Draft Flood Evacuation and Preparedness Plan

40 Signal Road Stamford, CT

PREPARED FOR

Sound Beach Landing, LLC

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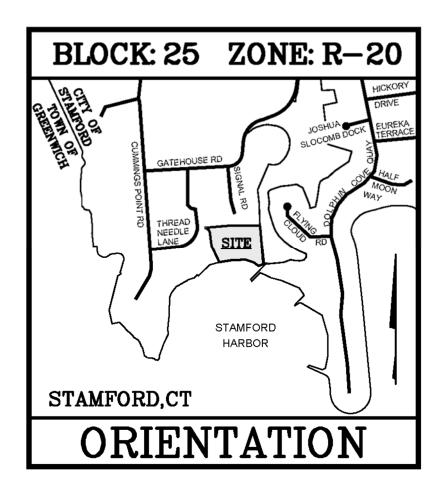
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I. INTRODUCTION

Property Description

Sound Beach Landing, LLC has proposed the construction of a four lot subdivision. The site is located at the southeast corner of Gate House Road and Signal Road in Stamford. This Flood Evacuation and Preparedness Plan has been prepared to alert residents within the proposed development to the nature of flooding on and around the property, to describe flood proofing measures incorporated into the building design, to provide information to facilitate awareness and preparedness on the part of residents, and to outline a plan so that people can safely evacuate the premises in the event of a severe flood.

Nature of Flooding

A majority of the site lies within the regulatory 100-year floodplain Zone AE (EL 12 Feet), a portion lies within the regulatory 100-year floodplain Zone VE (EL 16 Feet) and is subject to wave action during severe flood events, and the remainder of the property lies within the Area of Minimal Flood Hazard Zone X as established by the Federal Emergency Management Agency (FEMA). This area is illustrated on the FEMA "Flood Insurance Rate Maps" (FIRM) for Fairfield County, Map 09001C0518G Panel 518 of 626, effective date July 8, 2013 (Figure 1). Furthermore, most of the site that is located in AE Zone is considered to be in the Coastal AE Zone which is also subject to wave action. The Base Flood Elevations (BFE) for the site have been established by FEMA at elevations 12.0 (AE-12) and 16.0 (VE-16). The BFE refers to the water surface elevation during a 100-year base flood year storm) as defined as having a 1% chance of occurring in any given year, which is severe and infrequent. Figure 2 depicts the approximate extent of flooding during a 100 year storm event post-construction. All elevations depicted or labeled on the site plans and/or referenced within this report are based on NAVD-88.

Most of the site is located below the BFE and is subject to flooding during the Base Flood including the garages on each property. The first floor of each dwelling will be at elevation 16.0 (4 feet above the BFE) and the garage floors will be at elevation 9.5 to 10.0 (2.5 to 2.0 feet below the BFE of 12.0). As such, it is imperative that all residents and guests monitor any potential flood threats diligently and stay up to date with any flood advanced flood warning systems.

Site Design

Certain measures have been incorporated into the design of 40 Signal Road to ensure public safety during severe flooding conditions. These design features include the following:

- The proposed residential first floor will be constructed 4 feet above the BFE.
- A continuous walkway will be constructed at or above the BFE to provide dry access from each dwelling to the highest point of the property in the northwest corner.
- All underground utilities will be constructed in accordance with Section 15.B. of the Flood Prone Area Regulations of the City Zoning Regulations.

- Electrical transformer pad is located outside the flood hazard area and will be constructed above the BFE (final elevation and location shall be coordinated with the service provider prior to building permit applications).
- All HVAC equipment will be located above the BFE.
- Flood evacuation routes (Figures 3 and 4) will be distributed to all homeowners of the subdivision and depict the safest / quickest routes to dry land for vehicular and pedestrian traffic alike.

II. FLOOD PREPAREDNESS

Preemptive Resources

Residents can find emergency preparedness recommendations for flood and other related emergencies on the City of Stamford website www.bepreparedstamford.org. Through this site, residents can link to a number of resources for important information on weather, storm readiness, and plan development. Residents can also register for CT alerts at www.ctalert.gov, a notification system that enables Stamford officials to quickly deliver emergency messages to targeted areas or the entire city. Citizens can receive assistance in registering for Stamford Alert by calling (203) 977-8840.

Additionally, residents may also subscribe to weather alerts via e-mail at the Connecticut Department of Energy & Environmental Protection by messaging: diame.ifkovic@po.state.d.us.

It is strongly encouraged that all residents in each household register for these services and any other reputable warning systems as evacuation before flooding occurs is the safest option and will likely result in the least amount of property damage / loss.

City of Stamford Flood Warning System

In the event of severe flooding, monitoring of conditions as they intensify and dissemination of appropriate emergency information will be handled through the City of Stamford Emergency Operations Center (EOC), in conjunction with the Environmental Protection Board (EPB). In addition to flooding, the Emergency Alert System (EAS) within the EOC is responsible for the dispatch of all emergency services. Flooding conditions will be continuously monitored by the City throughout storm events so that emergency information can be updated and accordingly communicated to the public.

As part of the EAS, the City will monitor flood levels in Dolphin Cove Lagoon during the storm and, when necessary, alert appropriate media broadcasters. In the event of a flood, residents should tune in to local radio and/or television stations (if availabl). Broadcasts from the following list of stations should be monitored throughout severe storms for information regarding current flooding conditions and possible emergency evacuations:

Radio: Fairfield County Public Radio (91.1 FM and 1400 AM)

WGCH Radio (1490 AM) Fox Radio (95.9 FM) Television: News12 Connecticut (Channel 12)

Stamford Emergency Operations Center: Trevor Roach, Fire Chief 203-977-5900 or

203-977-8840

Additional Sources of Information (Non-Emergency)

Federal Emergency Management Agency (FEMA): 800-621 FEMA or www.fema.gov

National Flood Insurance Program (NFIP): 888-379-9531 or www.fema.gov/nfip

CT Department of Emergency Protection: 860-424-3000

Stamford Citizen Service Center: 203-977-4140

City of Stamford: 203-977-6600

Stamford Environmental Protection Board: 203-977-4028

Stamford Planning and Zoning: 203-977-4711

Ferguson Library: 203-964-1000

Flood Warning System

If possible, a Flood Warning Coordinator (Coordinator) should be designated as the central figure in the proposed development's flood warning system. The Coordinator would be the initial contact person for activating all flood warning operations for 40 Signal Road. In case of absence, illness, etc., at least 2 other persons that are able to perform the duties of the Coordinator should be designated as backups for the Coordinator. The Coordinator must have access to a private telephone and/or access to a CB radio or ham radio equipment. Responsibilities of the Coordinator include:

- Coordinate training for all volunteers and/or residents by appropriate civil defense or city officials.
- Maintain an updated list of critical telephone numbers such as police, fire, ambulance, doctors, pharmacies, special transportation needs, etc. This information should be kept in a prominent, easily accessible location, as well as being distributed to volunteers and residents involved in the flood warning operations.
- Review the guidelines outlined in this flood preparedness plan with volunteers and residents at least once each year.
- Keep an inventory of merchandise and property for insurance purposes.
- When informed by the EAS of a flood emergency, notify all volunteers and residents involved in the flood warning operations and provide updates as needed. Inform volunteers and residents when flood warning and/or evacuation procedures should be initiated.

- Understand differences between warning of potential neighborhood flooding and notice by Civil Defense or city officials to evacuate.
- Learn how to manually operate any garage doors currently lifted by an electric door opener.

The responsibilities of each homeowner include, but are not limited to the following:

- Bring all outdoor possessions inside their dwelling to prevent them from floating away or tie them down securely. Such items include lawn furniture, garbage cans, tools, signs, building emergency supplies, and other moveable objects that may be swept away by flood waters or high winds.
- Make sure there are no vehicles in front of their dwelling or within the access drive that may impede an efficient evacuation, if it becomes necessary.
- Tape windows to prevent shattering if it is anticipated that the storm will be accompanied by strong winds.
- Inspect their house after flooding has occurred to assess any damage.
- Turn off utilities at main power switch and close main gas valve when the notice to evacuate the development has been received from the appropriate City or Civil Defense officials.
- Maintain a stock of essential supplies required to carry out flood warning emergency procedures.
 This includes, but is not limited to, flashlights, batteries, pumps, medical/first aid supplies, boards/shutters or tape for windows, battery-operated radios and sandbags.

III. FLOOD EMERGENCY OPERATIONS

Flood Warning Procedures

Residents should be warned during a flooding emergency through a general flood warning signal and/or a telephone/personal contact system initiated by the development's flood coordinator. Special plans should be provided to alert disabled, sick and elderly people. Those residents with medical problems should be evacuated initially, if possible, making sure that they have necessary medications with them.

If the Coordinator contacts residents by phone, the message delivered should be brief and concise. A typical message might be as follows:

"Hello, (name); this is a flash flood warning. Heavy rains have been observed and you are advised that flooding may occur in this area and you should prepare yourself now to take appropriate action. Please do not use your phone except in extreme emergency. You will be kept informed as more details are learned. Please get out your flood warning guide and follow the suggested directions." The following safety precautions should be taken by residents at the time of the flood warning:

- Bring exterior possessions inside to prevent them from floating away, or tie them down securely.
- Fill sinks, and jugs with clean water in case regular supplies become contaminated. Water in the sinks should be used for sanitation purposes-not as drinking water.
- Prepare an emergency kit containing the following items, in case evacuation is required:
 - non-perishable foods (like canned goods)
 - non-electric can opener

- plastic containers of water
- blankets
- First Aid kit and manual
- flashlight and extra batteries
- portable, batter-operated radio and extra batteries
- dry clothing and shoes
- essential medications
- Board or tape windows or protect them with storm shutters to prevent flying glass in the event of high winds.
- Set refrigerators and freezers to their coldest settings (remember to reset them to their normal operating ranges after the threat has passed). It may also be wise to place plastic containers filled with water in the freezer. Ice helps to maintain the cold during an outage. Limit access to the refrigerator or freezer to ensure the integrity of frozen or cooled food.
- Load a cooler with ice and store foodstuffs and/or any medications residents may need during the
 first day or so after an outage of power. Check with a pharmacist for guidance on proper storage
 of medications during an extended outage.
- Prior to a major storm, unplug all sensitive electronic equipment
- Store, elevate or make provisions for safe, dry storage of important documents, bank and check books, sensitive equipment, irreplaceable or easily damaged items, and/or any materials that have the potential to become a source of pollution (i.e. grease, oil, pesticides, herbicides, miscellaneous chemicals, etc.).
- Turn off utilities at main power switch and close main gas valve when the notice to evacuate the development has been received from the appropriate City of Civil Defense officials.
- Move vehicles to higher ground or place of safety.

Flood Evacuation Procedures

The notice to evacuate the development shall be directed initially to the Flood Coordinator by the appropriate City or Civil Defense officials. The Coordinator will then notify residents either by personal/phone contact or through an alarm signal of the flood warning. When instructed to evacuate, residents should do so immediately.

When evacuation from the site by car is safe, residents will be made aware of the predetermined shelter location as coordinated with the appropriate City or Civil Defense officials. Residents will be informed of the evacuation routes to the designated shelter. When evacuation is made by car, residents should also consider the following:

- Establish security measures when leaving (lock windows and doors) to prevent looting or vandalism.
- Bring an emergency kit (as described above) when possible.
- Keep gasoline tank at least ½ full because gas pumps will not operate if electric power fails.
- Do not drive through flood areas because parts of the road may be washed out. Turn around and go the other way. Flooded roads and bridges often seem sound, however, the presence of a guardrail, street sign or other structure above flood waters does not guarantee the integrity or presence of the road surface.

- If your vehicle stalls in a flooded area, abandon it immediately; many deaths have been attributed to occupied vehicles being washed away.
- Beware of downed trees and power lines. Never drive across a downed power line. Always assume that the downed line is a live line.
- Treat all non-working traffic lights as stop signs. Proceed cautiously at intersections.
- Generally, to ensure personal safety, areas of ponded/flowing water should be avoided.

Pedestrian Evacuation

In the event you are evacuating by foot, head west towards Cummings Point Road from the elevated walkway along the common drive, continue north (right turn) onto Signal Road and continue walking north to the intersection of Signal Road and Gate House Road. Turn left onto Gate House Road. DO NOT TURN RIGHT AS EASTERN PORTIONS OF GATE HOUSE ROAD WILL BE INUNDATED WITH DEEP FLOOD WATERS. Continue west on Gate House Road then turn right onto Fairfield Avenue. Continue to follow Fairfield Avenue in a northerly direction until you reach Selleck Street. Turn left onto Selleck Street then turn right onto West Avenue. Avoid walking through any flood waters. If it is moving swiftly, even water 2 inches deep can knock a person off their feet. Refer to Figures 3 and 4 for maps of the recommended evacuation route.

Vehicular Evacuation

In the event you are evacuating by vehicle, leave the property by north through the shared parking lot and driveways, turn left to drive up the hill leading to Signal Road. Turn right to drive north on Signal Road and continue on Signal Road until you reach Gate House Road. Turn Left on Gate House Road. DO NOT TURN RIGHT AS EASTERN PORTIONS OF GATE HOUSE ROAD WILL BE INUNDATED WITH DEEP FLOOD WATERS. Continue west on Gate House Road then turn right onto Fairfield Avenue. Continue to follow Fairfield Avenue in a northerly direction until you reach Selleck Street. Turn left onto Selleck Street then turn right onto West Avenue. At this point, you will be near entrance ramps to both I-95 North and South and can use this interstate to get to further evacuation points or you can proceed to a City-designated flood evacuation center. Refer to Figures 3 and 4 for maps of the recommended evacuation route.

In the event that a safe evacuation is not possible due to high flood waters, residents are advised to move to a higher floor. Bring an emergency kit, if possible, and wait for help to arrive. Residents are advised to never try to swim to safety.

IV. POST FLOOD

When the flood has subsided and it has been determined safe to re-enter the property, residents shall return to their homes. The Coordinator shall oversee any necessary remedial measures including the following:

- Examine the walls, floors, doors and windows of the dwelling for any damage and arrange for repair. Structural damage should be repaired quickly.
- Flooded garage level should be pumped out gradually to avoid structural damage.

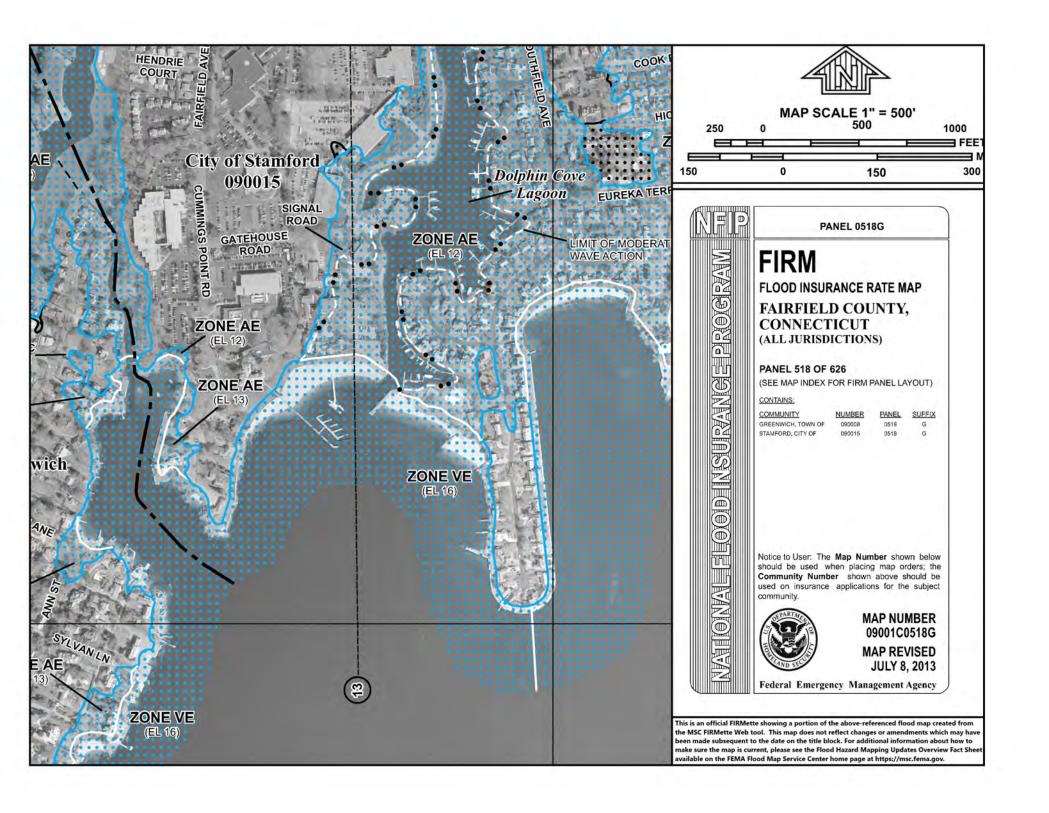
- Inspect utilities for damage and arrange for repair, if necessary. Damaged utilities should be serviced immediately because they may pose a health and safety hazard.
- Arrange for clean up inside the dwelling and on the grounds, if necessary.
- Secure all property that may have moved during flooding.
- Contact the insurance carrier as necessary. Photographs of damage to the property and its
 contents should be taken for insurance claims.
- Evaluate and appropriately repair structural flood damage.
- Any food that has come in contact with flood waters should be discarded.

V. LIMITATIONS

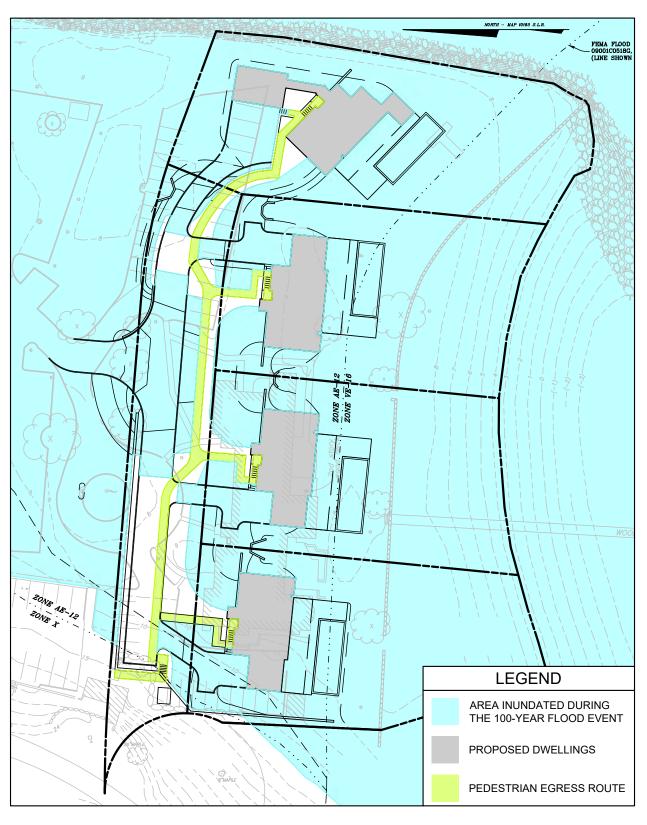
There are many limitations to any community flood warning system. These should be clearly understood by those operating the system and those people working in the area. The major limitations are as follows:

- Rain and thunderstorms can produce intermittent and localized rainfalls with varying intensities. Because of this, it is oftentimes difficult to predict the time and height of flood crests. Also, there is the possibility that more than 1 flood crest will occur during a flooding situation.
- Flood flow quantities and flood flow paths are very unpredictable. Bridges or other natural stream constrictions may become blocked with debris and divert flows. New channels and directions of flow may develop, especially at stream meanders. Recent developments may also produce damages in areas previously unaffected by floods.
- Possibly the most important limitation is in the fact that the program is operated by citizens who are voluntarily committing time and property as a service to their neighbors. Their obligation to fulfill their assigned function does not rest on any legally imposed duty, but upon a sense of moral obligation. Dangers are always present in flooding situations and no volunteer is expected to risk their life or property to potential harm.
- During an emergency, there will be some people who will panic and create problems for everyone else. This problem can be minimized through proper planning and education of all people involved.
- If the system should fail for some reason or if evacuation procedures are carried out for a storm for which there is no significant flooding to warrant the evacuation, the public may not respond adequately during the next emergency. This type of apathy is common in the Midwest where Civil Defense sirens are used for tornado warnings.

Flood Insurance Rate Map



Post Construction Limit of Flooding



FLOOD INUNDATION EXHIBIT 40 SIGNAL ROAD STAMFORD, CT

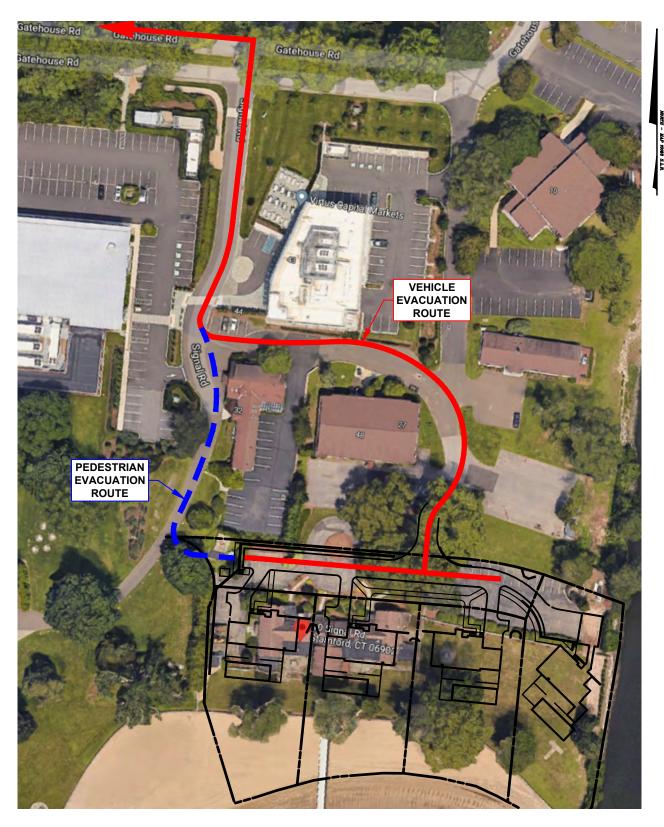
REDNISS &MEAD

COMM. NO.: 2008

DATE: 01/27/2023

SCALE: I" = 60'

Onsite Flood Evacuation Route

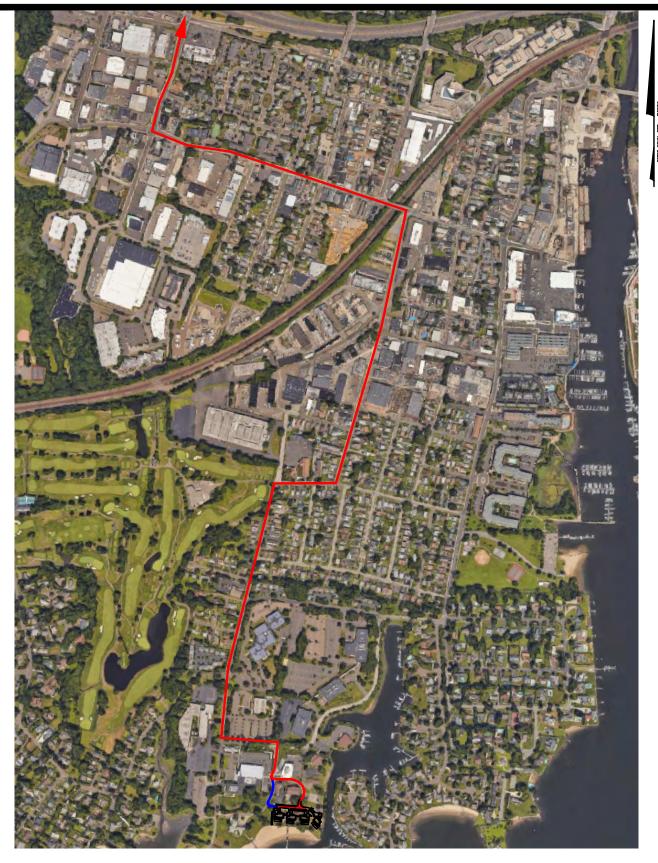


ONSITE FLOOD EVACUATION EXHIBIT REDNISS MEAD **40 SIGNAL ROAD**

STAMFORD, CT

COMM. NO.: 2008 DATE: 01/27/2023 SCALE: I" = 100'

Offsite Flood Evacuation Route



OFFSITE FLOOD EVACUATION EXHIBIT REDNISS MEAD **40 SIGNAL ROAD**

STAMFORD, CT

COMM. NO.: 2008 SCALE: I" = 800' DATE: 01/27/2023