

## Resiliency Sub Workgroup

April 27th, 2022 9:00 a.m. – 1:53 p.m.

Virtual Meeting: <https://vadhcd.adobeconnect.com/va2021cdc/>

### ATTENDEES:

#### VA Department of Housing and Community Development (DHCD) Staff:

**Richard Potts:** Code Development and Technical Support Administrator, SBCO

**Florin Moldovan:** Code and Regulation Specialist, SBCO

**Paul Messplay:** Code and Regulation Specialist, SBCO

**Jeanette Campbell:** Administrative Assistant, Building and Fire Regulations (BFR)

#### Sub Workgroup Members:

**Andrew Grigsby:** Viridiant

**Angela Davis:** Virginia Department of Conservation and Recreation (DCR)

**Debbie Messmer:** Virginia Department of Emergency Management (VDEM)

**George Homewood:** City of Norfolk, Planning Director

**John Harbin:** Hampton Roads Planning District Commission (HRPDC)

**Raka Goyal:** Virginia Department of General Services (DGS), Division of Engineering and Buildings (DEB)

**Richard Gordon:** Virginia Building and Code Officials Association (VBCOA)

**Steve Shapiro:** Apartment and Office Building Association (AOBA); Virginia Apartment and Management Association (VAMA)

**Steve Sunderman:** Resilient Virginia

**Traci Munyan:** DHCD, Resiliency

**Rebecca Quinn:** Federal Emergency Management Agency (FEMA) \*alternate voting member standing in for Charles Baker

#### Interested Parties

**Kerry Sutton:** American Concrete Institute (ACI)

**Paula Eubank:** FEMA

#### Sub Workgroup Members not in attendance:

**Charles Baker:** Federal Emergency Management Agency (FEMA) Region 3

**Joel Andre:** American Institute of Architects (AIA), Virginia

**Kenneth Somerset:** Virginia Floodplain Management Association (VFMA)

**Ellis McKinney:** Virginia Plumbing and Mechanical Inspectors Association (VPMIA)

**Casey Littlefield:** International Association of Electrical Inspectors (IAEI), Virginia

**Andrew Clark:** Home Builders Association of Virginia (HBAV)

## **Welcome & Introductions**

Paul Messplay: Welcomed the group members. He noted an addition to the agenda; RB230 Vinyl Siding, which was a code change proposal that was considered at the ICC Committee Action Hearings in Rochester last month. He let participants know that they could ask DHCD staff for help with any technical issues. He asked Rebecca Quin to introduce herself. She is representing FEMA and is standing in for Charles Baker as a voting member.

## **cdpVA Neutral Impact Proposals – Steve Sunderman, Paul Messplay**

Paul: Paul Messplay and Steve Sunderman put together the analysis of new proposals in cdpVA which were identified as having a neutral impact to resiliency. He asked the group if they had any questions or comments.

Steve Sunderman: Energy conservation is not necessarily resiliency, unless it impacts the livability for the resident.

Andrew Grigsby: Livability, also called passive survivability always impacts resiliency. Most energy conservation aspects of the code will have this impact. It also reduces the threat of catastrophic events. He thinks it is part of resiliency.

Steve Shapiro: An energy change that creates homes that are all solar would be resilient. But, generally, he agrees with Steve Sunderman.

Paul: Put an example of a neutral resiliency impact proposal on the screen. EC-C1301.1.1 was considered by Paul to have a negative impact on resiliency, but Steve thought it would not impact resiliency. This is counted as neutral – anything with a non-consensus opinion remains neutral.

Angela Davis: Typed in the chat box:

Angela Davis: I would consider energy conservation a component of resilience due to its direct impact on the social determinants of health.

Andrew: Clarified his idea of passive survivability. If, for example a building is insulated, when it's better insulated, it can survive temperature swings and keep occupants safer. To him, that's resiliency in a nutshell.

Traci Munyan: George Homewood brought up the definition of resiliency at the last meeting. She thinks we should spend time discussing what resiliency is.

Steve Sunderman: If there isn't energy to run an HVAC system, that impacts resiliency. In the example of proposal EC-C1301.1.1, insulation for storage buildings and factories doesn't seem to him to have an impact on resiliency.

Raka Goyal: Thinks that even in EC-C1301.1.1, people who work there are affected and it does have a negative impact on resiliency.

Paul: This group is not looking at the technical content of proposals, only giving an opinion of the overall resiliency impact.

## **Proposed Amendments to the VCC, VEBC – George Homewood, Josh Harbin**

George Homewood: The first proposal is intended to match the building code to FEMA language regarding floodplain. In section 103.4, it requires an engineer instead of a registered design professional to prepare the flood elevation certificate. In section 108.2, permit "may be required" was changed to "shall be required".

Steve Sunderman: In 103.4.4, when it says land surveyor or engineer, it could refer to any type of engineer. It may be better to keep registered design professional or design professional of record. An architect may be the responsible party in the project.

George: Although an architect may be responsible for design, they aren't approved by FEMA to complete an elevation certificate. Only a registered professional engineer or land surveyor can complete a flood elevation certificate.

Steve Sunderman: The wording should be changed from engineer to civil engineer.

George: Agrees with that change.

Steve Shapiro: Regarding 108.2.2, there's a list of things that don't require permits in the building code. He's opposed to "shall".

Rebecca Quinn: In the international codes, FEMA uses "registered design professional" even on the elevation certificate, and it relies on state law. If an architect isn't permitted by state law, FEMA doesn't give

approval, just because the form says “registered design professional”. Some states don’t allow engineers to do land survey work. FEMA will comment on these proposals today, but not all of them. On the exemptions in 108.2, there isn’t an exemption in the I-Code. Exempt from a permit isn’t the same as exempt from requirements. FEMA will address some of these more thoroughly outside of this meeting.

Angela: typed in the chat box:

**Angela Davis:** The exact EC language is as follows: The Elevation Certificate is to be completed by a land surveyor, engineer, or architect who is authorized by law to certify elevation information when elevation information is required for Zones A1–A30, AE, AH, A (with BFE), VE, V1–V30, V (with BFE), AR, AR/A, AR/AE, AR/A1–A30, AR/AH, or AR/AO. Community officials who are authorized by law or ordinance to provide floodplain management

**Angela Davis:** Community officials who are authorized by law or ordinance to provide floodplain management information may also complete this form.\*

George: [BS] section definitions were edited: Base Flood, Coastal A Zone and Coastal High Hazard Area. Base Flood is a.k.a. the 100-year floodplain, references either the Flood Insurance Study or the Flood Insurance Rate Map. Coastal A Zone has wave action between 1.5 and 3 feet in height.

Steve Shapiro: For coastal A zone, 1.5 ft. is also expressed in mm, then 3 feet is expressed in cm. He asked Paul, how sub workgroup will vote on these; as a bunch, or one at a time.

Paul: The group will vote on the individual sections at the end of each proposal.

George: Agrees with Steve, measurement should be mm instead of cm. The Coastal High Hazard Area was edited to include the Coastal Primary Sand Dune, reference the Flood Insurance Study, and include wave action over 3 feet. There’s confusion in the building code between what the design flood is and what the base flood is. The terms are not synonymous. He’s trying to figure out how to be clear that base flood is the 100-year floodplain, and design flood is base flood plus a degree of freeboard by the locality.

Rebecca: The difference between base flood and design flood has caused confusion since 1995. The design flood and design flood elevation is often the base flood, or a community could adopt a different map like future conditions, sea level rise, or flood of record. Making them the same would preclude localities from using different maps with a higher flood elevation, which may or may not have a frequency associated with it.

George: That’s what he’s trying to do here, for the very reason Rebecca specified. While the base flood is based on science and data, the design flood is the base flood plus other variables or freeboard.

Rebecca: Freeboard as used in ASCE 24 and elsewhere, is related to where a point on the building is relative to the water. Freeboard is added to the elevation of a building, not the water. If the intent is to allow localities to use another elevation or area, FEMA would endorse that, just write it carefully.

Raka: Agrees with what George and Rebecca are saying. She wanted to add that base flood is the 100-year, floodplain, and design flood adds a calculation to that. She’s not sure if ASCE 24 defines design flood.

George: For the section with existing building and existing structure, the idea is to essentially ensure that work done would improve survivability. In order to be called existing and use the existing building code, the building or structure should have been built with a permit, or is a pre-firm structure that existed long before building permits were required. He is still uncertain about the language and is open to suggestions.

Rebecca: This sort of conflates an NFIP definition. A few cycles ago, FEMA removed from the I-Codes requirements for localities to notify them of the date that they put floodplain management regulations in place. FEMA is satisfied with the way that the code defines existing building. Something built after a community adopted regulations can be conforming or non-conforming. The existing building code captures both concepts. This may not even be needed here.

Steve Shapiro: If there’s a building that was built in 1900 in a flood zone, the new language seems to say that it needs a permit.

George: That’s the struggle he’s had with the language. A building built in 1900 probably didn’t have code requirements. It’s a legal existing building, it may be conforming or non-conforming. He is fine with striking both of these sections if Rebecca thinks they are not necessary.

George: There are other types of flooding events that do exist in Virginia. These next edits to definitions of flood, flood hazard area, floodway and special flood hazard area (SFHA) were made in an attempt to be more in alignment with insurance requirements and FEMA regulations.

Steve Shapiro: Would he want to add something to special flood hazard area to capture what's being done locally?

George: He agrees that the SFHA should say something about localities adding areas. He made a note on that.

Paul: Angela recommended in chat:

**Angela Davis:** "Or otherwise legally designated" should be inserted in SFHA to be consistent.

Rebecca: A flood hazard area is anything that's not a special flood hazard area on the FEMA map.

George: The substantial improvement section was edited to match zoning language with building code language. Improving a structure over 50% has to comply with zoning and building code. This creates an exemption if an improvement is done to get up to design flood elevation standards.

Rebecca: #3 could allow elevation without full elevation. It says that even if someone is elevating a building it doesn't have to comply with other standards. That doesn't sound good. This is the building code, it doesn't supersede local zoning. #3 would conflict with the international existing building code for increasing the height of a foundation.

Angela: typed in the chat box: **Angela Davis:** #3-In terms of resilience, if a building is being elevated then it should meet current code. **Angela Davis:** #4-echoing the previous comment, any building identified as being in a flood-prone area and is being mitigated should meet current code.

{BREAK: 10:01 – 10:06}

George: 802.4 specifies design flood. Flood design data in 1603.1.7 adds grade beams in coastal areas.

Raka: Suggested removing the year from the code reference and leaving ASCE 7 or "Current reference code" which is now ASCE 7-16.

George: He can do that.

Rebecca: ASCE 24 refers to scour/erosion, not necessarily ASCE 7. Does he want both the lowest of horizontal structural member and the elevation of grade beam?

George: Grade beams are part of the foundation. If scour and erosion are prevalent, combined with wind events, the building can be brought down.

Paula: How would anticipated scour/erosion be determined? It seems like that would be subjective.

George: Flood Insurance Study gives guidance.

Rebecca: typed in chat "ASCE 24 addresses anticipated scour and erosion"

George: 1612.4 Flood hazard documentation should be on the official FEMA Elevation Certificate form. This is editorial to standardize reporting. 2.3 proposes to ban breakaway walls in zones. While the walls are designed to breakaway and not remove the structure, they become water and air borne debris, which could damage other structures. This doesn't prevent use of other barriers that don't provide a threat to adjacent structures.

Rebecca: FEMA encourages communities to consider these higher standards. Also, section 1612.4 is about documentation, while provisions for breakaway walls are in ASCE 24. If this is recommended, it should be an amendment to ASCE 24.

Raka: This doesn't belong in this section about documentation. This is restrictive language and should go somewhere else.

George: 2.3 exists now, regulating breakaway walls. If the prohibition of walls doesn't exist here, neither does the language in the first place. But, he is willing to move it.

George: The last change to the VCC is to remove the exception for R-3 buildings to have basements that wouldn't meet the flood insurance requirements.

Rebecca: Technical bulletin 11 allows low-grade crawl spaces in very specific circumstances and this was worked out with NAHB a decade or more ago. FEMA would be fine with removing this exception. There's discussion now about how that technical bulletin may change in the next edition.

George: The next section is for changes to the USBC and the VRC, (some are redundant from the previous section). Definition of hazard areas, base and design flood, and specific language referring to 2070 because the expected life of most buildings is about 50 years. 322.1.3 refers to Technical Bulletin 2 and ASCE 24. 322.1.5 limits storage area to 200 square feet or less. 322.1.6 is removing the exception for things under the floor, in accordance with FEMA P-348.

Rebecca: The typical equipment used for 1 or 2 family buildings would never meet these requirements, so she thinks it is fine to remove the exception. FEMA P-348 isn't a consensus standard, but it is the correct reference. The reference to ASCE 24 in section 322.1.3 may be creating two sets of rules, unless the reference is only regarding materials.

George: He's trying to clarify where to go to ensure compliance. He's not a subject matter expert on Technical Bulletin 2 or ASCE 24. He's not aware of any internal conflicts between the two.

Richard Gordon: Is concerned about referencing FEMA documents. They aren't written in enforceable language. It would be hard to determine compliance.

Steve Shapiro: Will all of these changes go back to the Workgroups? This discussion went from resiliency impact to code change proposals, so the Workgroup stakeholders should weigh in on this.

Paul: Yes, they will.

George: Section 322.1.9 about manufactured homes references design flood elevations. Section 322.2 defines Coastal A and other velocity enhanced zones. Section 322.2.1 elevation requirements in green will be discussed later. This is where it is located now in this section, but it will also appear later in another proposal to create 3 feet of freeboard in the flood plain. The requirement that walls need to be constructed of flood resistant materials was added in #4. Enclosed area in 322.2.2 is about design instead of base and talks about flood openings. Not every opening is a flood opening. In 322.3.1, some people try to alter the dune lines or land elevation to get out of the flood plain area. They would need a satisfactory Comment CLOMR to do that, which would give FEMA the responsibility of determining compliance.

Steve Shapiro: Is a Comment Document an actual form that's used with a CLOMR?

George: Yes, it is.

Paula Eubank: Is flood opening a defined term? If not, perhaps it should be.

George: 322.3.3 adds grade beams into the foundation and eliminates stem wall foundations in Coastal A zones.

Rebecca: Removing the stem wall option is written up by FEMA as a higher standard. The ASCE 24 permits backfill stem walls. She is aware of other localities that have removed it for 1-2 family residences, but leave it in for commercial buildings.

George: This is only proposed for the residential code.

George: 322.3.5, walls below the design flood elevation was amended to say that breakaway walls below the floor in Coastal A and high hazard areas are prohibited.

Rebecca: This is another FEMA higher standard. She asked if #2 about insect screening & lattice should remain in the code, and be made clear that those types of barriers are still permitted.

George: Yes, #2 can remain there as an exception.

George: 322.3.6 prohibits enclosed areas below the design flood elevation, which protects the building envelope. The idea is to keep tanks out of Coastal A and high hazard areas. If there is a tank, it should be kept above ground.

Rebecca: Someone asked her about tanks needed for sprinkler requirements and she thinks it makes sense. There shouldn't be chemical or fuel tanks, but water could be there, just elevated.

George: VEBC, flood elevation certificate should be completed by a land surveyor or registered professional engineer. He asked Steve Sunderman if it should say registered professional civil engineer.

Steve Sunderman: Yes, design professional of record or registered professional civil engineer.

Rebecca typed in chat:

**Rebecca Quinn obo FEMA**: Are civil engineers (or any engineers) authorized by law to do elevation surveys? Repeat my comment that whatever FEMA (or the I-Codes) say about engineers doing elevations doesn't supersede state authorization

**Paula Eubank**: This lacks consistency with VCC proposal.

Paul: DHCD will do some research on the issue of who can do the elevation survey. He asked Paula to elaborate on what she typed in the chat box.

Paula: wants consistent language. She thinks an architect can legally do this as well. She doesn't support it.

Paul: Going back through proposal 1, the group will vote on each section for approval or disapproval. Anything Consensus for Approval will go forward as a proposal from the Sub-workgroup. Non-Consensus items will go to the General Workgroup as proposals from George Homewood only if he submits them in cdp VA.

Steve Shapiro: Will the Sub-workgroup members who vote be identified on how they vote?

Paul: Yes, and only Sub-workgroup members can cast deciding votes.

{Break 10:53 – 11:00}

Paul: The group will review the sections of proposal #1 from George Homewood. Only Sub-workgroup members will vote thumbs up or thumbs down for each section. Any sections that have Consensus for Approval will go to the General Workgroup as one proposal coming from the SFPC Sub-workgroup. Non-consensus sections will go as a proposal coming from George Homewood as the proponent. All discussion notes and votes will be recorded as part of the summary that goes to the General Workgroup.

Rebecca: typed in the chat box:

**Rebecca Quinn obo FEMA**: IF wordsmithing was discussed, can we thumbs-up assuming that will be done

Paul: Yes. For example, where the group discussed using “civil engineer” instead of “engineer” it will be amended as proposed if the group votes that it is Consensus for Approval as Modified.

Steve Shapiro: A lot of these are things that FEMA gives points on as with CRS communities, for example. He doesn't agree with mandating some of these things for all localities. He gave a heads up that he will be voting no for some sections for that reason.

**103.4** – A modification from George Homewood was typed in chat to say “registered professional civil engineer”. Angela, Richard, Raka and Steve Shapiro voted thumbs down, everyone else voted thumbs up. Steve Shapiro typed in the chat that he would like to have an answer from DPOR first. Non Consensus.

**108.2** –Raka, Rebecca, Richard and Steve Shapiro voted thumbs down. Debbie abstained. Everyone else voted thumbs up. Non Consensus.

**Base Flood Elevation** – Consensus for Approval.

**Coastal A Zone** – Modified to change measurements from cm. to mm. Rebecca voted thumbs down, all other group members voted thumbs up. Non Consensus.

George: Asked Rebecca why she voted thumbs down.

Rebecca: Unless a change makes a technical difference, it's better not to do it. She thinks changes should be kept to a minimum. This is how FEMA defines Coastal A Zone, and it's adequate. It doesn't need to be changed.

**Coastal High Hazard Area** - Modified to change measurements from cm to mm. Consensus for Approval as Modified.

**Base Flood** – Rebecca voted thumbs down, all other group members voted thumbs up. Non Consensus.

Raka: In the Coastal A zone, the wave height is limited to 3 feet and it is 3 feet or more in the High Hazard Area. The High Hazard Area also shows velocity zones. Should velocity also be included in the Coastal A Zone?

George: Coastal A is a relatively new concept and its only designation is having breaking wave heights of 1.5 to 3 feet. The Velocity Enhancement, which is the absolute coastal wave action of 3 feet or greater is for the High Hazard Area.

Raka: Is there an overlap at the 3 foot line for the zones?

George: There might have been, so he made the change for that reason. The wave height for a High Hazard area is 3 feet or more and the Coastal A zone is not greater than 3 feet.

Rebecca: Typed in the chat box that there is no overlap.

Angela: Typed link in chat with FEMA guidance on the zones and velocity enhancement.

[https://www.fema.gov/pdf/rebuild/mat/coastal\\_a\\_zones.pdf](https://www.fema.gov/pdf/rebuild/mat/coastal_a_zones.pdf)

**Existing Building and Existing Structure** – George has withdrawn changes to these sections.

**Flood or Flooding** – Consensus for Approval.

**Change Design flood to Base Flood** – Rebecca voted thumbs down, all other group members voted thumbs up. Non Consensus.

**Flood Hazard Area** – Use the VCC wording, but strike “2070”. Consensus for Approval as Modified, same for Flood Hazard Area definition in the VRC.

Steve Shapiro: Did George want to add a #3 to this section specific to individual communities?

George: Not now. He copied the language from the VRC to the VCC to make it expedient.

**Floodway** – Angela, Rebecca and Raka voted thumbs down, all other group members voted thumbs up. Non Consensus.

**Special Flood Hazard Area** - Consensus for Approval.

Steve Shapiro: The previous discussion was to make a change.

George: He can go either way, and since FEMA was not keen on making the change, he will keep it as it was submitted.

Paula: Pointed out wording inconsistency with other sections as the Flood Insurance Study comes after FIRM. Also, after FIRM, use (FIRM).

**Substantial Improvement** – Richard, Angela, Steve Shapiro, Debbie and Rebecca voted thumbs down. The other group members voted thumbs up. Non Consensus

**802.4** – Steve Shapiro, Richard, Angela, Debbie, Raka and Rebecca voted thumbs down. The other group members voted thumbs up. Non Consensus.

Rebecca: Typed in chat box:

**Rebecca Quinn obo FEMA**: 802.4: Should not change because the elevation required by 1612 (ASCE 24) is higher than the WATER elevation. This contradicts ASCE 24

**{Note: Debbie Messmer stepped away from the room and did not vote on the next 5 sections}**

**1603.1.7** – George modified this to remove the year after the reference to ASCE 7. Rebecca voted thumbs down, Richard abstained and all other group members voted thumbs up. Non Consensus

**1612.4** – Following the discussion, George decided to withdraw this change completely.

Paul: There was discussion about removing the form number from the Elevation Certificate. There was also a discussion about 2.3, if it should remain in the current section, or move to another section.

George: He is fine with removing the form number. He noted that Rebecca typed in the chat that the Elevation Certificate doesn't belong where it is. He asked the group if they thought 2.3 belongs where it is, (which is where it was) and if so, wouldn't his amendment also belong there. If this is not the right place for him to propose his amendment to 2.3, then he thinks it is the wrong place for 2.3 to begin with.

Rebecca: 1.1 and 2.1 are the only items that require elevation certificates. 1.2, 1.3, 2.2 and 2.3 are certification of designs, not elevations. Also, if calling out the certificate in 1.1 and 2.1, the word "Approved" should instead say "Current, effective form". This has to be submitted first (before it's approved or not).

Paula: The registered design professional can prepare and seal the document. She wonders if there may be wording discrepancy with other sections.

**1805.1.2.1** – Steve Shapiro and Richard voted thumbs down, all other group members voted thumbs up. Non Consensus.

**322.1.3** – Richard, Steve Shapiro and Rebecca voted thumbs down, all other group members voted thumbs up. Non Consensus

**322.1.5** – Consensus for Approval

**{Note: Debbie Messmer returned to the room and continued to vote on the following sections}**

**322.1.6** – Rebecca, Richard and Steve Shapiro voted thumbs down as originally proposed, with the stricken language, and the addition of FEMA P-348, all other group members voted thumbs up. Non Consensus. On a second vote, only for the stricken language, without adding FEMA P-348, Richard and Steve Shapiro voted thumbs down and all other group members voted thumbs up. Non Consensus.

Rebecca: Supports striking the first part in the exception, but not adding "in accordance with FEMA P-348".

George – Agrees with that. Strike the first part and remove the reference to FEMA P-348.

**322.1.8** – Consensus for Approval

**322.1.9** – Rebecca voted thumb down, Richard abstained. All other group members voted thumbs up. Non Consensus

**322.2** – With a modification to change cm to mm. Consensus for Approval as Modified

{Lunch Break 12:02 – 12:30}

*{Note: Angela Davis was away from the room, and did not vote on the remaining sections of this proposal or on the Vinyl Siding proposal}*

**322.2.1 Item #4.2** – modified to read “flood damage resistant materials” for consistency with other sections. Consensus for Approval as Modified. (322.2.1, items 1-3 will remain as they are written in 2021).

Steve Shapiro: The charging statement in #4 talks about garage and carport floors, then section 4.2 talks about walls. It just seems odd.

Rebecca: It is about both floors and walls. If the floors are below the required elevation, there need to be additional wall requirements. “flood damage resistant materials” is the correct phrase that should be used here.

George: He agrees to “flood damage resistant”.

**322.2.2** – Following the discussion, a vote was taken on keeping the reference to TB-1 in this section. Richard and Steve Shapiro voted thumbs down, Debbie abstained and all other group members voted thumbs up. Non Consensus. The remainder of the changes in this section was tabled for a later time.

Rebecca: typed in the chat box:

**Rebecca Quinn obo FEMA**: R322.2.2: is the intent to refer to TB-1 only for engineered openings – even though item 2.1 is written to cover both engineered and non-engineered? If citing non-consensus is OK, recommend move pointer to RB 1 to the end of item 2. And if you’re OK citing TB 1, shouldn’t the same be in R322.2.2.1 (next)? Editorial to update pointers to ASCE 24, should be Sec. 2.7.2.2. (ICC issued errata)

George: is there a recommendation to modify something other than changing cm to mm?

Rebecca: TB-1 has lots of guidance about engineered and non-engineered openings. The way this reads now, it seems like it could apply to only engineered openings. The reference to TB-1 should be moved to item #2 and it would be better to say “in accordance with R322.2.1 and TB-1”, so that it would cover both the openings and the installation. Although, that may only cover the openings, and not the installation. Perhaps there should be a vote if there should be a reference to TB-1 at all.

Paul: Asked Rebecca if she would type something in a word document that might be acceptable language and placement.

Raka: Asked what the difference is between openings and flood openings, and would flood openings include other non-engineered openings?

George: Not all openings qualify as flood openings. This is an attempt to clarify that point.

Raka: OK, so it has to be a flood opening only. Thank you.

Paul: Asked George if he wanted to take a vote about including the reference to TB-1 in 322.2.2.

George: Yes.

Rebecca: Said if the group vote was to keep the reference to TB-1, she would send something with her opinion on where to put it and how it should read.

Steve Shapiro: Is TB in non-consensus language?

Rebecca: Yes, it is non-mandatory language for the most part. It is meant for guidance.

**322.3.1** – Consensus for Approval.

**322.3.3** – Steve Shapiro, thumbs down, Richard Gordon abstained, all others thumbs up. Non Consensus.

**322.3.5** – Modified to retain item #2 – Steve Shapiro voted thumbs down, all other group members voted thumbs up. Non Consensus.

**322.3.6** – Consensus for Approval.

**322.3.6.1** – Steve Shapiro and Rebecca voted thumbs down, all other group members voted thumbs up. Non Consensus.

Rebecca: Typed in the chat box:

**Rebecca Quinn obo FEMA**: envelope protection change only works if breakaway walls not allowed

**322.3.10** – Consensus for Approval.

**VEBC 103.9** – modified to say “registered professional civil engineer”. Richard Gordon abstained, and all other group members voted thumbs up. Consensus for Approval as Modified

*{Note: John Harbin was away from the room, and did not vote on the following sections}*

**RB230-22 – Vinyl Siding** – Following the discussion, Richard voted thumbs down, Debbie abstained, and all other



group members voted thumbs up. Non Consensus.

Paul: This proposal was developed by the Vinyl Siding Institute and FEMA to give technical guidance on proper installation of the starter strip, and if applicable, utility trim. This did receive a unanimous vote for approval by the ICC Committee Action Hearings in Rochester last month, with one modification. The floor modification was in 703.11.1.1, which says “Where the first course of siding has to be cut or trimmed, the bottom edge shall be secured with utility trim and snap locks as specified by the manufacturer's installation instructions”. The proponents of this proposal cited a study done after a hurricane in Florida, which found widespread damage due to a starter strip being improperly installed. They propose that if the starter strip is properly installed as proposed, it would mitigate damage, including windborne debris.

Steve Shapiro: This was voted 14-0 by the ICC Committee, but there is still a time of public comment, and a revisit in Louisville, KY later this year before it becomes final.

Richard: He doesn't think that VBCOA supported this because the siding cited in the report which showed damage may not have been installed properly in the first place. Typically the installation is part of the manufacturer instructions.

Raka: 703.11.1.1 is already in the 2021 code and is about fasteners. Should the # be different?

Paul: Yes, correlation would be needed if this carries.

**{Note: Angela Davis returned to the room and voted on the remaining proposals}**

**Tornado Loads Proposal – Paul Messplay** – Following the discussion, the vote was Consensus for Approval. This will go to the General Workgroup as coming from this Sub-workgroup.

Paul: This was also part of the ICC Committee Action Hearings in Rochester, and received a 14-0 vote. It was developed by ASCE, NIST and FEMA to include specific tornado loadings in the International Building Code under certain conditions. It was also supported by the NAHB at the hearings. It includes a map of tornado-prone regions and provides design considerations in those tornado-prone regions.

Steve Shapiro: There were two modifications proposed as well.

Paul: Yes, the first modification is in 1605.1 item 4 and in 2308.2.3 says “where design for tornado loads is required”. The second is in 1603.1.4, which was modified to say “wind loads, and where required by Section 1609.5 tornado loads”

**George Homewood – Proposal 2** – Following the discussion, Steve Shapiro voted thumbs down, Richard Gordon abstained and all other group members voted thumbs up. Non Consensus.

George: Withdraws the change to the definition in the first section, and is only submitting the change to 322.2.1. This is a proposal to add 3 feet of freeboard, changing it from 1 foot.

Rebecca: Supports not changing definitions. Asked George about why the change was made to 322.2.1 and not to 322.3.3.

George: Agrees with Rebecca, that it should also be in 322.3.3.

Paul: The group will not vote on the definition. The vote will be for changing to 3 feet in 322.2.1 and 322.3.3.

**George Homewood – Proposal 3** – Following the discussion, the vote on the first two sections (105.1.1 and 105.2.1) resulted in Consensus for Approval as Modified, striking the phrase “in localities in Coastal Virginia”. Debbie abstained and all other group members voted thumbs up. George withdrew the proposed change to Section 105.2.2

George: This proposal suggests that the building official and at least one technical assistant has general knowledge of floodplain and high-velocity wind construction requirements in Coastal Virginia areas.

Steve Shapiro: How is “general knowledge” defined and who decides if the building official and technical assistant has it? Is there definition of “Coastal Virginia”?

George: The General Assembly has defined Coastal Virginia. He could include a map if necessary. He copied the phrase “general knowledge” from a prior section.

Steve Sunderman: Wonders why this is restricted to Coastal Virginia? It could be applicable to other areas as well.

George: He would be happy to see this as a requirement in all areas, but he wanted to limit the scope so that it would be more acceptable.

Paul: As a reminder, Non Consensus proposals from the General Stakeholder Workgroups still go to the Board for consideration.

Steve Sunderman: Suggested removing “Coastal Virginia”, so that universally, the building officials and technical assistants should have general knowledge of floodplains and high-velocity wind construction.

Steve Shapiro: 105.2.2 requires a Certified Floodplain Manager, so it should be voted on separately.

George: Is ok with voting on the first two sections as written, and the third one separately.

Paul: Voting on the first two sections as written (105.1.1 and 105.2.1) resulted in Richard, Steve Shapiro and Steve Sunderman voting thumbs down, Debbie abstained and the other group members voted thumbs up. Non Consensus

Paul: Asked George if he wanted to take a vote on the first two sections, striking “in localities in Coastal Virginia”.

George: Yes.

George: wants to modify Section 105.2.2 to read “In localities designated as regulatory flood hazard areas”

Steve Shapiro: What if the building official is a CFM? Is that adequate?

George: Agreed. There should be at least one technical assistant or building official certified.

Richard: There could be another person who is a CFM besides the building official or technical assistant.

George: 105.2.2 is withdrawn.

**{Note: John Harbin was away from the room, and did not vote on the following sections}**

**George Homewood – Proposal 4** – After the discussion, the voting resulted in Consensus for Approval as Modified.

George: Added #4 and #8 to the list to have an inspection of the elevation at the foundation stage prior to vertical construction in #4 and prior to the final inspection in #8.

Rebecca: The language in 113.3.2 and 113.3.3 is the same as in the inspection section of the i-codes. The inspection has to be on more than just the elevation of the floor. She recommended that “of the elevation of the lowest floor” be removed. She asked if the pointer to 110 is still correct, or if it should point to 113.

Paul: Put a link in the chat for 113.3.2 and 113.3.3 in the i-codes. DHCD checks for correlation of the codes when proposals move forward.

Raka: There’s inconsistency with the section numbers. These are IBC section numbers.

George: He said he could remove “of the elevation of the lowest floor” in #4 as per Rebecca’s recommendation, but he doesn’t want to change the language in #8.

Paul: Asked George what he wanted to reference in #8?

George: It should be 113.3.3 in the Virginia code.

Paul: There will be a change to the section reference in #4 to 113.3.2. Strike “of elevation of lowest floor” and reference 113.3.3 in #8.

**George Homewood – Proposal 5**

George: As time has run out, this will probably have to be submitted next cycle.

**Next Steps:**

Paul: There were other things on the agenda, which will have to be tabled for now. Ellis McKinney is not here today, and he didn’t provide any documents to discuss the 2024 model code provisions. The positive impact analysis can be done in another meeting to go to Board, it doesn’t need to be done before May 1. DHCD will send a Doodle Poll to find a meeting date. He noted that there were many things voted on in today’s meeting, it was a valuable use of time. Some proposals will go as Consensus for Approval coming from the Sub-workgroup. Meeting Summaries for this Code Development Cycle are posted on the DHCD website. Paul typed a link in the chat box.