

## PROBLEMS ENCOUNTERED WHILE BUILDING AROUND TREES:

One of the main difficulties encountered during the construction of a home amidst the Ponderosa of Timberridge is the different point of view held by the Lot Owner compared to the construction people with respect to the Ponderosa. Practically without exception, everyone who has purchased a lot in Timberridge does so because of the Ponderosa. The main reason the Lot Owner wants to build in Timberridge, rather than elsewhere in Prescott, is because he enjoys the trees and the forest setting and wants to live among the Ponderosa. On the other hand, to many Contractors and their workmen, the Ponderosa are a nuisance. It's significantly easier to build a house on a bare lot, with no trees or rocks to get in the way. The Contractor would prefer to just take out all the Ponderosa first so they won't hinder construction. Working around trees and rocks takes more time and more effort, thereby raising the cost of construction. The Contractor wants to keep his costs low so he can maximize his profit, and the extra effort caused by having to work around and be careful with the remaining Ponderosa costs him money. Therefore, neither the Contractor, nor his workmen, may be very interested in the well-being of your Ponderosa.

During the approval procedure for new construction in Timberridge, the Architectural Committee confers with me about the impact of the proposed construction on the Ponderosa. I examine the site and make recommendations on the location of the house and the routing of the utility trenches to minimize the damage to the roots of those Ponderosa that will remain after construction. Once the approval has been given on the home design and plans, it is up to the Contractor to see that the workmen follow the plans that were approved. However, since many contractors only grudgingly put up with the "pesky" Ponderosa, and then only because the Lot Owner wants to keep them, they may not be very diligent in insisting that the workmen follow Amendment 4 of the Architectural Guidelines: "Construction Procedures Around Existing Trees" (see Appendix 1), even though they signed an agreement to abide by those rules. Even if the contractor willingly agrees with the need to be careful around the Ponderosa, that information is useless unless it is passed on to his subcontractors and workmen who will be doing the actual construction. Many of the contractors in this area are what I refer to as "absentee contractors", that is, they show up occasionally at the site to check up on things, but rarely are there when the subs and workmen are actually doing the work. Perhaps the Contractor instructed the workmen about the need for care around the Ponderosa, and perhaps he did not.

The biggest construction threat to the Ponderosa is the backhoe, which is used to dig the trenches for the foundation footing and the utilities. While digging the trenches, the backhoe cuts through and damages the roots of the nearby Ponderosa, but it is also a very heavy piece of machinery and, because of that heavy weight, it compacts the soil on which it operates, thereby damaging the tender feeder roots of the remaining Ponderosa. Your Ponderosa are at the mercy of the backhoe operator, who may be a very conscientious worker, but if he has not been properly briefed and instructed by the Contractor, he may unwittingly destroy your valuable Ponderosa. It happens VERY frequently!

## RECOMMENDATIONS FOR THE NEW LOT OWNER TO FOLLOW DURING CONSTRUCTION:

1. Make sure that the existing Ponderosa are spotted accurately on the Site Plan, so that proper routing can be planned for the footing and utility trenches.
2. Insist that the utility trenches be routed AROUND the driplines of the Ponderosa, not THROUGH the driplines.
3. Obtain assurance from the Contractor and the backhoe operator that they will adhere to the plans for the locations of the footing and utility trenches.
4. If at all possible, be present at the site when the trees are to be cleared to make room for construction, and while the footing and utility trenches are being dug. Your contractor is responsible for the trenching for all the utilities EXCEPT the natural gas. Since the gas company (Citizens Arizona Gas) insists that the gas meter is to be located at the house, they "own" the gas pipe and the trench and have the trenching for the gas line done by another subcontractor. Their subcontractor never sees your plans and puts the trench where he wants to. However, the gas line generally goes in the same trench as the water line, so, if the gas company's trenching subcontractor likes where the water trench is placed, he will often lay his pipe in the same trench.
5. Insist that the backhoe operator keep the backhoe AWAY from the dripline of any Ponderosa that are to remain on the property. The safest thing to do is to restrict the operation of the backhoe to only within the floor plan of the house and garage and have the backhoe enter the property only on that area where the future driveway will be.
6. When the concrete is being poured for the footing, make sure that the footing trench is lined with plastic in those sections of the trench that go through the dripline of a Ponderosa. One method of determining just where to put the plastic is, "Anywhere you can see the ends of tree roots (even very tiny roots) sticking out from the side of the trench, that is where the plastic should go."
7. If the driveway, patios or sidewalks are to be placed within the dripline of a Ponderosa, that area within the dripline should be covered with the heavy plastic before the concrete is poured, for the purpose of protecting the tender feeder roots from the caustic moisture of the concrete. Sometimes concrete contractors complain that the concrete cannot cure properly with that plastic underneath it, but I have been assured that there are ways to circumvent this problem. This technique is being used in a number of other states throughout the USA with success.
8. When the operator of the concrete truck washes down his equipment, make sure that the residue does NOT drain into the dripline of a Ponderosa. A good place to drain the concrete residue is where either the crawl space or the slab floor will be in

your house and garage.

9. After the walls of your home have been framed, the roof trusses will be positioned on the top plate of the walls by means of a crane. This crane is a BIG piece of equipment and is very heavy; so make sure that the operator does not park the crane within the dripline of one of your Ponderosa while he lifts the trusses into place. The crane operator will lift the trusses either over or through the tops of your Ponderosa, so he might slam the trusses into the branches of your Ponderosa, if he is not careful. It might help if you were to express your concern about the possibility of his hitting your Ponderosa with the trusses.
10. Make sure that the painters DO NOT pour the residue from cleaning their brushes and spray equipment within the dripline of a Ponderosa. A good place for them to pour this liquid is where the driveway will eventually be.
11. Refrain from allowing fill dirt to be added within the dripline of a Ponderosa. This has a tendency of preventing oxygen from filtering through to the feeder roots, thereby suffocating the tree. If it is necessary to raise the ground level within the dripline of a Ponderosa, use a porous material, such as gravel, rocks or decomposed granite.
12. Ascertain if your contractor is an "absentee contractor" and if he will be at the site to properly supervise the subcontractors. If he says that he has had a long standing relationship with his subs and "they can be trusted to do the right thing", then YOU had better arrange to be at the site yourself, especially during the clearing of the lot, during the excavation for the footings and utility trenches, when the concrete workers and painters will be cleaning their equipment and when any heavy equipment, such as backhoes, bulldozers, transit mixers, cranes, etc. will possibly be operating within the dripline of your Ponderosa.

## A SPECIAL NOTE FOR NEW TIMBERRIDGE OWNERS PURCHASING SPEC HOMES:

Here we have a situation where the Lot Owner and the Contractor are the same person or business, so most of the admonitions described above which take place during construction do not apply. The goal of the Owner/Contractor is to get the house built as quickly and cheaply as possible, then get it sold immediately to pay off his construction loan so he can go on to another spec home. There is little incentive to take care of the Ponderosa, because being careful around Ponderosa during construction costs money and he knows that the house will probably sell before any damage to the Ponderosa roots is apparent.

When the completed home is placed on the market, the damage to the remaining Ponderosa near the house, patios, sidewalks and driveway has already taken place, the trenching has been done and covered up so there is no effective way that the new owner can tell just how much damage was done to, or how much care (if any) was taken with, his Ponderosa during construction. Ponderosa that have suffered root damage during construction usually do not react to the maltreatment for a while, maybe even a number of years. By then the home is sold and the new owner is perhaps left with a dying tree (or trees), probably thinking that he is somehow responsible for the tree's demise. There is, however, a very good chance that the damaged Ponderosa, in it's stressed, weakened state, will attract and be infested by the Ips beetle, in which case it will die within weeks.

So, what's the new Owner of a spec home do? About the only thing that the new Owner can do at this point is to assume the worst, that every Ponderosa near the house, sidewalk, patio or driveway has received root damage, is stressed and needs immediate attention. That attention would be to give all the Ponderosa plenty of water, using soaker hoses placed around the tree's dripline, at least once or twice a month for the first year. The new Owner should also apply a balanced fertilizer (a fertilizer which has the three main ingredients of nitrogen, potassium and phosphorous) around the dripline twice a year. This will encourage the tree to grow more feeder roots to replace those removed or damaged and will give it plenty of moisture for the new roots to grow in. And just how soon should the new Owner start watering his Ponderosa? After the new Owner has signed the final escrow papers, he should buy the soaker hoses and be watering the Ponderosa before the end of the day! Perhaps this is an exaggeration, but the sooner the remedy to the root damage is applied, the better chance the stressed Ponderosa will have of surviving the construction damage.

## SOME FINAL THOUGHTS:

We are fortunate to have an Architectural Committee whose members recognize the importance of the Ponderosa to Timberridge residents. The Committee members try very hard to convince the new owners and their contractors of the need to be careful while operating heavy equipment around the Ponderosa. During the construction approval

process, the contractor agrees to the referenced rules about construction around Ponderosa (Appendix 1). Although the contractor may be very conscientious about these procedures, the information, however, is not often passed on to the operator of the backhoe that does all the damage.

Unfortunately, the Architectural Committee, and your Tree Committee, often has difficulties enforcing the rules and guidelines that the contractors have agreed to follow. Most of the time we can only advise, suggest, plead, and politely attempt to coerce the contractors, and their workmen, into abiding by the rules. Like your Board of Directors, we are all unpaid volunteers who take on these duties out of a spirit of community, with the goal of maintaining Timberridge as a desirable place to live.

Once an individual has purchased a lot in Timberridge, that individual has accepted the responsibility of HIS (or HER) Ponderosa. Generally, the Ponderosa can take care of themselves, however, the construction crew that comes in to build a house drastically alters their environment. Then the Ponderosa need some extra help and care until they can adapt to their "new" environment. Neither the Tree Committee nor the Architectural Committee can force the contractor and his workmen to do the right thing. There is only one individual who has the authority to insist that the rules be followed, the construction plans adhered to and the workmen operate their equipment safely around the Ponderosa. That person is YOU, the Owner. YOU are paying the bill, and the contractor, and all his crew and subcontractors, work for YOU. Sometimes certain contractors can be rather intimidating, but remember, it is YOUR property, YOUR future home, YOUR Ponderosa and it is YOUR MONEY! Good luck!! Call me at 445-6729 if you need any help or have any questions about working around, or taking care of, YOUR Ponderosa.

Gene Wilkison, Chairman  
Timberridge Tree Committee

## APPENDIX 1:

### TIMBERRIDGE ARCHITECTURAL GUIDELINES

#### AMENDMENT 4: CONSTRUCTION PROCEDURES AROUND EXISTING TREES

The purpose of these procedures is to maintain healthy trees in Timberridge and to help the Ponderosa fight off the Ips bark beetle. The trees in Timberridge are classified by foresters as "high value" trees, because they are on private property next to homes that, in general, have been designed around the trees to enhance the appearance, and value, of the homes. Any type of construction around and near trees usually alters the water flow patterns around the tree, compacts the soil within the dripline, damages the root system with trenching and suffocates the tree with roads, sidewalks and patios over the roots. This alteration of the tree's environment puts the tree under stress, which makes it very susceptible to the ravages of the Ips bark beetle, the red turpentine beetle and the round head and flat head borers.

The following procedure is to be employed during home construction within the dripline of a tree:

1. Avoid pouring concrete within the dripline of a tree. Try to stay OUT of the dripline!

(Concrete is very alkaline, which can burn the tender feeder roots of Ponderosa and can alter the pH of the soil.)

2. Utilize pillars rather than foundations to support decks and patios.

3. Avoid operating heavy vehicles, i.e. large trucks, backhoes, bulldozers, cranes, etc., within the dripline of a tree.

(Since the feeder root system of a tree is usually within 6 to 18 inches of the surface, heavy equipment will compact the soil over the tender feeder roots that are just a few thousandths of an inch in diameter. This compaction damages those delicate roots thereby curtailing their ability to absorb oxygen and moisture.)

4. Route utility trenches around the dripline of a tree. If this cannot be done, then a tunnel (at least 24" deep) under the roots within the dripline should be used, if possible, instead of a trench through the roots.

5. If roots are to be severed, utilize a saw to produce a clean cut.

(A jagged root-end is an open invitation to infection by bacteria and fungus. A cleanly-sawed root-end helps the tree to "seal" off the severed end from subsequent rotting and disease.)

6. In those areas within the dripline of the tree where the concrete for the footings, garage floor, driveway, sidewalk or patio is to be poured, line the trenches and areas under the concrete with heavy plastic sheeting to prevent the absorption of the highly-alkaline liquid from the concrete into the surrounding root system.

(Ponderosa prefer a slightly acidic soil condition with a pH between 6.1 and 7.8. When concrete is poured for footings, the root area is saturated with wet, highly alkaline cement, completely disrupting the pH of the soil. The plastic sheeting in the trenches and under the driveway will help insulate the nearby tree roots from the concentrated alkaline content of the wet concrete.)

7. In subsequent landscaping or earth fill, try to maintain the existing ground level around the dripline of the tree and refrain from "burying" the tree trunk. If some fill is absolutely necessary, use decomposed granite, gravel, rock or other porous material instead of soil.

("Burying" a tree by applying additional soil around its base and drip line will tend to suffocate the tree. The trees depend heavily on moisture from morning dew on the soil. Since this slight moisture does not percolate deeply into the soil, it is only available to the feeder roots within a few inches of the surface. This morning dew also carries much-needed oxygen down to the feeder roots. Additional soil placed around the tree will deprive the tree of both the morning dew and the oxygen.)

8. Under no circumstances are painters to pour solvent or water, which has been used to clean brushes, rollers or spray equipment, on the ground within the drip line of a tree. Also, the concrete workers and transit mix operators should NOT allow the concrete residue from cleaning their equipment to flow into the dripline of a tree.

(Paint solvents and water that has been used to clean paint equipment contain substances that are toxic to trees. Concrete residue is alkaline and can damage tender feeder roots.)

9. Supplemental slow, deep watering of stressed and damaged trees is recommended utilizing a soaker hose placed around the dripline. This is especially critical during hot, dry weather in spring and early summer before the monsoons start.

(The native shrubs and trees, including the Ponderosa, really do not need supplemental feeding or watering. The fact that they are here, and have been for many years, indicates that the environment is suitable for them. However, when roads are built by them, sidewalks next to them and houses adjacent to them, their environment has been drastically altered. So, until they become accustomed to their "new" environment, they need the supplemental feeding and watering to restore them to good health and to help them fight off the Ips bark beetle. Any time the roots of a tree are

severed, then that tree needs immediate supplemental watering to help make up for the moisture that the severed roots would normally supply.)

10. Fertilization with a balanced (complete) fertilizer (i.e. nitrogen, phosphorus and potassium) is also recommended.

(The balanced fertilizer will stimulate further root growth to help make up for the roots that were removed, covered and/or damaged.)