

Task Group 2

Chapter 2 Definitions

PC #	Log ID	Full Name Company Jurisdiction Entity Represented	Section Number Requested Action	Comment	Proposed Resolution	TG Action	Reason
PC 002	732	Howard Fortunato LandmarkJCM self	201.2 Interchangeability Delete and substitute as follows	Our staff Wetlands Scientist reviewed the definition and had these suggestions. She has re-written the definition based on the following comments: 1) Marshes and swamps are a type of wetland so I would not say "wetlands, marsh, or swamp. 2) In general, "constructed wetlands" and "restored wetlands" mean 2 different things, but since there is not a separate definition for "restored wetland" in the document, it is probably fine if they are lumped together in this definition. 3) I revised the wording for the last sentence for it to flow better.	CONSTRUCTED WETLAND. An artificial wetland system (such as a marsh or swamp) created as new and/or restored habitat for native wetland plant and wildlife communities, as well as to provide and/or restore wetland functions to the area. Constructed wetlands are often created as compensatory mitigation for ecological disturbances that result in a loss of natural wetlands such as anthropogenic discharge for wastewater, stormwater runoff, or sewage treatment; for land reclamation after mining; refineries; or for wetland losses associated with development		
PC 003	645	Robert Hill NAHB Research Center NAHB Research Center	202 Definitions Revise as follows	Infrastructure needs to be defined. It is not clear what "application to the NGBS" means and why it is appropriate. It was discussed the "existing" developments be retained because there were some developments that were halted midway thru the process due to the economic downturn. The original wording of the definition would allow new developments not to begin the verification process until the infrastructure was completed. This would make verification of new developments more difficult for both the developer and the verifier. The dates can be chosen by the committee or task group such that it would encompass those developments that have been halted mid way.	EXISTING SUBDIVISION. An area of land defined as "Site" in this Chapter, that has received all development approvals and has been platted and all infrastructure (roads, sewer, and utilities) is completed between <<date>> and <<date>> at time of application to the NGBS.		
PC 004	646	Robert Hill NAHB Research Center NAHB Research Center	202 Definitions Revise as follows	If additional infrastructure capacity is required it defeats the benefits of using an infill site. The standard should make it explicit that lots within an infill site qualify as infill lots even if additional roads, sewer, etc are needed to get to the lot.	INFILL. A location including vacant or underutilized land that may apply to either a Site or a lot and is located in an area served by existing infrastructure (such as centralized water and sewer connections, roads, drainage, etc.), with the capacity to serve the development and the site boundaries are adjacent to existing development on at least one side. Lots within an infill site are considered infill lots.		

Chapter 4 Site Design and Development

PC #	Log ID	Full Name Company Jurisdiction Entity Represented	Section Number Requested Action	Comment	Proposed Resolution	TG Action	Reason
PC 005	810	Bridget Herring Mathis Consulting Company Mathis Consulting Company	401.4 Low-slope site Delete without substitution	This is a difficult standard to verify and inspect. Furthermore, automatic points should not be awarded for lots located in an area with little naturally occurring slope (many lots). If anything, a requirement deducting points for building on steeper slopes would be appropriate.	401.4 Low-slope site. A site with an average slope calculation of less than 15% is selected. TBD		
PC 006	901	Ed Tombari NAHB	403.6 (13) Landscape Plan Revise as follows	A percentage figure was never included here (indicated by X). The task group then decided that they would rather eliminate the language altogether than determine a percentage. Because this is for Chapter 4 site development, this would be for common areas, therefore this would be a minor practice. Therefore, it was determined that determining a "Percentage" was not as critical in awarding points for this practice as it would be for a "lot."	(13) Cisterns, rain barrels, and similar tanks are structures designed to intercept and store runoff. These systems may be above or below ground, and they may drain by gravity or be pumped. Stored water may be slowly released to a pervious area, and used for irrigation of lawn, trees, and gardens located in common areas. X percent of site area is to be irrigated by these means and demonstrated on the site plan.		
PC 007	627	Kathleen Petrie City of Seattle, Department of Planning and Development City of Seattle, Department of Planning and Development	403.10 Existing and Recycled Materials Revise as follows	Points acquired for this section rely more on the waste of existing and recycled materials on, or being removed, from the site; Therefore, "demolition" has been added to acknowledge materials acquired from structure removal	403.10 Existing and recycled materials. Existing or recycled materials are used as follows. (Points awarded for every 10 percent of total building construction and demolition materials that are reused, deconstructed, and/or salvaged. The percentage is consistently calculated on a weight, volume, or cost basis.) (1) Existing pavements, curbs, and aggregates are salvaged or reincorporated into the development. (2) Recycled asphalt or concrete is utilized in the project.		
PC 008	666	Robert Hill NAHB Research Center NAHB Research Center	403.3 Slope Disturbance Revise as follows	0 percent is less than 25% and points should not be given for not avoiding any slope disturbance.	403.3 Slope disturbance. Slope disturbance is minimized by one or more of the following: (2) All or a percentage of roads are aligned with natural topography to reduce cut and fill. (a) less than 10% to 25 percent (b) 25 percent to 75 percent (c) greater than 75 percent		

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PC 009	667	Robert Hill NAHB Research Center NAHB Research Center	403.5 Storm Water Management Revise as follows	0 percent is less than 25% and points should not be given for not using any permeable materials.	403.5 Storm water management. Storm water is managed using management design includes one or more of the following low-impact development techniques: (3) Permeable materials are selected/specified for common area roads, driveways, parking areas, walkways, and patios. (a) less than 10% 10 to 25 percent (b) 25 percent to 75 percent (c) greater than 75 percent		
PC 010	733	Howard Fortunato LandmarkJCM self	403.5 Storm Water Management Revise as follows	403.5 (4) as a verifier, the language of "volume of the 95th percentile storm event" would not be readily accessible or clear to verify. Stormwater plans will not necessarily refer to this and an stormwater engineer told me the verifier would need to look at engineering calculations to verify this. Perhaps there is some other reference which shows on stormwater plans that could be referenced.	see comments above.		
PC 011	790	Shari Hendley J.S. Hovnanian & Sons J.S. Hovnanian & Sons	403.5 Storm Water Management Revise as follows	"volume of the 95th percentile storm event" in 403.5(4) sounds excessive and difficult to prove or disprove	Suggest another type of test or reference that may be more readily found on the site/stormwater plans.		
PC 012	668	Robert Hill NAHB Research Center NAHB Research Center	403.6 Landscape Plan Revise as follows	Add the word "or" to clarify that both uses are not required.	403.6 Landscape plan. A landscape plan is developed to limit water and energy use in common areas while preserving or enhancing the natural environment utilizing one or more of the following. (13) Cisterns, rain barrels, and similar tanks are structures designed to intercept and store runoff. These systems may be above or below ground, and they may drain by gravity or be pumped. Stored water may be slowly released to a pervious area, and/or used for irrigation of lawn, trees, and/or gardens located in common areas. X percent of site area is to be irrigated by these means and demonstrated on the site plan.		
PC 013	717	Brent Mecham Irrigation Association Irrigation Association	403.6 Landscape Plan Delete and substitute as follows	The limitation of turf seems to be arbitrary and does not consider the climate where the project is located. Often turfgrass is used in storm water management for its ability to stabilize the soil and to offer improved permeability and infiltration, evapotranspiration. Especially useful in climates with high natural precipitation	Delete all of the following The percentage of all turf areas are limited as part of the landscaping. (a) 0 percent 4 (b) greater than 0 percent to less than 25 20 percent 3 (c) 25 20 percent to less than 50 40 percent 2 (d) 50 40 percent to 75 60 percent Add: Use EPA WaterSense Water Budget Tool for New Homes 4 points		
PC 014	737	Greg Johnson Greg Johnson Consulting Outdoor Power Equipment Institute	403.6 Landscape Plan Revise as follows	The Outdoor Power Equipment Institute became aware of the NGBS standards activity after the first round of comments had closed; otherwise we would have commented to strike all of Sections 403.6. (4) and 503.5 (3). Instead, since points are still open for comment, we request that the points for turf limitations in Sections 403.6. (4) and 503.5 (3) be stricken and reallocated to other more appropriate sustainable practices within their respective sections. The proposed revisions to Sections 403.6 (4) and 503.5 (3) that expand disincentives for turfgrass areas conflict with the intent of the NGBS and aren't consistent with other trends in landscape regulation. The 'less turf-more points' formula suggests a negative environmental value to turfgrass and completely discounts its positive social, safety, and environmental attributes. Limiting turfgrass also limits builder flexibility in installing landscapes for the best site specific environmental performance and inhibits offering a green residential building able to compete on an apples-to-apples basis for curbside appeal. There is extensive scientific documentation of the valuable roles that turfgrass plays in stormwater management, for both erosion control and filtration; the control of wind erosion; carbon sequestration; and the mitigation of heat island effects. (end note 1.) Consider, for example, the cooling benefits of turfgrass. In some instances, ground level temperatures of grass-covered land areas are 30 to 40 degrees cooler than bare soil. They are also 50 to 70 degrees cooler than hardscaped (asphalt or concrete) areas. Reducing turfgrass only contributes to the 'heat island' effect which in turn increases demand for energy.(end note 2.) In addition to its cooling properties, managed turfgrass plays a positive role in our efforts to confront climate change. A well maintained, growing lawn that is fed by nutrients from grass clippings sequesters carbon from the atmosphere and helps to minimize the property's carbon footprint (end note 3.). Reducing turf areas and replacing them with mulch or hardscape makes active carbon 'sinks' inactive, potentially increasing the carbon released back into the atmosphere by exposing soils or using non-growing, decaying materials such as mulch. These alternative methods can be aesthetically appealing and help control water run-off and use, but they do not share the turfgrass benefit of contributing to the reduction of greenhouse gas emissions. The benefits of turfgrass in regard to soil erosion are also well documented. Research shows that a healthy, well-managed lawn with dense turfgrass has near zero storm water runoff and provides an effective infiltration mechanism. In his public comment to GG 243-11 of the International Green Construction Code, Dr. Brian Horgan, assistant professor of horticulture at the University of MN, wrote that "The thatch-forming capabilities of turfgrass in combination with a	Award 0 points for limiting the percentage of all turf areas as part of the landscaping (1) A plan is formulated to restore or enhance natural vegetation that is cleared during construction. Landscaping is phased to coincide with achievement of final grades to ensure denuded areas are quickly vegetated. <u>5 6</u> (2) On-site native or regionally appropriate trees and shrubs are conserved, maintained and reused for landscaping to the greatest extent possible. <u>5 6</u> (3) Turf grass species, other vegetation, and trees that are native or regionally appropriate for local growing conditions are selected. <u>4 6</u> (4) The percentage of all turf areas are limited as part of the landscaping. (a) 0 percent <u>4 0</u> (b) greater than 0 percent to less than 20 <u>3 0</u> (c) 20 percent to less than 40 percent <u>2 0</u> (d) 40 percent to 60 percent <u>4 0</u>		

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				<p>permanent and dense plant structure yields a less channelized pathway for water movement, which increases resistance, horizontal spread, and infiltration of surface runoff." For people who want to review the technical issues in depth, an extensive bibliography accompanies Dr. Horgan's IGCC 243-11 comment. That comment can be found on page 404 of the IGCC Final Action Agenda at: www.iccsafe.org/cs/IGCC/Pages/2011FinalActionAgenda Dr. Horgan's bibliography is offered in contrast to the complete absence of scientific foundation that was offered when turfgrass disincentives were suggested through public comment to the initial draft of the NGBS when the commenter merely referred to a few local green building programs in arid regions and stated: "Seems reasonable to give credit for both limited grass, as well as almost or no grass." Similarly, in this cycle of ICC-700, the EPA comment to create stronger disincentives for turfgrass installation was presented with arbitrary targets with no scientific justification. In the EPA comment the statement was made that "EPA supports the inclusion of a practice restricting turf areas in landscaping..." This conflicts with the EPA's August 12, 2011 public comment to GG 243-11 of the IGCC in which the agency asks for turf area restrictions to be eliminated, saying instead that "... a water budget approach would be preferable to guide landscape design, irrespective of the source of irrigation..." It also conflicts with the October 21, 2011 WaterSense Notification of Intent in which the EPA announced its intent to remove the 40% turf limitation from the WaterSense Specification and the White House's Council on Environmental Quality's October 31, 2011 Guidance for Federal Agencies on Sustainable Practices for Designed Landscapes which has no prescriptive turf limitation and in fact recommends the use of turf for certain circumstances. This philosophical approach parallels the action of the International Code Council's membership which overwhelmingly rejected all turf limitations at the final action hearings for the IGCC on November 3, 2011. The best way to facilitate a market approach to green building demand is to offer features that the public wants while providing buildings and sites with superior environmental performance. There was extensive discussion during the development of the first edition of the NGBS about prohibiting fire places and swimming pools from green residential buildings or awarding 'negative points' to buildings that offered those amenities. The committee wisely rejected approaches that created disincentives to demand for green residential buildings. Turfgrass is a similar amenity. For many people the maintenance of a lawn is a hobby of choice and a matter of pride. It's also affordable, for both installation and maintenance, which can help foster more green building demand. Simply, many people like turfgrass and many would want to own or live in a green residential building with the amenity. Beyond amenities, turfgrass has larger societal benefits as well. It is the superior vegetative surface material for athletic activity, both organized and informal. It is unparalleled as a vegetative surface for viewing performances and other outdoor assembly uses and social gatherings. It is the most accessible traveling surface, other than hardscapes, as it allows for unobstructed, omni-directional movement. Where public safety is a concern, it is an inviting feature because it doesn't permit undesirable lurking. For fire safety purposes turfgrass serves as defensible space for compliance with the Wildland Urban Interface Code and, when used with Grasscrete or similar materials, is suitable for use as a fire access lane. Finally, the division of points in our proposed change doesn't reduce the total amount of points available for providing a landscape plan designed to limit water and energy use. Instead those points are allocated to other practices that demonstrably preserve or enhance the natural environment and which can benefit from the inclusion of turfgrass as an environmentally sound landscape strategy. Note that the greatest point increase is given to providing vegetation that is native or regionally appropriate for local growing conditions which is the best option in these sections for fostering water efficiency. Notes: 1. University of Minnesota. 2006. Environmental Benefits of a Healthy, Sustainable Lawn. Sustainable Urban Landscape Information Series. http://www.sustland.umn.edu/maint/benefits.htm 2. Beard, J.B. and R.L. Green. 1994. The Role of Turfgrasses in Environmental Protection and Their Benefits to Humans. Journal of Environmental Quality. Vol 23:3 3. Sahu, R. 2008. Technical Assessment of the Carbon Seguestration Potential of Managed Turfgrass in the United States. Outdoor Power Equipment Institute (OPEI). Alexandria, VA.</p>			
PC 015	752	Derek Huetinck BeaconCrest Homes MNCBIA Green Building Committee	405.9 Open Space Revise as follows	<p>While awarding points for open space is appropriate, the reason for the open space should not be a factor in the awarding of points as open space provides the same benefits irrespective of its reason. Moreover, by calibrating points for open space against local codes, projects in different jurisdictions will be held to different standards which will take away from the uniformity of the standard.</p>	<p>Open Space. A portion of the gross area of the community has been set aside as open space: 1 point for every 10% of the community set aside as open space, beyond local code requirement.</p>		

Chapter 5 Lot Design, Preparation and Development

PC #	Log ID	Full Name Company Jurisdiction Entity Represented	Section Number Requested Action	Comment	Proposed Resolution	TG Action	Reason
PC 016	650	Steve Hale Build Green NM Build Green NM	501.1 Lot Revise as follows	There are over 170 points available for certifying a subdivision in chapter 4 of the NGBS. A certified subdivision will be easier to build a sustainable home on but there is a disconnect between chapter 4 and chapter 5 of the NGBS.(use the simple example of how proper lot orientation helps with the heating and cooling needs of the home) With so many practices available that can help the builder get a head start on their certification there is a definite need to incentivize a developer to build a certified subdivision. The best incentive is to give more points in chapter 5 to a builder that chooses to build in a certified subdivision. I suggest changing the point structure of this practice.	501.1 Lot. The lot is selected to minimize environmental impact by one or more of the following: (1) The builder selects a lot within an NGBS certified green community or equivalent on which to build. 4 20 for 4-star 3 15 for 3-star 2 10 for 2-star 1 5 for 1-star green community		
PC 017	811	Bridget Herring Mathis Consulting Company Mathis Consulting Company	501.1 Lot Delete without substitution	This is a difficult standard to verify and inspect. Furthermore, automatic points should be awarded for lots located in an area with little naturally occurring slope(many lots). If anything, a requirement deducting points for building on steeper slopes would be appropriate.	501.1 (5) Low-slope site. A site with an average slope calculation of less than 15% is selected. TBD		
PC 018	669	Robert Hill NAHB Research Center NAHB Research Center	503.2 Slope Disturbance Revise as follows	0 percent is less than 25% and points should not be given for not aligning any of the driveway. Is the intent of this practice to provide 5 points to any driveway on a flat lot? If not then the practice should be modified to reflect that.	503.2 Slope disturbance. Slope disturbance is minimized by the use of terrain adaptive architecture including terracing, retaining walls, landscaping, or other re-stabilization techniques. (2) All or a percentage of driveways and parking are aligned with natural topography to reduce cut and fill. (a) less than 10% to 25 percent (b) 25 percent to 75 percent (c) greater than 75 percent		
PC 019	902	Ed Tombari NAHB	503.2 Slope disturbance	This was merely an organizational error of the structure of the language. Please revise the structure so that these are listed as 5 practices rather than as four as indicated below.	503.2 Slope disturbance. Slope disturbance is minimized by: (1) The use of terrain adaptive architecture including terracing, retaining walls, landscaping, or other re-stabilization techniques. one or more of the following. (Points awarded only if there are developable steep slopes on the lot.) (1) All or a percentage of development on steep slopes is avoided. (a) less than 25 percent 2 (b) 25 percent to 75 percent 3 (c) greater than 75 percent 4 (2) (2) Hydrological/soil stability study for steep slopes is completed and used to guide the design of all buildings on the site. (3) (3) All or a percentage of roads/driveways and parking are aligned with natural topography to reduce cut and fill. (a) less than 25 percent 1 (b) 25 percent to 75 percent 3 (c) greater than 75 percent 5 (4) (4) Long-term erosion effects are reduced through the design and implementation of terracing, retaining walls, landscaping, and or restabilization techniques (5) (5) Underground parking uses the natural slope for parking entrances.		

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PC 020	797	Shari Hendley J.S. Hovnanian & Sons J.S. Hovnanian & Sons	503.4 Storm Water Management Revise as follows	503.4(5) "volume of the 95th percentile storm event" sounds excessive and difficult to prove or disprove.	Suggest another type of test or reference that may be more readily found on the site/stormwater plans.		
PC 021	738	Greg Johnson Greg Johnson Consulting Outdoor Power Equipment Institute	503.5 Landscape Plan Revise as follows	The Outdoor Power Equipment Institute became aware of the NGBS standards activity after the first round of comments had closed; otherwise we would have commented to strike all of Sections 403.6. (4) and 503.5 (3). Instead, since points are still open for comment, we request that the points for turf limitations in Sections 403.6. (4) and 503.5 (3) be stricken and reallocated to other more appropriate sustainable practices within their respective sections. The proposed revisions to Sections 403.6 (4) and 503.5 (3) that expand disincentives for turfgrass areas conflict with the intent of the NGBS and aren't consistent with other trends in landscape regulation. The 'less turf-more points' formula suggests a negative environmental value to turfgrass and completely discounts its positive social, safety, and environmental attributes. Limiting turfgrass also limits builder flexibility in installing landscapes for the best site specific environmental performance and inhibits offering a green residential building able to compete on an apples-to-apples basis for curbside appeal. There is extensive scientific documentation of the valuable roles that turfgrass plays in stormwater management, for both erosion control and filtration; the control of wind erosion; carbon sequestration; and the mitigation of heat island effects. (end note 1.) Consider, for example, the cooling benefits of turfgrass. In some instances, ground level temperatures of grass-covered land areas are 30 to 40 degrees cooler than bare soil. They are also 50 to 70 degrees cooler than hardscaped (asphalt or concrete) areas. Reducing turfgrass only contributes to the 'heat island' effect which in turn increases demand for energy.(end note 2.) In addition to its cooling properties, managed turfgrass plays a positive role in our efforts to confront climate change. A well maintained, growing lawn that is fed by nutrients from grass clippings sequesters carbon from the atmosphere and helps to minimize the property's carbon footprint (end note 3.). Reducing turf areas and replacing them with mulch or hardscape makes active carbon 'sinks' inactive, potentially increasing the carbon released back into the atmosphere by exposing soils or using non-growing, decaying materials such as mulch. These alternative methods can be aesthetically appealing and help control water run-off and use, but they do not share the turfgrass benefit of contributing to the reduction of greenhouse gas emissions. The benefits of turfgrass in regard to soil erosion are also well documented. Research shows that a healthy, well-managed lawn with dense turfgrass has near zero storm water runoff and provides an effective infiltration mechanism. In his public comment to GG 243-11 of the International Green Construction Code, Dr. Brian Horgan, assistant professor of horticulture at the University of MN, wrote that "The thatch-forming capabilities of turfgrass in combination with a permanent and dense plant structure yields a less channelized pathway for water movement, which increases resistance, horizontal spread, and infiltration of surface runoff." For people who want to review the technical issues in depth, an extensive bibliography accompanies Dr. Horgan's IGCC 243-11 comment. That comment can be found on page 404 of the IGCC Final Action Agenda at: www.iccsafe.org/cs/IGCC/Pages/2011FinalActionAgenda Dr. Horgan's bibliography is offered in contrast to the complete absence of scientific foundation that was offered when turfgrass disincentives were suggested through public comment to the initial draft of the NGBS when the commenter merely referred to a few local green building programs in arid regions and stated: "Seems reasonable to give credit for both limited grass, as well as almost or no grass." Similarly, in this cycle of ICC-700, the EPA comment to create stronger disincentives for turfgrass installation was presented with arbitrary targets with no scientific justification. In the EPA comment the statement was made that "EPA supports the inclusion of a practice restricting turf areas in landscaping..." This conflicts with the EPA's August 12, 2011 public comment to GG 243-11 of the IGCC in which the agency asks for turf area restrictions to be eliminated, saying instead that "... a water budget approach would be preferable to guide landscape design, irrespective of the source of irrigation..." It also conflicts with the October 21, 2011 WaterSense Notification of Intent in which the EPA announced its intent to remove the 40% turf limitation from the WaterSense Specification and the White House's Council on Environmental Quality's October 31, 2011 Guidance for Federal Agencies on Sustainable Practices for Designed Landscapes which has no prescriptive turf limitation and in fact recommends the use of turf for certain circumstances. This philosophical approach parallels the action of the International Code Council's membership which overwhelmingly rejected all turf limitations at the final action hearings for the IGCC on November 3, 2011. The best way to facilitate a market approach to green building demand is to offer features that the public wants while providing buildings and sites with	Award 0 points for the elimination or restriction of turfgrass areas (1) Where a lot is less than 50% turf, a plan is formulated to restore or enhance natural vegetation that is cleared during construction. Landscaping is phased to coincide with achievement of final grades to ensure denuded areas are quickly vegetated. 5 6 (2) Turf grass species, other vegetation, and trees are selected and specified on the lot plan that are native or regionally appropriate for local growing conditions. 4 6 (3) The percentage of turf areas that is designed to be mowed is limited and shown on the lot plan. The percentage is based on the landscaped area of the lot not including the home footprint, hardscape, and any undisturbed natural areas. (a) 0 percent 4 0 (b) greater than 0 percent to less than 20 3 0 (c) 20 percent to less than 40 percent 2 0 (d) 40 percent to 60 percent 4 0 Practices 4 through 6 unchanged (6) Vegetative wind breaks or channels are designed to protect the lot and immediate surrounding lots as appropriate for local conditions. 4 5		

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				superior environmental performance. There was extensive discussion during the development of the first edition of the NGBS about prohibiting fire places and swimming pools from green residential buildings or awarding 'negative points' to buildings that offered those amenities. The committee wisely rejected approaches that created disincentives to demand for green residential buildings. Turfgrass is a similar amenity. For many people the maintenance of a lawn is a hobby of choice and a matter of pride. It's also affordable, for both installation and maintenance, which can help foster more green building demand. Simply, many people like turfgrass and many would want to own or live in a green residential building with the amenity. Beyond amenities, turfgrass has larger societal benefits as well. It is the superior vegetative surface material for athletic activity, both organized and informal. It is unparalleled as a vegetative surface for viewing performances and other outdoor assembly uses and social gatherings. It is the most accessible traveling surface, other than hardscapes, as it allows for unobstructed, omni-directional movement. Where public safety is a concern, it is an inviting feature because it doesn't permit undesirable lurking. For fire safety purposes turfgrass serves as defensible space for compliance with the Wildland Urban Interface Code and, when used with Grasscrete or similar materials, is suitable for use as a fire access lane. Finally, the division of points in our proposed change doesn't reduce the total amount of points available for providing a landscape plan designed to limit water and energy use. Instead those points are allocated to other practices that demonstrably preserve or enhance the natural environment and which can benefit from the inclusion of turfgrass as an environmentally sound landscape strategy. Note that the greatest point increase is given to providing vegetation that is native or regionally appropriate for local growing conditions which is the best option in these sections for fostering water efficiency. Notes: 1. University of Minnesota. 2006. Environmental Benefits of a Healthy, Sustainable Lawn. Sustainable Urban Landscape Information Series. http://www.sustland.umn.edu/maint/benefits.htm 2. Beard, J.B. and R.L. Green. 1994. The Role of Turfgrasses in Environmental Protection and Their Benefits to Humans. Journal of Environmental Quality. Vol 23:3 3. Sahu, R. 2008. Technical Assessment of the Carbon Sequestration Potential of Managed Turfgrass in the United States. Outdoor Power Equipment Institute (OPEI). Alexandria, VA.			
PC 022	753	Derek Huetinck BeaconCrest Homes MNCBIA Green Building Committee	503.5 Landscape Plan Revise as follows	The new language creates unnecessarily complicated calculations that will add unneeded costs to the certification process. The original language is better than the proposed new language.	Species and locations for trees or tree planting of at least 3 trees are identified on the lot plan that will provide summer shading of streets, parking areas, and buildings to moderate temperatures within 5 years of completion of the building.		
PC 023	748	Jamie Hager Southern Energy Management self	504.3 Soil disturbance and erosion implementation Delete without substitution	504.3.8 is the exact same item as 503.3.2. Recommend deleting one of the items or if the intent is to award 10 total pts, just award the points and list the item once.	Delete 504.3.8 because it is the same item as 503.3.2 (utility installation strategy points)		
PC 024	639	John Gant Glen Raven Inc self	505.2 Heat Island Mitigation Revise as follows	The proposed "(3)Permeable Hardscaping" is a consideration of storm water management and does not belong in this section. Delete from here, as they are absolutely not directly related and certainly not substitutable as alternatives for this credit.	Reject (3) as proposed.		
PC 025	640	John Gant Glen Raven Inc self	505.2 Heat Island Mitigation Revise as follows	The moment of evaluation is given as "summer solstice at noon" which is one month earlier than the peak cooling moment, and which is a high sun angle that does not optimize performance of shading which should be designed to work for the insulation endured for the hours from 10 am to 4 pm. A change should be made so that south-side shading is more valued than north-side shading (over a parking lot for instance), which is very true.	Substitute "July 20th at 4 pm" for "summer solstice at noon".		
PC 026	641	John Gant Glen Raven Inc self	505.2 Heat Island Mitigation Revise as follows	Item (4) should recognize roof areas that are specifically dedicated to solar electric or solar thermal equipment.	Add "(c)Areas immediately occupied by solar thermal or solar electric systems."		
PC 027	670	Robert Hill NAHB Research Center NAHB Research Center	505.2 Heat Island Mitigation Revise as follows	There is now a sub practice related to roof surfaces. Since roofs do not meet the definition of hardscape, roofs should explicitly be included in the areas targets to meet the 50% threshold.	505.2 Heat island mitigation. Heat island mitigation. Any combination One or more of the following strategies are provided for a minimum of 50 percent of the <u>total</u> horizontal surface area of the hardscape <u>and roofs</u> on the lot:		
PC 028	704	Gladys Quinto Marrone BIA Hawaii BIA Hawaii	505.2 Heat Island Mitigation Revise as follows	No guidance as to whose numbers we can use to determine solar reflectance.	505.2(2) – Heat island mitigation via materials with solar reflectance of 29.		

PC #	Log ID	Full Name Company Jurisdiction Entity Represented	Section Number Requested Action	Comment	Proposed Resolution	TG Action	Reason
PC 029	835	Craig Conner Building Quality self	505.2 Heat Island Mitigation Delete and substitute as follows	Use more appropriate cool roof requirements. Cover both high and low slope roofs.	602.2 Roof surfaces. Delete and replace with Roof solar reflectance and thermal emittance. In climate zones 1, 2, and 3 roof coverings shall comply with this section. Roof requirements in Section C402.2.1.1 of the <i>International Energy Conservation Code</i> shall apply, including the exceptions. Where not exempted, high sloped roofs, with a slope less than of 2 units vertical in 12 horizontal or more shall comply with IECC Section 502.2.1.1. Roofs with other slopes shall comply with at least one of the four options in Table. MINIMUM REFLECTANCE AND EMITTANCE FOR OTHER THAN LOW HIGH-SLOPED ROOFS a. The use of area-weighted averages to meet these requirements shall be permitted. Materials lacking initial tested values for either <i>solar reflectance</i> or <i>thermal emittance</i> , shall be assigned both an initial <i>solar reflectance</i> of 0.10 and an initial <i>thermal emittance</i> of 0.90. Materials lacking three-year aged tested values for either <i>solar reflectance</i> or <i>thermal emittance</i> shall be assigned both a three-year aged <i>solar reflectance</i> of 0.10 and a three-year aged <i>thermal emittance</i> of 0.90. b. Tested solar reflectance and thermal emittance shall be in accordance with CRRC-1 Standard. c. Solar reflectance index (SRI) shall be determined in accordance with ASTM E1980 using a convection coefficient of 2.1 BTU/h-ft ² -F (12W/m ² .K). Calculation of aged SRI shall be based on aged tested values of solar reflectance and thermal emittance. Calculation of initial SRI shall be based on initial tested values of solar reflectance and thermal emittance.		
PC 030	749	Jamie Hager Southern Energy Management self	505.4 Mixed-use development Revise as follows	505.4 is not clear how this may apply to typical single family lots, is this just a multi-family item? Also not clear what would be an acceptable mixed-use building on the lot, provide examples. Recommend making it applicable to single family lots by awarding points for the lot being within X distance (to be determined by task group) of a mixed use building or within a mixed use community.	Recommend making it applicable to single family lots by awarding points for the lot being within X distance (to be determined by task group) of a mixed use building or within a mixed use community and providing examples/definition of "mixed-use".		
PC 031	751	Jamie Hager Southern Energy Management self	505.5 Community Garden(s) Revise as follows	While this makes sense for multi-family lots, this is also not clear how it might apply to a typical single family lot. Seems worthy of pts if could revise to allow single family lots within X distance of a community garden to receive the points or be located in a community that provides a garden plot.	Revise to include a way for this item to be applicable to single family lots, such as pts awarded for lot being within X distance of a community garden or located in a community that provides access to a community garden plot.		