

- **Job Problem News –**

- **The substrate is the foundation of a ceramic tile or stone installation.** When this foundation is unsuitable for whatever reason, then the products applied on top are automatically in jeopardy. Thankfully, remedies exist for correcting substrate problems, but it is important to first evaluate the substrate and take any corrective action as part of the floor preparation process.
- Compounded by the shortage of qualified installers, most ceramic tile and stone (Tile & Stone) **floor failures are related to the lack of proper floor preparation.** These floors are only as good as the substrate to which they are applied and the method of installation used. Substrate preparation, in turn, will determine whether a particular substrate is adequate for the intended use.
- **Common failures** are due to substrate cracking and excessive deflection, moisture problems (that can lead to mold), bond failure, and lack of flatness or slope.
- Thankfully, **remedies exist** for correcting substrate problems, but it is important to first evaluate the substrate and take any corrective action as part of the floor preparation process.
- **Is the substrate made of a suitable material allowing for the application of Tile & Stone?** Concrete substrates are always best because they are the most stable and are not significantly affected by exposure to moisture. There are limitations to adhering to lightweight concrete, as it tends to have an unstable surface, but remedies for even this situation exist. You can bond to wood, wall board, and steel, but with limitations.
- **Is the substrate structurally stable?** Deflection in the substrate must not exceed $L/360$ for ceramic tile or $L/720$ for stone. Excessive deflection is a big problem for installations over wood sub-floors and suspended concrete slabs. Structurally, these substrates need to be designed by a qualified engineer to ensure compliance with industry standards for tile and stone.
- **Is the substrate free of contamination?** Contaminated substrates are the cause of many tile and

stone loss-of-bond failures.

The surface must be free of dirt, dust, curing compounds, paint, and other type of coating. The concrete surface must be clean, porous, and have a textured surface to allow maximum adhesion.

- **Is Tile & Stone suitable for the application?** Some types of Tile & Stone have limitations relative to the type of application. Some stones can be adversely affected by moisture exposure, such as most green marbles that can warp during installation or other stones containing pyrites which may produce rust spots. Some products will wear better or worse than others, and may be unsuitable for certain types of applications. For example the PEI (Porcelain Enamel Institute) Rating for ceramic tile is the industry rating the ability of glazed ceramic floor tile to resist surface abrasion. Class V is the highest rating qualifying suitability for most commercial applications such as malls. The stone industry uses an Abrasion Resistance test to qualify suitability. The Marble Institute of America (MIA) states that marble and limestone should have an

index of at least 12 in heavy traffic areas. Some products do not possess enough slip resistance for wet conditions, while others are too textured and cause maintenance issues. Suitability must be qualified with quantitative industry standards. However, installation systems can be designed to compensate for some ceramic tile or stone weaknesses (*i.e.* some moisture-sensitive stones must be installed over a suitable barrier, and may require installation with a waterless adhesive, such as an epoxy).

- **Floor preparation** for Tile & Stone involves understanding the characteristics and limitations of the finished product, as well as evaluating the substrate and installation system to ensure they are suitable for the intended application and use. Any substrate problems then need to be corrected with a legitimate remedy meeting industry standards. Industry associations such as Tile Council of America (TCA), Ceramic Tile Institute of America (CTIOA) and Marble Institute of America

(MIA) can provide information and some guidelines, but it is the manufacturers of the installation systems who can provide system specifications and warranties. Industry consultants, like CTaSC, can be helpful in helping to qualify project needs. For more information on Job Problem Services go to:

www.ctasc.com/CTaSC_Services/Job_Problems/Job_Problem_Services/.

- **Quality Control News–**

- **Quality assurance and control** - The key to a successful installation is to have clear and concise installation specifications with job-specific quality assurance and quality sections. First, the right ceramic tile or stone for the respective application must be selected to ensure suitability. Considerations must be made for:
 - **Resistance:** slip, abrasion (wear), and absorption (stain).
 - **Freeze-thaw stability** for cold climates.
 - **Durability:** compressive strength or specific gravity and density.
 - **Maintenance:** moisture sensitivity and surface texture.

- Next, **select the best installation system** to be used with the product over a quality substrate must be specified. Waterproof or crack-suppression membranes should be included where needed for both immediate protection and long-term insurance. The lower the performance of the products and methods specified, the higher the risk of liability. One should strive to exceed, not just meet, industry standards by calling out performance specifications. (When one considers imperfect job site conditions and labor, why call out reference standards representing the lowest level of acceptable performance?). *For more information on Quality Control Services visit www.ctasc.com/CTaSC_Services/Quality_Control/Quality_Control_Services/.*

- **Training News -**

- **University of Ceramic Tile And Stone (UofCTS) campus is educating new employees!** - In March the first online course became available called [*Understanding the Basics of Ceramic Tile*](#). It is a

comprehensive, interactive and enjoyable journey for people who are new to, or not current with, ceramic tile. It covers the fundamentals, from manufacturing, to product types, to installation, and gives useful selling techniques that are key to selling more ceramic tile. Once the course is completed students can print out a diploma. Managers can monitor their employees' progress.

- **In addition**, a course on **Sexual Harassment** for both employees and supervisors is available. Titled *[Myths, Facts, Impacts of Sexual Harassment](#)*, the course was created by industry expert Anderson-davis and complies with federal standards.
 - **Soon** the new course *[Understanding the Basics of Stone](#)* will be available.
 - **Courses can be customized** for companies interested in delivering their own message. Educational or Product Promotional courses can be created. *For more information go to:*
www.ctasc.com/UofCTS_Online_Courses/Online_Courses/.
- **Marketing News –**
 - **New Luxury category –** “BMW’s sales are up and Ford’s are down. McDonald’s ended 2002 with its first ever quarterly loss – but at Starbucks, where a gussied-up cup of joe costs as much as a meal at Mickey D’s, things are just dandy. Profits in the same quarter were 25% higher than a year before. If those were exceptions, we wouldn’t care. But they are neither unusual nor evanescent. They are, instead, evidence of the coming into being of a new class of product catering to a new class of customer calling this category new luxury.”
Read [Luxury for the Masses](#). By Michael J. Silverstein and Neil Fiske (Harvard Business Review, April 2003).
 - **What’s driving the Economy? –** *According to Floor Covering Guru Jonathan Trivers and the new USA Stone Report, the economy and supply and demand is driving the growth in ceramic tile and stone. Low interest rates, declining prices, increasing demand for housing are the key drivers. **Key indicators for New Residential Construction are:***

- Between 1997 and 2002 starts increased at 3.7%
- Larger Homes: 2,342 sf; 7.1% more Bathrooms
- More Up-grades
- Within 18 months, 75% buyers will purchase new floor

Key Indicators for Residential Remodeling are:

- 3.5 times more home resales than new homes
- Within 18 months, 75% buyers will purchase new floor
- Consumer spends 10.3% more on Kitchen and Bath
- More Up-grades

Demographic/Psychographics - Baby boomers are the driving force:

- Led by women
- Ages 36-54; 2.6 times more households; spending 30% more than their parents
- They want choices and value
- They have discretionary income to spend
- Better Educated and they want...
- Larger selections; more information; more choices to make intelligent decisions
- They want to have a choice....

- **Have you asked your customers lately “How am I doing? Is there anything else I can do better to earn more**

of your business?” – CTaSC now offers the service of providing **web based surveying. It is easy and enjoyable for those taking the survey. At the end CTaSC will provide you with data and graphs of the survey results. Learn more about this service and take a sample survey to experience it for yourself at**

www.ctasc.com/CTaSC_Services/Marketing/Survey_Services/.

- **CTaSC also offers full marketing services** including brochures and advertising development, videos, and website design.

For more information go to:

www.ctasc.com/CTaSC_Services/Marketing/Marketing_Services/.

- **Business Planning News –**
 - **Is your 2004 Sales Plan ready?** – We are days away from a new year, but too many companies don’t have a sales plan ready to go... How are you going to get the most out of the new year if you can’t implement a well organized plan on January 5th? The answer is simply, you can’t! The sooner you start the sooner you get results.

- **“A Sailor who doesn’t know where he is going will have a difficult time discerning an ill wind from a good wind!”**
You need a plan whether you are a large company or a small company. Having a plan helps you make the best decisions, large or small, that will support the fulfillment of your vision. It lets your employees know your goals and objectives, so they can work more effectively and productively, and make decisions that will support those desired results. If you are a larger company, you should have a formalized business and marketing plan, but if you are a smaller company then any form or shape of a plan is better than no plan. The key is to write something down; even if it is a simple outline. It’s not cast in stone....in fact, you want to look at it regularly and adjust it as you see what is working and what isn’t working. Planning is a continuous process that gives those who have plans and use them a competitive advantage. *For more information on CTaSC Planning Services go to:*
www.ctasc.com/CTaSC_Services/Business_Planning/Business+Planning+Services/.
- **Economic Forecast – “CIT Equipment Finance, a unit of CIT Group, last week announced results of the 28th annual CIT Construction Industry Forecast. The 2004 outlook indicates that U.S. construction industry leaders are significantly more positive about the industry’s prospects than at any time since 1999. Of nine U.S. regions surveyed, eight showed double-digit improvements in optimism.”** *For more information go to:*
http://rermag.com/ar/equipment_cit_construction_forecast/.
- **Stone Knowledge News –**
 - **Stone Exceeds U.S. Ceramic Tile Consumption Value in 2002 – Stone trends reported for the first time...**
In September of this year, Catalina Research Inc., the same company that publishes the annual ceramic tile and floor covering statistical reports, published the first comprehensive study on the U.S. Stone Industry. CTaSC sponsored this report and was a major contributor on the project. The Stone Product Industry Report is a 186-page report containing current and historical data on U.S. production, shipments and imports of granite, marble, limestone, travertine and

other rough and fabricated stone products. It also breaks down sales by market segment and application and includes an extensive analysis of trends in manufacturing, imports, end-usage, installation and pricing. There are also sections on countertop use and on cultured stone products (cement imitation stone). Statistics for this study were obtained from U.S.

government sources and independently conducted industry surveys. *For purchasing information and more information on the report go to: [www.ctasc.com/docs/rid/46/pg/vents.html](http://www.ctasc.com/docs/rid/46/pg/events.html).*

- **Stone Study Highlights** – some of the key statistical highlights of the study were reported in articles written in November issues of TileLetter and Floor Covering Weekly. Another article was written in Stone World's December Buyers Guide for 2004. Some highlights reported were:
- **2002 U.S. Consumption of stone** was \$3.30 billion compared to ceramic tile at \$2.34 billion in value. But, in volume ceramic tile was at 2.63 billion square feet compared to stone at .754 billion square feet. *For more*

information on the Stone World article go to:

www.ctasc.com/Resources_and_Links/Articles/.

- **Something to Think About....** –
 - **“As cell phones have become more prevalent, so too has lateness.** Cell phones have enabled more people to fall behind schedule and provided a new crutch for the chronically tardy. Researchers who study the effect of cell phones on society talk of a nation living in “soft time” – a bubble in which expectations of where and when to meet shift constantly because people expect others to be constantly reachable. Eight-thirty is still 8 o'clock as long as your voice arrives on time...or even a few minutes after...”
Article from New York Times News Service.

- **Ceramic Tile And Stone Consultants (www.CTaSC.com)**
 - **Is a National Service Company** providing [Job Problem](#) Investigations, [Quality Control](#) Services, [Training](#) programs (online and onsite), [Marketing](#) Research and Outsourcing Services, and [Business Planning](#).