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WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

BNSF RAILWAY COMPANY	)	Docket No. 070696
PETITIONER,	)	SKAGIT COUNTY FIRE PROTECTION
vs.	)	DISTRICT NO. 3 COMMENTS IN
THE COUNTY OF SKAGIT	)	OPPOSITION TO PETITION TO
RESPONDENT	)	ABANDON AND CLOSE HIGHWAY-
	)	RAIL GRADE CROSSING AT HICKOX
	)	ROAD

**INTRODUCTION**

Skagit County Fire Protection District No. 3 opposes the closing of the railroad grade crossing at Hickox Road. The grade closing will have a negative impact on the District's ability to provide fire protection and emergency medical services in a manner consistent with local, state and national response time standards and will directly jeopardize the health and safety of the citizens residing, working or visiting the area affected by the closure. The primary impetus for the current petition to close Hickox Road is to enable the railroad to

1 construct a side rail. In this situation, the impact on public safety created by the closing is  
2 not justified by the economic rationale advanced for closing the crossing. In the event the  
3 economic considerations are deemed sufficient to close the crossing, BNSF should be  
4 required to provide substantial economic assistance to the Fire District to enable it to  
5 establish a volunteer sleeper program that will offset the negative impacts to public health  
6 and safety caused by the closure.  
7

### 8 **1. Impact of Closure on Response Times.**

9 Skagit County Fire Protection District No. 3 is an all-volunteer fire district whose  
10 volunteers respond out of two stations, Cedardale and Conway. The District provided a  
11 Response Time Summary to the consultant that drafted the *Hickox Road Railway Crossing*  
12 *Closure Traffic Impact Analysis "WSDOT Study"* documenting that the closure of Hickox  
13 Road would cause a 2 to 4.5 minute minimum increase in response times to those areas of  
14 the District currently accessed by Hickox Road (*See Exhibit A, Response Time Summary*).  
15

16 Despite this information, the *WSDOT Study* understates the impact of the closure on  
17 fire protection and emergency medical services. The *WSDOT Study* recognizes that "[t]he  
18 travel distance and time to the Hickox Road Area along this route from the fire station east  
19 of I-5 [Cedardale] has a potential increase of three miles and a seven minute increase in  
20 response time" and that the closure will "eliminate an alternative emergency response route  
21 that might be needed during catastrophic blockage of alternative routes." *WSDOT Study* at  
22 33, 44 and 48. Despite the above findings, the Consultant's conclusions reference only a .6  
23 minute increase in response time with no explanation of how this conclusion was derived.  
24  
25

The *WSDOT Study* findings referenced above, the District's data set forth in exhibit A and the actual response time information referenced below in Table 2 all undermine the *WSDOT Study* conclusion that the closure will only have a .6 minute impact on response times. In contrast, the data reflects an impact ranging from 2 to 7 minutes. The unsubstantiated conclusions stated in the *WSDOT Study* appear to be flawed and should be disregarded.<sup>1</sup>

Subsequent to preparing the Response Time Summary, the Fire District, on May 14, 2007, had a typical fire response in the area affected by the closure. The information contained in Exhibit A and the actual response times from the May 14<sup>th</sup> incident are summarized in the following tables:

<p style="text-align: center;"><b>TABLE I</b> <b>Distance and Driving Time at Speed Limit</b></p>			
Responding Station	Distance/Driving Time to Dike Road S Curves <i>Hickox Road Open</i>	Distance/Driving Time to Dike Road S. Curves <i>Hickox Road Closed</i>	Distance/Driving Time Increase
Cedardale	3.2 miles/ 4.5 minutes	Via Blackburn Road 4.4 Miles/9 minutes	1.2 miles/ 4.5 minutes
Cedardale	3.2 miles/4.5 minutes	Via Stackpole Road 5.2 miles/9 minutes	2 miles/ 4.5 minutes
Conway	4.5 miles/ 8 minutes	No Change	1.3 miles 3.5 minutes

<sup>1</sup> The *WSDOT Study* also refers to the possibility of mutual aid from the City of Mount Vernon yet no attempt was made to quantify the effect of mutual aid on the response times. Because of the inherent inconsistency and uncertain availability involved with a mutual aid response, the possibility of a mutual aid response does not mitigate the impact on the District's response time.

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**TABLE 2**

**Actual Response Time Summary (Based on May 14, 2007 fire response)**  
(Response time includes dispatch time, mobilization of volunteers and drive time, the primary variable affected by the Hickox Road closing is the drive time variable.)

Responding Station	Response Time <i>Hickox Road Open</i>	Est. Response Time <i>Hickox Road Closed</i>	Response Time Increase
Cedardale	13 minutes (5 minute drive time)	17 minutes (9 minute drive time)	4 minutes
Conway	14 minutes (7 minute drive time)	No Change	2 minutes

The above tables confirm that the closure of Hickox Road will increase the response times of the District a minimum of 2 minutes based on current response times from the Conway Station and a minimum of 4 minutes from the Cedardale Station. The two minute delay reflected in Table 2 is somewhat misleading as a number of other factors could substantially increase the response time from the Conway Station.

A closure of Hickox Road will increase farm machinery traffic on Dike Road and Stackpole Road which will potentially further reduce response times from the current Conway Station. In addition, the Conway Station is located in the flood plain. The District's five-year plan is to relocate the Conway Station out of the flood plain. This will necessarily move the Conway Station a further distance from the affected area and will significantly increase the response time from Conway. Once the relocation is completed, Cedardale will remain the station with the initial response responsibilities for the affected area. Accordingly, while the current location of the Conway Station reduces the overall impact on

1 response times to a 2 minute minimum impact, the actual impact over time will be closer to a  
2 4 minute delay.

## 3 **2. Consequences of Reduced Response Times**

4 A 2-4 minute increase in response times will further limit the Fire District's ability to  
5 meet State and National response time standards and may directly result in an increase in the  
6 loss of life and property within the District.  
7

8 In 2005, the Fire District responded to 12 service calls in the area affected by the  
9 closure with an average response time of 13 minutes (*See Exhibit A*). The closure of Hickox  
10 Road will increase that response time to a minimum of 15 to 17 minutes (*See above Tables 1*  
11 *and 2, Exhibit A*). This increase will bring the District below the National Fire Protection  
12 Association, NFPA, recommended response time standards for rural fire districts.  
13

14 The *WSDOT Study* cites to NFPA rural standards that establish a goal of responding  
15 with six people in 14 minutes 80 percent of the time, *WSDOT Study*, at 62. The District  
16 currently meets this standard (*See above Tables 1 and 2, Exhibit A*). With the closure of the  
17 road, however, the District will no longer meet this standard (*See above Tables 1 and 2,*  
18 *Exhibit A*). While a delay of 2 to 4 minutes may not seem exceptional, any delay could be  
19 fatal in a fire, or serious medical emergency response.  
20  
21

22 In 2005, the Washington State Legislature adopted HB 1756 which mandated  
23 response objectives for all substantially career fire departments and districts in Washington  
24 State. Although the planning requirements are not currently mandatory for a volunteer  
25

1 district such as Skagit County Fire Protection District No. 3, the standards on which the law  
2 was based, establish a standard of performance that all fire protection districts must work  
3 toward meeting. The response time standards underlying HB 1756 were developed by the  
4 Commission on Fire Accreditation International, CFAI, and are attached as Exhibit B.  
5

6 Under the CFAI guidelines, the critical time for fire responses is tied to the concept  
7 of flashover, the time in which a typical point source of ignition in a residential house will  
8 turn into a structural fire of some magnitude. The CFAI establishes this critical time period  
9 as some time between 5 and 10 minutes following ignition. Accordingly, under this  
10 standard, a 2 to 4 minute delay equates to a 20% to 80% reduction in the District's ability to  
11 respond effectively to a fire incident.  
12

13 The CFAI guidelines also establish a standard for responses to Cardiac Arrest  
14 responses. Under this guideline basic life support is ideally responding within 4 minutes of  
15 the event and advanced life support within 8 minutes. Once again, even a 2 to 4 minute  
16 delay in a cardiac response situation represents a 50-100% reduction in the District's  
17 effective response abilities for providing basic life support.  
18

19 The District recognizes that given its limited resources, it does currently meet the  
20 CFAI guidelines on a consistent basis. The District is working toward improving its response  
21 times and is in the process of developing a sleeper program to improve response times.  
22 Given the challenges already faced by the District, the closure of the Hickox Road crossing  
23 and the addition of two or more minutes to its already burdened response times would have a  
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1 serious and dramatic effect on the residents, workers and visitors to the area directly affected  
2 by the closure.

3 **3. Closing the Hickox Road Crossing will not Promote Public Safety and the**  
4 **Petition Should be Denied.**

5 The primary purpose of chapter 81.53 RCW is to promote public safety. *Department*  
6 *of Transportation v. Snohomish County*, 35 Wash. 2d 247, 250, 212 P.2d 829 (1949) (the  
7 “whole purpose” of chapter 81.53 RCW “is to promote the public safety.”) Although BNSF  
8 states public safety as one of its reasons for closing the crossing, the *WSDOT Study* does not  
9 support this reasoning particularly in light of the negative impacts on the Fire District  
10 response times. The non-safety reasons cited by BNSF in support of its petition can be  
11 addressed by one or more of the alternatives outlined in the *WSDOT Study* each of which  
12 minimize the impact on response times.  
13

14  
15 BNSF appears to rely on the presumption that all grade crossings are inherently  
16 dangerous. The Fire District does not dispute this basic theory but notes that the *WSDOT*  
17 *Study* reflects only two accidents at the Hickox Road crossing in 31 years. The *WSDOT*  
18 *Study* concludes that this accident rate of .06 accidents per year is less than the average rate  
19 of 0.1 accidents per year. *WSDOT Study*, at 21. Accordingly, although inherently dangerous,  
20 the Hickox Road crossing has proven to be less dangerous on average than other crossings.  
21 The Fire District emphasizes this fact because, in the current situation, given the infrequency  
22 of accidents at this crossing over 31 years, compared to the importance of the crossing for  
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1 maintaining fire and emergency medical response times public safety is promoted more by  
2 leaving the crossing open than by closing the crossing.

3  
4 In the present situation, the crossing does not have any of the characteristics that the  
5 Commission has found to increase the hazardous nature of the crossing. The crossing is not  
6 affected by vegetation or other obstacles that limit a motorists view of the tracks, the  
7 crossing does not suffer from oblique angles, limited holding capacity or the presence of a  
8 siding track. *See Burlington Northern Railroad Co. v. Skagit County*, WUTC Docket No.  
9 TR-940282 at p. 4. In the *Skagit County* decision, the Commission found that the crossing  
10 had poor sight lines, a confusing intersection, and moderately high speed and traffic. *Id* at 5.  
11 The Commission concluded that because of these factors, public safety was better served by  
12 closing the crossing even though the closing would have a negative impact on fire and EMS  
13 response times. In contrast, given the relative safety of the Hickox Road crossing, leaving  
14 the Hickox Road crossing open better promotes public safety than closing the crossing  
15 because it will allow the Fire District to maintain its current response times to the areas  
16 affected by the proposed closing.  
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19 **4. BNSF Should Be Required To Mitigate The Impacts Of The Closing If The**  
20 **Closing Is Approved By The Commission.**

21 The Commission has the authority to condition its approval of a grade closing with  
22 certain mitigation requirements. *See e.g. Burlington Northern Railroad Co. v. Skagit*  
23 *County*, WUTC Docket No. TR-940282 (construction of cul de sac); *Burlington Northern*  
24 *Railroad Co. v. Skagit County*, WUTC Docket No. TR-940282 (Boe Street closing)  
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1 (construction of an access road for private residences). The negative impacts created by the  
2 Hickox Road closing could be mitigated by the development of Fire District facilities  
3 necessary to support the development of a volunteer sleeper program.  
4

5 As noted above, the District's response times are a factor of three basic variables,  
6 dispatch time, volunteer mobilization and driving time. The closing of the crossing would  
7 have a direct negative impact primarily on the third variable. Since BNSF has rejected  
8 alternatives that would minimize the effect on the driving time, the Fire District requests that  
9 BNSF be required to mitigate the driving time impacts by supporting the District's planned  
10 volunteer sleeper program. A sleeper program would place volunteers at the station and  
11 would dramatically reduce the volunteer mobilization time in a manner that would offset the  
12 drive time impacts. Based on the District's initial estimates, the District will need to incur  
13 capital expenses in excess of \$600,000 to improve its station facilities to accommodate a  
14 sleeper program. If BNSF were to agree or be required to mitigate the impact of the closing  
15 by funding these capital improvements the District would remove its objection to the  
16 closing.  
17  
18

## 19 CONCLUSION

20  
21 The closing of Hickox Road will have an unacceptable impact on response times to  
22 the areas affected by the closure. In balancing the benefits to public safety, leaving the  
23 crossing open will create a larger benefit to the public. In the event the crossing is closed,  
24 BNSF should mitigate the impact by assisting the Fire District with the station  
25

1 improvements necessary to establish a volunteer sleeper program. The Fire District  
2 respectfully requests that the petition be denied or conditioned on mitigation payments to the  
3 Fire District.  
4

5 Dated: 5-31-2007.



6  
7 Brian K. Snure, WSBA 23275  
8 Attorney For Skagit County  
9 Fire Protection District No. 3  
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Response Time Summary  
Hickox Rd Closure Study

Station 1 (Conway)

- Response time and distance from station 1 traveling north on Dike Road to Hickox Road, 3.2 miles – 6 minutes at posted speed limit.
- Response time and distance from station 1 to S curves on Dike Road, 4.5 miles – 8 minutes at posted speed limit.

Station 2 (Cedardale)

- Station 2 to west Hickox Rd and Dike Road, 2 miles – 4 minutes at posted speed limit.
- Station 2 to Hickox Road west to Dike Road, north to S curves, 3.2 miles – 4.5 minutes at posted speed limit.
- Station 2 north on Hwy 99 south to Blackburn Road, west to Dike Road, South to S curves, 4.4 miles – 9 minutes at posted speed limit.
- Station 2 south to Stack pole Road, west to Dike Road, North to S curves, 5.2 miles – 9 minutes at posted speed limit.

Results:

With the elimination of Hickox Road, response times to service area affected either by north through Mount Vernon or south around Stack pole Road has a 9 minute travel time at posted speed limit. Maintaining Hickox Road access, travel time is cut in half to 4.5 minutes.

In 2005, SCFD 3 responded to 12 services calls with a response average of 13 minutes of the first arriving engine company. Add 4.5 minutes to the 13 minute average response time, and the projected response time average would be 17.5 minutes.

Respectfully submitted,

Chief David Skrinde

EXHIBIT     A

**HB 1756**  
**Implementation Guide**  
**for**  
**Fire Departments**  
**in**  
**Washington State**

Jointly developed by  
the Washington State Association of Fire Chiefs (WSAFC), and  
the Washington State Council of Fire Fighters (WSCFF)

EXHIBIT B-1

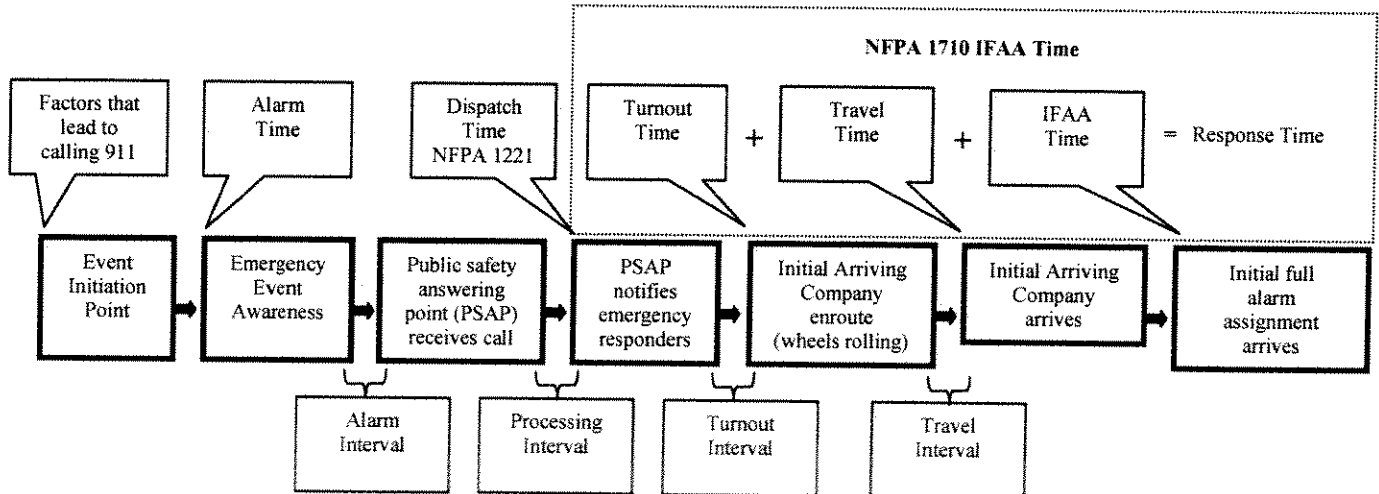
## Cascade of Events

The CFAI has defined response time elements as a cascade of events. This cascade is similar to that used by the medical community to describe the events leading up to the initiation, mitigation, and ultimate outcome of a cardiac arrest. It is imperative to keep in mind that certain intervals described can be directly influenced by the fire service via station locations and design, staffing levels, as well as local rules and procedures for response (turnout and travel time). Others factors can be influenced indirectly such as the alarm interval through public education and engineering initiatives. The fire service can also influence the call-processing interval through its ability to define standards and compel performance by its dispatch centers.

### Measures

Careful definition of terminology is essential to any conversation about response performance standards. It becomes even more critical when an organization attempts to benchmark its performance against other providers. The following definitions are standardized for discussion of response performance parameters within the Fire Service.

Below shows the Cascade of Events in a general overview diagram.



Cascade of Events (1)

### DEFINITION OF CASCADE EVENTS

Event Initiation Point - The point at which factors occur that may ultimately result in an activation of the emergency response system. Precipitating factors can occur seconds, minutes, hours, or even days before emergency event awareness is reached. An example is the patient who ignores chest discomfort for days until it reaches a critical point at which he/she makes the decision to seek assistance

(emergency event awareness). It is rarely possible to quantify the point at which event initiation occurs.

Emergency Event Awareness - The point at which a human being or technologic "sentinel" (i.e., smoke detector, infrared heat detector, etc.) becomes aware that conditions exist requiring and activation of the emergency response system. This is considered the emergency event awareness.

Alarm Interval - Measured time between emergency event awareness and the alarm time.

Alarm Time - The point of receipt of the emergency event at the public safety answering point (PSAP) to the point where sufficient information is known to the dispatcher to deploy applicable units to the emergency. (Time-stamp)

Call Processing Interval - The first ring of the 9-1-1 telephones at the dispatch center and the time the CAD operator activates station and/or company alerting devices. This can, if necessary, be broken down into two additional parameters: "*call taker interval*" (the interval from the first ring of the 9-1-1 telephone until the call taker transfers the call to the dispatcher) and "*dispatcher interval*" (the interval from the time when the call taker transfers the call to the dispatcher until the dispatcher (CAD operator) activates station and/or company alerting devices. Sixty (60) seconds is an industry standard. (Measured time between alarm time and dispatch time)

Dispatch Time - Is the time when the dispatcher, having selected appropriate units for response with assistance from the CAD system, initiates the notification of response units. (Time-stamp)

Turnout Interval - Measured time between dispatch time and turnout time.

Turnout Time - When units acknowledge notification of the event to the beginning point of response time (wheels rolling). **\*Measured component known as "Turnout Time" required by HB1756\***

Travel Interval - Measured time between turnout time and on scene time of initial company. **\*Measured component known as "Response Time" required by HB1756\*** CFAI recognizes the need to categorize each emergency response zone into relevant categories (urban, suburban, rural and wilderness) and measure appropriate travel times for each category. CFAI's method for clarification is more precise than what HB 1756 specifically requires.

Initial Company Time - The point at which the initial company arrives on scene.

Initiation of Action - The point at which operations to mitigate the event begin. This may include available to respond to another request for service.

EXHIBIT B-3

Initial Full Alarm Assignment Interval - Measured time between initial company on scene time and Initial Full Alarm Assignment is completed.

Initial Full Alarm Assignment - Time when all of the personnel, equipment, and resources ordinarily dispatched upon alarm arrives on the scene. **\*Measured component required by HB1756 for fire suppression responses\***

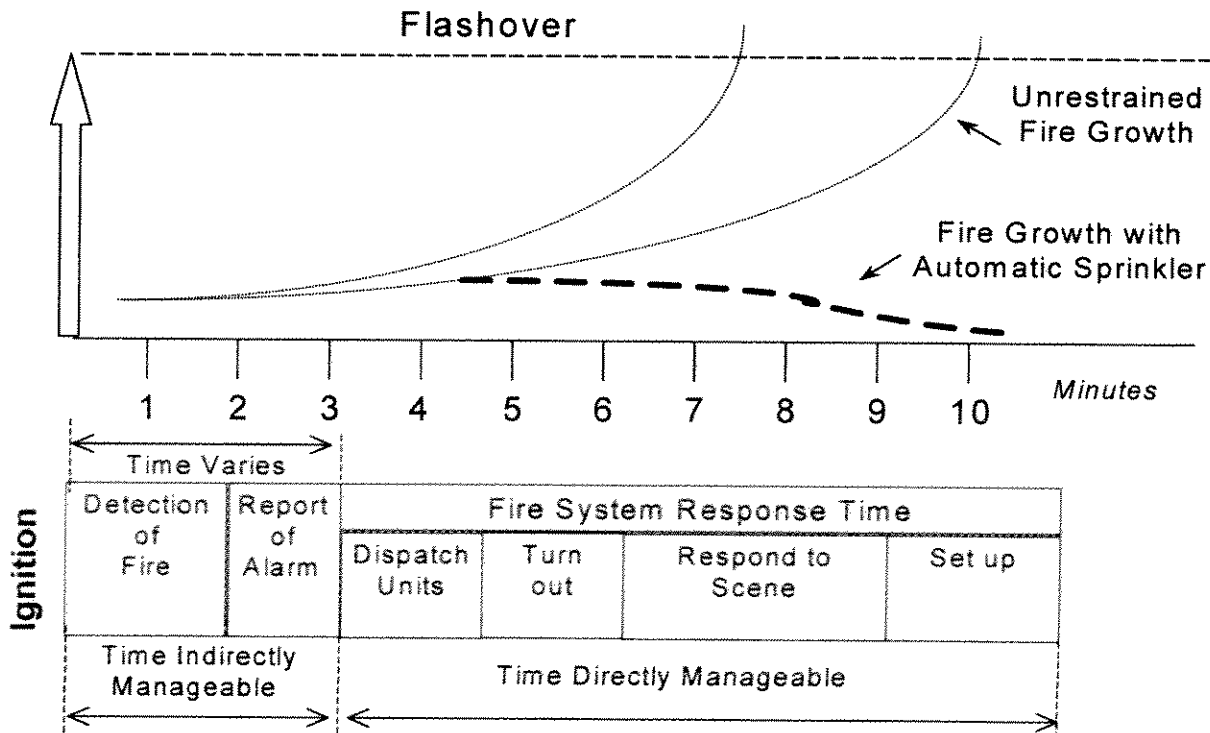
Response Time - The combined measured time from dispatch time and includes turnout and travel intervals to initial company arrival time.

Controlled Time - Time when the forward progress of the fire has been stopped or when ABC's have been addressed and managed.

Termination of Event - The point at which unit(s) have completed the assignment and are available to respond to another request for service.

**Time – Temperature Standard**

The “time-temperature curve” standard in figure 2 is based on data from the National Fire Protection Association (NFPA) and the Insurance Services Organization (ISO), which have established that a typical point source of ignition in a residential house will “flash over” at some time between 5 and 10 minutes after ignition, turning a typical “room and contents” fire in to a structural fire of some magnitude.



Time Temperature Curve (2)

EXHIBIT B-4

The utility of the time-temperature curve for fire station placement is limited a number of factors.

- 1) It does not account for the time required for the existence of a fire to be "discovered" and reported to the Fire Department via the 911 system.
- 2) The time from ignition to flashover varies widely (5-30 minutes depending on building characteristics); thus it cannot provide a valid basis for the allocation of resources.
- 3) The curve is constantly shifting, given the numerous changes in building construction, built in suppression systems, the increased use of fire resistive materials for furniture and other items typically found in the interior of occupied buildings.

### Cardiac Arrest Survival Standard

In communities where the fire service is the principal provider of EMS first response, the "chain of survival" standard shown in figure 3 was developed by the American Heart Association often is used to provide guidance for distribution of resources. The chain of survival suggests that basic life support (CPR and defibrillation) should be available to the victim of a cardiac arrest within 4 minutes of the event, and that advanced life support (paramedic service) should be available within 8 minutes or less of the event. Early notification, distribution and concentration of emergency response services are thus paramount to successful resuscitation efforts.

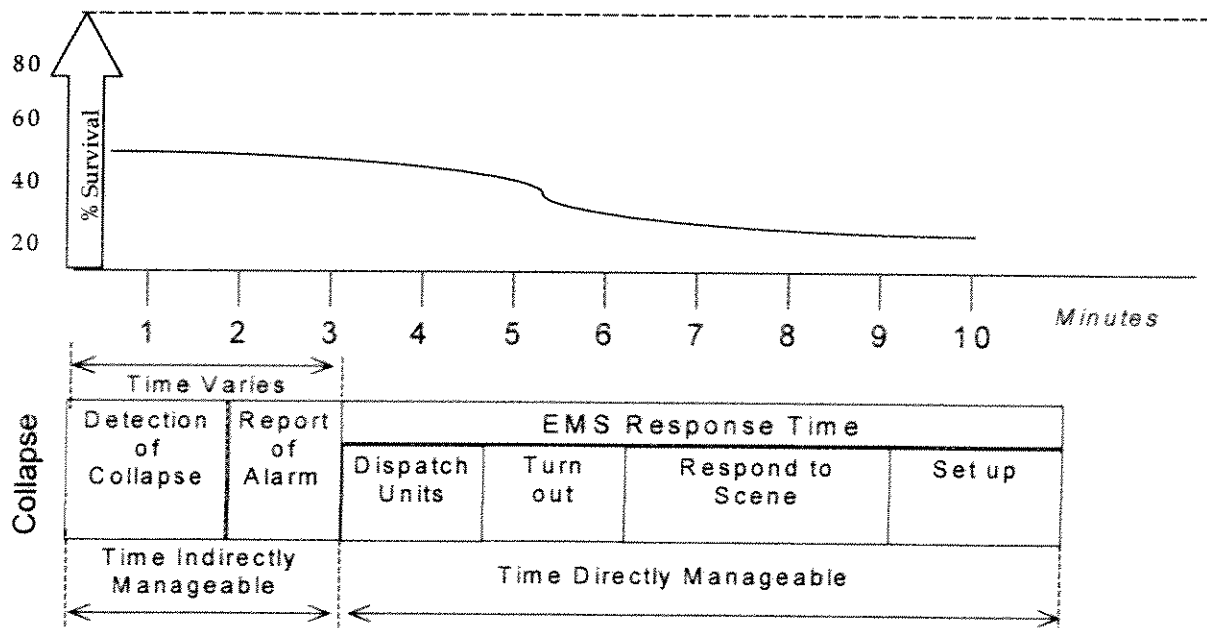


EXHIBIT B-5