92151

Ralph J. Stephenson, P. E., P. C. Consulting Engineer 323 Hiawatha Drive Mt. Pleasant, Michigan 48858 ph 517 772 2537

December 27, 1992

Subject:

Monitoring Report #1

C. S. Mott Community College 1993 Restoration Program

Flint, Michigan

Project:

92:51

Disk #'s:

rjs 338

Date of monitoring:

Wednesday, December 16, 1992 (wd 501)

Those attending:

Gerald Harburn - THA - Principal

• Junior Paul - THA - Consultant

Mike Neuman - Tracy Restoration Engineers - Project manager

• Ralph J. Stephenson - Consultant

Actions taken:

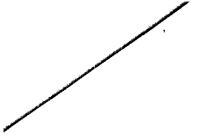
- Reviewed scope of 1993 restoration program for Mott Community College.
- Prepared scope of work definition.
- Prepared summary network model for 1993 MCC restoration program.

General Summary:

This was the initial planning and scheduling meeting for the proposed 1993 restoration program at Mott Community College. Initially the program anticipated that parking ramp B would be the major effort in this restoration work. However the total program scope was expanded recently to include restoration of the College Center pedestrian bridge (CCPB), and restoration of the terrace at the Mott Memorial Building (MMBT).

The construction documents for parking ramp B are nearly complete, and are in for final MCC review. It's expected that they could be completed by mid January, 1993. Production work on construction documents for the other two projects, the College Center pedestrian bridge and the Mott Memorial Building terrace, has not yet begun.

Our main effort at this session was concentrated on planning the production and issuing of these latter two sets of documents along with the ramp B documents for construction proposals by mid February, 1993. This schedule would allow MCC Board approval to be given for the construction work at the March 22, 1993 (wd 567) Board meeting. Contractor's early procurement and other pre construction activities could begin by late March, 1993, with field construction to begin in early May, 1993.



December 27, 1992

Substantial completion of the project is currently set for the pm of August 13, 1993 (wd 670). Total contract completion is set for the pm of August 27, 1993 (wd 680).

This plan of work will require close cooperation between the MCC, THA, and Tracy project staff members. Of immediate importance is to set a clearly defined scope of work for the bridge and terrace restoration work so as to release Tracy to begin work on construction documents.

The proposed plan of action is shown in the enclosed network model, **Attachment A**, sheet #sm1, issue 1a, dated December 27, 1992 (wd 505). An earlier network, issue #1, dated December 16,1992 (wd 501) was distributed at our planning meeting. Attachment A has been edited slightly but the key logic and date information is the same as in the earlier issue 1 diagram. The network has been left unassembled for ease of copying and distribution.

Sheet #sm1, issue 1a has been translated into a data listing in early start sequence and is enclosed and labeled **Attachment B**. This is a list of the activities in the network model shown in narrative form, along with the early and late starts and finishes.

The network model has also been shown in bar chart form in **Attachment C**. This time scaled diagram shows the early starts and finishes as an open bar. Late starts and finishes are show as a solid bar. This series of bar charts can be assembled top to bottom referring to the sheet numbers 1 through 4 shown in the upper right corner of the pages.

Also enclosed is a set of meeting notes labeled **Attachment D**. These notes were prepared from our work on the restoration program. The original set issued at the meeting has been edited slightly in this attachment.

I am sending this set of material to Mr. Harburn only. Further distribution will be by him as desired. I shall be in touch with Mr. Harburn shortly to determine what additional near future work should be done on the projects.

Best wishes for a happy holiday and a prosperous New Year!

Attachments:

A - Network model

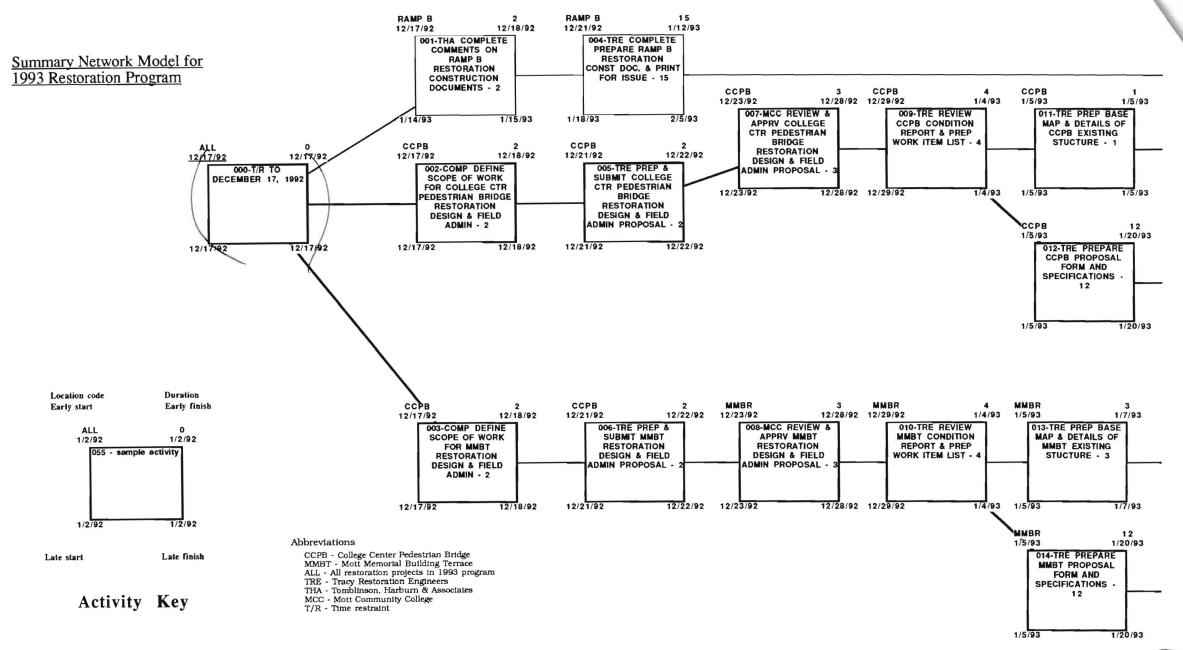
B - Network model data listing

C - Network model bar chart

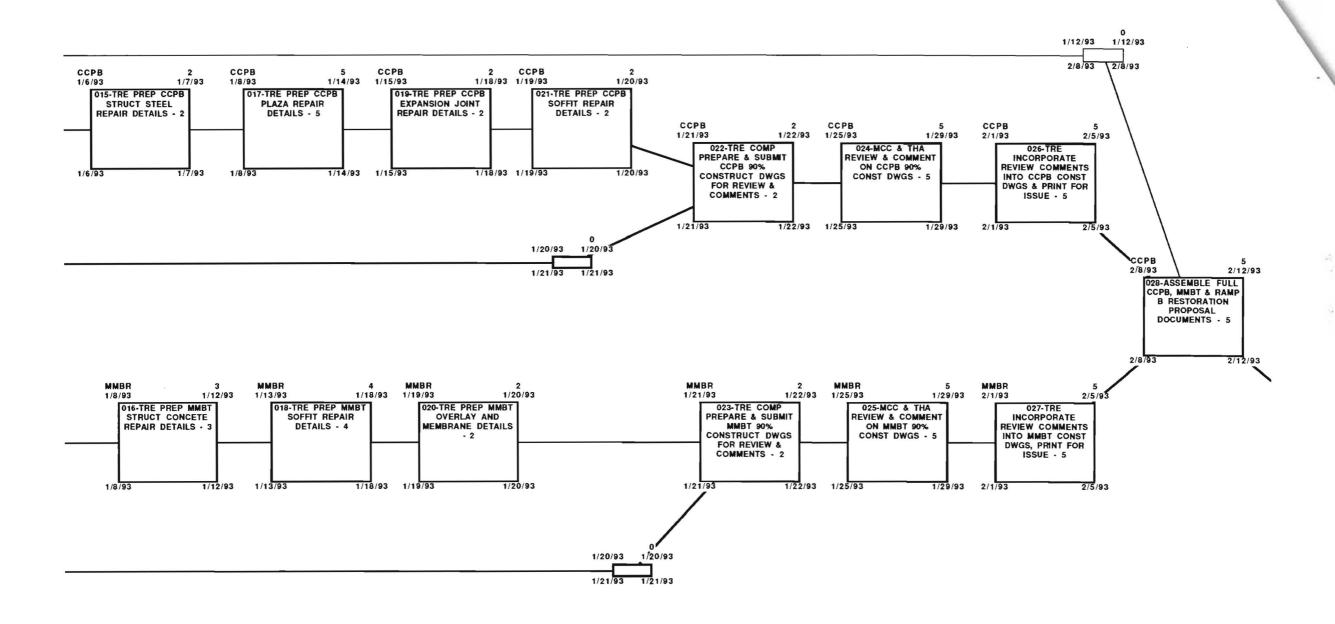
D - Meeting notes

Ralph J. Stephenson, P. E.

date printed: 12/27/92



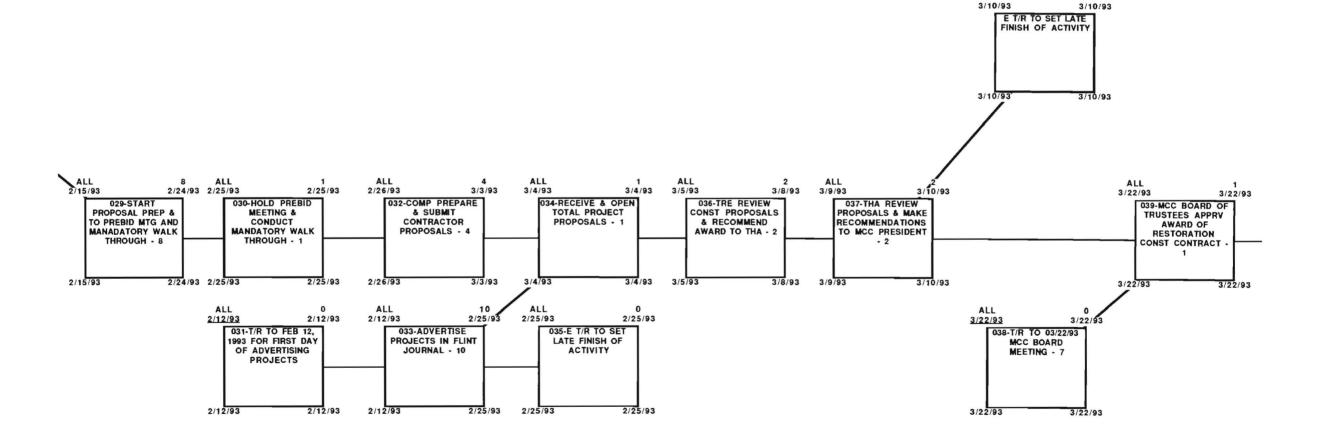








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Summary Network Model for 1993 Restoration Program

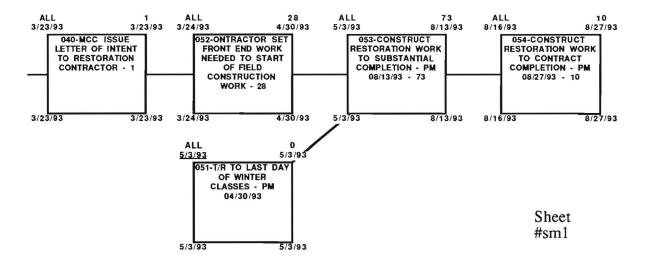
Issue #1 - December 15, 1992 Issue #1a - December 27, 1992 i1a lw mcc rst smry mod disk 338 50% lw lgl horiz

NETWORK MODEL FOR MOTT COMMUNITY COLLEGE 1993 RESTORATION PROGRAM Flint, Michigan

Tomblinson Harburn & Associates Coordinating Architect

Tracy Restoration Engineers Engineers of Record Mike Neuman - Senior Project Manager

> Ralph J. Stephenson, P.E., P.C. Consulting Engineer 323 Hiawatha Drive Mt. Pleasant, Michigan 48858 ph 517 772 2537





2 CC	1993 Restoration wo	ork activity list	ing			1
activity	locatn	d earliest start	earliest finish	latest start	latest finish	
00-T/R TO DECEMBER 17, 1992	ALL	0 12/17/02	12/17/02	10/17/00	10/17/00	



	activity	locatn	d	earliest start	earliest finish	latest start	latest finish
1	000-T/R TO DECEMBER 17, 1992	ALL	0	12/17/92	12/17/92	12/17/92	12/17/92
2	002-COMP DEFINE SCOPE OF WORK FOR COLLEGE CTR PEDESTRIAN BRIDGE RESTORATION DESIGN & FIELD ADMIN - 2	ССРВ	2	12/17/92	12/18/92	12/17/92	12/18/92
3	003-COMP DEFINE SCOPE OF WORK FOR MMBT RESTORATION DESIGN & FIELD ADMIN - 2	ССРВ	2	12/17/92	12/18/92	12/17/92	12/18/92
4	001-THA COMPLETE COMMENTS ON RAMP B RESTORATION CONSTRUCTION DOCUMENTS - 2	RAMP B	2	12/17/92	12/18/92	1/14/93	1/15/93
5	005-TRE PREP & SUBMIT COLLEGE CTR PEDESTRIAN BRIDGE RESTORATION DESIGN & FIELD ADMIN PROPOSAL - 2	ССРВ	2	12/21/92	12/22/92	12/21/92	12/22/92
6	006-TRE PREP & SUBMIT MMBT RESTORATION DESIGN & FIELD ADMIN PROPOSAL - 2	CCPB	2	12/21/92	12/22/92	12/21/92	12/22/92
7	004-TRE COMPLETE PREPARE RAMP B RESTORATION CONST DOC. & PRINT FOR ISSUE - 15	RAMP B	15	12/21/92	1/12/93	1/18/93	2/5/93
8	007-MCC REVIEW & APPRV COLLEGE CTR PEDESTRIAN BRIDGE RESTORATION DESIGN & FIELD ADMIN PROPOSAL - 3	CCPB	3	12/23/92	12/28/92	12/23/92	12/28/92
9	008-MCC REVIEW & APPRV MMBT RESTORATION DESIGN & FIELD ADMIN PROPOSAL - 3	MMBR	3	12/23/92	12/28/92	12/23/92	12/28/92
10	009-TRE REVIEW CCPB CONDITION REPORT & PREP WORK ITEM LIST - 4	CCPB	4	12/29/92	1/4/93	12/29/92	1/4/93
11	010-TRE REVIEW MMBT CONDITION REPORT & PREP WORK ITEN LIST - 4	MMBR	4	12/29/92	1/4/93	12/29/92	1/4/93
12	011-TRE PREP BASE MAP & DETAILS OF CCPB EXISTING STUCTURE - 1	CCPB	1	1/5/93	1/5/93	1/5/93	1/5/93
13	013-TRE PREP BASE MAP & DETAILS OF MMBT EXISTING STUCTURE - 3	MMBR	3	1/5/93	1/7/93	1/5/93	1/7/93
14	014-TRE PREPARE MMBT PROPOSAL FORM AND SPECIFICATIONS - 12	MMBR	12	1/5/93	1/20/93	1/5/93	1/20/93
15	012-TRE PREPARE CCPB PROPOSAL FORM AND SPECIFICATIONS - 12	CCPB	12	1/5/93	1/20/93	1/5/93	1/20/93
16	015-TRE PREP CCPB STRUCT STEEL REPAIR DETAILS - 2	CCPB	2	1/6/93	1/7/93	1/6/93	1/7/93
17	016-TRE PREP MMBT STRUCT CONCETE REPAIR DETAILS - 3	MMBR	3	1/8/93	1/12/93	1/8/93	1/12/93
18	017-TRE PREP COPB PLAZA REPAIR DETAILS - 5	CCPB	5	1/8/93	1/14/93	1/8/93	1/14/93
19	018-TRE PREP MMBT SOFFIT REPAIR DETAILS - 4	MMBR	4	1/13/93	1/18/93	1/13/93	1/18/93
20	019-TRE PREP CCPB EXPANSION JOINT REPAIR DETAILS - 2	CCPB	2	1/15/93	1/18/93	1/15/93	1/18/93
2 1	020-TRE PREP MMBT OVERLAY AND MEMBRANE DETAILS - 2	MMBR	2	1/19/93	1/20/93	1/19/93	1/20/93
22	021-TRE PREP CCPB SOFFIT REPAIR DETAILS - 2	CCPB	2	1/19/93	1/20/93	1/19/93	1/20/93
23	022-TRE COMP PREPARE & SUBMIT CCPB 90% CONSTRUCT DWGS FOR REVIEW & COMMENTS - 2	CCPB	2	1/21/93	1/22/93	1/21/93	1/22/93
2 4	023-TRE COMP PREPARE & SUBMIT MMBT 90% CONSTRUCT DWGS FOR REVIEW & COMMENTS - 2	MMBR	2	1/21/93	1/22/93	1/21/93	1/22/93
2 5	024-MCC & THA REVIEW & COMMENT ON CCPB 90% CONST DWGS - 5	CCPB			1/29/93	1/25/93	1/29/93
26	025-MCC & THA REVIEW & COMMENT ON MMBT 90% CONST DWGS - 5	MMBR		1/25/93	1/29/93	1/25/93	1/29/93
27	026-TRE INCORPORATE REVIEW COMMENTS INTO CCPB CONST DWGS & PRINT FOR ISSUE - 5			2/1/93		2/1/93	2/5/93
28	027-TRE INCORPORATE REVIEW COMMENTS INTO MMBT CONST DWGS, PRINT FOR ISSUE - 5	MMBR	5	2/1/93	2/5/93	2/1/93	2/5/93

	activity	locatn	d	earliest start	earliest finish	latest start	latest finish
29	028-ASSEMBLE FULL CCPB, MMBT & RAMP B RESTORATION PROPOSAL DOCUMENTS - 5	ССРВ	5	2/8/93	2/12/93	2/8/93	2/12/93
30	033-ADVERTISE PROJECTS IN FLINT JOURNAL - 10	ALL	10	2/12/93	2/25/93	2/12/93	2/25/93
3 1	029-START PROPOSAL PREP & TO PREBID MTG AND MANADATORY WALK THROUGH - 8	ALL	8	2/15/93	2/24/93	2/15/93	2/24/93
3 2	030-HOLD PREBID MEETING & CONDUCT MANDATORY WALK THROUGH - 1	ALL	1	2/25/93	2/25/93	2/25/93	2/25/93
33	032-COMP PREPARE & SUBMIT CONTRACTOR PROPOSALS - 4	ALL	4	2/26/93	3/3/93	2/26/93	3/3/93
3 4	034-RECEIVE & OPEN TOTAL PROJECT PROPOSALS - 1	ALL	1	3/4/93	3/4/93	3/4/93	3/4/93
3 5	036-TRE REVIEW CONST PROPOSALS & RECOMMEND AWARD TO THA - 2	ALL	2	3/5/93	3/8/93	3/5/93	3/8/93
36	037-THA REVIEW PROPOSALS & MAKE RECOMMENDATIONS TO MCC PRESIDENT - 2	ALL	2	3/9/93	3/10/93	3/9/93	3/10/93
37	039-MCC BOARD OF TRUSTEES APPRV AWARD OF RESTORATION CONST CONTRACT - 1	ALL	1	3/22/93	3/22/93	3/22/93	3/22/93
38	040-MCC ISSUE LETTER OF INTENT TO RESTORATION CONTRACTOR - 1	ALL	1	3/23/93	3/23/93	3/23/93	3/23/93
3 9	052-ONTRACTOR SET FRONT END WORK NEEDED TO START OF FIELD CONSTRUCTION WORK - 28	ALL	28	3/24/93	4/30/93	3/24/93	4/30/93
40	053-CONSTRUCT RESTORATION WORK TO SUBSTANTIAL COMPLETION - PM 08/13/93 - 73	ALL	73	5/3/93	8/13/93	5/3/93	8/13/93
4 1	054-CONSTRUCT RESTORATION WORK TO CONTRACT COMPLETION - PM 08/27/93 - 10	ALL	10	8/16/93	8/27/93	8/16/93	8/27/93

Tomblinson Harburn & Associates, Coordinating Architect Tracy Restoration Engineers, Engineers of Record

Activities	location	Dec '	92	J	lan '	93		Fe	b '93	3		Ma	r '93	3		Ap	or '9	3		М	ay 's	93			Jun	'93			Jul	'93		,	Aug	'93	
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FIELD ADMIN PROPOSAL - 3			•				\perp																												
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Tomblinson Harburn & Associates, Coordinating Architect Tracy Restoration Engineers, Engineers of Record

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019-TRE PREP CCPB EXPANSION JOINT REPAIR DETAILS - 2	CCPB																													,			
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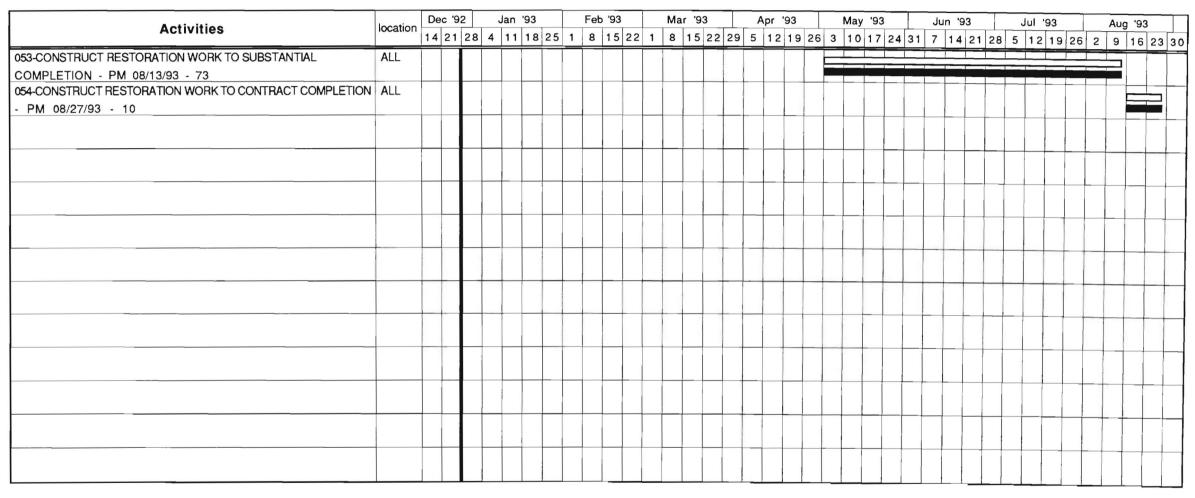
Derived from network model sheet sml, issue #la dated December 27, 1992

Tomblinson Harburn & Associates, Coordinating Architect Tracy Restoration Engineers, Engineers of Record

Activities	location	Dec '92			'93			eb '9				'93			Apr				 May				Jun		7		Jul '9			Au	g '93	
Activities	location	14 21	28	4 11	1 1 8	25	1	8 15	22	2 1	8	15	22 2	29 5	5 12	2 19	26	3	10	17	24 3	1	7 1	4 2	1 28	5	12	19	26 2	9	16	23 30
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FIELD CONSTRUCTION WORK - 28																																

Derived from network model sheet sml, issue #la dated December 27, 1992

Tomblinson Harburn & Associates, Coordinating Architect Tracy Restoration Engineers, Engineers of Record



Derived from network model sheet sml, issue #la dated December 27, 1992

MCC - Parking deck and other restoration work

- I. 8:46:38 AM Wednesday, December 16, 1992
- II. Location Conference room MCC

III. Those attending

- A. Junior Paul THA consultant
- B. Gerald Harburn THA principal
- C. Mike Neuman Tracy Associates
- D. Ralph J. Stephenson consultant

IV. Agenda

- A. Prepare pre bid network model for ramp B restoration
- B. Prepare summary network model for College Center (Marie Prahl) pedestrian bridge restoration (CCPB)
- C. Prepare summary network model for Mott Memorial Building terrace restoration (MMBT)

V. Ramp B restoration notes

- A. Prepare reference document for request for proposals
- B. Establish final scope of repairs
 - 1. Stair tower renovation
 - a) May only do work as required for proper use.
 - b) How does the stair tower work tie into later work?
 - c) Should do some masonry block replacement and repair.
 - d) Repair work should be done on work that will not be taken out in the near future.
 - e) Will have to allow for movement of the structure.

2. General

- a) Work planned for 1994 includes both A and B mechanical, electrical, architectural and safety work.
- b) Generally, design and restore on the basis that we might not be able to do a great deal of further architectural work on stair towers in the future, say the summer of 1994.
 - (1) 1994 work will be probably be mainly mechanical, electrical, architectural.
- c) What investment life to be assumed for the restoration work?
- d) College going out for new bond issue.
- e) Clean up after completion of restoration work is important.
- C. Establish key milestone dates
- D. Print documents prepared
- E. Status of construction proposal documents for ramp B
 - 1. About 90% complete
 - 2. Will take about 15 wd to finish documents & print for base bid issue
 - a) Parking structure and stair tower restoration is the work that will be done in this phase of the 1993 restoration program.

VI. College Center (Marie Prahl) pedestrian bridge restoration (CCPB)

- A. Current status of construction documents
 - 1. Have completed check list of preliminary work items.
 - 2. Have assigned estimated total costs to the work.
 - 3. Have no design contract for work

B. Laundry list of activities

- 1. Complete define scope of work
- 2. Prepare & submit design proposal
- 3. MCC review and approve design proposal

- 4. Prepare preliminary construction package for review & approval (90%) a) Early February, 1993
- 5. Complete prepare construction package for final review & approval
- 6. Final review & approve construction documents for issue
- C. Set scope of work
- D. Establish fee structure
- E. Prepare summary network to obtain
 - 1. Key dates
 - 2. Design document requirements

VII. Mott Memorial Building terrace restoration (MMBT)

- A. Set scope of work and fees
- B. Laundry list of activities
 - 1. Complete define scope of work
 - 2. Prepare & submit design proposal
 - 3. MCC review and approve design proposal
 - 4. Prepare preliminary construction package for review & approval (90%) a) Early February, 1993
 - 5. Complete prepare construction package for final review & approval
 - 6. Final review & approve construction documents for issue
- C. Prepare summary network to show
 - 1. Key dates
 - 2. Design document requirements

VIII. Current target dates for all three restoration program (ALL)

- A. MCC Board meetings
 - 1. Monday, January 25, 1993 (wd 527)
 - 2. Monday, February 22, 1993 (wd 547)
 - 3. Monday, March 22, 1993 (wd 567)
 - 4. Monday, April 26, 1993 (wd 592)
 - 5. Monday, May 24, 1993 (wd 612)
 - 6. Monday, June 28, 1993 (wd 636)
- B. Friday and Saturday, February 12 and 13, 1993 (wd 518 & 519) Advertise in Flint Journal
- C. Monday, February 15, 1993 (wd 543) Construction documents printed and issued
- D. Thursday, February 25, 1993 (wd 550) hold pre bid meeting and mandatory walk through. (2:00 pm)
- E. Thursday, March 4, 1993 (wd 555) receive and open proposals for deck restoration. (bid opening at 2:00 pm)
- F. Monday, March 8, 1993 (wd 557) TRE make recommendations to THA for construction contract award.
- G. Wednesday, March 10, 1993 (wd 559) THA provide MCC President with recommendation for construction contract award.
- H. Monday, March 22, 1993 (wd 568) Board approve award of contract.
- I. Tuesday, March 23, 1993 (wd 568) issue letter of intent.
- J. Friday, April 30, 1993 (wd 597) last day of classes before winter semester.
- K. Monday, May 3, 1993 (wd 597) field work could begin.
- L. pm August 13, 1993 (wd 670) field work substantially complete usable for the purpose intended.
- M. pm Friday, August 27, 1993 (wd 680) contract construction work complete
- N. Tuesday, September 7, 1993 (wd 685) fall classes begin?

ph 517 772 2537

March 25, 1993

Subject: Monitoring Report #2

C. S. Mott Community College 1993 Restoration Program

Flint, Michigan

Project: 92:51

Disk #'s: rjs 338

Date of monitoring: Tuesday, March 16, 1993 (wd 563)

Those attending:

• Gerald Harburn - THA - Principal

- Junior Paul THA Consultant
- Mike Neuman, P. E. Tracy Restoration Engineers Project manager
- Ralph J. Stephenson Consultant

Actions taken:

- Monitored project from summary network model, Sheet #sm1, issue #1a dated December 27, 1992 (wd 508)
- Reviewed current scope of 1993 restoration program for Mott Community College.
- Prepared logic plans for parking ramp B, College Center pedestrian bridge (ccpb), and Mott Memorial Building terrace (mmbt)
- Printed issue #1 network models for Mr. Neuman's reference

General Summary:

The objective of this meeting was to monitor the current project status, and to prepare a set of reference network models to guide the project team in preparing the working networks for construction. These reference diagrams are included with this monitoring report, and are labeled *PRELIMINARY - FOR REFERENCE ONLY*.

It is the intent that the reference networks be provided by Mr. Neuman to the apparent successful contractor for their review. Immediately after the preconstruction meeting on Thursday, April 1, 1993 (wd 575), the contractor, the owner, the engineer of record, and I will work together to prepare the contractor network model for the project.

The restoration reference networks enclosed with this report were refined from those prepared and given to Mr. Neuman at our monitoring and planning meeting on March 16, 1993 (wd 563). These refined diagrams are labeled issue #2, dated March 24, 1993 (wd 569) and include:

date printed: 3/25/93

ph 517 772 2537

March 25, 1993

Sheet #2 - College Center pedestrian bridge & Mott Memorial Building terrace

Sheet #L6 - Level 6 work

Sheet #L5 - Level 5 work

Sheet #L4 - Level 4 work

Sheet #L3 - Level 3 work

Sheet #L2 - Level 2 work

Sheet #L1 - Level 1 work

Note that the activity durations, and the early and late starts and finishes have not been shown since the networks are reference guideline networks only. Final logic and durations will be developed with the contractor at the planning meeting on April 1, 1993 (wd 575). A set of the issue #2 networks have been sent to Mr. Neuman directly per his request of March 24, 1993.

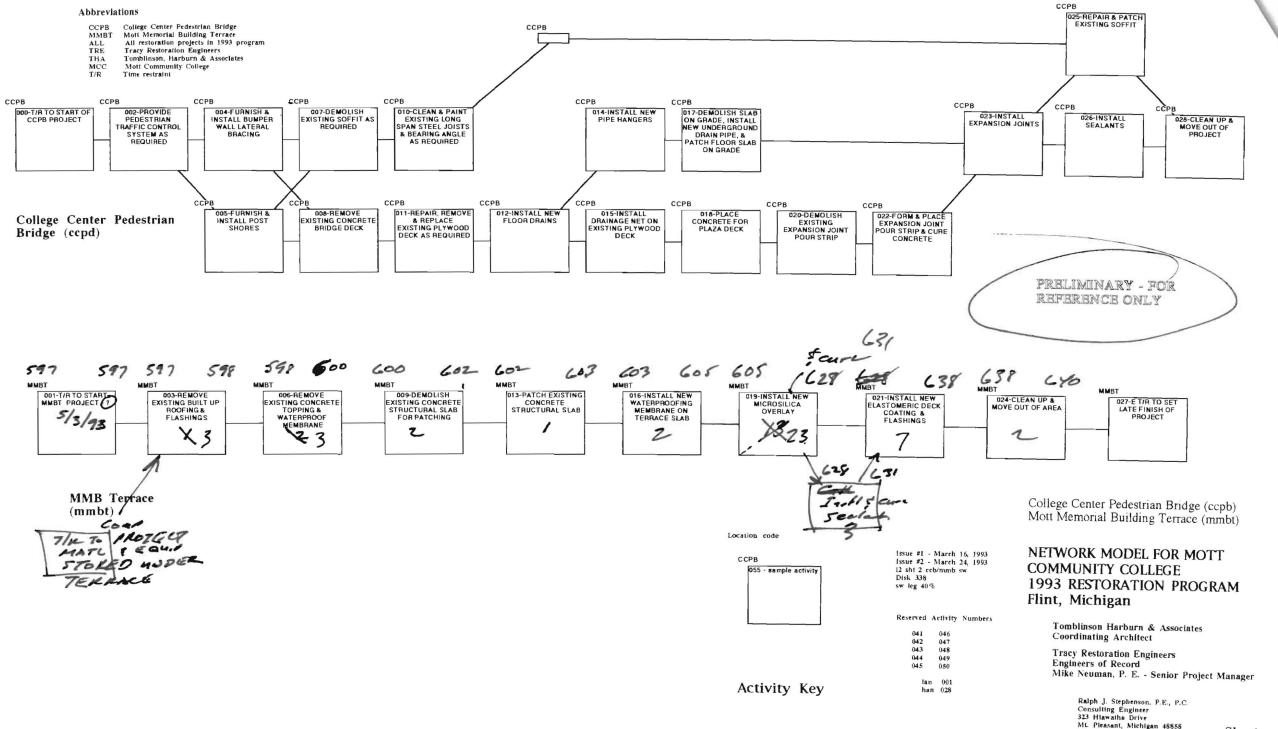
Substantial completion of the project is currently set for the pm of August 13, 1993 (wd 670). Total contract completion is set for the pm of August 27, 1993 (wd 680).

I am sending this monitoring report and the enclosures to Mr. Harburn only Further distribution will be

by him as desired.

Attachments: Issue #2 networks

Stephenson, P. E.



Sheet #2

ph 517 772 2537

March 25, 1993

Mike Neuman, P. E.
Senior Project Manager
Tracy Restoration Engineers
230 Collingwood
Suite 260
Ann Arbor, Michigan 48103

Dear Mike:

Re: Reference network models for Mott Community College 1993 restoration program

Enclosed are seven network models, issue #2, dated March 24, 1993 (we 569) as prepared at our meeting on Tuesday, March 16, 1993. These have been slightly edited and refined from our issue #1 networks. However they show substantially the same logic and arrangement we used in the models printed at that session. Note also I have added a note, PRELIMINARY - FOR REFERENCE ONLY.

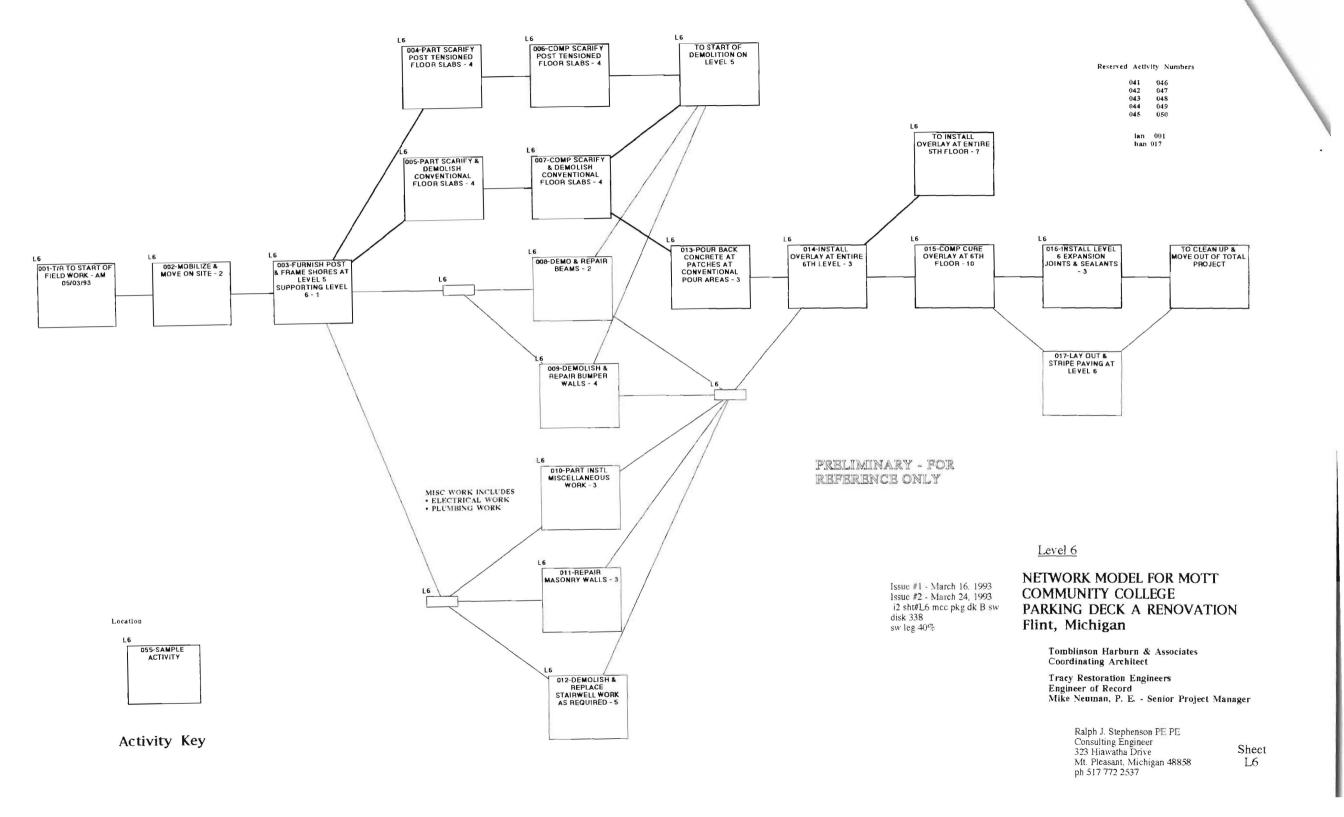
I shall plan to see you on April 1, 1993 in Flint at the preconstruction meeting. Meanwhile, If you have any questions, please call.

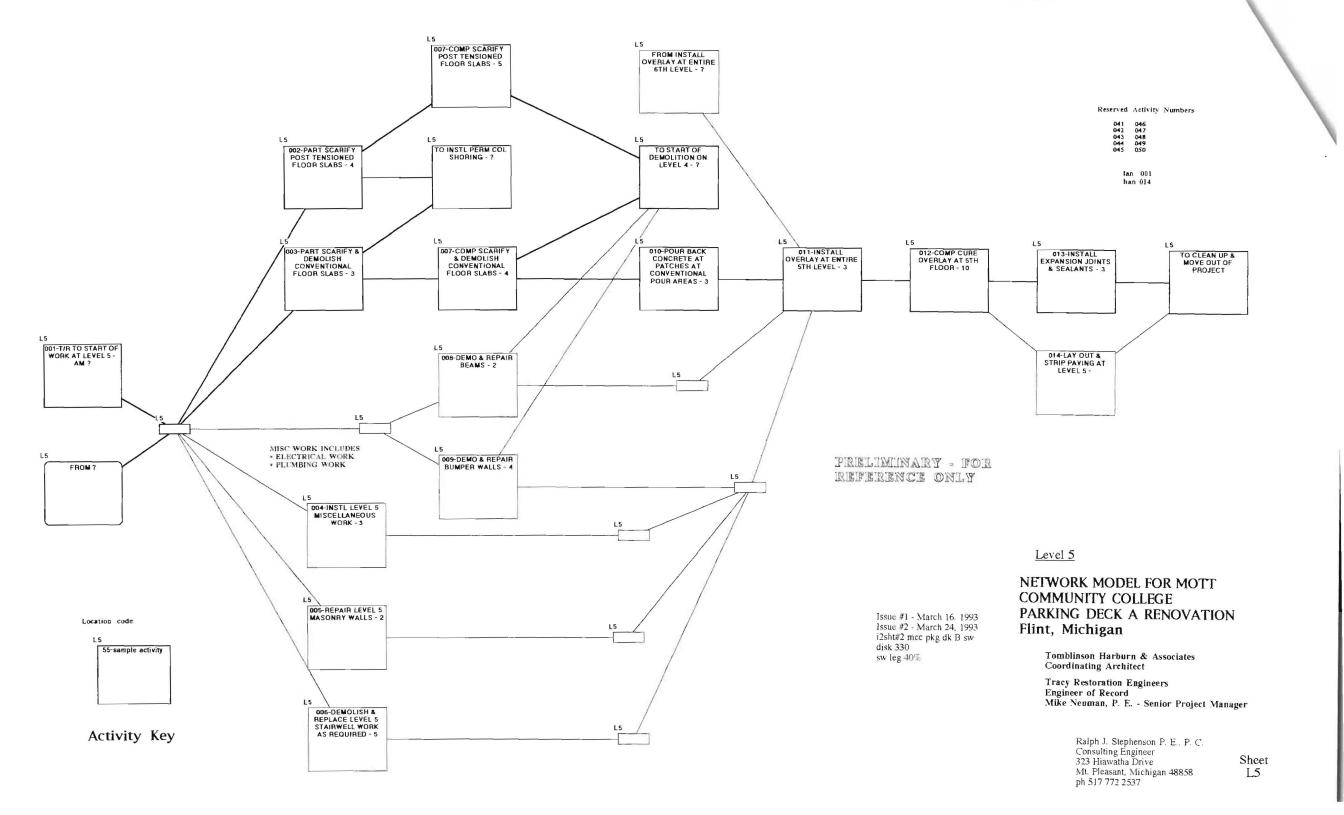
Enclosure:

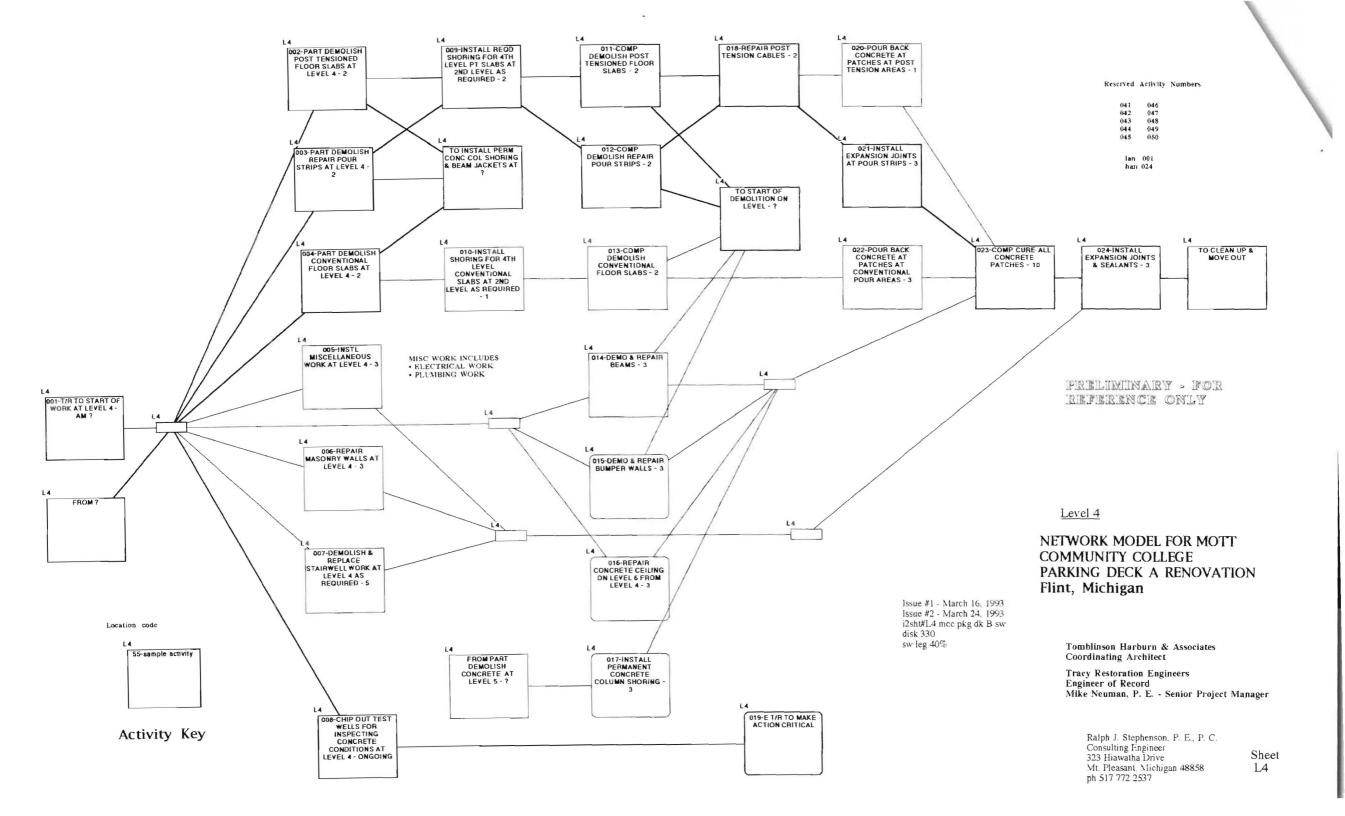
Issue #2 network models

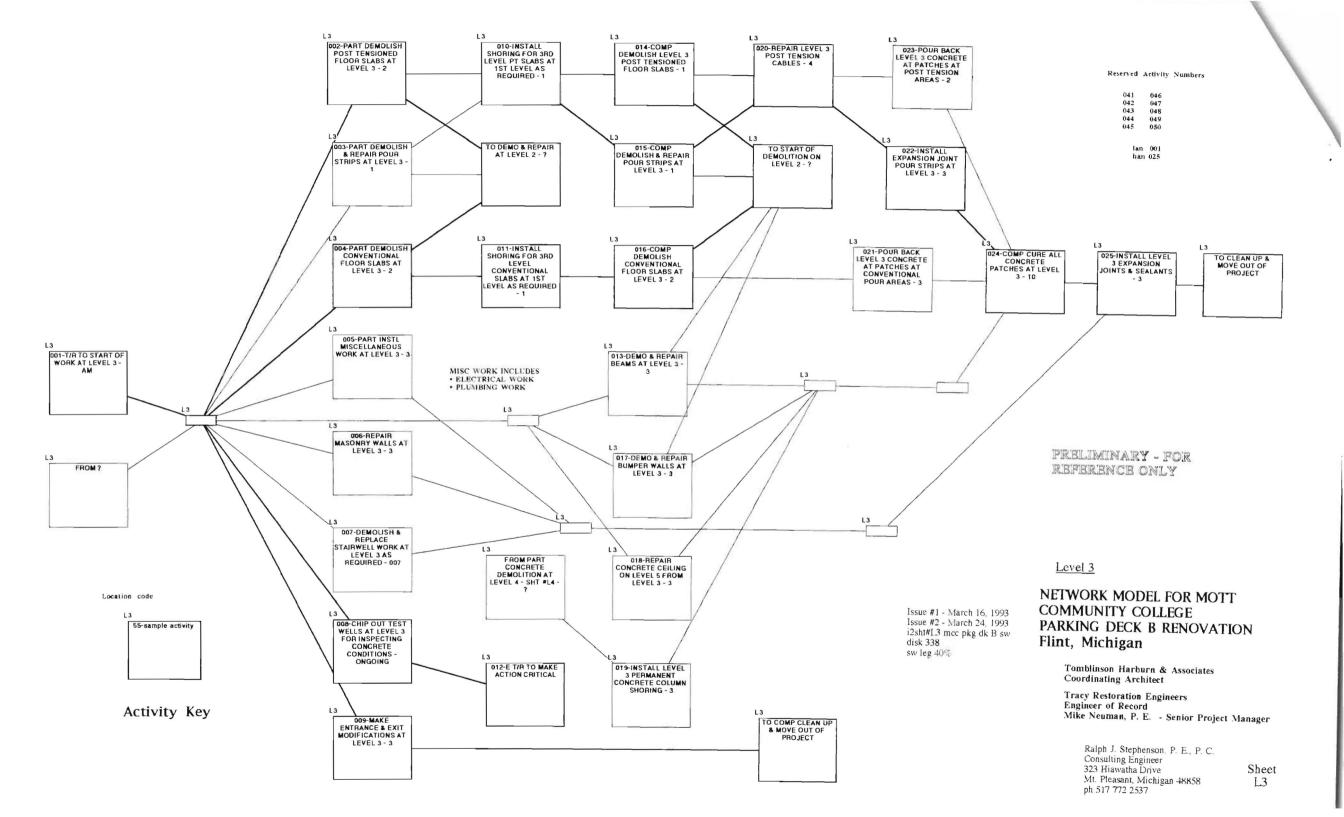
cc: Jerry Harburn

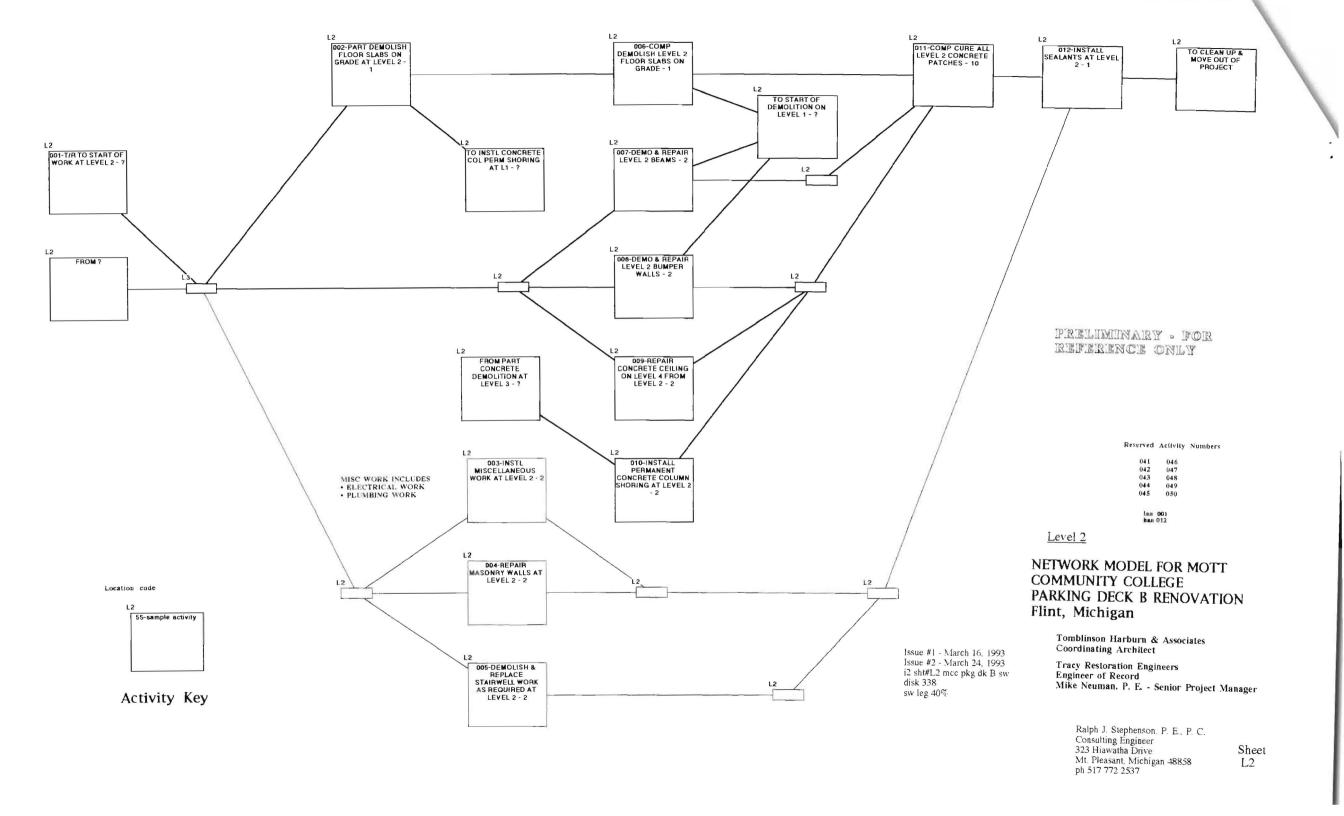
Ralph J. Stephenson, P. E.

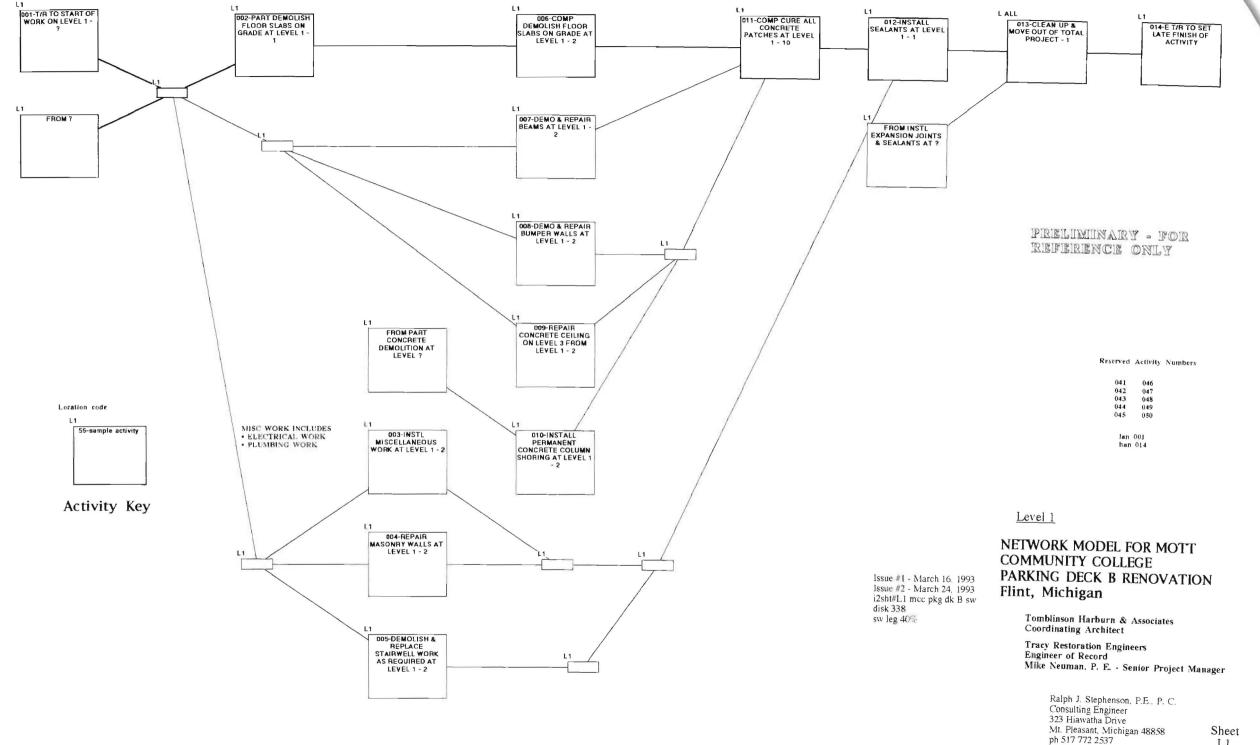












Ll

April 5, 1993

Subject: Monitoring Report #3

C. S. Mott Community College 1993 Restoration Program

Flint, Michigan

Project: 92:51

Disk #'s: rjs 338

Date of monitoring: Thursday, April 1, 1993 (wd 575)

Networks currently being reviewed:

Sheet #2 - College Center pedestrian bridge & Mott Memorial Building terrace

Sheet #L6 - Level 6 work

Sheet #L5 - Level 5 work

Sheet #L4 - Level 4 work

Sheet #L3 - Level 3 work

Sheet #L2 - Level 2 work

Sheet #L1 - Level 1 work

Those attending meeting:

- Gerald Harburn THA Principal
- Junior Paul THA Consultant
- Robert Tracy Tracy Restoration Engineers Principal
- Mike Neuman, P. E. Tracy Restoration Engineers Project manager
- Paul A. Wild D. C. Beyers Vice President
- Al Wawro D. C. Beyers General Superintendent
- Bill Lowry D. C. Beyers Project Superintendent
- Ralph J. Stephenson Consultant

Actions taken:

- Reviewed scope and details of 1993 MCC restoration program
- Updated logic plans for College Center pedestrian bridge (CCPB), and Mott Memorial Building terrace (MMBT), sheet #2 to issue #3, dated April 1, 1993 (wd 575)
- Issued sheet #2, issue #3 network model to Mr. Wild for his review, comments and revisions.

General Summary:

This conference was the official preconstruction meeting for the 1993 restoration program. The main topics discussed were details of start up, completion dates, nature of the MMB terrace and the CCPB

April 5, 1993

restoration work, and the network models to be used in planning and monitoring the project.

We began by updating the Sheet #2 network model, issue #2, dated March 24, 1993 (wd 569) for the MMB terrace and the College Center pedestrian bridge restoration projects. This provided a quick review of the network planning technique to be used on the project. Copies of sheet #2, issue #3 were provided to Mr. Wild for his further study and comments. A copy of the network model is enclosed with this report.

Prior to our meeting Mr. Wild and his staff had been sent copies of the levels 1 through 6 network models, issue #2, dated March 24, 1993 (wd 569). It is Mr. Wild's intent to make the desired revisions to these work plans, and to return them to me by mid April, 1993. I shall then update and issue them for early project use.

Also enclosed with this report is a brief set of meeting notes taken during the preconstruction session. Construction meetings are to be held weekly on Thursdays, with the initial meeting to be on Thursday, May 13, 1993 (wd 605).

I shall plan to monitor the project about each three week period, and will set the monitoring dates ahead of time with Mr. Gerald Harburn. Monitoring will consist of inspecting project work, and conferring with the D. C. Beyer's, and the owner's representatives re job progress.

At our meeting it was noted that all concerned felt work should begin on the MMB terrace just as quickly as possible. Thus this work along with parking deck work will begin on the am of May 3, 1993 (wd 597). Work on the College Center pedestrian bridge is currently set to begin the am of May 13, 1993 (wd 583).

Substantial completion of the project is set for the pm of August 13, 1993 (wd 670) with the total completion date set for the pm of August 27, 1993 (wd 680). It was noted, for information, that there is considerable traffic activity on the campus during the registration preceding start of fall classes. Classes resume on September 7, 1993 (wd 685).

This monitoring report with enclosures is being sent to Mr. Harburn only. Further distribution will be by him as desired.

Attachments:

Meeting notes

• Sheet #2, issue #3 network

Ralph/J. Stephenson, P. E.

III. Thursday - April 1, 1993

- A. Date Friday, April 1, 1993 (575)
- B. Preconstruction & project planning meeting
- C. Location Conference room MCC

D. Those attending

- 1. Gerald Harburn THA Principal
- 2. Junior A. PPaul THA Consultant
- 3. Robert Tracy Tracy Restoration Engineers President
- 4. Mike Neuman Tracy Restoration Engineers Senior Project Manager
- 5. Paul A. Wild D. C. Beyers Vice President
- 6. Al Wawro D. C. Beyers General Superintendent
- 7. Bill Lowry D. C. Beyers Project Superintendent
- 8. Ralph J. Stephenson consultant

E. Agenda

- 1. Review project details for start up
- 2. Prepare network models for project

F. Current status of project

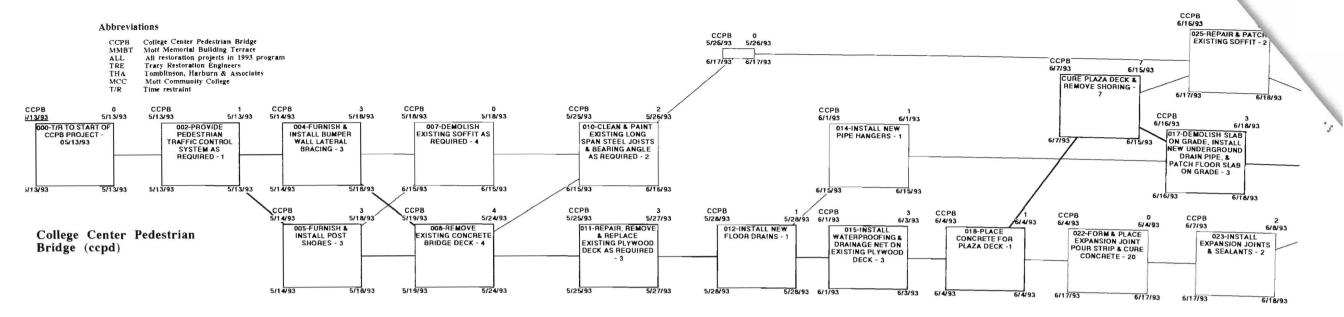
- 1. D. C. Beyers is the apparent successful contractor
- 2. D. C. Beyers will begin active field work on the project 05/03/93 (597) am
- 3. Current final completion date is set for August 27, 1993 (680) pm
- 4. Ramp is to be vacated on 05/01/93 (597)
- 5. Completion of MMB terrace desired as quickly as possible current starting date 05/03/93
- Area under MMB terrace contains equipment that will require protection from theft and damage
- 7. Test wells are going to be installed during the first week of the project

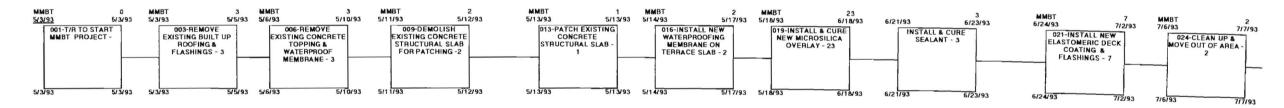
G. General notes on meeting

- Project will be monitored by the project staff each week at the Thursday construction meeting.
- 2. First construction meeting to be held on Thursday, May 13, 1993
- 3. rjs will monitor project about each three week period. Dates to be set with Gerald Harburn and Junior Paul.
- 4. Faculty back on campus by 08/26/93 (678)
- 5. Students back on campus by day after Labor Day 09/07/93 (685)
- 6. Considerable activity on campus during student registration
- 7. Signing on level 3 is important

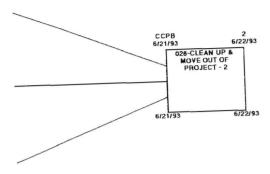
H. Planning work done on project

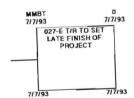
- 1. Reviewed network modeling technique to be used with project team
- Updated sheet #2, College Center Pedestrian Bridge network to issue #3, dated April 1, 1993 (575) with all participating
- 3. Updated sheet #2, Mott Memorial Building Terrace network to issue #3, dated April 1, 1993 (575) with all participating
- Briefly reviewed issue #2 network models for levels one through six with project team. Mr. Wild will review these along with the updated sheet #2 network model for the CCPB and the MMBT.
- 5. When Mr. Wild has completed his review he will mark up the review networks and return them to me to put into final form for issue.
- Network model review by Mr. Wild will be complete by mid April, 1993 to allow working networks to be completed and issued by late April, 1993.





MMB Terrace (mmbt)





PRELIMINARY - FOR REFERENCE ONLY

College Center Pedestrian Bridge (ccpb) Mott Memorial Building Terrace (mmbt)

NETWORK MODEL FOR MOTT COMMUNITY COLLEGE 1993 RESTORATION PROGRAM Flint, Michigan

Issue #1 - March 16, 1993 Issue #2 - March 24, 1993 Issue #3 - April 1, 1993 I3 sht 2 ccb/mmb sw

Reserved Activity Numbers

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Disk 338

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041 046 042 047 043 048 044 049 045 050 Tomblinson Harburn & Associates Coordinating Architect

Tracy Restoration Engineers Engineers of Record Mike Neuman, P. E. - Senior Project Manager

> Raiph J. Stephenson, P.E., P.C. Consulting Engineer 323 Hiawatha Drive Mt. Pleasant, Michigan 48858 ph 517 772 2537

Sheet #2

June 5, 1993

Subject: Monitoring Report #4

C. S. Mott Community College 1993 Restoration Program

Flint, Michigan

Project: 92:51

Disk #'s: rjs 338

Dates of monitoring: Tuesday, May 11, 1993 (wd 603) and Friday, June 4, 1993 (wd 620)

Completion date: August 27, 1993 (wd 680) pm

Those participating in monitorings:

Tuesday, May 11, 1993 (wd 603)

- Bill Lowry D. C. Beyers Field superintendent
- Ralph J. Stephenson Consultant

Friday, June 4, 1993 (wd 620)

- John Whitehead Mott Community College Facilities Director (in meeting part time)
- Mike Neuman, P. E. Tracy Restoration Engineers Project manager
- Bill Lowry D. C. Beyers Field superintendent
- Junior Paul -THA Associates Consultant
- Ralph J. Stephenson Consultant

Monitored from:

• Sheets 2, L1, L2, L3, L4, L5, L6, issue #4, dated April 26 & 30, 1993 (wd 592)

Actions taken:

Tuesday, May 11, 1993 (wd 603)

- Inspected project with Mr. Lowry
- Evaluated current project status
- Discussed project status with Mr. Harburn

Friday, June 4, 1993 (wd 620)

June 5, 1993

- Inspected project with Mr. Paul.
- Reviewed current project status with Mr. Lowry
- Evaluated current project status
- Discussed project status Mr. Paul and Mr. Neuman

General:

<u>College Center pedestrian bridge</u> - Target completion date shown in issue #4 network - pm July 9, 1993 (wd 645)

As of June 4, 1993 (wd 620) work at the College Center pedestrian bridge is in fair condition. The current lag over late starts and finishes is about five working days. in the repair and replacement of plywood deck. There is only a small amount of plywood repair to be done, and some time may be able to be picked up if needed.

Very little of the soffit ceiling will have to removed since most repair work can be done either from the top of the joists and ceilings, or through an access panel in the ceiling soffit. Repair, cleaning, and painting of steel joists is presently planned to begin the am of June 7, 1993 (we 621).

To be noted is that the completion date for the total restoration program is the pm of August 27, 1993 (wd 680). Therefore the current lag at the College Center bridge is not yet a serious delay to the entire program. However it was the contractor's intent to complete many of smaller components of the total work early so as to be able to fully concentrate on the main restoration program at the parking ramp in late July and in August, 1993

Mott Memorial Building terrace - Target completion date shown in issue #4 network - pm July 7, 1993 (wd 643).

As of June 4, 1993 (wd 620) demolition of the existing deck work is complete, the slab has been patched, and new waterproofing membrane has been laid at the terrace. During the several recent rains it was noticed there is some ponding on the deck. This is to be corrected by adding another floor drain at the terrace. The new overlay is planned to begin in early or mid June, 1993. The overlay was planned to start by a late date of May 18, 1993 (wd 608) in the current network model. Thus the projected lag over late start dates is about three weeks.

<u>Level 1 work at Parking Deck B</u> - Target completion date shown in issue #4 network - pm May 21, 1993 (wd 612).

Work at level 1 is currently concentrated on miscellaneous demolition, patching and repairs. The lag over the issue #4 completion date is currently about three or four weeks. This lag, as with the lag at the College Center bridge and the MMB terrace, is not overly serious. However it represents a slippage that could ultimately bring several areas to the same field completion status at somewhat the same time.

date printed: 6/5/93

June 5, 1993

At such a point the contractor usually must staff the job to finish many areas with similar trade needs all at the same time. This as opposed to finishing the areas one by one in a more desirable sequence and with lower levels of resource needed.

Mr. Lowry is aware of this situation, and we discussed it briefly during our monitoring. I shall check the slippage trends in future monitoring evaluations.

<u>Level 2 work at Parking Deck B</u> - Target completion date shown in issue #4 network - pm June 1, 1993 (wd 618).

The current status of level 2 is about the same as that at level 1, except that the lag over the target completion date is about 2 1/2 weeks. This is basically because the target completion at level 2 is about 1 1/2 weeks later than that at level 1.

I recommend that work at these relatively light activity areas be brought to completion as soon as possible so it will not be necessary to finish off several areas with similar trade demands concurrently.

<u>Level 3 work at Parking Deck B</u> - Target completion date shown in issue #4 network - pm August 27, 1993 (wd 680).

Currently work at level 3 is meeting or bettering most early and late start dates in the issue #4 network model. Much of the demolition at level 3 has been completed, stairwell work is in progress and permanent concrete column shoring is being formed and poured. Work has also begun on entrance and exit repairs.

<u>Level 4 work at Parking Deck B</u> - Target completion date shown in issue #4 network - pm July 23, 1993 (wd 655)

Currently work at level 4 is meeting or bettering most early and late start dates. Demolition is well along, some stairwell masonry repair is in progress, and permanent concrete columns are being installed.

<u>Level 5 work at Parking Deck B</u> - Target completion date shown in issue #4 network - pm July 29, 1993 (wd 659)

Most, or all scarification of existing slabs has been completed, and demolition and repair of other miscellaneous concrete and masonry is in work. Placement of concrete and overlay is to begin in the near future.

Level 5 work is just meeting late starts and late finishes and should be watched carefully if the July 29, 1993 (wd 659) target is to be met. However the July, 1993 completion is nearly a month earlier than the total project target completion of the pm of August 27, 1993 (wd 680). This gives the area some float time to use for leveling resources on the job.

3

date printed: 6/5/93

June 5, 1993

<u>Level 6 work at Parking Deck B</u> - Target completion date shown in issue #4 network - pm August 5, 1993 (wd 664)

Scarification of existing decks is substantially complete and concrete repair and patching is in work. The deck is about ready for concrete and overlay placement. There appear to be no major delay potentials here as of June 4, 1993 (wd 620).

Summary:

Overall the project is in moderately fair condition. In the network models, issue #4, dated April 26, and 30, 1993 (wd 592 and 598) some of the completion dates, particularly for the bridge restoration, the terrace restoration, and the deck restoration at levels 1, 2 and 4 were set quite early. When measured against these early dates the work shows some lags. However the earlier dates are useful in that they indicate the need to stagger similar work at the various areas to better balance manpower needs.

At our next monitoring in late June, 1993, I shall review the work with Mr. Lowry, Mr. Neuman, Mr. Paul, and Mr. Harburn for a possible updating. Meanwhile we shall continue to use the issue 4 network model as our standard of performance.

I am sending this monitoring report to Mr. Harburn only Further distribution will be by him as desired.

Ralph J. Stephenson, P. E.

Ralph J. Stephenson, P. E., P. C. Consulting Engineer 323 Hiawatha Drive

Mt. Pleasant, Michigan 48858 ph 517 772 2537

July 2, 1993

Subject: Monitoring Report #5

C. S. Mott Community College 1993 Restoration Program

Flint, Michigan

Project: 92:51

Disk #'s: rjs 338 and 375

Date of monitoring: Wednesday, June 30, 1993 (wd 638)

Completion date: August 27, 1993 (wd 680) pm

Those participating in monitorings:

• Gerald Harburn - THA Associates - Principal (in meeting part time)

• Junior Paul -THA Associates - Consultant

• Bill Lowry - D. C. Beyers - Field superintendent

• Ralph J. Stephenson - Consultant

Monitored from:

• Sheets 2, L1, L2, L3, L4, L5, L6, issue #4, dated April 26 & 30, 1993 (wd 592)

Actions taken:

- Inspected project with Mr. Paul and Mr. Lowry.
- Reviewed current project status with, Mr. Harburn, Mr. Paul and Mr. Lowry.
- Evaluated current project status.
- Updated current network models to issue 5, dated June 30, 1993 (wd 638).

General:

• <u>College Center pedestrian bridge</u> - Target completion date shown in issue #4 network - pm July 9, 1993 (wd 645). New target completion date shown in updated issue #5 network - pm August 3, 1993 (wd 661).

The topping slab at the College Center pedestrian bridge was poured out on June 29, 1993 (wd 638), and is now curing prior to installing expansion joints and sealants. The deck pour was originally to have been made by a late start of June 22, 1993 (wd 633). However repairs to steel joists and other work above the soffit ceiling below were made from above to minimize ceiling cutting and patching. This may have delayed repouring the structural deck.

Some minor ceiling and slab on grade patching will have to be done once the shoring below the bridge

date printed: 7/2/93

July 2, 1993

structure is removed. This work will probably start in mid July, 1993.

The new date for bridge completion appears to be an achievable target without interfering with ongoing work at the parking deck.

• Mott Memorial Building terrace - Target completion date shown in issue #4 network - pm July 7, 1993 (wd 643). New target completion date shown in updated issue #5 network - pm August 3, 1993 (wd 661).

The new overlay is complete and currently being cured. Sealant installation is planned to begin about July 22, 1993 and will be followed by installation of new deck coating and flashings. Clean up and move out is set for August 3, 1993 (wd 661).

• <u>Level 1 work at Parking Deck B</u> - Target completion date shown in issue #4 network - pm May 21, 1993 (wd 612). New target completion date shown in issue #5 network - pm August 3, 1993 (wd 661).

Concrete work remaining at level 1 includes miscellaneous demolition, patching, and grouting the tops of the new permanent columns. Since this work is somewhat related within the floor, it was combined into a single activity in the updated network.

Work at the stairs was also grouped in a single activity which includes electrical, plumbing, masonry, patching, steel erection, and painting. This work will be concentrated upon after delivery of the steel stair components on July 14, 1993 (wd 648).

Probably remaining stairwell work will be sequenced vertically according to Mr. Lowry. Therefore the updated network model shows stair work at each level starting upon arrival of the stair steel, and proceeding concurrently over the same 10 working days. This may be a little tight but appears feasible to complete as needed to meet the end dates set for each level.

• <u>Level 2 work at Parking Deck B</u> - Target completion date shown in issue #4 network - pm June 1, 1993 (wd 618). New target completion date shown in issue #5 network - pm August 3, 1993 (wd 661).

Work remaining at level 2 is similar to that remaining at level 1. Therefore the updated network model shows levels 1 and 2 working plans on one sheet relabeled sheet L1&L2. Comments above for level 1 also apply to level 2.

• <u>Level 3 work at Parking Deck B</u> - Target completion date shown in issue #4 network - pm August 27, 1993 (wd 680). New target completion date shown in issue #5 network - pm August 13, 1993 (wd 670).

Currently work at level 3 is meeting most early and late start dates shown in the issue #4 network model. Major work remaining includes repair of the post tension cable system, completion of patching and curing, and installation of expansion joints and sealants

Entrance and exit modifications are presently in work along with work at the permanent concrete

date printed: 7/2/93

July 2, 1993

column shoring.

Remaining stairwell work will be done as part of the vertical sequencing of stair work as described for level 1 above.

• <u>Level 4 work at Parking Deck B</u> - Target completion date shown in issue #4 network - pm July 23, 1993 (wd 655). New target completion date shown in issue #5 network - pm August 13, 1993 (wd 670).

Currently work at level 4 lags projected issue #4 network model target dates by 10 to 12 working days. Concrete and post tension repairs and patching is in work. Remaining work has been regrouped slightly in the updated network model, and the updated work sequence for level 4 is shown running roughly parallel to work at level 3.

Remaining stairwell work will be done as part of the vertical sequencing of stair work as described for level 1 above.

• <u>Level 5 work at Parking Deck B</u> - Target completion date shown in issue #4 network - pm July 29, 1993 (wd 659). New target completion date shown in issue #5 network - pm August 2, 1993 (wd 661)

Overlay at level 5 has been placed and is now being cured. When curing is complete, expansion joints and sealants will be installed, and the deck will be striped and cleaned. The sequence and substantial completion for the issue #4 and issue #5 network models is similar.

Remaining stairwell work will be done as part of the vertical sequencing of stair work as described for level 1 above.

• <u>Level 6 work at Parking Deck B</u> - Target completion date shown in issue #4 network - pm August 5, 1993 (wd 664). New target completion date shown in issue #5 network - pm August 2, 1993 (wd 661)

Work at level 6 is in the same relative position as at level 5. Therefore we combined the updated network models for levels 5 and 6 into a single sheet L5&6.

Remaining stairwell work will be done as part of the vertical sequencing of stair work as described for level 1 above.

Summary:

Overall the project is in moderately good condition. The updated network models, issue #5, dated June 30, 1993 (wd 638) show all areas and levels being substantially completed by the desired target date of the pm of August 13, 1993 (wd 670).

I issued the updated network models for interim use in rough form to Mr. Harburn and Mr. Lowry at our planning meeting. A full set of the updated networks is included with this monitoring report. In

date printed: 7/2/93

Ralph J. Stephenson, P. E., P. C.

Consulting Engineer 323 Hiawatha Drive Mt. Pleasant, Michigan 48858 ph 517 772 2537

July 2, 1993

addition a set of the issue #5 networks has been sent to Mr. Neuman at Tracy Restoration Engineers and to Mr. Wild at D. C. Beyers. This monitoring report is being sent to Mr. Harburn only Further distribution will be by him as desired.

I will be in touch with Mr. Harburn in the near future to set the next monitoring session for the project.

Enclosures:

Ralph J. Stephenson, P. E.

July 2, 1993

Mike Neuman, P. E. Senior Project Manager Tracy Restoration Engineers 230 Collingwood Suite 260 Ann Arbor, Michigan 48103

Paul A. Wild Vice President D. C. Beyers Company 5715 Rivard Street Detroit, Michigan 48211

Dear Mike and Paul:

Re: Updated network models for MCC Restoration project

Enclosed are five updated network models, issue #5, dated June 30, 1993 (wd 638). These were prepared with Bill Lowry and Junior Paul after monitoring the project on June 30, 1993. Rough copies of the networks were provided to Mr. Lowry, Mr. Paul, and Mr. Gerald Harburn at the monitoring meetings.

I have sent Mr. Harburn a monitoring report of the project as of June 30, 1993, and he will undoubtedly provide each of you with a copy.

Project progress has been good over the past month and it presently appears that the substantial completion target of the pm of August 13, 1993 (wd 670) can be met. It will still take constant attention and staffing to achieve this target, but Mr. Lowry is following the project closely and with your help should succeed in completing the work on time.

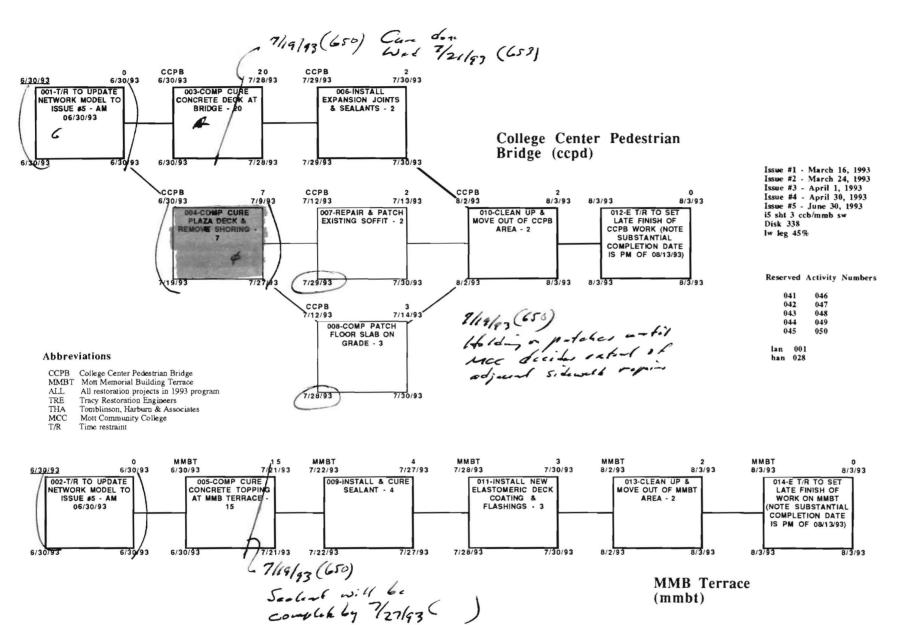
If there are any questions about the updating or the networks please feel free to call.

incerely yours

Ralph J. Stephenson, P. E.

Enclosure: Issue #5 network models

cc: Jerry Harburn



College Center Pedestrian Bridge (ccpb) Mott Memorial Building Terrace (mmbt)

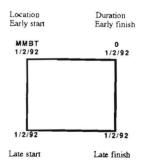
NETWORK MODEL FOR MOTT COMMUNITY COLLEGE 1993 RESTORATION PROGRAM Flint, Michigan

Tomblinson Harburn & Associates Coordinating Architect

Tracy Restoration Engineers Engineers of Record Mike Neuman, P. E. - Senior Project Manager

Ralph J. Stephenson, P.E., P.C. Consulting Engineer 323 Hiawatha Drive Mt. Pleasant, Michigan 48858 ph 517 772 2537

> Sheet #2



Activity Key

L1 6/30/93 0 8/3/93 6 6/30/93 6/30/93 114/93 7/15/93 7/21/93 8/3/93 8/3/93 002-COMP DEMO 001-T/R TO UPDATE 005-COMP CURE ALL 009-E T/R TO SET REPAIR BEAMS, CEILINGS & GROUT CLEAN UP & MOVE OUT OF AREA L1 & L2 NETWORK MODEL TO CONCRETE PATCHES AT LEVEL LATE FINISH OF LEVEL 1 & 2 WORK ISSUE #5 - AM PERM CONCRETE (NOTE SUBSTANTIAL 06/30/93 COMPLETION DATE \$ 10 6 IS PM OF 08/13/93) 7/19/53 (656) 1 6/30/93 7/21/93 7/22/93 8/3/93 6/30/93 8/3/93 L1 7/15/93 10 7/19/93 (650) Still wil as torget and Let 7/28/93 6/30/93 7/14/93 003-FAB & DELIVER STEEL STAIR COMPONENTS - 10 006-COMP INSTL LEVEL 1 & 2 STAIR STAIR WORK INCLUDES ELECTRICAL WORK - 10 PLUMBING • MASONRY • PATCHING 6 · PAINTING 7/19/93 7/19/93 (458) To be done this week 10 L1 7/15/93 6/30/93 7/14/93 004-COMP DEMO & REPAIR BEAMS, CEILINGS & GROUT PERM CONCRETE COLS AT LEVEL 2 007-COMP CURE ALL CONCRETE PATCHES AT LEVEL 2 - 5 A /10 1/12/93 (650)
Will to PT work first then
3 wt repair - will then
Cloud 3 wd. Issue #1 - March 16, 1993 Issue #2 - March 24, 1993 Issue #3 - not issued Issue #4 - April 26, 1993 Issue #5 - June 30, 1993 i5 sht#L1&2 mcc pkg dk B

Location Duration Early start Early finish 6/30/93 6/30/93 6/30/93 6/30/93 Late start Late finish

Activity Key

Levels 1 & 2

NETWORK MODEL FOR MOTT COMMUNITY COLLEGE PARKING DECK B RENOVATION Flint, Michigan

Tomblinson Harburn & Associates Coordinating Architect

Tracy Restoration Engineers Engineer of Record Mike Neuman, P. E. - Senior Project Manager

> Ralph J. Stephenson, P.E., P. C. Consulting Engineer 323 Hiawatha Drive Mt. Pleasant, Michigan 48858 ph 517 772 2537

Sheet L1&2

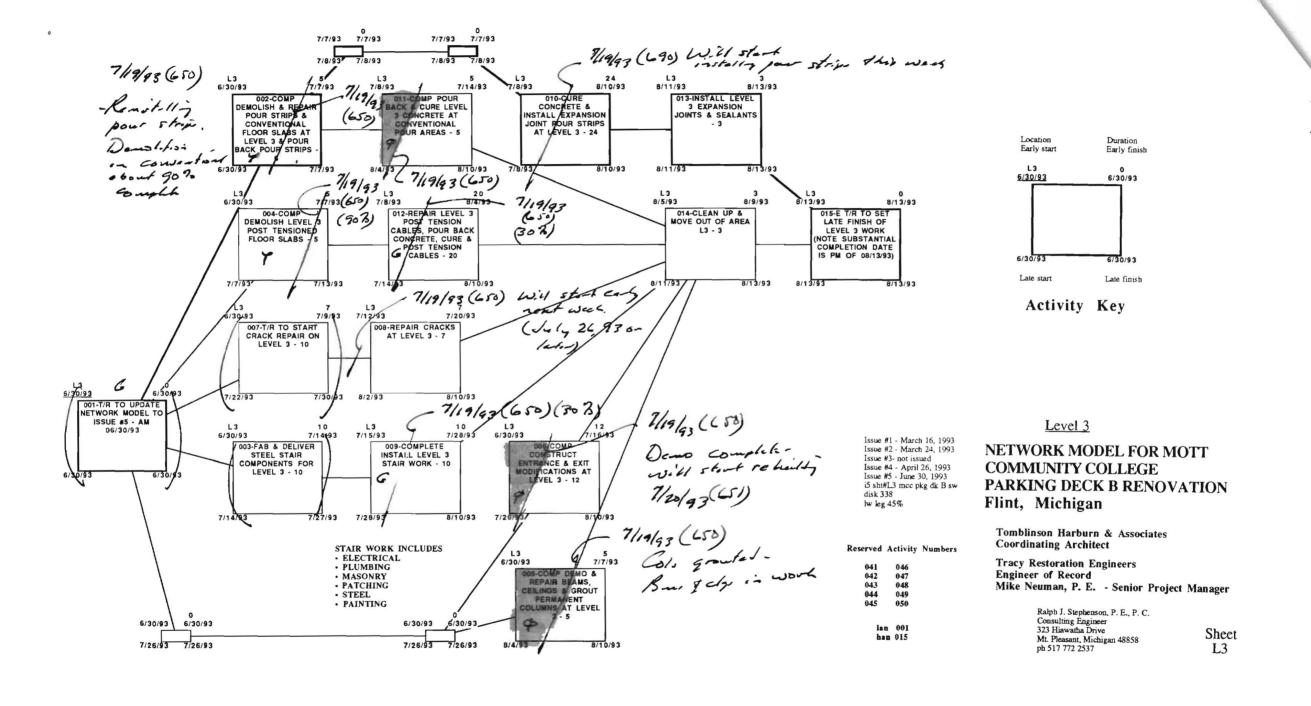
Reserved Activity Numbers

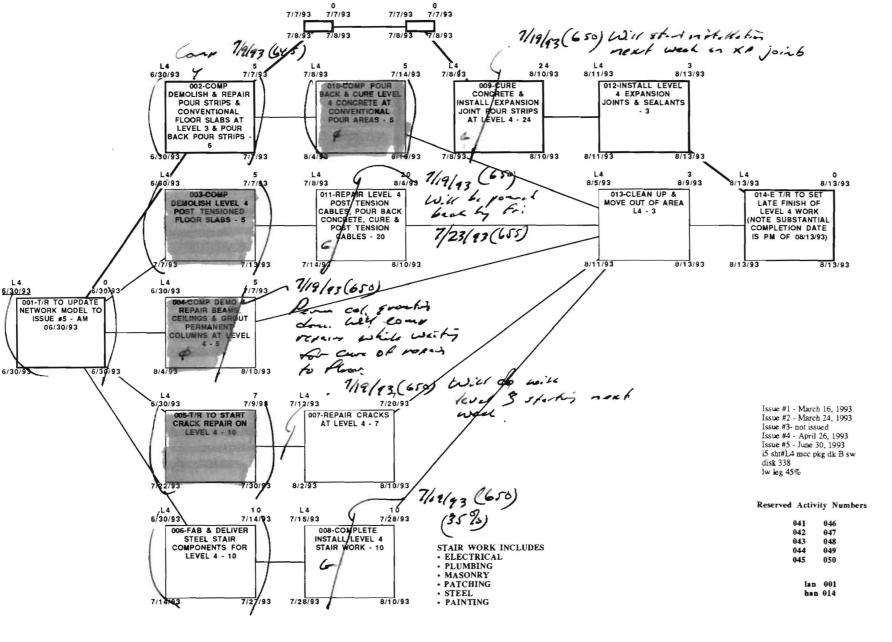
041 042 047 043 048 044 049 045 050

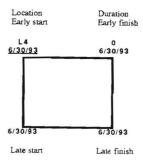
disk 338

lw leg 45%

lan 001 han 009







Activity Key

Level 4

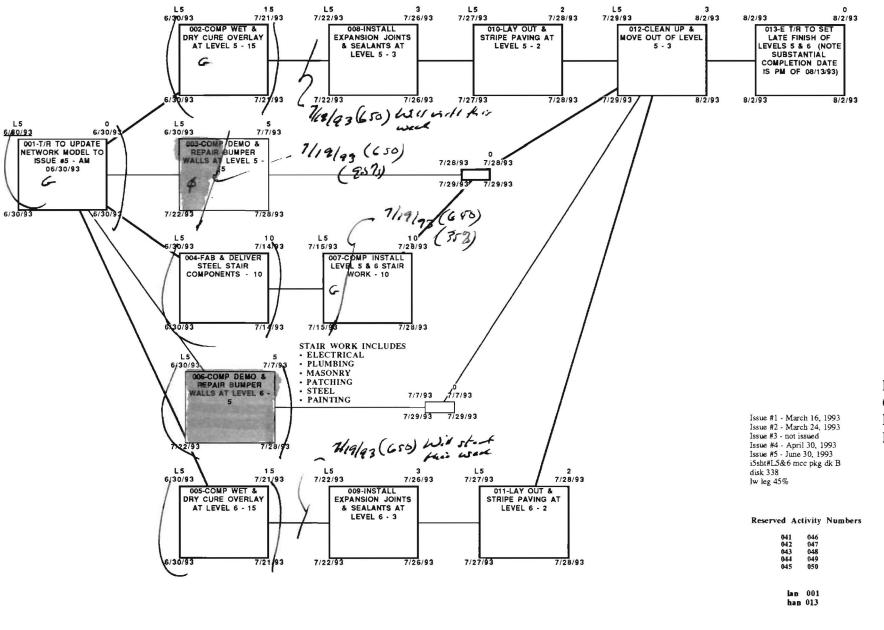
NETWORK MODEL FOR MOTT COMMUNITY COLLEGE PARKING DECK B RENOVATION Flint, Michigan

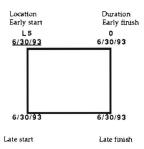
Tomblinson Harburn & Associates Coordinating Architect

Tracy Restoration Engineers
Engineer of Record
Mike Neuman, P. E. - Senior Project Manager

Ralph J. Stephenson, P. E., P. C. Consulfing Engineer 323 Hiawatha Drive Mt. Pleasant, Michigan 48858 ph 517 772 2537

Sheet L4





Activity Key

Level 5 & 6

NETWORK MODEL FOR MOTT COMMUNITY COLLEGE PARKING DECK A RENOVATION Flint, Michigan

Tomblinson Harburn & Associates Coordinating Architect

Tracy Restoration Engineers
Engineer of Record
Mike Neuman, P. E. - Senior Project Manager

Ralph J. Stephenson P. E., P. C. Consulting Engineer 323 Hiawatha Drive Mt. Pleasant, Michigan 48858 ph 517 772 2537

Sheet L5&6

Ralph J. Stephenson, P. E., P. C.

Consulting Engineer 323 Hiawatha Drive Mt. Pleasant, Michigan 48858 ph 517 772 2537

July 19, 1993

Subject: Monitoring Report #6

C. S. Mott Community College 1993 Restoration Program

Flint, Michigan

Project: 92:51

Disk #'s: rjs 338 and 375

Date of monitoring: Monday, July 19, 1993 (wd 650)

Completion date: August 27, 1993 (wd 680) pm, with substantial completion by the pm of August

13, 1993 (wd 670).

Working days remaining to pm of August 13, 1993 (wd 670) = 20

Those participating in monitorings:

• Gerald Harburn - THA Associates - Principal - in meeting part time

• Junior Paul -THA Associates - Consultant

• Bill Lowry - D. C. Beyers - Field superintendent

• Ralph J. Stephenson - Consultant

Monitored from:

• Sheets 2, L1, L2, L3, L4, L5, L6, issue #5, dated June 30, 1993 (wd 638)

Actions taken:

- Inspected project with Mr. Paul and Mr. Lowry.
- Reviewed current project status with Mr. Paul and Mr. Lowry.
- Evaluated current project status.
- Discussed project status with Mr. Paul and Mr. Harburn

General:

• <u>College Center pedestrian bridge</u> - Target completion date shown in issue #5 network - pm August 3, 1993 (wd 662).

Mr. Lowry said concrete deck curing will be complete by about July 21, 1992. At this time expansion joints and sealants can be installed.

Plaza deck shoring has been removed, and as soon as Mott Community College decides on the extent of

date printed: 7/20/93

July 19, 1993

adjacent sidewalk repairs, related work can be completed at the lower level. There is no current word on when this decision can be expected. However it should be made in the very near future if we expected to complete bridge work by the present target of the pm of August 3, 1993 (wd 662).

• <u>Mott Memorial Building terrace</u> - Target completion date shown in issue #5 network - pm August 3, 1993 (wd 661).

Concrete topping is currently being cured and sealant installation is to begin about July 22, 1993. It will be followed by installation of a new deck coating and flashings. Clean up and move out is still set for August 3, 1993 (wd 661).

• <u>Level 1 work at Parking Deck B</u> - Target completion date shown in issue #4 network - pm August 3, 1993 (wd 661).

Demolition and repair of beams and ceilings will be completed after post tensioning of the slab has been completed. The total work required for these items is expected to be about 6 to 10 working days.

Grouting permanent concrete columns is complete. Stairwell work is progressing slowly, but has a limited amount of float time. It should be concentrated on in the immediate future. Stair work includes pouring treads, installing electrical and plumbing work, patching masonry, installing clip angles, and painting.

• <u>Level 2 work at Parking Deck B</u> - Target completion date shown in issue #5 network - pm August 3, 1993 (wd 661).

Work remaining at level 2 is similar to that remaining at level 1. Comments above for level 1 also apply to level 2.

• <u>Level 3 work at Parking Deck B</u> - Target completion date shown in issue #5 network - pm August 13, 1993 (wd 670).

Concrete demolition, repair and curing of conventional concrete is actively in work at level 3, with installation of pour strips to begin this week. Concrete post tensioning demolition, repair, and pouring is in work and should meet targets between early and late starts and finishes. Crack repair will start early next week.

Demolition work on the entrance and exit areas is complete. Rebuilding of the entrance and exit will start about July 20, 1993. Permanent concrete columns have been grouted and miscellaneous beam and ceiling concrete work is in progress.

Stairwell work is proceeding and will continue concurrently with stairwell work at other levels.

Level 4 work at Parking Deck B - Target completion date shown in issue #4 network - pm August 13,

date printed: 7/20/93

July 19, 1993

1993 (wd 670).

Conventional concrete repair work is almost complete and is being cured for installation of expansion joints. Work on expansion joints is expected to begin next week.

Demolition work on post tensioned slabs is complete, and cable and concrete work is to be complete by about July 23, 1993. Permanent column grouting is complete and repairs to beams and ceilings are proceeding as floor concrete is curing.

Crack repair has not started yet but will be done concurrent with level 3 work. Stair work will continue along with stair work at other levels.

• <u>Level 5 work at Parking Deck B</u> - Target completion date shown in issue #4 network - pm August 2, 1993 (wd 661)

The concrete overlay has been cured, and expansion joints and sealants will be started this week. Repair of bumper wall concrete will be done concurrently.

Floor striping will be done along with the remainder of the stairwell work and as the contractor is completing repairs and patching of bumper walls.

• <u>Level 6 work at Parking Deck B</u> - Target completion date shown in issue #4 network - pm August 2, 1993 (wd 661)

Work at level 6 is in the same relative position as at level 5 with completion of the two areas targeted for the pm of August 2, 1993 (wd 661).

Summary:

Overall the project is in moderately good condition. Most major activities are currently meeting targets between early and late starts and finishes. The monitored network models, issue #5, dated June 30, 1993 (wd 638) indicate that at the current pace the project will be substantially complete by the desired target date of the pm of August 13, 1993 (wd 670).

A major concern at present is the stairwells. These have tended to progress somewhat more slowly that the remainder of the work. Now that there remain only 20 working days to the substantial completion date of August 13, 1993 (wd 670) it is very important that all remaining work at all areas be addressed actively.

Mr. Harburn and Mr. Paul also feel as has apparently been expressed in the construction meetings, that a very careful assessment of the current manpower level on the project be reviewed by Mr. Wild and Mr. Lowry. The time to expedite work on a project closing out at so near a future date is now. I recommend that this assessment be done before the next construction meeting and that Mr. Wild and Mr. Lowry

date printed: 7/20/93

July 19, 1993

report on their findings at that session.

There should be no need for additional monitoring unless special difficulties are encountered. I have enjoyed working with the entire project team on this job and want to thank them all for their cooperation and help in planning, scheduling and monitoring project work.

This report is being sent to Mr. Harburn only Further distribution will be by him as desired.

Ralph J. Stephenson, P. E.