

APPENDIX C-  
PLAN FOR DISPLACED RESIDENTS

## Appendix C – Plan for Displaced Residents

New York State's Hazard Mitigation Planning Standards (2017) require that intermediate and long-term housing options must be available for relocating displaced residents to maintain post-disaster social and economic stability. These standards consider two categories of needs:

1. Intermediate needs for temporary housing (sites that may be viable for the placement of temporary housing units to house residents displaced by disaster).
2. Long-term needs for permanent housing (sites that may be viable for relocating structures, or construction of new buildings in cases where severely damaged buildings were razed).

Intermediate and long-term housing options for displaced residents were evaluated as part of the 2019 HMP Update. The Rensselaer County Bureau of Public Safety, Rensselaer County Planning Department, and AECOM conducted several conference calls and additional coordination was done between the Rensselaer County Planning Department and the Rensselaer County Health Department. Additionally, as per NYSDHSES<sup>1</sup>, "the plan should identify and document potentially viable locations (and how they were deemed viable), and clearly identify steps necessary to ensure availability/viability. This should serve as a guide for municipal leaders to continue planning during maintenance and immediately following an event should the need arise."

This appendix presents the evaluation methodology used for the 2019 plan update, identifies a series of potentially viable parcels and other sites, and indicates next steps that would be required to ensure availability/viability.

### Evaluation Methodology

An assessment was made of potential sites for placement of post-disaster temporary and permanent housing. The initial dataset used was a GIS shapefile created by Rensselaer County that identified 10,066 parcels categorized as "vacant". A set of criteria was established for initial screening of this dataset. These criteria included:

- Sufficient space to place at least one travel trailer on the property
- Avoidance of extensively forested areas
- Suitable topography (avoidance of very steep slopes)
- Located outside wetland areas
- No identified remediation sites on the property
- Existing road access
- Avoidance of location within Special Flood Hazard Area ("100-year floodplain").

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<sup>1</sup> Email from Corrina Cavallo to Rensselaer County dated February 11, 2019.

ESRI ArcMap GIS software was used to apply the criteria to the vacant parcel dataset through use of a "definition query" that established conditions to either rule a vacant parcel "in" or "out" of the set of potentially viable sites for placement of temporary shelter/housing.

The criteria in the definition query, and their application in GIS, are described as follows:

## 1. Sufficient Dimensions

At a minimum, a site must be able to accommodate a single travel trailer. The area required for placement was estimated as 25' by 50', with a corresponding minimum lot area of 1,250 square feet.

A field titled "SUF\_DIM" (for "sufficient dimensions") was added to the vacant parcel dataset. Parcels receiving a 'No' value for this field, based on the analyses described below, are excluded from the working shapefile. For the 8,217 parcel records with a numeric value recorded in the "Frontage" field in the initial dataset, 237 records had a value less than 25'. These parcels were assigned a "No" value.

Next, a calculation of parcel square footage was made to identify parcels with less than 1,250 square feet in area. These parcels also received a "No" value. This step identified 39 parcels to be excluded. Finally, a calculation was made to estimate the average width of parcels, as proxy for a "Frontage" value:  $(\text{Area}/\text{perimeter}) * 4$

This formula provides the average dimension of a parcel, assuming a square parcel shape. A parcel meeting the minimum dimensions of 25' x 50' would have a resulting value of 33.33' average width  $((1,250/150) * 4 = 33.33)$ . The results of the calculation are provided in the Avg\_Width field in the dataset. Since most parcels in the dataset are rectangular in shape, a parcel with a minimum average width of 37.5' was considered to potentially have sufficient space to meet the requirements. A value of less than 37.5' was considered to indicate a parcel with either insufficient frontage or depth to meet the location requirements. These parcels were checked individually, and if the lot configuration allowed for a contiguous area of 25' by 50', then a value of "Potential" was entered in the SUF\_DIM field.

Parcels with an Avg\_Width value of 37.5' or greater were assigned a "Potential" value in the SUF\_DIM field. Of the 10,066 parcels in the dataset, 9,638 were assigned a "Potential" value and 428 were assigned a "No" value. Note: due to potential irregularity in size, access constraints, or other site conditions, a site visit and suitability analysis should be conducted in person before any temporary shelter is placed on a given parcel.

## 2. Forested Areas

To control for parcels that are extensively covered in forest land cover, the parcel layer was intersected with polygons categorized as "Forest" in the 2016 National Land Cover Dataset

shapefile. Parcels where both the property boundary and the centroid of the parcel intersect with forest cover were eliminated from the running tally of potential temporary shelter locations. Such parcels are extensively covered by forest, which would complicate placement of temporary shelters.

### 3. Very Steep Slopes

Rensselaer County defines areas with slopes between 25-35% as "E-Soils", and areas with slopes of 35% or steeper as "F Soils". Steep slopes would likely complicate placement and usage of temporary shelter. Using shapefile data provided by the county, parcels with steep slopes were identified as described below. Parcels with both their centroid and parcel boundary crossed by E Soils or F Soils were eliminated from the set of potentially viable locations. Parcels with just their parcel boundary crossed by E Soils or F Soils were retained. These parcels should be inspected in person before being designated for placement of a shelter to determine that sufficient level space exists for placement of a temporary shelter.

### 4. Wetlands (Wet Soils)

Wetland areas are considered unsuitable for placement of temporary shelters, due to typically wet site conditions, potential for flooding, and the potential for environmental impacts to the wetland resources. Parcels that intersect wetlands with both their centroid and parcel boundaries were identified and removed from the set of potentially viable locations.

### 5. Avoidance of Remediation Sites

Parcels containing remediation sites are considered unsuitable for placement of temporary shelters, due to potential for remaining on-site contamination and, in some locations, ongoing remediation activities. NY State GIS mapping of remediation sites was used in this analysis. Parcels that either intersect the boundary of a remediation site, and/or have their centroid located within a remediation site, were eliminated from the set of potentially viable parcels.

### 6. Road Access

Existing road access is a key criterion for rapid placement of temporary shelter. Using a statewide GIS file of street centerlines, the centerlines for Rensselaer County were selected and then "buffered" by 30 feet to approximate the shoulder-to-shoulder road width. A query was then run to identify parcels that are located within 50 feet (either side) of the buffered roadway. These steps identified parcels that likely to be readily accessible by existing roadways.

### 7. Floodplain

While the 2017 NYS Hazard Mitigation Planning Standards guide indicates that temporary housing can be constructed with a first-floor elevation placed no less than two feet above the base flood elevation, where possible, location of temporary shelters outside of floodplain

locations is preferred as a method of reducing risk from future flooding. However, the placement of a temporary shelter near the property of an affected homeowner may expedite repair efforts to the damaged house, as it facilitates repair work and reduces travel times to the site. To balance these priorities, parcels that intersect the Special Flood Hazard Area (SFHA) at any point, and parcels in which the centroid is located in the SFHA, were identified. Those parcels that intersect the SFHA are included in the running parcel count, while those parcels with the centroid located in the SFHA are not.

## 8. Summary

Following the application of the criteria described above, a set of potentially viable locations for placement of temporary shelter was identified. As noted, any specific parcel should be visited in person for a further site analysis before a decision is made to place a shelter upon it. The criteria used to identify potentially viable sites can be adjusted as needed.

### Potentially Viable Parcels

Potentially viable parcels were identified using the methodology above, for intermediate temporary housing or long-term permanent housing for residents displaced by disaster. The current definition query that identifies 3,347 parcels that would be potentially viable, as summarized in the following table and as detailed in the multi-page table at the end of this appendix. Potentially viable parcel shapefiles are also available in GIS, the recommended platform for data viewing and utilization. These locations are summarized in the table below and provided in detail at the end of this appendix.

Potentially Viable Parcels	
Municipality	Number of Parcels
Berlin	77
Brunswick	322
Castleton	13
East Greenbush	240
East Nassau	16
Grafton	53
Hoosick	126
Hoosick Falls	73
Nassau (Town and Village)	143
North Greenbush	399
Petersburgh	39
Pittstown	164
Poestenkill	142
Rensselaer	189
Sand Lake	154

Potentially Viable Parcels	
Municipality	Number of Parcels
Schaghticoke (Town and Village)	192
Schodack	270
Stephentown	72
Troy	657
Valley Falls	6
Grand Total	3,347

## Other Potentially Viable Sites

In addition to its parcel analysis, the Rensselaer County Planning Department, in coordination with the Bureau of Public Safety, has also identified a series of other potentially viable sites for temporary emergency housing. These sites could be considered on a case-by-case basis at some future date; a first step would be to meet with the owners and determine their site availability at the time of the disaster event, whether or not they would be willing to accommodate some number of displaced residents, any fees that would be associated with this accommodation, and payment arrangements for any such fees. These are summarized in the table below and presented in detail at the end of this appendix.

Other Potentially Viable Sites	
Type	Number Identified as Potentially Viable
Mobile Home Parks	7
RV Parks	5
Fairgrounds	1
Other Locations	8
Grand Total	21

## Next Steps

The potentially viable parcels identified in this section represent parcels of certain conditions valid as of the time of this report. Because they represent conditions at a single point in time, actual site conditions at some future date can potentially be quite different from those presented in this appendix. To determine actual viability for use at some future date, site visits and meetings with property owners would be required. FEMA forms on the next pages can be used to evaluate particular parcel viability; however, please check with FEMA at that time to ensure the forms are still effective and have not been superseded.

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Section J

**Attachment 8, Section J.8 – Site Feasibility Inspection Report [C]**

DEPARTMENT OF HOMELAND SECURITY  
 Federal Emergency Management Agency  
**REQUEST FOR THE SITE INSPECTION**

SITE CONTROL No. (As Assigned)      REGISTRATION No.      O.M.B. No. 1660-0030  
 Expires April 30, 2017

**PAPERWORK BURDEN DISCLOSURE NOTICE**

Public reporting burden for this form is estimated to average 10 minutes per response. The burden estimate includes the time for reviewing instructions, searching existing data sources, gathering and maintaining the needed data, and completing, reviewing, and submitting the form. This collection of information is mandatory. You are not required to respond to this collection of information unless a valid OMB control number appears in the upper right corner of this form. Send comments regarding the accuracy of the burden estimate and any suggestions for reducing this burden to: Information Collections Management, Department of Homeland Security, Federal Emergency Management Agency, 500 C Street, SW, Washington, DC, 20472. Paperwork Reduction Project (1660-0030). Please do not send your completed survey to the above address.

**PRIVACY ACT STATEMENT**

AUTHORITY: The Robert T. Stafford Disaster Relief and Emergency Assistance Act as amended, 42 U.S.C. § 5174 and Title 44 CFR Part 206.117.  
 PRINCIPAL PURPOSE(S): This information is being collected for the primary purpose of determining eligibility and administering financial assistance for temporary housing under a Presidentially-declared disaster. Additionally, information may be reviewed internally within FEMA for quality control purposes.  
 ROUTINE USE(S): The information on this form may be disclosed as generally permitted under 5 U.S.C. § 552a(b) of the Privacy Act of 1974, as amended. This includes using this information as necessary and authorized by the routine uses published in DHS/FEMA - 008 Disaster Recovery Assistance Files System of Records (September 24, 2008, 74 FR 48753) and upon written request, by agreement, or as required by law.  
 DISCLOSURE: The disclosure of information on this form is voluntary; however, failure to provide the information requested may delay or prevent the individual from receiving disaster-related temporary housing assistance.

SITE INFORMATION		APPLICANT INFORMATION	
SITE ADDRESS (House No. & Street Name)		NAME (Last, First, Middle Initial)	
CITY AND STATE	COUNTY	CURRENT ADDRESS (House No. & Street Name)	
NAME OF LANDOWNER		CITY AND STATE (Include Zip Code)	
ADDRESS OF LANDOWNER		APPLICANT PHONE NO.	
LANDOWNER'S PHONE NO.		Primary: _____ Alternate: _____ Temporary Housing Units Required (Check One): <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	
Primary: <input type="checkbox"/> EGSS <input type="checkbox"/> Group Alternate: <input type="checkbox"/> Private <input type="checkbox"/> Commercial	TYPE OF UNIT: <input type="checkbox"/> MH <input type="checkbox"/> TT <input type="checkbox"/> PM <input type="checkbox"/> UFAS		
SITE UTILITY INFORMATION (Completed by THP contact through inquiry to applicant)			
UTILITY AND TYPE	COMPANY NAME	SPECIAL NEEDS	FAMILY COMPOSITION
ELECTRIC: <input type="checkbox"/>		<input type="checkbox"/> RAMP <input type="checkbox"/> ADA/UFAS Compliant Unit	ADULT MALE _____ FEMALE _____
GAS: <input type="checkbox"/> Natural <input type="checkbox"/> LP <input type="checkbox"/> None		IS APPLICATION ON OXYGEN? <input type="checkbox"/> YES <input type="checkbox"/> NO	CHILD MALE _____ FEMALE _____
WATER: <input type="checkbox"/> Public <input type="checkbox"/> Well <input type="checkbox"/> None			
SEWER: <input type="checkbox"/> Public <input type="checkbox"/> Septic <input type="checkbox"/> None			
LANDOWNER AVAILABLE TO ACCOMPANY INSPECTOR TO SITE <input type="checkbox"/> YES <input type="checkbox"/> NO	APPLICANT SIGNATURE		DATE
SITE DESCRIPTION AND DIRECTIONS (Form DFO to Site- attach map if necessary)			

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DEPARTMENT OF HOMELAND SECURITY  
Federal Emergency Management Agency  
**REQUEST FOR THE SITE INSPECTION**

NAME OF SITE INSPECTOR (Assigned by DHOP's Chief)		DATE ASSIGNED	INSPECTION APPOINTMENT	
			DATE	TIME
FLOODPLAIN-VELOCITY ZONE DETERMINATION			1st Choice	
<input type="checkbox"/> Within	<input type="checkbox"/> Outside Restricted Zone	Flood Zone Map No. _____	2nd Choice	
APPLICANT ACTIONS TO MAKE SITE ACCEPTABLE				
<input type="checkbox"/> Site Feasible <input type="checkbox"/> Site Infeasible (State reason) <input type="checkbox"/> FF 010-0-10 Landowner's Authorization/Ingress-Egress Agreement <input type="checkbox"/> FF 90-96, Mobile Lease				
SIGNATURE OF SITE INSPECTOR		DATE	APPLICANT NOTIFIED OF SITE DETERMINATION	
			Date:	By:

FEMA Form 010-0-8 (5-14)

REPLACES FEMA Form 90-1

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**Attachment 9, Section J.9 – Commercial/Group Site Feasibility Report [C]**

**Commercial/Group Site Feasibility Report**

**Instructions:** Complete the following site inspection report for every Work Order issued by FEMA. The site inspection report and associated documents, such as diagrams, maps, Right Of Entry (ROE) forms and photographs must be provided to the COR as defined in the contract.

Existing Commercial Park       Potential Group Site

Date: \_\_\_\_\_ Time: \_\_\_\_\_ Inspector Name: \_\_\_\_\_

Site Control Number: \_\_\_\_\_ Work Order Number: \_\_\_\_\_

Owner(s): \_\_\_\_\_ Phone: \_\_\_\_\_

Address: \_\_\_\_\_

Site Latitude: \_\_\_\_\_ Site Longitude: \_\_\_\_\_

Acres: \_\_\_\_\_ Pads: \_\_\_\_\_

UTILITIES (Y/N)	
Electric	
Water	
Gas	
Sewer	
Phones	

OTHER (Y/N)	
Wetlands?	
Access Bridge?	

MEASUREMENTS	
Miles to Nearest Elementary School	
Miles to Nearest High School	
Miles to Nearest Hospital	
Distance to Nearest Fire Hydrant	

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Distance to Nearest Water Line	Property Availability:
Distance to Nearest Sewer Line	

Road Access: \_\_\_\_\_

Fill Concerns: \_\_\_\_\_

Notes: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Sketch: \_\_\_\_\_



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## Site Identification Guidance for Post-Disaster Temporary Housing Group Sites

(DRAFT)

In accordance with federal and local guidelines, there are several elements that must be taken into consideration during the identification and selection of potential sites for temporary housing for residents displaced by disaster.

First, prospective sites should be initially identified by a search of candidate parcels based on available GIS data. A floodplain-velocity zone determination (within restricted zone/outside restricted zone) must be made and validated via current flood zone maps. Consultation with the local/state Floodplain Administrator is recommended; MHUs are not allowed by FEMA in "V" zones or floodways. Installations in "A" zones may be permitted if certain criteria are met, but that is not the best choice and should be avoided if possible.

Second, as per NYS PS 2017, in jurisdictions containing a Special Flood Hazard Area (SFHA), potential sites must be compliant with the NYS Uniform Fire Prevention and Building Code. Specifically, the site must allow for first floor elevation of temporary housing units no less than 2 feet above Base Flood Elevation (BFE).

(Note: Depth is not taken into account. Example: If the BFE is 15 feet MSL but ground elevation is 9 feet, this requirement could be met, but the piers under the unit would need to be 8 feet high, which is neither practical nor likely allowable by the manufacturer's installation standards and/or the local building code.)

Once the prospective site is identified and the initial BFE validation is completed, additional items that must be verified include, but are not limited to:

- Physical location and street address of site, to include:
  - LAT/LONG coordinates
  - City, state, and county
- Ownership of prospective site, to include:
  - Name of owner
  - Address of owner
  - Phone/email of owner
  - Active building permits associated with site
  - Active liens associated with site, to include title search if necessary
- Site type intended (group, commercial, etc.)
  - Zoning considerations
- Type of units recommended for site (travel trailers, manufactured housing units)
- Number of units intended for site
  - Validate sufficient space for all units per NYS Uniform Fire Prevention and Building Code

- Road restrictions limiting access by trucks towing manufactured homes / heavy equipment
  - Grade
  - Turn radius
- Utility availability at site location and distance to closest access point if available
  - Utility type (electric, gas, sewer, water, phone)
  - Company providing utility service for type
    - Address, phone, email information of company
- Safe ingress/egress to and from site by residents and/or emergency and utility) vehicles
  - Consideration of handicapped/disabled accessibility
- For sizeable group sites consideration should be given to the distance from the proposed location to the following services:
  - Schools
  - Shopping
  - Health Care / pharmacies
  - Child Care
  - Places of worship
  - Public transportation