



Property - Assessment Details API Reference

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POST services/property

The Fenris Digital Property – Assessment Details API quickly and accurately provides a summary of reported information on building characteristics, valuation, and mortgages.

Endpoint

<https://api.fenrisd.com/services/property/v1/details/search>

Request

This section describes the headers and request body for the Property – Assessment Details API.

Headers

Field	Type	Description
Content-Type	application/json	The body is in JSON format, using UTF-8 character encoding.
Authorization	Bearer <token>	The header includes a Bearer token for authentication.
Submission-Id	string	Passthrough field: A client-specified identifier used to tie back to client data or systems. If not supplied, uses an auto-generated field.

Sample headers

- Content-Type: application/json
- Authorization: Bearer <token>
- Submission-Id: abcd-efgh-ijkl

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Request body fields

Field	Type	Description
addressLine1	string	Required – Standard street and unit designator portion of an address
city	string	Required if no zipCode is present - City name: city or zipCode is required.
state	string	Required – Two-character state abbreviation
zipCode	string	Required if no city is present – Five-digit USPS® postal code

Sample request body

```
{  
  addressLine1:"123 Main St",  
  "city":"Anytown",  
  "state":"IA",  
  "zipCode":"54321"  
}
```

Response

This section outlines the responses returned for an address and ZIP Code by a call to POST SERVICES/PROPERTY.

Body

Field	Type	Description
requestId	string	Returns an Internally generated unique ID used for auditing and support
submissionId	string	Returns a client-supplied identifier that ties back to client data or systems: If not supplied, the API uses the requestID.
status	string	Returns the status of the search: Usually, SUCCESS or NOT FOUND
matchDescription	string	Indicates the match strategy that provided the returned information.

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Field	Type	Description
document	various	<ul style="list-style-type: none"> • buildingCharacteristics - Returns details of property and improvements based on county tax assessor data • valuation - Object with information about the value of this property • mortgage - Returns loan and lender information.

buildingCharacteristics

This section of the response returns Information about the physical characteristics and value of the input location ([Request body fields](#)) submitted.

Field	Type	Description
useType	string	Property use classification. Returns on of the following: <ul style="list-style-type: none"> • Agricultural • Apartment Building (5+ Units) • Commercial • Commercial & Industrial • Condominium Unit • Coop • Exempt • Government • Improved • Industrial • Land (unimproved) • Manufactured Home • Mixed Use - Property use is a combination of a residential property use type and a property use type from a different property use category (i.e. commercial). • Mobile Home • Multi Family Dwelling (2-4 Unit) Building • New Construction • Planned Unit Development • Recreational • Residential • Second Home • Single Family Residence
airConditioning	string	Type of air conditioning system. Returns null if unknown or not present. Returns one of the following: <ul style="list-style-type: none"> • Central • Chilled water

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Field	Type	Description
		<ul style="list-style-type: none"> ● Evaporative Cooler ● Geo-Thermal ● None ● Office only ● Other ● Packaged Unit ● Partial ● Refrigeration ● Ventilation ● Wall ● Window\Unit ● Yes
basement	string	<p>Type of basement. Returns null if unknown or no basement. Returns one of the following:</p> <ul style="list-style-type: none"> ● Basement (not specified) ● Daylight ● Daylight ● Full ● Full Basement ● Improved Basement (Finished) ● No Basement ● Partial ● Partial Basement ● Unfinished Basement
totalArea	double	Area of all buildings on this property in square feet
buildingClass	string	Construction class for the buildings on this property (A, B, C, D, S)
buildingCondition	string	<p>Known qualitative condition of the building(s) at this location. Returns one of the following:</p> <ul style="list-style-type: none"> ● Excellent ● Good ● Fair ● Average ● Poor ● Unsound
buildingQuality	string	Quality of construction and finishes as a letter grade (A-F)
garageType	string	<p>Type of garage. Returns one of the following:</p> <ul style="list-style-type: none"> ● Attached Garage ● Built-in

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Field	Type	Description
		<ul style="list-style-type: none"> ● Carport ● Covered ● Detached Garage ● Garage ● Mixed ● None ● Offsite ● Open ● Parking Lot ● Parking Structure ● Paved/Surfaced ● Pole ● Ramp ● Tuckunder ● Underground/Basement ● Unimproved ● Yes
garageNumCar	double	Number of spaces for cars in the garage
lotSize	double	Size of lot in square feet
bathrooms	int	Number of full bathrooms
partialBathrooms	int	Number of partial bathrooms
bedrooms	int	Number of bedrooms
totalRooms	int	Total number of rooms
stories	int	Number of floors
pool	string	Type of pool, if present. Returns null if no pool is present, or unknown. Returns one of the following: <ul style="list-style-type: none"> ● Above ground pool ● Community Pool or Spa ● Enclosed ● Heated Pool ● Indoor Swimming Pool ● Pool (yes) ● Pool & Spa (both) ● Solar Heated ● Spa or Hot Tub (only) ● Vinyl In-ground Pool

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Field	Type	Description
roofType	string	Shape, style or construction of roof. Returns one of the following: <ul style="list-style-type: none"> ● BOWSTRING TRUSS ● DOME ● FLAT ● GABLE ● GABLE OR HIP ● GAMBREL ● HIP ● IRR/CATHEDRAL ● MANSARD ● PRESTRESS CONCRETE ● REINFORCED CONCRETE ● RIGID FRM BAR JT ● SAWTOOTH ● SHED ● STEEL FRM/TRUSS ● WOOD TRUSS
roofCovering	string	Material used to cover roof. Returns one of the following: <ul style="list-style-type: none"> ● Aluminum ● Asbestos ● Asphalt ● Bermuda ● Built-up ● Composition Shingle ● Concrete ● Fiberglass ● Gravel/Rock ● Gypsum ● Masonite/ Cement Shake ● Metal ● Other ● Roll Composition ● Shingle (Not Wood) ● Slate ● Steel ● Tar & Gravel ● Tile ● Urethane ● Wood ● Wood Shake/ Shingles
yearBuilt	int	Year of occupation certificate

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Field	Type	Description
heatingType	string	Type of heating and/or heating fuel. returns one of the following: <ul style="list-style-type: none">• Baseboard• Central• Coal• Convection• Electric• Floor/Wall• Forced air unit• Gas• Geo-thermal• Gravity• Heat Pump• Hot Water• None• Oil• Other• Partial• Propane• Radiant• Solar• Space/Suspended• Steam• Vent• Wood Burning• Yes• Zone
heatingFuelType	string	Type of fuel used for heating. Returns one of the following: <ul style="list-style-type: none">• Coal• Electric• Gas• Geo-Thermal• None• Oil• Propane• Solar• Wood
construction	string	Construction Type. Returns one of the following: <ul style="list-style-type: none">• Adobe• Brick• Concrete• Concrete Block• Dome• Frame

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Field	Type	Description
		<ul style="list-style-type: none"> ● Heavy ● Light ● Log ● Manufactured ● Masonry ● Metal ● Mixed ● Other ● Steel ● Stone ● Tilt-up (pre-cast concrete) ● Wood
units	int	Number of units
ownerOccupied	string	Status of owner occupation. Returns null if not owner occupied. Returns one of the following: <ul style="list-style-type: none"> ● Probable owner-occupied property - no property address and mailing address within County. (Improved Residential) ● Owner-occupied property (Non-Residential) ● Owner-occupied property (SFR/Condo)
ownerName	string	Name(s) of current owners(s) of this property
buildings	integer	Number of businesses on the property. A return of 0 indicates unknown number

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valuation

Object with information about the value of the input location ([Request body fields](#)) submitted.

Field	Type	Description
apn	string	Assessor Parcel Number - identifier assigned by county for this property's parcel
marketValueMin	double	Estimated minimum market value based on an automated valuation model
marketValueMax	double	Estimated maximum market value based on an automated valuation model
landValue	double	Assessed value of land
improvementValue	double	Assessed value of improvements on the parcel
assessmentYear	int	Year of assessment on which assessment values are based
assessedValue	double	Total assessed value (sum of land and improvements)
assessedMarketValue	double	Market value of property based on assessment, when used by assessor
lastSalePrice	integer	Selling price the last time this property was sold
lastSaleDate	string (date)	Date of last sale of this property

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mortgage

This response element returns information about the mortgage for address location ([Request body fields](#)) submitted.

Field	Type	Description
loanToValue	number	Current estimated loan to value ratio, in percent
balance	int	Estimated balance on first mortgage
totalLienBalance	integer	Balance of mortgage plus any other outstanding liens on this property
loanAmount	integer	Original loan amount for first mortgage
loanType	string	Type of loan for the first mortgage. Returns one of the following: <ul style="list-style-type: none">• Stand Alone First• Stand Alone Second• ARM (Adjustable Rate Mortgage as of August, 2009)• Amount keyed is an Aggregate amount• USDA• Closed-end Mortgage• Non Purchase Money Mortgage• SBA Participation Trust Deed• Assumption• Building or Construction Loan• Cash• 2nd Mortgage made to cover Down Payment• Credit Line (Revolving)• FHA• Fannie Mae/Freddie Mac (Phased out because Fannie Mae does not originate loans directly to borrowers or investors. Most "new conventional" loans meet their general underwriting guidelines.)• Balloon• Farmers Home Administration• Negative Amortization• Loan Amount \$1-9 billion - only first 9-digits of Loan Amount entered due to field length limitations. Need to multiply Loan Amount Field by 10 for the actual amount.• Land Contract (Argmt. Of Sale)

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Field	Type	Description
		<ul style="list-style-type: none"> Modification - Originally designated to capture Hula Mae loans in Hawaii. As with Fannie Mae/Freddie Mac, Hula Mae does not originate loans directly to borrowers. This code now designates Mortgage Modifications which make a change to the Interest Rate Loan Balance (except credit lines),Type Financing, or other Rate Rider terms. Effective as of December 2008. New Conventional Commercial Purchase Money Mortgage Undefined / Multiple Amounts Stand Alone Refi (Refinance of Original Loan) Seller take-back Loan Amount \$10-99 billion - only first 9-digits of Loan Amount entered due to field length limitations. Need to multiply Loan Amount Field by 100 for the actual amount. Unknown (DEFAULT) VA Future Advance Clause / Open End Mortgage Trade State Veterans Reverse Mortgage (Home Equity Conversion Mortgage)
loanDate	string	Date of loan origination
refinanceIndicator	boolean	Flag that indicates whether the current mortgage is the result of a refinance
interestRate	string	Interest rate for current mortgage
interestRateType	string	Type of interest for the current mortgage. Returns one of the following: <ul style="list-style-type: none"> Fixed Rate Loan Graduated Payment Loan Variable Rate Loan Unable to Assign/Missing
lender	string	Name of lender for first mortgage
titleCompany	string	Name of the title company for the mortgage

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Field	Type	Description
equity	integer	Equity in home based on mortgage balance and current market value
firstMortgageAmount	integer	Amount of first mortgage
secondMortgageAmount	integer	Amount of second mortgage
homeEquityLoan	integer	Amount of home equity loan

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Sample response body

```
{
  "requestId": "1420f134-26c6-41ce-b187-d03f767c7f25",
  "submissionId": "string",
  "status": "SUCCESS",
  "matchDescription": "Default match logic",
  "document": {
    "buildingCharacteristics": {
      "useType": "Single Family Residential",
      "airConditioning": "Central",
      "basement": "Unfinished Basement",
      "totalArea": 4145,
      "buildingClass": "A",
      "buildingCondition": "Good",
      "buildingQuality": "B+",
      "garageType": "Attached Garage",
      "garageNumCars": 2,
      "lotSize": 7096,
      "bathrooms": 2,
      "partialBathrooms": 1,
      "bedrooms": 4,
      "totalRooms": 11,
      "stories": 2,
      "pool": "Heated Pool",
      "roofType": "HIP",
      "roofCovering": "Asphalt",
      "yearBuilt": 2003,
      "heatingType": "Baseboard",
      "heatingFuelType": "GeoThermal",
      "construction": "Frame",
      "units": 2,
      "ownerOccupied": "Owner-occupied property (SFR/Condo)",
      "ownerName": "SMITH, VANESSA THOMAS; LOPEZ, MARIA",
      "buildings": 1
    },
    "valuation": {
      "apn": "748-761-5174",
      "marketValueMin": 123456,
      "marketValueMax": 234567,
      "landValue": 123456,
      "improvementValue": 123456,
      "assessmentYear": 2019,
      "assessedValue": 246912,
      "assessedMarketValue": 246912,
      "lastSalePrice": 350000,
      "lastSaleDate": "2023-01-24"
    },
    "mortgage": {
```

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```
"loanToValue": 35.67,  
"balance": 123456,  
"totalLienBalance": 150000,  
"loanAmount": 300000,  
"loanType": "New Conventional",  
"loanDate": "2023-01-24",  
"refinanceIndicator": true,  
"interestRate": "2.75%",  
"interestRateType": "Fixed Rate Loan",  
"lender": "Big Bank of Mortgages",  
"titleCompany": "Bad Wolf Title Company",  
"equity": 205000,  
"firstMortgageAmount": 456789,  
"secondMortgageAmount": 123456,  
"homeEquityLoan": 50000  
}  
}  
}
```


Authentication

Fenris Digital restricts access to its APIs and manages access tokens through an OAuth2 authorization server. The Client Credentials workflow defined by the OAuth 2 specification is the principal token manager. You will receive a Client-Id and Client Secret used to obtain an access token from the Authorization Server.

Obtaining a token

To get a token, make this request:

Entity	Content
URL	https://auth-fenrisd.auth.us-east-1.amazoncognito.com/oauth2/token
method	POST
header	<p>Content-Type: application/x-www-form-urlencoded</p> <p>Authorization: Basic <<BASIC_STRING>></p> <p>The BASIC_STRING is the Base-64 encoding of the client_id and client_secret separated by a colon. This is the standard token passed for Basic authentication with username replaced by client_id, and password replaced by client_secret.</p> <p>Many libraries will do this for you:</p> <ul style="list-style-type: none">• Select basic authentication• Set the username to your client_id• Set the password to the client_secret.
body	<p>client_id: <<Obtain from Fenris>></p> <p>grant_type: client_credentials</p>

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Sample response body – authentication request

```
{
  "token_type": "Bearer",
  "expires_in": 3600,
  "access_token": "<<omitted>>",
  "scope": "api"
}
```

Use the value in the `access_token` field as a Bearer token in the Authorization header of the request.

NOTE: Access tokens are good for one hour. You must submit another call to obtain a new token after the previous one expires.



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