

Ralph J. Stephenson PE PC  
Consulting Engineer  
323 Hiawatha Drive  
Mt. Pleasant, MI 48858  
ph 517 772 2537  
July 7, 1991

**Subject:** Monitoring Report #1  
Mott Durham Pool Renovation  
Mott Community College  
Flint, Michigan

**From:** Ralph J. Stephenson PE

**Project:** 91:28

**Data disk:** d269 rjs

**Date of Monitoring:** July 2, 1991 (wd 129)

**Monitored from:**

- Sheet #1, Issue #1 network model dated July 2, 1991 (wd 129)

**Key dates:**

- June 25, 1991 (wd 124) - Letter of intent issued
  - July 15, 1991 (wd 137) - Mobilize & move on site
  - September 3, 1991 (wd 172) - Start of school for fall
  - November 8, 1991 pm (wd 221) - Contract completion date
- Total time available for contract work = 221 - 124 = 97 working days

**Actions taken:**

- Reviewed project in detail with Mr. Dan West
- Prepared preliminary network model with Mr. West
- Identified long lead items
- Provided Mr. West with copy of data disk from meeting

**General Summary:**

This meeting was primarily devoted to reviewing the project, developing the master laundry list and preparing a network model of the job. A set of meeting notes was prepared during the session and a copy of these is attached to this report.

R. N. West Construction is currently obtaining submittals for key items including:

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July 7, 1991

Face brick  
Glazed tile  
Concrete mix design  
Metal fascia panels  
Aluminum windows  
Structural steel, joists and metal deck  
Aluminum door frames  
Fiberglas doors  
Stainless steel frames, doors & hardware

It is the intent of West Construction to move on the job site by July 15, 1991 (wd 137) and to start work at the east wall and canopy. Work will next move to the west wall and from there to the south and north walls.

The contract completion date for all work is the pm of November 8, 1991 (wd 221).

We discussed the various delivery projections for important long lead items and these are shown on the network as well as being described in the meeting notes.

To be stressed is the need to keep the Durham Pool open and operating during the entire construction period. Mr. West is checking on exit requirements to accomplish this during the renovation.

The network model prepared at this session was printed out and given to Mr. West at the end of our meeting. Subsequently I reviewed the work plan and made minor revisions as needed. A revised copy of the issue #1 network model is enclosed with this monitoring report. I have left it unassembled for ease of duplicating. Also enclosed is a bar chart translation of the network model.

This report is being sent to Mr. Dan West, Mr. Jerry Harburn and Mr. Junior Paul. Further distribution as needed will be made by those receiving the copies.

I shall plan on monitoring the project regularly as work proceeds and will be in touch with Mr. Harburn shortly to set the next planning and monitoring date.



Ralph J. Stephenson PE PC

**Ralph J. Stephenson P.E. P.C.**  
Consulting Engineer

July 30, 1991

To: Dan West  
Junior Paul  
Jerry Harburn

From: Ralph J. Stephenson

Re: *Durham Pool Monitoring* - Tuesday, August 6, 1991

We have set the date of the first monitoring of the Durham Pool exterior renovation project for 8:30 AM, Tuesday August 6, 1991. I will be at the job site at 8:30 AM and plan to inspect the project with Dan West, and whomever else desires to accompany us

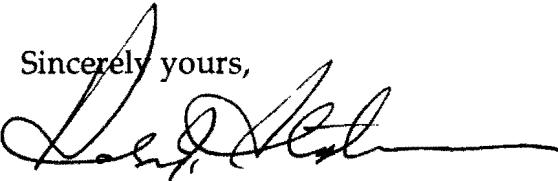
The monitoring will be made from the issue #1 network models, dated July 2, 1991 which have been distributed to Mr. West, Mr. Paul and Mr. Harburn.

Procurement of materials is of considerable importance so I would appreciate having available as much information as possible about submittals, approvals and deliveries.

After the monitoring we should discuss the need for updating the network model to reflect any changed conditions that might influence the plan and schedule. I shall review this at the job site with those involved.

Thank you for your assistance in this initial monitoring.

Sincerely yours,



Ralph J. Stephenson PE

Ralph J. Stephenson PE PC  
Consulting Engineer  
323 Hiawatha Drive  
Mt. Pleasant, MI 48858  
ph 517 772 2537  
August 8, 1991

**Subject:** Monitoring Report #2  
Mott Durham Pool Renovation  
Mott Community College  
Flint, Michigan

**From:** Ralph J. Stephenson PE

**Project:** 91:28

**Data disk:** d269 rjs

**Date of Monitoring:** August 6, 1991 (wd 153)

**Monitored from:**

- Sheet #1, Issue #1 network model dated July 2, 1991 (wd 129)

**Key dates:**

- June 25, 1991 (wd 124) - Letter of intent issued
- July 15, 1991 (wd 137) - Mobilize & move on site
- September 3, 1991 (wd 172) - Start of school for fall
- November 8, 1991 pm (wd 221) - Contract completion date

221  
153  
68

Total contract time remaining = 221 - 153 = ~~68~~ working days from August 6, 1991 (wd 153)

**Actions taken:**

- Inspected project with Mr. Dan West
- Reviewed current job status with Mr. West, Mr. Paul and Mr. Harburn
- Reviewed procurement status
- Prepared monitoring status network
- Evaluated current project status

**General Summary:**

West moved on site July 15, 1991 (wd 137) and began east wall lay out and demolition work. As of August 6, 1991 (wd 153) erection of the east wall dust partition is complete and demolition of required wall areas is substantially complete.

The canopy footings at the east wall are poured and construction of the new canopy columns is in work. Masonry for the east wall was delivered on July 18, 1991 (wd 140) and erection of the east wall face brick and glazed tile started on August 5, 1991 (wd 152).

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Consulting Engineer  
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August 8, 1991

At the west wall lay out is complete and demolition of the existing wall is in progress. Mr. West is investigating methods of most effectively removing the glass block and is setting up the scaffold for this work. Wall demolition will probably start about August 15, 1991. This work had an early start of August 23, 1991 (wd 166) in the issue #1 network model.

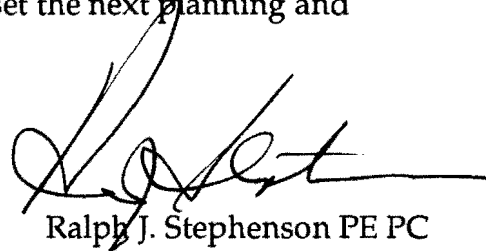
Since on this project procurement is of critical importance to maintaining the proper flow of field work Mr. West and I carefully reviewed current information regarding the status of procurement. A brief summary is given below as discussed with Mr. West.

- Face brick - On job
  - Glazed tile - On job
  - Concrete mix design - Approved
  - Metal fascia - Submittals approved - delivery in early August, 1991
  - Aluminum windows - Submittals approved - no current word on delivery.
- Mr. West anticipates no problems.
- Miscellaneous iron, structural steel, joists and metal deck for canopy - Submittals approved - Steel is to be delivered to the erector about August 15, 1991. Should be available as needed.
  - Aluminum door frame and fiberglass door - Submittals approved - No current word on delivery dates.
  - Stainless steel frames, doors and hardware - Submittals approved - Stainless steel frames will be on job about August 30, 1991.

A monitored network model for sheet #1, issue #1 is enclosed with this report. In the monitored network all activities completed as of August 6, 1991 (wd 153) are shown shaded.

This report is being sent to Mr. Dan West, Mr. Jerry Harburn and Mr. Junior Paul. Further distribution as needed will be made by those receiving the copies.

I shall be in touch with Mr. Harburn shortly to set the next planning and monitoring date.



Ralph J. Stephenson PE PC

Ralph J. Stephenson PE PC  
Consulting Engineer  
323 Hiawatha Drive  
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ph 517 772 2537  
September 15, 1991

**Subject:** Monitoring Report #3  
Mott Durham Pool Renovation  
Mott Community College  
Flint, Michigan

**From:** Ralph J. Stephenson PE

**Project:** 91:28

**Data disk:** d269 rjs

**Date of Monitoring:** September 11, 1991 (wd 178)

**Monitored from:**

- Sheet #1, Issue #1 network model dated July 2, 1991 (wd 129)

**Key dates:**

- June 25, 1991 (wd 124) - Letter of intent issued
- July 15, 1991 (wd 137) - Mobilize & move on site
- September 3, 1991 (wd 172) - Start of school for fall
- November 8, 1991 pm (wd 221) - Contract completion date

Total contract time remaining = 221 - 178 = 43 working days from September 11, 1991 (wd 178)

**Actions taken:**

- Inspected project with Mr. Dan West
- Reviewed current job status with Mr. West, and Mr. Harburn
- Reviewed procurement status
- Evaluated current project status

**General Summary:**

As of September 11, 1991 (wd 178) most project work is meeting target dates between early and late starts and finishes. Masonry at the east elevation and canopy is almost complete, canopy structural steel is erected, plumbed, and trimmed, much of the sash and glass is installed and soffit metal lath at the canopy is in place. Canopy insulation and roofing will probably be installed in the very near future which will allow canopy plastering to begin.

**Ralph J. Stephenson PE PC**

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ph 517 772 2537  
September 15, 1991

A brief review of procurement with Mr. West showed this portion of the project to be in fair to good condition. However on a job of this short duration, submittals, approvals, fabrication and deliveries must be constantly expedited.

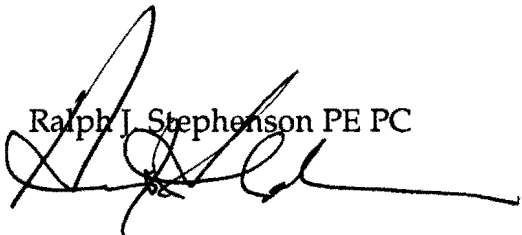
Aluminum windows were shipped September 9, 1991 (wd 176) according to Mr. West. Glass for the east wall is on the job. Aluminum door frames are apparently available from the contractor when needed. Stainless steel frames and doors are in transit from New Jersey.

At the west elevation, masonry is in work and expected to be completed in about the pm of September 18, 1991. Metal fascia panels at the west elevation are complete.

Overall, the project is trending toward late finish dates. However it does not appear at present that there is a need to update the current issue #1 network model. The project status of the project will again be reviewed at our next session to determine if the work plan should be revised.

This report is being sent to Mr. Dan West, Mr. Jerry Harburn and Mr. Junior Paul. Further distribution as required will be made by those receiving copies.

I shall be in touch with Mr. Harburn shortly to set the next planning and monitoring date.

Ralph J. Stephenson PE PC  


**1. Mott Durham Pool Renovation notes - disk 269**

**1.1. General notes (to be updated as project proceeds)**

**1.2. 8:49:17 AM - Tuesday, July 2, 1991 (129)**

**1.2.1. R.N. West Construction Company offices**

**1.2.2. Those attending**

- Junior Paul - MCC - in meeting part time
- Dan West - RNW
- Bob West - RNW - in meeting part time
- Jerry Harburn - THA - in meeting part time
- Ralph J. Stephenson - consultant

**1.2.3. Those involved**

- THA
  - Jerry Harburn - principal in charge
  - Bob Hall - project manager
  - Ron Korzecke - field inspector
- R. N. West Construction Company
  - Robert West - Consultant to West
  - Dan West - President
  - Ron Hoard - Superintendent
- Alvin Ashbaker - masonry
  - Alvin Ashbaker - President
- Koertz Glass - sash & glazing
  - Roy Bevel - Project manager
- Rohman Iron - structural steel & misc iron
  - Jack Quinn - Project manager
- Newkirk Electric - electrical
  - Rick Clemens - Project manager
- Central Interiors - lath & plaster
  - Roger Simmons - Project manager
- Shorts Roofing - roofing
  - Ray Shorts - President
- FBH - hardware & stainless steel doors & frames
  - Jeff Knoblock - President

**1.2.4. Key dates**

- Building dates
  - 06/25/91 am (124 ) - Letter of intent issued
  - 07/15/91 (137) - Mobilize & move on site
  - In work - Contract execution
  - 11/08/91 pm (221) - Project complete
  - Total time available = 221 - 124 = 97 wd
- School calendar dates
  - 09/03/91(172) - Start of school
  - Parking and traffic critical
- Trades contracts expiration dates - to be completed by rjs & dwe
  - Carpenters - automatic extension of contract
  - Laborers - have settled
  - Electricians - have settled
  - Plumbers - ?
  - Glass & glaziers -
  - Roofers - ?

**1.2.5. Laundry lists**

- Abatement
  - Only as required - none at this point
- Front end work



- Obtain general building permit
- Obtain electrical permit
- Obtain mechanical permit

Procurement

- Turn around on submittals
  - 01 wd - rrw log in submittal and check
  - 01 wd - hand deliver submittal to tha
  - 02 to 04 wd - tha check & approve submittal
  - 01 wd - tha mail submittal to rrw
  - 01 wd - rrw log in submittal & review
  - 01 wd - rrw return submittal to sub
  - 7 to 9 wkg days - Normal submittal total turnaround time

Items to follow

- Face brick
  - Being selected
  - Delivery after selection = 25 working days
- Aluminum windows
  - Shop dwgs to be submitted July 15, 1991 (137)
  - Shop dwg turnaround - 11 wd
  - Delivery after approval of sd = 30 wd
- Stainless steel frames
  - Shop dwgs to be submitted July 3, 1991 (130)
  - Shop dwg turnaround - 11 wd
  - Delivery after approval of sd = 40 wd
- Stainless steel doors
  - Shop dwgs to be submitted July 3, 1991 (130)
  - Shop dwg turnaround - 11 wd
  - Delivery after approval of sd = 40 wd
- Hardware
  - Hardware schedule to be submitted July 3, 1991 (130)
- Aluminum door frames
  - Shop dwgs to be submitted July 15, 1991 (137)
  - Shop dwg turnaround - 11 wd
  - Delivery after approval of sd = 30 wd
- Fiberglas doors - frp (fiberglas reinforced panel)
  - Shop dwgs to be submitted July 15, 1991 (137)
  - Shop dwg turnaround - 11 wd
  - Delivery after approval of sd = 30 wd
- Miscellaneous iron
  - Shop dwgs to be submitted July 15, 1991 (137)
  - Shop dwg turnaround - 11 wd
  - Delivery after approval of sd = 15 wd
- Structural steel, joists & metal deck
  - Shop dwgs to be submitted July 15, 1991 (137)
  - Shop dwg turnaround - 11 wd
  - Delivery after approval of sd = 15 wd
- Glazed tile
  - Color selected and approved
  - Available as needed
- Metal fascia panels
  - Dies for panel manufacture already available
  - Must check to see if panel spec conform to dies available
  - Shop dwgs to be submitted July 15, 1991 (137)
  - Shop dwg turnaround - 11 wd

- Delivery after approval of sd = 20 wd
- Actions needed to keep Durham Pool operational
  - Assume pool must be operational at all times
  - Erect interior temporary partitions at west elevation
  - Must keep at least one west elevation exit available at a time
  - Erect interior temporary partition at east elevation
  - Provide temporary access at canopy construction area
- Construction actions
  - West wall renovation
    - Erect working scaffolds
    - Erect dust partition
    - Demolish wall elements as required
    - Erect new glazed tile & face brick ext wall
    - Clean brick
    - Install fascia panel framing
    - Install new fascia panels
    - Repair roof edge as required
    - Install new aluminum sash
    - Glaze aluminum sash
    - Install new aluminum door frames
    - Install new frp doors & hardware
    - Maintain exit signs as required
    - Check for conduit requirements if any
  - East wall renovation & entrance canopy
    - Excav, form, reinf & pour canopy footings
    - Construct masonry & concrete canopy piers
    - Erect canopy structural steel, joists & metal deck
    - What kind of connection is to be made at main building?
    - Lay canopy insulation & roofing
    - Install mechanical & electrical rough in above canopy ceiling
    - Install canopy cement plaster soffit
    - Erect dust partition at inside of wall
    - Erect working scaffolds
    - Demolish wall elements as required
    - Erect new glazed tile & face brick ext wall
    - Clean brick
    - Install fascia panel framing
    - Install new fascia panels
    - Repair roof edge as required
    - Install new aluminum sash
    - Glaze aluminum sash
    - Install new aluminum door frames
    - Install new frp doors & hardware
    - Maintain exit signs as required
    - Check for conduit requirements if any
  - South wall renovation
    - Tuck point wall joints
    - Repair existing brick as required
    - Clean existing masonry
    - Install new electrical conduit & light fixture
  - North wall renovation
    - Tuck point wall joints
    - Repair existing brick as required
    - Clean existing masonry

Install new electrical conduit & light fixture

Miscellaneous work

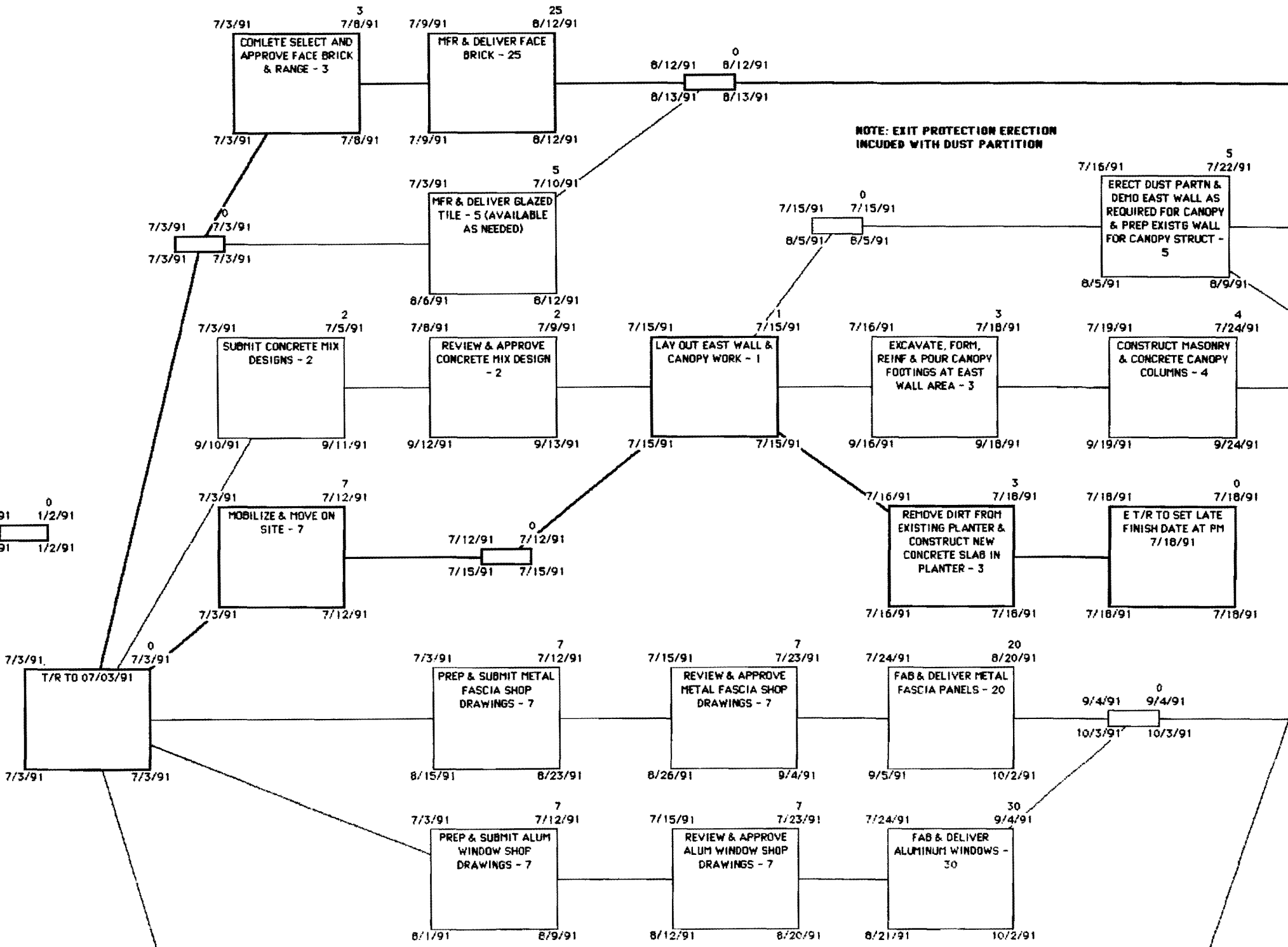
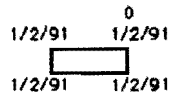
Apply waterproofing to existing concrete deck over locker rooms

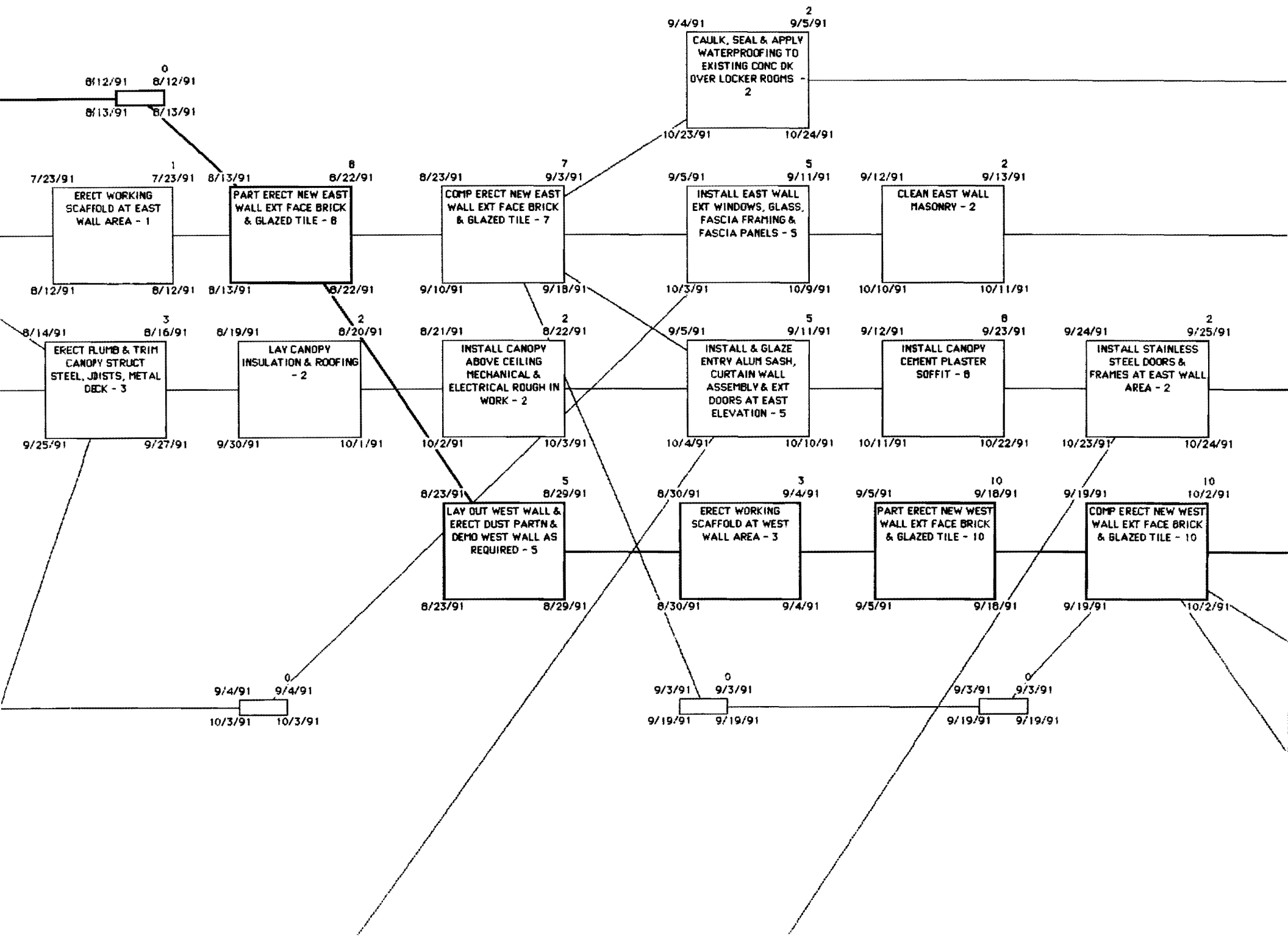
Waterproof existing elevator pit

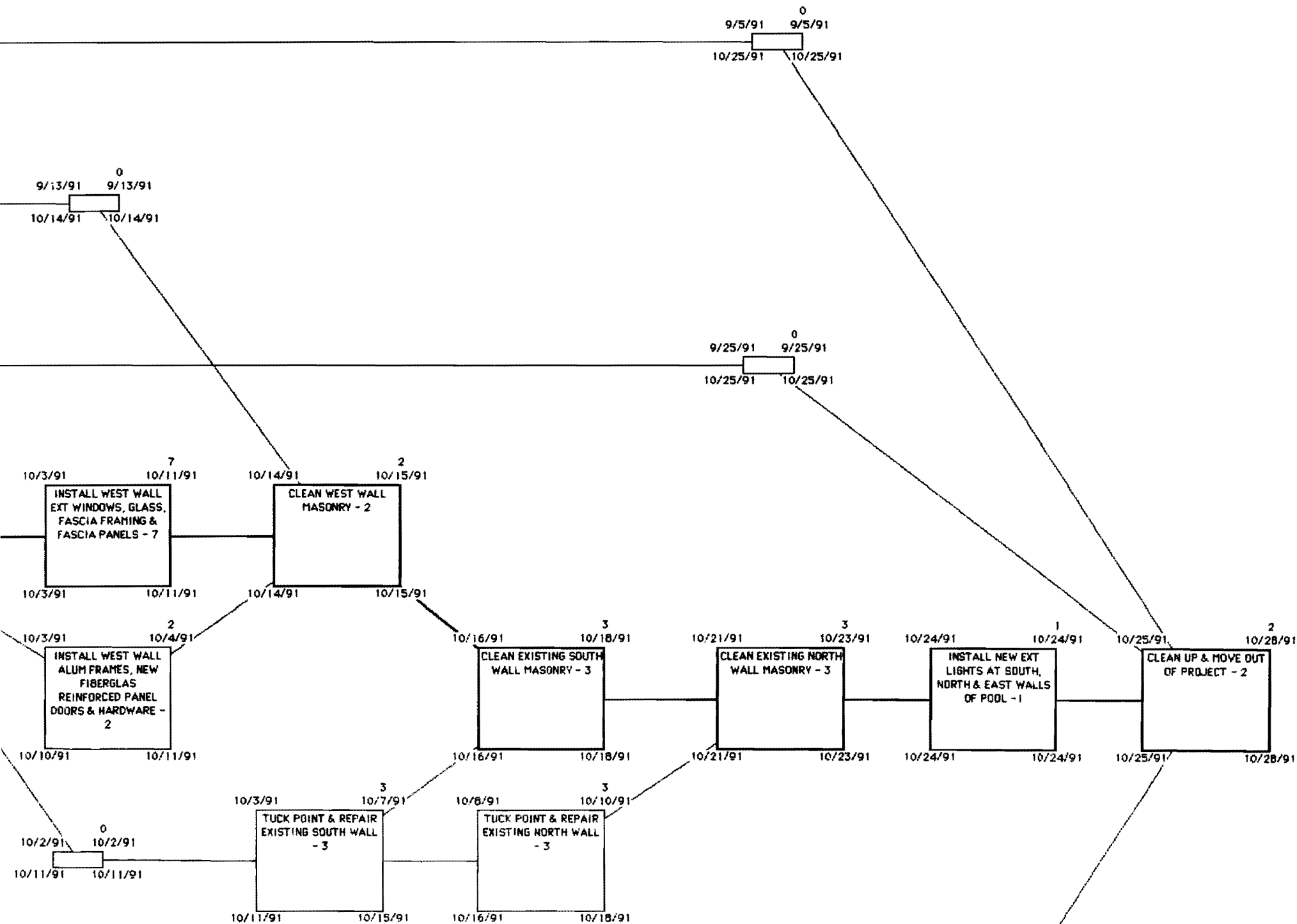
Caulk & seal as required

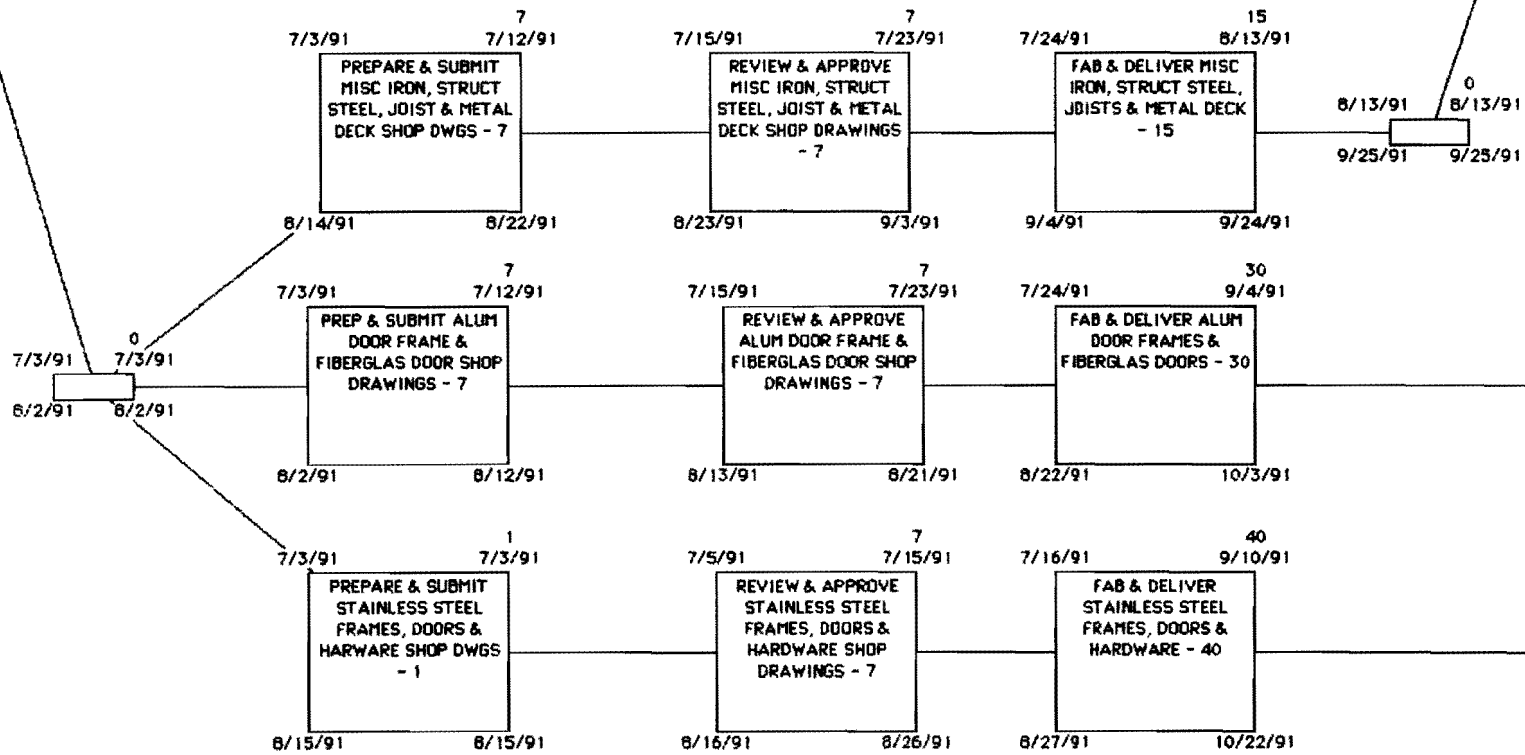
Remove dirt from planter

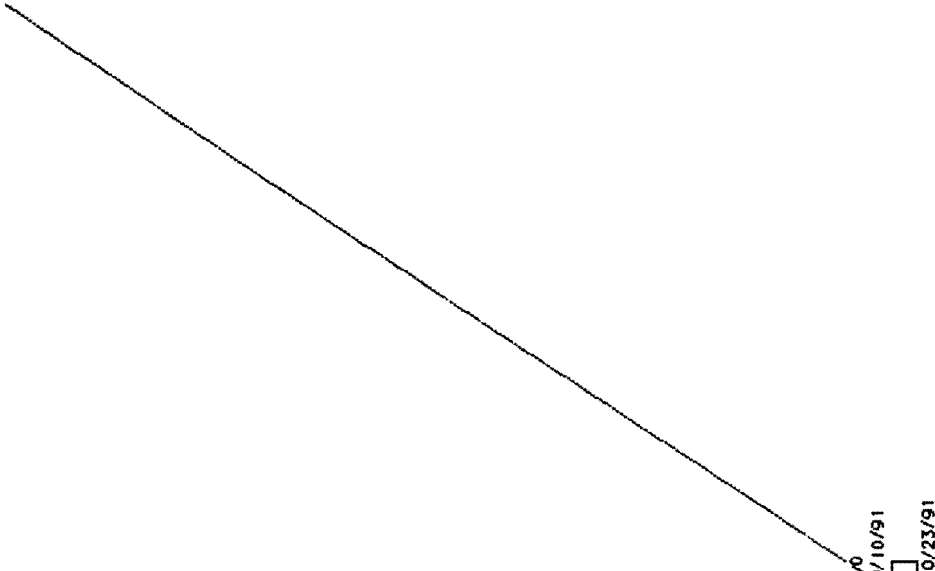
Cast new concrete slab in planter



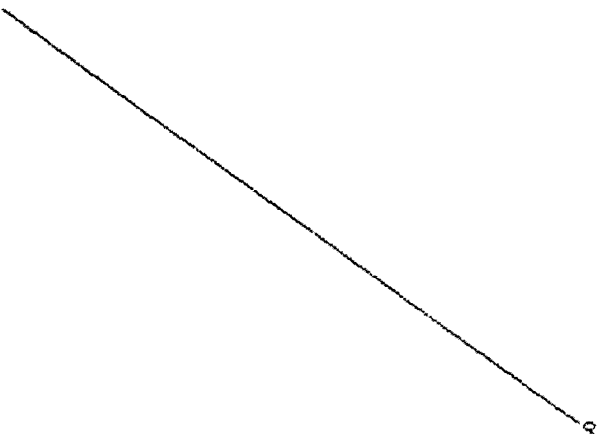






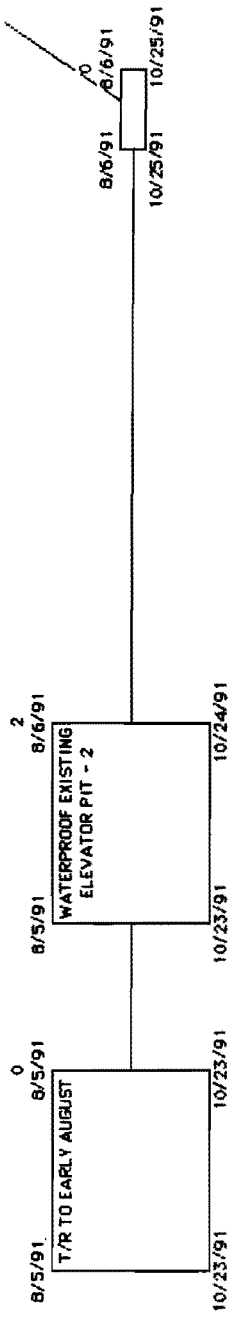


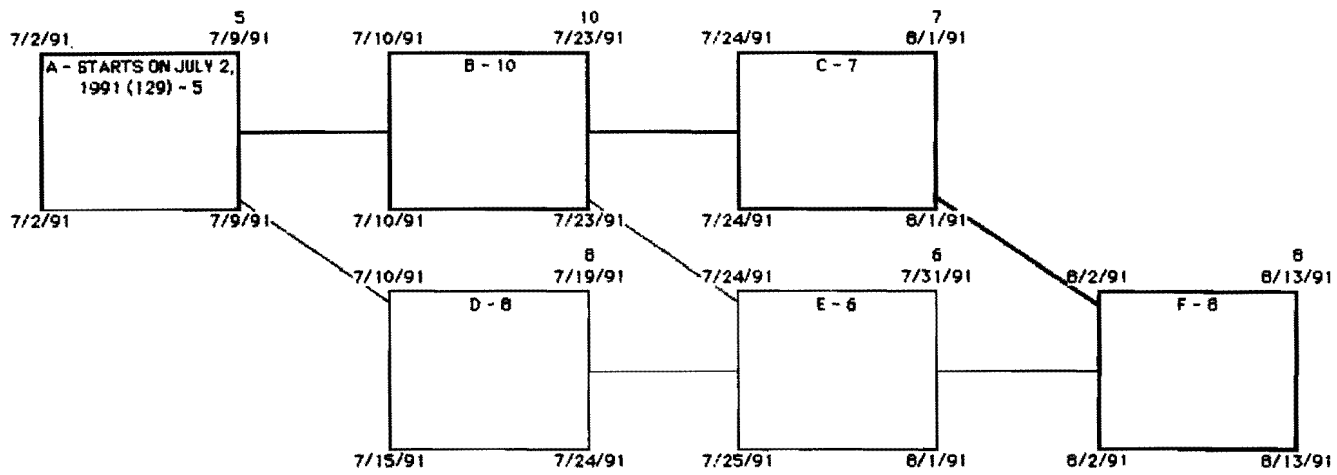
9/10/91 9/10/91  
10/23/91 10/23/91



9/4/91 9/4/91  
10/4/91 10/4/91







**Reference Sample Network Model**

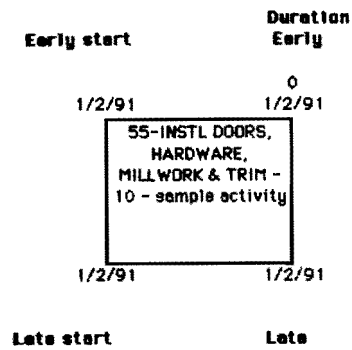
**NETWORK MODEL FOR MOTT  
COMMUNITY COLLEGE  
DURHAM POOL RENOVATION  
Flint, Michigan**

Issue #1 - July 2,  
1991

**Tomblinson Harburn & Associates  
Architects of Record**

R. N. West Construction Company  
General Contractors

Ralph J. Stephenson PE PE  
Consulting Engineer  
323 Hiawatha Drive  
Mt. Pleasant, Michigan 48658  
ph 517 772 2537



**Reserved Activity Numbers**

041	046
042	047
043	048
044	049
045	050

len 001  
hen

Activity

Sheet

