GHI Town Hall Meeting, January 25, 2015
SCRIPTS

STEVE SKOLNIK, BOARD PRESIDENT
OPENING REMARKS

OK let's do this … Good afternoon and welcome, everyone! My name is Steve Skolnik, I currently serve as President of your Board of Directors. Let's start with an announcement: If you have a question about the Homes Improvement Program, the Pilot Program, the Replacement Reserves Program, or other matter regarding your GHI home, I invite you to write your question on a card, available at the table near the entry to this hall, and hand it to one of our volunteers. Throughout this meeting we are collecting cards, sorting and collating, so we can do our best to respond quickly and effectively to answer your questions. One question per card, please, for sorting purposes.

Let me introduce some folks who are on the podium with me.

Board of Directors members who are present are:

- Sue Ready, Vice President
- Chuck Hess, Treasurer
- Ed James, Secretary
- Patricia Novinski
- Aaron Marcavitch
- Bill Jones
- Diana McFadden
- Frank DeBernardo

GHI staff members present are:

- Eldon Ralph, General Manager
- Joe Perry, Director of Finance
- George Bachman, Director of Maintenance
- Joan Krob, Director of Member Services
- Tom Sporney, Director of Technical Services
- Sheri Swaim, Special Assistant to the Manager & Communications Coordinator
- Maesha McNeill, OUR BRAND NEW Human Resources Manager

I would like to thank our Communications Committee folks for providing the visual display for today's meeting; committee chair Lauren Cummings, and the volunteers collecting your question cards (RAISE YOUR HANDS AND SMILE!)

Our meeting today is being recorded, thanks to Greenbelt Access Television (GATE); the recording will be shown on GATE's cable channel (Verizon FIOS 19 and Comcast 77), and we hope to have it on GHI's YouTube channel as well.

I also want to thank Greenbelt City Council for their continued interest in and support of GHI: [ANNOUNCE NAMES OF MEMBERS WHO ARE PRESENT]

- Mayor Emmett Jordan
- Mayor Pro-Tem J Davis
- Leta Mach
- Konrad Herling
- Rodney Roberts
- Ed Putens
- Silke Pope

And of course, thanks to the Greenbelt Volunteer Fire Department and Emergency Medical Service for making this hall available for our use today.

I need to mention a few housekeeping items: First, our meeting needs to end promptly at 4:00pm, and we need to clear the hall by 4:15. During the question/comment period, those who wish to speak should approach the microphone and line up; limit your remarks to 2 minutes or less, so everyone has a chance. If you've already spoken, please do not get up to speak again until all who wish to speak have had one opportunity. And while we may have differences of opinion, let us express our thoughts respectfully, and avoid any personal comments about others.

Our agenda today includes:

- a brief report on the 'State of the Coop', followed by
- Jim Cohen, Buildings Committee chair, who will summarize the Pilot Program with emphasis on the final Phase 3, testing of heating systems alternatives.
- Then we'll hear our Vice President, Sue Ready, summarize the recommendations the Board has selected for the upcoming Homes Improvement Program member vote;
- General Manager Eldon Ralph will present a timeline for this year's work preparing for the HIP.
- The rest of our meeting will be dedicated to your questions and comments.

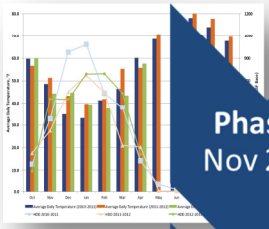
SO HERE WE GO.

STATE OF THE CO-OP

I am pleased to report that the state of our housing cooperative, Greenbelt Homes Inc., is strong and healthy. Through proactive, conservative fiscal management, your Directors and General Manager successfully maintain our unique and historic organization of affordable housing and close-knit community. We have weathered the 'Great Recession.' More GHI homes were sold in 2014 than any year since 2007, and the number of members with 'underwater' share loans has steadily decreased. Home prices are recovering, although slowly.

To accomplish our goal of maintaining our homes into perpetuity, GHI has mounted a Pilot Program, now nearing completion, to test a number of building improvements that could help our aging structures be more comfortable and more energy-efficient.

Pilot Program



Phase 1
Nov 2010

- **Baseline Assessment**
- Install in-home monitors to gather data on temperature, humidity, and energy use, and on each home's rate of air exchange with the outside (e.g., heat loss in winter).

Phase 2
Nov 2011 – Dec 2013

- **Improve Building Envelope**
- Improve ability to maintain a comfortable climate: insulate areas found to exchange too much air (e.g., crawlspaces, attics, siding); replace windows and doors; install bathroom exhaust fans.

Phase 3
Jan 2014 – May 2015

- **Test & Analyze Climate Control Systems**
- Test practical, cost-effective heating system alternatives and review data; make recommendations for the best combined insulation and heating solutions.

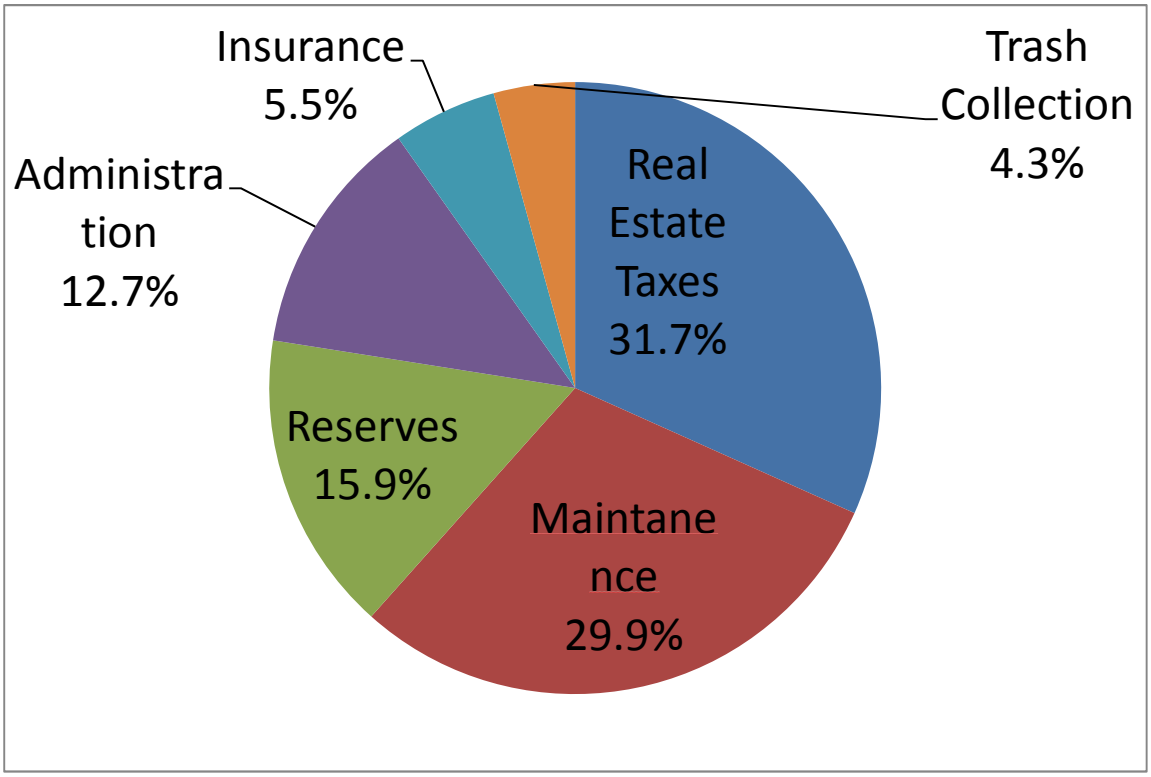
Heads-up work and good fortune brought us an organization of building scientists and engineers, and a federal grant to pay them. The learning we have had, and the information we have gained, is of tremendous value and will serve GHI for many years. During the Pilot Program, one area has been identified that needs serious improvement; the crawlspaces beneath many of our homes have been neglected over the years, and are in poor condition. We are taking steps to correct this, and I will tell you about that in a few minutes.

A member of the cooperative is different from a 'traditional' homeowner; there are many misconceptions about this, even among GHI members. So I would like to review a few of the basics with you.

- The U.S. Government designed and built Greenbelt, one of three 'new towns', in the 1930's; it was a Depression-era project of the WPA, and was originally a low-income rental community.
- The frame homes were constructed in the early 1940's, as wartime housing in Washington was needed for defense workers.
- The cooperative was formed by residents in 1953; founders purchased the homes and a portion of the lands from the federal government.

- Each coop member owns a share of the entire property, but does not own his/her specific home outright. All members together jointly own the entire property and all the homes and buildings.
- Each coop member enters an agreement, the Mutual Ownership Contract (MOC) with the cooperative; this gives the member the right to occupy his/her home, and establishes the rights and responsibilities of membership in the cooperative.
- We are a 100% member-equity cooperative, meaning that each member gets to sell his/her share at market value, and keeps all of the proceeds (coop gets none, except for administrative fees).
- Members pay monthly fees that include a number of costs: real estate taxes, maintenance of buildings and grounds, administration, trash collection, garage rental, replacement reserves funds, and so forth.

2015 Budget Expenses & Equity



- The Replacement Reserves Plan (RRP) is a pool of money we collect and use to replace components of our community that have outlived their functional lifespan; the level of collecting, and of spending, are forecast by GHI in consultation with a professional firm that updates the plan every few years. The RRP does not allocate funds to a specific component, e.g., a door or a window; rather it works like an insurance policy, so pooled funds are available for doors and windows when needed. BTW, there was no RRP before the 1980's rehab project; at that time, members voted and approved borrowing nearly

$20 million dollars to do the work that was needed. Aren't we glad that, over many years, members paid off these loans in full!

- In our upcoming Homes Improvement Program, some items are to be funded from the RRP and some are not. Specifically, the replacement of entry doors and windows, and frame home vinyl siding, ARE covered by RRP funding.

The Board is currently discussing a proposal to move forward NOW with recommendations on heating system alternatives, rather than waiting for the full completion of the Pilot Program next summer. Doing this would allow members to more accurately know what increase in monthly charges to anticipate, thereby informing your ability to decide which member options, if any, to select in the H.I.P.

The Facts:

- **We** will need to borrow money.
- **GHI members** will vote on including certain components for all homes or as member opt-ins.

JIM COHEN, BUILDINGS COMMITTEE CHAIR
PILOT PROGRAM UPDATE

As you know, the Pilot program involved the testing of alternative building envelope improvements and heating systems on 28 GHI units, including three rows of block units, two rows of frame units and two rows of brick units. GHI had the benefit of technical assistance from the Home Innovation Research Labs (HIRL), the research unit of National Association of Home Builders.

In the first year, HIRL recorded year-long readings of unit temperature, humidity and energy use in the pilot units to provide baseline data for the next two phases. Phase 2, completed in early 2014, consisted of selected improvements to the some of the components of the pilot units' building envelopes (i.e. the components of our homes – such as doors, windows, siding -- that separate our homes from the outside weather). Currently, in the third phase, GHI is testing a small number of heating system alternatives.

With HIRL's assistance, the Buildings Committee initially looked at a number of heating systems that might be used in GHI units. Among the systems analyzed were 4 different types of heat pumps: a) ducted heat pumps; b) ground source heat pumps (or geothermal systems); c) high-velocity heat pumps; and d) ductless mini-split heat pumps. Additional systems considered for phase 3 were wall-mounted resistance heaters with fans; radiant heat panels; and electric baseboard heaters with programmable setback wall thermostats on the first floor and digital thermostats for upstairs bedrooms. (Yes, our current type of electric baseboard heaters have always been an option, due to their low life-cycle cost.)

Several systems were NOT considered, such as natural gas, and propane, oil and wood-fired heating, due to the cost of the fuel or the need for infrastructure to store and/or deliver fuel to appliances.

From HIRL's analysis, five systems were recommended for testing in the pilot program. Pilot Program members were given an orientation on the alternatives in November of 2013 and were able to visit GHI units that already had these systems to see what they looked like, find out how much they cost, see how much exterior and interior space they required, and hear from the members about their experiences with the systems (including what their energy bills were).

Following the information meetings and the tours, the Pilot Program members were allowed to choose which heating systems they wanted to test in their homes. So last year, the pilot members' selections resulted in the following options being tested in Phase 3 . . .

1. Seven (7) pilot program members chose to have no new installation, and to rely on their existing baseboard heaters.
2. Ten (10) of the pilot members are currently testing new electric baseboard heaters with wall-mounted programmable setback thermostats downstairs and digital thermostats for the upstairs bedrooms.
3. One (1) member is testing a ducted heat pump system. (The system was installed in the unit by a former member).
4. Ten (10) pilot members are testing ductless mini-split heat pump systems.

One of the benefits of the heat pump systems is that they provide air conditioning as well as heating. Over the past few years, many GHI members have installed ductless mini-split systems in their units, and anecdotal information from members who have these systems indicates there is a high level of satisfaction with them. These systems are being tested in six block units and four frame units.

Since one of the pilot program goals is to do the energy efficiency upgrades in a manner that will preserve the unique and historic nature of GHI units, we are very interested in seeing how the systems being tested in pilot phases 2 and 3 perform in the block units. That's because exterior insulation and siding applied to block units—while making them more comfortable – will alter their unique character.

For this reason, over a year and a half ago some Buildings Committee members, GHI staff and HIRL met with the Maryland Historical Trust to inquire about the possibility of obtaining grant money to test options for insulating the block units on the interior, or for using an exterior insulation strategy that closely resembles cinderblock. The Trust provided a grant to an architectural firm that specializes in historic structures, to study the alternatives. That study was completed over a year ago. The study recommended that only one of the alternatives be given consideration, Exterior Insulation and Finishing System (or EIFS), but this system was

prohibitively expensive and the Buildings Committee found additional problems with the system's durability.

5. Eleven of the above mentioned pilot units are also testing radiant ceiling heaters in their bathrooms, and eight of those eleven units are also testing radiant ceiling heaters in their kitchens.

All of the heating systems being tested in the pilot program are in place and are being evaluated.

In closing, I invite you to check out the Pilot Program website (http://www.ghi.coop/content/pilot-program) to access the HIRL reports from all three phases. I also invite you to become a "friend" of the Committee. As a friend we will email you agenda materials in advance of each meeting. We currently have over 180 friends and many of them are active participants in our meetings. And in closing I'd like to thank some especially good friends – our pilot program participants – who are doing an invaluable service to our cooperative.

STEVE SKOLNIK, BOARD PRESIDENT

Again, the Board is currently discussing a proposal to move forward NOW with recommendations on heating system alternatives, rather than waiting for the full completion of the Pilot Program next summer. In light of how the Board voted on HIP building envelope work, recommending that most items be 'member option' rather than mandated for all, it seems likely that the Board could take that approach with the heating system alternatives as well – although of course this has not been decided as yet.

SUE READY, BOARD VICE PRESIDENT
BOARD'S RECOMMENDATIONS FOR THE HOMES IMPROVEMENT PROGRAM

The Pilot Program is drawing to a close. The Homes Improvement Program will begin next year. In 2010, we embarked with high hopes, great expectations and a good deal of enthusiasm on the Pilot Program to test a set of improvements recommended by Home Innovation Research Laboratory. The purpose of the Pilot Program was to provide information specific to our GHI homes which would be useful to the membership in making decisions regarding the changes to be made to our homes during the community-wide Homes Improvement Program. (Disclaimer: Community-wide is a bit of misnomer as this program does not include the nine free-standing homes nor the 25 larger townhomes built circa 1970. These homes are on a different schedule.)

The goals of the envelope upgrades tested during the Pilot Program were:

- to conserve energy
- to reduce costs
- to increase comfort
- to be affordable

- to respect the historic nature of our homes, and
- to minimize disruption

Envelope improvements were successfully accomplished on seven rows of GHI homes. The results have been measured and analyzed. We have received feedback from the pilot members. In a nutshell, the findings are not as strong as we had hoped:

- These improvements do save energy, but not as much as we had hoped.
- Over the life of the improvements, the costs of most of the improvements will not be recovered ~~for~~ through energy savings. (That is, in most cases, the payback periods are longer than the life of the improvement.)
- Based on scientific measurement and anecdotal evidence, homes are more comfortable.
- The cost of making all of the recommended improvements to all of our homes would make our homes unaffordable to some current members.
- The only cost-effective way of insulating the walls of our block homes results in a change to their historical appearance.
- The work can be accomplished without major disruptions to members.

Next year, we will begin the five-year Homes Improvement Program. The Homes Improvement Program will include both replacement of building envelope elements that are covered by Replacement Reserves and additional improvements that are not covered by Replacement Reserves. Those improvements that are covered by our Replacement Reserves will be accomplished on all homes (unless the member has already done this work in a manner that meets co-op standards). These include:

- Replacement of the double-hung windows in frame homes and the slider windows in masonry homes with new, more efficient windows of a similar style.
- Replacement of entrance doors and door frames.
- Replacement of siding on frame homes

Additional envelope improvements tested during the Pilot Program that are not covered by Replacement Reserves, if undertaken, will necessitate repayment of the cost by members. This brings us to the Board's recommendations. The Board voted in December to recommend the following to the membership for vote in the spring regarding envelope improvements that are not included in Replacement Reserves. Please note that the Board has not yet made a recommendation regarding envelope improvements in the crawl spaces.

(charts on next page)

For Brick Homes

Attic Insulation			Crawl Space Insulation & Vapor Barrier	Moisture Control	Windows
Air-Seal Attic Perimeter	Insulate & install gaskets around attic hatches	Install blown-in insulation to increase R-value from R-16 to R-38 (reducing storage area)	TBD	Install bathroom fans with timer switches & exhaust to outside	Install casement windows instead of sliders
All homes	**All homes**	**Member option**	**TBD**	**Member Option**	**Member Option**

For Block Homes

Wall Insulation	Crawl Space Insulation & Vapor Barrier	Moisture Control		Windows
Install vinyl siding over 2" insulation	TBD	Install bathroom fans with timer switches & exhaust to outside	Install automatic control for fan operation throughout the day	Install casement windows instead of sliders
Member Option	**TBD**	**Member Option**	**Member Option**	**Member Option**

For Frame Homes

Attic Insulation			Crawl Space Insulation & Vapor Barrier	Moisture Control	Wall Insulation
Air-Seal Attic Perimeter	Insulate & install gaskets around attic hatches	Install blown-in insulation to increase R-value from R-16 to R-38 (reducing storage area)	TBD	Install bathroom fans with timer switches & exhaust to outside	Install 1" insulation under vinyl siding
All homes	**All homes**	**Member Option**	**TBD**	**Member Option**	**Member Option**

What do these recommendations mean? The Board is recommending that the membership vote in favor of undertaking the work of the sealing of attic perimeters and the insulation of attic hatches in all homes that have attics at the relatively low cost of approximately $425 per frame home and $375 per brick home. This recommendation will be taken to the membership for vote in the spring.

The Board recommends that all other envelope improvements not covered by Replacement Reserves be undertaken only in those units in which individual members (perhaps, along with the member in the adjacent unit or the members in the entire row) choose to have the work done and to incur the cost of this work. So, if the Board recommendation is "member option," the Board is recommending that each individual member will choose whether or not these improvements will be done on his or her unit.

Members who choose optional work will be responsible for paying for this work through their co-op fees over a period of years unless a member prefers to avoid interest charges by paying up front.

All Homes Improvement Program work will be contracted on a schedule by the co-op, performed under the supervision of co-op staff, and completed during the Homes Improvement Program. For planning purposes, members will be asked to make their choices a few months before the Homes Improvement Program is scheduled to reach their row of homes.

STEVE SKOLNIK, BOARD PRESIDENT
CRAWLSPACES

OK so now for our favorite topic, crawlspaces, which is an integral part of the H.I.P. Early in the Pilot Program, the building science consultants identified a plan for the two different types of crawls we have in GHI. Here's a summary of the work we did in the Pilot Program.

For frame homes, floor decks are wood and the crawls are ventilated. The Pilot Program remediations included:

- identifying and correcting ground water incursion into the crawlspace
- removing failing fiberglass batt insulation
- replacing plastic sheeting vapor barrier on the earth floor, extending up onto foundation walls and securing
- applying spray foam insulation to underside of flooring
- testing and repairing/replacing sump pumps as needed
- sealing entrances to steam tunnels between buildings to stop animal incursion
- examining and resecuring vent grills as needed to stop animal incursion

We have learned that there may be issues over the use of spray foam insulation, with concerns stemming from the potential toxicity of materials. Also, application of the foam under the floor decks is very expensive. It also encapsulates pipes and wires that might need servicing in future, making repairs more difficult and time consuming, possibly hazardous, if foam must be cut out of the way. The Buildings Committee special task force on crawlspaces, through study and hard work [THANK RICHARD MENIS], has identified an alternative solution whereby frame crawls can be configured as 'partially-conditioned' spaces, not ventilated. A partially conditioned crawlspace is controlled for humidity and temperature as the exhaust fan draws air down from the homes into the crawl; this also has the effect of warming the wood floor deck. Since the air pressure in the crawl is slightly reduced by the fan, it is very important that the foundation is sealed, to prevent cold outside air from entering. You will note that this crawlspace configuration does not require the use of any spray foam insulation.

The projected work scope for the partially-conditioned crawl, discussed with and vetted by our building science consultants and now approved by the Board for testing in two frame rows, is as follows:

- identifying and correcting ground water incursion into the crawlspace
- removing failing fiberglass batt insulation
- replacing plastic sheeting vapor barrier on the earth floor, extending up onto foundation walls and securing
- installing rigid foam board insulation at inside of foundation walls
- testing and repairing/replacing sump pumps as needed
- sealing entrances to steam tunnels between buildings to stop animal incursion
- Sealing all vent openings
- Installing low-capacity ventilation fan with enthalpy controller
- Providing a monitoring system for sump pump(s)
- considering the need for and possibly installing dehumidifier

It would also be possible, although not required, to install new fiberglass or rockwool insulation batts beneath the wood floor decks. The merits and challenges of underfloor batt insulation are currently being discussed.

OK, moving on to our masonry homes (bricks and blocks), the floor decks are concrete and the crawlspaces are sealed (except for the boiler room doors). The Pilot Program remediation work included:

- identifying and correcting ground water incursion into the crawlspace
- repairing perimeter foundation wall rigid foam board insulation as needed
- replacing plastic sheeting vapor barrier on the earth floor, extending up onto foundation walls and securing
- testing and repairing/replacing sump pumps as needed
- testing and repairing boiler room floor drains (where practical)

The only additions to this plan contemplated by the task force are to provide a method of sealing the boiler room doors, possibly by constructing a weather-tight door at the foot of the boiler room stairs, and to consider on a case-by-case basis whether a dehumidifier and monitoring system are needed.

Resulting from conditions observed in some of the crawls, and from a report compiled by staff, the Buildings Committee formed a task force, and requested GHI staff to inspect a random selection of 10% of the frame crawls. Staff's findings were not good; having looked at 20 frame crawls, they found that most of the sump pumps were not working, and there was evidence of animal incursion, ponding water, and other problems.

The General Manager determined to continue inspecting all (189) frame home crawlspaces before this April. As of today, this work continues; 101 crawls have been inspected and 107 out of 201 sump pumps have been repaired or replaced. In addition, a crew has begun sealing steam tunnel entrances with bricks and mortar; slow work, but to date this has been completed in 20 buildings. Once these inspections and the four test building crawlspace projects have been done, staff will prepare a report to the Board (to be shared with members, of course). Depending on findings, and on financing options for community-wide crawlspace work, the

Board will determine whether an additional vote by the membership is needed in order to proceed.

ELDON RALPH, GENERAL MANAGER
PROPOSED PLANNING ACTIVITIES AND SCOPE OF THE HOMES IMPROVEMENT PROGRAM

A. Planning Activities

Now that the pilot program is almost complete, the Board, Buildings Committee, Finance Committee, and staff have begun planning for a membership meeting during spring 2015 when members will decide what non-reserve components should be installed during the Homes Improvement Program.

From January to April of this year, the Board, with inputs from the Buildings Committee, Finance Committee and Staff, will deliberate the following matters prior to a membership vote:

1. Recommend what heating/cooling systems should be installed.

2. Recommend what crawlspace improvements should be installed.

3. Recommend the sources of funds and loan repayment terms to finance non-reserve improvements, e.g. crawlspace improvements, attic insulation, wall insulation and opt-in improvements that are selected by members.

4. Recommend estimated fee increases that members would have to pay for non-reserve improvements that may be selected.

5. Recommend the terms for a loan deferral program to assist members on fixed incomes or in hardship situations.

6. Research financial incentive programs that may be available to off-set costs for non-reserve improvements.

7. Recommend how loans borrowed by members should be disposed of at resale.

We intend to begin construction work for the Homes Improvement Program during the spring of 2016. Accordingly, the following activities must be accomplished this year:

1. Decide the additional staff, organizational structure and work systems we need to execute the program. The extra staff needed should be hired before the end of 2015.

2. Keep our membership well-informed via GHI's e-newsletter and communicator, website, membership meetings, etc. about the planning activities for the Homes Improvement Program as they unfold.

3. Negotiate supply agreements with vendors to obtain quantity discounts for some components such as windows, doors, siding materials etc.

4. Decide on the specific units where improvements will be undertaken during 2016.

5. Decide how to attract contractors to bid for the work.

6. Develop construction schedules for the work to be done in 2016.

7. Develop bid specifications and requests for proposals for contractors to undertake the work.

B. Scope of the Homes Improvement Program

Let's examine the proposed scope of the Homes Improvement Program. Using monies in our replacement reserves and borrowed funds, as well as funds provided by individual members for optional improvements they wish to make, we propose to install the following components during the Homes Improvement Program:

2016 to 2020

- Windows and doors for frame and masonry homes
- Baseboard heaters for frame and masonry homes.
- Siding for frame homes.
- Crawlspace improvements for frame and masonry homes.
- Sealing of attic perimeters for frame and brick homes and attic hatches for brick homes.
- Split-system heat pumps, wall thermostats for baseboard heaters and ceiling panel heaters. (The Board still has to recommend whether any of these systems should be mandated for GHI homes or selected as member opt-ins.)
- Member opt-ins which may include:
  - exterior wall insulation for block and frame homes,
  - attic insulation for brick and frame homes,
  - casement windows for masonry homes,
  - exhaust fans for masonry and frame homes

You should be also aware that there are still major projects that will be undertaken during 2016 to 2020 and beyond. Some of these include:

2016 to 2025

- Roofs for frame, block and larger homes.
- Drainage remediation projects.
- Underground utility repair projects

2021 to 2025

- Plumbing pipes and electrical wiring in frame and masonry homes.

STEVE SKOLNIK, BOARD PRESIDENT

Thank you, Eldon. Let's take a 5 minute stretch break before we begin our question and answer period. Again, those who wish to speak should approach the microphone and line up; limit your remarks to 2 minutes or less, so everyone has a chance. If you've already spoken, please do not get up to speak again until all who wish to speak have had one opportunity. And while we may have differences of opinion, let us express our thoughts respectfully, and avoid any personal comments about others.

Q & A Period

[at 4:00 pm sharp] Now it is time to close our Town Hall meeting. Thank you all for coming and participating. Replies to all written questions that you have submitted will be drafted by members of the Board, Buildings Committee, and staff – these will be posted on the ghi.coop website (www.ghi.coop) as soon as we are able. Thank you for taking an active role in your co-op! Have a great night.