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RALPH J. STEPHENSON, P. E., P. O.
CONSULTING ENGINEER

November 8, 1984

Subject: Monitoring Report #1
Contract C-3 Finish Site Work
Scott Regional Facility
Northville, Michigan
Bureau of Facilities
State of Michigan
Account #110-47-2699-001

Project: 84:29

Date of Monitoring: October 24, 1984 (working day 209)

Monitored from Issue #1 dated October 24, 1984 (working day 209)

Actions taken:

- Reviewed finish site work requirements with prime contractors on site work and on other portions of total contract
- Prepared laundry list of items to be included in finish site work
- Prepared site area proposed availability plan for further study and review
- Prepared preliminary network models, sheet #1, Issue #1, dated October 24, 1984 (209) for areas SA-1 and SA-2

General Summary

This was the first session to discuss site work on the project and we reviewed the entire site work program in detail. Some prime contractors from the contract A, B, and C groups along with Honeywell were at the session and contributed their ideas to the planning work. Since proposed site improvement partially overlap the present construction access roads and parking areas, planning for completion of this site work will have to be done carefully so that access to the various facilities is able to be maintained by the various contractors.

For preliminary purposes we have divided the site into nine major areas. These are to be made available to the site work contractor on a staggered basis based upon when it appears

that most interfering work will be completed at each of the facilities. This set of site plan divisions along with the preliminary network model, sheet #1, Issue #1, dated October 24, 1984 (working day 209) was printed and distributed to the various contractors by Mr. McComb.

The various site areas identified include the following:

- Site area #1 - easterly third of the site containing no proposed building facilities. Tentatively available 10-24-84 (working day 209)
- Site area #2 - northwest section of the site bounding buildings 200 and 600 on the outside. Tentatively assumed to be available in mid-April, 1985.
- Site area #3 - that portion of the site bounding building 100 to the west and a part of the parking area to the south. Tentatively assumed available about early June, 1985.
- Site area #4 - the area between buildings 100 and 200, and 100 and 300, and 400 and 700. Tentatively assumed to be available about early August, 1985 with perhaps a slightly earlier availability for concrete work.
- Site area #5 - the site area bounded by area #1 and buildings 600, 300, 700, and 400. Tentatively assumed to be available in mid-September, 1985.
- Site area #6 - the southwest portion of the site. Tentatively assumed to be available about mid-November, 1984.
- Site area #7 - the site area between building 400 and site area #3 to the southeast of building 100. Tentatively assumed to be available about mid-September, 1985.
- Site area #8 - the court area inside buildings 600, 500, 200 and 300. Tentatively assumed available about early July, 1985.
- Site Area #9 - road improvements to Five Mile at south of site. Generally assumed in early May, 1985.

It is again to be stressed that these area definitions and availability dates are, at present, tentative and for review and comment only. We will be meeting again soon to review them in more detail, and to begin establishing firm dates and methods by which the site areas can be properly turned over.

It is important to understand that the site work must be done, and that the major portion has to be completed by winter of 1985. The reason for this is that the contract completion date is currently July 2, 1986 p.m. (working day 640) and since there is very little time to do site work in 1986, most work will have to be completed prior to the onset of cold weather in 1985. Thus, an orderly transition of the site areas to the site work contractor and then back again to the owner as needed must be carefully planned and evaluated.

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RALPH J. STEPHENSON, P.E., P.C.
CONSULTING ENGINEER

I shall be in touch with Mr. McComb shortly to set the next
site work planning session.

Ralph J. Stephenson, P.E.

RJS:sps

To: Mr. Robert McComb

cc: Mr. David Renshaw
Mr. Warren Haskell
Mr. Leo McGough

84-29-C-3

RALPH J. STEPHENSON, P. E., P. C.
CONSULTING ENGINEER

November 8, 1984

Mr. Robert McComb
State of Michigan
Department of Management and Budget
Box 30026
Mason Building
Lansing, Michigan 48909

Dear Bob:

As noted, I have sent copies of this monitoring report only to you, Mr. David J. Renshaw, Mr. Warren Haskell at Zappe, and Leo McGough at TMP. It seems to me that it would be a wise move to distribute the report to all prime contractors on the job, but I did not want to do this on my own. If you feel the site work monitoring reports should go to other contractors, please distribute them as you see fit.

I also am assuming that you provided copies of the site work plan divisions to the other contractors affected by it.

Ralph J. Stephenson, P.E./

RJS:sps

March 5, 1985

Subject: Monitoring Report #2
Contract C-2 Fence Work and C-3 Finish Site work
Scott Regional Facility
Northville, Michigan
Bureau of Facilities
State of Michigan
Account #110-47-2699-001

Project: 84:29C

Date of Monitoring: February 27, 1985 (working day 296)

Actions taken:

- Reviewed general planning considerations for overall site work
- Revised site plan as discussed during sessions
- Prepared network models for site areas #2, #4, #5, #6, and #8
- Reviewed and confirmed network model for portion of site area #1
- Completed laundry list for site areas #3, #7, #9, and #10
- Took overview pictures of site from owner trailer area

General Summary

The site work contractor for C-3 was at the meeting along with representatives of the owner and the engineer. There were no representatives from the C-2 contract, fence work, or for the G contract, security. Therefore, information pertaining to security and fence contracts were inserted into the network models and is expected to be reviewed by the respective contractors. Copies of the rough network diagrams sheets #1, #2, #3, and #4 Issue #2 dated February 27, 1985 (working day 296) have been sent to each prime contractor for his review and comments. If there are any revisions to these network models, it would be greatly appreciated if they could be conveyed to either Mr. McComb or me as quickly as possible.

• CRITICAL PATH PLANNING

RALPH J. STEPHENSON, P. E., P. C.
CONSULTING ENGINEER

Monitoring Report #2
• LAND Contract C-2 and C-3
Page two

15064 WARWICK ROAD
DETROIT, MICHIGAN 48223

• MANAGEMENT CONSULTING

Also contributing to the meeting was the general contractor for contract B, and although not present at the meeting, the general contractor for the A contractor who conveyed comments through the owner's representative.

• PLANT

The major thrust of this meeting was to review the approach decided upon at our first monitoring session in October, 1984 when the site was divided into nine major areas. At this session we sub-divided area #4 into two sections and made area #10 the portion of the site between buildings 400 and 700. This was done since the work on building 700 is probably going to be done later than had been anticipated and therefore, this area will have to be given special consideration.

Other areas remain substantially as described in Monitoring Report #1 dated November 8, 1984. There were some minor modifications to the boundaries of areas #2, #5, #6, and #7 as well as #4, and these will be reflected in an updated site plan to be issued soon. The changes at area #2 include an extension of the boundary to the east in area #8, and also to encompass the planned access road at the south of area #2 south to the boundary of area #6. At area #7 the fence section C on up to the masonry enclosing walls at building 100 were included as a part of area #7.

Today we first concentrated on preparing a network model for site area #2 using a projected starting date of April 15, 1985 (working day 329). This brought general completion of the work exclusive of the perimeter fence, gates, security system, and guard shack to about mid-October, 1985. Apparently gas service for the site is to be brought into the site on an east/west line just north of the owner's site trailers. A decision on this is being made presently.

So far as the owner relocating their field offices, it may be possible to start work on the project with verification of grades, layout, and rough grading without having to relocate the owner's office. At some point in the near future, however, the owner plans to move into one of the buildings and this will free up the area completely.

Soil erosion control work is to be ongoing and part of each appropriate activity shown in the network model. There are some temporary power poles on the site, but efforts have been made to locate these so they will not interfere with paving and other work.

As with all areas, assumptions were made on site area #2 activities as to the position and duration of fence work and security work. It would be appreciated if Zappe and Honeywell would check these network plans carefully to be certain they meet with their approval.

We next prepared a network model for site area #6 which is perhaps the simplest of the area work to be done. No starting date was set for this section since there is only about 15 working days of operations required. It will be started whenever convenient to the site contractor.

Site area #8 was worked on next since it is one of the more complex portions of the project. We made the assumption that site area #8 could start about July 8, 1985 (working day 387) and would complete by late August, 1985. Care must be taken at site area #8 to do the work so the impact upon abutting buildings is kept to a minimum. This is a major consideration when doing the planning for the area and all present at the session understands the importance of this program. The matter will be discussed with the other contractors as planning meetings are held to update or complete planning of their work.

Site area #5 was worked on next and is presently to start about September 16, 1985 (working day 436) and be complete by mid-November, 1985. At area #5 as with all areas where landscaping and plantings are used, the seasonal requirements of such work must be taken into account. It is possible that some of the planting and landscaping work will have to carry on past the end dates presently desired. This matter will be investigated for each of the areas as planning proceeds.

The last area to be planned at this session was area #4, presently set to begin by August 1, 1985 (working day 405), and be complete by mid-November, 1985. At first, attempts were made to tie area #4 into the space between buildings 400 and 700. However, because of the startup problems that have been encountered at building 700 we split area #4 away from that area between the buildings and has been planned separately.

Of importance to area #4 work will be getting a portion of the masonry screen walls at buildings 200 and 100 up at least above grade without finishing them so that paving work can proceed and access can be maintained to the site. It was highly recommended that the site work contractor maintain contractor to contractor discussions with each of the other primes to insure that as much informal information can be conveyed and discussed as possible. There is no doubt that careful and continuous cooperation between the contractors will be essential on a day to day basis in order to bring site work to a successful completion with minimal interference with other contracts in work. This will demand careful and cooperative attention from all involved. I recommend that during any of the site work conferences the other prime contractors be invited to participate if they feel it of help.

April 2, 1985

Subject: Monitoring Report #3
Contract C-2 Fence Work and C-3 Finish Site Work
Scott Regional Facility
Northville, Michigan
Bureau of Facilities
State of Michigan
Account #110-47-2699-001

Project: 84:29C2/3

Date of Monitoring: March 26, 1985 (working day 315)

Monitored from Issue #2 dated February 27, 1985 (working day 297)

Actions taken:

- Completed preparing site work network plan for areas #1 through #10, Issue #3 dated March 26, 1985 (working day 315) sheets #1 through #6
- Reviewed overall status of C-2 and C-3 work with contractors, owner, and architect/engineer

General Summary

This meeting was attended by the C-2 fence work contractor and the C-3 finish site work contractor along with representatives from the owner and the architect/engineer's office. We reviewed the network models that had been prepared to date and then completed all site work for areas S-1 through S-10. The only sections yet to be diagrammed are the exterior fence work for B, C, D, and E. The fence contractor said that installation of these sections could proceed on the basis of the logic plan presently shown for site area #1 fence section A. He gave us estimated elapsed durations for each of the other fence installations. I shall have these drafted into the final network when it is prepared.

Of great importance was setting starting dates for each of the major site areas. The reference to site areas given below is that generally established in our meeting of October 24, 1984

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CONSULTING ENGINEER

(working day 209) and confirmed and refined in our meeting of February 27, 1985 (working day 296). A brief review of each of the site area starting dates is given below:

- Area #1 - to start April 15, 1985 (working day 329)
- Area #2 - to start April 15, 1985 (working day 329)
- Area #3 - to start June 3, 1985 (working day 363)
- Area #4 - to start August 1, 1985 (working day 405)
- Area #5 - to start Sept. 3, 1985 (working day 427)
- Area #6 - to start May 1, 1985 (working day 341)
- Area #7 - to start July 8, 1985 (working day 387)
- Area #8 - to start July 8, 1985 (working day 387)
- Area #9 - to start May 1, 1985 (working day 341)
- Area #10 - to start July 15, 1985 (working day 392)

Area #10 is the space between buildings 400 and 700. This is a very critical area and contains a considerable amount of difficult site work.

These planned starting dates are substantially as outlined in the monitoring and planning meeting of October 24, 1984 (working day 209). A review of the dates was given in Monitoring Report #1 dated November 8, 1984. I suggest the owner and architect/engineering representative confirm these dates of starting with the various other contractors on the job so that there is a full awareness of the present anticipated starting point for all site work.

In our planning it was assumed that seeding and sodding would be done sometime between August 15, 1985 (working day 415) and September 27, 1985 (working day 445). Planting is to be done sometime between October 1, 1985 (working day 447) and November 29, 1985 (working day 489). These constraints were applied to all areas irrespective of other work except that set of activities that might damage the site work if the two were being installed concurrently.

A major effort will be made to get all hard surfaces installed on the site by mid-fall, 1985. This is imperative due to the weather constraints that will be held over into 1986. Thus, present plans are to complete all contract C-2 and C-3 work in 1985.

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The network model has been distributed to the prime contractors on C-2 and C-3 contracts for their review and comments. Meanwhile, I shall plan to have this network model drafted into final form. If there are any changes it would be appreciated if they would be conveyed either to Mr. McComb or myself directly.

Ralph J. Stephenson, P.E.

RJS:sps

To: Mr. Robert McComb
cc: Mr. David Renshaw
Mr. Warren Haskell
Mr. Leo McGough

May 9, 1985

Subject: Monitoring Report #4
Contract C-2 Fence Work and C-3 Finish Site Work
Scott Regional Facility
Northville, Michigan
Bureau of Facilities
State of Michigan
Account #110-47-2699-001

Project: 84:29C2/3

Date of Monitoring: May 3, 1985 (working day 343)

Monitored from issue #3 dated March 26, 1985 (working day 316)
sheets C-2, C-3, #1, #2, #3, #4, #5, and #6

Actions taken:

- Inspected project
- Conferred re project status with owner's representative

General Summary

As of May 3, 1985 (working day 343) no major production site work has yet begun. Work at areas #1 and #2 were to have begun on April 15, 1985 (working day 329), but as yet there is no word on when field installation will actually begin. Also, it appears that few, if any, submittals have been received on fence work, concrete design mixes, or fill material to be used. It is critical on this kind of work that these submittals be submitted and processed promptly, and I suggest that the matter be addressed immediately to determine what submittals have been received.

Although there is some float time available on site work, it is to be stressed that the need for completing the site work in 1985 is high, and that any work that can be done early should certainly be explored. There are areas for the site contractor to begin his operations, and it would be well for the open areas to be examined and a determination made as to how much work can be done at them.

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Contract C-2 Fence Work and
C-3 Finish Site work
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There have also been continued recommendations to the site contractor that he stay in close in touch with the other prime contractors to determine the needs and sequences at each of the areas. There was no word today as to whether this has been done or not. If it has not been done, it is strongly recommended the site work contractor take immediate steps to do this to avoid disruptive conflicts with other work. High production rates are expected during the summer time on the other contracts particularly on outside close in work. Thus, it becomes imperative that a close cooperative effort be maintained so that work can proceed on both site work and building work.

At subsequent monitorings, it would be well if a representative of the site work and fence contractor could be available for scheduled review. I shall discuss this with the owner's representative and proper notification can then be given for this purpose.

I shall be in touch with Mr. McComb shortly to set the next monitoring session.

Ralph J. Stephenson, P.E.

RJS:sps
To: Mr. Robert McComb
cc: Mr. David Renshaw
Mr. Warren Haskell
Mr. Lee McGough
Mr. Rupert Davey
Mr. Walter Saraboll

M
RALPH J. STEPHENSON, P. E.
CONSULTING ENGINEER

June 13, 1985

Subject: Monitoring Report #5
Contract C-2 Fence Work and C-3 Finish Site Work
Scott Regional Facility
Northville, Michigan
Bureau of Facilities, State of Michigan
Account #110-47-2699-001

Project: 84:29C2/3

Date of Monitoring: June 7, 1985 (working day 367)

Monitored from Issue #3 dated March 26, 1985 (working day 315)

Actions taken:

- Inspected project
- Conferred re project status with owner's representative
- Conferred re project status with architect/engineer representative

General Summary

The drafted network model for C-2 and C-3 work Issue #3 dated March 26, 1985 (working day 315) sheets #1 through #6 has been issued to all concerned. The date shown in this network model are presumed to be those satisfactory to the C-2/C-3 contractor.

As of June 7, 1985 (working day 367) no major site work has started with the exception of some miscellaneous placement of stakes. Early start dates for areas S-1, S-2, S-3, and S-9 have passed, and no work is yet started in these areas. The late start date for S-2 has also passed. From information obtained from the owner's representatives and the architect/engineer's representatives there seem to have been few, if any, submissions made on the material and equipment to be used for the C-2 and C-3 work. There have been some limited contacts made by the C-2/C-3 contractors with contractors for projects A, B, and C. However, as yet there does not appear to be any major thrust to initiate site work as had been planned.

I strongly recommend an immediate conference be held with the C-2/C-3 contractors to determine their intent since close coordination of effort is absolutely critical to maintaining continuity on site work and getting it completed prior to the contract completion dates. It was the intent of the C-2/C-3 contractor to do as much work as possible this year; good weather is now available and work must be started on those areas that can be worked upon as soon as possible.

An area map has been issued by the owner identifying each of the major site area outlines and although it is not a firm document, since it is subject to change as required or needed, it does provide a guideline for the contractors to help them in identifying their work areas.

Again, site work is very critical and must be given careful attention if it is to be completed within the desired time frames.

A list of the key dates taken from the network model Issue #3 dated March 26, 1985 (working day 315) is given below:

Area	Desired Early start	Late Start	Desired Late Finish		
S1	4-15-85 (329)	6-24-85 (378)	9-13-85 p.m. (436) 9-30-85 p.m. (407)	7- (58)	436 378 <u>58</u>
S2	4-15-85 (329)	5-22-85 (356)	8-30-85 p.m. (427)	(71)	427 356 <u>71</u>
S3	6-3-85 (363)	7-24-85 (399)	9-6-85 p.m. (431)	(32)	431 399 <u>32</u>
S4	8-1-85 (405)	8-1-85 (405)	11-13-85 p.m. (479)	(74)	479 405 <u>74</u>
S5	9-3-85 (427)	9-3-85 (427)	10-24-85 p.m. (465)	(38)	465 427 <u>38</u>
S6	9-23-85 (441)	9-24-85 (442)	10-14-85 p.m. (457)	(15)	457 442 <u>15</u>
S7	7-8-85 (387)	8-22-85 (420)	9-13-85 p.m. (436)	(10)	
S8	7-8-85 (387)	8-20-85 (418)	10-14-85 p.m. (457)	(39)	457 418 <u>39</u>
S9	5-1-85 (341)	6-10-85 (368)	9-13-85 p.m. (436)	(68)	436 368 <u>68</u>
S10	7-15-85 (392)	7-15-85 (392)	10-29-85 p.m. (468)	(76)	

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Contract C-2 and C-3 Scott Regional Facility
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RALPH J. STEPHENSON, P. E.
CONSULTING ENGINEER

This set of dates indicates that the lags over late starts presently being encountered are in S2 where the lag currently is 11 working days. As can be seen from the table, other late start dates are being rapidly approached, and consideration should be given to how site work will be initiated. I shall continue to monitor the project in accordance with the network models currently in effect; however, if the project continues to lag an updating may be necessary.

Ralph J. Stephenson, P.E.

RJS:sps

To: Mr. Robert McComb
cc: Mr. David Renshaw
Mr. Warren Haskell
Mr. Leo McGough
Mr. Rupert Davey
Mr. Walter Baraboll

August 2, 1985

Subject: Monitoring Report #6
Contract C-2 Fence Work and C-3 Finish Site Work
Scott Regional Facility
Northville, Michigan
Bureau of Facilities, State of Michigan
Account #110-47-2699-001

Project: 84:29C2/3

Date of Monitoring: July 24, 1985 (working day 399)

Monitored from Issue #3 dated March 26, 1985 (working day 315)

Actions taken:

- Inspected project
- Conferred briefly with Elgin superintendent re project status
- Discussed project status with owner representative
- Evaluated current job status

General Summary

As of July 24, 1985 (working day 399) work is in progress at site area #2. Excavating for access roads is under way, underground utility work has proceeded, and it appears that the fuel tank near the 600 building has been installed and backfilled. This work currently lags the Issue #3 network model dated March 26, 1985 (working day 315) by about 26 working days. This lag is measured against a desired late finish of the area work of September 30, 1985 (working day 447). (Please note that in Monitoring Report #5 page #2 the desired late finish of the S-2 area was shown as August 30, 1985 p.m. (working day 427). It should read September 30, 1985 p.m. (working day 447). Please make this revision to your network).

The only major work proceeding on site installation at this time is in area #2. Efforts are apparently being made to free up other work areas, and we shall monitor this activity on an ongoing basis.

Monitoring Report #6

Contract C-2 Fence Work and C-3 Finish Site Work
Page two

RALPH J. STEPHENSON, P. E., P. C.

CONSULTING ENGINEER

The owner's representative reported that fence installation is due to start within the few weeks and that the fence contractor will move on the site and try to maintain as much continuity as possible in his work. Once site work installation begins in a production mode, which should be sometime in the very near future, I recommend we update the network models on sheets C2/3 #1 through #6, Issue #3, dated March 26, 1985 (working day 315) to provide a suitable plan of work for proper monitoring and evaluation. I shall discuss this with Mr. McComb in the near future.

Ralph J. Stephenson, P.E.

RJS:sps

To: Mr. Robert McComb
cc: Mr. David Renshaw
Mr. Warren Haskell
Mr. Leo McGough
Mr. Rupert Davey
Mr. Walter Baraboll

September 6, 1985

Subject: Monitoring Report #7
Contract C-2 Fence Work and C-3 Finish Site Work
Scott Regional Facility
Northville, Michigan
Bureau of Facilities, State of Michigan
Account #110-47-2699-001

Project: 84:29C2/3

Date of Monitoring: August 29, 1985 (working day 425)

Monitored from Issue #3 dated March 26, 1985 (working day 315)

Actions taken:

- Inspected project
- Spoke briefly with Elgin superintendent
- Discussed project progress with owner representative
- Briefly evaluated current job status

General Summary

Site work is in progress primarily in the northwest sections, areas #2 and #8. A detailed evaluation was not made as of this monitoring since a brief inspection of the field progress shows that at area #2 work is not yet started on mass excavation for the sally port pit, and work is just being completed on underground lines in that section of the site. Sally port mass excavation was due to start no later than June 17, 1985 (working day 373). Thus, the current lag in work over late starts and late finishes is about 52 working days.

At area #8 grading is under way, and was due to begin on August 20, 1985 (working day 418) so is just meeting late start targets.

No work on fencing has begun as yet and there was no current information on when this operation would begin.

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Contract C-2 Fence Work and C-3 Finish
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RALPH J. STEPHENSON, P.E., P.C.
CONSULTING ENGINEER

There was no discernible site work under way at the other areas although a detailed inspection was not made of each.

Due to the fact that we are now into early September, 1985 and there still remains practically all the major site work yet to complete, I recommend we meet in the very near future to update the current network model Issue #3 dated March 26, 1985 (working day 315) to more nearly reflect what is the site contractors plan for installation of this very important operation on the job. Prior to this meeting it would be well to have all concerned be certain to clear away any loose end that might be unresolved in terms of decisions, submittals, approvals, revisions or other such items that impact on progress of the site work installation.

Ralph J. Stephenson, P.E.

RJS:sps

To: Mr. Robert McComb
cc: Mr. Tom Davis
Mr. Warren Haskell
Mr. Leo McGough
Mr. Rupert Davey
Mr. Walter Baraboll

October 2, 1985

Subject: Monitoring Report #8
Contract C-2 Fence Work and C-3 Finish Site Work
Scott Regional Facility
Northville, Michigan
Bureau of Facilities, State of Michigan
Account #110-47-2699-001

Project: 84:29C2/3

Date of Monitoring: September 19, 1985 (working day 439)

Monitored from Issue #3 dated March 26, 1985 (working day 315)

Actions taken:

- Inspected project
- Reviewed project progress with owner representatives
- Evaluated current job status

General Summary

Work has begun to intensify on certain site areas. However, it does not appear that any major production site operations are yet in work.

A brief review of the status of each major area is given below. These areas refer to those defined on the proposed site work plan, dated May 7, 1985 issued by the State of Michigan.

Site area #1 - Some minor work is in progress on verifying grades for the fence line. However, no actual physical improvements are in work. This area was available October 24, 1984 (working day 209).

Site area #2 - Work has proceeded off and on in this area, and at present storm and drain lines are substantially complete, tank foundations are in, and the tank is set and backfilled. Some grading is in evidence adjoining site area #8, but presently work there is not yet in full production.

Site area #3 - This area is still relatively untouched although some grades have been varified and some underground storm lines and drain tile have been placed. It is important for the site work contractor to make known the needs that they have so that the other contractors can schedule their moves in and out of the areas in which the site work contractor wishes to conduct operations. This matter will have to be addressed at most areas on an ongoing basis due to the nature of the site work.

Site area #4 - Grades have been verified at site area #4 and some layout has started. However, no production work is under way as yet.

Site area #5 - No major work has started yet at this area.

Site area #6 - No major work has started yet at this area.

Site area #7 - No major work has started yet at this area.

Site area #8 - Grades have been verified, and layouts and some rough grading has begun. The underground storm drain tile is apparently installed at this area.

Site area #9 - No major work has yet been started at this area. Bulletin #6 has been released and was in the contractors' hands as of September 13, 1985 (working day 435). The permit for this work has not yet been obtained.

Site area #10 - Some work has begun on verifying grades, and laying out the area. This is a complex section of the site; however, the contractor on buildings 400 and 700 has expressed a willingness to work with the site work contractor and to assist in making the area available as needed. Again, I suggest that ongoing cooperative conversations continue so that the other prime contractors on the site are fully aware of the needs and desires of the site work contractors for C-2 and C-3. This is an essential part of this type of work, and it is only with a cooperative effort that the site and building work can proceed hand in hand as is the intent.

Site area #10 will be one of the more difficult of the areas to complete, but it appears that some work could start there when an agreement in terms of where work can proceed is reached. Again, this is a cooperative matter and should be addressed aggressively by the site work contractor.

Monitoring Report #8
Scott Regional Facility, Contract C-2 and
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RALPH J. STEPHENSON, P. E., P. C.
CONSULTING ENGINEER

General

As yet, there does not appear to be any major production activity in site work on the project. Areas have been available and are being made available in increasing numbers on the project. It is essential that the site work contractor plan his work around these areas as they are available and mobilize to get into a production mode as soon as possible. I strongly recommend that we update the current network model Issue #3 dated March 26, 1986 (working day 315) in the very near future. At present, the logic of this model is presumed to be valid although it, too, should be re-evaluated to see if the contractor still desires to follow it, and of course the durations and time targets should also be restudied and revised as required by the site work contractor. I shall discuss this with Mr. McComb in the near future and shall also set the date of the next monitoring session.

Ralph J. Stephenson, P.E.

RJS:sps

To: Mr. Robert McComb
cc: Mr. Tom Davis
Mr. Warren Haskell
Mr. Leo McGough
Mr. Rupert Davey
Mr. Walter Baraboll

October 21, 1985

Subject: Monitoring Report #9
Contract C-2 Fence Work and C-3 Finish Site Work
Scott Regional Facility
Northville, Michigan
Bureau of Facilities, State of Michigan
Account #110-47-269-001

Project: B4:29 C2/3

Date of Monitoring: October 14, 1985 (working day 456)

Monitored from issue #3 dated March 26, 1985 (working day 315)

Actions taken:

- Reviewed current status of project with C3 contractor
- Discussed project with contract A contractor
- Reviewed project with owner representatives
- Reviewed project with architect/engineer representatives
- Updated sheets #1 through #6 Issue #3 dated March 26, 1985 (working day 315) to Issue #4 dated October 15, 1985 (working day 456)

General Summary

At this session we prepared a complete updating of the entire network based upon the current status and plan of the C-3 finish site work contractor. The C2 fence work contractor was not present at the meeting, so we used data from our previous network model to update fence installation.

A brief review of each of the major areas is given below. These areas refer to those defined on the proposed site work plan dated May 7, 1985 (working day 345) issued by the State of Michigan.

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CONSULTING ENGINEER

Overall, it is the intent of the contractor to work each area as far into the fall and early winter 1985 as possible and to pick the work up again beginning about April 21, 1986. Work that can be done over the winter will continue depending upon the weather and temperature.

Site area #1 - Here work will be brought to the point where some fence work is started and adequate progress has made so that next spring the fence road can be installed. The anticipated early finish of the site area #1 presently is set for June 5, 1986 (working day 620). It should be noted that completion dates given for each area in the report are from rough calculations made at the updating session. They are still subject to check and review and will be issued on the updated network model release of Issue #4 dated October 14, 1985 (working day 456).

Site area #2 - A portion of the sallyport base mat has been completed and it is expected sallyport work will continue concurrent with the installation of the asphalt paved areas. The intent here is to complete all major site area #2 work by about December 26, 1985 (working day 507).

Landscaping work at many areas is expected to be started next year by April 21, 1986 (working day 588). There is a restriction on the time up to which seeding can proceed of June 1, 1986 (working day 617); however, there does not appear to be any other landscaping and planting restraints. Therefore, we have shown for the present this landscaping and planting work starting either by April 21, 1986 or starting at a point by which it could proceed without damage to installation. A further check should be made as to seasonal limitations on planting and landscaping work.

Site area #3 - Some work has been done at area #3 and it expected to now continue this work on through to placement of the asphalt leveling and possibly wearing course in 1985. The leveling course could be completed by November 7, 1985 (working day 474) and if the weather is still holding the wearing course may also be placed this year. However, it is expected that work from the wearing course on, including

light poles, striping, clean up, landscaping, and planting will be done in 1986 starting up about April 21, 1986. The early finish is presently set for May 2, 1986 (working day 597) for S-3 work.

Site area #4 - Here it is expected to bring 1985 work to the point where face brick has been erected on the retaining walls in the area. At that time, placement and compaction of sub-base could proceed but will be held until next year starting about April 21, 1986.

This year it is also intended to finish the underground drain tile, light pole conduit, rough back-filling, retaining walls, underground security wiring, and the tiered seating footings. All remaining work including curbs, asphalt paving, concrete paving, sidewalks, tiered seating slabs, and the finish site work will be installed in 1986. The completion date set for area S-4 presently is June 12, 1986 (working day 625).

Site area #5 - Present plans are to complete all S-5 work in 1986 beginning on April 21, 1986 (working day 588). The present late finish target for area S-5 is June 5, 1986 (working day 621).

Site area #6 - It is hoped to complete fine grading this area this year and perhaps to install some landscaping. The early finish targets set in our network model was May 5, 1986 (working day 598).

Site area #7 - All work in site area #7 is presently planned to be done in 1986 starting on April 21, 1986 (working day 488). The target early finish completion date has been set at May 13, 1986 (working day 604).

Site area #8 - Work at site area #8 is expected to be taken through asphalt paving this year. The early finish desired on this paving work is November 13, 1985 (working day 478). Landscaping and finish work on the site will be done in 1986 starting April 21, 1986 (working day 588). The early finish target for site area #8 is May 20, 1986 (working day 609).

Site area #9 - Work here will probably begin in production in 1986 about April 21, 1986. Some miscellaneous work might be done on underground drains this year, but

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the major installation will be all next year. The target early finish for site area #9 work is presently set at June 27, 1986 (working day 636). This work should be studied very carefully since any start that can be obtained on it should help to reduce the amount of time required for installation in 1986.

The intent during construction of site area #9 is to complete work at the west entrances and then to reopen them before beginning installation of drives and roads at the east end of the S-9 area.

Site area #10 - Work at site area #10 will be carried up through erection of face brick at retaining walls in 1985, with further work on backfilling and sub-base to be done in 1986 starting about April 21, 1986. The target early completion date for area S-10 is June 20, 1986 (working day 631). This is one of the more complex areas, and it will be necessary to maintain close cooperative contact with contractors in adjoining areas. Apparently, good working relations have been established for work here.

General

The updating session went well, and of great help was the pre-meeting review of the project made by the contractors, the owner, and architectural representatives. We were able to complete updating the entire site work model, and this is presently being drafted into final form for issue.

Again, it should be cautioned that the dates given above are preliminary and subject to final check as the network model is completed and issued. I shall be in touch shortly with the State of Michigan Department of Management and Budget to set the next monitoring session.

Ralph J. Stephenson, P.E.

RJS:sps

To: Mr. Robert McComb
cc: Mr. Tom Davis
Mr. Warren Haskell
Mr. Leo McGough
Mr. Rupert Davey
Mr. Walter Baraboll

December 27, 1985

Subject: Monitoring Report #10
Contract C-2 Fence Work and C-3 Finish Site Work
Scott Regional Facility
Northville, Michigan
Bureau of Facilities, State of Michigan
Account #110-47-2690-001

Project: 84:29 C2/3

Date of Monitoring: December 11, 1985 (working day 497)

Monitored from issue #4 dated October 14, 1985 (working day 456) sheets #1 through #6

Actions taken:

- Inspected major site areas
- Reviewed current status with owner representatives
- Evaluated current job status

General Summary

The weather is now of a nature that additional site work this winter will probably be nominal. Therefore, it should be assumed that most major site work activities with few exceptions will have to resume in the spring. We have already established some of the start up dates for various areas and where they were not established or where the trades are not at a point where they were to have been by the close of work this winter, I have used April 1, 1986 (working day 574) for an approximate start of spring operations on the site. This may be a bit early to resume full production, while on the other hand with a mild late winter and early spring weather this could be a perfectly suitable date to assume for site work starting.

A brief review of each major area is given below:

Site area #1

No major work has been done here. The project is at a point where fence areas could be brought to contract grade as

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Contract C-2 Fence Work and C-3 Finish
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needed. The current lag at site area #1 is about 16 working days. Projecting field activities to begin on or about April 1, 1986 (working day 574) shows that the work there could be finished in mid-June, 1986.

Site area #2

The sally port pit base mat and most of the walls have been completed. Stairs are not yet in place. The area has been backfilled and is ready for fence foundations, and grading for concrete paving. The area also is generally ready for placing the asphalt leveling course. The current lag is about 17 working days. The amount of work remaining following a spring start up would be on the order of 30 to 40 working days which would bring completion to late May or early June, 1986.

The problem inherent in the assumption of major amounts of work being done next spring is that it overlaps in a very short period of time from April through June, 1986 about three months, a large number of similar trade demand activities. Thus, plans for manning the job will have to be made early so that as the work is restarted it can be heavily loaded with manpower as required to complete by the contract completion date.

Site area #3

Curb and gutter has been placed and the gravel sub-base for roads and parking is also in place ready for the asphalt leveling course. The current lag as of December 11, 1985 (working day 497) is about 26 working days in paving. There remains about 12 working days of installation yet so these operations can, in all likelihood, be completed next spring by late April or early May.

Site area #4

Work has been brought generally to a point where underground work can be completed, tiered seating footings can be installed, and rough backfilling continued. The lag there presently is zero since most of this work was intended to be done in 1986. Our network model shows a completion date at site area #4 of mid to late June, 1986. This date should be able to be met with a resumption of work by next spring.

Site area #5

Work at site area #5 is presently planned to begin on April 21, 1986 (working day 588) and to be completed by June 5, 1986 p.m. (working day 621).

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Site area #6

No major work has yet started at site area #6. However, there is only about 15 working days of installation to be accomplished there, and this work should be able to be done comfortably in the spring of 1986.

Site area #7

All work here is due to begin next spring at a late start of May 8, 1986 (working day 601) and to be complete by late May or early June, 1986. These should be achievable dates.

Site area #8

Work has been installed up through major installation and compaction of paving sub-base ready for final grading for concrete slabs. The lag there is about 20 working days over intended operations to be completed in 1985. If work is resumed there in early spring of next year, there appears to be about 26 working days left for installation. This brings completion of the project into mid or late May, 1986.

Site area #9

It is presently the intent to begin this work in early or mid April, 1986. It was intended to get underground drains in in 1985. The work, if started in mid April, 1986, should be able to be complete by mid or late June, 1986.

Site area #10

Retaining walls are well along; however, there is still underground security wiring and light pole bases and conduit to be installed. The lag is presently about 15 to 30 working days. However, if work is picked up and continued early next April, 1986 it probably can be completed by early to mid June, 1986.

General

There has not been as much done on site work this fall as had been hoped and therefore, practically all of the work that was not completed will have to be done next spring. It appears feasible that most of the areas with work remaining can be turned over by July 2, 1986 p.m. (working day 640). However, there will be an enormous demand for similar trades to be operating on the site concurrently and plans should be made now to meet the demand of manpower requirements.

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It does not appear that presently an updating should be made of the network model since we still can use the Issue #4 network dated October 14, 1986 (working day 456) as a guideline to major activities. It might be well to review the current plan sometime in early 1986 probably about late February or early March to determine if our current starting plan date is feasible. I shall continue to talk about this with Mr. Davenport and the others associated with the project.

Ralph J. Stephenson, P.E.

RJS:sps

To: Mr. Robert McComb
cc: Mr. Tom Davis
Mr. Warren Haskell
Mr. Leo McGough
Mr. Rupert Davey
Mr. Walter Beraboll

April 29, 1986

Subject: Monitoring Report #11
Contract C-2 Fence Work and C-3 Finish Site Work
Northville, Michigan
Scott Regional Facility
Bureau of Facilities, State of Michigan
Account #110-47-2690-001

Project: 84:29C2/3

Date of Monitoring: April 11, 1986 (working day 582)

Monitored from Issue #4 dated October 14, 1985 (working day 456) sheets #1 through #6

Actions taken:

- Inspected major site areas
- Reviewed current status with owner representative
- Evaluated current project status

General Summary

Weather has now turned good and work can proceed on most major areas of the site. There still is little evidence of intensive activity on the job although work seems to be starting at some of the sections on paving, some curbs and gutters, and installation of fencing.

A brief review of each major areas is given below:

Site area #1 - Target completion date: June 4, 1986 p.m.
(working day 620)

As of April 11, 1986 (working day 582) fence work is being installed and some fabric has been put in place. However, little other major work has occurred at area #1. It was expected that major grading and compacting of fence road areas would begin on April 21, 1986 (working day 588). This is essential if site work at area #1 is to be completed by the contract completion target.

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Site area #2 - Target completion date - all work here was planned to be completed in 1985

Work at site area #2 is now proceeding on filling and compacting for paving. It is expected that paving will begin in May, 1986 and probably will be completed by the contract completion target. Much of area #2 work is concentrated on installation of the sallyport fence and guard shack. Security systems work must be installed after installation of the fence and shack.

Site area #3 - Target completion date p.m. May 30, 1986 (working day 617)

At present most portions of site area #3 have been readied for paving and with some minor trimming, could probably be surfaced at any convenient time. It was expected that asphalt wearing course would begin no later than May 19, 1986 (working day 608).

Site area #4 - Target completion date June 19, 1986 p.m. (working day 631)

Site area #4 is one of the most complex of the site projects and will have to be given careful attention to be able to complete by its target date. Presently some tiered seating footings are in, retaining walls are substantially complete and the area is generally ready to continue backfilling and to install finish site element work.

Concrete paving at area #4 was due to begin by April 21, 1986 (working day 588) as an early start. Installation of concrete curbs was due to begin by an early start of April 24, 1986 (working day 591). There was no indication at our meeting today as to whether these dates could or would be met.

Site area #5 - Target completion date p.m. June 5, 1986 (working day 621)

As of April 11, 1986 (working day 582) no major work has restarted at site area #5. We had shown in our network model a late start on verifying grades, laying out and rough grading the site of April 12, 1986 (working day 588). There was no information as to when this work would actually start.

Site area #6

Some fine grading of the area has been done; however, completion of fine grading and installation of landscaping still is to be done.

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RALPH J. STEPHENSON, P. E., P. C.
CONSULTING ENGINEER

Site area #7 - Target completion date p.m. May 30, 1986
(working day 617)

Grades have been verified and the area is rough graded. Light pole bases and conduit were due to start at an early start of April 24, 1986 (working day 591). No word was available as to whether this work actually would begin then or not.

Site area #8 - p.m. May 30, 1986 (working day 617)

Some paving sub-base has been installed and final grading is in work for the concrete slabs at area #8. It is expected that work on grading and blacktopping athletic areas would start by about April 21, 1986 (working day 588). There was no current authentic word on whether this date would be met or not.

Site area #9 - Target completion date p.m. June 26, 1986
(working day 636)

Rough grading of the west area at site #9 was due to begin by April 28, 1986 (working day 593). Saw cutting of the existing road was due to begin no later than April 21, 1986 (working day 588). There was no current word on whether this work would be able to begin then or not.

It is strongly recommended that work on site area #9, which is along Five Mile Road, be initiated as quickly as possible since Five Mile is a critical access route to the site. Paving operations there will have to be closely tied to project operations to avoid major disruption to site access.

Site area #10 - Target completion date p.m. June 19, 1986
(working day 631)

Site area #10 is also a very complex area and must be given careful attention since it is an important element of the total project. The major work there as with other portions of the project was due to begin by April 21, 1986 (working day 588) on athletic equipment foundations.

Installation of face brick and retaining walls is also an important element and should be given careful attention along with the paving and other flat work portions of the job. There was no current projected information from the owner relative to the start of this actual work.

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RALPH J. STEPHENSON, P. E., P. C.
CONSULTING ENGINEER

General

I strongly recommend that the owner and the contractors involved make a complete review of the projected schedule of operations from here on out to the contract completion target. Site work is complex and must be given immediate intense attention now that the weather has turned good.

I shall be in touch with Mr. Whiting soon to set the next monitoring session.

Ralph J. Stephenson, P.E.

To: Mr. Jerry Whiting
cc: Mr. Tom Davis
Mr. Warren Haskell
Mr. Leo McGough
Mr. Rupert Davey
Mr. Walter Baraboll

May 23, 1986

Subject: Monitoring Report #12
Contract C-2 Fence Work and C-3 Finish Site Work
Northville, Michigan
Scott Regional Facility
Bureau of Facilities, State of Michigan
Account #110-47-2699-001

Project: 84:29C2/3

Date of Monitoring: May 9, 1986 (working day 602)

Monitored from Issue #4 dated October 14, 1985 (working day 456) sheets #1 through #6

Actions taken:

- Inspected major site areas
- Reviewed current status with owner representative
- Evaluated current project status

General Summary

The weather continues good and work appears to be able to proceed at most major portions of the site. There still, however, is little evidence of major activity on the job on site work and this portion of the project continues to be of major concern to all involved.

A brief review of each area is given below:

Site area #1 - Target completion date June 4, 1986 p.m.
(working day 620)

Very little progress has been noted in area #1 since the previous monitoring on April 11, 1986 (working day 582). Fence work is continuing with some of the posts and fabric installed. There is still difficulty in bringing the fence areas to the proper grade. No work has yet started on fence road gravel. The lag in area #1 appears at present to be about 10 working days.

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Site area #2 - Target completion date - All work was planned to be completed in 1985.

At site area #2 most concrete in the paved areas has been placed. The asphalt wearing course is down and the guard shack and sallyport area is being worked on at present. It appears that this area could be completed, with intensive attention, within four to five weeks.

Site area #3 - Target completion date p.m. May 30, 1986
(WORKING day 636)

At site area #3 the asphalt leveling course has been placed and work should now be able to proceed on the wearing course, light pole installation, striping, landscaping, followed by clean up and punching out. Work is currently meeting targets between early and late starts and finishes.

Site area #4 - Target completion date June 19, 1986 p.m.
(WORKING day 631)

The current lag at site area #4 is about 12 working days primarily in installation of finish work and erection of face brick at retaining wall areas. This is shown in our network as restraining much of the remaining paved areas and tiered seating work. It is possible that some of this current lag could be picked up although it probably will be difficult because the work is very complex.

Site area #5 - Target completion date p.m. June 5, 1986
(WORKING day 621)

As of May 9, 1986 (working day 602) the current lag is about 14 working days. Grades are being verified; however, no major installation has started leading to installation and compacting of the paving sub-base. I recommend that serious attention be given site area #5 now since with the present lag trend it appears to have the potential to extend somewhat beyond the desired target completion date on the project.

Site area #6

The fine grading at site area #6 is well along and there should be little, if any, difficulty in completing it by the target completion date. However, many of the trees to be used in landscaping the site are stored on site #6. These will have to be removed before work there can be completed. This could conceivably delay finishing site area #6 although it should still be able to meet desired total project completion dates.

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Site area #7 - Target completion date p.m. May 30, 1986
(WORKING day 617)

There has been little, if any, progress in site area #7 since our previous monitoring. However, the area work does not currently lag late starts and late finishes.

Site area #8 - Target completion date p.m. May 30, 1986
(WORKING day 617)

Work at site area #8 has progressed fairly well except that there may be some major renovation required on portions of the now installed ramp area. The total amount of installation for area #8 could now require an additional 20 to 30 working days to complete. This would bring completion to late June, 1986 still prior to the total project desired target completion. However, to meet the desired date it will be essential to initiate aggressive work at site area #8 particularly on concrete corrections needed.

Site area #9 - Target completion date June 26, 1986 p.m.
(WORKING day 636)

The lag at site area #9 currently is about 14 working days since no work has yet begun on the initial operation of saw cutting the existing road concrete. There was no word on when this work might start. Site area #9, which is the construction to be done along Five Mile Road, is essential to proper access and egress to and from the site. It is an essential portion of the work and must be given immediate attention if it is not to pose serious entrance and exit problems.

Site area #10 - Target completion date p.m. June 19, 1986
(WORKING day 631)

The current lag in this work over late starts and late finishes is about three working days. Some face brick is being erected at retaining walls. Meanwhile, backfilling is proceeding and it is hoped that paving work can proceed in the near future. The lag here brings projected completion of area #10 to late June, 1986.

General

An intensive effort to complete site installation will have to be initiated immediately since there remain only 38 working days to July 2, 1986 (working day 640) the contract completion date for most of the project work. I recommend the owner and contractors involved make a complete review of the projected work from here on out and set up the method by which the project is going to be inspected, corrected by the contractor, and punched out by the owner and architect/engineer.

RALPH J. STEPHENSON, P. E., P. O.
CONSULTING ENGINEER

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Meanwhile, I am updating the site diagrams using the current network models from the monitoring date of May 9, 1986 (working day 602). I shall use this network to evaluate the impact of current lags on projected completions and will review it as appropriate with the involved parties prior to issuing it for official use.

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

Ralph J. Stephenson, P.E.

RJS:sps

To: Mr. Jerry Whiting
cc: Mr. Tom Davis
Mr. Warren Haskell
Mr. Lee McDough
Mr. Rupert Davey
Mr. Walter Baraboll

RALPH J. STEPHENSON, P.E.

CONSULTING ENGINEER

July 9, 1986

Subject: Monitoring Report #13
Contract C-2 Fence Work and C-3 Finish Site Work
Northville, Michigan
Scott Regional Facility
Bureau of Facilities, State of Michigan
Account #110-47-2699-001

Project: 84:29C2/3

Date of Monitoring: June 19, 1986 (working day 630)

Monitored from Issue #4 dated October 14, 1985 (working day 456) sheets #1 through #6

Actions taken:

- Inspected site areas
- Reviewed current status with owner and architect representatives
- Evaluated current project status

A brief review of each site area status is given below:

Site area #1 - Target completion date June 4, 1986⁴ p.m.
(working day 620)

Work is in progress on installation of fence and fabric along with the concertina. Base and asphalt at the basketball courts has been placed. Overall, it appears there is from 20 - 30 days of installation work remaining. This is based on the monitoring network durations. This projection puts completion of site work in area #1 in early to late July, 1986.

Site area #2 - Target completion date - All work was planned to be completed in 1985.

At site area #2 the major remaining work is in completion of paving at special areas. Installation of security systems and completion of fencing and landscaping. It appears at area #2 that there could be as much as 25 working days remaining to complete, which would bring projected completion of area site work to late July, 1986.

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RALPH J. STEPHENSON, P.E.
CONSULTING ENGINEER

Site area #3 - Target completion date p.m. May 30, 1986
(working day 638)

Asphalt paved areas are being completed and work is just starting on site landscaping. There probably is five to ten working days of installation remaining at site area #3. This would bring completion to early or mid July, 1986.

Site area #4 - Target completion date June 19, 1986 (working day 631) p.m.

A projection of the amount of work remaining at site area #4 indicates that as of June 19, 1986 (working day 630) there are approximately 40 working days of installation remaining. This brings projected completion of site area #4 to mid-August, 1986. However, it appears that with some overlapping of work at site area #4 the current lag could be reduced and possibly the area could be completed by early August, 1986. However, as with most areas of the project this will require concurrent allocation of trades throughout the job and the manning problems may be difficult.

Site area #5 - Target completion date p.m. June 5, 1986
(working day 621)

Paving has started and the amount of work remaining will require, according to the current network, about 18 working days to complete. This would bring finishing of area #5 to mid-July, 1986.

Site area #6- Target completion date p.m. May 30, 1986
(working day 617)

There is relatively little work at this area and probably installation of landscaping, trees and shrubs along with clean up may take about 10 working days. This brings completion to early July, 1986 if remaining work is started immediately.

Site area #7 - Target completion date p.m. May 30, 1986
(working day 617)

Some gravel base has been installed and light pole bases and conduit are substantially complete. Projecting work to do from our current network it appears that there is about 10 working days of installation remaining. This brings projected completion to early July, 1986.

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RALPH J. STEPHENSON, P.E.
CONSULTING ENGINEER

Site area #8 - Target completion date p.m. May 30, 1986
(working day 617)

The asphalt sub-base has been placed and the leveling and wearing courses are being installed. Work is proceeding on the asphalt at the basketball courts. From our network models projecting work remaining it appears that the area will require about 18 working days to complete. This brings the finish point of area #8 to mid-July, 1986.

Site area #9 - Target completion date June 26, 1986 (working day 636)

This area is substantially complete except for planting, seeding and landscaping. The work was done under a subcontract arrangement and with a heavy concentration of effort it was completed rapidly once work began.

Site work #10 - Target completion date p.m. June 19, 1986
(working day 631)

Work is in progress here on face brick on retaining walls, and on placement of asphalt leveling and wearing courses. Projecting from the current status there appears to be 30 - 35 working days remaining to complete this work. This brings completion of site area #10 installation to early or mid-August, 1986.

General

Overall, it presently appears with consideration of the past progress and with the amount of concurrent work that would have to be done to complete any earlier that site work probably will be completed between late July, 1986 and mid-August, 1986.

We shall continue to monitor and evaluate work remaining at our planning and monitoring sessions. I shall be in touch with Mr. Whiting shortly to set the next monitoring session.

Ralph J. Stephenson, P.E.

RJS:sps

To: Mr. Jerry Whiting
cc: Mr. Tom Davis
Mr. Warren Haskell
Mr. Leo McGough
Mr. Rupert Davey
Mr. Walter Baraboll

RALPH J. STEPHENSON, P.E.

CONSULTING ENGINEER

August 6, 1986

Subject: Monitoring Report #14
Contract C-2 Fence Work and C-3 Finish Site Work
Northville, Michigan
Scott Regional Facility
Bureau of Facilities, State of Michigan
Account #110-47-2699-001

Project: 84:29C2/3

Date of Monitoring: July 11, 1986 (working day 645)

Monitored from Issue #4 dated October 13, 1986 (working day 456) sheets #1 through #6

Actions taken:

- Inspected site areas
- Reviewed current status with owner and architect representatives
- Evaluated current project status

A brief review of each area and its condition as of July 11, 1986 (working day 645) is given below:

Site area #1 - Target completion date June 4, 1986 p.m. (working day 620) (Note: In Monitoring Report #13 this date was inadvertently given as 1985. Please revise your copy of the report to read 1985).

Relatively good progress has been made on installation of fencing, asphalted areas and on general grading. It appears presently that there might be as much as from 10 to 20 working days to complete all work at site area #1. This projection puts completion of the work at area #1 in early August, 1986.

Site area #2 - Target completion date - All work was planned to be completed in 1985.

At site area #2 much of the paving and related work is complete. It presently appears there might be as much as 10 working days remaining which would bring completion to late July, 1986.

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Site Work
CONSULTING ENGINEER

Site area #3 - Target completion date p.m. May 30, 1986
(working day 638)

Most asphalt is placed and miscellaneous clean up, landscaping, and planting remain to be done. From our plan of work it seems that about eight working days might be required to complete this work. This would bring completion of site area #3 to late July, 1986.

Site area #4 - Target completion date p.m. June 19, 1986
(working day 631)

This is a sizable area of work but has moved fairly well and is now being completed with installation of hard surfaces and FF & E work. An evaluation of the current network model indicates that the area could be finished in about 15 working days which would bring completion to early August, 1986.

It should be noted that the types of current activity on site work throughout the entire site areas are very similar and the completion projections should be tempered by considerations of manpower and equipment available.

Site area #5 - Target completion date p.m. June 5, 1986
(working day 621)

Evaluation of the time remaining to complete here from the current network model indicates that probably the work could be finished within the next 10 to 15 working days. This would bring completion to late July or early August, 1986. As with other areas this is exclusive of the punch out process which presumably will be carried on concurrently with completing each major areas.

Site area #6 - Target completion date p.m. May 30, 1986
(working day 617)

There is relatively little work remaining to be completed at site area #6. However, it is substantially at the same general position it was for our previous monitoring and will still require from 10 to 15 working days to complete, bringing the finishing of installation there to late July or early August, 1986.

Site area #7 - Target completion date p.m. May 30, 1986
(working day 617)

The asphalt leveling course is in and work is able to begin on finishing the asphalt wearing course and completing miscellaneous work yet to be done. Completion of the area will

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RALPH J. STEPHENSON, P.E.
CONSULTING ENGINEER

require from 5 to 10 working days if work can be initiated immediately on remaining elements. Completion is projected at late July or early August, 1986.

Site area #8 - Target completion date p.m. May 30, 1986
(working day 617)

Most hard paving is down at this area and work is able to begin on trim and finish operations. These probably will require from 10 to 15 working days bringing projected completion to early August, 1986.

Site area #9 - Target completion date p.m. June 26, 1986
(working day 636)

This area is substantially complete except for planting, seeding, and landscaping.

Site area #10 - Target completion date p.m. June 19, 1986
(working day 631)

This is one of the more complex areas and there is still considerable work left to be done. Projecting from work completed and against the current network model it may require as much as 25 - 30 working days primarily in finishes and work on landscaping and planting to complete. This brings projected finishing to mid-August, optimistically but more likely to late August or early September, 1986.

General

The projections above do not take into account security work remaining since adequate information was not available about its current status at this monitoring. I suggest the owner initiate detailed discussions with the security contractor to determine what impact, remaining security work will have on completion targets as projected in the above analysis. Also to be kept in mind is that the projected dates above, which bring total completion of site work to late August or early September, 1986 are based upon having adequate manpower and equipment to complete the areas concurrently. This will require constant contractual attention and expediting.

I will be in touch with Mr. Whiting shortly to set the next monitoring session.

Ralph J. Stephenson, P.E.

RJS:sps

To: Mr. Jerry Whiting
cc: Mr. Tom Davis
Mr. Warren Haskell
Mr. Leo McGough
Mr. Rupert Davey
Mr. Walter Baraboll

August 29, 1986

Subject: Monitoring Report #15
Contract C-2 Fence Work and Finish Site Work
Northville, Michigan
Scott Regional Facility
Bureau of Facilities, State of Michigan
Account #110-47-2699-001

Project: 84:29C2/3

Date of Monitoring: August 4, 1986 (working day 661)

Monitored from Issue #4 dated October 14, 1985 (working day 456) sheets #1 through #6

Note: In Monitoring Report #14 on page #1 the monitoring issue was noted as being dated October 13, 1986. This should have read dated October 14, 1985. Please correct your copy of the report.

Actions taken:

- Inspected site areas
- Reviewed current status of work with owner and architect representatives
- Evaluated current project status

A brief review of each area and its condition as of August 4, 1986 (working day 661) is given below:

Site area #1 - Target completion date June 4, 1986 P.M.
(working day 620)

Good progress has been made on fence work and it is nearly complete. Some miscellaneous sections remaining to be done. Grading and seeding is under way and installation of athletic equipment has also started. The running track has been staked out and work should begin on it shortly. Overall, it appears from our network model that there remain about 15 working days to complete this area which would bring projected completion to early September, 1986.

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Site area #2 - Target completion date - All work was planned to be completed in 1985.

Landscaping work is just beginning in site area #2 and sally-port security work is in progress. There probably remain as much as 10 working days to complete work at this section. This would bring completion of this site to late August, 1986.

Site area #3 - Target completion date p.m. May 30, 1986 (working day 638)

There still remains some curb work and application of the wearing course yet to do. Probably the amount of work remaining, if this work could be continuously carried out, would be about 5 working days. This would bring completion to mid or late August, 1986.

Site area #4 - Target completion date p.m. June 19, 1986 (working day 631)

As has been noted previously, this is one of the more complex areas of the site work, and there remains about 15 working days to complete. Apparently a new flat work contractor has been brought on the job and this undoubtedly will affect the amount of time remaining. Presently, however, it appears that with continuous field operations area #4 could be finished by early September, 1986.

Site area #5 - Target completion date p.m. June 5, 1986 (working day 621)

Athletic equipment is being installed and landscaping is under way along with fencing and related security work. There probably remains about 10 working days to completion at area #5. This brings the projected end of work to late August, 1986 or possibly early September, 1986.

Site area #6 - Target completion date p.m. May 30, 1986 (working day 617)

Fine grading has been nearly completed and landscaping is yet to be done at site area #6. There appear to be about 10 working days remaining to complete site area #6 work bringing expected completion to late August, 1986.

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Site area #7 - Target completion date p.m. May 30, 1986
(working day 617)

The asphalt leveling course has been laid and remaining work includes the wearing course along with landscaping and planting. There probably are at least 7 working days remaining to finish this work. This would bring completion to mid or late August, 1986.

Site area #8 - Target completion date p.m. May 30, 1986
(working day 617)

If work is pursued continuously at site area #8 it probably would require from 10 to 15 working days to complete installation there. Presently asphalt work is being completed, athletic equipment is being installed, and landscaping has begun. Completion of site area #8 can be anticipated at late August, 1986 or early September, 1986.

Site area #9 - Target completion date p.m. June 26, 1986
(working day 636)

This area is substantially complete except for planting, seeding, and landscaping.

Site area #10 - Target completion date p.m. June 19, 1986
(working day 631)

Work continues at site area #10 on asphalt leveling and wearing courses, and flat work. This is one of the most difficult of all the areas and work to complete, as projected from our current network model, could be as much as 25 working days. This would bring completion of site area #10 to mid or possibly even late September, 1986. This is a key area for the project and should be expedited to the greatest possible extent.

General

The projections above do not take into account security work remaining since accurate information was not available at this session. I shall be in touch with Mr. Whiting shortly to set the next monitoring session as may be needed.

RJS:sps/gmy
TO: Mr. Jerry Whiting
CC: Mr. Tom Davis
Mr. Warren Haskell
Mr. Leo McGough
Mr. Rupert Davey
Mr. Walter Baraboll

Ralph J. Stephenson, P.E.

October 11, 1986

Subject: Monitoring Report #16

Contract C-2/3, Fence work and finish site work

Northville, Michigan

Scott Regional Facility

Bureau of Facilities

State of Michigan

Account #110=47-2699-001

Project: 84:29 C2/3

Date of Monitoring: September 2, 1986 (working day 681)

Monitored from Issue #4 dated October 14, 1985 (working day 456)
sheets #1 through #6

Actions taken:

- Inspected site areas
- Reviewed current status of work with owner and architect representatives
- Evaluated current project status

A brief review of each area and its condition as of September 2, 1986 (working day 681) is given below:

Site area #1 - Target completion date June 4, 1986 (working day 620).

Site area #1 could probably be completed within 10 to 15 working days. The running track still must be built and miscellaneous grading, landscaping, and planting is yet to be done.

Site area #2 - Target completion date - all work was planned to be completed in 1985.

It appears there are about 10 working days remaining to complete area #2. Most work deals with landscaping and miscellaneous clean up and trim work.

Site area #3 - Target completion date p.m. May 30, 1986 (working day 638).

There are about 8 working days required to complete site work in area #3. Most clean up operations deal with finishing the paved areas and installing site planting, landscaping, along with clean up and move out.

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Site area #4 - Target completion date p.m. June 19, 1986
(working day 631)

In site area #4, which is one of the more complex areas of the project, there remains about 15 working days to complete. This is primarily in work on paved areas, installation of athletic equipment, and landscaping and planting work, along with finishing FF & E work.

Site area #5 - Target completion date p.m. June 5, 1986 (working day 621)

As of September 2, 1986 (working day 681) there are probably about 5 working days remaining to complete work at area #5. Still to be done are miscellaneous fencing, planting, and landscaping, as well as trim work on the paving, and clean up and move out.

Site area #6 - Target completion date p.m. May 30, 1986 (working day 617).

Probably 2 to 4 working days would be adequate to complete all landscaping and trees and scrub work to be done at site area #6.

Site area #7 - Target completion date p.m. May 30, 1986 (working day 617)

Main activities to be completed at site area #7 are the asphalt wearing course, installation of landscaping and planning, and clean up and moving out. Probably about 5 working days would be required on an extensive basis to finish all work at area #7.

Site area #8 - Target completion date p.m. May 30, 1986 (working day 617)

Fencing, planting, landscaping, and miscellaneous trim work, along with clean up and move out still remain to be done at area #8. There are about 10 working days remaining to required completion of work.

Site area #9 - Target completion date p.m. June 26, 1986 (working day 636)

About 2 working days remain to complete work at site area #9. There are some corrective actions necessary but the work is relatively minor at this time.

Site area #10 - Target completion date p.m. June 19, 1986
(working day 631)

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This is one of the longest areas to bring to completion. It probably will require about 15 working days to finish off remaining work at area #10. Included is miscellaneous trim work, fixtures, furnishing, and equipment, light poles, fencing, painting, miscellaneous landscaping and planting, as well as clean up and corrective work to be done.

General

Although the above projections are relatively short as to the amount of work and time remaining, it should be remembered that there is a sizable amount of work always to be done in corrective actions once major elements of the program are completed.

Overall, it still appears that there could be as much as another 10 to 20 working days required to finish site work. This is a critical area of the project and must be given ongoing attention.

The project is now at a point where further monitoring is probably not required on my part. Therefore, I shall not make any further monitoring inspections unless requested specially by the owner.

I shall not be in touch with Mr. Whiting unless a specific need arises.

Ralph J. Stephenson, P.E.

RJS:gmw
TO: Mr. Gerald Whiting
CC: Mr. Tom Davis
Mr. Warren Haskell
Mr. Leo McGough
Mr. Rupert Davey
Mr. Walter Baraboll