

FINAL REPORT OF SPECIAL INSPECTIONS

PROJECT:	The Alton E. "Chuck" Cianchette Scout Service Center, Pine Tree Council, Boy Scouts of America
LOCATION:	Portland, Maine
PERMIT APPLICANT:	
APPLICANT'S ADDRESS:	

Structural Engineer of Record:

Janusz S. Wszola, P.E.

SMRT, Inc.

Name

Firm

Architect of Record:

Janet Hansen, A.I.A.

SMRT, Inc.

Name

Firm

General Contractor's Representative:

Ed Jones

Cianbro Corp.

Name

Firm

The Special Inspections for this project, as required by BOCA 1999, and as identified in the Schedule of Special Inspections are complete.

(Use additional sheets, if necessary)

Interim reports submitted with this final report, and numbered 1 to 9, form a basis for, and are to be considered an integral part of this final report. A copy of the Schedule of Special Inspections is attached.

Submitted By:

SPECIAL INSPECTOR

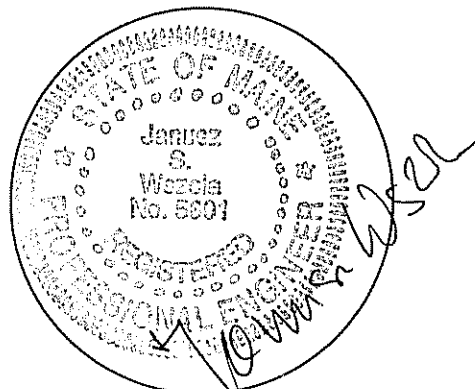
Janusz S. Wszola, P.E.

(Name)

Janusz Wszola 3/15/05

(Signature)

(Date)



Special
Inspector's
P E Seal



ARCHITECTURE
ENGINEERING
PLANNING

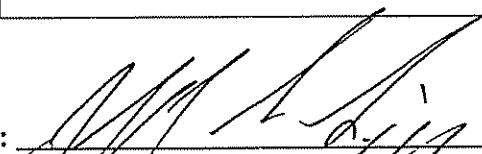
Special Inspections Interim Report No. 1

Project Name: The Alton E. "Chuck" Cianchette Scout Service Center – Portland, Maine
 Date: 06/03/04
 Report By: JSG
 Time: 9:00AM
 Architect's Project #: 03152-02

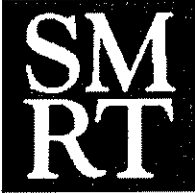
*Reference to Special Inspection Schedule

*Ref	Items Inspected
2.3a 2.3b	Inspected formwork a long column lines A and 6
2.2a	Inspected footing reinforcing at column lines: A1, A2, A3, A4, A5, A6, B6, C6, E4, E5, and E6

Item #	Discrepancies
1	At column line A1, footing reinforcement was incorrect. See footing schedule for correct number of bars. Contractor to fix before concrete placement.
2	Contractor to adjust footing reinforcement to achieve the proper clearance from formwork. Contractor to fix before concrete placement.

Signature: 

cc: JLH, RJL, JSW
 Code Official: Mike Nugent, City of Portland, fax 874-8716
 Const. Mgr: Ed Jones, Cianbro Corp., fax 679-2466
 File: 03152/46.4



ARCHITECTURE
ENGINEERING
PLANNING

Special Inspections Interim Report No.2

Project Name: The Alton E. "Chuck" Cianchette Scout Service Center – Portland, Maine
Date: 06/04/04

Report By: JSG
Time: 1:30PM

Architect's Project #: 03152-02

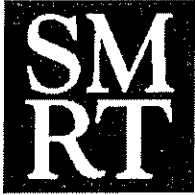
*Reference to Special Inspection Schedule

*Ref	Items Inspected
2.3a 2.3b	Inspected formwork at column lines: B2, C2, B3, B4 AND B5
2.2a	Inspected footing reinforcing at column lines: B2, C2, B3, B4 AND B5

Item #	Discrepancies
1	Contractor has adjusted the reinforcing to the proper clearance from the formwork.

Signature: 

cc: J.L.H, R.J.L, J.S.W
Code Official: Mike Nugent, City of Portland, fax 874-8716
Const. Mgr: Ed Jones, Cianbro Corp., fax 679-2466
File: 03152/46.4



ARCHITECTURE
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PLANNING

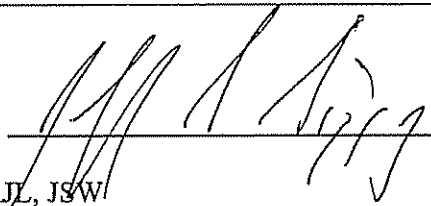
Special Inspections Interim Report No.3

Project Name: The Alton E. "Chuck" Cianchette Scout Service Center – Portland, Maine Date: 06/07/04 & 06/21/04
 Report By: JSG Time: 2:30PM
 Architect's Project #: 03152-02

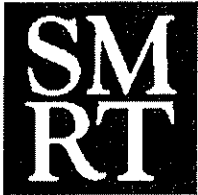
*Reference to Special Inspection Schedule

*Ref	Items Inspected
2.3a 2.3b	Inspected formwork along column lines A and 6 also between column lines A1 thru B1.
2.2a	Inspected wall and pier reinforcing along column line A and 6 also between column lines A1 thru B1.

Item #	Discrepancies

Signature: 

cc: JLH, RJE, JSW
 Code Official: Mike Nugent, City of Portland, fax 874-8716
 Const. Mgr: Ed Jones, Cianbro Corp., fax 679-2466
 File: 03152/46.4



ARCHITECTURE
ENGINEERING
PLANNING

Special Inspections Interim Report No.4

Project Name: The Alton E. "Chuck"
Cianchette Scout Service
Center – Portland, Maine
Date: 06/29/04 & 06/30/04

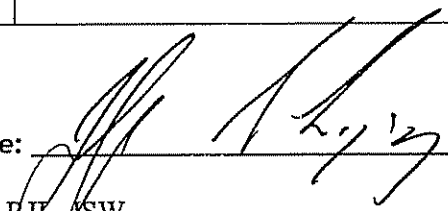
Report By: JSG
Time: 7:00AM

Architect's Project #: 03152-02

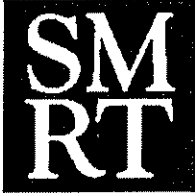
*Reference to Special Inspection Schedule

*Ref	Items Inspected
2.3a 2.3b	Inspected formwork along column lines E and 1. Also formwork for elevator pit walls.
2.2a	Inspected wall and pier reinforcing along column line E and 1 also elevator pit walls.

Item #	Discrepancies

Signature: 

cc: JLH, R.J.L., JSW
Code Official: Mike Nugent, City of Portland, fax 874-8716
Const. Mgr: Ed Jones, Cianbro Corp., fax 553-2959
File: 03152/46.4 95



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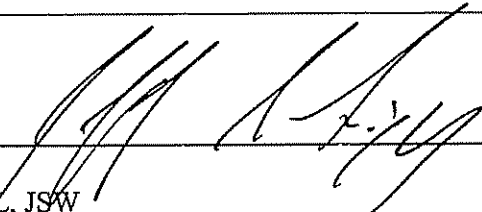
Special Inspections Interim Report No.5

Project Name: The Alton E. "Chuck" Cianchette Scout Service Center – Portland, Maine
 Date: 07/26/04
 Report By: JSG
 Time: 7:00AM
 Architect's Project #: 03152-02

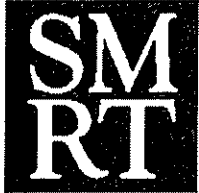
*Reference to Special Inspection Schedule

*Ref	Items Inspected
1.2c 1.2d	Inspected structural steel at first and second floor along column lines 3,4,5, and 6. Bar joists and bracing were not erected.

Item #	Discrepancies

Signature: 

cc: JLH, R/L, JSW
 Code Official: Mike Nugent, City of Portland, fax 874-8716
 Const. Mgr: Ed Jones, Cianbro Corp., fax 553-2959
 File: 03152/46.4



ARCHITECTURE
ENGINEERING
PLANNING

Special Inspections Interim Report No.6

Project Name: The Alton E. "Chuck"
Cianchette Scout Service
Center – Portland, Maine
Date: 08/04/04

Report By: JSG
Time: 7:00AM

Architect's Project #: 03152-02

*Reference to Special Inspection Schedule

*Ref	Items Inspected
1.2c 1.2d 1.2e 1.4c 1.4d 1.4e	Inspected structural steel at first and second floor along column lines 1 and 2. Bar joist were erected on first floor only. Bracing was erected on both floors. Decking was started on first floor. Tie joists were installed on second floor only.

Item #	Discrepancies

Signature: 

cc: JLH, R/J, JSW
Code Official: Mike Nugent, City of Portland, fax 874-8716
Const. Mgr: Ed Jones, Cianbro Corp., fax 553-2959
File: 03152/46.4



ARCHITECTURE
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PLANNING

Special Inspections Interim Report No.7

Project Name: The Alton E. "Chuck"
Cianchette Scout Service
Center – Portland, Maine
Date: 10/11/04

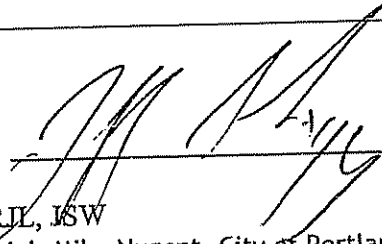
Report By: JSG
Time: 10:00AM

Architect's Project #: 03152-02

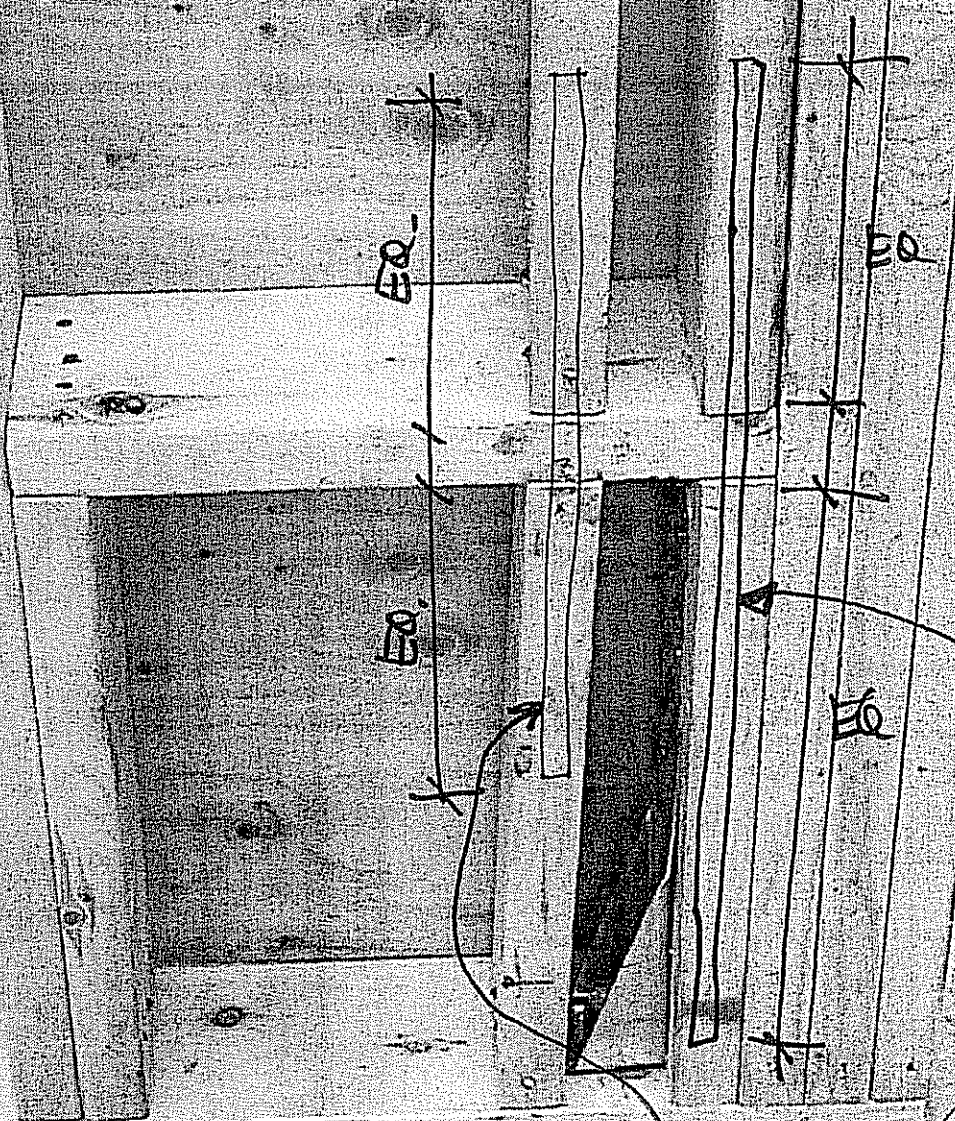
*Reference to Special Inspection Schedule

*Ref	Items Inspected
3.2a-c	Inspected wood trusses and timber trusses at roof. 95% of the trusses where installed. Some of the roof sheathing has been install at the timber trusses.
3.3a-d	Inspected wall panels at second floor. All of the walls were installed. Hurricane straps where not all installed at the time of inspection.

Item #	Discrepancies
1	At the corner of wall panels along column line A and E, the holdown connections are not to be interrupted. See SK-A for new connection at these corners.
2	Where the roof trusses land on the stud wall below, a stud should be directly installed under the roof truss. See note on SMRT drawing SF103. Contractor to install an extra stud at these locations where a stud is not directly under a roof truss.
3	At the girder truss, there should be four (2x6) studs nailed together directly under the girder truss. See SMRT drawing SF103.

Signature: 

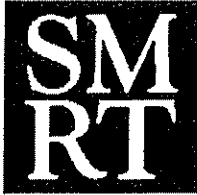
cc: J.L.H./R.J.L, ISW
Code Official: Mike Nugent, City of Portland, fax 874-8716
Const. Mgr: Ed Jones, Cianbro Corp., fax 553-2959
File: 03152/46.4



STRAP TIE
LSTABO
(1 1/4" x 30")
e STUO VOLANO
e ANCHOR
(TYP)

STRAP TIE ST 2115
(3/4" x 16")
(TYP. e SPLICED STUO)
e UPURT ANCHOR)

SK-A



ARCHITECTURE
ENGINEERING
PLANNING

Special Inspections Interim Report No.8

Project Name: The Alton E. "Chuck"
Cianchette Scout Service
Center – Portland, Maine
Date: 11/17/04

Report By: Janusz Wszola, PE
Time: 10:45 AM

Architect's Project #: 03152-02

Reference to Special Inspection Schedule

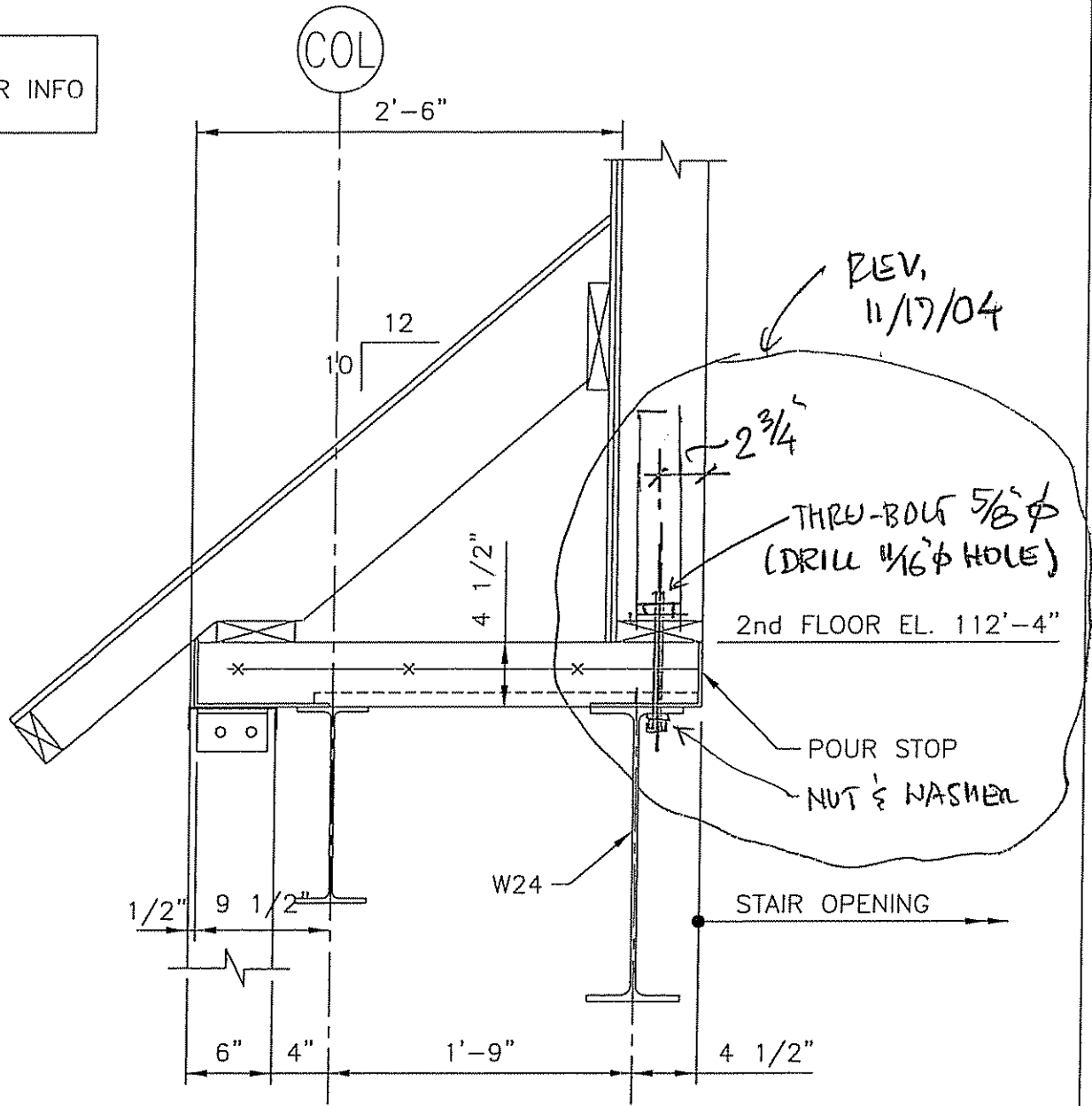
*Ref	Items Inspected
3.3a, 3.3d	Inspected shear wall metal connectors, repairs at the exterior wood stud wall framing, gable walls bracing, and miscellaneous wood framing.
Note	Exterior wall blocking and nailing per Timber Note #5 on drawing SG001 have not yet been completed. Contractor to notify SMRT when those items are ready for inspection.

Item #	Discrepancies
1	Outstanding items: see Report #7, Items 2 and 3.
2	Construction stage steel angles (welded to the elevator enclosure posts) supporting ML Beams next to the truss girder location shall be cut off. See SF103 and K5/SF504 for the reference.
3	Shear wall ties, as shown on Detail E9/SF504, have not been installed. <ul style="list-style-type: none"> - Only threaded anchors were installed at two tie locations next to line E. At those locations ties shall be installed per E9/SF504. If existing studs have to be cut for the tie installation then metal straps will be required as shown on SK-A, Report #7. Note that a minimum of 2 continuous studs, nailed to shear wall sheathing, are required at each tie. - At two locations next to line A (at stair openings) no anchors are visible. Contractor shall install new anchors as shown on enclosed sketches SK-8.3a and 8.3b.
4	The gable walls bracing members, as shown on Section E1/SF504, have not yet been installed, but since the gable wall framing is already in place modifications to the original design details are required. See enclosed sketches SK-8.4a, 8.4b, and 8.4c for required revisions. Modify details if required to accommodate existing conditions.

Signature: _____

cc: JLH, RJL, JSW
Code Official: Mike Nugent, City of Portland, fax 874-8716
Const. Mgr: Ed Jones, Cianbro Corp., fax 679-2466
File: 03152/46.4

NOTE:
SEE E1/SF502 FOR INFO
NOT SHOWN.



E5

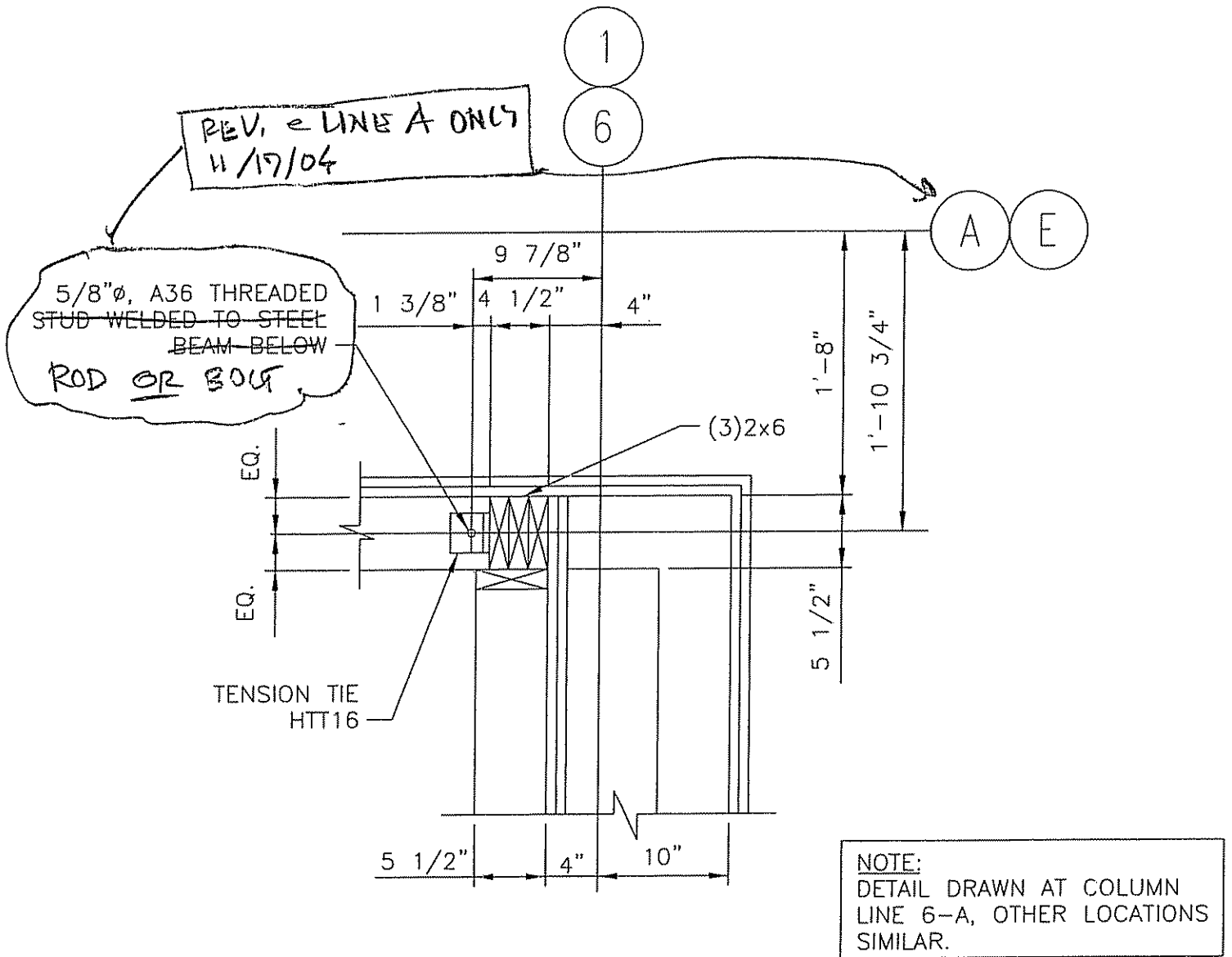
SECTION @ 2nd FLOOR @ STAIRS

1"=1'-0"

(SF502)

SK-8.3a

11/17/04



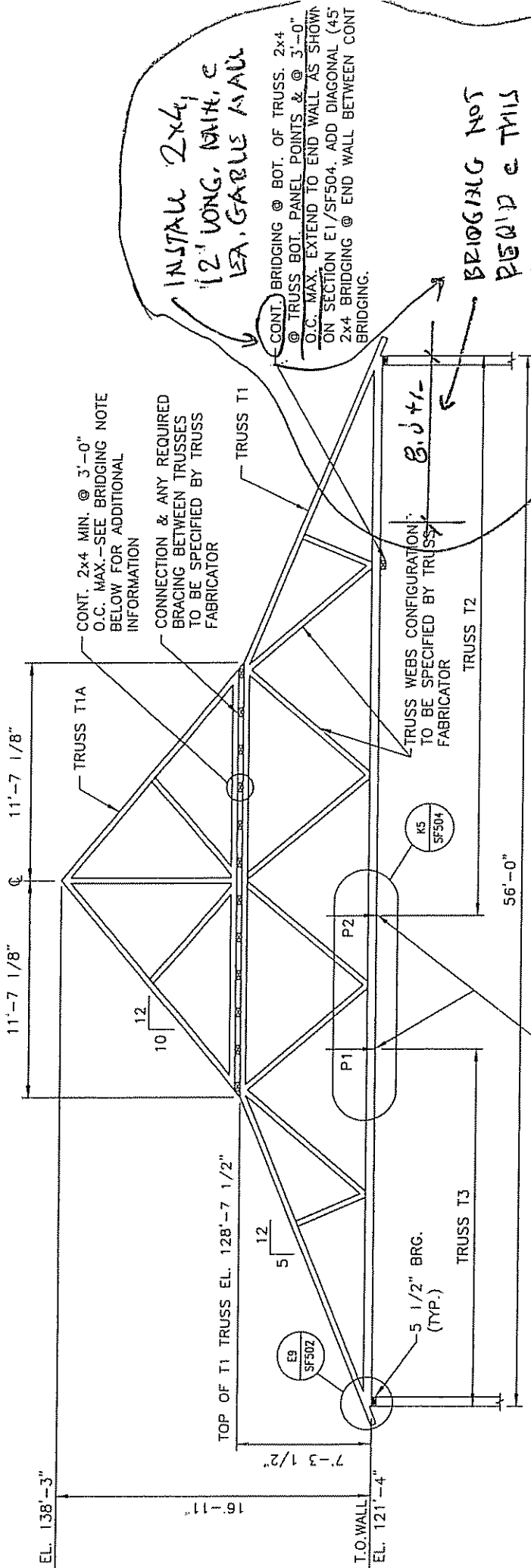
E9	DETAIL
1"=1'-0"	(TYPICAL: 4 PLACES)

(SF 504)

SK-8.3b

11/19/04

BSA - 03152



CONT. 2x4 MIN. @ 3'-0" O.C. MAX. - SEE BRIDGING NOTE BELOW FOR ADDITIONAL INFORMATION

CONNECTION & ANY REQUIRED BRACING BETWEEN TRUSSES TO BE SPECIFIED BY TRUSS FABRICATOR

TRUSS WEBS CONFIGURATION: TO BE SPECIFIED BY TRUSS FABRICATOR

ADDITIONAL LOADS @ TIG ONLY (SEE ROOF FRAMING FOR LOCATIONS)

NOTES:
 TOP CHORD DL = 10 PSF + TRUSS SELF WEIGHT
 BOTTOM CHORD DL = 10 PSF
 MAX. DEFLECTION $\Delta SL \leq L/720$
 ADDITIONAL LOADS @ GIRDER TRUSS TIG:
 P1 = 1.8D+5.5S = 7.3 kips
 P2 = 2.7D+6.3S = 9.0 kips
 P1 & P2 ARE MIN. DESIGN LOADS
 TRUSS DESIGNER SHALL CONFIRM THESE LOADS.
 ADDITIONAL LOADS @ TRUSSES SUPPORTING VALLEY FRAMING (TRUSSES ADJACENT TO LINES 3 & 4) SHALL BE CALCULATED BASED ON: D=15PSF, S=75PSF

INSTALL 2x4, 12' LONG, WITH, & EA. GABLE WALL

CONT. BRIDGING @ BOT. OF TRUSS. 2x4 @ TRUSS BOT. PANEL POINTS & @ 3'-0" O.C. MAX. EXTEND TO END WALL AS SHOWN ON SECTION E1/SF504. ADD DIAGONAL (45°) 2x4 BRIDGING @ END WALL BETWEEN CONT BRIDGING.

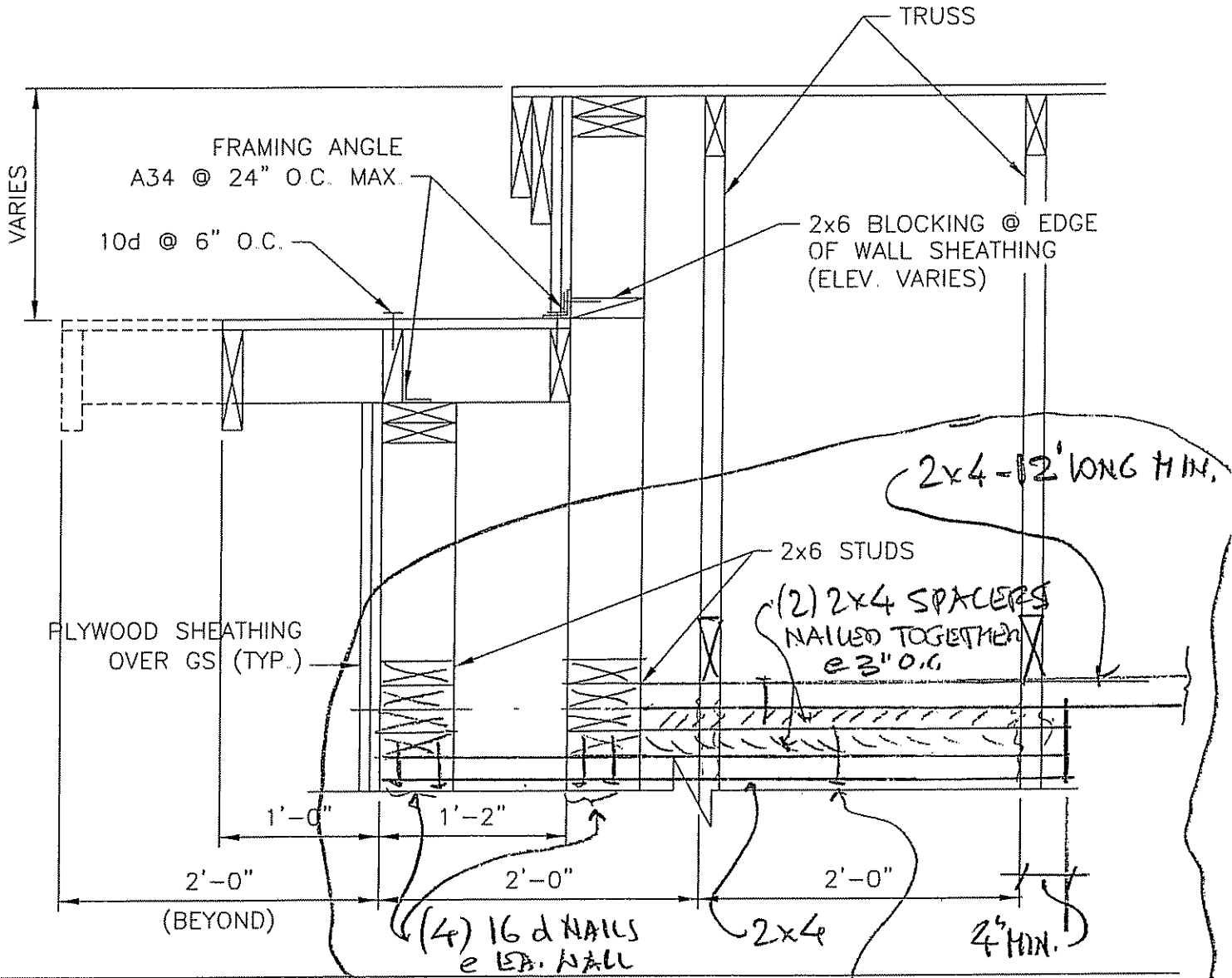
BRIDGING NOT REQUIRED @ THIS LOCATION (TYP. & 4 PLCS)

REV. 11/19/04

(SF202)

E1	WOOD TRUSS TYPE T1, T1A, T2, T3, AND GIRDER TRUSS TIG
1/15'-1'-0"	

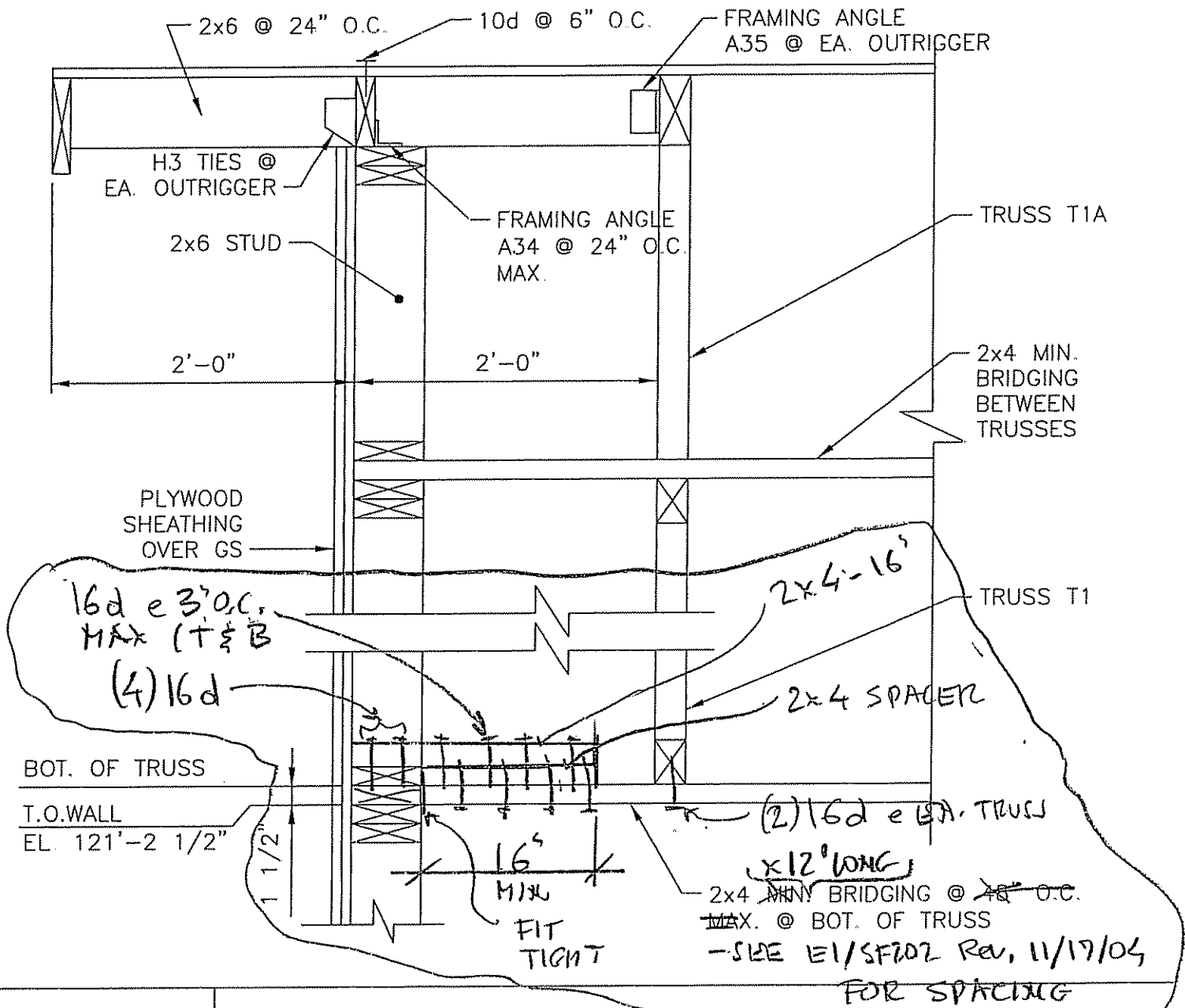
SK-8.4a



E5	SECTION @ END WALL
1"=1'-0"	

REV.
11/17/04

SK-846



E1

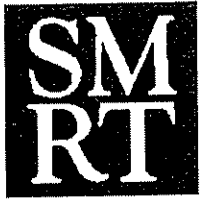
SECTION @ END WALL

1"=1'-0"

(SFSD4)

REV. 11/17/04

SK-8.4C



ARCHITECTURE
ENGINEERING
PLANNING

Special Inspections Interim Report No.9

Project Name: The Alton E. "Chuck"
Cianchette Scout Service
Center – Portland, Maine
Date: 01/03/05

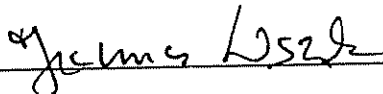
Report By: Janusz Wszola, PE
Time: 1:00 PM

Architect's Project #: 03152-02

*Reference to Special Inspection Schedule

*Ref	Items Inspected
3.2, 3.3	Outstanding items: see Report #7, Items 2 and 3 - items found to be acceptable.
3.2, 3.3	Outstanding items: see Report #8 - all items found to be acceptable.

Item #	Discrepancies

Signature: 

cc: JLH, RJL, JSW
Code Official: Mike Nugent, City of Portland, fax 874-8716
Const. Mgr: Ed Jones, Cianbro Corp., fax 679-2466
File: 03152/46.4

SCHEDULE OF SPECIAL INSPECTIONS

Project : The Alton E. "Chuck" Cianchette Scout Service Center
Pine Tree Council Boy Scouts of America

Project Number: 03152

Page 1 of 7

MATERIAL/ACTIVITY	ITEM	SERVICE	APPLICABLE TO THIS PROJECT			
			EXTENT (All, Sample, Other, None)	COMMENTS	AGENT #	DATE COMPLETED
SECTION I - STEEL CONSTRUCTION (BOCA 1705.3)						
STRUCTURAL STEEL - Fabrication NOTE: Fabricator shop inspection will not be required if Fabricator is currently certified through the AISC Quality Certification Program.	1.1a	Review Fabricator QA/QC procedures manual.	One shop inspection required.			
	1.1b	Review Fabricator QA/QC procedures implementation and conformance.	One shop inspection required. Visual inspection of shop conformance.			
	1.1c	Review material certificates of compliance (bolts, nuts, washers, structural steel and weld filler material).	Verify that certificates of compliance have been approved.			
	1.1d	Review welder certification.	Obtain certification numbers for all welders and all steel.			
	1.1e	Review shop drawings.	Verify approval.			
	1.1f	Review structural steel and fabrication for conformance to approved shop drawings.	Verify member sizes, piece marks and connection details match approved shop drawings. Visually inspect bolts and welds.			
	1.2a	Review welder certification.	Obtain certification numbers for all welders and all steel.			
	1.2b	Review materials certificates of compliance (bolts, nuts, washers, and weld filler material).	Verify that certificates of compliance have been approved.			
	1.2c	Review structural steel and erection for conformance to approved shop drawings.	Verify all member sizes, piece marks and connection details.			
	1.2d	Inspect field bolting installation in accordance with Section 9 of RCSC <i>Specification for Structural Joints Using ASTM A325 or A490 Bolts.</i>	Visually inspect all bolts.			
	1.2e	Review Bracing connections.	Visually inspect all.			
STRUCTURAL STEEL - Erection						

SCHEDULE OF SPECIAL INSPECTIONS

Project : The Alton E. "Chuck" Cianchette Scout Service Center
 Pine Tree Council Boy Scouts of America

Project Number: 03152

Page 2 of 7

MATERIAL/ACTIVITY		ITEM	SERVICE	APPLICABLE TO THIS PROJECT				
				EXTENT (All, Sample, Other, None)	COMMENTS	AGENT #	DATE COMPLETED	REV #
STEEL JOIST AND JOIST GIRDERS – Fabrication NOTE: Fabricator shop inspection will not be required if Fabricator is currently a member of the Steel Joist Institute.	1.3a	Review Fabricator QA/QC procedures manual.	One shop inspection required.					
	1.3b	Review Fabricator QA/QC procedures implementation and conformance.	One shop inspection required. Visual inspection of shop conformance.					
	1.3c	Review shop drawings.	Verify approval.					
	1.3d	Review material certificates of compliance (bolts, nuts, washers, structural steel and weld filler material).	Obtain copies of mill certificates for all structural steel, bolts and weld material.					
	1.3e	Review welder certification.	Obtain certification numbers for all welders and all steel.					
	1.3f	Review connections. Visually inspect bolts and welds.	Verify member sizes, piece marks and connection details match approved shop drawings.					
STEEL JOIST AND JOIST GIRDERS – Erection	1.4a	Review welder certification.	Obtain certification numbers for all welders and all steel.					
	1.4b	Review materials certificates of compliance (bolts, nuts, washers, and weld filler material).	Obtain copies of mill certificates for all structural steel, bolts and weld materials.					
	1.4c	Review steel joist and erection for conformance to approved shop drawings.	Verify all member sizes, piece marks and connection details.					
	1.4d	Review joist bearing connection, bearing length, and bridging.	Visually inspect all.					
	1.4e	Verify installation of joist reinforcement.	Where concentrated loads are installed over joist chords, verify installation of reinforcement.					

All Structural Inspections have been completed in accordance with applicable BOCA requirements.

Special Inspector _____

Date _____

SCHEDULE OF SPECIAL INSPECTIONS

Project: The Alton E. "Chuck" Cianchette Scout Service Center
 Pine Tree Council Boy Scouts of America

Project Number: 03152

Page 3 of 7

MATERIAL/ACTIVITY	ITEM	SERVICE	APPLICABLE TO THIS PROJECT			
			EXTENT (All, Sample, Other, None)	COMMENTS	AGENT #	DATE COMPLETED
SECONDARY / MISC STRUCTURAL STEEL	I.5a	Review steel stair shop drawings.	Verify approval.			
	I.5b	Review stair connections.	Visually inspect all.			
	I.5c	Review steel deck shop drawings.	Verify approval			
	I.5d	Review welder certification.	Obtain certification numbers for all welders.			
	I.5e	Verify number, type and location of steel deck connection to framing and side lap fasteners.	Visually inspect all.			

All Structural Inspections have been completed in accordance with applicable BOCA requirements.

Special Inspector _____

Date _____

SCHEDULE OF SPECIAL INSPECTIONS

Project : The Alton E. "Chuck" Cianchette Scout Service Center
 Pine Tree Council Boy Scouts of America

Project Number: 03152

Page 4 of 7

MATERIAL/ACTIVITY	ITEM	SERVICE	APPLICABLE TO THIS PROJECT			REV #
			EXTENT (All, Sample, Other, None)	COMMENTS	AGENT #	
SECTION 2 - CONCRETE CONSTRUCTION (BOCA 1705.4)						
CONCRETE MATERIALS	2.1a	Review mix design.	Verify approval of all mixes intended for use.			
	2.1b	Review reinforcement grade.	Inspect identifying marks on reinforcing steel.			
	2.1c	Review submittals.	Verify acceptance of proprietary products and reinforcing steel shop drawings. Review requirements of reinforcing steel on placement drawings.			
REINFORCING AND PRESTRESSING STEEL	2.2a	Inspect condition and placement of reinforcing steel.	All reinforcing steel at column piers and at shear keys at the top of spread footings. Check prior to each concrete placement.			
	2.3a	Verify acceptability of substrate.	Prior to each concrete placement.			
FORMWORK	2.3b	Verify dimensions and materials acceptability.	Prior to each concrete placement.			
	2.4a	Inspect installation of anchor bolts, masonry dowels and other embedded items.	Inspect for each concrete placement.			
CONCRETE OPERATIONS	2.5a	Field testing of concrete slump, temperature, and air content.	All concrete placements.			
	2.5b	Take concrete cylinder samples and perform compressive strength test.	All concrete placements.			
	2.5c	Observe concrete placement.	Inspect placement procedures at basement walls and at 2 nd floor slab.			
	2.5d	Observe concrete curing technique and temperature.	Once daily when air temperature is above 32°F. Twice daily when temperature is below 32°F.			
	2.7f	Review mix design.	Verify approval.			
	2.7g	Review fabrication for conformance to approved shop drawings. Visually inspect all embedded items.	Verify member sizes, piece marks and connection details match approved shop drawings.			

All Structural Inspections have been completed in accordance with applicable BOCA requirements.

Special Inspector _____

Date _____

SCHEDULE OF SPECIAL INSPECTIONS

Project: The Alton E. "Chuck" Cianchette Scout Service Center
Pine Tree Council Boy Scouts of America

Project Number: 03152

Page 5 of 7

MATERIAL/ACTIVITY	ITEM	SERVICE	EXTENT (All, Sample, Other, None)	APPLICABLE TO THIS PROJECT COMMENTS	AGENT #	DATE COMPLETED	REV #
SECTION 3 - WOOD CONSTRUCTION (BOCA 1705.6)							
WOOD TRUSS FABRICATION	3.1a	Review Fabricator QA/QC procedures manual.	One shop inspection required.				
	3.1b	Review Fabricator QA/QC procedures implementation and conformance.	One shop inspection required. Visual inspection of shop conformance.				
	3.1c	Review material certificates of compliance (wood grade and species, metal connectors).	Obtain copies of mill certificates for all lumber and metal connectors used in truss fabrication.				
	3.1d	Inspect fabrication for conformance to approved shop drawings. Visually inspect grade stamps and metal plates.	Verify member sizes, piece marks and connection details match approved shop drawings.				
WOOD TRUSS ERECTION	3.2a	Inspect wood trusses and erection for conformance to approved shop drawings.	Verify all member sizes, piece marks and connection details.				
	3.2b	Inspect wood truss bearing connection, bearing length, bridging, and bracing. Inspect installation of trusses for conformance to TPI HIB-91.	Visually inspect all trusses.				
GENERAL WOOD CONSTRUCTION	3.2c	Inspect installation of metal connectors for compliance with contract documents and manufacturer=s recommendation.	Visually inspect all connections.				
	3.3a	Inspect installation, spacing and connection of wood framing for conformance to contract documents.	Visually inspect all framing and connections.				
	3.3b	Inspect installation and fastening of structural wood panels to wood framing.	Visually inspect at shear walls location.				
	3.3c	Inspect nail size and spacing at all diaphragms and shearwalls.	Visually inspect all.				
	3.3d	Inspect installation of metal connectors for compliance with contract documents and manufacturer=s recommendation.	Visually inspect all connections.				

All Structural Inspections have been completed in accordance with applicable BOCA requirements.

Special Inspector _____

Date _____

SCHEDULE OF SPECIAL INSPECTIONS

Project: The Alton E. "Chuck" Cianchette Scout Service Center
 Pine Tree Council Boy Scouts of America

Project Number: 03152

Page 6 of 7

MATERIAL/ACTIVITY	ITEM	SERVICE	EXTENT (All, Sample, Other, None)	APPLICABLE TO THIS PROJECT COMMENTS	AGENT #	DATE COMPLETED	REV #
SECTION 4 - PREPARED FILL (BOCA 1705.7)							
PREPARED FILL SITE PREPARATION	4.1a	Inspect site preparation and soil conditions prior to placement of fill.	Area of Concern: Fill placements beneath and adjacent to foundations.				
	4.1b	Perform gradations and proctor tests.	Fill materials used at Area of Concern.				
	4.1c	Inspector shall be present for all fill and compaction operations.	At Area of Concern.				
	4.1d	Perform compaction tests.	At Area of Concern.				
	4.1e	Perform additional tests and retests.	Where compaction is found to be inadequate at Area of Concern.				
	4.1f	Perform further tests.	Where previously approved areas have been disturbed at Area of Concern.				

All Structural Inspections have been completed in accordance with applicable BOCA requirements.

Special Inspector: _____

Date: _____

SCHEDULE OF SPECIAL INSPECTIONS

Project: The Alton E. "Chuck" Cianchette Scout Service Center
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Page 7 of 7

MATERIAL/ACTIVITY	ITEM	SERVICE	EXTENT (All, Sample, Other, None)	APPLICABLE TO THIS PROJECT COMMENTS	AGENT #	DATE COMPLETED	REV #
SECTION 5 - SPRAYED-ON FIREPROOFING							
INSTALLATION	5.1	Review UL design for materials proposed and for required thicknesses.	Verify design for columns and beams, each size protected.				
	5.2a	Measure thickness of spray-on on fireproofing.	Provide measurements from a sample of 25 percent of structural members, taking 9 measurements at a single cross section for beams or girders, 7 measurements of a single cross section for joists or trusses, and 12 measurements for a single cross section for columns per ASTM E605.				
	5.2b	Measure density of material per ASTM E606 or alternative as specified.	Provide same frequency as indicated for thickness.				
	5.2c	Test bond strength of materials per ASTM E736.	Provide same frequency as indicated for thickness.				