

JAMES KNIGHT & ASSOCIATES

PROFESSIONAL ENGINEERS

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SITE VISIT REPORT

Report No. 1

May 18, 2018

Distribution:

Owner: Richard Monaghan, C.E.T.
The City of Kawartha Lakes

Contractor: Aron Van Pelt
Van Pelt Construction Inc.

**Re: Rehabilitation of 100 ft. Sand Dome
Fenelon (aka Cameron) Works Yard
The City of Kawartha Lakes**

On May 17, 2018 the writer visited the captioned site to sample the progress of the work re this Contract to provide a reroofed and rehabilitated 100 ft. dome at the Fenelon Works Yard.

More specifically, this site visit was made to inspect the dome as the Contractor had reported that all existing roofing had been removed and that structural work was to start on May 22. Hence this first interim site visit was undertaken to determine what adjustments to the scope of work may be required vis-a-vis the Unit Price provisions of the Contract.

This is the Report of our findings, opinions and recommendations.

The Contractor was not on site for any part of this site visit. All matters herein were discussed with him by telephone on May 18 prior to the issue of this Report.

A representative of the Owner was on site for much of this site visit. All matters herein were discussed with him prior to the writer's departure from the site.

1.0 Authorized Work of the Contract re Wood Structure

1.1 The overall progress of the work is that the Contractor has:
a) stripped the dome of all original roofing; and
b) completed interim clean up.

1.2 As of May 17, 2018 the following items in the scope of work of General Note 3.3.1 are complete: (b).

1.3. As of May 17, 2018 the following items in the scope of work of General Note 3.3.1 are started but are not yet complete: (a) and (n).

1.4. As of May 17, 2018 the following items in the scope of work of General Note 3.3.1 have not been started: (c) to (m).

1.5 The following materials have been incorporated in the work, delivered to the site and/or are available at the Manvers site.

- a) Lumber: #1/#2 SPF
- b) 1X2 PT sleepers
- c) Plywood: ½ in. D.Fir to CSA O121
- d) Adhesive: PL Premium or equivalent
- e) Hardware per details
- f) Steel roofing for canopy

All of the above meet or exceed the requirements of the material specifications within the Special Provisions.

1.6 Attached is Drawing No. 17-883-4 copied as two halves and marked up in colour. Changes in the scope of work are shown in red thereon. All such additional work is to be done on the Contract's Unit Price basis.

1.7 Further to No. 1.6 the changes to the plywood repairs to be undertaken per the Unit Price provisions of the Contract are as follows.

Sector 3 Panel No. 7.....	1 sheet
Sector 4 Panel No. 2.....	1
Sector 20 Panel No. 4.....	<u>1</u>
TOTAL.....	3 sheets

1.8 Further to No. 1.6, the changes to the lumber repairs to be undertaken per the Unit Price provisions of the Contract are as follows.

Sector 7 Panel No. 1.....	14 bd ft
Sector 7 Panel No. 2.....	<u>14</u>
TOTAL.....	28 bd ft

1.9 No canopy roof joists found to require replacement on the Contract's Unit Price basis.

1.10 No sill plates c/w anchor bolts were found to require replacement on the Contract's Unit Price basis.

1.11 No isolated anchor bolts were found to require replacement on the Contract's Unit Price basis.

1.12. Per No. 1.7 to No. 1.11 inclusive preceding, we compute the Unit Price work re wood to be:

Plywood:

Quantity per No. 1.7.....3 sheets
 Total.....3 sheets
 Unit price per contract.....\$325.00 per sheet
 Cost @ 3 X \$325.00.....\$975.00

Lumber:

Quantity per No. 1.8.....28 bd. ft.
 Total.....28 bd. ft.
 Unit price per contract.....\$27.00 per bd. ft.
 Cost @ 28 X \$27.00.....\$756.00

Canopy roof joists:

Quantity per No. 1.9.....0 joists
 Total.....0 joists
 Unit price per contract.....\$275.00 per joist
 Cost @ 0 X \$275.00.....\$0.00

Sill plates:

Quantity per No. 1.10.....0 sill plate
 Total.....0 sill plate
 Unit price per contract.....\$1500.00 per sill
 Cost @ 0 X \$1500.00.....\$0.00

Isolated anchor bolts:

Quantity per No. 1.11.....0 anchor bolts
 Total.....0 anchor bolts
 Unit price per contract.....\$45.00 per bolt
 Cost @ 0 X \$45.00.....\$0.00

TOTAL.....\$1,731.00

The foregoing is the accounting of the Unit Price work re wood based on our site visit, our understanding of the tendered Unit Prices and our records. We request that the Contractor and the Owner make their own independent calculations based on the contract as signed and awarded.

2.0 Authorized Work of the Contract re Concrete Foundation

2.1 Item (k) of General Note 3.3.1 re epoxy repair of east wing wall is to be undertaken as specified as part of the Lump Sum work.

2.2 Item (l) of General Note 3.3.1 re epoxy repair of Sectors 1 and 2 is to be undertaken as specified as part of the Lump Sum work.

2.3 Item (j) of General Note 3.3.1 re snap-tie removal is to be undertaken as specified as part of the Lump Sum work.

2.4 Additional epoxy repairs of some parts of some sectors are to be undertaken on the Unit Price basis of the Contract and per the procedure of No. 2.5 following. The locations and extent of such repairs are shown by the irregular lines drawn on sketches attached hereto as pages S1-1 to S1-5 inclusive. The aggregate cold-joint/crack length shown is 45 ft. to be repaired at a Unit Price of \$200.00 per foot, i.e., \$9,000.00. The total cold-joint/crack length and cost are to be confirmed by re-measurement once the work is complete.

2.5 The procedure to be followed re the Unit Price epoxy repair shall be as follows.

- a) City to dismantle bull-ring boards.
- b) City to remove sand/salt and other debris remaining behind bull-ring.
- c) City to pressure-wash inside face of concrete foundation.
- d) Contractor to undertake repairs as/where described herein.
- e) The scope of the repairs of (d) is to be increased or decreased as appropriate to the found conditions and only with the prior approval of the City. A record of any such changes is to be made and distributed.
- f) City to caulk all areas of the crack/cold joint that were not subject to epoxy repair.
- g) City to reassemble bull-ring.

3.0 Recommended Additional Work to Wood Structure

3.1 Unimpeded access is now available since the dome is empty. The bolts that could be reached from grade and/or from atop stored construction materials and/or equipment were found to be inadequately tightened. I estimate ~10% were loose and a further ~25% were finger-tight at best. Elsewhere washer embedment was none to minimal. A complete bolt tightening is recommended*.

*Refer also to our email of this date sent to the City and copied to the Contractor. As of this writing this is not authorized; authority is to be issued by the City.)

4.0 Other

4.1 Interim clean-up and site sanitation are satisfactory.

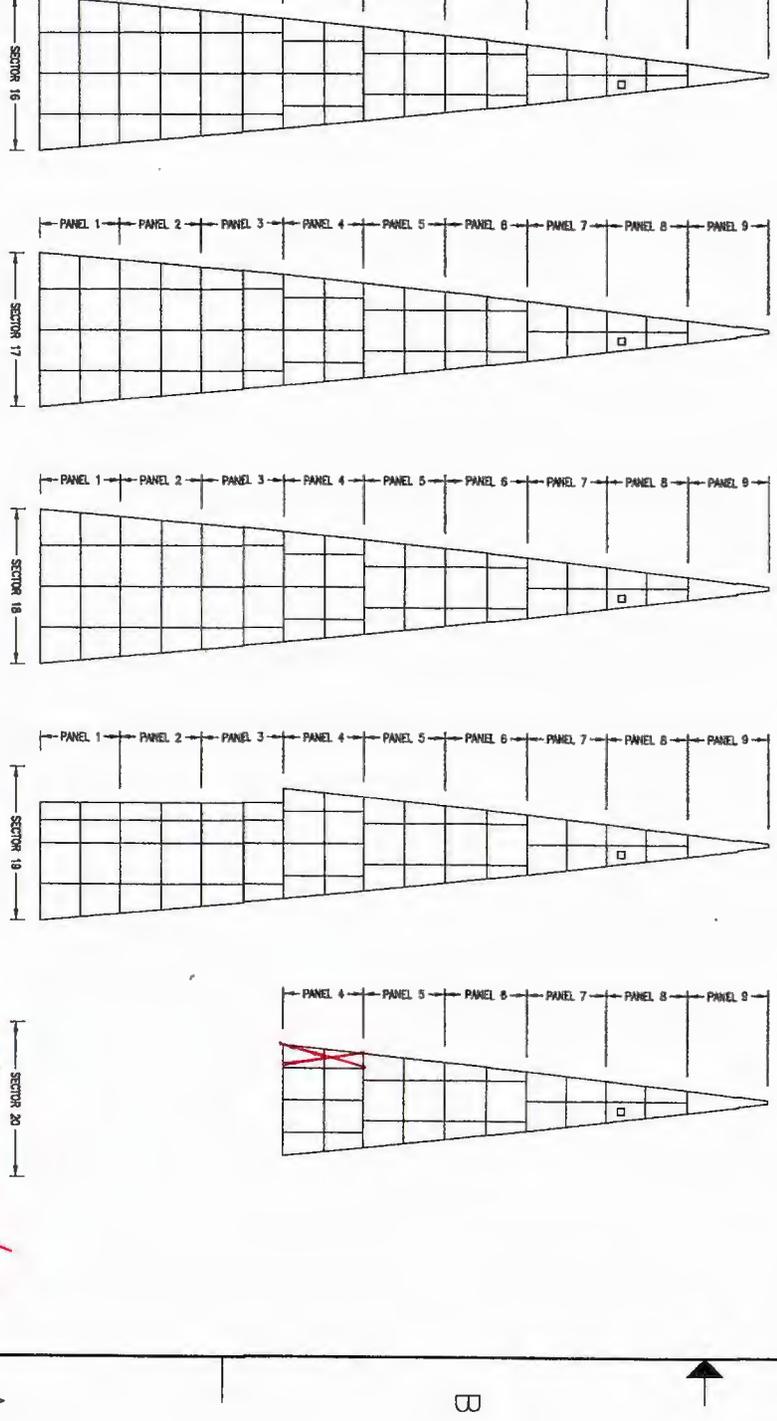
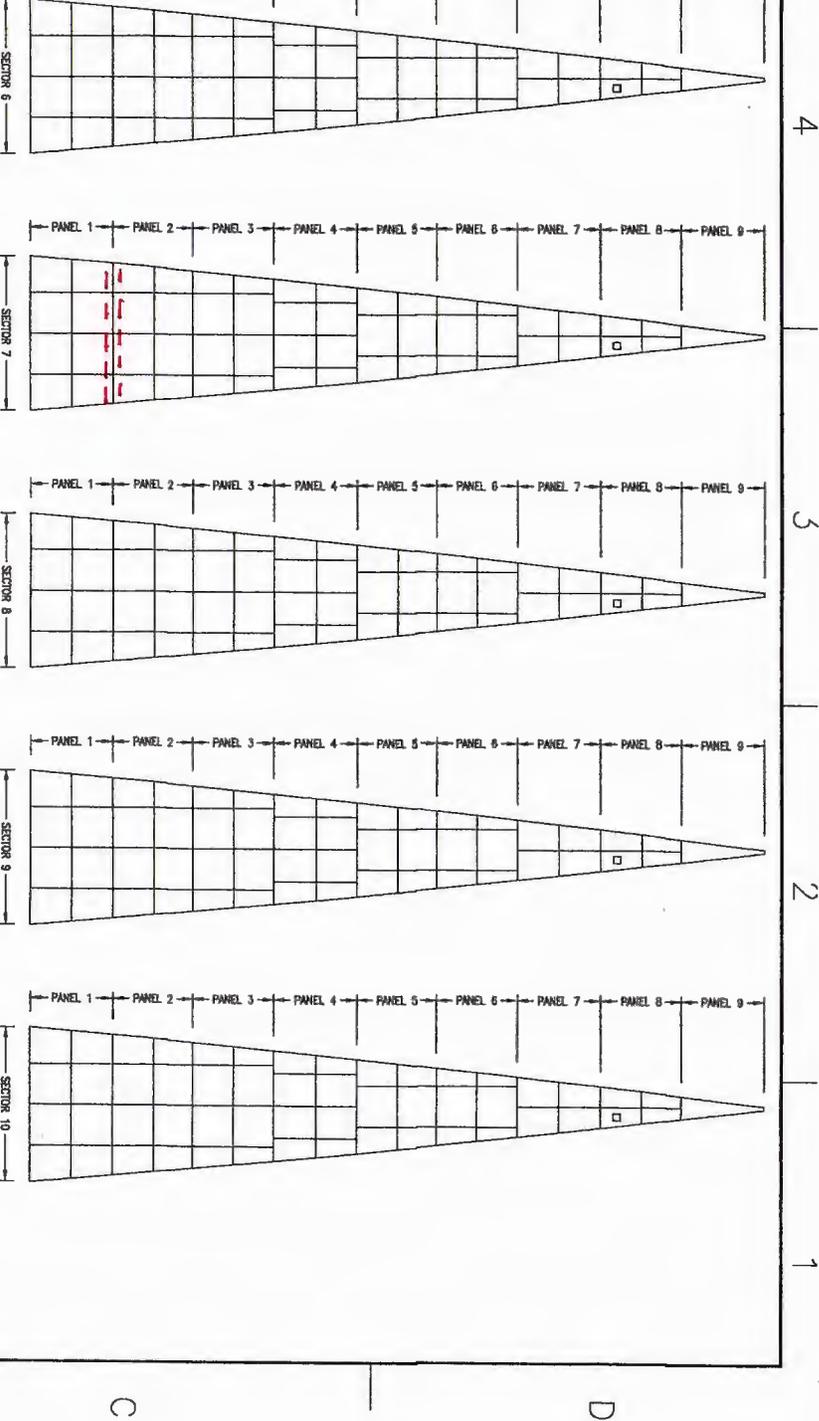
4.2. Nothing in this Report, save for No. 1.7 to No. 1.12 inclusive plus No. 2.4, shall be construed as authorizing additional work or changing the Contract Price.



James Knight, M.Sc.F., P.Eng.
17-883



Encl.



MAY 13/11

FOR GENERAL NOTES SEE DWG. 17-883-4

LICENSED PROFESSIONAL ENGINEERS
PROFESSIONAL ENGINEERS
ORDER OF ENGINEERS

JAMES KNIGHT & ASSOCIATES
 PROFESSIONAL ENGINEERS

CITY OF KAWARTHA LAKES
 REHABILITATION OF SAND DUNE
 AT FENELTON WORKS POND
 DETAIL B - PANEL REPAIRS

17-883-4

DATE: SEPTEMBER 15, 2017

SCALE: AS NOTED

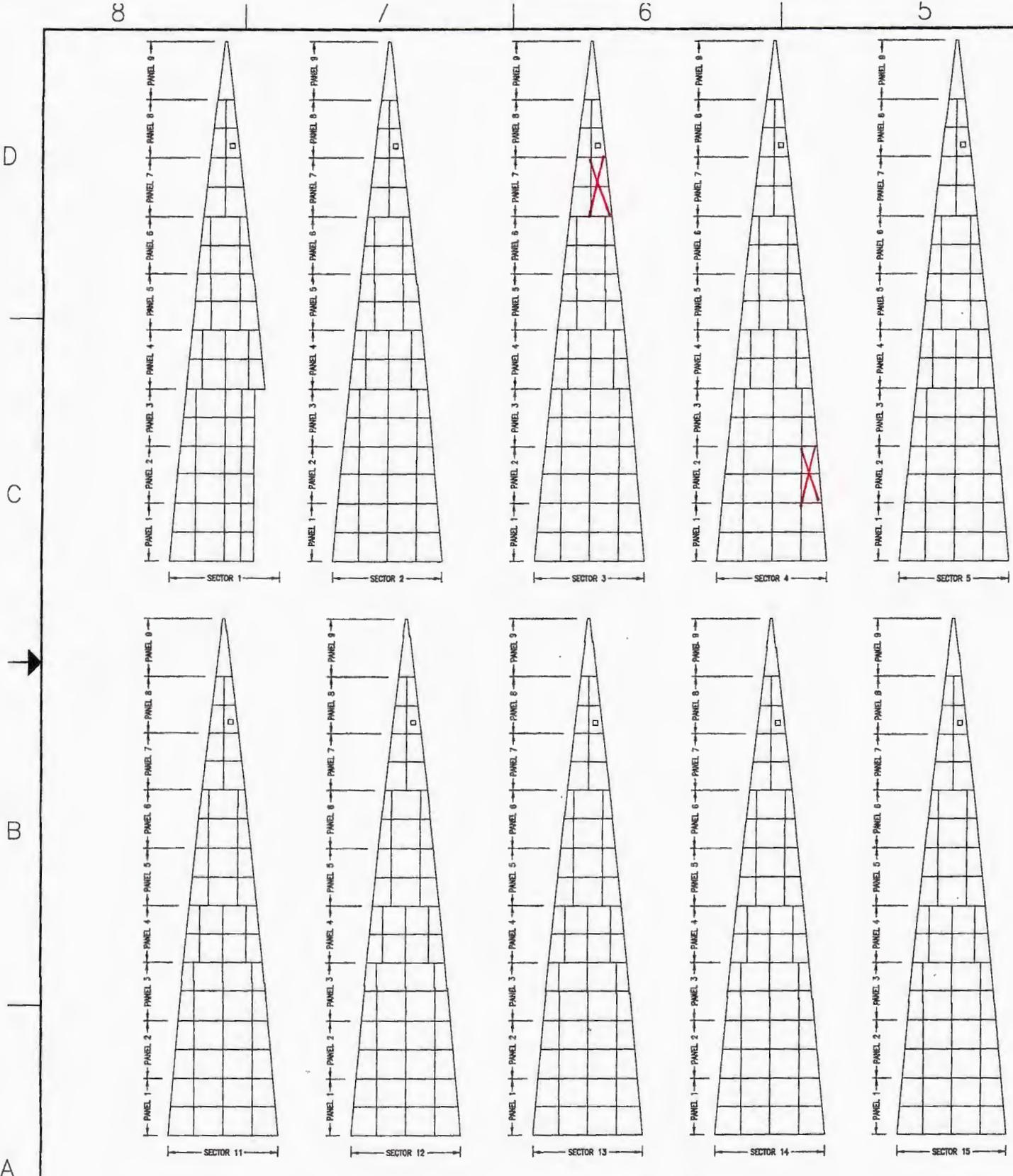
DESIGNED BY: J.K.
 DRAWN BY: J.M.
 PROJECT ENGINEER: J.K.
 APPROVED BY: J.K.

4
3
2
1

DESCRIPTION

DATE

APPROVED



D

C

B

A

May 18/18

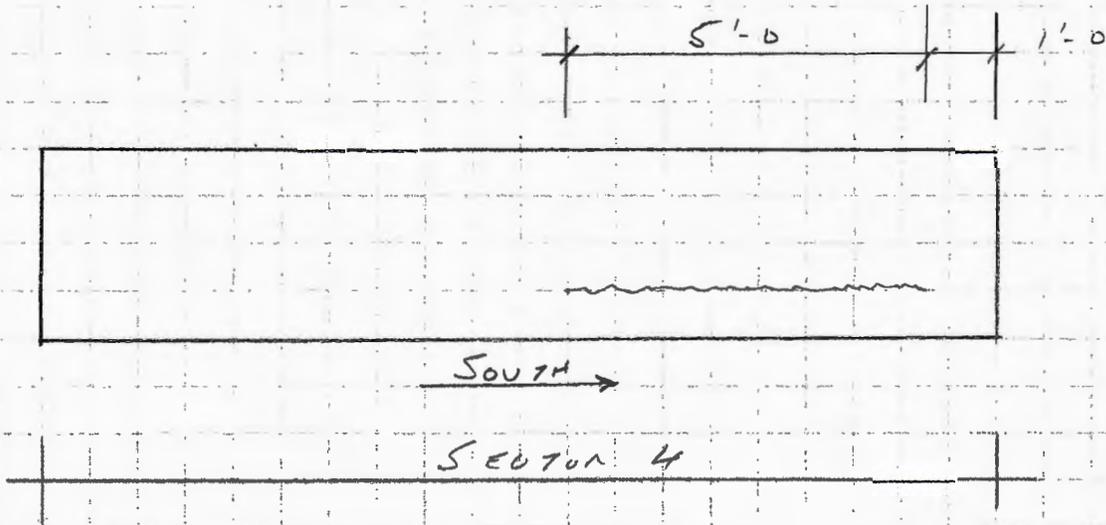
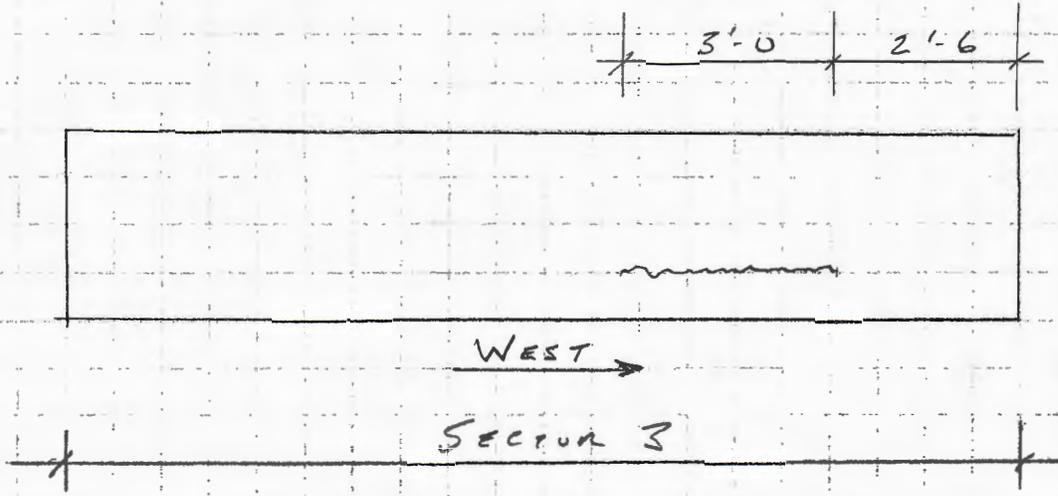
THIS DETAIL (B) IS THE PERSPECTIVE
LOOKING AT THE INSIDE OF THE DOME.

FOR GENERAL NOTES, SEE DWG. 17-883-1

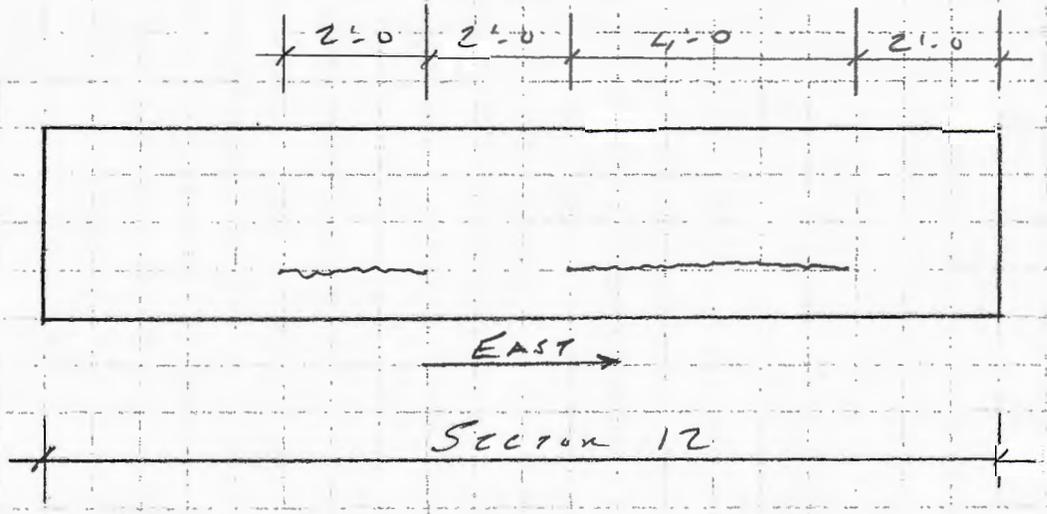
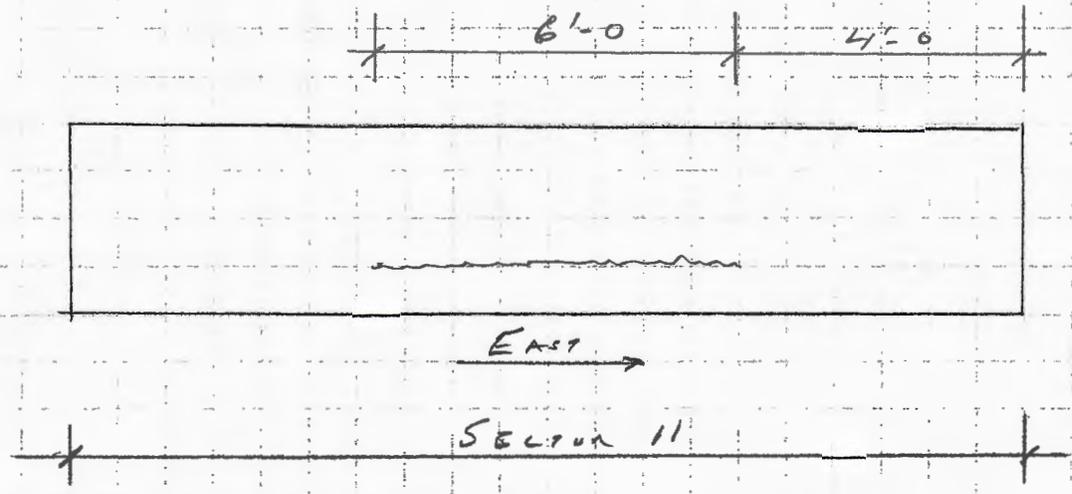
- NOTES:
1. PLYWOOD NOTED WITH DASHED "X" SHALL BE REPLACED PER NOTE 4.11.
 2. LUMBER NOTED WITH DASHED LINE SHALL BE REPLACED PER
 - a) DETAIL 68 AT TOPRAILS AND BOTTOMRAILS.
 - b) DETAIL 7 AT SIDERAILS.
 - c) DETAIL 8 AT 4x4 VERTICALS.
 3. REFER ALSO TO "SPECIAL CAUTIONS" AT DRAWING No. 17-883-1.
 4. REMOVE EXISTING NAILED SCABS AND OTHER INADEQUATE REPAIRS WHERE NEEDED TO COMPLETE THE SPECIFIED WORK.

ZONE

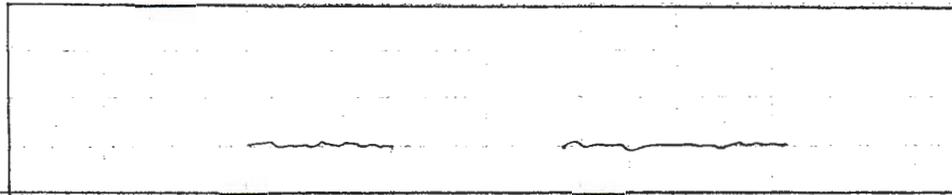
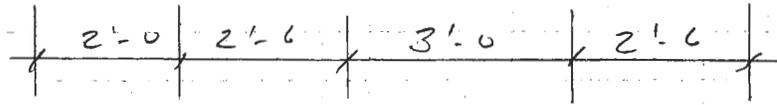
51-1
17-883
18/5/18



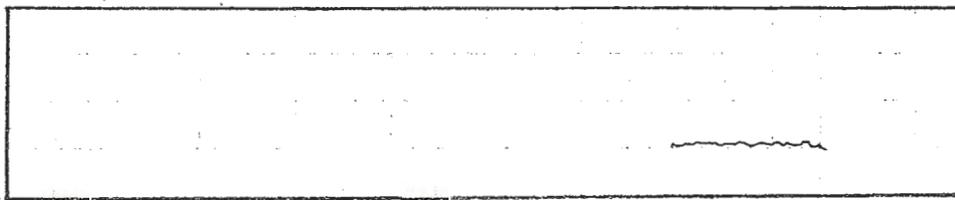
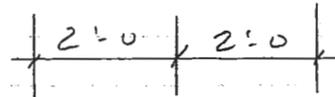
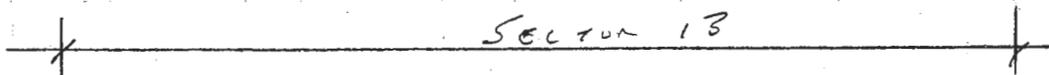
S1-2
17-883
18/5/12



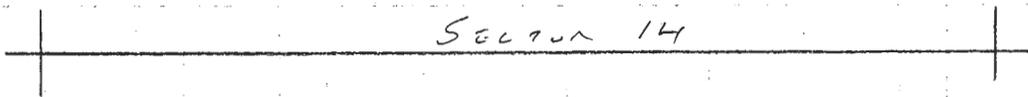
51-3
17-EE3
12/5/18



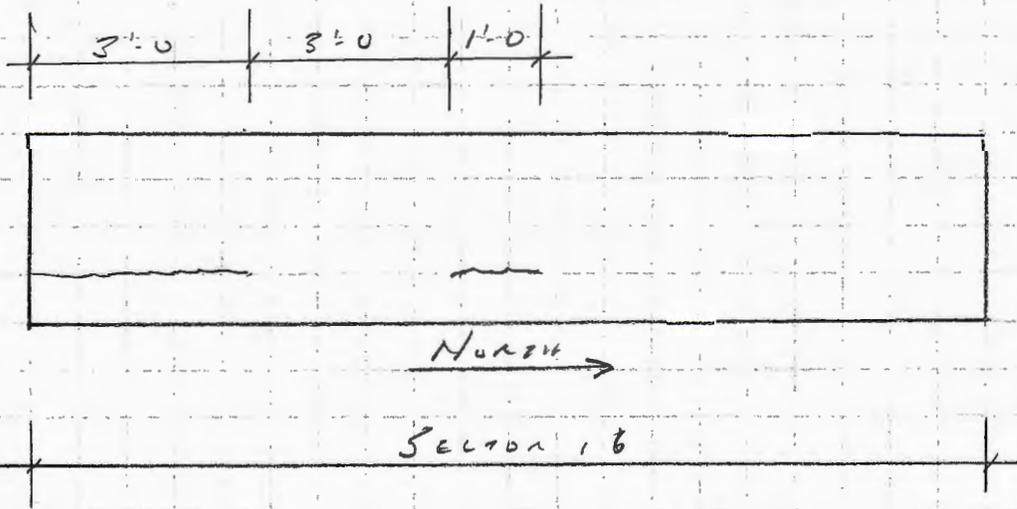
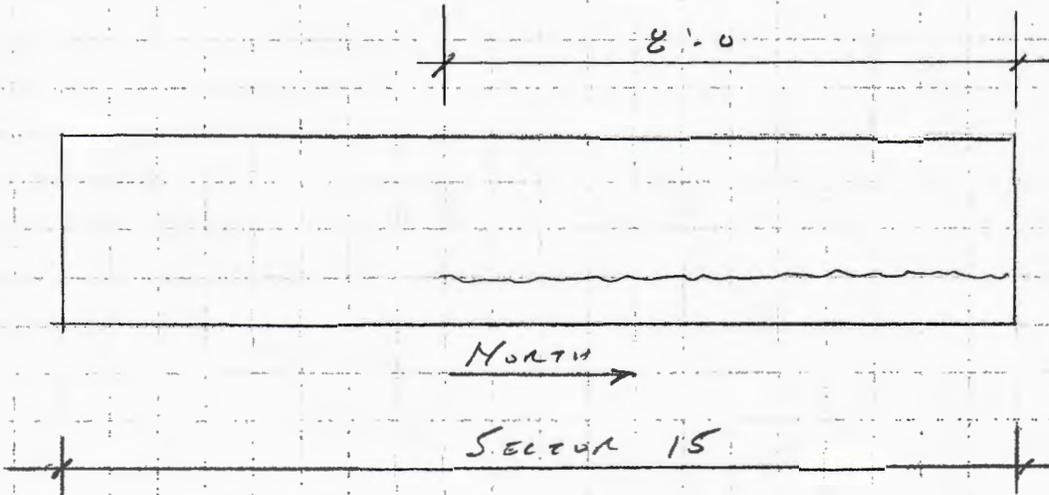
NORTH →



NORTH →



SI-4
17-883
12/5/8



51-5
17-883
18/5/14

