



Andersen Construction Company  
6712 N. Cutter Circle PO Box 6712  
Portland OR 97217  
US

TRANSMITTAL

No. 11-0866-0031

PROJECT: Wallowa Memorial Hospital MOB  
TO: Clark/Kjos Architects\*

DATE: 10/05/2011

RE: 001-211300-Product Data / Materials - Fire Sprinkler Systems

ATTN: Matt Kadyk

JOB: 11-0866

WE ARE SENDING:	SUBMITTED FOR:	ACTION TAKEN:
<input type="checkbox"/> Shop Drawings	<input checked="" type="checkbox"/> Approval	<input type="checkbox"/> Approved as Submitted
<input type="checkbox"/> Letter	<input type="checkbox"/> Your Use	<input type="checkbox"/> Approved as Noted
<input type="checkbox"/> Prints	<input type="checkbox"/> As Requested	<input type="checkbox"/> Returned After Loan
<input type="checkbox"/> Change Order	<input type="checkbox"/> Review and Comment	<input type="checkbox"/> Resubmit
<input type="checkbox"/> Plans		<input type="checkbox"/> Submit
<input type="checkbox"/> Samples	<b>SENT VIA:</b>	<input type="checkbox"/> Returned
<input type="checkbox"/> Specifications	<input checked="" type="checkbox"/> Attached <input type="checkbox"/> Separate Cover	<input type="checkbox"/> Returned for Corrections
<input checked="" type="checkbox"/> Other: Product Data		<input type="checkbox"/> Due Date:
		<input type="checkbox"/> Other:

Line	Item	Package	Code	Rev.	Qty	Date	Description	Status
1	Submittal	001-211300	001-211300-001			10/05/2011	Product Data / Materials - Fire Sprinkler Systems	

SUBMITTAL SECTION #	21 1300- Fire Sprinkler System	<input type="checkbox"/> PARTIAL (SEE SUBMITTAL SECTION # NOTES)
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LIMITED REVIEW OF SUBMITTAL

THIS SUBMITTAL HAS BEEN REVIEWED BY THE UNDERSIGNED

- ☐ NO EXCEPTION TAKEN  
☐ CONTRACTOR APPROVAL REQUIRED  
☒ MAKE CORRECTIONS NOTED  
☐ SUBMIT REQUESTED ITEMS  
☐ REVISE AND RESUBMIT  
☐ REJECTED

This submittal was reviewed only for general conformance with the design concept of the work and the information given in the Contract Documents. Submittal review does NOT:

1. Constitute approval of the fitness, design or detailing of the items depicted;
2. Constitute approval of the assembly of which this item is a component;
3. Relieve the submitter of responsibility for any errors which may exist;
4. Relieve the submitter of responsibility for construction means, methods, techniques, sequences, procedures and safety;
5. Relieve the submitter of responsibility for adherence to the Contract;
6. Constitute a Change Order, or involve any change in the Contract Price or Time for Completion.

BY: Matt Kadyk

DATE: 10.24.11

**CLARK / KJOS**  
Architects LLC  
333 NW 5th Avenue  
Portland Oregon 97209

- ☒ No Exception Taken ☐ Make Corrections Noted  
☒ Revise & Resubmit ☐ Rejected

Reviewed for general conformity with the contract documents. Subcontractor is responsible for all quantities, dimensions, joinery, and complete compliance with contract documents.

ANDERSEN CONSTRUCTION CO., INC.

By: ICA Date: 10/6/11

Job # 11-0866

Submittal # 001-211300-001

REMARKS: Matt,

Please find the attached product data / information for the Fire Sprinkler Systems, to go along with the shop drawings and calculations submitted under separate cover.

Thanks,

Kris Anderson  
Andersen Const. Co.

CC: Clark/Kjos Architects\*, Matt Kadyk  
Andersen Construction Company, Jeff Sawyer  
Andersen Structures, LLC, Randy Garrett  
Andersen Structures, LLC, Robert Haynes

Signed:

Kris Anderson



Andersen Construction Company  
6712 N. Cutter Circle PO Box 6712  
Portland OR 97217  
US

# TRANSMITTAL

No. 11-0866-0026

PROJECT: Wallowa Memorial Hospital MOB

TO: Clark/Kjos Architects\*

DATE: 10/04/2011

RE: 300-211300-Calculations - Fire Sprinkler Systems

ATTN: Matt Kadyk

JOB: 11-0866

WE ARE SENDING:	SUBMITTED FOR:	ACTION TAKEN:
<input type="checkbox"/> Shop Drawings	<input checked="" type="checkbox"/> Approval	<input type="checkbox"/> Approved as Submitted
<input type="checkbox"/> Letter	<input type="checkbox"/> Your Use	<input type="checkbox"/> Approved as Noted
<input type="checkbox"/> Prints	<input type="checkbox"/> As Requested	<input type="checkbox"/> Returned After Loan
<input type="checkbox"/> Change Order	<input type="checkbox"/> Review and Comment	<input type="checkbox"/> Resubmit
<input type="checkbox"/> Plans		<input type="checkbox"/> Submit
<input type="checkbox"/> Samples	SENT VIA:	<input type="checkbox"/> Returned
<input type="checkbox"/> Specifications	<input checked="" type="checkbox"/> Attached <input type="checkbox"/> Separate Cover	<input type="checkbox"/> Returned for Corrections
<input checked="" type="checkbox"/> Other: Calculations		<input type="checkbox"/> Due Date:
		<input type="checkbox"/> Other:

Line	Item	Package	Code	Rev.	Qty	Date	Description	Status
1	Submittal	300-211300	300-211300-001			10/04/2011	Calculations - Fire Sprinkler Systems	Open

☒ No Exception Taken ☐ Make Corrections Noted  
☐ Revise & Resubmit ☐ Rejected  
Reviewed for general conformity with the contract documents. Subcontractor is responsible for all quantities, dimensions, joinery, and complete compliance with contract documents.

ANDERSEN CONSTRUCTION CO., INC.  
By KA Date 10/4/11  
Job # 11-0866  
Submittal # 300-211300-001

REMARKS: Matt,

Fire sprinkler system calculations sent for review and approval. Please note: Drawings and product data being submitted under separate cover.

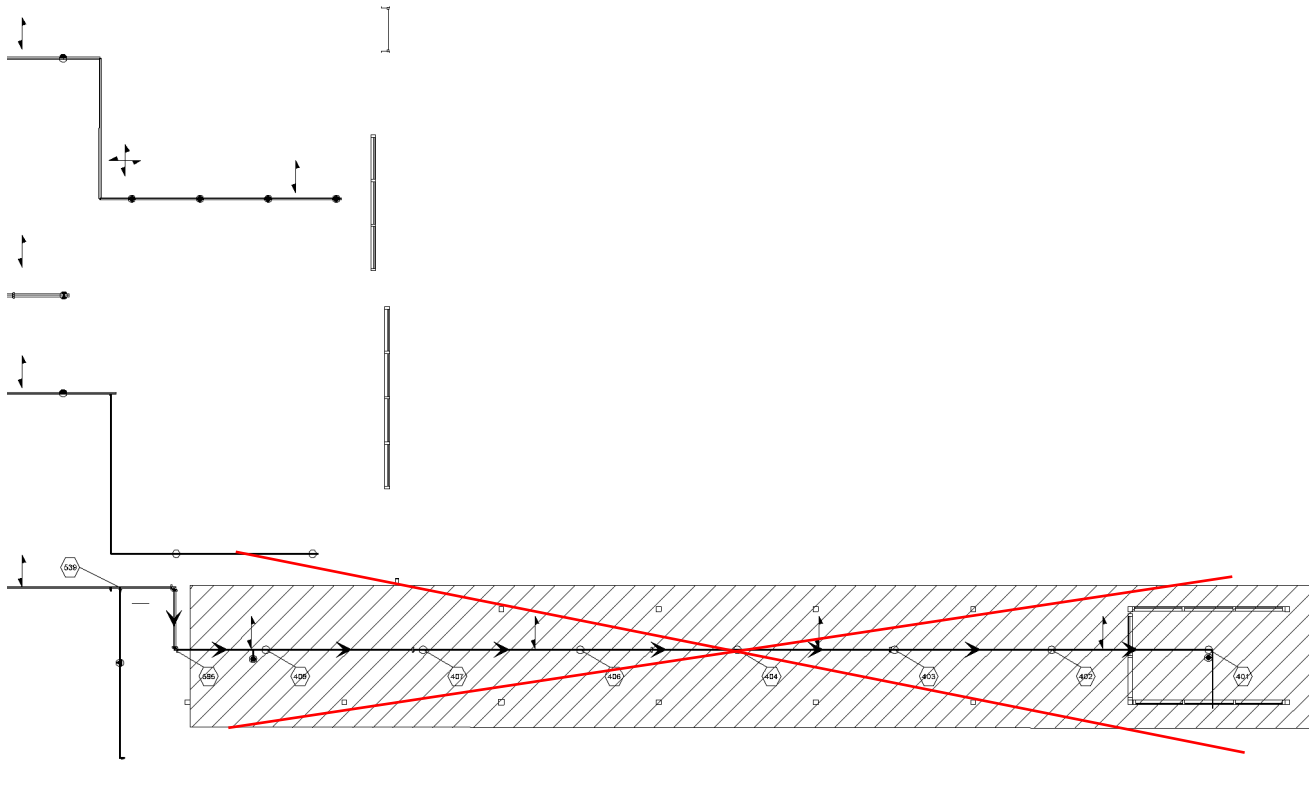
Thanks,

Kris Anderson  
Andersen Const. Co.

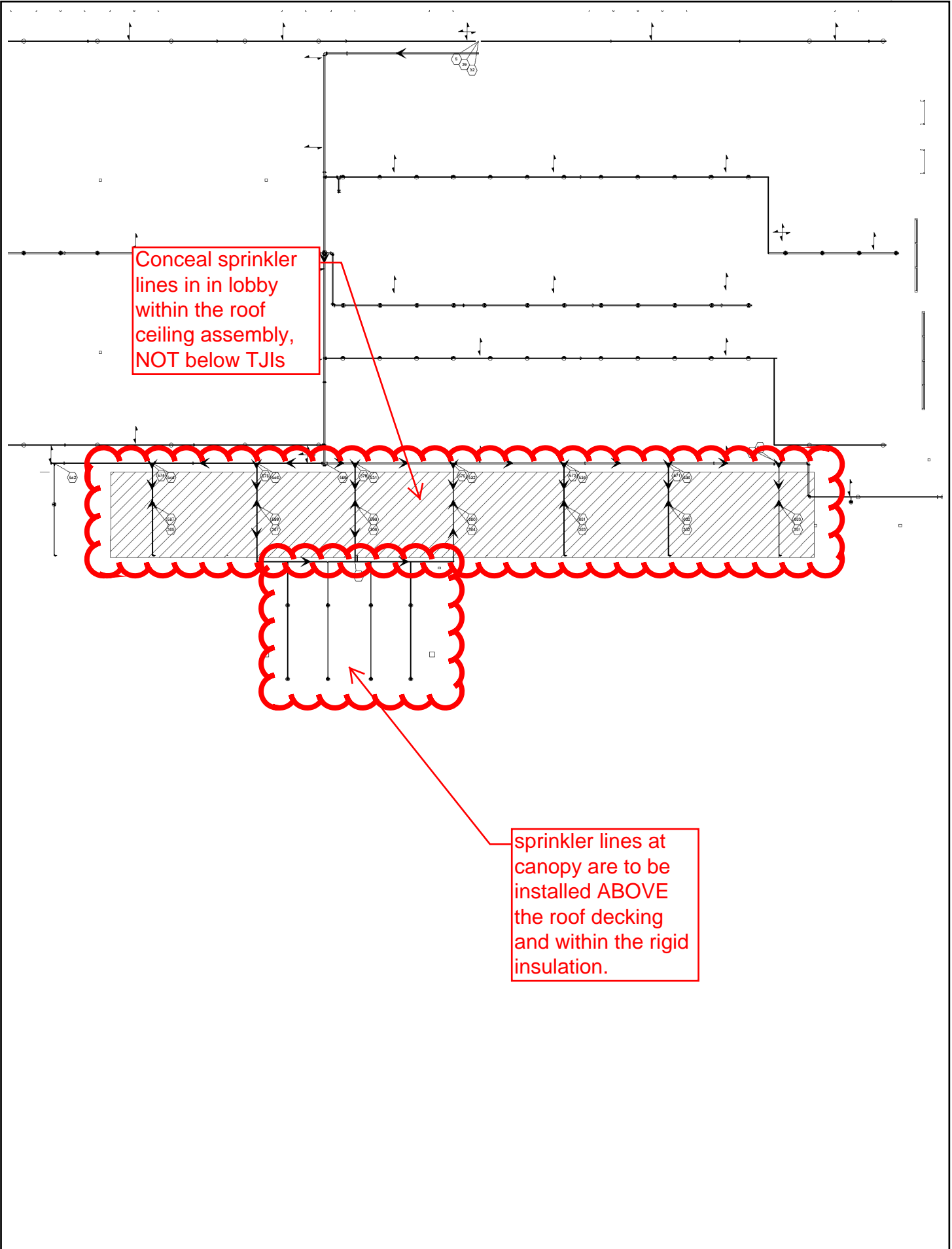
CC: Clark/Kjos Architects\*, Matt Kadyk  
Andersen Construction Company, Jeff Sawyer  
Andersen Structures, LLC, Randy Garrett  
Andersen Structures, LLC, Robert Haynes

Signed:

Kris Anderson



walkway not in project



# submittal review-fire sprinkler

Wallowa Memorial Hospital New Medical Office Building Construction			
SUBJECT / PROJECT	Documents - Enterprise, Oregon	DATE	October 6, 2011
		Review of Submittal #s: 100-211300-001 (Drawings), 300-211300-001 (Calcs), and 001-211300-001 (Product Data)	
PROJECT NO.	2010-0202.01	REF #	
CLIENT	Arthur Kjos, Partner	PHONE	X 203
Clark Kjos Architects			
333 NW 5th Avenue			
Portland, OR 97209			
REVIEWED BY	Kathleen Roach, CET, CFPS	@	Interface Engineering, Inc.

APPLIES TO Fire/Life Safety

Interface Engineering, Inc. is not the designer of the system and/or component reviewed. This review is only for the limited purpose of checking for general conformance with the performance concept expressed in the Contractor's Contract Documents. Any action shown below is subject to the requirements of the Plans and Specifications. Contractor is responsible for the dimensions and quantity which shall be confirmed and correlated at the job site, fabrication processes and techniques of construction, coordination of the work with that of all other trades, and the satisfactory performance of the work. Interface's review does not constitute approval of safety precautions, means and methods, approval of an assembly of which the item reviewed is a component, or approval of a component.

Basis of design manufacturers are listed on our equipment schedules and construction documents. Where a submitted manufacturer differs from the basis of design manufacturer, Contractor shall provide coordination drawings and provide modifications as necessary to provide access, clearance, and any other provisions for proper and acceptable installation of any equipment not listed as the basis of design equipment.

The following items were reviewed for conformance with the requirements of the Contract Documents.

ITEM / COMMENTS	DISPOSITION					
	N	M	R			F
			1	2	3	
DRAWINGS						
1. Drawings are not signed and sealed by registered Professional Engineer per specification 210000.1.04.L.2.b and Oregon state law.		X				

#### Disposition Code

- N No exception taken.
- M Make corrections noted. Resubmittal not required if installation complies with notes.
- R Revise and resubmit.
  - 1 Manufacturer not approved.
  - 2 Does not meet requirements of Contract Documents.
  - 3 Insufficient information to review.
- F Forward specified item.

ITEM / COMMENTS	DISPOSITION					
	N	M	R			F
			1	2	3	
2. Provide method of forward flow testing of backflow prevention device.		X				
3. Sheet FP-2 & FP-3: No sprinkler protection has been provided at combustible construction Exits at gridline 1 between gridlines C&D and between gridlines D&E. Please provide.		X				
4. Sheet FP-4: Dry system routing at Lobby 002 and Vestibule 001 does not coincide with dry system routing shown on sheet P2.11. Verify acceptability of routing with architect.		X				
5. No method of lateral and vertical branch line restraints (including, but not limited to end of branch line restraints) has been provided per NFPA 13-2007 section 9.3.6 and 9.3.6.3 and Table 9.3.6.4. Please provide.		X				
6. Longitudinal & lateral sway bracing locations for the wet sprinkler system as required by are not shown on drawings. Please provide per sway brace calculations.		X				
7. Grid system is not provided with pressure relief valve per NFPA 13. Please provide.		X				
8. Sprinklers have not been provided under combustible stairs. Please provide.		X				
9. No bell is shown. Please provide.		X				
10. Sheet FP-1 does not show dry pipe valve trim, including gauges. Please provide full trim.		X				
11. No air compressor is shown for the dry pipe system. Please provide.		X				
12. No spare sprinkler box is shown. Please provide.		X				
13. Fire department connection is not shown to have a ball drip valve for drainage. Please provide, with drain to sewer or daylight.		X				
14. Length of ½" thru bolt fastening longitudinal and lateral sway bracing is not provided. Please provide. Identify structural members on drawings showing that the member to which the fastener will be attached is thick enough to hold the entire required length of the thru bolt identified in sway brace calculations.		X				
15. Hanger detail #1 shows a 2" and a 2.5" Sammy Sidewinder in a 2x6 truss member. A 2x6 truss is actually 1.625" wide. The 2" and 2.5" Sidewinder will just have the excess length extending out the back which will not provide the intended support. Please utilize a hanger that will fit within the structural member it is attached to.		X				

Disposition Code

N No exception taken.

M Make corrections noted. Resubmittal not required if installation complies with notes.

R Revise and resubmit.

1 Manufacturer not approved.

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F Forward specified item.

ITEM / COMMENTS	DISPOSITION					
	N	M	R			F
			1	2	3	
16. Sheet FP-4, the last standard coverage sprinkler at the right-hand end of the canopy is more than 7'6" from the end of the canopy. This area does not meet the criteria of being a "small room" as described in NFPA 13-2007 3.3.15 and so no standard coverage sprinkler may exceed half the allowable distance between sprinklers. Please revise.		X				
17. See comments under Hydraulic Calculations, below. If revised calculations require changes in pipe sizes, please provide the changes.		X				
<b>HYDRAULIC CALCULATIONS</b>						
1. Hydraulic calcs are not signed and sealed by registered Professional Engineer per specification 210000.1.04.L.2.b and Oregon state law. Please provide.		X				
2. Roof pitch exceeds 2 in 12. Design areas are not increased for dry systems and sloped roofs per NFPA 13. Please revise.		X				
3. Canopy calculation provides a minimum of 7 psi at 14.8 gpm. These sprinklers cover 191 sq. ft. each (assuming 13'10" apart x 13'10" wide). Using the area density method each sprinkler needs to provide 0.10 gpm per sq. ft. $191 \text{ sq. ft.} \times 0.10 = 19.1$ gpm per sprinkler per NPFA 13-2007 section 22.4.4.5.3. The commentary in the Automatic Sprinkler Systems Handbook is helpful in understanding this concept. Please revise calculations to provide a full 0.10 gpm per sq. ft. of sprinkler coverage.		X				
4. Lower Wet calculation provides a minimum of 7 psi at 14.82 gpm at node 101 and 7.426 psi at 15.26 gpm at node 103. Node 103 is 12' to the next sprinkler and 6'10" from the wall and thus protects 163.92 sq. ft. Using the area density method each sprinkler needs to provide 0.10 gpm per sq. ft. $163.92 \text{ sq. ft.} \times 0.10 = 16.39$ gpm per sprinkler per NPFA 13-2007 section 22.4.4.5.3. Please revise calculations to provide a full 0.10 gpm per sq. ft. of sprinkler coverage.		X				
<b>SWAY BRACE CALCULATIONS</b>						
1. No sway brace calculations have been provided. When provided they will be evaluated per the following items, which will contain dispositions at that time. Please provide.					X	
2. Sway brace calcs are/are not signed and sealed by registered Professional Engineer per specification 210000.1.04.L.2.b and Oregon state law.						

Disposition Code

N No exception taken.

M Make corrections noted. Resubmittal not required if installation complies with notes.

R Revise and resubmit.

1 Manufacturer not approved.

2 Does not meet requirements of Contract Documents.

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F Forward specified item.

ITEM / COMMENTS	DISPOSITION					
	N	M	R			F
			1	2	3	
3. Building Code chapter 16 calcs determining force factor used in NFPA 13 calcs are/are not provided per specification 210000.						
4. Sway brace calcs do/do not appear to conform to NFPA 13.						
5. Lateral sway brace calcs do/do not include branch lines.						
6. Pipe type included in calculations matches/ does not match pipes shown on plans.						
7. Bracing details shown on plans do/do not match components and configuration used in calculations.						
<b>MATERIALS</b>						
1. Allied Tube and Conduit – Schedule-10/Schedule-40 – ABFII Sprinkler Pipe	X					
2. Ames Fire & Waterworks – Colt Series C200, C200N Double Check Valve Assemblies	X					
3. Nibco – 300lb. WWP UL/FM Butterfly Valves	X					
4. Nibco – 250 PSI CWP Iron Body Grooved Silent Check Valve	X					
5. The Reliable Automatic Sprinkler Co., Inc. – Model CR Commercial Riser - Riser Manifold for Commercial Applications	X					
6. Tyco Fire & Building Products – Model DPV-1 Dry Pipe Valve, External Resetting 2-1/2 thru 6 inch (DN65 thru DN150) 250 psi (17,2bar)	X					
7. Tyco Fire & Building Products – Series TY-FRB –5.6 K-factor Upright, Pendent, and Recessed Pendent Sprinklers – Quick Response, Standard Coverage; 200 degree TY3131; 155 degree TY3231	X					
8. ARGCO – Fire Department Connections (Groove Outlet): No Exception Taken for 2-way straight pattern single clapper model. Two-way 90 degree pattern single clapper REJECTED because it is not UL Listed or FM Approved.		X				
<b>FOR REFERENCE ONLY - DELETE BEFORE RETURNING TO CLIENT</b>						
1. Sprinklers:						
a. Tyco Attic, K5.6 and K8.0, model BB1, brass, 200 degree, TY4180 and TY3180. No cut sheet provided. Please provide.					X	
b. Tyco Attic, K5.6, model SD1, brass, 200 degree, TY3183. No cut sheet provided. Please provide.					X	
c. Tyco Concealed, K5.6, TY3531, model RFII, unknown response, white finish, 155 degree. No cut sheet provided. Please provide.					X	

Disposition Code

N No exception taken.

M Make corrections noted. Resubmittal not required if installation complies with notes.

R Revise and resubmit.

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ITEM / COMMENTS	DISPOSITION					
	N	M	R			F
			1	2	3	
d. Tyco Extended Coverage Pendent, white, model DS-ECC, 155 degree, K5.6, TY3539. No cut sheet provided. Please provide.					X	
2. Pipe:						
a. Underground: No cut sheet provided. Please provide.					X	
3. Fittings:						
a. Grooved: No cut sheet provided. Please provide.					X	
b. Threaded: No cut sheet provided. Please provide.					X	
c. Flanged: No cut sheet provided. Please provide.					X	
4. Couplings:						
a. Rigid: No cut sheet provided. Please provide.					X	
b. Flexible: No cut sheet provided. Please provide.					X	
5. Valves:						
a. Automatic Ball Drip: No cut sheet provided. Please provide.					X	
b. Pressure Relief: No cut sheet provided. Please provide.					X	
6. Hangers: No cut sheet provided. Please provide.					X	
7. Fasteners for Hangers: No cut sheet provided. Please provide.					X	
8. Sway Brace Fittings: No cut sheet provided. Please provide.					X	
9. Sway Brace Fasteners: No cut sheet provided. Please provide.					X	
10. Bells: No cut sheet provided. Please provide.						
11. Connections:						
a. Inspector's Test Connection: No cut sheet provided. Please provide.					X	
12. Dry Systems:						
a. Air Compressor: No cut sheet provided. Please provide.					X	
b. Accelerator: No cut sheet provided. Please provide.					X	
c. Air Pressure Maintenance Device: No cut sheet provided. Please provide.					X	

Disposition Code

N No exception taken.

M Make corrections noted. Resubmittal not required if installation complies with notes.

R Revise and resubmit.

1 Manufacturer not approved.

2 Does not meet requirements of Contract Documents.

3 Insufficient information to review.

F Forward specified item.