

CONSTRU-GUÍA al día

SUMMER 2011

(VERANO 2011)

English translation of content

Cover:

Constru-Guía al Día

We're building professionals

Today's hot new trucks

Build a better bathroom step by step

A better way to repair flat roofs

Also in this issue:

Learn to pour a concrete driveway

Marketing on a small budget

MiConstruGuia.com

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For questions or comments, contact Constru-Guía al día Support at (951) 262-3688 or info@CGaldia.com.

For advertising opportunities, contact Kevin Kilpatrick, Publisher, at (770) 615-3585 or Kilpatrick@CGaldia.com.

For editorial opportunities, contact Pam Gruebnaue, Chief Editor, at (949) 857-1011 or Pam@CGaldia.com

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BITS, p. 5

Building a safe room

With the recent severe storms throughout much of the country and the hundreds of deaths and injuries that resulted, more homeowners are adding safe rooms to their homes to protect their families from severe weather. FEMA (Federal Emergency Management Agency) recommends safe rooms be built by professional contractors and has worked with engineering/design schools and other facilities to develop plans for rooms that can be added to new or existing structures. To order a copy of FEMA's publication 320, Taking Shelter from the Storm: Building a Safe Room inside Your Home or Small Business, with construction plans, specifications and other helpful information, call (800) 480-2520 or visit fema.gov/plan/prevent/saferoom/shplans/.

New fall protection requirements

The Occupational Safety and Health Administration's (OSHA) new residential fall protection rules took effect in June 2011. Prior to the change, contractors on residential jobs could use alternative methods of fall protection (i.e. slide guards), rather than the more rigorous standard (safety nets, guardrails, etc). The new standard mandates that all residential contractors doing work 6 feet or higher must adhere to conventional fall protection.

OSHA has released a presentation that describes the use of conventional fall protection systems including safety nets, guardrails, and personal fall arrest systems, including body harnesses, lanyards and lifelines. Other resources include a fact sheet, and questions and answers about the new requirements. For the standard, presentation or other resources, visit osha.gov/doc/guidance.pdf.

Constru-Guía al día wants your favorite tips

Constru-Guía al día is looking for innovative ideas that save professional contractors time and/or money, such as a shortcut for hanging drywall or a better way to install a window. If we use your tip in the magazine, you'll receive \$200 for a tip that runs with a photo or \$100 if there is no photo. Please describe the tip completely, so we can understand it and send photos showing the tip being done if possible. Email your tips to info@CGaldia.com. Include your name, occupation, address, and phone number or mail them to:

Constru-Guía al día
Attn: PRO Tips
3162 Johnson Ferry Road, Suite 260-943
Marietta, GA 30062

Tip: When installing a kitchen sink and faucet assembly, save time by installing the faucet, supply lines and other accessories BEFORE you set and attach the sink to the countertop. It is easier and faster. Recent changes in the tax laws provide a number of tax breaks for contractors.

WHAT'S IN YOUR TOOLBOX? p. 7

Eduardo Valdés / Valdés Repairs / Corpus Christi, Texas

Being a maintenance and repair professional requires a variety of well-honed skills, a curious mind and attention to detail. "It takes patience and dedication," says Eduardo Valdes, owner of Valdes Repairs in Corpus Christi, Texas. "I started out completing a variety of maintenance jobs for clients living in the exclusive Isla Del Padre area. When you do your job well, one client leads to another, and the next thing you know, you are running a successful business. The secret lies in completing each job with the same dedication you would use if you were working on your own home."

According to Valdes, image, people skills and tidiness are also extremely important. "Before I go out on a job, I make sure my truck is clean, my tools are well-organized and my clothes look professional," he says. "At the jobsite, it is important to remember you are in someone's home, and keeping a tidy work area not only says a lot about you and your work, but it helps keep the area safe."

RIDGID 9 Amp Fuego Reciprocating Saw, #R3002. "This saw is good for so many things I'd say it's indispensable. It's ideal for demolition: cutting old pipes out of a wall, big pieces of wood, and things that are difficult to access with a traditional circular saw or a demo hammer. I love the tool-free blade change and the ease with which you can switch between linear and orbital cutting."

Makita LXT 1/2-inch 18-Volt Cordless Driver-Drill Kit, #BDF451. "No drill is more dependable than this one. It is extremely light and powerful, perfect for when you need to carry a drill around in your tool belt all day."

Cerrowire 50-foot 12/2 NM-B Wire, #147-1602BR. "Great for all sorts of residential installations, this 12 gauge wire has a PVC jacket that's easy to peel off and bend, which makes it very easy to use."

Fluidmaster No-Burst Faucet Supply Connector, #B1F20. "Most supply lines, connectors and fittings included with faucet and toilet kits are plastic. I like replacing them with chrome-plated or stainless steel. Even though this may represent a larger investment, they last longer and have a nicer appearance."

GE 9.8 oz. Clear Kitchen & Bath Silicone Caulk, #GE5040 24C. "Silicone is the best options for keeping water and moisture away from bathroom and kitchen cracks where mold could develop. I always carry tubs of this mildew-resistant caulk when working in bathroom and kitchen projects."

3M Tekk Protection Sanding and Fiberglass Respirator, 3-Pack, #8000HA1-A. "I am very sensitive to sawdust, so I never work without these disposable masks. They provide relief from sawdust and other particles, are very comfortable and make breathing easier."

Glidden 1-gallon semigloss Interior Paint, #GLN6411-01. "When it comes to choosing paint, customers ask me to use what I would use in my own home. Glidden is my paint of choice for its quality and value. It provides great coverage, even on dark surfaces."

HCA, p. 9

HISPANIC CONTRACTORS OF COLORADO

An advocate for equal access for minority firms

Building a united community committed to business growth.

The Hispanic Contractors of Colorado (HCC) was founded in 1990 to create equal access for minority firms in the Colorado construction industry, advocating for diversity and for public policy that supports that goal and allows companies to grow. Focused primarily on commercial and public projects, its member companies include general contractors, subcontractors, design/engineering firms, service companies and suppliers to the construction industry, and public entities.

"What sets HCC apart from other contractor associations is our strong focus on public work and little to no involvement with the private sector," says Executive Director Helga Grunerud, who serves on a wide variety of external boards and committees representing the interests of the membership. "Our greatest legacy is the growth, quality of work, professionalism and integrity of our members."

Q: What are the benefits of becoming a member?

A: Our membership consists of some of the largest contractors in the United States and some of the smallest in Colorado, and the biggest benefits for both are our monthly dinner meetings. It's the best way to develop relationships that lead to contracting opportunities. Big firms pursuing public projects send people from their bidding and preconstruction departments. And with anywhere from 50 to 90 people at each meeting, it's a great way for small businesses to connect with large contractors.

Other benefits include a Group Workers' Comp Program that offers discounts to eligible participants, breakfasts with general contractors where members have the opportunity to visit their offices and meet key people, breakfasts with community leaders, training sessions and various member resources.

Q: What type of assistance do you provide?

A: HCC educates companies about the certification process with public agencies and helps them register for e-procurements. Certification is key to being able to work in the public sector. If a company is not certified, the prime contractor/consultant pursuing the public project cannot count the company's participation on the project. For small companies unfamiliar with email, we provide assistance in securing an email address and learning how to use it. Also, iSqFt has provided a computer, so small companies can learn how to utilize an on-line plans room.

Q: What are some of the challenges facing Hispanic contractors in your area? Getting bonding, insurance and mobilization costs. When you work for a public entity you typically have to wait 30 days to receive the first payment. Considering companies pay their workers weekly and need to buy supplies, it's tough to wait a month to receive your first check, and many of them have to rely on their credit cards. We try to have public entities urge their contractors to help out with those costs. As for bonding and insurance, bonding companies are reluctant to bond small contractors, so the regional transportation district has developed a self-insurance program so contractors with contracts of less than \$500,000 can money to help with bonding and insurance.

Retainage is another big issue we are working on. In public construction, the general contractor is asked by the owner to withhold 10 percent of the payment until work is complete to ensure the job is completed on time and according to contract terms. Sometimes, this payment is withheld 10 months, a year or even two years. We are trying to pass legislation that mandates the retainage be released in a reasonable time.

For more information on HCC, visit hispanic-contractors.org or call (303) 893-3893.

-By Adriana Sibaja

SAFETY, p. 10

Prevent heat illness on the job

A few simple steps can help prevent heat illness and fatalities.

Contractors and construction workers are at especially high risk from the illnesses – and even death – that occur when temperatures soar. Not only do contractors spend hours outside in the hot sun, they're often doing strenuous physical activities. While you can't control the heat, there are some important steps you can take to minimize the impact of high temperatures.

Heat illnesses

When you work in a hot environment, your body attempts to maintain a normal temperature. The hotter it is, the harder your body has to work to stay cool. When the body has absorbed more heat than it can dissipate, illnesses can result. Some of the illnesses are just uncomfortable; while others are so serious they can result in death. The four most common types of heat illness are:

- **Heat rash** – In hot, humid climates when sweat remains on the skin for long periods, a rash can develop. If the rash is extensive or becomes infected, it can be very uncomfortable. To avoid heat rash, rest in a cool place during breaks and allow your skin to dry.
- **Heat cramps** – Painful muscle spasms can occur when you sweat profusely, drink large quantities of water and do not replace the body's salt. Salted liquid should relieve the cramping.
- **Heat exhaustion** – Heat exhaustion results from excessive sweating in hot working conditions. Someone with heat exhaustion continues to sweat and can experience extreme fatigue, giddiness, nausea, headache, and even unconsciousness. The skin will feel clammy and moist; the complexion will be pale or flushed; and the body temperature will be normal or slightly elevated. If you suspect heat exhaustion, rest in a cool area and drink plenty of liquids. A severe case of heat exhaustion can require treatment and/or hospitalization for several days.
- **Heat stroke** – The most serious heat illness, heat stroke, is caused when sweating is no longer adequate to cool the body. Body temperatures can soar to 105 degrees F or higher, and confusion is common, and convulsions or unconsciousness can result. The skin will feel hot and dry, and appear red or spotted. Anyone with symptoms of heat stroke must get immediate first aid to prevent permanent brain damage or death. Move the victim to a cool area, soak the clothing with water and vigorously fan the body to cool it. Call 911 for emergency treatment.

What workers should do

When you work in a hot environment, your body attempts to maintain a normal temperature. The hotter it is, the harder your body has to work to stay cool. When the body has absorbed more heat than it can dissipate, illness can occur.

Before work begins, drink water until you feel full. Then for the rest of the day and as often as every 15 minutes, drink another cup of water or sports drink. Eat smaller meals before work and avoid caffeine, alcohol and large amounts of sugar. Work in shade whenever possible and take regular breaks to cool down by resting in a shady or air-conditioned area. Wear light-colored, loose-fitting, breathable clothing, if work rules allow. Sweat-soaked clothes cool you better than bare skin. Wear a hat with a wide brim. If possible, do the heaviest work during the coolest part of day.

Consult your health professional about working in the heat if you are on medication. Many medications and diseases interfere with the body's ability to regulate temperature and dissipate heat, increasing the likelihood of heat related illness or accident.

—By Pam Gruebnau

What supervisors should do

Train workers and other supervisors to recognize the signs of heat illness, and provide water and shade on the job site. Throughout the day, remind workers to drink water and have someone actively monitor the condition of workers. Hot, sunny days with high humidity and little breeze are the most dangerous; whenever possible, schedule work during the coolest part of day or at night.

Remember too, that the danger of heat illness is highest when temperatures begin to climb. Under normal circumstances, a worker will adjust to higher temperatures in four to 14 days.

TIP: A recent study on hydration found four critical electrolytes are lost through sweat in a constant ratio to one another. POWERADE, now available in convenient 5-gallon packages, replaces all four electrolytes at the same ratio they are typically lost in sweat, plus it includes B-vitamins.

HOW TO, p. 13

How to pour a concrete driveway

To ensure an easy pour and that you don't lose an expensive load of concrete, doing the appropriate prep work is critical.

Pouring a new concrete driveway requires a great deal of coordination, because the wet concrete begins to harden the moment it's mixed. The first step in installing a new driveway is to establish the desired grade. This is done well in advance of the concrete pour, using earthmoving equipment and hand tools to excavate, fill and compact the soil to the required specification. Then spread a layer of crushed rock. Local codes will dictate how much gravel is required to provide adequate support, drainage and protection from ground freeze.

Getting the forms right is the key to a successful pour, since the driveway will follow their exact shape and contour. Install forms to outline the driveway edges using 2x4, 2x6, and 2x8 lumber supported by 1x2, 1x4, or 2x4 stakes. Drive stakes at a minimum of 3 feet apart with additional stakes at curves where the concrete's pressure against the form will be greater. Nail the form lumber to the stakes at least 2 inches above ground level keeping it level and straight. The stakes should be level with the lumber of a few inches below the top edge. Oil the form boards with old motor oil applied with a paintbrush. It will prevent the forms from sticking to the concrete and prevents water in the concrete from being absorbed by the forms, weakening the concrete mixture.

Lay reinforcement mesh in the excavation between the forms. Cut the mesh a few inches short of the form and cut edges should overlap. Raise the mesh off the bottom using "chairs" or other supports unless you plan to have someone pull it up during the pour. If you are pouring fiber reinforced concrete, the wire mesh isn't needed.

Pouring the concrete

The pour should begin at the house, working toward the street. On many sites, a concrete pump will be needed to send the wet concrete to the starting point and prevent a heavy concrete truck from damaging the area or altering the grade.

Spread the concrete throughout the form using a long-handled tool with a straight metal blade that pushes or pulls wet mix into place. Try not to lift the concrete as you work it, as this puts a great deal of strain on your back. Work the concrete until it's even with the top of the forms. Spreading concrete usually involves walking in the wet concrete, so be sure workers wear rubber boots.

When pouring wet mix, you'll work closely with the truck driver to direct and coordinate the flow. As you reach the end of the driveway form, there may be concrete remaining in the truck's revolving drum. Have the driver pour any excess mix into wheelbarrows and keep it handy, using it as needed during screeding and leveling.

Screeding

To level the concrete, called screeding or striking off, two or more people pull a long board or lightweight metal beam (wider than the driveway form, if possible) across the top of the concrete. Fill in low spots as you level using a shovelful of wet concrete.

The final leveling of the surface is done with a bull float. This tool's handle is often 8 feet long or more to reach across the entire driveway, often from outside the form. Push the bull float away from you with the weight on the back edge of the tool to smooth the surface. Then twist the handle, shifting the pressure to the front edge of the blade, and pull the float back toward you. Check the blade before beginning and periodically throughout the process, removing any concrete.

When pouring wet mix from the chute, you'll work closely with the truck's driver to direct and coordinate the flow. As you reach the end of the driveway form, there may be concrete remaining in the truck's revolving drum. You've paid for all of the concrete in the drum; once the truck rolls away, that concrete is gone. Most crews pour any excess mix into wheelbarrows and keep it handy, using it as needed during the screeding and leveling process.

Finishing the concrete

Within hours of pouring, you can apply any final touches. Work the surface with a hand trowel to smooth out any imperfections. Slide an edging tool back and forth between the lumber and the hardening mix to create a rounded edge.

Concrete, by its very nature, will eventually crack during freeze-thaw cycles. Use a groover against a straightedge to create control joints. A control joint is a groove placed in a concrete surface, similar to the way a piece of glass is scored before cutting. A control joint encourages the concrete to crack on the underside of the control joint where it won't be visible in the finished driveway. Control joints should be positioned to run across the concrete surface every 8 to 12 feet, and wherever the driveway meets a sidewalk or existing concrete slab.

To improve appearance and traction, many driveways have a textured finish added to the concrete. For a heavy swirl pattern, use a wood float instead of a trowel and work while the concrete is still fairly wet. For a soft pattern of parallel lines, drag a soft brush or broom straight across the moderately wet surface.

Keep all vehicles, machinery, and foot traffic off of the finished driveway for at least 72 hours to allow the concrete to fully cure.

-By Todd Brock

Captions:

Install forms to outline the driveway edges using 2x4, 2x6, and 2x8 lumber supported by 1x2, 1x4, or 2x4 stakes.

Drive stakes at a minimum of 3 feet apart with additional stakes at curves where the concrete's pressure against the form will be greater.

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Within hours of pouring, you can apply any final touches. Work the surface with a hand trowel to smooth out any imperfections.

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Use a groover against a straightedge to create control joints.

For a soft pattern of parallel lines, drag a soft brush or broom straight across the moderately wet surface.

Keep all vehicles, machinery, and foot traffic off of the finished driveway for at least 72 hours to allow the concrete to fully cure.

FOR YOUR BUSINESS: LOW-COST MARKETING, p. 19

Marketing on a small budget

Increase your prospects and customers using these 9 free or nearly free marketing tools.

While it can be tempting to pursue any type of customer and do any type of work, focusing on the prospects you believe present the best opportunity for your business is more cost-effective. The same marketing dollars will have a far greater impact on this group – your target market.

Fortunately, if you are willing to invest some time, there are many free or low-cost ways to effectively promote your services and build your business.

1. Reach out to your customers and prospects. Past customers represent your greatest opportunity for sales, so develop a list of customers and prospects, and then stay in touch by regularly sending postcards, letters, newsletters or email. Not every communication has to be elaborate. Communicate with your customers and prospects at least twice a year, preferably four to six times.

2. Build a referral network. Most contractors say referrals are their best source of new business, so building a referral network is a good investment of your time. Attend local Chamber of Commerce events, join a local networking group or join a local Hispanic contractor association to grow your list of contacts and prospects.

Good referral sources for contractors are those involved in house sales, including real estate agents, lawyers, bankers, mortgage brokers and insurance agents. It's also wise to develop relationships with non-competitive businesses in the construction trades.

When choosing your business connections, such as an accountant or lawyer, select people who understand the importance of referrals and have strong networks of their own. Remember that the best way to get referrals is to give them yourself, so listen and learn what kind of leads other businesses are looking for and then provide them when you can.

3. Encourage referrals from customers. Consider offering a gift card or cash incentive for referrals that lead to work. Then be sure to remind your customers that you have a referral program.

4. Consider cross-marketing. You can literally cut your marketing costs in half and get double the exposure if you partner with other businesses who share a similar customer base. For example, a landscaper and deck builder might cooperate to produce a two-sided door hanger for a neighborhood. Similarly, a roofer, landscaper and painter can co-sponsor an email newsletter focused on creating curb appeal.

5. Develop your name recognition. Publicity is one of the most cost-effective ways to generate exposure for your company. Good ways to get publicity are to promote your company's participation in local charity events and local youth sports, or publicize any awards and certifications your firm receives. Create a press release, or hire someone locally to write it (you should be able to have someone do it for as little as \$200), and then submit the press release to local news editors and online news sources. One way to do this is to use a low-cost multilingual press release distribution service, such as [rushprnews \(www.rushprnews.com\)](http://www.rushprnews.com).

Another excellent way to generate publicity for your company is to list yourself as an expert source on a website that journalists use to find sources to interview, such as helpareporterout.com (English only). Journalists interested in more information about your area of expertise will contact you for information and then quote you in their stories, getting your name and your company's name in front of prospects and customers.

6. Canvass the neighborhood. Door-to-door canvassing in an area where you are currently working can be effective. If one person in a subdivision is replacing windows, for example, others in the area may need to as well. Let the neighborhood know you're doing the work.

7. Work with local home centers. Apply online at homedepot.com to begin the process of becoming an installation service provider for The Home Depot.

Also look for opportunities to post your company's brochures, business cards or other similar printed material on community bulletin boards in high-traffic stores.

8. Take advantage of free online listings. Many prospects look for contractors online, instead of reaching for a phone book. Create an online presence for your business by listing it free of charge with popular search engines like Google Maps, Yahoo, or Bing, as well as local search engines, Internet Yellow Page directories, and local networking sites. Then when your customers are using the Internet to search for a contractor, your name will be on the list they get. Having a company website will increase your Internet exposure.

9. Build a low-cost website. Creating a website doesn't have to cost thousands of dollars or require computer programming skills. More than 20 million sites – English and Spanish – are now powered by free Word Press software at www.wordpress.com. With Word Press, you can build a simple website in minutes, using free and low-cost designs that can be customized to promote your business.

–By J. Costin

Tip: Take advantage of free marketing counseling available through the U.S. Small Business Administration (www.sba.gov) and SCORE, (www.score.org), a network of more than 13,000 volunteers who offer small businesses confidential business counseling services at no charge.

Sidebar:

Build awareness of your company

A distinctive logo will help people remember your company. Choose a two-color logo for lower printing costs, and use it on everything from invoices, business cards and yard signage to company vehicles, equipment, uniforms and websites. Low-cost advertising specialty items including your logo and phone number, such as magnets, post-it-notes and pens, will keep your name in front of customers long after a job is complete and remind them to call you when they need more work done.

Your low-cost marketing tools

| Marketing Tool | What it Costs |
|---------------------------|---|
| Customer Database | Free |
| Networking | Costs range from free to several thousands of dollars, depending on the number of events and memberships you decide to use |
| Referral Program | \$10-\$50 per referral |
| Press Release | \$150-\$200 for professional writing and local distribution; national distribution ranges from free online distribution through pr.com to \$1,000 through PR Newswire |
| Website | Free theme and software through WordPress.com; Hosting from \$6-\$15 per month; domain name \$12 per year |
| Email Marketing | As low as \$15 per month through Constant Contact, depending on the number of names on your list. Professional content and design \$150 -\$300 per email |
| Online Listings | Free |
| Canvassing | Free |
| Working with Home Centers | Free |
| Postcards | 5,000 for \$2,050 (Includes printing, postage and mailing) |
| Door Hangers | 5,000 for \$275 |
| Full Page Flyers | 5,000 for \$318 |
| Yard Signs | \$13 each |
| Vehicle Magnet Sign | \$6 - \$50 each |

Caption:

Let the neighborhood know you're doing the work with a low-cost yard sign.

PROBLEM/SOLUTION, p. 22

How to repair a leaky flat roof

Most flat roofs can be repaired using one of the techniques described here.

There are many different types of flat roofing, and some are more easily patched than others. (A "flat" roof isn't actually flat, but has a subtle pitch to allow drainage.) Be sure to verify what type of roof you are working with prior to starting any repair.

Regardless of which type of roofing you are patching, you must first identify the source of the leak. Unfortunately an, easy-to-see hole directly above the leak in the ceiling is rarely the case. Often, the water is getting in several feet or more from the location of the lead. If the hole, blister, or otherwise damaged section isn't apparent, look at nearby details, such as a chimney, wall flashing, window or door flashing, roof vents or other pipe/conduit penetrations. If the leak is being caused by damaged or deteriorated roof flashing, you may have to consult someone who specializes in roof repairs to help diagnose and repair the problem.

-By Bruce Webb

Problem: You need to repair a leaking TPO or Modified Bitumen roof.

Solution: Start by using scissors to cut a patch of TPO membrane for a TPO roof repair or modified bitumen membrane for a modified bitumen roof. Manufacturers recommend the patch be 3 inches larger than the hole (photo 1). The rest of the repair is identical for both roofing types.

Using a NAPTHA- based cleaner, clean the area of roof to be patched, as well as the patch itself. Allow both to dry (photo 2 & 3). Place the patch over the hole and use a commercial grade heat gun to heat the underside of the patch, while simultaneously adhering the patch with a roller (photo 4). Heat guns used for wallpaper removal are not adequate for this application. The recommended setting to "weld" the TPO membrane is (#8) or about 1,200 degrees F. When the patch is fully adhered, the repair is complete.

Problem: You need to repair a leaking EPDM roof.

Solution: Many EPDM roofs are covered with smooth rocks known as ballast. The rocks hold the membrane down. If the roof you are repairing is a ballasted roof, carefully scrape the rocks away from the area to be patched. Typically, you'll have done this to locate the leak in the first place (photo 5). With the area exposed, clean the membrane until it's "jet black" using a NAPTHA-based cleaner and allow it to dry completely (photo 6).

Once dry, apply a coat of single-ply roofing primer with a scrubbing pad, such as Scotch Brite (photo 7) and allow it to dry until the surface becomes tacky – 2-3 minutes. Cut a patch of EPDM pressure-sensitive tape about 3 inches larger than the hole on all sides (photo 8).

Adhere the patch to the primed area using a roller, and roll it in two directions that are perpendicular to each other (photo 9). After about 60 minutes, caulk the edge of the patch with a rubber-based caulk (photo 10) and then cover area with the ballast.

Problem: You want to repair a leaking BUR or Modified Bitumen roof using cold process cement.

Solution: Cold Process Cement is a multi-purpose, fast setting asphalt cement that can be used on any asphalt-based roofing. Apply the Cold Process Cement directly over the hole in the roof. Immediately place a piece of reinforcing mesh over the cement, and then apply a second layer of cement. Allow it to dry.

Tip: Some of the materials and/or tools might not be available at your favorite supplier. Be sure to check before you submit an estimate, as prices will likely be higher at specialty roofing suppliers.

The Home Depot, p. 25

The Home Depot: Serving the professional

With the products, services and discounts you need.

Whether you're a professional painter, drywall professional, maintenance & repair specialist, remodeler or property manager, The Home Depot has the products and services you need to be successful.

It starts with the Pro Rewards Paint program, which can save you up to 20 percent on paints, exterior stains and primers, and free jobsite delivery on qualifying orders of 24 gallons or more to help you offer your services at a profit. Then, The Home Depot provides superior BEHR, Glidden and KILZ paints, stains and primers to help you deliver a quality project every time. Plus, at The Home Depot, you can rely on Pro Desk associates to provide expert advice whenever you need it.

Professional discounts

The Home Depot's Pro Rewards Paint Program is a discount program designed to save professionals more money on every paint purchase. Savings are determined by adding up all your paint, primer and exterior stain purchases in one year. The Pro Rewards Paint discount is then valid for one calendar year, so you'll save money all year long. The discount levels are:

| | Purchase | Discount |
|--------------|---------------------------|----------|
| Gold level | \$7,500 or more in a year | 20% |
| Silver level | \$4,000 to \$7,499 | 15% |
| Bronze level | \$2,000 to \$3,000 | 10% |

"We're at the Gold level and the discount is great," says Mark Llerena, owner of C&S Paint & Wallpaper in Miami, Fla. "And the Pro Rewards Program is so easy to use, we can get in and out faster. The Home Depot has really made it a lot easier to do business."

Membership in the Pro Rewards Paint Program is free, and it's quick and easy to sign up. Just complete the registration form and return it to the Pro or Paint Desk at The Home Depot. Then, every time you buy paint at The Home Depot, simply enter your phone number at checkout to get your discount.

High quality products

The Home Depot offers a full line up of paints for every kind of job, from BEHR Premium Plus and Premium Plus Ultra – rated #1 Paint & Primer in one for the second year – to Glidden, rated a Best Buy, and Glidden Speedwall, to ceiling paints, primers and stains. Plus there are thousands of special order products, applicators and painting supplies.

Among the quality paint products available at The Home Depot is the new line of KILZ Pro-X Interior Paints and Primers for Professionals. This new line is designed to meet the needs of professional painters, drywall professionals, maintenance and repair specialists, remodelers and property managers. It's also ideal for new construction.

The KILZ Pro-X line includes:

- KILZ Pro-X 300 series - A quality interior latex paint for Pros with superior hide, coverage, touchup and application, KILZ Pro-X 300 series is optimized for spray, roll and brush application. Designed for moderate traffic areas, it is low VOC and low odor. Available in two bases – grab-and-go white and dark base in more than 1,100 colors, KILZ Pro-X 300 Series comes in 1-gallon and 5-gallon containers.
- KILZ Pro-X 300 Interior Latex Dead Flat Paint - This excellent flat paint at a quality price delivers a non-reflective appearance and good washability, making it ideal for ceilings and walls. It comes in one base – grab-and-go white – and 424 colors, and is available in 1-gallon and 5-gallon containers.
- KILZ Pro-X 100 series - This budget friendly, production-grade paint is optimized for spray, brush and roll application. KILZ Pro-X comes in 110 Flat, 130 Eggshell, and 170 semi-gloss. Each finish is available in 424 colors in the grab-and-go one base and is available in 1-gallon and 5-gallon containers.
- KILZ Pro-X P10 PVA Primer primes and seals new, uncoated drywall and it can be tinted. Available in 1-gallon and 5-gallon containers.

"We really like KILZ Pro-X 100," says Ilerena. "It's just what we need for new construction."

KILZ Pro-X Interior Paint and Primer orders of 24 gallons or more qualify for free jobsite delivery (where available).

To make it easy for you to get all of your painting supplies in one stop, The Home Depot carries a full line of applicators specifically designed for professionals, including a new line up of Graco, Titan and Milwaukee sprayers, and a full assortment of Purdy and Gold brushes.

Services that make a difference

The Home Depot and Pro Desk associates are committed to helping professionals do their jobs more efficiently and profitably by providing services that help you deliver superior quality at a price that works for you like:

Factoring tinting: For accurate, consistent color every time, The Home Depot will tint the order to the precise color you specify.

Volume pricing discounts: In addition to discounts on paint through the Pro Rewards Paint Program, The Home Depot's Volume Discount program provides discounts on all of your other purchases. Simply place an order at the Pro Desk for merchandise totaling \$2,500 or more and the appropriate discount is applied.

Free job site delivery: On qualifying orders, you can take advantage of free job site delivery. Or if you prefer to pick up your orders, call your Pro or Paint Desk associate and it will be ready when you need it.

"Pro Desk associates are always ready to help," says Danny Alvarado, Paint Sales Associate with The Home Depot (#6322) in Miami, Fla. "With the Pro Rewards Paint Program, free delivery, factory tinting and volume pricing, we save our customers time and money."

For more information on The Home Depot's Pro Rewards Paint Program, call your Pro Desk or visit www.homedepot.com/propaint. For more information on KILZ Pro-X Interior Paints and Primers for Professionals, visit www.homedepot.com/kilzprox (English only).

-By Pam Gruebnau

Caption:

A quality interior latex paint for Pros with superior hide, coverage, touchup and application, KILZ Pro-X 300 series is optimized for spray, roll and brush application.

The Home Depot's Pro Rewards Paint Program is a discount program designed to save professionals more money on every paint purchase.

How to, p. 28

Build a Better Bathroom

Planning, scheduling, and communication are the keys to delivering a high-quality bathroom remodel.

Ask any remodeling contractor and they'll probably tell you that a complete bathroom gut-remodel is one of the toughest remodeling projects there is. Even when you're taking a room all the way back to the studs, it's not that any single element of re-building it is that difficult: most of us can lay out plates, install studs, tile, cut out the back of a vanity cabinet. The challenge is that you have to do it all in a very small space, on time and on budget. And you usually have to manage plumbers, electricians, cabinets and 3,000 pounds of debris along the way—as well as any other surprise a house can throw at you.

The keys to success are in planning, scheduling and communication. And the earlier in the game you get control of these things, the better control you'll have of the project details and the profit you make from it. Step 1 of organization starts with a client meeting with several goals:

Plumber and electrician. I try to start the meeting by having my subs walk the job with the homeowner and me. In the estimate I give the client an "allowance" of how much I think their portion of the project will cost, however, I want the plumber to see every inch of visible pipe possible between water main and bathroom drain to find any surprises—anything from weird drain assemblies to corroded fittings to code issues from previous work. Same deal with the electrician. If they see something, I can adjust the client's expectations before there is a surprise—all clients like this. I also check for all shut-offs between the main and the bathroom in case I need them in an emergency.

Checklist. Next, I hand off a checklist to the customer and we go through it together. It only takes a few minutes. It includes items like:

~ Parking. Where can I park? Where can my guys park? Are there parking permits required? Is there a security code or gate code? Are there zones or sides of the street I need to know about to prevent getting tickets, etc.?

~ Trash. Can I put a dumpster in the driveway or street? If I am allowed to, can I get a dumpster truck in there anyway?

~ Pets. Client's pet is client's responsibility. Remind them that windows and doors will be open.

~ Egress. Can I use the front door or should I use the back door or garage entrance? Is there a fancy rug that needs to be rolled up, etc.?

~ Dust. There will be dust in the house. My estimate includes a line item for a maid service. If they want to clean their own house, I remove the line item.

~ Finishes. I want to store vanity cabinets, sinks, toilet, etc. in a bedroom adjacent to the bathroom being worked on. Is that possible? Where else can I store these things indoors?

~ Building materials. Whenever possible I store my materials on "bunks" or saw horses in the order I need them. If I can do that in a garage, that's great. If not, can I set up a line in the yard where I can store studs and drywall, etc? Is there a vegetable garden or flowers I risk ruining if I do that?

Demolition

Take precautions to protect the house from dust and damage while you demolish. Beyond the basic dust protection of draping/taping sheet plastic, I shut off the HVAC (if possible) during demolition to prevent dust-filled air getting sucked into the system. I also tape all vents and returns during demo and drywall sanding.

I employ a method I call "pierce and pry." I don't pound through wall claddings, rather I pierce them with a bar, get the jaw behind the cladding and pull. Stuff comes off easier in the opposite direction it's fastened to the framing. If there is smashing and pounding (like for a cast iron tub, sometimes the only way to get them out is to break them in the room). Be careful not to shake pictures off the walls or dislodge plaster in other rooms. As for the debris, the safest way to get rid of it is also the fastest: Bag it and drop it out a window into a "drop zone" before taking it to the trailer or dumpster.

Plumber and electrician

As soon as the room is empty it's time for the plumber. I don't do any plumbing; instead I've worked hard to find a sub who understands their work is an important part of a larger project. A bad plumber will cost you money and kill your schedule. I like to be on the job with the plumber to work through any carpentry details—everything from heading off floor joists when moving a drain line to making sure blocking is fastened in a way that works for both of us.

When the plumber is completing his rough-in, I get the electrician busy with his rough-in. The electrician goes second because it's easier to pull wire around pipe than pipe around wire.

New framing

Once the plumber is done and the electrician is working, I can start framing. I use the most premium studs possible in a bathroom—ideally stuff I snap the bands on myself—because I want as flat a surface as possible for tile and other finishes. Don't skimp on studs.

In old houses, framing can settle or be different sizes. I pull a string across the joists to see if there are major dips. This is easily fixed by packing the ceiling down with 2x4 "sisters." Add 2x12 blocking where you think the toilet paper roll, towel bars, shower diverter and any grab bars will be. Take this opportunity to insulate as much as possible.

The payoff

Most of the chaos of a bathroom remodel happens between the client meeting and getting your subs through rough-in. This is when you risk filling your client's house with dust, come out of the house to find your truck covered with parking tickets or the plumber doesn't show up for two days and ruins the schedule. If you can manage the process up to framing, you can more easily maximize profit and customer satisfaction.

—By Mark Clement. Mark Clement is a remodeling contractor and host of MyFixitUpLife.

Tip: One of the most important trim details in any bathroom remodel is the threshold between the hall and the bathroom. It's easy to overlook the combined thickness of subfloor, cementitious underlayment, thinset and tile. And if there's any existing flooring you've suddenly got 1 inch or more of material to deal with—and one ugly transition. From design to trim layout to detailing the door, keeping the threshold transition into the bathroom as gentle as possible is the best practice and will leave your customers happiest.

Tip: The best drop cloths I've found aren't drop cloths at all. Lengths of Oatey 40 mil PVC shower liner work great to collect dust. My other favorite is cardboard strips and runners taped to the floor. Unlike drop cloths they stay put and aren't slippery or gathered underfoot. And the corrugation protects hardwood floors a little bit.

Captions:

Protect stairs treads and floors – from the exterior door to the bathroom you're worked on – with cardboard taped to the floor.

Protect yourself and the site from airborne dust, especially from lead paint. And instead of pounding on claddings to get them off, insert the jaw of a demolition bar behind and pull. It's much faster and decreases the chances of damage to other rooms.

Find all the plumbing shut-offs between the main and the bathroom. Some may be damaged or corroded so that they don't function, which is why it makes sense to walk the job with your plumber first.

The only place I've found smashing is suitable is in the case of cast iron tubs. Cast iron is hard, but brittle and can be broken with solid strikes from a sledge hammer or wrecking bar with hammer head.

Break up a cast iron tub if it is too heavy or large to move through the house.

A plumber that can work with you on layout is worth paying a premium for.

Add blocking (as for the diverter in this shower supply wall) before drywall goes up. Also, consider adding blocking for towel bar, toilet paper holder, and grab-bar locations.

One of the most important and easy to overlook details in a bathroom is the threshold, or transition, between the hall and the bathroom. Between adding tile, cement backer board, or sub-floor it is easy for this to grow to an inch or more. Take care to keep it as smooth and gentle as possible.

LIFESTYLE, p. 35

The new work trucks

Improved fuel economy, more choice and better utility at competitive pricing.

Responding to spiraling fuel costs, the new full-size pickups are all about fuel economy, better performance and higher towing capacity – all good news for contractors that rely on these work trucks. The latest models are also more luxurious at all levels, and crew cabs are more widely available to allow you to get the truck that best fits your needs.

Today's full-size trucks include Chevy Silverado 1500, 2500 and 3500. Ford's F-series includes the half-ton F150, and the F250 and F350 SuperDuty. Chrysler offers the now Ram-branded 1500, 2500 and 3500. At the lighter end of the weight range – but tough enough to handle the abuse of heavy use – are Toyota's V6 and V8 Tundra and Nissan's Titan V8.

Power to get it done

Work trucks are the natural place for large-displacement V8s because contractors want performance. These engines are stronger than ever, with big-displacement V8s providing close to 400 hp and torque figures that are double that. While hauling and towing capabilities are the most important features for contractor customers, as fuel prices climb, fuel economy is now high on everyone's list. So, the latest engines offer greater combustion efficiency from variable-valve actuation and 8-to-4-to-8 cylinder operation (8-cylinder operation automatically drops to 4 when power demand is low, returning to 8 when needed) for improved fuel economy. For contractors that prefer them, diesel engines are offered by Chevy, Ford and GM.

These improved engines are matched with efficient new 5- and 6-speed automatic transmissions – and even 4-speed automatics – that communicate better with the engines and work better than ever. Manual transmissions have virtually disappeared from full-size pickups.

Other news in the pickup arena is the move to alternative fuels and introduction of hybrid models. Both are growing in popularity as contractors look for ways to present a greener footprint on the job.

Clearly pickup manufacturers recognize the importance of the commercial customer. Features like integrated phone connectivity and computer-friendly storage are tailored to the needs of the contractor. With this come behind-the-scenes fleet management tools. Ford, for instance, offers an integrated system that allows for tracking and dispatching its pickups in real time.

-By Steve Sturgess

Chevrolet Silverado 1500

For 2011, Silverado gets the latest OnStar 9.0 system, revised exterior color offerings and enhancements that help reduce wind noise. Silverado XFE (2WD crew cab) incorporates unique aerodynamic enhancements, a 5.3L/6-speed automatic powertrain and other details to deliver an EPA-rated 22 mpg on the highway.

A trailer brake controller is available on all models, and it's integrated with the ABS system, to provide immediate and measured brake force signaling to electric-controlled trailer brakes. There is no longer a need for external and/or aftermarket brake control systems. The brake controller switch is conveniently mounted on the lower-left section of the instrument panel.

The unique Silverado Hybrid returns for 2011, delivering a 25-percent improvement in overall fuel economy while offering the Silverado's traditional capabilities – including a 6,200-pound towing capacity.

Cabs: Regular, Extended, Crew and Denali.

Models: WT, LS (Crew Cab only), LT and LTZ in 2WD and 4WD.

Powertrain: Regular cab and all Work Trucks standard with 4.3 liter V6 (195-hp and 260 lb-ft torque). Power options are the 4.8 V8 (302-hp and 305 lb-ft torque), 5.3 V8 (315-hp and 336 lb-ft torque gas and 326-hp and 348 lb-ft torque E85). With LTZ package, a 6.2-liter V8 (403-hp and 417 lb-ft torque) option is available on the Crew Cab. All have two- and four-wheel drive with two-speed transfer case.

Capacity: Maximum payload – 1,980 lb.; towing – 10,700 lb.

Chevrolet Silverado 2500 HD and 3500 HD

Redesigned for 2011, the Silverado heavy-duty lineup is broader, with 10 2500HD models and eight single- and dual-rear-wheel 3500HD models – including a new 3500HD Crew Cab with a 6.5-foot cargo box. Three trim levels are offered, as are popular features, such as the EZ Lift tailgate and rearview camera system. All models have greater capability, improved ride and handling, and improved driver control. This is in addition to the HD models' comprehensive set of confidence- and control-related features that include trailer sway control, integrated trailer brake control, hill start assist, automatic grade braking and intelligent brake assist.

Cabs: Regular, Extended, Crew.

Models: WT, LT and LTZ, 2- and 4-wheel drive.

Powertrain: Standard is 6.0-liter V8 (360-hp and 390 lb-ft torque). Optional DuraMaximum diesel V8 6.6-liter is rated at 397-hp and 765 lb-ft torque.

Capacity: Maximum payload – 6,636 lb.; towing – 21,700 lb.

Ford F150

The capability and durability of the Ford F-150 are enhanced for 2011 with class-leading fuel economy and performance. F-Series now comes equipped with an all-new powertrain lineup that includes the 3.5-liter EcoBoost V6, which at only 3.5 liters delivers exceptional performance from a small displacement. This engine combines technical sophistication with two turbos to deliver performance that is as good as a V8 but with far better fuel economy. According to Ford, it's as much as 20 percent better.

Each EcoBoost is mated to a 6-speed automatic. Ford says it is the first manufacturer to equip its entire full-size pickup truck lineup with 6-speed automatics as standard equipment. Also new is the exclusive electric power-assisted steering (EPAS) with the 3.7-liter V6, 5.0-liter V8 and 3.5-liter EcoBoost powertrains. EPAS replaces a conventional hydraulic system.

Other features include AdvanceTrac with roll stability control, Safety Canopy side curtain airbags, dual-stage front seat-mounted side airbags, SecuriLock passive anti-theft system and SOS post-crash alert.

Cabs: Regular, SuperCab, SuperCrew.

Models: XL, STX, XLT, FX2/FX4, Lariat, King Ranch, Platinum, SVT Raptor, Harley-Davidson.

Powertrain: 3.7-liter V6 302-hp and 278 lb-ft torque. Optional engines are the 5.0 V8 (360-hp and 380 lb-ft torque), 6.2 V8 (411-hp and 434 lb-ft torque) and 3.5 EcoBoost V6 (365-hp and 420 lb-ft torque).

Capacity: Maximum payload 2,440 lb.; towing 11,300 lb.

Ford SuperDuty F250, F350

Ford SuperDuty pickups were completely redesigned for 2011 with new exterior styling, new interior trim, enhanced electronics, and new powertrains, including a 6.7-liter PowerStroke V8 diesel and a 6.2-liter gasoline V8, both paired with 6-speed TorqueShift automatic transmissions.

The all-new 6.2-liter V8 gasoline engine has 385 hp and 405 lb-ft of torque – 85 more hp and 40 lb-ft more than the current 5.4-liter V8 gas engine – combined with fuel economy and E85 compatibility

Each new engine is mated to the all-new 6R140 heavy-duty TorqueShift 6-speed automatic transmission, which has been optimized for the increased torque of the new diesel engine and the higher speeds of the new gas engine.

Cabs: Regular, SuperCab, Crew.

Models: XL, XLT, Lariat, King Ranch.

Powertrain: Standard is the 6.2-liter gasoline V8 (385-hp and 405 lb-ft torque). A new 6.7 liter diesel is optional with 400-hp and 800 lb-ft torque.

Capacity: Maximum payload 5,460 lb.; towing 24,000 lb.

Nissan Titan

The 2011 Nissan Titan King Cab and Titan Crew Cab come in four models. The Pro-4X is available in 4x4 only. Each has a long list of standard equipment, including a 5.6-liter Endurance V8 mated to a 5-speed automatic transmission. Nissan's V8 is also available with the FlexFuel option.

A number of equipment packages are available on the Nissan trucks, including the SV Value Truck Package, with cloth captain's seats and center console, floor shift, fold-flat AS seat, rear HVAC vents (Crew Cab only), eight-way power driver's seat, fog lights, leather-wrapped steering wheel, rear sonar proximity sensors and receiver hitch.

Cabs: KingCab, Crew.

Models: S, SV, PRO-4X and SL with a choice of 4x2 and 4x4.

Powertrain: Standard is the 5.6-liter V8 gasoline engine with variable-valve timing (317-hp and 385 lb-ft torque).

Capacity: Maximum payload 2,153 lb.; towing 9,500 lb.

Ram 1500

For 2011, Dodge pickups are rebranded Ram and include the new Ram Tradesman. The Tradesman is a value-priced, Hemi-powered Ram 1500 regular cab truck for the cost-conscious new-vehicle buyer who wants performance and capability. The truck has a V8 standard with a 20-mpg rating for the same price as some entry-level V6 pickups.

The RamBox cargo management system is also available with illuminated, lockable and drainable bins on both bed sides; stowable bed divider and 2-foot bed extender; and cargo rail system with adjustable cleats (Crew Cab only). Uconnect Navigation includes phone and iPod control with touch screen and hard drive

Cabs: Regular, Quad, Crew.

Models: ST, Express, Tradesman, SLT, Outdoorsman, Sport, Laramie, Laramie Longhorn.

Powertrain: Regular and Quad cab standard power is 3.7-liter V6 (215-hp and 235 lb-ft torque). Four-wheel drive and Crew Cab models get 4.7-liter V8s (310-hp and 330 lb-ft torque). Sport, Laramie and Laramie Longhorn have 5.7 Hemi V8s (390-hp and 407 lb-ft torque).

Capacity: Maximum payload 1,860 lb.; towing 7,450 lb.

Ram Heavy Duty 2500 & 3500

Ram 3500 Chassis Cab trucks are powered by the 5.7-liter Hemi V-8 and will add a new 6-speed automatic transmission in 2012 that will increase gross combination weight rating to 20,000 pounds – a 3,000-pound increase – providing improved fuel economy. The new Ram 4500 and 5500 Chassis Cab upgrade includes an optional max-towing package, available with both regular and crew cab models and in 4x2 and 4x4 configurations. The diesel-equipped Ram pickups are specifically designed for towing with features such as the strongest exhaust brake in the industry, and the largest brake rotors and pads in the class.

Cabs: Regular, Crew, Mega.

Models: ST, SLT, Outdoorsman, Power Wagon, Laramie, Laramie Longhorn

Powertrain: Hemi 5.7-liter V8 standard on 2500 (383-hp and 400 lb-ft torque). Cummins Turbo Diesel 6.7-liter (350-hp and 650 lb-ft torque) is standard on 3500 models.

Capacity: Maximum payload 5,130 lb.; towing 19,950 lb.

Toyota Tundra

Tundra has several gasoline engine options for 2011. The 4.0-liter Dual Overhead Cam (DOHC) V6, standard on Tundra Regular and Double Cab models, gets a performance boost for 2011 with the adoption of variable-valve timing with intelligence (VVT-i), also found on the 4.6-liter and 5.7-liter V8 engines.

Cab: Regular, Double Cab, CrewMaximum.

Powertrain: Standard power is the 4.0-liter V6 with variable-valve timing (270-hp and 278 lb-ft torque). Optional 4.6-liter V8 (standard on CrewMax) offers 310-hp and 327 lb-ft torque, and the 5.7-liter delivers 381-hp and 401 lb-ft torque.

Capacity: Maximum payload 1,870 lb.; towing 10,100 lb.

KNOW YOUR: LUMBER GRADES, P. 39

Understanding dimensional framing lumber grade stamps

When ordering framing lumber, make sure you know the species, grade and moisture content required for your project.

The species of lumber available will often vary depending on which region you are in. In California, for example, the predominate species of dimensional lumber used for home building is Douglas Fir-Larch (DF-L). As you move east, lumberyards stock both DF-L and Hem Fir (HF). Once you get into the Southwest, you may use Spruce-Pine-Fir (SPF). All of these are considered softwoods and are graded under the American Softwood Lumber Standard PS 20.

Once it was possible to simply order 2x4 and 2x6 for walls, and 2x12 for headers. The species that was in stock locally was all I ever needed, but today architects are looking more closely at the performance characteristics of the lumber that goes into the homes they design.

Today, tradesmen must carefully read the plans and specifications to identify the various species and grades of materials that are specified. You can't simply assume the lumberyard will send you the correct materials. If you frame a home using the wrong materials, you'll be held responsible for the error. If it's simply a matter of changing out a couple of headers that should have been built with a stronger material, it isn't a big problem. But if you frame a whole house with SPF that was specified to be framed with DF-L, you may have to take it down and build it again. Clearly, you need to understand grade stamps.

The first efforts to standardize lumber sizes and establish uniform quality began in the United States in 1924. In 1953, the Secretary of Commerce appointed the American Lumber Standard Committee (ALSC) to oversee implementation of the American Softwood Lumber Standard.

As wood is produced in a sawmill, a lumber grader, certified by an ALSC approved grading agency, visually inspects samples or quality. The grader checks the size and number of knots and other imperfections in the wood, and assigns a value or "grade" to the material being produced.

Dimensional framing lumber is not graded for appearance. Even #1 grade lumber may have defects that make it visually undesirable for an exposed application. When lumber is used as finish trim it should be ordered in an Appearance grade.

When you order lumber by grade, such as HF #2, you'll get #2 &+ (and better). This means all the lumber bearing this grade stamp should be a minimum of #2 quality. Some pieces may be higher quality. You may find individual pieces of lumber in a unit of #2 &+ graded as #1 or even Select Structural, but the minimum quality will be #2.

It's common to find framing plans for homes that have a general note stating: "All framing materials shall be Hem Fir Standard U.N.O. (unless noted otherwise)", and then have specific labels for certain headers or beams that call for the use of a stronger material, such as DF-L #1. Specifying a species of lumber can become a problem when an architect designs a house plan in California, where DF-L is common, and the home is constructed in Texas, where SPF is the species most yards stock. To avoid these complications some designers specify an Extreme Fiber Stress in Bending Value (Fb) instead of naming a species and grade.

For example, the specifications might read, "All framing materials shall be minimum Fb 850." In this case, use a lumber values chart to determine the appropriate material. Fb 850 is the fiber bending stress value for HF #2 or Douglas Fir-South (DF-S) #2. Lumber with a higher rating, such as DF-L #2, which carries a rating of 900 Fb, could be substituted, but SPF #2 (775 Fb) would not be acceptable.

Wood has a sponge-like cellular structure that absorbs moisture under humid conditions and loses it when the air is dry. When lumber is delivered to a site, it will eventually reach equilibrium with the ambient humidity level. Although it's impossible to control the final moisture content of wood, architects will often specify maximum allowable moisture content for framing lumber.

Dimensional lumber is typically specified to be no more than 19 percent at the time of surfacing. Interior trim products are usually specified at 15 percent. This is the third consideration when ordering framing lumber. Make sure you know the species, the grade and the moisture content required for your project.

Reading grade stamps

Information from plans and specifications will tell you what grade lumber you need, the grade stamp on the actual lumber will tell you what you have. Grade stamps for common dimensional framing lumber contain five pieces of information:



(Printed with permission from the Western Wood Products Association)

(a) *The trademark of the ALSC accredited grading agency.* In this example, the agency is the WWPA (Western Wood Products Association).

(b) *The lumber mill identification number.* Each mill is assigned a specific number. If there is a problem with a product, this number allows the lumber to be traced back to its mill of origin.

(c) *The lumber grade.* In this example, the grade is "Standard." Standard grade is the most common grade of framing lumber produced. Dimensional lumber is broken down into the following classes and grades:

- Structural light framing, intended for applications where high strength is required includes: Select Structural, #1, #2 and #3 grades.
- Light framing, for use in light-frame construction such as wall framing, sills and blocking includes: construction, standard and utility grades.
- Stud, intended for vertical use in load bearing walls is Stud grade.
- structural joists & planks, intended for use as joist, rafters and beams 5-inches and wider includes: select structural, #1, #2 and #3 grades.

(d) *Species of lumber.* In this example the grade is "Douglas Fir."

(e) *Moisture content at the time of surfacing.* "S-DRY" means the lumber was kiln-dried to a maximum moisture content of 19 percent before it was surfaced. Other recognized levels of seasoning (drying) are:

- MC-15 or KD-15: Lumber dried to maximum 15 percent moisture content.
- S-DRY, KD or KD-HT: Lumber dried to maximum 19 percent moisture content.
- S-GRN or HT: Unseasoned lumber with moisture content in excess of 19 percent.

To learn more about lumber species and grades download the *Guide to Understanding WWPA Grade Stamps and Quality Control Identification* at website: www2.wwpa.org (English only). Fiber Bending Stress Values, Span Tables and other useful information is also available from the WWPA.

—By Michael Davis, Framing Square Construction Co., Conifer, Colorado

Use your smart-phone to access FREE bonus information on Pressure Treated Lumber from the Southeastern Lumber Manufacturer's Association's Real Outdoor Living campaign.

Carefully read the plans and specifications to identify the various species and grades of materials that are specified.

TIP: When lumber is cut from a log at the mill, boards are cut to full dimension. A 2x12 is milled to 2 inches thick by 12 inches wide. This is called rough sawn lumber. Rough sawn lumber is then surfaced. In this process, the rough lumber is planned smooth and the edges are eased to produce finished dimensional lumber. A surfaced 2x12 will measure 1-5/8 inches by 11¼ inches.

PRODUCT GUIDE, P. 47

Exceptional flow and leveling

Plus excellent hide and coverage

Glidden Premium Paints are guaranteed to meet professional standards. From low-odor, low-VOC interior paints to tough 100 percent acrylic exterior paints, these high-quality formulas can help you deliver expert results on any project. They're even backed by a full range of services to make your job easier. Learn more at glidden.com/contractor (English only). **Glidden**

Handles aluminum, wood, copper, plastic, steel and stainless steel

For plunge cutting, angled cuts, detailed cuts and straight-line cuts

RIDGID's new R3250 TwinBlade Saw rips through aluminum, wood, copper, plastic, steel and stainless steel without changing blades. Counter-rotating blades reduce kick back and provide maximum control for plunge cutting, angled cuts, detailed cuts and straight-line cuts. Compact enough to get in the most confined areas, the saw has a blade diameter of 5 inches and a cutting depth of 1-1/16 inches. A wax dial feeds wax to blades when cutting copper, aluminum and brass. **RIDGID**

LED Hi-Beam flashlight from Ryobi

Powered by Tek4 4V Lithium-Ion battery.

The new Tek4 4-volt hi-beam flashlight powered by Lithium-Ion battery technology delivers more than 220 lumens of light output and uses a lifetime 5-watt high-intensity LED light bulb. The Hi-Beam is dust proof, water proof and shock proof to survive the toughest conditions. The flashlight is backed by Ryobi's 2-year warranty and comes complete with Tek4 4V battery and standard charger. **Ryobi**

HardScapes Polymeric Jointing Sand

Ideal for high traffic areas in commercial and residential applications.

QUIKRETE's HardScapes high-performance polymeric jointing sand is graded for sweeping into paving stone joints, including interlocking concrete and brick pavers and natural stone to 2 inches wide. Once placed and dampened, the non-staining sand hardens to lock pavers in place, providing a stable surface that is resistant to erosion, weed growth and insects while remaining pliable for freeze-thaw cycles. **QUIKRETE**

Thousands of cutting, grinding, sanding and polishing solutions

New rotary tool uses REDLITHIUM battery.

Adding to its M12 Lithium-Ion system, Milwaukee has introduced the M12 Rotary Tool, a compact, portable cut-off solution powered by Milwaukee's REDLITHIUM battery technology. The Rotary Tool features a powerful motor, grinder-style exhaust ports, and a unique design to protect the front bearing from contaminants like drywall dust. With a variable speed of 5,000-32,000 rpms and a collet that is completely compatible with all 1/32 to 1/8-inch shank accessories, the tool delivers thousands of cutting, grinding, sanding and polishing solutions. **Milwaukee**

Power, balance, and less vibration

For fast cutting in a variety of materials

Makita's versatile new Top Handle Jig Saw (model JV0600K) features a powerful 6.5-amp motor and three orbital settings for faster, more accurate cuts in a variety of materials. Variable speed control dial allows you to match the speed to the application. "Tool-less" blade change system assures faster blade installation and removal. **Makita**

New ET50 R.E.D.

Professional electric staple gun.

Arrow Fastener's new ET50 R.E.D. Electric Staple Gun electric firing technology and depth of drive control enables users to set staples right on virtually any surface. Features include a precision fastener control resists jamming, ergonomic soft rubber grip and an LED guide light. **Arrow Fastener**

World's first 15-ounce all-steel, framing hammer

A powerful, lightweight solution for driving and removing nails.

DeWalt's new 15-ounce framing hammer (DWHT51138) – part of its new line of industrial hand tools – is lighter and more powerful than conventional framing hammers to tackle nearly all professional wood framing applications on the job. MIG Weld Technology allows DeWalt to match the weight of leading titanium hammers while maintaining strength and durability. The hammer also features a magnetic nail holding slot. **DeWalt**

Premium-quality paint tools

Harder working and longer lasting.

Purdy offers premium-quality paintbrushes, roller covers, extension poles, surface-preparation tools and paint accessories for almost every application. Professional painters have looked to Purdy for high quality, handcrafted tools which enable them to paint better and faster. **Purdy**

The next generation in rafter squares

Increases visibility, safety, durability and convenience.

Empire Level's new e2992 Hi-Vis Rafter Square adds visibility, safety, durability and convenience. The new blue rafter square is much easier to read than traditional silver squares, even in dirty jobsite conditions or bright sunlight.

Graduations are highly visible and are deep-stamped to last years without fading. The anodized aluminum square won't rust or corrode, has a thicker edge to provide a safer saw guide, and has a convenient, stamped-in conversion tables. **Empire Level**

Improves efficiency and performance

Use Red Devil ColorCure Pink2White Sealant.

Red Devil's new ColorCure Pink2White is a multi-purpose sealant that goes on pink and dries white when it's ready to be painted. The patent-pending technology has no solvents, plasticizers or toxic chemicals, is low in VOCs and odor, and cleans up easily with water. Typical drying time is one to two hours, depending on climate conditions, and it's perfect for indoor or outdoor use. ColorCure sealant can be used on painted and unpainted wood, glass, aluminum, masonry, tile, brick, metal and concrete, and meets ASTM C 834-05. **Red Devil**

The drain that never clogs

Commonsense tool replaces the P-trap in sinks, preventing clog build-up.

PF WaterWorks new PermaFLOW Never Clog Drain is engineered to prevent clogs and help retrieve lost jewelry. It eliminates the need for plunging, drain cleaners, drain disassembly and snaking. This commonsense tool replaces the P-trap in kitchen and bath sinks, preventing clog build-up. Transparent for quick diagnosis of problems, the drain has a dial that can be turned to rotate an internal wiper, removing any build-up. Turning the dial to the three o'clock wiper position provides an emergency bypass option for water flow through the upper chamber. Accidentally dropped items can be easily seen and removed. **PF WaterWorks**

Storage where you need it

Unique new over-the-counter hooks.

Liberty Hardware is introducing three unique new over-the-counter hooks that are easy to install and relocate as needed. The attractive and versatile hooks are ideal for use anywhere additional storage is needed, including kitchens and bathrooms. **Liberty Hardware**

Protects exposed roof decks

Unique finished look to exposed roof surfaces.

Grip-Rite ShingleLayment is a woven polypropylene roofing underlayment with an exclusive, patent-pending shingle print pattern that provides temporary protection to exposed roof decks and long lasting water shedding protection beneath the finished roofing shingles. Grip-Rite is the only synthetic underlayment to be AC-188 code-compliant that has the appearance of a finished roof. Available in white or tan, shingle print pattern provides a unique finished look to exposed roof surfaces. For more information, contact (800) 676-7777 or email grip-rite.com (English only).

PrimeSource Building Products

The most compact 18V impact driver in its class

With all the power you need.

RIDGID's R86034K X4 Compact Lithium-Ion Impact Driver Kit is 15 percent lighter than its predecessor with 100 percent of the power. The impact driver delivers 1,400 inch-pounds of torque for the most demanding applications. A quick load bit holder makes bit changes quick and easy. Grip Light engages LED light by simply holding the tool to get more light on the task. The driver is powered by Hyper Lithium, an innovative battery technology built for high performance. **RIDGID**

Revolutionary Carbide utility blades

Last five times longer than the competition

Stanley's new Carbide utility blades (11-800, 11-800T and 11-800L) deliver increased blade life, maintain first-cut sharpness and offer snap resistance – three factors today's professionals demand. The blades provide the durability to keep cutting through a variety of products, including roofing, drywall and ceiling tile. **Stanley**

Kingsford Charcoal

With Hickory.

Kingsford Charcoal with 100 percent natural Hickory is the perfect complement to your pork, poultry, beef or game. Ready to cook on in about 15 minutes, Kingsford Charcoal is easy to light and long burning. **Kingsford**