

**1. General notes - notes below are to be kept current as project proceeds**

**1.1. Abbreviations**

- 1.1.1. **LLR - Lower level roadway**
- 1.1.2. **ULR - Upper level roadway**
- 1.1.3. **GTC - Ground transportation center**
- 1.1.4. **APM - Automatic people movement system**
- 1.1.5. **PES - Primary electrical service system upgrade**
- 1.1.6. **PES 2 - Primary electrical service system upgrade - Phase 2**
- 1.1.7. **PES 3 - Primary electrical service system upgrade - Phase 3**

**1.2. Project components**

**1.2.1. Skyway Project - Vertical circulation, towers and skyway (from March 1, 1991 to December 31, 1991)**

- 03/01/91 - Contract start date
- 12/31/91 - Contract completion date

**1.2.2. GTC East Project - Ground transportation center east (Jan, 1992 to December, 1992)**

- a. **Nose cone demolition**
  - Remove escalators
  - Relocate shuttle bus shelter
  - Relocate elevators to vertical circulation towers (skyway project area)
  - Relocate radio equipment to vertical circulation towers (skyway project area)
  - Demolish nose cone structure

**a. Pedestrian bridges between parking ramps**

- b. **GTC east basement infill**
  - Reroute communication wiring
  - Reroute sanitary sewer main
  - Construct basement substructure between vertical circulation towers

- c. **GTC east roadways serving ground transportation center - commercial traffic**
  - Reconstruct pedestrian ramps & stairs at north short term parking lot
  - Install lighting for roadways
  - Erect taxi starter booths & passenger shelters

**c. Valet entry/exit ramps**

- d. **Move sprinkler & pump rooms from existing basement to new location at far south end of basement**

**1.2.3. GTC Middle Project - Basement, LLR, & ULR from existg valet ramps to existg ULR (Jan, 1993 to Dec, 1993)**

**1.2.4. GTC West Project - Basement, LLR, & ULR from GTC Middle to the terminal (from Dec, 1993 to Dec, 1994)**

**1.2.5. APM Project - Install automatic people moving system from terminal to car rental area (from Aug, 1993 to Dec, 1994)**

**1.2.6. 2nd Level Ramp Project - Demolish & reconstruct south parking ramp second level (July, 1991 to June, 1992)**

**1.2.7. PES 2 - Primary electrical service upgrade - Phase 2 (July, 1991 to May, 1992)**

**1.2.8. PES 3 - Primary electrical service upgrade - Phase 3 (Oct, 1993 to Oct, 1994)**

**2. 11:08:41 AM - Monday, April 29, 1991**

- 2.1. **Metropolitan Airport Commission - disk ?**
- 2.2. **Meeting at KA downtown Minneapolis office**
- 2.3. **Those attending**

- 2.3.1. **Craig Francois**
- 2.3.2. **Ralph J. Stephenson**

**2.4. Agenda**

- 2.4.1. **Coach Craig F in use of data base program**
- 2.4.2. **Prepare data base file for the content of each package**  
Macro view to micro view

*Handwritten notes:*  
 Bid part - (points to 'Nose cone demolition')  
 Bid part - (points to 'Pedestrian bridges...')  
 Bid part - (points to 'Valet entry/exit ramps')



- 2.4.3. *Prepare typical sequences for processing phase design packages*
- 2.4.4. *Prepare data base system for assigning responsibility for action*
- 2.4.5. *Review existing network model for vertical circulation tower and skyways*
- 2.4.6. *Prepare bulletin/change order tracking graphics*
- 3. *8:03:54 AM - Tuesday, June 11, 1991*
  - 3.1. *Metropolitan Airport Commission - disk ?*
  - 3.2. *Meeting at KA downtown Minneapolis office*
  - 3.3. *Those involved*
    - 3.3.1. *Vertical circulation, towers and skyways project - MAC job #106-159-2*
      - Kraus-Anderson
        - Craig Francois - project director
        - Dave Lent - superintendent
        - John Boerborn - project manager
      - Adolphsen Peterson - concrete, masonry & general construction
      - Clyde Terway - project manager
      - Bob Sykes - superintendent - project manager
      - Park Construction - earthwork
      - Harmon Glass - glass & glazing
      - LeJune Steel - structural steel
      - Apollo Elevators
      - Schindler - escalators
      - Newmech - mechanical contractor
      - Premier - electrical contractor
  - 3.4. *Those attending*
    - 3.4.1. *Craig Francois*
    - 3.4.2. *Ralph J. Stephenson*
  - 3.5. *Agenda*
    - 3.5.1. *Prepare summary network model of vertical circulation, towers and skyway project*
    - 3.5.2. *Discuss management concepts of the cm*
      - Summary vs detailed network models]
      - Role of KA in the job
        - With owner
        - With prime contractors
        - With subs of prime contractors
      - Control positions
        - Signing off on plans of work
      - Discuss role of KA on the project with John and Craig
        - Management of people - obj
        - Communicating with people - obj
        - Acting like a cm instead of a general contractor - eld
    - 3.5.3. *Evaluate current job status*
    - 3.5.4. *Transfer notes to note file*
  - 3.6. *Project components - note that these have been revised on July 8, 1991 - see general notes*
    - 3.6.1. *Vertical circulation, towers and skyway (from March 1, 1991 to December 31, 1991)*
      - 03/01/91 - Contract start date
      - 12/31/91 - Contract completion date
    - 3.6.2. *Ground transportation center east - GTC East - (from Jan, 1992 to December, 1992) - MAC job #?*
      - Relocation of valet parking entrances
      - Demolition of existing elevator tower
      - Construct lower roadways serving ground transportation center - commercial

- 3.6.3. **Construct upper level roadways serving general public at ticketing level (from Jan, 1993 to Dec, 1994) - MAC job #**
- 3.6.4. **Construct new lower level roadway serving general public at baggage level (from Jan, 1993 to Dec, 1994) - MAC job #**
- 3.6.5. **Install automatic people moving system from terminal to car rental area (from Aug, 1993 to Dec, 1994) - MAC job #**
- 3.6.6. **Demolish south parking ramp second level and reconstruct (July, 1991 to June, 1992) - MAC job #**
- 4. **10:42:37 AM - Monday, July 8, 1991**
  - 4.1. **Metropolitan Airport Commission - disk ?**
  - 4.2. **Meeting at KA downtown Minneapolis office**
  - 4.3. **Those attending**
    - 4.3.1. **Craig Francois**
    - 4.3.2. **Ralph J. Stephenson**
  - 4.4. **Agenda**
    - 4.4.1. **Review 1992 mac work - called GTC East**
      - Drawing development
      - Construction plan and schedule
    - 4.4.2. **Review overall project development**
      - Formulate management approach
      - Continue prepare master laundry list of activities and responsibilities

7/8/91

## ka master mac project component list

Major proj component	Contract doc package	Major project action	Design & conet componente	Activity	MAC	AA	DA	TKDA	BRW	Lea & Elliot	K/A	contr yet to be selected
01000	01100	01100	des/cst	01000 - Skyway Project - Design and construct vertical circulation tower & skyways	x	x	x		x		x	
02000	02000	02000	des/cst	02000 - GTC East Project - Design & construct east ground transportation center	x	x	x		x		x	
02000	02100	02110	des/cst	02110 - GTC East Project - Design and construct pedestrian bridge								
02000	02100	02120	dem	Demolish existing nose cone - to be planned in detail later								
02000	02100	02120	des	Determine appropriate nose cone construction site layout & traffic circulation patterns								
02000	02100	02120	des	Prepare & submit program or brief defining nose cone project scope & nature								
02000	02100	02120	des	Owner review & approve nose cone project program or brief								
02000	02100	02120	des	Determine acceptable means & methods of demolishing nose cone structure								x
02000	02100	02120	des	Owner review & approve method of demolishing nose cone structure								
02000	02100	02120	des	Prepare & issue nose cone demolition documents for review & approval								
02000	02100	02120	des	Review & approve nose cone demolition documents								
02000	02100	02120	des	Complete prepare & issue nose cone demolition contract documents for review & approval								
02000	02100	02120	des	Review & approve nose cone demolition contract documents								
02000	02100	02120	des	Print & issue 02100 contract document package documents for soliciting proposals								
02000	02100	02120	des/cst	02120 - GTC East Project - Design & construct nose cone demolition work								x

apm components listed in action sequence

Major proj component	Contract doc package	Major project action	Design & const components	Activity	MAC	AA	DA	TKDA	BRW	Lea & Elliot	K/A	contr yet to be selected
02000	02100	02120	pro	Solicit & receive nose cone demolition proposals								
02000	02100	02120	pro	Review, evaluate & recommend nose cone demolition contractor to owner								
02000	02100	02120	pro	Award nose cone demolition contract								
02000	02100	02130	des/cst	02130 -GTC East Project - Design and construct shuttle bus shelter relocation								
02000	02100	02140	des	Prepare & submit program outline for elevator relocation								
02000	02100	02140	des	Review & approve program outline for elevator relocation								
02000	02100	02140	des	Determine elevator opening requirements with Appolo Elevator, owner & architect/engineer								
02000	02100	02140	des	Determine hoisting requirements for elevator removal								
02000	02100	02140	des	Prepare & submit contract documents for elevator relocation								
02000	02100	02140	des	Review & approve contract documents for elevator relocation								
02000	02100	02140	des/cst	02140 - GTC East Project - Design and construct elevator relocation to vertical circulation towers								
02000	02100	02150	des/cst	02150 - Design and construct radio equipment relocation to vertical circulation tower								
02000	02100	02160	des/cst	02160 - Design and construct rerouted communication wiring near nose cone								
02000	02200	02210	des/cst	02210 - GTC East Basement Infill - Design and construct basement infill structure								
02000	02200	02220	des/cst	02220 - Design & construct rerouted sanitary sewer main at east basement infill								

Major proj component	Contract doc package	Major project action	Design & const components	Activity	MAC	AA	DA	TKDA	BRW	Lee & Elliot	K/A	contr yet to be selected
02000	02200	02230	des/cst	02230 - Design & construct new pedestrian ramps & stairs at north short term parking lot								
02000	02200	02240	des/cst	02240 - Design & construct new GTC east roadways serving commercial traffic								
02000	02200	02250	des/cst	02250 - Design & construct taxi starter booth & passenger shelter								
02000	02200	02260	des/cst	02260 - Design and construct new valet ramps & abandon existing ramps	x	x	x		x		x	
02000	02200	02270	des/cst	02270 - Design & construct new water main & sprinkler room in existing terminal basement								
03000				GTC Middle Project - Design and construct middle ground transportation center & east upper level roadway	x	x	x	x	x		x	
03000	03100	03100	des/cst	03100 - Design, demolish and construct final upper and lower level roadways	x	x	x	x	x		x	
04000				GTC West Project - Design, demolish and construct west ground transportation center & west upper level roadway	x	x	x	x	x		x	
05000	05100			APM Project - Design and construct automatic people movement system from terminal to car rental building	x	x	x		x		x	
05000	05100		des	Write program for apm system and prepare scope spec for equipment	x				x		x	
05000	05100		des	amp design consultant & mac set apm operating parameters	x				x	x		
05000	05100		des	mac review & approve apm operating parameters	x				x	x		
05000	05100		des	brw & lel design system & prepare & issue apm construction documents - project package 07	x				x	x	x	
05000	05100		des	ka prepare apm equipment package & issue for proposals	x				x	x	x	
05000	05100		des	Define apm system interfaces with other project components	x	x	x		x	x	x	

7/8/91

## ka master mac project component list

Major proj component	Contract doc package	Major project action	Design & const components	Activity	MAC	AA	DA	TKDA	BRW	Lee & Elliot	K/A	contr yet to be selected
05000	05100		few	Select & retain apm system design consultant	x				x			
05000	05100		pro	ka & mac receive & review apm equipment package proposals, select supplier & iss notice to proceed	x				x	x	x	
05000	05100		pro/des	apm suppliers and vendors prepare & submit apm system component design data	x				x	x	x	
05000	05100		usy	Install on site apm system					x	x	x	
05000	05100		usy	Test & demonstrate apm system	x				x	x	x	
05000	05100		usy	Owner accept apm system and make operative	x				x	x	x	

apm components listed in action sequence

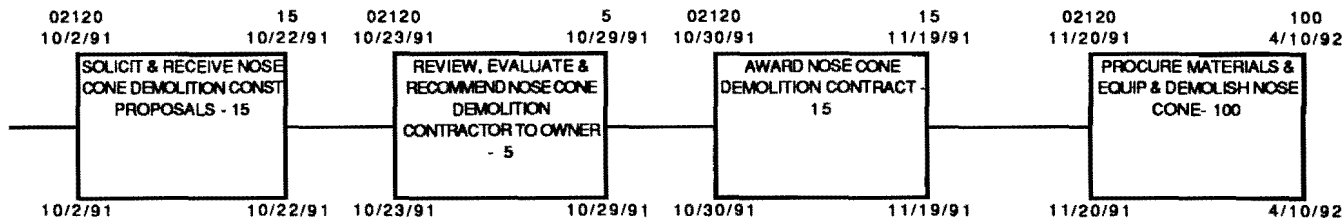
	<b>oen</b>	<b>abb</b>	<b>meaning</b>	<b>type</b>
1	1	apm	automatic people movement system	cpt
2	2	cpt	component of the mac project	gen
3	3	gen	general abbreviations	gen
4	4	gtc	ground transportation center	cpt
5	5	ulr	upper level roadway	loc/cpt
6	6	llr	lower level roadway	loc/cpt
7	7	mac	Metropolitan Airport Commission	org
8	8	tkda	TKDA - architects & engineers	org
9	9	aa	The Alliance - architects & engineers	org
10	10	da	Dunham & Associates - structural & mechanical engineers	org
11	11	brw	BRW Engineers - traffic and roadway consultants	org
12	12	ka	Kraus-Anderson - construction manager	org
13	13			
14	14			
15	15			

sorted in alphabetical sequence



	<b>oen</b>	<b>abb</b>	<b>meaning</b>	<b>type</b>
<b>16</b>	16			
<b>17</b>	17			
<b>18</b>	18			
<b>19</b>	19			
<b>20</b>	20			
<b>21</b>	21			

sorted in alphabetical sequence



Contract Document Package #02100 - GTC East Project  
Pedestrian Bridge & Nose Cone Demolition

**NETWORK MODEL FOR GROUND  
TRANSPORTATION CENTER/UPPER  
LEVEL ROADWAY PROJECT**

**METROPOLITAN AIRPORTS  
COMMISSION - MSP AIRPORT**

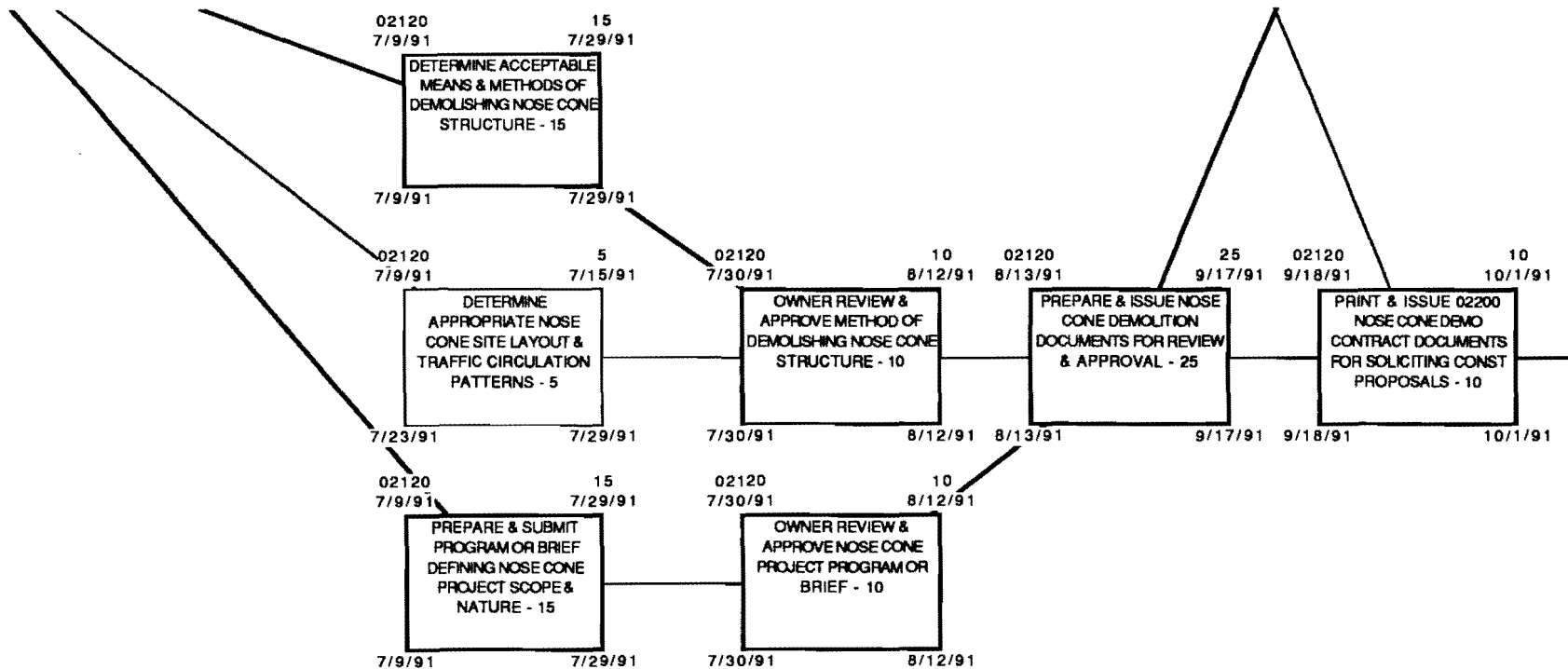
Kraus-Anderson Construction  
Company - Construction Manager  
Minneapolis, Minnesota

Reserved Activity Numbers

041	046	091	096
042	047	092	097
043	048	093	098
044	049	094	099
045	050	095	100

lan 001  
han

Issue #1 - July 8, 1991  
i1sht#d/c1/2100gtce  
laser 100% & 50%  
disk ?



### Nose Cone Demolition 02120

TOTAL FLOAT      DURATION - WKG DAYS  
EARLY START      EARLY FINISH

02110      0  
12/22/91      12/22/91



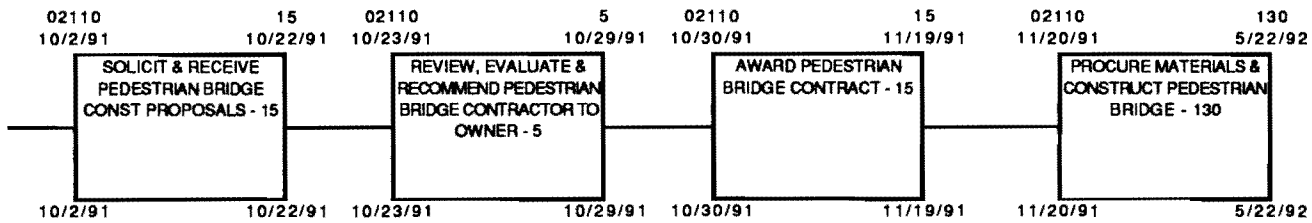
12/22/91      12/22/91

LATE START      LATE FINISH

### Activity Key

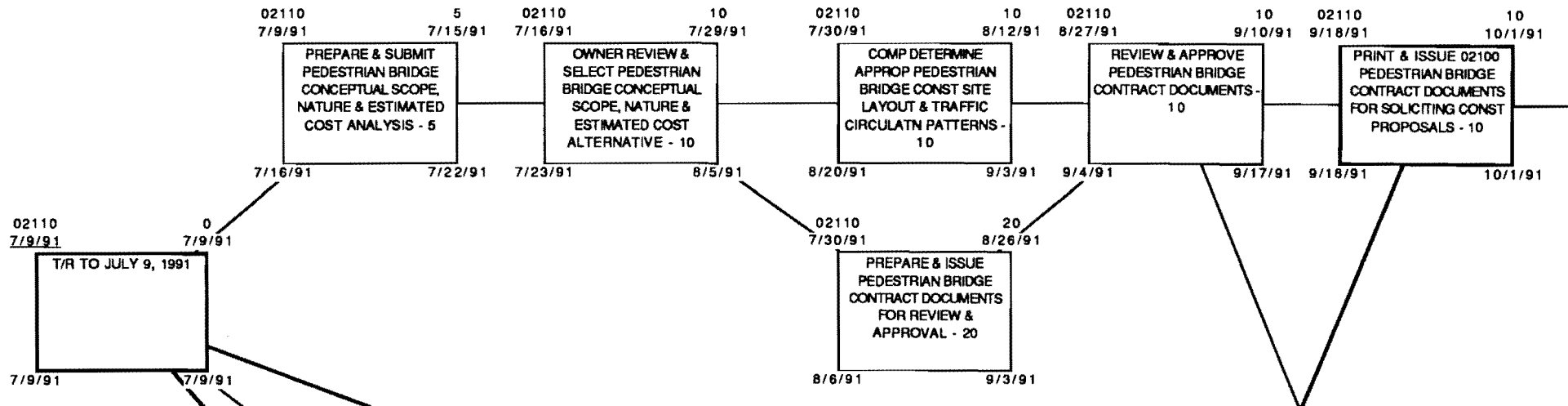
**Note:**

Float time shown in this network plan is the property of Kraus-Anderson Construction Company and is for their sole use. Any use of float time by other than Kraus-Anderson Construction Company is to be only with written permission of Kraus-Anderson Construction Company



02110 0  
 1/2/90 1/2/90  
 1/2/90 1/2/90

### Pedestrian Bridge 02110



**1. 11:08:41 AM - Monday, April 29, 1991****1.1. Metropolitan Airport Commission - disk ?****1.2. Meeting at KA downtown Minneapolis office****1.3. Those attending**

1.3.1. Craig Francois

1.3.2. Ralph J. Stephenson

**1.4. Agenda**

1.4.1. Coach Craig F in use of data base program

1.4.2. Prepare data base file for the content of each package  
Macro view to micro view

1.4.3. Prepare typical sequences for processing phase design packages

1.4.4. Prepare data base system for assigning responsibility for action

1.4.5. Review existing network model for vertical circulation tower and skyways

1.4.6. Prepare bulletin/change order tracking graphics

**2. 8:03:54 AM - Tuesday, June 11, 1991****2.1. Metropolitan Airport Commission - disk ?****2.2. Meeting at KA downtown Minneapolis office****2.3. Those involved**

2.3.1. Vertical circulation, towers and skyways project - MAC job #106-159-2

Kraus-Anderson

Craig Francois - project director

Dave Lent - superintendent

John Boerborn - project manager

Adolphsen Peterson - concrete, masonry &amp; general construction

Clyde Terway - project manager

Bob Sykes - superintendent - project manager

Park Construction - earthwork

Harmon Glass - glass &amp; glazing

LeJune Steel - structural steel

Apollo Elevators

Schindler - escalators

Newmech - mechanical contractor

Premier - electrical contractor

**2.4. Those attending**

2.4.1. Craig Francois

2.4.2. Ralph J. Stephenson

**2.5. Agenda**

2.5.1. Prepare summary network model of vertical circulation, towers and skyway project

2.5.2. Discuss management concepts of the cm  
Summary vs detailed network models]  
Role of KA in the job

With owner

With prime contractors

With subs of prime contractors

Control positions

Signing off on plans of work

Discuss role of KA on the project with John and Craig

Management of people - obj

Communicating with people - obj

Acting like a cm instead of a general contractor - eld

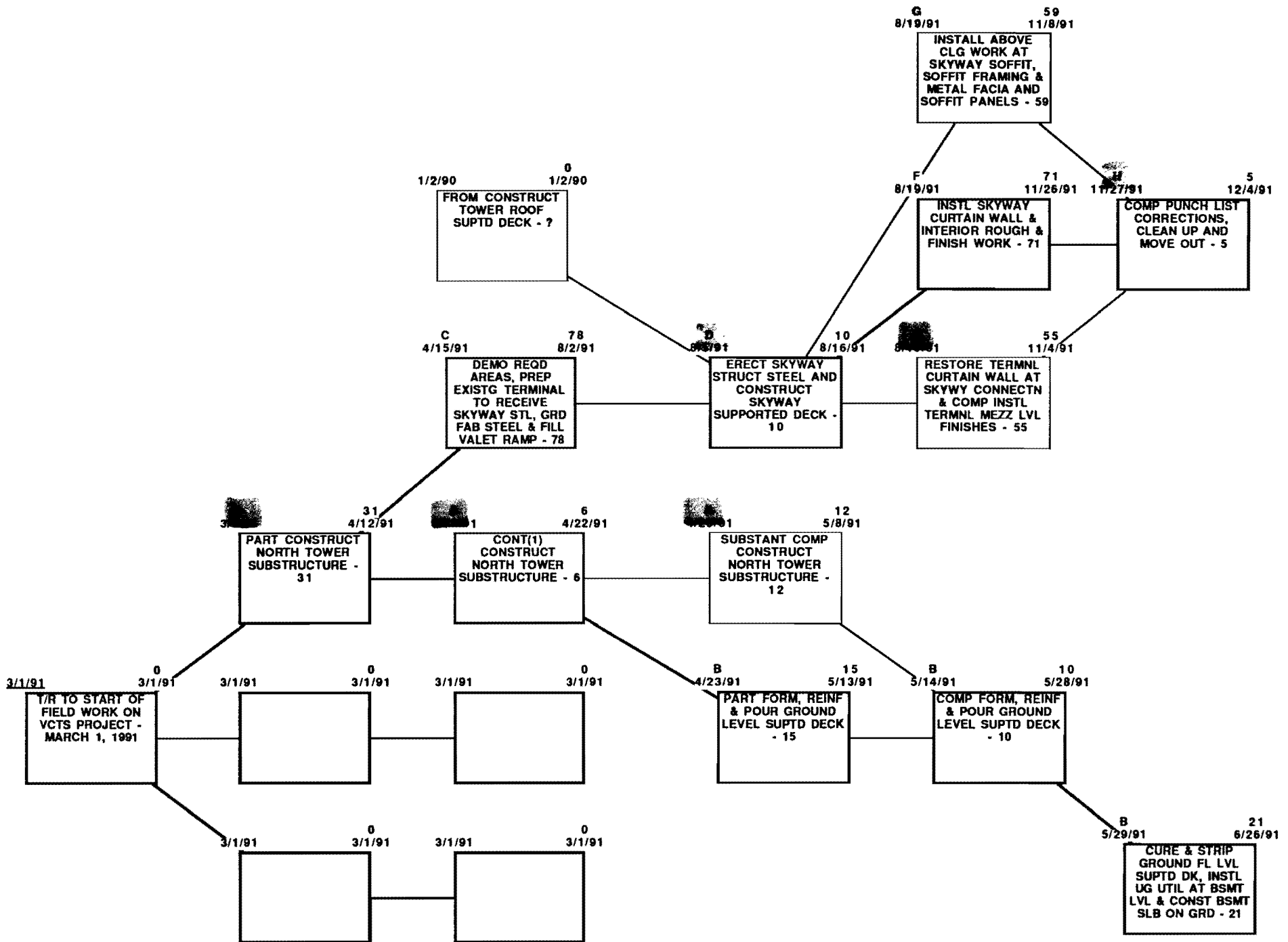
2.5.3. Evaluate current job status

2.5.4. Transfer notes to note file

**2.6. Project components**

- 2.6.1. Vertical circulation, towers and skyway (from March 1, 1991 to December 31, 1991  
03/01/91 - Contract start date  
12/31/91 - Contract completion date
- 2.6.2. Ground transportation center east (from Jan, 1992 to December, 1992) - MAC job #?  
Relocation of valet parking entrances  
Demolition of existing elevator tower  
Construct lower roadways serving ground transportation center - commercial
- 2.6.3. Construct upper level roadways serving general public at ticketing level (from Jan, 1993 to Dec, 1994) - MAC job #
- 2.6.4. Construct new lower level roadway serving general public at baggage level (from Jan, 1993 to Dec, 1994) - MAC job #
- 2.6.5. Install automatic people moving system from terminal to car rental area (from Aug, 1993 to Dec, 1994) - MAC job #
- 2.6.6. Demolish south parking ramp second level and reconstruct (July, 1991 to June, 1992) - MAC job #

- Why is Dave Lent on the job.?
- Point of conflict is Bob Sykes/Dave Lent?
-



9/23



Major proj component	Contract doc package	Major project action	Design & const components	seq	Activity	MAC	AA	DA	TKDA	BRW	Lea & Elliot	K/A	contr yet to be selected
02000	02100	02110	-des/cst	00	02110 - GTC East Project - Design and construct pedestrian bridge								
02000	02100	02110	des	01	Prepare & submit pedestrian bridge conceptual scope, nature & estimated cost analysis								
02000	02100	02110	des	02	Owner review & select pedestrian bridge conceptual scope, nature & estimated cost alternates								
02000	02100	02110	des	03	Determine appropriate pedestrian bridge construction site layout & traffic circulation patterns								
02000	02100	02110	des	03	Prepare & issue pedestrian bridge contract documents for review & approval								
02000	02100	02110	des	04	Review & approve pedestrian bridge contract documents								
02000	02100	02110	des	05	Review & approve pedestrian bridge contract documents								
02000	02100	02110	des	06	Print & issue 02100 pedestrian bridge contract documents for soliciting proposals								
02000	02100	02110	pro	07	Solicit & receive pedestrian bridge construction proposals								
02000	02100	02110	pro	08	Review, evaluate & recommend pedestrian bridge contractor to owner								
02000	02100	02110	pro	09	Award pedestrian bridge contract								
02000	02100	02120	-des/cst	00	02120 - GTC East Project - Design & construct nose cone demolition work								x
02000	02100	02120	des	01	Determine acceptable means & methods of demolishing nose cone structure								x
02000	02100	02120	des	01	Determine appropriate nose cone construction site layout & traffic circulation patterns								
02000	02100	02120	des	01	Prepare & submit program or brief defining nose cone project scope & nature								

Major proj component	Contract doc package	Major project action	Design & const components	seq	Activity	MAC	AA	DA	TKDA	BRW	Lea & Elliot	K/A	contr yet to be selected
02000	02100	02120	des	02	Owner review & approve method of demolishing nose cone structure								
02000	02100	02120	des	02	Owner review & approve nose cone project program or brief								
02000	02100	02120	des	03	Prepare & issue nose cone demolition documents for review & approval								
02000	02100	02120	des	04	Review & approve nose cone demolition documents								
02000	02100	02120	des	05	Complete prepare & issue nose cone demolition contract documents for review & approval								
02000	02100	02120	des	06	Review & approve nose cone demolition contract documents								
02000	02100	02120	des	07	Print & issue 02100 contract document package documents for soliciting proposals								
02000	02100	02120	pro	08	Solicit & receive nose cone demolition proposals								
02000	02100	02120	pro	09	Review, evaluate & recommend nose cone demolition contractor to owner								
02000	02100	02120	pro	10	Award nose cone demolition contract								
02000	02100	02120	dem	11	Demolish existing nose cone - to be planned in detail later								