

ATTACHMENT A - STATEMENT OF WORK REAL ESTATE DATA

1.0 BACKGROUND:

The Federal Housing Finance Agency (FHFA) was created by the Housing and Economic Recovery Act of 2008 (HERA) to regulate and supervise Fannie Mae, Freddie Mac, the 11 Federal Home Loan Banks, and the FHLBanks' Office of Finance (together, the Regulated Entities). HERA combined three organizations, the Office of Federal Housing Enterprise Oversight, the Federal Housing Finance Board, and a group from the Department of Housing and Urban Development, which collectively had previously regulated these entities. These institutions play critical roles in supporting our nation's housing finance system. Fannie Mae and Freddie Mac guarantee mortgage-backed securities (MBS) and hold mortgages and MBS for investment. The Federal Home Loan Banks lend money to banks and other financial institutions using mortgages as collateral and invests in mortgage-related assets. In 2008, FHFA placed Fannie Mae and Freddie Mac in conservatorships, where they remain.

The primary function of the FHFA is to ensure the capital adequacy and the financial safety and soundness of the Regulated Entities; and to ensure that they discharge their housing finance mission. Additional information on FHFA and its mission can be found at: <https://www.fhfa.gov>.

Since the mid-2000s, FHFA has licensed historical real estate transactions data. The data, which include historical sales prices for residential properties throughout the United States have been used to evaluate historical trends in home prices.

The traditional FHFA House Price Index® (FHFA HPI®) is calibrated using home values for houses with mortgages bought or guaranteed by Fannie Mae or Freddie Mac. In 2011, FHFA began publishing an "expanded-data" measure to track house price movements that are complemented by licensed data during index estimation. The inclusion of sales prices for homes (both with other types of financing and cash purchases) allowed the "expanded-data" FHFA HPI to establish price trends that represented a more complete view of housing market conditions.

HERA requires that the FHFA Director maintain a method for assessing changes in national average house prices when adjusting the conforming loan limit values each year. Since May 2015, the expanded-data index has been used in this calculation.

FHFA estimates a variety of other monthly and quarterly indexes. The HPI is used both internally and externally to assess trends in home prices across the country. In addition to the HPI production, FHFA conducts research on many other aspects of housing and housing finance in addition to the HPI production. To enable this research, FHFA has a continued requirement for historical transactions data to evaluate real estate price and volume trends for homes with alternative types of financing.

2.0 SCOPE:

FHFA is seeking to obtain historical, current, and ongoing property data to evaluate real estate market price and volume trends for homes with alternative types of financing. For historical transactions, FHFA is seeking transactions from January 1, 1990, and continuing to the present. A longer range is preferred when and where available.

3.0 OBJECTIVES:

FHFA is seeking data that may be used to improve the existing and future house price indexing methodology, evaluating home price trends in different market segments, analyzing transactional issues related to home equity, and conducting research related to housing or mortgage finance. Data may come from property tax assessor's offices, recorder files, tax records, or real estate listings. Data will support public release of numerous areas of ongoing and future research, including but not limited to

- House price indexes to assess trends in home prices across the country.
- House price indexes for different geographic areas and market segments. Indexes will be formed using both the licensed data as well as data/information from other sources.
- Estimation of additional house or land price measures, climate research, and future ad hoc research projects.
- Summary statistics (e.g., average sales prices, sales quantities, etc.) for different geographic areas and market segments.
- Impacts of climate and natural disaster risk.

4.0 REQUIREMENTS:

This section is organized into four parts. Section 4.1 includes general requirements that apply to all data deliveries, whether they be annual, quarterly, or monthly. Section 4.2 includes requirements pertaining to technical support. Section 4.3 includes data set requirements for Historical Property Data. Section 4.4 includes data set requirements for each optional data set. Section 4.5 includes a data delivery matrix demonstrating which data set requirements are required or optional for the base year and option years 1 through 9. Each optional data set may be ordered as a single optional item as needed in any year of the contract.

4.1 General Requirements

This section provides requirements that apply to all data deliveries.

4.1.1 Notification Requirements

The vendor shall provide email notification of each data delivery to FHFA Contracting Officer's Representative. Such notification shall include a short file description, number of rows, and the time period for which the data delivery is intended to reflect.

4.1.2 Licensing Requirement

In addition to the license agreement requirements in Section 7, the vendor shall ensure that all data deliveries supplied to FHFA are licensed in a manner that permits FHFA staff and contractors perpetual use of data extracts that have been used for production or research in order to be able to replicate the results at any point later in time. Additionally, this means that any subset (or extract) of any data delivery received during a particular year may be used in that year and all subsequent years for replication of research and continuing production.

The vendor shall further ensure that data deliveries supplied to FHFA are licensed in a manner that permits FHFA staff and contractors to merge the vendor's data for the production and publication of aggregated measures or statistics. Such publications may come in the form of house price indexes, academic journal articles, whitepapers, reports, dashboards, or other data products. Attribution will be provided to the vendor and/or data source if permitted.

The licensing agreement under which the vendor supplies the data shall provide for automated data collection, processing, and delivery.

4.1.3 Unique Linkage Key Requirement

The vendor shall ensure, to the maximum extent practicable, that each data delivery of property-level records includes a unique linkage key. Such linkage key(s) permits FHFA to link property-level records across data deliveries of different types or vintages of deliveries

4.1.4 Format and Re-delivery Requirements

The vendor shall submit all tabular data deliveries in delimited text format.

The vendor shall submit all geospatial layer in a commonly used format such as geodatabases, shapefiles, or an open standard format for geographic features and non-spatial attributes.

The vendor shall resolve any data file problems by re-delivering data files within four business days. Examples of possible problems include but are not limited to: Formatting inconsistent with documentation, corrupt files, and missing rows or columns.

4.1.5 Documentation Requirements

The vendor shall ensure that each dataset is accompanied by a data dictionary, glossary, or similar guide. Such documentation shall contain detailed descriptions of data fields, labels for data fields, permissible values for data fields, and a mapping of categorical data fields to a description of the data category.

4.1.6 Geographic Coverage Report

The vendor shall identify the counties for which there is complete coverage (i.e., the dataset includes a reasonably complete census for all sales/purchases).

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For a county to be considered “covered,” the dataset shall include sale/purchase date, sale/purchase price, property address and property type for a reasonably complete census of all property transactions that take place in the county. For counties that have sub-county jurisdictions (e.g., townships), the county shall be considered “covered” if transactions data are available for at least one sub-county jurisdiction.

The vendor shall provide the begin date for each county (the begin date shall reflect the first date on which the dataset incorporates a reasonably complete census of all property sales/purchases occurring in the county). The vendor shall provide a table:

County number	Begin Year	Number of transactions in year 2022	Average Sale Price in year 2022	Number of transactions in year 2022-n	Average Sale Price in year 2022-n
X						
XX						
XXX						
XXXX						

4.2 Support Requirements

The vendor shall provide technical and data support to assist FHFA in its use of the various data deliveries. Such support should be available via phone or email. To the maximum extent practicable, the vendor shall answer FHFA’s technical support questions within 24 hours.

4.3 Specific Data File Requirements

4.3.1 Historical Property Data

The vendor shall provide a data delivery containing real estate data for properties that were transacted between January 1, 1990, through the present day. A longer range is preferred when and where available.

The historical data delivery shall contain transaction data for properties in the U.S. with, at a minimum, the following data attributes:

- Unique Primary Key. The key should track either the parcel or transaction
- City Name
- County Name (and FIPS) or County-Equivalent
- State Name (and FIPS)
- Street Address
- ZIP Code
- ZIP+4
- Puerto Rican Urbanization Name (if available)
- Land Use Type (e.g., Commercial, Office, Retail, Residential). If a standardized variable is available across jurisdictions, then a standardized and original field should be provided.

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- Property Type (e.g., Condominium and Single-Family, Multifamily). Property Type will have specific distinctions like between single-family attached and single-family detached. Similar to the land use type, a standardized and original field should be provided.
- Sale/Purchase Date (most recent and second most recent transaction information)
- Sale/Purchase Price (most recent and second most recent transaction information)
- Transaction Type (purchase, refinance, construction, etc.) Source of transaction data (assessor office, recorder office, MLS etc.)
- Owner name or related information (a means of identifying investors e.g., institutional, small, or second home)
- Deed Type Indicator (grant deed, warranty deed, etc.)
 - Identify property transfers of all types, including but not limited to, transfers to banks in connection to property foreclosures.
 - Other information to readily identify foreclosure-related transfers to banks
- An indicator flag identifying likely arms-length sales
- An indicator flag of multiple transactions recorded
- An indicator flag identifying if a parcel is vacant or has been improved with a structure
- An indicator flag identifying likely cases where the transaction price may reflect a transfer of other properties
- An indicator flag identifying likely cases where the transaction may reflect only a partial transfer of ownership in the property.

4.4 Data Types that may be Ordered as an Option

4.4.1 Monthly Property Data (Required in Out Years -- Optional only in Base Year)

The vendor shall provide a monthly data delivery of property transactions and details data from the previous month. This data delivery shall contain all attributes listed in 4.3.1. This data delivery is meant to be appended to the historic file provided in 4.3.1. Monthly data deliveries will provide data with no more than a one-month lag.

4.4.2 Historical and Annual Deed Data

If ordered as an option, the vendor shall provide a data delivery containing deed data for properties that were transacted between January 1, 1990, through the present day. A longer range is preferred when and where available. The vendor shall supply an annual deed data delivery of deed or recorder records, lien information, and other informational commonly related to the real estate transfer and lien processes. Annual data delivery is meant to be appended to the historic file provided.

To the maximum extent practicable, the deed data delivery shall include the following attributes or fields:

- Assessor's Parcel Number
- Transaction number
- Sale date and sale amount
- Liens, lien amounts, and lien order

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- Buyer(s) name
- Seller(s) name
- Corporate buyer indicator -- A flag or other indicator identifying foreign buyers/investors
- Buyer occupancy indicator
- Seller occupancy indicator
- Partial interest indicator
- Transfers
- Lender company name and contact information
- Title company name
- Mortgage characteristics, including date, interest rate type and amount, loan type, term and term type, due date, and adjustable-rate mortgage characteristics
- Indicators describing the type of loan (conventional, conforming, non-conforming)
- Indicators describing the purpose of loan (purchase, refinance, construction, etc.)
- Indicators describing government subsidization of loan (USDA, FHA, VA, SBA, etc.)
- Indicators describing foreclosure or short sales.

4.4.3 Historical and Annual Property Tax Assessment Data

If ordered as an option, the vendor shall supply historical and annual property tax assessment data delivery of tax assessment records and information commonly related to the property tax assessment and property tax collection process. Annual data delivery is meant to be appended to the historic file.

To the maximum extent practicable, the tax assessment data delivery shall include the following attributes or fields:

- Assessor's Parcel Number or property identifier
- Zoning or land use code and property type
- Year built (actual and effective)
- Owner-occupied flag - indicating whether the property was owner occupied at the time of sale
- Liens - indicating the number of liens on the property at time of sale (including dollar amounts associated with those liens)
- Buyer occupancy
- Seller occupancy
- Partial interest
- Transfers
- Value calculated (total and land)
- Assessed value (total and land)
- Market value (total and land)
- Appraised value (total and land)
- Tax amount
- Tax year
- Assessed year
- Total tax rate (statutory and effective %)

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- Taxable value (total and land)
- Special assessment fees (additional surtaxes that are considered impact fees and may cover water or sewer frontage, road improvements, school pupil levies, etc.)
- Special governance fees (business improvement districts, homeowner or condominium association, condominium associations)
- Homestead exemption - indicating whether the property received some type of “homestead” exemption.
- Individual exemption values and categories (i.e., senior, disabled, active military or retired veteran, widow, historic, agricultural)
- Total exemption
- Number of buildings on property, size, and heights
- Property lot size
- School district
- Neighborhood
- Structure square footage (livable, finished, unfinished)
- Number of bedrooms
- Number of bathrooms
- Construction type and quality
- Number of units and floors in primary structure
- Flags indicating presence of interior or exterior features like
 - Fireplace
 - Garage
 - HVAC (or other heating/cooling along with source)
 - Pool
 - Basement
 - Roof type
 - Solar panels or other green features
 - Mitigations for climate or environmental risks
- Flags indicating presence of structural features like
 - Mobile home/modular home indicator
 - Include designation as single or double-wide
 - Accessory dwelling unit
 - Parking (garage, carport, offsite)
- Last assessor update
- Tax roll certification date
- Indicator of any liens or citations placed against the property
- Indicator for historical compliance of tax payments (i.e., indicating timely payment over a period such as five years or since ownership was assumed).
- Indicator for payee (i.e., directly from property owner or through mortgage servicing company)
- Delinquency information (including date of delinquency, payment amounts, entity owned, and other related information)
Information on property tax appeals (original, requested, and final assessment), appeal status, type of representation, and any decision notes

4.4.4 Historical and Monthly Multiple Listing Service Data

If ordered as an option, the vendor shall provide historical data delivery of real estate advertisements contained in multiple listing services (MLS) for the longest period available. Fields or attributes in the MLS data delivery may be available as originally collected in the MLS submission or as vendor-standardized values. The type of attribute (original or vendor-standardized) must be denoted. Monthly data delivery is meant to be appended to the historic file.

FHFA understands that MLS listings may be revised by the person(s) submitting information, and in some cases, multiple times. To the maximum extent practicable, the vendor shall provide in the monthly data delivery with separate feeds for a current view (at time of delivery) as well as a full history with each edit (properties that remain unsold and have edits made in multiple months should have monthly histories that are linkable across the monthly deliveries).

To the maximum extent practicable, the monthly MLS data delivery shall include the following attributes or fields:

- Status (open, closed, withdrawn)
- Days on market (total and cumulative)
- List date (original and latest)
- List price (original and latest)
- Closing date
- Closing price
- Sold terms
- Mortgage origination amount (if applicable and available)
- Mortgage origination date (if applicable and available)
- Loan-To-Value Ratio (at origination and marked-to-market if available)
- Zoning or land use code and property type
- Ownership indicator (owner-occupied, investor, rental, REO, short sale)
- Payments (property taxes, utilities, association fees) and collecting source's name
- Parking (number of spots on-street, covered, carport)
- School district
- Amenities (nearby park, viewshed, water access)
- Agent professional license identifier and name (for buyer and seller)
- Broker association identifier and name
- Work address and contact information
- Transaction fee arrangements and contingencies
- Public remarks
- Marketing information like usage of photographs, videos, and tours

4.4.5 Historical and Annual Climate or Natural Disaster Risk Data

If ordered as an option, the vendor shall provide historical Climate or Natural Disaster Risk data for the longest period available and an annual data update. These data may come from public or

private sources with a clear description of the source(s). Fields may represent modeled calculations performed or licensed by the vendor. Annual data delivery is meant to be appended to the historic file provided.

- Wind risk
- Tornado risk
- Hurricane risk
- Earthquake risk
- Flood risk (fluvial and pluvial)
- Drought risk
- Wildfire risk
- FEMA designations
- Physical terrain (relief and coverage) and water coverage
- Tree canopy, vegetation, or landscaping
- Impervious surfaces and stormwater management
- Soil types and designations whether safe
- Weather
- Fuel usage and type (wind, solar, gas etc.)

To the extent that only a subset of the listed variables is available in certain jurisdictions, a clear listing of counties having such coverage is required.

4.4.6 Historical and Annual Geospatial Boundary Data

If ordered as an option, the vendor shall provide historical Geospatial data for the longest period available and an annual update. The vendor shall supply an annual data delivery of property boundaries in a geospatial format. The boundaries should reflect parcels and all structures. Additional inclusions might account for easements, ingress/egress pathways, terrain, slope, or other geographic features. Annual data delivery is meant to be appended to the historic file provided.

The vendor shall provide annual data deliveries of geospatial boundaries. These data may come from public or private sources but must have a clear description of the source(s).

- Public school boundaries (elementary, middle, and high school)
- Municipal emergency service boundaries (i.e., police and fire)
- Green or environmental data (i.e., structural features or other mitigation efforts, solar panel farms, residential solar installations, wind farms, electric vehicle recharging stations, green certified commercial and residential)
- Historic properties, cemeteries, and preservation sites
- Neighborhood boundaries
- Public transportation stops or routes

4.4.7 Other Historical and Annual Data Sources

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If ordered as an option, the vendor shall provide historical and annual data deliveries of other data sources. These data may come from public or private sources but must have a clear description of the source(s). Annual data delivery is meant to be appended to the historic file provided.

Examples of potentially useful datasets are listed below, but FHFA encourages the vendor to consider sources not on the list:

- Appraisal or automated valuation results (property values, method, comparable sales)
- Crime reports (i.e., reported crime, arrests, incidences, or other records)
- Development applications and approvals for construction or improvement of real estate property
- Distressed sales (including sales of bank-owned properties, short sales, and foreclosures)
- Construction costs
- Debt or wealth measures in addition to real estate holdings
- Foreclosure or auction sales
- Fraud
- Home or Condominium Owner Associations (type, size, classification, fee amounts and schedule, boundaries)
- Neighborhood data (amenities, demographics, employment, points of interest)
- Permits for structures (including building/construction/repair cost, reason, and contractor), use & occupancy, electrical/utility/sewage, or licensing (like rentals)
- Property insurance policies and claims
- Residential rentals (single-family and multifamily)

4.5 Data Delivery Matrix

The following matrix details data deliveries described in Section 4.3 and 4.4 for the base year and option years 1 through 9.

Data Delivery Requirement	Base Year	Options Years 1 through 9
4.3.1 Historical Property Data	Required	Not required
4.4.1 Monthly Property Data	Optional	Required
4.4.2 Historical and Annual Deed Data	Optional	Optional
4.4.3 Historical and Annual Property Tax Assessment Data	Optional	Optional
4.4.4 Historical and Monthly Multiple Listing Service Data	Optional	Optional
4.4.5 Historical and Annual Climate or Natural Disaster Risk Data	Optional	Optional
4.4.6 Historical and Annual Geospatial Boundary Data	Optional	Optional
4.4.7 Other Historical and Annual Data Sources	Optional	Optional

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5.0 DELIVERABLES:

5.1 Base Year Deliverables

Requirement Number	Deliverable	Frequency	Due By
All	Information allowing FHFA to access to vendor's delivery portal, including sign-in credentials, passwords, and locations.	1 time	NTE 14 days after contract award.
4.1.5	Documentation supporting data files submitted for 4.3.1 and 4.3.2, including any additional data files purchased by FHFA.	As needed	NTE 14 days after contract award.
4.1.6	Geographic Coverage Report	1 time	NTE 14 days after contract award
4.2	Information allowing FHFA to submit technical support requests, including a contact name, email, and phone number, and if applicable, any website for submitting technical support requests.	1 time	NTE 14 days after contract award.
4.2	Responses to technical support questions	As needed	NTE 24 hours
4.3.1	Historical property data file	1	NTE 14 days after contract award.
4.4.1 – 4.4.7	Optional data files	As agreed upon by FHFA and Vendor	As agreed upon on by FHFA and Vendor

5.2 Option Year 1 through 9 Deliverables

Requirement Number	Deliverable	Frequency	Due By
4.1.5	Documentation supporting data files submitted for 4.3.1 and 4.3.2, including any additional data files purchased by FHFA.	As needed	As agreed upon on FHFA and Vendor
4.1.6	Geographic Coverage Report	1	14 days after the beginning of the contract option year.
4.2	Responses to technical support questions	As needed	NTE 24 hours
4.4.1 – 4.4.6	Optional data files	As agreed upon on FHFA and Vendor	As agreed upon on FHFA and Vendor

6.0 SECURITY REQUIREMENTS

In the event that the Contractor may visit FHFA Headquarters, the FHFA Contracting Officer's Representative (COR) will coordinate visitor access and escorting duties.

7.0 LICENSE AGREEMENT REQUIREMENTS

The license agreement for the data product, at a minimum, must include and/or conform to the following requirements:

- At the termination or expiration of the license agreement, FHFA shall have the right to maintain and use indefinitely print or electronic copies of its reports, presentations, or other content created in accordance with the license agreement;
- Authorized end users may simultaneously use the product and be from multiple divisions across FHFA, and may access and use the product from their official duty stations or remotely via FHFA's virtual private network (VPN) when such end users are conducting business for the benefit of FHFA;
- FHFA does not permit compliance audits; however, the license agreement may require that FHFA will provide written assurance of its compliance or other alternative agreed to in writing by the Contracting Officer;
- The license agreement shall not include an indemnification of the Contractor by the FHFA;
- The license agreement shall be governed by, and construed in accordance with, the federal laws of the United States of America;
- The Contractor shall represent and warrant that it makes commercially reasonable efforts to ensure that the software, data, or product as applicable is free of any viruses, worms, Trojan horses, malware, and/or other malicious code;
- The license agreement shall not include terms that authorize assignment of the purchase order except in accordance with Federal Acquisition Regulation Subpart 42.12;
- Contractor shall acknowledge and agree that if there is a conflict between the terms and conditions of the license agreement and those of the purchase order, the purchase order governs;
- The license agreement shall permit FHFA to use the data product for official Government purposes, including but not limited to reports, presentations, graphs, public releases, other publications, and examination of the regulated entities;
- The license agreement may acknowledge that FHFA is a federal government agency and is exempt, by law, from the payment and collection of sales taxes; and

- The license agreement shall be subject to the terms and conditions in the FHFA Subscriber Addendum (Attachment D).

8.0 INFORMATION COMMUNICATION TECHNOLOGY (ICT) Accessibility (Section 508)

Section 508 of the Rehabilitation Act, as amended by the Workforce Investment Act of 1998 (P.L. 105-220) requires that when Federal agencies develop, procure, maintain, or use information and communication technology (ICT), it shall be accessible to people with disabilities. Federal employees and members of the public who have disabilities must have access to, and use of, information and data that is comparable to people without disabilities. As such, the following requirements apply to this solicitation:

- 1) Products, platforms, and services delivered as part of this work statement that are ICT, or contain ICT, must conform to the Revised 508 Standards, which are located at 36 C.F.R. § 1194.1 & Apps. A, C & D, and available at <https://www.access-board.gov/guidelines-and-standards/communications-and-it/about-the-ict-refresh/final-rule/text-of-the-standards-and-guidelines>
- 2) E102 / 702.10 – Web Content Accessibility Guidelines (WCAG) success criteria level A & AA are incorporated as a requirement. The referenced WCAG criteria is available at <http://www.w3.org/TR/WCAG20/>

The following items are identified as containing ICT: Software deliverable *

Applicable Functional Performance Criteria: All functional performance criteria apply when using an alternative design or technology that achieves substantially equivalent or greater accessibility and usability by individuals with disabilities than would be provided by conformance to one or more of the requirements in Chapters 4-6 of the Revised 508 Standards, or when Chapters 4-6 do not address one or more functions of ICT.

Applicable Requirements for Software and Web Products

Web deliverables/tools and access shall conform to the following standards:

- E302 – Functional Performance Criteria

9.0 PLACE OF PERFORMANCE

Work will generally be performed at the Contractor's place of business, and periodically at FHFA's Washington, D.C. office located at 400 7th Street, SW. Washington DC 20219.

10.0 PERIOD OF PERFORMANCE:

The period of performance for this task order is August 1, 2023, through July 31, 2024, with nine one-year options as follows:

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Option Year One – August 1, 2024, through July 31, 2025
Option Year Two – August 1, 2025, through July 31, 2026
Option Year Three – August 1, 2026, through July 31, 2027
Option Year Four – August 1, 2027, through July 31, 2028
Option Year Five – August 1, 2028, through July 31, 2029
Option Year Six – August 1, 2029, through July 31, 2030
Option Year Seven – August 1, 2030, through July 31, 2031
Option Year Eight – August 1, 2031, through July 31, 2032
Option Year Nine – August 1, 2032, through July 31, 2033