations contained within this chapter are not intended to supersede any lawfully established covenants, conditions and restrictions relating to the parking of Recreational vehicles and Utility trailers nor shall the granting of any special permit supersede any lawfully established covenants, conditions and restrictions applicable to the subject property.

(i) For purposes of sections 14-107 through 14-113 of this code, the terms
(1) “Park, parked, parking” shall include attaching a utility trailer or other trailer to a motor vehicle for the purpose of towing.

(2) "Single family residential zoning district" shall include all residential zoning districts that currently or have previously permitted single family of two-family residential dwelling units.

(Ord. No. 98-17, 3/17/98, Enacted)
(Ord. No. 04-177, 6/15/2004, Amended) SUPP 2004-4

City of Cottonwood, Arizona
City Council Agenda Communication

Print

Meeting Date:	June 28, 2012
Subject:	Council discussion and consideration regarding the design and construction of a public safety communications center.
Department:	City Manager
From:	Doug Bartosh, City Manager

REQUESTED ACTION

The City Council is requested to provide direction to staff regarding the design and construction of a public safety communications center.

SUGGESTED MOTION

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

BACKGROUND

For the past 8 to 9 years, the City of Cottonwood has been involved with the other public safety entities in the Verde Valley regarding the development of a regional public safety communications center. The goal was to create a communications center that dispatched all fire, police, ambulance and other public safety agencies. This is a concept that is recommended by the federal government and will save taxpayer dollars through the joint purchase of equipment and operation of a single communications center. There are currently four different public safety communications centers in the Verde Valley that require staffing and rely upon similar equipment. The federal government supports a regional communications center as a better way to coordinate public safety resources, particularly during a disaster.

During the past planning efforts, the different agencies had difficulty agreeing upon the potential costs, savings, location, staffing, etc, of such a center. Due to the fact that the police department currently operates out of an obsolete communications facility both in terms of size and environment, staff felt we needed to move the discussion regarding a regional communications forward by requesting the services of a third party expert to determine the pros and cons of developing a regional public safety communications center in the Verde Valley.

The City of Cottonwood took the lead and contracted with iXP Corporation to develop a feasibility study to determine whether such a center could be justified both financially and operationally. The feasibility study found that a regional center was justified as it would save taxpayer dollars and improve the coordination of public safety resources. The study found that

both personnel and equipment costs could be reduced by staffing one communications center as opposed to four.

iXP was then contracted to develop a Business Case for such a communications and to consider three potential sites where the center could be constructed. iXP developed staffing recommendations, both equipment and staffing costs, a cost sharing model, and recommended a location for the construction of the center. They recommended the creation of a governace structure where the center would be governed by principle capital investors in the center and they felt the most likely investors would be the four jurisdictions that currently operate communications center to include Camp Verde Marshall's Office, Sedona Police Department, the Sedona Fire District, and the Cottonwood Police Department. The other fire departments and polce departments would join the center as subscribers with no upfront capital investment into the center.

Following meetings with the potential principles, we were told that none of them wanted to make a capital investment in the center. In fact, both Camp verde Marshall's Office and the Sedona Police Department have indicated that they will not be interested in participating in the center at all at this time. The Sedona Fire District budgeted $25,000 to assist in the estimated $300,000 cost of design of the center, however; for that level of contribution, it it does not seem worth the effort of creating a governance structure and a seperate entity to manage the center. It would probably be easier for the City of Cottonwood to own and manage the center.

After consulting with the other potential principles, it is staff's recommendation that Cottonwood pursue the design and construction of a public safety communications center east of the current public safety facility on land owned by the city. This center would dispatch for both the police and fire departments and most likely our current subscribers, Clarkdale and Jerome Police Departments. Staff will continue to work with iXP and the other public safety agencies to determine if there is more subscriber interest. We will also develop a subscriber cost model so subscribers can predict current and future costs of receiving services from the communications center.

JUSTIFICATION/BENEFITS/ISSUES

The facility in which the police department's communications center operates was never intended to house such an operation. The room is too small and gets smaller as more equipment is added. Most of the equipment used in the center is technology and the infrastructure available was never planned for the number of people and the equipment. Therefore, the center has air-conditioning problems and inadequate support for all the wiring associated with the equipment. The facility also does not support this type of 24/7 operation.

A new state-of-art center would improve communications and coordination between the police and fire departments and surrounding public safety agencies. The new center would include the infrastructure to support the large amount of technology and ensure for the comfort and support of the 24/7 operation.

The fire department currently contracts for dispatch services from the Sedona Fire District at an annual cost of $121,000. These costs have increased substantially during the past five years and staff anticipates that this cost will continue to increase. This is funding that could be used to support the construction and operation of the new center.

COST/FUNDING SOURCE

The General Fund is budgeted for the design costs of such a facility at $300,000. Depending on the number of subscribers that commit to using this new center, iXP has estimated the highest

cost of building and equipping the center at $6 to 6.5 million. Staff has worked to identify funding sources, to include bonding, and there also is a strong likelyhood that some of the costs will be offset by Federal Homeland Security grants.

ATTACHMENTS:

Name:	Description:	Type:
Cottonwood_Business_Case_Addendum_(Final)_05-25-2012.pdf	Cottonwood Business Case Addendum	Backup Material
Cottonwood_Consolidation_-_Final_Business_Case_Report_v03-26-2012.pdf	Cottonwood Consolidation - Final Business Case	Backup Material
IXP_2011_Dispatch_Consolidation-Feasibility_Study.pdf	iXP 2011 Feasibility Study	Backup Material

The City of Cottonwood
Dispatch Consolidation -
Business Case Report Addendum (Final)

May25, 2012

Table of Contents

Executive Summary

In March of 2012 iXP produced and delivered the final Business Case Report analyzing the potential benefits and costs for consolidating the emergency communications functions for the City of Cottonwood, the City of Sedona and the Sedona Fire District. This report concluded that a positive business case could be made for consolidation, both from a level of service perspective and from an overall cost of implementation/cost of operation perspective. Subsequent to the conclusion of the Business Case process, iXP was requested to develop this addendum to the Business Case Report to analyze the potential costs and benefits of including the Camp Verde Marshall's Office (CVMO) and their current dispatch customer the Yavapai-Apache Nation Police Department (YANPD) into the overall consolidation initiative. Inclusion of the CVMO and the YANPD had been examined in the consolidation Feasibility Report but not analyzed further in the Business Case process due to their decision to withdraw from the process at that time.

For this Addendum, iXP has re-examined the following issues from the Business Case Report:

- Evaluated potential modifications to the governance structure if these jurisdictions were to join into the consolidation process,
- Evaluated potential staffing and operational changes that would be needed to meet the increased workload if they joined,
- Evaluated the required changes to the technology system configurations and cost estimates to meet the added jurisdictional and workload needs,
- Evaluated any required changes to the facility assumptions to determine if adjustments were needed to the cost assumptions, and
- Evaluated the resulting changes to the overall cost of capital investments, the annual operational costs, and modifications to the cost allocation model.

Highlights

This Business Case Addendum identifies the following adaptations to the original Business Case Report if CVMO and YANPD were to re-join the consolidation initiative:

Governance – The governance structures outlined in the Business Case report would remain largely unchanged. The most likely change that would be considered by the consolidating organizations would be to add the Town of Camp Verde to the Governing Board and add both the CVMO and the YANPD to the Operations Board.

Operations – The telephone call volumes and workloads added to the consolidation model outlined in the Business Case report would need to be increased slightly to accommodate the re-inclusion of CVMO and YANPD.

Technology – Slight modifications would be needed to the estimated technology system configurations that would result in a slightly higher cost range for the initial capital investment estimates. However, these minor adjustments to not alter the assumed $3.5 million estimate used in the business case assumptions.

Facilities – The addition of these agencies would not result in the need to alter the planned facility size or capital cost estimate developed in the Business Case Report.

Conclusions

This Business Case Addendum concludes that there is an even stronger business case to be made for the consolidation initiative if CVMO and YANPD are included in the effort. While the analysis in the Business Case Report clearly demonstrated that the total savings could cover both debt-service and operational costs over a multi-year analysis period, the numbers are even more compelling if CVMO and YANPD are added to the mix. The analysis in this Addendum concludes that annual savings in each individual year is of sufficient magnitude to cover that year's total operational and debt-service assumptions, resulting in a net-positive fiscal impact from the very beginning.

Introduction

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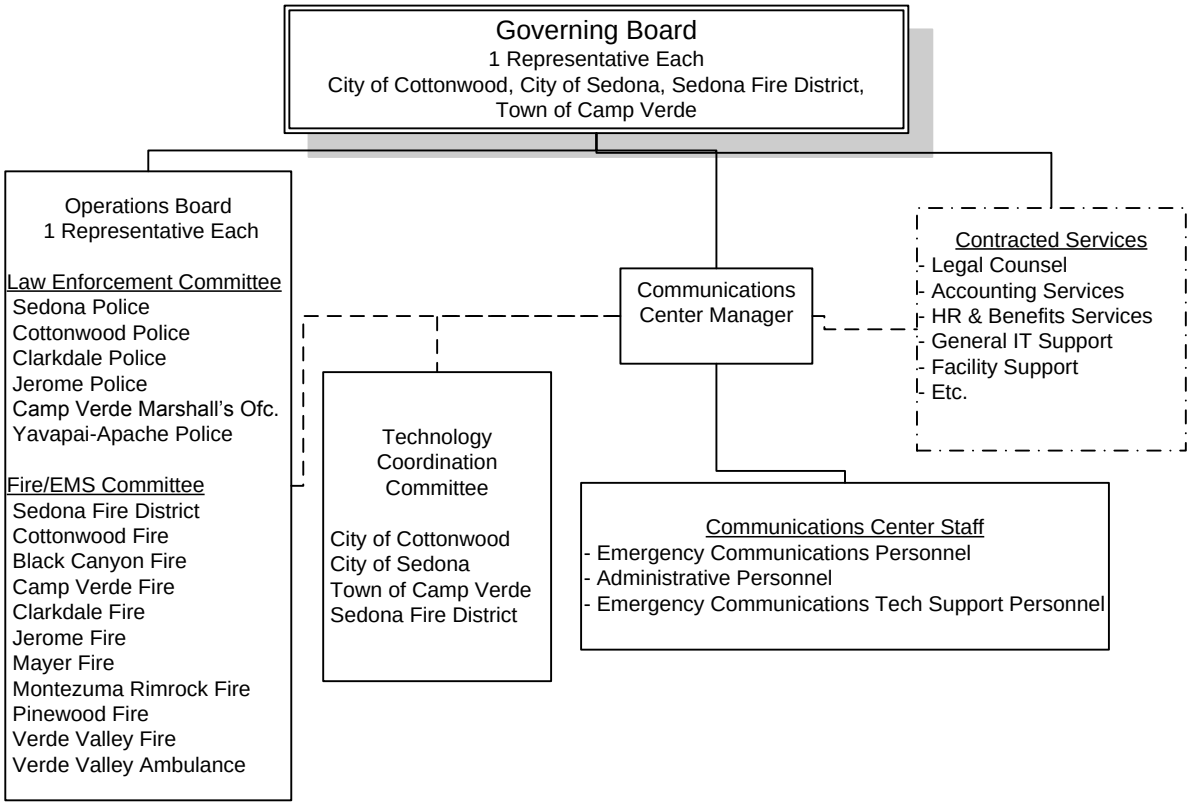
- Evaluated the required changes to the technology system configurations and cost estimates to meet the added jurisdictional and workload needs,
- Evaluated any required changes to the facility assumptions to determine if adjustments were needed to the cost assumptions, and
- Evaluated the resulting changes to the overall cost of capital investments, the annual operational costs, and modifications to the cost allocation model.

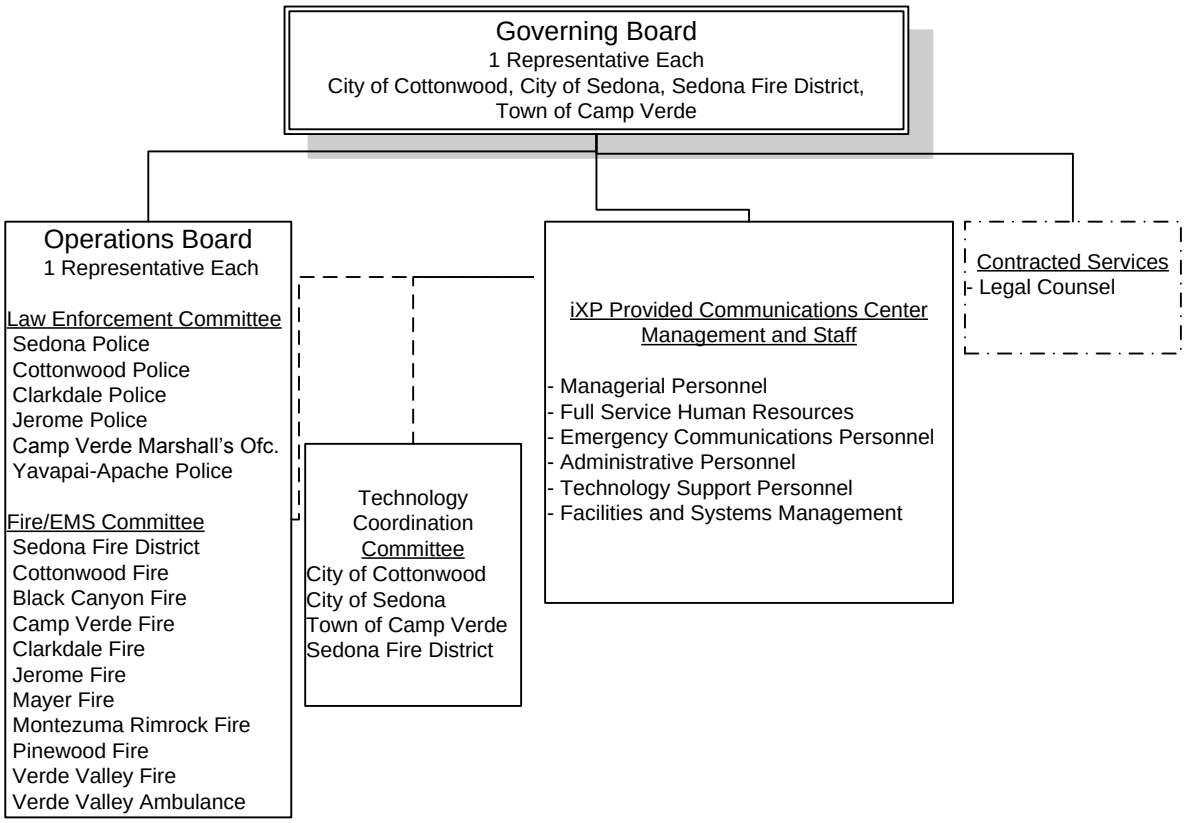
Governance

Organizational Structure and Management

The Business Case Report outlined organizational structures that provided a balance between policy and operational control for a consolidated emergency communications organization. The recommended models provided a multi-tiered organizational structure that integrated the policy and operational leadership of agencies being served and the operational leadership and personnel of the communications center. The addition of CVMO and YANPD into the consolidation process would be easy to accommodate within this model by making slight adjustments to the participation on the various organizational units. These changes are outlined in the revised organizational diagram shown below.



The Business Case Study also outlined an alternative strategy in which iXP would provide a managed services model for communications center operations that both simplifies the organizational issues faced during consolidation while also establishing long-term capital and operational costs within a contractual framework. Integrating CVMO and YANPD into this model would be similar to those outlined above.



Capital and Operating Cost Allocation Models

The Business Case Report provided a number of observations on the strategies that could be followed to deal with the capital and operational funding issues a consolidated emergency communications organization would face. All of those observations and techniques remain appropriate if the consolidation effort is expanded to include CVMO and YANPD.

Existing Costs for Comparison to Potential Future Costs

Through the process of developing both the Feasibility Study and the Business Case Report, the participating jurisdictions provided information on their current costs of operations. The values represented in the Business Case Report were updated numbers from each organization reflecting current year budget adjustments that differed from data in the Feasibility Study. Since similar updated data is not yet available from the Town of Camp Verde, their data from the Feasibility Study (adjusted by 10% which was the approximate average change in the other jurisdictions

values) has been used for this Report Addendum. The following table represents the current costs of operations for the participating jurisdictions:

Summary of Current Costs - Updated to Reflect the 2011/2012 Fiscal Year					
	City of Cottonwood	City of Sedona	Sedona Fire District	Camp Verde Marshall's Office	Totals
Salaries and Benefits	$ 599,160	$ 460,657	$ 1,215,122	$ 410,300	$ 2,685,239
Administration			$ 984		$ 984
Professional Services	$ 5,800	$ 4,000	$ 53,581		$ 63,381
Training and Related	$ 5,420	$ 4,000	$ 13,155		$ 22,575
Facility and Utility Costs	$ 21,090	$ 2,496	$ 19,575	$ 3,923	$ 47,084
Equipment and Software Maintenance	$ 136,300	$ 72,536	$ 18,300	$ 21,232	$ 248,368
Supplies and Miscellaneous	$ 2,450	$ 19,100	$ 13,142	$ 550	$ 35,242
Totals	**$ 770,220**	**$ 562,789**	**$ 1,333,859**	**$ 436,005**	**$ 3,102,873**

In order for the Business Case analysis to have multiple years of current costs to compare to multiple years of consolidated cost estimates, the current costs of operation need to be projected for the out years. Each jurisdiction provided estimates of their year-to-year cost escalation experience and these values were used to project out-year costs. For CVMO, a 3% factor was used since a specific value was not provided by the Town. In addition to these escalation factors, anticipated technology refreshment costs were also factored in so that the values projected for this Addendum are modeled consistently with the values in the Business Case Report. The following tables reflect the projected year-to-year costs for the individual emergency communication centers if they continued in stand-alone operation.

Current Costs of Operation	Year 1	Year 2	Year 3	Year 4	Year 5
Estimated City of Sedona Costs	$ 562,789	$ 579,673	$ 597,063	$ 614,975	$ 789,424
Estiamted City of Cottonwood Costs	$ 770,220	$ 797,178	$ 825,079	$ 853,957	$ 1,092,845
Estimated Sedona Fire District Costs	$ 1,333,859	$ 1,373,875	$ 1,415,091	$ 1,457,544	$ 1,763,270
Estimated Camp Verde Marshall's Office Costs	$ 436,005	$ 449,085	$ 462,557	$ 476,434	$ 590,727
Current Combined Costs of Operations	$ 3,102,873	$ 3,199,810	$ 3,299,790	$ 3,402,909	$ 4,236,266

Current Costs of Operation	Year 6	Year 7	Year 8	Year 9	Year 10
Estimated City of Sedona Costs	$ 658,607	$ 678,365	$ 698,716	$ 719,677	$ 891,268
Estiamted City of Cottonwood Costs	$ 924,095	$ 956,438	$ 989,913	$ 1,024,560	$ 1,260,420
Estimated Sedona Fire District Costs	$ 1,558,668	$ 1,605,428	$ 1,653,591	$ 1,703,199	$ 2,004,295
Estimated Camp Verde Marshall's Office Costs	$ 505,449	$ 520,613	$ 536,231	$ 552,318	$ 668,887
Current Combined Costs of Operations	$ 3,646,819	$ 3,760,844	$ 3,878,451	$ 3,999,754	$ 4,824,870

Operations Model and Estimated Budget Levels

The Dispatch Consolidation Feasibility Study and the Business Case Report both conducted staffing estimates that were calculated on the basis of the combined workloads provided by the participating jurisdictions (telephone call volumes, dispatched incident volumes, ancillary duties, etc.). This data has been carefully re-examined to determine an appropriate staffing mix for a consolidated operation that now again includes the CVMO and YANPD workloads. This has resulted in a revised staffing model recommendation as shown in the following table.

Positions	Schedule	FTE Count
Communications Center Manager	Normal Business Hours	1.0
GIS Technician	Normal Business Hours	1.0
Technology Coordinator	Normal Business Hours	1.0
Communications Supervisor (Working)	24X7	5.7
Telecommunicator Position serving Cottonwood, Clarkdale and Jerome and Call Receiving	24X7	5.7
Telecommunicator Position serving Sedona PD and Call Receiving	24X7	5.7
Telecommunicator Position Serving CVMO and YANPD and Call Receiving	24X7	5.7
Telecommunicator Position serving Fire/EMS and Call Receiving	24X7	5.7
Total FTEs		**31.5**

The allocation of the operational personnel would change slightly from the Business Case Report to the values shown in the following table.

Communications Supervisor	5
Communications Training Officer	5
Telecommunicator	19

Projected Operational Budget Model

The operational budget model described in the Business Case report has been updated to reflect the slightly higher operational cost assumptions for the slightly larger organization to handle the added work volume resulting from CVMO and YANPD being added to the operations. Many budget categories would require no adjustment, and many others required only minor adjustment. The majority of the change is in the added salary and benefit costs for the slightly larger staffing configuration.

Total Estimated Cost of Operations	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Salary and Benefit Costs										
Communications Center Manager	$ 97,500	$ 100,425	$ 103,438	$ 106,541	$ 109,737	$ 113,029	$ 116,420	$ 119,913	$ 123,510	$ 127,215
Technology Coordinator	$ 83,180	$ 85,676	$ 88,246	$ 90,893	$ 93,620	$ 96,429	$ 99,322	$ 102,301	$ 105,370	$ 108,531
GIS Technician	$ 72,331	$ 74,501	$ 76,736	$ 79,038	$ 81,409	$ 83,851	$ 86,367	$ 88,958	$ 91,626	$ 94,375
Communications Supervisors	$ 321,425	$ 331,068	$ 341,000	$ 351,230	$ 361,767	$ 372,620	$ 383,798	$ 395,312	$ 407,172	$ 419,387
Telecommunicators/CTO	$ 294,550	$ 303,387	$ 312,488	$ 321,863	$ 331,519	$ 341,464	$ 351,708	$ 362,259	$ 373,127	$ 384,321
Telecommunicators	$1,041,200	$1,072,436	$1,104,609	$1,137,747	$1,171,880	$1,207,036	$1,243,247	$1,280,545	$1,318,961	$1,358,530
Subtotals	**$1,910,186**	**$1,967,492**	**$2,026,516**	**$2,087,312**	**$2,149,931**	**$2,214,429**	**$2,280,862**	**$2,349,288**	**$2,419,766**	**$2,492,359**
Technical Systems Maintenance Costs										
9-1-1 Telephone System	$ 25,000	$ 25,000	$ 25,000	$ 26,250	$ 77,038	$ 29,349	$ 30,229	$ 31,136	$ 82,070	$ 34,532
CAD, Mobile/AVL & RMS	$ 140,000	$ 144,200	$ 148,526	$ 152,982	$ 157,571	$ 162,298	$ 167,167	$ 172,182	$ 177,348	$ 182,668
Radio Console System	$ 52,000	$ 65,000	$ 66,950	$ 69,959	$ 82,057	$ 74,519	$ 76,755	$ 79,057	$ 81,429	$ 93,872
Radio System Control Stations & Backup Units	$ 9,000	$ 9,270	$ 9,548	$ 9,835	$ 10,130	$ 10,433	$ 10,746	$ 11,069	$ 11,401	$ 11,743
Headsets and Interfaces	$ 500	$ 510	$ 520	$ 531	$ 541	$ 552	$ 563	$ 574	$ 586	$ 598
Master Time Synchronization	$ -	$ 500	$ 515	$ 530	$ 546	$ 563	$ 580	$ 597	$ 615	$ 633
Logging & Recording System	$ 14,000	$ 30,000	$ 30,000	$ 30,000	$ 35,000	$ 31,500	$ 31,500	$ 31,500	$ 31,500	$ 38,075
Large Screen Displays	$ -	$ -	$ -	$ 500	$ 500	$ 500	$ 500	$ 500	$ 500	$ 500
Network Backbone & Admin Telephony	$ 8,500	$ 9,095	$ 9,732	$ 10,413	$ 11,142	$ 11,922	$ 12,756	$ 13,649	$ 14,605	$ 15,627
Servers, PCs and related equipment	$ -	$ 3,000	$ 3,000	$ 5,000	$ 23,000	$ 4,000	$ 4,000	$ 4,000	$ 4,000	$ 24,000
MPDS Support	$ 2,500	$ 2,550	$ 2,601	$ 2,653	$ 2,706	$ 2,760	$ 2,815	$ 2,872	$ 2,929	$ 2,988
Subtotals	**$ 251,500**	**$ 289,125**	**$ 296,392**	**$ 308,652**	**$ 400,231**	**$ 328,396**	**$ 337,612**	**$ 347,137**	**$ 406,982**	**$ 405,236**
Other Maintenance and Operations Costs										
UPS System Maintenance	$ 3,000	$ 6,000	$ 6,180	$ 6,365	$ 6,556	$ 6,753	$ 6,956	$ 7,164	$ 7,379	$ 7,601
Tech Room Fire Suppression Maint	$ 500	$ 1,000	$ 1,030	$ 1,061	$ 1,093	$ 1,126	$ 1,159	$ 1,194	$ 1,230	$ 1,267
Generator Maintenance	$ 1,200	$ 1,236	$ 1,273	$ 1,311	$ 1,351	$ 1,391	$ 1,433	$ 1,476	$ 1,520	$ 1,566
HVAC Maintenance	$ 1,200	$ 1,236	$ 1,273	$ 1,311	$ 1,351	$ 1,391	$ 1,433	$ 1,476	$ 1,520	$ 1,566
Non-911 Telecom Services	$ 36,000	$ 37,080	$ 38,192	$ 39,338	$ 40,518	$ 41,734	$ 42,986	$ 44,275	$ 45,604	$ 46,972
ISP Services	$ 12,000	$ 12,360	$ 12,731	$ 13,113	$ 13,506	$ 13,911	$ 14,329	$ 14,758	$ 15,201	$ 15,657
Utility Costs	$ 12,250	$ 12,618	$ 12,996	$ 13,386	$ 13,787	$ 14,201	$ 14,627	$ 15,066	$ 15,518	$ 15,983
Console Furniture & Chairs Maint	$ -	$ -	$ -	$ 3,500	$ 3,500	$ 3,500	$ 3,500	$ 3,500	$ 3,500	$ 3,500
Training & Travel	$ 16,000	$ 16,480	$ 16,974	$ 17,484	$ 18,008	$ 18,548	$ 19,105	$ 19,678	$ 20,268	$ 20,876
Office Supplies	$ 6,000	$ 6,180	$ 6,365	$ 6,556	$ 6,753	$ 6,956	$ 7,164	$ 7,379	$ 7,601	$ 7,829
Misc. Hardware and Software	$ 5,000	$ 5,150	$ 5,305	$ 5,464	$ 5,628	$ 5,796	$ 5,970	$ 6,149	$ 6,334	$ 6,524
Janitorial Service	$ 9,000	$ 9,270	$ 9,548	$ 9,835	$ 10,130	$ 10,433	$ 10,746	$ 11,069	$ 11,401	$ 11,743
Small tools & equipment	$ 5,000	$ 5,150	$ 5,305	$ 5,464	$ 5,628	$ 5,796	$ 5,970	$ 6,149	$ 6,334	$ 6,524
General Facility Maint & Repair	$ 3,500	$ 3,605	$ 3,713	$ 3,825	$ 3,939	$ 4,057	$ 4,179	$ 4,305	$ 4,434	$ 4,567
Photocopiers/FAX equipment	$ 4,800	$ 4,944	$ 5,092	$ 5,245	$ 5,402	$ 5,565	$ 5,731	$ 5,903	$ 6,080	$ 6,263
HR & Benefit Services from Principal Agency	$ 18,000	$ 18,540	$ 19,096	$ 19,669	$ 20,259	$ 20,867	$ 21,493	$ 22,138	$ 22,802	$ 23,486
Accounting Services from Principal Agency	$ 18,000	$ 18,540	$ 19,096	$ 19,669	$ 20,259	$ 20,867	$ 21,493	$ 22,138	$ 22,802	$ 23,486
Legal Services from Principal Agency	$ 18,000	$ 18,540	$ 19,096	$ 19,669	$ 20,259	$ 20,867	$ 21,493	$ 22,138	$ 22,802	$ 23,486
Uniforms	$ 8,700	$ 4,650	$ 4,790	$ 4,933	$ 5,081	$ 5,234	$ 5,391	$ 5,552	$ 5,719	$ 5,890
Subtotal	**$ 178,150**	**$ 182,579**	**$ 188,056**	**$ 197,198**	**$ 203,008**	**$ 208,994**	**$ 215,159**	**$ 221,508**	**$ 228,049**	**$ 234,785**
Total Annual Estimated Costs	**$2,339,836**	**$2,439,195**	**$2,510,964**	**$2,593,161**	**$2,753,171**	**$2,751,819**	**$2,833,632**	**$2,917,933**	**$3,054,797**	**$3,132,380**

The following tables compare the projected costs of operating the consolidated communications organization against the projected costs for sustaining the three separate communications centers. Accumulated operational cost savings over the first 10 years of operation would reach approximately $10 million.

	Year 1	Year 2	Year 3	Year 4	Year 5
Projected Costs for the Consolidated Organization					
Salary and Benefit Costs	$ 1,910,186	$ 1,967,492	$ 2,026,516	$ 2,087,312	$ 2,149,931
Technical Systems Maintenance Costs	$ 251,500	$ 289,125	$ 296,392	$ 308,652	$ 400,231
Other Maintenance and Operations Costs	$ 178,150	$ 182,579	$ 188,056	$ 197,198	$ 203,008
Total Annual Estimated Costs	**$ 2,339,836**	**$ 2,439,195**	**$ 2,510,964**	**$ 2,593,161**	**$ 2,753,171**
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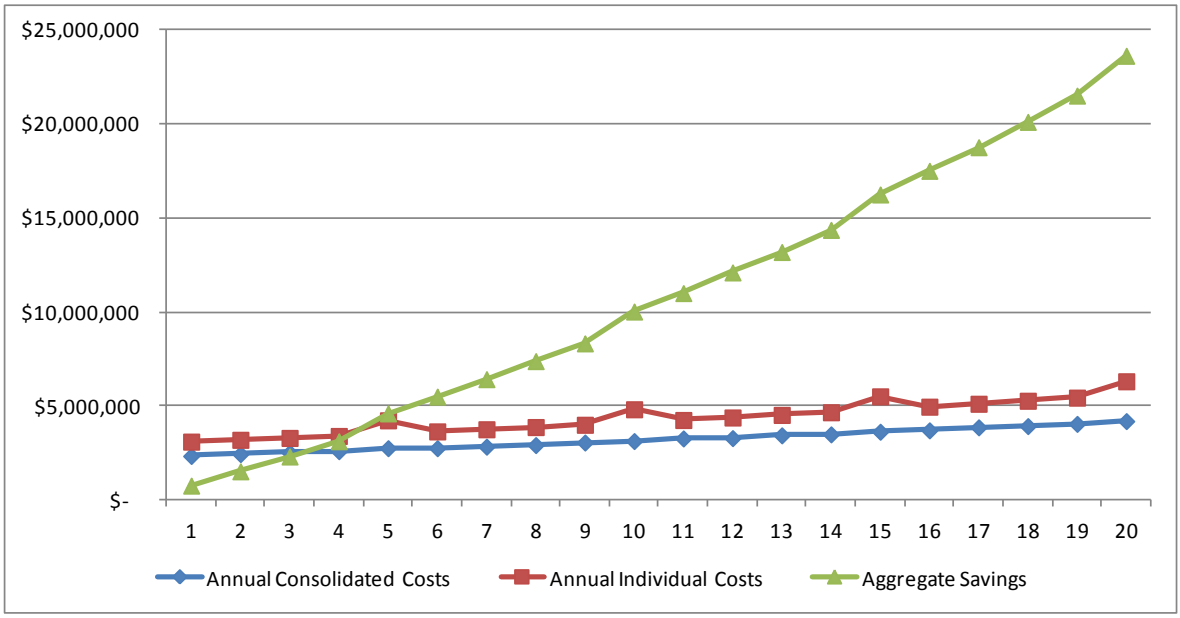
Estimated Camp Verde Marshall's Office Costs	**$ 436,005**	**$ 449,085**	**$ 462,557**	**$ 476,434**	**$ 590,727**
Current Combined Costs of Operations	**$ 3,102,873**	**$ 3,199,810**	**$ 3,299,790**	**$ 3,402,909**	**$ 4,236,266**
Potential Combined Operations Savings	**$ 763,037**	**$ 760,615**	**$ 788,826**	**$ 809,748**	**$ 1,483,096**
Aggregate Savings	**$ 763,037**	**$ 1,523,652**	**$ 2,312,478**	**$ 3,122,226**	**$ 4,605,322**

	Year 6	Year 7	Year 8	Year 9	Year 10
Projected Costs for the Consolidated Organization					
Salary and Benefit Costs	$ 2,214,429	$ 2,280,862	$ 2,349,288	$ 2,419,766	$ 2,492,359
Technical Systems Maintenance Costs	$ 328,396	$ 337,612	$ 347,137	$ 406,982	$ 405,236
Other Maintenance and Operations Costs	$ 208,994	$ 215,159	$ 221,508	$ 228,049	$ 234,785
Total Annual Estimated Costs	**$ 2,751,819**	**$ 2,833,632**	**$ 2,917,933**	**$ 3,054,797**	**$ 3,132,380**
Current Costs of Operation	**Year 6**	**Year 7**	**Year 8**	**Year 9**	**Year 10**
Estimated City of Sedona Costs	**$ 658,607**	**$ 678,365**	**$ 698,716**	**$ 719,677**	**$ 891,268**
Estiamted City of Cottonwood Costs	**$ 924,095**	**$ 956,438**	**$ 989,913**	**$ 1,024,560**	**$ 1,260,420**
Estimated Sedona Fire District Costs	**$ 1,558,668**	**$ 1,605,428**	**$ 1,653,591**	**$ 1,703,199**	**$ 2,004,295**
Estimated Camp Verde Marshall's Office Costs	**$ 505,449**	**$ 520,613**	**$ 536,231**	**$ 552,318**	**$ 668,887**
Current Combined Costs of Operations	**$ 3,646,819**	**$ 3,760,844**	**$ 3,878,451**	**$ 3,999,754**	**$ 4,824,870**
Potential Combined Operations Savings	**$ 895,000**	**$ 927,211**	**$ 960,519**	**$ 944,957**	**$ 1,692,490**
Aggregate Savings	**$ 5,500,322**	**$ 6,427,533**	**$ 7,388,052**	**$ 8,333,009**	**$ 10,025,498**

The graph below shows how operating costs for a consolidated communications organization would consistently provide savings when compared to operating the four independent communications centers. The graph also shows how these accumulated savings grow substantially over time.



It should be noted that while the total aggregated savings anticipated in the Business Case Report approached $16 million over the 20 year period, the total potential savings in this revised model with CVMO and YANPD included in the operation will be well over $20 million. From a community-wide perspective, the total savings are most significant if all jurisdictions in the region participate in the consolidation.

The Business Case Report discussed a number of potential strategies and considerations in the development and selection of a cost allocation model for spreading the total operational costs across the agencies being served. Following several workshops and discussions within the participating jurisdictions, a two-tiered model was selected as the most viable for further consideration as consolidation planning moves forward. This model has been modified to account for the inclusion of CVMO and YANPD and is shown in the following table.

Sample Cost Allocation Model										Estimated Year 1 OPEX		$2,339,836		
										Cost Allocation on a Two-Tiered Model with XX% Allocated Equally and YY% Allocated on CFS Ratio				
Agency	Updated Law Enforcement CFS	% of Law Enforcement Total	Updated Fire/EMS CFS	% of Fire/EMS Total	% of Combined Total CFS Volume		Per Agency Costs in Current Models	% of Current Costs		Portion Allocated on an Equal Basis by all Agencies Served (17)	Portion Allocated on a CFS Basis	Combined Per Agency Cost	% of Total Cost in Model	Change from Current Cost
										10%	90%			
Clarkdale Police	3,213	7%			5%		$ 148,195	5%		$ 13,764	$ 108,282	$ 122,046	5%	$ (26,149)
Cottonwood Police	17,414	36%			28%		$ 575,566	19%		$ 13,764	$ 586,872	$ 600,636	26%	$ 25,070
Jerome Police	1,259	3%			2%		$ 30,570	1%		$ 13,764	$ 42,430	$ 56,194	2%	$ 25,624
Sedona Police	13,637	29%			22%		$ 562,789	18%		$ 13,764	$ 459,583	$ 473,347	20%	$ (89,442)
Camp Verde Marshall's Office	9,712	20%			16%		$ 362,405	12%		$ 13,764	$ 327,306	$ 341,070	15%	$ (21,335)
Yavapai Apache Nation PD	2,502	5%			4%		$ 77,188	2%		$ 13,764	$ 84,320	$ 98,084	4%	$ 20,896
Black Canyon Fire			962	7%	2%		$ 39,955	1%		$ 13,764	$ 32,421	$ 46,184	2%	$ 6,229
Camp Verde Fire			2,047	14%	3%		$ 108,514	4%		$ 13,764	$ 68,986	$ 82,750	4%	$ (25,764)
Clarkdale Fire			479	3%	1%		$ 33,925	1%		$ 13,764	$ 16,143	$ 29,907	1%	$ (4,018)
Cottonwood Fire			2,386	16%	4%		$ 120,989	4%		$ 13,764	$ 80,411	$ 94,175	4%	$ (26,814)
Jerome Fire			123	1%	0%		$ 7,812	0%		$ 13,764	$ 4,145	$ 17,909	1%	$ 10,097
Mayer Fire			1,350	9%	2%		$ 65,567	2%		$ 13,764	$ 45,497	$ 59,260	3%	$ (6,307)
Montezuma Rimrock Fire			841	6%	1%		$ 59,564	2%		$ 13,764	$ 28,343	$ 42,106	2%	$ (17,458)
Pinewood Fire			543	4%	1%		$ 38,458	1%		$ 13,764	$ 18,300	$ 32,063	1%	$ (6,395)
Sedona Fire District			3,750	25%	6%		$ 652,872	21%		$ 13,764	$ 126,379	$ 140,143	6%	$ (512,729)
Verde Valley Fire			1,653	11%	3%		$ 117,074	4%		$ 13,764	$ 55,708	$ 69,472	3%	$ (47,602)
Verde Valley Ambulance			615	4%	1%		$ 89,129	3%		$ 13,764	$ 20,726	$ 34,490	1%	$ (54,639)
Totals by Discipline	**47,737**	100%	**14,749**	100%			$ 3,090,572	100%		$ 233,984	$2,105,852	$2,339,836	100%	$ (750,736)
Percentage of Total CFS	76%		24%		100%									
Combined Total CFS Volume					**62,486**									
Total Costs for Law Enforcement Agencies							**$ 1,756,713**	**57%**				**$1,691,376**	**72%**	
Total Costs for Fire/EMS Agencies							**$ 1,333,859**	**43%**				**$ 648,460**	**28%**	
							$ 3,090,572					**$2,339,836**		

Managed Services Alternatives

iXP continues to believe that further savings, financial predictability and flexibility could be achieved through a managed services alternative. Through combinations of flexible capitalization processes and exceptional depth of resources and experience in managing operations, systems and facilities, iXP is able to provide managed services alternatives that allow organizations to maximize their service levels, stabilize their budget exposures and minimize the organizational and managerial challenges of establishing and operating consolidated emergency communications organizations. During continued analysis of this Business Case with the City of Cottonwood and the participating jurisdictions, iXP would be happy to provide further details and cost proposals for managed services alternatives.

Technology

The Business Case report provided a detailed cost estimating approach to examine all the technology system and system implementation costs that would be faced to establish a new, free-standing, public safety communications facility. This resulted in an expected cost range of between $2.6 million and $3.7 million depending on final system configuration decisions.

These estimates have been re-examined to determine where cost estimates needed to be modified to accommodate a system change or expansion that would be needed to support CVMO and YANPD joining into the consolidation. Many of the original estimates remain unchanged, but some changes were needed in systems where added dispatch positions or added licensing costs would result in marginal cost increases. The revised technology cost estimates are shown in the table below:

Estimated Technology System Costs	**Estimated Costs**	
	Low Estimate	High Estimate
9-1-1 Telephone System	$ 135,000	$ 135,000
Computer Aided Dispatch/Mobile	$ 750,000	$ 1,100,000
Integrated RMS Application	$ 500,000	$ 700,000
Radio Console System	$ 340,000	$ 340,000
Radio Back-up Equipment	$ 143,000	$ 143,000
Headsets	$ 3,500	$ 3,500
Console Furniture	$ 81,500	$ 81,500
Master Time Synchronization	$ 9,500	$ 9,500
Logging/Recording System	$ 210,000	$ 210,000
Large Screen Displays	$ 2,000	$ 2,000
Network, Admin Telephony & Computer Equipment	$ 92,000	$ 92,000
System Integration	$ 275,000	$ 275,000
Microwave and Network Connectivity	$ 250,000	$ 750,000
Estimated Total Costs for Technology Systems	**$ 2,791,500**	**$ 3,841,500**

For long term planning of capital funding strategies a value of $3.5 million was used for the technology elements for a new facility and iXP believes that value is still valid for this revised analysis for this Addendum.

Facilities

The Business Case Report outlined the characteristics and potential costs for three facility alternatives to meet the needs of a consolidated communications center. iXP has re-evaluated the assumptions for these facility alternatives against the increased workload of CVMO and YANPD being included in the initial start-up of the organization. The potential for future growth and workload expansion has also been considered. Even with these factors included in the analysis, it does not appear that the consolidated facility estimates would need to be modified to any significant degree. Therefore, the estimated $3.0 million capital cost for establishing a facility for the consolidated communications center continues to be a valid basis for planning the capital financing mechanisms for the initiative.

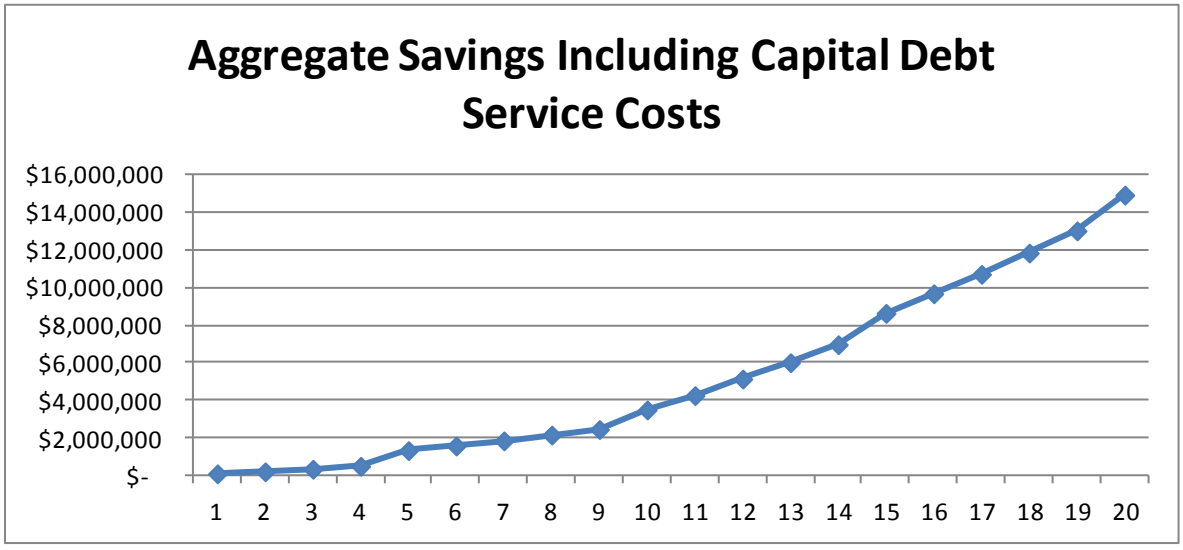
Capital Investment Strategies

The final comparative analysis in the Business Case Report is the determination if consolidation of the communications centers results in aggregated savings that are sufficient to cover both the annual costs of operation and the overall debt-service costs to fund the construction of a new facility and outfitting that facility with contemporary technology systems.

For this analysis, iXP has used the following assumptions to formulate annual cost estimates for the debt service costs that would likely be faced to establish the consolidated communications center:

- The assumed cost for the facility investment is $3 million, the estimated cost for the location adjacent to the Cottonwood Public Safety Building.
- The assumed cost for the technology and start-up investment is $3.5 million, slightly lower than the highest end of the technology cost range described in this report.
- Debt duration for the facility funding is assumed at 20 years, and debt duration for the technology and start-up costs is assumed at 10 years.
- Debt servicing was assumed on an annual basis at an annual debt service cost of 4%.

With these parameters in place, it is possible to compare the combined annual debt service costs to the annual and accumulated operational savings to determine the breakeven point. The graph and tables below expands on the operational cost and accumulated savings information provided earlier in this report and evaluates the debt service costs against these savings. As noted in these charts and tables, there are positive annual savings from the outset, and annual savings cover the full extent of debt services costs for each year of the projections. Total accumulated savings (after operational and debt-service costs) will reach approximately $15 million over a 20 year period.



	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Projected Costs for the Consolidated Organization										
Salary and Benefit Costs	$ 1,910,186	$ 1,967,492	$ 2,026,516	$ 2,087,312	$ 2,149,931	$ 2,214,429	$ 2,280,862	$ 2,349,288	$ 2,419,766	$ 2,492,359
Technical Systems Maintenance Costs	$ 251,500	$ 289,125	$ 296,392	$ 308,652	$ 400,231	$ 328,396	$ 337,612	$ 347,137	$ 406,982	$ 405,236
Other Maintenance and Operations Costs	$ 178,150	$ 182,579	$ 188,056	$ 197,198	$ 203,008	$ 208,994	$ 215,159	$ 221,508	$ 228,049	$ 234,785
Total Annual Estimated Costs	**$ 2,339,836**	**$ 2,439,195**	**$ 2,510,964**	**$ 2,593,161**	**$ 2,753,171**	**$ 2,751,819**	**$ 2,833,632**	**$ 2,917,933**	**$ 3,054,797**	**$ 3,132,380**
Current Costs of Operation	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**	**Year 7**	**Year 8**	**Year 9**	**Year 10**
Estimated City of Sedona Costs	**$ 562,789**	**$ 579,673**	**$ 597,063**	**$ 614,975**	**$ 789,424**	**$ 658,607**	**$ 678,365**	**$ 698,716**	**$ 719,677**	**$ 891,268**
Estiamted City of Cottonwood Costs	**$ 770,220**	**$ 797,178**	**$ 825,079**	**$ 853,957**	**$ 1,092,845**	**$ 924,095**	**$ 956,438**	**$ 989,913**	**$ 1,024,560**	**$ 1,260,420**
Estimated Sedona Fire District Costs	**$ 1,333,859**	**$ 1,373,875**	**$ 1,415,091**	**$ 1,457,544**	**$ 1,763,270**	**$ 1,558,668**	**$ 1,605,428**	**$ 1,653,591**	**$ 1,703,199**	**$ 2,004,295**
Estimated Camp Verde Marshall's Office Costs	**$ 436,005**	**$ 449,085**	**$ 462,557**	**$ 476,434**	**$ 590,727**	**$ 505,449**	**$ 520,613**	**$ 536,231**	**$ 552,318**	**$ 668,887**
Current Combined Costs of Operations	**$ 3,102,873**	**$ 3,199,810**	**$ 3,299,790**	**$ 3,402,909**	**$ 4,236,266**	**$ 3,646,819**	**$ 3,760,844**	**$ 3,878,451**	**$ 3,999,754**	**$ 4,824,870**
Potential Combined Operations Savings	**$ 763,037**	**$ 760,615**	**$ 788,826**	**$ 809,748**	**$ 1,483,096**	**$ 895,000**	**$ 927,211**	**$ 960,519**	**$ 944,957**	**$ 1,692,490**
Aggregate Savings	**$ 763,037**	**$ 1,523,652**	**$ 2,312,478**	**$ 3,122,226**	**$ 4,605,322**	**$ 5,500,322**	**$ 6,427,533**	**$ 7,388,052**	**$ 8,333,009**	**$ 10,025,498**
Facility CAPEX Debt Service	$ (220,745)	$ (220,745)	$ (220,745)	$ (220,745)	$ (220,745)	$ (220,745)	$ (220,745)	$ (220,745)	$ (220,745)	$ (220,745)
Technology CAPEX Debt Service	$ (431,518)	$ (431,518)	$ (431,518)	$ (431,518)	$ (431,518)	$ (431,518)	$ (431,518)	$ (431,518)	$ (431,518)	$ (431,518)
Total Debt Service Costs	**$ (652,264)**	**$ (652,264)**	**$ (652,264)**	**$ (652,264)**	**$ (652,264)**	**$ (652,264)**	**$ (652,264)**	**$ (652,264)**	**$ (652,264)**	**$ (652,264)**
Net Savings from Current Costs	**$ 110,773**	**$ 108,351**	**$ 136,563**	**$ 157,485**	**$ 830,832**	**$ 242,736**	**$ 274,948**	**$ 308,255**	**$ 292,694**	**$ 1,040,226**
Aggregate Savings	$ 110,773	$ 219,125	$ 355,687	$ 513,172	$ 1,344,004	$ 1,586,740	$ 1,861,688	$ 2,169,943	$ 2,462,637	$ 3,502,863

	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20
Projected Costs for the Consolidated Organization										
Salary and Benefit Costs	$ 2,567,130	$ 2,644,144	$ 2,723,468	$ 2,805,173	$ 2,889,328	$ 2,976,008	$ 3,065,288	$ 3,157,246	$ 3,251,964	$ 3,349,523
Technical Systems Maintenance Costs	$ 462,105	$ 395,443	$ 456,827	$ 420,103	$ 467,329	$ 446,932	$ 510,031	$ 475,088	$ 489,166	$ 530,476
Other Maintenance and Operations Costs	$ 241,724	$ 248,870	$ 256,231	$ 263,813	$ 271,623	$ 279,666	$ 287,951	$ 296,485	$ 305,274	$ 314,328
Total Annual Estimated Costs	**$ 3,270,959**	**$ 3,288,457**	**$ 3,436,527**	**$ 3,489,088**	**$ 3,628,279**	**$ 3,702,606**	**$ 3,863,270**	**$ 3,928,819**	**$ 4,046,404**	**$ 4,194,327**
Current Costs of Operation	**Year 11**	**Year 12**	**Year 13**	**Year 14**	**Year 15**	**Year 16**	**Year 17**	**Year 18**	**Year 19**	**Year 20**
Estimated City of Sedona Costs	**$ 763,506**	**$ 786,411**	**$ 810,003**	**$ 834,303**	**$ 1,009,332**	**$ 885,112**	**$ 911,666**	**$ 939,016**	**$ 967,186**	**$ 1,146,202**
Estiamted City of Cottonwood Costs	**$ 1,097,535**	**$ 1,135,948**	**$ 1,175,707**	**$ 1,216,856**	**$ 1,459,446**	**$ 1,303,527**	**$ 1,349,150**	**$ 1,396,371**	**$ 1,445,244**	**$ 1,695,827**
Estimated Sedona Fire District Costs	**$ 1,806,924**	**$ 1,861,131**	**$ 1,916,965**	**$ 1,974,474**	**$ 2,283,708**	**$ 2,094,720**	**$ 2,157,561**	**$ 2,222,288**	**$ 2,288,957**	**$ 2,607,625**
Estimated Camp Verde Marshall's Office Costs	**$ 585,954**	**$ 603,533**	**$ 621,639**	**$ 640,288**	**$ 759,496**	**$ 679,281**	**$ 699,660**	**$ 720,650**	**$ 742,269**	**$ 864,537**
Current Combined Costs of Operations	**$ 4,253,918**	**$ 4,387,023**	**$ 4,524,314**	**$ 4,665,922**	**$ 5,511,983**	**$ 4,962,640**	**$ 5,118,037**	**$ 5,278,324**	**$ 5,443,655**	**$ 6,314,191**
Potential Combined Operations Savings	**$ 982,959**	**$ 1,098,566**	**$ 1,087,786**	**$ 1,176,833**	**$ 1,883,704**	**$ 1,260,034**	**$ 1,254,767**	**$ 1,349,505**	**$ 1,397,252**	**$ 2,119,865**
Aggregate Savings	**$ 11,008,458**	**$ 12,107,024**	**$ 13,194,810**	**$ 14,371,643**	**$ 16,255,347**	**$ 17,515,381**	**$ 18,770,148**	**$ 20,119,653**	**$ 21,516,905**	**$ 23,636,769**
Facility CAPEX Debt Service	$ (220,745)	$ (220,745)	$ (220,745)	$ (220,745)	$ (220,745)	$ (220,745)	$ (220,745)	$ (220,745)	$ (220,745)	$ (220,745)
Technology CAPEX Debt Service										
Total Debt Service Costs	**$ (220,745)**	**$ (220,745)**	**$ (220,745)**	**$ (220,745)**	**$ (220,745)**	**$ (220,745)**	**$ (220,745)**	**$ (220,745)**	**$ (220,745)**	**$ (220,745)**
Net Savings from Current Costs	**$ 762,214**	**$ 877,821**	**$ 867,041**	**$ 956,088**	**$ 1,662,959**	**$ 1,039,289**	**$ 1,034,021**	**$ 1,128,760**	**$ 1,176,506**	**$ 1,899,119**
Aggregate Savings	$ 4,265,077	$ 5,142,898	$ 6,009,939	$ 6,966,027	$ 8,628,986	$ 9,668,274	$ 10,702,296	$ 11,831,055	$ 13,007,562	$ 14,906,681

Conclusion

This Addendum to the Business Case Report examines the impacts of adding the Camp Verde Marshall's Office and their customer agency the Yavapai-Apache Nation Police Department to the combined governance, operations, technology and facility elements of a proposed consolidated emergency communications facility being planned by the City of Cottonwood, the City of Sedona and the Sedona Fire District. This Addendum concludes:

- Reasonable adjustments can be made to the Governance structure to accommodate the addition of these jurisdictions into the regional partnership

- Minor operational changes can be made to handle the added workload of including these jurisdictions and these changes make only marginal impacts on the overall cost of operations.
- Minor technology system changes can be made to handle the added workload of including these jurisdictions and these changes make only marginal impacts on the overall costs of technology systems.
- No significant modification to the estimated facility costs would result from the inclusion of these jurisdictions.

The bottom line for this Addendum analysis is that the positive business case for consolidation is even stronger if these communities join into the consolidation initiative. Annualized operational cost savings appear to be adequate to completely cover the anticipated debt-services costs to build and equip a new emergency communications facility, and on-going operational savings will allow the community to establish more than adequate reserves to deal with any potential future capital system replacement needs or major facility modifications.

The City of Cottonwood
Dispatch Consolidation -
Final Business Case Report

March 26, 2012

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Executive Summary

In mid-2011, on behalf of themselves and the City of Sedona, the Sedona Fire District and the Camp Verde Marshal's Office, the City of Cottonwood engaged iXP Corporation to examine the feasibility of these jurisdictions consolidating their emergency communications and 9-1-1 functions. Following review of those findings, the City of Cottonwood, the City of Sedona and the Sedona Fire District have agreed to proceed with this Business Case analysis process to determine the potential economic and service level benefits a consolidation of their organizations could achieve.

The main objectives for this effort include:

- Framing the requirements for an emergency communications organizational structure and operating model that can provide improved levels of service to the communities served at costs that are comparable or preferably lower than individual operations.
- Establishing expected capital and operational cost estimates over a multi-year period to allow financial requirements and the potential benefits of consolidation to be examined over a longer time frame.
- Identify mechanisms to provide financial stability and predictability for the jurisdictions that participate in the consolidation.
- Examine three property alternatives for the potential location of a consolidated emergency communications center and determine the estimated costs of construction for each of those alternatives.
- Explore alternative service delivery mechanisms to consider in contrast to the traditional government owned and operated model.

Highlights

This Business Case report focuses on the four critical areas of Governance, Operations, Technology and Facilities in considering the potential organizational structure, operational framework and overall potential costs and savings that creation of a consolidated emergency communications organization could bring for the communities served by the study participants.

Governance – The report outlines how the participating jurisdictions could form a newly-created intergovernmental organization to govern and manage a consolidated emergency communications organization. With a streamlined three-tiered organizational model composed of a Governing Board, an Operations Board and the operational management and staff of the communications center itself, this new organization could be established with a minimum of organizational overhead and maximize the relationship between the operational needs of the agencies being served and the emergency communications personnel meeting those service needs. It could also be structured to partner with one or more of the principal organizations to

provide administrative support services further leveraging their existing capabilities in these areas without requiring duplication of these capabilities within the emergency communications organization. An alternative organizational structure is also described where a managed services structure could be used to further streamline the operational aspects of the new organization.

This section also summarizes data provided by the participating jurisdictions on their current costs of operations. In total approximately $2.7 million is being spent annually by the three study participants to operate their emergency communications functions. This does not include any funds they set aside into capital reserve or replacement programs to deal with routine life-cycle replacement of the sophisticated technology systems used in their emergency communications organization.

Operations – The telephone call volumes and workloads of the existing organizations have been re-evaluated in this report to reflect the new combination of organizations participating in this Business Case analysis. This has resulted in a slightly lower overall staffing estimate than the one outlined in the Feasibility Study report. With an operational staffing model composed of 30 total personnel, a consolidated emergency communications center could provide enhanced levels of service and depth of coverage in comparison to the individually operated dispatch operations currently in operation. Further, with flexible shift scheduling and staffing patterns, depth of coverage can be enhanced during the busiest portions of normal cycles to allow both sustained service levels during peak demand periods but also allow adequate relief for personnel to accomplish training and similar activities.

The Operations section also contains annual estimated operational costs for the consolidated communications organization over a multi-year period of time and the comparable costs for continuing to operate the multiple individual communications centers over that same period of time. Savings of approximately $478,000 are possible in the first year of operation and annual savings levels increase over the following years. In aggregate, approximately $3 million in savings will accumulate by the 5th year of operation and approximately $6.5 million in savings will be accumulated by the 10th year of operation.

Technology – This section of the report provides a system-by-system description of the recommended approach for establishing the technology environment for the newly established emergency communications facility. This includes everything from the 9-1-1 telephone systems, computer aided dispatch systems and radio communications equipment used in the emergency call receiving and dispatch process to the support technologies and systems that keep an emergency communications center operating reliably. Wherever possible the re-use of systems was considered to help minimize the capital investment requirements for the new operation. In total it is estimated that equipping the newly created emergency communications facility will cost between $2.2 and $3.0 million, depending on the choices that are made on individual systems and their capabilities.

Facilities – Finally, the report evaluated three alternative locations where the new emergency communications facility could be located: 1) Property owned by the City of Cottonwood immediately adjacent to the Cottonwood Public Safety facility, 2) A currently vacant commercial structure (known as Riverfront Commons) in the City of Cottonwood that could potentially be acquired by the City and converted to a combination of municipal office and emergency communications center uses, and 3) Property owned by the Sedona Fire District immediately adjacent to their current communications center.

Each of these locations were evaluated to determine their suitability for an emergency communications facility and to determine the likely total cost of construction for an appropriately sized facility to meet the staffing and growth expectations outlined in the Operations analysis. Based on this analysis it appears that if the City of Cottonwood were to proceed with the acquisition of the Riverfront Commons building for their municipal use, it could provide the lowest cost of construction for the portion of the building that would then be re-purposed to serve as a consolidated emergency communications center. The property located adjacent to the Cottonwood Public Safety facility was assessed as being the lowest cost location for a ground-up construction effort for a new facility and the property located adjacent to the Sedona Fire District was found to present the highest estimated cost of construction. However, use of the Cottonwood location would require $500,000 to $750,000 in additional networking and connectivity costs over the Sedona location, so the actual total cost of construction for these two locations would end up being relatively equal.

Conclusions

This Business Case report examines the combined governance, operations, technology and facility activities that would need to be undertaken to establish a consolidated emergency communications center to serve the needs of the City of Cottonwood, the City of Sedona and the Sedona Fire District, as well as the various jurisdictions and agencies for which each of them currently provide services.

- A recommended governance model and organizational structure has been outlined for the new consolidated communications entity that is based on the successful past experience of many similar jurisdictions.
- An alternative of this model has been outlined where an iXP managed services approach could be utilized to provide operations, technology and facilities support if the newly created communications entity chose to pursue that alternative.
- An operational model has been outlined that would provide a higher level of service and greater depth of coverage than the individual communications centers can provide on their own, and at a lower overall cost of operation to the communities they serve than the combined costs of the current operations.

- Technology acquisition and implementation costs have been estimated so that the newly established consolidated center could be equipped with contemporary and reliable systems.
- Construction cost estimates have been developed to help identify the most cost effective alternative of the three under consideration.

The bottom line for this analysis is that there is clearly a positive business case behind the formation of a consolidated emergency communications center, and that this newly established organization could be structured and sustained to provide reliable, effective and long-term service to the communities they serve. iXP looks forward to working with the City of Cottonwood, the City of Sedona and the Sedona Fire District, along with the other jurisdictions and agencies each of them serve, to turn this analysis into a successful operating organization.

Introduction

In mid-2011, the City of Cottonwood engaged iXP Corporation to conduct a Dispatch Consolidation Feasibility Study to examine the potential advantages and opportunities that may exist if two or more of the 9-1-1 emergency communications organizations operating in the Verde Valley were to consolidate their operations. The report from that study examined current governance, operational, technological and facility characteristics of the emergency communications operations conducted by the Cottonwood Police Department, the Sedona Police Department, the Camp Verde Marshal's Office and the Sedona Fire District. The report outlined a variety of potential consolidation strategies that could be of benefit to the participating jurisdictions, ranging from shared systems strategies to full-scale organizational and operational consolidation.

After reflecting on the information and insights from the Feasibility Study report, the participating jurisdictions have joined with the City of Cottonwood to re-engage iXP Corporation to conduct a Business Case process for a full consolidation of the emergency communications operations so that a clear understanding of start-up and ongoing operational costs can be used as a foundation for further decision-making. The Camp Verde Marshal's Office has chosen to no longer participate in this study process, so this report will deal with the strategies that could be pursued by the City of Cottonwood (and the customer jurisdictions they serve), the City of Sedona, and the Sedona Fire District (and the customer jurisdictions they serve).

Governance

Organizational Structure and Management

As discussed in the Feasibility Study, successful multi-jurisdictional/multi-disciplinary public safety communications centers are most commonly founded on governance models that reflect the individual needs and interests of the participating jurisdictions while also establishing an identity for the communications center operation that is separate and unique from those participating jurisdictions. This allows all participating jurisdictions and agencies to have a voice in the policy and operational decision making processes so that none of them feel as though their service levels or operational processes are being dictated by the others.

Governance models of this type also often engage participating jurisdictions in one of two different levels of long-term relationships to the consolidated organization. Those with the long-term commitment to the consolidated organization are often referred to as 'principal' or 'owner' organizations. These jurisdictions take on a shared responsibility for the long-term success of the consolidated organization and share in the capital and operational funding requirements over the course of its existence. In contrast, jurisdictions that simply acquire emergency communications and dispatching services from the consolidated organization on a fee-for-service basis for some

pre-committed period of time are often referred to as 'subscriber' organizations. In general terms, this 'principal'/'subscriber' relationship is how the Cottonwood Police Department provides services to Clarkdale and Jerome and how the Sedona Fire District provides services to the fire departments throughout the valley.

The Feasibility Study also outlined a potential three-tiered organization model that is often utilized for a consolidation of emergency communications functions, and we continue to feel that this is a viable model for the participating jurisdictions to consider. Simple structures such as these are often best suited to providing timely and well reasoned policy and operational guidance to emergency communications operations. Larger multi-tiered structures often are over-weighted by organizational processes and encumbrances that can get in the way of making good and effective policy and operational decisions.

The three tier organizational model that iXP believes would be best suited for the consolidation of emergency communications functions in the Verde Valley is as follows:

- Governing Board – This policy level body would be made up of one appointed represented from each of the jurisdictions that take on a 'principal' status in the new organization. Presumably, based on the participation in this Business Case study, that would be one representative each from the City of Cottonwood, the City of Sedona and the Sedona Fire District. The governing board would be responsible for forming and sustaining the consolidated organization through an intergovernmental agreement (discussed further below), adopting the capital and operational financing strategies for the organization, establishing labor and organizational policy for the organization, and hiring or retaining employees and/or contracted service providers to conduct the business of operating the 9-1-1 and emergency communications functions pursuant to the policies adopted by the Governing Board.

  Given the level of organizational and fiscal commitment each of these jurisdictions would be making to establish the consolidated organization and serve as a principal member of that organization, it is recommended that decision-making be based on an equal voting model with each principal jurisdiction having one vote. It is also recommended that unanimous vote approval be required for the most substantive of decisions the Board would face, including such things as incurring capital debt, adding an additional principal or dissolution of the organization.

- Operations Board – This operational level body would be made up of one senior representative (typically the Chief) from each of the public safety jurisdictions served by the consolidated communications center. This would include law enforcement, fire service and emergency medical representatives from each of the agencies being serviced by the communications center, including both 'principal' organizations and 'subscriber' organizations. This operational board would be responsible for working as a liaison

between the Governing Board and the operational leadership of the communications center in defining operational policies and practices and providing routine guidance as these policies and practices required modification to meet changing conditions or community circumstances. Typically this work is often conducted by committees within the Operations Board with one focused on law enforcement issues and the other focused on fire/EMS issues.

Ideally, consensus decision-making is well suited for an Operations Board and its discipline-focused Committees. If issues surface where consensus can't be reached, majority voting most often provides the best workable outcome. Issues and decisions that only affect a single discipline (such as law enforcement or fire/EMS) can often be deliberated within that discipline's Committee structure, but it is best that final decisions still be conducted by the full Operations Board so that potential cross-impacts can be vetted by all agencies being dispatched from the consolidated center.

As a complimentary advisory body to the Operations Board, a Technology Coordinating Committee should also be formed to provide coordination between the technology systems deployed and managed within the participating jurisdictions and the technology systems deployed by the consolidated emergency communications center. At a minimum this committee would have participation from the three principal jurisdictions and may be expanded to include representatives from subscriber jurisdictions if the need arises.

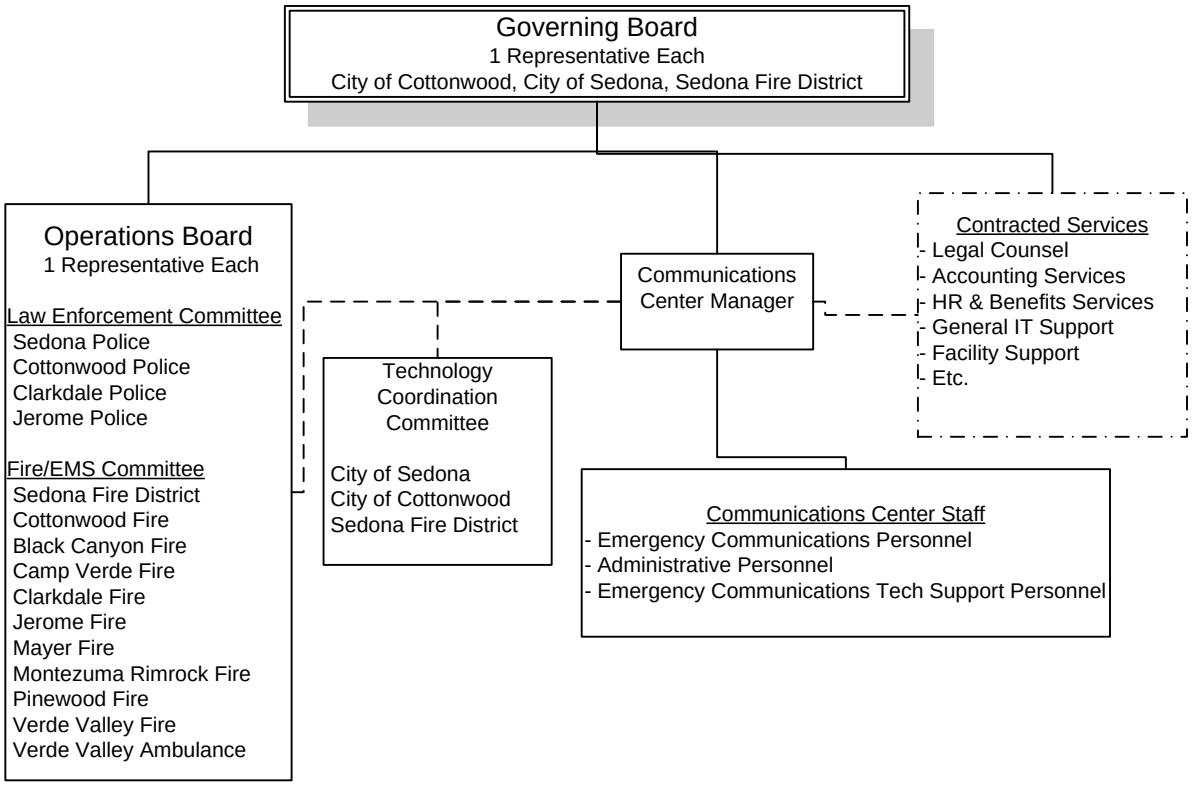
- Communications Center Staff – The consolidated communications center would be operated under the guidance of a Communications Center Manager who would report directly to the Governing Board and maintain a coordination relationship to the Operations Board and any outside contracted service providers utilized in lieu of hiring internal staff to handle those functions. For consolidated communications center organizations of this size, it is very common for the services such as legal counsel, accounting, human resources & benefit services, and general IT and facilities support to be obtained through a contractual relationship to one of the principals in the consolidation.

The Feasibility Study also made observations on the potential mechanisms that could be used for establishing the consolidated emergency communications organization, ranging from having it hosted within one of the participating jurisdictions to establishing it as a free-standing intergovernmental agency. Based on numerous experiences with communications organizations of similar size and mix of agencies to be served, iXP believes that every reasonable effort should be made to establish the consolidated emergency communications organization as a free-standing intergovernmental agency as outlined in A.R.S. Title 11, Chapter 7, Article 3-Joint Exercise of Powers[1]. Establishing the communications organization in this fashion allows each of the

[1] The complete text can be found at http://www.azleg.gov/ArizonaRevisedStatutes.asp?Title=11

principal organizations to clearly delineate their organizational and fiscal responsibilities and allows the communications center entity to establish the organizational, fiscal and policy frameworks best suited to providing high quality and consistent emergency communications services for both the principal jurisdictions and any other jurisdictions receiving service as subscribers through intergovernmental agreement with the communications center.

The following diagram summarizes the proposed organizational structure:

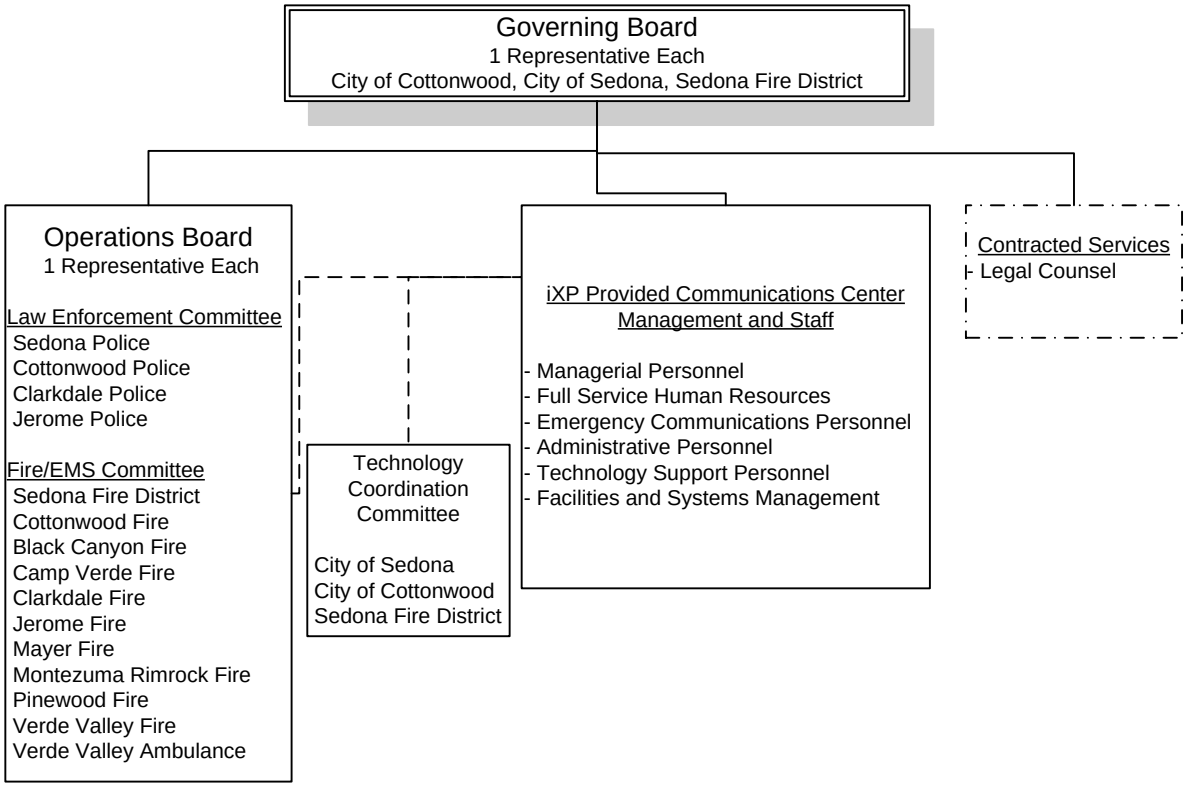


iXP is also able to provide a managed services model for communications center operations that both simplifies the organizational issues faced during consolidation while also establishing long-term capital and operational costs within a contractual framework.[2] Under the managed services model, iXP can be contracted to fill some or all of the operational functions identified above with the exception of the governance and legal services roles. This model can provide high levels of service quality and cost predictability for the consolidating organizations and limit the exposure the consolidated organization has for a number of complex activities such as employment

[2] A Whitepaper describing iXP's service level delivery model can be found at http://www.ixpcorp.com/docs/iXP_Whitepaper_%20Privatizing_911_Centers.pdf

processes for emergency communications personnel and the managing of the complex technology and facility elements of a contemporary emergency communications facility.

Diagrammatically, the organizational structure using a managed services model would look very similar to a government-operated organization, but rather than having a communications center manager, subordinate personnel and contracted support services, the Governing Board would engage in a single contractual relationship with iXP to provide the full suite of required services and support.



Operationally, the consolidated communications center would still be guided by an experienced emergency communications manager and a team of skilled emergency communications personnel, and would still interact with the Governing Board and Operations Board for policy and operational oversight. One of the added benefits of the service level delivery model is that certain positions can be contracted for continuous coverage (such as the communications manager and key technology support functions) so that even if staffing vacancies occur through normal personnel fluctuations the functions supported by those positions could be backfilled by experienced personnel from within the iXP team. This provides a higher level of critical service and system support than is possible by any but the largest of consolidated communications organizations.

Regardless of whether a stand-alone organization is created and staffed independently or some level of a managed services structure is selected, the three-tiered organizational model seems well suited to the needs and interests of the study participants and will provide an efficient mechanism to guide and sustain the consolidated emergency communications operations.

Capital and Operating Cost Allocation Models

For any new consolidation effort, the establishment of the cost allocation mechanisms for initial capital investments, maintenance of ongoing capital reserves and creation of adequate operating revenues can be a challenging and sometimes contentious undertaking. While there is often a tendency to try to establish elaborate formulaic methods to reach models that can be empirically defended, it is not uncommon for simpler and easier to explain mechanisms to reach mutually acceptability far easier. Based on iXP's experiences with other consolidation and shared services initiatives, we believe that simple and straight-forward models will work best for the participants in this study.

- Initial Capital Investments – Establishing a new consolidated emergency communications center is a capital-intensive undertaking. Even if some of the existing systems are reused intact or reconfigured and then reused, the capital investments will be significant. The combined costs of facility and technology investments will require identification of one or more capital financing processes to fund this phase of establishing the new center. These processes could include such things as direct borrowing from the commercial banking sector by the newly created consolidated organization, borrowing from the jurisdictions that combine to form the consolidated organization, direct allocations of capital funds from these organizations, or combinations of these mechanisms. Regardless of the mechanisms chosen, the proportionality of how these costs are allocated across the participating jurisdictions is the key to a successful long-term relationship.

  All three of the study participants have demonstrated their individual ability to fund and operate emergency communications centers for their own purposes. Further, the extent of their capital investments over time are somewhat comparable in that each of them operate the standard array of emergency communications technologies required of a contemporary emergency communications center. In fact, the realization that they have each made these significant investments individually and would face their eventual replacement costs individually is one of the key drivers for considering a consolidation. Therefore, it is iXP's recommendation that the allocation of initial capital investments be accomplished equally between the City of Cottonwood, the City of Sedona and the Sedona Fire District.

- Establishment and Maintaining Capital Reserves – Similar to the reasoning for an equal sharing of the initial capital investments, iXP believes the participating jurisdictions

should share equally in the initial seeding of a capital reserve program. This will help preserve the equality in the relationship and firmly establish the ownership role the principal jurisdictions hold in the capital investments of the new center. The capital reserve program would be established with anticipated replacement costs and amortization/depreciation tables for each of the major capital investment items (CAD system, 9-1-1 phone system, major building systems, etc.) so that annual and long-term capital requirements could be projected. At the time of establishing the funding mechanism(s) for the initial capital investment, the first year's contribution to the capital reserves would also be made in equal share by the founding principals.

From that point forward, the annual contributions to the capital reserves would be driven by a formulaic mechanism that determines the level of reserve contribution required in any individual budget year. But, rather than having the principal jurisdictions cover 100% of those costs it is reasonable for some portion of the capital reserve requirement to be borne by the rate structure for services provided to subscriber agencies. This needs to be done carefully however so that the ownership status of the principal jurisdictions is not impacted so that they retain the ability to make decisions within the Governing Board without risk of having those decisions challenged by the subscriber agencies having greater than a 50% perceived ownership in the capital reserves.

Establishing the degree of sharing of capital reserve costs across an overall revenue model is really a subjective decision. Valid arguments can be made for the principal jurisdictions striving to shift as much as 49% of the reserve contributions to the subscriber side of the ledger, but those strategies often come with an opportunity for more contentious discussion in the future with major capital replacement decisions are undertaken. Ratios of 40% or less shifted to the subscriber side of the rate model will likely decrease the potential for future conflict while ratios as low as 20% may not adequately recognize the common benefit that the subscriber agencies receive by there being a competently funded capital reserve program. Regardless of the ratio chosen, the predominate share of the reserves will clearly be established by principal jurisdictions, preserving their role in the Governing Board process as the ultimate governing voice in how those funds are accumulated and expended.

- Operating Revenue Model – Establishing the annual operating budget will become a relatively mechanical process once the initial operation is up and running. Baring any changes in the number of agencies served or levels of service offered (including workload changes due to population growth or demographic shifts), year-to-year changes will be predominately driven by changes in the costs of labor/benefits or the costs of services and utilities required to maintain the operation of the facility and technology systems. When combined with the annual contribution requirements derived from the capital reserve program, these combined annual costs will then need to be allocated to principal and subscriber agencies on a rational basis.

Public safety emergency communications organizations often find that 80% to 85% (or more) of their total cost of operations are attributable to personnel costs (direct labor costs, benefit costs and employment taxes). Further, as noted in the Feasibility Study report and reviewed later in the Operations section of this report, staffing levels are highly correlated to the combined workloads of the communications center. Finally, unless different service levels are provided for individual entities, the workload for principal agencies and subscriber agencies are typically comparable. Therefore, the most common mechanisms for cost allocation/rate setting in operating budget calculations is to use direct proportionality to workload metrics that are consistently measurable over time. The most common metric of this type is the number of dispatchable calls for service (DCFS), and these counts can be easily tallied and tracked historically through CAD system reports.

Under some circumstances, allocating costs purely on a DCFS basis does not provide an adequate reflection of the diversity of agencies and disciplines being served, and the workloads those diverse organizations bring to the consolidated communications environment. For example, the way DCFS are counted across agencies and across disciplines may result in disproportional cost allocations when evaluated against the actual workload impacts coming from that agency or discipline. This is often the case if a high percentage of law-enforcement activity is tracked within CAD (including officer-initiated activities that don't require the same overall communications center workload as receiving an emergency/9-1-1 call and dispatching it) resulting in a high proportion of costs allocated to law enforcement and a low proportion being allocated to fire/EMS. To address this, consolidated communications centers sometimes establish multi-layered cost allocation models to more accurately match communications center cost drivers with the actual costs allocated to the individual agencies being served.

In one such multi-layered strategy, parameters such as population served or jurisdictional assessed valuations are used to establish the cost allocation model directly. In some circumstances these parameters alone are used to allocate costs between the participating jurisdictions. In other circumstances, these parameters will be used to allocate a portion of the overall costs and then a DCFS or other workload metric will be used to allocate the remaining costs. Regardless of which approach is used, the success of this methodology rests in an easy and mutually agreeable method for determining the population or valuation metrics. While this can often be easy to accomplish when each of the participants has uniquely defined geographic and population boundaries, it is much more difficult to accomplish when jurisdictions and agencies have overlapping service areas.

Another alternative cost allocation model seen in some consolidated communications organizations is to first make an arbitrary allocation of costs to the disciplines being served (for example XX% allocated to the law enforcement community and YY%

allocated to the fire service/EMS community), and then these cost pools are further allocated on a DCFS basis across the individual agencies within those disciplines. The biggest challenge in this model is arriving at the initial decision about what proportion of the overall costs to assign to the various discipline categories. Where iXP has seen this model used in other circumstances, it appears as though it was selected as a policy mechanism to reinforce decision-making status of the individual disciplines. For example, where a straight DCFS cost allocation model had the fire service supporting a small portion of the overall cost of doing business, utilization of this model could shift a higher proportion of the overall cost to the fire service community to reinforce their stature as an equal participant in decision-making processes.

A third alternative to a pure DCFS model is a multi-layered model that establishes a fixed portion of the overall annual cost of operations that are recovered from all agencies served on an equal basis, with the remaining annual costs allocated on a workload metric such as DCFS. This approach accomplishes several policy objectives often being sought in consolidated communications organizations. First, the assessment of a common fee to all agencies being served provides a mechanism that attaches a value to being a part of the expanded capabilities and operational depth of the consolidated communications organization regardless of the amount of workload that agency brings. Second, by keeping the portion of the overall costs recovered through this mechanism relatively low, it allows the remaining costs (which are typically labor costs that are workload driven) to more directly reflect the workload impacts each agency brings to the overall cost profile of the organization. This third alternative is the model that iXP believes will be best suited to the circumstances of the study participants. An example of how this model would apply to the costs of operating the consolidated communications organization is provided in the Projected Operational Budget Model section later in this report.

It is important to note though that the individual jurisdictions and agencies that will be assessed rates under this model will need a degree of predictability to allow them to establish their near-term and long-term budget policies. It will not be sufficient to just charge them on a monthly, quarterly or annual basis for whatever the actual DCFS experience turns out to be for that particular period of time. A variety of local conditions or unique emergencies can cause DCFS volumes to rise and fall over the course of a single year or even over several years.

Therefore, it is common for operational rate models that utilize a workload metric such as DCFS to use some sort of multi-year average to “smooth” the overall proportionality between the agencies being served. For example, the Sedona Fire District currently utilizes a 5-year moving average to establish the DCFS proportionality between the agencies they serve. Shorter periods such as a 3-year moving average may allow more accurate reflection of shifts in DCFS volumes that may result from new development,

population changes, service level modifications and other call-volume-affecting influences.

Existing Costs for Comparison to Potential Future Costs

During the collection of information for the Dispatch Consolidation Feasibility Study, each of the participating jurisdictions provided information related to their current costs of operations and this information is summarized in the following table.

Summary of Current Costs - Updated to Reflect the 2011/2012 Fiscal Year				
	City of Cottonwood	City of Sedona	Sedona Fire District	Totals
Salaries and Benefits	$ 599,160	$ 460,657	$ 1,215,122	$ 2,274,939
Administration			$ 984	$ 984
Professional Services	$ 5,800	$ 4,000	$ 53,581	$ 63,381
Training and Related	$ 5,420	$ 4,000	$ 13,155	$ 22,575
Facility and Utility Costs	$ 21,090	$ 2,496	$ 19,575	$ 43,161
Equipment and Software Maintenance	$ 136,300	$ 72,536	$ 18,300	$ 227,136
Supplies and Miscellaneous	$ 2,450	$ 19,100	$ 13,142	$ 34,692
Totals	**$ 770,220**	**$ 562,789**	**$ 1,333,859**	**$ 2,666,868**

It needs to be recognized that since each organization tracks their costs differently, the data they were able to provide was as complete as possible but not necessarily uniformly categorized. Further, as operating units within larger organizations, each of these jurisdictions may have costs attributable to the overall management and operation of their communications organization that are not individually reflected in the cost tallies for the communications function (examples include allocations for city administrative overhead and departmental administrative overhead) reflected in the data provided.

Given the highly structured nature of the cost tabulation and rate setting mechanism for the Sedona Fire District, it is perceived that this representation of the total costs of current operations is probably fairly complete. Similarly, since the City of Cottonwood has established rate models to calculate the charges they assess to other agencies for dispatch and technology system services, their cost tabulation is also likely to be fairly complete. Since the City of Sedona operates as an internal service of the Sedona Police Department and does not deliver services to other jurisdictions under calculated rate models, there is a potential that this cost tabulation may not reflect all of their costs for operation of their emergency communications function.

Estimates for the future costs of operating these individual dispatch organizations have been developed to allow direct comparison to the overall costs of operating a consolidated communications organization. These future costs have been calibrated to account for annual costs increases that are the result of

increasing salaries, benefits and other direct costs of operation. Based on input from each of the participating jurisdictions, an annual escalation factor of 3% was used for the City of Sedona and the Sedona Fire District calculations and a factor of 3.5% was used for the City of Cottonwood calculations. The future costs have also taken into account the need for each of the individual organizations to make periodic reinvestments in their technology systems, such as server and workstation replacements and other technology system refreshments. The estimated costs for operating the individual communications organizations over a 10 year period of time are shown in the following tables. It is important to note that these estimated costs do not take into consideration any growth in staffing that may need to take place due to increasing workloads over time. Similarly, the cost models established for the consolidated organization will also be based on current workload statistics so that both current and consolidated costs are directly comparable.

Current Costs of Operation	Year 1	Year 2	Year 3	Year 4	Year 5
Estimated City of Sedona Costs	$ 562,789	$ 579,673	$ 597,063	$ 614,975	$ 789,424
Estiamted City of Cottonwood Costs	$ 770,220	$ 797,178	$ 825,079	$ 853,957	$ 1,092,845
Estimated Sedona Fire District Costs	$ 1,333,859	$ 1,373,875	$ 1,415,091	$ 1,457,544	$ 1,763,270
Current Combined Costs of Operations	$ 2,666,868	$ 2,750,725	$ 2,837,233	$ 2,926,475	$ 3,645,539

Current Costs of Operation	Year 6	Year 7	Year 8	Year 9	Year 10
Estimated City of Sedona Costs	$ 658,607	$ 678,365	$ 698,716	$ 719,677	$ 891,268
Estiamted City of Cottonwood Costs	$ 924,095	$ 956,438	$ 989,913	$ 1,024,560	$ 1,260,420
Estimated Sedona Fire District Costs	$ 1,558,668	$ 1,605,428	$ 1,653,591	$ 1,703,199	$ 2,004,295
Current Combined Costs of Operations	$ 3,141,370	$ 3,240,231	$ 3,342,220	$ 3,447,436	$ 4,155,982

Operations Model and Estimated Budget Levels

When the Dispatch Consolidation Feasibility Study was conducted, staffing estimates were calculated that reflected the combined workloads (telephone call volumes, dispatched incident volumes, ancillary duties, etc.) of the four jurisdictions involved in the study at that time. The departure of the Camp Verde Marshall's Office from the study process results in a reduction of overall workload for the prospective consolidated organization and therefore the staffing estimates need to be reexamined to determine an appropriate model for the remaining study participants.

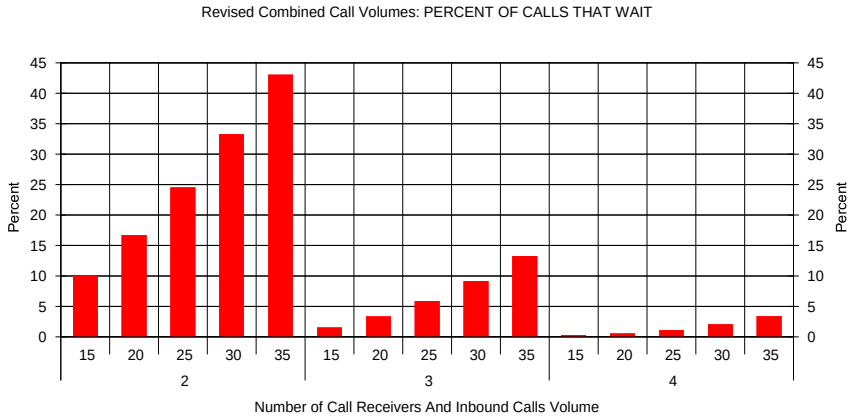
In the Feasibility Study, the total telephone call volume was estimated to be approximately 560 calls per normal 24-hour day, with 450 of these being inbound calls. The busiest hour was the period from 1400 to 1500 when approximately 28 calls per hour would be handled, and the busiest 16 hours of the day were between 0700 and 2300. With the combined call volumes for the Camp Verde Marshall's Office removed from the tally, the average daily telephone call volumes are now estimated to total approximately 430 per day with 350 of them being inbound

calls. The calculated average distribution is reflected in the following table, which projects a slightly lower peak hourly rate of approximately 24 calls handled but that peak being reached during both the 1200 to 1200 and 1400 to 1500 time periods.

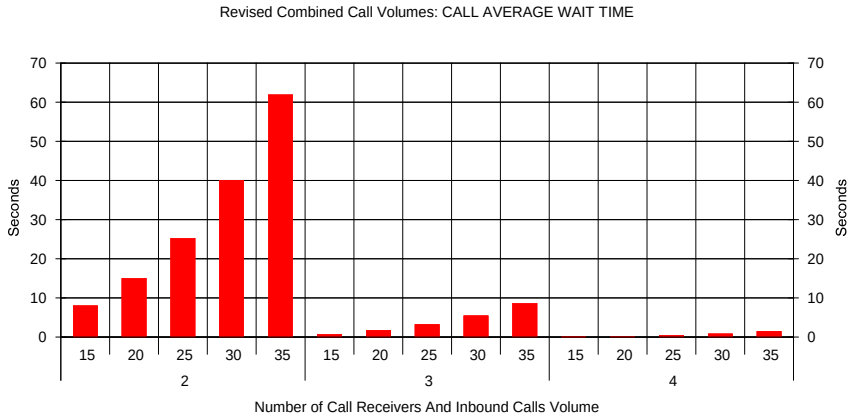
Esitmated Hourly Distribution based on combined averages				
		Total Calls	Inbound Calls	
0000-0100	1.7%	7.2	5.8	
0100-0200	1.3%	5.6	4.5	
0200-0300	1.1%	4.9	3.9	
0300-0400	1.3%	5.5	4.4	
0400-0500	0.9%	3.7	3.0	
0500-0600	2.4%	10.5	8.4	
0600-0700	3.6%	15.5	12.5	
0700-0800	6.4%	27.5	22.1	
0800-0900	6.1%	26.4	21.2	
0900-1000	6.1%	26.5	21.2	
1000-1100	5.3%	22.8	18.3	
1100-1200	6.7%	28.8	23.1	
1200-1300	7.0%	30.1	24.2	Busiest Hour
1300-1400	5.8%	25.2	20.2	
1400-1500	6.9%	30.0	24.1	Busiest Hour
1500-1600	5.4%	23.5	18.8	
1600-0700	4.9%	21.1	16.9	
1700-1800	4.7%	20.4	16.4	
1800-1900	4.3%	18.7	15.0	
1900-2000	3.8%	16.3	13.1	
2000-2100	3.4%	14.9	11.9	
2100-2200	4.1%	17.7	14.2	
2200-2300	3.8%	16.3	13.1	
2300-2400	3.2%	13.8	11.1	
	100.0%	433.0	347.4	

The Feasibility Study provided information on how these average call volume statistics can be analyzed to determine the expected levels of call answering performance that would be experienced at various call receiver staffing levels. These revised statistics have been reassessed to determine any resulting changes in staffing estimates for the current group of study participants.

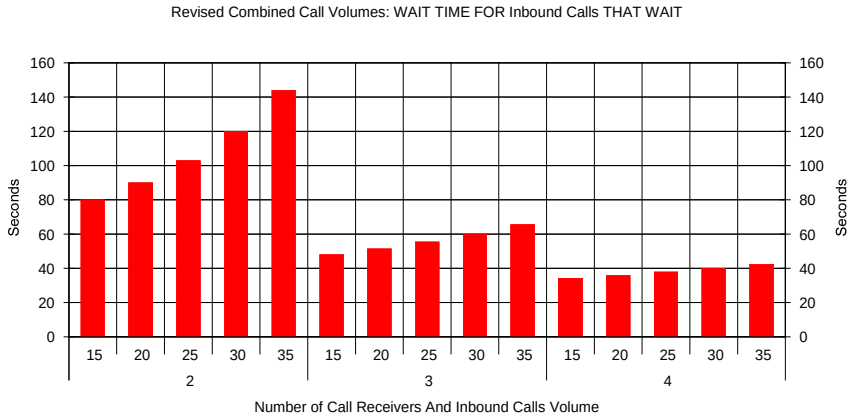
For the revised combined call volumes, a range of 15 to 35 calls per hour is examined. As can be seen in the *Percent of Calls That Wait* chart below, the busy hour call volume of approximately 25 calls will likely require that 3 personnel be available to handle inbound and outbound calls. At that staffing level slightly over 5% of calls will have wait time. With only 2 personnel available the probability of calls having to wait climbs to approximately 25%.



In the *Call Average Wait Time* chart below, the importance of having the 3rd position available to handle calls is reinforced. With the same 25 calls per hour volume, staffing of only 2 call handling positions would result in average wait times of approximately 25 seconds, while staffing at 3 positions will bring the average well under the desired 10 seconds.



In addition to examining average wait times, it is also important to consider the experience of an individual caller who experiences a wait. In the *Wait Time for Calls That Wait* chart below, it can be seen that even with 3 call handling personnel available, individual callers may experience a wait time of up to 50+ seconds and even with a 4th position available the wait time could reach 40 seconds. While this amount of wait time would be unacceptably high if the inbound call were a life-threatening emergency, the practical reality is that since the statistical analysis includes both incoming and outgoing telephone processing duties for the emergency communications staff, there is a high probability that low-priority calls will be able to be terminated or placed on hold so that inbound 9-1-1 and 10-digit emergency lines can be answered quickly. Therefore, a total complement of 3 personnel available for telephone call processing for the 16 busiest hours of the day would be highly advisable.



As noted in the Feasibility Study, staffing a single position on a continuous 24-hour basis can require up to 5.7 FTE personnel after normal vacation, holiday and sick-leave policies are considered. Therefore, based on the revised call volume and workload estimates, a total staffing model of 30 personnel is recommended for the consolidated organization as estimated in the table below.

Positions	**Schedule**	**FTE Count**
Communications Center Manager	Normal Business Hours	1.0
GIS Technician	Normal Business Hours	1.0
Technology Coordinator	Normal Business Hours	1.0
Communications Supervisor (Working)	24X7	5.7
Telecommunicator Position serving Cottonwood, Clarkdale and Jerome and Call Receiving	24X7	5.7
Telecommunicator Position serving Sedona PD and Call Receiving	24X7	5.7
Telecommunicator Position serving Fire/EMS and Call Receiving	24X7	5.7
Telecommunicator Position (secondary Fire/EMS, Call Receiving and Breaks	16 hour per day	3.8
Total FTEs		**29.6**

The actual position descriptions and counts would be slightly different than the mathematical calculations. First, rather than just having two categories of operational personnel (Telecommunicators and Supervisors), iXP recommends adoption of a Communications Training Officer (CTO) position that serves as an intermediary position between Telecommunicator and Supervisor. The CTO continues to be a working position in the communications center staffing model (as is recommended for the Supervisor position). This model brings a number of

operational and quality assurance benefits when the number of established CTO positions allows there to be one on duty during most normal shift cycles.

This allows the CTO to collaborate with the Supervisor in both the routine operation of the shift and in working with new personnel as the transition from new-hire/trainee into a fully functional Telecommunicator. Further, the CTO can serve as a backup to the Supervisor and even serve in that function when short-term scheduling mechanics would otherwise call for working a Supervisor on overtime. This allows the CTO position to not only be seen as a promotional opportunity for Telecommunicators, it also provides an opportunity for CTOs to prepare themselves for advancement into Supervisor positions when they occur.

With the inclusion of the CTO classification, the 26.6 operational personnel identified in the table above would translate to the following actual operational staffing model:

Communications Supervisor	5
Communications Training Officer	5
Telecommunicator	17

It is important to remember that the operational model being recommended for the consolidated operation is for all Supervisor, CTO and Telecommunicator personnel to be fully cross-trained so they can function as call receivers and dispatchers for all law enforcement, fire service and emergency medical functions. With this model in place and a routine staffing of at least 4 positions (with an additional position during the busiest hours of the day) the level of service that can be provided to the public and the agencies being served will be substantially higher than each of the current organizations can deliver on their own.

This model also assumes that the current GIS Technician position in the Sedona Fire District organizational structure becomes a function of the consolidated communications center since continuing support for CAD and 9-1-1 system mapping will be a critical function of the consolidated organization. There may be some services that this position can provide back to the Sedona Fire District (or to other consolidation participants) and the economic value of that support could be factored into the ultimate rate model that gets established with each agency that receives these services. Further, by having this position in the consolidated communications center organization, it provides a second technically-focused individual in the staff mix to assist in routine support of technology systems within the consolidated organization, particularly issues related to the CAD and 9-1-1 systems.

If desired, the organizational staffing model could also include the radio system services function currently conducted by the Sedona Fire District. Since the activities of the current radio system services operation are predominately focused on radio and microwave systems owned and operated by the Sedona Fire District, iXP believes that if the radio system services function were to be integrated into the consolidated communications organizations governance and operational

structure, it should be done as a separate revenue and cost center rather than folding it into the overall costs of the consolidated communications center dispatch activities. This would allow the economic viability of this function to be clearly and separately delineated from that of the consolidated dispatch function, and allow decisions on staffing and expenses for radio system support issues to remain separate from issues related to dispatch and communications functions.

Finally, as described earlier in the description of the recommended organizational model, the new consolidated emergency communications organization would not establish a staff of internal administrative personnel for functions such as accounting, human resources, benefits and the like. Rather, these services would be acquired by the consolidated organization from one of the principals in the consolidation. This will allow the established efficiencies of these organizations to be captured and leveraged into the consolidated operation and avoid costly duplication of capabilities for an organization that is relatively small in comparison to the sizes of the individual principal members.

Projected Operational Budget Model

Based on the operational model discussed in the previous section and the normal operational costs for the specialized systems and facilities needed to operate a contemporary consolidated communications center for the participating jurisdictions (described in the following sections), it is possible to develop estimated annual operating budgets that would fairly represent the anticipated costs of a consolidated organization.

To develop these budget estimates, a number of assumptions need to be made so that the underlying rational for key budget items is well understood in the interpretation of the budget estimate. Since personnel costs are the single largest item in a communications center budget, the assumptions made for this cost element have the most significant impact on expected future costs. As discussed in the Feasibility Study, the current salary and benefit structures for the participating jurisdictions have a number of differences that will likely influence what the ultimate compensation levels might look like for a consolidated organization. For this budget estimation process, salary and benefit rates that are slightly higher than the existing average midpoint of the participating jurisdictions were used.

Operational costs were modeled in three categories: Salary and Benefit Costs; Technical Systems Maintenance Costs; and Other Maintenance and Operations Costs. These estimated operating costs over the initial 10 years of operation are shown in the table on the following page. For most of the individual cost elements, the estimated operational cost in the first year has been escalated by 3% per year to estimate the costs in subsequent years. In a few circumstances the cost estimates are based on multi-year vendor estimates that may reflect differing annual escalation values, or multiple years at one price before cost escalation takes place.

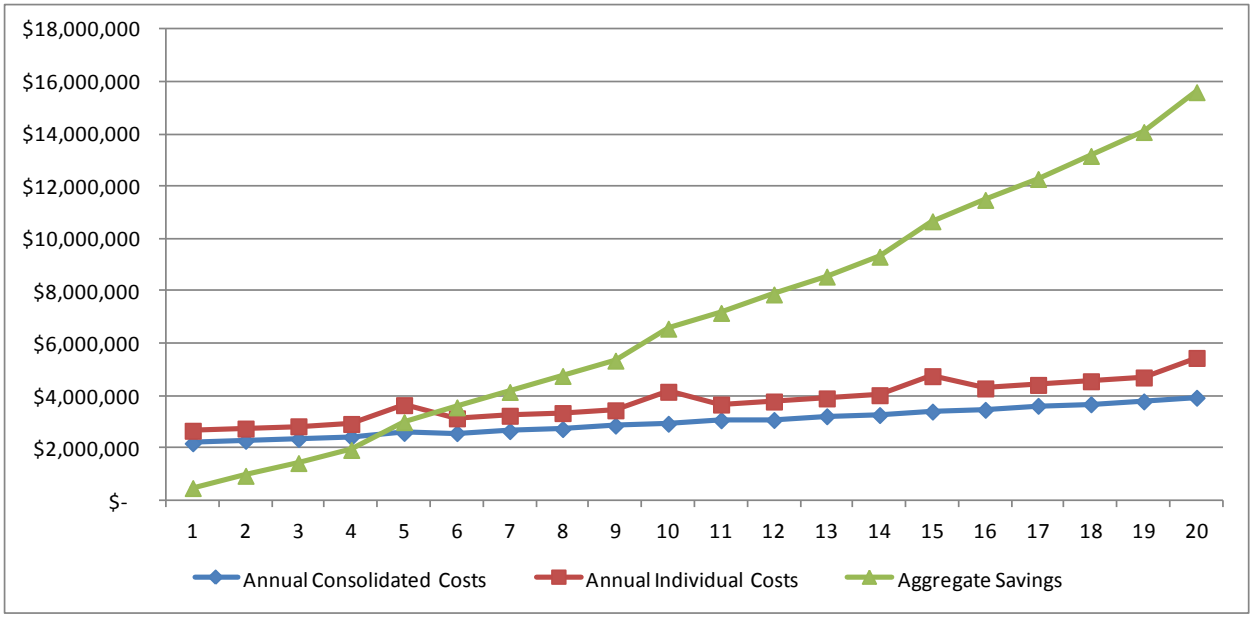
Total Estimated Cost of Operations	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Salary and Benefit Costs										
Communications Center Manager	$ 97,500	$ 100,425	$ 103,438	$ 106,541	$ 109,737	$ 113,029	$ 116,420	$ 119,913	$ 123,510	$ 127,215
Technology Coordinator	$ 83,180	$ 85,676	$ 88,246	$ 90,893	$ 93,620	$ 96,429	$ 99,322	$ 102,301	$ 105,370	$ 108,531
GIS Technician	$ 72,331	$ 74,501	$ 76,736	$ 79,038	$ 81,409	$ 83,851	$ 86,367	$ 88,958	$ 91,626	$ 94,375
Communications Supervisors	$ 321,425	$ 331,068	$ 341,000	$ 351,230	$ 361,767	$ 372,620	$ 383,798	$ 395,312	$ 407,172	$ 419,387
Telecommunicators/CTO	$ 294,550	$ 303,387	$ 312,488	$ 321,863	$ 331,519	$ 341,464	$ 351,708	$ 362,259	$ 373,127	$ 384,321
Telecommunicators	$ 931,600	$ 959,548	$ 988,334	$ 1,017,984	$ 1,048,524	$ 1,079,980	$ 1,112,379	$ 1,145,750	$ 1,180,123	$ 1,215,527
Subtotals	**$ 1,800,586**	**$ 1,854,604**	**$ 1,910,242**	**$ 1,967,549**	**$ 2,026,575**	**$ 2,087,373**	**$ 2,149,994**	**$ 2,214,494**	**$ 2,280,928**	**$ 2,349,356**
Technical Systems Maintenance Costs										
9-1-1 Telephone System	$ 21,600	$ 21,600	$ 21,600	$ 22,680	$ 73,360	$ 25,561	$ 26,328	$ 27,118	$ 77,931	$ 30,269
CAD, Mobile/AVL & RMS	$ 130,000	$ 133,900	$ 137,917	$ 142,055	$ 146,316	$ 150,706	$ 155,227	$ 159,884	$ 164,680	$ 169,621
Radio Console System	$ 41,600	$ 54,600	$ 56,238	$ 58,925	$ 70,693	$ 62,814	$ 64,698	$ 66,639	$ 68,638	$ 80,697
Radio System Control Stations & Backup Units	$ 6,720	$ 6,922	$ 7,129	$ 7,343	$ 7,563	$ 7,790	$ 8,024	$ 8,265	$ 8,513	$ 8,768
Headsets and Interfaces	$ 300	$ 306	$ 312	$ 318	$ 325	$ 331	$ 338	$ 345	$ 351	$ 359
Master Time Synchronization	$ -	$ 500	$ 515	$ 530	$ 546	$ 563	$ 580	$ 597	$ 615	$ 633
Logging & Recording System	$ 14,000	$ 30,000	$ 30,000	$ 30,000	$ 35,000	$ 31,500	$ 31,500	$ 31,500	$ 31,500	$ 38,075
Large Screen Displays	$ -	$ -	$ -	$ 500	$ 500	$ 500	$ 500	$ 500	$ 500	$ 500
Network Backbone & Admin Telephony	$ 8,000	$ 8,560	$ 9,159	$ 9,800	$ 10,486	$ 11,220	$ 12,006	$ 12,846	$ 13,745	$ 14,708
Servers, PCs and related equipment	$ -	$ 2,000	$ 2,000	$ 3,000	$ 23,000	$ 3,000	$ 3,000	$ 3,000	$ 3,000	$ 23,000
MPDS Support	$ 2,000	$ 2,040	$ 2,081	$ 2,122	$ 2,165	$ 2,208	$ 2,252	$ 2,297	$ 2,343	$ 2,390
Subtotals	**$ 224,220**	**$ 260,428**	**$ 266,951**	**$ 277,274**	**$ 369,955**	**$ 296,193**	**$ 304,453**	**$ 312,991**	**$ 371,818**	**$ 369,020**
Other Maintenance and Operations Costs										
UPS System Maintenance	$ 3,000	$ 6,000	$ 6,180	$ 6,365	$ 6,556	$ 6,753	$ 6,956	$ 7,164	$ 7,379	$ 7,601
Tech Room Fire Suppression Maint	$ 500	$ 1,000	$ 1,030	$ 1,061	$ 1,093	$ 1,126	$ 1,159	$ 1,194	$ 1,230	$ 1,267
Generator Maintenance	$ 1,200	$ 1,236	$ 1,273	$ 1,311	$ 1,351	$ 1,391	$ 1,433	$ 1,476	$ 1,520	$ 1,566
HVAC Maintenance	$ 1,200	$ 1,236	$ 1,273	$ 1,311	$ 1,351	$ 1,391	$ 1,433	$ 1,476	$ 1,520	$ 1,566
Non-911 Telecom Services	$ 30,000	$ 30,900	$ 31,827	$ 32,782	$ 33,765	$ 34,778	$ 35,822	$ 36,896	$ 38,003	$ 39,143
ISP Services	$ 12,000	$ 12,360	$ 12,731	$ 13,113	$ 13,506	$ 13,911	$ 14,329	$ 14,758	$ 15,201	$ 15,657
Utility Costs	$ 11,375	$ 11,716	$ 12,068	$ 12,430	$ 12,803	$ 13,187	$ 13,582	$ 13,990	$ 14,410	$ 14,842
Console Furniture & Chairs Maint	$ -	$ -	$ -	$ 3,500	$ 3,500	$ 3,500	$ 3,500	$ 3,500	$ 3,500	$ 3,500
Training & Travel	$ 15,000	$ 15,450	$ 15,914	$ 16,391	$ 16,883	$ 17,389	$ 17,911	$ 18,448	$ 19,002	$ 19,572
Office Supplies	$ 6,000	$ 6,180	$ 6,365	$ 6,556	$ 6,753	$ 6,956	$ 7,164	$ 7,379	$ 7,601	$ 7,829
Misc. Hardware and Software	$ 5,000	$ 5,150	$ 5,305	$ 5,464	$ 5,628	$ 5,796	$ 5,970	$ 6,149	$ 6,334	$ 6,524
Janitorial Service	$ 9,000	$ 9,270	$ 9,548	$ 9,835	$ 10,130	$ 10,433	$ 10,746	$ 11,069	$ 11,401	$ 11,743
Small tools & equipment	$ 5,000	$ 5,150	$ 5,305	$ 5,464	$ 5,628	$ 5,796	$ 5,970	$ 6,149	$ 6,334	$ 6,524
General Facility Maint & Repair	$ 3,500	$ 3,605	$ 3,713	$ 3,825	$ 3,939	$ 4,057	$ 4,179	$ 4,305	$ 4,434	$ 4,567
Photocopiers/FAX equipment	$ 4,800	$ 4,944	$ 5,092	$ 5,245	$ 5,402	$ 5,565	$ 5,731	$ 5,903	$ 6,080	$ 6,263
HR & Benefit Services from Principal Agency	$ 18,000	$ 18,540	$ 19,096	$ 19,669	$ 20,259	$ 20,867	$ 21,493	$ 22,138	$ 22,802	$ 23,486
Accounting Services from Principal Agency	$ 18,000	$ 18,540	$ 19,096	$ 19,669	$ 20,259	$ 20,867	$ 21,493	$ 22,138	$ 22,802	$ 23,486
Legal Services from Principal Agency	$ 12,000	$ 12,360	$ 12,731	$ 13,113	$ 13,506	$ 13,911	$ 14,329	$ 14,758	$ 15,201	$ 15,657
Uniforms	$ 8,100	$ 4,050	$ 4,172	$ 4,297	$ 4,426	$ 4,558	$ 4,695	$ 4,836	$ 4,981	$ 5,130
Subtotal	**$ 163,675**	**$ 167,687**	**$ 172,718**	**$ 181,399**	**$ 186,736**	**$ 192,233**	**$ 197,895**	**$ 203,727**	**$ 209,734**	**$ 215,921**
Total Annual Estimated Costs	**$ 2,188,481**	**$ 2,282,718**	**$ 2,349,911**	**$ 2,426,223**	**$ 2,583,267**	**$ 2,575,800**	**$ 2,652,342**	**$ 2,731,212**	**$ 2,862,480**	**$ 2,934,298**

The following tables compare the projected costs of operating the consolidated communications organization against the projected costs for sustaining the three separate communications centers. Accumulated operational cost savings over the first 10 years of operation would reach approximately $6.5 million.

	Year 1	Year 2	Year 3	Year 4	Year 5
Projected Costs for the Consolidated Organization					
Salary and Benefit Costs	$ 1,800,586	$ 1,854,604	$ 1,910,242	$ 1,967,549	$ 2,026,575
Technical Systems Maintenance Costs	$ 224,220	$ 260,428	$ 266,951	$ 277,274	$ 369,955
Other Maintenance and Operations Costs	$ 163,675	$ 167,687	$ 172,718	$ 181,399	$ 186,736
Total Annual Estimated Costs	**$ 2,188,481**	**$ 2,282,718**	**$ 2,349,911**	**$ 2,426,223**	**$ 2,583,267**
Current Costs of Operation	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**
Estimated City of Sedona Costs	**$ 562,789**	**$ 579,673**	**$ 597,063**	**$ 614,975**	**$ 789,424**
Estiamted City of Cottonwood Costs	**$ 770,220**	**$ 797,178**	**$ 825,079**	**$ 853,957**	**$ 1,092,845**
Estimated Sedona Fire District Costs	**$ 1,333,859**	**$ 1,373,875**	**$ 1,415,091**	**$ 1,457,544**	**$ 1,763,270**
Current Combined Costs of Operations	**$ 2,666,868**	**$ 2,750,725**	**$ 2,837,233**	**$ 2,926,475**	**$ 3,645,539**
Potential Combined Operations Savings	**$ 478,387**	**$ 468,007**	**$ 487,322**	**$ 500,252**	**$ 1,062,272**
Aggregate Savings	**$ 478,387**	**$ 946,394**	**$ 1,433,716**	**$ 1,933,968**	**$ 2,996,240**

	Year 6	Year 7	Year 8	Year 9	Year 10
Projected Costs for the Consolidated Organization					
Salary and Benefit Costs	$ 2,087,373	$ 2,149,994	$ 2,214,494	$ 2,280,928	$ 2,349,356
Technical Systems Maintenance Costs	$ 296,193	$ 304,453	$ 312,991	$ 371,818	$ 369,020
Other Maintenance and Operations Costs	$ 192,233	$ 197,895	$ 203,727	$ 209,734	$ 215,921
Total Annual Estimated Costs	**$ 2,575,800**	**$ 2,652,342**	**$ 2,731,212**	**$ 2,862,480**	**$ 2,934,298**
Current Costs of Operation	**Year 6**	**Year 7**	**Year 8**	**Year 9**	**Year 10**
Estimated City of Sedona Costs	**$ 658,607**	**$ 678,365**	**$ 698,716**	**$ 719,677**	**$ 891,268**
Estiamted City of Cottonwood Costs	**$ 924,095**	**$ 956,438**	**$ 989,913**	**$ 1,024,560**	**$ 1,260,420**
Estimated Sedona Fire District Costs	**$ 1,558,668**	**$ 1,605,428**	**$ 1,653,591**	**$ 1,703,199**	**$ 2,004,295**
Current Combined Costs of Operations	**$ 3,141,370**	**$ 3,240,231**	**$ 3,342,220**	**$ 3,447,436**	**$ 4,155,982**
Potential Combined Operations Savings	**$ 565,570**	**$ 587,889**	**$ 611,009**	**$ 584,956**	**$ 1,221,685**
Aggregate Savings	**$ 3,561,810**	**$ 4,149,699**	**$ 4,760,708**	**$ 5,345,664**	**$ 6,567,349**

The graph below shows how operating costs for a consolidated communications organization would consistently provide savings when compared to operating the three independent communications centers. The graph also shows how these accumulated savings grow substantially over time.



Operational savings of this magnitude will provide a number of opportunities for the participating jurisdictions that would be difficult or impossible to accomplish as stand-alone organizations. This would include the ability to invest in a new purpose-built facility to house the emergency communications organization and new technology systems to support that operation. These capital investment strategies will be discussed further following the Facilities section of this report. It would also include the ability to establish capital reserves for future system and facility refreshments or lowering the rates assessed for services provided. These benefits are in addition to the improved levels of service and depth of coverage benefits that a consolidated emergency communications center would provide to all the communities being served. It is clear that there is a positive business case to continuing to pursue a consolidated emergency communications center for the participating jurisdictions.

While the collective benefit to the community at large provides a compelling argument in support of pursuing a consolidation of dispatching services, it is also important for each individual jurisdiction and agency to understand what their individual costs would be if they participated in the consolidation. As discussed in a previous section of this report, there are a number of potential cost allocation models that could be used to derive these individual cost estimates. The two-tiered model with a combination of a fixed amount of the total annual budget spread equally to all participants, coupled with the balance of the annual budget being allocated

by a workload-driven metric appears to be the model best suited to the circumstances for the study participants.

The following table provides one example of how this model could be applied to the anticipated costs of operation in Year 1 of the consolidated communications organization. In this example, 10% of the annual costs are spread evenly across all participating agencies and the remaining 90% are allocated on a workload basis. While the ultimate selection of the percentage amounts to use in this model would be a governance issue to be decided by the joint powers authority once it is formed, a variety of percentage relationships were examined by the planning group during this study process and this 10% to 90% relationship appeared to be one that garnered a fairly positive level of support when compared to other percentage relationship or other multi-tiered models.

Sample Cost Allocation Model									**Estimated Year 1 OPEX**		**$2,188,481**		
									Cost Allocation on a Two-Tiered Model with XX% Allocated Equally and YY% Allocated on CFS Ratio				
Agency	Updated Law Enforcement CFS	% of Law Enforcement Total	Updated Fire/EMS CFS	% of Fire/EMS Total	% of Combined Total CFS Volume	Per Agency Cost Allocation in Current Models			Portion Allocated on an Equal Basis by all Agencies Served	Portion Allocated on a CFS Basis	Combined Per Agency Cost		Change from Current Cost
									10%	90%			
Clarkdale Police	3,213	9%			6%	$ 148,195	6%		$ 14,484	$ 124,970	$ 139,454	6%	$ (8,741)
Cottonwood Police	17,414	49%			35%	$ 575,566	22%		$ 14,484	$ 677,318	$ 691,802	32%	$ 116,236
Jerome Police	1,259	4%			3%	$ 30,570	1%		$ 14,484	$ 48,969	$ 63,453	3%	$ 32,883
Sedona Police	13,637	38%			27%	$ 562,789	21%		$ 14,484	$ 530,412	$ 544,896	25%	$ (17,893)
CVMO and YAN (CAD Costs)						$ 15,890	1%		$ -	$ -	$ 15,890	1%	$ -
Black Canyon Fire			962	7%	2%	$ 39,955	1%		$ 14,484	$ 37,417	$ 51,901	2%	$ 11,946
Camp Verde Fire			2,047	14%	4%	$ 108,514	4%		$ 14,484	$ 79,618	$ 94,102	4%	$ (14,412)
Clarkdale Fire			479	3%	1%	$ 33,925	1%		$ 14,484	$ 18,631	$ 33,115	2%	$ (810)
Cottonwood Fire			2,386	16%	5%	$ 120,989	5%		$ 14,484	$ 92,804	$ 107,288	5%	$ (13,701)
Jerome Fire			123	1%	0%	$ 7,812	0%		$ 14,484	$ 4,784	$ 19,268	1%	$ 11,456
Mayer Fire			1,350	9%	3%	$ 65,567	2%		$ 14,484	$ 52,508	$ 66,992	3%	$ 1,425
Montezuma Rimrock Fire			841	6%	2%	$ 59,564	2%		$ 14,484	$ 32,711	$ 47,195	2%	$ (12,369)
Pinewood Fire			543	4%	1%	$ 38,458	1%		$ 14,484	$ 21,120	$ 35,604	2%	$ (2,854)
Sedona Fire District			3,750	25%	7%	$ 652,872	24%		$ 14,484	$ 145,856	$ 160,340	7%	$ (492,532)
Verde Valley Fire			1,653	11%	3%	$ 117,074	4%		$ 14,484	$ 64,294	$ 78,777	4%	$ (38,297)
Verde Valley Ambulance			615	4%	1%	$ 89,129	3%		$ 14,484	$ 23,920	$ 38,404	2%	$ (50,725)
Totals by Discipline	35,523	100%	14,749	100%	100%	$ 2,666,869	100%		$ 217,259	$ 1,955,332	$ 2,188,481	100%	$ (478,388)
Percentage of Total CFS	71%		29%										
Combined Total CFS Volume	50,272												
Total Costs for Law Enforcement Agencies						**$ 1,333,010**	**50%**				**$ 1,455,495**	**67%**	
Total Costs for Fire/EMS Agencies						**$ 1,333,859**	**50%**				**$ 732,986**	**33%**	
						$ 2,666,869					**$ 2,188,481**		

Managed Services Alternatives

iXP also believes that further savings and financial predictability and flexibility could be achieved through a managed services alternative. Through combinations of flexible capitalization processes and exceptional depth of resources and experience in managing operations, systems and facilities, iXP is able to provide managed services alternatives that allow organizations to maximize their service levels, stabilize their budget exposures and minimize the

organizational and managerial challenges of establishing and operating consolidated emergency communications organizations. During continued analysis of this Business Case with the City of Cottonwood and the participating jurisdictions, iXP would be happy to provide further details and cost proposals for managed services alternatives.

The benefits of a managed services strategy are realized in a number of different ways:

- Streamlined facility acquisition, design and construction processes.
- Efficient and tightly coordinated acquisition and implementation of communications center technology systems.
- Bundling of recurring operational and maintenance costs for facilities and technology systems, including pre-planned technology refreshment cycles, to provide high levels of predictability for budget planning in multi-year contracting cycles.
- Opportunities to shift human resource management responsibilities and costs into similar multi-year managed services contracting processes.

If the City of Cottonwood, either individually or in partnership with the other jurisdictions in this Business Case study, wishes to explore the managed services alternative in detail, iXP would develop a detailed cost proposal and proposed contracting strategies for your further consideration. This proposal could be structured to include the full scope of responsibilities for establishing and operating the emergency communications center, or could be tailored to include the individual elements that were of most interest to approach in a managed services solution model.

The proposal could also include proposed contracting and financing structures to assist the City and participating jurisdictions in establishing a long-term financial model that could minimize the need for up-front or bonded capital investments. iXP has been successful in providing third party financing for public safety and security projects in both government and private sector clients. This financing, which is based upon a lease/purchase financial transaction model, allows iXP clients to fund mission critical public safety projects involving technology, facilities and operations which the clients would not be able to fund within current capital or operating budgets. The method and benefit of this type of financing is:

- Lease/purchase financing furnishes tax-exempt funds for purchases of capital equipment and operations to be repaid over time.
- Repayment of these funds is contingent upon annual appropriations made by the state or local government and is treated as a current expense.
- The obligation may or may not be classified as government debt and may or may not affect the legal borrowing limits of the issuer.

iXP looks forward to having further conversations on potential managed services strategies with the City of Cottonwood, the City of Sedona and the Sedona Fire District if these are of interest as the planning for a consolidated emergency communications center proceeds.

Technology

As discussed in the Feasibility Study and realized by each of the study participants from their existing operations, providing an appropriate mix of technology systems is a considerable challenge for contemporary emergency communications centers. While the establishment of a new consolidated emergency communications organization and operation typically requires the acquisition of a number of new systems and technologies, iXP has found that it is also possible to re-use and transfer licenses of some systems and equipment if the transition is carefully planned and coordinated. In the following review of technology systems we have attempted to consider re-use strategies wherever we felt they could be executed in a manner that would both preserve the integrity of current operations during any transition period while also becoming a stable investment for the newly established organization.

A table summarizing the estimated technology costs is provided at the close of this section.

Emergency Telephone System Recommendations

CenturyLink (the supporting emergency telecommunication provider) recommends that the Vesta Pallas systems be retained as the more cost effective solution for the consolidation of the communications center supporting the Cottonwood and Sedona agencies. The main reason being that the Cassidian product agencies all have the Vela mapping product that support the Agencies they dispatch, and mapping for all of Yavapai County, Prescott and the surrounding Arizona Department of Public Safety areas. Currently this functionality does not reside on the Sedona Police Department Intrado Viper emergency telephone equipment. Also, combined with the current PSAPs, there is more of this equipment as opposed to having to purchase additional Intrado workstations if the decision is made to re-use that system.

Once the facility has been located and work completed to support a consolidated communications center function, CenturyLink recommends moving the five (5) positions currently located at the Sedona Fire District to the new Facility. This is taking into consideration all of the new supporting 9-1-1 trunks and ANI/ALI POTS lines have been installed during the facility construction phase, and that the supporting server room, wide area networks, furniture, administrative telephony and any other supporting facility, training, SOP's, furniture, etc., have been installed up, tested and ready for cut over. CenturyLink proposes the Sedona Fire District be hot cut during the State authorized 9-1-1 window of 2300 to 0600 hours. Hot cut meaning CenturyLink will shut down, de-install, transport to the new facility, install and turn up those positions during the seven hour window. The five (5) positions and infrastructure offer the most number of client workstations to accommodate folding the other PSAP's into the new regional facility. This one event is the most critical for the entire project. It will require exacting pre-

planning leading up to the "hot cut" and assembling the appropriate resources to insure a successful move from the Sedona Fire District site to the new center. Some of the pre-planning activities include;

- Insuring the new facility is ready
- Staff hired, trained and schedules developed
- Insuring the new 911 trunks are delivered, tested & ready for use
- All of the other supporting technologies are installed, tested and ready
- All of the operational issues are complete, SOP's, stakeholders, etc., and staff trained
- Staff is trained in the new technologies
- A transition plan is developed, reviewed and approved by all participating agencies
- Essentially, the new facility is ready to go live with the "hot cut" of the 911 technologies

Once the Sedona Fire District has been successfully moved, the Cottonwood and Sedona Police PSAP's can cut over on subsequent nights during the 9-1-1 "hot cut" window.

These communications centers currently each have their own Cassidian infrastructure and a combined total seven (7) emergency telephone answering positions. Starting with the recommended six (6) positions in the new communications center, this would mean one (1) position could be re-used in a Cassidian product backup scenario (see below). For the Sedona Police Department PSAP, no equipment would have be "hot cut", since no equipment would be moved. Since the Intrado equipment would not be moved, this is simply redirecting the 9-1-1 trunks and any other administrative telephone lines to the new facility. This equipment can be re-used if considering Option 2 of the backup facility or sold to agencies looking for Intrado equipment.

One choice will need to be made to accompany the plan in order to gain State approval for consolidation.

The budgetary estimate from CenturyLink for the services required to install the new 911 trunks, work leading up to and performing the three (3) "hot cuts" and support immediately thereafter is approximately $100,000. This is a significant savings over the potential cost for a newly acquired and implemented system which would cost approximately $300,000 for a comparable configuration.

Backup Facility

There are two (2) options for a back up to the new consolidated communications center, one being to use the one (1) left over Cassidian Vesta workstation in the Camp Verde

Communications Center. Provided Camp Verde agrees to act and facilitate the backup facility for the newly consolidated communications center. This would require the acquisition of at least two (2) more additional Cassidian client workstations to provide a three (3) position back up facility. This would be the more cost effective solution, providing the Camp Verde facility has the space to accommodate the additional positions. The Camp Verde Center currently utilizes the Cassidian system for their 911 telephony.

The other option would be to put the Intrado equipment from the Sedona Police Department Center in the Yavapai County Sheriff's Office Center to support relocation if the primary new regional Center experiences problems. The Yavapai County Sheriff's Office Center is currently utilizing this Intrado equipment. This option is not preferred due to the current lack of radio interoperability with Yavapai County and would require a substantial investment in the radio infrastructure.

Computer Aided Dispatch (CAD)/Mobile Recommendations

Currently, the following systems are being utilized at the three (3) Communications Centers considering the consolidation;

- Cottonwood Police Department PSAP – Spillman Technologies
- Sedona Fire District PSAP – Public Safety Systems Inc. (PSSI)
- Sedona Police Department PSAP – New World Systems

The options are to either use one of the existing systems (listed above) in the consolidated communications center or replace it with an entirely new system that meets the user requirements.

Using one of the existing CAD/Mobile systems can be beneficial for two reasons; 1) existing license transfers (if approved by the vendor) will potentially reduce costs versus purchasing a new system and, 2) a percentage of users on that system will not require training, thereby reducing those costs and having a core group of experienced users with that system. Following the logic discussed in the emergency telephone section, the systems with potentially the most impact will be those currently supporting the Sedona Fire District, then the Cottonwood Police Department users. Reuse of the Spillman system operated by the Cottonwood Police Department would create fewer implementation challenges and costs for the Camp Verde Marshall's Office which also currently operates on this shared system. Spillman also appears to be able to deliver the lowest cost solution for the consolidated organization compared to the PSSI or New World alternatives.

Any CAD/Mobile system will be required to support the future consolidated communications center and therefore be able to support a multiagency/multijurisdictional operation. All of your current vendors claim to support this functionality. The following assumptions are being used to develop budgetary pricing for CAD/Mobile technology in the consolidated center;

- Redundant CAD servers and mobile message switches
- Eight (8) CAD dispatch positions (with 6 in the initial configuration)
- Interfaces to ANI/ALI, NCIC/ACIC, and network time synchronization system
- Mapping (graphical geobase)
- Eighty (80) police mobile users
- Fifteen (15) fire mobile users (with an option for 60 more)
- Installation, training and support services

These assumptions are provided to level set the budgetary estimates to provide CAD/Mobile functionality in the new center. The vendors polled provided a wide range of estimates based upon their understanding of the proposed consolidation. These estimates range from $700,000 to $1,100,000 for the above functionality and configuration.

Since the consolidated center would be providing technology support for all the dispatch related systems, it was requested that iXP explore the feasibility to provide as an option a common Records Management (RMS) solution to support all of the participating agencies. The following assumptions were used when estimating a cost for the consolidated communications center to also host a consolidated RMS;

- RMS application would support both Police and Fire agencies
- RMS application would support multi-jurisdictions, segregated data, provide mandatory reporting requirements by agency
- Based upon records end users, the following estimates were used for licensing costs, Cottonwood Police Department 96 end users (this includes users in agencies currently operating on the Cottonwood system), Sedona Police Department 20 end users, and Sedona Fire District 20 end users.
- Also, part of the Mobile Records would be Mobile Field Reporting functionality for police and fire users.

The cost for this functionality is expected to cost between $500,000 and $700,000. This cost does not include the cost of the vehicular mobile hardware and their connectivity to the systems via commercial carrier networks.

If not using the consolidated RMS, the proposed CAD system to be used in the consolidated communications center would be required to at least send to each participating agency RMS a CAD incident data record at the closing of each CAD incident. Then it would be the responsibility of each agency to configure their RMS to receive this incident data for them to maintain their own records.

It is important to note, that with the above solution, this is a one way transfer of incident data from CAD to the respective RMS. In most communications centers, they are supported by a single product CAD and RMS and therefore data found in RMS is available, such as warrant information, fire inspections, personnel, to the dispatcher based upon the incident location and/or queries. If the participating agencies choose the consolidated CAD/RMS, a natural two way interface should be a standard feature so any data associated with incident location, vehicles, persons, will be highlighted to those working the CAD incident. The other benefit to a consolidated RMS will be the requirement to technically support will shift from the local agency to the consolidated center. With more users on a system, a redundant configuration would be implemented which minimizes down time to support continuous operations and less disruption to the end users.

Radio Equipment, Radio Console System & Back up Radio Recommendations

Radio console equipment is that equipment supporting the radio dispatch function. Each PSAP currently has its' own radio backbone and console equipment supporting their operations. Most of the current equipment in use is "end of life" meaning the manufacturer does not support the equipment any longer. In one case, the manufacturer no longer exists to support their equipment, and it's left up the local reseller to support with whatever parts they can obtain. For the new consolidated communications center, iXP recommends that a new, IP-based radio console system be implemented and connected to the diverse radio networks supporting the agencies today. The basic elements of this radio console system would include:

- Six (6) client workstations/radio control interface units & software licensing
- Capacity to control 48 radio channels
- Six (6) microphones
- Twelve (12) speakers (select & unselect audio)
- Six (6) foot pedals
- Six (6) 21" monitors
- Six (6) instant recall recorders
- Six (6) wired headsets
- Six (6) headset junction boxes

- Installation, training & 1 year warranty

The budgetary estimate for this system is approximately $304,000.

The technical approach for connecting this radio console system to the various radio networks will vary depending on which location is selected for the new consolidated communications facility. If the facility is located at one of the two Cottonwood alternatives, investments will be needed in the microwave and networking systems that currently tie in at the Sedona Fire, Sedona Police and Cottonwood Police communications centers. While the current link into the Cottonwood facility could be a part of the solution if the Cottonwood Public Safety Building location was selected, this link would need to be upgraded to allow it to support the full number of radio system interconnections needed for a consolidated center. Further, additional microwave links and additional networking equipment at some of the existing microwave sites would need to be established to the new facility to provide alternative routing from that new communications center to the various radio system connections.

While detailed radio, microwave and network engineering work would be necessary to identify the specific costs for this added microwave and network equipment, iXP estimates that the total overall cost for planning and implementing the required microwave connectivity for a Cottonwood location would range between $500,000 and $750,00 depending on the location selected (with the Cottonwood Public Safety Building site being more economical because re-use of the existing microwave link could be part of the engineered solution). The implication of these potential costs will be discussed further in the Facility section of this report. It should be noted that modifications to the microwave system would also be necessary if the Sedona Fire District location were chosen, but those changes would not be as significant since that location is already tied into the microwave loop configuration.

Even with reliable and redundant microwave links connecting the consolidated communications center to the various radio systems, it will also be important to establish some level of stand-alone backup radio communications capabilities. This is typically established through a combination of base and control-station radios at the communications center that are then tied into either the radio console system or into individual desktop telephone-style control units placed at each dispatch position. While these local radios would not have the power or optimal location to allow them to fully replace the communications capabilities of the microwave connected radio console system, they would provide a limited backup radio capability in the unlikely event that either the redundant microwave connectivity or the radio console system were to fail. The budgetary estimate for this backup radio configuration is approximately $137,000.

Finally, headset systems and individual headsets will need to be acquired and implemented to interface to both the radio and telephony environment. With an average cost of $300 per unit and establishing an initial set of spares, a budget estimate of $3,000 should be sufficient.

Console Furniture Recommendation

Furniture systems designed to support emergency communications centers now offer a wide variety of features such as hydraulic lifts for work spaces, cable management, environmental systems, and system storage areas. The more features the furniture system provides, the more one can expect to pay for this furniture. Simple furniture systems with little functionality can cost approximately $5,000 per position (includes shipping & installation). This type of furniture is made mostly of thin sheet metal and cloth not holding up as well as better quality systems.

A better made, non hydraulic lift (manual lift components) costs more in the range of $8,500 per position. The work spaces have longer warranties, there is better ventilation and storage for the technology components, and they can be custom made to the user's requirements. The most costly are the systems with hydraulic lifts and environmental systems, costing as much as $15,000 per position. iXP believes a per-position estimate of $10,000 is reasonable for planning purposes, which would place the estimate for the initial six (6) positions of the consolidated communications center at $60,000.

Also, the chairs used for 24X7 operations can cost as much as $1,600 per position. These chairs are steel frame (lifetime warranty on the frame and wheels), fabric rated to 300,000 rubs, added back lumbar support and have a weight rating of up to 350 lbs. These types of chairs are typical for 24X7 use in call centers today. The estimated cost for the initial six (6) operating positions would be $9,600. This would bring the total estimated cost for specialized furniture systems to $69,600.

Time Synchronization Recommendation

One of the most important and most overlooked supporting technologies is that of a master time source system. It is critical, in the public safety environment, to have all of the technologies synchronized to one time. When re-creating an event history, having disparate times can reflect poorly on the call taking and dispatching of an event, when in reality all actions were "by the book", however, different time stamps on pieces of the event portray a different picture.

These systems are typically serial and networked based with all individual technology systems in the center connected and configured to receive their date/time from this system. The system has an option of configuring multiple "time server" or switches allowing for diverse network designs, each "time server" controlling a virtual network. The system gets its' time input via a satellite receiver from a recognized time source. In this scenario, every technology connected to

this system has the same time for accurate event history recording. The cost for a typical system including a wall display clock in the communications center approximately $9,500.

Logging/Recording Recommendation

All of the audio communications relating to the dispatch function of the communications center must be recorded. They are recorded for court purposes, quality assurance programs within the center, and for immediate playback to triage specific conversations. The instant playback feature allows the calltaker to easily replay conversations that may be initially difficult to understand because the caller is either excited, rush their conversations or have significant background noises and then hang up or get disconnected. This feature is also sometimes available on some third party telephone/radio equipment as well as on the logging/recording system, and whichever approach is used it will need to be configured for easy access by the calltaker/dispatcher. Some logging/recording systems/vendors offer a quality assurance program within their systems. These programs allow for queries into the database of stored audio conversations and bring back those conversations for playback based upon a query, such as by position, by dispatcher ID, by 9-1-1 trunk, by radio channel, etc. It's a tool to provide systematic support of a quality assurance program of the center personnel. Last, each system must allow for the retrieval of all conversations relative to an event and storage to a media that conforms to local chain of custody rules for evidence. Most systems have proprietary recording formats so only a product specific player can reproduce the stored material into a common format and the retrieval person has to treat the recording as evidence following the procedures that may apply.

It is iXP's recommendation to record at the 9-1-1 trunk, primary and backup radio channel, and at each individual position (by tapping into the headset jack). This means the system must have more audio channel recording capability but it insures that all emergency and administrative audio is recorded. In most cases, we recommend recording at a minimum of two (2) distinct points for each type of audio, that being telephone and radio communications. For this reason, iXP recommends installing a base unit with at least a 64 channel recording capacity at start-up with the ability to support growth. The budgetary estimate for a logging/recording system with the following configuration is approximately $210,000. This includes shipping, installation and training. The features are;

- 64 Channel recording capacity
- Logging/Recording system server
- Quality assurance program & server
- 3 play back licenses
- 42U equipment rack
- KVM switch

- 911 analog interface
- Switch
- Replay workstation

Large Screen Display Recommendation

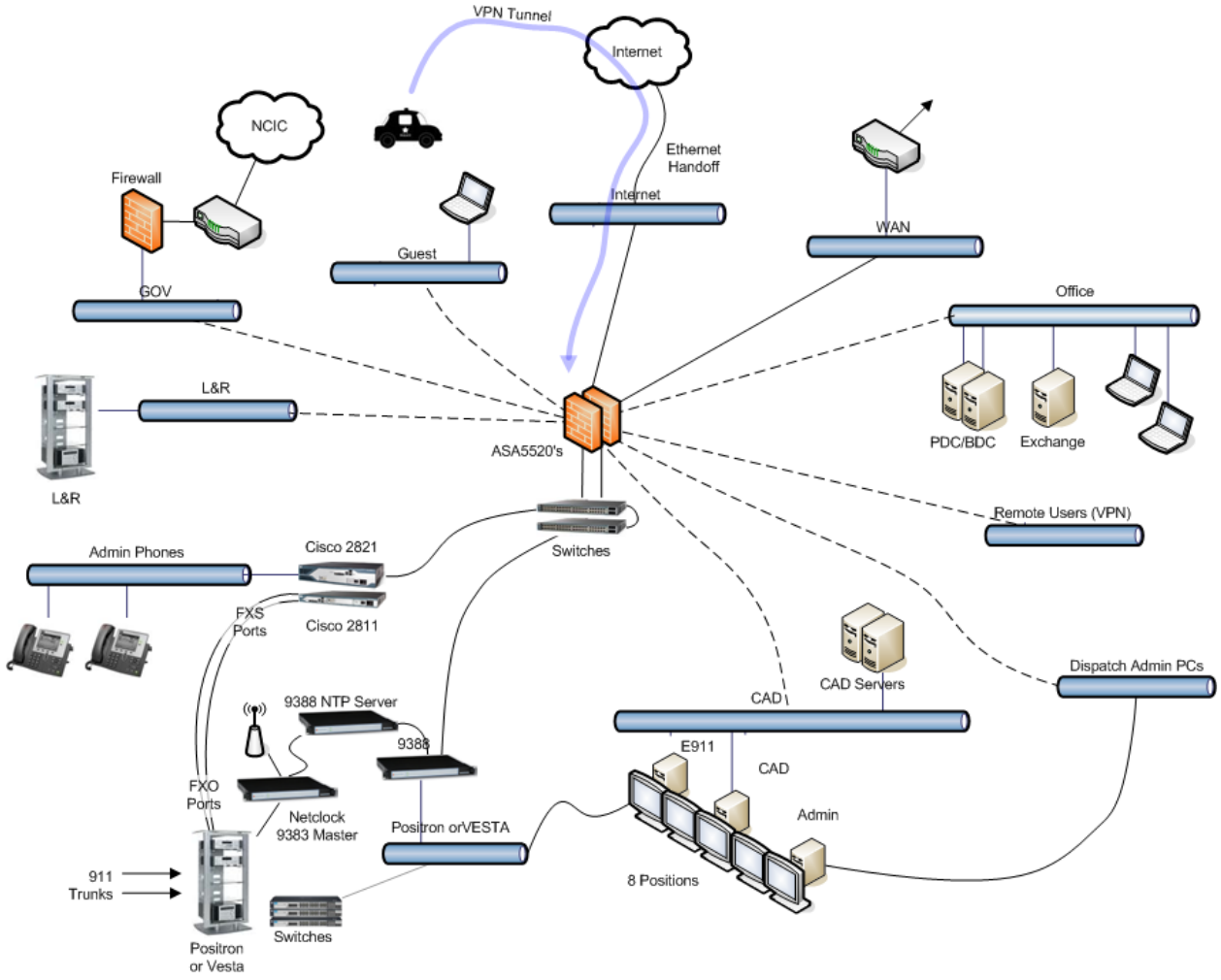
It is beneficial to all the dispatchers working in the center to have some information displayed via large screen monitors, such as, weather, unit status/location from the AVL/CAD, traffic cameras, security cameras, etc. For budgetary purposes one has to consider the following;

- 42 - 46" LCD monitor/television
- Large screen display mounting bracket
- 110 V electrical outlet within reach of the cord
- Connectivity to either coaxial cable (antenna) or VGA/DVI cable to visual source be it TV or computer

iXP estimates the per unit cost of a large screen display to be approximately $700 not counting the computer, CAD/AVL licensing, and cost of cabling (if required). The budgetary estimate of $1,500 typically allows two displays to be strategically located in the communications to provide reasonable visibility from all operating positions.

Network, Administrative Telephony and Computer Systems Recommendations

A contemporary emergency communications center needs to be supported by a relatively sophisticated backbone network and supporting computer and communications systems to allow both internal operations and interfaces to external systems to operate efficiently and reliably. iXP has considered the mix of technologies that will need to be integrated into the consolidated communications center and represented these in the following diagram of the likely network design that will be needed for the new consolidated operation.



LAN Switches

It is estimated that 72 connections must be supported by the LAN switches. Each connection is in the form of a Fast Ethernet connection (100 Mb/sec) with RJ45 termination. The following table shows the details of the proposed LAN connected devices (estimate only as the final solutions have yet to be selected).

Description	LAN Ports	Comments
CAD Workstations	8	
Administrative Workstations (PCs)	8	
Emergency Telephone clients	8	
Radio Console equipment	8	
PDC, BDC	2	Domain Controllers
Exchange	1	Exchange Server

CAD and other support servers	2	
Router(s)	2	
Admin Phones	10	Telephony Switch with POE (Power Over Ethernet)
Time Synchronization	1	Depicts 1 time server/VLAN
Message Switch	2	
Misc Servers	4	NAS, Web,
Firewalls	8	2 systems (active/standby), 4 ports each
Call Manager Express	1	Cisco CME - VoIP
Telephony Gateway	1	Integration with E911 telephony (FXO/FXS)
Switch to switch	2	
Other	4	Future growth; Other devices not listed
Total	**72**	

iXP recommends using two (2) Cisco 3560 48 port switches to support all the above described estimated LAN connections. If the equipment/numbers change, the make/model recommendation would have to be validated.

Firewalls

For security reasons it is recommended to use two (2) firewalls (active/standby) to control all traffic to/from the consolidated communications center and inter VLAN routing within the center. The firewalls will also be used to support the remote users (vendor maintenance, LAN support staff, etc.) as well as VPN tunnels for MDTs. For this pricing purpose, iXP recommends using two (2) Cisco ASA 5520 firewalls.

Routers

At least one (1) router may be necessary for WAN connectivity. If the actual circuit hand-off is in the form of an Ethernet connection, then the router may not be necessary as the firewall will be able to perform the required function. For budgetary pricing purposes it is recommended to use a Cisco 2901 router.

Administrative Telephony function

The budgetary estimates for the administrative telephony system have been based on the Cisco Call Manager technology. This administrative telephony system would be used as the interface point for all inbound and outbound telephone communications not occurring on 9-1-1 trunks, such as outgoing telephone calls, emergency or non-emergency 10 digit telephone numbers, fax lines, alarm company 10 digit telephone numbers, and general telephony needs for other locations in the communications center. A Cisco 2821 will perform the Call Manager Express

functionality including voice mail. A Cisco 2921 router provides for the interconnectivity between the administrative telephone system and the 9-1-1 emergency telephone system.

As shown in the network diagram one (1) PRI circuit provides for the inbound/outbound telephony traffic. FXS/FXO connectivity provides for call transfers between the Cisco CME and the emergency telephone system (Cassidian). Using this design, the dispatchers will be handling all telephony communications on the Cassidian equipment, the administrative call piece invisible to them.

The proposed components and budgetary estimates for the network, LAN, and administrative telephony system are shown in the following table:

System	Qty	System Type	Unit	Extended Price
Admin Systems				
PDC/BDC	2	Dell R610	3,500	7,000
Exchange Server	1	Dell R710	8,000	8,000
NAS	1	Dell NX300 2TB NAS	2,700	2,700
Tape Backup	1	Dell Power Vault 114X – RD1000	2,800	2,800
Laptops	4	Dell Latitude E6520	1,600	6,400
Admin PCs	6	Dell Precision T3500	1,800	10,800
KVM	1	Dell KVM with 8 ports	3,000	3,000
Rack	2	Dell 4020S 42U Rack	3,500	7,000
FXO Cards	10	For use on emergency telephone system.	500	5,000
WS-C3560G-48PS-S	2	CAT3560G 48-10/100/1000 POE+ 4-SFP SMI	4,900	9,800
Cisco Gear				
CISCO2921/K9	1	2921 W/3 GE 4 EHWIC 3 DSP 1 SM 256MB CF	1,960	1,960
ASA5520-BUN-K9	2	ASA5520 Appliance W/ SW 750 VPN Peers	3,995	7,990
C2901-CME-SRST/K9	1	2901 VOICE BDL PVDM3-16 FL-CME-SRST-25 U	2,230	2,230
VIC3-4FXS/DID	3	4PT VOICE I/F CARD FXS AND DID	510	1,530
CP-7941G	10	Cisco IP Phone 7941 Global	175	1,750
PVDM3-64 64CHL	2	HIGH-DENSITY VOICE VID DSP MOD	1,825	3,650
VWIC2-2MFT-T1/E1	2	2PT 2Gen Multiflex Trunk Voice/WAN Int	1,100	2,200
L-FL-CME-SRST-25	1	L-FL-CME-SRST-25	340	340
		Total Estimated Cost		**$84,150***

*This does not include installation

The final anticipated cost that needs to be factored into the overall cost estimates for the technology systems is the effort to oversee the integration of all these systems into a cohesive operating environment to support the emergency communications operations. This system integration effort requires careful coordination with each system vendor to make sure their

systems are properly prepared and installed so that they interact properly with other systems and the backbone network and facility systems. iXP estimates a total anticipated cost of $250,000 for the overall system integration process for a technology and facility mix of this size.

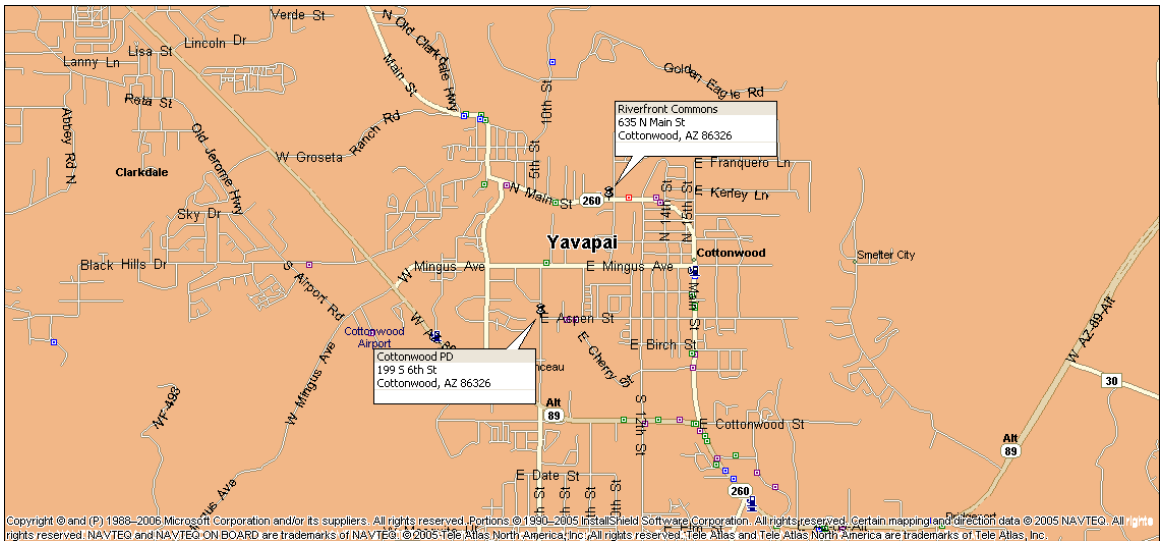
Estimated Technology System Costs	**Estimated Costs**	
	Low Estimate	High Estimate
9-1-1 Telephone System	$ 100,000	$ 100,000
Computer Aided Dispatch/Mobile	$ 700,000	$ 1,100,000
Integrated RMS Application	$ 500,000	$ 700,000
Radio Console System	$ 304,000	$ 304,000
Radio Back-up Equipment	$ 137,000	$ 137,000
Headsets	$ 3,000	$ 3,000
Console Furniture	$ 69,600	$ 69,600
Master Time Synchronization	$ 9,500	$ 9,500
Logging/Recording System	$ 210,000	$ 210,000
Large Screen Displays	$ 1,500	$ 1,500
Network, Admin Telephony & Computer Equipment	$ 84,150	$ 84,150
System Integration	$ 250,000	$ 250,000
Microwave and Network Connectivity	$ 250,000	$ 750,000
Estimated Total Costs for Technology Systems	**$ 2,618,750**	**$ 3,718,750**

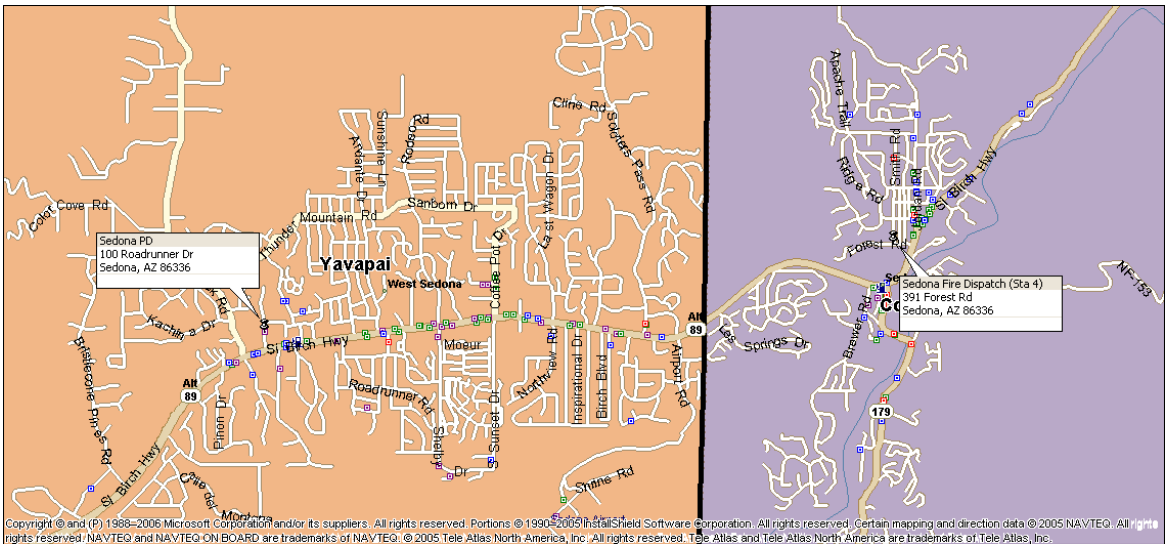
Facilities

For this Business Case study, iXP was asked to estimate the potential cost of construction for three location alternatives being considered for the consolidated communications center:

- Site #1 – Property owned by the City of Cottonwood immediately adjacent to the Cottonwood Public Safety facility.
- Site #2 – A currently vacant commercial structure in the City of Cottonwood known as Riverfront Commons that could potentially be acquired by the City and converted to a combination of municipal office space and house the consolidated communications center.
- Site #3 – Property owned by the Sedona Fire District immediately adjacent to their current communications center located at Fire Station #4.

These locations are indicated on the following maps for the convenience of the reader.





iXP engaged the services of DWL Architects + Planners, a Phoenix area architectural firm with experience in municipal, public safety and mission critical facility design, to assist in evaluating these alternative locations and establishing construction cost estimates for each of these locations. The estimated space requirements identified in the Feasibility Study were used as a reference point for sizing the facility (approximately 6,700 s.f.) and characteristics of design and construction pertinent to emergency communications facilities were factored into their analysis so that the resulting cost estimates reflected the reasonably anticipated costs to establish a reliable and secure emergency communications center at each of the given site alternatives.

Design Philosophy

The design philosophy to be used in developing a new regional emergency services dispatch facility located at one of the three proposed locations will emphasize the essential program criteria of functionality, efficiency and contextual relevance. This methodology incorporates Department of Defense infrastructure, FEMA guidelines and generic command center ideology to provide a common infrastructure supporting stronger incident response capabilities.

Each proposed project site holds uniquely different development opportunities and constraints influencing the facility's administrative/operational environment, external public image and internal enhancement of employee morale. Also affected will be the resulting facility's growth potential to adapt to changing technology and needs. Establishment of the following design development standards are recommended regardless of the final site selection:

Durability

- All primary building components/assemblies shall be selected for their durability and maintenance capabilities.

- Interior building materials shall be selected for maximum longevity according to their intended use.
- Finishes appropriate for their intended uses.

Flexibility

- Building shell, environmental and electrical systems shall be selected and configured for future expansion.
- Select interior tenant areas shall be configured for their intended use and future expansion.

Cost

- All materials and products shall be cost-effective over their anticipated life cycle.
- Consideration is given to manufacturer's warranty and service agreements.

Aesthetics

- The location, orientation and massing of the building on the selected site shall be contextually appropriate for the surrounding community.
- Exterior materials and finishes shall be appropriate to the facility's public image and, operational requirements with inspiration drawn from the regional environments.
- Interior finishes shall incorporate a neutral palette with warm and cool accent colors are most successful; accent colors should be classic, not trendy and able to be removed cost-effectively when refurbishing.
- Durable textiles are recommended for upholstered furniture and carpeting should be easily replaceable for updating.

Life Safety

- The site and building configurations shall conform to all applicable zoning, building code and testing requirements.
- The building and interior furniture layouts shall be compatible with the intended function of the space and allow for ease of egress.
- The facility can be easily secured and hardened to withstand attack for use as an Emergency Operations Center.

A successfully designed project incorporating the above capabilities requires the active participation of all its primary stakeholders. Working closely with these parties, the iXP building

design team will undertake the requisite steps to maximize the functionality, efficiency and aesthetic opportunities of the selected development site.

Candidate Site Assessments

SITE NO. 1 CITY OF COTTONWOOD AZ, ASPEN STREET (LOT# 406-42-170J)

SITE DESCRIPTION.

General	Empty lot, new building and parking	
Construction type	One story building, Type II, 1 HR fire rating	
Total Building Area	7,000 sf	- CMU bearing walls, metal truss roof structure.
Total Parking Area	9,000 sf	- 28 parking spaces, 90 degree double-sided lot
	9,000 sf	- Driveways with curb cuts
		4" asphalt over 8" ABC with traffic markings

SITE PROS

1 Site is a large undeveloped parcel. There is more flexibility in building layout and space available for future growth of the facility.

Option 1 - future horizontal building expansion.

Option 2 - future vertical building expansion (35 ft height limit).

2 Center can be set back further away from the roads and adjacent buildings, affording better safety and security.

3 Building and parking can be securely fenced.

4 Existing radio tower at the Cottonwood Police Department available for shared use.

5 Center can share public facilities with Cottonwood Police Department.

6 Existing helipad at the Cottonwood Police Department available for shared use.

SITE CONS

1 New site. All new services required. More site work and grading for storm water retention area.

2 28 car parking spaces required by the City of Cottonwood zoning

Approximately 20 car parking spaces required based on the proposed use.

Recommend submission of request for parking spaces reduction variance.

3 If the existing radio tower is to be utilized, site work for cabling is required on the adjacent property.

4 Limited natural vistas.

BUILDING SYSTEMS AND MATERIALS.

Exterior Elevation Area	6,100 sf	18 feet high Wall assembly: 8" CMU walls, metal stud furring, rigid insulation (R19)
Roof Area	7,000 sf	Roofing system: TPO on rigid insulation on metal deck (R30)
Foundation	520 feet	Continuous concrete foundation 12"thick X 24"wide X 24"deep

Windows Area		
Exterior	305 sf	5% of wall area
		Mini-blinds, match windows area.
Interior	600 sf	
Skylights	4 skylights	4x4 laminated glass, gabled, aluminum frame.
Doors		
Exterior -	3 doors	HM in HM frame. 1 ADA accessible mechanically operated door (main entrance).
Interior -	20 doors	Solid core WD in HM frame. 3 ADA accessible mechanically operated doors (restrooms)
	50 sf	Class 3 bullet-proof storefront glazing
	1 operable partition	10'H x 20'W operable panel partition in the Meeting/Training room
Lay-in ceiling	6,300 sf	2x2 acoustical ceiling tiles.
Painted GWB	8,200 sf	10' high (total sf)
Raised Floor	2,000 sf	Operational Floor only
		14" deep system (depressed into the site, floor level is not raised above street level)

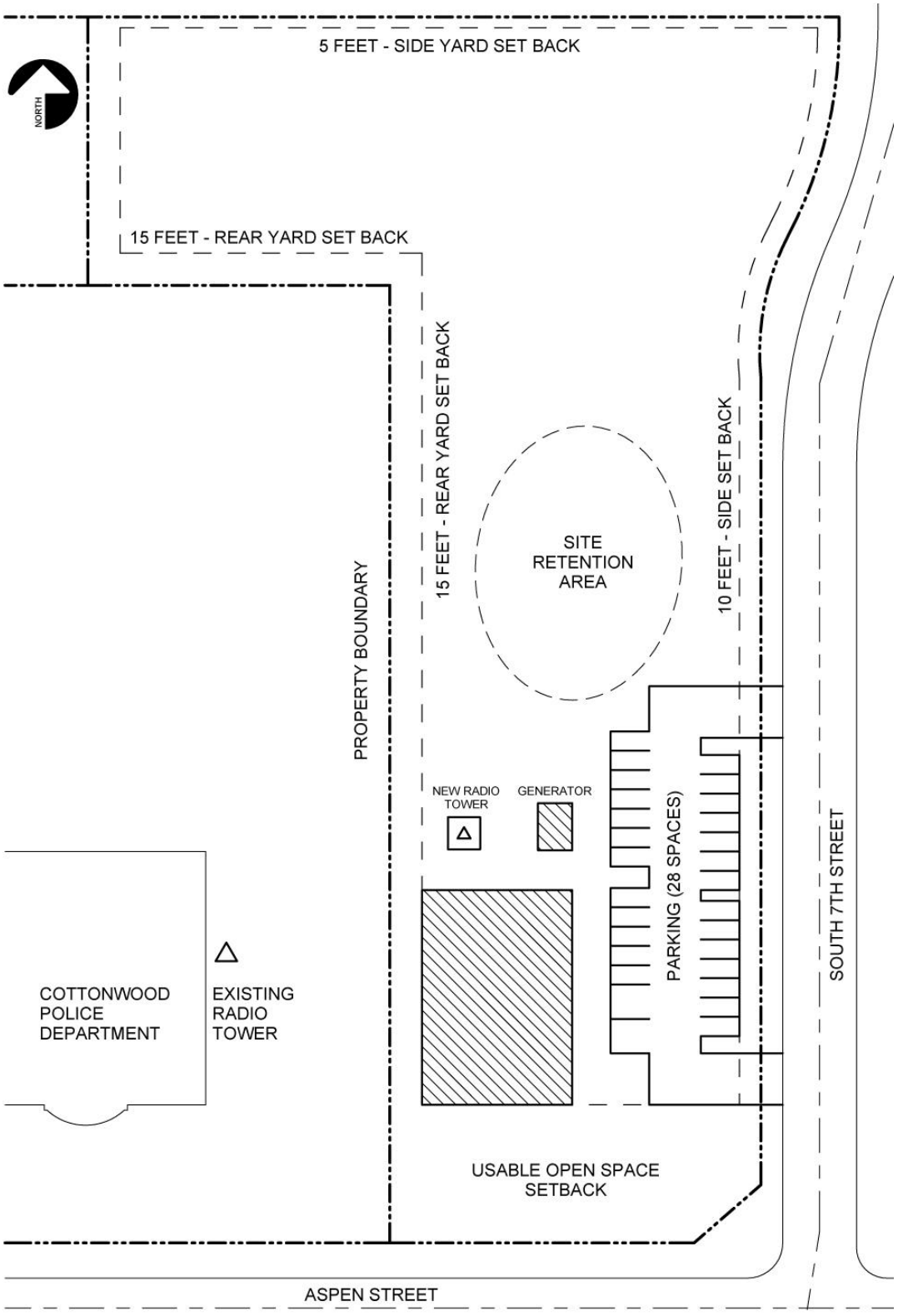
Flooring:		
Carpet	5,500 sf	Carpet tile 32 oz.
Linoleum	1,050 sf	
Tile	400 sf	
Casework	36 feet	Custom grade upper wall and lower base cabinets
Public restroom	100 sf	ADA unisex restroom.
		Tile floor
	360 sf	Total wall area (9' high ceiling), 50% tile and 50% drywall.
Men's restroom	100 sf	1 WC, 1Urinal, 2 LAVs (one of each ADA)
		toilet partitions, tile floor
	360 sf	Total wall area (9' high ceiling), 50% tile and 50% drywall.
Women's restroom	100 sf	2 WCs, 2 LAVs (one of each ADA)
		toilet partitions, tile floor
	360 sf	Total wall area (9' high ceiling), 50% tile and 50% drywall.
Break room	300 sf	Double sink with trash disposal
		Plumbing for ice machine, hot/cold water dispenser, 2 fridges, coffee maker.
Janitor		Mop sink

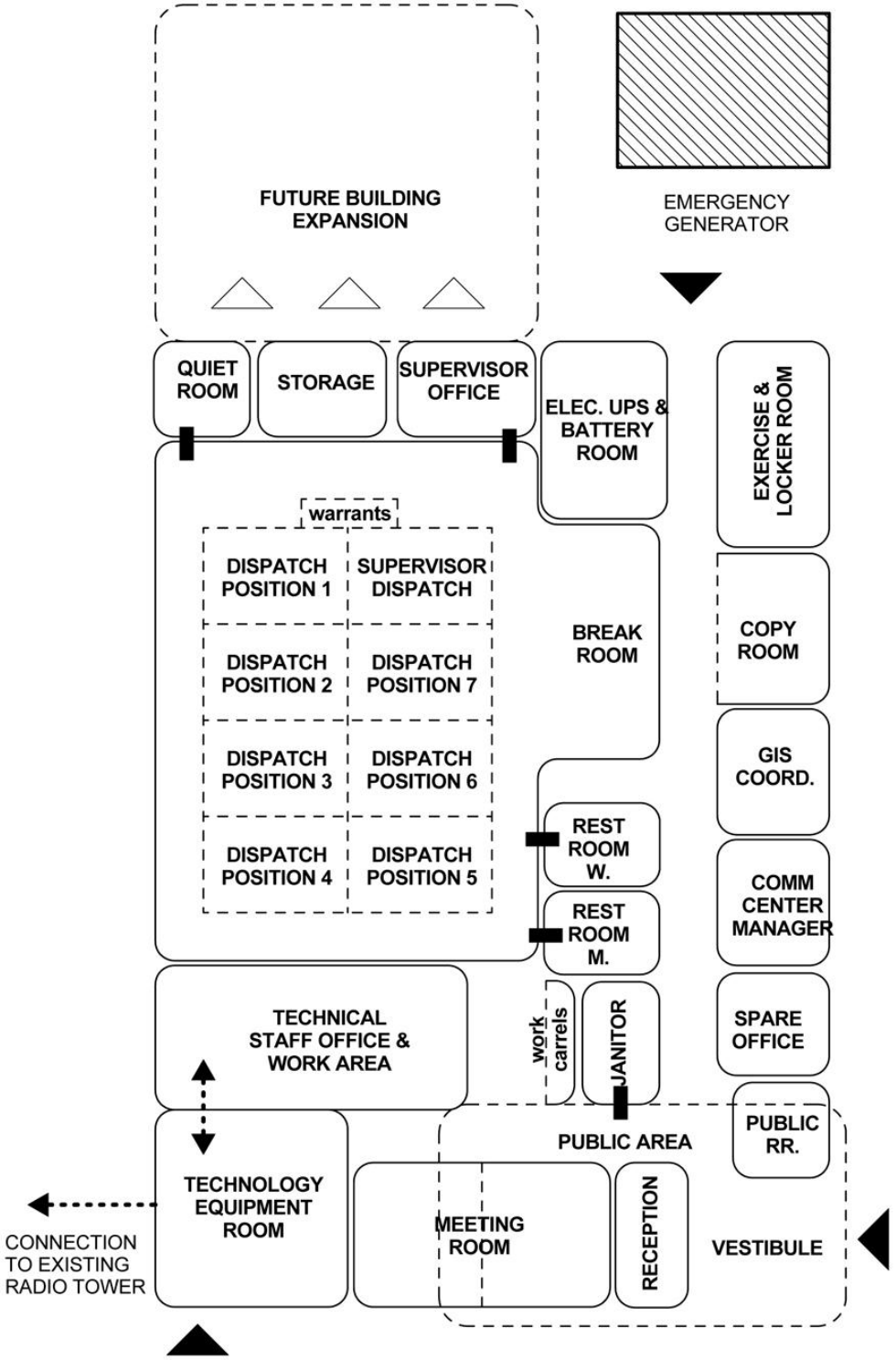
Emergency generator	250 kW	Capacity
	352 sf	Concrete slab
	608 sf	8 feet high CMU screen wall around
Package AC Units		Based on volume
IT AC	400 sf	Dedicated system for Data/ IT room
	6,000 cf	
		Dedicated fire pre-action system
Landscaping	30,000 sf	DG
	100	minor plants
Concrete sidewalks	2,500 sf	
Stormwater retention area	3,000 c yards	Excavation for retention area
Support tower for radio microwave equipment		100 feet high, metal truss

DEVELOPMENT REQUIREMENTS.

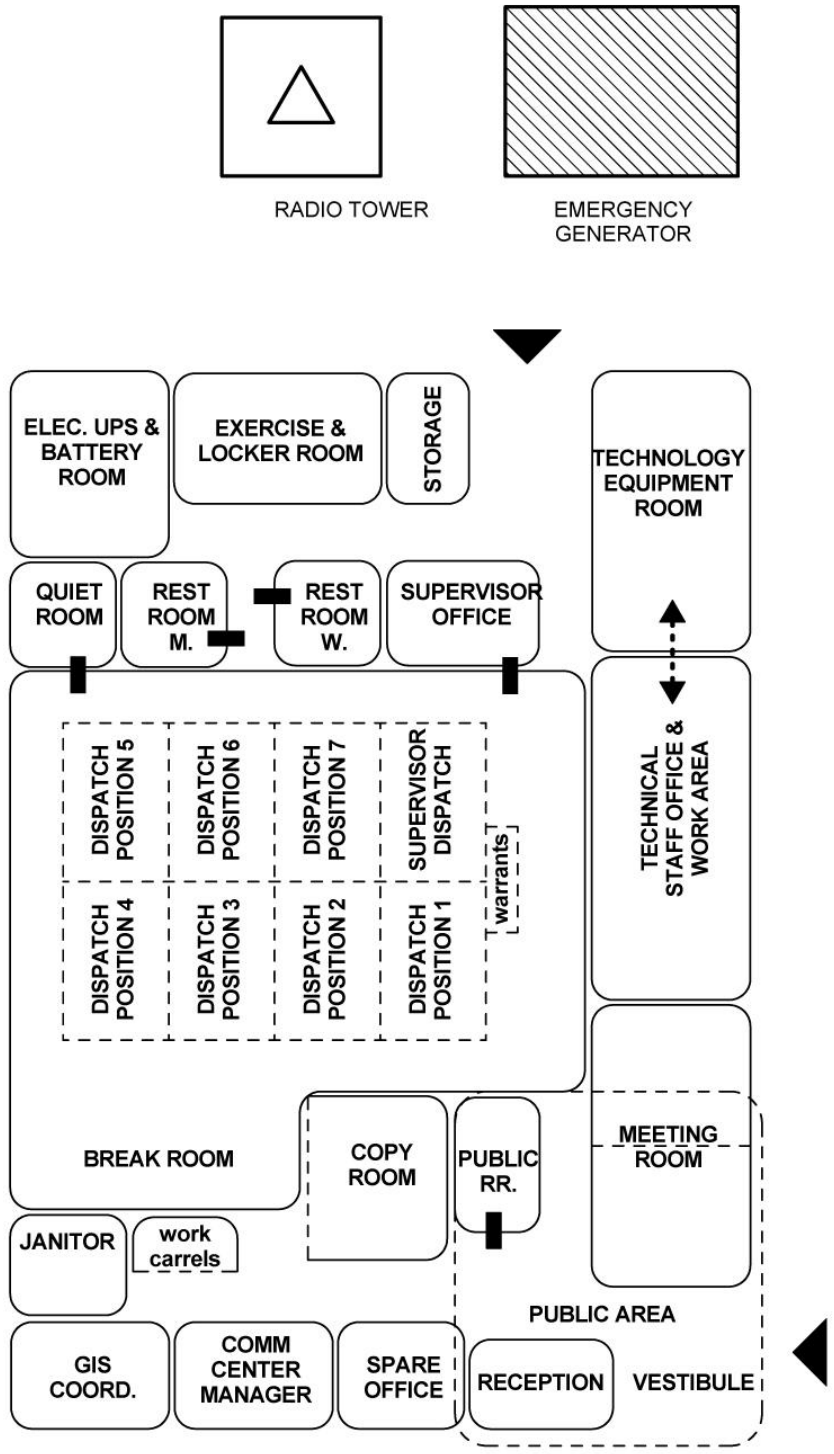
Zoning	R-3	Multiple Family Residential
		Conditional use - 3. Public utility buildings, structures or appurtenances thereto for public service use.

Lot area	2.73 A	
Lot coverage	45,500 sf	40% max
		Side yard min: 5 FT
		Rear yard min: 15 FT
		Side yard @ street: 10 FT
Max Building Height	35 ft 2 1/2 storey	
Parking	28 spaces	Office 1 per 150 sf (usable space)
		2 ADA spaces (per ADA req.)





OPTION 1 - FUTURE HORIZONTAL EXPANSION



OPTION 2 - FUTURE VERTICAL EXPANSION

SITE NO. 2 CITY OF COTTONWOOD AZ, RIVERFRONT COMMONS (LOT# 406-42-310A)

SITE DESCRIPTION.

General	Center will occupy part of the Existing Building	
Construction type	Existing building TI, Type II, 2 HR separation from the rest of the building	
Total TI Area	6,700 sf	Shell
Total Parking Area	Existing	28 parking spaces

SITE PROS

1 Existing building infrastructure offers lowest initial development cost.

2 Existing building services readily available for use (plumbing, sewage, electricity).

3 There is space available for future expansion.

SITE CONS

1 The TI will require moderate modifications to the existing structure:

- Health center is elevated over the flood zone and any slab demolition will require investigation of existing conditions.
- Additional AC units for the dedicated systems will add loads to the existing roof structure.

Recommend development of the overall plan for future building use (min. First Floor) and sequencing of construction.

2 Proximity to the Flood Zone area. Any work on the east side of the building (along the wash) will need to include site re-grating and foundation supports.

Note: existing building complies with NFPA 1221 requirement to elevate lowest floor above 100-year flood plain).

3 Existing site parking is limited. The adjacent property was developed together with the Health Club and a large portion of shared parking is located on the adjacent property.

If the whole building use to be converted to offices from health club, more parking required by the zoning.

Recommend to investigate if there is an agreement with owners of adjacent property regarding shared use of parking and any additional restrictions on the property.

4 28 car parking spaces required by the City of Cottonwood zoning.

Approximately 20 car parking spaces required based on the proposed use.

Recommend submission of request for parking spaces reduction variance.

5 Compliance with NFPA standard 1221 requires the whole building to have an automatic fire detection, alarm.

Recommend more detailed investigation of the entire existing building.

6 There are limited opportunities for introduction of natural light into most of occupied interior spaces.

BUILDING SYSTEMS AND MATERIALS.

Roof Area	n/a	Existing roof. Minimal work required for the installation of additional HVAC units and skylights.
Exterior Elevation Area	n/a	Existing exterior elevations.

Slab @ pools		Existing pools:
Demo	600 sf	Remove existing slab and foundation walls 2 feet below floor level.
New	2,800 cf	Backfill existing pools
	600 sf	New 4" concrete slab
Slab @ Raised floor		
Demo	2,500 sf	Remove existing concrete slab
	7,500 cf	Excavate for new raised floor
New	2,500 sf	New 4" concrete slab
Foundation	180 feet	New continuous concrete foundation 12"thick X 24"wide X 24"deep
Windows Area		
Exterior	TBD	Existing windows. Mini-blinds, match windows area.
Interior	600 sf	
Skylights	6 skylights	4x4 laminated glass, gabled, aluminum frame.

Doors		
Exterior -	3 doors	HM in HM frame. 1 ADA accessible mechanically operated door (main entrance).
Interior -	20 doors	Solid core WD in HM frame. 3 ADA accessible mechanically operated doors (restrooms)
	50 sf	Class 3 bullet-proof storefront glazing
	1 operable partition	10'H x 20'W operable panel partition in the Meeting/Training room
Lay-in ceiling	6,000 sf	2x2 acoustical ceiling tile.
Painted GWB	10,000 sf	
Raised Floor	2,000 sf	Operational Floor only
		14" deep system (depressed into the site, floor level is not raised above street level).
Flooring:		
Carpet	5,200 sf	Carpet tile 32 oz.
Linoleum	1,050 sf	
Tile	400 sf	
Casework	36 feet	Custom grade upper wall and lower base cabinets

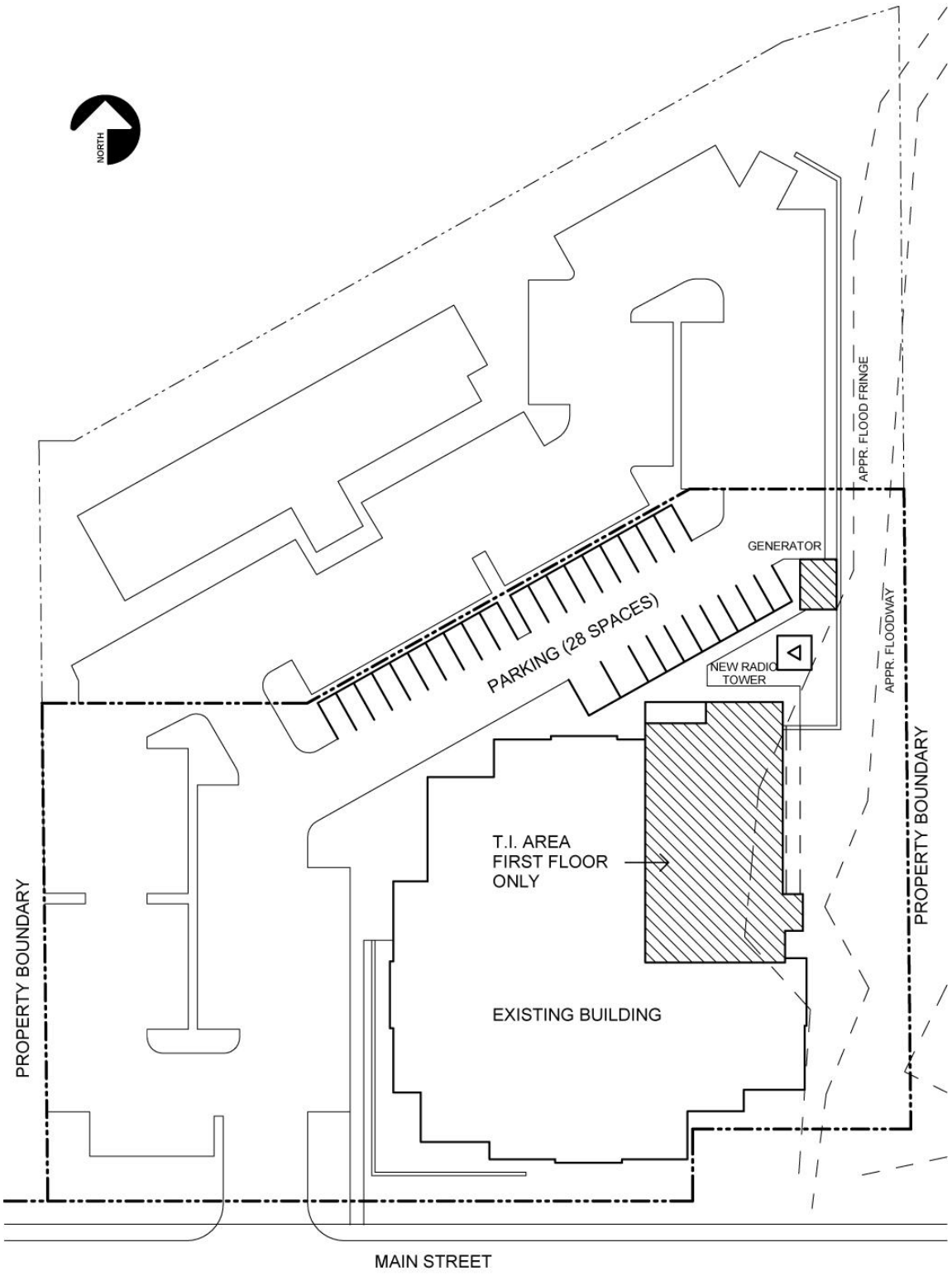
Public restroom	100 sf	ADA unisex restroom.
		Tile floor
	360 sf	Total wall area (9' high ceiling), 50% tile and 50% drywall.
Men's restroom	100 sf	1 WC, 1Urinal, 2 LAVs (one of each ADA)
		toilet partitions, tile floor
	360 sf	Total wall area (9' high ceiling), 50% tile and 50% drywall.
Women's restroom	100 sf	2 WCs, 2 LAVs (one of each ADA)
		toilet partitions, tile floor
	360 sf	Total wall area (9' high ceiling), 50% tile and 50% drywall.
Break room	300 sf	Double sink with trash disposal
		Plumbing for ice machine, hot/cold water dispenser, 2 fridges, coffee maker.
Janitor		Mop sink
Emergency generator	250 kW	Capacity
	352 sf	Concrete slab
	608 sf	8 feet high CMU screen wall around
Package AC Units		Separate from the rest of the building system
		Based on volume

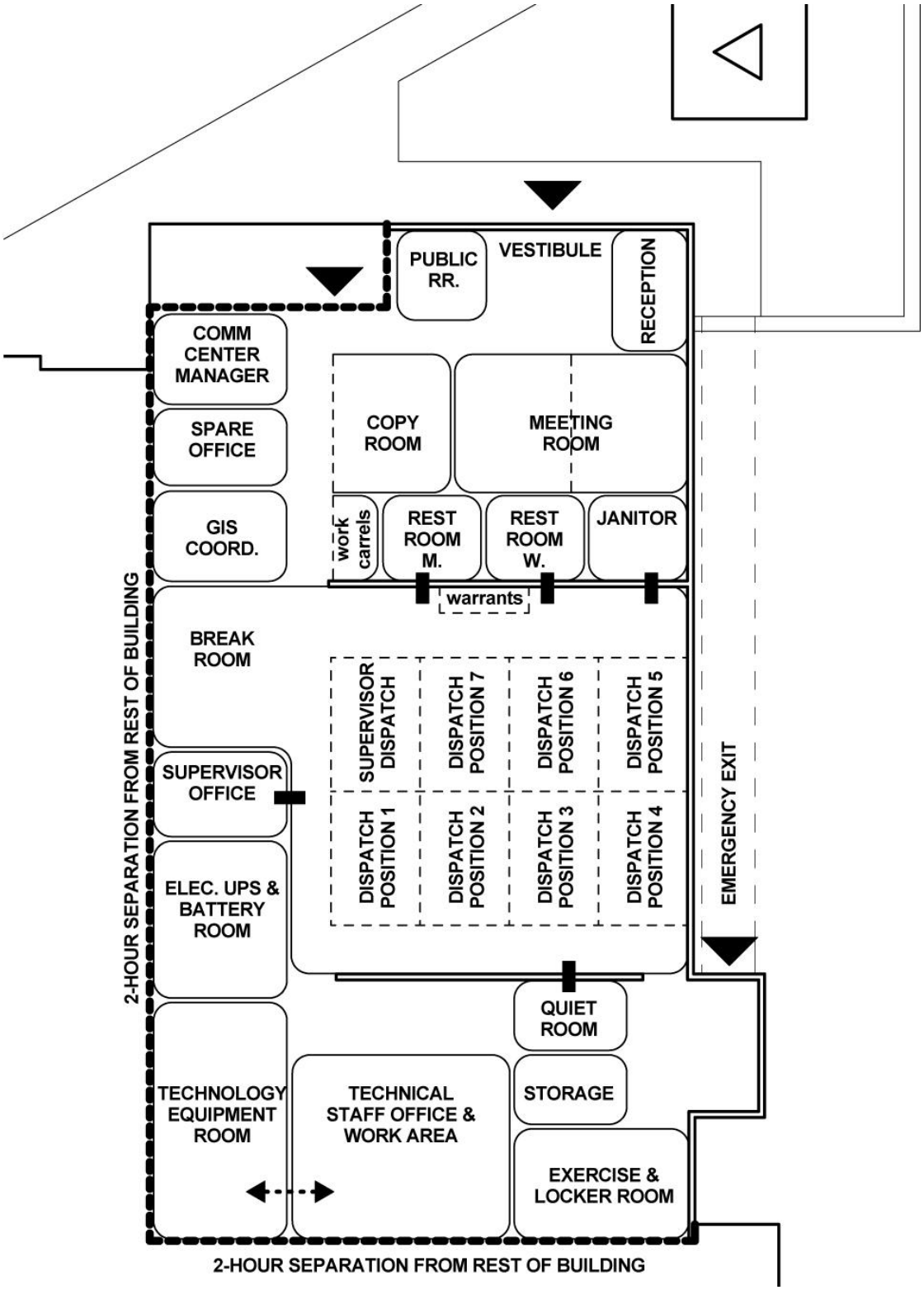
IT AC	400 sf	Dedicated system for Data/ IT room
	6,000 cf	
		Dedicated fire pre-action system
Landscaping	n/a	Existing
Sidewalks	600 sf	New deck from the side entrance to the parking lot. Steel supports and railings
		Site reinforcing and possible re-grading
Stormwater retention area	n/a	
Support tower for radio microwave equipment		100 feet high, metal truss

DEVELOPMENT REQUIREMENTS.

Zoning	C-1	Light Commercial
		Permitted use - 10. Governmental services, public utility offices and exchanges, excluding storage or repair services.
Flood zones	AE Floodway	No construction within 20 FT of floodway
	X (shaded)	
	A or AE	

Parking	28 spaces	Office 1 per 150 sf (usable space)
		2 ADA spaces (per ADA req.)





SITE NO. 3 CITY OF SEDONA AZ, FOREST ROAD (LOT# 401-17-019M**)**

SITE DESCRIPTION.

General	Empty lot, new building and parking	
Construction type	Two story building, Type II, 1 HR fire rating	
Total Building Area	8,200 sf	- Steel frame with 7" concrete/metal deck Columns on 32feet X 16feet grid
First Floor Area	600 sf	Entrance lobby, stairs and elevator shaft w/ mechanical room.
Upper Floor Area	7,600 sf	Main floor.
Total Parking Area	12,000 sf	- 20 parking spaces, 45 degree double-sided lot, driveways with curb cuts 4" asphalt over 8" ABC with traffic markings

SITE PROS

1 Co-use of existing radio tower.

2 Shaded parking.

3 Natural vistas to the north.

SITE CONS

1 Limited site space. Designed building will be developed to the site's capacity. Future expansion would require the demolition of the existing Administration building east of the proposed new facility.

2 35 car parking spaces required by the City of Sedona zoning.

Site accommodates only 20 car parking spaces.

Recommend submission of request for parking spaces reduction variance.

3 Limited parking space for emergency vehicles (beneath building).

4 Elevation of the new building over a parking lot will add to cost of construction.

5 Typical access restrictions associated with 2nd story operations.

6 Underground site run-off collection area will be required.

7 Close proximity to adjacent existing structures represent potential security and fire hazards.

8 West access road shared with existing adjacent property.

9 Potential generator noise and exhaust conflicts with adjacent property uses to the south.

10 If the existing radio tower is to be utilized, sitework for cabling is required on the adjacent property.

BUILDING SYSTEMS AND MATERIALS.

Roof Area	7,600 sf	Roofing system: TPO on rigid insulation on metal deck (R30)
Exterior Elevation Area	6,400 sf	- Upper floor, 15 feet high
	1,600 sf	- First floor stairs and elevator lobby
		Wall assembly: 4" CMU veneer, metal stud furring, rigid insulation (R19)

Windows Area		
Exterior	320 sf	5% of wall area
		Mini-blinds, match windows area.
Interior	600 sf	
Skylights	4 skylights	4x4 laminated glass, gabled, aluminum frame.
Elevator	1	Hydraulic 2-stop pit-less
Stairs	2	Metal pan stair
Doors		
Exterior -	3 doors	HM in HM frame. 1 ADA accessible mechanically operated door (main entrance).
Interior -	22 doors	Solid core WD in HM frame. 3 ADA accessible mechanically operated doors (restrooms)
	50 sf	Class 3 bullet-proof storefront glazing
	1 operable partition	10'H x 20'W operable panel partition in the Meeting/Training room
Lay-in ceiling	6,500 sf	2x2 acoustical ceiling tile.
Painted GWB	10,000 sf	10' high (total sf)
Raised Floor	2,000 sf	Operational Floor only
		14" deep system

Flooring:		
Carpet	5,700 sf	Carpet tile 32 oz.
Linoleum	1,050 sf	
Tile	400 sf	
Casework	36 feet	Custom grade upper wall and lower base cabinets
Public restroom	100 sf	ADA unisex restroom.
		Tile floor
	360 sf	Total wall area (9' high ceiling), 50% tile and 50% drywall.
Men's restroom	100 sf	1 WC, 1Urinal, 2 LAVs (one of each ADA)
		toilet partitions, tile floor
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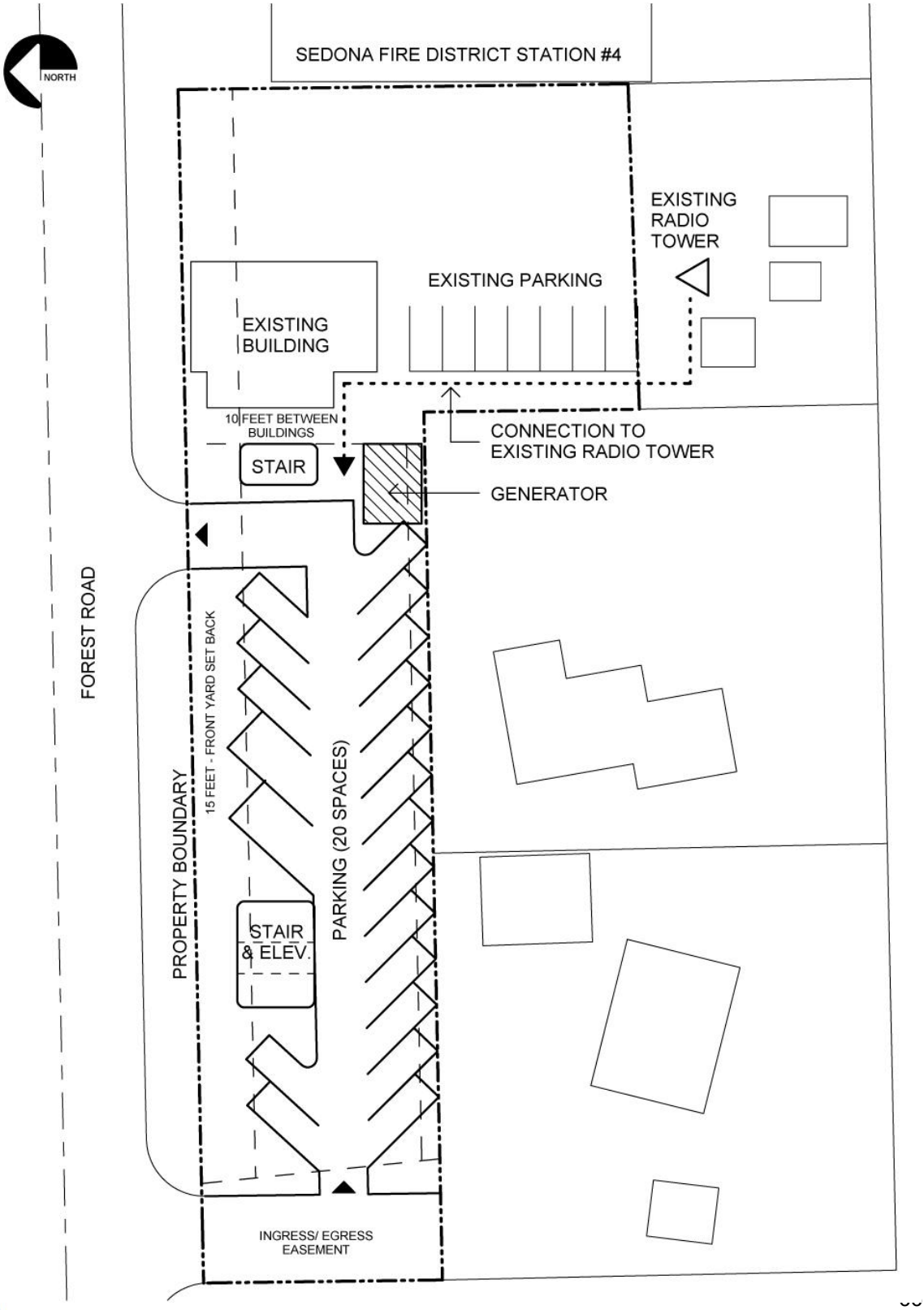
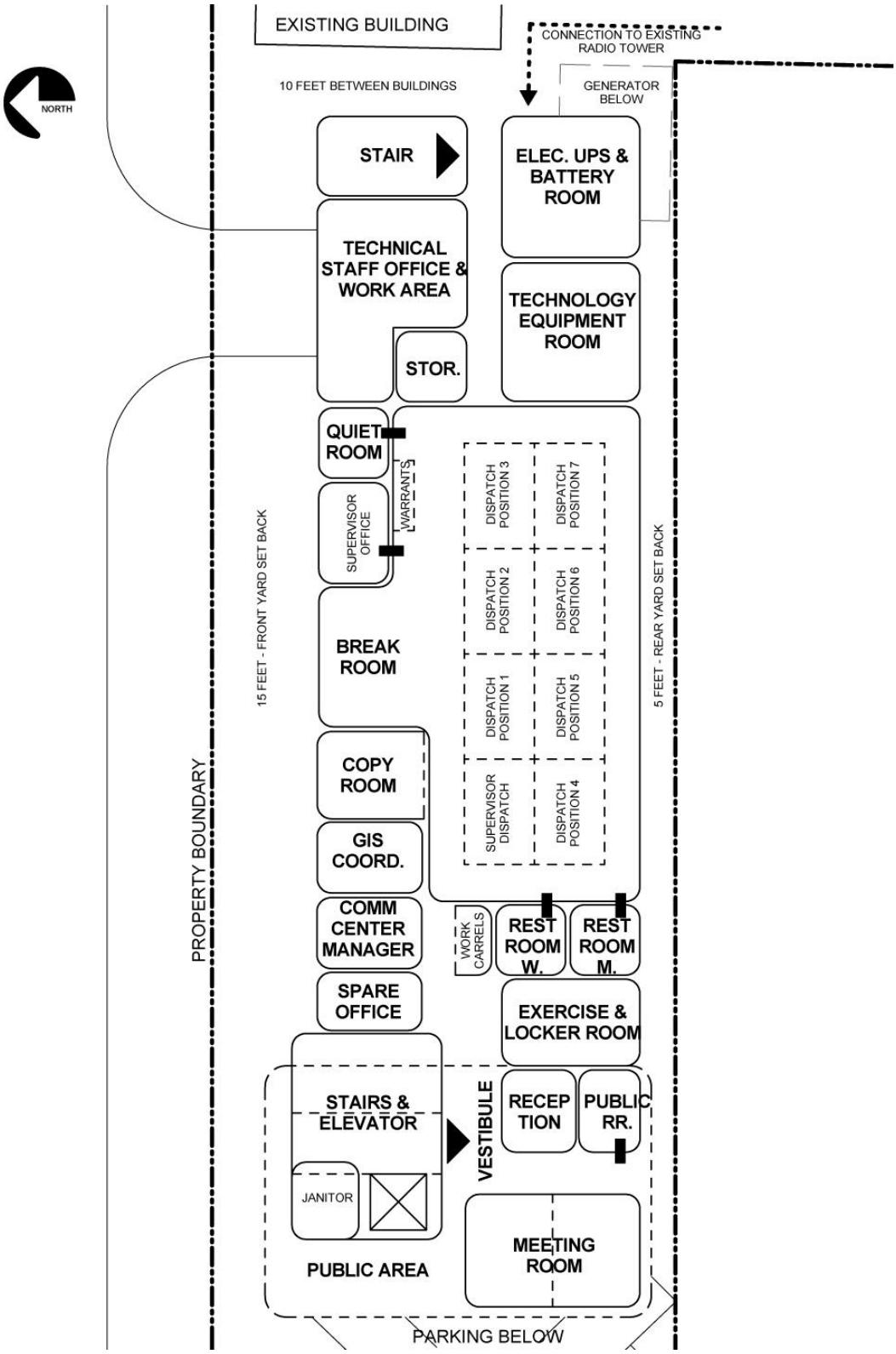
Break room	300 sf	Double sink with trash disposal
		Plumbing for ice machine, hot/cold water dispenser, 2 fridges, coffee maker.
Janitor		Mop sink

Emergency generator	250 kW	Capacity
	352 sf	Concrete slab
	608 sf	8 feet high CMU screen wall around
Package AC Units		Based on volume
IT AC	400 sf	Dedicated system for Data/ IT room
	6,000 cf	
		Dedicated fire pre-action system
Parking		4" asphalt over 8" ABC with traffic markings
	12,000 sf	20 parking spaces, 45 degree double-sided lot, driveways with curb cuts
Landscaping	3,000 sf	DG
	30	minor plants
Concrete sidewalks	2,500 sf	
Stormwater retention area	1000 c yards	Excavation for underground retention area
Support tower for radio microwave equipment		Existing tower

DEVELOPMENT REQUIREMENTS.

Zoning	C-1	General Commercial District
		Permitted use - 51. Public utility and public service offices
Lot area	0.75 A	
Lot coverage	8,168 sf	25% max 1 storey
	9,148 sf	28% max 2 storey
	16,335 sf	Floor area ratio: 0.5
		Front yard: 15 FT
		Exterior side yard: 10 FT
		Space btw. Buildings: 10 FT
		Each building site shall have a minimum width, easement or right-of-way for access of 20 feet.
Max Building Height		Height plane at 22 FT
		Overall building height: 40 feet max.
Parking	35 spaces	Government office 1 per 200 sf (gross floor area)
		2 ADA spaces (per zoning req.)


NORTH
SEDONA FIRE DISTRICT STATION #4
EXISTING RADIO TOWER
EXISTING PARKING
EXISTING BUILDING
10 FEET BETWEEN BUILDINGS
STAIR
CONNECTION TO EXISTING RADIO TOWER
GENERATOR
FOREST ROAD
PROPERTY BOUNDARY
15 FEET - FRONT YARD SET BACK
PARKING (20 SPACES)
STAIR & ELEV.
INGRESS/ EGRESS EASEMENT



Comparisons of Estimated Construction Costs

From the preceding analysis, construction cost estimates were established for each of the site alternatives, and these values are reflected in the table on the following page. In reading and interpreting these cost estimates the following factors need to be considered:

- The three alternatives were treated equal from a cost of acquisition standpoint – that is – there were no property acquisition costs factored into any of the estimates.
- Costs for the specialized systems required for an emergency communications center, discussed and cost-estimated in the Technology section of this report were not included in the per square foot estimate.
- Relatively common values were used for factors such as Escalation, Permitting and Contingencies.
- Subsequent conceptual design, detailed design and value engineering processes may be able to identify savings in some of the cost categories.

Based on this analysis, use of the Riverfront Commons location (assuming it does become a City of Cottonwood owned facility) would likely result in the lowest total cost of construction of the three alternatives considered, and this includes an assumption that a new free-standing tower would be constructed to support the radio and microwave antennas needed to tie the new facility into existing systems. However, it does not include the additional changes and expansions of the microwave and interconnecting network systems to the various radio systems used by the participating jurisdictions. These costs were discussed in the Technology section of this report and may reach $750,000 in total cost for this location since it is not currently connected to any of this microwave network and would require the most extensive network modifications to integrate into the system.

The parcel of land adjacent to the Cottonwood Public Safety facility would be the next least expensive alternative. This site would be relatively easy to develop and the immediate adjacency to the existing public safety facility would allow design and security alternatives that would enhance the reliability and security of the facility. This site would require expansions of the microwave and interconnecting network systems to the various radio systems used by the participating jurisdictions, but the presence of the existing link to the Cottonwood Police Department facility would help reduce that potential cost impact to somewhere between $250,000 and $500,000.

The parcel of land adjacent to Sedona Fire District Station #4 would be the most expensive alternative. The geometry of this site makes it more difficult to develop and requires more expensive 2-story design strategies to provide the required facility size within the constraints of the parcel. This location would however have the lowest cost for microwave and interconnecting network modifications with the total cost impact potentially lower than $250,000.

NEW EMERGENCY OPERATIONS CENTER SITE ASSESSMENT

for the CITY OF COTTONWOOD, AZ

ESTIMATES OF ALTERNATE SITE DEVELOPMENT COSTS
iXP / DWL ARCHITECTS / MARC TAYLOR INC.

			Site No.1		Site No.2		Site No.3
			7,000/GSF		6,700/GSF		8,200/GSF
			Master Plan Estimate		Master Plan Estimate		Programming
			1 Story Building		Tenant Improvement		Two Story
			City of Cottonwood		*City of Cottonwood*		*City of Sedona*
			26-Oct-11		26-Oct-11		26-Oct-11
Estimate Summary:		**$/sf**	**System Cost**	**$/sf**	**System Cost**	**$/sf**	**System Cost**
1	Foundations	19.37	135,600	11.19	75,000	19.89	163,098
2	Superstructure	19.99	139,930	3.73	25,000	35.79	293,518
3	Exterior Skin	35.22	246,540		N/A	37.53	307,746
4	Roofing	7.62	53,340		N/A	5.56	45,625
5	Skylights	2.50	17,500	4.00	26,800	2.13	17,500
6	Interior	33.29	233,030	36.29	243,143	34.06	279,292
7	Stairs		N/A		N/A	3.05	25,000
8	Conveying		N/A		N/A	7.84	64,325
9	Plumbing	7.56	52,920	7.56	50,652	7.56	61,992
10	HVAC	21.25	148,750	21.25	142,375	31.25	256,250
11	Fire Protection	3.89	27,230	3.89	26,063	3.89	31,898
12	Electrical	39.56	276,920	39.78	266,552	40.27	330,200
13	Special Systems (Dispatch Systems Equipment)		By iXP		By iXP		By iXP
14	250 kw Generator with Feeders	23.22	162,540	24.26	162,540	19.82	162,540
15	Equipment	6.23	43,610	6.23	41,741	6.23	51,086
16	Site Work	44.79	313,530	11.19	75,000	31.50	258,300
17	Support Tower for Radio Microwave Equipment		Existing	52.99	355,000		Existing
Sub-Total Trades Cost:		264.49	1,851,440	222.37	1,489,866	286.39	2,348,370
Total Construction with Markups and Contingencies :		330.61	2,314,300	277.96	1,862,333	357.98	2,935,463
	Escalation (5% of Trade Cost to Midway Thru Construction)	16.53	115,715	13.90	93,117	17.90	146,773
	Furniture Fixtures and Equipment	10.00	70,000	10.00	67,000	10.00	82,000
	Maintenance Fees		N/A		N/A		N/A
	Permitting Allowance (2% of Trade Cost)	6.61	46,286	5.56	37,247	7.16	58,709
	Power Usage Fees		N/A		N/A		N/A
	Power Charges for (1) Service Entrance Sections		32,000		13,000		35,000
	Gas Installation / Service		N/A		N/A		N/A
	Testing and Inspections (Allowance)	3.57	25,000	3.58	24,000	3.48	28,500
	Owner Contingency (10%)	33.06	231,430	27.80	186,233	35.80	293,546
	Design Fees		141,574		79,391		149,562
	Designer Contract Administration		45,519		26,464		49,854
	Soft Cost Contingency		11,500		11,500		11,500
Total Project Cost with assumed Soft Cost:		433.33	3,033,324	358.25	2,400,284	462.31	3,790,907
	Loan Fees		N/A		N/A		N/A
	Legal Fees		N/A		N/A		N/A
	Appraisal		N/A		N/A		N/A
	Closing Cost		N/A		N/A		N/A
Total Project with Bank Cost:		433	$ 3,033,324.1	358.25	$ 2,400,284	462.31	$ 3,790,907

Combining the estimated costs of construction with the location-dependent estimated costs for microwave and networking expansions, the following observations can be made:

- The Riverfront Commons location would continue to be the lowest cost alternative with a total location-dependent cost of approximately $3.2 million.
- The parcel of land adjacent to the Cottonwood Public Safety facility would continue to be the second lowest cost alternative with a total location-dependent cost of between $3.3 million and $3.5 million.
- The parcel of land adjacent to the Sedona Fire District Station #4 would continue to be the highest cost alternative with a total location-dependent cost of approximately $3.9 million.

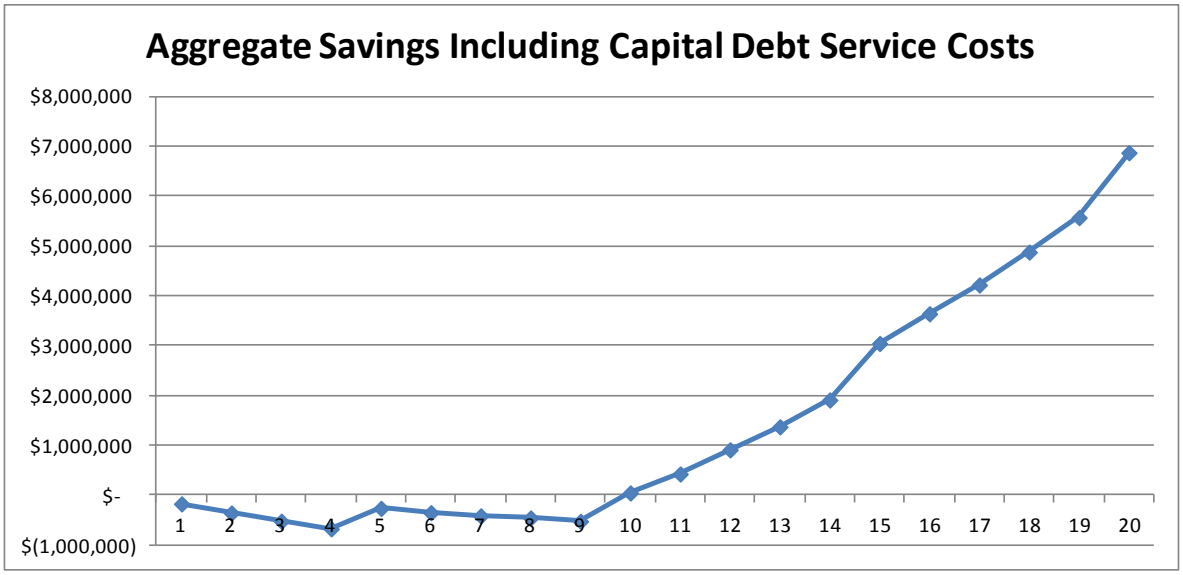
Capital Investment Strategies

The final comparative analysis that is typically desired to determine if consolidation of the communications centers is a sound economic decision is to determine if the aggregated savings from consolidation will cover the capital investment costs for building and equipping the new facility. While some communities will see the improvements in service quality and depth of coverage at equal or lower costs of annual operations as being more than enough justification for proceeding with a consolidation initiative, other communities will need the confidence that the accumulated savings over time will cover the costs of the capital investments as well.

For this analysis, iXP has used the following assumptions to formulate annual cost estimates for the debt service costs that would likely be faced to establish the consolidated communications center:

- The assumed cost for the facility investment is $3 million, the estimated cost for the location adjacent to the Cottonwood Public Safety Building.
- The assumed cost for the technology and start-up investment is $3.5 million, slightly lower than the highest end of the technology cost range described in this report.
- Debt duration for the facility funding is assumed at 20 years, and debt duration for the technology and start-up costs is assumed at 10 years.
- Debt servicing was assumed on an annual basis at an annual debt service cost of 4%.

With these parameters in place, it is possible to compare the combined annual debt service costs to the annual and accumulated operational savings to determine the breakeven point. The graph and tables below expands on the operational cost and accumulated savings information provided earlier in this report and evaluates the debt service costs against these savings. While the annual savings are not sufficient to cover all of the debt service costs in the first 9 years, by the 10th year when the technology and startup debt is retired the accumulated savings begin to grow well beyond the continuing debt service costs for the facility out to the 20th year.



	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Projected Costs for the Consolidated Organization										
Salary and Benefit Costs	$ 1,800,586	$ 1,854,604	$ 1,910,242	$ 1,967,549	$ 2,026,575	$ 2,087,373	$ 2,149,994	$ 2,214,494	$ 2,280,928	$ 2,349,356
Technical Systems Maintenance Costs	$ 224,220	$ 260,428	$ 266,951	$ 277,274	$ 369,955	$ 296,193	$ 304,453	$ 312,991	$ 371,818	$ 369,020
Other Maintenance and Operations Costs	$ 163,675	$ 167,687	$ 172,718	$ 181,399	$ 186,736	$ 192,233	$ 197,895	$ 203,727	$ 209,734	$ 215,921
Total Annual Estimated Costs	**$ 2,188,481**	**$ 2,282,718**	**$ 2,349,911**	**$ 2,426,223**	**$ 2,583,267**	**$ 2,575,800**	**$ 2,652,342**	**$ 2,731,212**	**$ 2,862,480**	**$ 2,934,298**
Current Costs of Operation	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**	**Year 7**	**Year 8**	**Year 9**	**Year 10**
Estimated City of Sedona Costs	**$ 562,789**	**$ 579,673**	**$ 597,063**	**$ 614,975**	**$ 789,424**	**$ 658,607**	**$ 678,365**	**$ 698,716**	**$ 719,677**	**$ 891,268**
Estiamted City of Cottonwood Costs	**$ 770,220**	**$ 797,178**	**$ 825,079**	**$ 853,957**	**$ 1,092,845**	**$ 924,095**	**$ 956,438**	**$ 989,913**	**$ 1,024,560**	**$ 1,260,420**
Estimated Sedona Fire District Costs	**$ 1,333,859**	**$ 1,373,875**	**$ 1,415,091**	**$ 1,457,544**	**$ 1,763,270**	**$ 1,558,668**	**$ 1,605,428**	**$ 1,653,591**	**$ 1,703,199**	**$ 2,004,295**
Current Combined Costs of Operations	**$ 2,666,868**	**$ 2,750,725**	**$ 2,837,233**	**$ 2,926,475**	**$ 3,645,539**	**$ 3,141,370**	**$ 3,240,231**	**$ 3,342,220**	**$ 3,447,436**	**$ 4,155,982**
Potential Combined Operations Savings	**$ 478,387**	**$ 468,007**	**$ 487,322**	**$ 500,252**	**$ 1,062,272**	**$ 565,570**	**$ 587,889**	**$ 611,009**	**$ 584,956**	**$ 1,221,685**
Aggregate Savings	**$ 478,387**	**$ 946,394**	**$ 1,433,716**	**$ 1,933,968**	**$ 2,996,240**	**$ 3,561,810**	**$ 4,149,699**	**$ 4,760,708**	**$ 5,345,664**	**$ 6,567,349**
Facility CAPEX Debt Service	$ (220,745)	$ (220,745)	$ (220,745)	$ (220,745)	$ (220,745)	$ (220,745)	$ (220,745)	$ (220,745)	$ (220,745)	$ (220,745)
Technology CAPEX Debt Service	$ (431,518)	$ (431,518)	$ (431,518)	$ (431,518)	$ (431,518)	$ (431,518)	$ (431,518)	$ (431,518)	$ (431,518)	$ (431,518)
Total Debt Service Costs	**$ (652,264)**	**$ (652,264)**	**$ (652,264)**	**$ (652,264)**	**$ (652,264)**	**$ (652,264)**	**$ (652,264)**	**$ (652,264)**	**$ (652,264)**	**$ (652,264)**
Net Savings from Current Costs	**$ (173,877)**	**$ (184,257)**	**$ (164,942)**	**$ (152,011)**	**$ 410,009**	**$ (86,694)**	**$ (64,374)**	**$ (41,255)**	**$ (67,307)**	**$ 569,421**
Aggregate Savings	$ (173,877)	$ (358,133)	$ (523,075)	$ (675,086)	$ (265,078)	$ (351,771)	$ (416,145)	$ (457,400)	$ (524,708)	$ 44,714

	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20
Projected Costs for the Consolidated Organization										
Salary and Benefit Costs	$ 2,419,837	$ 2,492,432	$ 2,567,205	$ 2,644,221	$ 2,723,548	$ 2,805,254	$ 2,889,412	$ 2,976,094	$ 3,065,377	$ 3,157,338
Technical Systems Maintenance Costs	$ 424,804	$ 357,023	$ 417,251	$ 379,333	$ 425,327	$ 403,658	$ 465,443	$ 429,142	$ 441,818	$ 481,681
Other Maintenance and Operations Costs	$ 222,294	$ 228,858	$ 235,618	$ 242,582	$ 249,754	$ 257,142	$ 264,751	$ 272,589	$ 280,661	$ 288,976
Total Annual Estimated Costs	**$ 3,066,935**	**$ 3,078,312**	**$ 3,220,074**	**$ 3,266,136**	**$ 3,398,629**	**$ 3,466,054**	**$ 3,619,606**	**$ 3,677,825**	**$ 3,787,857**	**$ 3,927,996**
Current Costs of Operation	**Year 11**	**Year 12**	**Year 13**	**Year 14**	**Year 15**	**Year 16**	**Year 17**	**Year 18**	**Year 19**	**Year 20**
Estimated City of Sedona Costs	**$ 763,506**	**$ 786,411**	**$ 810,003**	**$ 834,303**	**$ 1,009,332**	**$ 885,112**	**$ 911,666**	**$ 939,016**	**$ 967,186**	**$ 1,146,202**
Estiamted City of Cottonwood Costs	**$ 1,097,535**	**$ 1,135,948**	**$ 1,175,707**	**$ 1,216,856**	**$ 1,459,446**	**$ 1,303,527**	**$ 1,349,150**	**$ 1,396,371**	**$ 1,445,244**	**$ 1,695,827**
Estimated Sedona Fire District Costs	**$ 1,806,924**	**$ 1,861,131**	**$ 1,916,965**	**$ 1,974,474**	**$ 2,283,708**	**$ 2,094,720**	**$ 2,157,561**	**$ 2,222,288**	**$ 2,288,957**	**$ 2,607,625**
Current Combined Costs of Operations	**$ 3,667,964**	**$ 3,783,491**	**$ 3,902,675**	**$ 4,025,634**	**$ 4,752,487**	**$ 4,283,359**	**$ 4,418,377**	**$ 4,557,674**	**$ 4,701,386**	**$ 5,449,654**
Potential Combined Operations Savings	**$ 601,029**	**$ 705,178**	**$ 682,601**	**$ 759,498**	**$ 1,353,858**	**$ 817,305**	**$ 798,771**	**$ 879,849**	**$ 913,529**	**$ 1,521,658**
Aggregate Savings	**$ 7,168,378**	**$ 7,873,556**	**$ 8,556,157**	**$ 9,315,654**	**$ 10,669,512**	**$ 11,486,817**	**$ 12,285,588**	**$ 13,165,437**	**$ 14,078,967**	**$ 15,600,625**
Facility CAPEX Debt Service	$ (220,745)	$ (220,745)	$ (220,745)	$ (220,745)	$ (220,745)	$ (220,745)	$ (220,745)	$ (220,745)	$ (220,745)	$ (220,745)
Technology CAPEX Debt Service										
Total Debt Service Costs	**$ (220,745)**	**$ (220,745)**	**$ (220,745)**	**$ (220,745)**	**$ (220,745)**	**$ (220,745)**	**$ (220,745)**	**$ (220,745)**	**$ (220,745)**	**$ (220,745)**
Net Savings from Current Costs	**$ 380,284**	**$ 484,433**	**$ 461,855**	**$ 538,753**	**$ 1,133,113**	**$ 596,559**	**$ 578,026**	**$ 659,104**	**$ 692,784**	**$ 1,300,913**
Aggregate Savings	$ 424,997	$ 909,430	$ 1,371,285	$ 1,910,038	$ 3,043,151	$ 3,639,710	$ 4,217,736	$ 4,876,839	$ 5,569,624	$ 6,870,537

Conclusion

This report examines the combined governance, operations, technology and facility activities that would need to be undertaken to establish a consolidated emergency communications center to serve the needs of the City of Cottonwood, the City of Sedona and the Sedona Fire District and the various jurisdictions and agencies for which each of them currently provide services.

- A recommended governance model and organizational structure has been outlined for the new consolidated communications entity that is based on the successful past experience of many similar jurisdictions.
- An alternative of this model has been outlined where an iXP managed services approach could be utilized to provide operations, technology and facilities support if the newly created communications entity chose to pursue that alternative.
- An operational model has been outlined that would provide a higher level of service and greater depth of coverage than the individual communications centers can provide on their own, and at a lower overall cost of operation to the communities they serve than the combined costs of the current operations.
- Technology acquisition and implementation costs have been estimated so that the newly established consolidated center could be equipped with contemporary and reliable systems.
- Construction cost estimates have been developed to help identify the most cost effective alternative of the three under consideration.

The bottom line for this analysis is that there is clearly a positive business case behind the formation of a consolidated emergency communications center, and that this newly established organization could be structured and sustained to provide reliable, effective and long-term service to the communities they serve. iXP looks forward to working with the City of Cottonwood, the City of Sedona and the Sedona Fire District, along with the other jurisdictions and agencies each of them serve, to turn this analysis into a successful operating organization.

The City of Cottonwood

Dispatch Consolidation/ Feasibility Study

May 5th, 2011

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Executive Summary

Financial predictability, cost containment and improved service levels are identified goals of the City of Cottonwood's Dispatch Consolidation/Feasibility Study. The City, along with the Town of Camp Verde, the City of Sedona and the Sedona Fire District are seeking a comprehensive and independent review with justifiable options for consideration to consolidate and/or create a regional public safety communications center. In addition to possible cost savings, the participating agencies are interested in determining potential service level improvements that consolidations might bring for their communities as well as any service level reductions that might also result. Both elements should be present in any consolidation consideration.

The objectives of the project were:

- A wish to explore the opportunity to provide improved emergency communications and response;
- A desire to examine the feasibility of creating a regional public safety communications center; *and to*
- Identify methods to improve current service levels and technologies in the event that a full regionalization is deemed to be unfeasible.

This first project phase will establish a baseline of the current public safety communications environment and the collective vision for a regional operation. The focus of this phase will be on the governance aspects of the project, workload and staffing requirements and the operational requirements of the stakeholder agencies. It will entail recommending a governance model, looking at the workload and current costs of existing communication environment and providing recommendations as to whether a regional public safety communications center is feasible. This will allow decisions to be made that are based on reliable and accurate information before proceeding to the second project phase.

A survey of available data and information was conducted to develop an understanding of the operations of each of the current communications centers. A wide range of data and information on the current management, operations, and technology has been reviewed. Following the collection and compilation of the data, the information has been assembled in a manner that allows evaluation of the common and unique elements of each center.

The deliverable for this first phase will be our findings, recommendations on a potential governance model and the identification of service improvements that can be delivered from a consolidated and/or a regional public safety communications center. The Assessment report will be presented to the City Manager and other members of the management team as requested for review and for the City and other potential stakeholder agencies to reach decisions on the options

presented. Once the report has been reviewed and the agencies who wish to proceed have been identified iXP and those agencies can move to the second phase, the Business Case, which will identify project timelines and costs and some potential funding and or service delivery models.

Approach

iXP Corporation was engaged to collect specific information about the current four (4) communication centers; Cottonwood Police Department, Camp Verde Marshal's Office, Sedona Police Department and Sedona Fire District, in order to evaluate and recommend potential consolidation models that make sense for the participating agencies. The manner of data collection and the elements for evaluation were mutually agreed upon and a plan of action, consistent within the necessary timeframe was determined and implemented. The iXP approach to this study is to thoroughly understand and survey the needs of the participating agencies emergency communication services and their respective components of Governance, Operations, Technology and Facilities. The methodology utilized was to have the collection of information done by select iXP public safety domain experts who have collective knowledge and proficiency in the areas under review and who understand how to assess, design, and program manage solutions that will best meet the needs of the participating stakeholders and the communities served.

Next, on-site visits to each of the participating centers were conducted to ensure a complete understanding of the agency's mission and community service requirements. During the onsite visits, interviews were conducted with operational management, communications center personnel, and the technology and facility systems were examined to fill in any gaps in information or understandings from the Survey processes. There was a systematic and methodical evaluation of budgets, compensation and benefit packages; and, facilities analysis and technology inventory were completed.

Assumptions

In any evaluative study of this nature, some assumptions are necessary in order to develop an effective and planned approach. For our purposes the following assumptions were made:

- Investigating possible cost savings was important if it could be achieved but would not be the only driver in a thoughtful consolidation analysis;
- Service level improvements were essential if any level of consolidation was to be considered and service level deterioration would not be viewed as favorable by the study participants; and,
- The agencies were open to considering any and all options, including no consolidation if the analysis was supportive.

With these assumptions in mind, the findings of our research and investigation follow.

Findings (Snap Shot)

iXP focused on the four critical areas of Governance, Operations, Technology and Facilities when assessing, evaluating, planning and designing options for consolidation while analyzing the mission critical public safety environments for each of the agencies involved and under what conditions they might be able work more closely and achieve potential economies.

Governance--Today's emergency communications landscape is a complex web of organizational and operational challenges. Increasingly, the successful planning and management of these interconnected elements depends on consideration of the existing governance issues and well thought-out governance models for current and future modes of operation. Thoughtful analysis and planning can lead to successful outcomes. The Governance findings reveal:

- All but one of the centers, Sedona Police Department, already receive 9-1-1 calls and provide dispatch services for agencies outside of their core communities.
- The three (3) centers that provide services to outside agencies all do so under a subscriber type system.
- All of the current centers have the agency head as having oversight responsibilities with various methods for subscribers to bring forth issues and concerns.
- Cottonwood, Camp Verde and Sedona Police Department are all law enforcement specific centers, while Sedona Fire District is a fire specific center.
- All of the centers are primary PSAPs with the exception of the Sedona Police Department which is a secondary PSAP to the Sedona Fire District Center.
- There is some concern among the agencies over the loss of local control, local influence and local knowledge in a model where currently consolidated operations are further consolidated into a new operation.
- A sense by some of the subscribers, that in the past, the oversight agency simply dismissed recommended changes without adequate investigation or consideration.

Operations— Operational methods for all of the current centers are similar in regards to the services they provide. All but one of the participants is singularly focused on answering and responding to 9-1-1 and 10-digit emergency calls while the Sedona Police Department has limited after hours front counter responsibilities. All of the centers have established standard operating procedures – some are part of the agencies general orders while others have center specific manuals. All of the centers follow a formalized training program for new dispatchers. Two (2) of the centers, Cottonwood and Sedona Fire Districts require their personnel obtain outside certification through the Association of Public-Safety Communications Officials (APCO) – Public Safety Telecommunicator I.

Operational considerations are probably the most significant aspect of any consolidation effort. As many things that are done alike among the entities, there are just as many functions that are done differently. The challenges of consolidation, as it relates to operations, are significant

because they impact the direct service level to the constituency the agency serves both from a 9-1-1 and emergency dispatch perspective and from the perspective of the other services and functions supported by the center personnel. They are also the most visible components to the public and as such the most vulnerable to criticism. Key Operational findings:

- There is a lot of transferring of 9-1-1 calls between the centers as any fire or medical 9-1-1 calls received by the law enforcement centers need to be transferred to the Sedona Fire District Center and any law enforcement call they receive needs to be forwarded to the appropriate law enforcement center.
- Based on call loads alone some of the centers have more personnel then are necessary to handle the call volumes.
- There is no 7X24 presence for the community to interact with any of the centers. Sedona Police Department is the only one that does provide some after hour front counter support and that could easily be replaced with a lobby phone that could direct calls to a consolidated center.
- Center personnel (personnel who can answer phones and dispatch calls) range from six (6) (one supervisor and five dispatchers) at Camp Verde to 15 (one manager, five supervisors and nine dispatchers) at Sedona Fire District.
- The only comparable call volume information provided for all four (4) agencies was for 2010. For the law enforcement agencies, these numbers include officer initiated activities such as traffic stops, Camp Verde having the fewest at 12,214 and Cottonwood having the highest number at 19,595. Sedona Fire District and Sedona Police Department are in between at 14,666 and 15,733 respectively.
- In all of the centers, all of the dispatchers, when fully trained, function in all positions in the center, including taking 9-1-1 calls, entering information into multiple computers and dispatching emergency personnel to the scene of incidents. In a number of situations, a single dispatcher is assigned fulfilling all of the duties.

Technology--During the data collection and analysis process the legacy technology environment was assessed, operational and technical analysis were performed, and technology was evaluated to provide recommendations that meet the current and future goals of each agency, as we understand them. Technology may be the area where the greatest opportunities for cost management and consolidation might occur. The major Technology findings include:

- Cottonwood and Camp Verde already share the same Computer Aided Dispatch (CAD) provider, Spillman Systems.
- Cottonwood, Sedona Police Departments and Sedona Fire District share some of the same radio infrastructure.
- Sedona Fire District maintains both the Cottonwood and Sedona Police Department radio systems.

- The mobile and portable radios used by the public safety agencies within the Verde Valley allow all agencies to speak directly to each other during joint operations. At multijurisdictional incidents, the public safety personnel are able to speak with different agencies on the scene portable to portable. In addition public safety personnel can speak directly to the communications center that covers the area of the incident.
- All of the centers have replaced/upgraded their 9-1-1 systems within the last few years with the State of Arizona 9-1-1 Program paying for it. The costs have been up to $250k and will probably no longer be replaced/upgraded with State funds in the future.
- Cottonwood and Sedona Police Departments' presently utilize Mobile Data Computing (MDC) in their patrol vehicles while Sedona Fire District has been moving towards implementation, but is presently stalled due to funding.

Facilities-- The most expensive long-term investment communities make in public safety are the facilities that support the enterprise. With increasing national focus on homeland security and critical infrastructure protection, local emergency communications and operations facilities are increasingly being planned and designed with high-availability, force-protection and industry standards in mind. This shifting focus requires increased attention to site selection, building design, diverse connectivity for building power, and redundant systems to ensure these facilities have zero down time. This is also true in a consolidation study. iXP has ensured that all of these elements have been factored into our analysis so that the most complete evaluation is presented for your consideration. The facilities findings include:

- None of the current centers are built to National Fire Protection Association (NFPA) 1221 standards for public safety communications centers.
- All but one (1) of the current centers are somewhat challenged for space but are functional at present.
- Only one (1) of the current centers, Camp Verde, has the space available to conceivably house a consolidated or backup operation in their current facility. As stated above without major remodeling it would not be compliant with NFPA 1221 standards.
- Three (3) of the centers; Cottonwood, Camp Verde and Sedona Fire District have land available adjacent to their current public safety facilities on which a purpose built consolidated communications center might be built. The Sedona Fire District property is small and may not be big enough to support a fully consolidated center.
- All three (3) of the municipalities where the current four (4) centers are located have empty commercial spaces that could be remodeled/retrofitted to house a new regional communications center; however, it is highly unlikely they meet the NFPA 1221 standard as mentioned above.
- None of the centers in the study are shared with and operationally tightly integrated with other operations such as a jail.

Following the on-site visits, iXP team members aggregated the data and information collected from the surveys with the information obtained in the on-site visits and compiled a profile for

each of the participating centers. It is from this information that we have formulated our observations and recommendations.

Individual Profiles of each study participant are included and offer an overview of the current landscape and service construct for each agency. These profiles have allowed us to compare and contrast various elements of service, governance, operations, technology and facility to better evaluate and form recommendations for your consideration.

Recommendations

After careful consideration of the facts and issues at hand, it is incumbent on iXP to provide only those recommendations which iXP determines can be qualified and supported and in the client's best interest in the next project phase, the Business Case.With that in mind, we offer four (4) potential outcomes for the stakeholders to consider. They are in order of anticipated financial predictability, cost containment and improved service levels. They are as follows;

1. A regional consolidated communication center, functioning under an Authority model of governance whereas all stakeholder agencies are fully consolidated, (operationally) in one facility, (either as a governmental agency or a privately delivered managed services model);
2. A co-located facility with all stakeholder agencies sharing facility and technology, again under an Authority model of governance;
3. A hybrid model of consolidation and co-location with shared facility and technology and still under an Authority model of governance;
4. No consolidation or co-location but either virtual or shared technology platforms.

Note; this section can be separated from the body of this document for high level information purposes.

Introduction

There is a variety of consolidation models for Public Safety Answering Points (PSAP) ranging from a full consolidation, to collocating in a single facility and any number of hybrid versions in between. The impetus for consolidating generally is driven by one or more motivating factors including: financial savings and predictability, interoperability and information sharing, and/or level of service enhancements. Any one of these factors alone may or may not be sufficient to entice agencies to consolidate. However, a negative impact of any of the factors would likely deter serious consideration.

This report is intended to provide an analysis of the present operational and technological components of each of the four centers as well as an analysis of the benefits and/or negative impacts that may be experienced under a consolidated model.

There are four (4) areas of focus throughout the report, Governance, Operations, Technology and Facilities. These drive efficiency and functionality within the Public Safety arena.

- Governance refers to who writes the rules and what the rules are. Is it an elected or appointed board, an individual, a committee, etc.? Governance also addresses how the center is funded for capital and operational budgets, and, insures that agreements are in place with other agencies or centers for interoperability and backup.
- Operations, is "the how things are done;" the policies and procedures and service metrics each community desires and requires from their public safety agencies, the training and staffing.
- Technology is then used to support the Operational standard policies and procedures. Operations should drive technology, not technology driving operations.
- Facilities; where are the technologies and the personnel located? Are they safe and reliable? Are contingencies in place for power interruption, or other catastrophic events? Are they compliant with nationally recognized standards or best practices?

The Profiles in Appendix A provide an overview of each of the PSAPs participating in the study, in each of the Governance, Operations, Technology and Facility domains.

Potential Models or Outcomes

Based on the observations at each of the four (4) agency's communications centers under the four (4) key areas of iXP's approach , it is clear that significant benefit for all public safety agencies, their dispatch personnel and the citizens of the Verde Valley and beyond could be realized by establishing a consolidated regional emergency communications center. While not as great as the benefits from consolidation, some benefit could also be realized should the agencies opt for co-location rather than consolidation.

To clarify these terms:

- Consolidation implies all four (4) centers becoming a part of a single unified regional dispatch agency which in turn provides dispatch service to the first responder agencies within the region. Implicit in this definition are the concepts of:
    - Consolidated facilities
    - Consolidated and/or integrated communications and technology systems
    - Consolidated and cross trained dispatch personnel
    - Consolidated policies and procedures
    - Consolidated operating budget
    - Consolidated independent management
- Co-location implies two or more separate dispatching entities remaining intact but sharing a facility and a significant portion of the facility and technology infrastructure. Implicit in this definition are the concepts of:
    - Shared facilities, however facility would be owned and managed by one entity with the other entities in a tenant type of relationship
    - Partially shared operating budget (facility and shared infrastructure costs)
    - Separate / duplicate communications and technology systems
    - Separate dispatch staff
    - Separate management of dispatch staff
- Hybrid is a combination of consolidation and co-location. In this model two or more of the separate centers become part of a single regional dispatch agency with one or more of the centers remaining intact but sharing the facility with the newly formed regional dispatch agency. Implicit in this definition are the concepts of:
    - Shared facilities, however facility would be owned and managed by the regional dispatch agency with the co-located entities in a tenant type of relationship
    - Partially shared operating budget (facility and shared infrastructure costs)
    - Separate / duplicate communications and technology systems
    - Separate dispatch staff
    - Separate management of dispatch staff
- Virtual or shared technology platforms. In this model all the centers would remain independent in their own facilities. Implicit in this definition are the concepts of:
    - Shared technology infrastructure
    - Shared procurement process
    - Shared hiring/training processes

While at first it may appear that there are few benefits to co-location, the hybrid or the virtual models any one of them could be viewed as a first step toward consolidation should that direction be chosen at a later time. One way some jurisdictions have approached this is to consolidate the core systems of the communications center so that the individual co-located dispatch operations are operating on a single 9-1-1/telephony system, a single CAD system, a single logging/recording system, etc. This allows them to capture the technological and economic advantages of the consolidated systems approach while deferring the organizational impacts of merging operations into a single consolidated model. Immediate benefits of co-location or the hybrid options would include modern, industry standard dispatch facilities, improved "interoperability" by having the agencies dispatchers in close proximity to one another, and potentially greater staffing flexibility if some level of cross training is undertaken.

Current Environment – Findings and Recommendations

Governance and Operations

Findings:

With the exception of the City of Sedona Police Department's Communications Center, all of the other centers participating in this study are already providing consolidated 9-1-1 and emergency communications services for a number of law enforcement, fire and EMS organizations. Therefore, even before further consolidation is considered it is important to understand the current governance models of the existing entities and how they function to support the operations of the current organizations. Further, it is important to also understand how those governance models would need to transform if even broader levels of consolidation were to be considered.

While each of the existing centers are run by their agency head each of the organizations utilize some level interaction with their user agencies to help guide operational policies and practices. While this in general results in suggested changes being implemented with little problem, it is still done with the consent and final determination of the head of the center's agency. Summaries of these interactions are:

- Camp Verde does not hold any regularly scheduled meetings with the Yavapai Apache Nation Police Department. If any issues or concerns arise, the Yavapai Apache Nation Police Department Chief or Commander can schedule a meeting with the Marshal or the Lieutenant.
- Cottonwood Police hold monthly meetings with their user agencies. During the meetings the user agencies are advised of any changes and are able to provide input on issues and concerns.

- Sedona Fire District utilizes subcommittees of the Verde Valley Chiefs Association as a forum to provide input on operational and budget issues.

As shown above there are currently no formal law enforcement, fire or EMS operational board structures established to consider and make final decisions and there is no decision making process such as voting or consensus scoring to help guide contentious decisions. While this process may work acceptably for organizations the size of those in the current groupings of users, it becomes more impractical when larger consolidations are undertaken.

Recommendations:

Successful multi-jurisdictional/multi-disciplinary public safety communications centers are most commonly founded on governance models that reflect the individual needs and interests of the participating jurisdictions while also establishing an identity for the communications center operation that is separate and unique from those participating jurisdictions. This allows all participating jurisdictions and agencies to have a voice in the policy and operational decision making processes so that none of them feel as though their service levels or operational processes are being dictated by the others.

This is often accomplished by establishing a three-tiered organizational model that reflects the following roles and responsibilities:

- Administrative Policy – A policy level body is typically established to provide general policy direction for the communications center's service level goals, organizational processes and fiscal practices. This policy level body is often composed of one (1) representative from each jurisdiction that is considered a principle in establishing the new communications center organization. In circumstances where there are several principle entities and a number of smaller jurisdictions that receive services from those principle entities, it is also common for a single seat to be established on the policy body to represent the collective interests of those jurisdictions. Often the jurisdictional representatives on the administrative policy body are executive level governmental officials (non-elected) so that this level of communications center policy development reflects the needs of the participating jurisdictions. The administrative policy body would meet as often as needed to provide policy direction for the communications center operation, which can often be accomplished with semi-annual meetings.

- Operational Policy – An operational governance body is typically established to guide the development of the operational practices for the communications center within the administrative policy framework. This body also provides routine oversight of the operations of the communications center and periodic revisions to operational practices to meet the changing business requirements of the participating jurisdictions. In the multi-jurisdictional/multi-disciplinary setting, the operational governance body is

typically composed of the Police and Fire Chiefs of the agencies being served. In circumstances where there are several principle entities and a number of smaller jurisdictions that receive services from those principle entities, it is also common for a single seat to be established on the operational body to represent the collective interests of those smaller agencies. The operational policy body typically would meet on a more frequent basis to provide routine oversight on communications center operations and periodic accountability to the administrative policy level.

- Communications Center Staff – The communications center is then operated under the guidance of a Communications Center Director and a staff of operational and administrative personnel. The Communications Center Director assumes full responsibility for the operation of the communications center and is accountable to the Administrative and Operational governance bodies for sustaining successful operations within the policy and fiscal constraints established by the governance process.

The most common method for establishing a governance model such as this is through an intergovernmental agreement between the principle jurisdictions. Such an agreement establishes the communications center organization as a free-standing governmental body that is "owned" by all the principle jurisdictions and provides services to those jurisdictions within the established administrative and operational polices established by the governance bodies. In this model the communications center organization takes on all of the routine functions of operating a governmental agency including operational management, fiscal services, human resources functions and technology support duties. All communications personnel become employees of the communications center itself and an economic model is established that clearly delineates the combined costs of operating the organization and how those costs are apportioned back to the agencies being served so that a fair and transparent distribution of costs is achieved.

While this fully free-standing model often works well when the combined communications center operation needs to be fairly large to meet the service level requirements of the communities being served, it often needs to be modified when applied to smaller operations. For example, the combined fiscal and human resource demands of the organization may not rise to the level of even requiring a single full time employee to support those functions. Another example is the challenge of supporting the technology needs of the communications center on a 24X7 basis when the tech staff of the communications center may be only a single individual.

In these situations it may be more reasonable for one (or more) of the participating jurisdictions to provide these services to the communications center and have their costs for providing these services recovered through the communications center economic model. The key to success when utilizing this approach is to carefully track the costs of providing the services and to recover those costs through the communications center's economic model so that inter-jurisdictional subsidies are avoided.

Multi-jurisdictional/multi-disciplinary public safety communications centers are increasingly becoming a fiscal and technological necessity for jurisdictions large and small. By taking the time and energy to establish a sound governance model that meets local needs and conditions a newly created communications organization can provide high quality services in a policy and decision making framework that is mutually beneficial and agreeable to all the participating jurisdictions.

Cost Allocations

Findings:

In regards to current cost allocations each of the current centers allocate costs to their user agencies differently:

- Camp Verde entered into an IGA with the Yavapai Apache Nation in 2009 to provide dispatching services for three years at a cost of $215,350.
  - FY 2009/2010 - $70,000
  - FY 2010/2011 - $71,750
  - FY 2011/2012 - $73,600
- Cottonwood establishes rates based upon a formula that combines both the population and the number of calls for service for each of the agencies.

Agency	Population 7/1/2010	% Allocation Fixed Costs	Fixed Costs	Calls CYR 2009	% of Calls	Call Costs	FY 2011 Est. Fees
Clarkdale	4020	25.9%	$79,168	3060	14.68%	$44,337	$123,505
Cottonwood	11,190	72.0%	220,080	16,585	79.57	240,318	460,398
Jerome	327	2.10%	6419	1199	5.75	17,366	23,785
Totals	15,537	100%	305,667	20,844	100%	302,021	607,688

- Sedona Fire District funds 50% of the operating costs and 100% of the capital costs. The remaining 50% of the operating costs is funded by the user agencies based upon a formula of their choosing. Sedona Fire District is in the process of changing the capital cost allocation and will be passing a percentage of that cost to the user agencies.

2010/2011 Cost Allocation Agency	Run #s Issued*	Total Charge
Black Canyon	966	$39,955.39
Camp Verde	2,185	$108,514.27
Clarkdale	609	$39,771.55
Cottonwood	2,376	$125,227.19
Jerome	161	$8,045.11

2010/2011 Cost Allocation Agency	Run #s Issued*	Total Charge
Mayer	1,419	$65,567.07
Montezuma Rimrock	1,031	$61,147.82
Pinewood	542	$50,605.37
Sedona Fire District	3,726	$755,082.05
Verde Valley Ambulance	2,856	$104,394.45
Verde Valley Fire	1,938	$151,852.72
	17,809	$1,510,163.00

**Run numbers issued determined by 5 year average for budget purposes*

Recommendations:

Cost allocation models are also a key factor in reaching a successful consolidation operation. Since the two (2) largest portions of a communications center budget are capital and labor costs. Building and operating an emergency communications center with the required industry technology facilitates a capital investment which needs to be shared by all the primary stakeholders and reflected in the annual price offered to subscribers. Capital budget items for construction and technology acquisition need to be funded and whether governmental bonding, direct capital contributions or even grant dollars are utilized, a repayment schedule and the associated depreciation need to follow governmental accounting rules and procedures. Capital costs will also drive some additional operating costs for the stakeholders and subscribers for items such as facility upkeep and technology maintenance as well as technology and facility ever-greening.

Call volumes and workload are the most significant contributing factor in determining staffing levels. Cost allocation models are often based to some extent on the relative workload demands brought by each of the agencies served. Occasionally a two-tiered cost allocation model is utilized in which each participating agency is assessed an equal lump sum amount that in total represents some portion of the operating costs, and the remaining costs are allocated on a relative workload model. This approach helps acknowledge that there is equal benefit to all participating jurisdictions in having the communications center there to meet their needs, but still recognizes any disproportionate workload impacts from larger user agencies.

Policies and Procedures

Findings:

Sedona Fire District and Cottonwood both have extensive up-to-date policy and procedure manuals. Cottonwoods are based upon APCO and CALEA standards. Camp Verde has a center specific policies and procedures manual but it is outdated and has been in the updating process for several years. Sedona Police Department does have a small section in the Department's General Orders but does not have a center specific manual.

Recommendations:

If the decision is made to fully consolidate all the centers both the Cottonwood and Sedona Fire District's manuals could provide an excellent starting point for the development of a new operational procedural manual for the new center. A committee should be formed to develop a draft of this manual, which would then be submitted to the Executive Committee for approval. This development committee must include dispatch representatives and have representation from all four (4) agencies to assure everyone's needs are being met.

Training

Findings:

All four (4) centers currently have comprehensive training programs in place for new dispatchers. All of the law enforcement centers require Terminal Operator Certificates (TOC) to have access to the Arizona Criminal Justice Information System (ACJIS) that allows access to the National Crime Information Center (NCIC) and the Arizona Crime Information Center (ACIC). Each dispatcher must be certified at the highest level (Level A) and be re-certified every two years.

Both Cottonwood and Sedona Fire Districts require their dispatchers to complete the APCO Public Safety Telecommunicator I course in addition to their in house training. In addition Cottonwood and Sedona Fire Districts require their dispatchers to obtain certifications in Incident Command Systems (ICS), levels 100, 200 and 700. Sedona Fire District requires training and certification in Cardio Pulmonary Resuscitation (CPR) and Emergency Medical Dispatch (EMD).

Recommendations:

If the decision is made to fully consolidate all the centers both the Cottonwood and Sedona Fire District's training program and training manuals could provide an excellent starting point for the

development of a new training program for the new center. A committee should be formed to develop a draft training program, which would then be submitted to the Executive Committee for approval. This development committee must include dispatch representatives and have representation from all four (4) agencies to assure everyone's needs are being met.

Salary and Benefits

Findings:

For Cottonwood, Camp Verde and Sedona Police Departments benefit packages include health insurance, dental, vision, EAP (Employee Assistance Program), life and disability, and participation in the Arizona State Retirement System (ASRS) with the municipality and employee making contributions. Benefit packages are offered through the Arizona Public Employers Health Pool (APEHP). Several of the employees' health insurance options are paid fully by the municipality with spouse and family plans available at a cost to the employee.

Sedona Fire District's current benefit package includes health insurance, dental, vision, EAP, life and disability, and 401A retirement. The health insurance is paid fully by the District including the family plans. The employee has a choice between either a PPO (Preferred Provider Organization) or HSA (Health Savings Account) both from Blue Cross Blue Shield of Arizona. For dental and vision plans the employee does pay a portion, while the district pays fully for the 401A, EAP, life and disability insurance. For FY 2012 the Sedona Fire District is looking at modifying their health insurance coverage to be more in line with the cities of Cottonwood and Sedona and the Town of Camp Verde. One of the changes being looked at is an employee contribution for dependant health care.

From the salary information provided by Cottonwood, Camp Verde and the Sedona Police Department the highest salaries are in Cottonwood with the lowest being in Camp Verde.

Agency	Highest Paid Dispatcher	Supervisor
Cottonwood	$43,963.88	$49,248.43
Camp Verde	$40,498.38	$38,316.98
Sedona PD	$41,162.99	$44,802.99

Sedona Fire District did not provide individual salary information but did supply current ranges. From discussions with the Center personnel it would appear that salary wise other than the newest dispatchers the salaries are in the top 1/3 of the ranges.

Position	Step 1	Step 7
Manager RCC	$69,201	$92,736
Communications Supervisor	$44,406	$59,508
Communications Specialist	$36,778	$49,288

Cottonwood's current pay ranges:

Position	Minimum	Maximum
Communications Supervisor	$28,184	$40,866
Communications Specialist	$31,109	$45,109

*Note; the City of Cottonwood allows the Department to go above their salary ranges and the Department has for both the Communications Supervisor and a few of their Communications Specialists

Camp Verde's current pay ranges:

Position	Minimum	Maximum
Dispatch Supervisor	$34,189	$52,023
Dispatcher	$30,219	$45,981

Sedona Police Department's current pay ranges:

Position	Minimum	Maximum
Technical Services Supervisor	$39,675	$57,210
Communications Specialist	$31,086	$44,795

Recommendations:

As part of the formation of regional consolidated communications center, enticement of as many as possible of the existing employees to become a part of the new center will be critical. To accomplish this, the employee needs the assurance that they are not going to lose financially either in salary or in benefits. It is our recommendation that the normalization of salaries and benefits be accomplished by developing a benefits package based on the most equitable of each category from the four (4) agencies involved. The agency profiles listed in Appendix A identifies the salaries and benefits being paid by each of the agencies. Based on the information that was provided by each agency the highlighted boxes would provide the framework for a salary and benefits package.

Additional Duties and Collateral Support

Findings:

In addition to normal call receiving and dispatching duties the Cottonwood, Camp Verde and Sedona Police Department centers are responsible for maintaining the misdemeanor wants and warrants files once they receive the warrants from the municipal courts. All warrant entry, modification, verification and recall are handled by the communications center. The Sedona Fire District's Center also maintains the Master Street Address Guide (MSAG) for all of the PSAPs in Yavapai County. In addition the District's GIS Technician is responsible for the GIS mapping for all the PSAPs in Yavapai County. The Cottonwood, Camp Verde and Sedona Police Department centers have the ability to monitor CCTV cameras on the interior and exterior of their facilities.

Cottonwood's Center also answers the Department's administrative lines when the records clerks are off duty or unavailable to answer the lines. The records clerks normally work Monday thru Friday, 0800-1700 hours. In Camp Verde's Center the dispatchers also answer the Department's administrative lines when the records personnel are off duty or unavailable to answer the lines. Camp Verde's records personnel normally work Monday thru Friday, 0700-1800 hours. Sedona Police Department's dispatchers answer the Department's administrative line 24/7 as it is the primary phone number published for the Department. Sedona Fire District's Center also answers the administrative lines for the District after normal business hours and the weekends.

The Sedona Police Department's Center also has the capability of monitoring cameras in the City Court and Council Chambers. Each of the City of Sedona's Administrative Assistants for the different City Departments has a panic alarm in their office and there is also one (1) in the City Council Chambers that are monitored by the Sedona Police Department Center. There are two (2) windows in the lobby of the Department's facility. The first one is into the records area and is 'open' Monday – Friday between 0800 and 1700 and is staffed by a records clerk. After hours, weekends and holidays the 2nd window is opened and is into the Communications Center. After hours the center handles walk-ins and will receive bond money if a person is arrested and is able to post bond within 45 minutes.

Recommendations:

The maintaining of misdemeanor wants and warrants will need to be maintained by any consolidated center as the dispatchers will need the original wants and warrants on file for verification purposes. Since the public in Cottonwood, Camp Verde and Sedona use the law enforcement agency's main administrative line to request public safety assistance those lines will still need to be answered by the consolidated center and the center will need to be able to transfer the non-public safety assistance calls back to the agency.

Both the MSAG and GIS mapping functions performed by the Sedona Fire District's Center would be necessary for a consolidated center. In regards to providing the service to all of the other PSAPs in Yavapai County the consolidated center's Executive Committee would need to work with the other PSAPs and determine if and how that service would continue.

In regards to CCTV and panic alarm monitoring (Sedona Police Department) the consolidated center's Executive Committee and each of the agencies will need to discuss if those services will continue in the consolidated center and if so if there will be any fees attached for the monitoring service or if the agencies will to look for an outside vendor to support the monitoring.

With the front counter duties in the Sedona Police Department's Center a phone could be placed in the lobby that could dial directly into the consolidated center and the dispatcher could respond an officer if needed. As far as posting of bonds if another solution could not be found such as the arresting officer collecting the bond they would have to book the person into Yavapai County Jail as they already do when the person is unable to post.

Staffing – Introduction and Background

Development of a staffing model for a consolidated public safety communications center requires the balancing of a number of interests and priorities so that the staffing levels meet the service delivery requirements of the agencies they serve while also operating within a sustainable business model that fits within local budgetary constraints. While the communications center staff ultimately support a variety of tasks and responsibilities over the course of their working shift, there are three primary tasks that have the most significant impact when establishing staffing level models:

- Answering incoming 9-1-1 and 10-digit phone calls, screening those calls to determine if a response or other action are needed, and entering the incident information into the CAD system if the nature of the event indicates this is appropriate (or providing information to the caller if CAD entry is not indicated).
- Dispatching calls for service to the law enforcement, fire service and emergency medical organizations supported by the communications center, or passing information on to outside jurisdictions if resources are needed from outside the communications center's agencies.
- Monitoring and supporting in-service units while they conduct their on-street activities and entering/processing CAD and database inquiries related to all field-initiated activities.

While each public safety organization has their own individual right and responsibility to establish levels of service that are appropriate and acceptable to their community (such as how many units to staff at any given time of the day, which types of events receive a response, the

depth of the response based on call type, and the like) there are some basic performance expectations that are typically established for a consolidated public safety communications center so that all of the agencies they support can be assured a consistent level of service for the call receiving and dispatching process. The two (2) most common minimum performance expectations are focused on call answering and call processing times:

- Call Answering expectations are typically established at one (1) or two (2) levels of performance, expressed as the percentage of inbound calls that will be answered within a certain period of time during normal busy hour. The most commonly referenced standard is the Call Answering Standard/Model Recommendation published by the National Emergency Number Association (NENA Document 56-005) which identifies the target of answering 90% of inbound calls within 10 seconds and answering 95% of inbound calls within 20 seconds. The National Fire Protection Association (NFPA 1221) currently recommends that 95% of calls be answered in 15 seconds and that 99% be answered within 40 seconds.
- Call Processing and Dispatching expectations are also often established at multiple levels of performance. The most commonly referenced standard NFPA 1221 which currently recommends that 90% of call processing be completed in 60 seconds and 99% of call processing be completed in 90 seconds.

Staffing Levels, Call Volume and Call Processing

Findings:

Current staffing for all the centers is identified in the table below:

Position/Center	Cottonwood	Camp Verde	Sedona PD	Sedona Fire District	Totals
Manager				1***	1
Supervisor	1	1	1	5	8
Dispatcher/Trainer	3			5	8
Dispatcher	6*	5**	6	4***	21
GIS				1	1
IT	.5				.5
Radio Tech				1	1
Total	10.5	6	7	17	40.5

* Cottonwood is authorized eight (8) and one (1) over hire for a total of 9
** Camp Verde is authorized six (6) but the 6th position is frozen for the foreseeable future
***Sedona Fire District is eliminating the Manager position in FY 2012 and will be holding one (1) dispatcher position vacant for FY 2012

Cottonwood, Camp Verde and Sedona Police Departments do not have center managers but do have Administrative Commanders/Lieutenants that serve in that role. At each of the agencies the Commanders/Lieutenant feel that 50% of their time is spent managing the centers. Camp Verde has a Records Specialist that spends approximately 14% of her time on CAD and other center IT issues. Sedona Police Department utilizes approximately 40% of the City's Information Technology Manager's time allocation on center IT issues. The Sedona Fire District has an IT/Telecom Supervisor, two (2) IT Technicians and a Telecom Technician that allocate portions of their time to center issues.

The site visit and data collection process provided a variety of telephone call volume and workload information for each of the study participants. While some pieces of information were consistently available from all study participants, other pieces of information were only available from some of the participants. Further, some of the data was only available for limited time periods. However, enough data is present to establish a reasonable projection of what the combined call volumes would look like for a consolidated communications center operation. The data collected is recorded in the Agency Profiles listed in Appendix A.

From the data supplied it is estimated that in a normal operating day a fully consolidated communications center would handle approximately 450 inbound calls and approximately 110 outbound calls To establish the statistical basis for determining the level of staffing necessary to handle these volumes within the above referenced standards, two factors have to be considered:

- The duration of each call – These calls will be of varying durations, with some being resolved in less than a minute and others requiring longer periods of time to complete. For purposes of workload analysis and staffing projections, an average call duration of 120 seconds has been used to develop the statistical models discussed below. This duration has been found to be reasonable for communications centers of this size and includes time for not only all of the actual on-phone time with the caller but a small dwell period at the conclusion of the phone call to complete any CAD or other processing and be ready to answer the next inbound call. It also recognizes that outbound calls are often even longer than this time period, but are of a lower priority and can be placed on hold to allow answering of an inbound call.
- The number of calls arriving in any given period of time – The arrival rate of calls has significant impact on the staffing levels needed to handle the calls within expected performance goals. Telephone call volume data and calls for service volume data have been examined for all the jurisdictions in the study and an expected normal daily call distribution has been established. The average daily call distributions are shown in the table below:

		Total Calls	Inbound Calls	
0000-0100	2.4%	13.7	11.0	
0100-0200	2.0%	11.0	8.8	
0200-0300	1.4%	7.7	6.2	
0300-0400	1.4%	7.6	6.1	
0400-0500	0.9%	5.0	4.0	
0500-0600	1.8%	10.2	8.2	
0600-0700	3.2%	17.7	14.2	
0700-0800	5.0%	27.9	22.4	
0800-0900	5.2%	29.4	23.6	
0900-1000	5.5%	30.9	24.8	
1000-1100	5.0%	28.3	22.7	
1100-1200	5.9%	33.2	26.6	
1200-1300	6.1%	34.3	27.5	
1300-1400	5.4%	30.3	24.3	
1400-1500	6.2%	34.8	27.9	Busiest Hour
1500-1600	5.2%	29.1	23.3	
1600-0700	4.8%	27.1	21.7	
1700-1800	4.9%	27.3	21.9	
1800-1900	4.8%	27.2	21.8	
1900-2000	4.7%	26.2	21.0	
2000-2100	4.7%	26.5	21.3	
2100-2200	4.9%	27.3	21.9	
2200-2300	4.5%	25.4	20.4	
2300-2400	4.1%	23.0	18.4	
	100.0%	561.2	450.0	

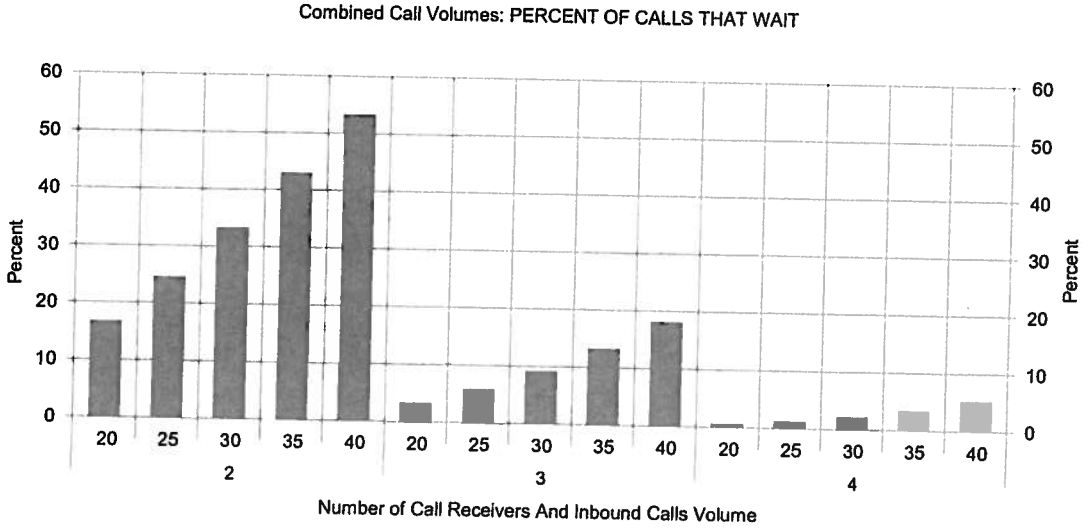
For a fully consolidate center, the busy hours of the day will be between the hours of 0700 and 2300 and the quietest hours of the day will be from 2300 to 0700. This is a very common distribution in consolidated centers as the busy periods of time in one jurisdiction are often offset by quieter periods in other jurisdictions. For example, Sedona Fire District's data indicates a higher proportional call volume in the 0700-1000 timeframe when compared to the other jurisdictions, but their volume falls off considerably in the evenings when call volumes of the other centers tend to rise.

It is also worth noting that the busiest hour in a day may not be significantly busier than the other hours in the busy portion of the day. Some consolidated centers experience brief periods of time where all their jurisdictions are at their busiest levels, and this creates significant staffing

challenges to establish flexible shift patters so that staffing can be temporarily increased to match the peak volumes. Fortunately this does not appear to be necessary for this consolidation model.

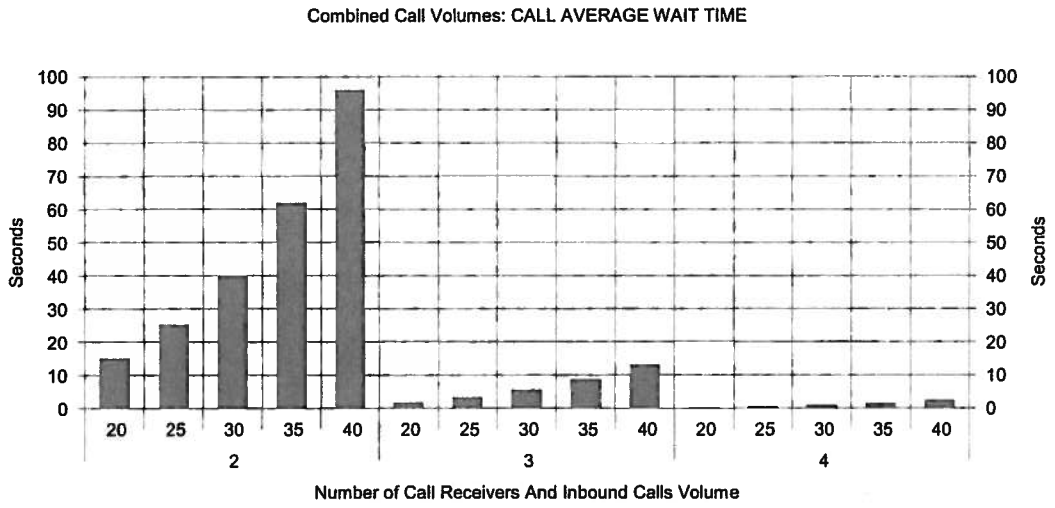
With the estimated call duration and call arrival metrics established, it is possible to apply statistical tools to model what the call answering performance would look like at varying call arrival rates and varying staffing levels. For this modeling, a range of hourly call volumes from 20 to 40 has been examined against a call receiver staffing count ranging from two (2) to four (4). It is important to note that when referring to a call receiver in this context, we are not suggesting that these are dedicated positions staffed only to answer calls. Rather, this represents the number of dispatchers that would need to be in the center and logged into the CAD and phone system so they are ready to take the next inbound call. Typically they would be handling dispatching responsibilities and performing other functions supported by the center, all the while also being able to handle inbound calls so that call answering performance goals could be met on a consistent basis.

The first way of looking at call receiver staffing is to estimate the percentages of calls that would need to wait at any given staffing level. The graph below shows that for a call arrival rate of 30 calls an hour (approximately the busiest hour in the estimates above) approximately 10% of calls would experience a wait time with three (3) call receivers available. Having a 4th call receiver available brings that potential to under 2%. When the combined call volume (inbound and outbound) of 35 is considered, approximately 13% of calls would need to wait with three (3) call receivers available but only approximately 3% would need to wait if a 4th call receiver were available.

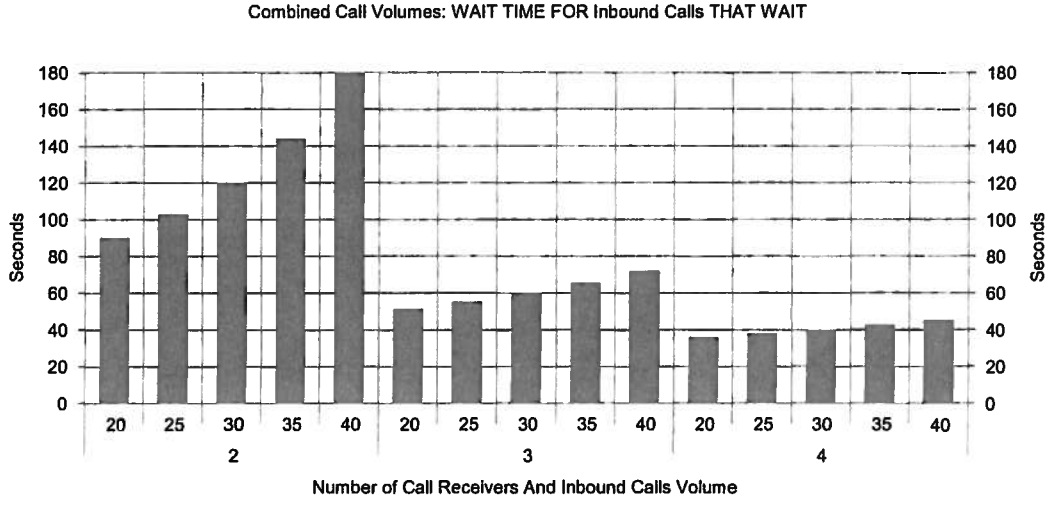


The actual potential wait times for calls that wait will be highly variable. The graph below shows that for the same 30 call arrival rate and 3 call receivers, the average wait time would be

approximately 5 seconds. Even at the combined total call volume of 35, wait times remain under 10 seconds.



But knowing the average wait time needs to be balanced against understanding what the actual wait times might be for each of the calls that have to wait. A high percentage of quickly answered calls can pull the average down while there are still a few individual callers who experience considerably longer wait times. If that happened to be the call with a life-threatening emergency the goal would be to have the wait time as low as reasonably possible. The graph below shows that at the same 30 call arrival rate, wait times would reach approximately 60 seconds. However, having a 4th call receiver available brings the potential wait time down to approximately 40 seconds, even at the higher total inbound and outbound call volume of 35 in that busy hour.



Recommendations:

Staffing models for 24X7 operations need to take into consideration a wide variety of factors to determine the actual number of employees to hire to provide coverage for each position and time-span that position needs to be filled. Based on the average vacation, holiday and sick leave policies of the jurisdictions in this study, it is estimated that 5.70 FTEs will be needed to fill an individual full 24-hour position.

iXP would recommend that the operational staffing model for the consolidated communications center should be established so that at least during the 16 busiest hours of the day, 0800 – 2000, a total of four (4) dispatchers be actively logged in and able to process inbound and outbound calls.

Based on the statistics provided, the operational observations we conducted, and the geographic relationships between the various agencies that would be served by this consolidated communications center, the following operational staffing model is recommended. It should be noted that the Supervisor position is intended to perform the vast majority of their duties in the communications center at a working dispatch position. While they would not normally have an assigned agency or group of users to manage on the radio, the Supervisor would be available in the center to quickly assist in call receiving, call processing and dispatch activities as surges demanded.

Position	Schedule	FTE Count
Communications Center Manager	Normal Business Hours	1 FTE
GIS Technician	Normal Business Hours	1 FTE
Technology Coordinator	Normal Business Hours	1 FTE
Supervisor (working)	24X7	5.70 FTEs
Dispatch Position serving Cottonwood, Clarkdale and Jerome	24X7	5.70 FTEs
Dispatch Position serving CVMO and YAN and Call Receiving	24X7	5.70 FTEs
Dispatch Position serving Sedona PD and Call Receiving	24X7	5.70 FTEs

Dispatch Position serving Fire/EMS	24X7	5.70 FTEs
0800 to 2000 Extra Position for Fire/EMS and Call Receiving	14 hours per day	3.33FTEs
Total		34.8 FTEs

There is a possibility of a reduction from the current total staffing counts among the individual agencies. There are currently 40.5 FTEs collectively in the participating agencies, so the consolidated model allows an overall reduction of 5.5 FTEs. In FY 2012 because of cuts made by Sedona Fire District there will be 38.5 FTEs which reduce the overall reduction in the consolidated model to 3.5 FTEs. The consolidation model also provides a deeper pool of dispatcher and call receiver functionality than any of the agencies can deliver on their own, which typically results in overall improvements in the levels of service provide to all the communities served.

Technology

9-1-1 Phone System

Findings:

Within the last year all of the centers have had their 9-1-1 systems replaced by the State of Arizona at varying costs upwards to $250,000 for each system, not including annual maintenance. Currently Cottonwood, Camp Verde and Sedona Fire Districts all utilize the Plant Vesta system with Sedona Police Department using the Positron Viper system. Because of State budget shortfalls, it is doubtful that any of the current centers' 9-1-1equipment will be replaced by the State and no new centers will have systems put in by the State.

Recommendations:

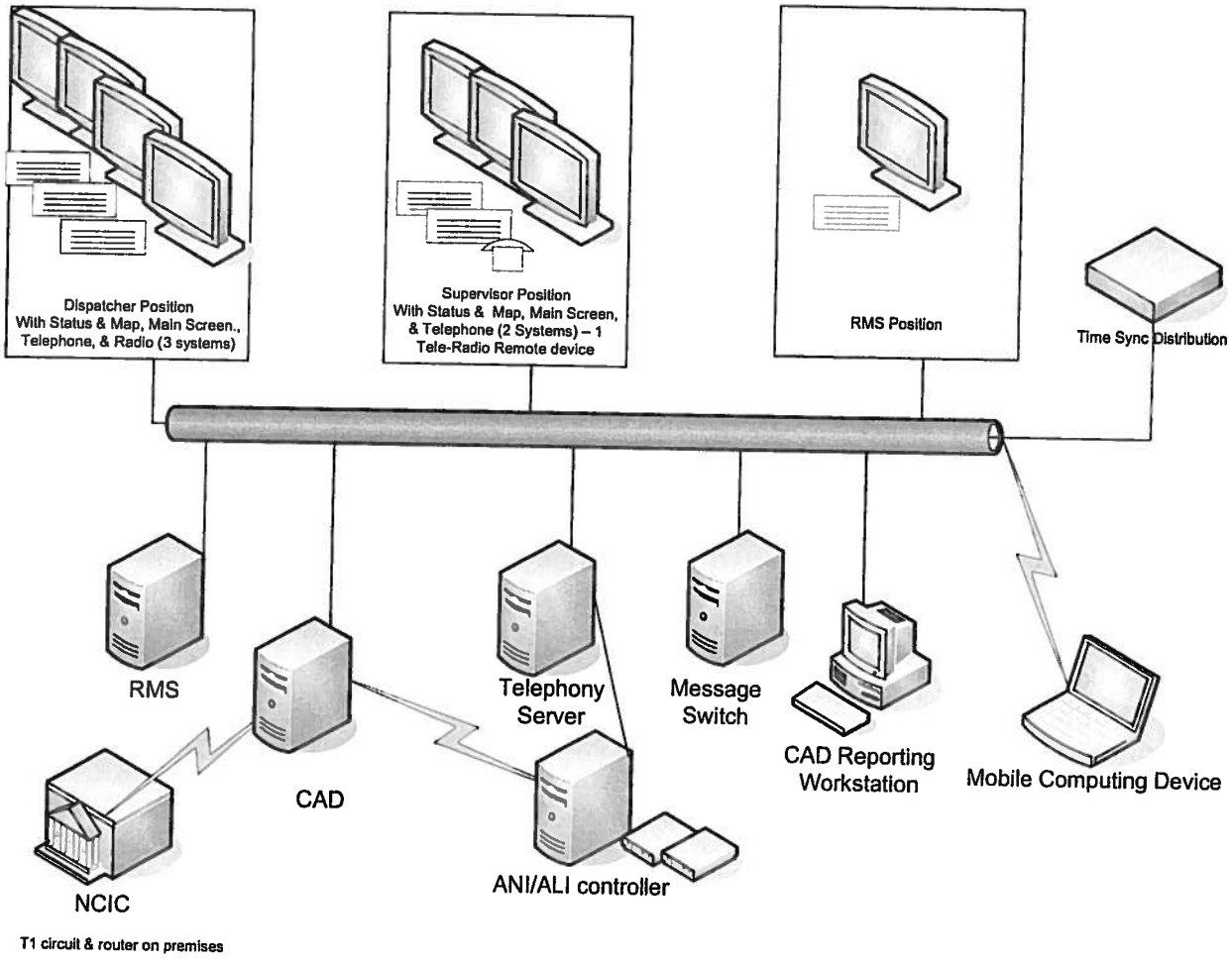
In order to establish a 9-1-1 system at a new consolidated center, three (3) options should be reviewed by the Executive Committee:

1. Work with the State to see if they will fund the 9-1-1 system for a new regional center thus allowing the State to remove the equipment from three (3) of the centers (the fourth would remain in place in a regional backup center) and utilize them in another centers in the State in need of a new system or as parts for future repairs on like systems.
2. Purchase a new system for the new center through a procurement process. It would not be possible to receive 9-1-1 calls to both the existing center the equipment is being moved from and the new center simultaneously during the migration and parallel operations periods. Therefore during those periods, one (1) of the two (2) centers would be without

the ability to answer 9-1-1 calls. Procurement of a new system mitigates this issue and allows for a clean unfettered installation and migration process.

3. One (1) of the existing centers operations could be moved to another existing center prior to the go live date of the new center. For example Cottonwood's operation could be moved into Camp Verde's Center and utilize the two (2) backup consoles. This would allow Cottonwood's current 9-1-1 system to be moved to and used in the new center. This would not be the preferred solution as other technologies would need to be in place prior to Cottonwood's move and the operation would have to be moved twice.

The potential for savings is in the combining of positions and the equipment required to support the new infrastructure and positions. Since the majority of the agencies are using the Plant Vesta systems, it would be cost effective to upgrade to a single Plant contract for support and services, during and after transition.



Instead of having three (3) to four (4) of these configurations (see diagram), you would migrate everyone onto a single platform with as many clients (work stations & mobiles) as needed.

Radio

Findings:

The City of Cottonwood Police Department owns and operates two (2) VHF radio repeaters and one (1) simplex base to provide Radio Frequency (RF) coverage for the Cottonwood area and the other agencies they currently dispatch for: Jerome Police Department and Clarkdale Police Department. Some of the infrastructure is owned and maintained by the Sedona Fire District with the majority being owned and maintained by City of Cottonwood.

The Communications Center operates on two (2) Motorola Centracomm Gold Elite consoles that are no longer supported by the manufacture.

Camp Verde owns and operates two (2) VHF radio repeaters located on Squaw Peak. The Center operates on two (2) Vega Model IP-1616 desktop radio control consoles which were purchased in 2007. There are also two (2) older Motorola Command Plus desktop radio control consoles that are set up and can be used in case the Vega consoles go down.

The City of Sedona owns most of their Police Department's radio infrastructure. The exception is the microwave connectivity between Sedona Fire Station 1, the Sedona Airport and the Sedona Fire Station 4 along with the channel banks connected to the microwave at those locations which are owned by the Sedona Fire District. The console radios connect to a local base station for Channel 1 backup and to a Voter system for Channel 1 main over microwave to Sedona Fire District Station 4, Sedona Airport and Sedona Fire District Station 1. In addition Channel 3 is connected via microwave to a repeater at the Sedona Airport. Sedona Police are currently building a newer repeater location that will have a microwave link to provide coverage in the lower Red Rock Loop Rd areas, the Chapel areas and Highway 179. The console radios are Telx/C-Soft radio consoles with Telex IP-based IP-233 radio interface units that are less than two (2) years old.

The Sedona Fire District's network is comprised of a combination of simplex and repeated channels as well as an alpha numeric paging system. All but one (1) of the antenna sites are freestanding antennas located throughout the Valley. All locations in the Verde Valley/Sedona area except the 89A overlook and Station 2 have microwave connectivity to the Sedona Fire District's Center. The agencies of Mayer Fire and Black Canyon City Fire have leased lines from Qwest, the incumbent local exchange carrier (LEC), to a radio system tie point local to each agency, with a planned upgrade of Black Canyon City to microwave by June 2011. The console radios are older Orbacom console radios that are no longer supported by the manufacturer.

The existing radio systems infrastructure in place provides good coverage for all the agencies being served by the four (4) centers. With the extensive microwave linking system already in place it is possible to expand it to enable all of the current agencies being served by the current centers to be serviced through a single regional center. In addition the RF links already in place can also be expanded to backup the microwave linking system.

The mobile and portable radios used by the public safety agencies within the Verde Valley allow them to speak directly to each other during joint operations with the public safety personnel being able to speak with different agencies on the scene portable to portable. In addition public safety personnel can speak directly to the communications center that covers the area of the incident.

Recommendations:

If it is decided to site build a new center adjacent to the Camp Verde, Cottonwood or Sedona Fire District facility the radio equipment and tower could remain in their current location and be connected to the new center via cabling. In the future when replacement was needed the equipment and tower could then be placed in/next to the new center. This could help save some initial startup costs.

In regards to the communications center console radios it would be the recommendation to purchase new through a procurement process for the new center. This would enable the center to have all the same radio consoles in place with a single maintenance/support contract in place to support them. Referring to the above diagram, each dispatch position would have its own equipment, configured to monitor that agency responsible. Integrating the various radio systems into the 9-1-1 telephone platform also reduces the number of disparate equipment purchases and minimizes the number of support agreements/costs. This would also enhance the interoperability capabilities at the desktop for radio and telephone communications together. After the new center was up and running the Executive Committee might look at moving the current radio consoles from Sedona and Camp Verde into the backup center.

Administrative Phone System

Findings:

The administrative phone system in the Cottonwood Center is an extension of the City's blended PBX system consisting of components from three (3) different systems – Avia Legend, Merlin and Merlin Majic. The system is over 10 years old. Camp Verde uses an NEC PBX system that is over 10 years old as well. Sedona Police Department's uses the City's CISCO Call Manager v4.1 VoIP PBX system that is four (4) years old. The Sedona Fire District currently utilizes the CISCO Call Manager v4.1 VoIP PBX system and plans to upgrade to the Cisco CUCM8.5 VOIP PBX system in May 2011. Within the Center the individual console positions are integrated with

the District's phone system through the Plant Vesta 9-1-1 system. Through this integration the console positions have administrative lines which include a fax line and a non-emergency medical line for resorts, four (4) ring down lines; Camp Verde Marshalls Office, Sedona Police Department, Cottonwood Police Department and YCSO, and two (2) intercom lines that connect the Center to the District's Cisco phone system. There are separate administrative phone sets that are part of the District's CISCO VOIP system in the manager's and supervisors' offices, the GIS office and the work table in the Center.

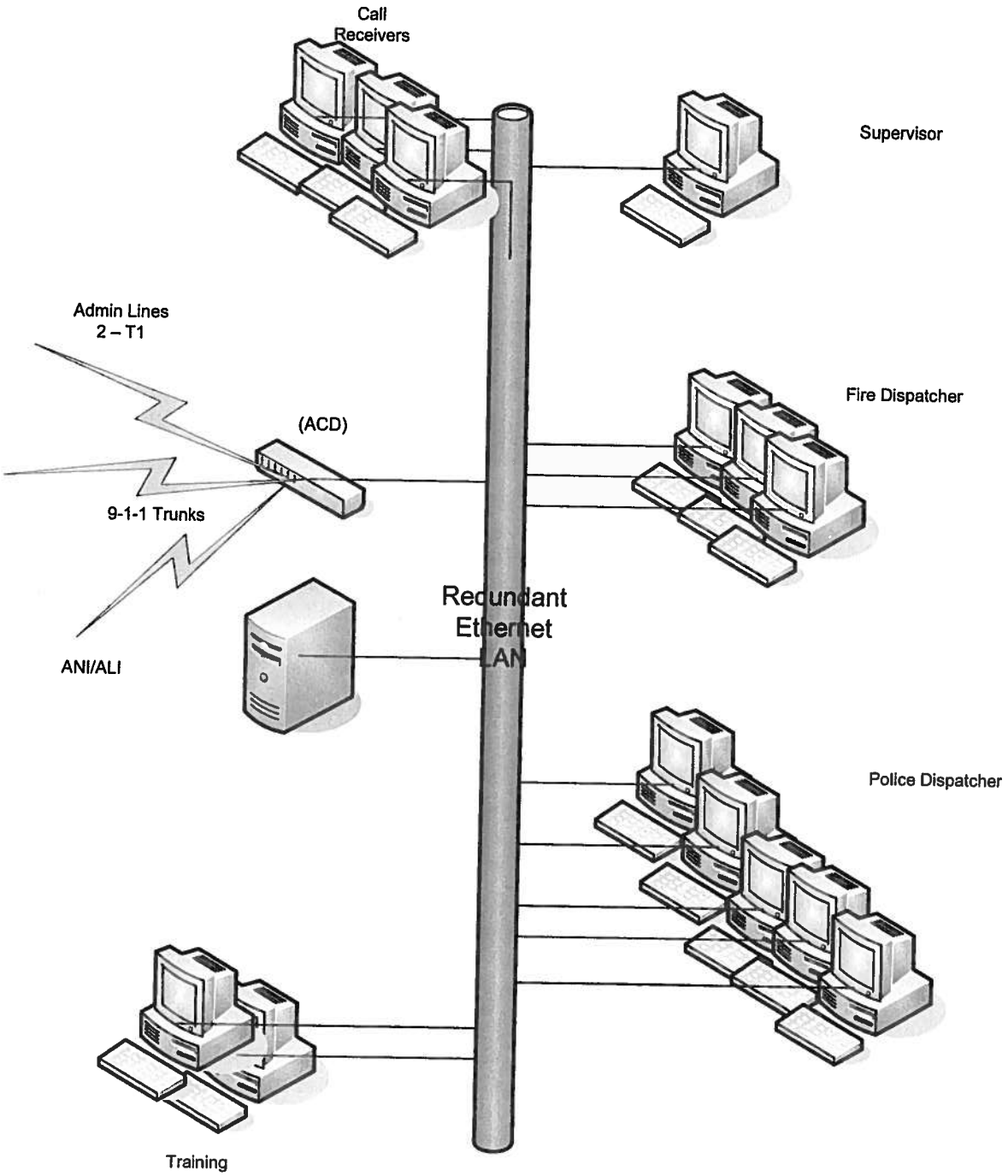
Recommendations:

While all of the telephone systems utilized at each of the centers are currently adequate the fact that these systems serve more users than just the communications centers makes wholesale relocation of any of these systems impractical.

There are three (3) potential alternatives to providing administrative phone service at a new center:

1. Procure a new, dedicated system to serve only the new communications center. While this will involve some initial capital outlay it allows the center to continue to operate independently of any of the agencies and provides the most flexibility in configuration of the system.
2. Since the administrative telephone system at the City of Sedona and the Sedona Fire District are IP based systems a WAN connection to either of those systems could be established and the communications center could "piggy back" off of one (1) of the systems. This option would require a minimum of capital outlay but would have ongoing operational costs for redundant network connectivity and potential service charges from the agency being "piggy backed." It would also make the new center subject to the maintenance procedures of that agency and potential service outages not under the direct control or influence of the communications center.
3. If the new center is site built next to the current Cottonwood or Camp Verde facility as above the communications center could "piggy back" off of those systems. As above this option would require a minimum of capital outlay but would have ongoing operational costs for redundant network connectivity and potential service charges from the agency being "piggy backed." It would also make the new center subject to the maintenance procedures of that agency and potential service outages not under the direct control or influence of the new center. Since both the current systems are older and the Cottonwood system is a 'blended' system of systems maintenance costs could be quite high and replacement might be required in the not-to-distant future.

Any consideration should include integrating the 9-1-1 telephone system with the administrative phone system to allow for outbound calls from the users as well as receiving 10 digit emergency and non-emergency inbound calls.



CAD and RMS

Findings:

CAD is a more complex issue. Currently there are three (3) different CAD systems being utilized in the four (4) centers; Cottonwood and Camp Verde utilize Spillman Systems, Sedona Police Department uses New World Systems and Sedona Fire District is using PSSI system.

Recommendations:

If co-location is the option selected by the Executive Committee, then it would be viable for this to continue.

If, however, consolidation is the path chosen, then the only practical option will be for the consolidated center to use a single CAD system to dispatch all agencies. There are two (2) potential options to accomplish the move to a single CAD system:

1. Purchase a new system for the new center. This option will obviously require significant capital outlay and will require that all center personnel be trained on the new system. This option will also require a thorough functional analysis and requirements specification process to ensure that the selected product is able to meet the unique operations needs of each of the centers client agencies. The selected system will need to be able to pass incident data per agency to their RMS systems (see first diagram).
2. Move all agencies onto one (1) of the existing CAD systems. While this option will likely require less capital outlay and perhaps require less training for some of existing center personnel, neither one of these items will be a zero factor. None of the systems are configured to support all of the agencies today. A full functional analysis of each agencies operations procedures will still be required and the vendors of each of the systems would need to be engaged to determine if and at what cost their system could be configured to meet those requirements. Only after that exercise was complete could the Executive Committee make a decision as to which system to use.

iXP would recommend that the Executive Committee undertake a blended approach to this issue. A full functional analysis, functional specification and procurement process could be undertaken for the CAD system. The vendors of the existing CAD systems (Spillman, New World and PSSI) should be invited to participate and should have the option to propose modifications to the existing installed systems in order to meet the specifications. This would allow the Executive Committee to select the system which best meets the functional and cost effectiveness requirements of the agencies involved.

As RMS is much more a tool of patrol, investigative and records units within each of the agencies, iXP recommends that each agency continue to operate its own current RMS as it does today as long as full integration with the selected CAD system is possible.

Logging and Recording

Findings:

Cottonwood and Sedona Police Departments both utilize an Eventide VR-725 ATLAS digital voice logging recorder. Cottonwoods' system is three (3) years old and currently 24 of the 32 channels are utilized. The Sedona system is a year old with 16 channels that are all being utilized. The systems are expandable to 96 channels according to the manufacturer. Camp Verde utilizes a NICE Mirra IV digital system which is approximately a year old. 15 of their 20 channels are being used and the system is expandable to 40 channels. Sedona Fire has a CVD ComLog digital recording system. The system is four (4) years old with 54 of the 72 channels being utilized. According to the manufacturer the system is expandable to hundreds of channels.

Recommendations:

In order to establish a logging and recording system at a new consolidated center, a procurement process would be required to occur. While the Sedona Fire District's system, with an upgrade, could support the quantity of recording channels required at the new center, re-use presents significant logistical challenges. It would not be possible to record audio from both the existing center and the new center simultaneously during the migration and parallel operations periods. Therefore during those periods, one (1) of the two (2) centers would be without a recording system. Procurement of a new system mitigates this issue and allows for a clean unfettered installation and migration process. In addition the only center that could house Sedona Fire's operation during the transition to the new center would be Camp Verde and their current logging and recording system does not have the channel capacity to support Sedona Fire District's operation. Once the new center is operational the Sedona Fire District's current logging and recording system could be utilized in a backup center.

Time Synchronization

Findings:

Time synchronization is largely un-utilized within the Cottonwood, Camp Verde and Sedona Police Department centers. Sedona Fire District's Center has their CAD, Plant Vesta 9-1-1 system, logging and recording system, and their radio system time synchronized via a net clock.

Recommendations:

As part of the outfitting of a new consolidated center, a time synchronization system should be procured and implemented. All possible systems should be set up to synchronize to this system (see first diagram).

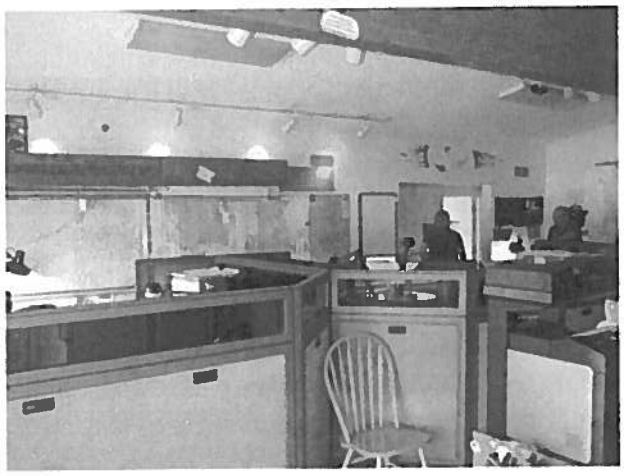
Facilities

Findings:

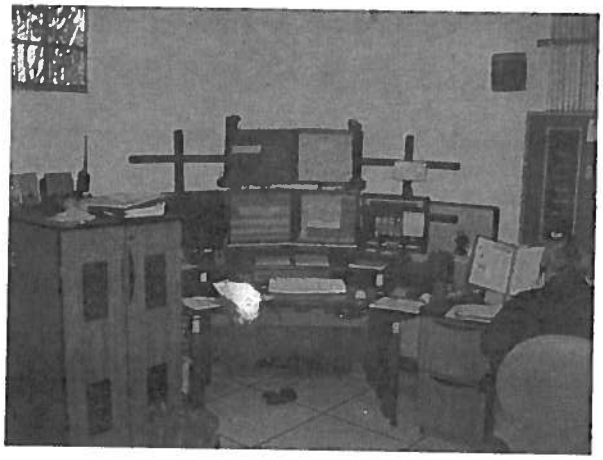
In iXP's observations, all four (4) of the existing communications centers have space allocations which make them less than optimal for the mission critical purpose they serve.

Three (3) of the four (4) centers are too small.

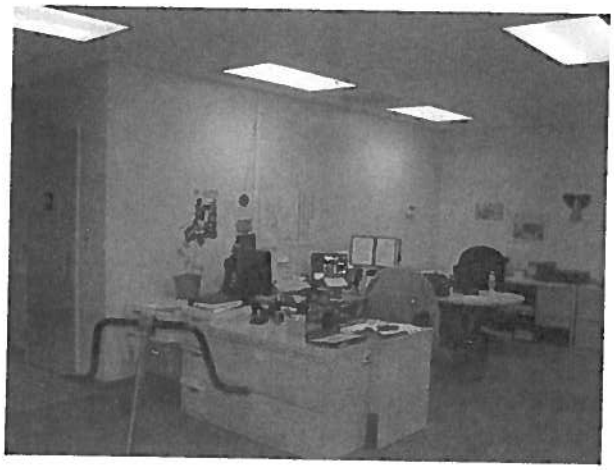
- The square feet for each operations position in the dispatching area of each center is:
    - Sedona Fire District – 655 square feet/4 positions; 163.8 sq. ft./position (if you subtract the work table space in the Center it would drop it closer to the 150 sq. ft. per position)



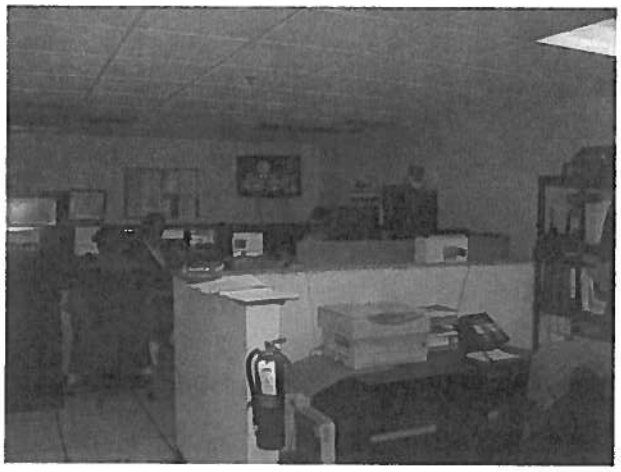
- Sedona Police Department – 210 square feet/2 positions; 105 sq. ft./position



- Camp Verde Marshal's Office – 390 square feet/4 positions; 97.5 sq. ft. /position (if you add the open space in front of the console positions it becomes 512sq. ft./4 positions – 128 sq. ft./position). Because of the console design and placement in the current space there would be room to add two (2) more similar consoles. This would not be optimal as it would drop the square feet to 85 per position and you would not want to run a fully staffed consolidated operation in it but as a backup center it could be supported.



- Cottonwood Police Department – 189 square feet/3 positions; 63 sq. ft./position



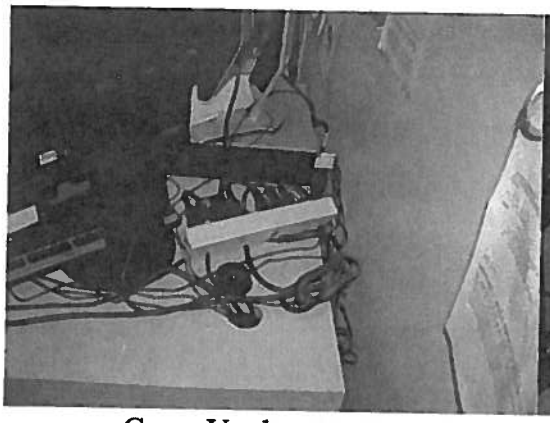
- None of the current centers have room to expand in their current facilities without displacing space already allocated to other functions.
  - The Camp Verde Marshal's office could expand their facility to the east. If the facility were expanded to the east it would be possible to almost double the size of the current Center by expanding it south into the conference room and the Marshal's office and moving those spaces into a new expanded area.
  - Cottonwood Police Department, Camp Verde Marshal's Office and the Sedona Fire District have property adjacent to their current facilities where a purpose built regional communications center might be built. The Sedona Fire District property is small and may not be big enough to support a fully consolidated center.
  - All three (3) of the municipalities where the current four (4) centers are located have several empty commercial spaces that could be remodeled/retrofitted to house a new regional communications center.

All four (4) centers are less than optimal with respect to infrastructure for survivability, this is based upon the following factors.

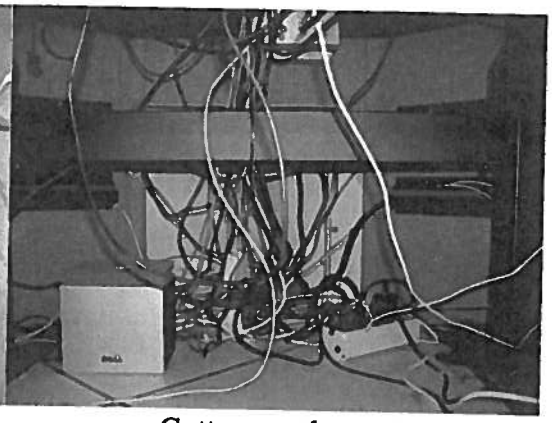
- None of the centers have a central Uninterruptable Power Supply (UPS) to protect critical equipment in the event of power loss. Protection from power interruptions come from multiple individual office style UPS units throughout the center and equipment rooms. The centers do have FERRUPS FE Series UPSs in place for their 9-1-1 systems which were supplied by the State of Arizona. Utilizing the individual smaller units creates more work in maintaining them and making sure they are still in working order and there is a greater risk that one (1) or more may fail when they are needed.
- The Sedona Fire District's Center is the only center that has an HVAC system that services the center alone and is not shared with other facility spaces. Sharing HVAC

system with other facility spaces can lead to conditions which overheat or overcool equipment and personnel alike as system load demands increase.

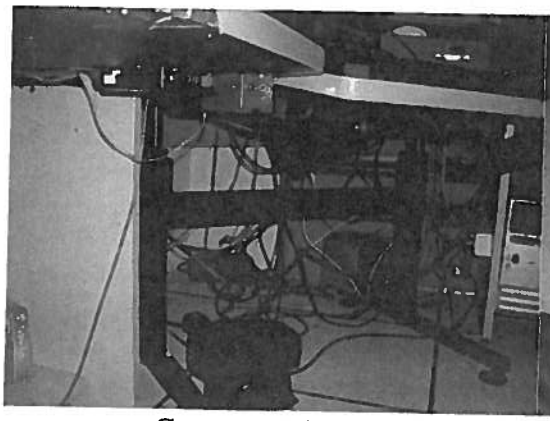
- None of the centers have any specialized grounding systems within the operations area other than those required under normal building codes. The equipment rooms in several of the facilities do have specialized grounding for the technology contained within.
- None of the centers have ample electrical fixtures in place to support all their technology. They all rely on multiple power strips and extension cords to augment their lack of electrical fixtures. This creates potential fire and overload hazards.



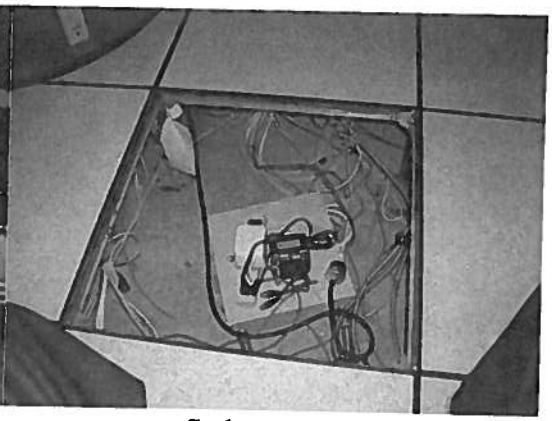
Camp Verde



Cottonwood



Cottonwood



Sedona PD

- None of the centers meet NFPA 1221 Standards. An example of a few of the NFPA 1221 standards are:
-
    - Communications centers shall be separated from other portions of buildings occupied for purposes other than emergency communications by fire barriers having a fire rating of two (2) hours.

- Door openings shall be protected by listed, self-closing fire doors having a fire resistance rating of not less than one (1) hour.
- HVAC systems shall be independent systems that serve only the communications center. As mentioned Sedona Fire District's center does meet this standard.
- Telecommunications equipment, two-way radio systems, computers, and other electronic equipment determined by the Authority Having Jurisdiction (AHJ) to be essential to the operations of the communications center shall be connected to an isolated grounding system in accordance with NFPA 70 Article 647.

The human environmental conditions at the four (4) centers are less than desirable based upon the following;

- Only the Sedona Fire District and Sedona Police Department centers both have windows that allow natural light into the center.
- The artificial lighting at three (3) of the centers is fluorescent direct overhead lighting, with Sedona Police Department having individual ceiling mounted task lighting fixtures. All but the Camp Verde Center have console mounted task lighting which mitigates some of the overhead fluorescent lighting issues but not all.
- None of the centers have any noise dampening systems in place. The worst center for noise is Sedona Fire District when the fire bay doors open and close.
- None of the centers have a quiet room available for critical incident depressurization.
- With the exception of Camp Verde each of the centers is somewhat over crowded at full staff.
- The Cottonwood Center does not have restrooms or coffee / refreshment areas within a desirable range of the operations area.

The following are each of the centers security vulnerabilities and/or potential external threats;

- The Sedona Police Department Center is located just off the facilities lobby to which the general public has access 24x7. While the center is behind a locked door, the proximity of public access is problematic.
- The Sedona Police Department Center is subject to water infiltration from heavy rain runoff.
- Both the Sedona Fire District and Sedona Police Department centers and/or technology equipment rooms have walls that are exposed to public roadways. This creates a possibility of a vehicle accidentally or purposely causing damage to the center and/or its technology equipment rooms.
- Even though each of the centers have locking doors into the facility and another locking door into the center the center doors are normally kept open. That means that anyone who gets past the facilities locked entrance would normally have access into the communications center.

- Because of a lack of walls that go from fixed in place flooring to fixed in place ceiling, lack of sealing of pipes and conduits going into the centers, open doors and other openings all the centers and their personnel face exposures to vapors, fumes, aerosols (such as Cap-Stun) and smoke emanating from other portions of the facility.

Recommendations:

Current industry best practices call for approximately 150 square feet of floor space for each operations position. This includes space for normal equipment, monitors, furniture and storage (files, etc.) at each position. It does not include space for ancillary items such as coffee / refreshment areas, etc., nor does it include space for restrooms or technology infrastructure equipment.

A thoughtfully designed new dispatch facility could mitigate most of the issues listed above and be built to NFPA 1221 standards. iXP estimates that the required square footage for a consolidated center will be close to 6500 square feet. The table below shows the breakdown of this space.

Area	Quantity	SF	Total
Dispatch Consoles	6	150	900
Training/Backup Consoles	2	150	300
Supervisor Console	1	150	150
Copy Area	1	100	100
Coffee Bar	1	25	25
Restrooms	2	80	160
Warrants (includes files and work area)	1	200	200
Quiet Room	1	100	100
Management Office	1	200	200
Supervisors' Office -shared	1	300	300
Tech Support Office	1	150	150
Janitorial & Supplies	1	100	100
Conference/Training Room	1	300	300
Conference/EOC Room	1	600	600
Break Room	1	200	200
Center Technology Room	1	500	500
Lockers	40	2	80
Equipment cabinets	12	18	216
Total Net Square Footage			**4581**
Circulation – 45% (Includes M/E) (Exclusive of dispatcher and call taker console areas)			2061
Total			**6642**

Given these risks and the fact that in a consolidated communication scenario all 9-1-1 and communications center operations would be in the same location, iXP recommends that an emergency backup location that will provide at least 9-1-1 telephone and radio communication capabilities with all agencies be part of any regional consolidation effort. A potential location for this backup site would be the Camp Verde Marshal's Office or the Sedona Fire District's current center.

Appendix A: Profiles

Cottonwood Police Department

Governance

Agencies Served

The City of Cottonwood Police Department's Communications Center provides primary law enforcement dispatch services for the Cottonwood Police Department, the Clarkdale Police, Jerome Police Departments and the Arizona State Park Rangers at Dead Horse State Park. The City of Cottonwood has Inter-governmental Agreements (IGAs) with Clarkdale, Jerome and Arizona State Parks to provide dispatching services. In addition communications support services are made available to the Partners Against Narcotics Trafficking (PANT) when it is working in the Verde Valley area.

Cottonwood's Communications Center is a primary PSAP (Public Safety Answering Point). Wire-line 9-1-1 calls placed within the geographic locations of the City limits of Cottonwood (which includes Dead Horse State Park), or the Town limits of Clarkdale and Jerome, are answered by the Communications Center.

The Communications Center does not provide initial Fire or Emergency Medical Services (EMS) dispatching services. All Fire and EMS calls are transferred to Sedona Fire District Regional Communications Center. Sedona Fire does Emergency Medical Dispatching (EMD) on all Medical calls.

Sedona Fire District's Regional Communications Center is a secondary PSAP to Cottonwood's Communications Center.

Governing Process

The Center is part of the Cottonwood Police Department and has no stand-alone governing board guiding its operation. The Chief of Police is ultimately responsible for the Center and its operation. Meetings are held with the user agencies on a monthly basis. User agencies are apprised of any changes and are able to express their concerns. A review of services, infrastructure, and fees are conducted at the meetings.

Funding and Budget Model

The total 2011 operational budget for the Communications Center is $687,750. Component costs break down as follows:

Salaries and Benefits	$580,060	84.3%
Facility and Utility Costs	$20,000	2.9%
Equipment and Software Maintenance	$81,840	11.9%
Supplies and Miscellaneous	$5850	.9%
Totals	$687,750	

The Communications Center is funded under the Police Department's budget which is part of the City's General Fund. The General Fund is reimbursed for dispatching service by the Towns of Clarkdale and Jerome. Since there are so few calls within Dead Horse State Park Arizona State Parks is not charged a fee for dispatching services. The rates for dispatching services are established based on a formula which combines both population and number of calls for service.

Fixed/Call Cost Breakdown		
FY 2011 Base Budget		$661,345
(minus) Spillman CAD/RMS Cost		(53,657)
Dispatch Center Allocation		$607,688
Fixed Costs	50.30%	$305,667
Call Cost	49.70%	$302,021
Total Est. Cost Reimbursement		$607,688

Agency	Population 7/1/2010	% Allocation Fixed Costs	Fixed Costs	Calls CYR 2009	% of Calls	Call Costs	FY 2011 Est. Fees
Clarkdale	4020	25.9%	$79,168	3060	14.68%	44,337	$123,505
Cottonwood	11,190	72.0%	220,080	16,585	79.57	240,318	460,398
Jerome	327	2.10%	6419	1199	5.75	17,366	23,785
Totals	15,537	100%	305,667	20,844	100%	302,021	607,688

In addition the General Fund is reimbursed for the Spillman costs by the Towns of Camp Verde, and Clarkdale, and the Yavapai Apache Nation. These rates are established based on the number of terminal licenses held by each agency.

Spillman Cost Distribution by Entity			
Spillman Total Cost			53,657
Cottonwood MDC			(16,750)
Spillman Estimated Costs			36,907

Clarkdale (5)	5	6.94%	$2,563
Cottonwood (36)	36	50.00%	18,455
Jerome (non-member)	0	0.00%	0
Yavapai Apache Nation (7)	7	9.72%	3,588
Camp Verde (24)	24	33.33%	12,302
Total Spillman Costs	72	100.00%	$36,908

The State of Arizona's 9-1-1 Program pays for the maintenance and upkeep of Cottonwood's 9-1-1 system. In 2010 the Program paid for and installed thru Qwest Communications a new Plant VestaPalla 9-1-1and Aurora MIS system. The total cost of the project, including installation and training, was paid for by the State of Arizona's 9-1-1 Program.

Interactions with Other Entities

Cottonwood's Communications Center has more than a close operational relationship with the Sedona Fire District's Regional Communications Center and the Camp Verde Marshal's Communications Center as they share some of the same systems. Sedona Fire's Center is the secondary PSAP to Cottonwood and they share some of the same radio infrastructure. Cottonwood's Center is the secondary PSAP to Camp Verde and they share the same CAD/RMS system with Cottonwood being the host agency. In addition Sedona Fire maintains and updates the 9-1-1 Master Street Addressing Guide (MSAG) that is used to process 9-1-1 calls in Cottonwood, Camp Verde and the Sedona Police Department.

The mobile and portable radios used by the public safety agencies within the Verde Valley allow them to speak directly to each other during joint operations with the public safety personnel being able to speak with different agencies on the scene portable to portable. In addition, public safety personnel can speak directly to the Communications Center that covers the area of the incident.

Operations

Staffing and Scheduling

The Center is staffed with a total of 10 personnel; a Communications Supervisor and eight (8) full time Communications Specialists along with one (1) "over hire." In addition the Department employs a Systems Coordinator who supports the Spillman CAD/RMS system and is allocated 20 hours a week for Center tasks. The other 20 hours is on other Police Department technical issues. The Communications Supervisor reports to the Support Services Commander.

The Communications Supervisor generally works Monday thru Friday between 0800 and 1600 each day. Currently the fulltime Communications Specialists work five (5) eight (8) hour shifts a week for a total of 40 hours a week. There are three (3) shifts; Day shift 0700 to 1500, Swing shift 1500 to 2300 and Graveyard shift 2300 to 0700. The schedule allows for two (2) Communications Specialists to be scheduled on duty at all times.

Communications Specialists participate in a shift bid every three (3) months that is based on seniority. It is reversed on the 1st schedule rotation following the beginning of the calendar year to allow junior employees to select shifts first. Employees may not remain on the same schedule for two (2) consecutive rotations.

Schedules available for bid:

Shift	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	D	D	D	D			D
2		D	D	D	D	D	
3	D	D			D	D	D
4	S	S	S	S			S
5			S	S	S	S	S
6	S	S			S	S	S
7		G	G	G	G	G	
8	G	G	G			S	G
9	G			G	G	G	G

Compensation and Benefits

Current compensation levels are as follows:

	Communications Supervisor	Communications Specialist (highest paid)	Systems Coordinator (50% of time)
Annual wages Paid – Actual 07/2009 to 06/2010	$49,248.43	$43,963.88	$46,427.46
City Contribution for Health Insurance Costs	$5,244.00	$5,244.00	$8,708.40
Arizona State Retirement City Match (ASRS)	$4,373.83	$4,102.56	$4,119.60
ASRS LTD City Match	$194.39	$182.37	$183.11

	Communications Supervisor	Communications Specialist (highest paid)	Systems Coordinator (50% of time)
Social Security and Medicare Match	$3,696.21	$3,487.16	$3,357.23
Life Insurance	$155.52	$142.56	$149.04
Accidental Death and Dismemberment	$23.04	$21.12	$22.08
Workers Compensation Ins	$118.20	$105.51	$111.43
Annual Accrual Vacation Time – hours/$ Value	120/$2,781.98	120/$2,562.16	120/$2,672.67
Annual Accrual Sick Time – hours/$Value	96/$2,223.36	96/$2,047.68	96/$2,136.00
Total Value of Compensation Package	$68,058.96	$61,859.00	$67,887.02 (50% - $33,943.51)

Cottonwood's current pay ranges:

Position	Minimum	Maximum
Communications Supervisor	$28,184	$40,866
Communications Specialist	$31,109	$45,109

*Note; the City of Cottonwood allows the Department to go above their salary ranges and the Department has for both the Communications Supervisor and a few of their Communications Specialists

Benefits include health insurance, dental, vision, EAP (Employee Assistance Program), life and disability, and participation in the Arizona State Retirement System (ASRS). Benefit packages are offered through the Arizona Public Employers Health Pool (APEHP). Several of the employees' health insurance options are paid fully by the City with spouse and family plans available at a cost to the employee. Included in the Health plan is dental at no cost with a vision plan being optional and at a cost to the employee.

Medical – Core Plan	No Cost to employee Employee and Spouse - $155.09 per month Employee and Children - $68.21 per month Employee and Family - $316.40 per month $500 annual deductable per person up to $1000 per family of 2 and $1500 per family of 3+ with/in PPO, and $1,000/$2000/$3000 out of PPO After deductable, coverage is 80% by insurance carrier and 20% by the employee in the PPO with out of pocket max of $3500/single or $7000/family, and a 60/40 split out of PPO with an out of pocket max of $5000/single $10000/family
Medical – Co-pay Plan	No cost to employee Employee and Spouse - $155.09 per month Employee and Children - $68.21 per month Employee and Family - $316.40 per month $20 co-pay w/Primary Care Physician and $40 co-pay w/Specialist and Urgent Care (not ER) $750 annual deductable per person up to $1500 per family of 2 and $2250 per family of 3+ in PPO and $1500/$3000/$4500 out of PPO After deductable, coverage is 80% by insurance carrier and 20% by the employee in the PPO with out of pocket max of $3500/single or $7000/family, and a 60/40 split out of PPO with an out of pocket max of $5000/single $10000/family
Medical – Core Plus Plan	Employee cost of $80.00 per month Employee and Spouse - $395.09 per month Employee and Children - $281.19 per month Employee and Family - $599.39 per month $250 deductible per person up to $500 for a family of 2 and $750 per family of 3+ in PPO, and $500/$1000/$1500 out of PPO After deductable, coverage is 80% by insurance carrier and 20% by the employee in the PPO with out of pocket max of $2500/single or $5000/family, and a 60/40 split out of PPO with an out of pocket max of $5000/single $10000/family
High Deductable Plan w/Health Savings Account	No cost to the employee and the City will put the difference between the cost of the Core Plan and the cost for this plan into a Health Savings Account for the employee - $129.00 per month Employee and Spouse - $116.39 per month Employee and Children - $51.20 per month Employee and Family - $237.60 per month $1500 annual deductible per person in PPO, and $2500 out of PPO After deductable, coverage is 80% by insurance carrier and 20% by the employee in the PPO with out of pocket max of $3500/single or

	$7000/family, and a 60/40 split out of PPO with an out of pocket max of $5000/single $10000/family
Prescription Drugs (Included in health plan)	Benefits paid based on formulary – A formulary is a list of drugs that are covered under the plan Employee co-pay amounts depend on whether purchase is generic, preferred brand name, or non-preferred brand names and if a 30-day or 90-day supply is purchased
Dental Plan (Included in health plan)	Covers an annual maximum of $1500 per person with a $50 per person deductible Different services are covered 80%/20% or 50%/50%, two annual cleanings and a set of x-rays are 100% covered every year. Children under 17 are eligible for $1500 worth of lifetime orthodontics
Vision	Voluntary program that covers an annual eye exam, spectacle lenses (including progressive) or contact lenses every 12 months, frames every 24 months Rates: Self Only $8.46/month, Self and Family $21.84/month, Self + Child(ren) $13.67/month, or Self and Spouse $12.77/month. Doctor needs to participate in VSP network
Life Insurance	2 Plans – no cost to employee Plan 1 – for the amount of one year's annual salary in even thousand dollar amounts Dependant coverage is available – spouse $5000.00 at $1.89/month, Dependant children $2000.00 for $1.89 per month Plan 2 – flat $50,000 included with medical plan for employee and a flat $1000.00 for each dependant Supplemental life insurance available up to $150,000 for employee, $30,000 for spouse and $10,000 for children – for employee and spouse rates are dependent on age – children is $0.70 per $5000/month
Vacation	Line employees - 2 weeks year 1 – 5, 5 years + 3 weeks Department Heads and exempt employees – 3 weeks years 1 – 5, 5 years + 4 weeks
Sick leave	Accumulates at rate of one day per month – no cap on hours. When employee leaves employment reimbursement will be made for hours accumulated in excess of 480 hours, up to a maximum of 1,040
Holidays	11 per year: New Year's Day, Martin Luther King Day, Presidents Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving and Friday after, Christmas Day, and employee's birthday
Education	2 tuition and books reimbursement programs

Additional Duties and Collateral Support

In addition to normal call receiving and dispatching duties, the Center is responsible for maintaining the misdemeanor wants and warrants files once they receive the warrants from the municipal courts. All warrant entry, modification, verification and recall are handled by the Communications Center. They also answer the Department's administrative lines when the records clerks are off duty or unavailable to answer the lines. The records clerks normally work Monday thru Friday, 0800-1700 hours. In addition they monitor approximately 13 CCTV cameras. The cameras have views of Booking, The Sally Port, Intoxilyzer and the exterior of the building and the parking lot.

Training Processes

Training for new Communication Specialists consists of approximately 16 to 24 weeks of in-house training with the Supervisor and a Communications Training Officer (CTO). In addition to the in-house training each newly hired Communications Specialist completes the five (5) week, online APCO Public Safety Telecommunicator I course.

As part of their initial/in-service training process all Communications Specialists obtain certification in Incident Command System (ICS) Levels 100, 200 and 700. This is on-line training provided by the Federal Emergency Management Agency (FEMA) at no cost to the agency. In addition all Arizona Criminal Justice Information System (ACJIS) operators, including Communications Specialists, must obtain Terminal Operator Certificates (TOC) in order to access the system. Each operator must re-certify every two (2) years. Communications Specialists must be certified at the highest level (Level A).

Currently all CTOs have been required to attend and receive certification from the National Field Training Officers (NAFTO) Basic FTO Program. The Center is looking at utilizing a similar Training Officers course offered by the Association of Public Safety Communications Officials (APCO) as it is more directed towards communications then the NAFTO program.

Call Volumes and Dispatched Events

In March/April 2010 Cottonwood switched to a Plant CML – Aurora system that tracks all calls coming into the Center, including 9-1-1 calls. All call history before the install was lost. The 9-1-1 call totals for March, April and May are suspect – June thru December look consistent.

Month	All incoming (including 9-1-1)	9-1-1 Totals	Non 9-1-1
January	0	0	
February	0	0	
March	66	61	5

April	205	75	130
May	2390	716	1674
June	2688	329	2359
July	2787	378	2409
August	2776	302	2474
September	2384	266	2118
October	2542	295	2247
November	2291	300	1991
Dec (thru the 16th)	1256	159	1097

The total number of 'incidents' and traffic stops per agency appears to have been decreasing over the last three (3) years. For purposes of the table below Cottonwood defines 'incidents' as officer activities that generate an incident number.

2008	Total
Cottonwood	18025
Clarkdale	3316
Jerome	1093
Total	22434
2009	
Cottonwood	16611
Clarkdale	3041
Jerome	1229
Total	20881
2010	
Cottonwood	15567
Clarkdale	2849
Jerome	1179
Total	19595

Center operations are conducted in what might best be termed a teamed approach, with personnel working both call receiving and dispatching functions. This cross support spans all jurisdictions being served, so at any given time each of the personnel on duty have a high degree of situational awareness for active incidents and units in the field.

Backup Capabilities

Currently Cottonwood's Communications Center has no complete backup facility. In the event their 9-1-1 lines go down Sedona Fire can answer them and then call Cottonwood on a land or

cell phone line. Cottonwood does have a mobile command vehicle that can be utilized to dispatch calls to all the jurisdictions they provide services to.

Technology

9-1-1 and Telephony Systems

The Center uses Plant Vesta Pallas 9-1-1 System with an Aurora MIS System. The system is less than a year old and is maintained and serviced by Qwest thru the State of Arizona 9-1-1 Program contract service agreement. There are six 9-1-1 trunk lines designated to the system, four (4) wired and two (2) wireless lines. The system has both Automatic Number Identification and Automatic Location Identification (ANI/ALI) capabilities.

The Sedona Fire District's Regional Communications Center serves as the secondary PSAP to Cottonwood. In the event the Cottonwood Communications Center needs to be evacuated a two position switch installed in the Center can be manually activated to rout 9-1-1 calls to the Sedona Fire District Center.

Addressing is complete within the Cottonwood Communications Center PSAP service areas. All addressing is contained and maintained within the Center's geographical information systems (GIS). The Municipal Street Addressing Guide (MSAG) is maintained and updated by the Sedona Fire District's Regional Communications Center and accessed via an Internet connection.

Computer Aided Dispatch (CAD), Records Management (RMS) and Related Systems

The Cottonwood Police Department utilizes an integrated package of CAD/ RMS system from Spillman Technologies Inc. This integrated approach allows them to operate at high levels of efficiency and provide broad levels of information and analysis capability to appropriate users as needed.

The CAD system operates on an IBM P5 Series server running a Unix (vAIX5.3) operating system. The server is approximately three (3) years old. The server is owned by the City and is just out of warranty. The Department has asked for and will receive a quote from IBM on a continued maintenance plan that they expect to be around $4000.00 a year. Currently there are no plans to replace the server covered by a service agreement. Currently they are on the Spillman version Summit 4.6 for the desktops which is the version just behind the most current - Sentry X6.1. They are waiting until all the "bugs" are worked out of the latest version before they migrate.

CAD is interfaced to 9-1-1 ANI/ALI, the state CJIS switch and the mobile data computers (Cottonwood PD only) provide high levels of serviceability and remote functionality.

Mobile Data Computing (MDC)/Mapping/Automatic Vehicle Locating (AVL)

MDC's are being used by all of the patrol officers within the Cottonwood Police Department. At this time Clarkdale and Jerome are not using them. The Cottonwood MDCs all have the functional capability to perform status entry, receipt and sending of digital dispatch information, electronic messaging, AVL, mapping and remote report entry. In total there are thirty 33 Panasonic Toughbooks in use on the system. Verizon Air Cards are used for connectivity. The Department has also recently deployed Net Motion which allows the officers to establish connections across multiple networks. The software being used is Spillman Mobile 4.5 which is the most current release.

Logging and Recording

The Cottonwood Police Department utilizes an Eventide VR-725 ATLAS digital voice logging recorder. The system is three years old and in good condition. Currently 24 of the 32 channels are utilized and the system is expandable to 96 channels according to the manufacturer.

Radio and Related Systems

The City of Cottonwood Police Department owns and operates two (2) VHF radio repeaters and one (1) simplex base to provide RF coverage for the Cottonwood area and the other agencies they currently dispatch for: Jerome Police Department and Clarkdale Police Department. Some of the infrastructure is owned and maintained by the Sedona Fire District with the majority being owned and maintained by City of Cottonwood. The Communications Center operates on two (2) Motorola Centracomm Gold Elite consoles. The consoles are no longer supported by the manufacturer.

Additional Technology Observations

There is currently no master time synchronization system in operation for the various technology systems in the facility. The result of this is that the log times in the individual systems' being utilized in the Communications Center are not in synch which can create some challenges when doing event reconstructions or researching problems.

Facilities

The Center is housed in a 385 square foot space located in the Police Departments space within the Public Safety Building. The actual space that is used for dispatching is 196 square feet. The other 189 square feet of space is utilized as office and storage space with a copy machine, desk, filing cabinets and personal lockers occupying it. Within the dispatching space are the two full telephony and radio console positions along with a third that is utilized as a 'call taking' position. When the Public Safety building was designed and built there were no plans to house the

Communications Center within it. The Center was going to remain in its old location. During the construction it was decided that the Center would move and space was allocated. Although the Center has block construction the walls do not go from the fixed in place flooring to the fixed in place ceiling – they end just above the drop ceiling. Fire suppression for the Center is an overhead water sprinkler system. The Center does have one wall mounted hand held dry chemical fire extinguisher. The Center does not comply with NFPA 1221 standards for a 9-1-1 center both in construction and design features.

The Heating, Ventilation and Air Conditioning (HVAC) is part of a shared system that also covers the front office and records area with the thermostat being located in this same area. According to Center personnel the Center does get warm – especially in the summer. A wall mounted auxiliary A/C system was added but it does little more than move air around according to Center personnel.

In addition to the dispatch area the facility also provides a number of support areas including the Communications Supervisor office space, meeting/training space, employee break space and storage areas. There is no room for expansion without displacing another occupied space. The Center could expand north into the facilities weight/exercise area which would more than double the Centers space but there would be no other space to relocate the weight/exercise area to.

The technology equipment is housed in three separate rooms on the opposite side of the facility from the Center. The technology rooms are the Radio Control, building electrical and phone, and the network/radio rooms consisting of approximately 386 square feet combined. The rooms are adequately sized and arranged to allow additional equipment to be installed in the future to meet expansion or system replacement needs. The rooms' fire suppression is the building's main sprinkler system as well as hand-held dry chemical extinguishers. The Radio room has its own HVAC system which is sized to allow additional equipment to be placed in the room. The electrical/phone room and the network/radio room HVAC is part of the facilities system. The thermostat for these two rooms is located within the electrical/phone room.

There is no centralized Uninterruptable Power Supply (UPS) for the Center or the three (3) supporting equipment rooms. Protection from power interruptions come from multiple individual UPS office grade units throughout the Center and equipment rooms. Within the technology room the Plant 9-1-1 system does have its own FERRUPS FE Series UPS.The Public Safety Facility has a GeneracSD 400, 60 Hz, 400 kW diesel generator that supplies power to the facility in the event of a power failure. The generator was purchased in February 2002 and is maintained by a local firm. It has a 438 gallon tank and according to the manufactures specifications it will burn 7.25 gallons per hour at 25% load, 17.6 gallons per hour at 50% load, 23.6 gallons per hour at 75% load and 32 gallons per hour at 100% load.

There is limited exposure to manmade risks, with major railroads, highways, pipelines and hazardous material facilities all in excess of three miles away.

Camp Verde Marshal's Office

Governance

Agencies Served

The Camp Verde Marshal's Office Communications Center provides primary law enforcement dispatch services for the Camp Verde Marshal's Office (CVMO) and the Yavapai Apache Nation Police Department (YANPD). The Town of Camp Verde has an Inter-governmental Agreement (IGA) with the Yavapai Apache Nation to provide law enforcement communications services for the YANPD.

CVMO Communications Center is a primary PSAP (Public Safety Answering Point). Wire-line 9-1-1 calls placed within the geographic locations of the Town limits and the Yavapai Apache Nation are answered by the Communications Center.

The Communications Center does not provide initial Fire or Emergency Medical Services (EMS) dispatching services. All Fire and EMS calls are transferred to Sedona Fire Regional Communications Center. Sedona Fire does Emergency Medical Dispatching (EMD) on all Medical calls.

The Cottonwood Police Department's Communications Center is a secondary PSAP to CVMO Communications Center.

Governing Process

The Center is part of CVMO and has no stand-alone governing board guiding its operation. The Marshal is ultimately responsible for the Center and its operation. There are no formal meetings scheduled or planned. YANPD's Chief or Commander can and do schedule meetings with the Marshal or CVMO Lieutenant to discuss any issues or proposed policy changes.

Funding and Budget Model

The approximate 2011 operational budget for the Communications Center is $396,368. Approximate component costs break down as follows:

Salaries and Benefits	373,000	94.10%
Facility and Utility Costs	3,566	.90%
Equipment and Software Maintenance	19,302	4.87%
Supplies and Miscellaneous	500	.13%
Totals	396,368	

Budget estimate numbers obtained from the CVMO's adopted 2010/2011 budget and other information supplied.

The Communications Center is funded through the Town of Camp Verde's budget. If capital needs exist these are negotiated through the normal budget process. The Town is reimbursed for dispatching services by the Yavapai Apache Nation. The IGA was effective July 1, 2009 and runs thru June 30, 2012 with a total cost of $215,350. The breakdown by year is:

- FY 2009/2010 - $70,000
- FY 2010/2011 - $71,750
- FY 2011/2012 - $73,600

The State of Arizona's 9-1-1 Program pays for the maintenance and upkeep of CVMO's 9-1-1 system. In 2010 the Program paid for and installed thru Qwest Communications new Plant Vesta systems.

Interactions with Other Entities

The CVMO Communications Center has more than a close operational relationship with the Cottonwood Communications Center and the Sedona Fire District's Regional Communications Center as they share some of the same systems. The Sedona Fire District maintains and updates the 9-1-1 Municipal Street Addressing Guide (MSAG) that is used to process 9-1-1 calls in Camp Verde, Cottonwood and the Sedona Police Department. Cottonwood and Camp Verde use the same Spillman CAD/RMS system with Cottonwood being the host agency and the Cottonwood Center is the secondary PSAP to Camp Verde.

In addition, the mobile and portable radios used by the public safety agencies within the Verde Valley allow them to speak directly to each other during joint operations with the public safety personnel being able to speak with different agencies on the scene portable to portable. In addition public safety personnel can speak directly to the Communications Center that covers the area of the incident.

Operations

Staffing and Scheduling

The Center is staffed with a total of six (6) personnel; a Communications Supervisor and five (5) full time dispatchers. The Center is allocated six (6) dispatchers but one position is frozen due to budget concerns. In addition the Department employs a Records Specialist who spends five (5) to six (6) hours a month (14% of her time) to support the Spillman CAD/RMS system and other IT issues within the Center. The Communications Supervisor reports to the Administrative Lieutenant.

Dispatchers are assigned permanent four (4) 10 hour (4-10s) shifts a week. This began in 2004 and when selection was done it was polled and agreed there was no need to assign shifts based on seniority or other methods. Currently the shifts are 0600 – 1600, 1600 – 0200 and 2000 – 0600 with an overlap shift of 1000 – 2000 2 days a week.

	Sunday	Monday	Tuesday	Wed	Thursday	Friday	Saturday
Mary	0600-1600	0600-1600	*off*	*off*	*off*	0600-1600	0600-1600
Nina	*off*	*off*	1000-2000	1000-2000	1600-0200	1600-0200	*off*
Jason	1600-0200	1600-0200	1600-0200	1600-0200	*off*	*off*	*off*
Dennis	2000-0600	2000-0600	2000-0600	*off*	*off*	*off*	2000-0600
Sheila	*off*	*off*	*off*	2000-0600	2000-0600	2000-0600	1600-0200
Supervisor	*off*	*off*	0600-1800	0600-1800	0600-1800	0800-1800	*off*

The Communications Supervisor generally works Tuesday thru Friday between 0600 and 1600 Tuesday, Wednesday and Thursday and 0800 – 1800 on Fridays. Because of the staffing shortage the Supervisor is scheduled to work the console Tuesday and Wednesday from 0600 to 1000 and Thursday from 0600 to 1600.

Compensation and Benefits

Current compensation levels are as follows:

	Highest Paid Dispatcher	Communications Supervisor	Records Specialist
Salary	40,498.38	38,316.98	40,990.80
FICA - SS	2,510.90	2,375.65	2,541.80
FICA Medicare	587.23	555.60	594.45
ASRS	3,887.84	3,678.43	3,935.69
ASRS - LTD	101.25	95.79	102.46
PSPRS			
Medical	5,880.00	5,880.00	5,880.00
Dental	420.00	420.00	420.00
Vision	101.52	101.52	101.52
Workers Comp	76.00	72.00	77.00
SUTA	76.00	76.00	76.00
Vacation hours/$	120/2,336.45	120/2,210.60	120/2,364.85
Sick hours/$	96/1,869.16	96/1,768.48	96/1,891.88
Total	58,268.73	55,475.05	58,900.45

Current pay ranges:

Position	Minimum	Maximum
Dispatch Supervisor	$34,189	$52,023
Dispatcher	$30,219	$45,981

Benefits include health insurance, dental, vision, EAP (Employee Assistance Program), life and disability, and participation in the Arizona State Retirement System(ASRS). Benefit packages are offered through the Arizona Public Employers Health Pool (APEHP). Several of the employees' health insurance options are paid fully by the Town with spouse and family plans available at a cost to the employee. Included in the Health plan is dental at no cost with a vision plan being optional and at a cost to the employee.

Medical – Core Plan	No Cost to employee Employee and Spouse - $517.00/month Employee and Children - $341.00/month Employee and Family - $791.00 $500 annual deductable per person up to $1000 per family of 2 and $1500 per family of 3+ with/in PPO, and $1,000/$2000/$3000 out of PPO After deductable, coverage is 80% by insurance carrier and 20% by the employee in the PPO with out of pocket max of $3500/single or $7000/family, and a 60/40 split out of PPO with an out of pocket max of $5000/single $10000/family
Medical – Co-pay Plan	No cost to employee Employee and Spouse - $517.00/month Employee and Children - $341.00/month Employee and Family - $791.00 $20 co-pay w/Primary Care Physician and $40 co-pay w/Specialist and Urgent Care (not ER) $750 annual deductable per person up to $1500 per family of 2 and $2250 per family of 3+ in PPO and $1500/$3000/$4500 out of PPO After deductable, coverage is 80% by insurance carrier and 20% by the employee in the PPO with out of pocket max of $3500/single or $7000/family, and a 60/40 split out of PPO with an out of pocket max of $5000/single $10000/family
Medical – Core Plus Plan	Employee cost of $80.00/month Employee and Spouse - $677.00/month Employee and Children - $474.00/month Employee and Family – $994.00/month $250 deductible per person up to $500 for a family of 2 and $750 per family of 3+ in PPO, and $500/$1000/$1500 out of PPO After deductable, coverage is 80% by insurance carrier and 20% by the

	employee in the PPO with out of pocket max of $2500/single or $5000/family, and a 60/40 split out of PPO with an out of pocket max of $5000/single $10000/family
High Deductable Plan w/Health Savings Account	No cost to the employee and the Town will put the difference between the cost of the Core Plan and the cost for this plan into a Health Savings Account for the employee - $129.00/month Employee and Spouse - $388.00/month Employee and Children - $256.00/month Employee and Family - $594.00/month $1500 annual deductible per person in PPO, and $2500 out of PPO After deductable, coverage is 80% by insurance carrier and 20% by the employee in the PPO with out of pocket max of $3500/single or $7000/family, and a 60/40 split out of PPO with an out of pocket max of $5000/single $10000/family
Prescription Drugs	Benefits paid based on formulary – A formulary is a list of drugs that are covered under the plan Employee co-pay amounts depend on whether purchase is generic, preferred brand name, or non-preferred brand names and if a 30-day or 90-day supply is purchased
Dental Plan	Covers an annual maximum of $1500 per person with a $50 per person deductible Different services are covered 80%/20% or 50%/50%, two annual cleanings and a set of x-rays are 100% covered every year. Children under 17 are eligible for $1500 worth of lifetime orthodontics
Vision	Voluntary program that covers an annual eye exam, spectacle lenses (including progressive) or contact lenses every 12 months, frames every 24 months Rates: Self Only $8.46/month, Self and Family $21.84/month, Self + Child(ren) $13.67/month, or Self and Spouse $12.77/month. Doctor needs to participate in VSP network
Life Insurance	2 Plans – no cost to employee Plan 1 – for the amount of one year's annual salary in even thousand dollar amounts Dependant coverage is available – spouse $5000.00 at $1.89/month, Dependant children $2000.00 for $1.89 per month Plan 2 – flat $50,000 included with medical plan for employee and a flat $1000.00 for each dependant Supplemental life insurance available up to $150,000 for employee, $30,000 for spouse and $10,000 for children – for employee and spouse rates are dependant on age – children is $0.70 per $5000/month
Vacation	Exempt employees – 3.08 hours bi-weekly 80 hours/year 0-5 years

	4.00 hours bi-weekly 104 hours/year 5-10 years, 4.62 hours bi-weekly 120 hours per year over 10 years Non-exempt – 0-5 years 120 hours/year, 5-10 years 144 hours/year, over 10 years 160 hours/year
Sick leave	3.69 hours bi-weekly – 96 hours a year
Holidays	11 per year: New Year's Day, Martin Luther King Day, Presidents Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving and Friday after, Christmas Day, and employee's birthday
Education	Tuition reimbursement up to $2500 a year

Additional Duties and Collateral Support

In addition to normal call receiving and dispatching duties, the Center is responsible for maintaining the misdemeanor wants and warrants files once they receive the warrants from the municipal court. All warrant entry, modification, verification and recall are handled by the Communications Center. They also answer the Department's administrative lines when the records personnel are off duty or unavailable to answer the lines. The records personnel normally work Monday thru Friday, 0700-1800 hours. In addition the dispatchers monitor approximately six (6) CCTV cameras. The cameras have views of the interview room, booking room, front doors, and three other views of the facility exterior.

Training Processes

The Center has not had to train any new dispatchers in over four (4) years. The training process in place is divided into four (4) phases covering; orientation to dispatching, phone and radio usage, calls for service and response and CAD. Normally a new dispatcher can work a console by themselves after four to six weeks with a trainer nearby. It usually takes four (4) months before a new Dispatcher can work a shift solo.

As part of their initial/in-service training all dispatchers must obtain Terminal Operator Certificates (TOC) in order to access the Arizona Criminal Justice Information System (ACJIS) system. Each operator must re-certify every two (2) years. Dispatchers must be certified at the highest level (Level A).

Call Volumes and Dispatched Events

Call volumes for 2010 are located in the table below.

9-1-1 Calls Received	1909
Default Line Group	31,959
Intercom Line Group	1

Ringdown Line Group	776
Outbound Calls	13,079
Total Call Volume	47,724
CVMO Incidents Dispatched	9,712
YANPD Incidents Dispatched	2,502
Total Incidents Dispatched	12,214

Usually there is only one (1) dispatcher on duty at any given time. When two (2) dispatchers are on duty Center operations are conducted in what might best be termed a teamed approach, with personnel working both call receiving and dispatching functions. This cross support spans both jurisdictions being served, so at any given time each of the personnel on duty have a high degree of situational awareness for active incidents and units in the field.

Backup Capabilities

Currently CVMO's Communications Center has no complete backup facility. In the event their 9-1-1 lines go down Cottonwood Police Department can answer them and then call CVMO on a land or cell phone line. CVMO does have a mobile command vehicle that they are refurbishing that could be utilized to dispatch calls.

Technology

9-1-1 and Telephony Systems

The Center uses Plant Vesta Pallas 9-1-1 System. The system is less than a year old and is maintained and serviced by Qwest thru the State of Arizona 9-1-1 Program contract service agreement. There are five (5) 9-1-1 trunk lines designated to the system, two (2) wired and three (3) wireless lines. The system has both Automatic Number Identification and Automatic Location Identification (ANI/ALI) capabilities.

The City of Cottonwood's Police Department Communications Center serves as the secondary PSAP to Camp Verde. In the event the CVMO Communications Center needs to be evacuated a switch can be manually activated to rout 9-1-1 calls to the Cottonwood Communications Center.

Addressing is complete within the CVMO Communications Center PSAP service areas. All addressing is contained and maintained within the Center's geographical information systems (GIS). The Master Street Addressing Guide (MSAG) is maintained and updated by the Sedona Fire District's Regional Communications Center and accessed via an Internet connection.

Computer Aided Dispatch (CAD), Records Management (RMS) and Related Systems

CVMO through an agreement with the Cottonwood Police Department shares an integrated package of CAD/ RMS system from Spillman Technologies Inc. This integrated approach allows them to operate at high levels of efficiency and provide broad levels of information and analysis capability to appropriate users as needed.

The CAD system operates on an IBM P5 Series server running Unix (vAIX5.3) operating system. The server is approximately three (3) years old, is owned by the City of Cottonwood and is just off warranty. Cottonwood has asked for and will receive a quote from IBM on a continued maintenance plan that they expect to be around $4,000.00 a year. Currently there are no plans to replace the server covered by a service agreement. Currently they are on the Spillman version Summit 4.6 for the desk tops which is the version just behind the most current - Sentry X6.1. They are waiting until all the "bugs" are worked out of the latest version before they migrate.

Mobile Data Computing (MDC)/Mapping/Automatic Vehicle Locating (AVL)

At this time CVMO does not utilize MDC technology.

Logging and Recording

CVMO utilizes a NICE Mirra IV digital voice logging recorder. The system is approximately a year old and in good condition. Currently 15 of the 20 channels are utilized and the system is expandable to 40 channels.

Radio and Related Systems

CVMO owns and operates two VHF radio repeaters located on Squaw Peak. Channel 1 is a MA/COM 100 watt repeater and is seven (7) years old. Channel 2 is a Motorola MXR 50 watt repeater that is 10 years old. The Squaw Peak site has a new generator installed June 2010 and has approximately 100 hours on it. The antenna for Channel 1 was replaced 15 years ago and Channel 2 antenna was recently inspected and found to be satisfactory condition.

The Communications Center operates on two (2) Vega Model IP-1616 desktop radio control consoles. There are also two (2) older Motorola Command Plus desktop radio control consoles that are set up and can be used in case the Vega consoles go down.

Additional Technology Observations

There is currently no master time synchronization system in operation for the various technology systems in the facility. The result of this is that the log times in the individual systems' being

utilized in the Communications Center are not in synch which can create some challenges when doing event reconstructions or researching problems.

Facilities

The Center is housed in a 512.5 square foot space located within the CVMO facility. The dispatching area within the Center is approximately 389.5 square feet. The dispatching area contains two (2) primary full telephony and radio console positions along with two (2) backup consoles with telephony and radio capabilities directly behind the two primary consoles. Also located in the Center is a small kitchenette that contains a utility sink, microwave, small refrigerator and kitchen cabinetry for storage. A bathroom is also located in the Center.

Although the Center has block construction the walls do not go from the fixed in place flooring to the fixed in place ceiling – they end just above the drop ceiling. Fire suppression for the Center is a wall mounted portable dry chemical extinguisher, the overhead water sprinkler system is capped off. The Center does not comply with NFPA 1221 standards for a 9-1-1 center both in construction and design features.

The Heating, Ventilation and Air Conditioning (HVAC) is part of a shared system that also covers the Marshal's office and the conference room between the Marshal's office and the Center. The thermostat for the area is located within the Center and it is reported to be comfortable year round. The HVAC is a Trane XB-10 model 2TTB0060A1000AA 35 amp system that was manufactured in 2005.

In addition to the Center the facility also provides support areas including the Communications Supervisor office space, meeting/training space, employee break space and storage areas. There is plenty of open space within the Center for adding additional consoles and the CVMO facility itself can be expanded to the east. If the facility were expanded to the east it would be possible to almost double the size of the current Center by expanding it south into the conference room and the Marshal's office and moving those spaces into the expanded area.

The radio and telephony technology room is located in a separate room north of the Center and is approximately 64 square feet in size. There is room for some added equipment and to meet system replacement needs. The room has no fire suppression system in place. The room has its own wall mounted air conditioner which is a Fujitsu split air unit model AOU24CL 10 Amp system with a cooling capacity of 24,200 BTU/hr.

There is no centralized Uninterruptable Power Supply (UPS) for the Center or the supporting technology room. Protection from power interruptions come from multiple individual office style UPS units throughout the Center and equipment room. Within the technology room the Plant 9-1-1 system has its own FERRUPS FE Series UPS and the Radio has an OPTI UPS Enhanced Series 1000C-RM system.

The Facility has a 2006 Kohler Power Systems 80 KW diesel generator with a 100 gallon tank that supplies power to portions of the facility in the event of a power failure. Currently the generator supplies power to the west wing of the facility which includes the Marshal's office, the conference room, the Communications Center and the evidence room. With a full tank the generator will run one week at full load.

There is limited exposure to manmade risks, with major railroads, highways, pipelines and hazardous material facilities all in excess of four miles away.

Sedona Fire District

Governance

Agencies Served

The Sedona Fire District Regional Communication Center (SFD-RCC) provides 9-1-1 communication services for themselves, nine (9) additional fire departments and one (1) ambulance service.

Governing Process

The Center is managed and operated by the Sedona Fire District contracting their services to the other agencies. All of the employees are employees of the District and are subject to their policies and procedures. Operational Guidelines of the Center were established with the input and agreement of the user agencies. Subcommittees of the Verde Valley Chiefs Association exist to provide recommendations into operational and financial issues of the Center.

Funding and Budget Model

Two (2) separate budgets are used to establish the amount paid by the user agencies within the Center. The first budget is the cost that would have to be paid by Sedona Fire District as it existed prior to the addition of the additional users. This budget includes eleven employees. The second budget is the additional cost required to provide services to the user agencies, which includes six (6) employees. The two (2) budgets are combined then divided on a percentage basis, with Sedona Fire District paying 50% and the remaining 50% paid by all of the other user agencies based on a formula determined by them. Sedona Fire has been paying 100% of the capital costs until 2010/11 budget, where $10,000 was added to the formula for the user agencies to fund a portion of the replacement cost of a new emergency generator that serves the Center and the fire station. The following table shows the 2010/2011 operational costs for the Center excluding $10,000 capital share of the generator:

Salaries and Benefits	$1,370,862	90.78%
Administration	$1,683	0.11%
Professional Services	$52,156	3.45%
Training and related	$31,570	2.09%
Facility and Utility Costs	$20,525	1.36%
Equipment and Software Maintenance	$16,200	1.07%
Supplies and Miscellaneous	$17,167	1.14%
Totals	$1,510,163	100.00%

2010/2011 Budgeted Cost Breakdown by Agency:

Agency	Run #'s Issued*	% of run #'s	Amount Paid	% of Budget
Black Canyon Fire District	966	5.42%	$ 39,955.39	2.65%
Camp Verde Fire District	2,185	12.27%	$ 108,514.27	7.19%
Clarkdale Fire District	609	3.42%	$ 39,771.55	2.63%
Cottonwood Fire District	2,376	13.34%	$ 125,227.19	8.29%
Jerome Fire District	161	0.90%	$ 8,045.11	0.53%
Mayer Fire District	1,419	7.97%	$ 65,567.07	4.34%
Montezuma Rimrock	1,031	5.79%	$ 61,147.82	4.05%
Pinewood Fire District	542	3.04%	$ 50,605.37	3.35%
Sedona Fire District	3,726	20.92%	$ 755,082.05	50.00%
Verde Valley Ambulance	2,856	16.04%	$ 104,394.45	6.91%
Verde Valley Fire District	1,938	10.88%	$ 151,852.72	10.06%
Total	17,809	100.00%	$ 1,510,163.00	100.00%

**Run numbers issued determined by 5 year average for budget purposes*

Interaction with Other Agencies

The Center acts as the catalyst for assuring interaction with all of the agencies in the Verde Valley. As a regional fire communications center, the dispatchers have a complete awareness of unit capabilities, availability, and location assuring seamless operational efficiency. Recent efforts with response plans and standing orders by the different agencies have further enhanced efficiency.

In addition, the mobile and portable radios used by the public safety agencies within the Verde Valley allow them to speak directly to each other during joint operations with the public safety personnel being able to speak with different agencies on the scene portable to portable. In addition public safety personnel can speak directly to the Communications Center that covers the area of the incident.

Operations

Staffing and Scheduling

The Center is budgeted for and presently has 17 employees including: one (1) manager, five (5) supervisors, five (5) training officers, four (4) communications specialists, one (1) GIS technician and one (1) radio technician.

The dispatchers work on a 14 day work cycle, working seven (7) of the 14 days with five (5) 12 hour shifts and two (2) 10 hour shifts. Teams rotate between days and nights every three (3) months. Sunday through Friday, staffing has three (3) dispatchers on duty 0600 hours to midnight, and two (2) from midnight to 0600 hours. On Saturday, there are three (3) dispatchers 24 hours.

Compensation and Benefits

Salary ranges in the following table are spread over seven (7) steps. Advancement from step to step is determined through the employee's annual performance reviews. Salaries have been frozen for the past two (2) years, including merit step increases.

Position	Step 1	Step 7
Manager RCC	69,201	92,736
Communications Supervisor	44,406	59,508
Communications Specialist	36,778	49,288
GIS Specialist	47,553	63,725
Radio Technician	47,553	63,725

Benefits include health insurance, dental, vision, EAP (Employee Assistance Program), life and disability, and 401A retirement. The health insurance is paid fully by the District including the family plans. The employee has a choice between either a PPO (Preferred Provider Organization) or HAS (Health Savings Account) both from Blue Cross Blue Shield of Arizona. For dental and vision plans the employee does pay a portion, while the district pays fully for the 401A, EAP, life and disability insurance.

Medical – PPO	No cost to employee There is a $500 annual deductable for individual, $1,000 for employee + 1, and $1,500 for family. Annual out-of-pocket $2,500, $5,000 and, $7,500 respectively.
Medical -HSA	No cost to employee There is a $1,500 annual deductable for individual, $2,750 for employee + 1, and $4,000 for family. Annual out-of-pocket $2,500 deductable, $5,000 and, $7,500 respectively plus the deductible.
Office/Hospital Visit - PPO	Preventive Care Office Visit - $15 Co-Pay up to $500 per person/yr Specialty Physician Office Visit - $30 Co-Pay up to $250 per visit Well-Child Care - $15 Co-Pay up to $250 per person/yr Immunizations - $15 Co-Pay up to $250 per person/yr Hospital Outpatient – Pays 90% after deductable, to $2,500 out of pocket Hospital Inpatient - Pays 90% after deductable, to $2,500 out of pocket Emergency Room – Additional $150 Co-Pay, then 90% after deductable
Office/Hospital	Preventive Care Office Visit – Pays 100% up to $500 per person/yr

Visit - HSA	Specialty Physician Office Visit – Pays 90% after deductable Well-Child Care - Pays 100% up to $500 per person/yr Immunizations - Pays 100% up to $500 per person/yr Hospital Outpatient – Pays 90% after deductable, to $2,500 out of pocket Hospital Inpatient - Pays 90% after deductable, to $2,500 out of pocket Emergency Room – Additional $150 Co-Pay, then 90% after deductible
Prescription Drug - PPO	Benefits paid based on formulary – A formulary is a list of drugs that are covered under the plan. Employee co-pay amounts depend on whether purchase is generic, preferred brand name, or non-preferred brand names and if a 30-day or 90-day supply is purchased.
Prescription Drug - HSA	Benefits paid based on formulary – A formulary is a list of drugs that are covered under the plan. For all levels, the plan pays 90% after deductable
Dental Plan - Voluntary	Employee Only – $0/month Employee and Spouse - $34.41/month Employee and Children - $36.68/month Employee and Family - $93.08/month Covers an annual maximum of $2000 per person with a $25 deductable individual and $75 for family Lifetime Orthodontia $1500 Preventive covered 100%, Basic services covered 80%, and Major 50%
Vision - Voluntary	Employee Only – $8.79/month Employee and Spouse - $12.77/month Employee and Children - $18.11/month Employee and Family - $23.30/month Voluntary program that covers an annual eye exam, spectacle lenses (including progressive) or contact lenses every 12 months, frames every 24 months $10 Co-Pay per visit
Life Insurance	All employees covered at $50,000 with reductions after the age of 65
Vacation	Vacation time are accrued on the following: Employment year 0-2 inclusive 5.57 each bi-weekly pay period Employment year 3-5 inclusive 6.41 each bi-weekly pay period Employment year 6-8 inclusive 7.38 each bi-weekly pay period Employment year 9-11 inclusive 8.49 each bi-weekly pay period Employment year 12 - plus 9.76 each bi-weekly pay period
Sick leave	Sick leave is accrued @5.22 hours per pay period
Holidays	Paid for 8 hours for 11 holidays, regardless of whether they are on duty or not.

Additional Duties Collateral Support

Although each dispatcher is assigned additional duties, none of these duties are outside the purview of the operations of the Center. Center personnel do maintain the Master Street Address Guide (MSAG) for all of the PSAPs in Yavapai County. In addition the District's GIS Technician is responsible for the GIS mapping for all the PSAPs in Yavapai County.

Training Process

An extensive, well organized and detailed training manual is used in conjunction with assignment to a one (1) of the five (5) training officers for all newly hired dispatchers. They work side-by-side with the training officer first observing and then closely watched as they begin to function in the role until such time that the training officer signs off allowing them to operate independently. Generally speaking this takes three (3) to four (4) months depending on previous training and aptitude. In addition to the in-house training the dispatchers must pass and retain certifications in: Emergency Medical Dispatch; Cardio Pulmonary Resuscitation; Incident Command System; and, APCO's Public Safety Telecommunicator I Course. Additional outside training is encouraged and well supported.

Call Volume and Dispatched Events

SFD-RCC is the Primary Public Safety Answering Point (PSAP) for Sedona and all of the other agencies except Camp Verde, Clarkdale, Cottonwood and Jerome for which they are a Secondary PSAP. As the Primary PSAP, they receive all of the 9-1-1 calls for those jurisdictions necessitating the transfer to the appropriate law enforcement agency after determining the nature of the call; thus, a larger than normal number of calls are received in comparison with other fire/EMS centers.

	2009
Total administrative calls received	42,930
Total 9-1-1 calls received	25,619
Total calls received (9-1-1 and administrative)	68,549
Total calls dispatched	13,813
Total Run Numbers Issued	18,103

**approximate*

Annual run numbers issued by the Center:

Agency	2008	2009	2010
Black Canyon Fire District	929	966	984
Camp Verde Fire District	2,053	2,185	2,165

Clarkdale Fire District	649	601	542
Cottonwood Fire Department	2,478	2,376	2,550
Jerome Fire District	182	161	140
Mayer Fire District	1,363	1,419	1,386
Montezuma Rimrock	1,034	1,031	946
Pinewood Fire District	471	542	583
Sedona Fire District	3,710	3,737	3,745
Verde Valley Ambulance	3,041	2,856	2,970
Verde Valley Fire District	1,924	1,938	1,813
Yavapai-Apache FD	41	291	
Total Run Numbers Issued	17,875	18,103	17,824
Total Incidents Dispatched	13,503	13,813	14,666

Note: One incident can be assigned multiple run numbers, one for each agency that responds. This is most significant when Verde Valley Ambulance responds with fire agencies. Also the Yavapai-Apache FD no longer uses SFD-RCC.

Backup Capabilities

No backup center exists for the Center. The backup plan in the event the Center becomes inoperable would be to have the Sedona Police Department, Camp Verde Marshall Office and Cottonwood Police Department assume fire dispatching operations utilizing personnel from the SFD RCC.

Technology

9-1-1 and Telephony Systems

The 9-1-1 system is Plant Vesta, upgraded to 2.7 in October 2010 with Plant Vela mapping installed spring of 2010. Automatic Location Identification (ALI) feeds to both Vela for map plotting and CAD for call processing. The system is maintained by Qwest and funded through the State 9-1-1 Program. Intrado is the database provider for the MSAG, which is maintained by the Center for the Yavapai 9-1-1 Region. The phone system has six 9-1-1 trunks; three (3) wireline trunks, three (3) wireless trunks, a seven (7) digit emergency number for Pinewood Fire, six (6) administrative lines, and four (4) ringdown lines for Camp Verde Marshall Office, Sedona Police Department, Cottonwood Police Department and Yavapai County Sheriff's Office.

Computer Aided Dispatch (CAD)/ Records Management

Public Safety Systems Incorporated (PSSI), of Lanham, Maryland, is the CAD vendor. The system was installed in March of 2009, with the Center operating on version 2.55 of their software. The server software is housed on a Stratus 4400 Server running Microsoft Server 2003 R2. The workstations at the dispatch positions are Dell Optiplex 755 Intel Core 2 duo E8400 running Windows XP professional. All of the computer were purchased fall 2008 and are under service contracts for both hardware and software. The CAD operates on three (3) Dell 19 inch display monitors.

Interfaces include an SQL data dump to Firehouse Records Management, a live dump/feed to LMedusa EMS reporting software, a once a day import of unit staffing from TeleStaff, 9-1-1 ALI feed, and an alpha paging interface.

Firehouse is the Records Management Software used by the agencies served by the Center. Sedona Fire currently uses version 7.7 Enterprise Data Access. The other agencies are considering upgrading to the Enterprise edition and having Sedona Fire host them on their server so they can benefit from the CAD feeds.

Mobil Data Computing (MDC)/Automatic Vehicle Location (AVL)

The client software for the laptops and the PSSI hardware/software has been purchased for MDC however, implementation is on hold waiting for the funding of the computers. The CAD has the ability to integrate AVL information but presently this feature is not being used.

Logging and Recording

The present logging and recording system being used is ComLog by CVDS Inc, out of Quebec, Canada. The digital system is four years old with a replacement value of $45,000. 54 of the 72 channel capacity are being utilized by the Center with a retention cycle of approximately nine months. Access is available from each workstation allowing quick access for call check purposes.

Radio Related Systems

The VHF radio system that serves the Valley is a self-maintained infrastructure with a crew of IT, Telecom and radio technicians. The network is comprised of a combination of simplex and repeated channels as well as an alpha numeric paging system. All but one of the antenna sites are freestanding antennas located throughout the Valley. With a few exceptions, the mobile radio coverage is very good according to dispatchers and chief officers that were interviewed, with portable coverage not as good, but no major problem areas.

Microwave links exist for remote printing. A paperless medical reporting system, Medusa, is also fed by the CAD and operated at Sedona Fire, with a wireless data network with hot spots.

Additional Technology Observations

The Center is using Priority Dispatch's Medical ProQA system to establish the type of medical call and provide the caller with pre arrival instructions. This is a nationally recognized program headquartered out of Salt Lake City in Utah. The ProQA software is interfaced into the CAD and provides the dispatcher a very structured series of questions that drives the determinate code, providing the responders with the severity and type of medical call. It has been determined by the agencies that the response to all medical calls is the same regardless of the determinate code; thus, the Center is dispatching units as soon as it is identified as a medical response while the dispatcher remains on the phone with the caller running them through EMD. Units are then informed in route with the updated information.

Sedona Fire District's center has their CAD, Plant Vesta 9-1-1 system, logging and recording system and their radio system currently synchronized via a net clock.

Facilities

The Communications Center is located on the second floor above the truck bay of the Sedona Fire station 4 in Sedona. The Center was retrofitted into this space when the station was remodeled in 1984. The Center has approximately 1250 square feet total including storage, offices, training/conference room, lounge and locker areas. The dispatch and call taker area is approximately 655 square feet with four (4) console positions and a small work table. The consoles, built by Bramic out of Canada, were installed 2002. Space is adequate for the console furniture; however, there is no additional room for expansion.

Structurally, the station is wood and steel frame with brick veneer. It is uncertain when the station was built, but it was remodeled in 1984. Because the Center was retrofitted from a space formally used as a dayroom for the fire station, and not built as a dispatch center, the Center does not comply with NFPA 1221 standards for a 9-1-1 center both in construction and design features.

The space used for the telephony and technology room is located on the first floor of the station in a secure room. Most of the equipment is rack mounted and generally speaking in good order. The standpipe riser for the water fire suppression system is located in the technology room. The technology room and the entire station are protected with this system. A separate HVAC system has been installed in the room to handle the additional heat produced by the equipment.

The uninterrupted power supply (UPS) and batteries are located in the technology room. It is a Ferrups 25000, 25KVA unit, installed in late 1990's. The Center is protected by an emergency

generator. A replacement generator was onsite awaiting installation at the time of the onsite visit. The new generator is manufactured by Generac and engineered to serve the Center and the fire station. No specialized grounding system is deployed other than what was put in place for the construction of the fire station.

A new Trane HVAC system was being installed at the time of the onsite visit. The new system was engineered so that the Center has a dedicated HVAC unit that is not shared with the rest of the station.

There is limited exposure to manmade risks, with major railroads, highways, pipelines and hazardous material facilities all in excess of five miles away.

Sedona Police Department

Governance

Agencies Served

The Sedona Police Department's Communications Center provides primary law enforcement dispatch services for the Sedona Police Department. The Center is a Secondary PSAP to the Sedona Fire District's Regional Communications Center which provides 9-1-1 services to the City of Sedona. Even though Sedona Police Department's Center is a Secondary PSAP it does receive approximately 150 original 9-1-1 calls a month – most if not all are wireless. If the call is law enforcement in nature the Center handles it. The Center does not provide initial Fire or Emergency Medical Services (EMS) dispatching services. All Fire and EMS calls are transferred to Sedona Fire District's Regional Communications Center. Sedona Fire does Emergency Medical Dispatching (EMD) on all medical calls.

Governing Process

The Center is part of the Sedona Police Department and does not provide any dispatching services to any other agency and thus has no stand-alone governing board guiding its operation. The Chief of Police is ultimately responsible for the Center and its operation. The Communications/Record Supervisor (position currently vacant) reports to the Support Services Commander who reports to the Chief.

Funding and Budget Model

The 2011 operational budget for the Communications Center is approximately $451,732. Component costs break down as follows:

Salaries and Benefits	$357,600	79.16%
Facility and Utility Costs	$2,496	0.55%
Equipment and Software Maintenance	$72,536	16.06%
Supplies and Miscellaneous	$19,100	4.23%
Totals	$451,732	100%

From 2010/2011 Adopted budget that is directly attributed to Communications (From PD, General Services and IT Budgets)

The Communications Center is funded through the City of Sedona budget. If capital needs exist these are negotiated through the normal budget process.

The State of Arizona's 9-1-1 Program pays for the maintenance and upkeep of Sedona Police Department's 9-1-1 system. In 2010/2011 the Program paid for and installed, thru Qwest Communications, of a new Positron Viper system.

Interactions with Other Entities

The Sedona Police Department's Communications Center has more than a close operational relationship with the Sedona Fire District's Regional Communications Center. Sedona Fire District's Center is the primary PSAP for the City of Sedona and the Sedona Police Department's Center is a secondary to the Fire District. Sedona Police and the Sedona Fire District share some of the same radio infrastructure and the Police Department maintains a radio/telephony console within the District Communications Center for backup purposes. In addition Sedona Fire District maintains and updates the 9-1-1 Municipal Street Addressing Guide (MSAG) that is used to process 9-1-1 calls in Sedona as well as those in Cottonwood and Camp Verde.

In addition the mobile and portable radios used by the public safety agencies within the Verde Valley allow them to speak directly to each other during joint operations with the public safety personnel being able to speak with different agencies on the scene portable to portable. In addition public safety personnel can speak directly to the Communications Center that covers the area of the incident.

Operations

Staffing and Scheduling

The Center is staffed with a total of seven (7) personnel including a Communications/Records Supervisor (currently vacant) and six (6) full time dispatchers. The Communications/Records Supervisor reports to the Support Services Commander.

Dispatchers are assigned four (4) – 10 hour shifts per week with the shift hours being: 0600 – 1600, 1000 – 2000, 1600 – 0200 and 2000 – 0600. There are usually two (2) dispatchers on duty Monday thru Friday between 1000 and 1600 hours and one (1) on duty most other times. There are six (6) schedules identified by A thru F:

- A is Tuesday – Thursday 0600 – 1600 and Friday 1000 -2000
- B is Friday – Monday 0600 – 1600
- C is Monday – Thursday 1000 – 2000
- D is Wednesday 1600 – 0200 and Thursday – Saturday 2000 – 0600
- E is Friday – Monday 1600 – 0200
- F is Sunday – Wednesday 2000 – 0600

About every one and a half years there is a bid by seniority on the 1st schedule they want to work A – E, and then every three (3) months they rotate to the next schedule in order, i.e. if they start w/A then they go to B then C and so on.

Shift	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
A			0600-1600	0600-1600	0600-1600	1000-2000	
B	0600-1600	0600-1600				0600-1600	0600-1600
C		1000-2000	1000-2000	1000-2000	1000-2000		
D				1600-0200	2000-0600	2000-0600	2000-0600
E	1600-0200	1600-0200				1600-0200	1600-0200
F	2000-0600	2000-0600	2000-0600	2000-0600			

	Sun	Mon	Tues	Wed	Thurs	Fri	Sat
0000-0200	E,F	E,F	F	F	F	D	D,E
0200-0400	F	F	F	F	F	D	D
0400-0600	F	F	F	F	F	D	D
0600-0800	B	B	A	A	A	B	B
0800-1000	B	B	A	A	A	B	B
1000-1200	B	B,C	A,C	A,C	A,C	A,B	B
1200-1400	B	B,C	A,C	A,C	A,C	A,B	B
1400-1600	B	B,C	A,C	A,C	A,C	A,B	B
1600-1800	E	C,E	C	C,D	C	A,E	B,E
1800-2000	E	C,E	C	C,D	C	A,E	E
2000-2200	E,F	E,F	F	D,F	D	D,E	E
2200-2400	E,F	E,F	F	D,F	D	D,E	E,F

Compensation and Benefits

Current compensation levels are as follows:

	Dispatcher	Communications/ Records Supervisor
Salary – (Range)	31,086 – 44,795	39,675 – 57,210
FICA - SS	2,966.21	2,777.79
FICA Medicare	693.71	649.64
ASRS	4,545.00	4,256.28

PSPRS		
STD/LTD	400.00	400.00
Medical	5,964.00	5,964.00
Dental		
Vision		
Workers Comp	100.00	100.00
Uniform	500.00	500.00
Vacation hours/$	160/3,166.40	160/3,446.40
Sick hours/$	96/1,899.84	96/2,067.84

Benefits include health insurance, dental, vision, EAP (Employee Assistance Program), life and disability, and participation in the Arizona State Retirement System (ASRS). Benefit packages are offered through the Arizona Public Employers Health Pool (APEHP). Several of the employees' health insurance options are paid fully by the City with spouse and family plans available at a cost to the employee. Included in the Health plan is dental at no cost with a vision plan being optional and at a cost to the employee.

Medical – Core Plan	No Cost to employee Employee and Spouse - $517.00/month Employee and Children - $341.00/month Employee and Family - $791.00 $500 annual deductable per person up to $1000 per family of 2 and $1500 per family of 3+ with/in PPO, and $1,000/$2000/$3000 out of PPO After deductable, coverage is 80% by insurance carrier and 20% by the employee in the PPO with out of pocket max of $3500/single or $7000/family, and a 60/40 split out of PPO with an out of pocket max of $5000/single $10000/family
Medical – Co-pay Plan	No cost to employee Employee and Spouse - $517.00/month Employee and Children - $341.00/month Employee and Family - $791.00 $20 co-pay w/Primary Care Physician and $40 co-pay w/Specialist and Urgent Care (not ER) $750 annual deductable per person up to $1500 per family of 2 and $2250 per family of 3+ in PPO and $1500/$3000/$4500 out of PPO After deductable, coverage is 80% by insurance carrier and 20% by the employee in the PPO with out of pocket max of $3500/single or $7000/family, and a 60/40 split out of PPO with an out of pocket max of $5000/single $10000/family
Medical – Core Plus Plan	Employee cost of $80.00/month Employee and Spouse - $677.00/month

	Employee and Children - $474.00/month Employee and Family – $994.00/month $250 deductible per person up to $500 for a family of 2 and $750 per family of 3+ in PPO, and $500/$1000/$1500 out of PPO After deductable, coverage is 80% by insurance carrier and 20% by the employee in the PPO with out of pocket max of $2500/single or $5000/family, and a 60/40 split out of PPO with an out of pocket max of $5000/single $10000/family
High Deductable Plan w/Health Savings Account	No cost to the employee and the City will put the difference between the cost of the Core Plan and the cost for this plan into a Health Savings Account for the employee - $129.00/month Employee and Spouse - $388.00/month Employee and Children - $256.00/month Employee and Family - $594.00/month $1500 annual deductible per person in PPO, and $2500 out of PPO After deductable, coverage is 80% by insurance carrier and 20% by the employee in the PPO with out of pocket max of $3500/single or $7000/family, and a 60/40 split out of PPO with an out of pocket max of $5000/single $10000/family
Prescription Drugs (Included in Health Plan)	Benefits paid based on formulary – A formulary is a list of drugs that are covered under the plan Employee co-pay amounts depend on whether purchase is generic, preferred brand name, or non-preferred brand names and if a 30-day or 90-day supply is purchased
Dental Plan (Included in Health Plan)	Covers an annual maximum of $1500 per person with a $50 per person deductible Different services are covered either 80%/20% or 50%/50%, two annual cleanings and a set of x-rays are 100% covered every year. Children under 17 are eligible for $1500 worth of lifetime orthodontics
Vision - Voluntary	Employee Only – $8.46/month Employee and Spouse - $12.77/month Employee and Children - $13.67/month Employee and Family - $21.84/month Voluntary program that covers an annual eye exam, spectacle lenses (including progressive) or contact lenses every 12 months, frames every 24 months Rates: Self Only $8.46/month, Self and Family $21.84/month, Self + Children $13.67/month, or Self and Spouse $12.77/month. Doctor needs to participate in VSP network
Life Insurance	Flat $50,000 included with medical plan for employee

	Supplemental life insurance available in increments of $10,000 up to $750,000 for employee, not to exceed 5x salary. Spouse in increments of $10,000, and not to exceed 100% of the employee's amount. For Children in increments of $5000 not to exceed $10,000 – for employee and spouse rates are dependant on age – children is $0.70 per $5000/month
Vacation	Up to 3 years 10 days 3 to 8 years 15 days 8 to 15 years 20 days 15+ 25 days
Sick leave	96 hours of 'flex' time
Holidays	11 per year: New Year's Day, Martin Luther King Day, Presidents Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving and Friday after, Christmas Day, and a floating holiday

Additional Duties and Collateral Support

In addition to normal call receiving and dispatching duties, the Center is responsible for maintaining the misdemeanor wants and warrants files once they receive the warrants from the municipal court. All warrant entry, modification, verification and recall are handled by the Communications Center. Dispatchers also answer the Department's administrative line 24/7 as it is the primary phone number published for the Department.

The dispatchers monitor approximately 12 CCTV cameras. The cameras have views that are mainly focused on Police Department areas. There are a couple views of the City Court and City Council Chambers. The dispatchers are able to change the camera's being viewed but there is no pan, tilt zoom (PTZ) feature. Along with monitoring CCTV the dispatchers also monitor 'panic' alarms in various City offices. Each of the City's Administrative Assistants has a panic alarm in their office and there is also one in the City Council Chambers.

There are two (2) windows in the lobby of the Police Department. The first one is into the records area and is 'open' Monday – Friday between 0800 and 1700 and is staffed by a records clerk who handles all walk in traffic. After hours, weekends and holidays the 2nd window is opened and it 'opens' into the Communications Center. After hours dispatchers handle any walk in traffic. In addition after hours if officers make a warrant arrest where there is a bond, the dispatchers will accept the bond money for the arrestee if they are able to post the bond within 45 minutes.

Training Processes

The training process in place is a formalized three phase program with daily evaluations completed. Phase 1 is orientation, introduction to phones and CAD. Phase 2 is introduction to the

radio and starting to integrate use of the phone and CAD. Phase 3 is NCIC/ACIC and complete integration with radio, phone and CAD. Normally a new dispatcher can work a console by themselves after eight (8) to nine (8) weeks. Once training has been completed they try and start new dispatchers on C shift as the dispatcher is only scheduled to work alone for eight (8) of their 40 hours.

As part of their initial and in-service training all dispatchers must obtain Terminal Operator Certificates (TOC) in order to access the Arizona Criminal Justice Information System (ACJIS) system. Each operator must re-certify every two (2) years. Dispatchers must be certified at the highest level (Level A).

Call Volumes and Dispatched Events

As stated above, the Sedona Police Department's Communications Center does receive approximately 150 initial 9-1-1 calls a month.

	2009	2010
9-1-1 Calls Received	1,741	1,851
Administrative Line	Not supplied	Not supplied
Incidents Dispatched	16,292	15,733

When two (2) dispatchers are working, operations are conducted in what might best be termed a teamed approach, with personnel working both call receiving and dispatching functions. This cross support allows each of the personnel on duty have a high degree of situational awareness for active incidents and units in the field.

Backup Capabilities

Currently Sedona Police Department's Communications Center has a console within the Sedona Fire District's Regional Communications Center they can and do utilize as a backup if needed. While this positions supports their telephony and radio needs it does not have remote access to CAD.

Technology

9-1-1 and Telephony Systems

The Center uses a Positron Viper 9-1-1 System. The system is new and is maintained and serviced by Qwest thru the State of Arizona 9-1-1 Program's contract service agreement. There are four (4) 9-1-1 trunk lines designated to the system, two (2) wired and two (2) wireless lines.

The system has both Automatic Number Identification and Automatic Location Identification (ANI/ALI) capabilities.

Addressing is complete within Sedona Police Department's Center service areas. All addressing is contained and maintained within the Center's geographical information systems (GIS). The Municipal Street Addressing Guide (MSAG) is maintained and updated by the Sedona Fire District Regional Communications Center and accessed via an Internet connection.

Computer Aided Dispatch (CAD), Records Management (RMS) and Related Systems

The Sedona Police Department utilizes an integrated package of CAD/ RMS system from New World Systems. This integrated approach allows them to operate at high levels of efficiency and provide broad levels of information and analysis capabilities.

The CAD system operates on an HP Proliant DL360 G5 server running Windows 2000 Server and SQL Server 2000 operating systems. The server is approximately three and a half years old and is owned by the City of Sedona. The extended hardware support agreement expires 7/31/2011. At this time they are using New World software version 8.1.4275 which is the most recent version for the 8.X series. CAD is interfaced to 9-1-1 ANI/ALI, the state CJIS switch and the mobile data computers provide high levels of serviceability and remote functionality.

Mobile Data Computing (MDC)/Mapping/Automatic Vehicle Locating (AVL)

MDC's are being used by all of the patrol officers within the Sedona Police Department. The Sedona MDCs all have the functional capability to perform status entry, receipt and sending of digital dispatch information, electronic messaging, AVL, mapping and remote report entry. In total there are 28 Panasonic Toughbooks in use on the system. Integrated GOBI modem with Verizon Wireless cellular service is utilized for connectivity. They have experienced issue with the AVL working intermittently.

Logging and Recording

Sedona Police Department utilizes an Eventide VR-725 Atlas digital logging voice recorder. The system is a year old and in good condition. Currently all of the 16 channels are utilized and the system is expandable to 96 channels according to the manufacturer.

Radio and Related Systems

Sedona Police Department's Communications Center radio consoles are Telx/C-Soft radio consoles with Telex IP-base IP-233 radio interface units. The console radios connect to a local base station for Channel 1 backup and to a Voter system for Channel 1 main over microwave to Sedona Fire District Station 4, Sedona Airport and Sedona Fire District Station 1. In addition

Channel 3 is connected via microwave to a repeater at the Sedona Airport. Sedona Police are currently building a newer repeater location that will have a microwave link to provide coverage in the lower Red Rock Loop Rd areas, the Chapel areas and Highway 179.

The City of Sedona owns most of their Police Department's radio infrastructure. The exception is the microwave connectivity between Sedona Fire Station 1, the Sedona Airport and the Sedona Fire Station 4 along with the channel banks connected to the microwave at those locations is owned by the Sedona Fire District.

Additional Technology Observations

There is currently no master time synchronization system in operation for the various technology systems in the facility. The result of this is that the log times in the individual systems' being utilized in the Communications Center are not in synch which can create some challenges when doing event reconstructions or researching problems.

Facilities

The Center is housed in a 210 square foot space located within the Sedona Police Department facility. The dispatching area contains two primary full telephony and radio console positions. The console furniture was installed in June of 2009 and consists of identical side by side 5.5' x 5.5' XYBIX Dual Surface Consoles with true sit to stand adjustment range of 23" – 50." Each console has an attached 48" vertical Tech Tower. The console system includes personal comfort control, "Rollervision" monitor mounting and LED task lighting. Just off the Center is a small kitchenette that contains a utility sink, microwave, small refrigerator and kitchen cabinetry for storage. There is a bathroom located in the Center.

The Center's walls do not go from the fixed in place flooring to the fixed in place ceiling – they end just above the drop ceiling. The Center has raised flooring to allow cabling to be routed to the consoles. During heavy rains the space between the fixed concrete floor and the raised floor has become flooded. In one case the Center had to relocate its operations to the Sedona Fire District Regional Communications Center for half a day while the flooding was cleaned up. Fire suppression for the Center is a water sprinkler system with a wall mounted portable dry chemical extinguisher. The Center does not comply with NFPA 1221 standards for a 9-1-1 center both in construction and design features.

The Heating, Ventilation and Air Conditioning (HVAC) is part of a shared system that also covers the Communications/Records Supervisor's office, Main Conference Room and the Records area. The thermostat for the area is located within the Center and it is reported to be comfortable year round.

There is no unoccupied space within the Police Department that could be utilized to expand the Communications Center. If expansion were to take place it would most likely be into the Records area and the Communications/Records Supervisor's office just outside the current Center's location. This could add approximately 400 square feet to the Center – but locations would need to be found for the displaced areas and the flooding issues would need to be corrected.

In addition to the Center the facility also provides support areas including meeting/training space, employee break space and storage areas.

The radio and telephony technology room is located in a separate room just outside the Center and is approximately 100 square feet in size. There is room for some added equipment and to meet system replacement needs. The room has water sprinkler suppression system in place. The room has its own wall mounted split air unit LG, model # HMC024KD1 with a cooling capacity of 23000 BTU per hour.

There is no centralized Uninterruptable Power Supply (UPS) for the Center or the supporting technology room. Protection from power interruptions come from multiple individual UPS office grade units throughout the Center and equipment room. Within the technology room the Positron 9-1-1 system has its own FERRUPS FE Series UPS, the Radio has a Smart Pro Triplife system and the Logging/Recorder has an APC Smart 3000XL system.

The facility has a Kohler Power Systems 50 NG, model #LSG-8751 6005-A 50 KW natural gas generator that supplies power to portions of the facility in the event of a power failure. The generator has a 100 gallon tank.

There is limited exposure to manmade risks, with major railroads, highways, pipelines and hazardous material facilities all in excess of five miles away.