

To: Jesse Steadman, Town Planner



RE:GROUND LLC

380 Great Road  
Stow, MA 01775  
via email: [planning@stow-ma.gov](mailto:planning@stow-ma.gov)

November 30, 2017

**Re: Request for Proposals: MVP Provider for the Town of Stow**

Dear Mr. Steadman

We are thrilled to submit our proposal to assist the Town of Stow as a Municipal Vulnerability Preparedness (MVP) Program provider. In the following please find our outline for the scope and approach to conduct the work that will result in Stow receiving "MVP Climate Community Designation" through the Massachusetts Executive Office of Energy and Environmental Affairs (EEA).

We propose to complete a community-driven process that will bring together climate change information and local knowledge to identify top hazards – including extreme weather, climate-related, and other hazards – as well as to identify current and future challenges, and strengths.

Together with the core team of stakeholders already identified by the Town of Stow, we suggest to develop priority actions to improve Stow's capacity to advance actions that reduce risks and build resilience. Our process will be guided by the Community Resilience Building (CRB) workshop framework which has been successfully put into place with similar municipalities.

Please find our proposal enclosed and do not hesitate to reach out should you have questions.

Thank you for your time and consideration. We look forward to hearing your thoughts and questions.

Warm regards,

Isabel Kaubisch  
Owner and Principal, Clarendon Hill Consulting

Dave G. Hampton, Jr.  
Owner and Principal, re:ground LLC

# PROPOSAL TO PROVIDE MUNICIPAL VULNERABILITY PREPAREDNESS (MVP) PROGRAM CONSULTING

to the Town of Stow, MA

November 30, 2017



Source: Stowe Farm, Millbury (Retrieved from [https://www.yelp.com/biz\\_photos/stowe-farm-millbury-2](https://www.yelp.com/biz_photos/stowe-farm-millbury-2))

Prepared by:

*Clarendon Hill Consulting*

36 Conwell Ave, Somerville, MA 02144

[www.chillcons.com](http://www.chillcons.com)

*re:ground LLC*

334 Highland Ave, Somerville, MA 02144

[www.davehamptonjr.com/regroundllc](http://www.davehamptonjr.com/regroundllc)

**Proposal to Provide Municipal Preparedness Services for the Town of Stow, MA**

CLARENDON HILL + RE:GROUND

We propose to assist the Town of Stow as a Municipal Vulnerability Preparedness (MVP) Program provider to reach “MVP Climate Community Designation through the Massachusetts Executive Office of Energy and Environmental Affairs (EEA).” The following outlines our suggested scope of work and work approach and describes why we are qualified to best assist you with the necessary steps for completing a meaningful community-driven process that identifies vulnerabilities and strengths and outlines and prioritizes climate adaptation strategies for your rural community.

### **1) About us: Our qualifications and experience**

Clarendon Hill Consulting, an urban planning firm and re:ground a resiliency strategies consultancy, teamed up to assist municipalities in their efforts to advance municipal preparedness and resilience planning. Together we bring over 40 years of experience.

Formed in 2010, Clarendon Hill is an urban and environmental planning firm with a focus on increasing sustainable practices and resilience measures in neighborhoods. We have a thorough understanding of resilience planning, land use and urban design elements along with the associated laws and municipal regulations. We develop creative plans and programs that help create more livable, sustainable and resilient communities which allow for the efficient use of clean energy applications. Our project work is based on strong (geographic) analysis & mapping capabilities. Isabel Kaubisch, a Geographer and Urban Planner is the Principal and founder of Clarendon Hill Consulting and has worked with several municipalities ranging in size and scale over the past fifteen years.

Re:ground LLC is a resiliency strategies consultancy established in 2013 which involves everyday people deeply in climate adaptation and community resilience through the integration of natural systems and built environments. Dave Hampton, founder and owner, is a licensed architect with extensive experience in the design and construction of municipal infrastructure, a background in long-term post-disaster recovery, holds a Masters in Risk + Resilience from the Harvard Graduate School of Design, and has facilitated climate preparedness and adaptation workshops in New England, the midwestern and southeastern United States, and the Caribbean.

We understand that climate change is a phenomenon which impacts the environmental, ecological, economic and socio-demographic system at the same time. Inter-disciplinary responses which provide solutions to multiple issues at once while balancing the impacts on various shoulders are needed. Clarendon Hill Consulting and re:ground are experienced in working with communities as a whole while trying to move common interests forward with a buy-in from all stakeholder groups. We are able to develop creative solutions with co-benefits for multiple stakeholders, allowing residents to continue to thrive and prosper.

Our team has worked with small rural towns previously and brings the experience sought in the November 15, 2017 Town of Stow RFQ for Municipal Vulnerability Preparedness Program services. Please read further how we anticipate to assist the Town of Stow with the MVP work.

### **Facilitation experience**

CLARENDON HILL + RE:GROUND

## a) Municipal Planning & Facilitation experience

Isabel Kaubisch with Clarendon Hill Consulting has a wide experience with engaging a wide range of municipal stakeholders. Ms. Kaubisch has worked with over ten different communities on Hazard Mitigation Plans, Complete Streets programs, and the development of an exhibit / upgrades to a historic house and park renovations in Roxbury, MA (DCR Roxbury Heritage State Park Signature [RHSP] Project).

Ms. Kaubisch worked with over seven communities in Massachusetts ranging in size and scale on their Complete Streets planning. Complete Streets aim to make communities more livable by increasing options for walking, biking, and enhanced transit services (thereby reducing the carbon footprint) whilst providing for safer and more accessible multi-modal transportation. Ms. Kaubisch played a key role in prioritizing engineering and planning efforts. She assisted with the Complete Streets engagement process and was responsible for the localization & gap analysis and mapping using GIS. Ms. Kaubisch worked with the Town of Hudson and Leominster on their Complete Streets Prioritization Plans and is familiar with the area of Stow, MA.



Figures (above): Complete Streets Measures

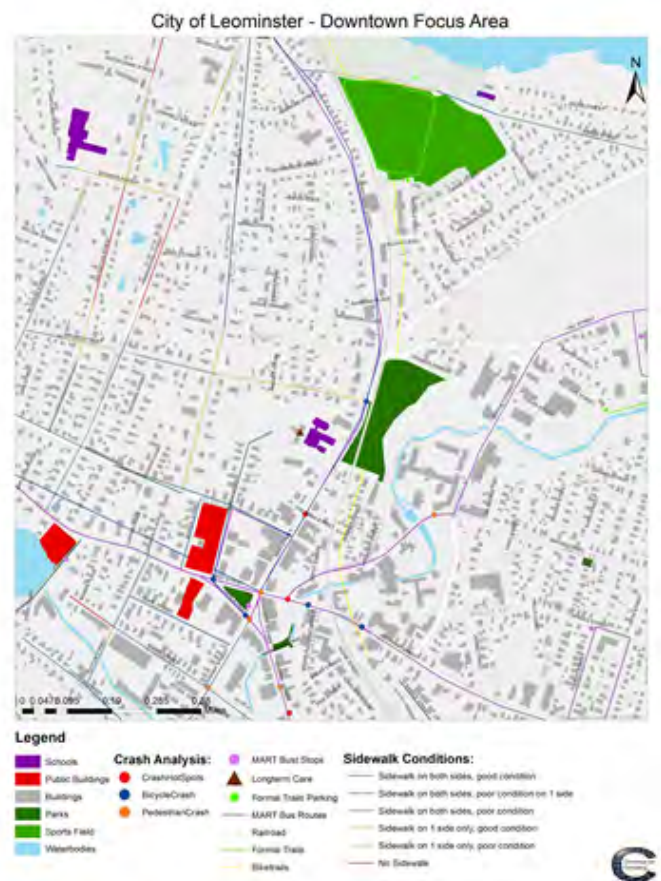


Figure (right): Gap Analysis for Complete Street Project in Leominster, MA



Clarendon Hill Consulting has extensive experience working with small rural communities. The Hazard Mitigation Plans for Lyndon and Kirby in Vermont dealt with riverine floods (Lyndon) and vulnerable road segments and culvert crossings (Kirby), both of which have led to localized flooding in the past. Furthermore, our risk assessment approach includes risk from invasive species, e.g. Phragmites as those can increase the risk of natural fires (see section b. for a more detailed description on our HMP work).

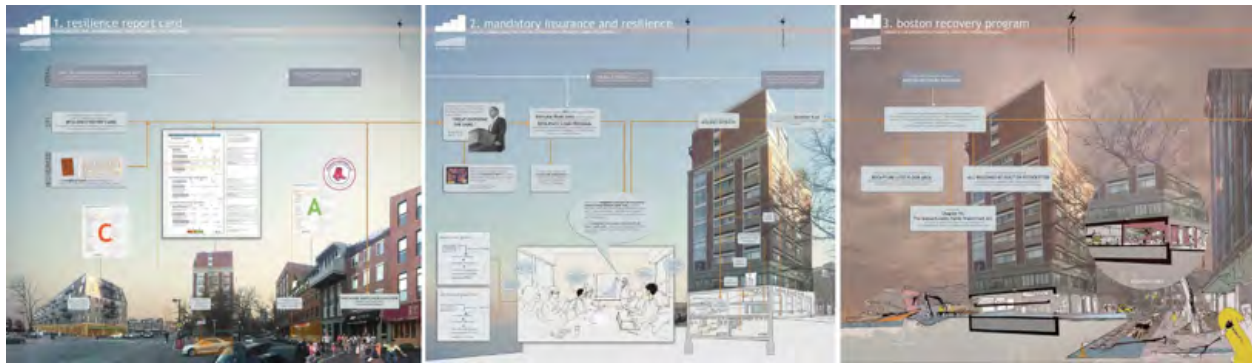
Ms. Kaubisch is also a well-versed Project Manager, accomplished in working with multiple disciplines to move common interests or multi-disciplinary projects forward. A recent example is the RHSP project where she oversaw five disciplines including architectural, landscape architectural and engineering disciplines; Furthermore, the project built on strong public outreach efforts which included various meetings and interactions with diverse groups of stakeholders.

Dave with Re:ground co-led a ‘Community Resilience: The Role of Design’ workshop which guided design professionals, municipal representatives, and the general public to explore climate resilience around a social capital framework for Lower Roxbury by identifying initial vulnerabilities and strengths, setting goals, and establishing action items. As a Climate Ready Boston Leader, he co-led ‘Rise Up!’ to orient a mixed audience to the City of Boston’s flagship climate resilience strategy followed by a stakeholder workshop. The Climate Ready Boston Map Explorer tool was used as a resource for visualizing risks and vulnerabilities and reframing them as opportunities for making communities stronger and more robust.



Left: ‘Community Resilience: The Role of Design’. Photo: Devanshi Purohit / BSA CORE. Right: Climate Ready Boston: Rise Up! Photo: Dave Hampton

Dave’s other municipal planning and facilitation experience has included North Park Village and Senior Satellite Centers in Chicago, Martin Luther Drive Corridor in Winston-Salem, North Carolina, the BPDA / Boston Harbor Now Boston Living with Water Competition, and the Helping Haiti Home and the Delmas 32 Master Plan, Port-au-Prince, Haiti.



*'No Building is an Island'. Images courtesy Boston Living with Water competition.*

Dave also maintains an active relationship with an international community of practice drawn from leading members of academia, municipal government, and practitioners on the most effective indicators to measure resilience, specifically socioeconomic dimensions which are often overlooked when considering climate readiness.

Dave is currently advising representatives from the Town of Brookline on climate resilience efforts.

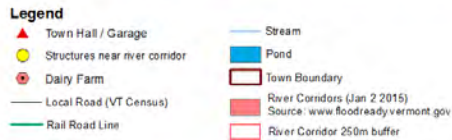
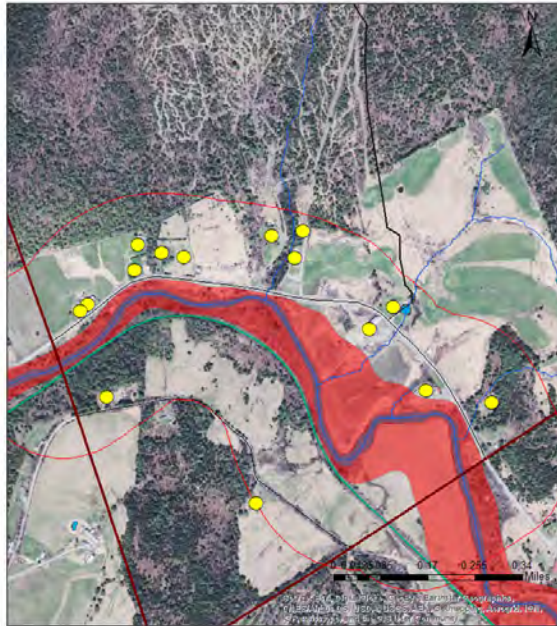
## **b) Technical understanding of Hazard Mitigation Planning, risk and vulnerability assessments and processes**

Our team brings an experienced technical grasp of the ways in which infrastructure may be vulnerable to climate change impacts. We are well-versed in working with multiple disciplines to translate risks and vulnerabilities into opportunities for resilience and increase the adaptive capacity of our clients.

Isabel Kaubisch is experienced with GIS-based risk analysis and will guide the discussion on risk and vulnerabilities in Stow as the lead facilitator. Ms. Kaubisch has extensive experience developing risk and vulnerability assessments with and for small rural communities which have faced flood-related issues from vulnerable road segments and culvert crossings in the past.

Clarendon Hill Consulting has worked on various comprehensive Hazard Mitigation Planning and risk and vulnerability assessment projects over the last three years. Working with several municipalities in Massachusetts, Vermont and California, Clarendon Hill was responsible for the risk and vulnerability assessments. Our municipal work builds on an extensive review of municipal documents, e.g. master plans or open space plans and builds on meaningful conversations with Town staff which forms the baseline or our comprehensive approach.

Town of Kirby, VT - Structures near River Corridor



Our assessments include GIS analysis and mapping of risks such as flood, storm surges, sea level rise, wind and fire hazards to name a few natural hazards. Furthermore, we identify critical infrastructure in communities and develop vulnerability assessments which show which areas and critical facilities are exposed to the specific risks (exposure analysis). Based on these findings we are able to assess the town's capabilities to better manage the risks and develop meaningful and resilient mitigation measures based on best practice examples. Our risk assessments include future projections as we factor in potential future development areas and anticipated increases in future flood events, e.g. based on new climate projections. In the case of the HMP work for Kirby our analysis included a vulnerability assessment of the Town's water supply from a local well system.

Figure: River Corridor Analysis to identify potential flooding (right, HMP for Kirby, VT

Dave, with re:ground, acted as a facilitator for Resilient Bridgeport, the result of Resilient by Design, a HUD-funded competition which created innovative community- and policy- based proposals to protect coastal communities most at risk from sea level rise, severe weather, and future uncertainties. Resilient Bridgeport encourages the stimulation of the downtown area through catalytic projects, such as a reconceptualization of the a channelized and inaccessible urban river – the Lower Pequonnock Watershed – by integrating riparian, urban, and coastal strategies. Stakeholders included representatives from the central business district, municipal government, and a diverse cross-section of the citizens.



Resilient Bridgeport stakeholder workshop. Photo courtesy of Waggoner Ball Architects / Rebuild by Design



Furthermore our team brings great experience in disaster recovery efforts. This valuable knowledge can be applied to the built environment as the “design per usual” gets put on hold by a changing climate with increased needs for flood proofing and (flood) erosion control.



*Ravine mitigation project before (left) & after (right) intervention, Port-au-Prince, Haiti. Photo (right): Jack Bolland*

Dave’s work in the Caribbean includes 4 years of post-disaster long-term recovery in post-earthquake and post-hurricane Haiti. Dave directed a team of architects, engineers, and construction specialists to implement Helping Haiti Home, a \$1M USD post-disaster urban informal settlements upgrading and recovery program of new homes, multi-family residential reconstructions, schools, community centers, and health clinics. He collaborated with an extensive network of recovery stakeholders, proposing projects to international development agencies, including a \$1.1M USD landslide and flood hazard mitigation project completed in 2014.



*Fond des Blancs Town Centre planning, Haiti. Left: Studying agricultural viability planning. Photo: Dave Hampton. Right: stakeholder workshop. Photo courtesy Build Health International.*

Most recently, his work has centered around health infrastructure & community development planning. He produced an environmental assessment and resilience strategies report document organized around risk and resilience themes such as sections on socio-environmental systems, erosion control, flooding reduction, risk communication, food security, public spaces, infrastructure, and governance. He coordinated GIS risk mapping and commissioned mapping visualization from landscape architecture consultants for more effective risk and vulnerability communication for non-literate audiences. During a



community planning workshop which divided 100 stakeholders from the community into 8 sector/cluster breakout groups, he co-facilitated Community & Natural Resources and Agriculture & Food Security sector clusters to identify initial vulnerabilities and strengths, set aspirations and goals, and establish action items which will contribute to a community-wide action plan.

With offices near Davis Square, Somerville, Clarendon Hill Consulting and re:ground are both relatively nearby and able to respond as needed for additional services such as site visits, meetings, and study of field conditions.

Please see our qualifications and project descriptions in **Appendix A** for more information.

**References are available upon request.**

## **2) Approach**

We believe that the precursor for successful climate adaptation is to help an organization or community build up its *own* internal adaptive capacity.

The Commonwealth of Massachusetts Municipal Vulnerability Preparedness (MVP) Program grant is the ideal opportunity for the Town of Stow to build its contributions to the regional Vulnerability Assessment with MAPC to leverage state funds and stakeholder engagement framework, and gain MVP Climate Community Designation from MA EEA in order to bolster the Town of Stow's taking ownership of the process of becoming more resilient in the face of a changing climate.

### **Scope of Work**

We recognize that the Town of Stow already has a variety of achievements and measures in place which can be sourced for our MVP assessment. If selected as the MVP Provider of your choice, we will familiarize ourselves with your existing resources including the Open Space and Master Plan and will build on the data developed during the MAPC Vulnerability Assessment. Furthermore, our stakeholder engagement process will work with the core team of municipal stakeholders already assembled by the Town of Stow and leverage on your Town's existing relationships with other key stakeholders. This will strengthen the Town of Stow's internal capacity to understanding localized exposure to certain risks from climate change including:

- Critical infrastructure, esp.
  - stormwater infrastructure and pump stations
  - potable water supply
  - schools (Center School, Hale Middle)
  - public buildings (Stow Town Building)
  - elderly living / care facilities
  - police and fire stations
- Future flooding projections in brook, riverine (esp. Assabet River), and wetlands environments
- Vulnerable road segments and culvert crossings to identify areas that could be isolated in heavy storm events
- Increased heat days / heat waves

- Impacts to conservation areas, esp.
  - Assabet River National Wildlife Refuge
  - Gardner Hill, Marble Hill, and Captain Sargent Conservation Areas
  - Red Acre Woodlands and Leggett Wood
- Impacts to historical, cultural and heritage buildings and landscapes (cemeteries, National Register buildings)
- Impacts to vulnerable populations (elderly, children, low income)

A strength, weakness and opportunity analysis conducted during the workshop will allow identifying climate action priorities and recommendations for further engagement of the public in the Town of Stow's future climate adaptation efforts.

During our workshop we will build on the input gleaned from the process the Town of Stow has already undertaken. We will use the Community Resilience Building framework, especially the Risk Matrices – Infrastructure, Societal, and Environmental – to construct a master Risk Matrix which identifies vulnerabilities and strengths, responsible parties, and determines short- through long-term overall priority actions.

The results of the stakeholder engagement workshop will be supported by mapping visualization of identified critical infrastructure, land use areas (e.g. agricultural areas), and any other *additional* mapping deemed necessary (e.g. vulnerable water supply areas, stormwater infrastructure data) and express the following in concise written form:

- Finalized list of infrastructural, societal, and environmental issues with a focus on agriculture
- Identification of infrastructural, societal, and environmental vulnerabilities (e.g. vulnerable roads, riverine flooding areas) and strengths and responsible parties in light of increased amounts of future precipitation,
- Determination of climate adaptation priorities in the short, long, and ongoing terms, and
- Organized list of actions based on relative priority and urgency with emphasis on the 3-5 “highest-priority” actions, noting the key stakeholder individuals, organizations, and municipal departments responsible for implementing these actions.

## **Our Proposed Services**

We propose conducting the work as described in the following. **We differentiate into “basic” MVP services and additional services.** Our “basic” MVP services include the three phases noted below, workshop preparation, workshop conduction, workshop synthesis & report writing. Our report will highlight future programs and basic ways to engage stakeholders.

Additional services would include additional data collection and mapping (e.g. stormwater infrastructure data, updates to invasive species mapping) and the comprehensive development of a community engagement program.

### **Phase 1 - Preparation of the CRB workshop:**

- A. Familiarize ourselves with the existing town planning efforts (including Open Space and Master Planning efforts) and meet with the municipality's Core Team to frame the stakeholder meeting, agree on meeting goals and agenda for the workshop

- B. Engage further stakeholders from the municipality as necessary, including selected municipal officials, business, private non-profits, and community residents; we may help with coordinating staff interviews if needed
- C. Prepare materials for the workshop
  - a. Prepare GIS maps for the workshop (based on local hazard and parcel data / public facilities; We foresee to prepare maps for major identified hazards and critical facilities.  
\*It is assumed that shapefiles will be made available and no additional mapping is necessary.
  - b. Characterize hazards in preparation for the workshop:
    - i. Identify past, current and future impacts using the best available data including newly developed climate projections from EEA,
- D. Together with Core Team decide on participant arrangements for workshop
- E. Send out invitations to workshop and follow up with stakeholders  
\* It is assumed that the Town of Stow would coordinate most of the stakeholder outreach.



*Fond des Blancs Town Centre planning stakeholder workshop, Haiti. Left: Photo courtesy Build Health International. Right: Photo: Dave Hampton*



## **2) Phase 2 - Conduct the CRB workshop**

### **A. Facilitate the meeting and provide the necessary amount of facilitators for the breakout groups\***

*\*It is our understanding that the MVP provider would conduct the facilitation including providing table-top facilitators whereas the Town would procure table scribes.*

### **B. In the CRB meeting discuss the following elements and come to an understanding:**

- a. Based on prepared hazard maps, determine the highest priority hazards.
- b. Identify Community Vulnerabilities and Strengths
  - i. Identify infrastructural vulnerabilities and strengths
  - ii. Identify societal vulnerabilities and strengths
  - iii. Identify environmental vulnerabilities and strengths
  - iv. Identify vulnerabilities in other sectors as chosen by the community
- c. Identify and Prioritize Community Actions
  - i. Infrastructure actions
  - ii. Societal actions
  - iii. Environmental actions
  - iv. Other actions
- d) Determine the Overall Priority Actions
  - Identify highest-priority actions
  - Further define urgency and timing

## **3) Phase 3 - Post workshop synthesis and report writing**

- We will generate final workshop products and a very concise and effective report which clearly identifies action-items and can be used to inform existing planning efforts and project activities, and to identify new grant opportunities and next steps
- We will secure additional data and information for key gaps and questions identified through the process
- We will provide an action strategy for priority action items and recommendations for continued community outreach and engagement

## **A) Proposed Cost for Services described above**

In accordance with our rate sheet listed in Appendix B, we propose the following cost for the services described above.

It is assumed that table scribes for the Workshop would be provided by the municipality. If preferred we can prepare and bring maps at an additional cost.

Phases:

1. Pre-workshop prep	\$ 3,800
2. Workshop	\$ 7,000
3. Post-workshop synthesis and report writing	\$ 4,200
<b>Total:</b>	<b>\$15,000</b>

## **B) Cost for additional services**

It is our understanding that the Town of Stow may want to add additional services.

To keep our core MVP consulting service costs within the MVP grant budget amount, we distinguish between the core services as outlined in the Municipal Vulnerability Preparedness (MVP) Program material (see Section A above) from other services specifically mentioned in the Request for Qualifications as 'additional services'.

Our additional services include:

- Mapping of invasive species (updates)
- Stormwater infrastructure data collection and mapping
- Preparation of comprehensive Communication Plan for Stakeholder Outreach

Additional services also include specific further program development efforts such as:

- Agricultural viability plan

As an additional service, we recommend a stakeholder engagement process to ensure that the Town of Stow moves successfully toward implementation while having considered climate risks, a healthy business environment, climate-ready best practices, education and research, and links to other sectors. (See **Appendix C** for our proposed additional services)

Our team is also experienced in providing the following services:

- Develop a climate action plan for specific municipal departments or citywide
- Assistance with establishing a Greenhouse Gas Inventory
- Monitoring and Evaluation

Additional services may be agreed upon and added at any point. Please refer to our rate sheet in Appendix B for additional services.

# Appendix A:

## Qualifications



# Clarendon Hill Consulting LLC

- Urban & Environmental Planning and Public Outreach -

## PLANNING FOR SUSTAINABILITY AND RESILIENCY

### Overview

Clarendon Hill Consulting (ChillCons) has a thorough understanding of resilience planning, land use and urban design elements along with the associated laws and regulations. We use geographic analysis & mapping for most projects.

ChillCons develops creative plans and programs that help create more livable, sustainable and resilient communities and allow for the efficient use of clean energy applications whilst accommodating population growth and revitalizing neighborhoods.

Our extensive public outreach engages stakeholders in a meaningful way and includes various means such as public meetings, target group meetings, surveys and social media.

### Risk and Vulnerability Assessments

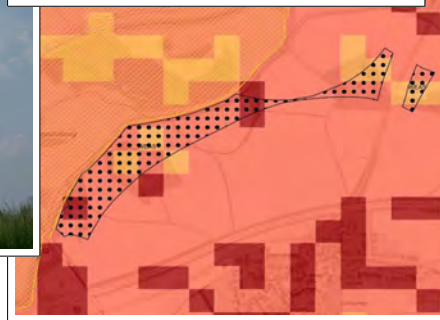
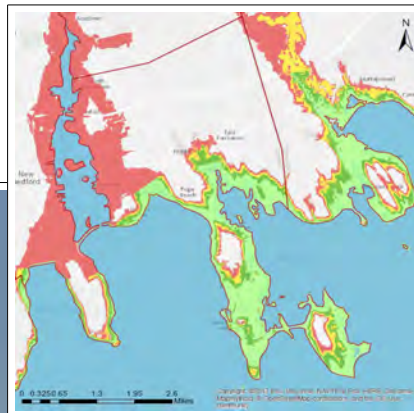
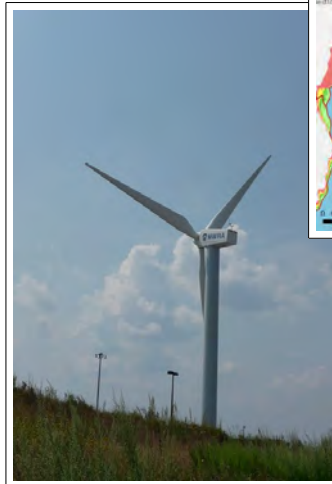
Clarendon Hill Consulting conducts comprehensive risk and vulnerability assessments. We've worked with several municipalities in Massachusetts, Vermont and California.

Our assessments include GIS analysis and mapping of natural hazards such as flood, storm surges, sea level rise, wind, fire, winter and geological hazards. We also evaluate the impacts and increased risks of natural hazards from climate change and assist with public outreach and the development of meaningful and resilient mitigation measures for hazard mitigation plans based on best practice examples.

### OUR PROJECTS

#### Regulatory Review and Permitting

Our staff has conducted Environmental Impact Studies (EIS) for various planned US wind farm and transmission line projects along with critical issues analysis and site assessments. Our analysis included review of local and state regulations and preparation of permitting schemes along with the conduction of environmental studies as necessary. We further conducted an Environmental Assessment for a shoreline stabilization project in Massachusetts.



#### Assessment & Constraints Analysis for Wind Energy Areas

ChillCons performed an assessment of sites with respect to their potential to serve as wind energy areas.

Our analysis included assessments of wind energy yield, protected natural species, landscapes (view sheds), flood prevention areas, grid connections, construction site installations, as

well as potential interferences with radar and air traffic (airport flight routes). All data were overlaid and mapped in GIS. The final criteria scoring allowed for a comprehensive evaluation of the most feasible areas.



CLARENDON HILL CONSULTING LLC \*\*certified wbe in MA\*\*

36 Conwell Ave • Somerville, MA 02144 • Phone +1-617-863- 6593 • Fax +1-855-855-7436 • [www.chillcons.com](http://www.chillcons.com)

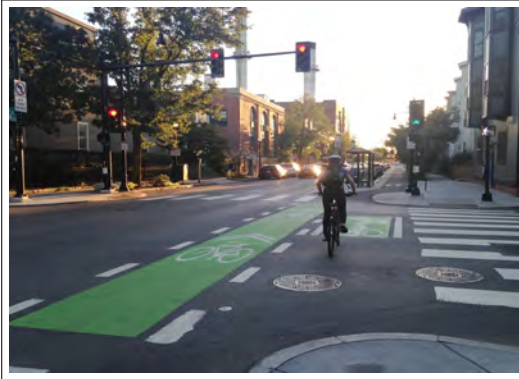
# Clarendon Hill Consulting LLC

- Urban & Environmental Planning and Public Outreach -

## PLANNING FOR SUSTAINABILITY AND RESILIENCY

### **Complete Streets Planning and Outreach for various municipalities**

Complete Streets Planning aims at making communities more livable by increasing options for walking, biking and enhanced transit services whilst providing for safer and more accessible multi-modal transportation. ChillCons provided strategic planning advice to develop and prioritize complete streets solutions for several municipalities. We participated at meetings with stakeholders and conducted location and gap analysis and mapping in GIS to help create relevant five-year comprehensive plans with prioritized Complete Streets improvements for six municipalities.



### **Land Use Planning & Public Outreach, various municipalities in Germany**

Our staff assisted with the creation and updating of various land use plans in Germany. The comprehensive plans dealt with sustainable features and clean energy elements such as wind energy zones or specific overlay districts. Comprehensive wind energy-by-laws were developed for those wind energy zones. Our staff was responsible for field work, research, technical writing, GIS mapping and public outreach and presentations at public meetings.

*Drawing upon over fifteen years of expertise, ChillCons staff creates cost-effective solutions.*

### **Public Outreach, Project Management Roxbury Heritage State Park, for MA DCR**

Clarendon Hill has been retained to create the designs and public outreach for the rehabilitation of the Roxbury Heritage State Park (RHSP), improvements to the historic Dillaway-Thomas House and the design and installation of an exhibit on Roxbury's history for Massachusetts DCR. Clarendon Hill conducted extensive public outreach for the signature park project located close to Roxbury's Dudley Square. On behalf of the client, we hosted three public work shops and conducted various meetings with stakeholders and targeted groups to reach a shared understanding on their



vision and goals for the designs of the park, the house and the exhibit which shall be representative of Roxbury's residents throughout time. We also developed meeting and information material for blogs and (social) media. The project is in its final design phase.

### **Historic Preservation Planning, Advisor to the City of Somerville**

ChillCons assisted with the development of guidelines for the historic preservation plan and outreach to local residents to gather their input on the proposed plan.

*We have worked with various municipalities the US and Europe and multiple agencies including MA DCR, MassCEC, MassGIS and MassDOT on multiple projects.*

**CLARENDON HILL CONSULTING LLC** \*\*certified wbe in MA\*\*

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# Isabel C. Kaubisch, Clarendon Hill Consulting LLC

Urban and Environmental Planner, Project Manager, GIS Specialist

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Isabel Kaubisch is an urban and environmental planner, public outreach and GIS specialist expert who spent most of her career working with communities on developing sustainable and resilient planning solutions including renewable energy applications. She has 16 years of experience working on comprehensive urban and environmental and strategic planning projects along with extensive experience conducting public outreach and working on GIS and IT applications with a range of staff and projects.

Ms. Kaubisch who is also certified as a Project Manager by the German Chamber of Commerce, has worked in the private, public and research sector. Ms. Kaubisch is affiliated with the American Planning Association and is a member of CREW Boston's Public Strategies and Sustainability Committees. Ms. Kaubisch who served as guest lecturer on the topic of climate change adaptation measures at the University of Karlsruhe, Germany is a frequent speaker at regional conferences. She has recently been certified as a Municipal Vulnerability Preparedness (MVP) Provider.

## EDUCATION

Certificate in Community Environmental Studies, Tufts University, Urban and Environmental Policy and Planning Program, Medford, MA, 2009

German Diploma in Geography (Master of Science equiv.), University of Bonn, Germany, 2002

German Vordiplom in Biology (Bachelor of Arts equiv.), University of Bonn, Germany, 1998

## MEMBERSHIPS

American Planning Association (APA)

Center for Disaster Management and Risk Reduction Technology (CEDIM)

Women working in Real Estate (CREW Boston) Public Strategies Committee and Sustainability Committee

Energy Advisory Committee (Massachusetts Board of Building Regulations and Standards)

## PROJECT EXPERIENCE

### Municipal Planning and Public Outreach Work

Public outreach and planning work experience includes strategic, urban and environmental planning including hazard mitigation planning, vulnerability and risk assessments, planning for sea level rise and climate change adaptation, complete streets planning, site

assessments, and port and infrastructure assessments among others.

### Sample project experience includes the following:

- **Hazard Mitigation Planning**

*Task lead risk and vulnerability assessment.*

*Responsible for the risk and vulnerability assessments required in the preparation of FEMA-approved hazard mitigation plans. Tasks included conducting GIS-based risk assessments including HAZUS-MH analysis, vulnerability assessments including planning for climate change, and assisting with developing mitigation strategies and public outreach at meetings with the local hazard committee and the public. Sample project experience includes work on the following Local Hazard Mitigation Plans:*

- *Town of Fairhaven, MA*
- *Town of Kirby, VT*
- *Town of Lyndon and Village of Lyndonville, VT*
- *Band of Luiseno Indians (Soboba Reservation), CA.*

- **Complete Streets Prioritization Planning** and GIS related design and mapping for six towns in MA. Complete Streets Planning aims at making communities more livable by increasing options for



## Isabel C. Kaubisch, Clarendon Hill Consulting LLC

Urban and Environmental Planner, Project Manager, GIS Specialist

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walking, biking and enhanced transit services whilst providing for safe and accessible multi-modal travel.

GIS Lead and Advisor on strategic planning including developing the approach for prioritizing complete streets action items for the five year comprehensive plans of the following Town's:

- Town of Littleton
- Town of Natick
- Town of Hudson
- Town of Weymouth
- Town of Leominster
- Town of Winthrop.

### • **Environmental Planning and Permitting**

- Environmental Impact Studies (EIS) for various wind farm and transmission line projects
- Environmental Assessment for a shoreline stabilization project in Hingham, MA
- Prepared Certificate of Corridor Compatibility and Route Permit for transmission line in North Dakota, GIS mapping support.

### • **Urban Planning**

- Updated comprehensive land use plan to incorporate sustainable measures i.e. separate zones for wind energy use
- Advisor on historic preservation planning to the City of Somerville, MA
- Co-organized a professional development trip and traveled to Copenhagen with the Boston Climate Bridge delegation in June 2016 to learn from the City about their efforts in becoming more resilient, sustainable and in advancing climate action including measures for flooding and sea-level rise.

### • **Site Assessments**

- Comprehensive assessment and constraints analysis at six sites for potential wind energy production, City of Bonn, Germany
- Critical Issues Analysis and site assessments for various planned U.S. wind parks

### • **Port Infrastructure Assessments**

- Coordination of outreach and requirements gathering from the offshore wind supply chain industry to evaluate the infrastructure of 20 port sites in MA (MCEC Port Study, ongoing)
- Port infrastructure assessment of regional ports for Virginia's Division of Minerals, Mines and Energy
- Port Study at the Great Lakes. Site assessment including site visit and interview with offshore wind developers.
- Advisor to Port of New Bedford, MA on offshore wind terminal build-out, industry requirements, and market research.

### **Project Management Work**

As a certified Project Manager (German Chamber of Commerce) Ms. Kaubisch has been overseeing various small to medium sized projects with up to five different project disciplines since 2005.

Sample project management experience includes the following:

- Project Management and Public Outreach for DCR's Roxbury Heritage State Park Signature Project to develop designs for architectural upgrades, park rehabilitation and an exhibit on the history of Roxbury; Oversight of up to five disciplines.
- Deputy Project Manager for MCEC's Study on "Ports to support Offshore Wind Energy in

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Urban and Environmental Planner, Project Manager, GIS Specialist

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*Massachusetts". Purpose of the study was to review and identify the infrastructure of ports in Massachusetts that may be suitable for the build-out as Massachusetts first offshore wind port. Co-authored and researched for report, interviewed with ports and developers and oversaw five subcontractors.*

- *Project Management and Regulatory Review Task Lead for air and noise studies for a German Gas Port. Conducted Permitting (incl. a 15 mile pipeline and interaction with German authorities) and oversaw the feasibility study through a US-German project team.*
- *Project Management of Critical Issues Analysis and Permitting Approaches for US wind park and transmission line projects.*

### Geographic Information Systems Work

Over 16 years of database work, GIS data analysis and mapping experience including risk and vulnerability assessments using HAZUS-MH suitability analysis and site assessments.

#### Sample project experience includes the following:

- *Updating of MassGIS parcel data in collaboration with several MA municipalities*
- *Campus mapping for UMass Lowell (data migration and mapping)*
- *Preparation of business requirements and testing of modules for a new data portal (MassDOT)*
- *Risk and vulnerability assessments for several municipalities in Massachusetts, Vermont and California as part of their hazard mitigation planning process*
- *Location & Vulnerability Analysis and Mapping for Complete Streets Prioritization Plans for more than six towns in Massachusetts*

- *Suitability analysis for renewable energy projects including view shed analysis and site planning (various projects)*
- *Updates of land use and master plans in writing and in GIS (various projects)*
- *GIS database development and maintenance.*

### Select Publications & Presentations

#### Select Publications

- *"The non-political aspects of Climate Change as it may apply to Pennsylvania – Best practice solutions for adapting the water infrastructure. In: Keystone Water Quality Manager. The Magazine of the Pennsylvania Water Environment Association. 3rd Quarter 2017.*
- *"How comprehensive analysis and mapping help municipalities place wind projects."*  
*Al Maiorino, Isabel Kaubisch. March 1st, 2016. Renewable Energy Magazine.*

#### Select Presentations


- *"(The use of GIS in) advancing resilient municipal planning." Northeast Arc User Group. November 7, 2017. Newport, RI.*
- *"Green Mobility. Lessons learned from Copenhagen and best practice examples in MA." Massachusetts Association of Planning Directors (MAPD) Conference. June 16, 2017. Pittsfield, MA*
- *"Lessons from Abroad: The Danish Way or the (Bicycle) Highway". Northeast Sustainable Energy Association (NESEA). March 8th, 2017. Boston, MA*
- *Climate Change as Catalyst for Design Change. Climate Change Adapted Neighborhood in Copenhagen - Blue Green Infrastructure at Work." New England Water Environment Association (NEWEA). January 23rd, 2017. Boston, MA.*

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- *“How to create a livable and resilient neighborhood. Lessons learned from Copenhagen, DK”. Southern New England APA Conference (SNEAPA). October 20th, 2016. Worcester, MA.*
- *“Key Lessons Learned from Copenhagen. Boston Climate Bridge Learning Exchange.” Presentation at the Commercial Women in Real Estate’s (CREW Boston) Sustainability Committee. October 14th, 2016. Boston, MA.*
- *“The use of GIS in Complete Streets Prioritization Planning”. Northeast ArcGIS User Conference (NEARC). October 17th, 2016. Falmouth, MA. Poster Presentation.*
- *“Assessment of Navigation Risk in Relation to Offshore Windfarm Development.” International Offshore Wind Partnering Forum (IPF). October 3rd 2016. Newport, RI.*



RE:GROUND LLC  
*resilient strategies  
for involving everyday people in the integration  
of the built + natural environments*

RE:GROUND LLC focuses on finding ways to involve everyday people deeply in climate adaptation and community resilience through the integration of natural systems and built environments.

I began re:ground because my background in architecture – while critical to understanding the world from the technical viewpoint of buildings – became limiting in scope. The challenges I faced while working in post-earthquake Haiti touched on the need to consider issues of ecology, governance, and planning; I returned to school to deepen my knowledge and broaden my horizons, and am excited to pursue work in new avenues.

## WHAT WE DO

- 1. Interdisciplinary translation and coordination* – Let's face it: different disciplines speak different languages, and work in different ways. Managing this can be a challenge. During my 20+ years of experience in architecture and planning, 4 in international development, and 14 years in sustainability and resilience, I've become adept at helping navigate differences between professions and disciplines, including architecture and planning, landscape architecture, civil and structural engineering, environmental engineering, ecology, humanitarian response, long-term development, etc.
- 2. Community engagement* – There is no such thing as one monolithic 'community', and engagement seems more a passive act than proactively involving people deeply in climate adaptation and community resilience through the integration of natural systems and built environments. My experience in architecture and planning has included much work with communities and grassroots organizations, from the Martin Luther King Corridor Master Plan in North Carolina; to senior centers for 5 underserved communities in Chicago; to post-earthquake recovery and redevelopment in highly dense neighborhoods of Port-au-Prince, Haiti.
- 3. Integrating resilience concepts into organizations* – As a leader of – or stakeholder in – a number of organizations, I've experienced organizational restructurings firsthand; I understand how to guide clients to seamlessly integrate sustainability, resilience, and transformative adaptation concepts into their existing organizational or institutional ethos. Does your company understand the resilience landscape? How do you position your organization to capitalize on this key concept? I help my clients transform internal systems and processes in order to keep companies competitive, innovative, and better able to serve their own clients.
- 4. Concept management* – An idea is only the beginning: making sure the core values and intent of a design solution is not lost as it moves from inception through budgeting challenges to implementation is an often-overlooked art.
- 5. Risk management > adaption > transformation* – 'Disaster risk reduction' and 'disaster risk management' have served as useful concepts, but do we really want to simply reduce risk? Can't we just eliminate it? Addressing problems before they occur ('ex-ante' or 'anticipatory' approaches) to ensure the safety, welfare, and equity of those most vulnerable and less able to cope with risks should be only the beginning. We want use the unfortunate levers of disasters to push a bit harder; as we adjust to a new normal (adaptation), we challenge ourselves and our clients to use a changing climate as a catalyst to move to other ways of doing things (transformation) better, more equitably, and beautifully. Projects: Delmas 40b ravine mitigation; Boston Living with Water, Stage II.
- 6. Policy analysis and design* – My experiences in places with weak and ineffective policies have proven that codes, standards, and regulations can be opportunities – rather than impediments – to achieve a broader impact. Analyzing existing policies and helping design better ones is a critical part of putting resilience into practice. Dave speaks at the 'Design for Urban Disaster' conference, 2014, Harvard University.
- 7. Thought leadership* – Writing, speaking, serving as a guest critic, and organizing panel discussions raises not only my profile but is an essential part of business development, putting me in front of great clients to help shape the conversation so that issues we both prioritize can get taken care of.



## BIOGRAPHY



### **Dave Hampton, *Principal, re:ground llc***

Dave Hampton has a 22-year background in architecture, planning, international development collaborating with governmental, NGO, private sector, and professional organizations to plan, program, and implement disaster risk management and climate change adaptation strategies with multi-disciplinary teams in both domestic (U.S.) and developing country contexts (Small Island Developing States/Caribbean).

His professional focus is how to involve stakeholders in resilience through the integration of the built and natural environment. He is well acquainted with methods of analyzing, communicating, and managing disaster risk and has consulted for UN-HABITAT, Internews, The Harvard Humanitarian Initiative, Build Health International, and J/P Haitian Relief Organization.

During his 10 years in Chicago, he engaged actively as a practitioner, advocate, and citizen during a notable period of municipal alignment with sustainability and climate change adaptation strategies. He incorporated LEED standards in his own design practice, focusing on energy-efficient upgrades for private and public sector clients.

In post-earthquake Haiti, Dave managed a complex portfolio of projects in a cross-cultural, time-sensitive, and hardship environment. When an organizational shift away from emergency management was needed to encourage the voluntary transition of 55,000 people displaced by earthquake to their neighboring communities, he helped to create and managed J/P Haitian Relief Organization's Redevelopment Program. J/P HRO's interdisciplinary team of architects, engineers, planners, and construction specialists worked with Haitian counterparts to deliver a community multi-hazard (earthquake, hurricane, flooding, etc.) disaster risk management and recovery program through safe and permanent homes, schools, community centers, and health clinics. Dave interacted with an extensive network of disaster recovery stakeholders, proposing projects to the development agencies of the U.S., Argentina, Sweden, and Germany, the latter resulting in partnering with the World Bank Natural Hazards Assessment Team and GIZ on community climate vulnerability assessment, risk reduction, and flood hazard mitigation. In 2013, Dave returned to Haiti to consult for UN-Habitat and Internews on production of an earthquake-safe communications strategy for use by the Haitian Ministry of Public Works (MTPTC) for capacity-building of local masons.

In 2013 and 2014, Dave worked with multi-disciplinary teams of architects, engineers, risk analysts, and natural hazards mitigation specialists on post-Sandy Rebuild by Design climate adaptation initiatives. Dave completed a Master of Design Studies in Risk and Resilience at the Harvard Graduate School of Design to add to his professional training with strategic environmental management and integrated social resilience knowledge. Courses included international development best practices, environmental planning and ecology, sustainable public policy, urban design and planning, public and private real estate development and finance, and risk management and climate adaptation strategies. His recent research involved coastal climate adaptation strategies for Miami Beach and shifting economically depressed and climate-risky locations into productive cultural heritage zones in the Caribbean.

While at Harvard, Dave helped assess the climate and disaster risk associated with 3 site/scales - building, neighborhood, and infrastructure - experiencing increased temperature shifts, seasonal precipitation, flooding, and at risk for sea level rise and contributed to a finalist entry for the Boston Living with Water competition, which proposed urban coastal climate adaptation through innovative scalable (and replicable) disaster risk communication, financing, regulatory intervention, and adaptation strategies.

Dave is a Commonwealth of Massachusetts Municipal Vulnerability Preparedness (MVP) grant program service provider, a Federal Emergency Management Agency (FEMA), Emergency Response Official / Contractor, a State of California Office of Emergency Services (OES), Safety Assessment Program Evaluator. He is also a licensed architect and co-chairs of the Boston Society of Architects Committee on Resilient Environments (CORE).



## CLIENTS AS COLLABORATORS

I've been very fortunate to work with many great people over the years.

Rather than think of these very talented and dedicated individuals, organizations, and businesses as either:

- 1) clients to be served, or
- 2) constituents or dependents to be taken care of, I view them as collaborators and co-creators with agency of their own and much to teach me.

I hope to continue to add to this list:

A Better City  
Arcus Consulting Group LLC, Washington, DC  
Ann Clark Architect, Chicago, IL  
Boston Society of Architects  
Build Health International, Beverly, MA  
City of Chicago  
Coleman Properties, Chicago, IL  
Delta Institute, Chicago, IL  
49th Ward, Chicago, IL  
Gund Institute for Ecological Economics, University of Vermont  
Harvard Humanitarian Initiative, Cambridge, MA  
Holly Hunt, Chicago, IL  
Humanitarian Open Street Map Team (HOT OSM)  
J/P Haitian Relief Organization, Port-au-Prince, Haiti / Los Angeles, CA  
Internews, London, UK  
OBI Deconstruction, Chicago, IL  
Meister Consultants Group, Inc.  
Mr. Tacos, Chicago, IL  
Rebuilding Exchange, Chicago, IL  
The Reuse People of America, Oakland, CA  
Repkin Biosystems, Chicago, IL  
San Juan Obrero Mission, Chicago, IL  
Suites on the Lake, Chicago, IL  
True Nature Foods, Chicago, IL  
United Nations Human Settlements Program (UN-HABITAT)  
Waggoner Ball Architects, New Orleans, LA  
Youth Job Center, Evanston, IL

## TESTIMONIALS & RECOMMENDATIONS



**Nupoor Monani**, *Urban Designer, Utile, Inc.*

**Project:** Boston Living with Water

"I had the pleasure of working alongside Dave in classes at the GSD, and especially on the Living with Water competition organized by the Boston Planning and Redevelopment Agency. Dave brought a keen understanding of issues facing Boston changing climate and rising sea levels, and was adept communicating their complexity to our team. I appreciated the thoroughness with which he investigated the myriad considerations affecting Boston's harbor and translate them into a nuanced design and policy proposal with the team!"



**Maggie Stephenson**, *Senior Technical Advisor, UN-HABITAT*

**Project:** Kay Kat Fanmi / Kay Solid prototype home

"Dave... brings a profound understanding of technical, financial and contractual criteria to design decisions. He is extremely rigorous in his attention to detail and quality assurance, and open and enquiring in his search for innovation and technical improvements. He is an excellent team member and team leader, managing to carry others along with his remarkable energy, enthusiasm and optimism and to achieve far more together in a spirit of collaboration and cooperation. He will be a valuable addition to any group dynamic, he is generous and unassuming, hard-working and positive."



**Noll Tufani**, *Country Director Nepal, Build Change*

**Project:** Haiti Helping People Home

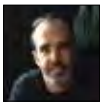
"Dave has this innate faculty to see a situation's many long term consequences and to factor them into the solutions he proposes. As a result, Dave will always strive for more. Dave is a true innovator who integrates long-run considerations into every day problem-solving by thinking out of the box and seeking inspiration from the most sustainable, eco-friendly, and socio-considerate solutions out there. Dave always sees the straight line between man, buildings, cities and the environment. Anyone serious about the future of our cities should work with Dave."



**Elise Zelechowski**, *Director of Social Impact, ThoughtWorks*

**Project:** Delta Institute's Rebuilding Exchange

"Dave is a dynamic and creative leader, whose vision helped catalyze the deconstruction movement in Chicago. In his work, he leverages his technical, process and convening skills to achieve results on the projects he undertakes. He is also a pleasure to work with, bringing positivity and humor to the process. I recommend him!"



**Ben Wilson**, *Social entrepreneur and advisor in Haiti, YANVALOU Designs*

**Projects:** Haiti Helping People Home, Kay Kat Fanmi / Kay Solid prototype home

"Dave is a strong project manager who has a clear command of the critical path of complex projects with many stakeholders and constrained budgets. His technical and managerial acumen ensures optimal solutions to beneficiaries, owners, and donors."



**Molly Meyer**, *CEO, Omni Ecosystems*

**Project(s):** consultation for various rooftop agriculture installations

"Dave is an exceptional designer, speaker, and thinker. Dave has been a critical contributor and leader on our work together from the minutia of green wall and green roof designs to big-picture sustainability visions, as well as presentations, videos and voice-over (in English and Spanish)."



**Clara Shipman**, *LGA Architectural Partners*

**Projects:** Haiti Helping People Home, Kay Kat Fanmi / Kay Solid prototype home

"I reported directly to Dave – then Redevelopment Program Manager and Architect – as an Intern Architect working at Architecture for Humanity and J/P HRO in Haiti for five months in 2012. In developing our many projects, Dave demonstrated his commitment to high-quality, socially-responsible design. Together we worked with members of the community in helping to implement projects that will enrich lives, including a health clinic, community center and housing. Dave's organizational and communication skills were invaluable in moving projects forward. His ability to manage the various aspects of the projects – from pre-design through to construction administration – within an extremely challenging environment were admirable. Moreover, Dave is a pleasure to work with, consistently tackling assignments with dedication and good humor. I strongly believe that Dave would make a great asset to any organization."



## RELEVANT PROJECTS



### **‘Community Resilience: Role of Design’ / Climate Ready Boston: Rise Up!, 2017**

Dave co-led ‘Community Resilience: The Role of Design’ and - as a Climate Ready Boston Leader - ‘Rise Up!’ These two workshops oriented design professionals, municipal representatives, and the general public with the City of Boston’s flagship climate resilience strategy. Both workshops engaged the audience as active participants in identifying initial vulnerabilities and strengths, setting goals, and establishing action items, with Lower Roxbury viewed through a lens of social capital. Both events exemplified BSA CORE’s mission to reach beyond the traditional audience of solely architects.



### **Rebuild by Design Resilient Bridgeport, 2014**

Dave acted as a facilitator for Resilient Bridgeport, the result of Resilient by Design, a HUD-funded competition which created innovative community- and policy-based proposals to protect coastal communities most at risk from sea level rise, severe weather, and future uncertainties. Resilient Bridgeport encourages the stimulation of the downtown area through catalytic projects, such as a reconceptualization of the a channelized and inaccessible urban river – the Lower Pequonnock Watershed – by integrating riparian, urban, and coastal strategies. Stakeholders included representatives from the central business district, municipal government, and a diverse cross-section of citizens. Collaborators included Waggoner Ball Architects / ARCADIS / Yale School of Forestry Management.



### **Boston Living with Water competition, 2014-15**

Dave led an interdisciplinary team to developed three preliminary proposals at three urban scales: 1) building, 2) neighborhood/block, 3) infrastructure for a key competition sponsored by the Boston Planning & Development Agency (BPDA) and Boston Harbor Now.

The final-round entry proposed urban coastal climate adaptation through innovative scalable (and replicable) financing strategies and interventions to Massachusetts state policies (Chapter 91) and Boston zoning and code initiatives, which could address increasing extreme heat, flooding, and sea-level rise for a diverse cross-section of citizens.



### **Fond des Blancs Town Center Community Planning, 2016-2017**

Dave’s work in Haiti includes 4 years of post-disaster long-term recovery for Architecture for Humanity, J/P Haitian Relief Organization, UN-Habitat, and Internews. Most recently, his work for Build Health International has centered around health infrastructure & development planning for a rural community which derives 50% of its income from agriculture. He produced an environmental assessment and resilience strategies report document organized around risk and resilience themes such as sections on socio-environmental systems, erosion control, flooding reduction, risk communication, food security, public spaces, infrastructure, and governance.

Dave coordinated GIS risk mapping and commissioned mapping visualization from landscape architecture consultants for more effective risk and vulnerability communication for nonliterate audiences. During a community planning workshop which divided 100 stakeholders from the community into 8 sector/cluster breakout groups, he co-facilitated Community & Natural Resources and Agriculture & Food Security sector clusters to identify initial vulnerabilities and strengths, set aspirations and goals, and establish action items for a community-wide action plan.



*Image credits top to bottom: Devanshi Purohit, Dave Hampton, Waggoner Ball Architects, Build Health International, Dave Hampton*

## RÉSUMÉ

**Dave G. Hampton, Jr., RA, LEED AP**

regroundllc@gmail.com / davehamptonjr@gmail.com



**Portfolio:** [https://issuu.com/davehampton/docs/dave\\_hampton\\_portfolio-2017](https://issuu.com/davehampton/docs/dave_hampton_portfolio-2017)

### Education

Harvard Graduate School of Design, Master of Design Studies, Risk and Resilience, 2016

Thesis: 'Regrounding Resilience: Networked and Productive Landscapes in Cuba'

Virginia Tech, College of Architecture and Urban Studies, Bachelor of Architecture, 1995

Columbia University Earth Institute, Certificate, 'The Age of Sustainable Development'

The World Bank e-Institute, Certificates, 'Safe and Resilient Cities', 'Sustainable Urban Land Use Planning',

'Introduction to Disaster Risk Management'

### Professional Experience

**re:ground llc**, Somerville, MA | Principal, 2013-present

Managing consultancy providing expertise for the integration of natural systems and built environments to clients in international development, urban, and post-disaster contexts. Consultations include:

- Boston Society of Architects - review of resilience standards study by Meister Consultants for Boston Green Ribbon Commission
- Build Health Int'l – health infrastructure & community development planning, Fond-des-Blancs, Haiti
- Harvard Humanitarian Initiative - Albay Province Disaster Risk Management (APSEMO) Case Study
- Waggonner Ball Architects / ARCADIS – Rebuild by Design Resilient Bridgeport public workshop facilitation
- UN-HABITAT/Internews – capacity-development of seismic-resistant communications strategy for use by Haitian Ministry of Public Works

**Arcus Consulting Group LLC**, Washington, DC | Resilience Strategies Consultant, 2016-present

- Active resource for disaster recovery consultancy.

**Harvard University**, Cambridge, MA | Risk and Resilience Program Coordinator, 2014-2015

- Managed strategic partnerships, community outreach, social media for Graduate School of Design program.

**J/P Haitian Relief Organization (J/P HRO)**, Port-au-Prince, Haiti | Redevelopment Program Manager, 2010-12

- Managed team of architects, engineers, construction specialists to analyze disaster and climate change risk and deliver community resilience program, including residential, school, community center and medical clinic repair/adaptive reuse/seismic retrofits.

**Architecture for Humanity**, Port-au-Prince, Haiti | Design Fellow, 2010-11

- Seconded to J/P HRO – see above. Jointly held Staff Architect & Redevelopment Program Manager positions.

**Urban Habitat Chicago**, Chicago, IL | Pres. of Board, 2009-11; Dir. of Research & Development, 2004-2009

- Co-founded and managed local nonprofit. Initiatives included resource conservation advocacy, urban agriculture, public outreach to communicate climate risk / adaptation opportunities to multiple stakeholders, incl. public.

**Hampton Avery Architects**, Chicago, IL | Principal, 2008-10

- Co-managed architecture and planning partnership on residential, institutional, and commercial projects. Managed interns. Studio 309 explored interlocking scales of urban design: city block, neighborhood, & exurb.

**Echo Studio**, Chicago, IL | Owner and Principal, 2002-10

- Managed architecture, design, and sustainability consultancy focused on high-performance buildings, energy efficiency, materials resource management, and climate change mitigation / adaptation.

**STL Architects**, Chicago, IL | Architect, 2002-5

- Design thru client interaction and project management for \$5 million of renovation and new construction for five fast-track senior activity centers for the City of Chicago Public Building Commission.

**Skidmore Owings and Merrill**, Chicago, IL | Architect, 2001-2

- Coordinated teams of architects and engineers for 180,000 SF Field Museum of Natural History Collections Resource Center.



### **Registration / Accreditation**

2017	Commonwealth of Massachusetts Municipal Vulnerability Program certified provider
2016	Federal Emergency Management Agency (FEMA), Emergency Response Official / Contractor State of California Office of Emergency Services (OES), Safety Assessment Program Evaluator
2009	Passive House™ Certified Consultant
2004	United States Green Building Council, LEED Accredited Professional
2001	State of North Carolina, Licensed Architect
2001-present	National Council of Architectural Registration Boards certified

### **Affiliations**

2017	Boston Society of Architects Committee on Resilient Environments, Co-Chair Climate Ready Boston Leader
2008-2011	ReBuilding Exchange, Board Member, 2009-2011
2009-2011	Accessible Contemporary Music, Board Member
2008-2011	Building Materials Reuse Association Conference, Steering Committee Member
2008-2009	Architecture for Humanity, Chicago Chapter
2004-2011	Urban Habitat Chicago, President, Board of Directors, 2009-2011; Director of R&D, 2004-2009
2001-2007	American Institute of Architects, Chicago Chapter – Member
1996-2000	American Institute of Architects, Winston-Salem Chapter

### **Academic experience**

2016-2017	Wentworth Institute of Technology, architecture studio and Global Cities classes, guest critic
2015	'Cuba Facing Forward: Balancing transition with development in the Caribbean's most-watched nation' conference, Harvard University, co-organizer and moderator Northeastern University; Wentworth Inst. of Technology architecture studios, guest critic
2014-2016	Harvard Graduate School of Design, Risk and Resilience Coordinator
2014	Boston Architectural College, Sustainable Building Systems I, guest critic/lecturer

### **Publications / Press**

2016	'Regrounding Resilience: Networked and Productive Landscapes in Cuba', Harvard GSD Masters thesis 'Cuba Facing Forward: Balancing transition with development, etc.' conference summary
2015	'Slum change management', Project Management Institute, contributing author "5 years after the earthquake, Ayiti p'ap pèri!", Planetizen/UrbDeZine "Urban Habitat Chicago Redux: 10 years of productive urban landscapes", Planetizen/UrbDeZine
2014	"Adapt, We May" – The Chelsea Way: Regional Resilience and America's Coastal Cities", UrbDeZine "City of Big Data: Creators and Interpreters", Planetizen/UrbDeZine
2013	"Disasters Depend"; "Towards Resilient Regions", messysystems.com "Promised Lands: 5 Examples of Housing Developments in Haiti", Planetizen "The Ravines of Port-au-Prince", Planetizen/UrbDeZine
2010	"All for One & One for All: Making the Case for Integrated-design & -project Delivery", eco-intel.com
2009	"Recycling Circle", eco-structure magazine; "The End of Demolition", Sustainable Chicago
2008	"You have the right to... an architect?", Steelcase 360: Sustainability Grows Up

### **Trainings, Speaking Engagements, and Presentations**

2017	"Climate Ready Boston Rise Up!", Boston Society of Architects Committee on Resilient Environments
2016	"Housing as Critical Urban Infrastructure in Resilience Planning", UN Habitat III, Quito, Ecuador
2015	"Coasting on the Edge: Risk, Autobiography, & Reimagining an Environment", Boston Architect. Coll.
2014	"Extremes, Resilience, & Autobiography", Sustainable Systems 1, Boston Architectural College "Data and Disasters: Generating and Analyzing Geospatial Data as a Tool for Decisionmaking", Understanding Risk Haiti conference, Port-au-Prince, Haiti "Data and Disasters", Design for Urban Disaster conference, Harvard University & CRSCAD conference, 'Disaster Mitigation, Preparedness, Response, and Sustainable Reconstruction: The Role of Architectural, Planning, and Engineering Education', UMass Boston

- 2013 "An Architect's Experience in Post-Disaster Haiti", AIA Northern Virginia Chapter & Architecture for Humanity DC Chapter, Resilience by Design Committee
- 2011 "Information is power: Mapping and visualization in post-disaster Haiti", J/P HRO
- 2010 Passive House "Energy Efficient Building Envelope Design & Construction", Halfmoon Seminars training  
"Building Community Assets through Deconstruction and Material Reuse", USGBC Chicago Chapter
- 2009 "The Red Line Green Roofs Initiative", Chicago Architecture Foundation  
"Reuse, Reclaim, Rebuild", AIA Committee on the Environment, The ReBuilding Exchange  
"Deconstruction, Sustainable Measures for Municipalities", Engineering Resource Association
- 2008 "High-Performance Residential Rehab: Challenging Assumptions of Sustainability on Two Recent Chicago Homes", Chicago Architecture Foundation
- 2006-7 "Learning by Doing: Deconstructing the Kikuchi House", Chicago Center for Green Technology
- 1998 "Cuba on the Cusp – The Revolution Meets the Twenty-First Century", AIA Winston-Salem, NC

**Awards / Exhibits / Competitions**

- 2017 Bay Area: Resilient by Design competition, entrant
- 2015 Boston Living with Water competition, Harvard GSD team semifinalists
- 2013 HUD Post-Sandy 'Rebuild by Design' Competition, entrant
- 2006 "Sustainable Strategies for Rebuilding New Orleans' Lower Ninth Ward" competition, featured exhibitor  
City of Chicago Green Roof Grants 2005: Residential & Small Commercial Buildings (2 grants)
- 2002 Pentagon Memorial Competition, special exhibitor, National Building Museum, Washington, DC

*Please see [davehamptonjr.com](http://davehamptonjr.com) for more information. References, clients, and transcripts available upon request.*

**Project list**

**Project: Voluntary Resilience Standards: An Assessment of Market Options for Boston's Commercial Sector**

Date: 2017

Location: Boston

Client: Boston Society of Architects

Review of voluntary resilience standards study by Meister Consultants for Boston Green Ribbon Commission.

**Project: Fond des Blancs Town Center Community Planning**

Date: 2016-present

Location: Fond-des-Blancs, Haiti

Role: Team member, re:ground llc

Client: Build Health International

Health infrastructure & community development planning. Produced environmental assessment and resilience strategies report document. Assisted in developing concept note for grant from funders. Included demographic analysis and research, GIS work, survey design. Includes sections on socio-environmental systems, erosion control, flooding reduction, risk communication, agriculture & food security.

**Project: Document review 'GAO, CLIMATE CHANGE, Improved Federal Coordination Could Facilitate Use of Forward-Looking Climate Information in Design Standards, Building Codes, and Certifications'**

Date: 2017

Location: N/A

Role: Team member, re:ground llc

Client: American Institute of Architects

Policy review of federal document to advise professional organization's advocacy approach.

**Project: Albay Province Disaster Risk Management (APSEMO) Case Study**

Date: 2016

Role: Team member, re:ground llc

Client: Harvard Humanitarian Initiative

Review of case study report and video; provision of input.

**Project: Miami Beach Coastal Resilience**

Date: 2015

Role: Team member, graduate student proposal preparation

Client: City of Miami Beach

Proposed solutions to address coastal flooding and sea level rise while improving evacuation routes, increasing overall interconnectivity, and expanding public access along waterfront through climate-ready linkages between the mainland and Miami Beach barrier island.

**Project: Boston Living with Water competition**

Date: 2014-2015

Role: Team leader, Harvard Graduate School of Design

Client: Boston Planning & Development Agency, Boston Harbor Now

Led team that developed three preliminary proposals for three urban scales: 1) building, 2) neighborhood/block, 3) infrastructure. Final-round entry proposed urban coastal climate adaptation through innovative scalable (and replicable) financing strategies and interventions to Massachusetts state policies (Chapter 91), which could address increasing extreme heat, flooding, and sea-level rise.

**Project: Rebuild by Design Resilient Bridgeport**

Date: 2014

Role: Team member, re:ground llc

Client: Waggonner Ball Architects / ARCADIS / Yale School of Forestry & Environmental Studies

Facilitator for community planning charette.

HUD-funded competition created innovative community- and policy- based proposals to protect coastal communities most at risk from sea level rise, severe weather, and future uncertainties. Resilient Bridgeport encourages the stimulation of the downtown area through catalytic projects, such as a reconceptualization of the a channelized and inaccessible urban river – the Lower Pequonnock Watershed – by integrating riparian, urban, and coastal strategies.

**Project: ‘Solid House’ (Kay Solid/Kay Kat Fanmi) Seismic-Safe Construction Communications Strategy**

Date: 2012-2014

Location: Port-au-Prince, Haiti

Role: Team leader

Clients: Internews/UN-HABITAT

Scripted and produced earthquake-safe technical training film for use by Haitian Ministry of Public Works (MTPTC) for capacity-building of local masons.

**Project: ‘Solid House’ (Kay Solid/Kay Kat Fanmi)**

Date: 2011-2013

Location: Port-au-Prince, Haiti

Role: Team leader, J/P HRO Redevelopment Program Manager

Client: J/P Haitian Relief Organization

Designed and built 2-story hurricane and earthquake-resistant model homes for 4 families.

**Project: Impasse Belo Ravine Mitigation, Phase I**

Date: 2011-2012

Location: Port-au-Prince, Haiti

Role: Team member, J/P HRO Redevelopment Program Manager

Client: J/P Haitian Relief Organization

Managed design and construction of gabion wall to secure safety along ravine bank; secured \$1.1 M USD funding and implementation commitments for Phase II (completed 2013). Included project review: zoning, building permit.

**Project: Haiti Helping People Home**

Date: 2011-2012

Location: Port-au-Prince, Haiti

Role: Team leader, J/P Haitian Relief Organization

Client: J/P Haitian Relief Organization

- retrofitted 45 homes for 97 families
- community center seismic retrofit
- local schools seismic retrofit and expansion
- 2 medical clinic seismic retrofit / adaptive reuse; serves an average of 800 patients weekly.
- Kay Kat Fanmi/Kay Solid: new multifamily residential - design and construction of model 2-family home prototype.
- water distribution network analysis and repair
- implementation of earthquake- and hurricane-resistant design and construction standards - organization-wide and community-wide
- partners: Haven International, Build Change, Architectes de l'urgence, Architecture for Humanity, and local builders

Projects included demographic and GIS analysis for project constituent design.

**Project: Kay Kominote (Community center)**

Date: 2011-2012

Location: Port-au-Prince, Haiti

Role: Team member, J/P HRO Redevelopment Program Manager

Client: J/P Haitian Relief Organization

Managed design and construction of adaptive reuse and earthquake retrofit of community center.

**Project: Residential retrofits**

Date: 2011-2012



Location: Port-au-Prince, Haiti

Role: Team leader, J/P HRO Redevelopment Program Manager

Client: J/P Haitian Relief Organization

Managed earthquake retrofits of housing units for 96 families with implementing partner Build Change; part of World Bank 'Helping People Home' grant, Phase I

Project: **JP-1 Emergency Clinic (Klinik Ijans) & JP-2 Community Clinic (Klinik Kominote)**

Date: 2011-2012

Location: Port-au-Prince, Haiti

Role: Team leader, J/P HRO Redevelopment Program Manager

Client: J/P Haitian Relief Organization

Managed design and construction of adaptive reuse and earthquake retrofit of community clinics providing basic medical care to over 2,000 persons weekly from underserved urban neighborhoods.

Project: **Ecole Mixte Bethesda**

Date: 2011

Location: Port-au-Prince, Haiti

Role: Team leader, J/P HRO Redevelopment Program Manager

Client: J/P Haitian Relief Organization

Managed design and construction of earthquake retrofit and classroom addition to elementary school.

Project: **Red Line Green Roofs Initiative**

Date: 2009-2010

Location: Chicago, IL

Role: Team leader, Owner and Principal, Echo Studio

Client: 48th Ward / City of Chicago

Developed proposal to Chicago 49th Ward to convert existing commercial and residential rooftops to productive gardens for food security.

Project: **Northside College Preparatory High School Productive Landscape**

Date: 2009-2012

Location: Chicago, IL

Role: Team leader, Owner and Principal, Echo Studio / Board of Directors, Urban Habitat Chicago

Client: Northside College Preparatory High School

Redesign of brownfield to productive landscape, including Joy Garden, Malcolm Wells Memorial Garden, and community gardening plots.

Project: **Youth Job Center Passive House Feasibility Study**

Date: 2009-2010

Location: Evanston, IL

Role: Team leader, Owner and Principal, Echo Studio

Client: Youth Job Center

Led Passive House retrofit feasibility study for nonprofit client

Project/client: **San Jose Obrero Mission**

Date: 2009-10

Location: Chicago, IL

Role: Team leader, Owner and Principal, Hampton Avery Architects

Pro-bono facilities planning consultation for nonprofit serving 200+ in the homeless Latino community.

Project: **Chicago Park District Fieldhouse Sustainable Retrofit Feasibility Proposal**

Date: 2008

Location: Chicago, IL

Role: Team member, Echo Studio

Client: Shaw Environmental & Infrastructure

Contributed to proposal to undertake sustainable retrofit of Chicago Park District Fieldhouse on National Register of Historic Places.

Project: **"Liquid Home" living wall, Discovery World Museum**

Date: 2008

Location: Milwaukee, WI

Role: Team leader, Owner and Principal, Echo Studio

Client: Repkin Biosystems

Designed a built vertical garden installation in exhibit on residential water usage in science museum.

Project: **Sustainability consultations for LEED & Energy Star**

Date: 2008

Location: Chicago, IL; Tokyo, Japan

Role: Team leader, Owner and Principal, Echo Studio

Client: commercial and residential clients

Energy-efficiency and sustainability design and best-practices consultation, ranging from single-family homes to 2-story restaurant.

Project/client: **Suites on the Lake Energy Efficiency Upgrade**

Date: 2007-2008

Location: Chicago, IL

Role: Team leader, Owner and Principal, Echo Studio

Building envelope rehabilitation of 24-unit condominium building on Lake Michigan for improved energy performance.

Included project review: zoning, building permit.

Project: **Rooftop Victory Garden**

Date: 2006

Location: Chicago, IL

Role: Team leader, Owner and Principal, Echo Studio

Client: True Nature Foods

Building and engineering evaluation for rooftop garden retrofit designed, built, and operated by Urban Habitat Chicago.

Included project review: building permit.

Project: **Senior Satellite Centers**

Date: 2002-2004

Location: Chicago, IL

Role: Team member, Architect/project manager, STL Architects

Client: City of Chicago, Department of General Services / Department on Aging

Design thru client interaction and project management for \$5 million of renovation and new construction for five fast-track senior activity centers for the City of Chicago Public Building Commission. Included project review: zoning, Park District, building permit. Contributes to emergency response as cooling/heating centers, social connectivity, and to general social resilience.

Project: **Natural History Collections Resource Center**

Date: 2001-2002

Location: Chicago, IL

Role: Team member, Architect/project manager, Skidmore Owings and Merrill

Client: Field Museum

Design through construction documents, including extensive involvement in coordination between technical consultants and design teams on state-of-the-art 180,000 SF laboratory, research, and collections facility.

Project: **915 Northridge Street office renovations**

Date: 1999-2000

Location: Greensboro, NC

Role: Team member, Intern Architect, David E. Gall Architect

Client: University of North Carolina at Greensboro (UNC-G)

Design to construction administration of adaptive reuse of electrical components warehouse into administrative offices for higher education client.

Project: **Family Restoration Facility for Children's Group Home of North Carolina**

Date: 1997-1999

Location: Franklin, NC

Role: Team member, Intern Architect, David E. Gall Architect

Client: United Methodist Church

Design to construction administration of satellite facility for underserved rural area.

Project: **Master Plan for Martin Luther King Drive Corridor**

Date: 1998

Location: Winston-Salem, NC

Role: Team member, Intern Architect, David E. Gall Architect

Client: City of Winston-Salem, NC

Master plan for growing culturally and historically diverse and economically disadvantaged neighborhood.

Project: **Master Plan for Downtown City of King, NC**

Date: 1998

Location: King, NC

Role: Team member, Intern Architect, David E. Gall Architect

Client: City of King, NC

Master plan for growth expansion of central business district of traditional Southern downtown.

Project: **Parkway United Church of Christ Additions**

Date: 1996

Location: Winston-Salem, NC

Role: Team member, Intern Architect, David E. Gall Architect

Client: Parkway United Church of Christ

Design thru construction administration for religious building addition. Included project review: zoning, building permit.

Project: **Prince Ibrahim Elementary School Addition**

Date: 1996

Location: Winston-Salem, NC

Role: Team member, Intern Architect, David E. Gall Architect

Client: Winston-Salem/Forsyth County Public Schools

Design thru construction administration for school addition. Included project review: zoning, building permit.

Appendix B:

Billing Rates

**Billing Rates:**

<b>Schedule of Hourly Rates</b>	
<b>Classification</b>	<b>Proposed Rate</b>
Lead Facilitator	\$125
Project Manager	\$125
Public Outreach Specialist	\$110
Table Top Facilitator	\$90
Analyst	\$75
GIS Analyst	\$90
GIS Technician	\$75

**ADDITIONAL SERVICES or Add-On Services may be requested as needed.**

**The scope for add-on services will be defined and agreed upon separately.**



## Appendix C:

# Climate-Resilient Agricultural Viability Plan

## Climate-resilient agricultural viability plan



*Photo source: Town of Stow*

The Town of Stow has expressed an interest in having the MVP provider assist with an agricultural viability plan. As an additional service, we recommend the following process which will ensure the Town of Stow moves successfully toward implementation while having considered climate risks, a healthy business environment, climate-ready best practices, education and research, and links to other sectors.

### **A. Stakeholder workshop**

Our approach would begin with first engaging stakeholders – including the public – in an agriculture-specific workshop similar in structure to the MVP Community Resilience Building workshop. We recommend convening the following focus groups:

1. “Producers”, such as livestock farmers, dairy farmers, poultry farmers, and equestrian center / stable operators.
2. “Growers,” such as horticulture farmers, operators of orchards, nurseries, greenhouses, wineries, and other specialized crop farms.
3. Representatives from agricultural associations, and government agencies such as Stow Agricultural Commission; 4-H; Umass Amherst Center for Agriculture, Food and the Environment; Massachusetts Department of Agricultural Resources; USDA
4. General public engagement - urban residents, non-farmers in the rural areas, and others unable to attend other meetings.

### **B. Thematics**

The workshop may want to consider five general areas:

1. Climate impacts
2. Business environment
3. Climate resilient agriculture best practices
4. Education, training, research, and technical support
5. Synergies with other sectors

## 1. Climate impacts

Many of the results of the larger MVP Community Resilience Building workshop should be reiterated here, highlighting specific vulnerabilities and potential impacts to the agricultural sector and closely-related sectors in the Town of Stow. These may include:

- Disruptions and impacts to distribution and sales networks
- Disease, epidemic, and pandemic risk management

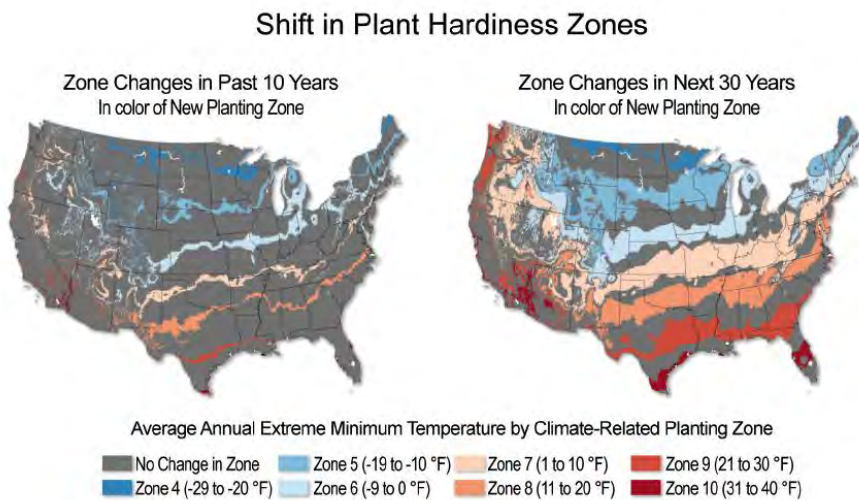


Fig.1. Source: National Climate Assessment. Figure source: NOAA

- Crop diversification – may be needed due to shifts in regional hardiness zone (Fig. 1 above)
- Impacts to linked networks – neighboring towns, intercity, state, regional, national

## 2. Business environment

Ensuring a playing field that is fair and open to producers large and small involves sensible regulation that reduces time and cost impacts while allowing enough flexibility to explore rising market opportunities. Some considerations may include:

- Policy and regulations - property taxes, zoning ordinances, nutrient management regulations, and air and water quality regulations
- Collective branding and marketing opportunities
- Shared agricultural production

- Market infrastructures and services
- Impacts and opportunities
  - o Harvesting
  - o Crop storage
  - o Processing
  - o Distribution
  - o Sales points
- Opportunities for innovation - new / emerging market opportunities and impacts
- Specialized crop production and distribution, such as aquaculture, cannabis



Photo source: The Permaculture Orchard

### 3. Climate resilient agriculture best management practices

Agriculture worldwide contributes a significant share of the greenhouse gas (GHG) emissions that are causing climate change – 17% directly through agricultural activities and an additional 7% to 14% through land use changes, according to the OECD. However, state initiatives such as Agricultural Climate Resiliency & Efficiencies (ACRE) Program point municipalities in the right direction. For a robust and viable climate-adapted agricultural sector, consider:

- Carbon / GHG reduction – carbon sequestration, farm equipment efficiency
- Land management
  - o Land use
  - o Agricultural / urban land interface
  - o Agricultural / conservation, heritage, or other protected land interface
- Policy and regulations
- Air and water quality, chemical use, and pollution control
- Technical assistance
- New / emerging market opportunities
  - Agritourism
  - Organic production
  - Aquaculture
  - Post-consumer ag products

### 4. Education, research, and technical support

Agricultural viability and conservation depends upon leveraging the knowledge and resources of the current generation and with those interested in future opportunities. Considerations include:

- Interactions with state university and community college system
- Crop research
- Development of technologies and production efficiencies
- Future workforce
- New consumer trends and consumer education



Photo source: Fruit Growers News

## 5. Synergies with other sectors

Resiliency is interdisciplinary by its nature. Looking for opportunities to link agriculture to other sectors increases the likelihood of its viability and ability to adapt to future challenges. Considerations may include:

- Energy - waste-to-energy production opportunities such as biomass energy, biochar, anaerobic digestion
- Waste management – food scraps, compostables
- Labor – job and skills training, temporary workers, immigration/emigration
- Education
  - o Public awareness of healthy eating
  - o Open lands and public health
- Land conservation – Stow Conservation Trust
  - o Wildlife habitat conservation / creation
  - o historical, cultural and heritage landscapes

## C. Implementation mechanisms and strategies

Following the community engagement process, we are able to assist the Town of Stow – mostly likely The Stow Agricultural Commission – in the development of a Climate-Resilient Action Plan.



This plan will synthesize the findings of the workshop, define broad goals, detail specific items for action, and identify key municipal and community stakeholders to drive the process forward to successful implementation.

We look forward to helping the Town of Stow realize its ambitions for a Climate-resilient agricultural sector.