Consulting Engineer

March 31, 1992

Subject:	Monitoring Report #01 C. S. Mott Community College Site work, phase 2 construction Flint, Michigan
Project:	92:19
Disks:	rjs #302
Date of monitoring;	March 27, 1992 (wd 317)

Those attending :

(some in meeting part time only)

Junior Paul - Director of Physical Facilities - MCC John Whitehead - Acting Director of Physical Facilities - MCC Ken Gatenby - MCC Jerry Harburn - Principal - THA Jim Spoorer - Project Manager - CHMP Harold Butler - Field Inspector - CHMP Dick Hanson - President - Bituminous Pavers, Inc. David Teer - Project Manager - Bituminous Pavers, Inc. Ralph J. Stephenson - Consultant

Actions taken:

- Made general review of project with project team.
- Prepared preliminary laundry lists for each geographic area of project.
- Prepared network models for areas F and C, issue #1, dated March 27, 1992 (wd 317), sheets #1-F and #2-C respectively.
- Distributed preliminary project notes to those attending meeting
- Printed and distributed network models to Mr. Paul and Mr. Teer for their review and comments.

Summary:

The Mott Community College Board of Trustees approved award of the construction contract for Site

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Work, Phase 2 at their meeting on March 23, 1992 (wd 314). The selected contractor was Bituminous Pavers, Inc (BPI). A letter of intent was issued to BPI on March 24, 1992 (wd 315). Presently it is the intent to begin on site operations about April 27, 1992.

The work sequence currently planned by BPI moves progressively through 9 areas of the site, labeled as areas A through G. Areas A, B, and C are those at the westerly side of the campus, and extend from south to north. Areas D, H, and J are generally midway between the western and eastern boundaries of the campus, and extending from north to south. Areas G, E, and F are located at the westerly side of the campus, and extend from south to north.

The BPI plan is to start in area F and move successively to area C, then to J, to B, to A, to D, to H, to E, finishing out at area G. This plan is being reviewed and may be revised by Mr. Teer and Mr. Hanson as additional information becomes available from their subcontractors.

One of our first discussion topics was the MCC college calendar. Key dates of interest to the Site Work 2 project team were identified as those listed below:

03/23/92 pm (wd 314) - Board of Trustees approved award of contract.

03/24/92 pm (wd 315) - MCC issued letter of intent.

04/27/92 am - Approximate planned start of field work.

05/01/92 pm (wd 343) - Last day of winter semester.

05/12/92 pm (wd 350) - Finance Committee meeting .

05/18/92 pm (wd 311) - Board of Trustees meeting.

(could possibly be moved to 05/05/92 or earlier)

09/04/92 pm (wd 431) - Substantial completion of site work 2 construction.

09/08/92 am (431) - 1st day of college fall semester.

(parking and traffic volume very heavy for first two weeks of school) 10/25/92 pm (465) - Total completion of site work 2 construction.

We next prepared activity laundry lists for each site area. These are shown in the meeting notes under <u>Area designations & laundry lists</u>, item 5.2 on page 3. These meeting notes were printed and distributed to those at the meeting. Those enclosed with this monitoring report have had minor editorial corrections made.

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The laundry lists were used to build preliminary construction models of two early portions of the sequence, Areas F and C. These models were quantified with working days and labeled Sheets 1-F and 2-C, dated March 27, 1992 (wd 317).

The intent of BPI is presently to begin work in successive areas on a staggered basis. They have prepared a preliminary bar chart schedule showing the starts and finishes of each area. These will be used in conjunction with the network model information to guide discussions at our next meeting. This planning meeting is presently set for April 13, 1992 (wd 328) at the MCC conference room.

Copies of the two networks prepared at our meeting are enclosed with this report. The diagram is unassembled for ease in reproducing the individual sheets. They can be assembled by pasting up along the match lines at the right margin of the individual pages.

Items of importance to review and incorporate into the network plans and schedules at our next session include the following:

- a.) Procurement of early critical materials and equipment.
- b.) Procurement of necessary permits.
- c.) Detailed review of the construction sequence by area.
- d.) Setting of the starting dates for each area.
- e.) Overlapping of similar work items in each area.
- f.) Processing of revisions to the work.
- g.) Definition of conditions necessary for MCC to occupy areas
- h.) Other items as determined by the project team.

The construction period of the project from proposed start of construction to substantial completion for college use extends from about April 27, 1992 to the pm of September 4, 1992 (wd 431), a total time of about 93 working days. Therefore procurement, and processing of submittals and revisions must be timely and must be followed carefully by all parties to the contract.

Several elements of importance were identified and reviewed in the meeting. These are outlined in the attached meeting notes under item 4.4.

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Note that there are some changes anticipated in area A. These are to be issued in bulletin #1 on April 8, 1992 (wd 326). Pricing is expected back by April 15, 1992 (wd 331), and the revisions should be approved at a Board of Trustees special meeting on May 5, 1992 (wd 345), or on May 18, 1992 (wd 354) at the regular Board meeting.

Another item of importance is the need for careful meshing of the Channel 28 cable relocation with related site work. Electrical work in areas on Court Street must also be tied to work by Consumers Power in removing required light poles.

Once construction is under way I shall plan to inspect and monitor the status of the work against the network models currently applicable each 2 to 4 weeks. I shall set planning and monitoring dates through Mr. Harburn.

General:

This report and the attachments is being sent to Mr. Jerry Harburn of THA. Further distribution will be by him.

Ralph J. Stephenson, P. E.

- 1. These notes were edited on March 31, 1992 (wd 319)
- 2. Those attending
 - 2.1. Junior Paul Director of Pysical Facilities MCC
 - 2.2. John Whitehead Acting Director of Physical Facilities MCC
 - 2.3. Ken Gatenby MCC
 - 2.4. Jerry Harburn THA principal
 - 2.5. Jim Spoorer CHMP project manager
 - 2.6. Harold Butler CHMP field inspector
 - 2.7. Dick Hanson President Bituminous Pavers, Inc.
 - 2.8. David Teer Project Manager Bituminous Pavers, Inc.
 - 2.9. Ralph J. Stephenson Consultant
- 3. Agenda
 - 3.1. Make general review of project
 - 3.2. Prepare area laundry lists
 - 3.3. Prepare area network models
 - 3.4. Review procedures for monitoring
- 4. Miscellaneous
 - 4.1. Abbreviations
 - 4.1.1. cpc Consumers Power Company
 - 4.1.2. gco Genesee County
 - 4.1.3. mcc Mott Community College
 - 4.1.4. mmb Mott Memorial Building
 - 4.1.5. jpa Junior Paul
 - 4.1.6. tha Tomblinson, Harburn and Associates
 - 4.1.7. mcc Mott Community College
 - 4.1.8. mmb Mott Memorial Building
 - 4.1.9. bpi Bituminous Pavers, Inc.
 - 4.1.10. mta Metropolitan Transit Authority
 - 4.1.11. cof City of Flint
 - 4.1.12. dnr Department of Natural Resources
 - 4.1.13. row Right of way
 - 4.2. College calendar
 - 4.2.1. 03/23/92 pm (314) Board of Trustees approved award of contract
 - 4.2.2. 03/24/92 pm (315) Letter of intent issued
 - 4.2.3. 05/01/92 pm (343) Last day of college for winter semester
 - 4.2.4. 05/12/92 am (349) Finance committee meeting
 - 4.2.5. 05/18/02 am (353) Board of Trustees meeting
 - Could possibly be moved to earlier date of 05/05/92 (344)
 - 4.2.6. 09/04/92 pm (431) Contract substantial completion occupancy
 - 4.2.7. 09/08/92 am (431) First day of college for fall semester

Parking and traffic use very high during 2 weeks following school opening

- 4.2.8. 10/25/92 pm (465) Total completion of site work 2
- 4.3. As of Wednesday, April 1, 1992 (320) Mr. Paul will be retired from MCC
 - 4.3.1. Will act as consultant to MCC through THA
 - 4.3.2. THA represents MCC in relations with BPI
 - 4.3.3. Mr. Paul will represent THA in relations with BPI on this job
- 4.4. Considerations surrounding project
 - 4.4.1. Traffic in and around campus
 - Fridays are very low traffic days on the campus

Buses (MTA) run through campus - must have plan of work to help anticipate barriers to bus traffic

City government must know plans to keep adjoining neighborhood traffic operational Ramp A work will be affected by the site work

College staff access is affected, and staff will have to keep informed.

Safety officer must be made familiar with construction plans so as to implement safety measures

Fire officer must be kept aware of work to avoid disruptions to emergency traffic

4.4.2. Consumers Power must remove light poles on Court Street

CPC contract is with City of Flint - must get permission of City

MCC is installing new light poles

4.4.3. College will take occupancy of areas as they are substantially completed Must define conditions of site that are to be observed to reach completion

Landscaping installation for staged occupancy may pose problems to be resolved

4.4.4. Channel 28 occupancy

Located in area A

Parking located near loading dock

Remote broadcast truck parked in this area

Will move truck to upper parking area

Now have conduits going across creek in culvert

Must be careful to not interrupt Channel 28 broadcasting

Wayne Henderson - Chief Engineer - Channel 28

Can store 4 to 24 hours of broadcasting in truck

Culvert to be removed - need new cables and culvert

New cable to be run before starting area site work

Will have new dish installed in late April or early May, 1992

Need to get into mh 16 and then into building

4.4.5. Regulatory agencies involved

DNR

Have issued a permit to install culvert connecting 2 existing culverts on the east side of Trade Tech - area E

City of Flint

City traffic engineer has been sent letter regarding removal of left turn restriction from Horrigan to Court

Flint Board of Education

Have their verbal approval to remove existing culvert in area A Removal will reduce pedestrian traffic across Gilkey Creek

Genesee County

Gilkey Creek changes from County to DNR juristiction east of old ramp bridge

4.4.6. Permits needed

Erosion control - City of Flint - obtained by BPI & Conex

Electrical - City of Flint - obtained by Huron Valley Electrical

Paving - City of Flint - obtained by BPI

Includes paving in row at Court & Horrigan

Storm sewer - City of Flint - obtained by BPI

4.4.7. Changes anticipated

Bulletin #1 - Area A

Scope of bulletin

Add parking gate

Install communications wiring - to be reviewed

Make curb changes Add landscaping Extend and add to storm sewer system Sequence of events 04/08/92 (325) - Bulletin to be issued 04./15.92 (331) - Pricing back to architect/engineer 05/18/92 (354) or 05/05/92 (345) - Approved at Board of Trustees meeting 5. Physical characteristics of project 5.1. Major sequence of construction 5.1.1. Move from F to C to J to B to A to D to H to E to G 5.2. Area designations & laundry lists 5.2.1. Area F Lay out site Install erosion controls Remove existing bollards Remove existing drive, curb & approach Remove existing CPC light poles Demolish existing paving as required Install storm sewer Install light pole bases Install undergroung electrical conduit Install underground security electrical Install new curbs & gutters Install new sidewalks Reshape existing subbase for new paving Install asphalt base course patching Install asphalt wearing course patching Mark and stripe parking areas Install lane marker bollards - concrete filled pipe Install new light poles Install new security pole mounted security devices Install signage Install landscaping 5.2.2. Area C Lay out site Install erosion controls Remove existing bollards Remove existing MCC light poles & salvage for security use Demolish existing paving as required Install short stretch of storm sewer Install culverts & grade for swales Install light pole bases Construct new footing & retaining wall at student overpass Install underground electrical conduit Install underground security electrical Install new curbs & gutters Install new sidewalks Reshape existing subbase for new paving Install asphalt base course patching & paving Install asphalt wearing course patching & paving

Mark and stripe parking areas Install lane marker bollards - concrete filled pipe Install new light poles Install new security pole mounted security devices Install signage Install landscaping

5.2.3. Area J

Laundry list

Remove existing light poles

Install new light pole bases

Install new lighting underground service

Must go under the boulevard

Relocate cable TV (by Comcast) from overhead to underground

Cable owned by Comcast

Comcast needs access to cable

To be located from 3 to 4 feet below surface

To be installed as the electrical contractor installs electrical along Court Street

Install new light poles

Includes only electrical work

Installation must be planned with City of Flint and Consumers Power

5.2.4. Area B

Lay out site

Demolish existing paving as required

Remove existing curbs as required

Install new storm sewer

Install light pole bases

Install underground electrical conduit

Install underground security electrical

Install concrete headwalls

Install new curbs & gutters

Install new sidewalks

Reshape existing subbase for new paving

Install asphalt base course paving

Install asphalt wearing course paving

Mark and stripe parking areas

Install new light poles

Install signage

Install landscaping

5.2.5. Area A

Issue bulletin and change order

Lay out site

Refeed existing Channel 28 satellite dishes in new conduit

Hook up new Channel 28 conduit

Relocate cable TV (by Comcast) from overhead to underground

Cable owned by Comcast

Comcast needs access to cable

To be located from 3 to 4 feet below surface

To be installed as the electrical contractor installs electrical along Court Street Demolish existing paving as required

Remove existing Gilkie Creek culvert Remove existing curbs as required Remove tree as required Relocate tree as required Replace existing light poles as required (3) Install new storm sewer Install new storm sewer manhole Install light pole bases Install underground electrical conduit Install underground security electrical Install concrete headwalls Install new curbs & gutters Construct new bus shelters Install new sidewalks Construct new loading dock Install new dock lift Repair fascia and brick work at MMB loading dock Install subbase for new intersection paving & new curbs Reshape existing subbase for new paving Install asphalt base course paving Install asphalt wearing course paving Mark and stripe parking & road areas Install new light poles Install signage Install landscaping

5.2.6. Area D

Lay out site Install light pole bases & salvage for security system Install underground electrical conduit Install new sidewalks Install new light poles Install signage Install landscaping

5.2.7. Area H

Lay out site Install erosion control Demolish existing paving as required Remove existing curbs as required Install light pole bases Install underground electrical conduit Install new curbs & gutters Install new sidewalks Reshape existing subbase for new paving Install asphalt base course paving Install asphalt wearing course paving Replace existing light poles with new Install new light poles Install signage Install landscaping

5.2.8. Area E - may want to subdivide this area

Have three issues

1. Cannot construct east portion of parking area of E as early as F because culvert piping delivery and installation.

- 2. Must maintain traffic to day care center off from existing access road.
- 3. May have to subdivide area D into three sections possibilities include
 - a. North road, minus Horrigan intersection, combined with area F
 - b. East parking area
 - c. North parking area

Lay out site

Maintain access to day care area

Day care in operation from 06:00 am to 10:00 pm

- In use year around
- Children's ages range from infants to toddlers
- May require separating east parking from north parking

Install erosion controls

Construct new culvert

Remove existing bollards

Remove existing drives, curbs & approaches

Remove existing MCC light poles & salvage for security use

Demolish existing paving as required

Relocate existing tree

Install storm sewer

Install light pole bases

Construct new retaining wall footing and wall

Install new guard rail at retaining wall

Install underground electrical conduit

Install underground security electrical Install new curbs & gutters

Install new bollards - concrete filled pipe

Install new sidewalks

Reshape existing subbase for new paving

Install asphalt base course paving

Install asphalt wearing course paving

Mark and stripe parking areas

Install new light poles

Install new security pole mounted security devices

Install signage

Install landscaping

Install irrigation system

5.2.9. Area G

Lay out site Install erosion control Demolish existing paving as required Remove existing curbs as required Install light pole bases Install underground electrical conduit Install new curbs & gutters

Tue, Mar 31, 1992

Install new traffic control gate Install new sidewalks Reshape existing subbase for new paving Install asphalt base course paving Install asphalt wearing course paving Replace existing light poles with new Install new light poles Install signage Install landscaping Install irrigation system connections

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Consulting Engineer

April 13, 1992

The networks prepared and issued to Mr. Teer and Mr. Garner during our meeting included the following:

- Sheet #01-F issue #2 dated April 13, 1992
- Sheet #02-C issue #2 dated April 13, 1992
- Sheet #03-J issue #2 dated April 13, 1992
- Sheet #04-A/B issue #2 dated April 13, 1992
- Sheet #05-D issue #2 dated April 13, 1992
- Sheet #06-H issue #2 dated April 13, 1992
- Sheet #07-E issue #2 dated April 13, 1992
- Sheet #08-G issue #2 dated April 13, 1992
- Sheet #sm-1 issue #2 dated April 13, 1992

Sheet #sm-1 shows each area as a single task with a starting and a completion date. The sm-1 network was translated to a bar chart and given to Mr. Teer and Mr. Whitehead for their review and comment.

The following starting and completion dates, as shown in the issue #2 networks and bar chart, are presently being used as guidelines for field action.

• Area F	start am 04/27/92 (wd 338) - complete pm 06/25/92 (wd 381)
• Area C	start am 05/20/92 (wd 355) - complete pm 06/29/92 (wd 383)
• Areas A/B	start am 06/01/92 (wd 362) - complete pm 07/13/92 (wd 392)
• Area J	start am 06/04/02 (wd 365) - complete pm 06/25/92 (wd 381)
• Area D	start am 06/15/92 (wd 372) - complete pm 07/06/92 (wd 387)
• Area H	start am 06/18/92 (wd 375) - complete pm 07/22/92 (wd 399)
• Area E	start am 07/08/92 (wd 388) - complete pm 08/21/92 (wd 421)
• Area G	start am 07/22/92 (wd 398) - complete pm 08/20/92 (wd 420)

Currently contracts have been awarded for site electrical, site utilities, and some additional early trades. According to Mr. Teer, insurance and bonding information has been provided to the owner and BPI is waiting approvals. BPI has contacted Consumers Power in Flint and informed them of the need to remove existing poles. There is currently some confusion about the ownership of parking lot lighting poles in area F. However discussions are in progress with Consumers Power and the matter should be settled soon.

Bulletin #01 showing proposed revisions to area A work was issued recently. The pricing on the bulletin is expected to be provided to the architect/engineer about April 15, 1992 and will probably be approved in early May, 1992.

We reviewed the Channel 28 cable relocation briefly, The needs of the relocation seem to be clearly understood by all concerned. This matter should be followed

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

April 13, 1992

carefully to avoid delays in area A work. All activities required in area A for the cable relocation have not yet been shown. Since the station must be kept in service, I suggest we discuss sequencing of the culvert and cable work further at our next planning and monitoring meeting.

Copies of the current networks are enclosed with this report. When the diagrams have been reviewed by the project team and needed revisions made, I may combine them into single sheets containing two or three networks each. However for now we will use the networks as attached.

Also included with this report is an edited copy of the working notes prepared during our session on April 13, 1992 (wd 328)

General:

This report and attachments is being sent to Mr. Jerry Harburn of THA. Further distribution to members of the project team will be by him. I shall call Mr. Harburn shortly to set the next planning and monitoring meeting.

Ralph J. Stephenson, P. E.

8:50:40 AM - Monday, April 13, 1992 - meeting notes

- 1. These notes were edited on April 17, 1992 (wd 332)
- 2. Those attending some in meeting part time
 - 2.1. John Whitehead Acting Director of Physical Facilities MCC
 - 2.2. Jerry Harvey Director of Public Safety MCC
 - 2.3. Jerry Harburn Principal THA
 - 2.4. David Teer Project Manager Bituminous Pavers, Inc.
 - 2.5. Robert A. Garner Project Coordinator Bituminous Pavers, Inc.
 - 2.6. Ralph J. Stephenson Consultant
- 3. Agenda
 - 3.1. √Review current total project dates
 - 3.2. $\sqrt{\text{Review master sequence}}$
 - 3.3. $\sqrt{\text{Review possible early start work}}$
 - 3.3.1. Area C

Excavation & removals

Set trailer - location to be determined

3.3.2. Area F

Excavation and removals

- 3.4. √Review current status of bulletin #1
- 3.5. $\sqrt{Review current status of permits}$
- 3.6. √Review Consumers Power interactions
 - 3.6.1. Steve Faidellom Project engineer on site work 2 for Consumers
 - 3.6.2. Mary McDonnell Contract Lighting
- 3.7. √Review network laundry lists
- 3.8. $\sqrt{\text{Review networks prepared to date}}$
 - 3.8.1. Area C
 - 3.8.2. Area F
- 3.9. $\sqrt{Complete preparing networks for additional areas}$
 - 3.9.1. Area A
 - 3.9.2. Area B
 - 3.9.3. Area D
 - 3.9.4. Area E
 - 3.9.5. Area G
 - 3.9.6. Area H
 - 3.9.7. Area J
- 4. Review of work sequence

4.1. Possible early start work

4.1.1. Area C

Excavation & removals

Set trailer - location to be determined Old SG location not too desirable

- Install erosion control
- 4.1.2. Area F

Excavation and removals

Set trailer - location to be determined

- Old E & L location is probably the best
- Install erosion control

4.2. Master move sequence

4.2.1. Still use original from F to C, J, B, A, D, H, E out at G Start F - April 27, 1992 Start C - May 20, 1992 or earlier 8:50:40 AM - Monday, April 13, 1992 - meeting notes

5. Consumers Power light poles

5.1. In area F power poles are owned by CPO

5.2. Is some concern re CPO committing to BPI schedule - particularly in area F

- 5.2.1. David Teer handling for BPI
- 5.2.2. Might have to develop contingency plan
- 5.2.3. Key element is setting & meeting light fixture removal date
- 6. Permits
 - 6.1. Are presently getting permits from COF
 - 6.1.1. General building permit
 - 6.1.2. Electrical permit
 - 6.1.3. Site utilities

Consulting Engineer

April 13, 1992

Subject:

Monitoring Report #02 C. S. Mott Community College Site work, phase 2 construction Flint, Michigan

Project: 92:19

Disks: rjs #302

Date of monitoring: April 13, 1992 (wd 328)

Monitored from:

Sheets 1-F & 2-C, issue #1, dated March 27, 1992 (wd 317)

Those attending meeting (some in meeting part time only):

- John Whitehead Acting Director of Physical Facilities MCC
- Jerry Harvey Director of Public Safety MCC
- Jerry Harburn Principal THA
- David Teer Project Manager Bituminous Pavers, Inc.
- Robert Garner Project Coordinator Bituminous Pavers, Inc.
- Ralph J. Stephenson Consultant

Actions taken:

- Made general review of project and of key dates.
- Monitored current status of project against issue #1.
- Reviewed and validated proposed master sequence.

• Updated network models, sheets #1-F and #2-C, for areas F and C to issue #2 dated April 13, 1992 (wd 328)

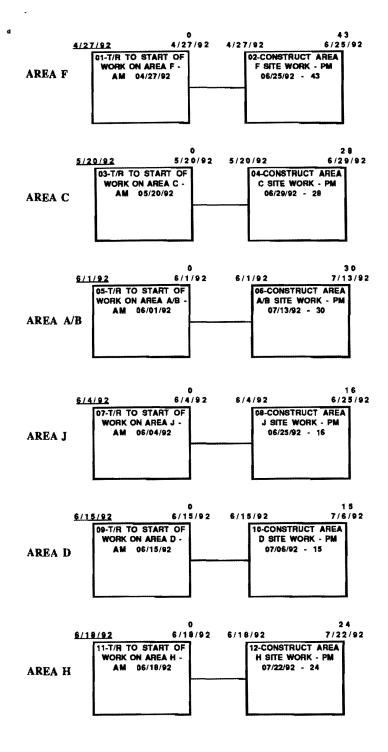
• Prepared network models for areas J, B, A, D, H, E and G.

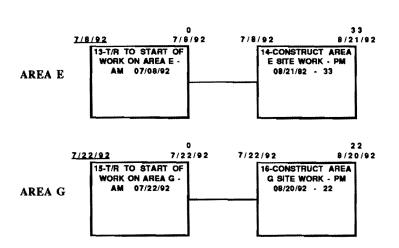
• Printed and gave Mr. Teer all issue #2 network models, dated April 13, 1992 (wd 328) for his review and comment.

• Prepared and printed summary network plan and bar chart translation, issue #2, dated April 13, 1992 (wd 328).

Summary:

Our work objective for this session was to complete preparing all network models needed to show early field work, and to establish starting and completion dates for each geographic sector of the project. Mr. Robert Garner is to be Bituminous Pavers, Inc. on-site project coordinator.





Issue #1 - not issued

i2 sht sm#01 mcc 2

disk 302

issue #2 - April 13, 1992

SITE II WORK - Summary

NETWORK MODEL FOR MOTT COMMUNITY COLLEGE Flint, Michigan

• CHMP - Architect & Engineer • THA Associates - Coordinating Architect

Bituminous Pavers, Inc. Burton, Michigan General Contractors David Teer - Project Manager Bob Garner - Project Coordinator

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

> SHEET #sm-1

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Consulting Engineer

May 11, 1992

Subject:	Monitoring Report #03 C. S. Mott Community College Site work, phase 2 construction Flint, Michigan
Project:	92:19

Disks: rjs #302

Date of monitoring: May 8, 1992 (wd 347)

Monitored from:

Sheets #01-F, 02-C, 03-J, 04-A/B, 05-D, 06-H, 07-E, and 08-G, issue #2, dated April 13, 1992 (wd 328)

Those monitoring project

- Junior Paul THA Consultant
- Ralph J. Stephenson Consultant

Actions taken:

- Inspected early work areas of project
- Discussed proposed schedule of project activities

Summary:

Field work in area F was due to begin on April 27, 1992 (wd 338). However work has not proceeded in any of the areas as of May 8, 1992 (wd 347). This represents a current lag of 9 working days. Mr. Paul said he understood field work was now to begin on Monday, May 11, 1992 (wd 348).

Mr. Paul and Mr. Harburn suggested I call Mr. David Teer, project manager for Bituminous Pavers, Inc. and determine the current status of the work from him. I talked to Mr. Teer on Monday, May 11, 1992. He said that the wet weather had delayed their start. However, it is his intent to begin field operations in area F on Tuesday, May 12, 1992 (wd 349).

The plan at present is to follow the sequence of work shown in the Issue #2 network models, dated April 13, 1992 (wd 328). This sequence indicates work will proceed from area F, to C, to A/B, to J, to D, to H, to E, and to G. Mr. Teer said that BPI will make a strong effort to recapture the lost time by shortening durations of

Consulting Engineer

May 11, 1992

the early excavation work. He feels BPI will be back on schedule shortly.

I requested that Mr. Teer and Mr. Garner, the project coordinator for BPI, review the network models carefully to insure that the current logic is satisfactory. He said they will. I also mentioned that at our next monitoring, probably in two or three weeks, we should fully review the network and update the network as required.

Meanwhile I shall combine the eight separate networks in the present issue into two or three multiple network sheets for ease of use and of updating.

General:

This report is being sent to Mr. Jerry Harburn of THA. Further distribution to members of the project team will be by him. I shall call Mr. Harburn shortly to set the next planning and monitoring meeting.

Ralph J. Stephenson, P. E.

Consulting Engineer

June 8, 1992

Subject:	Monitoring Report #04 C. S. Mott Community College Site work, phase 2 construction Flint, Michigan
Project:	92:19
Disks:	rjs #302
Dates of monitoring:	June 2 and 8, 1992 (wd 363 and 367)

Monitored from:

Issue #02, sheets #01-F, 02-C, 03-J, 04-A/B, 05-D, 06-H, 07-E, and 08-G, dated April 13, 1992 (wd 328)

Those monitoring project:

- Jerry Harburn THA Principal
- David Teer BPI Project manager
- Bob Garner BPI Project coordinator
- Ralph J. Stephenson Consultant

Actions taken:

- Inspected project areas F, C and A/B
- Evaluated current status of work
- Reviewed future target dates with Mr. Garner
- Reviewed status of project on June 8, 1992 (wd 367) by phone, with Mr. Garner
- Discussed status of work on June 8, 1992 (wd 367) by phone with Mr. Harburn

Summary:

<u>Area F</u>

As of June 2, 1992 (wd 363) demolition, excavation, storm sewer installation, most light pole bases, and considerable curb and gutter work had been installed. Work was about to begin on compacting subbase and patching asphalt surfaces. On June 2, 1992 (wd 363) the project was about 2 working days behind early and late starts and finishes with the main lag in completion of sidewalks, curbs and gutters.

The am of June 8, 1992 (wd 367), Mr. Garner reviewed job progress with me by phone. He said that they are starting installation of the wearing course shortly and plan to complete it by the pm of June 11, 1992 (wd 371). It is the current intent to turn over area F to MCC on the am of June 19, 1992 (wd 376). Most items should be complete except for light pole installation. There was no authentic information available on light pole delivery. The planned completion dates of area F was the pm of June 25, 1992 (wd 381).

<u>Area C</u>

As of June 2, 1992 (wd 363) work at area C was lagging and was slightly out of sequence. Some curbs and

Consulting Engineer

June 8, 1992

gutters were being installed ahead of portions of underground sewer and electrical work. The current lag on June 2, 1992 (wd 363) was about 2 working days.

In our phone conversation of June 8, 1992 (wd 367), Mr. Garner said that BPI intends to complete underground utilities by the pm of June 12, 1992 (wd 372). Subbase and pavement patching will be complete on June 16, 1992 (wd 374), and the wearing course is to be complete the pm of June 19, 1992 (wd 377).

In the issue #2 network the wearing course was due to be complete on the pm of June 15, 1992 (wd 373). Thus there is a projected lag in area C of about 4 working days, a slight increase in lag over June 2, 1992 (wd 363).

The intent of BPI is to stripe the lots and complete area C punch list corrections by June 25, 1992 (wd 380). This is the target date as set in the issue 2 network model.

Area A/B

Areas A and B are to be constructed together. Layout started there on June 3, 1992 (wd 364). However continuing work on demolition and pavement removal will be held until June 15, 1992 (wd 372). The projected lag as of June 8, 1992 (wd 367) at areas A/B over the issue #2 start of this work is about 9 working days.

It should be noted that the TV cable relocation work is not shown as yet in the network models. Cable relocation is important since it restrains completion of the parking areas and must be done in conjunction with other utility work. We shall discuss and plan this work as required at our next monitoring session.

General:

This report is being sent only to Mr. Jerry Harburn of THA. Further distribution will be by him. I shall confirm our next planning and monitoring meeting date shortly with Mr. Harburn.

Ralph J. Stephenson, P. E.

Consulting Engineer

June 26, 1992

Subject: Monitoring Report #05 C. S. Mott Community College Site work, phase 2 construction Flint, Michigan

Project: 92:19

Disks: rjs #302 and 313

Dates of monitoring: June 15, 1992 (wd 372)

Monitored from:

Issue #02, sheets #01-F, 02-C, 03-J, 04-A/B, 05-D, 06-H, 07-E, and 08-G, dated April 13, 1992 (wd 328)

Those monitoring project:

- Junior Paul THA consultant
- Bob Garner BPI Project coordinator
- Ralph J. Stephenson Consultant

Actions taken:

- Inspected project areas F, C and A/B
- Evaluated current status of work
- Reviewed target dates with Mr. Garner

Summary:

Area F - Planned completion and turn over date - pm June 25, 1992 (wd 381)

As of June 15, 1992 (wd 372) paving and striping are well along at the parking areas. It is expected to start punching out area F on June 16, 1992 (wd 373) and to turn lot F over to MCC on June 19, 1992 (wd 376) for occupancy.

Several items will remain to be completed including the light poles, security system, landscaping and signage. However the lot will be usable and will be accepted by MCC. Remaining work will be done later.

Area C - Planned completion and turn over date - pm June 29, 1992 (wd 383)

As of June 15, 1992 (wd 372) curbs, gutters, and backfilling is almost complete, and compacting and asphalt patching is in progress. This patching is expected to be complete by the pm of June 16, 1992 (wd 373).

Installation of the wearing course was expected to begin in the immediate future and Mr.

Consulting Engineer

June 26, 1992

Garner is trying to maintain a punch list completion date by the pm of June 25, 1992 (wd 381).

As in area F, it is anticipated there will be work remaining after turnover of the lot to MCC. However incomplete items should not interfere with occupancy of the parking areas.

Area I - Planned completion and turn over date - pm June 25, 1992 (wd 381)

Not monitored at this inspection.

Area A/B - Planned completion and turn over date - pm July 13, 1992 (wd 392)

Lay out work and erosion control has been completed at this area. In a phone conversation with Mr. Harburn on June 25, 1992 (wd 380), he said that full production work is expected to begin on June 29, 1992 (382).

Apparently work on the TV cable relocation for channel 28 will be able to proceed at this time with dependent work following as had been planned.

Major underground installation was to have started about June 5, 1992, and to be completed about June 10, 1992. Curbs and gutters were due to begin on June 11, 1992 (wd 370). Thus the projected lag at area A/B appears to be about 20 working days as of June 26, 1992 (wd 381). This could shift the completion date to as late as the pm of August 10, 1992 (wd 412).

In our next planning and monitoring meeting we should consider updating the current plan of work, depending on progress as of that date. To date BPI has shown they can recapture lost time as they move into construction production activities. This may be possible at area A/B also.

In addition we should complete planning for area A/B TV cable relocation work, dock leveler and loading dock patching, and the bus canopies.

Area D - Planned completion and turn over date - pm July 6, 1992 (wd 387)

Not monitored at this inspection.

Area H - Planned completion and turn over date - pm July 22, 1992 (wd 399)

Mr. Paul mentioned that the contractor could move into this area for start of work as soon as they wish. No discussions were held with the contractor about this at our monitoring inspection.

Area E - Planned completion and turn over date - pm August 21, 1992 (wd 421)

BPI is waiting for delivery of the multiplate culvert pipe to initiate construction at area E. No word was available on the delivery date.

Area G - Planned completion and turn over date - pm August 20, 1992 (wd 420)

Consulting Engineer

June 26, 1992

Mr. Garner indicated that work in area G could begin by June 16, 1992 (wd 373). Layout work was due to begin July 20, 1992 (wd 419). At our next planning and monitoring session we will discuss the replanning of area G.

General:

This report is being sent only to Mr. Jerry Harburn of THA. Further distribution will be by him. I shall confirm our next planning and monitoring meeting date shortly with Mr. Harburn. At this next session I recommend we update the current models with Mr. Garner, MCC and THA.

Ralph J. Stephenson, P. E.

Consulting Engineer

July 25, 1992

Subject:	Monitoring Report #06 C. S. Mott Community College Site work, phase 2 construction Flint, Michigan
Project:	92:19
Disks:	rjs #302, 313 and 324
Dates of monitoring:	June 15, 1992 (wd 372)

Contract completion dates:

Substantial completion - pm September 4, 1992 (wd 431) Total completion - pm October 25, 1992 (wd 465)

Monitored from:

Issue #02, sheets #01-F, 02-C, 03-J, 04-A/B, 05-D, 06-H, 07-E, and 08-G, dated April 13, 1992 (wd 328)

Those monitoring project:

- Jerry Harburn THA principal
- Junior Paul THA consultant
- Bob Garner BPI Project coordinator
- Ralph J. Stephenson Consultant

Actions taken:

- Attended construction meeting on Thursday, July 23, 1992 (wd 399)
- Reviewed current status of work with Mr. Paul and Mr. Garner
- Evaluated current status of work
- Updated network models to issue 3, dated July 23, 1992 (wd 399)
- Briefly inspected project

Summary:

The planned completion and turn over dates given below are taken from the tentative updated network model, issue #3, dated July 23, 1992 (wd 399). This network is currently being reviewed for distribution suitability by Mr. Garner.

Area F - Tentative planned completion and turn over - am August 13, 1992 (wd 414).

As of July 23, 1992 (wd 399), area F parking areas have been paved and striped, and are in use by MCC. Items remaining to be completed include installation of light poles and attachments, construction of headwalls, installation of landscaping, and installation of signage.

Consulting Engineer

July 25, 1992

Light pole delivery is currently set for the pm of July 31, 1992 (wd 406). Signage material delivery is currently set for the am of August 10, 1992 (wd 411).

Area F work is in good condition measured against current contract end dates.

Area C - Tentative planned completion and turn over - am August 17, 1992 (wd 416)

Area C has been paved and striped as of July 23, 1992 (wd 399). Remaining activities include installation of light poles and attachments, completion of curbs, gutters, sidewalks, landscaping, and installation of signage.

Area C work is in good condition measured against current contract end dates.

Area I - Tentative planned completion and turn over date - pm August 13, 1992 (wd 414)

Major remaining work to be completed at area J includes installation of new light poles and conduit, Consumers Power removal of existing light poles, landscaping, and clean up and move out.

There apparently has been considerable difficulty in getting Consumers Power to remove their light poles. No authentic information on this matter was available at our updating meeting. However Mr. Paul and others are attempting to obtain further data on the removal.

Aside from the removal of Consumers poles, area J is in good condition measured against current contract dates.

<u>Area A/B</u> - Tentative planned completion and turn over date - pm September 3, 1992 (wd 430).

The work pace at areas A/B is picking up and demolition is in work. The tv cable connection has been installed, and work is in progress at the dock leveler. Present plans, according to Mr. Garner, are to start installing curbs and gutters by July 27, 1992 (wd 401).

The tentative end date for area A/B is somewhat later than desired by the general contractor BPI. Mr. Garner is currently reviewing the tentative network plan to see where improvements in this completion date can be made.

Area A/B is in fair condition relative as measured against current contract dates.

Area D - Tentative planned completion and turn over date - pm August 19, 1992 (wd 419)

Lay out of area D is presently planned to begin on July 27, 1992 (wd 401). No major difficulties are currently foreseen in completing by the tentative planned completion date.

Area H - Tentative planned completion and turn over date - pm July 27, 1992 (wd 402)

There is very little remaining work in area H. The tentative completion was set as merely

Consulting Engineer

July 25, 1992

the length of the work remaining and shown starting at July 23, 1992 (399). However Mr. Garner may wish to change the starting date to better space out completion of the various areas. I shall discuss this with him after I get his review and comment on the issue 3 network.

Area E - Tentative planned completion and turn over date - pm August 31, 1992 (wd 427)

The heaviest concentration of work in area E currently is to complete installing and backfilling the large multiplate culvert. This installation is the action that unlocks the remaining work in the area. It is a fairly complex set of work activities but achievable by the target date of the pm of August 31, 1992 (wd 427).

General:

The project currently appears to be in a good position to meet its current target substantial completion date of the pm of September 4, 1992 (wd 431). Several area in which work has been proceeding have been made available to the owner, and a strong effort is being made to minimize disruption to campus traffic and services.

A possible problem as the project approaches completion is that the trades required to finish each area may now be required to do their work concurrently in several locations. This could cause availability difficulties.

Mr. Garner, Mr. Paul and I completed updating the network models for all areas to issue #3, dated July 23, 1992. Mr. Garner was given a full set of these networks for his review and comment. He will return them to me early the week of July 27, 1992 for completion and distribution of the updated work plan.

I recommend we monitor the project again in early to mid August, 1992 due to the considerable amount of work yet to be done, and because of the short time remaining to substantial completion of the project. I shall confirm the next meeting date with Mr. Harburn shortly.

This report is being sent to Mr. Jerry Harburn of THA. Further distribution will be by him.

Ralph J. Stephenson, P. E.

Consulting Engineer August 12, 1992

Subject:	Monitoring Report #07 C. S. Mott Community College Site work, phase 2 construction Flint, Michigan
Project:	92:19
Disks:	rjs #302, 313 and 324
Date of monitoring:	August 11, 1992 (wd 412)

Contract completion dates:

Substantial completion - pm September 4, 1992 (wd 431) Total completion - pm October 25, 1992 (wd 465)

Working days remaining to substantial completion: 19

Monitored from:

Issue #03, sheets #01-F, 02-C, 03-J, 04-A/B, 05-D, 06-H, 07-E, and 08-G, dated July 23, 1992 (wd 399)

Those monitoring project:

- Jerry Harburn THA principal
- Junior Paul THA consultant
- Bob Garner BPI Project coordinator
- Ralph J. Stephenson Consultant

Actions taken:

- Inspected project
- Reviewed current work status with Mr. Harburn, Mr. Paul and Mr. Garner
- Evaluated current status of work

Summary:

The planned completion and turn over dates given below are taken from the current monitoring network model, issue #3, dated July 23, 1992 (wd 399). The data in this model is from an updating review of the network model by Mr. Garner and me.

Area F - Tentative planned completion and turn over - am August 13, 1992 (wd 414).

Most Area F work is complete with the exception of landscaping, signage, and installation of light poles. Signage is due to begin August 17, 1992 (wd 416), and light poles are on the job awaiting start of installation. Landscaping installation will be done concurrently with completing the total project and as weather permits.

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

August 12, 1992

Area C - Tentative planned completion and turn over - am August 17, 1992 (wd 416)

Area C light pole installation, curb and gutter work, landscaping and signage remain to be completed. Light poles are on the job, curb and gutter is nearing completion, landscaping work is in progress. Signage will be done in mid August, 1992.

Area I - Tentative planned completion and turn over date - am August 18, 1992 (wd 417).

Major remaining work to be completed at Area J includes removal of existing light poles by Consumers Power, installation of new light poles and conduit, landscaping, and clean up and move out.

MCC must obtain a letter of approval from the City of Flint giving their permission to remove the existing light poles. This letter will then be given by MCC to Consumers Power, and Consumers Power will remove the existing poles.

<u>Area A/B</u> - Tentative planned completion and turn over date - pm August 25, 1992 (wd 423).

Grading is in progress at Area A/B. Paving should begin in the very near future. Curbs and gutters are nearly complete, except for corrective work. Construction at the loading dock is in progress.

Overall, work here lags the desired completion date by 2 or 3 working days. However Mr. Garner feels he can pick up some of the lag if good weather holds.

Area D - Tentative planned completion and turn over date - am August 20, 1992 (wd 419)

Existing light poles have been removed and the new light pole bases have been installed. Work remaining includes installation of new light poles, landscaping, and installing signage. Probably the Area D work will extend out to the the total project substantial completion date.

Area H - Tentative planned completion and turn over date - am August 11, 1992 (wd 413)

The only remaining Area D work to be completed is installation of new light poles. These are on the job and ready for installation.

Area E - Tentative planned completion and turn over date - pm September 4, 1992 (wd 431)

Culvert backfilling at Area E is complete and work is in progress on rough and finish grading for roads and parking areas. Currently work is meeting major early and late start and finish dates.

General:

The total project is in fair condition to meet its substantial completion date of the pm of September 4, 1992 (wd 431).

A current major problem is light pole erection at all areas. These poles must be operative by

Consulting Engineer August 12, 1992

the substantial completion date, since the school operation is one extending into nighttime from the start of the school year. Parking lot lighting is essential.

Mr. Paul, Mr. Teer, Mr. Garner and Mr. Harburn will discuss progress of the electrical work in detail at the construction meeting on Thursday, August 13, 1992 (wd 414).

I shall monitor the project again on Tuesday, August 18, 1992 (wd 417) in the late morning or early afternoon.

This report is being sent to Mr. Jerry Harburn of THA. Further distribution will be by him.

Ralph J/Stephenson, P. E.

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

September 1, 1992

Subject:

Monitoring Report #08 C. S. Mott Community College Site work, phase 2 construction Flint, Michigan

Project:

Disks: rjs #302, 313 and 324

Dates of monitoring: August 18 and 27, 1992 (wds 417 and 424)

92:19

Contract completion dates:

Substantial completion - pm September 4, 1992 (wd 431) Total completion - pm October 25, 1992 (wd 465)

Working days remaining to substantial completion: from August 27, 1992 (wd 424) = 7

Monitored from:

Issue #03, sheets #01-F, 02-C, 03-J, 04-A/B, 05-D, 06-H, 07-E, and 08-G, dated July 23, 1992 (wd 399)

Those monitoring project:

August 18, 1992 (wd 417)

Gerald Harburn - THA principal Junior Paul - THA consultant Bob Garner - BPI - Project coordinator Ralph J. Stephenson - Consultant

August 27, 1992 (wd 424)

Gerald Harburn - THA principal Junior Paul - THA consultant Harold Butler - CHMP architects and engineers Bob Garner - BPI - Project coordinator L. G. Penover - Conex Bob Malik - Conex John Hill - Huron Valley Electric Ralph J. Stephenson - Consultant

Actions taken:

• Inspected project on August 18, 1992 (wd 417)

• Reviewed current work status with Mr. Harburn, Mr. Paul, Mr. Garner, and others as available

• Evaluated current status of work

Attended construction meeting on August 27, 1992 (wd 424)

Summary:

As of the August 18, 1992 am (wd 417), the project is moving relatively well although work continues to bunch up and require heavy attention at all areas on similar activities. This trend was continuing through August 27, 1992 (wd 423). Thus problems have been experienced with progress on electrical installation, along with work slowness on paving, dock construction, signing, security equipment and to some extent, landscaping.

The current critical date for project substantial completion is to have the roads and parking facilities paved, striped, lighted and open to school traffic by the am of September 8, 1992 (wd 431). It appears currently that the substantial completion conditions will be met.

The total completion date for all work on the project is the pm of October 25, 1992 (wd 465). Achieving total completion by October 25, 1992 (wd 431), will depend upon totally installing several items not yet complete, including security equipment, and related devices and wiring.

There is considerable confusion about the status of security equipment and its current location. This tends to cloud the issue of actually being able to meet the total completion date. The project team is following this matter closely.

Cable pulling for electrical work will begin on Tuesday, September 1, 1992 (wd 427). According to the electrical contractor it will take about 30 hours of work at each end to make the terminations. The detailed work installation was not discussed at the meeting.

Paving and related work completion will depend on the weather. There has been considerable moisture recently and this has slowed field operations and interfered with work continuity. However the chances of meeting the paving work targets appear to be good.

Sign work installation is currently due to start on Monday, August 31, 1992 (wd 426) and installation will take five working days.

The status of the work as of August 18, 1992 (wd 417), or where noted, as of August 27, 1992 (wd 424), is summarized below.

Area F - Tentative planned completion and turn over - am August 13, 1992 (wd 414).

Major work remaining at area F as of August 18, 1992 (wd 417) included security system installation, landscaping, and site signage. It appears the area will be ready for parking by the am of September 8, 1992 (wd 431).

<u>Area C</u> - Tentative planned completion and turn over - am August 17, 1992 (wd 416)

As of August 18, 1992 (wd 417) work was in progress on curbs, gutters, sidewalks and related backfilling. Some landscaping was also being installed. Yet to be completed, in addition to the above, is security equipment, signing, and landscaping.

Consulting Engineer September 1, 1992

Area I - Tentative planned completion and turn over date - am August 18, 1992 (wd 417).

This area was not inspected.

Area A/B - Tentative planned completion and turn over date - pm August 25, 1992 (wd 423).

Areas A and B are very crucial geographic locations within the project. Paving of the roadway and parking lots is almost complete, but traffic has been restricted to minimize damage to finished surfaces and to reduce the hazards of working under traffic load. The bus shelters are being poured and miscellaneous other architectural work is in progress.

Work yet to be completed centers on electrical and security systems, signage and landscaping.

Area D - Tentative planned completion and turn over date - am August 20, 1992 (wd 419)

Area D is nearly complete except for electrical installation, landscaping touch up, signage, and clean up.

Area H - Tentative planned completion and turn over date - am August 11, 1992 (wd 413)

Area H is nearly complete except for security work and miscellaneous clean up.

<u>Area E</u> - Tentative planned completion and turn over date - pm September 4, 1992 (wd 431)

As of August 27, 1992 (wd 424) work is continuing on construction of curbs, gutters, sidewalks, and paving. Security installation, landscaping and signage are also yet to be completed.

Area G

Not inspected at this monitoring.

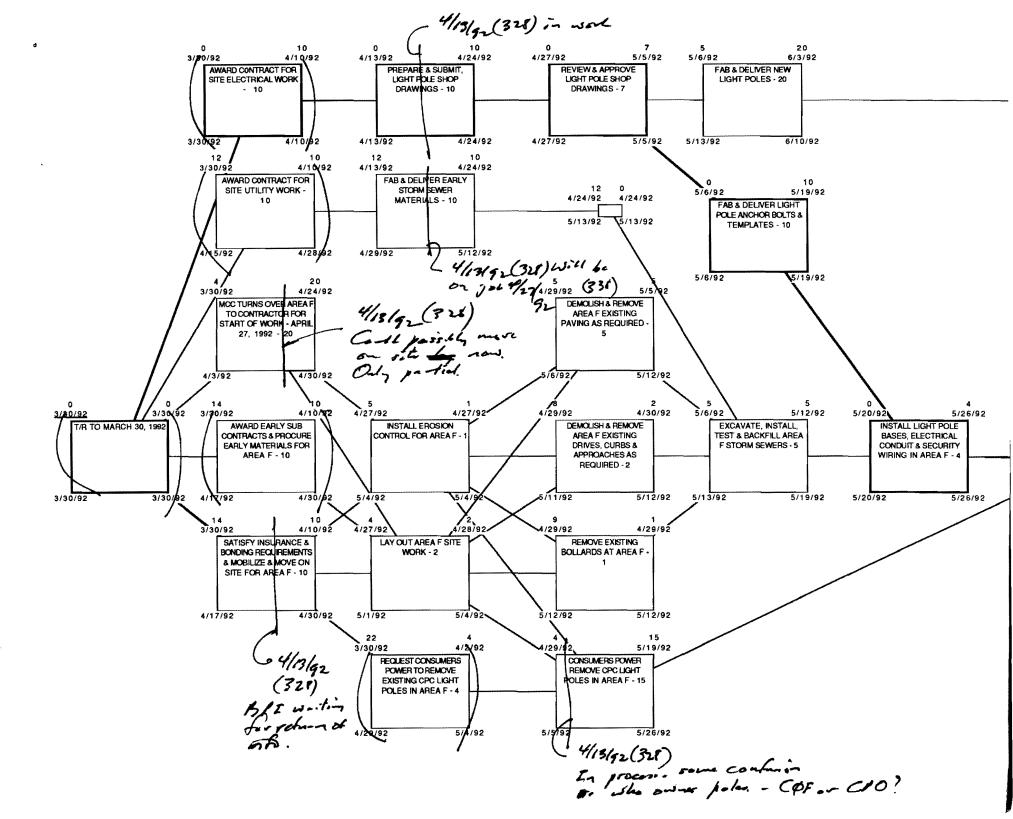
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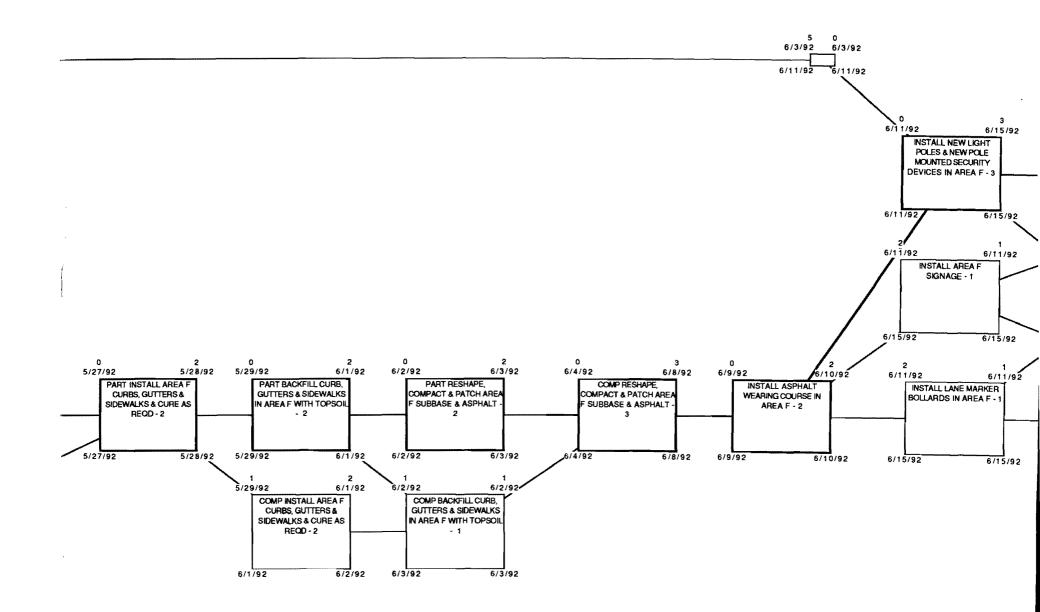
The overall project is in fair condition and the contractors should meet their substantial completion date requiring availability to the College for occupant parking by the pm of September 4, 1992 (wd 431). However it is doubtful that the electrical systems, particularly security, will be totally in place by this time.

Electrical and security work are the major tasks upon which to focus over the next week and are presently being given high levels of attention.

This report is being sent to Mr. Gerald Harburn of THA. Further distribution will be by him.

Ralph J. Stephenson, P. E.

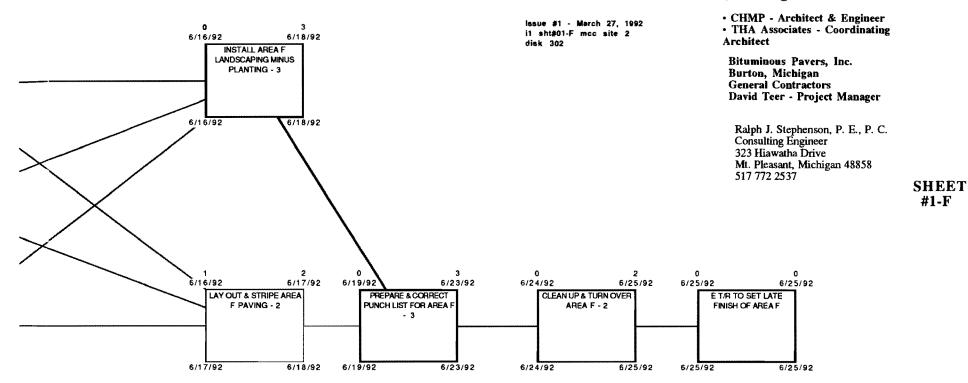




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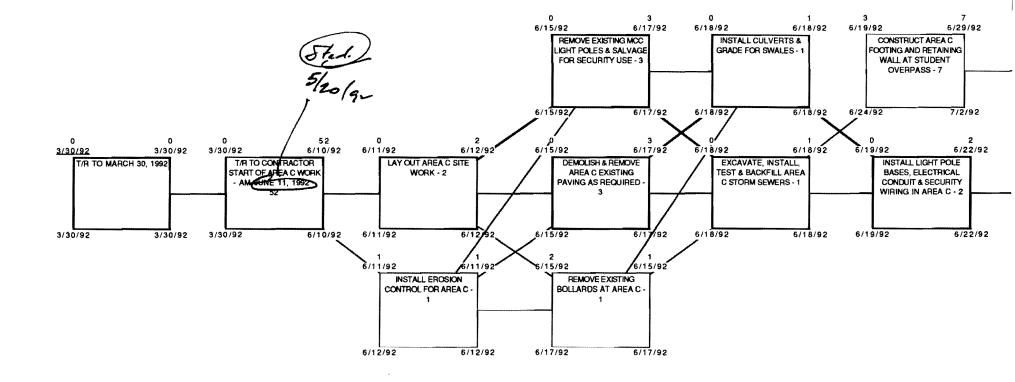
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NETWORK MODEL FOR MOTT COMMUNITY COLLEGE Flint, Michigan

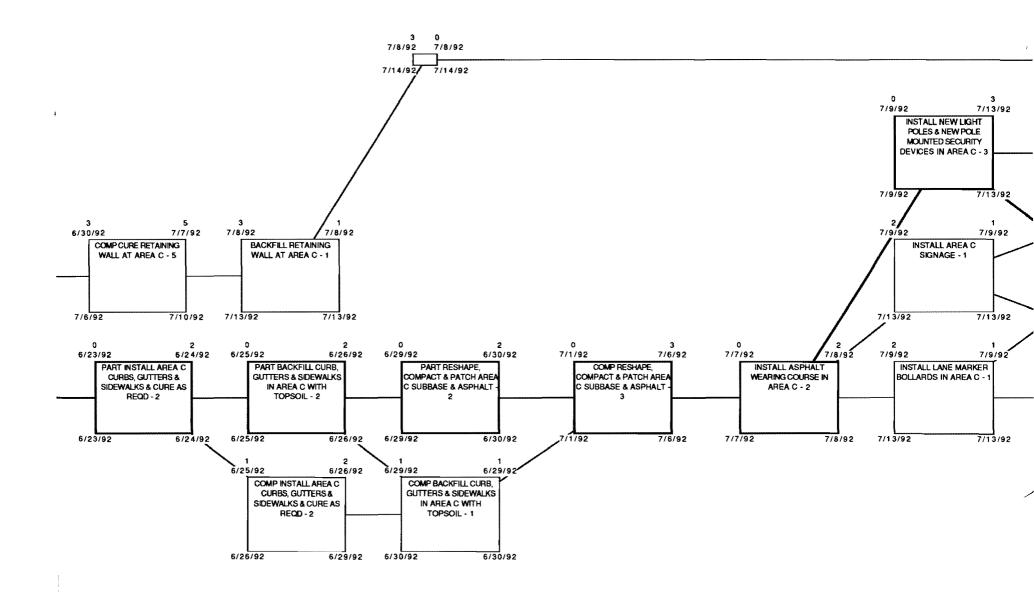


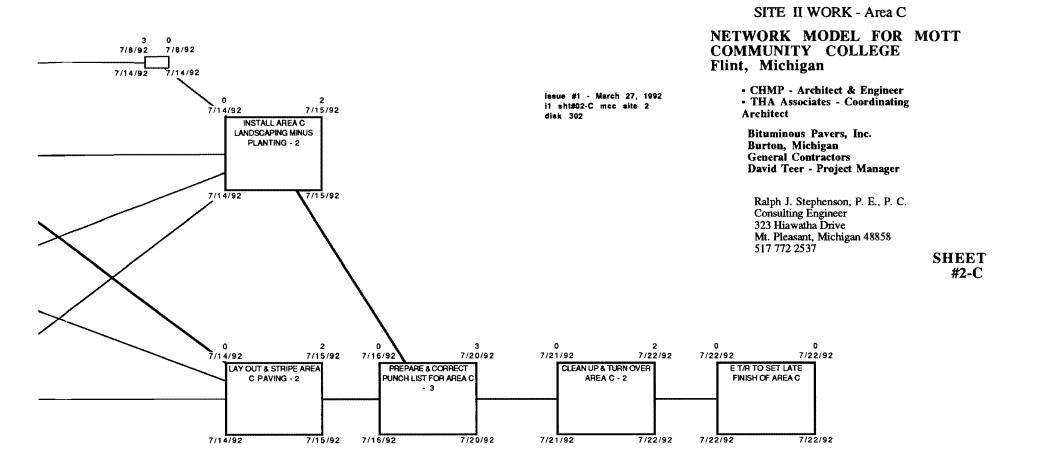
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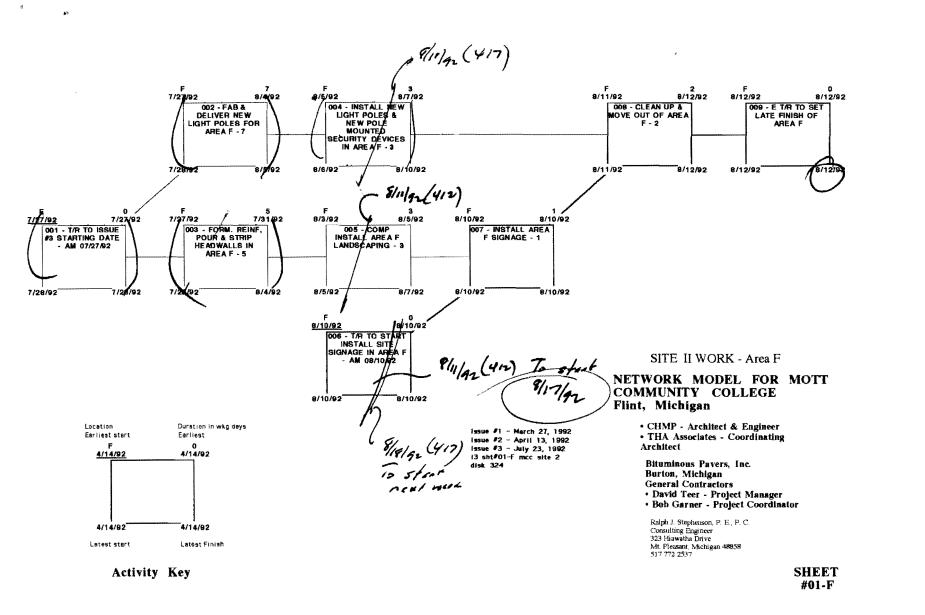
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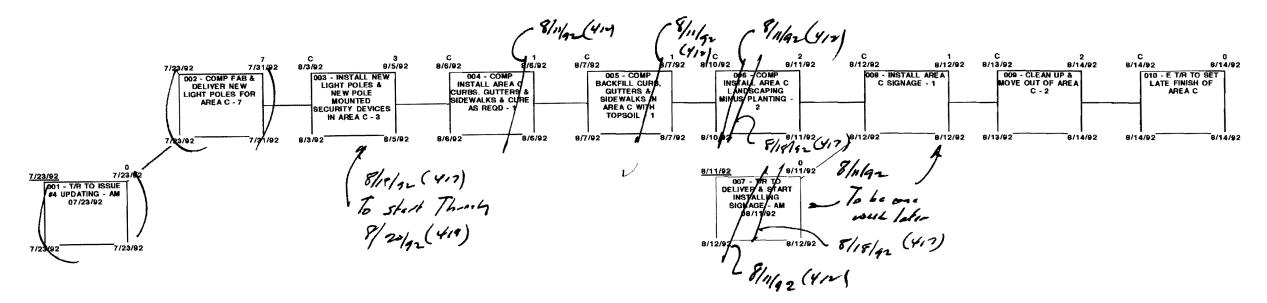
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SITE II WORK - Area C

NETWORK MODEL FOR MOTT COMMUNITY COLLEGE Flint, Michigan

• CHM	P - Archite	ct &	Engineer
• THA	Associates	- Co	ordinating
Archite	ect		

Issue #1 - March 27, 1992

Issue #2 ~ April 14, 1992

Issue #3 - July 23, 1992

i3 sht#02-C mcc site 2

disk 324

Bituminous Pavers, Inc. Burton, Michigan **General Contractors**

• David Teer - Project Manager • Bob Garner - Project Coordinator

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

517 772 2537

Mt. Pleasant, Michigan 48858

SHEET #02-C



Duration in wkg days Farliest 0 4/14/92 4/14/92

Latest Finish Latest start

Location

Earliest start

4/14/92

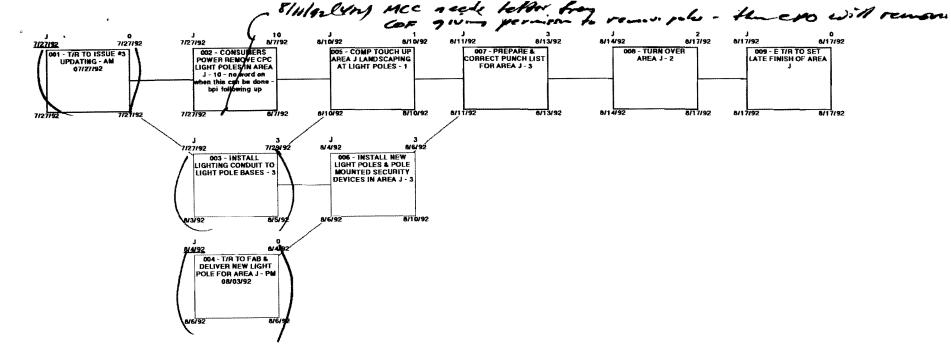
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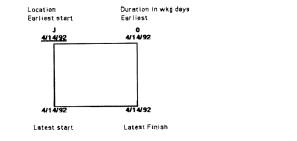
Activity Key



SITE II WORK - Area J

NETWORK MODEL FOR MOTT COMMUNITY COLLEGE Flint, Michigan

• CHMP - Architect & Engineer



Activity Key

issue #1 - not used Issue #2 - April 13, 1992 Issue #3 - July 23, 1992 i3 sht#03-J mcc site 2

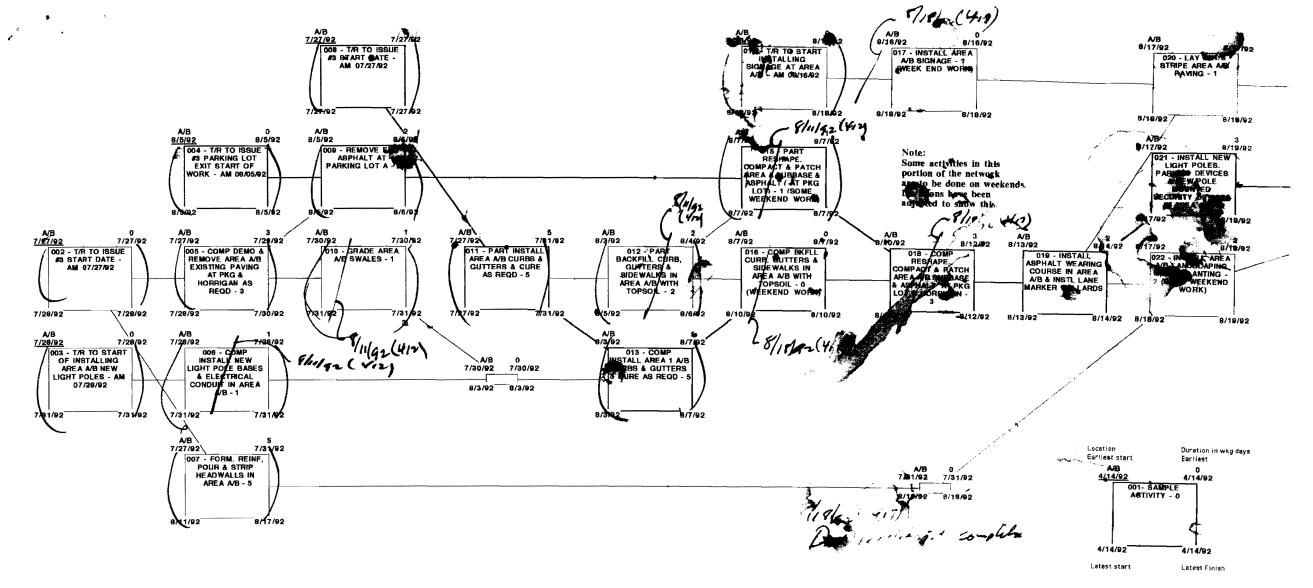
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• THA Associates - Coordinating Architect Bituminous Pavers, Inc.

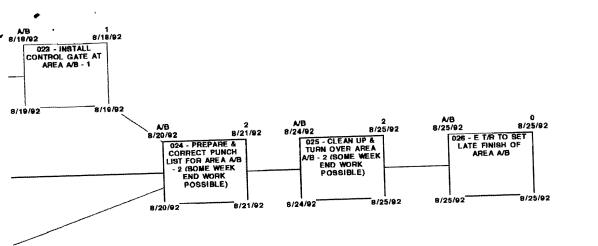
Burton, Michigan General Contractors • David Teer - Project Manager • Bob Garner - Project Coordinator

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

> SHEET #03-J



Activity Key



SITE II WORK - Area A/B

NETWORK MODEL FOR MOTT COMMUNITY COLLEGE Flint, Michigan

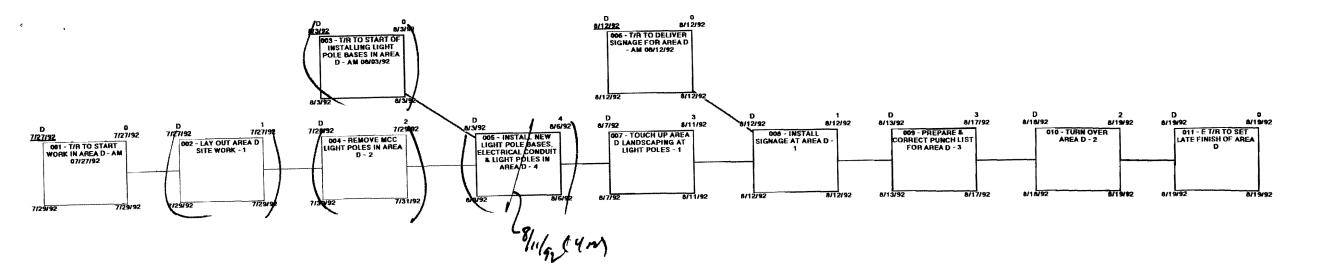
Issue #1 - not used Issue #2 - April 14, 1992 Issue #3 - July 23, 1992 I3 sht#04-A/B mcc site 2 disk 324 • CHMP - Architect & Engineer • THA Associates - Coordinating Architect Bluminous Pavers, Inc.

Burton, Michigan General Contractors • David Teer - Project Manager • Bob Garner - Project Coordinator

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

SHEET #04-A/B

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SITE II WORK - Area D

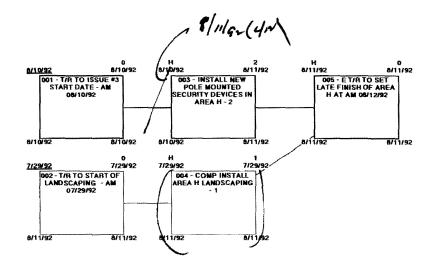
NETWORK MODEL FOR MOTT COMMUNITY COLLEGE Flint, Michigan



Location Duration in wkg days Issue #1 -Earliest start Earliest Issue #2 -D O Issue #3 -4/14/92 4/14/92 I3 sht#24 4/14/92 4/14/92 4/14/92 4/14/92 Letest Start Latest Finish

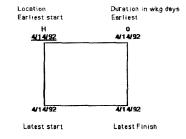
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SHEET #05-D



SITE II WORK - Area H

NETWORK MODEL FOR MOTT COMMUNITY COLLEGE Flint, Michigan



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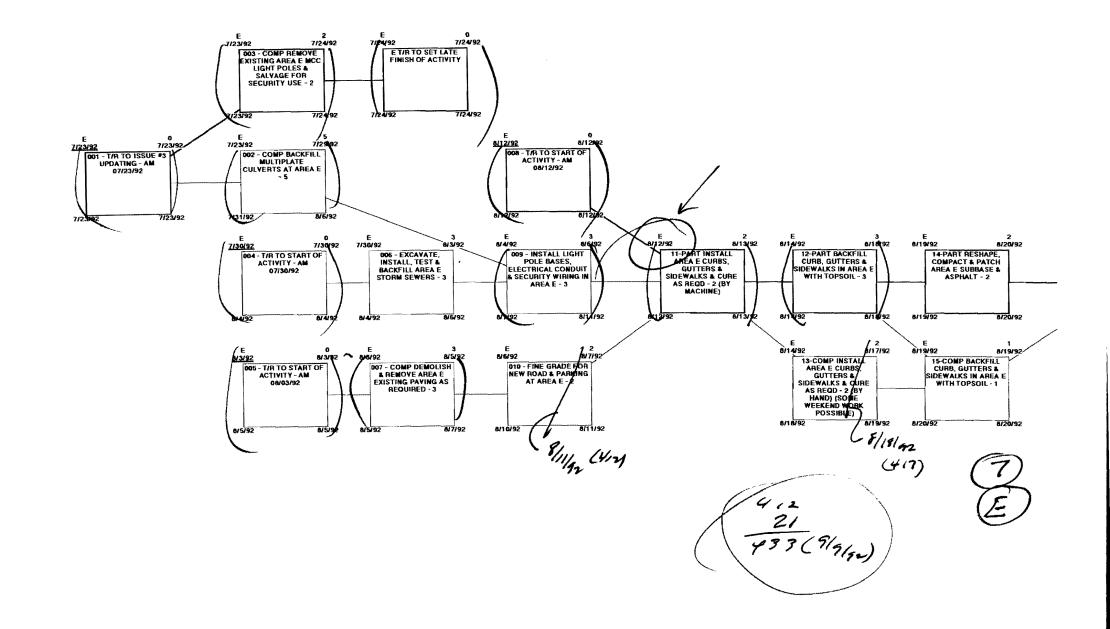
Activity Key

Issue #1 - not used Issue #2 - April 14, 1°92 Issue #3 - July 23, 1992 i3 sht#06-H mcc site 2 disk 324 CHMP - Architect & Engineer
THA Associates - Coordinating Architect
Bituminous Pavers, Inc. Burton, Michigan

General Contractors • David Teer - Project Manager • Bob Garner - Project Coordinator

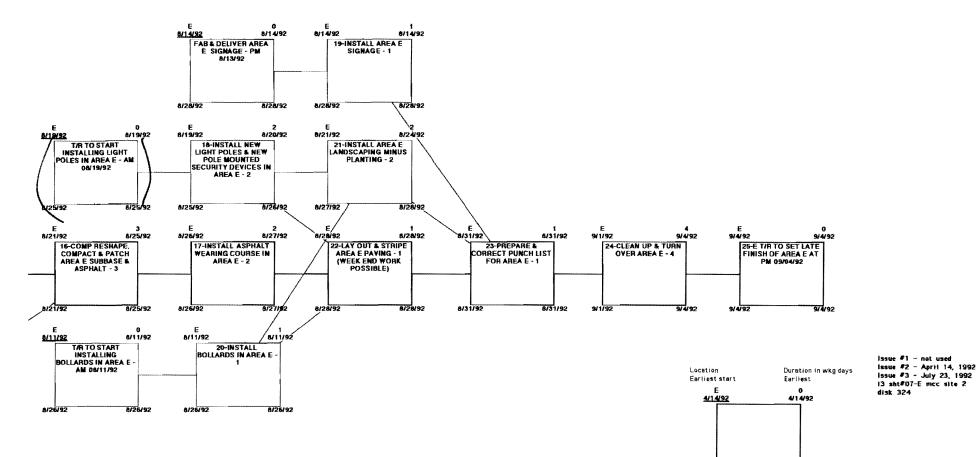
Ralph J. Stephenson, P. E., P. C. Consulting Engineer 323 Hiawatha Drive Mt. Pleasant, Michigan 48858 517 772 2537 (d) (H)

SHEET #06-H



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Latest start

Activity Key

4/14/92

Letest Finish

SITE II WORK - Area E

NETWORK MODEL FOR MOTT **COMMUNITY COLLEGE** Flint, Michigan

• CHMP - Architect & Engineer • THA Associates - Coordinating Architect

Bituminous Pavers, Inc. Burton, Michigan General Contractors • David Teer - Project Manager · Bob Garner - Project Coordinator

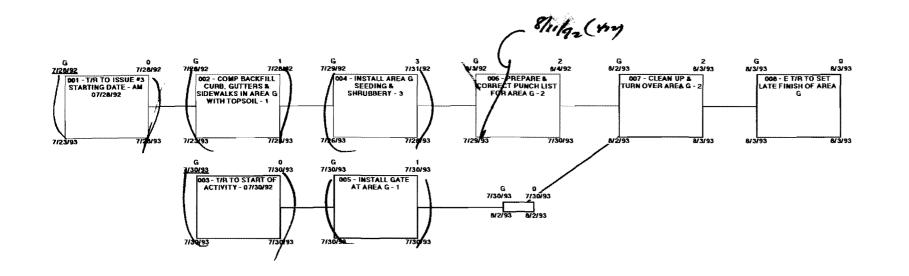
Ralph J. Stephenson, P. E., P. C. Consulting Engineer 323 Hiawatha Drive Mt. Pleasant, Michigan 48858 517 772 2537

> SHEET #07-E



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Location Duration in wkg days Earliest start Earliest G 0 4/14/92 4/14/92 4/14/92 4/14/92 Latest start Latest Finish

Activity Key

SITE II WORK - Area G

NETWORK MODEL FOR MOTT COMMUNITY COLLEGE Flint, Michigan

CHMP - Architect & Engineer
THA Associates - Coordinating
Architect

issue #1 - not used

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Issue #2 - April 14, 1992

Issue #3 - July 23, 1992 i3 sht#08-6 mcc site 2 Bituminous Pavers, Inc. Burton, Michigan General Contractors • David Teer - Project Manager • Bob Garner - Project Coordinator

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