

# DOCKET ITEM #6 Text Amendment #2011-0002 Temporary Family Healthcare Structures

<b>Issue:</b> Consideration of the initiation of a	Planning Commission	February 1, 2011
text amendment and an amendment to		
allow temporary family healthcare structures, consistent with Virginia law.	City Council Hearing:	February 12, 2011
Staff: Barbara Ross, Planning and Zoning		

This text amendment will allow an accessory residential structure in a single family zone if it is used for the temporary housing and care of an ill family member, consistent with Virginia law.

## I. Background

In 2010 the General Assembly passed legislation, which allows for temporary living quarters for family members being cared for on the same single family lot as the resident caregiver. (Virginia Code Section 15.2-2292.1, attached.) The statute addresses the need for home care for family members and allows a temporary structure to facilitate the logistics. The issue has also been discussed in the media. See attached articles.

Under the Zoning Ordinance, only one residential dwelling is currently permitted on a single family lot. Although accessory structures are also permitted, they are limited to garages, sheds and similar outbuildings, and may not include additional dwelling units. Therefore, the zoning ordinance needs to be changed to reflect the requirement that the City allow temporary health structures on single family properties.

## II. Proposed Text Changes

The proposed change to the Zoning Ordinance adds new provisions to section 7-100 regarding accessory structures, including listing temporary family healthcare structures as a permitted accessory structure at section 7-101, and adding the definitions and limitations from the statute regarding such structures at section 7-104. Those limitations require that:

- only one of these structures is allowed on any lot;
- the caregiver must be an adult related by blood, marriage or adoption to or the legally appointed guardian of the person being cared for;
- the person being cared for must be mentally or physically impaired, as defined by Virginia law, and as certified by a licensed Virginia physician;
- the person being cared for must be a resident of Virginia;
- only one person may be cared for within the structure;
- no signage is permitted;
- the structure is limited to a maximum 300 gross square feet;
- the structure must meet the building code, Health Department requirements, and may be required to connect to water, sewer and electric utilities serving the main house; and
- the structure must be removed within 30 days of the time the need for the structure ceases.

## III. Analysis

The General Assembly has required that the City address the need for living quarters for ill family members on the same site as a family caregiver, and has provided a means to accomplish that goal. The City is required to include permission for the temporary family healthcare structures in its zoning and this text amendment accomplishes that requirement.

The legislation makes clear that temporary family healthcare structures are permitted only in single family residential zones. In Alexandria there are only five zones where such structures may be located: R-20, R-12, R-8, R-5, and R-2-5 (limited to single family development). In addition, the statute is clear that the City may not require a special use permit or other review for temporary family healthcare structures, but may apply its rules for yards and floor area ratio applicable to the main house, as well as its other rules for accessory structures.

Many single family lots in Alexandria are constrained, and there is typically little additional land on which to locate accessory structures of any kind. Staff therefore does not anticipate many requests for temporary healthcare structures. As to those single family lots that are larger, with sufficient space for such structures, this text amendment will guide staff and residents.

#### IV. Staff Recommendation

Staff recommends that the PC initiate and recommend approval of the text amendment.

Staff: Barbara Ross, Deputy Director

Attachments: 1. Proposed Zoning Text Changes

2. Virginia Code Section 15.2-2292.1

3. Media material.

#### PROPOSED TEXT CHANGES

## Sec. 7-100 Accessory uses and structures.

Accessory uses and structures are permitted, but only in connection with and incidental to a permitted principal use or structure and in compliance with the restrictions of this section 7-100.

- **7-101 Permitted accessory uses.** Permitted accessory uses and structures shall be limited to the following and any additional use or structure which the director finds is similar to those listed in scope, size and impact, is customarily associated with residential dwellings, and is otherwise in compliance with this ordinance:
  - (A) Private garage;
  - (B) Private greenhouse;
  - (C) Private tennis or outdoor recreational court;
  - (D) Above ground deck;
  - (E) Private swimming pool;
  - (F) Storage structure;
  - (G) Freestanding air conditioning machinery;
  - (H) Fence or wall;
  - (I) Guest house, accessory to a single-family dwelling, provided it is used by temporary guests or occupants of the main residence, contains no kitchen facilities and is not rented or otherwise used as a separate dwelling;
  - (J) Gazebo or treehouse;
  - (K) Home occupation, subject to Section 7-300;
  - (L) Child or elder care home, subject to Section 7-500.
  - (M) Temporary family healthcare structures, subject to Section 7-104.
- **7-102 Prohibited accessory uses.** Prohibited uses accessory to residential dwellings include, but are not limited to:

Outdoor storage; provided that a reasonable amount of cut fire wood for personal use and building materials on a temporary basis for use on site may be stored on a residential lot.

- **7-103 Use limitations.** The following limitations apply to accessory uses and structures:
  - (A) No accessory use or structure shall be located forward of the front building line, except as provided in section 7-202(A).
  - (B) No accessory use or structure shall be located in a required rear or side yard, except as provided in section 7-202.
  - (C) Accessory structures shall be included in the calculations required by this ordinance for the purpose of complying with height and bulk regulations.

(D) An accessory use or structure shall be located on the same lot as the principal structure or use served, except where it is located on an adjoining lot which contains no principal building and which is adjacent to and in common ownership with the lot on which the principal building which it does serve is located or as otherwise expressly authorized by the provisions of this ordinance.

## 7-104 Temporary family healthcare structures. The following limitations and definitions apply:

- (A) Temporary family healthcare structures shall be:
  - (1) permitted only in a single family zone;
  - (2) subject to the prohibitions under section 7-103(B) through (D);
  - (3) <u>limited to use by a caregiver in providing care for a mentally or physically impaired person;</u>
  - (4) <u>located only on property owned or occupied by the caregiver as</u> his residence;
  - (5) removed within 30 days in which the mentally or physically impaired person is no longer receiving or is no longer in need of the assistance provided for in this section;
  - (6) required to connect to the water, sewer, and electric utilities that are serving the primary residence on the property;
  - (7) <u>in compliance with all applicable requirements of the Virginia</u>
    <u>Department of Health;</u> and
  - (8) without signage advertising or otherwise promoting the existence of the structure either on the exterior of the temporary family health care structure or elsewhere on the property.
- (B) "Caregiver" as used in this section means an adult who provides care for a mentally or physically impaired person within the Commonwealth. A caregiver shall be either related by blood, marriage or adoption to or the legally appointed guardian of the mentally or physically impaired person for whom he is caring.
- (C) "Mentally or physically impaired person" means a person who is a resident of Virginia and who requires assistance with two or more activities of daily living, as defined in §63.2-2200, as certified in writing provided by a physician licensed by the Commonwealth.
- (D) "Temporary family healthcare structure" means a transportable residential structure, providing an environment facilitating a caregiver's provision of care for a mentally or physically impaired person, that (i) is primarily assembled at a location other than its site of installation, (ii) is limited to one occupant who shall be the mentally or physically impaired person, (iii) has no more than 300 gross square feet, and (iv) complies

with applicable provisions of the Industrialized Building Safety Law (§ 36-70 et seq.) and the Uniform Statewide Building Code (§ 36-97 et seq.). Placing the temporary family health care structure on a permanent foundation shall not be required or permitted.

- (E) No temporary family health care structure may be installed unless a permit authorizing the structure is approved by the Director. An application providing proof of compliance with this section shall be filed on such forms as the Director directs and the application fee shall be \$100 The applicant will be required to provide evidence of compliance with this section on an annual basis as long as the temporary family health care structure remains on the property.
- (H) The Director may revoke the permit allowing installation of a temporary family health care structure upon a finding that the permit holder is in violation of any provision of this section, and may injunctive relief or other appropriate actions or proceedings in the circuit court to ensure compliance.

## Virginia Code Section 15.2-2292.1

§ 15.2-2292.1. Zoning provisions for temporary family health care structures.

A. Zoning ordinances for all purposes shall consider temporary family health care structures (i) for use by a caregiver in providing care for a mentally or physically impaired person and (ii) on property owned or occupied by the caregiver as his residence as a permitted accessory use in any single-family residential zoning district on lots zoned for single-family detached dwellings. Such structures shall not require a special use permit or be subjected to any other local requirements beyond those imposed upon other authorized accessory structures, except as otherwise provided in this section. Such structures shall comply with all setback requirements that apply to the primary structure and with any maximum floor area ratio limitations that may apply to the primary structure. Only one family health care structure shall be allowed on a lot or parcel of land.

## B. For purposes of this section:

"Caregiver" means an adult who provides care for a mentally or physically impaired person within the Commonwealth. A caregiver shall be either related by blood, marriage, or adoption to or the legally appointed guardian of the mentally or physically impaired person for whom he is caring.

"Mentally or physically impaired person" means a person who is a resident of Virginia and who requires assistance with two or more activities of daily living, as defined in § 63.2-2200, as certified in a writing provided by a physician licensed by the Commonwealth.

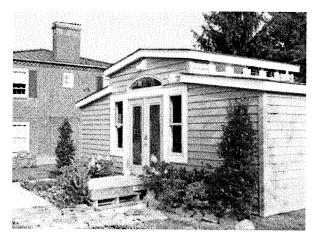
"Temporary family health care structure" means a transportable residential structure, providing an environment facilitating a caregiver's provision of care for a mentally or physically impaired person, that (i) is primarily assembled at a location other than its site of installation, (ii) is limited to one occupant who shall be the mentally or physically impaired person, (iii) has no more than 300 gross square feet, and (iv) complies with applicable provisions of the Industrialized Building Safety Law (§ 36-70 et seq.) and the Uniform Statewide Building Code (§ 36-97 et seq.). Placing the temporary family health care structure on a permanent foundation shall not be required or permitted.

C. Any person proposing to install a temporary family health care structure shall first obtain a permit from the local governing body, for which the locality may charge a fee of up to \$100. The locality may not withhold such permit if the applicant provides sufficient proof of compliance with this section. The locality may require that the applicant provide evidence of compliance with this section on an annual basis as long as the temporary family health care structure remains on the property. Such evidence may involve the inspection by the locality of the temporary family health care structure at reasonable times convenient to the caregiver, not limited to any annual compliance confirmation.

- D. Any temporary family health care structure installed pursuant to this section may be required to connect to any water, sewer, and electric utilities that are serving the primary residence on the property and shall comply with all applicable requirements of the Virginia Department of Health.
- E. No signage advertising or otherwise promoting the existence of the structure shall be permitted either on the exterior of the temporary family health care structure or elsewhere on the property.
- F. Any temporary family health care structure installed pursuant to this section shall be removed within 30 days in which the mentally or physically impaired person is no longer receiving or is no longer in need of the assistance provided for in this section.
- G. The local governing body, or the zoning administrator on its behalf, may revoke the permit granted pursuant to subsection C if the permit holder violates any provision of this section. Additionally, the local governing body may seek injunctive relief or other appropriate actions or proceedings in the circuit court of that locality to ensure compliance with this section. The zoning administrator is vested with all necessary authority on behalf of the governing body of the locality to ensure compliance with this section.

## 'Granny Pods' Keep Elderly Close, At Safe Distance

by NPR STAFF



Enlarge

Courtesy N2Care

The MEDCottage is a free-standing spare room in your backyard.

August 21, 2010

text size A A A

Of all the elderly people he's visited, the Rev. Kenneth Dupin remembers a woman named Katie in particular.

Katie had a houseful of treasured memorabilia, and she loved to regale him with stories of Washington high society in the 1950s. But after she was moved to a nursing home, "she started crying," Dupin says. "I went over to her, and she pulled me down to where I could hear her, and she said, 'Please take me home."

She never did go back home, but after she died, her memory stayed with Dupin. He tells NPR's

Audie Cornish that it got him wondering if there was a way to keep people like Katie out of nursing homes and closer to their families. His idea might seem strange, but "granny pods" are catching on.

The granny pod's real name is the MEDCottage, and it's basically a mini mobile home that rents for about \$2,000 a month. You park one in the backyard, hook it up to your water and electricity, and it becomes a free-standing spare room for Grandma and Grandpa.

The concept is catching on all over the country, but nowhere more so than Virginia, where the state government has eased zoning restrictions on these high-tech hideaways, which go on the market early next year.

The MEDCottage is homey on the outside, with taupe vinyl siding and white trim around French doors. Inside, it looks like a nice hotel suite, complete with kitchen and bathroom — and security cameras.



Enlarge

Courtesy N2Care

On the inside, the MEDCottage is equipped with advanced

"This is something that we call 'Feet Sweep,"

Dupin says as he shows off a floor-mounted camera. It monitors only about 12 inches off the floor, or high enough to see a person's feet — but if that person fell, you'd see them lying on the floor.

Dupin says falls are one of the main reasons people end up in nursing homes, so the MEDCottage's technology could help them stay independent longer. The cottage also has safety lighting along the floors, a lift that can carry an immobile resident to the bathroom, and monitoring

health monitoring equipment and a lift that can carry an immobile resident to the bathroom.

systems that let you check on Grandma's temperature, heart rate and whether she's taken her medicine.

It might seem a little odd, parking your loved one in a shed in the backyard, but Dupin says the MEDCottage is designed with Americans' independent nature in mind. "That space there provides a level of independence that is very important to Americans," he says.

"Really — this is one of those studies that we really can never publicly say — but we don't want them in our house," Dupin says. "Nor do they want to be in our house."

Still, having the family nearby and maybe having grandchildren running in and out of the cottage could potentially improve an elderly person's quality of life.

While Dupin says his parents probably won't end up in a granny pod, it's definitely something he sees in his own future. "As I'm thinking about my life, I'll probably be in one of the backyards of one of my kids," he says.

#### **Related NPR Stories**

On Aging Dec. 18, 2009

## Va. launching portable housing for aging relatives

By Fredrick Kunkle
Washington Post Staff Writer
Thursday, May 6, 2010

SALEM, VA. The Rev. Kenneth Dupin, who leads a small Methodist church here, has a vision: As America grows older, its aging adults could avoid a jarring move to the nursing home by living in small, specially equipped, temporary shelters close to relatives.

So he invented the <u>MEDcottage</u>, a portable high-tech dwelling that could be trucked to a family's back yard and used to shelter a loved one in need of special care.

Skeptics, however, have a different name for Dupin's product: the granny pod.

Protective of zoning laws, some local officials warn that Dupin's dwellings -- which have been authorized by Virginia's state government -- will spring up in subdivisions all over the state, creating not-in-my-back-yard tensions with neighbors and perhaps being misused.

Look at how people despise PODS, those ubiquitous big white storage boxes, critics say. Imagine, they add, if you had people living inside.

"Is it a good idea to throw people into a storage container and put them in your back yard?" said Fairfax County Supervisor Jeff C. McKay (D-Lee). "This is the granny pod. What's next? The college dropout pod?"

Such temporary shelters might work in rural and sparsely developed parts of the state, McKay said, but the impact could be enormous in crowded urban and suburban areas.

"This basically sets up an opportunity to do something legally which, prior to this, had been illegal -- which is to set up a second residence on a single-family property. It turns our zoning ordinance upside down," McKay said.

The idea, Dupin said, came to him after years of leading humanitarian missions to developing countries, and it was encouraged by a growing sense of his own mortality. But he also said it just might make a lot of money, especially since the nation's elderly population is set to double in just 10 years as more and more baby boomers hit retirement age. Surveys by AARP and others also show that large majorities prefer to live in their own homes or with loved ones rather than in retirement communities.

## The Katie factor

Past a mobile home park and some car dealerships sits a small brick church. From its portico is a view of the mountains and the roof of a warehouse.

About half of its 235 members were at services one recent Sunday, many in blue jeans, shirt sleeves or even shorts, like the fellow passing the offering plate. Yet their worship service is known for its high production values. Pastor Ken is its star.

Lyrics scroll over two giant screens as a choir rocks to a karaoke-style backing track, and a funny video reminds people of upcoming elections for church officers.

Then Dupin, 55, steps onstage, wearing a baggy black suit, a gold tie and the barest thread of a microphone attached to a headset. His homily is full of self-deprecating humor and awkwardly revelatory stories about his wife, Joy, and their 37 years of marriage. There are many other stories besides.

"He's the first pastor who has been open about his personal life," said longtime parishioner Ron Vanderpool, 61. "That's probably what they appreciate the most."

On that recent Sunday, Dupin chose the story of the fishes and the loaves to illustrate his message about transforming impossible tasks into miraculous realities. Weaving in an anecdote about how his father struck out for Bible college with \$11 in his pocket and a battered Sears valise, Dupin lugged the thing onstage as a prop.

"In that suitcase was every dream, every hope he ever had," Dupin said. "My daddy taught me that God asked me to do everything I could do, and then I asked God to do what I couldn't."

It was just such a story that got Dupin thinking about the MEDcottage. As senior minister at what was then Aldersgate Wesleyan Church in Falls Church, Dupin visited a shut-in named Katie. Her husband had served in the Eisenhower administration, and she liked to show off photographs of them dancing at a White House ball.

On one visit, Dupin found Katie in tears. Her adult children had arranged for her to go into a nursing home. Workmen were busy fixing up her home for sale. When he later visited her at the nursing home, she was miserable.

"When I got there, she was absolutely devastated, and she asked me if I could take her home. That stuck in my head -- the patheticness of it," Dupin said. And it stayed with him as he toured the world studying international business development or conducting humanitarian trips to Haiti and Guatemala.

So Dupin, who studied for the ministry at Southern Wesleyan University, hit on the idea of the remote-care pod.

The MEDcottage would be equipped with the latest technology to monitor vital signs, filter the air for contaminants and communicate with the outside world via high-tech video. Sensors could alert caregivers to an occupant's fall, and a computer could remind the occupant to take medications. Technology could also provide entertainment, offering a selection of music, reading material and movies.

The dwelling would take up about as much room as a large shed and, like an RV, could connect to a single-family house's electrical and water supplies. It could be leased for about \$2,000 a month, a cost Dupin hopes will be borne by health insurers.

To build it, Dupin has assembled an unusual team: an eighth-grade Spanish teacher, two college professors, a health-care administrator, a medical school instructor, an architect, a physician and the president of a company that makes modular housing.

The new company, N2Care, has won \$100,000 in public grants, although the Blacksburg-based venture is still searching for private investors and has no full-time employees. In any case, N2Care appears to be on its way.

#### Idea gets boost

Without even building a prototype or hiring lobbyists, Dupin and his team managed to persuade the Virginia General Assembly to pass legislation almost unanimously this year that supersedes local zoning laws in the state and allows families to install such a dwelling on their property with a doctor's order. The first of two prototypes is expected to be rolled out in June. Dupin said the first will be named "Katie," in honor of the woman he met long ago in Northern Virginia.

The enterprise has received backing from the Virginia Tech Corporate Research Center, a collaborative effort between the university and 140 companies to develop commercial technologies. The university is helping with high-tech applications, such as computer technology to create a "virtual companion" -- named Sydney, after Dupin's granddaughter -- who would appear on a screen and remind the occupant to take medications.

"Personally, I believe it really potentially could have a huge impact on revolutionizing health care," said Janis P. Terpenny, a Virginia engineering professor who is working with Dupin.

The Tobacco Indemnification and Community Revitalization Commission, whose mission is to create jobs using national tobacco settlement money, gave its blessing to the venture Feb. 16 with a \$50,000 dollar-for-dollar grant. The money is to be matched by Charlotte County, where the manufacturing is to be done, with the expectation that the company will build enough models to create jobs in a place where unemployment reached 10.4 percent in February.

But the biggest boost came from the state government. Unable to pay for lobbyists, Dupin and others worked the state Capitol themselves, using templates found online to draft the bill's language. They promised no campaign contributions. Anyway, they said, they could not afford to contribute to political causes. The Virginia Public Access Project, a nonprofit group that tracks campaign giving and expenditures, affirmed the assertion that no donations were made.

House Majority Leader H. Morgan Griffith (R-Salem), who sponsored HB 1307, clearing the way for the dwellings, said he thinks the legislation will prove to be one of the most significant measures enacted this year. "The only thing I regret is that I don't have money to invest in the company," Griffith said.

The law defines the MEDcottages as "temporary family healthcare structures" that can be placed only on the properties of single-family homes and occupied only by a relative who is physically or mentally impaired, as certified by a physician. The structures must be less than 300 square feet and conform to local regulations governing sheds or garages. They must be removed within 30 days after the occupant dies, moves or no longer needs to receive care in the dwelling.

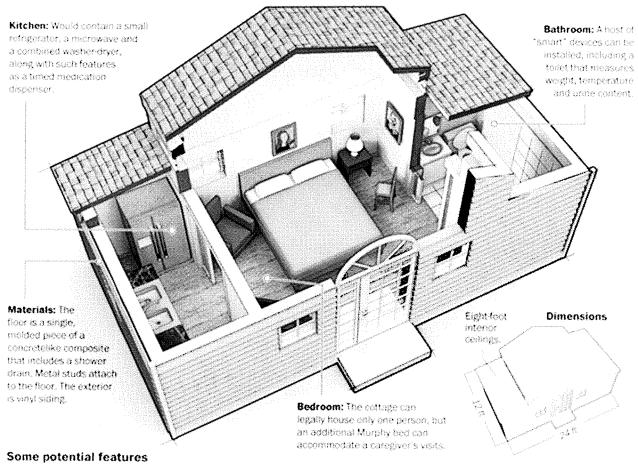
Gov. Robert F. McDonnell (R), who signed the bill April 14, will travel to Salem for a ceremonial signing. The law takes effect July 1.

Dupin, whose grandfather, father, brother and son are clergy members, said he is not interested in the money.

The church's entire annual budget is \$178,295, and he said he makes about what the 20 public school teachers in his congregation make. He takes seriously the Methodist heritage of Christianity in action, emphasizing social transformation as well as salvation.

He is also a believer in transparency, often sharing more about the project with potential competitors than his director of operations, Susan Conn, thinks is prudent.

"The most profound effect of transparency is the gift of being able to collaborate," he said.





A "virtual companion" that would relay health-related messages ("It's time to take your medication") and play music, movies and games.



A video
system that
would monitor
the floor at ankle level,
so the patient would
have privacy but a
caregiver would know if
there was a problem,



Pressurized ventilation that can keep airborne pathogens in (if the patient is quarantined) or keep outdoor air out (if a patient has a compromised immune system).



A lift, attached to a built-in track in the ceiling, that would move a patient from the bed to bath-room so the caregiver could avoid heavy lifting.



in addition to regular ambient light, **lighting** at knee height would line the walls, illuminating the floor. Tripping over objects on the floor is the most common cause of falls.

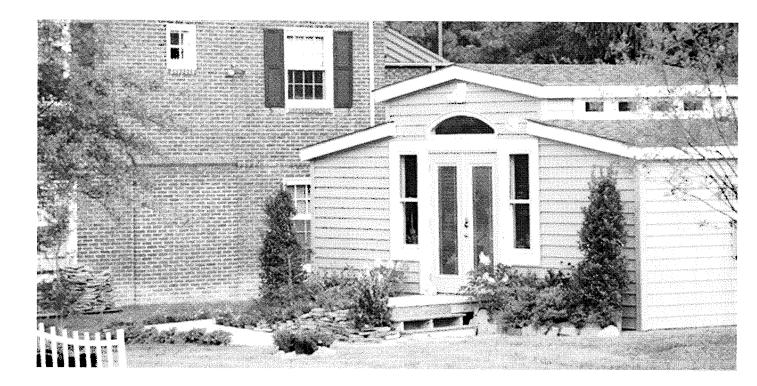
## Could a granny pod be coming to your neighborhood?

Brief summary from the Virginia Realtors Web Site: Submitted by Ben Martin on May 7, 2010 - 12:17pm

According to the Washington Post, *Granny pods* may soon be cropping up in back yards across Virginia thanks to a new state law. Granny pods, you say? Yes. Well, the official name is "MEDcottages". They're shed-sized buildings designed to house and simplify care for relatives that are physically or mentally impaired. The cottages can only be installed on single-family properties, and the impairment must be certified by a physician.

State legislation has put the regulation of the structures largely outside the purview of local zoning boards. MEDcottages must conform to the local laws governing sheds or garages, but they are essentially free-standing, temporary homes. The cottage must be removed within thirty days of the patient's death, recovery, or relocation.

http://www.medcottage.com/medcottage/about.html



## MEDCOTTAGE™

Looks are quite deceiving with N2Care's signature MedCottage. On the outside, you see a charming, modular home that can easily be placed on a homeowner's property.

The inside is a completely different story. It maintains elements of a comfortable home, using the space efficiently to create sleeping, living and bathing areas, but it is equipped with the latest technical advances in the industry to assist with care-giving duties. With a smart robotic feature, it can monitor vital signs, filter the air for contaminants, and communicate with the outside world via high-tech video. Sensors alert caregivers to an occupant's fall, and medication reminders are provided via computers. Technology could also provide entertainment options including music, literature and movies.

## AT A GLANCE:

- 288 square feet unit (12 ft x 24 ft)
- · Electricity and water connected directly to homeowner's utilities

## **BENEFITS**

There are many benefits to the MedCottage. It's an affordable alternative to health care and keeps your loved ones close by as extended medical care and rehabilitation is needed.

• Pathogen-free environment

- Sophisticated monitoring system available
- Aesthetically pleasing interior and exterior
- Mobile and temporary
- Affordable and flexible health care environment
- · Extended medical care, rehabilitation and recovery near loved ones
- · End-of-life care near loved ones

## COMMUNICATION

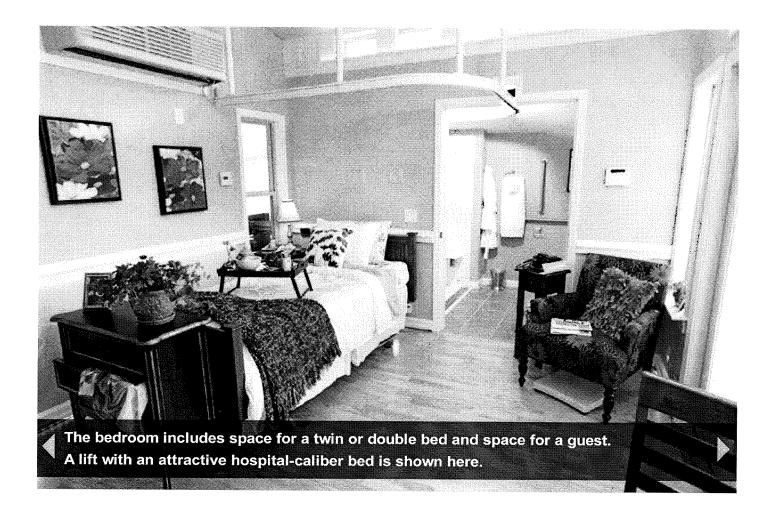
- Web cam and voice communications by computer or cell phone
- Movement locator through an ankle or wrist bracelet
- Feet Sweep
- Interactive monitoring service by an alert necklace
- Medical support monitoring for vitals
- Medicine consumption monitoring and notification
- Monitor liquid consumption

## PATHOGEN PROTECTION

- Positive pressure system for patient protection
- Negative pressure system for pathogen containment
- Air filtration
- Protective clothing dispenser
- Hazardous waste disposal

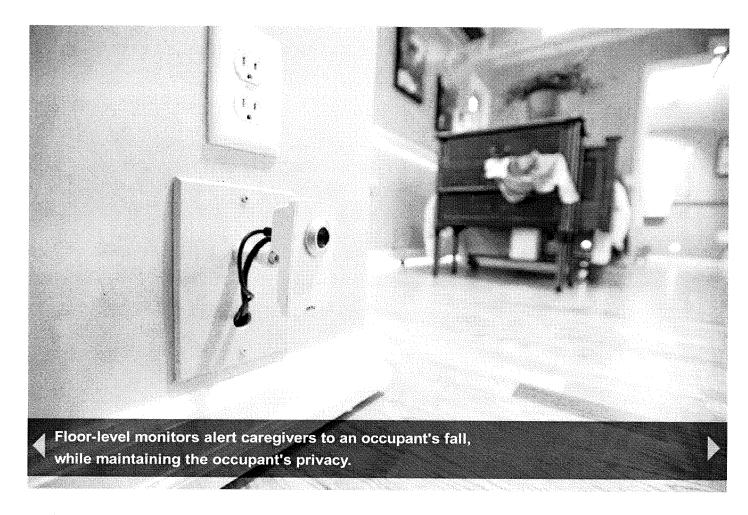
## **ENVIRONMENTAL**

- Room temperature
- Room oxygen
- Lighting for both interior and exterior
- Water temperature
- Water levels in both tub and sink
- Door latching system





The kitchen is equipped with a refrigerator, microwave, washer-dryer combination, medication dispenser and remote-monitoring station.



You must have flash to view this slideshow please download the latest version here.

## INSIDE MEDCOTTAGE™

The 12-by-24-foot MedCottage is loaded with technology and amenities for the health, comfort and safety of the elderly or those recovering from illness or injury.

The MedCottage features three distinct spaces:

- A kitchen with a small refrigerator, microwave, washer-dryer combination and medication dispenser.
- Bedroom with an attractive hospital-caliber bed and additional accommodation for a caregiver's visit.
- The bathroom is handicapped accessible and the floor is a single, molded piece of concrete-like composite that includes a shower drain.

The comfortable interior is equipped with the latest technology to monitor vital signs, filter the air for contaminants and communicate with the outside world via high-tech video and cell phone text technology. Sensors alert caregivers to an occupant's fall, and a computer can remind the occupant to take medications. The technology also provides entertainment, offering a selection of music, reading material and movies. It also contains a family communication center that provides telemetry, environmental control and dynamic interaction to off-site caregivers through smart and robotic technology throughout the charming, comfortable modular home.

The MedCottage boasts some impressive features, including:

- A virtual companion that relays health-related messages (such as medication reminders).
- A video system that monitors the floor at ankle level, so the patient would have privacy but a caregiver would know if there were a problem.
- · Pressurized ventilation that can keep airborne pathogens in or keep outdoor air out.
- A lift, attached to a built-in track in the ceiling that can move a patient from bed to bathroom so the caregiver could avoid heavy lifting.
- Lighting at knee height illuminating the walls and floors the most common cause of falls.