

TWIA Guidelines for Settling Slab Claims

Introduction

In 2017, the insurance commissioner of Texas adopted new 28 TAC 5.4023 – 5.4041 concerning claim settlement guidelines to be used by the Texas Windstorm Insurance Association (TWIA).

The reasoned justification for adoption of 5.4029 – 5.4041 was to implement Insurance Code 2210.578, enacted by HB 3, by the 82nd Legislature, 1st Called Session (2011).

The sections prescribe guidelines TWIA **must** use to settle certain claims. The guidelines are based on the recommendations of a panel of experts, appointed under Insurance Code 2210.578 and charged with recommending methods or models for determining the extent to which a loss may be or was incurred as a result of wind, waves, tidal surges, or rising waters not caused by waves or surge.

In August 2013, the insurance commissioner of Texas appointed a panel of experts with the professional experience and knowledge required by Insurance Code 2210.578(b) to advise TWIA on the extent to which a loss to insurable property was incurred as a result of wind, waves, tidal surges, or rising waters not caused by waves or surges. Because TWIA policies cover loss caused by wind and exclude loss caused by rising waters in its various forms, the distinction is important for determining TWIA's liability for a claim.

Insurance Code 2210.578 required the panel to recommend to the commissioner methods or models for determining the extent to which a loss may be or was incurred as a result of wind, waves, tidal surges, or rising waters not caused by waves or surges for geographic areas or regions designated by the commissioner. After consideration of the panel's recommendations, the commissioner published those guidelines in 2017.

The panel's recommended methodology estimates the percentage of damage each component of a structure sustained due to wind before the structure was likely destroyed by waves or surges. These estimates are probabilistic; they represent the average damage expected for a given structure and do not necessarily reflect what happened to the structure. The methodology also requires that TWIA check the damage estimates against observations.

Applicability and Definitions

TWIA is required to use the following guidelines to prepare for and settle residential slab claims occurring in National Flood Insurance Program Zones, V, VE, and V1-V30 as the result of a defined organized weather system.

What is a "slab claim"?

A slab claim occurs where residential structure sustains damage and only the foundation or a portion thereof remains after a named tropical storm or hurricane. These residential structures, sometimes referred to as "slab" or "slab-only" claims, arise when forces caused by a tropical cyclone are sufficient to destroy a residential superstructure.

When do these guidelines apply?

These guidelines apply only when TWIA expects at least 500 residential slab claims. The VP of Claims, working with the Executive Leadership Team, will determine if and when it makes sense to apply these guidelines where less than 500 residential slab claims are expected.

TWIA **must** use the guidelines based on an anticipated number of residential slab claims, regardless of the actual number TWIA ultimately receives. TWIA will not know the final, actual number of residential slab claims until after a storm. It is recommended TWIA pay close attention to storms labelled as “tropical storms” as there is still potential for higher surge from these lower wind speed events.

As a reminder, policyholders have until the first anniversary of the date of loss to file claims.

When must TWIA make an initial and final determination of the number of expected slab claims from an organized weather system?

The deadlines for making the initial and final determinations of the number of expected slab claims are based on the time when TWIA, under its plan of operations, stops writing new policies in anticipation of an approaching storm and the latest possible time to set up mobile wind measurement platforms.

TWIA **must** make an initial determination as to the expected number of claims when the organized weather system is in the Gulf of Mexico or within the boundaries of longitude 80 degrees west and latitude 20 degrees north.

The VP of Claims, working with the CAT Plan Incident Commander and CAT response team **must** immediately set up meetings with Accenture and RMS to ensure these guidelines are reviewed and all required steps are addressed and followed to ensure compliance.

The association **must** make a final determination as to the expected number of claims no later than 24 hours before expected landfall.

What is the definition of a defined organized weather system?

The definition of an organized weather system is based on the definition of “named storm” in the National Flood Insurance Act.

The definition includes an organized weather system that:

- (1) Has a defined surface circulation and maximum sustained winds of not less than 39 miles per hour.
- (2) The National Hurricane Center of the United States National Weather Service names as a tropical storm or a hurricane.
- (3) That the association expects will result in more than 500 residential claims.

Required Slab Claim Settlement Methodology Modules

- Property Database Module
- Hazard Module
- Damage Estimation Module
- Economic Loss Module
- Report Generation Module

Property Database Module

To ensure the accuracy of information related to the settlement of residential slab claims, TWIA **must**:

- (1) Gather and, not less frequently than once every year, update applicable pre-event data on insured residential structures located in the required areas.

- a. TWIA has contracted with Accenture and RMS to annually, by June 1st, identify all insured residential structures located in the National Flood Insurance Program Zones, V, VE, and V1-V30 and provide updated and required property characteristic data.
 - b. See **Appendix E** for Accenture and RMS contact information.
 - c. See **Appendix D** for chart showing required property characteristic data.
- (2) Acquire pre-event high-resolution aerial and on-ground photographs of insured residential structures located in the National Flood Insurance Program Zones, V, VE, and V1-V30 to define building characteristics and terrain.
- a. TWIA has contracted with Eagleview to provide annual flyovers for aerial imagery. Eagleview also maintains a historical database of aerial imagery for TWIA's use. In addition, on-ground photographs are available in the TWIA Underwriting files where property inspections have occurred, prior claim files, and from other sources including Google Earth.
 - b. See **Appendix E** for Eagleview contact information.

Hazard Module

The hazard module is designed to provide data on wind, waves, and storm surges to which a given structure was exposed for the duration of a storm.

The hazard module provides synchronous, site-specific wind speed and direction time histories and storm surge and wave time histories.

The hazard module includes wind field models and a storm surge and wave model.

TWIA has developed plans and capabilities to obtain reliable surge, wave, and wind field data, which is necessary to implement the hazard module.

TWIA has contracted with RMS to provide the required hazard module information including coordination of the placement of required rapidly deployable wind and surge monitoring devices. RMS contact information is located in **Appendix E**.

Wind Measurements

Before an applicable storm, TWIA **must** take steps to ensure the deployment of mobile measurement platforms and fixed surface-level devices that:

- (1) Provide real-time wind speed and direction measurements during the applicable storm
- (2) Can be used both for forecasting and producing post-event wind field hind casts.

Wind measurements **must** be capable of generating gust wind speed and wind-direction time histories during an applicable storm

TWIA **must** deploy at least 40 to 60 mobile wind measurement platforms in two layers, with the first layer in close proximity to the coastline and the second layer approximately 20 miles inland. The mobile wind measurement platforms must be deployed as follows:

- (1) Three to five miles apart in the eyewall region of the storm
- (2) Up to 10 miles apart in the outer regions of the storm
- (3) With a wind speed and direction sampling frequency of 10 hertz or higher
- (4) A temperature, barometric pressure, and relative humidity sampling frequency of 1 hertz or higher.

TWIA **must** deploy sufficient mobile wind measurement platforms along the coast in front of a land-falling storm to ensure that a high-resolution wind field with small errors—no more than $\pm 2\%$ of the maximum sustained wind measured in 30-minute period—can be developed for use in wind damage prediction.

Where reasonable, the mobile wind measurement platforms **must** be co-located with surge and wave gauges.

Wind Field Model

TWIA **must** develop one or more observational models for constructing a wind field to obtain:

- (1) Site-specific wind speed and direction time histories that are used for wind damage prediction
- (2) A wind field that can be used as input for a surge and wave model that outputs time histories for surge and wave damage prediction

TWIA **must** take steps to minimize errors between model estimates and the observed wind speeds and directions measured during an applicable storm.

Storm Surge and Wave Measurements

TWIA **must** obtain physical measurements of surge, waves, and high-water marks during and after an applicable storm. Physical measurements of surge, wave, and high-water marks include:

- (1) Water-level time series during the applicable storm from the National Oceanic and Atmospheric Administration (NOAA) and other permanent tide gauges
- (2) Post-event high water marks
- (3) Surge and wave heights from rapidly deployed surge and wave gauges deployed at sites with the potential to be significantly damaged by surge and waves
- (4) Other indications of surge and wave magnitudes, such as elevations of surge and wave damage on buildings.

Before an applicable storm, TWIA **must** take steps to ensure that as soon as possible after an applicable storm, the association can acquire and process high-resolution aerial photographs and light detection and ranging (LIDAR) measurements.

Where data is not available from federal or state agencies, TWIA **must** take steps to acquire physical measurements of surge, wave, and high-water marks. Any contracts **must** be in place before each hurricane season.

Storm Surge and Wave Model

Before an applicable storm, TWIA **must** take steps so that it will be able to obtain rapid, post-event high-resolution surge and wave modeling to provide surge and wave time histories.

The surge and wave hazard module **must** directly incorporate both numerical modeling and high-resolution aerial photographs and LIDAR measurements.

Among many technical requirements, the storm surge and wave model **must** include:

- (1) The ability to produce initial estimates within 48 hours of landfall
- (2) The ability to incorporate new LIDAR topographical data into the model, and wind data into the surge and wave model as it becomes available post-event, to rapidly produce improved surge and wave model simulations
- (3) The ability to quickly produce estimates of waves and surge as additional data becomes available, and pass these estimates to TWIA for use in the damage estimation module

- (4) The ability to compare model estimates with measured wave and water level data as it becomes available
- (5) The ability to produce error estimates for each applicable storm.
- (6) TWIA **must** take steps to minimize errors between model estimates and the observed storm surge and wave heights measured during an applicable storm.

TWIA has contracted with Accenture and RMS to provide the required information to support the storm surge and wave model. See **Appendix E** for Accenture and RMS contact information.

Damage Estimation Module

The type and extent of damage to a structure caused by the wind and the surge is estimated in this module (the amount of loss in dollars associated with the damages are estimated and determined using the Economic Loss Module).

A two-pronged approach is used to estimate the type and extent of damage to the structure. The first prong is termed the “Probabilistic Model” approach and the second prong is the “Observational Model” approach.

The probabilistic model approach is shown in figure 6-1 below using solid lines and represents the default approach.

The observational model approach is shown using dashed lines. It can be used as a means to: (a) inform the probabilistic model approach to obtain better damage predictions; (b) validate the probabilistic model approach; and/or (c) provide an additional methodology to estimate the damage to the structure components that can be used in the adjusting process.

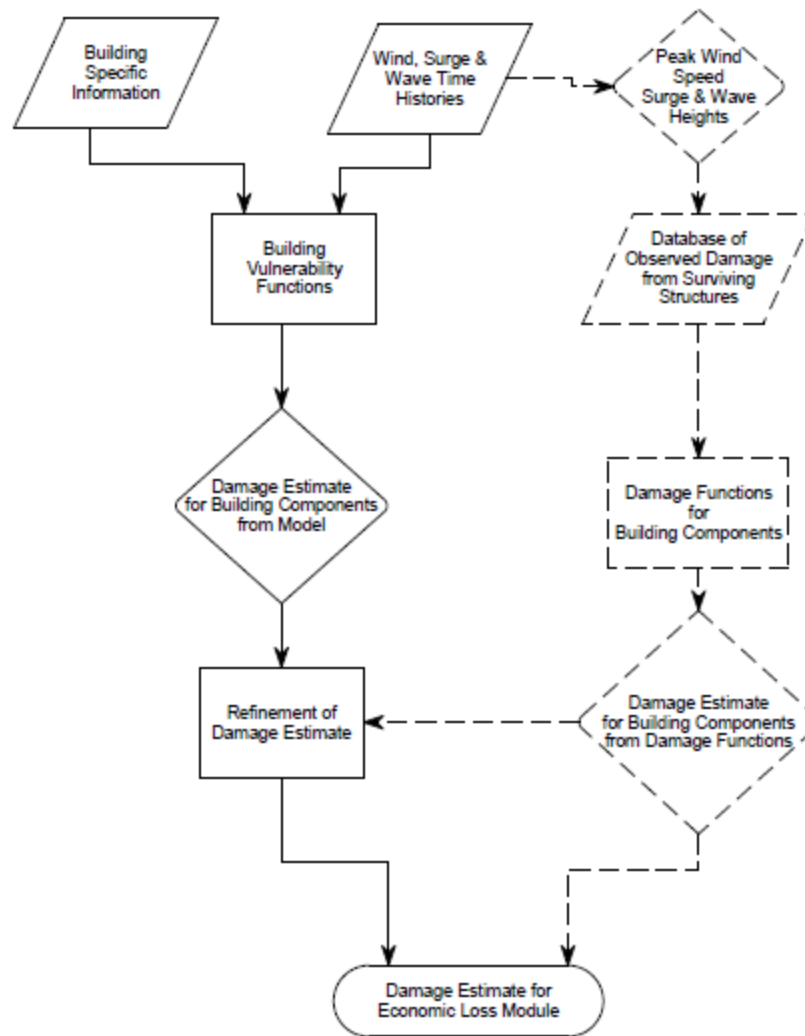


Figure 6-1: Damage Estimation Module Flowchart

(Dashed items indicate components of the observational approach which, although preferred, may not always be possible to accomplish.)

It is expected, where possible, both the probabilistic model and observational model approaches be utilized. The reason is that the application of the Damage Estimation Module is optimal when all available data are used to estimate damage to individual structures.

When applying the observational model approach, if nearby structures are very similar to the structure under consideration by the probabilistic model, then observed damage can be more heavily weighted in consideration for completion of damage estimates.

TWIA supports a recommended philosophy in computing damage for slab claims as follows: the wind damage used to compute losses should be that which is predicted to have occurred up to the time when a structure is likely to have been destroyed by waves and surge. If slabbing was caused by wind, then all damage will be wind damage. Similarly, if winds were low up to the time of surge destruction, then wind damage will have been very low.

To determine a reasonable result for wind damage for slab claims, the probabilistic model approach determine the probability of slabbing from both wind and from waves/surge. The model also calculates the wind damage at the time surge caused the slabbing. The relationship between the probability of wave/surge collapse and wind damage changes as probabilities and damage levels and timing changes.

The following examples shows potential slab claim scenarios:

- 1) Strong surge, weak wind
- 2) Weak surge, strong wind
- 3) Weak surge, weak wind
- 4) Strong early surge, strong wind
- 5) Strong late surge, strong wind

Understanding the Damage Estimation Module

Probabilistic Model Approach

Initially, to determine the extent of damage to a structure, the adjuster **must** use the “Damage Estimation Detailed Report” provided based on the information input into the probabilistic model approach.

The Damage Estimation Detailed Report is obtained from a TWIA slab claim data analyst who uses the TWIA Slab Claim Model Run portal and available Tableau reporting tools to produce this report.

See sample Damage Estimation Detailed Report in **Appendix D**

The Damage Estimation Detailed Report provides the following key information the adjuster must use to understand the extent of damage to the structure including damage to each structural component. The Damage Estimation Detailed Report must be shared with the policyholder including each time the model approach is run and a new updated Damage Estimation Detailed Report is generated. The report includes the following important information:

- (1) Basic information about the slab claim, including storm name, policy number, claim number, address, etc.
- (2) 24 “Property Characteristic” data elements input into the model approach for the structure, e.g. roof shape, roof covering, roof age, length and width of structure, etc.
- (3) Wind damage at the time of maximum surge.
- (4) Weighted damage at the time of maximum surge
- (5) Hydro Time Histories.
- (6) Wind Time Histories
- (7) Damage Time Histories.
- (8) Damage Time History Table.
- (9) Surviving Structure Water Line.

Observational Model Approach

TWIA **must** also use the Observational Model Approach, along with the Probabilistic Model Approach. In using the observational model approach, TWIA **must** consider the following:

- (1) Modeled or observed surge and wave heights
- (2) Peak wind speed
- (3) Post-event high-resolution aerial photographs and light detection and ranging (LIDAR) measurements.
- (4) Observed damage to surviving structures.

The observational model approach is used to:

- (a) to inform the probabilistic model approach to obtain better damage predictions.
- (b) validate the probabilistic model approach; and/or
- (c) provide an additional methodology to estimate the damage to the structure components that can be used in the adjusting process.

Some of the new or different information about the structure gathered by observations and measurements of surviving structures can be entered into the slab claim model run portal by the slab claim data analyst. The slab claim team examiner should submit the information to the slab claim data analyst and ask for a new Damage Estimation Detailed Report be run to determine the impact of the new information and to re-adjust the slab claim.

Guidelines for gathering information to support the Observational Model Approach

Surviving Structure Inspections

Desk-top or Virtual Inspections (Slab Claim Team Examiners and Other Experts)

- Aerial, satellite, drone, and other photographic images of structure exterior
- Photographs and measurements of structure interior including attic and crawl spaces where safe
- Field adjuster and expert reports for surviving surrounding structures
- LIDAR
- Professional surveyor water line marks and heights
- FEMA NFIP claim information
- Non-FEMA flood carrier information
- Policyholder provided information

On-scene Inspections (Field Adjusters and Other Experts)

- Obtain photographs of exterior, interior, and contents of nearby surviving structures where possible
- Obtain photographs and measurements of water line levels if found

On-scene Inspections (Designated Engineers and Professional Surveyors)

- RMS has contracted with Engineers and professional surveyors to obtain the following:
 - Surviving structure water line surveys
 - LIDAR measurements

Obtaining and Using Policyholder Provided Information

TWIA **must** make a reasonable effort to determine if the information from the property characteristic data and hazard modules used to create the Damage Estimation Detailed Reports is as accurate as possible.

In addition to the information available from the Observational Model Approach, TWIA **must** also make sure the policyholder understands they have the opportunity to obtain, review, challenge, and see corrected, the information TWIA has obtained before and after the storm and used to support their claims decisions.

TWIA **must** provide the policyholder with the information they have obtained before or after the storm TWIA used as input into the Probabilistic Model Approach for purposes of creating the Damage Estimation Detailed Reports.

In order to accomplish this, a letter **must** be sent to the policyholder not later than 30 days after the policyholder files a residential slab claim, that accomplishes the following:

- (1) Notifies the policyholder that the association will use the wind damage evaluation method
- (2) Requests the policyholder sends TWIA any information they have for:
 - a. Wind speed and direction, and surge and waves, at the site of the structure for the duration of the applicable storm
 - b. Damage to the structure during the applicable storm
 - c. New information on the characteristics of the structure
- (3) Includes a copy of the current data in the property database on the structure's characteristics

Where the policyholder provides new or additional information that is different from the information TWIA has and used to create the Damage Estimation Detailed Report, the slab claim team examiner **must** determine if the information is correct and usable in its current format.

The examiner should consider the source of the information and evaluate if the information is valid and useful information.

When in doubt, the examiner should consider use of field adjusters, sources for data vendors, and/or experts to inspect, measure, and to validate if information submitted by the policyholder is accurate or not.

If the information submitted by the policyholder is correct and in the proper format, the slab claim team examiner **must** submit the new information to a slab claim data analyst to input into the slab claim model run portal. The slab claim data analyst **must** then run an updated Damage Estimation Detailed Report is run based on the information submitted by the policyholder.

Once the updated Damage Estimation Detailed Report is available, the slab claim team examiner **must** review the new report and determine if any changes in the information in the report would result in a different and improved claim result for the policyholder.

Where the new report favors the policyholder, the examiner must determine if additional payments are due to the policyholder, advise the policyholder of the outcome and payment amounts, and issue a new claim disposition letter, check, and include a copy of the new Damage Estimation Detailed Report we relied on using the information the policyholder submitted.

Where the new report does not favor the policyholder, the examiner must explain to the policyholder our prior assessment and claim decisions will not change and issue a claim disposition letter informing the policyholder including a copy of the new Damage Estimation Detailed Report we relied on using the information the policyholder submitted.

Unless the disputed claim deadlines have been missed, the policyholder may submit any information they believe will influence our slab claim decisions, as often as they like. Also, to expedite slab claims, we will accept information on a slab claim from anyone who works with or for the policyholder.

Understanding the Damage Estimation Detailed Report

The Damage Estimation Detailed Report provides charts and graphs and information to assist the slab claim team examiner in understanding the dates, times, hazards (wind and/or surge), intensity of hazards, and impact of hazards in damaging a residential structure.

Specifically, it includes a cumulative score for wind damage at the time of maximum surge, weighted damage at the time of maximum surge, hydro time histories (shows surge height in relationship to lowest horizontal structure member, wind time histories (shows wind direction, and wind gust speed), a damage time history (date and time) for damage to 8 different structure components.

The detailed report also provides a Damage Time History Table that shows date, time, percentage damage to each of key 8 structure components, % of interior damage, probability of wind collapse at a specific date and time, probability of collapse due to surge at a specific date and time, and probability of collapse greater than 50% at a specific date of time.

The **Damage Estimation Detailed report** includes the following important information:

(1) Report Header

- a. Storm Name: e.g. Ike, Harvey, etc.
- b. Policy Number: TWIA policy number
- c. Model Name: indicates which model approach was used to support the information in the report. There are four model approaches, 1) probabilistic model approach, 2) observational model approach, 3) policyholder provided information, and 4) final model, which is a combination of information from any of the prior model approaches
- d. Day of Delivery: Will show either day 2 or day 52. This shows the timing of when the Hazard module information was available for input into the model approach and this report. It will either be from the initial day 2 (2 days post-storm) or the later day 52 (52 days post storm) hazard module inputs. It is expected the day 52 run data will be more complete and accurate as more time will have passed for TWIA to gather and utilize available information from more reliable sources
- e. Model Run Date: the date the report in question was created
- f. Structure Address: the physical address for the structure involved with the report
- g. Claim Number: The TWIA Claims Center claim number

(2) Property Characteristics Section:

The chart in this section shows the 24 structure-related characteristics factored into each modeling approach. The information may change depending on which model approach is used to create the report

- a. Roof Shape: Options are Gable, Hip, or Others
- b. Roof Slope (x:12): Value should be between 0 and 16
- c. Roof Height (ft.):
- d. Roof Covering: 18 options available including other/unknown if not one of 18 options
- e. Year of Roof Renovated: Year roof installed
- f. Roof Cover Age: How many years old
- g. Building Length (ft.): (parallel to ridge)
- h. Building Width (ft.): (perpendicular to ridge)
- i. Plate Height (ft.): Options are 8,9, 10, or Other/Unknown
- j. Eave Height (ft.):
- k. Number of Stories: Options are 1,2, or Other/Unknown
- l. Structure Primary Axis: In degrees
- m. Terrain Exposure: Options are B, C, D
- n. Garage Door: Garage Attached? Options are yes, no, or unknown
- o. Garage Door Type: Options are none, Roll-up, Sectional, or Other/Unknown
- p. Garage Door Panel Door Width: Options are single or double
- q. Garage Door Direction: In degrees

- r. Wall Cover Type: Exterior Wall Covering, 10 options including Other/Unknown
- s. Window Types: Options are Non-Impact Resistant, Impact Resistant, or Other Unknown
- t. Percent Window Area: Options are 0-25, 25-50, 50-75, >75
- u. Door Types: Non-Impact Resistant, Impact Resistant, or Other Unknown
- v. Opening Protection: Options are yes, no, or Other/Unknown
- w. Year of Construction: The year the home was constructed
- x. Age of Structure: The age of the structure in years

(3) Wind Damage at Time of Maximum Surge:

The chart in this section shows the probability of slabbing due to surge (P Surge) and the damage of individual structure components (Dt Surge) caused by wind at the time when the probability of slabbing due to surge reaches its maximum or 50% (T Surge)

(4) Weighted Damage at Time of Maximum Surge:

The chart in this section shows the probability of slabbing due to surge (P Surge) and the weighted damage (D total) of individual structure components at the time when the probability of slabbing due to surge reaches its maximum of 50% (T Surge)

(5) Hydro Time Histories:

The graph in this section shows the surge timing, significant wave height (hs), surge +0.7 Hs and height of lowest horizontal structural member. This chart shows whether or not the surge and wave height was high enough to impact the lowest horizontal structural member and cause exterior and interior damage to the structure

(6) Wind Time Histories:

The graph in this section shows the direction of the wind and the 3 second wind gust speed in miles per hour

(7) Damage Time Histories:

The graph in this section shows the timing and damage ratio (damage percentage) to each of 8 different structural components in relationship to the wind gust speed in miles per hour. This information is used to better understand the impact of covered wind damage to the structure before it was slabbed

(8) Damage Time History Table:

This chart shows the damage ratios (damage percentage) for 8 exterior structural components and interior damage over a 24-hour time-period. It also shows the probability of collapse/slabbing of the structure by wind and by surge & waves. It also shows the 50% collapse/slabbing probability where the shown values will be either 0% or 50% for a specific timeslot row showing if the probability of slabbing due to surge was 50%. Where the timeslot row shows 50%, it means the property was slabbed by surge

Economic Loss Module

Adjusting residential slab claims

TWIA **must** adjust residential slab claims using the damage estimates obtained from the Damage Estimation Module.

TWIA **must** use the wind damage estimates obtained in the Damage Estimation Module to determine the economic loss due to wind for each component.

The necessary information from the Damage Estimation Module to support the economic loss suffered due to wind by a residential structure is provided in the Damage Estimation Detailed Report. See **Appendix D** for sample Damage Estimation Detailed Report.

The damage estimation module does not generate estimates economic loss due to wind suffered by contents; TWIA must determine the amount to pay for contents by taking into consideration:

- (1) The adjuster's knowledge and experience
- (2) Information about the structure from the property characteristics database, the policyholder, and other sources, including applicable information from the damage estimation module.

Estimating Economic Loss to the Dwelling

In order to estimate the economic loss due to wind using the probabilistic model, the adjuster will need to create a detailed reconstruction estimate of the entire dwelling, as it existed pre-event. This should be done using insured and agent submitted information, adjuster and expert observation and data, underwriting information, prior claim information, aerial imagery, information collected at first notice of loss, and using any other readily available sources.

The estimate should be created using the latest version of Xactimate. The adjuster will create a new construction estimate, including whatever debris removal may still be required and any site preparation which would normally be covered under the policy. Individual elements of the reconstruction estimate will need to be associated with the categories the expert panel has laid out, including

- Roof Covering
- Roof Paneling
- Wall Cover
- Wall Sheathing
- Windows
- Doors
- Garage Door
- Roof Framing
- Interior

This estimate should be shared with the insured and the adjuster should work with the insured to make sure it accurately represents the dwelling prior to the event.

Estimating Interior damage

Interior damages are caused by a failure someplace in the structure envelope. The extent of damage to roof covering, roof sheathing, siding, or windows and doors drives the extent of interior damage. The extent of damage to the structure envelope is also driven by terrain exposure; building height, roof slope and shape; the orientation of the

primary structure axis compared to wind direction; the percent of window area; and the wind speed; these factors secondarily contribute to interior damage since they contribute to component damage.

The Damage Estimation Detailed Report provides the Interior Dt Surge percentage in the Wind Damage At The Time of Maximum Surge chart. It also provides the Interior D Total percentage in the Weighted Damage at Time of Maximum Surge. Combined, these two percentages are used to estimate the amount of interior damage to the structure

If an interior estimate is not possible due to a lack of information, the adjuster should subtract out all estimated items from the total policy limit and assign the remainder of the insured value to the interior. Additional information will then need to be requested from the insured to better evaluate the replacement cost for the interior of the dwelling.

Estimating Economic Loss to Insured Contents

There are two preferred methods available for the slab claim team examiner to utilize to estimate the amount of covered damage for contents.

- Apply the percentages for Interior Dt Surge from the Wind Damage at the Time of Maximum Surge and the Weighted Damage at the Time of Maximum Surge charts from the Damage Estimation Detailed Report to the Coverage B policy limits for Contents
- Obtain a Contents Insurance-To-Value (ITV) report from Enservio for the property address in question and apply the percentages for Interior Dt Surge from the Wind Damage at the Time of Maximum Surge and Weighted Damage at the Time of Maximum Surge charts from the Damage Estimation Detailed Report to the Coverage B policy limits for Contents

Where the policyholder does not agree with our determination for the contents damage, they must provide detailed photographs, receipts, proof of purchase and ownership, and any other information that would assist TWIA in accurately determining the value of contents in the structure, for purposes of applying the damage percentages mentioned above.

Applying the Damage Estimation Module to Adjust for Economic Loss Suffered Due to Wind

TWIA will apply the damage outputs found in the Weighted Damage at Time of Maximum Surge to each component of the reconstruction estimate, matching structure component with structure component (% damage to roof cover matched with the reconstruction value of the dwelling's roof covering, % damage to roof panel matched with the reconstruction value of the dwelling's roof panel, etc).

TWIA should then consider site observation, any additional expert reports or data, policyholder observation, and other pertinent information to adjust the damage outputs based on the available evidence.

The result should be an estimate of the economic loss suffered by the insured due to wind on a structural component by structural component basis. These should be aggregated, and payment issued after being subject to policy terms and conditions.

Report Generation Module

• Required Initial Notice Letters

A letter **must** be sent to the policyholder not later than 30 days after the policyholder files a residential slab claim, that accomplishes the following:

- Notifies the policyholder that the association will use the wind damage evaluation method
- Requests the policyholder sends TWIA any information they have for:

- Wind speed and direction, and surge and waves, at the site of the structure for the duration of the applicable storm
- Damage to the structure during the applicable storm
- New information on the characteristics of the structure
- Includes a copy of the current data in the property database on the structure's characteristics
- The Slab Team Claims Examiner should contact the policyholder to verbally inform them about the letter being sent to ensure they understand their claim falls under the slab claim rules processes and so they understand their options for providing TWIA with their own information if they do not agree with TWIA's information or ultimate claim disposition
- See **Appendix A** for a sample of the required initial notice letter.

• Claim Disposition Letters

TWIA Slab Claim Team examiners **must** use the designated Slab Claim disposition letters to inform the policyholder what we will pay for covered windstorm damage (See Appendix H) .

When a claim disposition letter is sent, the letter must include the following:

- A complete reconstruction estimate of the insureds property.
- A complete residential slab claim report and a summary of the results of the wind damage evaluation.
- A complete residential slab claim report must include the following:
 - The percentage of damage to each component of the structure, as determined in the damage estimation module
 - All the information that the association used in making that determination, including the following:
 - (1) Information on the characteristics of the structure
 - (2) Wind and wave and surge time histories
 - (3) All information used in the observational approach

The Slab Claim Team examiner **must** take the time to explain to the policyholder, **before** the disposition letter and required information and reports are sent, that the information TWIA is sending is of a highly technical nature and TWIA expects the policyholder will likely not understand how to read and interpret the report(s), and that the Slab Team Claim Examiner is more than happy to review the information with the policyholder after they receive the information to help them better understand how TWIA reached their claim decisions.

• Disputed Claims

The normal rules for disputing TWIA claims do not apply to slab claims that fall under 28 TAC 5.4023 – 5.4041 concerning claim settlement guidelines to be used by the Texas Windstorm Insurance Association (TWIA).

Where TWIA and the policyholder have exchanged information and reached an impasse in resolving any disputes, the exclusive remedy for the policyholder is litigation. The burden is then on the policyholder to establish with clear and convincing evidence that another method would have resulted in a different and more favorable outcome to the policyholder.

Appendices

Appendix A - Required Initial Notice Letter

Policyholder Name:

Street Address:

City, State, Zip:

Notice of Claim - TWIA Guidelines for Settlement of Residential Slab Claims

Date:

Insured:

Policy Number:

Claim Number:

Dear (Insert insured(s) names here,

The purpose of this letter is to notify you TWIA will be using the wind damage evaluation method to adjust your claim in accordance with the guidelines TWIA must use to settle certain claims under Texas Insurance Code 2210.578, 28 TAC 5.4023 – 5.4041, adopted by the Insurance Commissioner of Texas, for determining the extent to which a loss may be or was incurred as a result of wind, waves, tidal surges, or rising waters not caused by waves or surges.

Included with this letter is a copy of the current information TWIA has in our property database for your structure's characteristics.

Please send to TWIA as soon as possible any information you may have for the following:

- a. Wind speed and direction, and surge and waves, at the site of your structure(s) for the duration of the storm
- b. Documentation you may have regarding the damage to your structure(s) during the storm
- c. Any new information you may have for the characteristics of your structure

Upon receipt of your additional information, TWIA will use it assist with determining the amount of damage to your structure(s) caused by wind and the amount payable for your loss.

If you have questions, please contact us at 800-788-8247, claims@twia.org or visit the Claims Center at www.twia.org/claimscenter from your computer or mobile device to send us a message, view and upload documents and photos, and access the details and status of your claim.

Sincerely,

Texas Windstorm Insurance Association

Appendix B - TWIA Slab Claim Model Run Portal

Only designated Slab Claim Data Analysts will be authorized to access the portal to enter and edit the required data to run the various models. Instructions on how to use the portal are included in the Help section at the top right of the portal screen

Appendix C - Tableau Reports

Only designated Slab Claim Data Analysts will be authorized to access the Tableau system to view and print available reports. The following reports are available in Tableau:

- Damage Estimation Summary Report
- Damage Estimation Detailed Report Drill Down
- Damage Estimation Detailed Report

Printing Required Reports from Tableau

The format to print the PDF Tableau reports with line breaks is **Paper Size : A4** and **Scaling : At most 1 page wide**, as shown in the screenshot below. For this Damage Estimation Detailed Report, this will create a 3-page PDF.

Download PDF

Layout:


Portrait


Landscape

Paper Size:

A4

Scaling:

At most 1 page wide

Content:


This Dashboard


Sheets in Dashboard


Sheets in Workbook

Sheets to Download:


Damage Esti...

Cancel

Download

Appendix D – Sample Damage Estimation Detailed Report



DAMAGE ESTIMATION DETAILED REPORT

REPORT DATE (CDT)
Aug 8, 2022 12:49pm

Storm Name	Policy Number	Location ID	Model Name	Day of Delivery	Model Run Date	View next dashboard
Harveyglue1	000000126-03	17	PROBABILISTIC	2	08-04-2022 12:38 PM	

Address	21335, Gulf DR, Galveston, Galveston, Texas, 77554, SFD
Claim Number	null

PROPERTY CHARACTERISTICS

Roof Shape	Roof Slope	Roof Height (ft.)	Roof Covering	Year Of Roof Renovated	Roof Cover Age	Building Length (ft.)	Building Width (ft.)	Plate Height (ft.)	Eave Height (ft.)	Number Of Stories	Structure Primary Axis
Hip	2	25.58	Polymer And Composite Shingle/Shake/Or Tile	2008	14	39	38	8	24	2	236.83

Terrain Exposure	Garage Door	Garage Door Type	Garage Panel Door Width	Garage Door Direction	Wall Cover Type	Window Types	Percent Window Area	Door Types	Opening Protection	Year Of Construction	Age Of Structure
D	Yes	Sectional	Single	325.61	Vinyl Siding	Other/Unknown	0-25	Other/Unknown	Yes	1998	24

WIND DAMAGE AT THE TIME OF MAXIMUM SURGE

P Surge	T Surge(CDT)	Roof Cover Dt Surge	Roof Panel Dt Surge	Wall Cover Dt Surge	Wall Panel Dt Surge	Windows Dt Surge	Doors Dt Surge	Garage Door Dt surge	Roof Frame Dt Surge	Interior Dt Surge
0	08-25-2017 3:00:00 AM	0.86%	0.72%	0.48%	0.71%	0.75%	0.74%	0.07%	0.00%	0.10%

WEIGHTED DAMAGE AT THE TIME OF MAXIMUM SURGE

P Surge	T Surge(CDT)	Roof Cover D Total	Roof Panel D Total	Wall Cover D Total	Wall Panel D Total	Windows D Total	Doors d Total	Garage Door D Total	Roof Frame D Total	Interior D Total
0	08-25-2017 3:00:00 AM	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

T Surge:- Time when probability of surge reaches to it's maximum or 50%
P Surge:- Probability of slabbing due to surge
Dt_Surge:- Damage of individual component caused due to wind at T surge
D_total:- Weighted damage of individual component at T surge
50% Collapse Probability: Flag with 0 or 50 % showing it for that timeslot the probability of slabbing due to surge is 50%
Damage Ratio: Damage percentage expressed in decimals

Appendix E – Sample Economic Loss Estimate

LOSS RECAP

Insured:	Policy No. :
Property Address :	Date of Loss :
Mailing Address :	Catastrophe No. :
Insured Tel. No. :	Adj. File No. :
Adjusting Company :	Adj. No. :
Adj. Address :	Adj. Phone No. :

	Date Loss Assigned:		Date Insured Contacted:			Date Loss Inspected:			
	Replacement Cost Loss	Recov. Depr.	Non-recov. Deprec.	ACV Loss	Deductible Applied	Insur. Carried Req. %	ACV Claim	Potential Suppl. Claim	RC Claim
Roof Cover	7,543.94	0.00	0.00	7,543.94	0.00	100	7,543.94	0.00	7,543.94
Roof Panel	5,184.06	0.00	0.00	5,184.06	0.00	100	5,184.06	0.00	5,184.06
Wall Cover	10,308.36	0.00	0.00	10,308.36	0.00	100	10,308.36	0.00	10,308.36
Wall Panel	8,873.88	0.00	0.00	8,873.88	0.00	100	8,873.88	0.00	8,873.88
Doors	2,111.00	0.00	0.00	2,111.00	0.00	100	2,111.00	0.00	2,111.00
Garage Door	532.75	0.00	0.00	532.75	0.00	100	532.75	0.00	532.75
Roof Framing	7,365.55	0.00	0.00	7,365.55	0.00	100	7,365.55	0.00	7,365.55
Interior	59,660.92	0.00	0.00	59,660.92	0.00	100	59,660.92	0.00	59,660.92
Windows	5,937.14	0.00	0.00	5,937.14	0.00	100	5,937.14	0.00	5,937.14
TOTALS	\$107,517.60	\$0.00	\$0.00	\$107,517.60	\$0.00		\$107,517.60	\$0.00	\$107,517.60

Appendix F – Sample Statement of Loss

TWIA Slab Claim - Statement of Loss									Date: 8/9/2036	
Claim Number: 1234567	Policy Number: 1234567-01			Policyholder Name: John Smith and Mary Smith			Property Address: 123 East West Street, Galveston, TX 76123			
Structural Components	Roof Cover	Roof Panel	Wall Cover	Wall Panel	Windows	Doors	Garage Door	Roof Frame	Interior	Total
Weighted Damage at Time of Maximum Surge	16.36%	15.25%	13.11%	17.60%	12.60%	10.27%	13.10%	14.20%	10.46%	N/A
Dollar Value - Reconstruction Estimate	\$7,543.94	\$5,184.06	\$10,308.36	\$8,873.88	\$5,937.14	\$2,111.00	\$532.75	\$7,365.55	\$59,660.92	\$107,517.60
Economic Loss	\$1,234.19	\$790.57	\$1,351.43	\$1,561.80	\$748.08	\$216.80	\$69.79	\$1,045.91	\$6,240.53	\$13,259.10
Claim Payment Calculation										
Economic Loss	\$17,960.34									
Less Deductible	\$2,400.00									
Total Claim Payment Due	\$15,560.34									

Appendix G – Important Contact Information

- **RMS:** Santiago Alvira, Client Director, Moody's RMS, Santiago.alvira@rms.com, 305.496.3431
- **Accenture:** Ajoy Kumar Palanivelu, ajoy.k.palanivelu@accenture.com
- **Eagleview:** Rhys Stanley, Customer Success Manager, 360.929.8158, rhys.stanley@egleview.com

Appendix H - Required Claims Disposition Letters

Policyholder Name:

Street Address:

City, State, Zip:

Initial Notice of Claim Decision - TWIA Settlement of Residential Slab Claims

Date:

Insured:

Policy Number:

Claim Number:

Dear (Insert insured(s) names here,

The purpose of this letter is to notify you TWIA has used the wind damage evaluation method to adjust your claim in accordance with the guidelines TWIA must use to settle certain claims under Texas Insurance Code 2210.578, 28 TAC 5.4023 – 5.4041, adopted by the Insurance Commissioner of Texas, for determining the extent to which a loss may be or was incurred as a result of wind, waves, tidal surges, or rising waters not caused by waves or surges.

TWIA agrees to provide the following payments for your claim:

Coverage A – Dwelling \$ _____

Coverage B- Personal Property \$ _____

Included with this letter is the following required information:

- A complete residential slab claim report and a summary of the results of the wind damage evaluation including the following:
 - The percentage of damage to each component of the structure, as determined in the damage estimation module
 - All the information TWIA used in making our claim determination, including the following:
 - (4) Information on the characteristics of the structure
 - (5) Wind and wave and surge time histories
 - (6) All information used in the observational approach

At TWIA, we understand the information we're providing with this letter may be difficult to read and interpret. Please contact us if you have any questions. Our Slab Claims Team Examiner is more than happy to review the information with you to assist you with understanding TWIA reached our claim decisions

This letter, and the included information, represents our initial evaluation and payment(s) for your slab claim. TWIA is required to gather additional information after a storm by inspecting surviving structures where possible. TWIA must use this new information, along with any new information you provide, to further assist with the evaluation of your slab claim.

If you have any new information you wish for us to consider please send it to us as soon as possible. The additional information you provide may include:

- d. Wind speed and direction, and surge and waves, at the site of your structure(s) for the duration of the storm
- e. Documentation you may have regarding the damage to your structure(s) or personal property during the storm
- f. Any new information you may have for the characteristics of your structure or your personal property contained in your structure

Upon receipt of your additional information, TWIA will use it to assist with re-evaluating your claim, the amount of damage to your structure(s) and personal property caused by wind, and the amount payable for your loss.

If you have questions, please contact us at 800-788-8247, claims@twia.org or visit the Claims Center at

www.twia.org/claimscenter from your computer or mobile device to send us a message, view and upload documents and photos, and access the details and status of your claim.

Sincerely,

Texas Windstorm Insurance Association

Policyholder Name:

Street Address:

City, State, Zip:

Additional Notice of Claim Decision - TWIA Settlement of Residential Slab Claims

Date:

Insured:

Policy Number:

Claim Number:

Dear (Insert insured(s) names here,

The purpose of this letter is to notify you TWIA has used the wind damage evaluation method to adjust your claim in accordance with the guidelines TWIA must use to settle certain claims under Texas Insurance Code 2210.578, 28 TAC 5.4023 – 5.4041, adopted by the Insurance Commissioner of Texas, for determining the extent to which a loss may be or was incurred as a result of wind, waves, tidal surges, or rising waters not caused by waves or surges.

TWIA agrees to provide the following payments for your claim:

Coverage A – Dwelling \$ _____

Coverage B- Personal Property \$ _____

Included with this letter is the following required information:

- A complete residential slab claim report and a summary of the results of the wind damage evaluation including the following:
 - The percentage of damage to each component of the structure, as determined in the damage estimation module
 - All the information TWIA used in making our claim determination, including the following:
 - (7) Information on the characteristics of the structure
 - (8) Wind and wave and surge time histories
 - (9) All information used in the observational approach

At TWIA, we understand the information we're providing with this letter may be difficult to read and interpret. Please contact us if you have any questions. Our Slab Claims Team Examiner is more than happy to review the information with you to assist you with understanding TWIA reached our claim decisions

If you have any new information you wish for us to consider, please send it to us as soon as possible. The additional information you provide may include:

- g. Wind speed and direction, and surge and waves, at the site of your structure(s) for the duration of the storm
- h. Documentation you may have regarding the damage to your structure(s) or personal property during the storm
- i. Any new information you may have for the characteristics of your structure or your personal property contained in your structure

Upon receipt of your additional information, TWIA will use it to assist with reevaluating your claim, the amount of damage to your structure(s) and personal property caused by wind, and the amount payable for your loss.

If you have questions, please contact us at 800-788-8247, claims@twia.org or visit the Claims Center at www.twia.org/claimscenter from your computer or mobile device to send us a message, view and upload documents and photos, and access the details and status of your claim.

Sincerely,

Texas Windstorm Insurance Association

Appendix I – Damage Estimation Detailed Report

DAMAGE ESTIMATION DETAILED REPORT

REPORT DATE (CDT)
08-22-2022 10:44 AM

Storm Name	Policy Number	Location ID	Model Name	Day of Delivery	Model Run Date (CDT)
Harvey	000000084-03	9	PROBABILISTIC	2	06-27-2018 02:03 PM

Address 84,DOLPHIN LN,Freeport,Brazoria,Texas,77541,SFD
Claim Number

DAMAGE TIME HISTORY TABLE

Date & Time (CDT)	Roof Cover	Roof Panel	Wall Cover	Wall Panel	Windows	Doors	Garage Door	Roof Frame	Interior	Wind Collapse Probability	Surge & Wave Collapse Probability	50% Collapse Probability Check
08-25-2017 12:00:00 AM	0.73%	0.67%	0.47%	0.65%	0.08%	0.08%	0.00%	0.00%	0.02%	0.96%	0.00%	0.00%
08-25-2017 12:30:00 AM	0.73%	0.68%	0.47%	0.65%	0.08%	0.08%	0.00%	0.00%	0.02%	0.96%	0.00%	0.00%
08-25-2017 1:00:00 AM	0.73%	0.68%	0.47%	0.65%	0.08%	0.08%	0.00%	0.00%	0.02%	0.96%	0.00%	0.00%
08-25-2017 1:30:00 AM	0.74%	0.68%	0.47%	0.65%	0.08%	0.08%	0.00%	0.00%	0.02%	0.96%	0.00%	0.00%
08-25-2017 2:00:00 AM	0.74%	0.68%	0.47%	0.66%	0.08%	0.08%	0.00%	0.00%	0.02%	0.96%	0.00%	0.00%
08-25-2017 2:30:00 AM	0.75%	0.68%	0.47%	0.66%	0.08%	0.08%	0.00%	0.00%	0.02%	0.96%	0.00%	0.00%
08-25-2017 3:00:00 AM	0.75%	0.68%	0.47%	0.66%	0.08%	0.08%	0.00%	0.00%	0.02%	0.96%	0.00%	0.00%
08-25-2017 3:30:00 AM	0.75%	0.68%	0.47%	0.66%	0.08%	0.08%	0.00%	0.00%	0.02%	0.96%	0.00%	0.00%
08-25-2017 4:00:00 AM	0.75%	0.68%	0.47%	0.66%	0.08%	0.08%	0.00%	0.00%	0.02%	0.96%	0.00%	0.00%
08-25-2017 4:30:00 AM	0.75%	0.68%	0.47%	0.66%	0.08%	0.08%	0.00%	0.00%	0.02%	0.96%	0.00%	0.00%
08-25-2017 5:00:00 AM	0.75%	0.68%	0.48%	0.66%	0.08%	0.08%	0.00%	0.00%	0.02%	0.97%	0.00%	0.00%
08-25-2017 5:30:00 AM	0.75%	0.68%	0.48%	0.66%	0.08%	0.08%	0.00%	0.00%	0.02%	0.97%	0.00%	0.00%
08-25-2017 6:00:00 AM	0.76%	0.69%	0.48%	0.66%	0.08%	0.08%	0.00%	0.00%	0.02%	0.97%	0.00%	0.00%
08-25-2017 6:30:00 AM	0.76%	0.69%	0.48%	0.66%	0.08%	0.08%	0.00%	0.00%	0.02%	0.97%	0.00%	0.00%
08-25-2017 7:00:00 AM	0.76%	0.69%	0.48%	0.66%	0.08%	0.08%	0.00%	0.00%	0.02%	0.97%	0.00%	0.00%
08-25-2017 7:30:00 AM	0.76%	0.69%	0.48%	0.66%	0.08%	0.08%	0.00%	0.00%	0.02%	0.97%	0.00%	0.00%
08-25-2017 8:00:00 AM	0.76%	0.69%	0.48%	0.66%	0.08%	0.08%	0.00%	0.00%	0.02%	0.97%	0.00%	0.00%
08-25-2017 8:30:00 AM	0.76%	0.69%	0.48%	0.66%	0.08%	0.08%	0.00%	0.00%	0.02%	0.97%	0.00%	0.00%
08-25-2017 9:00:00 AM	0.76%	0.69%	0.48%	0.66%	0.08%	0.08%	0.00%	0.00%	0.02%	0.97%	0.00%	0.00%
08-25-2017 9:30:00 AM	0.77%	0.69%	0.48%	0.66%	0.08%	0.08%	0.00%	0.00%	0.02%	0.97%	0.00%	0.00%
08-25-2017 10:00:00 AM	0.77%	0.69%	0.48%	0.66%	0.09%	0.08%	0.00%	0.00%	0.02%	0.97%	0.00%	0.00%
08-25-2017 10:30:00 AM	0.78%	0.7%	0.48%	0.66%	0.09%	0.09%	0.00%	0.00%	0.02%	0.97%	0.00%	0.00%
08-25-2017 11:00:00 AM	0.79%	0.7%	0.48%	0.67%	0.09%	0.09%	0.00%	0.00%	0.02%	0.98%	0.00%	0.00%
08-25-2017 11:30:00 AM	0.79%	0.7%	0.48%	0.67%	0.09%	0.09%	0.00%	0.00%	0.02%	0.98%	0.00%	0.00%
08-25-2017 12:00:00 PM	0.8%	0.7%	0.48%	0.67%	0.09%	0.09%	0.00%	0.00%	0.02%	0.98%	0.00%	0.00%
08-25-2017 12:30:00 PM	0.8%	0.7%	0.48%	0.67%	0.09%	0.09%	0.00%	0.00%	0.02%	0.98%	0.00%	0.00%
08-25-2017 1:00:00 PM	0.81%	0.71%	0.48%	0.67%	0.09%	0.09%	0.00%	0.00%	0.02%	0.99%	0.00%	0.00%
08-25-2017 1:30:00 PM	0.83%	0.71%	0.48%	0.68%	0.09%	0.09%	0.00%	0.00%	0.02%	0.99%	0.00%	0.00%
08-25-2017 2:00:00 PM	0.84%	0.72%	0.49%	0.68%	0.09%	0.09%	0.00%	0.00%	0.02%	0.99%	0.00%	0.00%
08-25-2017 2:30:00 PM	0.87%	0.73%	0.49%	0.68%	0.09%	0.09%	0.00%	0.00%	0.02%	1%	0.00%	0.00%
08-25-2017 3:00:00 PM	0.89%	0.73%	0.49%	0.69%	0.10%	0.1%	0.00%	0.00%	0.02%	1.01%	0.00%	0.00%
08-25-2017 3:30:00 PM	0.91%	0.74%	0.49%	0.69%	0.10%	0.1%	0.00%	0.00%	0.02%	1.01%	0.00%	0.00%
08-25-2017 4:00:00 PM	0.93%	0.75%	0.50%	0.70%	0.10%	0.1%	0.00%	0.00%	0.03%	1.02%	0.00%	0.00%

Surviving Structure Water Line

T Surge:- Time when probability of surge reaches to it's maximum or 50%

P Surge:- Probability of slabbing due to surge

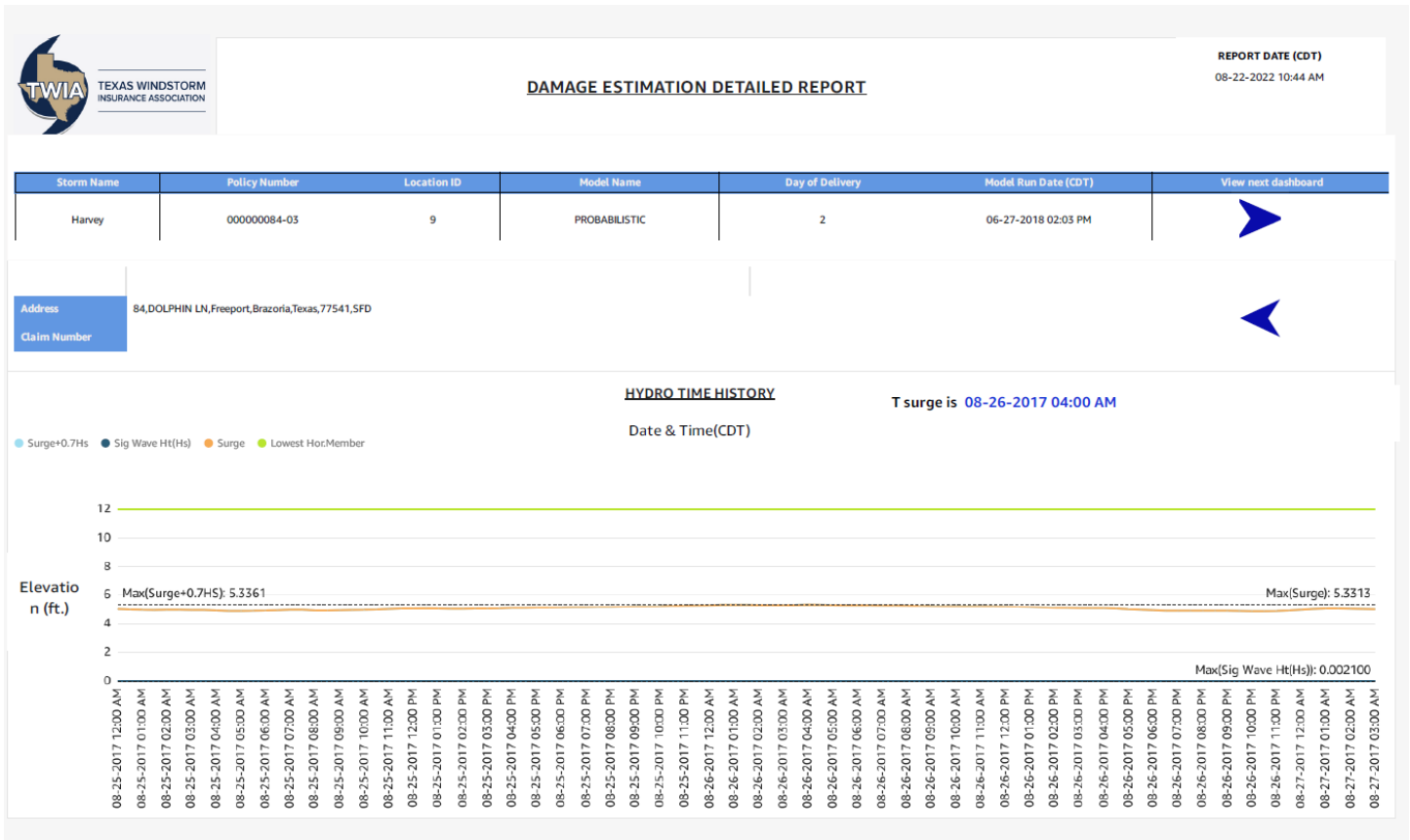
Dt_Surge:- Damage of individual component caused due to wind at T surge

D_total:- Weighted damage of individual component at T surge

50% Collapse Probability: Flag with 0 or 50 % showing it for that timeslot the probability of slabbing due to surge is 50%

Damage Ratio: Damage percentage expressed in decimals

Appendix J – Damage Estimation Detailed Report – Hydro Time History



T Surge:- Time when probability of surge reaches to it's maximum or 50%

P Surge:- Probability of slabbing due to surge

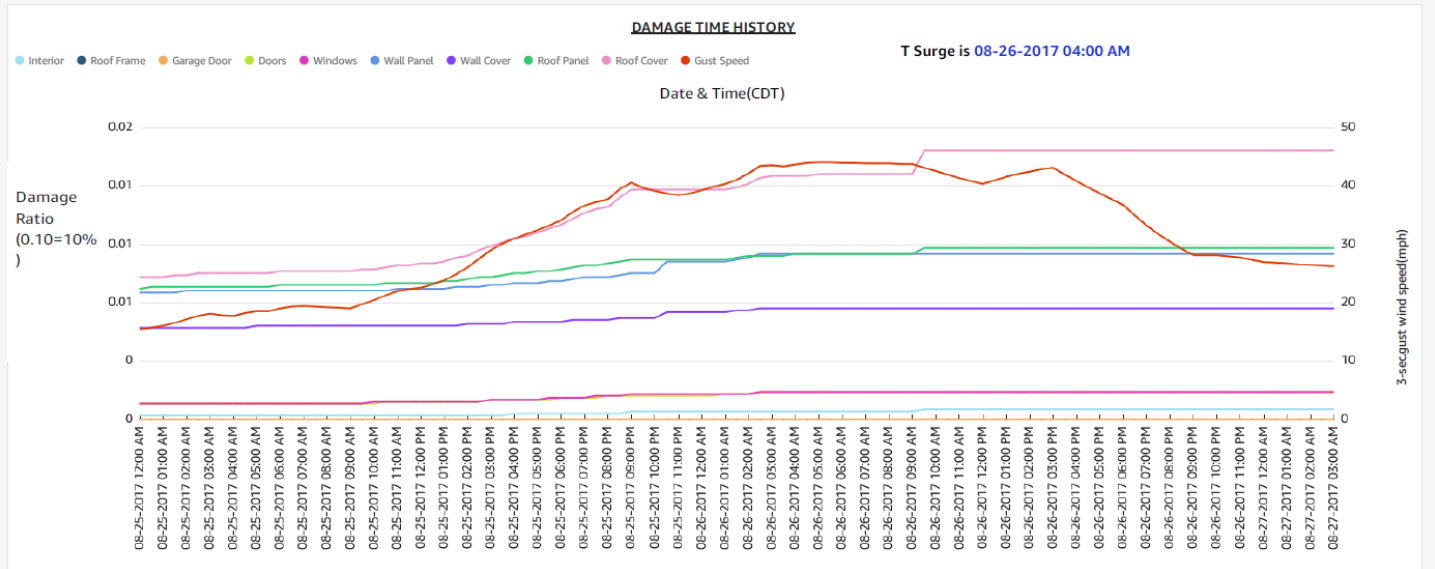
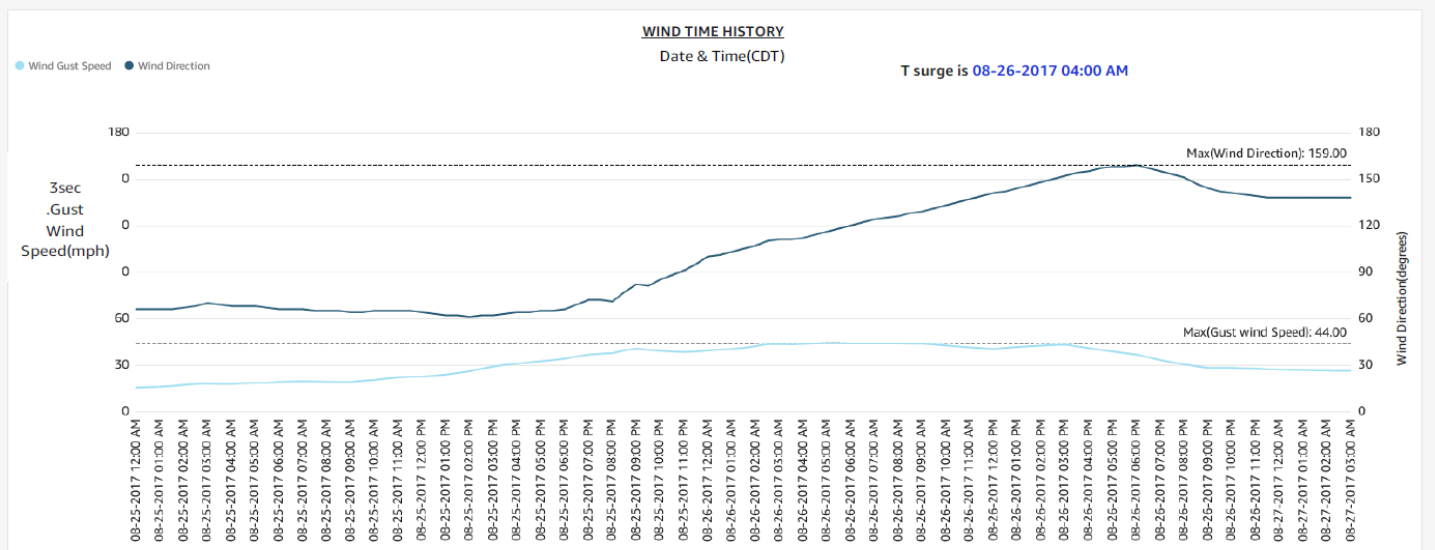
Dt_Surge:- Damage of individual component caused due to wind at T surge

D_total:- Weighted damage of individual component at T surge

50% Collapse Probability: Flag with 0 or 50 % showing it for that timeslot: the probability of slabbing due to surge is 50%

Damage Ratio: Damage percentage expressed in decimals

Appendix K – Wind and Damage Time History Reports



T Surge:- Time when probability of surge reaches to it's maximum or 50%

P Surge:- Probability of slabbing due to surge

Dt_Surge:- Damage of individual component caused due to wind at T surge

D_total:- Weighted damage of individual component at T surge

50% Collapse Probability: Flag with 0 or 50 % showing it for that timeslot the probability of slabbing due to surge is 50%

Damage Ratio: Damage percentage expressed in decimals