U.S. Department of Homeland Security FEMA Region I 99 High Street Boston, MA 02110

Exhibit 20



June 20, 2019

William Hackett
State Emergency Management Director
Connecticut Department of Emergency
Services and Public Protection
1111 Country Club Road
Middletown, CT 06457

Joseph Michelangelo Director, Department of Public Works Town of Fairfield 725 Old Post Road Fairfield, CT 06824

Re: First Appeal – Town of Fairfield, PA ID #001-26620-00, FEMA-4087-DR-CT, Project Worksheet # 680 – Scope of Work, Improved Project, National Flood Insurance Program Regulations, Floodplain Management, and National Environmental Policy Act

Dear Messrs. Hackett and Michelangelo:

This letter responds to the Town of Fairfield's ("Applicant") First Appeal under major disaster declaration FEMA-4087-DR-CT that the Connecticut Department of Emergency Services and Public Protection ("Grantee") submitted to the Federal Emergency Management Agency ("FEMA") in a letter dated March 22, 2019. The Applicant is appealing the FEMA Disaster Recovery Manager's ("DRM") termination of Project Worksheet ("PW") #680 and disallowance of all \$4,340,054.11 in estimated project costs for the replacement of the Penfield Pavilion.

As detailed in the enclosed analysis, I have determined that the Applicant violated the terms and conditions of PW #680 by pursuing changes in the scope of work without prior approval in violation of 44 C.F.R. § 13.30; completing the changes in the scope of work before FEMA fulfilled the specific documentation and procedural requirements of the National Environmental Policy Act and 44 C.F.R. pt. 9; constructing the foundation of the new Penfield Pavilion with horizontal grade beams located above the natural grade and below the base flood elevation in violation of the regulations at 44 C.F.R. § 60.3(e)(5) and 44 C.F.R. § 9.11(d)(6); and failing to obtain a consistency determination from Connecticut Department of Energy and Environmental Protection as required by the implementing regulations for the Coastal Zone Management Act. The DRM, consistent with federal law, regulations, and FEMA policy, acted within his discretionary authority to take an enforcement action under 44 C.F.R. § 13.43 to terminate the project and disallow all costs. I am, therefore, denying the First Appeal.

William Hackett and Joseph Michelangelo June 20, 2019

This letter constitutes the official notification of the First Appeal decision and the Applicant may appeal this determination to the Assistant Administrator, Recovery Directorate, at FEMA Headquarters pursuant to 44 C.F.R. § 206.206, Appeals. If the Applicant elects to file a second appeal, the appeal must: (1) contain documented justification supporting the Applicant's position; (2) specify the monetary figure in dispute; and (3) cite the provisions in federal law, regulation, or policy with which the Applicant believes the initial action was inconsistent.

The Applicant must file its second appeal within 60 days of the Applicant's receipt of this letter. The Grantee must forward that second appeal, along with its recommendation, within 60 days of its receipt from the Applicant. The Grantee may submit the second appeal via email to Russell-Webster@fema.dhs.gov or regular mail to the following address:

Capt. W. Russ Webster, USCG (Ret.), CEM Regional Administrator FEMA Region I U.S. Department of Homeland Security 99 High Street, 6 th Floor Boston, MA 02110

If, after the lapse of appeal rights or utilization of all available appeals, FEMA concludes that an amount is owed for PW #680, then FEMA intends to recover that debt from the Grantee. You may contact Robert Grimley, Recovery Director, at (617) 956-7634 or (617) 276-5050 with any questions about this First Appeal decision.

Sincerely,

WILLIAM R WEBSTER

Digitally signed by WILLIAM R WEBSTER

Date: 2019.06.20 12:39:48 -04'00'

Capt. W. Russ Webster, USCG (Ret.), CEM Regional Administrator FEMA Region I

Enclosures:

- (1) First Appeal Analysis
- (2) Administrative Record Index

FIRST APPEAL ANALYSIS Town of Fairfield, PA ID # 001-26620-00 Project Worksheet #680, FEMA-4087-DR-CT

Scope of Work, Improved Project, National Flood Insurance Program Regulations, Floodplain Management, National Environmental Policy Act

I. <u>BACKGROUND</u>

A. Original Project

The Penfield Pavilion ("Pavilion"), owned and operated by the Town of Fairfield ("Applicant"), was a 16,756 square foot single story structure surrounded by 10,811 square feet of wooden decking. The heavy storm surge during Hurricane Sandy from October 29 to November 9, 2012, heavily damaged the Pavilion and the Applicant applied through the Connecticut Department of Emergency Services and Public Protection ("Grantee") under the Public Assistance grant for major disaster declaration FEMA-4087-DR for financial assistance to restore this damage. Upon receiving the request, FEMA prepared Project Worksheet ("PW") #680 to set forth the disaster-related damage to the Pavilion, scope of work to restore that damage, and estimated cost for that work. FEMA, when performing the repair vs. replacement evaluation, calculated an estimated repair cost of \$2,090,442.85 and an estimated replacement cost of \$3,833,932.60.¹ Because the repair cost exceeded 50% of the replacement cost, FEMA determined that the facility was destroyed and eligible for replacement. FEMA approved and awarded PW #680 on December 17, 2015, with a total estimated cost of \$4,340,054.11.²

PW #680 stated that the scope of work was "replacement" and that the Applicant must return the facility to "its original design, function, and capacity within the original footprint, meeting all appropriate Codes and Standards." The "existing building will be razed and properly disposed of..." and "the new pavilion will be built in the existing footprint on previously disturbed ground and elevated per Codes and Standard Compliance." The scope of work also made clear that the new foundation system will be raised so the "lowest horizontal member will be 2.5 feet above the Base Flood Elevation of 13 to an elevation of 15.5 feet" and that "the new finish floor elevation would be 15.5 minimum based on a BFE of 13..." As it related to scope changes, PW #680 mandated that if the Applicant "wishes to alter the approved scope of work, [it] must formally request approval for such changes to the approved scope of work from FEMA, thru the Grantee, prior to beginning construction." The Applicant, in completing the project, was also required to "comply with all applicable laws and regulations...", a requirement set forth in the FEMA-State Agreement between FEMA and Connecticut that flowed down to the Applicant.

¹ Cost Estimating Format Fact Sheet, Town of Fairfield, CT – Penfield Pavilion, rev. 3 (June 30, 2015). The replacement cost in the calculation did not include various costs such as demolition, project management, and site work as detailed in FEMA Disaster Assistance Policy No. 9524.4, *Repair vs. Replacement of a Facility under 44 C.F.R.* § 206.226(f) [50 Percent Rule] (2009).

² The total estimated cost to replace the facility was \$6,583,222 and, following insurance reductions of \$2,250,000, FEMA calculated the final project costs of \$4,340,054.11.

³ PA-01-CT-4087-PW-00680, p. 5 ("PW 680").

⁴ *Id*.

⁵ *Id*. at 4 and 6.

⁶ *Id*. at 6.

⁷ FEMA-State Agreement, Exhibit C, Article III (executed on Oct. 31, 2012).

The Grantee transmitted a scope change request to FEMA for PW #680 on behalf of the Applicant in a letter dated April 29, 2016,⁸ and later provided a revised scope change request on June 30, 2016.⁹ The first change in scope was that the Applicant did not intend to fully demolish the Pavilion during its replacement, but rather to salvage the west wing by detaching it from its foundation and the rest of the facility, moving it away from its location to the parking lot, and moving it back onto the new foundation once constructed. Other changes in scope included, among other things, the regrading of the parking lot, steepening of its pitch, installing a new patio, and installing fill in the project site. As it related to the fill, the Applicant used up to 2.5 feet of fill to bring the project site back to a natural grade of 8.0' NAVD 1988 (and up to 9.0' in some locations) plus an additional 3-4 feet of fill to bring portions of the site up to an increased elevation of 11.0' to 12.0' NAVD 1988. The maximum amount of total fill used at any single location was 5.2 feet.¹⁰

Concurrently with the scope change request, the Grantee and the Connecticut Department of Energy and Environmental Protection ("CTDEEP") requested technical assistance on June 1, 2016, as to whether the revised scope of work to be pursued by the Applicant would comply with the National Flood Insurance Program ("NFIP") regulations. EMA responded to the Grantee's and CTDEEP's request for technical assistance in a letter dated August 9, 2016. In the letter, FEMA explained that there were concerns that the scope of work being pursued by the Applicant may not comply with the Fairfield Zoning Regulations, 44 C.F.R. § 60.3, and 44 C.F.R. § 9.11(d). In addition to NFIP violations, FEMA also expressed concern that the Applicant had materially violated the terms and conditions of PW #680 by commencing the revised scope of work without prior FEMA approval, not elevating the lowest floor to 15.5 feet, and conducting construction work falling outside the scope of FEMA's environmental and historic preservation ("EHP") review for the original project.

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⁸ Letter from Dana Conover, Public Assistance Coordinator, Connecticut Department of Emergency Services and Public Protection to Paul F. Ford, Acting Regional Administrator, FEMA Region I re: Revision to Change in Scope of Work request: The Town of Fairfield DR-4087-CT PW-680 (Penfield Pavilion) (Apr. 29, 2016).

⁹ Letter from Dana Conover, Public Assistance Coordinator, Connecticut Department of Emergency Services and Public Protection, to Paul F. Ford, Acting Regional Administrator, FEMA Region I, *re: Revision to Change in Scope of Work Request: The Town of Fairfield DR-4087-CT PW-680 (Penfield Pavilion)* (June 30, 2016). This letter included the request that the Applicant submitted to the Grantee that detailed the scope revisions. *See* Letter from Joseph Michelangelo, Director of Public Works, Town of Fairfield to Dana Conover, Public Assistance Coordinator, State of Connecticut *re: Disaster Number DR-4087-CT Project Worksheet # PA-01-CT-4087-PW-680 Category G – Large Project – Penfield Pavilion* (June 30, 2016).

¹⁰ See DeStefano & Chamberlain, Penfield Pavilion, Drawing Number SP400 (June 21, 2016).

¹¹ Letter to Richard Nicklas, Floodplain Management and Insurance Branch Chief, FEMA Region I from Dana Conover, Public Assistance Coordinator, Connecticut Department of Emergency Services and Public Protection and Diane Ifkovic, State NFIP Coordinator, Connecticut Department of Energy and Environmental Protection *re: NFIP Technical Review Request – Penfield Pavilion, 323 Fairfield Beach Road, Fairfield, Connecticut* (June 1, 2016).

¹² Letter from Robert Grimley, Disaster Recovery Manager, FEMA Region I and Richard Nicklas, Branch Chief, Floodplain Management and Insurance, FEMA Region I to Diane Iflovic, National Flood Insurance Program Coordinator, Connecticut Department of Energy & Environmental Protection and Dana Conover, Public Assistance Coordinator, Connecticut Department of Emergency Services & Public Protection *re: FEMA-4087-DR – Town of Fairfield – PA-ID 001-26620-00 – Project Worksheet 680 – Restoration of Penfield Pavilion – Potential Violation of Minimum Requirements of the National Flood Insurance Program and Failure to Comply with the Terms and Conditions of the Public Assistance Project Award (Aug. 9, 2016).*

FEMA, in light of these issues, placed a financial hold on PW #680 and stated that it would be issuing a formal request for information ("RFI") to obtain more information before FEMA made any final determinations. And FEMA made very clear that the Grantee and Applicant should carefully consider whether to continue performing the construction of the Pavilion, as such work could compromise future eligibility. The Applicant moved forward to complete construction without waiting for FEMA review and approval.

FEMA sent a RFI to the Applicant and Grantee on or about September 30, 2016,¹⁵ the Applicant provided the Grantee a response to the RFI in a letter dated October 28, 2016,¹⁶ and the Grantee forwarded that response to FEMA along with its own letter on that same date.¹⁷ After reviewing the RFI response, FEMA issued a response to the request for technical assistance concerning whether the unapproved scope of work completed by the Applicant to restore the Pavilion complied with NFIP requirements.¹⁸ This letter, issued by the Floodplain Management and Insurance ("FMI") Branch Chief on October 17, 2017, explained that the Applicant did not demonstrate compliance with the minimum floodplain management criteria set forth at 44 C.F.R. § 60.3. Notwithstanding the noncompliance, the FMI Branch Chief provided the Applicant with the opportunity to provide additional information before moving forward to take an enforcement action under the NFIP. FEMA and the Applicant had a teleconference on November 20, 2017, to discuss the information to be submitted and the Applicant later provided additional information via a letter dated December 2, 2017.¹⁹

B. NFIP Determination

The FMI Branch Chief issued a final NFIP determination on November 28, 2018.²⁰ In the

¹³ *Id*. at 6.

¹⁴ *Id.* ("...FEMA Region I is placing a financial hold on PW 680, such that the Grantee is prohibited from drawing down any funding for the project. The Grantee and Applicant should also carefully consider whether the Applicant should continue performing its constitution of the pavilion, as such work could compromise future eligibility.").

¹⁵ Letter from G. Fred Vanderschmidt, Deputy Director Recovery Division, FEMA Region I to Dana Conover, Public Assistance Coordinator, Connecticut Division of Emergency Management & Homeland Security and Joseph Michelangelo, Director of Public Works, Town of Fairfield *re: The Town of Fairfield DR-4087-CT PW-680* (Penfield Pavilion)- Change in Scope of Work – Request for Information (Sep. 30, 2016).

¹⁶ Letter from Michael C. Tetreau, First Selectman, Town of Fairfield to G. Fred Vanderschmidt, FEMA Region I re: Your Letter of September 30, 2016 re FEMA-4087-DR – Project Worksheet 680 – Restoration of Penfield Pavilion – Change in Scope of Work – Request for Information (Oct. 28, 2016).

¹⁷ Letter from Dana Conover, Public Assistance Coordinator, Connecticut Division of Emergency Management & Homeland Security to G. Fred Vanderschmidt, Deputy Director Recovery Division, FEMA Region I re: Request for Information, The Town of Fairfield, DR-4087-CT PW 680 (Penfield Pavilion) (Oct. 28, 2016).

¹⁸ Letter from Richard Nicklas, Branch Chief, Floodplain Management and Insurance, FEMA Region I to Dana Conover, Public Assistance Coordinator, Connecticut Department of Emergency Services & Public Protection and Diane Ifkovic, National Flood Insurance Program Coordinator, Connecticut Department of Energy & Environmental Protection re: FEMA-4087-DR – Town of Fairfield – PA-ID 001-26620-00 – Project Worksheet 680 – Restoration of Penfield Pavilion – Violation of the Minimum Floodplain Management Criteria at 44 C.F.R. § 60.3 and Technical Bulletin 5 (Oct. 17, 2017).

¹⁹ Letter from Michael C. Tetreau, First Selection, Town of Fairfield to Richard Nicklas, Branch Chief, Floodplain Management and Insurance, FEMA Region I *re: FEMA-4087-DR – Town of Fairfield – PA-ID 001-26620-00 – Project Worksheet 680* (Dec. 12, 2017).

²⁰ Letter from Richard Nicklas, Floodplain Management and Insurance Branch Chief, FEMA Region I to Diane Ifkovic, National Flood Insurance Program Coordinator, Connecticut Department of Energy and Environmental

determination analysis enclosed with his letter, the FMI Branch Chief explained that 44 C.F.R. § 60.3(e)(5) prohibits a substantial improvement in a VE Zone unless there are no obstructions below the lowest floor. He also noted that Technical Bulletin #5 explained that FEMA did not consider a horizontal grade beam below the lowest floor to be an obstruction if its upper surfaces are flush with or below the natural grade. In this case, the FMI Branch Chief explained that the base flood elevation at the project site was 13.0' NAVD 1988, the project site is in the VE Zone, the Applicant performed a substantial improvement of the Pavilion, and the top of the horizontal grade beams for the new Pavilion's foundation system was 10.7' NAVD 1988. He then stated that, after reviewing LiDAR data from 2006 and all documentation provided by the Applicant, he had concluded that the natural grade of the project site ranged from 8.0' to 9.0' NAVD 1988. Therefore, because the Applicant had placed horizontal grade beams for the Pavilion's foundation system above the natural grade and below the base flood elevation, the Applicant had created an obstruction in violation of 44 C.F.R. § 60.3(e)(5).

C. Public Assistance Determination

The FEMA Disaster Recovery Manager ("<u>DRM</u>") issued a Public Assistance determination for PW #680 on November 28, 2018, which was the same day as the FMI Branch Chief's determination. ²¹ As detailed in the Public Assistance determination memorandum enclosed with his letter, the DRM terminated PW #680 and disallowed all costs as an enforcement remedy pursuant to 44 C.F.R. § 13.43 because the Applicant had violated the terms and conditions of the Federal award and the project was no longer eligible for financial assistance.

The DRM identified three bases for concluding that the project was not eligible for financial assistance. First, the horizontal grade beams of the foundation system of the new Pavilion comprised an impermissible obstruction under 44 C.F.R. § 60.3(e)(5) and the Fairfield Zoning Regulations.²² This was because the Applicant conducted a substantial improvement of the Pavilion, the project site was in the VE Zone, and the tops of the horizontal grade beams were above the natural grade and below the BFE. In his determination, the DRM incorporated by reference the FMI Branch Chief's determination of November 28, 2018. Second, the DRM determined that the construction of the Pavilion violated the regulation at 44 C.F.R. § 9.11(d)(6), which is one of the implementing regulations for Executive Order 11988.²³ This regulation states that no action shall be taken if it is inconsistent with the criteria of the NFIP. Because the horizontal grade beams for the new Pavilion violated the free-of-obstruction requirement of 44 C.F.R. § 60.3(e)(5), then the Pavilion also violated 44 C.F.R. § 9.11(d)(6). Third, the DRM

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Protection and Michael Tetreau, First Selectman, Town of Fairfield re: Town of Fairfield – Noncompliance with the Minimum Floodplain Management Criteria at 44 C.F.R. § 60.3 – Penfield Pavilion (Nov. 28, 2018).

²¹ Letter from G. Fred Vanderschmidt, Disaster Recovery Manager, FEMA Region I to William Hackett, Deputy Commissioner, Connecticut Department of Emergency Services & Public Protection and Michael C. Tetreau, First Selectman, Town of Fairfield re: *FEMA Public Assistance Eligibility Determination – Town of Fairfield – Public Assistance ID # 001-26620-00 – FEMA-4087-DR-CT – Project Worksheet #680 – Scope Change Request* (Nov. 28, 2018).

²² FEMA Public Assistance Determination Memorandum, *Town of Fairfield*, PW #680, FEMA-4087-DR-CT, at 15-16 (Nov. 28, 2018).

²³ *Id*. at 17.

determined that the Applicant failed to obtain a consistency determination from CTDEEP as required by the implementing regulations for the Coastal Zone Management Act.²⁴

In addition to determining that the project was ineligible for financial assistance, the DRM also determined that the Applicant changed the approved scope of work before obtaining the required FEMA programmatic and EHP review and approval and, in doing so, materially failed to comply with 44 C.F.R. § 13.30(d)(1) and the terms and conditions of the Public Assistance grant.²⁵ The Applicant had pursued various changes in the approved scope without prior review and approval, such as not fully demolishing the building, detaching the west wing and moving onto the parking lot, installing fill to adjust the pitch of the parking lot, and installing large quantities of fill underneath and around the new Pavilion.

The DRM evaluated the facts and circumstances of PW #680, considered aggravating and mitigating circumstances, and, after this analysis, determined to terminate PW #680 and disallow all costs as an enforcement remedy. This was because the project was not eligible for financial assistance, the Applicant failed to comply with the terms and conditions of the Federal award, the Applicant and Grantee disregarded FEMA's warning about continuing to pursue the revised scope of work before FEMA approval, and termination of the project fell well within the bounds of discretion set forth at 44 C.F.R. § 13.43.²⁶

D. <u>First Appeal</u>

The Applicant submitted a first appeal to the Grantee on January 23, 2019,²⁷ that the Grantee forwarded to FEMA along with its recommendation on March 22, 2019.²⁸ In the First Appeal, the Applicant asserted that DRM's determinations relating to the termination of PW #680 and deobligation of \$4,340,054.11 were invalid because they "represented a misapplication of the regulations and conflict with FEMA policies and practices affecting PW 680" and then made various arguments concerning all three eligibility issues in the DRM's determination.

Horizontal Grade Beams

The Applicant argued that the horizontal grade beams of the foundation system complied with the free-of-obstruction requirements of 44 C.F.R. § 60.3(e)(5). As a preliminary matter, the Applicant stated that the natural grade of the project site was not 8.0 to 9.0 feet NAVD 1988, but rather that it was between 10.0 to 11.0 feet NAVD 1988 (which would make the horizontal grade

²⁴ *Id.* at 18-19.

²⁵ *Id.* at 11-13.

²⁶ *Id.* at 20-21.

²⁷ Letter from Michael Tetreau, First Selectman and Joseph Michelangelo, Director, Department of Public Works to Douglas Wolcott, Jr., Acting Regional Administrator, FEMA Region I re: *FEMA-4087-DR-CT – Town of Fairfield, CT, PA ID # 001-26620-00, First Appeal – De-obligation of \$4,340,054.11 – Project Worksheet # 680* (Jan. 23, 2019). This letter included, among other things, an enclosure that was entitled 1st Appeal – Project Worksheet 680) ("<u>First Appeal</u>").

²⁸ Letter from Dana Conover, Public Assistance Coordinator, State of Connecticut to Paul F. Ford, Regional Administrator, FEMA Region I re: *First Appeal of the Regional Recovery Division Director's Public Assistance Ineligibility Determination Dated 28 November 2018 – The Town of Fairfield, CT – DR-4087-CT PW-680* (Mar. 22, 2019).

beams below the natural grade). This was because, according to DeStefano & Chamberlain (the Applicant's engineer), the "dune crest elevation at the two ends of the building can be seen to be 10.0' and 11.0' NAVD. Based on these photographs, the LiDAR and the as built survey, it is our opinion that it is reasonable and logical to infer that this crest elevation would have continued across the entire length of the site in the property's natural state."²⁹

The Applicant also argued that determining "natural grade" of the pre-Hurricane Sandy grades on the property using recent topographic surveys was "illogical" and "technically unsound" based on the 100-year history of a site that has been long disturbed, developed, modified, scoured, and replenished. The original Pavilion was built back in the early 1900's between two high points to the east and west of the building and, over many years, sand accreted under the structure that filled the gap between the natural grade and the underside of the building. When the Pavilion was reconstructed between 2008-2010, the dune was excavated to construct the foundation and the building was elevated to 12.0', which created a large opening between the grade and bottom of the building. The sand was never replaced. As such, during the replacement of Pavilion after Hurricane Sandy, the Applicant replaced the lost sand that had built up over the approximately 80 years before 2008

Even if FEMA did not change its determination concerning the elevation of the natural grade, the Applicant made other arguments to support its conclusion that the horizontal grade beams did not comprise a violation of 44 C.F.R. § 60.3(e)(5). The Applicant argued that the horizontal grade beams did not impact the "free flow of flood waters," Technical Bulletin #5 never states that horizontal grade beams above the natural grade is a default violation of 44 C.F.R. § 60.3(e)(5), Technical Bulletin #5 is a guideline, not an absolute, and grade beams are not mentioned or addressed in 44 C.F.R. § 60.3(e)(5). In addition, the Applicant included reports from DeStefano & Chamberlain and RACE Coastal Engineering that supported the conclusion that the horizontal grade beams complied with the regulation. These included, among other things, an assertion that Technical Bulletin #5 provides for the possibility to evaluate potential obstructions below the lowest floor and allow them if numerical modeling indicates that there will be no adverse impacts. And, according to the Applicant's engineer, the Pavilion was designed to be stable accounting for the loads and scour depths, to not divert water to adjacent properties, and not damage the underside of the Pavilion.

Floodplain Management

The Applicant next asserted that there is no basis to deny eligibility of the project relating to the minimization requirements of 44 C.F.R. pt. 9. This was because FEMA determined the compliance with these requirements before it awarded PW #680 and that the change in scope of work did not change any of the conditions or outcomes of FEMA's review. As such, it is incorrect for FEMA to assert a violation of the minimization standards of 44 C.F.R. pt. 9 as a singular reason for denying assistance.

²⁹ First Appeal, *supra* note 27, p. 14.

Coastal Zone Management Act Consistency Review

The Applicant argued that CTDEEP, in order to make a consistency determination, needed FEMA to make a determination as to compliance of the Pavilion with the NFIP regulations. Although FEMA has made that determination, the Applicant stated that CTDEEP is awaiting the resolution of the appeals process before issuing a final determination, such that the lack of a consistency determination should not be the singular basis to deny assistance for the project. As part of the Grantee's written recommendation with the First Appeal, it provided a letter from CTDEEP that stated that CTDEEP would not be issuing a federal coastal consistency determination, as the "Department does not issue Federal Coastal Consistency on funding alone." ³⁰

Scope Change

The First Appeal did not dispute that the Applicant commenced and completed construction for the improved project before obtaining FEMA approval as required by 44 C.F.R. § 13.30(d). Rather, the Applicant made several arguments as to why it is now "too late and unreasonable" for FEMA to use the violation as the singular reason for denying financial assistance.³¹ First, the Applicant had submitted its scope change request before actually beginning the start of construction. Second, the Applicant was confronted with a highly damaged facility that represented a safety hazard to the Town and continuing loss of income and needed to move forward to begin construction. Third, the Applicant stated that FEMA did not immediately declare the project ineligible upon discovering the impermissible scope change and worked with the Grantee and Applicant over 31 months to gather more information about the project to make a complete determination. This confirms that FEMA "chose to ignore" the regulation at 44 C.F.R. § 13.30(d).

National Environmental Policy Act

The DRM stated in his determination that EHP review is one the primary reasons why FEMA needs to review and approve a scope change before work begins—in this case, the Applicant asserted that no additional EHP review was required. The First Appeal stated that the scope of work fell within the original categorical exclusion under the National Environmental Policy Act ("NEPA") relied upon by FEMA when it originally awarded PW #680, such that there was no need for additional NEPA review. This categorical exclusion at 44 C.F.R. § 10.8(d)(2)(xv) applied to, among other things, the "replacement" of any facility "in a manner that substantially conforms to the pre-existing design, function, and location." The Applicant asserted that it ultimately replaced the Pavilion in the same footprint and it conformed to the pre-existing design and function.³² Lastly, even if further EHP review was required, the Applicant stated that it

³⁰ Letter from Betsey Wingfield, Connecticut Department of Energy & Environmental Protection to Dana Conover, Connecticut Department of Emergency Services and Public Protection re: *Penfield Pavilion, Fairfield* (Mar. 22, 2019).

³¹ First Appeal, *supra* note 27, at 11.

³² The First Appeal also noted that the State Historic Preservation Officer had already determined that the Pavilion was not eligible for inclusion on the National Register of Historic Places nor a contributing resource, such that no additional review was needed under the National Historic Preservation Act.

made FEMA aware of the scope change before construction began, FEMA "chose not to make any additional EHP reviews," and "then claimed it was denied the ability to do so."

E. Final Request for Additional Information

Section 423 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act ("Stafford Act") provides that an applicant may appeal any FEMA decision regarding eligibility for assistance within 60 days after the date upon which the applicant is notified of the award or denial of assistance.³³ The implementing regulation at 44 C.F.R. § 206.206 requires that the appeal contain documented justification supporting the appeal position, specify the monetary figure in dispute, and cite the provisions in federal law, regulation, or FEMA policy with which the applicant believes the eligibility determination was inconsistent.³⁴

The *Public Assistance Program Appeals Procedures Manual* ("<u>Appeal Manual</u>") states that if a Regional Administrator is considering fully or partially denying a first appeal, he or she must issue a final request for information ("<u>FRFI</u>") that explains the basis for the likely denial or partial grant of the first appeal, requests that the applicant provide any additional information to support its appeal, and inform the applicant that the administrative record will close after the Regional Administrator issues the first appeal decision.³⁵ On May 10, 2019, however, the Assistant Administrator for the FEMA Recovery Directorate stated that FEMA would now consider documentation and supporting evidence submitted with a second appeal or in response to a FRFI issued at the second appeal level.³⁶

Because an applicant may now submit additional information with a second appeal and FEMA may request additional information during the review of a second appeal, the Assistant Administrator stated that FRFIs are no longer required before issuing first appeal determinations.³⁷ If a Regional Administrator finds a need for additional information to adjudicate the first appeal, he or she may still issue a FRFI to request such information. The Regional Administrator, in this case, has reviewed the Administrative Record and concluded that he does not need any additional information to adjudicate the issues under First Appeal and, as a result, did not issue a FRFI.

³⁷ *Id*. at 2.

³³ Robert T. Stafford Disaster Relief and Emergency Assistance Act, Pub. L. No. 93-288, § 423 (1974) (codified as amended at 42 U.S.C. § 5189a).

³⁴ 44 C.F.R. § 206.206.

³⁵ FEMA Recovery Directorate, Public Assistance Program Appeals Procedures Manual, v. 4 (Mar. 29, 2016).

³⁶ Memorandum from Keith Turi, Assistant Administrator, Recovery Directorate to Regional Administrators subj: *FEMA Public Assistance Appeals Guidance*, at 1 (May 10, 2019).

II. <u>DISCUSSION</u>

A. Change in the Scope of Work

1. Applicable Law, Regulation, and Policy

Permanent Work

Section 406 of the Stafford Act authorizes FEMA to make financial assistance available to a local government for the restoration of a public facility damaged or destroyed by a major disaster.³⁸ FEMA administratively exercises this authority as "permanent work" (Categories C through G) under the Public Assistance Program. The regulation at 44 C.F.R. § 206.226(f) divides permanent work into two categories: repair and replacement. A facility is "considered repairable when disaster damages do not exceed 50 percent of the cost of replacing a facility to its predisaster condition, and it is feasible to repair the facility so that it can perform the function for which it was being used as well as it did immediately prior to the disaster."³⁹ A facility that does not meet both conditions precedent is eligible for replacement.⁴⁰ If a facility is eligible for replacement, funding will be based on the cost to construct the new facility according to the predisaster design and in compliance with current standards for new construction.⁴¹

Section 323 of the Stafford Act requires that a Public Assistance applicant must carry out any construction to be financed with Public Assistance funding in accordance with applicable standards of safety, decency, and sanitation and in accordance with applicable codes, specifications, and standards.⁴² In the implementing regulations for this statute, FEMA requires the applicable codes, specifications, and standards to meet the minimum requirements of the NFIP and requires an applicant to comply with all requirements necessary regarding Executive Order 11988.⁴³

Improved Projects and Scope Changes

One of the most critical elements of the Public Assistance grant is the scope of work set forth in the individual Project Worksheets. The Project Worksheet is the form used by FEMA to document the disaster damage to a facility, eligible scope of work to restore the facility, and estimated costs. Once FEMA awards a PW, a relationship is created between FEMA and a grantee that results in certain legal obligations. The grantee commits to the scope of work being performed and has a duty to account to FEMA for the use of funds only for the authorized scope of work. FEMA, in turn, has a right to expect that the grantee and the applicant will use the Public Assistance funds only for the authorized scope of work in a project and only in accordance with the terms and conditions of the award. It is the responsibility of the grantee to

³⁸ Stafford Act, *supra* note 33, § 406 (codified as amended at 42 U.S.C. § 5172).

³⁹ 44 C.F.R. § 206.226(f); FEMA Disaster Assistance Policy No. 9524.4, *supra* note 1.

 $^{^{40}}$ Id

⁴¹ FEMA Disaster Assistance Policy 9527.4, Construction Codes and Standards, ¶ VII.C.1.b (Feb. 5, 2008); 44 C.F.R. §§ 206.221(i), 226(d).

⁴² Stafford Act, *supra* note 33, § 323 (codified as amended at 42 U.S.C. § 5165a).

⁴³ 44 C.F.R. §§ 206.400 and 402.

⁴⁴ *Id.* § 206.202.

"manag[e] the day to day operations of...subgrant supported activities" and to "monitor...subgrant supported activities to assure compliance with applicable Federal requirements..."

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An applicant may decide to make improvements to a facility, pursue a different methodology of construction, or pursue any other work not included in the FEMA-approved scope of work when replacing it under a permanent work project. Such a project is an "improved project," which is a project that restores the predisaster function and at least the same pre-disaster capacity as the damaged facility and incorporates improvements or changes to its pre-disaster design and/or adds additional work beyond the FEMA-eligible scope of work. The Public Assistance Guide made clear that an applicant must obtain approval for an improved project from FEMA involving projects that result in a significant change from the pre-disaster configuration of a facility before construction to ensure completion of the appropriate environmental and/or historic preservation review. The public Assistance of the appropriate environmental and/or historic preservation review.

In addition to guidance in the <u>Public Assistance Guide</u>, FEMA's former regulations at 44 C.F.R. pt. 13 set forth uniform administrative rules for grants and subgrants to state and local governments and FEMA made compliance with these regulations a condition of the Public Assistance grant for FEMA-4087-DR.⁴⁸ The Grantee agreed to these requirements as part of the FEMA-State Agreement and these requirements flowed down to the Applicant. Pursuant to 44 C.F.R. § 13.30(d)(1), the Grantee and Applicant must obtain the *prior approval* of FEMA before revising the scope or objectives of a Public Assistance construction project.⁴⁹ This is true regardless of why the scope is being revised (*e.g.*, improved project, alternate project, or general scope change) and regardless of whether there is an associated budget change.⁵⁰ The

⁴⁵ 44 C.F.R. § 13.40.

⁴⁶ 44 C.F.R. § 206.203(d); FEMA 322, *Public Assistance Guide*, at 110-111 (June 2007) ("<u>Public Assistance Guide</u>").

⁴⁷ Public Assistance Guide, *supra* note 46, p. 111.

⁴⁸ FEMA-State Agreement, Exhibit B (General Conditions), ¶ 3 ("The State agrees to comply with the requirements of laws and regulations found in the Stafford Act and 44 CFR."); Exhibit C, Article III ("The Grantee agrees to comply with all applicable laws and regulations, including but not limited to the following laws, regulations, and OMB circulars that govern standard grant management practices and are incorporated into this Agreement by reference. ...Title 44 of the Code of Federal Regulations, which includes Part 13, FEMA's implementation of OMB Circular A-102 – Uniform Administrative Requirements for Grants and Cooperative Agreements with State and Local Governments…").

⁴⁹ 44 C.F.R. § 13.30(d)(1) (2012) ("(d) Programmatic Changes. Grantees and subgrantee must obtain the prior approval of the awarding agency whenever any of the following actions is anticipated: (1) Any revision to the scope or objectives of the project..."); *see also* FEMA Second Appeal Analysis, *Cameron Parish School Board*, FEMA-1607-DR-LA, at 7 (July 2, 2018) ("However, when an applicant changes the SOW or needs additional funding, it must obtain the prior approval of FEMA."); FEMA Second Appeal Analysis, *University of Houston-Main Campus*, FEMA-1791-DR-RX, at 3 (June 2, 2017) ("Per Title 44 of the Code of Federal Regulations (44 C.F.R.) § 13.30(d)(1), an applicant must obtain FEMA's approval prior to revising the scope of objectives of a project."). ⁵⁰ Public Assistance Guide, *supra* note 46, pp. 139-140; *see also* FEMA Second Appeal Analysis, *Township of Rapidan*, FEMA-1941-DR-MN, at 3 (Sep. 14, 2016); FEMA Second Appeal Analysis, *Essex County*, FEMA-4020-DR-NY, at 5-6 (Aug. 18, 2016) ("Pursuant to 44 C.F.R. § 13.30(d)(1), applicants must obtain prior approval from FEMA whenever there is any revision of the scope of work or objectives of the project. This is true regardless of the reason necessitating the change (e.g., hidden damage discovered, improved project, alternate project, or general scope change) because it allows FEMA to carry out related functions such as additional environmental and historic preservation (EHP) compliance reviews, as well as the Applicant to obtain the necessary environmental permit.

requirement for prior approval provides FEMA with the opportunity to, among other things, review the scope changes for programmatic eligibility and conduct all necessary EHP reviews before the work is started.

Environmental and Historic Preservation Review

FEMA must consider and comply with a wide range of federal laws, regulations, and executive orders concerning environmental protection and historic preservation ("EHP") when providing financial assistance for permanent work.⁵¹ These include, among others, NEPA, Executive Order 11988 and 44 C.F.R. pt. 9, and the Coastal Zone Management Act. The size and type of the project and project site and conditions generally determine the level of review that must be performed. The compliance review process must be completed before FEMA approves funding and before work is started because "the review may identify steps to be taken or conditions to be met before the project can be implemented, including possible consultation with other federal agencies and public notification."52 When an applicant initiates or completes work on a permanent work project or a scope change on an approved project before FEMA is able to conduct the necessary EHP review, an applicant is generally ineligible for Public Assistance funding.⁵³

The Applicant Violated the Terms and Conditions of the Award by 2. Changing the Scope of Work without Prior FEMA Approval

The FEMA-approved scope of work under PW #680 stated that the "existing building will be razed and properly disposed of..." and "the new pavilion will be built in the existing footprint on previously disturbed ground and elevated per Codes and Standard Compliance." The scope of work also required that the lowest horizontal member of the lowest floor of the Pavilion would be 2.5 feet above the BFE at an elevation of 15.5 feet. Unfortunately, the actual work completed by the Applicant involved numerous unapproved changes to the FEMA-approved scope.

The Applicant did not elevate the lowest floor of the new Pavilion to 15.5 feet and, rather than fully demolishing the Pavilion during its replacement, salvaged the west wing by detaching it from its foundation and the rest of the facility, moving it away from its location to the parking

When an applicant materially fails to comply with any term of an award FEMA may disallow all or part of the grant

⁵¹ See FEMA Directive No. 108-1, Environmental Planning and Historic Preservation Responsibilities and Program Requirements (Aug. 22, 2016); FEMA Instruction No. 108-1-1, Instruction on Implementation of the Environmental Planning and Historic Preservation Responsibilities and Program Requirements (Aug. 22, 2016); Public Assistance Guide, supra note 46, pp. 127-136.

⁵² *Public Assistance Guide*, *supra* note 38, pp. 127-128.

⁵³ See, e.g. FEMA Second Appeal Analysis, Village of Pardeeville, FEMA-1768-DR-WI (Dec. 16, 2014) (finding that FEMA officials appropriately denied funding for a Public Assistance project where the applicant pursued an improved project before FEMA EHP officials were able to conduct necessary reviews); FEMA Second Appeal Analysis, Town of Springtown, FEMA-1751-DR-AR (Mar. 27, 2015) (where applicant began the approved SOW by repairing a bridge, but then demolished it and built another bridge in a new location, finding that it was appropriate to deobligate funds where there was no evidence that another EHP compliance review was performed); and FEMA Second Appeal Analysis, Essex County, FEMA-4020-DR-NY, at 5-6 (Aug. 18, 2016) (finding that where the applicant had constructed a new bridge, in a new location, without prior approval from FEMA, and no proper environmental compliance review was done, it was appropriate to deobligate all funding).

lot, and moving it back onto the new foundation once constructed. The scope of work completed by the Applicant also involved work not included in PW #680 that did not undergo programmatic and EHP review and approval. Among other things, the Applicant regraded the parking lot by using low cost road millings as fill to steepen the pitch, constructed a new patio, and installed large amounts of fill at the project site. As it related to the fill at the site, the Applicant used up to 2.5 feet of fill to bring the project site back to a grade of 8.0' to 9.0' NAVD 1988 plus and additional 3-4 feet of fill to bring portions of the site up to an increased elevation of 11.0' to 12.0' NAVD 1988.

The regulation at 44 C.F.R. § 13.30(d) required the Grantee and Applicant to obtain *prior approval* before changing the scope of work under PW #680. In addition to the regulation, PW #680 required that, if the Applicant "wishes to alter the approved scope of work," it "must formally request approval for such changes to the approved scope of work from FEMA, thru the Grantee, prior to beginning construction." Here, the Applicant commenced and completed construction on the revised scope of work before FEMA approval, which violated the regulation and the terms and conditions of PW #680 and precluded FEMA from completing its programmatic and EHP review before construction began. This, standing alone, provided an appropriate basis for the DRM to have terminated PW #680 and disallowed all costs pursuant to 44 C.F.R. § 13.43.⁵⁴ To dispute this conclusion, the Applicant has made several arguments in the First Appeal as to why it was too late and unreasonable for FEMA to rely upon 44 C.F.R. § 13.30(d) as the singular reason for denying financial assistance for PW #680. The arguments however, are meritless and the Applicant has failed to demonstrate that the DRM acted inconsistently with federal law, regulation, or policy.

The Applicant first argued that it had submitted a scope change request to the State Public Assistance Coordinator on April 18, 2016, which was before it started construction on the revised scope. Even assuming this was the case, it is irrelevant. The regulation at 44 C.F.R. § 13.30(d) requires *prior FEMA approval* before construction may begin on a scope change. Furthermore, after conducting an initial review of the scope change request submitted by the Grantee to FEMA on June 30, 2016, FEMA recognized the potential eligibility issues and put the Applicant on notice in August 2016 that continuing work on the Pavilion without waiting for FEMA review and approval might result in the total ineligibility of the project. The Applicant,

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⁵⁴ See, e.g. FEMA Second Appeal Analysis, *Cameron Parish School Board*, FEMA-1607-DR-LA, at 7 (July 2, 2018) ("However, when an applicant changes the SOW or needs additional funding, it must obtain the prior approval of FEMA."); FEMA Second Appeal Analysis, *University of Houston-Main Campus*, FEMA-1791-DR-RX, at 3 (June 2, 2017) ("Per Title 44 of the Code of Federal Regulations (44 C.F.R.) § 13.30(d)(1), an applicant must obtain FEMA's approval prior to revising the scope of objectives of a project."); FEMA Second Appeal Analysis, *Webster County*, FEMA-4144-DR-MO (June 8, 2018) (FEMA terminated a project where the applicant pursued an unapproved scope of work to increase the length and width of a bridge); FEMA Second Appeal Analysis, *Roseau County Highway Department*, FEMA-1288-DR-MN, at 7 (Jan. 6, 2017) (FEMA denied funding for work performed outside of the approved scope); FEMA Second Appeal Analysis, *City of Sundance*, FEMA-4007-DR-WY (May 4, 2018) (FEMA terminated a project where the applicant pursued a change in the scope of work without prior FEMA approval); FEMA Second Appeal Analysis, *Plymouth Township*, FEMA-4030-DR-PA (June 20, 2017) (FEMA terminated a project because the applicant completed work beyond the scope of work in the PW without prior FEMA approval); FEMA Second Appeal Analysis, *Maine-Endwell Central School District*, FEMA-4031-DR-NY (Dec. 21, 2017) (FEMA terminated a project because the applicant pursued a change in the scope of work by constructing a new facility at a different location without prior FEMA approval).

notwithstanding this warning, moved ahead to perform the revised scope of work. This is unfortunate because, as explained further below, the Applicant constructed the Pavilion in a manner violative of the regulations at 44 C.F.R. § 60.3(e) and 44 C.F.R. § 9.11(d) and foreclosed the possibility of changing its design to meet the strictures of these requirements. It is also because, even if the scope change were programmatically eligible, FEMA would have needed to perform an environmental assessment as part of its project review to comply with NEPA.

The Applicant next argued that it was now too late for FEMA to impose 44 C.F.R. § 13.30(d) because it took FEMA 31 months to render a determination as to the Applicant's scope change request and the Applicant could not wait for FEMA review and approval before moving forward to replace the Pavilion because it would have adversely affected the safety of the public, increased the Applicant's exposure to liability, and harmfully impacted the Town's economy. As a preliminary matter, the original scope of work called for demolition of the entire Pavilion, which—had the Applicant proceeded to do so—would have eliminated any threat to the safety of the public, eliminated any exposure to liability, and enabled the Applicant to construct a new Pavilion to avoid additional losses to the economy.

The other problem with the Applicant's argument is that it incorrectly concludes that there was no other choice other than moving ahead to replace the Pavilion by pursuing the revised, unapproved scope. The Applicant could have approached FEMA and, if there were any actual threats to public health and safety presented by the damaged Pavilion, could have obtained FEMA review and approval for temporary protective measures such as a security fence around the Pavilion or, alternatively, sought approval to detach the west wing Pavilion, move it to the parking lot, and demolish the remaining elements of the facility while FEMA reviewed the proposed scope changes. The Applicant failed to do any of these things and instead chose to violate its requirement to comply with the terms and conditions of the Federal award.

B. National Flood Insurance Program Regulations

1. Applicable Law, Regulation, and Policy

A community must adopt and adequately enforce floodplain management regulations that meet or exceed the requirements of 44 C.F.R. Part 60 in order to qualify for the sale of flood insurance under the NFIP.⁵⁵ One of the most crucial regulations is 44 C.F.R. § 60.3, which sets forth minimum building design criteria that apply to new construction, substantially damaged buildings, and substantial improvements of existing buildings in a SFHA. The requirements under this regulation are different depending on whether FEMA has provided base flood elevations for various types of flood zones in the community, designated the regulatory floodway on the Flood Insurance Rate Map ("<u>FIRM</u>"), and identified the coastal high hazard areas (V Zones) on the FIRM.

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⁵⁵ National Flood Insurance Act of 1968, Pub. L. No. 90-448, § 1315 (1968) (codified as amended at 42 U.S.C. § 4022) ("National Flood Insurance Act"); 44 C.F.R. § 59.22.

The Applicant is a participating community in the NFIP and has adopted the Fairfield Zoning Regulations that meet the minimum requirements of 44 C.F.R. pt. 60.⁵⁶ The current FIRM for the Town of Fairfield designates a regulatory floodway and coastal high hazard areas, such that the requirements of 44 C.F.R. § 60.3(e) apply to the community. The Fairfield Zoning Regulations, in turn, require that buildings and structures in flood prone areas as delineated on a FIRM "shall conform" to the standards set forth in Section 32 (entitled "Flood Protection"), which incorporate the requirements of 44 C.F.R. § 60.3 at Section 32.5.

One of the requirements under 44 C.F.R. § 60.3(e)(5) is that new construction and substantial improvements in the VE Zone must not have obstructions below the lowest floor:

[T]he community shall:...Provide that all new construction and substantial improvements within Zones...VE...on the community's FIRM have the space below the lowest floor either free of obstruction or constructed with non-supporting breakaway walls, open wood lattice-work, or insect screening intended to collapse under wind and water loads without causing collapse, displacement, or other structural damage to the elevated portion of the building or supporting foundation system.⁵⁷

For the requirements of 44 C.F.R. § 60.3(e)(5) to apply, there must be either "new construction" or a "substantial improvement" of a structure. The regulation at 44 C.F.R. § 59.1 defines "substantial improvement" to mean "any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure before the 'start of construction' of the improvement. ..." This term includes a structure which has incurred "substantial damage," regardless of the actual repair work performed. Substantial damage" means "damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damaged condition would equal or exceed 50 percent of the market value of the structure before the damage occurred."

FEMA has promulgated Technical Bulletin #5 to provide interpretive guidance concerning the free-of-obstruction requirements in coastal high hazard areas under 44 C.F.R. § 60.3(e)(5) as well as the general requirement for construction that will minimize flood damage potential as it applies to V Zone construction.⁶¹ Technical Bulletin #5 recognizes that any construction or development practice below the BFE (such as piles and columns allowed under the NFIP) will comprise an obstruction and that it is not always clear whether a particular building element or site development practice will be a significant obstruction that prevents the free passage of floodwater and waves.⁶² In light of this lack of clarity, Technical Bulletin #5 provides various

⁵⁶ Town of Fairfield, *Zoning Regulations* (undated) (accessed at http://www.fairfieldct.org/filestorage/10726/11028/12429/12431/Zoning_Regulations.pdf)

⁵⁷ 44 C.F.R. § 60.3(e)(5). ⁵⁸ *Id.* § 59.1.

¹a. g.

⁵⁹ *Id*.

⁶⁰ *Id*.

⁶¹ FEMA Technical Bulletin 5, Free-of-Obstruction Requirements for Buildings Located in Coastal High Hazard Areas in Accordance with the National Flood Insurance Program (Aug. 2008).
⁶² Id. at 5.

guidance regarding common building elements that may significantly affect the free passage of flood flow and waves under elevated buildings.

One of the below building elements that Technical Bulletin #5 specifically addresses is horizontal grade beams that are not part of the lowest floor. Technical Bulletin #5 states that horizontal grade beams that are placed with their upper surfaces flush with or below the natural grade are not considered obstructions and are allowed under the NFIP.⁶³ After making this very limited exception, Technical Bulletin #5 makes no allowance for the placement of horizontal grade beams above the natural grade and below the BFE. The "natural grade" of a location means the grade unaffected by construction techniques such as fill, landscaping, or berming.⁶⁴ As a FIRM does not identify the elevation of the natural grade, determining the natural grade for a specific location requires the analysis of site-specific topographical data, any available contour maps, light detection and ranging ("LIDAR") data, field observations of surrounding topography, photographs, and other available data.

2. The Horizontal Grade Beams Comprise an Impermissible Obstruction under 44 C.F.R. § 60.3(e)(5)

The regulation at 44 C.F.R. § 60.3(e)(5) prohibits the creation of any obstruction below the lowest floor of a substantial improvement in the VE Zone. The requirements of 44 C.F.R. § 60.3(e)(5) were triggered here, as the replacement of the Pavilion was a substantial improvement⁶⁵ and the Pavilion is located in the VE Zone.⁶⁶ In applying this regulation, horizontal grade beams below the BFE comprise a prohibited obstruction unless they meet the narrow exception detailed in Technical Bulletin #5 for horizontal grade beams placed with their upper surfaces flush with or below the natural grade. The Applicant constructed the foundation of the Pavilion with horizontal grade beams at an elevation of 10.7' NAVD 1988, which is below the BFE of 13.0' NAVD 1988. This means that the horizontal grade beams are an impermissible obstruction unless they fall within the exception under Technical Bulletin #5 that they were placed with their upper surfaces flush with or below the natural grade. They were not.

FEMA has reviewed the Administrative Record and determined that the elevation of the natural grade of the Pavilion's location ranged between 8.0' and 9.0' NAVD 1988. This determination is based on an analysis of LiDAR data from 2006 and 2004 and the photographs and mapping products provided by the Applicant as detailed below. This analysis fully concurs with the FMI

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⁶³ *Id.* at 13 ("Grade beams that are placed with their upper surfaces flush with or below the natural grade are not considered obstructions and are allowed under the NFIP.").

⁶⁴ Federal Emergency Management Agency, *National Flood Insurance Program Definitions* (available at https://www.fema.gov/national-flood-insurance-program/definitions#N).

⁶⁵ FEMA's original estimate to repair the Pavilion as detailed in Part A of the Cost Estimating Format for the Public Assistance project was \$2,090,442.85 (which excluded costs of contingencies and other factors) and the appraised value of the Penfield Pavilion in 2015 was \$1,781,900. *See* Cost Estimating Format, Town of Fairfield, CT – Penfield Pavilion (July 14, 2015); Vision Government Solutions, Appraisal of 323 Fairfield Beach Road (Oct. 5, 2018). This means that the original FEMA estimate of the cost to repair the pavilion exceeded 50% of the market value of the structure, making this structure substantially damaged. A substantial improvement includes any substantially damaged structure.

⁶⁶ National Flood Insurance Program, Flood Insurance Rate Map, Fairfield County, Connecticut, Panel 438 of 626, Map No. 09001C0438G (July 8, 2013).

Branch Chief's determination under the NFIP.

- <u>LiDAR Data 2006</u>. FEMA has taken LiDAR data from 2006 and created a product delineating the contour lines of the elevations in and around the site. This product is **Enclosure 2** to this First Appeal analysis.⁶⁷ This data shows that the elevation of the natural grade at the Pavilion site ranges between 8.0 and 9.0' NAVD 1988.
- <u>LiDAR Data 2004</u>. FEMA has 2004 LiDAR data that shows an average elevation of the natural grade at the Pavilion is 8.41' NAVD 1988.
- Quadrangle Maps. The Town provided United States Geological Survey ("USGS") quadrangle maps that all show the elevation of the natural grade of Pavilion is between 8.0' and 9.0' NAVD 1988. The four maps from 1951, 1960, 1970, and 1984 all had 10' contour lines and generally showed the Pavilion on a 10' contour line. The datum for these maps was NGVD 1929 or mean seal level and—when converted to NAVD 1988 datum—means the elevation of the natural grade depicted in these maps is 8.91' NAVD 1988. The Town also provided a USGS quadrangle map from 2012 that used the NAVD 1988 datum and showed the Pavilion to be at an elevation of 10'. However, the USGS did not change the contour lines for this 2012 map from the previous 1984 map based on the update to the new datum. This means the elevation of the site in 2012 remained 8.91' NAVD 1988. Enclosure 1 to this First Appeal Analysis sets forth a more detailed analysis of these USGS quadrangle maps.
- Other Historical Mapping. The Town provided numerous historical maps dating from 1935-2017. All of the maps before Hurricane Sandy support the conclusion that the elevation of the natural grade did not exceed 9.0' NAVD 1988. For example, the topographic map from 1935 shows the elevation of the site is 5.46' NAVD 1988 and the Zoning Commission drawing from 1968 shows an elevation of 6.91' NAVD 1988. The other maps not supporting such a conclusion used a scale not useful for analysis or otherwise depicted the as-built conditions of the restored Pavilion that are not useful for analysis because of the large volumes of fill used during the restorative work. Enclosure 1 to this First Appeal Analysis sets forth a more detailed analysis of these maps.
- <u>Historical Photographs</u>. The Town provided 25 historical photographs, all but one of which contained no elevation markings of any kind. The remaining photograph appeared to contain an elevation marking on the original Pavilion of 11.0' NGVD 1929. The sand built-up at the location appears to be approximately 0.75' below this marking, placing the sand at an elevation of 10.25' NGVD 1929. After converting this to NAVD 1988, the elevation of the sand would be <u>9.16'</u> NAVD 1988. This means that the only photograph with an elevation marking (assuming that the height of the sand in that photograph actually represented the natural grade) supports FEMA's conclusion that the elevation of the horizontal grade beam (10.7' NAVD 1988) is above the natural grade. **Enclosure 1**

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⁶⁷ Federal Emergency Management Agency, *Penfield Pavilion – Fairfield CT*. This document was **Enclosure 2** to the FEMA Floodplain Management Branch Chief's determination of November 28, 2018, and depicts what FEMA has determined are the contour lines of the elevations in and around the site.

to this First Appeal Analysis sets forth a more detailed analysis of these photographs.

Because the horizontal grade beams are at an elevation of 10.7' NAVD 1988, they are above the elevation of the natural grade and below the BFE. This means that the horizontal grade beams comprise an impermissible obstruction in violation of 44 C.F.R. § 60.3(e)(5) and the Fairfield Zoning Regulations and the Applicant violated the terms and conditions of PW #680 to construct the Pavilion "meeting all appropriate Codes and Standards." This is also a violation of Section 323 of the Stafford Act and its implementing regulations, as FEMA considers the minimum requirements of the NFIP as applicable standards of safety, decency, and sanitation. These violations, standing alone, provided a sufficient basis for the DRM to have terminated PW #680 and disallowed all costs pursuant to 44 C.F.R. § 13.43.

The Applicant has made two primary groups of arguments in the First Appeal to support the conclusion that the horizontal grade beams do not comprise impermissible obstructions in violation of 44 C.F.R. § 60.3(e)(5). As detailed below, neither group of arguments are persuasive.

Natural Grade

The <u>first</u> group of arguments was that the true natural grade of the site was between 10.0' and 11.0' NAVD 1988 and not between 8.0' and 9.0' NAVD 1988. In support of this argument, the Applicant provided a report from DeStefano & Chamberlain, the Applicant's engineering firm, stating that "the dune crest elevation at the two ends of the building can be seen as 10.0' and 11.0' NAVD. Based upon the photographs, the LiDAR and the as-built survey, it is our opinion that it is reasonable and logical <u>to infer</u> that this crest elevation would have continued across the entire length of the site in the property's natural state." But as indicated by the emphasized text, DeStefano & Chamberlain has based its conclusion on an inference and provided no maps, photographs, or any data to demonstrate that there was ever a continuous dune elevation along the entire site. In the complete absence of any such supporting documentation, it is more "reasonable and logical" to conclude that the site was never a continuous dune with the adjacent dunes and that the elevation of the site's natural grade ranges between 8.0' and 9.0' NAVD 1988, as this conclusion is supported by LiDAR data from 2004 and 2006 and maps over the past 80 years. And even assuming, *arguendo*, that the dune was continuous at one time, these dune elevations do not extend to the seaward side the Pavilion.

As part of this group of arguments, the Applicant asserted that the grade elevation under the Pavilion at the time of Hurricane Sandy was not the natural grade of the site. The Applicant explained that the original Pavilion was built back in the early 1900's between two high points to the east and west of the building and, over many years, sand accreted under the structure that filled the gap between the natural grade and the underside of the building. When the Pavilion was reconstructed between 2008-2010, the dune was excavated to construct the foundation and the building was elevated to 12.0', which created a large opening between the grade and bottom

⁶⁸ 44 C.F.R. § 206.400(b) (

⁶⁹ Letter from Kevin H. Chamberlain, P.E., DeStefano & Chamberlain, Inc. to Joseph Michelangelo, P.E., Director of Public Works, Town of Fairfield *re: Penfield Pavilion – Repair and Reconstruction, 323 Fairfield Beach Road, Fairfield, CT*, at 2 (Dec. 1, 2017) (emphasis added).

of the building. The sand was never replaced. As such, during the replacement of Pavilion after Hurricane Sandy, the Applicant replaced the lost sand that had built up over the approximately 80 years before 2008.

This rationale, however, actually supports FEMA's determination as to the elevation of the natural grade. First, the Applicant stated that the Pavilion was originally constructed between two high points to the east and west of the building, which demonstrates that the elevation of the natural grade was below those adjacent points and not a continuous dune at or above 10.7' NAVD 1988 (the elevation of the horizontal grade beams). Second, the Applicant is relying upon the accretion of sand under the Pavilion after it was constructed in the early 1900's to demonstrate that the natural grade increased in elevation. However, as previously discussed, FEMA evaluates the natural grade of a site unaffected by construction, such that the elevation of sand beneath the structure would not be representative of the natural grade but rather the accumulation of sand over time resulting from the presence of the structure.

The next argument concerning the natural grade was that Technical Bulletin #5 specifically allows for the use of fill to increase the height of the project site to similar grades and slopes in the immediate vicinity. Although obstructions such as fill are generally prohibited under 44 C.F.R. § 60.3(e)(5), Technical Bulletin #5 states that minor grading and the placement of minor quantities of fill are allowed, but only for landscaping, drainage under and around buildings, and support of parking slabs, pool decks, patios, walkways, and similar site elements. Technical Bulletin #5 stated that it is "generally unreasonable" to expect that the addition of 1 to 2 feet of site-compatible, nonstructural fill in a V zone would "lead to adverse effects" on buildings, so that the placement of up to 2 feet of fill under or around an elevated building can be assumed to be acceptable. In the case where additional fill height is proposed for a site, Technical Bulletin #5 states that the proposed final grade should be compared to local topography. If the proposed final fill configuration is similar to grades and slopes in the immediate vicinity, a detailed analysis of the effects on flood flow and waves need not be required. If more than 2 feet of fill is proposed and the proposed fill configuration exceeds local grade heights and variations, an analysis must be performed. The proposed fill configuration exceeds local grade heights and variations, an analysis must be performed.

The first flaw in the Applicant's argument is that nothing in Technical Bulletin #5 says that the use of fill can change the natural grade of a site—as explained above, FEMA's position is that the "natural grade" of a location means the grade unaffected by construction techniques such as fill. There is also nothing in Technical Bulletin #5 supporting the notion that a horizontal grade beam below the BFE and above the natural grade in violation of 44 C.F.R. § 60.3(e)(5) can be remedied by placing large quantities of fill on top of the grade beam. If this were the case, one could easily and quickly defeat the prohibition against horizontal grade beams below the BFE and above the natural grade by simply placing large quantities of fill to create a new grade.

The next flaw in the argument is that it presumes that FEMA has concluded that the Applicant's use of large volumes of fill did not violate the free-of-obstruction prohibitions of 44 C.F.R. § 60.3(e)(5) or the prohibition against using fill for structural support of 44 C.F.R. § 60.3(e)(4).

⁷⁰ Technical Bulletin #5, *supra* note 61, pp. 21-24.

⁷¹ *Ld*

FEMA has made no such final determinations. This is because, to make these determinations, FEMA would need to conduct bore sampling and other engineering analysis, something which would not be cost-effective because of the other reasons as to why the project is already ineligible for financial assistance. It is also because FEMA would need to further evaluate the purpose of the quantities of fill that were deposited at the project site. Technical Bulletin #5 makes clear that all fill is prohibited unless it is for landscaping, drainage under and around buildings, and support of parking slabs, pool decks, patios, walkways, and similar site elements. In this case, it appears that the fill was not placed for these purposes, but rather to serve as a flood control measure to protect landward properties against flooding, something which is prohibited in the V Zone.⁷²

Horizontal Grade Beams Above the Natural Grade

The <u>second</u> group of arguments in the First Appeal are based on the theory that—even if the natural grade was between 8.0' and 9.0' NAVD 1988—the horizontal grade beams would still not violate the free-obstruction requirements of 44 C.F.R. § 60.3(e)(5). The foundational premise of this argument is the opinion of DeStefano & Chamberlain that "our reading of Technical Bulletin #5 that grade beams are a permissible obstruction regardless of their elevation, because they can become exposed by scour whether embedded in fill or in existing soils." RACE Coastal Engineering, going further in this interpretation, states that Technical Bulletin #5 creates the possibility that a designer could use numerical modeling to evaluate whether the horizontal grade beams would divert water to adjacent properties or cause damage to the Pavilion structure. Because such analysis for the Pavilion leads to a conclusion that the horizontal grade beams would not divert water to adjacent properties or cause damage to the Pavilion structure, RACE Coastal Engineering argues that the Applicant was free to place the horizontal grade beams below the BFE and above the natural grade.

The regulation at 44 C.F.R. § 60.3(e)(5) prohibits <u>all</u> obstructions below the lowest floor of a structure for a substantial improvement in the VE Zone. The starting point in any analysis, accordingly, is that any element of a building other than columns and piles beneath an elevated building is prohibited. Technical Bulletin #5 creates a limited allowance for horizontal grade beams below the natural grade, as FEMA does not consider such grade beams to be a significant obstruction. However, in this case, the horizontal grade beams are above the natural grade and below the BFE, falling outside the allowance under Technical Bulletin #5 and comprising a violation of 44 C.F.R. § 60.3(e)(5).

⁷² See First Appeal, *supra* note 27, pp. 15-16 ("When Penfield Pavilion was constructed in 2008-2010 the building was elevated to the then current FEMA AE 12 elevation, which created a large unobstructed opening between the finished grade and the bottom of the building. In the process the dune had been excavated to construct the new facility's foundation system. The sand was not replaced, <u>potentially exposing the neighborhood to flooding from Long Island Sound</u>. However, the placement of additional sand upon the excavated dune under the revised SOW of PW 680 was intended to mirror the site conditions existing prior to the 2008-2010 construction of the pavilion, and thereby reduce the potential for neighborhood flooding.") (emphasis added).

⁷³ Letter from Kevin H. Chamberlain, *supra* note 69, p. 5; First Appeal, *supra* note 27, p. 14.

⁷⁴ Letter from Devin J. Santa, PE, President, RACE Coastal Engineering to Joseph Michelangelo, Director of Public Works, Town of Fairfield *re: Penfield Pavilion – Repair and Reconstruction 323 Fairfield Beach Road, Fairfield, CT*, at 4 (Jan. 18, 2019); First Appeal, *supra* note 27, p. 21

The prohibition against horizontal grade beams above the natural grade, furthermore, is not performance-based as suggested by RACE Coastal Engineering and DeStefano & Chamberlain. It is the case that some of the guidance in Technical Bulletin #5 concerning construction of certain building elements below the BFE is performance-based, such that it is up to a community official to determine whether a specific design submitted by a design professional satisfies the performance requirements. For example, when placing more than 1-2 feet of non-structural fill in a V Zone for drainage purposes, a design professional could provide an engineering analysis or certification concerning the effects on flood flow and flow waves and, if the community agrees, could conclude that the fill does not comprise a significant obstruction.

But no such performance standard exists in the case of horizontal grade beams under Technical Bulletin #5—for example, it does not state that horizontal grade beams above the natural grade and below the BFE could be allowed if a designer demonstrated that the grade beams would not divert water to adjacent properties or cause damage to the underside of the building during flood events. Rather, Technical Bulletin #5 makes clear that it is a binary situation, which is that the horizontal grade beams are either below the natural grade and comply with the free-of-obstruction prohibition of 44 C.F.R. § 60.3(e)(5) or they do not. It is also the case that the requirement in Technical Bulletin #5 to design and construct grade beams that are placed below the natural grade with the anticipation that storm erosion and local scour may expose the grade beams cannot, as the Applicant has suggested, be used to infer that all grade beams above the natural grade are acceptable too because they would also be subject to scouring.

There is good reason why FEMA always treats horizontal grade beams above the natural grade in the VE Zone as significant obstructions in violation of 44 C.F.R. § 60.3(e)(5). The purpose of horizontal grade beams is to tie together foundation piles or columns in order to provide additional lateral support, which is crucial to the foundation's structural integrity and performance. As the VE Zone is a violent and destructive environment producing significant loads resulting from flooding, large waves, fast-moving water, and debris impact, one cannot design horizontal grade beams to withstand absolutely every load scenario condition that they will face in this environment and keep them entirely free from damage. This is why FEMA requires horizontal grade beams to be placed below natural grade, greatly reducing their exposure to these loads. Although Technical Bulletin #5 advises a designer to anticipate scour and design grade beams to resist flood, wave, and debris loads and remain in place and functional when undermined, it does not allow for the placement of horizontal grade beams above natural grade, which would create a constant obstruction and ensure their continuous exposure to flood, wave, and debris impact loads during flood events. Technical Bulletin #5, because of the considerations, does not allow for an entity to provide a performance-based analysis for horizontal grade beams above the natural grade in the VE Zone.

The Applicant makes several other unpersuasive arguments in the First Appeal about why horizontal grade beams above the natural grade are not prohibited. <u>First</u>, it states that Technical Bulletin #5 provides guidance on the minimum requirements of the NFIP regulations, is not a regulation, and is not meant to supplant the professional expertise of licensed design professionals. It is the case that Technical Bulletin #5 is not a regulation and does not have the force and effect of law. But this is ultimately irrelevant to the issue under the First Appeal. The regulation at 44 C.F.R. § 60.3(e)(5)—which does have the force and effect of law—prohibits all

obstructions such as horizontal grade beams below the lowest floor for substantial improvements in a VE Zone, with Technical Bulletin #5 explaining that this prohibition does not apply to grade beams below the natural grade. The prohibition in the regulation is not subject to change simply because a licensed professional does not agree with the regulation.

Second, the Applicant argues that the regulation at 44 C.F.R. § 60.3(e)(5) does not even mention grade beams. But this argument fundamentally misses the point. The regulation requires that any substantial improvement in a VE Zone has the space below the lowest floor "free of obstructions." Horizontal grade beams, in turn, are encompassed by the term "obstructions." Just because the regulation does not provide a discrete list of the hundreds or more of potential obstructions does not provide safe harbor to the Pavilion. This is because such an interpretation would be violative of the *generalia verba sunt generaliter intelligenda* canon of construction (general terms are to be given their general meaning). It would also render the regulation a nullity, as one would be free to place anything below the lowest floor simply because it was not specifically listed in the regulation.

C. Floodplain Management

1. Applicable Executive Order and Regulations

Executive Order 11988, *Floodplain Management* requires federal agencies to take action to reduce the risk of flood loss, minimize the impact of floods on human safety, health, and welfare, and restore and preserve the natural and beneficial values served by floodplains in providing federally assisted or financed construction and improvements and conducting federal programs affecting land use.⁷⁵ Each federal agency is directed to use a decision-making process to evaluate the potential effects of projects located in or affecting the floodplain and consider alternatives to avoid adverse effects. Pursuant to this direction, FEMA has adopted implementing regulations at 44 C.F.R. pt. 9, *Floodplain Management and Protection of Wetlands* to set forth the policy, procedures, and responsibilities to implement and enforce the Executive Order.

The regulations at 44 C.F.R. pt. 9 apply to "all Agency *actions* which have the potential to affect floodplains...or their occupants, or which are subject to potential harm by location in floodplains ..."

An agency "action" means, among other things, "providing federally undertaken, financed, or assisted construction and improvements"

—as such, FEMA applies 44 C.F.R. pt. 9 to all projects under a Public Assistance grant for a major disaster. FEMA must complete the compliance review process before FEMA approves funding and before work is started because the review may identify steps to be taken or conditions to be met before the project can be implemented, such as mitigation measures for actions in the floodplain.

The regulation at 44 C.F.R. § 9.6 lays out an <u>8-step process</u> for conducting a floodplain management review before the approval of grant funding.⁷⁸ Steps 1 and 2 involve evaluating

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⁷⁵ Exec. Order No. 11988, *Floodplain Management* (May 24, 1977).

⁷⁶ 44 C.F.R. § 9.5(a) (emphasis added).

⁷⁷ *Id.* § 9.4 (definition of "Action").

⁷⁸ *Id.* § 9.6.

whether the action is taking place in or will affect the floodplain and notifying the public of the intent to carry out actions in the floodplain. Step 3 involves a preliminary determination as to whether the floodplain is the only practicable location for the action—if FEMA determines that no practicable alternative exists outside the floodplain and the original location itself is a practicable location,⁷⁹ then it will determine the impact of the proposed action in the floodplain in Step 4.

FEMA will then, during Step 5, minimize the potential adverse impacts and support to or within floodplains identified under Step 4. 80 As part of Step 5, the regulation at 44 C.F.R. § 9.11 sets out the *mitigative* actions required if the preliminary determination is made to carry out an action that affects or is in a floodplain. 81 As it relates to specific mitigation actions for all FEMA actions, the regulation at 44 C.F.R. § 9.11(c) identifies "minimization provisions" stating that FEMA "shall minimize" the potential harm to lives and the investment at risk from the base flood; potential adverse impacts the action may have on others; and potential adverse impact the action may have on floodplain values. 82

These "general" and "minimization" provisions at 44 C.F.R. § 9.11(c) apply to all FEMA actions. The regulation then goes on to lay out specific "minimization standards" that apply only during FEMA's implementation of the Stafford Act. This subsection, which is 44 C.F.R. § 9.11(d), states that FEMA, when implementing the Stafford Act, "shall apply the following standards to its actions to comply with the requirements [of the general provisions and the minimization provisions]..." and then sets forth nine specific minimization standards. One of the minimization standards—44 C.F.R. § 9.11(d)(6)—states that "no action shall be taken if it is inconsistent with the criteria of the National Flood Insurance Program (44 C.F.R. part 59 et seq.) or any more restrictive Federal, State, or local floodplain management standards."

After identifying the required minimization measures, FEMA re-evaluates during Step 6 the proposed action and other practical alternatives identified in Step 3 based on new information gained in Steps 4 and 5. The public is then informed of the final decision that the floodplain is the only practicable alternative during Step 7 and the Public Assistance project is awarded in Step 8, enabling the applicant to implement the action.

2. The Change in Scope of Work Required a New Floodplain Management Review and the Horizontal Grade Beams Violate the Minimization Provision of 44 C.F.R. § 9.11(d)(6)

FEMA conducted its original review under 44 C.F.R. pt. 9 based on the scope of work in PW #680, which involved the replacement of the Pavilion. As detailed above, the Applicant revised the scope of work by not demolishing the West Wing and moving it into the parking lot, regrading the parking lot through the placement of road millings and use of fill, constructing a new patio, and placing large amounts of fill at the project site. There were significant changes that warranted a new review under 44 C.F.R. pt. 9, which FEMA did not complete before the

⁷⁹ *Id.* § 9.9(b)(3).

⁸⁰ *Id.* § 9.6(b).

^{81 44} C.F.R. § 9.11(a).

⁸² *Id.* § 9.11(c).

Applicant initiated the changes. The project, therefore, is ineligible for financial assistance because FEMA did not complete its floodplain management review to comply with Executive Order 11988 and 44 C.F.R. pt. 9 before the Applicant commenced the scope change, 83 such that the DRM had a sufficient basis to terminate the project and disallow all costs pursuant to 44 C.F.R. § 13.43.

It is also important to recognize that—had FEMA performed its review under 44 C.F.R. pt. 9 before the Applicant commenced the scope changes—FEMA would have not allowed the Applicant to pursue its revised scope of work. This is because the regulation at 44 C.F.R. § 9.11(d)(6) prohibits FEMA from providing financial assistance for a permanent work project if it is constructed in a manner violative of the criteria of the NFIP. As detailed in the previous section, the Pavilion violates the free-of-obstruction prohibition under 44 C.F.R. § 60.3(e)(5), which means that the facility is "inconsistent with the criteria of" the NFIP and violates the regulation at 44 C.F.R. § 9.11(d)(6). The Pavilion also violates Section 323 of the Stafford Act and its implementing regulations, as FEMA considers the minimum requirements of Executive Order 11988 and the NFIP to represent applicable standards of safety, decency, and sanitation. 84

D. National Environmental Policy Act

1. Applicable Law, Regulation, and Policy

NEPA is a federal environmental law that FEMA must comply with when making Public Assistance project awards. The law requires FEMA to follow a specific planning process to ensure that it has considered and the general public is fully informed about the consequences of a proposed federal action, such as the approval of a permanent work project under the Public Assistance grant for a major disaster. EMA does not require that FEMA limit the impacts of a project on the environment nor require FEMA to only fund the alternative that has the least environmental impact—it does, however, require that FEMA make the decision to fund a project in an informed manner.

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⁸³ See FEMA Second Appeal Analysis, City of Yuba City, FEMA-1155-DR-CA, at 5 (Mar. 15, 2001) ("Because compliance with the floodplain management requirements was not done by FEMA or endorsed by FEMA before construction began, the applicant is not eligible for the cost of the hazard mitigation project."); FEMA Second Appeal Analysis, Orleans Parish Criminal Sheriff's Office, FEMA-1049-DR-LA, at 3 (July 10, 2000) ("Because the applicant proceeded with the work prior to FEMA having the opportunity to complete...[the] 8-step review under Executive Order 11988), we cannot fund the requested work."); FEMA Second Appeal Analysis, City of Fort Pierre, FEMA-1984-DR-SD, at 4 (Dec. 17, 2012) ("Under 44 C.F.R. § 13.43(a)(2), FEMA may disallow the cost of the activities under PW 1993 for failure to comply with Executive Order 11988.").

⁸⁴ 44 C.F.R. § 206.400(b) ("Applicable codes, specifications, and standards shall include any disaster resistant building code that meets the minimum requirements of the National Flood Insurance Program (NFIP)...In addition, the applicant shall comply with any requirements necessary in regards to Executive Order 11988, Floodplain Management.").

⁸⁵ National Environmental Policy Act of 1969, Pub. L. No. 91-190, § 102 (1970) (codified as amended at 42 U.S.C. § 4332) ("NEPA"); 40 C.F.R. § 1500.3 ("Parts 1500 through 1508 of this title provide regulations applicable to and binding on all Federal agencies for implementing the procedural provisions of [NEPA]...except where compliance would be inconsistent with other statutory requirements."); 40 C.F.R. §§ 1501.2 and 1505.1.

Both the Department of Homeland Security ("<u>DHS</u>")⁸⁶ and FEMA⁸⁷ have issued policies and instructions that FEMA must follow when conducting NEPA review of a Public Assistance project. In cases where an applicant seeks to pursue work beyond the scope of FEMA-eligible work, FEMA will perform a NEPA review of the entire scope of work, not just the portion for which FEMA is providing financial assistance. There are four potential outcomes or levels of NEPA review, which are statutory exclusion ("<u>STATEX</u>"), categorical exclusion ("<u>CATEX</u>"), environmental assessment, and environmental impact statement. A STATEX means that no NEPA review is required; for the other three categories, the degree of potential environmental impact determines the level of review and documentation required.

As it relates to a STATEX, Section 316 of the Stafford Act exempts from the NEPA review process eligible permanent work projects that have the effect of restoring a public facility substantially to its condition before the major disaster. As it relates to the second level of review, the implementing regulations for NEPA require federal agencies to, among other things, identify actions that normally do not require either an environmental impact statement or an environmental assessment; such an action is called a <u>CATEX</u>. Actions that can be categorically excluded from further review do not individually or cumulatively have significant impact on the human environment.

FEMA previously identified agency-specific CATEXs at 44 C.F.R. pt. 10, which set forth the agency's implementing regulations for NEPA. However, FEMA rescinded those regulations on August 26, 2016, 90 as part of a process to implement a directive and instruction from the DHS and no longer uses 44 C.F.R. pt. 10 or any of the CATEXs previously listed in that regulation. FEMA now evaluates new projects and scope change requests using the CATEXs listed in Appendix A of DHS Instruction Manual No. 023-01-001-01, Rev. 1, *Implementation of the National Environmental Policy Act*. It is important to recognize that—even if FEMA applied a CATEX under the regulations at 44 C.F.R. pt. 10 when it previously awarded PW #680—it must now apply the CATEXs under DHS Instruction Manual No. 023-01-001-01 when reviewing the scope change request.

DHS Instruction Manual No. 023-01-001-01 sets forth a specific CATEX for a Public Assistance project involving actions in coastal areas subject to moderate wave action or V Zones. This CATEX, numbered "N5," addresses federal assistance for repair, hazard mitigation, new construction, or restoration actions of less than one-half acre within areas seaward of the limit of moderate wave action (LiMWA) (a line mapped to delineate the inland extent of wave heights of 1.5 feet or higher) during the base flood (an area that has at least a one-percent chance of being

⁸⁶ DHS Directive Number 023-01, Rev. 1, *Implementation of the National Environmental Policy Act* (Oct. 31, 2014) ("DHS Directive No. 023-01"); DHS Instruction Manual 023-01-001-01, *Instruction on Implementation of the Environmental Planning and Historic Preservation Responsibilities and Program Requirements* (Oct. 10, 2018) ("DHS Instruction Manual No. 023-01-001-01").

⁸⁷ FEMA Directive No. 108-1, *supra* note 51; FEMA Instruction No. 108-1-1, *supra* note 51.

⁸⁸ Stafford Act, *supra* note 33, § 316 (codified as amended at 42 U.S.C. § 5159).

^{89 40} C.F.R. §§ 1507.3 and 1508.4.

⁹⁰ 81 F.R. 56514.

⁹¹ DHS Instruction Manual No. 023-01-001-01, *supra* note 86, Appendix A, p. A-24 to A-25.

flooded in any given year); or areas within the V zone if the LiMWA has not been established.⁹² In order to fall within the CATEX, the actions must meet the following criteria:⁹³

- (1) They are consistent with the State or Tribe enforceable policies of approved coastal management programs;
- (2) They are not within or affect a Coastal Barrier Resource System unit;
- (3) They do not result in man-made alterations of sand dunes;
- (4) They do not result in the permanent removal of vegetation (including mangrove stands, wetlands, and dune vegetation);
- (5) Applicable Federal requirements and local codes and standards are followed; and
- (6) They involve substantial improvement or new construction of structures, the structure is elevated in open works (*e.g.*, piles and columns) as opposed to fill in a manner that the bottom lowest horizontal structural member is at or above the base flood level, the foundation is anchored to resist flotation, collapse, and lateral movement due to the effects of wind and water loads, and the siting of the project conforms to applicable State, Tribe, or local setback requirements

If a project falls outside the scope of a STATEX or CATEX, then FEMA must prepare either an environmental assessment or an environmental impact statement, as appropriate. FEMA Instruction 108-1-1 states that FEMA will not provide funding for a project initiated and/or completed by an applicant before fulfilling the specific documentation and procedural requirements of NEPA review. Here are, however, two limited exceptions for Public Assistance projects. The first is where the work performed falls under a STATEX. The second is when the work performed (1) is free of extraordinary circumstances and (2) qualifies for a CATEX in Appendix A of DHS Instruction Manual No. 023-01-001-01. If, however, an applicant has already initiated or completed work and the work does not meet either exception, then FEMA will not provide funding for that project.

2. The Revised Scope of Work Does Not Fall within a STATEX or CATEX

FEMA Instruction No. 108-1-1 states that FEMA will not provide funding for a project initiated and/or completed by an applicant prior to fulfilling the specific documentation and procedural requirements of NEPA.⁹⁹ There are, notwithstanding, two limited exceptions for Public

 93 Id

⁹² *Id*.

⁹⁴ FEMA Instruction No. 108-1-1, *supra* note 51, ¶ 2.2(F)(3).

 $^{^{95}}$ *Id.* ¶ 2.5(D)

⁹⁶ When evaluating whether or not to apply at CATEX to a proposed action, DHS defines an extraordinary circumstance as a circumstance associated with the proposed action that might give rise to significant environmental effects requiring further analysis and documentation in an environmental assessment or environmental impact statement. DHS Instruction Manual No. 023-01-001-01, *supra* note 86, ¶ II-4. If extraordinary circumstances result in the potential for significant impacts from the proposed action, unless impacts can be mitigated to a level below significant impact, it is not appropriate to apply at CATEX to the proposed action. FEMA Instruction No. 108-1-1, *supra* note 51, ¶ 3.2.A.2.

⁹⁷ FEMA Instruction No. 108-1-1, *supra* note 51, \P 3.2 and 3.7.

⁹⁸ *Id.*; see also the Second Appeal decisions cited at supra notes 53 and 54.

⁹⁹ FEMA Instruction No. 108-1-1, *supra* note 51, ¶ 2.2(F)(3).

Assistance projects. The <u>first</u> is where the work falls under a STATEX.¹⁰⁰ The <u>second</u> is when the work performed (1) is free of extraordinary circumstances and (2) qualifies for a CATEX in Appendix A of DHS Instruction Manual No. 023-01-001-01. In this case, the Applicant commenced work before FEMA completed its NEPA review and approved the change in scope of work, which means that the scope of work completed by the Applicant must fall into one of the two exceptions in order to be eligible for financial assistance. <u>It does not</u>.

The STATEX under Section 316 of the Stafford Act applies only to permanent work that restores a facility substantially to its condition before the major disaster. As a starting point, the STATEX only applies to projects involving the restoration of facility and does not apply to projects involving replacement. The Applicant has replaced the facility, bringing it outside of the STATEX. And, even if STATEX did potentially apply to projects involving the replacement of a facility, the Applicant made various modifications to the pre-disaster condition of the project site that would bring it outside of the STATEX anyway. This included placing large amounts of fill to raise the elevation of the project site to between 11.0' and 12.0' NAVD 1988, constructing a new foundation with horizontal grade beams above the natural grade and below the BFE, installing fill and changing the slope of the parking lot, and installing a new patio.

In addition to falling outside the STATEX, the work performed by the Applicant does not fall within the scope of CATEX N5 because it fails to meet the following criteria:

- <u>Half-Acre</u>. The work completed by the Applicant exceeded more than one-half acre based on the footprint of the Pavilion and the parking lot.
- <u>Coastal Management Programs</u>. The Applicant, as further detailed in the next section, did not provide any documentation from CTDEEP that the work was consistent with the State's coastal management program.
- <u>Sand Dunes</u>. The Applicant made man-made alterations of sand dunes by installing fill at the project site.
- <u>Federal Requirements</u>. Applicable Federal requirements and local codes and standards were not followed, as the horizontal grade beams of the Pavilion's foundation violate the regulations at 44 C.F.R. §§ 60.3 and 9.11, the Fairfield Zoning Regulations, and Section 323 of the Stafford Act and its implementing regulations.

The Applicant argued in the First Appeal that the revised scope of work fell within the former CATEX at 44 C.F.R. § 10.8(d)(2)(xv) upon which FEMA relied when it conducted its NEPA review for the original project. This CATEX applied to the "repair, reconstruction, restoration, elevation, retrofitting, upgrading to current codes and standards or replacement of any facility in a manner that substantially conforms to the pre-existing design, function, and location." The Applicant is incorrect because, even assuming that the revised scope of work fell within the parameters of this former CATEX, FEMA rescinded this CATEX and it is not available to FEMA when reviewing the scope of work completed by the Applicant. FEMA must utilize the appropriate CATEX set forth in DHS Instruction Manual No. 023-01-001-01 applicable to the

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¹⁰⁰ *Id.* ¶ 2.5(D); Stafford Act, *supra* note 33, § 316 (codified as amended at 42 U.S.C. § 5159).

work at issue, which is CATEX N5, and the work completed by the Applicant fails to meet the various criteria of that CATEX.

The work performed by the Applicant fell outside the scope of the STATEX and CATEX N5, such that FEMA would have needed to perform at least an environmental assessment to meet its requirements under NEPA. As detailed in FEMA Instruction No. 108-1-1, FEMA does not provide funding for a project initiated and/or completed by an applicant before fulfilling the specific documentation and procedural requirements of NEPA if the project does not fall under a STATEX or CATEX. Because the Applicant commenced the work before FEMA completed its NEPA review, PW #680 is ineligible for financial assistance. ¹⁰¹

E. Coastal Zone Management Act

1. Applicable Law, Regulation, and Policy

The Coastal Zone Management Act ("CZMA") requires that federal agency actions with reasonably foreseeable effects on any land or water use or natural resource of the coastal zone be consistent, to the maximum extent practicable, with the enforceable policies of a coastal state's federally approved Coastal Management Program. Under the National Oceanic and Atmospheric Administration's ("NOAA") implementing regulations for the consistency requirement, there are four types of federal actions: federal agency activities, federal license and permit activities, outer continental shelf plans, and federal assistance to state and local governments. The fourth type of federal action, "federal assistance," is the one applicable to the Public Assistance Grant Program. 103

The NOAA implementing regulations for federal assistance actions are intended to ensure that "federal assistance to applicant agencies for activities affecting any coastal use or resource is granted only when such activities are consistent with approved management programs." In carrying out this intent, the regulation at 15 C.F.R. § 930.94 requires a state or local government (called an "applicant agency") to submit its application for federal assistance to the state agency for consistency review concerning any proposed federal assistance activity that is listed in the state's Coastal Management Program as a type of activity that will have a reasonably foreseeable effect on any coastal use or resource and occurring within the coastal zone. If the state agency does not object to the proposed activity, then the federal agency may approve the

¹⁰¹ See, e.g. FEMA Second Appeal Analysis, *Town of Jean Lafitte*, FEMA-4080-DR-LA (Sep. 26, 2016) (finding that the demolition of structures was ineligible for financial assistance because the work did not fall within the scope of a statutory exclusion and FEMA was provided the opportunity conduct an EHP review before the work was completed); FEMA Second Appeal Analysis, *Missouri Department of Natural Resources*, FEMA-4012-DR-MO, at 4 (Feb. 1, 2018) ("When an applicant initiates or completes work on a project before FEMA is able to conduct the necessary EHP compliance review, the work is generally not eligible for PA funding.").

¹⁰² Coastal Zone Management Act, Pub. L. No. 92-583, § 307 (1972) (codified as amended at 16 U.S.C. § 1456). ¹⁰³ 15 C.F.R. § 930.91 ("The term 'federal assistance' means assistance provided under a federal program to an applicant agency through grant…arrangements…").

¹⁰⁴ *Id.* § 930.90.

¹⁰⁵ *Id.* § 930.92.

¹⁰⁶ *Id.* § 930.94.

federal assistance to the applicant agency. FEMA may not, on the other hand, provide financial assistance if a project is not consistent with a state's coastal management program. 108

The CTDEEP administers the Connecticut Coastal Management Program and is charged with determining whether a federal assistance activity is consistent with that Program. Recognizing that the original scope of work to replace the Pavilion triggered the requirements Coastal Zone Management Act regulations and the need for a consistency determination, the Record of Environmental Consideration ("REC") for PW #680 stated that the Applicant was responsible for "coordinating and obtaining any permits from the Connecticut Department of Energy and Environmental Protection...prior to initiating work." ¹⁰⁹

2. The Applicant Failed to Obtain the Required Consistency Determination from CTDEEP in Violation of the Terms and Conditions of PW #680 and the Coastal Zone Management Act Regulations

The Applicant commenced and completed its replacement of the Pavilion without ever obtaining a coastal zone consistency determination approval from CTDEEP, such that the Applicant has violated the term and condition of PW #680 specifically requiring the Applicant to do so. In addition to the violation of the term and condition, the absence of an affirmative consistency approval from CTDEEP prohibits FEMA from providing financial assistance pursuant to the NOAA regulations and makes the project entirely ineligible for financial assistance. The DRM, therefore, took a permissible enforcement action under 44 C.F.R. § 13.43 to terminate PW #680 and disallow all costs.

In addition to there being a lack of a consistency determination, it is also the case that the Applicant's proposed project does not appear to be consistent with the enforceable policies of the Connecticut coastal management program. When approached by FEMA in June 2017 about the project's consistency, CTDEEP stated that there are "still outstanding issues with the site" because of that agency's concerns "with the placement of fill underneath the building and parking lot which may potentially result in damage to the building from future storm events." CTDEEP stated that "at this point we cannot say the site is consistent with our coastal policies..." Later, CTDEEP later sent a letter to FEMA in September 2017 that explained that "our only remaining concern centers on interpreting the free-of-obstruction requirement as per FEMA Technical Bulletin 5, which requires additional federal guidance to adequately resolve." FEMA has resolved that issue and concluded that the horizontal grade beams of the

¹⁰⁷ *Id.* § 930.96.

¹⁰⁸ 15 C.F.R. § 930.97.

¹⁰⁹ Record of Environmental Consideration, Project ID: PA-01-CT-4087-PW-00680, at 5 (Nov. 10, 2015).

¹¹⁰ The enforceable policies can be found in the Connecticut Department of Energy & Environmental Protection, *Reference Guide to Coastal Policies and Definitions* (July 26, 1999) and Connecticut Department of Energy & Environmental Protection, *Connecticut Coastal Management Manual* (Sept. 200).

¹¹¹ Email from Jeff Caiola, Supervising Civil Engineer, Connecticut Department of Energy and Environmental Protection to David Robbins, Regional Environmental Officer, FEMA Region I *subj: Penfield Pavilion, Fairfield* (June 21, 2017).

¹¹² *Id*.

¹¹³ *Id*.

Pavilion's foundation violate the free-of-obstruction requirements of 44 C.F.R. § 60.3(e)(5), thus making the project inconsistent with the Connecticut coastal management program.

The First Appeal argued that CTDEEP, in order to make a consistency determination, needed FEMA to make a determination as to compliance of the Pavilion with the NFIP regulations. Although the DRM made that determination, the Applicant stated that CTDEEP is awaiting the resolution of the appeals process before issuing a final determination, such that the lack of a consistency determination should not be the singular basis to deny assistance for the project. This argument, however, is unpersuasive. The Applicant was specifically required to obtain the necessary permits and consistency determination before starting construction work and failed to do so. This fact will not change and is irrespective of the appeals process.

The Grantee, as part of its written recommendation with the First Appeal, provided a letter from CTDEEP that was dated after the First Appeal. In that letter, CTDEEP stated that it would "not be issuing a Federal Coastal Consistency determination, as the Department does not issue Federal Coastal Consistency on funding alone." CTDEEP, however, has provided neither an approval nor an objection and it is unclear how the absence of an approval helps the Applicant's case. CTDEEP, the Applicant, and the Grantee did not dispute that the replacement of the Pavilion had a reasonably foreseeable effect on a coastal use or resource, did not dispute that the project had occurred within the coastal zone, did not dispute that the project fell within the requirement under the NOAA regulations for FEMA to receive a consistency approval from CTDEEP in order to provide financial assistance to the Applicant, and did not dispute that obtaining a consistency determination before commencing the project was a term and condition of PW #680 that the Applicant violated. 115

III. CONCLUSION

The Applicant failed to comply with the terms and conditions of PW #680 by pursuing a change in the scope of work without prior FEMA approval in violation of 44 C.F.R. § 13.30, constructing the Pavilion in violation of 44 C.F.R. § 60.3(e)(5) and 44 C.F.R. § 9.11(d)(6), failing to obtain a consistency determination from CTDEEP as required by the CZMA regulations, and pursuing a change in scope of work without FEMA completing its NEPA and 44 C.F.R. pt. 9review. Because of these violations, the DRM correctly terminated PW #680 and disallowed all costs pursuant to 44 C.F.R. § 13.43. The First Appeal, therefore, is denied.

¹¹⁴ Letter from Betsey Wingfield, Connecticut Department of Energy & Environmental Protection to Dana Conover, Connecticut Department of Emergency Services and Public Protection re: *Penfield Pavilion, Fairfield* (Mar. 22, 2019) ("Due to the misunderstanding between DESPP & DEEP and subsequent unclear guidance to the town on FEMA's Public Assistance grant program, DEEP is not requiring a Flood Management Certification for the above referenced project. DEEP will also not be issuing a Federal Coastal Consistency determination, as the Department does not issue Federal Coastal Consistency on funding alone. Therefore, the Department has no regulatory role in this matter.").

¹¹⁵ Notwithstanding the absence of either an approval or an objection, FEMA is moving forward with adjudicate the First Appeal. *See* 15 C.F.R. § 930.96(a)(1) ("Federal agencies should not delay processing (so long as they do not approve) applications pending receipt of a State agency approval or objection.").

ENCLOSURE 1

First Appeal Analysis, Town of Fairfield – PA-ID 001-26620-00 – Project Worksheet #680, FEMA-4087-DR-CT

Enclosure 1 Analysis of Photographs and Maps

| No. | Document | Description | Analysis |
|-----|--------------|--|---|
| 1 | Photograph 1 | Original Penfield Pavilion sitting on peak of the barrier beach, looking from the southeast, from the first half of the 20 th century | The photograph contains no elevation markings or other data in order to enable FEMA to determine the natural grade elevation of the site. |
| 2 | Photograph 2 | Original Penfield Pavilion in the late 1970s after the Town of Fairfield acquired the property, looking west to east | The photograph contains no elevation markings or other data in order to enable FEMA to determine the natural grade elevation of the site. |
| 3 | Photograph 3 | The original Penfield Pavilion circa 1970s | The photograph contains no elevation markings or other data in order to enable FEMA to determine the natural grade elevation of the site. |
| 4 | Photograph 4 | The original Penfield Pavilion in the 1980s from the landward side | The photograph contains no elevation markings or other data in order to enable FEMA to determine the natural grade elevation of the site. |
| 5 | Photograph 5 | The original Penfield Pavilion in the 1980s from the landward side (closer angle than Photograph 4) | The photograph contains no elevation markings or other data in order to enable FEMA to determine the natural grade elevation of the site. |
| 6 | Photograph 6 | The construction of the Durrell Pavilion in the 1980s that shows the Penfield Pavilion in the background | The photograph contains no elevation markings or other data in order to enable FEMA to determine the natural grade elevation of the site. |
| 7 | Photograph 7 | The Penfield Pavilion in the 2000s from the landward side | The photograph contains no elevation markings or other data in order to enable FEMA to determine the natural grade elevation of the site. |
| 8 | Photograph 8 | The Penfield Pavilion in the 2000s from the landward side (showing an area to the right of the structure that includes a knoll) | The photograph contains no elevation markings or other data in order to enable FEMA to determine the natural grade elevation of the site. Further, the wooded knoll was identified on the |

| No. | Document | Description | Analysis |
|-----|---------------|--|---|
| | | | 2006 LIDAR and considered as part of FEMA making its determination that 8' to 9' NAVD 1988 is the elevation of the natural grade of the pavilion site. |
| 9 | Photograph 9 | Original Penfield Pavilion in 2008 from the seaward side | The photograph contains no elevation markings or other data in order to enable FEMA to determine the natural grade elevation of the site. |
| 10 | Photograph 10 | View of the new Penfield Pavilion locker room constructed in 2007-2008 | The photograph contains no elevation markings or other data in order to enable FEMA to determine the natural grade elevation of the site. |
| 11 | Photograph 11 | Original Penfield Pavilion after a storm event circa 2008 | The photograph contains no elevation markings or other data in order to enable FEMA to determine the natural grade elevation of the site; further, if there were, the height of the sand adjacent to the original pavilion is most likely not representative of the sites natural grade, but rather an accumulation/build-up over some period of time and likely facilitated by the presence of the structure. The natural grade is more likely below the elevation of sand shown in this photograph. |
| 12 | Photograph 12 | Original Penfield Pavilion after a storm event circa 2008 that shows a 11.0' NGVD 1929 Datum marking by the Town Engineer Department | This photograph shows what appears to be an elevation marking on the original Penfield Pavilion representing an elevation of 11.0' NGVD 1929. The sand built-up at the location appears to be approximately 0.75 feet below this marking, placing the sand at an elevation of 10.25' NGVD 1929. When converting this to NAVD 1988, the elevation of the sand would be |

| No. | Document | Description | Analysis |
|-----|---------------|---|---|
| | | | 9.16' NAVD 1988. This means that—if FEMA accepted the elevation marking as being accurate and the location of the sand in that photograph as representative of natural grade—the elevation of the horizontal grade beam (10.7' NAVD 1988) is above the natural grade in violation of 44 C.F.R. § 60.3(e)(5). |
| 13 | Photograph 13 | Seaward side of Penfield Pavilion after a storm event circa 2008 | The photograph contains no elevation markings or other data in order to enable FEMA to determine the natural grade elevation of the site; further, if there were, the height of the sand adjacent to the original pavilion is most likely not representative of the sites natural grade, but rather an accumulation/build-up over some period of time and likely facilitated by the presence of the structure. The natural grade is more likely below the elevation of sand shown in this photograph. |
| 14 | Photograph 14 | Original Penfield Pavilion circa 2007 view towards the east side of the structure | The photograph contains no elevation markings or other data in order to enable FEMA to determine the natural grade elevation of the site. |
| 15 | Photograph 15 | Original Penfield Pavilion circa 2007 showing the cross section from the east | The caption in the photograph states that the height of sand below the building is at an elevation of 9.75' NAVD 1988. First, even if this information were accurate, it would demonstrate that the horizontal grade beam (at 10.7' NAVD) is above the natural grade in violation of the 44 C.F.R. § 60.3(e)(5). Second, the elevation of sand underneath the pavilion is most likely not representative of the site's |

| No. | Document | Description | Analysis |
|-----|---------------|--|---|
| | | | natural grade, but rather an accumulation/build- up over some period of time and likely facilitated by the presence of the structure. |
| 16 | Photograph 16 | Original Penfield Pavilion circa 2007 after demolition of the east wing | The photograph contains no elevation markings in order to enable FEMA to determine the natural grade elevation of the site; further, if there were, the height of the sand underneath the pavilion is most likely not representative of the site's natural grade, but rather an accumulation/build-up over some period of time and likely facilitated by the presence of the structure. |
| 17 | Photograph 17 | Original Penfield Pavilion circa 2007 after demolition of the east wing | The photograph contains no elevation markings or other data in order to enable FEMA to determine the natural grade elevation of the site; further, if there were, the height of the sand underneath the pavilion is most likely not representative of the site's natural grade, but rather an accumulation/build-up over some period of time and likely facilitated by the presence of the structure. |
| 18 | Photograph 18 | Demolition of east wing of Penfield Pavilion circa 2007 (looking toward Long Island Sound) | The photograph contains no elevation markings or other data in order to enable FEMA to determine the natural grade elevation of the site. |
| 19 | Photograph 19 | Demolition of east wing of Penfield Pavilion circa 2007 (looking from southwest) | The photograph contains no elevation markings or other data in order to enable FEMA to determine the natural grade elevation of the site. |

| No. | Document | Description | Analysis | |
|-----|--|--|---|--|
| 20 | Photograph 20 | Penfield Pavilion circa 2007 showing town workers preparing formwork for the footing/foundation system | The photograph contains no elevation markings or other data in order to enable FEMA to determine the natural grade elevation of the site. | |
| 21 | completed formwork for the | | The photograph contains no elevation markings or other data in order to enable FEMA to determine the natural grade elevation of the site. | |
| 22 | completed east wing (looking from southeast) | | The photograph contains no elevation markings or other data in order to enable FEMA to determine the natural grade elevation of the site. | |
| 23 | Photograph 23 | Penfield Pavilion circa 2009 showing completed east wing (looking from southeast) | The photograph contains no elevation markings or other data in order to enable FEMA to determine the natural grade elevation of the site. | |
| 24 | Photograph 24 | Penfield Pavilion in 2016 showing new top of grade beams (looking from east) | The photograph contains no elevation markings or other data in order to enable FEMA to determine the natural grade elevation of the site. | |
| 25 | Photograph 25 | Penfield Pavilion in 2016 showing new top of grade beams (looking from southwest) | The photograph contains no elevation markings or other data in order to enable FEMA to determine the natural grade elevation of the site. | |
| 26 | USGS Quadrangle Map – 1920 | This map has 20' contour intervals, with no contours shown in the location of the pavilion. The accuracy is this map is considered to +/- ½ contour 95% of the time and the datum used was mean sea level. | The map has no contour lines below 20' and none in the location of the pavilion; as such, the map provides no data in order to determine an elevation at the pavilion site. | |

| No. | Document | Description | Analysis |
|-----|----------------------------|---|---|
| 27 | USGS Quadrangle Map – 1951 | This map has 10' contour intervals and the pavilion appears to be located on the 10' contour. The map uses mean sea level (MSL) datum. The accuracy is this map is considered to +/- ½ contour 95% of the time. | The elevation in this map must be converted to the NAVD 1988 datum used in the 2006 LiDAR data. [NAVD 1988 – MSL = -1.093'. Note: MSL was renamed NGVD 1929 in 1973]. Converting the 10' MSL elevation to NAVD 1988, the elevation of the site would be 8.91'. Assuming the map is accurate, this supports FEMA's conclusion that the natural grade elevation of the site is between 8' and 9' NAVD 1988. |
| 28 | USGS Quadrangle Map – 1960 | This map has 10' contour intervals and the pavilion appears to be located on the 10' contour. The map uses mean sea level (MSL) datum. The accuracy is this map is considered to +/- ½ contour 95% of the time. | The elevation in this map must be converted to the NAVD 1988 datum used in the 2006 LiDAR data. Converting the 10' MSL elevation to NAVD 1988, the elevation of the site would be 8.91'. Assuming the map is accurate, this supports FEMA's conclusion that the natural grade elevation of the site is between 8' and 9' NAVD 1988. |
| 29 | USGS Quadrangle Map – 1970 | This map has 10' contour intervals and the pavilion appears to be located on the 10' contour. The map uses MSL datum. The accuracy is this map is considered to +/- ½ contour 95% of the time. | The elevation in this map must be converted to the NAVD 1988 datum used in the 2006 LiDAR data. Converting the 10' MSL elevation to NAVD 1988, the elevation of the site would be 8.91'. Assuming the map is accurate, this supports FEMA's conclusion that the natural grade elevation of the site is between 8' and 9' NAVD 1988. |
| 30 | USGS Quadrangle Map – 1984 | This map has 10' contour intervals and the pavilion appears to be located on the 10' contour. The map uses NGVD 1929 datum. | The elevation in this map must be converted to the NAVD 1988 datum used in the 2006 LiDAR data. [NAVD 1988 – NAVD 1929 = -1.093'] |

| No. | Document | Description | Analysis |
|-----|---|--|--|
| | | The accuracy is this map is considered to +/-1/2 contour 95% of the time. | Converting the 10' NAVD 1929 elevation to NAVD 1988, the elevation of the site would be 8.91'. Assuming the map is accurate, this supports FEMA's conclusion that the natural grade elevation of the site is between 8' and 9' NAVD 1988. |
| 31 | USGS Quadrangle Map – 2012 | This map has 10' contour intervals and the pavilion appears to be located on the 10' contour. This map uses NGVD 1988 datum. The accuracy is this map is considered to +/-1/2 contour 95% of the time. | This map shows the pavilion to be at an elevation of 10'. However, the USGS did not change the contour lines for this 2012 map from the previous 1984 map based on the update to the new datum from NAVD 1929 to NAVD 1988. This means the elevation of the site depicted on the 2012 USGS Quadrangle Map remained 8.91' NAVD 1988. |
| | | | |
| 32 | Topographic Maps of Town of Fairfield, CT, Sheet No. 1-29 – 1935 | This map has 4' contour intervals and the pavilion appears to be located on the 20' contour line. This map uses 13.45' below MSL datum. | The elevation in this map must be converted to the NAVD 1988 datum: 20' elevation – 13.45' = 6.55' NGVD 1929 6.55' NGVD 1929 – 1.093' = 5.46' NAVD 1988 This means that the elevation of the site is 5.46' NAVD 1988, which is below FEMA's conclusion that the natural grade elevation of the site is between 8' and 9' NAVD 1988. |
| 33 | Fairfield, Connecticut, Town Plan and Zoning Commission, Drawing C-18 of 180 – 4/12/1968 | This map has contour intervals of 2'and appears to show the Penfield Pavilion between 8' contours. The map uses NAVD 1929 datum. | The elevation in this map must be converted to the NAVD 1988 datum: 8' NGVD 1929 – 1.093' = 6.91' NAVD 1988. This means that the elevation of the site is 6.91' NAVD 1988, which is below FEMA's conclusion that the natural |

| No. | Document | Description | Analysis |
|-----|--|--|--|
| | | | grade elevation of the site is between 8' and 9' NAVD 1988. |
| 34 | Town of Fairfield, dept. of Public works, Existing conditions survey, Penfield Pavilion – April 2015 | This map has contour intervals of 1' and, although hard to read, appears to show the Penfield Pavilion at an elevation of between 8' and 9'. This map uses NAVD 1988 datum. | This map shows as-built, existing conditions and is difficult to interpret. Furthermore, the 8' to 9' elevation of the site in this map directly supports FEMA's conclusion that the natural grade elevation of the site is between 8' and 9' NAVD 1988. |
| 35 | Town of Fairfield. CT, Sanitary Sewer System – October 30, 2017 | This map has contour intervals of ½ foot and appears to show multiple contour intervals at the location of the Penfield Pavilion, ranging from 7.5' to 12'. The majority of the structure appears to be located over 8' to 9' contours The map uses NAVD 1988 datum. | This map shows as-built, existing conditions and is therefore of limited utility to show the elevation of the natural grade, as the Town had already installed significant amounts of fill during construction. That being said, the majority of the structure appears to be located over 8' to 9' contours, which supports FEMA's conclusion that the natural grade elevation of the site is between 8' and 9' NAVD 1988. |
| 36 | LIDAR Data from April 2004 | The map has contour intervals of ½' and appears to show multiple contour intervals at the location of the Penfield Pavilion, ranging from 8.5' to 10.5'. The map uses NGVD 1929 datum. | The elevation in this map must be converted to the NAVD 1988 datum: 8.5' NGVD 1929 – 1.093' = 7.41' NAVD 1988 10.5' NGVD 1929 – 1.093' = 9.41' NAVD 1988 This means that the average elevation is 8.41' NAVD 1988, which supports FEMA's conclusion that the natural grade elevation of the site is between 8' and 9' NAVD 1988. |
| 37 | As-Built, Improvement Location survey of | The elevation of the pavilion appears to be located between the 11' contour line on the | This map depicts as-built conditions and is not considered to be beneficial in determining |

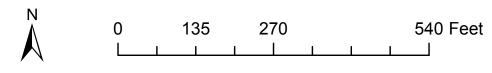
| No. | Document | Description | Analysis |
|-----|--------------------------|--|---|
| | Penfield Beach – | seaward side and the 7' contour line located | natural grade of the site due to the volume of fill |
| | December 21, 2016 | in the parking lot of the landward side. The | used in the most recent site work. |
| | | map uses NAVD 1988 datum. | |
| | | | |
| 38 | Penfield Pavilion, Grade | The map uses 2017 as-built survey data with | This map was not useful due to scale limitations |
| | Comparison - Included | 1' contour intervals as well as 2008 LIDAR | and unreadability. |
| | with DeStefano and | data with 0.5' contour intervals. Both data | |
| | Chamberlain Report | sets use NAVD 1988 datum. | |

ENCLOSURE 2



Penfield Pavilion - Fairfield, CT

- Contour lines derived from 2006 FEMA LIDAR, collected December 16-18, 2006 (NAVD 88)
- Imagery from NOAA (2014)





FIRST APPEAL ADMINISTRATIVE RECORD INDEX Town of Fairfield, PA ID #001-26620-00 Project Worksheet #680, FEMA-4087-DR-CT

Scope of Work, Improved Project, National Flood Insurance Program Regulations, Floodplain Management, National Environmental Policy Act

| File Name | Document Type | Description |
|---|-----------------------------|--|
| Insurance Statement by Gina Wilson.pdf | Insurance Document | Insurance Statement |
| Municom Claims Service Memo for Jul29 Meeting.pdf | Insurance Document | Municom Claims Service July 29 Memo |
| Investigation of Foundation Damage by Cianci Engineering.pdf | Drawings/Sketches | Investigation of Foundation Damage |
| Prelim Concept Docs, Blueprint of Substructure, Compromised Area.pdf | Drawings/Sketches | Prelim Concept Docs, Blueprints of Substructure |
| Photos; Site visit taken by Wayne Carlan, Applicant Supplied Before Pics.pdf | Photos | Site Visit Photos by Wayne Carlan |
| Chronological History, before and after Sandy Photos.pdf | Miscellaneous | Chronological History |
| News Articles, FAQS.pdf | Miscellaneous | News Articles |
| Penfield Pavilion Location Map and Firmette.pdf | Map | Location Map and Firmette |
| ENGINEERING COSTS.pdf | Contract Document | Engineering Costs |
| Fairfield 4087 pw 680 ext.pdf | Time Extension | Time Extension Approval Letter |
| 680_procurement_engineer.pdf | Contract Document | Engineer Contract Procurement |
| PW 680_ Albaine RFP Submittal.pdf | Contract Document | Albaine RFP |
| PENFIELD PAVILION PROOF OF LOSS SETTLEMENT.pdf | Insurance Document | proof of loss |
| Fairfield Loss Statement-0089829- PW680 Penfield Pavilion.docx | Insurance Document | Loss Statement CIRMA |
| PW 680 F-A Labor & DAC.xlsx | Calculation Sheet | FA Labor and DAC Spreadsheet |
| PW 680_Appendix B Heller Johnsen 102402 Report Dated May 05 2013.pdf | Building Survey/Document | geotechnical report |
| Penfield Pavilion - Scope A- General Conditions and Requirements (1).pdf | Additional Information | general conditions details breakout |
| Wolfe Shoring Quote - Shoring Scope - 7.8.13_\$70k.pdf | Additional Information | Wolfe Shoring Detailed Breakout |

| File Name | Document Type | Description |
|---|----------------------------------|--|
| Saugatuck Construction Group Estimate for paviliion.pdf | Calculation Sheet | Saugatuck Group Repair estimate |
| CEF for Penfield Pavilion.xls | Calculation Sheet | CEF utilizing Saugatuck Estimate as part A |
| Pavilion Mandatory 1 Reduction .docx | Insurance Document | Mandatory NFIP Flood Reduction |
| Fairfield 4087 pw 680 2nd ext.pdf | Time Extension | Time Extension to 10/30/2016 |
| Revised_FIRM09001C0438G_7_14_15.pdf | Floodplain | FIRM JULY 2013 |
| CostWorks 2015 Quarter 2 Country Club SF Model.pdf | Closeout Documentation | Cost Works SF Model for CEF |
| DAP9524_4.pdf | Closeout Documentation | 50/50 Rule Policy Guide |
| Penfield Pavilion final CEF.pdf | Closeout Documentation | Final 50/50 CEF |
| Penfield SF Model thru Estimator.pdf | Closeout Documentation | CEF SF Model Unit Costs |
| Saugatuck Construction Group Estimate.pdf | Closeout Documentation | Repair Line Item Engineers Estimate |
| Witt CEF Estimate Review Issues.pdf | Closeout Documentation | TAC Critique of Witt proposed 50/50 CEF |
| RACE Final report 06_12_13.pdf | Environmental/Histo ric Document | RACE Engineering Report |
| Pavilion_Redrawn_S2thruS7.pdf | Drawings/Sketches | Redraw of S-2 thru S7 pavilion structural |
| PlansEast_1.zip | Drawings/Sketches | Plans East #1 |
| PlansEast_2.zip | Drawings/Sketches | Plans East #2 |
| PlansEast_3.zip | Drawings/Sketches | Plans East #3 |
| PlansWest_MEPF_C_10027-P301.pdf | Drawings/Sketches | Plans West #1 |
| PlansWest_Penfield Pase2A.pdf | Drawings/Sketches | Plans West #2 |
| PlansWest_Penfield Pase2B.pdf | Drawings/Sketches | Plans West #3 |
| PlansWest_Penfield Pase2C.pdf | Drawings/Sketches | Plans West #4 |
| PlanWestFoodService_specifications_she ets.zip | Drawings/Sketches | Plans West #5 |
| PlansWest_structural.pdf | Drawings/Sketches | Plans West #6 |

| File Name | Document Type | Description |
|--|----------------------------------|--|
| PlanWestFoodService_specifications_she ets.zip | Drawings/Sketches | Plans West Food Service Specs |
| FEMA_Witt_TAC_sitevisit.pdf | Photos | Witt+TAC+FEMA Site Visit images |
| A-1.pdf | Drawings/Sketches | Drawing of Damaged Footing Area |
| Repair Scope of Work.docx | Site Damage Document | Line Item Repair Scope of Work |
| PW_prior_50_50_7_30_15.pdf | Additional Information | PDF of PW prior to 50/50 writeup |
| Zoning_Regs,_April_30_Site_Visit,_HM P_Options[2].pdf | Additional Information | Original site visit notes |
| Risk Management-penfield-CIRMA Loss Estimatea-8.19.14 FEMA RFI DOCS RECEIVED 10-13-15.pdf | Requested Info from Applicant | |
| Risk Management-Insurance-CIRMA Declarations.pdf | Insurance Document | CIRMA Declarations |
| Fairfield, CT DR-4087 PW # 680 scan.docx | Insurance Analysis Data Sheet | FEMA Insurance Review / Mandatory NFIP worksheet |
| recReport.pdf | | |
| Penfield Pavilion - Full Drawing set as of 6-21-2016 optimized 1 of 3.pdf | Building Survey/Document | June 2016 plans 1 of 3 |
| Penfield Pavilion - Full Drawing set as of 6-21-2016 optimized 2 of 3.pdf | Building Survey/Document | June 2016 plans 2 of 3 |
| Penfield Pavilion - Full Drawing set as of 6-21-2016 optimized 3 of 3.pdf | Building Survey/Document | June 2016 plans 3 of 3 |
| 4087-DR-CT Fairfield PW 680 Ack Letter SOW Change Request (1 July 2016).pdf | Letter | 4087-DR-CT Fairfield PW 680 Acknowledgement Letter Scope of Work Change Request (1 July 2016).pdf |
| 4087-DR-CT Fairfield PW-680 (Penfield Pavilion) NFIP and PA Request for Tech Assistance Response to CT DEMHS CT DEEP (11 Aug 16).pdf | Letter | 4087-DR-CT Fairfield PW-680 (Penfield Pavilion) NFIP and PA Request for Tech Assistance Response to CT DEMHS CT DEEP (11 Aug 16) |

| File Name | Document Type | Description |
|---|--------------------------------|---|
| Letter to Connecticut re Fairfield Pavilion NFIP and Public Assistance 9 Aug 2016.pdf | Floodplain | Request for NFIP Technical Assistance Reponse Letter 08- 09-2016 |
| 4087-DR-VT Fairfield PW-680 Request for NFIP Tech Support (1 June 2016).pdf | Additional Information | Request for NFIP Tech Support 4087-DR-VT Fairfield PW-680 |
| FINAL 4087-DR-CT Fairfield PW #680 SOW Change RFI (30 Sep 16) .pdf | Requested Info from Applicant | 4087-DR-CT Fairfield PW #680 SOW Change Request for Information (30 Sep 2016) |
| 4087-DR-CT Fairfield PW 680 Town RFI Response (28 Oct 2016).pdf | Additional Information | 4087-DR-CT Fairfield PW 680 Town of Fairfield SOW RFI Response (28 Oct 2016) |
| 4087-DR-CT Fairfield PW 680 CT DEMHS RFI Response (28 Oct 2016).pdf | Additional Information | 4087-DR-CT Fairfield PW 680 CT DEMHS SOW RFI Response (28 Oct 2016) |
| UPS Delivery Notification, Michelangelo PW680.pdf | Miscellaneous | UPS Confirmation Michelangelo |
| FINAL 4087-DR-CT Fairfield PW #680 SOW Change CZMA and State Law Issues RFI (7 July 2017).pdf | Additional Damages Document | RFI Re: Requesting information concerning whether the project was consistent with the State's costal management program, which is a reequipment of the Coastal Zone Management Act. Final RFI as this information was requested in Sept. 30 2016 RFI. |
| Letter re Fairfield Penfield Pavilion Compliance with 44 CFR pt 60 Oct 17 2017.pdf | Additional Information | NFIP Technical Assistance Letter re Fairfield Penfield Pavilion Compliance with 44 CFR pt 60 Oct 17 2017 |
| Fairfield 323 Fairfield Beach Road VGIS Town Report appraised and Assessed values.pdf | Additional Information | Appraisal and Assessment Values for 2015 |
| DR-4087-CT Fairfield PW 680 Penfield Pavilion - Floodplain Mgmnt Determination signed letter 28 NOV 2018.pdf | Floodplain | NFIP Determination - Noncompliance with Minimum Floodplain Management Criteria at 44 CFR 60.3 |

| File Name | Document Type | Description |
|---|---------------------------|--|
| 4087-DR-CT Fairfield PW-680 DM UPS receipt Grantee (29 Nov 18).pdf | Letter | DM UPS Receipt Grantee |
| 4087-DR-CT Fairfield PW-680 DM UPS receipt Applicant (29 Nov 18).pdf | Letter | DM UPS Receipt Applicant |
| FINAL 4087-DR-CT Fairfield PW 680 DM CL (28 Nov 18).pdf | Amendment Documentation | Determination Memo Cover Letter - Material Violation of Grant Terms & Conditions |
| FINAL 4087-DR-CT Fairfield PW 680 DM (28 Nov 18).pdf | Additional Information | Determination Memo - Material Violation of Grant Terms & Conditions |
| recReport.pdf | | |
| 4087-DR-CT Fairfield PW 680 Grantee First Appeal email to FEMA (22 March 2019).pdf | Appeal Document | Recipient first appeal transmittal email (March 22, 2019) |
| 4087-DR-CT Fairfield PW 680 First Appeal Applicant Transmittal Letter (23 Jan 2019).pdf | Appeal Document | Applicant first appeal transmittal letter to Recipient (Jan. 23, 2019) |
| 4087-DR-CT Fairfield PW 680 Applicant First Appeal letter (28 November 2018).pdf | Appeal Document | Applicant first appeal (Nov. 28, 2018) |
| 4087-DR-CT Fairfield PW 680 First Appeal- Exhibit 1.pdf | Appeal Document | Appeal Exhibit 1 |
| 4087-DR-CT Fairfield PW 680 First Appeal Exhibits 2 - 7.pdf | Appeal Document | Appeal Exhibits 2-7 |
| 4087-DR-CT Fairfield PW 680 First Appeal Exhibit 8.pdf | Appeal Document | Appeal Exhibit 8 |
| 4087-DR-CT Fairfield PW 680 First Appeal- Exhibit 9.pdf | Appeal Document | Appeal Exhibit 9 |
| 4087-DR-CT Fairfield PW 680 First Appeal Exhibits 10 11 12.pdf | Appeal Document | Appeal Exhibits 10-12 |
| 4087-DR-CT Fairfield PW 680 First Appeal Exhibit 13.pdf | Appeal Document | Appeal Exhibit 13 |
| 4087-DR-CT Fairfield PW 680 First Appeal Exhibits 14 16 17.pdf | Appeal Document | Appeal Exhibits 14, 16 and 17 |
| 4087-DR-CT Fairfield PW 680 First Appeal Exhibit 15.pdf | Appeal Document | Appeal Exhibit 15 |
| 4087-DR-CT Fairfield PW 680 First Appeal Exhibit 18.pdf | Appeal Document | Appeal Exhibit 18 |

| File Name | Document Type | Description |
|---|-----------------|---|
| 4087-DR-CT Fairfield PW 680 First Appeal Exhibit 19.pdf | Appeal Document | Appeal Exhibit 19 |
| 4087-DR-CT Fairfield PW 680 Ack Ltr First Appeal (28 March 19).pdf | Letter | First Appeal Acknowledgement Letter (28 March 2019) |