

GREEN BUSINESS EVALUATION: Colonial Stoneworks

The Green Alliance will consider the following factors in evaluating your business' commitment to environmental responsibility. This is meant to be a guide, not a test, and will help you think about ways to move toward further sustainability. It will also help us promote what makes you "green" to local consumers and provide transparency to the community. A green business will bring sustainable practices into some or all of the following aspects of commerce: production and service, supply chain management, employment, investment, community relations, and vendors.

Green Products

1. Do you offer a green version of a good or service? What makes it green? What made you decide to green your business and/or product?

X 3) Yes, everything 2) Mostly (> 50%) 1) Some (<50%) 0) None N/A

Colonial Stone Works' (CSW) whole business is built around "green hardscaping." Hardscaping generally refers to paved areas like streets & sidewalks, where the upper-soil-profile is no longer exposed to the actual surface of the Earth. In CSW's case, it refers to its use of granite. CSW strictly deals with granite, which is inherently greener than concrete (concrete, as a product, is CSW's biggest competition in the hardscaping space). "In hardscaping, things don't grow," says Adam Bennett, owner of CSW. "I only work with natural stone; I have no desire to work with concrete, which is very energy-intensive to produce. " Bennett only works with natural stone; therefore, it must be mined or quarried, then transported. In that scenario, it's human labor, not machines performing the work.

In contrast, concrete production requires mining for aggregate, then going to a factory for production. Subsequently, a large diesel-powered truck is necessary, as concrete must be rolled so it doesn't "set". In contrast, stone is already set, and doesn't require energy-intensive production once it's mined.

Bennett further greens his business by sourcing as much granite as possible locally – which is very feasible given the abundance of granite in New England. This avoids the consistent need to have granite trucked in from out of state using large haulers. And Bennett sees the sustainability he's built into his business as a way to differentiate himself from other landscapers. "Traditional landscapers have built their businesses on gas-powered small motors, which are really bad polluters because they lack carburetors," Bennett commented. "With my stonework, once I arrive at a client location, it's on me to create beauty, not a machine. And stone has a simplicity and beauty that concrete will never match."

Additionally, Bennett uses biodiesel in his truck.

2. Do you offer it as a choice alongside other non-green products or is it all you offer?

3) Only green products sold \mathbf{X} 2) More (>50%)

1) Some (>50%)

0) None

N/A

Over 50% of CSW's services are green. If a customer requests it, Bennett subcontracts paver work, concrete walls, and cobblestone driveways. CSW also offers snow removal, which requires gas-powered vehicles.

3. Do you educate the customer about what makes this choice sustainable; encourage it? How do you and your employees keep abreast of sustainability developments in your industry?

3) Yes, education major part of business strategy; aggressive efforts to stay educated X 2) Yes, but not central focus of sales/marketing; some on-going education 1) Minimal education 0) No education N/A

Bennett makes a point to educate his customers on the sustainability of (1) natural stone rather than concrete, and (2) using locally-sourced stone for hardscaping, rather than having it trucked in from hundreds of miles away. But he says that his customers are frequently quite far down the sustainability paths, anyway. "People who appreciate good stonework also appreciate nature, and these folks usually prefer an eco-conscious contractor. It's those people that are my target market".

4. Does the customer pay more for the "green" option?

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3) Costs less or same 2) costs a little more X 1) Costs significantly more 0) almost cost-prohibitive N/A
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Since the lowest cost stone usually requires significant transport (i.e. coming from a major distribution facility in Pennsylvania), CSW's use of locally-sourced stone does cost his customers more.

5. Is there a greener version of your product? If so, what prohibits you from offering it?

X 3) No, offer the greenest 2) Yes, working toward offering 1) Yes, but not in business plan 0) Yes, no intent to offer N/A

Bennett's use of reclaimed, locally-sourced stone (including using granite that he personally finds at abandoned NH quarries) carries a minimal carbon footprint.

6. Are there greener options/products that you plan on offering in the future?

3) Yes, tangible plans with date 2) Yes, no specific date X 1) Possibly, investigating possibilities, no solid plan) No, never N/A

While Bennett has no specifics in mind, he researches interesting ways to further green his stoneworks operation.

Energy Use:

Have you conducted an energy audit? Identified areas of inefficiency? Taken corrective measures?
 3) Yes, official audit completed, corrective measures taken
 2) Audit in process, has committed to official audit/official audit completed, no corrective measures taken
 1) unofficial audit, corrective measures

X 0) No official or unofficial audit, no measures taken

Since Bennett's only "facility" is his garage that doubles as his shop & home office, he has not had an energy audit conducted. But the company has instituted enforcement of weekly service and maintenance programs on all equipment and trucks to keep things operating at maximum efficiency.

8. Have you invested in energy efficient technology/equipment/appliances? Energy Star?

3) Yes, substantial equipment changes 2) Some equipment changes 1) minor equipment change 0) No

new	equipment	_ _	N/A

CSW uses no appliances in its stonework.

9. If you heat with oil, are you using Bioheat or some other renewable source (wood?)?

3) Yes, B20 or 100% wood X 1) Yes, B5 or some wood 0) No, Oil N/A (no oil system)

CSW uses B5 biofuel in its company truck, and uses radiant floor heating in its shop.

10. If your business is in Maine or Massachusetts, are you using Green Electricity? If in Maine, are you participating in the Efficiency Maine Program? If in NH, have you contacted PSNH about their business efficiency programs?

3) Yes using Green Electricity/ participating in Efficiency ME or PSNH program 2) Looking into green electric, have contacted Me/NH programs 1) Extenuating circumstances make green electric cost-prohibitive , will

connect with PSNH or Eff Me. 0) ME or MA resident, no Green Elec., no state program involvement X N/A (NH res. only)

N/A

11. Have you looked at water usage and taken steps toward efficiency and conservation?

3) Yes, steps taken 2) Some conservation measures 1) Minor measures taken 0) None X N/A

N/A, as CSW only uses water in its operations as a mix on mortar, and for his wet saw.

12. Do you offer bottled water at your office/store for employees & customers?

(This is highly energy intensive and unnecessary in a developed country like the U.S.)

3) No water & has business that would traditionally offer 2) No bottles, replaced with cooler /minimal sales

1) limited sales 0) Yes, bottles X N/A

Bennett uses tap water at his shop, and uses a stainless steel bottle for beverages when at jobsite

13. Do you shut-down/unplug equipment after hours on weekends or when not in use? Do you turn off all lights after hours or if not using a room? Educate employees to do the same? (Vampire loads waste enormous amounts of energy; turning off 1 computer saves 500 lbs. of CO2 yearly.)

3) Yes X 1) Sometimes 0) No N/A

Bennett sometimes shuts down his equipment when not in use. He certainly turns off the lights in his shop when he's not there.

14. Have you switched to CFLs; dispose of CFLs properly? LED lighting? Motion sensors or Energy Misers for vending machines to reduce energy use? (CFLs use 66% less energy – save \$45 over the life of the bulb! CFLs contain mercury and must be disposed of properly)

3) Yes, all lighting CFLs, some LEDs, motion sensors and/or Energy Misers 1) Most lighting CFLs, one motion

sensor X 0) Still using incandescents N/A

Bennett is using incandescent lighting in his shop.

15. Is your business lit-up at night? Is your sign lit-up all night? Switch these to CFLs or LEDs?

3) Lit up, using LED lighting1) Business lit up, using CFL or fluorescents/timers in place0) Lit upusing incandescent, no timerXN/A

CSW has no electric-powered sign for his business; his vehicle (with his logo) functions as his sign.

16. What is your business' carbon footprint? Have you tried to reduce your business' CO2 emissions?

If so, by how much? (Calculate it at <u>www.terrapass.com</u> also the EPA now has a Climate Leaders Small Business Network program that aids in calculating a business's CO2 footprint, to learn more or participate, go to http://www.epa.gov/stateply/smallbiz/smallbiznetwork.html)

3) Calculated, show results, tangible plan to reduce implemented for extensive carbon reduction 2) Officially

calculated or unofficially calculated, tangible plan with modest reductions X 1) Have not calculated officially or unofficially but have taken some steps to reduce based upon rough estimate 0) Not calculated, no effort to reduce

Bennett has not officially calculated CSW's carbon footprint, but takes steps (such as minimizing mileage) to lower his existing, relatively-low footprint.

17. Do you use any renewable technology? Have you explored wind/solar/geothermal?

3) Yes, hardware on sight 2) Tangible plans for future 1) Researching/researched options, not

possible

X 0) No attention given

CSW's energy use at his shop is so low that he has not explored the use of renewable energy, other than the biofuel for his vehicle.

18. Do you encourage/educate employees to use energy responsibly at home? Customers?

3) Yes, major part of business strategy 2) Some, not central focus to training 1) Minimal education, not

comfortable preaching 0) N

0) No education/encouragement

X N/A

X N/A

N/A, as CSW has only one employee.

19. Is your building LEED certified? Have you considered LEED retrofitting? EPA energy challenge? Energy Star certification?

3) Yes, LEED's cert or retrofitted 2) Lesser programs, EPA/Energy star; some tangible changes 1) Informal

assessment of building's energy use 0) No LEED, No retrofitting, No conservation efforts

N/A, as Bennett's facility is merely a garage to provide some weather protection, and some storage space.

Waste:

20. Do you recycle? How extensively? Is it easy and automatic? Have you instituted/encouraged/educated employees/customers on recycling? (America consumes 31.2 billion water bottles a year, using 17.6 million barrels of oil to create them.)

X 3) Yes, extensive recycling for everything produced/sold, prominent display for customers 2) More than the status quo, some special effort 1) Minimal, fulfilling status quo 0) Don't recycle N/A

CSW extensively uses reclaimed stone, and uses any extra stone as fill for walkways. Moreover, once concrete has been knocked down, it can only be used as fill. In contrast, stone can always be

resold, and is always recyclable. And concrete does not have an infinite lifespan; it degrades a bit over time. Stone does not degrade.

21. Have you done a waste audit? Have you reduced your waste? (if started green consider industry norms) (See the EPA's free Waste Wise which analyzes a workplaces' municipal solid waste and helps you to monitor and reduce it!)

3) Yes, official audit/50% reduction in waste X 2) Yes, reduced substantially, aprox. 20% 1) Slight reduction in waste 0) Nothing done N/A

Bennett has given thought about using a screening bucket for his bobcat when excavating. He does not waste his crushed up stone; rather, he uses it a drainable back-fill.

22. If you use packaging or offer food, are there cloth/paper/cornstarch alternatives to any plastics you are using? Do you sell a product that is packaged? Do you receive goods extensively packaged? Is that packaging necessary and have you talked to suppliers about excessive or wasteful packaging? (*Five trillion plastic bags are manufactured each year. Americans throw away 100 billion bags a year – using 12 million barrels of oil in production - of those only 1% is recycled*)

3) All or almost all packaging renewable/sustainable/biodegradable, chooses suppliers that minimally package/encourages all suppliers to consider packaging
2) Some/a good portion renewable/etc, has influenced a supplier or changed due to packaging
1) Minor alternatives integrated into packaging, considers packaging of a

supplier 0) Using typical plastics, no consideration of suppliers/vendors' packaging XN/A

N/A, as stone needs no packaging.

23. Do you compost?

3) Yes, greater than 75% of compostable waste 2) Some 1) Minimal/No special effort 0) None X N/A

N/A, as Bennett is not dealing with compostable material.

24. Do you buy post consumer recycled paper? Do you recycle paper? Do you print your brochures/flyers/business materials on recycled paper? Do you use both sides of paper whenever possible? Print on both sides? Print black and white when possible? Do you reuse what you can in the office? Boxes, envelopes, etc...? Encourage conservation of products? (*Staples offers printing on recycled paper for the same cost of virgin paper. Ram Printing Company, a Green Alliance member, offers fully sustainable printing options which include sustainably harvested paper products and soy-based sustainable ink options for the same price as other printers, visit www.theramcompanies.com)*

3) Only uses recycled, recycling, conserving, printing (only if business materials on recycled), full commitment to

sustainable printing and paper use X 2) Often uses recycled, do recycle, do conserve. have not yet moved to print business materials with sustainable printer 1) Recycling paper, minimal conservation 0) No recycled/recycling N/A

CSW recycles what little paper it uses (Bennett prefers electronic communications and invoicing whenever possible), and uses recycled paper for its printed material. CSW typically refrains from color printing, and makes judicious use of previously-used boxes, envelopes, or other materials.

25. Do you recycle printer/toner cartridges?

X 3) Yes 0) No N/A

CSW recycles its printer cartridges.

26. Do you donate furniture/equipment instead of throwing it out? Try to obtain used or second-hand office equipment, furniture or industry equipment?

X 3) Yes, obtain second-hand as much as possible/donate and reuse 2) have some second-hand items 1) have donated but almost always buy new 0) Never second hand/never donate N/A

CSW possesses limited furniture, the majority of which is previously used, and donates family and office furniture when appropriate.

Transportation/Travel:

27. Does your business involve transporting goods? Do you use fuel efficient vehicles, (both business and personal)? BioDiesel? (If you contract out your deliveries have you encouraged that company to use fuel efficient vehicles or Biodiesel?

3) Yes, highly fuel efficient (hybrid/biodiesel) for personal and business, contracted or in house deliveries focus on fuel

efficiency X 2) Some effort, some changes (ext. circumstances) 1) Very little effort, vehicles not very fuel efficient, not a main concern with deliveries 0 No consideration of fuel efficiency for vehicles or deliveries N/A

CSW transports its stone with vechicles. To minimize emissions, CSW uses vehicles with aboveaverage fuel efficiency for their respective vehicle classes (business and personal). In fact, CSW purchased a truck (which contains an auger) with 100,000 miles on it, while his pick-up truck had 40,000 miles on it when it was purchased; this helped reduce CSW's carbon footprint by avoiding the energy & materials associated with new vehicle production. Additionally, when gravel is delivered Bennett sources the material as local as possible, minimizing the carbon footprint of his supply chain.

The company even set up their own on-site 500-gallon storage tank to store the biofuel, which means fewer trips to the pump to fill up.

28. Have you sought out local distributors/vendors in an effort to reduce the travel time of your product and support the local economy? How high of a priority is sourcing local to your business? What percentage of your product comes from local suppliers? (*Studies show that dollars spent locally tend to stay local; local businesses contribute more to local non-profits and participate more in community life; and local independents demand less of our energy resources and public infrastructure).*

X 3) Yes, 50% or more, integral part of choosing supplier 2) less than 50%, try to source local first, serious extenuating circumstances don't allow "local" to be first 1) aprox. 20%, when convenient 0) Not a consideration N/A

CSW goes local at every turn, starting with sourcing much of its granite from the former Milford, NH quarry. Bennett also personally reclaims stone from new subdivisions, when blasting operations generate loose granite that would otherwise go unused, or be treated as waste. CSW uses the most local gravel pit to its job sites, to further reduce carbon emissions. And Bennett also approaches private landowners who may have usable granite on their property.

29. Do you carpool whenever possible? Travel less, phone meetings whenever possible? Do you encourage employees to work at home if possible? Do you encourage employees to carpool or walk/bike to work? Do you have a bike rack for customers/employees? Incentives for workers who walk/bike/car pool?

3) Yes, personal & employee system for less travel/working from home or walking/biking, incentives X 2) Sometimes, some employee outreach 1) Not a priority but welcome 0) No employee outreach, no personal effort N/A

To limit unnecessary travel expenses and mileage, Bennett usually does his initial customer contact via phone. As he is the sole employee, carpooling and incentives for workers are non-issues.

30. Do you have an anti-idling campaign at your facility? Do you have any sort of fuel awareness/transportation efficiency program for employees/customers?

X 3) Yes, campaign in place 2)No official campaign but do not idle 1) Will be instituting plan 0) No. nothing, not interested N/A

CSW has initiated a "no idling policy"; Bennett always turns off his vehicle when not in use, whether it's at his own shop or at a client location.

Community:

31. Does your business give back or contribute to the community?

3) Yes, extensively, tangible examples X 2) Some 1) Small amount 0) not much N/A

Bennett is a big advocate of giving back to the local community. He approached Windham High School (his alma mater!) twice about donating material to veneer the bottom of the high school's roadside sign.

32. Do you check to see if your suppliers are environmentally responsible? Do you talk to other businesses/vendors/suppliers about the importance of sustainable business practices?

3) Advocate to all other businesses and suppliers, deal mostly with other environmentally responsible businesses

2) Some advocacy and outreach, favor green suppliers sometimes X 1) Minimal, just starting to advocate/reach out, occasionally will choose green supplier 0) None

CSW is just starting to investigate the sustainability particles of his suppliers. Recently, he has sourced biofuel from his neighbor.

33. Are you a member of Seacoast Buy Local?

3) Yes 2) not a member currently but will join 0) No \mathbf{X} N/A (out of area)

N/A, as Bennett is slightly out of the Seacoast Buy Local coverage area.

34. Do you encourage your staff to volunteer with local community projects/nonprofits?

3) Yes, large part of employee ethic 2) Yes, encouraged 1) Suggested occasionally 0) No, never X N/A



N/A, as CSW is a one-man operation.

Miscellaneous:

35. How do your businesses sustainability efforts compare to the industry standard?

X 3) Far more sustainable in very important ways, than the industry standard 2)Significantly better than typical businesses in this industry 1)Slightly better; a long way to go 0) Exactly the same environmentally to other businesses of the same type

CSW is far more sustainable than his industry peers. The two main areas include:

- the use of natural stone for hardscaping, rather than energy-intensive concrete
- his local sourcing of natural stone, precluding the need for large flatbed trucks to haul the stone to NH from hundreds of miles away.

36. Do you use chemicals on your business lawn/plantings: to wash clothes/linens, for cleaning?

3) No, all natural X 2) Minimal chemicals used 1) Have made a few changes, but still use traditional chemicals in most areas 0) Traditional chemicals used in all of these areas N/A

Bennett uses no chemicals on his lawn (adjacent to his shop on his family's property).

37. Are there aspects of your business which are toxic/hazardous? If so how do you mitigate them? Have you investigated alternatives? What keeps you from offering/adopting safer products?

3) Completely non-toxic in a toxic industry X 2) Make special effort to reduce impact or toxicity 1) Some effort, extenuating circumstances, not priority 0) Toxic business, haven't yet address any of these issues N/A

CSW's main product is natural stone, which contains no toxic elements. When Bennett is pouring fuel into his auger, he is very careful so as to minimize spill. For his own safety, Adam wears a respirator and eye/ear protection. He also recommends his customers leave the immediate area while he is dealing with fuel.

Further questions which will help us evaluate your business:

What is your biggest obstacle to offering more sustainable products or sustainable business practices?

CSW can't always source local stone because not all the types of stone that CSW's clients request come from New England.

Brief history of your company.

CSW used to be known as PG.

How many employees?

1

How big is your customer base?

15-20 clients

What is the average distance employees drive to work?

As the work takes place at jobsites when Bennett isn't working out of his own shop on his property, the average commute to a jobsite is 10 miles.

Do you offer a product or service? How much of your income comes from the products vs. a service?

CSW offers both a product (natural stone) and a service (labor & design).

What is the average distance your product, or materials to make your product, travel?

Less than 50 miles.

Does your product require heat/electricity to produce? How much compared to the heat/electricity of just the building? What are your heat/electric sources? Are any of them renewable?

Mining the stone requires diesel fuel for heavy equipment, then electricity for large saws to cut the granite.

What is your water source? Water usage/month?

CSW uses a municipal water supply, unless his clients use private wells for water. The water usage is approximately 100 - 200 gallons per month, as CSW performs some jobs that require the use of a wet saw.

How big of a building do you utilize? Is space being used efficiently?

CSW utilizes space very efficiently, as CSW's shop is only 1600 square feet.



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