

THE COMMERCIAL FLOORING REPORT



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TOTALLY GREEN PUBLICATION

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WHAT TO INCLUDE IN A FLOORING SPECIFICATION - CONCLUSION

Continuing on with Part II, the conclusion of What to Include in a Flooring Specification with the next item where we left off - Project Meetings.

PROJECT MEETINGS:

Flooring contractors, along with their project managers and team leaders, shall meet with the general contractor and architect prior to commencement of flooring installation to plan logistics, go over a floor plan, layouts and installation schedule and to discuss any concerns or issues. The flooring contractor and his supervisors shall attend all project meetings involving the flooring contractor's scope of work and involvement. The flooring contractor, the general contractor and architect shall work together towards the successful completion of the flooring material installation. (See also Sequencing, Scheduling and Staging).

Project meetings mean communication, and a continuing line of communications must be maintained throughout the project. The primary importance in this section is the prevention of any problems and an open forum to voice concerns before progressing beyond a point where issues cannot be resolved without compromising the project or the schedule. When everyone is on the same page and talking to each other, all flooring issues and problems can be virtually eliminated. Like in any relationship, you have to talk and not assume anything.

SUBSTRATE TESTING:

All substrate testing shall be the responsibility of the general contractor and be done by an ICRI certified tester. The flooring contractors and installers are not substrate experts and testing shall not be part of their requirements or scope of work. Substrate conditions shall comply with the manufacturer's guidelines and industry standards.

One of the biggest causes of floor covering installation failures is due to substrate issues that will compromise the installation. Incurring a problem of this kind can be astronomically expensive and agonizingly disruptive to the business in which it occurs. All substrate issues can be addressed and corrected prior to the installation of any flooring material, but they must be consciously recognized and not brushed aside.



SUBSTRATE CONDITIONS:

All compromising conditions that would inhibit or prevent the successful installation of the flooring material must be corrected and protected prior to the installation of the flooring material. Any and all corrective measures shall not compromise or jeopardize the successful installation of the flooring material, such as cleaning agents, or any chemical or substance used on the substrate surfaces. Substrates must be clean, dry, and free of any and all installation compromising conditions such as oils, grease, paint, drywall compound, dust, sealing or curing compounds etc., according to manufacturers and industry guidelines. Substrate shall comply with ACI Standard of 1/8 inch in 10 feet with no obstructions.

This section can be a sticky wicket because there are a lot of curing and sealing materials and moisture mitigating systems being touted that may bind up moisture in the concrete but prevent the successful installation of flooring materials. You must tread very carefully in this area. Few products really do what you think they will, but some work extremely well. There are ways to successfully install all flooring materials that will be mentioned when we get to Installation Methods.

INSTALLATION SPACE:

The installation space to receive flooring material shall be clean, dry, and conditioned prior to and after installation and free of encumbering conditions prior to installation. The flooring installation work space shall be free of other trades during the installation and kept so after the installation as necessary but for at least 24 hours. The temperature of the installation site, flooring materials, and associated products will be maintained between a minimum temperature of 65° F and a maximum temperature of 95° F for 48 hours before, during and after installation. Do not begin the installation if the room or subfloor temperature is below 65° F. Adhesives or attraction based installation systems will not function properly when applied over an extremely cold surface. Relative humidity should not exceed 85%. Maintain these conditions after installation.

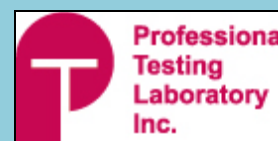
This may be one of the bitterest pills to swallow. Usually, by the time the project gets to the flooring installation it's behind and the flooring guys are charged with making up the difference and working under "combat" conditions. You can't expect flooring material to be installed while other trades are working in the same space and you can't expect the flooring or installation to be free of damage or compromise under these conditions. Written into the spec and enforced, you will never have to endure the aggravation of flooring or installation compromises if the installation contractor and crews are given the freedom to do their job. It will get done faster and usually without problems. Any time we



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write a spec and consult on a job we make sure this happens and it never creates an issue. Just write it into the spec and enforce it, confirmed in those important meetings you're going to have, and it becomes mandatory and doable.

DELIVERY, STORAGE AND HANDLING:

The flooring contractor shall receive and store flooring material in a safe manner, handle material according to manufacturer's recommendations, and store material in a climate-controlled space for the duration of the project. Product shall be delivered to the job site in unopened mill-labeled packages with mill register numbers and tags attached unless cut for fitting in coordinated spaces at flooring contractors staging location. The flooring contractor shall inspect all material as rolled out for cutting and fitting prior to installation. Broadloom carpet should be laid out in installation space for 24 hours prior to installation.

All of this is possible. Refer back to Project Meetings. This is one of the things specs are supposed to do, lay out the guidelines for the project. None of what goes into a spec is outside the realm of reality. The more information and specifics, which is what a specification means, that goes into the document the fewer problems you'll encounter.

SEQUENCING, SCHEDULING AND STAGING:

A pre-installation conference shall be convened to include the flooring contractor, installation supervisors, installation crews, manufacturer's representative, the general contractor, the job superintendent, project managers, the architect, and owner or owner's representative, to establish procedures to maintain optimum working conditions, sequence deliveries, cover installation logistics, stage areas to be carpeted or hard surface flooring material installed, coordinate with other trades or work, and move in of furnishings. All flooring materials, carpet or hard surface and cove base, shall be installed after all other trades have completed their work so as not to interfere with, damage, or otherwise compromise the flooring materials or installation of the flooring materials. HVAC systems shall be completely operational and properly functioning before, during and after carpet and flooring installation. (see INSTALLATION SPACE).

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Shop Drawings showing the extent of carpet, hard surface flooring or concrete finishes, seam direction of broadloom carpet and any hard surface sheet material, and accessories shall be submitted to the architect for approval prior to installation. Check pattern match of flooring materials, if any, for matching during installation and possible waste factors in ordering required amounts. Drawings should also indicate columns, doorways, enclosing walls or partitions, built-in cabinets, and locations where cutouts are required in flooring materials. Copies of approved shop drawings shall be available on job site during installation.

Everyone mentioned in this section is part of the "team" and working as a team will prevent problems. All parties know what the others are doing and can work to resolve any challenges. Remember; when everyone is communicating you move in unison to successfully complete the project without problems.

FLOOR PREP:

All substrates to receive carpet must be clean, dry, and free of any compromising conditions such as: dusting, oil, grease, paint, moisture, high alkalinity, contaminants of any kind and any residual materials, adhesive or otherwise, that would prevent or hinder the installation method used to install the carpet. Patching and leveling materials shall be cementitious-based products. No concrete applications other than expressly specified shall be considered or used--no exceptions. (See Substrate Condition).

There is a right way and wrong way to do substrate prep. Using substandard materials is not one of them. Another issue is to make sure what is used in the floor prep has the same high performance characteristics of the flooring material. This is particularly critical when vinyl flooring is being used. If the vinyl flooring has a psi rating of 1,000 pounds and the floor prep only has a psi rating of 250 pounds, you're going to have a problem. This is an area and subject that is very often over looked and not given any thought.

SUBSTRATE TESTING:

All substrates of concrete must be tested by an independent, ICRI (International Concrete Repair Institute) third party testing firm for moisture,

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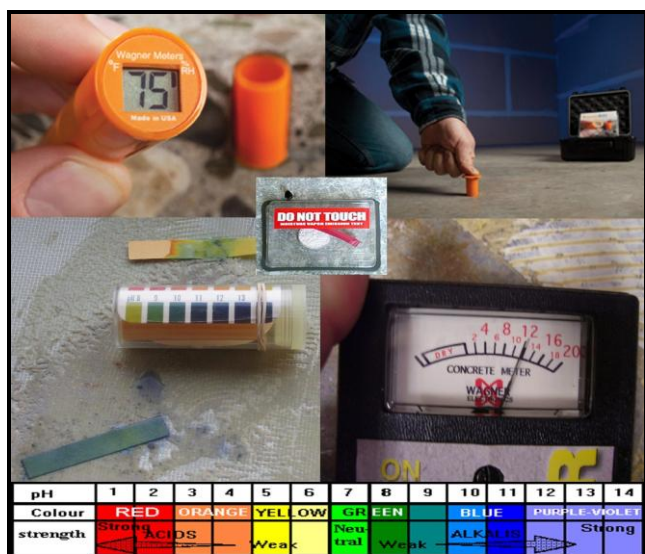
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alkalinity, and porosity and any compromising conditions. Test method is ASTM F 2170 in situ Relative Humidity test is the only test applicable for moisture testing on lightweight concrete.

When we do testing, we employ the Calcium Chloride test, RH test and ph test. All of them tell you something different, and there is no correlation between them. Remember, these tests are only a snapshot of the moment as conditions can, will, and do change. This is the law of physics and science you're dealing with here, which doesn't function or comply according to what you think or say. Words don't change science.



SUBSTRATE CONDITION:

All substrates must be free of curing compounds, moisture mitigation systems, topical or admix applications, or any agent or chemistry that prevents or compromises the integrity of installing and the installation of the flooring materials. If used or present, the compromising substance or material must be removed by systems or methods that will not compromise the installation or be sealed using Uniseal Solutions Floorseal (FlooreverDri) product. This is repetitious, but it has to be, because many flooring failures are due to substrate conditions and even those that aren't are blamed for a product or installation failure.

Cracks, undulations, unevenness, rough areas, or any and all conditions that will compromise the installation, finished appearance of the flooring or affect the long term performance of the flooring must

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Systems like EnviroSTIX for hard surface and hard backed flooring materials and Bentley Prince Street Contact Release for carpet are systems that will help prevent the failure of flooring installations. There is more technology coming, most of which we are involved with. We'll keep you informed to help you. In the meantime understand that moisture, temperature and humidity have a profound effect on flooring materials and the integrity of their installation.

be corrected prior to installation. Corrective action may require grinding, bead blasting, leveling or filling or any adjustment or correction of the substrate. Only cementitious patching, finishing or leveling materials are to be used.

Substrates are to be treated and sealed with Uniseal Solutions FlooreverDri Sealer which will mitigate any compromising condition. All flooring materials are to be test installed over the treated substrate in a designated, set aside area for bond strength, adhesion and adhesive integrity for a period of five days prior to the overall installation being commenced.

We mention in specs that we write products and systems that we know and that have been proven to work. We discourage the use of products or systems that don't work. When you write a spec, it's your spec and you have the right to state exactly what it is you want. There is nothing wrong with that and it must be complied with when written into the spec. Just make sure you know what you're talking about and you include information that is actually current and proven.

INSTALLATION METHODS:

The methods of installation of all flooring materials to be used should incorporate systems such as Contact Release/FreeLay for broadloom carpet, and the EnviroSTIX installation system for all hard-backed and hard surface flooring materials or other proven installation technologies (or one of many other uniquely qualified installation systems).

These systems use no "out of bucket" adhesives, are green and are inherently less sensitive to compromising substrate conditions. Use of these systems will eliminate or minimize any "set aside" funding for substrate mitigation. Flooring installation contractor, supervisors, managers and installers shall become familiar with the installation methods prior to commencing flooring product installation. Selected Flooring Contractor will be provided materials and guidance for the installation technology.

The installation contractor and installers should be aware of product quality during the installation process and bring any concerns, issues, or defects to the attention of the architect, consultant and manufacturer immediately. The manufacturer shall provide a contact person and contact information so any concerns can be addressed immediately. No flooring product is to be installed that has questionable quality. The installer must bring any product or installation concerns to the general contractor who should then contact the manufacturer, architect or consultant. The concern should be visibly and physically inspected by a representative of manufacturer, architect or consultant for advice on how to proceed and to resolve the issue.

The flooring contractor should be aware of, familiar with and experienced in any special or unique methods of installation as stated in this specification. Should one of these systems be employed for installation of the carpet tile, the installation systems' field technical representative should be present at the onset of the installation to insure compliance with appropriate conditions and techniques.

INSTALLATION WARRANTY:

The installer shall warrant installation work for a period of two years (our choice) from the date of any particular phase of the project. Warranty shall include requirement to make necessary replacements and/or repairs due to defective installation of unsatisfactory workmanship which becomes apparent within 24 months of the installation date(s). The installation warranty shall only be for work done by the installer and not any other compromising condition determined to be flooring material manufacturing, substrate, or environmentally or internally caused. The installation methods employed shall have no bearing on any flooring material manufacturing integrity or defects such as instabilities in carpet tile products which are

solely a manufacturing related issue. Installation methods specified and employed for this project, all of which have a proven history of use and success, shall not void or be used to void, any manufacturing warranty.

PROTECTION OF THE PRODUCT DURING AND AFTER INSTALLATION – VELCRO:

The carpet products are to be protected after the installation with Velcro Carpet Protector (if loop or cut and loop products). No pressure sensitive plastic type carpet protector is to be used and no plastic covering of any kind is to be used to cover or protect the carpet. A Masonite type material or hard protective covering panel should be used when heavy furniture is to be rolled across the flooring materials. Flooring contractor shall not be held liable for any damage to flooring materials by other trades or movers.

RECYCLING REMOVED PRODUCT:

Provide for the removal and recycling of waste flooring material products to be sent back to the manufacturer supplying the new product or to a recognized recycling center or program. Scrap of new tile is to be recycled by the manufacturer whose product has been installed.

EXTRA MATERIAL:

Attic stock of all floor covering materials - 5% shall be retained. (can vary but should not be less than 5%).

MAINTENANCE:

Provide manufacturers maintenance materials, information, and guidelines for product after the installation.

SPECIFICATION COMPLIANCE:

The guidelines and compliance of this specification are to be strictly adhered to without modification or exception.

Note: Installation systems noted for floor covering materials are selected for their ability to eliminate the use of separate adhesives, ease of installation, speed at which they can be installed, ability to withstand or be unaffected by compromising substrate conditions, improved installation integrity, eliminate the use of separate cushion (broadloom carpet which would have attached cushion), meet LEED requirements, and eliminate odor or VOC's. All systems stated in this specification would eliminate the need for separate substrate mitigation.

This concludes the three part series on "WHAT TO INCLUDE IN A FLOORING SPECIFICATION". This series should serve as a guideline for writing a flooring specification. You certainly have the right to and should prepare any flooring specification written to be adaptable to the specific project.

If you need help writing or preparing a flooring specification or with a specific flooring issue or concern, call us; we can always help you and will.

Have a Safe and Happy Thanksgiving.



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