Harris County Appraisal District
Reappraisal Plan
Tax Years 2015-2016

Adopted by the Board of Directors

August 20, 2014

Resolution No. 2014-01

A RESOLUTION OF THE BOARD OF DIRECTORS OF THE HARRIS
COUNTY APPRAISAL DISTRICT APPROVING AND ADOPTING
THE 2015-2016 REAPPRAISAL PLAN

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WHEREAS, the Texas Tax Code obligates the Board of Directors of the Harris County Appraisal District to adopt a written plan for the periodic reappraisal of all properties within the district's boundaries; and

WHEREAS, Texas Tax Code, Section 6.05 expressly requires the Board of Directors to complete all hearings, amendments, and resolutions necessary for the plan's adoption no later than September 15 of each even-numbered year; and

WHEREAS, the Board of Directors believes the adoption of the proposed reappraisal plan as submitted for years 2015-2016 is in the interest of the public;
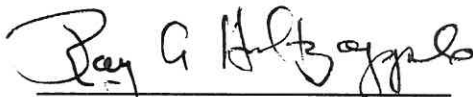
NOW THEREFORE, BE IT RESOLVED AS FOLLOWS:

The Board of Directors of the Harris County Appraisal District hereby adopts the attached 2015-2016 reappraisal plan as submitted to be implemented by the Harris County Appraisal District.

PASSED, APPROVED, AND ADOPTED this the 20th day of August 2014.

Chairman, Board of Directors
Harris County Appraisal District

ATTEST:

Secretary, Board of Directors
Harris County Appraisal District

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EXECUTIVE SUMMARY

Over the last year and a half, Houston's economy has experienced vigorous growth. Job growth, low unemployment, low interest rates and affordable housing have combined to create a very strong real estate market. In 2013 Houston lead the nation with 28,339 single-family home starts, which represents a 20% increase over 2012. Inventory has been below 4 months of supply since November 2012 and fell to its lowest level ever in December 2013 to 2.6 months. Comparing 2012 to 2013, sales volume increased 17.4%, total dollar volume increased 30.2%, average sales price increased 10.3%, and median sales price increased 9.4%. Foreclosures fell 48.8% from December 2012 to December 2013 and their median price increased.

Demand for commercial real estate has increased as evidenced in increasing sales volume, declining vacancy rates, rental increases, reduced concessions, and increased construction activity. Changes in the commercial real estate market, which vary by property type, make it especially important to monitor local trends and their effect on property values. To stay abreast of changes in Houston's large, complex commercial sector, the district will carefully evaluate the valuation components, such as market rents, capitalization rates, vacancy rates, concessions, and building costs.

In order for the district's appraisals to accurately reflect the changes in the local real estate market over the next two years, an annual reappraisal cycle will best serve to smooth out the unpredictability in market trends. The decision to reappraise in each year covered by this plan will allow the district the flexibility to evaluate current market data, implement changing building costs, re-delineate neighborhood and economic boundaries, and calibrate mass appraisal models.

Tax Code Sec. 6.05(i), which requires the adoption of this plan, uses "reappraisal" in a broad sense to mean the activities that the district undertakes every year – inspecting property, updating models, and appraising the property. Under this section, a property is reappraised when these activities are done, even if its value does not change. HCAD will reappraise all property in the district. Accordingly, this plan describes HCAD's activities as annual reappraisal, and it will be the district's policy to mail appraisal notices to all property owners in every year. The board of directors believes this policy is appropriate and in the public interest because it will make property owners fully aware of their property's value, even if no change has occurred.

REAPPRAISAL PLAN

TAX CODE REQUIREMENT

Sec. 6.05(i), Tax Code, requires each appraisal district to adopt a written reappraisal plan every two years. Sec. 25.18, Tax Code, requires the district to implement the plan. Sec. 6.05(i) provides:

> (i)   To ensure adherence with generally accepted appraisal practices, the board of directors of an appraisal district shall develop biennially a written plan for the periodic reappraisal of all property within the boundaries of the district according to the requirements of Section 25.18 and shall hold a public hearing to consider the proposed plan. Not later than the 10th day before the date of the hearing, the secretary of the board shall deliver to the presiding officer of the governing body of each taxing unit participating in the district a written notice of the date, time, and place of the hearing. Not later than September 15 of each even numbered year, the board shall complete its hearings, make any amendments, and by resolution finally approve the plan. Copies of the approved plan shall be distributed to the presiding officer of the governing body of each taxing unit participating in the district and to the comptroller within 60 days of the approval date.

Implementation

Subsections (a) and (b), Section 25.18, Tax Code, provide as follows:

> (a)   Each appraisal office shall implement the plan for periodic reappraisal of property approved by the board of directors under Section 6.05 (i).

> (b)   The plan shall provide for the following reappraisal activities for all real and personal property in the district at least once every three years:

>> (1)   Identifying properties to be appraised through physical inspection or by other reliable means of identification, including deeds or other legal documentation, aerial photographs, land-based photographs, surveys, maps, and property sketches;

>> (2)   Identifying and updating relevant characteristics of each property in the appraisal records;

>> (3)   Defining market areas in the district;

(4)   Identifying property characteristics that affect property value in each market area, including:

  (A)   The location and market area of the property;
  (B)   Physical attributes of property, such as size, age, and condition;
  (C)   Legal and economic attributes; and
  (D)   Easements, covenants, leases, reservations, contracts, declarations, special assessments, ordinances, or legal restrictions;

(5)   Developing an appraisal model that reflects the relationship among the property characteristics affecting value in each market area and determines the contribution of individual property characteristics;

(6)   Applying the conclusions reflected in the model to the characteristics of the properties being appraised; and

(7)   Reviewing the appraisal results to determine value.

REVALUATION POLICY (REAPPRAISAL CYCLE)

In each year covered by the plan, HCAD will conduct a mass appraisal of all properties in the district compliant with Uniform Standards of Professional Appraisal Practices (*USPAP*), and will update property values as necessary. The chief appraiser will provide a notice of appraisal for each property in compliance with Section 25.19, Tax Code.

2015 & 2016
REAPPRAISAL PLAN DETAIL

APPRAISAL ANALYSIS & DELIVERY OF NOTICES

In each Tax Year covered by the plan, HCAD will conduct a mass appraisal of all properties in the district and will update property values as necessary. The chief appraiser will provide a notice of appraisal for each property in compliance with Section 25.19, Tax Code. The activities involved in the appraisal analysis are described below.

PERFORMANCE ANALYSIS

For each Tax Year, the previous year's certified values will be analyzed with ratio studies to determine appraisal accuracy and uniformity overall and, by market area within state property reporting categories. Ratio studies will be conducted in compliance with the IAAO current *Standard on Ratio Studies.* Descriptive statistics, such as mean, median, and weighted mean ratios will be calculated for properties in each reporting category to measure the level of appraisal accuracy and the coefficient of dispersion (COD) will be calculated to measure appraisal uniformity by property reporting category. This analysis will be used to develop the basis for establishing the accuracy and uniformity of appraisal performance.

ANALYSIS OF AVAILABLE RESOURCES

Staffing and budgetary requirements for Tax Year 2015 are detailed in the district's 2015 budget, as adopted by the board of directors and attached to the written biennial plan by reference. This reappraisal plan is adjusted to reflect the available staffing in Tax Year 2015 and the anticipated staffing for Tax Year 2016. Staffing will impact the cycle of real property reinspection and personal property on-site review that can be accomplished in the 2015–2016 time period. The board of directors will annually evaluate the number of appraisal review board members needed to conduct hearings.

Information Systems (IS) support will be detailed with year specific functions identified and system upgrades scheduled. Computer generated forms will be reviewed for revisions based on year and reappraisal status. Legislative changes will be scheduled for timely completion and testing. Existing maps and data requirements will be specified and updates put in production as needed.

PLANNING AND ORGANIZATION

For each year, a calendar of key events with critical completion dates will be prepared for each major work area. This calendar identifies all key events for appraisal, clerical, Information & Assistance Division, and information systems. Production standards for

field and office activities will be established and incorporated in the planning and scheduling process. The scope of work, available time frame, staffing resources, and any budgetary constraints have been considered in the development of the reappraisal plan. To the extent that circumstances require revision to this plan, amendments to the plan will be submitted to the board of directors for approval.

MASS APPRAISAL SYSTEM

Computer Assisted Mass Appraisal (CAMA) system revisions and enhancements will be specified and prioritized with Information Systems. Legislative mandates will be addressed and implemented into the necessary system applications. All computer generated forms, letters, notices and orders will be reviewed annually and revised as required. The following details the procedures as they relate to the 2015 and 2016 Tax Years.

REAL PROPERTY VALUATION

Revisions to cost models, income models, and market models will be specified, updated and tested each Tax Year. In each year, cost schedules will be tested with market data to ensure that the appraisal district is in compliance with Section 23.011 of the Tax Code. Replacement cost new tables and depreciation tables will be tested for accuracy and uniformity through ratio studies and comparison with cost data from *Marshall & Swift Services,* which is a nationally recognized cost service.

Income, expense, and occupancy data will be updated in the income models for each market area and capitalization (cap) rate studies will be completed using current sales data. The resulting models will be tested using ratio studies.

Land tables will be updated using current market data and then tested with ratio studies. Restrictions, covenants, and other factors influencing value will be identified and analyzed. Value modifiers will be developed for property categories by market area as required, and tested with ratio studies.

PERSONAL PROPERTY VALUATION

Personal property analyst staff will analyze and test density schedules based on rendition and prior year hearing documentation. Models will be refined according to actual original cost data and valuation procedures will be reviewed, modified as needed, and tested.

APPRAISAL NOTICES

Appraisal notices will be reviewed for legal sufficiency and correctness. Enclosures will be updated, including the latest version of the comptroller's *Property Taxpayer Remedies.* Real property notices will generally be mailed in April. Personal property notices will be mailed in June.

Appraisal will conduct training of staff in April of each Tax Year to ensure preparedness for informal meetings, which begin the first week of May, and formal hearings, which generally begin the middle of May of each Tax Year. Revisions and enhancements to existing hearing scheduling procedures will be reviewed and updated to ensure efficiency and timely certification of the appraisal roll. Standards of documentation and the appraisal district hearing evidence will be reviewed and updated to reflect the current valuation methods and practices. Production of documentation will be tested and compliance with Tax Code requirements will be ensured.

IDENTIFYING & UPDATING RELEVANT PROPERTY CHARACTERISTICS

Field and office procedures will be reviewed and revised as required for data collection and verification of value-related and descriptive property characteristics for each property. Activities scheduled for each Tax Year include inspection of new construction, demolition, and remodeling, reinspection of problematic market areas, and reinspection of the universe of properties on a projected three-year cycle, and annual verification of sales information. Methods of reinspection include on-site inspection and use of orthographic and oblique imagery.

NEW CONSTRUCTION/DEMOLITION

Field and office review procedures for inspection of new construction will be reviewed and revised as required. Field production standards will be established and quality assurance will be conducted to verify accuracy of data. Building permits will be received from the cities and Harris County electronically and in paper form. CAMA system uploads and data entry will both be used to input the data into the Permits database. The process of verifying demolition of improvements will be specified.

REMODELING

Market areas with notable remodeling of improvements will be identified and on-site inspections will be scheduled to verify the degree of remodeling and property characteristic data. Varying levels of remodeling frequently exist in transition areas creating submarkets within a neighborhood, which will be analyzed through stratification of sales by degree of remodel.

REINSPECTION OF PROBLEMATIC MARKET AREAS

Real property market areas, stratified by property classification, will be tested for low or high protest volumes; low or high sales ratios; and high coefficients of dispersion. Particular attention will be given to the lowest value strata where the sales samples are usually small and the coefficients of dispersion are traditionally higher, which makes the accuracy of our data especially important. Market areas that fail any or all of these tests will be determined to be problematic. Field reviews will be scheduled to verify and correct property characteristics data. Additional sales data will be researched and

verified in order to assess whether the market area is correctly delineated. In the absence of adequate market data, neighborhood boundary lines may need to be redrawn and neighborhood clusters, representative of the overall market area will be established.

MARKET AREA DELINEATION

Market areas are defined by the physical, economic, governmental and social forces that influence property values. The effects of these forces were used to identify, classify, and stratify or delineate similarly situated properties into smaller, more comparable and manageable subsets for valuation purposes. Delineation can involve the physical drawing of neighborhood boundary lines on a map or, it can also involve statistical separation or stratification based on attribute analysis. These homogeneous properties have been delineated into valuation neighborhoods for residential property or economic class for commercial property, but because there are discernible patterns of growth that characterize a neighborhood or market segment, analyst staff will annually evaluate the neighborhood boundaries or market segments to ensure homogeneity of property characteristics. Residential and commercial market areas are listed in the Addendum.

REINSPECTION OF THE UNIVERSE OF PROPERTIES

The Texas Property Tax Code, Section 25.18 (b) requires the reinspection of the universe of properties at least once every three years. Real property reinspection for the 2015 and 2016 Tax Years will be completed using a combination of field inspections and office review in compliance with the IAAO *Standard on Mass Appraisal of Real Property*. Office review of property will include; 1) the examination of aerial photography using oblique and orthographic imagery, which allows for digital verification of building measurements and visual inspection of external economic influences; 2) the review of existing property sketches and property characteristics; and 3) when available, the review of street-view digitized images.

A sketch verification project will be incorporated as part of an on-site review in each Tax Year of the reappraisal plan. GIS building roof lines will be used to calculate square footage and perimeter of the area to compare against existing CAMA square footage.

FIELD OR OFFICE VERIFICATION OF SALES DATA AND PROPERTY CHARACTERISTICS

Specific data about the date, price, terms and conditions of a sale must be verified for proper analysis and use in a ratio study. Information on property characteristics that reflect the property at the time of sale must be captured in order to determine whether property that was appraised is essentially the same as what was sold. This is particularly necessary when the property was involved in a foreclosure proceeding. Frequently, foreclosed property has been abandoned or neglected leaving the property in a less than desirable condition. Sales and property characteristics data must be accurate or ratio study results will be distorted.

<u>LEGAL ATTRIBUTES AFFECTING VALUE</u>

The district will maintain an active program, conducted by the information and assistance division, to identify and describe elements of recorded conveyances that will affect the use or value of the property, such as easements, covenants, reservations, and declarations. The district will also monitor the enactment or changes of governmental restrictions affecting property value, such as zoning, health ordinances, special assessments, and other legal restrictions. Where leases and other possessory interests are of a nature and duration that they affect the taxability of property or determination of a property's appraised value under the Tax Code, they will be considered in the individual valuation of the property to which they apply.

PILOT STUDY

New or revised mass appraisal models will be tested on randomly selected market areas. Sales ratio studies will be used to test the models. Predictive results will be compared against actual results and those models not performing satisfactorily will be refined and retested. The procedures used for model specification and model calibration will comply with *USPAP* Standards Rule 6, for the applicable year.

The prior year hearing review project entails performing a comprehensive review of accounts that had statistically significant value reductions in the previous year's appraisal review board (ARB) hearings. The goal is to ensure that any issues presented during the previous year's hearings are addressed prior to increasing the account's value for the current year. We will review both the property owner's and the appraisal district's evidence presented at the ARB hearing along with listening to the hearing recording. We may also contact the property owner or agent to inquire about any issues surrounding their property and, at a minimum, inform them that their value will be increasing from the prior year's hearing value.

VALUATION METHODS BY PROPERTY TYPE

For each Tax Year, valuation models will be specified and calibrated in compliance with the technical standards from IAAO and *USPAP*. The calculated values will be tested for accuracy and uniformity using ratio studies. Performance standards will be those as established by the IAAO current *Standard on Ratio Studies*. Property values in all market areas will be analyzed and updated each reappraisal year as required for appraisal level and uniformity.

<u>RESIDENTIAL REAL PROPERTY</u>

Ratio studies will be conducted on approximately 7,203 residential valuation neighborhoods to judge the two primary aspects of mass appraisal accuracy: level and uniformity of value (*Fundamentals of Mass Appraisal*, IAAO, 2011). The reappraisal process for residential property, which includes land analysis, sales outlier review,

neighborhood sales analysis, and finalization of proposed estimates of value, typically occurs mid-September through February.

<u>Valuation Methods Used:</u>

Cost Approach

The district will use a market trended cost approach when valuing single-family and multi-family residential properties. The comparative unit method will be used to develop the "base" cost of a structure. Adjustments will then be made for differences from base specifications using the unit-in-place method. Table-driven cost factors, taken from *Marshall & Swift*, a nationally recognized cost estimator, will be adjusted for local or regional differences in construction and labor costs. Neighborhood or location adjustment factors will be developed from appraisal statistics provided by ratio studies to ensure that estimated values reflect both the supply and demand side of the market. The following equation denotes the market trended cost model used:

$$MV = MA\ [RCN - D] + LV$$

The market value (MV) equals the market adjustment factor (MA) multiplied by the replacement cost new (RCN) less depreciation (D), plus the land value (LV). As the cost approach separately estimates both land and building values and uses depreciated replacement costs, which reflect only the supply side of the market, it is expected that adjustments to the cost values are needed to bring the level of appraisal to an acceptable standard. Market or location adjustments are applied uniformly within neighborhoods to account for location variances between market areas or across a jurisdiction.

Residential land values will be estimated using the base lot method, which establishes the value of the standard, or "base" parcel within each stratum or delineated neighborhood through sales comparison analysis. The analysis assumes that the major factors causing variations among land values within a neighborhood are view, traffic, and size. In areas where insufficient vacant land sales exist, the abstraction method, also known as the land residual method and the allocation method, known as the land ratio method will be used to establish base lot values within a neighborhood. The analysts will develop a base lot and primary rate, and assign each unique neighborhood to one of six square foot land tables. The square foot land table is designed to systematically value the primary and residual land based on a specified percentage of the primary rate. A computerized land table stores the land information required to consistently value individual parcels within neighborhoods. Land adjustments will be applied on individual properties, where necessary, to adjust for such influences as view, shape, size, and topography, among others.

If a neighborhood is to be updated, the analyst will run a ratio study that compares recent time adjusted sale prices in a neighborhood with the properties' current cost values trended by the previous year's market adjustment factor. The weighted mean of these ratios indicates the neighborhood's level of value. This weighted mean ratio will be compared to the target appraisal-to-sale ratio to determine a new market adjustment

factor that will trend the values closer to the market value evidenced by recent sale prices. The sales used reflect the market influences and conditions only for the specified neighborhood, thus producing more representative and supportable values. A market adjustment factor is calculated and applied uniformly by state class to residential properties within a neighborhood. Once the market-trend factors are applied, a second run of the ratio study is generated that compares recent sale prices with the proposed market values for these sold properties. From this set of ratio studies, the analyst will judge the appraisal level and uniformity in both update and non-update neighborhoods.

The residential cost schedules were extensively reviewed for 2013 and compared to building cost indices for 2014. The residential depreciation schedules were reviewed and updated for 2014. Both the residential cost and depreciation will be extensively reviewed for tax year 2015 and will be monitored to ensure that they are within acceptable limits for 2016. The biennial comparison of the *Marshall and Swift* cost index is used as a check to determine whether residential costs have changed more than 10% since our last cost update. Samples of newly constructed sold properties of varying construction quality in Harris County will be reviewed. The property characteristics of these sampled properties will be verified and photographs will be taken. HCAD dwelling costs will be compared against current *Marshall & Swift Residential Estimator* costs. This process includes correlation of quality of construction factors from HCAD and *Marshall & Swift*. The results of this comparison will be analyzed using several measures, including stratification by quality and review of estimated building costs, as well as land value to sales prices.

Sales Comparison Approach

As indicated in *Property Appraisal and Assessment Administration* (IAAO, 1990), in the absence of a sale of the subject, sales prices of comparable properties are usually considered the best evidence of market value. The sales comparison approach models the behavior of the market by comparing the properties being appraised with comparable properties that have recently sold or for which offers to purchase have been made. Their sales prices are then adjusted for differences from the subject and a market value for the subject is estimated from the adjusted sales prices of comparable properties.

The district does not currently develop estimates of value for single-family properties using a mass appraisal sales comparison approach due to limitations of the CAMA software. The district is exploring software capable of developing value estimates through the direct sales comparison approach and multiple regression analysis (MRA).

Income Approach

The income approach is most suitable for types of properties frequently purchased and held for the purpose of producing income, such as apartments, office buildings, retail and warehouses. The district typically uses this approach on single-family condominium complexes that are being operated as apartments and individual unit sales information is not available. The schedules and models used for single-family condominium income

valuation are the same used for apartments and are summarized in the *Commercial Valuation Manual*.

<u>INVENTORY RESIDENTIAL PROPERTY</u>

Residential improved and vacant property held as inventory is appraised in compliance with the Texas Property Tax Code, Section 23.12 (a).

In general, the district uses its own land value estimates and the actual itemized construction, labor, and material costs, plus other soft or indirect costs to estimate market value as of the assessment date. The market values of improved inventory will be reviewed annually and inventory consideration will be eliminated when ownership transfers to the property owner.

Vacant residential inventory will be valued using a discounted cash flow formula that considers value relative to the income or cash flow, the interest or discount rate, and the number of years the property is likely to be held. As with improved inventory, full market value will be applied once the vacant land is absorbed and ownership transfers for the purpose of residential construction.

<u>COMMERCIAL REAL PROPERTY</u>

Ratio studies will be conducted on 30 market areas to judge the two primary aspects of mass appraisal accuracy: level and uniformity of value. The reappraisal process for commercial property, which includes land analysis, sales outlier review, neighborhood sub-delineation, and finalization of proposed estimates of value, typically occurs mid-September through February. Once proposed values are finalized, a ratio study will be performed again to test the level and uniformity of appraisal within property use and among various classes. Apartments with over twenty units will be valued using the income approach. Apartments, retail, warehouses, office buildings, and golf courses will be valued by the cost approach or the income approach, as deemed most appropriate pursuant to Section 23.0101, Tax Code.

<u>Valuation Methods Used:</u>

Cost Approach

The cost approach to value will be applied using the comparative unit method. This methodology involves the use of national cost data reporting services as well as actual cost information on comparable properties whenever possible. Cost models are typically developed based on *Marshall & Swift.* Cost models include the use of replacement cost new (RCN) of all improvements. The replacement cost will be used because it values the cost of a property that is a utility equivalent of the property being appraised using current construction methods and materials. This method is an alternative to using the reproduction cost, which is the cost to construct an exact replica of the property being appraised. These costs include comparative base rates, per unit adjustments and lump sum adjustments. This approach also employs an alternative valuation method for the

underlying land. Time and location modifiers will be necessary to adjust cost data to reflect conditions in a specific market and changes in costs over a period of time.

A national cost service is used as a guideline for our cost models and local modifiers will be applied to adjust the base costs specifically for Harris County. Depreciation schedules will be developed based on what is typical for each property type of a specific age. Depreciation schedules have been implemented for what is typical of each major class of commercial property by economic life categories. Schedules have been developed for improvements with a fifteen to sixty-year expected economic life at 5-year intervals. These schedules will be tested every other year to ensure they will be reflective of current market conditions. The actual and effective ages of improvements will be noted in the CAMA software. Effective age estimates will be based on the utility of the improvements relative to the improvement's total economic life and its competitive position in the marketplace. Effective age estimates will be based on three levels of renovation and will be described in the *Commercial Lister's Manual.*

Market adjustment factors such as physical, functional and economic obsolescence will be applied, if warranted. A depreciation calculation override will be applied if the condition or effective age of a property varies from the norm. This override is indicated by appropriately noting the physical condition, functional utility, and economic ratings on the property data characteristics. These adjustments will typically be applied to a specific property type or location and will be developed through ratio studies or other market analyses. Accuracy in the development of the cost schedules, condition ratings, and depreciation schedules usually minimize the necessity of this type of an adjustment factor.

Sales Comparison Approach

Although all three of the approaches to value are based on market data, the Sales Comparison Approach is most frequently referred to as the Market Approach. This approach is utilized not only as a primary method for estimating land value, but also in comparing sales of similarly improved properties to each parcel on the appraisal roll. Pertinent data from actual sales of properties, both vacant and improved, will be obtained throughout the year in order to analyze relevant information, which is then used in all aspects of valuation. Sales of similarly improved properties can provide a basis for the depreciation schedules in the cost approach, rates and multipliers used in the income approach, and as a direct comparison in the sales comparison approach. Improved sales will also be used in ratio studies, which afford the analyst an excellent means of judging the present level and uniformity of the appraised values. The district implemented a regression modeling training in October 2011 using statistical software external to our existing CAMA. The division's plan is to continue training analyst staff in the use of the statistical software and regression modeling during the two years covered by this reappraisal plan. It is anticipated that estimates of value developed using the sales comparison approach will be done concurrently with values generated through the income or cost approaches to value in the two years covered by this plan. The decision as to what primary valuation method would be applied in a given tax year will be determined by reconciliation of the three approaches to value.

Based on the market data analysis and review discussed in the cost, income and sales approaches, the cost and income models will be calibrated annually. The calibration results will be keyed to the schedules and models in our CAMA system for utilization on all commercial properties in the district. The schedules and models will be summarized in the *Commercial Valuation Manual*. This manual will be provided to appraisers and made available to the public in an easy to understand format.

Income Approach

The income approach to value will be applied to those real properties that are typically viewed by market participants as "income producing", which are bought and sold based on the property's ability to produce income, and for which the income methodology is considered a leading value indicator. The first step in the income approach pertains to the estimation of market rent. This is derived primarily from actual rent data furnished by property owners and from local market study publications. This per unit rental rate multiplied by the number of units results in the estimate of potential gross rent.

A vacancy and collection loss allowance is the next item to consider in the income approach. The projected vacancy and collection loss allowance is established from actual data furnished by property owners and on local market publications. This allowance accounts for periodic fluctuations in occupancy, both above and below an estimated stabilized level. The market derived stabilized vacancy and collection loss allowance is subtracted from the potential gross rent estimate to yield an effective gross rent. A secondary income or service income is calculated as a percentage of stabilized effective gross rent. Secondary income represents parking income, and other miscellaneous income generated by the operations of real property. The secondary income estimate is derived from actual data collected and available market information. In addition to the secondary income, subjects valued on a net basis including office buildings, retail and warehouse properties, have a pass through income added to account for recoveries directly associated with the variable expenses and property taxes. This income is referred to as common area maintenance (CAM). The secondary income and the pass through estimates are added to the effective gross rent to arrive at an effective gross income.

Allowable expenses and expense ratio estimates will be based on a study of the local market, with the assumption of "prudent management". An allowance for non-recoverable expenses such as leasing costs and tenant improvements will be included in the expenses. A non-recoverable expense represents costs that the owner pays to lease rental space. Different expense ratios will be developed for different types of commercial property based on use. For instance, retail, class A office buildings and class A and B medical office buildings are most frequently leased on a triple-net basis, whereby the tenant is responsible for his pro-rata share of taxes, insurance and common area maintenance. In comparison, class B, C and D office buildings are most often leased on a base year expense stop. This lease type stipulates that the owner is responsible for all expenses incurred during the first year of the lease. However, any amount in excess of the total per unit expenditure in the first year is the responsibility of the tenant. Under this scenario, the total operating expense in year one establishes the base rate. Any increase in expense over the base rate throughout the remainder of the lease term would

be the responsibility of the tenant. As a result, expense ratios will be implemented based on the type of commercial property.

Another form of allowable expense is the replacement of short-lived items, such as roof or floor coverings, air conditioning or major mechanical equipment, or appliances requiring expenditures of large lump sums. When these capital expenditures are analyzed for consistency and adjusted, they may be applied on an annualized basis as stabilized expenses. When performed according to local market practices by commercial property type, these expenses when annualized are known as replacement reserves. Subtracting the allowable expenses (inclusive of non-recoverable expenses and replacement reserves) from the effective gross income yields an estimate of net operating income.

Rates and multipliers will be used to convert income into an estimate of market value. These include income multipliers, overall capitalization rates, and discount rates. Each of these is used in specific applications. Rates and multipliers also vary between property types, as well as by location, quality, condition, design, age, and other factors. Therefore, application of the various rates and multipliers must be based on a thorough analysis of the market. These procedures are documented in the recently updated *Commercial Valuation Manual.*

Capitalization analysis will be used in the income approach models. This methodology involves the capitalization of net operating income as an indication of market value for a specific property. Capitalization rates, both overall (going-in) cap rates for the direct capitalization method and terminal cap rates for discounted cash flow analyses will be derived from the market. Sales of improved properties from which actual income and expense data are obtained provide a very good indication of what a specific market participant is requiring from an investment at a specific point in time. Additionally, overall capitalization rates can be derived from the built-up method, band-of-investment, debt coverage ratio, and published sources for similar properties, as well as results from verified sales. The capitalization rates relate to satisfying the market return requirements of both the debt and equity positions of a real estate investment. This information is obtained from real estate and financial publications, as well as cap rate studies conducted by the district using verified sales and income information for that specific property.

Rent loss concessions will be made on specific properties with known vacancy problems. A rent loss concession accounts for the impact of lost rental income while the building is moving toward stabilized occupancy. The rent loss will be calculated by multiplying the rental rate by the percent difference of the property's stabilized occupancy and its actual occupancy. Build-out allowances for first generation space or retrofit second generation space and leasing expenses will be added to the rent loss estimate. A leasing expense necessary to bring the property to a stabilized level is also included in this adjustment. The total adjusted loss from these real property operations will be discounted using an acceptable risk rate. The discounted value, inclusive of rent loss due to extraordinary vacancy, build out allowances and leasing commissions, becomes the rent loss concession and will be deducted from the value estimate of the property at stabilized occupancy. A variation of this technique allows that for every year that the property's

actual occupancy is less than stabilized occupancy a rent loss deduction may be estimated.

LAND ANALYSIS

As defined in the Texas Property Tax Code Section 23.01, the market value of property shall be determined by the application of generally accepted appraisal methods and techniques. The market value is the most probable sale price of a property if exposed to the open for a reasonable length of time without either parties acting under duress. The economic principle most applicable to land valuation is highest and best use. The concept of highest and best use implies that the market value of a property depends on future potential use rather than current use. Additionally, other economic principles critical in land valuation include supply and demand, surplus productivity, change, and anticipation. Value estimates for land will be primarily established by way of the sales comparison approach. The sales comparison approach is the preferred and most reliable method when sufficient sales data is available. However, in areas in which sufficient sales data does not exist, the abstraction method, allocation method, and cost of development method will be utilized.

The first step in land valuation will be to conduct a market analysis. The market analysis will be comprised of three steps; stratification, determination of units of comparison, and data analysis. Stratification involves sorting of the sales and other market data into homogenous groups. Within each stratum, land will then be analyzed and valued according to common units of comparison. Once sales are stratified and prices are expressed per common unit of comparison, patterns and trends in land values will be determined. Factors that affect commercial land value include access, visibility, proximity to a variety of transportation modes, freestanding and business park locations, size and shape of sites. Additionally, cadastral maps showing the boundaries and other relevant features of all parcels will be used. The analysts use Geographic Information Systems (GIS) to store maps as databases and help ensure accuracy in land valuation. The county is delineated into 30 economic areas and an analyst's responsibilities will be assigned using these boundaries. Once values are established for the market area and neighborhoods, land adjustments will be applied to individual parcels as necessary to adjust for influences in shape, size, topography and other influences.

Concluding the assignment of valuing land, the analysts perform ratio studies that compare sales prices of properties to current assessed values. The weighted mean of these ratios indicate the current level of assessment and help an analyst to determine if the new values are accurate. In addition, analysis to review horizontal equity is performed.

INDEPENDENT COMMERCIAL VALUATION STUDY

In June 2014, the appraisal district commissioned an independent study of commercial valuation procedures, including an assessment of value accuracy and uniformity. The district contracted with the consultant firm of Almy, Gloudemans, Jacobs & Denne. The

findings of the study were generally very positive, but did recommend areas for future improvement.

The recommendations of the study have set new goals for the commercial division. While some of the recommendations can be implemented immediately, others will require time, planning, reallocation of resources, and in some cases, system enhancements to implement.

The recommendations include: extending the income approach to more properties, greater use of statistical software, using multiple regression analysis, strengthening sales ratio and time trend programs, modeling valuation parameters, ensuring equal treatment of sold and unsold properties, and adding the price related bias to analysis. The commercial division is committed to implementing all of the recommendations of this study over the time frame covered in this reappraisal plan.

<u>INDUSTRIAL REAL PROPERTY</u>

Industrial properties will be valued in accordance with sections 23.01, 23.0101, 23.011, 23.012, and 23.013 of the Texas Tax Code. Sec. 23.0101, Texas Tax Code, states that "In determining the market value of property, the chief appraiser shall consider the cost, income, and market data comparison methods of appraisal and use the most appropriate method".

Industrial real property will be valued each tax year by district staff or by appraisal firms contracted to provide valuation assistance for major industrial complexes and general industrial property. A sample of contractor-valued accounts will be randomly selected from each contractor for review. The contractors will provide documentation to illustrate how *USPAP* Standard 6 was followed during the valuation process on these accounts.

The Chief Appraiser will request, and pursue as necessary, information required to consider and analyze the cost, income, and market data comparison methods of appraisal and to use the most appropriate methods(s).

<u>Valuation Methods Used</u>:

Cost Approach

Cost, income, and market data comparison methods of appraisal are all considered during valuation. If the cost approach is used, it is done in accordance with Sec. 23.011 of the Texas Tax Code.

Values will be appropriately adjusted for age and condition and, if warranted, additional adjustment will be made for facility utilization. For example, two facilities making the same or similar products will not necessarily be similarly valued as one facility may have better efficiencies which make that facility worth more in the market.

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Cost schedules will be tested with market data to ensure that the appraisal district is in compliance with Texas Property Tax Code, Section 23.011. Replacement cost new and depreciation tables will be tested for accuracy and uniformity using ratio studies compared with cost data from *Marshall & Swift*. Industrial real property improvements have historically been valued using the *Boeckh Valuation System*, whose software is updated annually to ensure current market trends will be reflected in real property valuation.

Sales Comparison Approach

Cost, income, and market data comparison methods of appraisal are all considered during valuation. If the market data comparison method or sales comparison approach is used, it is done in accordance with Sec. 23.013 of the Texas Tax Code.

Industrial real property does not have a history of being bought and sold with any regularity in the open market. In fact, most industrial facilities remain just as they are for many years, or decades, without changing ownership. The few sales of industrial facilities that do occur are not typically used because the sales are usually part of a merger or acquisition and other assets and intangible considerations are part of the sales price, and are not disclosed. Use of the sales comparison approach for industrial real property appraisal can be difficult when an insufficient number of verifiable sales of stand-alone properties are obtainable to have a representative sample of properties.

Income Approach

Cost, income, and market data comparison methods of appraisal are all considered during valuation. If the income approach is used, it is done in accordance with Sec. 23.012 of the Texas Tax Code.

Use of the income approach for industrial real property appraisal requires particular focus on the individual characteristics of, and affecting, that particular property. Industrial facilities are typically valued using the income approach to value when reliable income information is available.

UTILITY PROPERTY

HCAD contracts with an engineering appraisal firm to provide estimates of value for real and personal property utilities. Unitary valuation methods are generally used to value utility property. This is the same method employed by the Comptroller when conducting the Property Value Study. These values will be provided to the district by late May of each Tax Year. The market area for utility properties can be statewide or regional.

Valuation Methods Used:

Income Approach

The income approach is heavily considered in unitary valuation, which values the unit as a whole and the result is apportioned to the pieces of the whole. The worth of this

income stream can be compared to other investment opportunities to select the proper capitalization rate to apply to the income stream to estimate the value of the system. The worth of a utility is the income stream the system will generate compared to alternative investments that may have less risk in the market. The capitalization rate that is used to estimate the value of the income stream from the utility will always have a risk component. Physical, functional and economic depreciation will be applied to the valuation and any additional consideration for economic issues will be applied. Economic factors will usually be reflected in the risk portion of the capitalization rate.

Cost Approach

The cost approach is typically given more weight when the assets are newer. However, the cost to build a utility facility is very high in today's market and there is not enough available land in proximity to population density to attract construction.   Few new utilities have been built in recent years that are of sufficient magnitude to serve a large population, therefore, sufficient cost data is not available to use for valuation comparison purposes.

Sales Comparison Approach

The sales comparison approach is typically not an appropriate method of valuation for this property type. Utility properties, such as electric generation, electric transmission, telephone, and cable systems will rarely be sold in the open market on a stand-alone basis. When a utility sells, it sells as an entire company, not piecemeal assets.

MINERALS

HCAD contracts with an engineering appraisal firm to provide estimates of value for mineral properties such as oil, gas and salt reserves. These values will be provided to the district by late May of each Tax Year. The market area for mineral accounts is usually regional.

Valuation Methods Used:

Income Approach to Value

The appraisal district contracts with an engineering appraisal firm for mineral appraisals. The income approach will typically be used to value mineral interests. This entails estimating the remaining future reserves of the property and the timing of how those reserves will be recovered. This estimation of future production along with the estimation of future pricing will generate an estimated yearly income that is discounted to current day dollars. Each succeeding year's income will be more heavily discounted than the previous, thus rendering less and less value contribution with each succeeding year. For example using a discount of 20%, a dollar ($1.00) anticipated to be received in the 10th year of the productive life of an oil or gas lease would only contribute $.18 (18 cents) of value in today's dollars, whereas, a dollar anticipated to be received in the first year would contribute $.91 (91 cents) in today's dollars. Each year's value contribution will be added, and then a market adjustment factor will be applied. The estimated value will

be determined from this total, based on the type of interest owned and the decimal interest owned in the lease.

The appraisal firm's valuation methodology is in compliance with Section 23.175 (a) of the Tax Code.

BUSINESS AND INDUSTRIAL TANGIBLE PERSONAL PROPERTY

These property types will be valued each Tax Year by district appraisal staff and contract appraisal firms. After the contractor submits their values, a sample of accounts will be randomly selected from each contractor to review. These accounts will be sent to the contractors requesting documentation to illustrate how *USPAP* Standard 6 was followed during the valuation process. Estimates of value developed by the appraisal firms will be provided to HCAD by late May of each Tax Year. The notices of appraised value for business and industrial personal property will be mailed in mid-June.

Valuation Methods Used:

Cost Approach

Although the cost, income, and market data comparison methods of appraisal are all considered, the cost approach is typically determined to be the most appropriate method to value business and industrial personal property. Properties valued using this method is done in accordance with Sec. 23.011 of the Texas Tax Code.

Cost schedules will be developed based on Standard Industrial Classification (SIC) codes. These schedules will be reviewed to conform to changing market conditions, if necessary.

Valuation models will be created and refined using actual original cost data to derive the replacement cost new (RCN) per square foot (or applicable unit) for a specific category of assets. The SIC codes will be prioritized and data will be compiled for review. Individual accounts will be selected for field inspection. Models will be built, adjusted and tested against the prior year's data. The typical RCN per applicable unit is determined by a statistical analysis of the available data.

The valuation models will be used to develop estimates of value for new accounts where no rendition has been filed. The models also establish parameters for testing the valuation of property for which prior years' data exist or for which current year rendered information is available. If the value tested falls within an acceptable tolerance range of the model value, the account passes that check and moves to the next valuation step. If the account fails, it is flagged for individual review. These tolerances may be adjusted for the current year depending on the analysis of the results from the prior year. This approach uses RCN, which is developed from property owner reported historical cost or from existing valuation models. The trending factors used to develop RCN will be based on the national average for equipment as published in a monthly report of the *Marshall Valuation Service* by Marshall & Swift, L. P., from the fourth quarter (typically October) of the prior year.

The RCN is calculated as follows:

$$\text{RCN} = \text{HISTORICAL COST} \ \ \text{X} \ \ \text{INDEX FACTOR}$$

The percent good depreciation factors will be based on the depreciation schedules for furniture, fixtures, and equipment as published in the *Marshall Valuation Service*. This mass appraisal percent good depreciation schedule is used to ensure that estimated values are uniform and consistent within the market. RCN and percent good depreciation factors will be utilized to develop value estimates using the following formula:

$$\text{MARKET VALUE ESTIMATE} = \text{RCN} \ \ \text{X} \ \ \text{PERCENT GOOD FACTOR}$$

Leased and multi-location assets may be valued using original costs and the index factors and percent good depreciation schedules mentioned above.

Sales Comparison Approach

Business personal property is typically sold as part of the business as a whole and not by itself, which makes this approach unsuitable for valuing most personal property. This approach is only suitable for the valuation of certain types of vehicles and heavy equipment. Value estimates for vehicles will be provided by an outside vendor and are based on data furnished by National Market Reports. An appraiser using published market guides such as National Automotive Dealers Association (NADA) book values, Aircraft Blue Book, or Hunter McLean market guides will appraise these types of properties.

There are not sufficient sales of industrial personal property to have a meaningful population of sales for value comparison purposes. This category of personal property is inclusive of all types at a facility, such as furniture, computers, or machinery. It is typical for personal property to be included in the sale of a facility, instead of being sold separately. There may be subsets of personal property that are sold, but that does not provide the sales of all personal property necessary to make value comparisons under the sales approach.

Income Approach

The income approach has limited use in the appraisal of machinery, equipment, furniture, fixtures, and leasehold improvements because of the difficulty in estimating future net benefits; except in the case of certain kinds of leased equipment. When reliable data on equipment leases is available, the income approach may be used to estimate fair market value of the equipment.

THE MASS APPRAISAL REPORT

Each Tax Year, the mass appraisal report is prepared and certified by the chief appraiser at the conclusion of the appraisal phase of the ad valorem tax calendar (on or about May 15th). The mass appraisal report is completed in compliance with *USPAP* Standards Rule 6-8. The signed certification by the chief appraiser is compliant with *USPAP* Standards Rule 6-9. This reappraisal plan is attached to the mass appraisal report by reference.

VALUE DEFENSE

Evidence to be used by the appraisal district to meet its burden of proof for market value and equity in informal meetings and formal appraisal review board hearings will be developed and provided to the property owner or agent in compliance with Sections 41.461 and 41.67(d), Tax Code. Evidence will be generated and available in our Information & Assistance Division on the 3rd floor or on the district's website through *iFile* at www.hcad.org/iFile.

APPENDIX: CALENDAR OF KEY EVENTS

CALENDAR OF KEY EVENTS
2015-2016

RESIDENTIAL

	Sep.	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
Land Analysis		X	X									
Neighborhood Delineation	X	X	X									
Sales Validation	X	X	X	X								
Reinspection	X	X	X	X	X	X	X	X	X	X	X	X
Sales Ratio Analysis/Valuation:												
Model Specification		X	X	X								
Model Calibration				X	X	X						
Final Value Review						X	X	X				
New Construction/Discovery					X	X	X					
New Construction Value Review							X	X	X			
New Subdivisions	X						X	X	X	X	X	X
Split-outs/Combinations	X	X	X	X	X	X	X	X	X	X	X	X
Jurisdiction Estimates	X	X	X	X	X	X	X	X	X	X	X	X
Prior Year Correction Hearings	X	X	X	X	X	X	X	X				
Prior Year Corrections	X	X	X	X	X	X	X	X	X	X	X	X
Field Checks	X	X	X	X	X	X	X	X	X	X	X	X
Current Year Hearings	X	X	X						X	X	X	X

COMMERCIAL

	Sep.	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
Land Analysis		■	■	■								
Reinspection		■	■	■				■	■			
Key Income & Expense Data		■	■									
Valuation:												
Land				■	■	■	■					
Income				■	■	■	■					
Cost		■	■	■	■	■						
Sales Analysis		■	■			■	■					
Permit Research	■	■	■	■	■	■	■					
New Construction/Discovery			■	■	■	■	■					
New Construction Value Review							■	■				
New Subdivisions					■	■	■	■	■			
Split-outs/Combinations					■	■	■	■	■	■	■	■
Sales Verification	■	■	■	■	■	■	■	■	■	■	■	■
Prior Year Correction Hearings		■	■	■	■	■	■	■	■			
Prior Year Corrections	■	■	■	■	■	■	■	■	■	■	■	■
Current Year Hearings	■									■	■	■

	Sep.	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
PP Rendition Penalty Waivers/Hrgs	■	■	■	■	■							
Appraisal Contractors:												
Negotiate Contracts	■	■										
Assign Accounts	■	■										
Deliver estimates of value								■	■			
Land Analysis	■	■										
Reinspection/Discovery	■	■	■	■	■	■						
Valuation:												
Industrial Real Property	■	■	■	■	■	■	■					
Industrial Personal Property					■	■	■	■	■	■	■	
Permit Research						■	■					
New Construction/Value Review						■	■					
Prior Year Correction Hearings	■	■	■	■	■	■	■	■				
Prior Year Corrections	■	■	■	■	■	■	■	■	■	■	■	■
Current Year Hearings										■	■	■

	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
PP Rendition Penalty Waivers/Hearings	■	■	■	■	■							
Appraisal Contractors:												
Negotiate Contracts	■	■										
Assign Accounts	■	■										
Deliver estimates of value								■	■	■		
Reinspection/Discovery	■	■	■	■	■	■	■					
Valuation:												
CAPPA Modeling	■	■	■	■								
Rendition Rvw/Finalize Values							■	■	■	■	■	■
Rendition Processing					■	■	■	■	■	■		
Prior Year Correction Hearings	■	■	■	■	■							
Prior Year Corrections	■	■	■	■	■	■	■	■	■	■	■	■
Current Year Hearings	■	■									■	■

APPENDIX: MARKET AREAS

Residential Market Areas

Market Area	Description
100	1A North of Westheimer
101	1A South of Westheimer
102	1A S of Westpark, E of Fondren
103	1A Outside the Beltway
110	1B North Central
111	1B East of Main
112	1B South of Braeswood
121	1B South of Main
122	1B S of Bissonnet, E of Fondren
123	1B W of Fondren & Hillcroft, N of Bissonnet
130	1C Midtown
131	1C East of 288 & North of 610
132	1C South of 610
133	1C TH's E of 288 & N of 610
134	1C East of Main
140	1D South of Bayou
141	1D Townhouse
142	1D North of Bayou
150	1E West of Hardy Toll Road
151	1E East of Hardy Toll Road
160	1F Northwest Quarter
161	1F Heights, Brooksmith, Norhill
162	1F Afton Oaks to Shepherd
163	1F Montrose, Fourth Ward
164	1F River Oaks
170	1F North of Loop 610, West of I45
171	1F West of 290
172	1F East of 290, North of Loop 610
180	1G W of Loop, N of Westpark Toll
181	1G S of Westpark Toll S of Loop
182	1G Inside Loop S of SW Frwy
183	1G In Loop, S of I10 N of SW Frwy
184	1G Heights, N of I10
185	1G Southeast of Loop
188	1H Condo - West of Beltway 8
189	1H Condo - S of Westpark Toll S of Loop
190	1H Condo - S of Loop E
191	1H Condo - Far North & East of N Loop
192	1H Condo - Heights_I 10 Corridor
193	1H Condo - W of Loop & N of Westpark Toll
194	1H Condo - S of Mem in Loop N of Braeswd
195	1H Condo - S of Braeswood inside Loop
196	1H High Rise Luxury
197	1H High Rise Downtown & Midtown

Residential Market Areas

Market Area	Description
198	1H High Rise General
200	ISD 02 - Deer Park ISD
210	ISD 03 - Waller ISD
220	ISD 04 - N. of 290 W. of 1960
221	ISD 04 - W. of Hwy 6 S. of 529
223	ISD 04 - E. of Beltway
224	ISD 04 - N. of 290 Between 1960 & Beltway 8
225	ISD 04 - W. of Blt. 8 E. of Hwy 6-S.290
227	ISD 04 - W. of Hwy 6, S. of 290, N. of 529
240	ISD 05 - Crosby ISD
250	ISD 06 - Channelview ISD
260	ISD 07 - New Caney ISD
270	ISD 08 - Alief General
271	ISD 08 - Royal Oaks
272	ISD 08 - Alief Condos
280	ISD 09 - Airport Tiers
281	ISD 09 - Non Airport East of I-45
282	ISD 09 - Non Airport West of I-45
290	1J Formerly Northforest ISD
300	ISD 15 - Galena Park ISD
310	ISD 16 - Baytown Lee
311	ISD 16 - Baytown Sterling
312	ISD 16 - Baytown Memorial
320	ISD 17 - Klein ISD
330	ISD 18 - Kingwood
331	ISD 18 - Humble, Atascocita
332	ISD 18 - Airport Tiers 1,2 & 3
340	ISD 19 - N. of Katy Freeway
341	ISD 19 - S. of Katy Freeway
350	ISD 20 - West of Bay Area MKT
351	ISD 20 - East of Bay Area MKT
360	ISD 21 - Pasadena ISD
370	ISD 23 - Sheldon ISD
380	ISD 24 - East of I-45 North of FM 1960
381	ISD 24 - West of I-45 North of FM 1960
382	ISD 24 - West of I-45 South of FM 1960
390	ISD 25 - North Spring Branch
391	ISD 25 - West Spring Branch
392	ISD 25 - Memorial Villages S of I-10
393	ISD 25 - Spring Branch Condos
394	ISD 25 - Memorial Villages N of I-10
400	ISD 26 - Tomball ISD
410	ISD 27 - I-45 MRKT
411	ISD 27 - Water MRKT

Residential Market Areas

Market Area	Description
420	ISD 28 - Dayton ISD
430	ISD 29 - Pearland ISD
440	ISD 30 - Huffman ISD
450	ISD 31 – Stafford MSD

Commercial Improved Market Areas

Office Buildings

Market Area	Description
1	Central Business District
2	Montrose/Midtown/Museum District
3	Greenway Plaza / Richmond / Buffalo Speedway
4	Galleria West Loop
5	West Loop South
6	Inner City - West
7	Medical Center Area
8	Brookhollow
9	Northwest Crossing
10	San Felipe / Fountainview
11	Westhiemer / Voss
12	Westchase
13	Westhiemer / Dairy Ashford
14	Katy Freeway, Near
15	Energy Corridor
16	Far Northwest
17	F M 1960 West & Hwy 249
18	Interstate 10 East
19	Near North
20	Greenspoint North Belt
21	Kingwood, Huffman and Humble
22	Baytown
23	Southwest Freeway Near
24	Southwest Freeway Far
25	South
26	Inner Loop East
27	Pasadena
28	Clear Lake
29	West Belt from Interstate 10 to Hwy 249
30	Park Ten

Warehouse

Market Area	Description
1	Central Business District OBS
2	Inner Loop Southeast
3	Inner Loop West
4	Inner Loop North
5	Near Southwest
6	Near West
7	Near Northwest
8	Near North
9	Northeast

Commercial Improved Market Areas

Warehouse

Market Area	Description
10	Pasadena - LaPorte
11	Clear Lake
12	Southeast
13	Far Southwest
14	Far Northwest
15	Far North
16	Beltway North
17	Beltway Northwest
18	Beltway Southwest
19	Southwest
20	Inner Loop South
21	Park-Ten
22	East
23	Inner Loop Northwest
24	Tomball
25	Baytown
26	Katy

Retail

Market Area	Description
1	Central Business District
2	Inner Loop East
3	Inner Loop West
4	Inner North
5	Inner Northeast
6	Inner Northwest
7	Inner South
8	Inner Southeast
9	Inner Southwest
10	Inner West
11	North
12	Northeast
13	Northwest
14	East
15	Southwest
16	West
17	Memorial
18	South
19	Clear Lake
20	Heights
21	Galleria
22	Kingwood

Commercial Improved Market Areas

Retail

Market Area	Description
23	Katy
24	Far Northwest

Apartments

Market Area	Description
1	Montrose / Museum District
2	Heights
3	Inner LoopWest / Greenway Plaza
4	Galleria
5	WoodlLake / Westheimer
6	West Memorial / Briar Forest
7	Alief
8	Sharpstown / Westwood
9	Almeda / South Main
10	Medical Center / Bellaire
11	Inner Loop East
12	Gulfgate / Almeda mall
13	Clear Lake
14	Pasadena / Deer Park
15	Galena Park / Jacinto City
16	Baytown
17	Far East
18	Eastex Frwy / Near Northeast
19	Lake Houston / Kingwood
20	Northline / Aldine
21	FM 1960 East / IAH Airport
22	Brookhollow
23	Inwood / Northwest
24	FM 1960 West / Champions
25	Tomball / Far Northwest
26	Spring Branch
27	Bear Creek / Copperfield
28	Katy / Far West
29	Westchase
30	Gulfton/Bissonnet
31	Braeswood/Fondren SW
32	FM 1960 West/ Steeplechase
33	Northshore / Wood Forest
34	Greenspoint
35	HWY 288 / South
36	Friendswood/Pearland

Commercial Improved Market Areas

Hotel	
Market Area	Description
1	Central Business District
2	Galleria / Uptown
3	Texas Med.Ctr. / Reliant Park
4	Southwest Houston
5	Bush Intercontinental Airport
6	Hobby Airport
7	Bay Area
8	Stafford
9	Katy Fwy
10	Northwest
11	East / Baytown
12	Westchase

Commercial Vacant Market Areas

Market Area	Description
1	Central Business District
2	Montrose/Midtown/Museum District
3	Greenway Plaza / Richmond / Buffalo Speedway
4	Galleria West Loop
5	West Loop South
6	Inner City - West
7	Medical Center Area
8	Brookhollow
9	Northwest Crossing
10	San Felipe / Fountainview
11	Westheimer / Voss
12	Westchase
13	Westheimer / Dairy Ashford
14	Katy Freeway, Near
15	Energy Corridor
16	Far Northwest
17	F M 1960 West & Hwy 249
18	Interstate 10 East
19	Near North
20	Greenspoint North Belt
21	Kingwood, Huffman and Humble
22	Baytown
23	Southwest Freeway Near
24	Southwest Freeway Far
25	South
26	Inner Loop East
27	Pasadena
28	Clear Lake
29	West Belt from Interstate 10 to Hwy 249
30	Park Ten