

# Air Barrier Project Management

## Pre-Construction Meeting Checklist



*General Contractor*

*Architect*

*Building Owner*

*Air Barrier Manufacturer*

*Waterproofing Contractor*

*Air Barrier Contractor*

*Insulation Contractor*

*Roofing Contractor*

*Window Contractor*

*Drywall Contractor*

*Concrete Contractor*

*Masonry Contractor*

*Panels/Metal Contractor*

**TREMCO**<sup>®</sup>  
Commercial Sealants & Waterproofing



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## I. Purpose

Few building construction components require the coordinated activities of more different players on the construction team than an air barrier system. Therefore, whenever an air barrier system is specified as part of a construction project, it is critically important that a pre-construction meeting be scheduled before the project begins.

Once an air barrier has been covered, any problems with the components or installation will only be discovered after a problem has occurred. Once the problem area has been pinpointed to a defined location, repairs will be costly and time-consuming.

To avoid problems, all members of the construction team must have a working knowledge of air barrier technology and installation...starting with the general contractor and the architect. If this knowledge is lacking, or proper sequencing has not been followed, there will be problems such as gaps in the system, damage to the air barrier system from other trades, unbonded areas of membrane (especially around windows and penetrations), etc.

The pre-construction meeting makes sure that everyone is on the same page and that everyone understands who is responsible for what and when. When you consider that the cost of repairing an air barrier system after it has been installed is estimated to be 50-60 times the cost of a correct initial installation, this is certainly time well-spent.



This guide has been prepared to facilitate these meetings and to help ensure that important details are not overlooked or fall between the cracks. Clearly, it is critical for the success of any air barrier project that all parties are on the same page right from the start.

Further assistance in planning the installation of the air barrier system during the pre-construction meeting is available by contacting Tremco Technical Service.

### **Technical Service**

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## II. Attendees

Simply stated, a representative of every organization that will be involved in the design and installation of the air barrier components should be present at the pre-construction meeting. This will normally include at least the following:

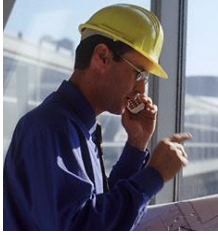
Company/Role	Representative/Company Name	Phone	E-mail
Air Barrier Manufacturer			
Air Barrier Contractor			
General Contractor			
Architect			
Owner's Representative			
Insulation Contractor			
Window Contractor			
Waterproofing Contractor			
Roofing Contractor			
Masonry Contractor			
Drywall Contractor			
Panels/Metal Contractor			
Concrete Contractor			
Other			
Other			
Other			
Other			



### **III. Scope of the Meeting**

The air barrier pre-construction meeting should cover at least the following activities:

- A. Reviewing all project drawings to determine if the proposed details can be constructed as intended by the designer/specifier
- B. Review the system specifications
- C. Declaration by each trade of their selection of materials and a subsequent analysis of compatibility issues
- D. Review of construction details, including tie-in areas
- E. Sequencing the work of all trades working on the project with a comprehensive construction schedule
- F. Discussing any other project-specific considerations



## A. Review Project Drawings

A review of all project drawings is necessary to determine whether the proposed details are sufficient or can be constructed as intended by the designer/specifier. If problems exist, concerns must be addressed and modifications made so that all parties understand where they start and stop and what is required of them.

<b>Project Drawing</b>	<b>Status</b> A = Approved NA = Not approved)	<b>Party Responsible for Corrective Action</b>
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		
11.		
12.		
13.		
14.		
15.		



## B. Reviewing System Specifications

The first step is to review the type of air barrier system that has been specified for this project and to carefully evaluate each of the products being used to make sure that there will be no foreseeable compatibility problems. Check all that apply:

	Component	Tremco ExoAir® Air Barrier System Components	Product Selected
	Fluid-applied membrane	<ul style="list-style-type: none"> <li>• ExoAir® 120 (Vapor Barrier)</li> <li>• ExoAir® 220 (Vapor Permeable)</li> <li>• ExoAir® 230 (Vapor Permeable, UV Resistant)</li> </ul>	
	Self-adhered membrane	<ul style="list-style-type: none"> <li>• ExoAir® 110/110LT</li> </ul>	
	Transition membranes	<ul style="list-style-type: none"> <li>• ExoAir® 110/110LT</li> <li>• Proglaze® ETA Connections</li> </ul>	
	Self-adhered flashing membrane (thru-wall)	<ul style="list-style-type: none"> <li>• ExoAir® TWF</li> </ul>	
	Primer	<ul style="list-style-type: none"> <li>• ExoAir® Primer</li> </ul>	
	Mastic/Termination sealant	<ul style="list-style-type: none"> <li>• ExoAir® Termination Mastic</li> </ul>	
	Extruded silicone bridges or Engineered transition assembly	<ul style="list-style-type: none"> <li>• Proglaze ETA Connections</li> <li>• Proglaze® ETA</li> </ul>	
	Silicone sealant	<ul style="list-style-type: none"> <li>• Spectrem® 1</li> </ul>	
	Polyurethane sealant	<ul style="list-style-type: none"> <li>• Dymeric® 240FC</li> </ul>	



## C. Construction Detail Review

Air barrier systems are most successful when a full building envelope without penetrations is complete. To help ensure successful installation of the specified system, conduct a thorough review of all construction details, including construction detail drawings. This is especially important when numerous trades become involved in the tying-in of the air barrier system to all facets of the building envelope. Use the chart below to make sure everyone knows who is responsible for what, when:

Tie-In Area	Contractor Responsible
Walls to doors & windows	
Foundation to walls	
Louvers	
Different wall systems	
Roofing to walls	
Control joints to walls	
Wall, floor & roof cross-expansion, control/expansion joints	
Utility pipes and ductwork tying into walls	
Wall & roof over unconditioned spaces	
Other	
Other	



## D. Declaring Selected Materials

Each trade must come to the meeting with a written list of selected materials and be prepared to discuss potential compatibility problems. This is a critical step as some membranes decompose when placed in contact with high solvent-based single component sealants or uncured solvent-based primers.

Trade	Selected Materials List
Air barrier manufacturer	
Air barrier contractor	
Architect	
Insulation contractor	
Window contractor	
Waterproofing contractor	
Roofing contractor	
Masonry contractor	
Drywall contractor	
Panels/Metals contractor	
Concrete contractor	
Other	



## E. Sequencing of the Trades

A construction schedule must be developed during the pre-construction meeting to ensure the air barrier system is not compromised. Failure to sequence allows gaps in the system at major joints such as roof/wall, wall/foundation, and window and door frames to wall junctions, etc.

Work Activity	Trade Responsible for Work
1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	
9.	
10.	
11.	
12.	
13.	
14.	
15.	



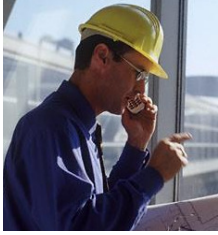
## IV. Other Considerations

Some other considerations that should be reviewed and discussed include at least the following:

**A. Substrate primer considerations - will the substrate for the air barrier require the use of an adhesive primer?**

Substrate	No	Yes	List
Glass-Faced Exterior Gypsum			
CMU/Block			
Precast/Concrete			
Metal Panel			
Other			
Other			
Other			

**Notes:**



**B. Substrate Preparation**

Substrates with open joints can cause air barrier failure at the seams due to positive and/or negative movements/pressures on the wall assembly.

Type of Joint	Method to be used to close joint	Contractor Responsible for Preparation

Additionally, ensure that all substrates are properly prepared to accept the air barrier system specified, in accordance with the manufacturers' written instructions as printed in the specification and/or technical literature.

Substrate	Contractor Responsible for Preparation
Glass-Faced Exterior Gypsum	
CMU/Block (should be free of voids)	
Precast/Concrete	
Metal Panel	
Other	
Other	



### C. Monitoring Installation Temperatures

A major factor in the successful installation of an air barrier system is the temperature range during installation. Verify the proper temperature conditions for all products used in the air barrier system, and who will be responsible for monitoring the temperature conditions for each:

Product/System	Proper Temperature Range	Actual Temperature During Installation	Contractor Responsible for Verification
Fluid-applied membrane: ExoAir 120/220/230			
Self-adhered membrane: ExoAir 110/110LT			
Self-adhered transition membrane: ExoAir 110/110LT			
Self-adhered flashing membrane: ExoAir TWF			
Glass-Faced Exterior Gypsum			
Silicone sealant: Spectrem 1			
2-Part Polyurethane Sealant Dymeric 240FC			
Other			



**D. How will the air barrier system be protected during the construction process?**

It is important that steps be taken to protect the air barrier system during the construction process. Here's some options and responsibilities to consider:

	<b>Protective Activity</b>	<b>By Whom</b>	<b>When</b>
	Polystyrene attached over system with spray adhesive or mechanical fastener		

**Notes:**



### E. Damage Repair

Discuss how any damage, including but not limited to accidental holes in the air barrier system, will be repaired...and by whom. Make it clear upfront that charges for damage done by a trade outside of the air barrier contractor will be coordinated through the general contractor as per the contract in the bidding document.

List the approved products that must be used to make any repairs in the air barrier system:

Component	Product to be Used	Contractor Responsible for Repairs
Fluid-applied membrane	• ExoAir 120, ExoAir 220 or ExoAir 230	
Self-adhered membrane	• ExoAir 110/10LT	
Transition self-adhered membrane	• ExoAir 110/110LT	
Self-adhered flashing membrane (thru-wall)	• ExoAir TWF	
Primer	• ExoAir Primer	
Mastic/Termination sealant	• ExoAir Termination Mastic	
Extruded silicone bridges or Engineered transition assembly	• Proglaze ETA Connections • Proglaze ETA	
Silicone sealant	• Spectrem 1	
Polyurethane sealant	• Dymeric 240FC	
Other		



### F. Steel Stud Location

Usually there are many contractors/groups constructing the wall assembly. The contractor installing the air barrier should mark the air barrier as it is installed to indicate where the steel studs are located. The insulation contractor, in turn, should transfer the marks onto the insulation.

Contractor Type	Name of Responsible Representative
Drywall	
Air Barrier	
Insulation	
Other	

### G. Exterior Rigid Insulation Installation

The best practice is to use a 4' X 8' sheet ship-lapped/installed over the air barrier or substrate. Insulation can be temporarily adhered with an appropriate adhesive, if necessary. All insulation joints must be tight and boards must be in contact with the given substrate. Open joints and/or loose insulation can cause cold spots in the wall, leading to moisture or condensation on the interior of the wall. All open insulation joints should be sealed with Spectrem 1.

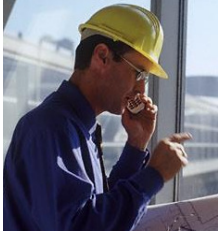
Insulation	Thickness	Contractor
Extruded Polystyrene		
Rigid Sheet		
Spray Foam		



### H. Air Barrier Compatibility with Thru-Wall Flashing

It is always best practice to have the manufacturer supplying the air barrier also supply the thru-wall flashing in order to assure there are no compatibility problems with the material. This practice also provides you single-source responsibility for the entire system. Always make sure the manufacturer approves the thru-wall flashing system to ensure full envelope warranty coverage.

Task	Contractor Responsible	By When
Assure compatibility with thru-wall flashing system		
Ensure that on brick structures, the tie being employed can be used with a 4'X8' insulation board to eliminate cold and open joints		



## **V. Additional Assistance**

If you need additional assistance in planning the effective installation of an air barrier system, contact your local Tremco Field Representative or call our Headquarters office in Cleveland, Ohio.

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