November 4, 1985

Subject: Monitoring Report #1

Minneapolis Star and Tribune Press Plant

Minneapolis, Minnesota

Kraus-Anderson - construction managers

Project: 85:51

Date of Monitoring: October 30, 1985 (working day 213)

## Actions taken:

- Reviewed general status of project with Mr. Jorg Eschwey

- Prepared random laundry list of substructure (SB), superstructure (SS), and exterior skin (SK) work
- Prepared network model for majority of substructure work
- Reviewed tie in of contract document release dates to actual required dates
- Prepared bar chart of promised and actual contract document release dates for owner meeting next week

# General Summary

This session was primarily to initiate detailed diagramming of the project and to further evaluate needs of the job in the field currently and in the near future. A major activity today was preparation of a master laundry list for the three early components of the building - the substructure (SB), superstructure (SS), and exterior skin (SK) - along with preparation of a detailed network diagram of foundation installation and utility work that will impact on installation of the substructure.

The major problems to be ironed out on the project at present concern continuity of work and the impact of inclement weather on work at the foundations. As of October 30, 1985 (working day 213) dynamic compaction is about 60% complete, earthwork began Monday, October 28, 1985 (working day 211), and presently resteel is being fabricated for substructure installation. The construction fence was started October 28, 1985 (working day 211), site clearance has been completed, and trailers are in place. Temporary utilities are not installed as yet.

Monitoring Report #1
Minneapolis Star and Tribune Press Plant
Page two

Work has been committed for several early trades by letters of intent or contract. At present, the project has a soil improvement permit, pollution control permit, street use permit, and a foundation permit.

So far as completion dates are concerned, the press rooms are to be enclosed and ready for press installation by September 1, 1986 (working day 426). Building construction by Kraus-Anderson is to be complete by December 31, 1986 (working day 510). The plant is to be operative by April, 1987. The desired completion date of construction is presently October 1, 1986 (working day 447).

The building has been divided into several major components identified below:

- distribution dock, at first floor (DD)
- drivers' area at two levels (DA)
- mail room , first floor (MR)
- service area at 39' bay first floor (SA)
- utility area at 50° bay, first floor (UA)
- printing press area, first floor (PP)
- roll storage and rail spur area at first floor (RS)
- mechanical room at second floor (ME)
- offices and utility rooms at second floor (AU)
- press rooms at second floor (P2)
- third floor unfinished area (E3)
- site work (SI)
- employee parking (EP)
- truck parking (TP)
- railroad spur (RR)
- permanent panelized fence and gates (FE)

Monitoring Report #1
Minneapolis Star and Tribune Press Plant
Page three

There is a considerable amount of owner's work (OW) in the building to be performed under the owner's direct supervision. As of October 30, 1985 (working day 213) Kraus-Anderson had a tabulation of the owner's work, dated October 31, 1985 (working day 206). This included details of equipment, contracts with the architects and construction manager, loan closing, groundbreaking, and a list of furniture and appurtenances for all interior areas.

Of prime importance at present is the packaging and release of contract documents. There are eighteen packages to be released by the architect/engineer over a time period ranging from September 23, 1985 (working day 186) to April 7, 1986 (working day 323). These packages must be restudied and re-examined to more appropriately tie into the field work program. A major meeting is scheduled with the owner and the architect/engineer next Tuesday, November 5, 1985 (working day 217) to review this matter, along with the schedule and other critical early matters regarding the project.

It is presently expected that the network model prepared at our diagramming session along with the bar chart translation, the laundry list, and the other material critical to planning and evaluating early progress will be used in this meeting. I suggest the bar chart output be color coded to show the important elements of the project and the interrelationships that need to exist with contract document releases. Mr. Eschwey plans to do this.

I have provided Mr. Eschwey with the full information generated at the meeting on October 30, 1985 (working day 213) and he has all data except for the laundry list and the general notes on disk KA 003. If any need exists for the laundry list in additional copies or for the general notes, of which Mr. Eschwey has copies, these can be run from data on the disk presently in my possession.

I shall be in touch with Mr. Eschwey shortly to set the next planning and diagramming session. Meanwhile, it is imperative that the full content and release dates of the various contract documents packages be established authentically and accurately to match what is required by construction in the

Monitoring Report #1
Minneapolis Star and Tribune Press Plant
Page four

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

field. This project is extremely tight, and every cooperative effort will be needed to insure that maximum work is accomplished prior to cold weather nd that progress is able to be maintained to the highest degree possible during winter.

Ralph J. Stephenson, P.E.

RJS:sps

To: Mr. Jorg Eschwey

bc: Mr. Dean Winquist

February 3, 1986

Subject: Monitoring Report #2

Minneapolis Star and Tribune Press Plant

Minneapolis, Minnesota

Kraus-Anderson - construction managers

Project: 85:51

Dates of Monitoring: January 8 and 9, 1986 (working days 260 and 261)

Monitored from sheets #1 and #2, Issue #1, dated October 1, 1985 (working day 192) for foundation work

Target completion dates as of October 8, 1985 (working day 197)

Press rooms enclosed and ready for press installation by September 2, 1986 (working day 426)

Building construction complete by KA - December 31, 1986 (working day 510)

Plant to be operative by April, 1987

Desired construction completion date by KA - October 1, 1986 (working day 447) (Note: These dates have been revised since October due to revisions to the project. Currently time extension amounts are being established.

# Actions taken:

- Reviewed general status of project with Mr. Jorg Eschway
- Prepared network model for close in work, sheets #4 and #5, Issue #2 dated January 10, 1986 (working day 262)
- Prepared network model specially oriented toward erection of structural steel, joists, and metal deck, Issue #1 dated January 8, 1986 (working day 260)
- Discussed structural steel and deck sequencing with structural steel fabricator

Monitoring Report #2 Minneapolis Star and Tribune Press Blant Page two

- Prepared network model for owners press equipment and reviewed with owner
- Reviewed and updated engineering release bar chart
- Completed laundry list for construction up through close in of building

#### General Summary

We first discussed the current status of the job and Mr. Eschway reviewed work that has been completed. Most perimeter walls and grade beams were finished the first week of January, 1986 except for small areas of the project. The scheduled completion of these walls and grade beams was December 27, 1985 (working day 253) according to the Issue #1 network model dated October 30, 1985 (working day 213). The weather was very severe during November and December, 1985; however, the contractor worked nearly every working day during the period including some weekends. Temporary heat was provided along with protection to assist in maintaining conformance to the intended plan of work to the greatest possible degree.

A 44-ft. addition to the north side was approved by the owner on January 2, 1986 (working day 256). This approval was given by letter. Caisson bidding documents for the extension were received by the contractor on January 7, 1986 (working day 259). Structural steel construction documents for the addition are to be released by about mid-January, 1986. There is no information currently available on the remainder of the engineering document releases for the addition. These may be provided as part of the other engineering releases. A time extension has been granted for the 44 ft addition between four and six weeks. This extension has not been formalized as yet but is understood between the owner and the contractor.

The roof of the mail room and the distribution dock was also revised and this change was incorporated in the architectural documents received December 24, 1985 (working day 251) from the architect/engineer. Soil bearing capacity was also revised and these changes were issued in November, 1985. This required changes to footing dimensions for the substructure; however, as of January 8, 1986 (working day 260) all spread footings are installed except at column lines 1, A to A.6; column line 25, A to A.6; the clock tower foundations and the 44 ft. addition column line, 25, 26, and 27, B to U. All footings piers and anchor bolts are in also except at the areas noted above.

Monitoring Report #2
Minnesota Star and Tribune Press Plant
Page three

Sub-station walls are poured out and the steel and metal deck was erected over the substation as of January 8, 1986 (working day 260). It was intended to pour out the supported deck over the substation sometime in mid-January, 1986. Slab on grade at the substation will follow construction of the supported deck.

About 70% of the backfill to the underside of the slab on grade has been completed. Temporary power and the construction fence is installed and building underground storm and sanitary sewer is in place. Site underground storm and sanitary at the south side and the site underground storm and sanitary at the south side and the site underground 12m fire main at the south is installed except at the south tower. Overhead power lines along 2nd Street are relocated and the electrical and telephone duct bank is in place from column line U to the substation. The substation wall is waterproofed to four foot above the footings.

Thus, the project is in relatively good condition despite the difficult weather and the changes that have been made to the total program. Therefore, all our main work at this session focused upon the preparation of network models for various parts of the superstructure and the exterior skin. We were able to complete a full diagram of the close in of the project and this is shown on sheets #3 and #4, Issue #2 dated January 10, 1986 (working day 262). In this network a detailed plan for fabrication, delivery, erection and trimming of the structural steel for all major areas of the building was shown. This structural steel network model was discussed in some detail with the steel fabricator and represents a feasible plan to achieve.

According to sheet #3, network model Issue #2 dated January 10, 1986 (working day 260) structural steel at the press and mechanical areas should be starting in erection about late January, 1986 with steel to be generally completed with the exception of the 44 ft. addition by April 17, 1986 (working day 331). Structural steel at the 44 ft. addition is presently scheduled to be completed by mid or late April, 1986.

The close in diagram indicates that the entire building roof should be on up through dry in by late May or early June, 1986. From this close in point it will be possible to continue and complete planning all of the interior work to be installed at each of the major areas of the project. We shall plan to prepare these networks at our next diagramming session.

Monitoring Report #2 Minneapolis Star and Tribune Press Plant Page four

Installation of exterior precast and windows was also included in the network model on sheet #4, Issue #2, dated January 10, 1986 (working day 260). According to this plan it will be possible to have the precast panels erected by late May or early June, 1986. No information was available to us at our meeting about the curtain wall nor windows. Therefore, this information was not shown on the plan except in the logic position it occupies.

It will still be imperative that the contractor and the owner work closely together with the architect/engineer to insure that the engineering releases are issued in timely and prompt fashion. We reviewed the current status of engineering releases from the network for them, sheet DER-1, Issue #1 dated October 30, 1985 (working day 213). This was updated to Issue #2, January 10, 1986 (working day 262).

A brief review of each release is given below:

- CR #I soil consolidation Released September 26, 1985 (working day 189).
- CR #2 permit application for building foundations Released October 18, 1985 (working day 205)
- CR #3 earth work released October 9, 1985 (working day 198)
- CR #4 foundations, foundation waterproofing and drainage - Released in several packages. Full information not available at this session. We will show the actual release dates on our next updating.
- CR #5 ~ building grounding released in several packages. Data was not available on the actual release dates. These will be tabulated at our next planning session.
- CR #6 Superstructure components Released in several packages. Full information on each release date not available at this session. We will incorporate this into the network model at a future planning meeting.
- CR #7 Precast concrete wall panels, roofing, and flashing - Released in several packages. Full information was not available on dates of release. These will be reviewed at future planning sessions.

Monitoring Report #2
Minnesota Star and Tribune Press Plant
Page five

- CR #8 Combination of mechanical, electrical, and site work - Has been and is being issued in several packages. Full information on release dates not available at this session. We will discuss this at future planning meetings.
- CR #8 Mechanical underground package. Pending as of January 10, 1986 (working day 262).
- CR #9 Railroad spur approval documents not for construction. As of January 10, 1986 (working day 262) not yet released.
- CR #10 Fire protection systems These apparently are being released in several packages. The sprinkler system has been released; a date was not available to us at this session. The halon system was not released as of January 10, 1986 (working day 262). The CO2 system was not released as of January 10, 1986 (working day 262).
- CR #11 Electrical substations and primary switchgear for purchase only - Released in several packages.
   The exact date of each release was not available at our session. We will review these at a subsequent planning meeting.
- CR #12 Miscellaneous building work #1 Not issued as of January 10, 1986 (working day 262). There is a possibility that this work may have to be repackaged.
- CR #13 Railroad spur construction Not issued as of January 10, 1986 (working day 262).
- CR #14 Miscellaneous building work #2 Promised release is February 3, 1986 (working day 278).
- CR #15 HVAC and temperature controls Promised release is February 17, 1986 (working day 288).
- CR #16 Building finish work Promised release is March 3, 1986 (working day 298).
- CR #17 Electrical substation and switchgear installation work. Promised release March 3, 1986 (working day 301)
- CR #18 Mechanical process work Promised release April 7, 1986 (working day 323).

Monitoring Report #2
Minnesota Star and Tribune Press Plant
Page six

There have been some severe difficulties in completing and issuing the design packages as had been originally intended on the project and these difficulties will undoubtedly reflect themselves in problems with ordering materials, submission of submittals and obtaining of approvals along with fabrication and delivery of key pieces of equipment. I strongly urge that close attention be given to each of the packages as listed in the various documents where these are identified and particularly on sheet #D-1 which is a plot of the release both promised and actual for the CR packages. It will be imperative that adequate drawings, specifications and other contract documents flow to the job in a continuous and well scheduled manner if the project is to be completed by the present desired completion dates. At our next planning session, we should spend adequate time on this engineering release analysis to insure that everyone has a clear picture of the impact on the project of the promised and actual release dates.

Overall, it appears that work on the foundations for the buildings has gone very well. It further appears that the major close in of the structure at several key areas can be effected by late May or early June, 1986. At our next planning session we shall concentrate on monitoring and reviewing the current status as well as identifying the key interior areas that must be given planning attention. I shall be in touch with Mr. Jorg Eschway to set our next planning meeting. Meanwhile, Mr. Eschway has issued the network models which resulted from our planning session to all concerned.

It should be noted that the owner attended briefly our planning meeting for a brief time, and we had some short conversations about installation of various owner equipment. It is hoped that in the future we can have additional planning sessions re integration of the owner's equipment with the building work. Again, I shall speak to Mr. Eschway about this and we shall make plans for such meetings to be held as part of our regular planning sessions.

Ralph J. Stephenson, P.E.

RJS:sps

To: Mr. Jorg Eschway

cc: Mr. Dean Winquist

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

Meach 6. 1986

Subject: Monitoring Report #3

Minneapolis Star and Tribune Press Plant

Minneapolis, Minnesota

Kraus-Anderson - Construction managers

Project: 85:51

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Date of Monitoring: February 20, 1986 (working day 291)

Monitored from sheets #3 and #4. Issue #2 dated January 10. 1986 (working day 262)

Target completion dates as of October 8, 1985 (working day 197):

Press rooms enclosed and ready for press installation by September 2, 1986 (working day 426)

Building construction complete by KA - December 30. 1986 (working day 510)

Plant to be operative by April, 1987

Desired construction completion date by KA - October 1, 1986 (working day 447) (Note: These dates have been revised since October, 1985 due to revisions to the project. Currently time extension amounts are being established.

# Actions taken:

- Reviewed general status of project with Mr. Jorg Eschway, Mr. Richard Thorsen, and Mr. Sid Dahlin of Kraus Anderson
- Het and briefly reviewed project with Mr. William Skalko and Mr. Ben Kraemer of Star Tribune
- Prepared network model for remaining close in work Issue #3, sheet #5 dated February 20, 1986 (working day 291)
- Prepared network model of interior work for roll storage area sheet #7, Issue #1, dated February 20, 1986 (working day 291)
- Evaluated current project status

Monitoring Report #3
Minneapolis Star and Tribune Press Plant
Page two

# General Summary

Overall, the work is moving in good alignment with the current plan of work as shown on sheets #3 and #4, Issue #2, dated January 10, 1986 (working day 262). Mr. Eschway has issued these network models to all concerned and they are presently being used as the basic monitoring and evaluation tool for close in work. As of February 20, 1986 (working day 291) all caissons are installed at the 44' addition area, structural steel joists and metal deck are being erected, and clock tower footings are being constructed. Structural steel erection began January 16, 1986 (working day 266) and as of February 20, 1986 (working day 291) was complete from column line 1 to column line 24. Trimming is following erection, and presently it is expected that structural steel can proceed in accordance with the erection plan shown on sheet #3 of the network model for close in work. Clock tower footings were partially poured Wednesday, February 19, 1986 (working day 290) and were expected to be complete in about two weeks. Underground work installation was substantially as it was as of the previous monitoring on January 8 and 9, 1986 (working day 260 and 261).

The expected start of exterior wall precast panels is presently about March 24, 1986 nearly a week after the planned early start but slightly before the planned late start for the activity. Contracts are being awarded on an ongoing basis as issuance of engineering releases proceeds. Thus, overall the project presently is maintaining close adherence to the plan of field work.

There are some time extensions being considered or that have been already provided to accommodate the changes that have been made to the project. However, we did not review these in detail at our session but will do so at a subsequent meeting.

Our planning work at this conference consisted of reviewing the close in network model on sheets on #3 and #4, Issue #2 dated January 10, 1986 (working day 262) and preparing a network model for remaining miscellaneous close in. It indicates that most close in items will be in place in time to provide the necessary security and weather protection to following installations. We then prepared a network model for interior work at the roll storage area (RS). It is hoped to begin active installation of rough interior work as soon as the floor slab on grade is poured at the roll storage area. This slab is to be available by June 16, 1986 (working day 372). At that time, the interior rail spur can be installed along with the ramps and bumpers and rough above floor and overhead mechanical and electrical work.

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

Monitoring Report #3
Minneapolis Star and T ribune Press Plant
Page three

As soon as structural steel joists and metal deck are detailed and touched up, interior masonry wall footings and interior masonry can be erected at the roll storage area. Upon completion of rough overhead work and other close in installation, painting followed by mechanical, architectural, and electrical trim will be initiated leading to a clean up and move out of the roll storage area about mid-August, 1986. It is presently the intent to plan all the other major areas in the same general manner and these will be addressed in subsequent planning sessions.

At our recent meeting we did not have full information on the engineering release progress. However, this process is being followed carefully by Mr. Eschway and others on the project team to insure that the releases are made in timely fashion.

Overall the project is in generally good condition, maintaining alignment with the projected plan of work. I shall be in touch with the KA staff and Mr. Eschway soon to set the next planning and monitoring session.

Ralph J. Stephenson.P.E.

RJS; sps

To: Mr. Jorg Eschway cc: Mr. Dean Winquist

May 16, 1986

Subject: Monitoring Report #4

Minneapolis Star and Tribune Press Plant

Minneapolis, Minnesota

Kraus-Anderson - construction managers

Project: 85:51

Date of Monitoring: May 1, 1986 (working day 341)

Monitored from sheets #3 and #4, Issue #2, dated January 10, 1986 (working day 262)

Target completion dates as of October 8, 1985 (working day 197):

Press rooms enclosed and ready for press installation by September 2, 1986 (working day 426) (to be reviewed)

Building construction complete by KA- December 30, 1986 (working day 510) (to be checked)

Plant to be operative by April, 1987 (to be checked)

Desired construction completion date by KA - October 1, 1986 (working day 447) (Note: These dates have been revised since October, 1985 due to changes in the project. Currently time extension amounts are being established.)

#### Actions taken:

- Reviewed general status of project with Jorg Eschwey,
   Mr. Sid Dahlin, and Mr. Dean Winquist of Kraus-Anderson
- Inspected project
- Evaluated current project status
- Reviewed procedure for preparing summary cash flow analysis
- Prepared network model for press room 2nd floor office office area

## General Summary

As of May 1, 1986 (working day 341) the building is being closed in and floor slab on grade is in work at the roll

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

Monitoring Report #4
Minneapolis Star and Tribune Press Plant
Page two

storage area. Grade walls at the 44' addition were completed on April 29, 1986 (working day 339). All other substructure work is substantially complete. There were some clarifications needed relative to the press footings and the slab on grade. These included several technical details such as:

- additional saw cutting
- granular fill under press footings and slabs on grade
- concrete mix designs
- slab thicknesses
- reinforcing requirements
- concrete additives required
- joint details

Structural steel and metal deck is substantially complete. Structural steel was topped out on Friday, April 18, 1986 (working day 332). The remainder of work on structural steel is minor detailing which should be complete by May 2, 1986 (working day 342). All structural concrete decks are poured out, and interior work is proceeding at some of these supported deck areas.

The precast liner panels are installed except at the south side, column line R through 6. Metal panels were delivered to the job site on April 29, 1986 (working day 339) but are not being erected as yet. Insulation and roofing is complete to dry in at the roll storage area and at the high press areas. About 70% of the insulation and roofing to dry in is on at the mail room and distribution dock. Insulation and roofing at the mechanical room roof is not yet started.

The first load of architectural precast sill pieces is due May 5, 1986 (working day 343). Erection of face brick will follow partial erection of the sills. Brick could start as early as May 7, 1986 (working day 345).

Elevator pit excavation, concrete, backfilling, and waterproofing is done on pits I through 4. The hydraulic plunger casings are installed at pits #1 and #2. Stair #3 masonry is nearly complete and erection of the stair proper will begin Monday, May 5, 1986 (working day 343). Interior underground utility work is moving fairly well and is complete at the roll storage area with rain leaders and the storm sewer hooked up. Underground utility work is in progress at the

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

Monitoring Report #4
Minneapolis Star and Tribune Press Plant
Page three

press room area and about 80% complete. Most underground utilities are installed at the delivery dock and about 50% are installed at the mail room.

Fire wall work in the building is well along and should be complete soon. Construction of dock areas is progressing along with the dock area trench.

Evaluating work presently completed against the network model indicates that most major activities are currently meeting targets between early and late starts and finishes. It will be very important to continue this good progress on the project if the target end dates are to be met. The most difficult parts of the job are now beginning to emerge, and it will be essential that the procurement process particularly is expedited to the greatest degree possible. Many contracts are yet to be awarded, and we reviewed these briefly at our monitoring session. Those contracts remaining to be awarded are listed below:

- road and walks no specifications available
- landscaping no construction document issued
- mill work no construction documents issued
- caulking presently being bid
- finish hardware presently being bid
- interior glass and glazing presently being bid
- drywall presently being bid
- ceramic tile presently being bid
- acoustic work could be bid now
- carpeting could be bid now
- special flooring could be bid now
- painting could be bid now
- vinyl wall covering could be bid now
- toilet partitions presently being bid
- fire extinguishers could be bid now

Monitoring Report #4
Minneapolis Star and Tribune Press Plant
Page four

- flag poles could be bid now
- identifying devices could be bid now
- lockers could be bid now
- postal and telephone specialties no construction document issued
- toilet accessories no construction documents issued
- blinds and shades no construction documents issued
- mats and floor grates no construction documents issued (watch the frame required for slabs on grade)
- battery charged hoists no construction documents issued
- resilient flooring presently being bid

Change orders #1 through #36 have been issued including:

- earthwork
- building concrete
- structural steel
- precast materials
- miscellaneous metals
- masonry
- mechanical work
- electrical work
- sprinkler work
- miscellaneous items

These are the major elements, the details of which are included in Mr. Eschwey's records, and can be obtained from these documents.

Mr. Eschwey mentioned that the mechanical documents were made available to Kraus-Anderson for pricing on March 21, 1986 (working day 312), with electrical being made available for

Monitoring Report #4
Minneapolis Star and Tribune Press Plant
Page five

pricing on April 10, 1986 (working day 326). These two trades are critical elements of the project and will have to be given careful attention. Another item that will have to be concentrated upon soon is site work. With the present project completion requirements, it is essential that much of the site work be completed this year before cold weather. At present, the site is being totally used for construction purposes, or for fill and storage. I recommend that in the very near future we concentrate efforts on preparing a network model for this phase of the operation. I shall discuss site work at our next monitoring session with Mr. Eschwey.

As part of our planning today we prepared a network model for the second floor offices of the project. This network is shown on sheet #7 Issue #1 dated May 1, 1986 (working day 341). In this diagram rough interior work was shown as beginning on May 2, 1986 (working day 342), since the area is currently available for this rough interior work to start. The critical item, however, deals with installation of furring channels on the south exterior wall which can only start after that wall has been erected. Furring is followed by hanging gyp board on both masonry and precast walls at the interior of the office area. Once that is done and the board has been taped and sanded, painting can start and the project can move on through to completion. Present plans indicate that furring at the south exterior wall might be able to start in early July, This, with our present plan of work, brings completion 1986. of the office area to October 10, 1986 (working day 454), slightly later than may be desired. However, it is within the frame work of the present agreement on the project. I printed this network model for Mr. Eschwey and Mr. Dahlin. They will review it for accuracy, and we will make whatever changes are appropriate in subsequent sessions.

There are several other elements that we should address in our future planning sessions. These include preparation of network models for the following:

- site work (as noted above)
- first and second floors at the press area
- utility area at 50' bay
- service area at 39' bay
- mail room and mail room offices (fleet dock)
- distribution dock

Monitoring Report #4
Minneapolis Star and Tribune Press Plant
Page six

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

- distribution dock offices
- drivers' lunch room

It is important to prepare network models for each of these areas to show exactly how the various elements yet to be purchased must tie into the total building completion. I suggest that at our next planning session we devote the majority of it to completing the remainder of the network models and identifying all potential problem areas that may pose difficulties in achieving completion and cost targets of Kraus-Anderson.

I shall be in touch with Mr. Eschwey shortly to set the next planning and monitoring session. Copies of the material prepared at this meeting were left with Mr. Eschwey on his data discs for reference and use as he sees fit.

Ralph J. Stephenson, P.E.

RJS:sps

To: Mr. Jorg Eschwey Mr. Dean Winquist

Subject: Monitoring Report #5

Minneapolis Star and Tribune Press Plant

Minneapolis, Minnesota

Kraus-Anderson - construction manager

Project: 85:51

Date of Monitoring: June 3 and 4, 1986 (working days 363 and 364)

Monitored from sheets #3 and #4, Issue #2 dated January 10, 1986 (working day 252) and from miscellaneous other network models as noted below

Target completion dates as of October 8, 1985 (working day 197):

Press rooms enclosed and ready for press installation by September 2, 1986 (working day 426) (to be reviewed)

Building construction complete by KA - December 30, 1986 (working day 510) (to be reviewed) Plant to be operative by April, 1987 (to be reviewed)

Desired construction completion date by KA - October 1, 1986 (working day 447)

Note: These dates have been revised since October, 1985 due to changes in the project. Currently time extension amounts are being established).

# Actions taken:

- Reviewed general status of project with Jorg Eschwey,
   Sid Dahlin, and Dick Thorsen
- Inspected project
- Evaluated current project status
- Attended construction schedule meeting
- Prepared network model for site work
- Updated network model for close in work at clock tower

Monitoring Report #5
Minneaphlis Star and Tribune Press Plant
Page two

# General Summary

As of June 3, 1986 (working day 363) the project continues to move well. Close in is proceeding rapidly and the building roof was completely dried in by mid-May, 1986. Exterior wall close in is also proceeding with the major operation at present being erection of exterior masonry veneer and installation of metal wall panels.

Inside the building work is proceeding on installation of granular fill for the slab on grade, construction of trenches and docks, and installation of the concrete slab on grade. Press footings were poured out on May 29, 1986 (working day 360). Underground utility installation is also proceeding inside the building with the storm sewer complete, electrical underground complete except for some grounding connections, and with sanitary sewer installation in progress.

All elevator pits were completed about mid-May, 1986. Structural steel is complete on the main building. However, there is some miscellaneous structural steel needed for return air fan support members, quiet room structures, and duct work supports, and support of the heliport at the roof of the press area. No design for this heliport has been issued as yet.

Exterior wall precast is well along with sills and parapets at the west and north side roll storage complete. Sill pieces are being set at the south wall east of the clock tower. The architectural precast supplier is committed to providing all precast items by June 16, 1986 (working day 372). Interior rough utility work including sprinkler piping, mechanical piping, HVAC installation, and electrical installation is moving relatively well. However, information is still needed for the mechanical and electrical installation at the quiet room. Procurement is continuing and many of the contracts mentioned in previous reports have been awarded. A large series of contracts will be awarded on June 6, 1986 (working day 366). Others will be awarded as information and proposals are available.

As part of my monitoring, I also attended a regular meeting on the job site devoted to consideration of schedule matters. The observations made at this meeting are incorporated as part of this report. Also as part of our planning and monitoring work, we updated the network model for the clock tower and miscellaneous close in, adding to it the work for completing site installation. This network is shown on sheet #9 Issue #4 dated June 4, 1986 (working day 364).

Monitoring Report #5
Minneapolis Star and Tribune Press Plant
Page three

Part of our discussion at this monitoring included consideration of completion dates by K/A. There is presently a desire on the part of Kraus-Anderson to complete the project for initial owner use by November 1, 1986 (working day 470). The amount of work to be done by the owner and by Kraus-Anderson and the division of that work into appropriate packages for each is presently being considered.

Allocation of work is a very important pivot point on the project for both the Star Tribune and Kraus-Anderson.

A brief review of each major area is given below:

#### Procurement

Procurement status as of June 4, 1986 (working day 364) is given below:

# Contracts awarded since previous monitoring:

Drywall Finish hardware - On job as required

# Contractors to be selected or contracts to be awarded by June 5, 1985 (working day 355):

Caulking Ceramic tile Interior glass and glazing Special flooring Toilet partitions Resilient flooring

# Contracts yet to be awarded:

Roads and walks - Design information available; work could probably begin now Landscaping - no construction documents issued Mill work - no construction documents issued Acoustic work - probably could be bid now Carpeting - probably could be bid now Painting - probably could be bid now Vinyl wall covering - probably could be bid now Fire extinguishers - probably could be bid now Flag poles - probably could be bid now Identifying devices - probably could be bid now Lockers - probably could be bid now Postal and telephone specialties - construction documents not issued as yet Toilet accessories - construction documents not issued as yet Blinds and shades - construction documents not issued as yet

Monitoring Report #5
Minneapolis Star and Tribune Press Plant
Page four

Mats and floor grates - These are to be installed on top of the floor on grade. No construction documents issued as yet.

Battery charged hoists - no construction documents issued as yet.

#### Change orders and drawing issue

Change orders #1 through #52 have been issued. Pending change orders are yet to be issued for building concrete work, mechanical work, electrical work, sprinkler work, and miscellaneous items including hard tile, compactor enclosures, roof screens, and additional rubber flooring. I suggest that they be reviewed on an ongoing basis and cleared away just as quickly as possible. It must be realized that there is very little time remaining between now and November 1, 1986 (working day 470). Thus, any administrative work dealing with changes or unresolved procurement or contract document revisions must be concentrated upon now so the project can be closed out properly.

## Earthwork

Excavation to the slab on grade sub-base is complete for the building footprint, and granular fill throughout the building is complete for about 70% of the footprint. Site grading has been put on hold by the owner at the north site area until the maintenance shop design is resolved.

In our work today on the site work network Issue #4 dated June 4, 1986 (working day 364) sheet #9 we identified four areas - the west, south, north, and east. Each of these has its own particular characteristics and each is dependent to a considerable extent upon being able to move in, rough grade, and complete placing and compacting sub-base. A careful study of this network should be made and every effort bent toward adhering to it closely. It will be very difficult to complete all outside work necessary for project completion in 1986 since generally cold weather can be expected to begin in mid-October or early November. 1986.

# Building substructure

Gull wing trench construction at the roll storage area started about May 30, 1968 and will be complete by June 6, 1986 (working day 366). Press footings were poured out by June 29, 1986 (working day 360). Presently work is being concentrated heavily on the delivery dock wall and the trench in front of the delivery dock. The walls at the delivery dock were

Monitoring Report #5
Minneapolis Star and Tribune Press Plant
Page five

redesigned to accommodate ladders at the corners rather than at the flat sides. This forced a revision of the wall footings and delayed construction of wall footings and walls.

At present most items that deal with the substructure of the building have been resolved.

# Underground utility work at building

Storm sewer work in the building is complete, and electrical underground is complete except for some areas at the distribution dock and the railroad. The sanitary sewer in the building is complete at roll storage and will be complete at the press area by June 13, 1986 (working day 371). The sanitary sewer at the 1st floor mechanical area is complete. At the mail room, about 75% of the sanitary sewer is complete and at the delivery dock about 30% is complete.

## Slab on grade

At the roll storage, about 30% of the area is poured out. Work there is about five working days behind the desired schedule. At the press area, the slab on grade is poured out from column line one through column line 13. At the first floor mechanical area, it is poured out from column line one through the end of the sub-station.

At the mail room, about 30% of the slab on grade has been poured out, while at the delivery dock no slab on grade work has yet started.

In general, the slabs on grade are being constructed just as rapidly as areas become available and information is received. Present progress on slabs on grade is fair to good.

Elevator pits were completed about mid-May, 1986, generally on schedule per sheet #3 Issue #2 dated January 10, 1986 (working day 262).

# Building superstructure and skin

Most main steel is complete and detailed, and all main building metal deck is erected. There are still some structural components to be installed inside the building. These will be erected as information and materials are received.

Sills and parapets at the west and north of the roll storage are complete. Sill pieces are being set at the south wall east of the clock tower. Metal wall panels are complete along the east wall column line R and on the west wall column line G to F at the lower portion.

KITICAL PATH PLANNING

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

Monitoring Report #5

· LAND Minneapolis Star and Tribune Press Plant Page six

15064 WARWICK ROAD DETROIT, MICHIGAN 48223

Consulting Engineer

. MANAGEMENT CONSULTING

West wall metal panels column line G to F upper 2pertion are PLANT 50% remplete. It is expected to begin north wall metal panels on June 11, 1986 (working day 369).

Roofing is installed to building dry in. Areas of roofing that remain to be done include vertical backsides of roof parapets, and miscellaneous flashing, sheet metal covers, expansion joints, and final inspection.

Exterior masonry at the west elevation will be complete by June 6, 1986 (working day 366). North side masonry will start Monday, June 9, 1986 (working day 367). Interior block is being erected on the 2nd and 3rd floor and most interior and exterior masonry is proceeding quite well. There is a flashing detail over the core brick course at exterior wall reveals that must be reviewed in the very near future. This matter is being taken care of by Mr. Eschwey.

#### General

The clock tower and site work construction is very critical since it must be closely related to installation of utilities in the extended 8th Avenue. On our network model on sheet #9 Issue #4 dated June 4, 1986 (working day 364) this relationship is shown. I recommend that all concerned study this network model very carefully to insure that all work can proceed without delay. Present indications are that the site work will probably proceed on through the summer and fall, being completed by mid-November, 1986 at the east site. This is longer than desired and we shall further evaluate the network plan of action to see if this schedule can be compressed.

I shall be in touch with Mr. Eschwey shortly to set the next planning and monitoring session. Copies of the material prepared at this session were left with Mr. Eschwey on his data disks for reference and use as he sees fit.

Ralph J. Stephenson, P.E.

RJS:sps

To: Mr. Jorg Eschway cc: Mr. Dean Winquist

#### RALPH J. STEPHENSON, P.E.

#### CONSULTING ENGINEER

August 6, 1986

Subject:

Monitoring Report #6

Minneapolis Star and Tribune Press Plant

Minneapolis, Minnesota

Kraus-Anderson - construction manager

Project:

85:51

Date of Monitoring: July 24, 1986 (working day 399)

Monitored from sheets #3 and #4, Issue #2, dated January 10, 1986 (working day 252) and from other networks as noted below

Target completion dates as of July 24, 1986 (working day 399) are given below

#### Actions taken:

- Inspected project
- Reviewed general status of project with Jorg Eschwey,
   Sid Dahlin, Dick Thorsen and Carl Hertzke
- Made detailed evaluation of current project status
- Updated network model for site work and close in at clock tower

# General Summary

As of July 24, 1986 (working day 399) the project is to all intents fully closed to weather, most slabs on grade and most other hard interior lower surfaces at the interior of the building are complete with work now being concentrated on roll storage and press room areas to allow setting of press equipment.

The target dates for completion of all work are summarized below. Substantial completion means completion of the project excluding work in areas which cannot be totally completed due to pending owner supplied information and/or owner supplied and/or installed equipment.

# A. General contract work

1. Press room grid 13 through 27 - August 28, 1986 (working day 424)

Monitoring Report #6

RALPH J. STEPHENSON, P.E.

Minneapolis Star and Tribune Press Plant
PAGE two

CONSULTING ENGINEER

- 2. Roll storage August 28, 1986 (working day 424)
- 3. Balance of project substantially complete November 1, 1986 (working day 470)

#### B. Electrical work

- Press room and roll storage area All overhead work substantially complete - August 28, 1986 (working day 424).
- 2. All work substantially complete September 1, 1986 (working day 426)
- 3. Balance of project ready for occupancy permit-January 15, 1987 (working day 520) (not substantially complete).

Substantially complete - February 1, 1987 working day 532)

4. Final payment request - February 1, 1987 (working day 532)

## C. Mechanical work

- Press room and roll storage areas All overhead work substantially complete August 28, 1986 (working day 424).
- 2. All work substantially complete September 1, 1986 (working day 426).
- 3. Balance of project Ready for occupancy permit January 15, 1987 (working day 520) (not substantially complete).

Substantially complete February 15, 1987 working day 542).

- 4. Final payment request February 20, 1987 (working day 546)
- D. End of Kraus-Anderson involvement

  1. Electrical February 15, 1987 (working day 542)

  2. Mechanical February 28, 1986 (working day 552)
- E. Final electrical completion

  Process equipment completely connected June 15, 1987 (working day 626).

  Contract completed June 30, 1987 (working day 637)

Monitoring Report #6 Minneapolis Star & Tribune Press Plant Page three

RALPH J. STEPHENSON, P.E.

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Final mechanical completion

Process equipment completely connected - June 15,
1987 (working day 626)
Contract completed - June 30, 1987 (working day 637)

This tabulation of dates should be checked carefully to insure it represents an authentic picture of present contract completion targets. The completion dates above are very critical to the owner, and essential to meet to be able to bring presses on line by the desired target of April 1, 1987 (working day 574). At present it appears feasible to meet these dates.

A brief review of each major element of the project is given below:

#### Earth work and site work

Granular fill throughout is complete, and site grading has been released and was completed so far as possible by mid-July, 1986. Site work will resume July 28, 1986 (working day 401) on the basis of the new site drawing sheet C-2, Issue D. Mr. Eschwey pointed out that north site work design is to be by Austin Company while west and south site work will be included in the associate architect's landscaping work. North site underground will be bid next week and is expected to begin August 6, 1986 (working day 408).

## Substructure

All substructure installation has been substantially completed. Compactor base construction will begin in about one week and that should complete most foundation work for the project.

#### Railroad work

The sub-grade is in for the spur; however, no ballast or track has been yet installed.

Monitoring Report #6
Minneapolis Star & Tribune Press Plant
Page four

#### RALPH J. STEPHENSON, P.E.

CONSULTING ENGINEER

### Underground utilities

All electrical and mechanical underground in the building is complete and slabs on grade are substantially complete except at the compactor area. Slabs on grade were completed about July 21, 1986.

#### Structural steel

Support members for return air fans in the press area are complete except for steel beams at quiet room #3. Quiet room mezzanines are complete and have been poured out. Most remaining structural steel is on the job, except for steel at the heliport and battery racks. Battery rack steel is anticipated on the job in about 10 working days. Additional structural steel for dust collector platforms is being fabricated.

#### Precast materials and erection

All architectural precast and liner panels are installed except for final caulking and miscellaneous touch up and for some miscellaneous precast at the clock tower and at the pilaster caps and knock out panels.

# Miscellaneous iron

Guard rails will be on the job by July 28, 1986 (working day 656). Erection will then proceed in the floor boxouts.

Stairs #1 and #2 are completed; stair #7 is being erected. Stairs #11 through #15 are being fabricated and stairs #9 and #10 are not yet started in fabrication. An important element that will be needed soon is sole plates for the Y columns at the presses. There are 100 of these and they are presently being priced. They must be installed by August 17, 1986 (working day 416).

# Metal wall panels

West wall panels, column line G to F upper portion, are complete. The upper panels at louvers are dependent upon completion of louver installation. North wall erection was interrupted by need for access at mechanical equipment rooms; however, it is expected that this work will be completed in about ten working days.

Monitoring Report #6
Minneapolis Star & Tribune Press Plant **RALPH J. STEPHENSON, P.E.**Page five CONSULTING ENGINEER

#### Windows

Installation of windows is expected to start July 29, 1986 (working day 402). There have been some problems with snap on mullion covers; however, they will restrain exterior trim only.

# Roofing

Most bulk roofing is complete. However, still to be finished off id miscellaneous trim at several areas particularly at precast connections. These are being worked on at present.

#### Exterior masonry

The west elevation is complete. The north elevation is complete from grid line U to R. North elevation work has started at grid line B25 to B27. South elevation work is complete from grid line U to I and also from the clock tower to grid line A. South elevation work from the clock tower to grid line I has not started at yet. No east elevation masonry has yet begun.

Interior block work is about 80% complete for the entire job. However, the wall around grid line B has not yet been started.

# Drywall and plaster

This work is well along at the second floor offices. It will proceed at the first floor offices starting on July 28, 1986 (working day 401).

# Sprinkler work

Major sprinkler work is complete at the mail room, roll storage, roll lay down, press support area, and the 1st floor office areas. Sprinkler installation has not yet started at the distribution dock, mechanical room, and fleet offices and locker rooms. There are no major schedule problems foreseen with sprinkler installation at present.

# Mechanical plumbing

Much of this is complete or in work at major areas. There does not appear to be any major unresolved problems.

# Mechanical heating, ventilating, and air conditioning

Quiet room information has been released and the temperature control scope of work has been clarified. The major work in

RALPH J. STEPHENSON, P.E.

Monitoring Report #6
Minneapolis Star & Tribune Press Plant CONSULTING ENGINEER
Page six

progress presently is on duct work at the press room roof and in installation of the equipment rooms. Duct work at the mail room was released last week.

#### Electrical work

Electrical work has moved well and is in progress at most of the major areas. Work is proceeding at the sub-station with high voltage cable installed and being fireproofed and terminations about 80% complete. The UPS system arrived on the job site in mid-July, 1986. It was received severely damaged and had to be replaced. This replacement will be in late in July, 1986.

There is no building service cable pulled as yet; however, Industrial Electric will be ready to energize the system the week of August 4, 1986 to August 8, 1986. It will be necessary to follow up with NSP to avoid delay in work installation. Permanent power must be available shortly.

#### Procurement

Procurement work appears to be moving relatively well and since the previous monitoring the following contracts have been awarded.

- Caulking
- Ceramic tile
- Interior glass and glazing
- Special flooring
- Toilet partitions
- Resilient flooring
- Acoustic work
- Painting
- Demountable partitions

# Contracts yet to be awarded inlude:

- Roads and walk
- Landscaping
- Mill work
- Carpeting
- Fire extinguishers
- Flag poles
- Identifying devices
- Lockers
- Postal and telephone specialties
- Toilet accessories
- Blinds and shades
- Mats and floor grades
- Battery charged hoists

Monitoring Report #6
Minneapolis Star & Tribune Press Plant
Page seven

RALPH J. STEPHENSON, P.E.

CONSULTING ENGINEER

It is still going to be essential that procurement be tracked carefully to insure that no delays in work are experienced. This is particularly important since the involvement of Kraus-Anderson in the project is rapidly drawing to a point where it will be cut back considerably.

As part of our monitoring we made a preliminary update of the close in, clock tower work, and site work on sheet #9. The new issue is Issue #5 dated July 24, 1986 (working day 399). Completion of all site work is shown by mid-November, 1986 with completion of most paving on the site by mid-October, 1986. The network was copied onto Mr. Eschwey's disk and I suggest he run a copy and review the network for accuracy and to see if it conforms to present expected procurement and construction targets.

#### General

Overall, the project continues to move well in conformance with the major network models and target dates established. It will be particularly important to track the job carefully in these next three months since during that period a substantial portion of the project is to be turned over to the owner for their work on press installation. It will be particularly important to insure that work continues at the same good pace it has in the past in order that all contractors are able to complete their work expeditously.

I suggest we continue to monitor the project on through the next three or four months to insure that all planning is properly completed and tracked through to the end of Kraus-Anderson's major involvement. I shall be in touch with Mr. Eschwey shortly to set whatever might be considered appropriate for the next planning and monitoring session. Meanwhile, as noted above, copies of material prepared at this session was left with Mr. Eschwey on his data disks for reference and use as deemed appropriate by him.

Ralph J. Stephenson, P.E.

RJS:sps

To: Mr. Jorg Eschwey

	СР	?	Activity	sr	AL	SS	DD	DA	MR	SA	UA	PP	RS	ME	00	P2	U3	SI	CT
1	FE		CITY R/A STORM SEWER TIE IN	Х	X														
2	FE		HAVE SS DK DESIGND FOR CONC			X													
3	FE		OWNR R/A SPRINKLR CONCEPT	X	X														
4	SB		BKFL & COMPCT SUBBASE TO SOG		X														
5	SB		COMP DYNAMIC COMPACTION	X	X														
6	SB		EFRP COL FTGS AT SS	X		X													
7	SB		EFRP DOCK WALL FOOTINGS	X			X						×						
8	SB		EFRP ELEV PIT SLABS & WALLS	Х							X	X							
9	SB		EFRP EXHAUST DUCT BASE SLAB	X			X												
10	SB		EFRP GULL WING TRENCH BASE	Х								X	X						
11	SB		EFRP INT WALL FTGS	Х	X														
12	SB		EFRP PERIM GRADE BEAM FTGS	X	X														
13	SB		EFRP PRESS FOOTINGS	Х								X							
14	SB		EFRP SPREAD FOOTINGS	Х	X														
15	SB		EFRP WALL FOOTINGS	Х		X													
16	SB		EFRPS CONC COLS AT SS	X		X													
17	SB		EIB EXH DUCT DRAIN PIPING	X			X												
18	SB		EIB GROUNDING SYSTEM	X	X														
19	SB		EIB SS GROUNDING LOOP	X		X		<u> </u>											
20	SB		EIB UG CCTY CONDUIT	X	X														
21	SB		EIB UG CHILLED WATER LINES	X	X														
22	SB		EIB UG ELECTRICAL CONDUIT	X	X														
23	SB		EIB UG GAS LINES	X	X														
24	SB		EIB UG MECH AT SS	Х		Х													
25	SB		EIB UG SANITARY SEWER	X	X														
26	SB		EIB UG SPRINKLER PIPING	Х	X														
27	SB		EIB UG STEAM LINES	X	X														
28	SB		EIB UG STORM SEWER	X	X														

	СР	?	Activity	sr	AL	SS	DD	DA	MR	SA	UA	PP	RS	ME	OU	P2	U3	SI	CT
29	SB		EIB UG TELEPHONE CONDUIT	Х	X		a) a . an in adaptas	print aller v. lie hard				34.6.4.							
30	SB		EIB UG WATER LINES	X	X														
31	SB		FFG/SET IFW FOR SS SOG	X		X													
32	SB		FRP EXH DUCT COVER SLAB	X			X												
33	SB		FRPS COL PIERS	X	X														
34	SB		FRPS DOCK WALLS	X		X	X						X						
35	SB		FRPS EXH DUCT WALLS	X			X												
36	SB		FRPS GULL WING TRENCH WALLS	Х								X	X						
37	SB		FRPS PERIM GRADE BEAMS	X	X														
38	SB		FRPS SS WALLS TO SOG	X		Х													
39	SB		INSTL ELEV PLUNGER CASINGS	X							X	X							
40	SB		INSTL EXH DUCT MANHOLES	X			X												
41	SB		POUR OUT SS SOG	X		X													
42	SB		SET ANCHOR BOLTS	X	X														
43	SB		SET EMBEDS FOR PRESS FTGS	X								X							
44	SB		SET EMBEDS IN DOCK WALLS	X			X						X						
45	SB		SET EMBEDS IN GRADE BEAMS	X	X														
46	SB		SET EXH DUCT WLL EMBEDS	X			X												
47	SB		WATERPROOF SS WALLS	X		X													
48	SB		SET EMBEDS IN PIERS	X	X														
49	SK		ERECT ALUM CURTAIN WALL	X								X		X					
50	SK		ERECT EXT METAL PNLS MINUS PP	X	X														
51	SK		ERECT EXT MSNRY	Х	X														
52	SK		ERECT OUTSIDE PC PANELS	Х	X														
53	SK		ERECT PC PARAPET PANELS	Х	X														
54	SK		ERECT ROOF METAL DECK	X	X														
55	SK		INSTALL EXT WINDOWS	X			X					X		X					
56	SK		INSTL & GLAZE EXT ENTRIES/VEST	Х								X		X					

	CP	?	Activity	Sr	AL	SS	DD	DA	MR	SA	UA	PP	RS	ME	OU	P2	U3	SI	CT
57	SK		INSTL CURTAIN WALL GLASS	X								X		X					
58	SK		INSTL EXT WALL INSULATION	X	X														
59	SK		INSTL EXT WINDOW GLASS	X			X					X		X					
60	SK		INSTL ROOF BLOCKING	Х	X														
61	SK		LAY INSUL & ROOFING	X	X														
62	SK		SET ROOF CURBS	Х	X														
63	SS	1	ERECT FLOOR METAL DECK	X				X	X					X		X	X		
64	SS		ERECT STRUCT STEEL & JOISTS	Х	X														
65	SS	1	PLMB & TRIM STRUCT STL & JSTS	X	X														
66	SS		SET EMBEDS AT SUPTD DECKS					X						X		X			
67	SS		SET IN FL WK & POUR SUPTD DKS	X				X	X					X		X	X		
68	RI	X	ERECT INSIDE PC PANELS	X	X														
69	RI	X	ERECT INT MSNRY WALLS	X	X														
70	L.,.	Х	INSTL DOCK LEVELLERS	X			X												
71	RI	X	INSTL INT OVERHEAD DOORS	X			X		X			X	X	X					
72	SB		CONST REFUSE TRENCHES	X														X	
73	SB	X	OWNR PROVIGULL WING EMBEDS	X								X	X						
74	SK	X	ERECT TERN MTL ROOF	X															X
75	SK	X	INSTL DOCK LEVELLERS	X									X	X					
76	SK	X	INSTL EXT LOUVERS	X	X														
77	SK	X	INSTL EXT MAN DOORS & HDWR	X	X														
78	SK	Х	INSTL EXT MTL DOOR FRAMES	X	X														
79	SK	X	INSTL EXT MTL PANELS AT PP	Х								X							
80	SK	X	INSTL EXT OVERHEAD DOORS	X			X		X				X	X					
81	SK	X	INSTL ROLLING SHUTTER DOORS	X									X						
82	SK	X	SET ROOF TOP EQUIP	X	X														
83	SS		CONST HELIPORT SUPTO SLAB	X								X							
84	SS	X	FRPS EQUIP BASES	X		X				X	X	X	X	X					