Project	Summar	y ana J	ustijicai	non	

Department	Lincoln Fire and Rescue
Division	

This submitted Capital Improvements Program (CIP) for the period 2003 through 2009 conforms with the Comprehensive Plan to provide the necessary and efficient emergency response for the savings of life and property to the rapidly increasing size of the city of Lincoln.

Project 1 Station 15

The rapid annexations and expansion of the city of Lincoln have affected emergency response time within the city. Our goal has always been to maintain a rapid response time average of 3.5 minutes or less to intervene as quickly as possible, minimizing loss of life and property damage, and to perform vital emergency medical services to our citizens. Fire protection, EMS services and the ISO rating have presented a need to add 2 additional fire stations in areas of the city that have experienced significant growth.

Station 15 is proposed to be built at approximately 7000 No. 27th, and would house 1 pumper and 1 aerial unit. This would require 27.5 FTE to staff. This station will meet the needs of the community for all current and proposed growth in this area. As new fire stations are added to the city, additional vehicles must be added to the fleet. One additional Engine and one aerial is needed

Project 2 Station 16

Station 16 is proposed to be built at approximately 38th & Yankee Hill Road, and would house 1 pumper and 1 aerial unit. This would require 27.5 FTE to staff. This station will meet the needs of the community for all current and proposed growth in this area. As new fire stations are added to the city, additional vehicles must be added to the fleet. One additional Engine and one aerial is needed.

Project 3 Automatic Vehicle Locators

This would be an add-on to the present 911 Computer Aided Dispatch System. This system coupled with the CAD GIS mapping would identify the actual location of fire apparatus on the streets of Lincoln allowing the CAD to select the closest unit for dispatch to an emergency, reducing response time and improving efficiency. Automatic vehicle locators would be new technology in the field providing real-time data to the Emergency Communication, 911 CAD system.

Project 4 Handheld and Mobile Radios

The current handheld and mobile radios in use by the department were purchased prior to 1991. These radios are no longer manufactured, and parts are becoming difficult to acquire for both the Ranger mobile and the MPA handheld models. In some instances, the radios are irreparable. Communications is a critical component for both firefighter safety and emergency services. A fleet replacement plan is proposed to allow for uniformity in equipment for both operations and maintenance.

Project Summary and Justification Department Lincoln Fire and Rescue Division

Project 5 Educational, Training, and Fleet Service Campus

Currently, the Lincoln Fire and Rescue Department's Maintenance and Training facility is located at 300 South Street. Our class rooms are refurbished railroad cabooses limited in space and amenities. We desire to design and build a campus to accommodate our maintenance division as well as our training center. At this location we train all our emergency service personnel as well as other agencies throughout the city and state in many different aspects.

Currently our maintenance facility is undersized and can only accommodate 2 apparatus at one time. The garage bays are extremely cramped for space. Utilizing a drive-thru facility, we can provide a safer working environment, operations, and a quicker turn around time to get the downed fleet back into service. With these improvements we would be able to provide both vital elements of our operation at our campus.

Project 6 Station Modifications and Repairs

Many of our existing stations need some substantial modifications and/or repairs due to age. The average age of fire stations is 26 years. Limited major maintenance updates have been done to the stations in the recent past. The older facilities need to be updated with major repairs such as windows, roofs, heating/cooling and building structure additions. Fire Station 1 is unlike any of our other stations as it serves as our Administration Headquarters. Physical resources for this building are large and numerous and replacement and repair costs will be substantial. This building constructed in 1966 is in need of significant repair. Stations 3, 5, 6 will continue to serve portions of the city effectively, but should have increased space for personnel, to accommodate health, safety and gender issues. This can be done with the addition of a second story to each of these facilities. With these changes, these structures may be used for many years to come. Station 5, 7, 8, 10 & 14 need replacement or repair to concrete and asphalt surfaces, including emergency vehicle driveways and parking areas.

Project 7 Equipment for Heavy Rescue Unit

The Department is currently utilizing an old public works vehicle for trench rescue, and does not currently have a vehicle or adequate equipment for Heavy rescue scenarios. This type of rescue includes a variety of technical rescue incidents which include structural collapse, trench collapse rescue, high angle and low angle and other types of rescue. In order to assure that the Department is prepared and equipped, a vehicle and additional equipment for this type of rescue is needed.

Project Summary and Justification

Department	Lincoln Fire and Rescue
Division	

Project 8 Replacement of Two Aerials

Our fleet of 5 aerial ladders consists of 2 units purchased in 1990 and 3 purchased in 1996. The 1990 models should be replaced when they are 15 years old.

Project 9 Station 11 Relocation

For many years we have provided Fire, EMS, and Crash Fire Rescue services from Fire Station 11 in the Airpark area. We had an inter-local agreement with the Airport Authority and received revenue to provide this service for the aircraft portion. This arrangement has changed, as we no longer provide the Aircraft protection. This element is provided by the Federal Government; however, we still operate out of the Airport Authority property and still call it Fire Station 11. We currently have no agreement with the Airport Authority, we pay no rent and we receive no funds. We need to consider placing a station outside of the flight line to provide our services. Station 11 relocation from Airport to NW 48th & W. Seward.

Project 10 Breathing Air Refilling Cascade System

We would like to install a breathing Air Refilling Cascade system at two more locations so apparatus can replenish their breathing air supply for self contained breathing apparatus. Adding these locations will reduce the "down-time" and travel distance for units to return to a ready state in less time than the current system allows.

Project 11 Water Tankers

The Department is currently providing fire protection response to areas that have been annexed that **DO NOT** have city water mains and hydrants in place. Pumpers carry 500 gallons of water on each unit. This is an adequate quantity of water for a car or trash fire, but is not adequate for a residential fire. We are dependant upon tanker water provided from Southeast Rural Fire District. There is no current plan in the public works division to install water mains and hydrants in these areas since they are existing acreage subdivisions. The most cost effective method to assure water is available for fire protection is the purchase of water tankers. These tankers would be assigned to Station 12 for the South and East areas of the City, and Station 15 for the North and West areas.

Project 12 Remodel Station 12

The size of fire pumpers today is significantly larger than when Fire Station 12 was constructed in 1975. A larger apparatus bay at Station 12 is needed to accommodate the increase in size of newer apparatus.

Project 13 Emergency Vehicle Lifting System

Currently the maintenance division cannot lift emergency vehicles to perform routine maintenance, preventative maintenance, and emergency repair of vehicles in the fire fleet. Mechanics must work on the vehicles from the floor or by lifting a portion of the vehicle with a floor jack. In order to become more efficient and able to complete these tasks safely, this equipment is needed.

Project 14 Replace Live Fire Burn Training Structure

Project Summary and Justification

Department	Lincoln Fire and Rescue
Division	

Currently the Lincoln Fire and Rescue Department's Maintenance and Training facility is located at 300 South Street. Our class rooms today are refurbished railroad cabooses limited in space and amenities. We desire to design and build a campus to accommodate our maintenance division as well as our training center. At this location we train all our emergency service personnel as well as other agencies throughout the city and state in many different aspects.

The live fire training tower and smoke house have considerable structural damage which is a direct result from the extreme heat conditions present with live fires and the rapid cooling effects during fire extinguishment training using hose streams. These structures were built in 1961. Live fire training in a safe controlled environment is a vital component of firefighter training to allow for realistic training for all firefighters and to assure fire ground confidence for actual operating. The proposed burn trainer is specifically engineered for cost effective replacement of minor components of the structure when this same fire extinguishment training damage occurs. The design allows for a cost effective method to replace sub assemblies of the building.

Project 15 Traffic Preemption Equipment

Approximately 120 intersections are currently equipped with this equipment to assist emergency fire and rescue vehicles to travel more safely when responding to incidents. Every emergency vehicle is equipped with a device that emits a flashing light, much like a strobe light. Select intersections have sensors mounted on the traffic signal head that receive the flashing light from the approaching emergency vehicle. Once the sensor recognizes the emergency vehicle, the traffic signal head will change to green from what ever color is displaying to traffic. This change is done so that opposing traffic to the direction of emergency travel will receive a red light, thus allowing the emergency vehicle to pass safely. The purpose of this system is to protect motorists during emergency vehicle response through effective vehicle traffic management. In addition, risk to emergency responders is reduced from other motorist while the emergency vehicle is responding. This system also assists emergency vehicles to get to emergency scenes more quickly.

As the city grows in population and traffic volume, more intersections should be added to those already equipped.

Project 16 Station 2 Drive Thru Modification

With increased traffic volumes on North 33rd street, Fire Station 2 could be modified by adding a west overhead door to the apparatus area. This would eliminate the need for stopping on the public street and backing emergency units into the building, which is the current practice. Drive thru apparatus garages allow for much safer traffic interface when emergency vehicles return to quarters, and this building could accommodate this type of change.

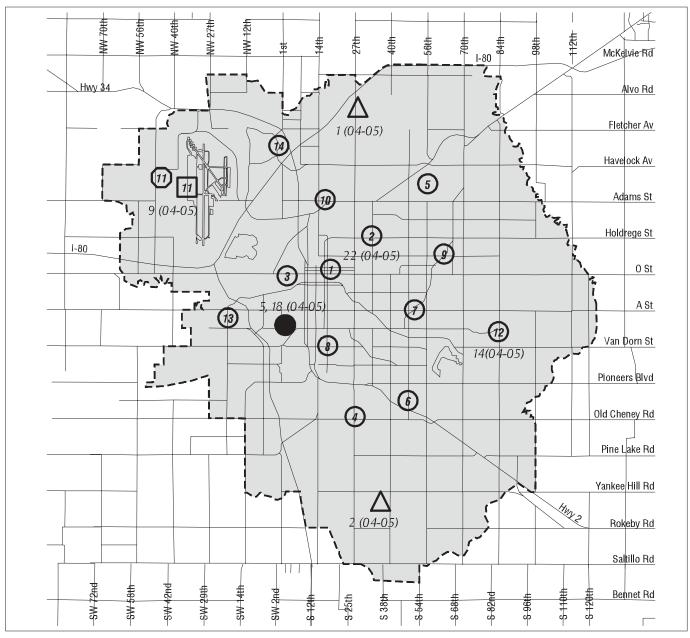
Project 17 Ambulance Vehicles Replacement Chassis

The current fleet of 11 ambulance vehicles was constructed so that the vehicle chassis could be replaced, allowing the reuse of the patient compartment portion of the vehicle. Vehicles in the fleet are rotated to

Project Summa	ary and Justification	
Department Division	Lincoln Fire and Rescue	
Division		
balance mileage so replacement chass	so that there is equal use in the fleet. This will result in all 11 vehicles due sis at approximately the same interval.	e for

Lincoln CIP 2003 - 2009

Fire & Rescue





List of Projects Department: Lincoln Fire & Rescue

Project Project Number Title

14

15*

16 17*

1	Station 15
2	Station 16
3*	Automatic Vehicle Locators
4*	Handheld and Mobile Radios
5	Educational, Training, and Fleet Service Campus
6*	Station Modifications and Repairs
7*	Equipment for Heavy Rescue Unit
8*	Replacement of Two Aerials
9	Station 11 Relocation
10*	Breathing Air Refilling Cascade System
11*	Water Tankers
12	Remodel Station 12
13*	Emergency Vehicle Lifting System

Replace Live Fire Burn Training Structure

Ambulance Vehicles Replacement Chassis

Traffic Preemption Equipment Station 2 Drive Through Modification

 $[\]boldsymbol{*}$ Indicates project is \boldsymbol{NOT} shown on the map.

			DEPARTMENT: LI	NCOLN FIRE & R	RES	CUE						FORM A	
2003 -	2009 CAPITAL IMPROVEMENT PROGRAM		DIVISION:										
(1)	(2)	(3)	5% Inflation per y	/ear			(4)						
				PROGRAMMED	EX	PENDITURES	8 & F	UNDING SOUF	RCES	(FS) (000's)			
PROJ. NO.	PROJECT TITLE	PROJ. PRIO.	2003-2004 FS	2004-2005 FS	s	2005-2006	FS	2006-2007	FS	2007-2008	FS	2008-2009	FS
1	Build & Equip New Fire Station #15 at approximately 7000 No. 27th	Α		2,113.6 GG	0								
2	Build & Equip New Fire Station #16 at approximately 38th & Yankee Hill Road	А		2,178.7 G0	О								
3	Automatic Vehicle Locators	В		277.8 O	F								
4	Handheld and Mobil Radios - 165 each	А		684.1 O	F								
5	Educational, Training, and Fleet Service Campus	А		1,001.4 G	О								
6	Station Modification and Repairs	В		1,742.2 GG	0								
7	Heavy Rescue Unit and Equipment	В		364.7 G	0								
8	Replacement of Two Aerial Pumpers - T8, T21	В		1,157.7 G	О								
9	Station 11 Relocation	С		790.1 G	0								
10	Breathing Air Refilling Cascade System - Two	С		109.4 GG	0								
11	Water Tankers - Two	С		143.4 G0	0								
12*	Remodel station 12	A		570.0 G	0								
13*	Emergency Vehicle Lifting System	В		52.8 GI	R								
14*	Replace Live Fire Burn Training Structure	В		148.0 GG	0								
15*	Traffic Pre-Emption Equipment	В		168.0 G	0								
	CLIDMITTED: 04/24/02	-	DEVICED: 4/4/03		_	CILC NIANAC.						10 D 1	

				I									1
(5)	(6)		(7)	(8)	(9)	(10)				(11)			(1)
TOTAL FOR	COST BEYOND	PRIOR		TOTAL CAP COSTS	COMP	STATUS	COST	BREAKDOW	NS FOR SIX	YEAR EXPE	ENDITURES ((000's)	
SIX YEARS	2008-2009	APPROPRIATIO		(000's)	PLAN	OF	PRELIM	FINAL	ACQUISI-	CONST	EQUIP /	OTHER (EVEL AIM)	PROJ.
(000's) 2,113.6	(000's) None	(000's) None	YEAR FS	(5)+(6)+(7) 2,113.6	ICWP	PLANS 1	PLANS 18.0	PLANS 49.0	TION 386.0	704.6	FURNISH 956.0	(EXPLAIN)	NO .
2,178.7	None	None		2,178.7	ICWP	1	20.0	56.0	191.0	804.7	1,107.0		2
277.8	None	None		277.8	GCP	0					277.8		3
684.1	None	None		684.1	GCP	2					684.1		4
1,001.4	None	None		1,001.4	GCP	1				1,001.4			5
1,742.2	None	None		1,742.2	GCP	2				1,742.2			6
										,,,,,,,,,			
364.7	None	None		364.7	GCP	0					364.7		7
1,157.7	None	None		1,157.7	GCP	0					1,157.7		8
790.1	None	None		790.1	ICWP	1		19.0	51	662.1	58.0		9
109.4	None	None		109.4	GCP	2					109.4		10
143.4	None	None		143.4	GCP	1					143.4		11
			04.00.00				40.0	40.0	20.0	500.0			
570.0	None	52.0	01-02 GR	622.0	GCP	1	18.0	10.0	26.0	568.0			12*
52.8	None	None		52.8	GCP	1					52.8		13*
148.0	None	None		148.0	GCP	1				148.0			14*
168.0	None	None		168.0	GCP	1					168.0		15*
												Page R-1	(b)

			DEPARTMENT: LI	NCOLN FIRE & RE	SCUE			FORM A	
2003 -	2009 CAPITAL IMPROVEMENT PROGRAM		DIVISION:						
(1)	(2)	(3)	5% Inflation per y	/ear	(4)				
				PROGRAMMED E	XPENDITURES & F	UNDING SOURCES	(FS) (000's)		
PROJ. NO.	PROJECT TITLE	PROJ. PRIO.	2003-2004 FS	2004-2005 FS	2005-2006 FS	2006-2007 FS	2007-2008 FS	2008-2009 I	
16*	Station 2 Drive Through Bays	В		60.0 GO					
17*	Ambulance Vehicles	В				550.0 UF			
	FUNDING SOURCE BREAKDOWN:								
	OF (Other Financing		0.0	961.9	0.0	0.0	0.0	0.0	
	GO (G.O. Bonds)		0.0	10,600.0	0.0	0.0	0.0	0.0	
	GR (General Revenue) UF (User Fees)		0.0 0.0	52.8 0.0	0.0	0.0 550.0	0.0	0.0	
	Of (Oser rees)		=======	=======		=======	=======	=======	
	DEPARTMENT TOTALS:		0.0	11,614.7	0.0	550.0	0.0	0.0	
	SUBMITTED: 01/31/03	ليبا	REVISED:		FILE NAME: FIR	<u></u>	Par	ne B-2	

											FORM B	
(5)	(6)	(7)	(8)	(9)	(10)				(11)			(1)
	соѕт		TOTAL			COST	BREAKDOW	NS FOR SIX	-YEAR EXPE	ENDITURES	(000's)	
TOTAL FOR SIX YEARS (000's)	BEYOND 2008-2009 (000's)	PRIOR APPROPRIATIONS (000's) YEAR FS	CAP COSTS (000's) (5)+(6)+(7)	COMP PLAN CONFORM	STATUS OF PLANS	PRELIM PLANS	FINAL PLANS	LAND ACQUISI- TION	CONST	EQUIP / FURNISH	OTHER (EXPLAIN)	PRO-
60.0	None	None	60.0	GCP	1				60.0			16'
550.0	None	None	550.0	GCP	0					550.0		17
004.0												
961.9 10,600.0 52.8												
550.0												
12,164.7												
											Page B-2	(k

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