

# PUBLIC FINANCE

## KEY CONCEPT:

Public Finance Options

## KEY QUESTION:

Can a county finance debt?

## MAIN REFERENCE POINT:

- 1. Article XI, Section 7 of the Texas Constitution – a county that borrows money is required to establish an interest and sinking fund.
- 2. **Texas Government Code Chapter 1251 – bond election provisions.**
  - **Texas Government Code Chapter 1431 – authorizes the issuance of tax notes.**
- 3. Texas Local Government Code Chapter 271, Subchapter C – authorizes a county to issue certificates of obligation.
  - **Texas Local Government Code Chapter 271, Subchapter A – authorizes the issuance of contractual obligations.**
  - **Article III, Section 52 of the Texas Constitution - authorizes counties to issue unlimited tax bonds (subject to a limit of 25 percent of the county's assessed valuation).**
  - **Article VIII, Section 9 of the Texas Constitution – general provision that limits a county to a tax rate of up to 80 cents per \$100 assessed valuation of which the attorney general will allow 40 cents per \$100 to be used for debt.**
  - **Additional statutes apply to specific projects such as road bonds, county hospital bonds, public improvement districts, and bonds for jails and other buildings.**
- 4. **Additional authority will permit a county to borrow from the State Infrastructure Bank (SIB Loans) and to enter into lease purchase agreements.**
  - **Texas Local Government Code Chapter 372 – authorizes counties to issue assessment revenue bonds to finance public improvements that benefit public improvement districts.**
  - **These county bonds and other obligations are typically issued as tax exempt obligations that can be traded publicly by bondholders, and they create additional federal tax and securities responsibilities for the county.**

## TALKING POINTS:

1. Because a county is not authorized to go to the bank and take out a loan, it must finance long-term purchases through the issuance of bonds or other authorized obligations.
2. A bond is like an IOU. In most instances, the county hires a financial adviser who assists the county in selling the bonds to buyers in the financial market, and a bond counsel to prepare the documents and obtain approval from the attorney general.
3. The bond is an agreement between the county and the bondholder whereby the county receives the money from the bondholder and then agrees to pay the money back, plus interest. The agreement includes the interest rate and the timetable of payments.
4. Texas law requires that all government bond issues, regardless of the type of bond, be approved by the attorney general's office. Once approved, the legality of the bond cannot be contested, except for a constitutional challenge.
5. General Obligation (GO) bonds are usually used to pay for major capital projects. The county must conduct an election in order to sell these bonds. These bonds are authorized to fund specific public purposes. GO bond debt is paid by property taxes. If a GO bond election is not approved by the voters, the county may be prohibited from issuing other types of debt for the same project for three years.
6. A bond election order must include, among other items required by law:
  - the proposition language that will appear on the ballot;
  - the purpose of the bonds;
  - the principal amount of the bonds;
  - language stating that taxes sufficient to pay the annual principal of and interest on the bonds may be imposed;
  - a statement of the estimated tax rate if the bonds pass;
  - the maximum maturity date of the bonds;

# KEY CONCEPT

- the aggregate amount of outstanding principal and interest on the county's bonds; and
- the county's debt service tax rate.

In addition, the county is required to post a copy of the order calling the bond election at each polling location in the county as well as three public places in the county and on the county website.

7. Texas counties must prepare and publish an annual report on the county's bond or other debt obligations. The requirements for this report are stated in Section 140.008 of the Texas Local Government Code. The annual report must set out detailed information about the county's debt obligations on the county's website along with contact information including the county's physical address, mailing address, main telephone number, and an email address.
8. GO bonds fall into two categories.
  - Unlimited Tax Bonds.** This type of bond tells the bondholder that regardless of circumstance (i.e., an unexpected catastrophe), the county will tax whatever amount necessary to pay the money back, subject to the 25 percent assessed valuation limit.
  - Limited Tax Bonds.** Most GO bonds (as well as certificates of obligation, tax notes, and contractual obligations) are Limited Tax bonds. This tells the bondholder that the county is subject to the 80 cents per \$100 valuation limit under Article VIII, Section 9 of the Texas Constitution on the amount of taxes that can be pledged to pay the debt.
9. Revenue Bonds tell the bondholder that the money will be paid back based on the revenue generated by the new project. Revenue Bonds are not funded by tax money.
10. Certificates of Obligation (COs) are bonds that do not require authorization from the voters unless the county receives a petition from 5 percent of the registered voters. However, the county must first authorize the publication of a "Notice of Intention to Issue COs." The notice, to be published twice in consecutive weeks on the same day, has to identify the projects to be financed; the initial publication must be in a local newspaper of record at least 45 days prior to the date of sale of the COs. The notice must now also include certain information on the outstanding debt obligations of the county and must now also be posted on the county's website.
11. Statutes limit the use of COs to pay for construction of a public work; pay for purchase of materials, supplies, equipment, machinery, buildings, lands, and rights of way for the issuer's authorized needs and purposes; and pay for professional services such as engineers, architects, attorneys, and financial advisers. COs can be funded by ad valorem taxes, a revenue pledge



*Denton County officials and others commemorate the completion of the U.S. 377/Fort Worth Drive expansion project in April of this year. County funds from the 2008 bond program were earmarked to cover a large portion of the reconstruction of U.S. 377/Fort Worth Drive. In Precinct 4, Denton County has leveraged approximately \$43.5 million in taxpayer-funded bond dollars with a return of \$2.95 billion from state and federal resources. These funds have provided for improved public safety, congestion relief, and quality of life, officials said.*

*The railroad bridge had to be rebuilt as part of this expansion project.*



Photos courtesy of Denton County

# PUBLIC FINANCE



- (as in revenue bonds), or a combination of the two. COs cannot be issued for a project which the voters have rejected at a bond election within the preceding three years. Like GO Bonds, COs can be issued for terms of up to 40 years.
12. A county may not issue bonds that have a maturity date that is longer than 120 percent of the useful life of the capital improvements being acquired or constructed with the bond proceeds.
  13. Contractual Obligations can be used to finance personal property, only.
  14. Anticipation Notes, also known as Tax Notes or Limited Tax Notes, were made available to cities and counties by the Legislature in 1993. Anticipation Notes can be secured by pledging ad valorem taxes, revenues, or a combination of taxes and revenues. Anticipation Notes do not require an election. The maximum maturity of a note cannot exceed seven years.
  15. As political subdivisions, the interest paid by counties on bonds and other debt obligations may be eligible to be treated as exempt from federal income tax to the bondholder. Because of this treatment, counties typically obtain more favorable interest rates on their bonds which reduces the cost and burden to the county's taxpayers.
  16. In order to be eligible for tax exempt treatment, counties must comply with rigorous and sometimes complicated Internal Revenue Service rules which limit the purpose for which and time period in which the bond proceeds may be utilized and govern the investment of the bond funds.
  17. If a county's bonds are marketed to the general public, the county must also comply with certain federal securities requirements administered by the Securities and Exchange Commission concerning the disclosure of annual county financial information while the bonds are outstanding.
  18. The county's financial adviser and bond counsel will work closely with the county to explain these obligations to the Commissioners Court and to assist the county in complying with these federal requirements.
  19. For obligations that are repaid with taxes, as opposed to non-tax revenue, the taxes used for repayment come from either the county's operations and maintenance taxes or from its interest and sinking fund, or "I&S" taxes. The category of taxes used for repayment depends on the type of project being financed, and the applicable statutory definitions are often the subject of biennial legislation. Counties should consult with their bond counsel or financial advisor to determine the appropriate source of debt repayment. ★ Gregory Miller, bond counsel with Bickerstaff Heath Delgado Acosta LLP, assisted with this article.


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Purpose	Source of Statutory Authority
275,000)	
Public health units health and safety code	Health and Safety Code §§1477.251 et seq
Purchase of voting equipment	Election Code §123.031(b)
Reclamation and irrigation projects	Texas Constitution Art. III §52 Government Code 1473.131 et seq; §§1477.051 et seq
* <u>Renovation of county office buildings in county seat</u>	* <u>Government Code §1473.052</u>
Roads and bridges	Texas Constitution Art. III §52 Government Code §1301.001(a)(5); Chapter 1471; Chapter 1478; Transportation Code §251.083(b); Chapters 283, 284, and 364
Seawalls, breakers, and projects for sanitary purposes	Texas Constitution Art. XI §7 <sup>2</sup> Local Government Code §§421.001 et seq
Solid waste disposal systems	Health & Safety Code §§363.051 et seq; §§383.021 et seq
Sports centers	Government Code §§1432.001 et seq; §§1473.171 et seq

## B. Debt Instruments Available to Counties

There are various financial instruments available to a county, and different requirements exist for each type of instrument. Some require or may require an election while others do not. The length of time for the financing differs with the type of

<sup>2</sup> Included at Tab 3

instrument. The primary instruments counties use in ad valorem tax-backed financing are General Obligation Bonds, Certificates of Obligation, Contractual Obligations, Tax Notes, Time Warrants and Refunding Bonds. Lease Purchase Agreements and Revenue Bonds may also be used. The following is a discussion of each of these methods.

### 1. Certificates of Obligation

Certificates of obligation ("CO's") are a streamlined method of financing. They are authorized by the Certificate of Obligation Act of 1971, Subchapter C of Chapter 271 of the Texas Local Government Code. CO's are limited to certain statutory purposes, which cover most any financing that the county might need to do: (a) pay for construction of a public work; (b) pay for purchase of materials, supplies, equipment, machinery, buildings, lands, and rights-of-way for the issuer's authorized needs and purposes; and (c) pay for professional services such as engineers, architects, attorneys, and financial advisors.

CO's may be payable from ad valorem taxes, revenues or a combination thereof. Although a CO may be backed solely by a revenue pledge, traditionally if there is a revenue pledge involved, it is a limited pledge of surplus revenues to permit the CO's to be sold for cash, as explained below.

CO's may be amortized up to 40 years, just as General Obligation Bonds, which are defined and discussed in this Handbook below, but a shorter time frame is usually involved. The length of time that CO's will be outstanding should correspond to the useful life of the project being financed.

No Election Required Unless Valid Petition Presented

Unlike General Obligation Bonds that always require an election, CO's do not require an election unless at least 5% of the registered voters in the county submit a valid petition protesting the issuance. This should not be viewed as taking away the right to vote on a bond issue, but rather as a method to avoid the time and expense of an election unless the public determines that an election should be held before the CO's are issued.

- An election can only be held if a valid petition is received prior to the time the commissioners court votes to approve the issuance of the CO's. If a valid petition is received, the commissioners court cannot issue CO's until an election is held. The election is conducted in the same manner as a General Obligation Bond election.

EM DeRoux  
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To ensure that the public is informed of the possibility of the issuance of the certificates, the legislature requires that notice of intent to issue the CO's be published once a week for two consecutive weeks in a newspaper of general circulation within the county, with the first publication being not less than forty-five (45) days before the date tentatively set for passage of the order authorizing the issuance of the CO's. The notice and publication must be authorized by the commissioners court. The notice must specify:

- (1) the time and place tentatively set for the passage of the order authorizing the issuance of the CO's;
- (2) the maximum amount and purpose of the CO's to be authorized; and

(3) the source from which the CO's will be paid, either from ad valorem taxes, revenues or a combination of taxes and revenues.

- The date chosen for passage must be a regularly scheduled meeting date of the commissioners court, as the date of passage will also be the date for the sale of the CO's.

### CO's Sold for Cash

CO's can either be delivered to a vendor for the project or "sold for cash." As a practical matter, COs are almost always sold for cash. When the COs are sold for cash, the county uses the proceeds of the sale of the COs, that is, the cash received, for the project and for the costs of issuing the COs.

A county may not sell COs for cash unless there is express statutory authority to do so. If the repayment of the COs is secured by only a tax pledge, COs may only be sold for cash for a specific set of purposes. The Certificate of Obligation Act, Local Government Code Chapter 271, Subchapter C, specifies the following situations where CO's may be sold for cash without an additional pledge: (1) in the case of public calamity, it is necessary to act promptly to relieve the necessity of the residents or to preserve the property of the county; (2) it is necessary to preserve or protect the public health of the residents of the county; (3) in the case of unforeseen damage to public machinery, equipment, or other property; (4) it is for a contract for personal or professional services; (5) work is done by employees of the county and paid for as the work progresses; (6) it is for the purchase of any land, building, existing utility system, or right-of-way for authorized needs and purposes; (7) in the case in which the entire project is to be paid from bond funds or current funds or in which an advertisement for bids has previously

been published in accordance with the Certificate of Obligation Act, but the current funds or bond funds are not adequate to permit the awarding of the contract and CO's are to be awarded to provide for the deficiency; or (8) in the case of a county contract that is not required to be bid under the County Purchasing Act.

Additionally, the Certificate of Obligation Act gives a county express authority to sell CO's for cash with only a tax pledge for (1) constructing or equipping a jail; (2) constructing, renovating, or otherwise improving a county-owned building; or (3) constructing a bridge that is part of or connected to a county road or an approach to such a bridge.

Although the listed authority to sell for cash with only a tax pledge covers many things a county might do, it does not address several items that a county most likely would need, including road construction and equipment acquisitions. To cover these situations, the Certificate of Obligation Act also authorizes CO's to be sold for cash if → there is a revenue pledge included with the tax pledge. Generally, a limited pledge of revenues is made, such as an amount not to exceed \$1,000 or some other specified nominal amount. There is no requirement or expectation that the pledged revenues will ever be used for debt service. Historically, revenues from county operations of various types such as landfill fees, library revenues, park revenues, or revenues for housing out-7. of-county prisoners, among others, have been used for this purpose. In order to pledge a revenue source, there must be statutory authority to pledge the revenues to support a bond issue. This would eliminate some revenue sources that at first glance might seem to provide a source for the pledge. Also, sales tax revenues are expressly excluded from being used as a pledge under a Tax Code provision.

*Limitation on the Use of Certificates of Obligation After a*



### Failed Bond Election

In 2015, Section 271.047, Texas Local Government Code was amended to prohibit the use of CO's for the same purpose that had been presented to the voters in a bond election which failed within the three preceding years. The legislature provided that the three year prohibition on the use of CO's after a failed bond election does not apply to the following situations:

- (1) a case of public calamity if it is necessary to act promptly to relieve the necessity of the residents or to preserve the property of the issuer;
- (2) a case in which it is necessary to preserve or protect the public health of the residents of the issuer;
- (3) a case of unforeseen damage to public machinery, equipment, or other property; and
- (4) to comply with a state or federal law, rule, or regulation.

### *Competitive Bidding*

Unless there is an exception, projects to be funded with proceeds from CO's must be competitively bid. The Certificate of Obligation Act contains its own competitive bid requirements which are similar to, but not exactly the same as, the County Purchasing Act. In 2011, the competitive bidding requirement for the Certificate of Obligation Act was amended to permit using the alternate construction delivery methods provided under Chapter 2269 of the Government Code, e.g. construction manager-agent method, design-build method, etc. Prior to this amendment, counties were prohibited from using

these methods if a project was to be financed through the use of certificates of obligation. With the amendment, Section 271.054 now reads:

? § 271.054. Competitive Procurement Requirement

Before the governing body of an issuer may enter into a contract requiring an expenditure by or imposing an obligation or liability on the issuer, or on a subdivision of the issuer if the issuer is a county, of more than \$50,000, the governing body must:

- (1) submit the proposed contract to competitive procurement; or
- (2) use an alternate method of project delivery authorized by Chapter 2267, Government Code.<sup>3</sup>

*Purposes Combined*

Unlike General Obligation Bonds which must have the items to be voted on listed separately, the purposes for CO's are combined. For instance, in a \$7,000,000 bond issue, a county would need to have separate propositions on the ballot for the construction of a new jail, road improvements, courthouse improvements and a new communications system. The propositions would be in the following format:

Proposition 1. The issuance of \$3,000,000 general obligation bonds to pay for the construction and equipping of a new

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<sup>3</sup> The alternative delivery methods that were formerly found in Subchapter H of Chapter 271 of the Local Government Code were transferred to a new Chapter 2267 of the Government Code.

county jail and the acquisition of a site

Proposition 2. The issuance of \$2,000,000 general obligation bonds to pay for the construction and improvement of county roads and bridges

Proposition 3. The issuance of \$1,500,000 general obligation bonds to pay for courthouse improvements

Proposition 4. The issuance of \$500,000 general obligation bonds to acquire a new communications system

*Important* With CO's, the county would provide in its notice of intent the following language:

Authorize the issuance of the certificates of obligation in an aggregate principal amount not to exceed \$7,000,000 for the purpose of paying contractual obligations to be incurred for (1) the construction and equipping of a new county jail and the acquisition of a site, (2) the construction and improvement of roads and bridges in the County; (3) construction of courthouse improvements; (4) acquisition of a new communications system; and (5) the payment of professional services and costs of issuance related thereto.

For example, if all the propositions for the General Obligation Bond issue were approved and bonds were issued, the county would be required to maintain the allocations. If the jail project cost \$3,025,000 and the courthouse improvements only cost \$1,475,000, the

county could not transfer funds between the two items. With CO's, the county would not be precluded from making transfers from one item where there were surplus funds to an item where additional funds were needed.

## ~~NO~~ 2. ~~Contractual~~ Obligations

Contractual Obligations are a financing tool that is available to counties to finance personal property. They are authorized under Subchapter A of Chapter 271 of the Texas Local Government Code, the Public Property Financing Act, are payable from a pledge of revenues, funds or taxes, and may not be used to acquire real property. The definition of "personal property" is defined in Section 271.003(9), Texas Local Government Code:

"Personal property" includes appliances, equipment, facilities, and furnishings, or an interest in personal property, whether movable or fixed, considered by the governing body of the governmental agency to be necessary, useful, or appropriate to one or more purposes of the governmental agency. The term includes all materials and labor incident to the installation of that personal property. The term does not include real property.

The Public Property Financing Act permits a county to enter into a contract to purchase personal property which may be in the form of a lease, a lease with an option or options to purchase, an installment purchase, or any other form considered appropriate by the commissioners court, including an obligation that is required to be approved by the attorney general under Chapter 1202, Government Code. If the

obligation is in a form that must be approved by the attorney general, the obligation must be submitted to the attorney general for approval.

The maximum term of a Contractual Obligation is 25 years, but the term is tied to the actual expected life of the equipment being financed. No election or publication is required, but the county must comply with applicable bidding requirements to make a purchase using Contractual Obligations.

### ~~No~~3. ~~General~~ Obligation Bonds

General Obligation Bonds, sometimes referred to as "G.O. Bonds," are bonds secured by the county's ad valorem taxing power. These bonds are issued after approval at a bond election. G.O. Bonds are best suited for major capital projects where the commissioners court believes that it is important to allow the voters to have the opportunity to pass upon the project. The commissioners court calls a bond election, and sets forth the proposition or propositions to be voted on. An amount is specified for each proposition. Costs of issuance of the bonds are included as a part of the issue. G.O. Bonds are sold for cash.

If the election passes, the county must use the proceeds from the sale of the bonds for the purposes stated in each proposition. The amount approved for one proposition cannot be assigned to any other proposition, even if there are excess funds available. Expenditures must be strictly in accordance with what the voters approved. Surplus funds must be placed in the interest and sinking fund and used to pay debt service.

Once the bond election has occurred and the time for any election contest has

# **FWN&A**

Structural Engineering

October 21, 2019

Weinman Architects  
3717 Stoney Creek Road  
Fort Worth, Texas 76116  
Attn: Art Weinman

Re: Structural Observations  
Hall County Courthouse

Memphis, Texas  
FWNA Project No. 219.048.03

Dear Mr. Weinman,

Pursuant to your request I visited the Hall County Courthouse on August 28, 2019 for the purpose of observing the building elements and providing an opinion regarding the building's structural integrity.

The Courthouse was built in 1923. There were no Structural Contract Documents for me to review. There was an article regarding the original construction which stated that the foundation was founded on clay. The facility has three levels above grade with the third level being a balcony around the courtroom. The basement occupies the building's footprint. Based on what I observed the structure is a cast in place concrete frame building.

The following were my observations:

1. The basement floor slab in the hallway has slight slopes with the highest point being in the middle of the hall.
2. The exterior steps leading to the First Floor are cast-in-place concrete with a passage way beneath the upper landing of the steps that leads to the basement. The soffit of the steps has significant deterioration as evidenced by the concrete that is flaking away from the steel reinforcement. There is significant rust on the exposed reinforcement. This has been a problem for a long time given a metal barrier was placed under this concrete to prevent concrete pieces from falling on occupants.
3. The lowest exterior step has a distress crack on each end. This distress crack was evident at all four steps.

The following are my recommendations:

1. The amount of rust on the reinforcement and flaking concrete did not allow an evaluation of the remaining structural integrity of the exterior concrete steps at the upper landing. In order to address the proper remedial solution, the concrete needs to be removed to material which is sound and the reinforcement should have the rust cleaned off.
2. The cracks in the exterior steps are a result of soil movement. The step shifted on the perimeter but

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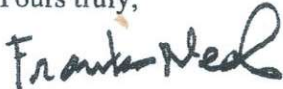
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the portion between the walls did not shift. The differential movement caused the distress. Depending on the remedial solution to the steps this portion of the steps could be replaced independently or with all of the steps.

3. The basement hallway that has slopes is, in my opinion, a result of soil heaving. I do not recommend any repairs be performed to the floor slab since the slopes are not significant.
4. The remainder of the structure did not appear to have any deficiencies based on the condition of the wall, ceiling and floor elements.

The attached pictures show the mentioned conditions.

Yours truly,



Frank W. Neal, P.E.  
Principal

attachments



**MEP BUILDING EVALUATION AT  
HALL COUNTY COURTHOUSE  
MEMPHIS, TEXAS**

**PRESENTED TO  
ARTHUR WEINMAN**

**PREPARED BY  
BAIRD, HAMPTON & BROWN, INC.  
6300 RIDGLEA PL., SUITE 700  
FORT WORTH, TEXAS**



## **BACKGROUND**

The following is a building evaluation of the above referenced existing building. On August 28, 2019, Baird, Hampton & Brown, Inc., mechanical, and electrical engineers; walked the facility.

The weather conditions during the visit were cloudy and warm conditions. The facility was in use and systems were in operation.

The primary purpose of this effort was to assist in establishing the condition of existing equipment and the viability of renovation of the property. The results of this site investigation are presented herein for review and consideration in the decision-making process affecting the future of the subject property.

## **MECHANICAL EVALUATION**

### **CURRENT TYPES OF AIR CONDITIONING SYSTEMS**

The existing building is served by a mixture of approximately 20 window units (PTAC) and 5 DX split systems. The total cooling tonnage is unknown due to the lack of information related to the PTAC units. The total tonnage of the DX split systems is 21 tons, with a mixture of gas heating and heat pumps. Most of the occupied spaces that have PTAC units also have residential style, floor mounted gas space heaters.

### **CONDITION OF CURRENT SYSTEMS AND OTHER NOTATIONS**

- There are 3 heat pump condensing units located on grade at the northeast corner. There are three additional condensing units located on the roof of the building. Two of the ground mounted heat pumps serve the main courtroom on the 3<sup>rd</sup> floor. The 3<sup>rd</sup> ground mounted heat pump is abandoned in place. Two of the condensing units located on the roof, serve the Sheriff's offices on the southside of the building – 4<sup>th</sup> floor. The third condensing unit located on the roof of the building serves a ductless split system wall mounted indoor unit located in the Sheriff's computer room.
- There are 2 vertical furnaces with associated cooling coils located on the 4<sup>th</sup> floor in a mechanical room in the center of the building (refer to photo M1). There are two air handlers located on the northside of the 4<sup>th</sup> floor, that serve the main courtroom. These are installed horizontally behind the main courtroom. The 5<sup>th</sup> air handler could not be located and is assumed to have been either removed or abandoned in place.
- All of the exterior refrigerant piping is insulated; however, the insulation is torn in multiple locations and is degrading due to exposure to the elements (refer to photo M2). In some locations, the piping is completely exposed.
- The return air ductwork is made up of a mixture of duct board and flexible ductwork for the units serving the courtroom. The return air ductwork serving the Sheriff's offices appears to be

rigid ductwork with wrap insulation. The supply air ductwork is also a mixture of duct board, rigid round and flexible ductwork (refer to photos M3, M4, and M5).

- All of the split systems are operating with R-410A refrigerant.
- The two ground mounted heat pumps are 9 years old and in good condition. The two-rooftop mounted condensing units are 4 years old and in good condition. The ductless split system is 9 years old and in good condition.
- The two furnaces and cooling coils serving the Sheriff's offices are 3 years old and in good condition. The two air handlers serving the main court room are 9 years old and in good condition.
- Individual programmable thermostats are installed for control of each of the split systems.
- None of the air handling systems are supplied with outside air.
- Existing restrooms that are in areas with an exterior wall, have an exhaust fan located in an existing window. Restrooms located in the interior of the building have ceiling mounted exhaust fans, but it could not be determined where the exhaust air ductwork terminated.

#### **CURRENT CODE VIOLATIONS AND MAINTANENCE CONCERNS**

- The air handlers do not have outside ventilation air provided to them. This does not meet ventilation requirements of the current code (IMC chapter 4).
- Air handling systems are not equipped with duct mounted smoke detectors - Per 2009 IMC Section 606.2.1 – Smoke Detectors are required on air handlers that supply air greater than 2,000 CFM. If 2 or more split system air handlers share a common plenum, then the additive total of all the systems must be used.
- The vertical furnaces are installed on wood platforms that are being utilized as return air plenums. Per the 2009 IMC and IFC, plenums cannot be made from or contain combustible materials.
- The existing duct board is not recommended and probably does not meet current code required ductwork insulation values; however, it appears to be in good shape and performing as intended. We recommend that the duct board be inspected once a year to confirm that it is staying intact and not deteriorating.
- Condensate piping from the cooling coils is not equipped with traps per the manufacturer's recommendations. We recommend traps be installed.
- Overflow condensate drains are not installed on the cooling coils or are not installed properly. We recommend that either overflow drains be added, or water sensor be added to the overflow outlet of the cooling coil, to de-energize the associated system upon detection of water.
- The insulation on the existing refrigerant piping should be completely replaced. The exposed piping will lose/gain heat which will reduce the capacity of the equipment and require longer run times to heat/cool the associated spaces. This excessive operation will shorten the life span of the equipment.
- There are three PTAC units installed on the 3<sup>rd</sup> floor in the interior of the building. These units are rejecting heat into the surrounding spaces. This is not the proper application for PTAC units and we do not recommend this form of installation.

- Most of the building is unconditioned. This can have adverse effects on the construction and finishes for the interior of the building.
- Restrooms do not have proper ventilation per the 2009 IMC Section 403.3. Restrooms should have a minimum exhaust rate of 50 cfm per water closet or urinal.

In the event that renovations are undertaken, most or all the items noted above will need to be addressed where the renovations will require a permit to be issued by the City of Memphis or by the State.

### **RECOMMENDED EQUIPMENT REPLACEMENT**

The following items are recommendations from greatest need to least, for equipment that needs to be replaced or upgraded.

1. Remove all existing split systems and PTAC units and replace with a new VRF (variable refrigerant flow) heating and air conditioning system that serves the entire building.
2. Due to the age of the systems, we recommend that all the supply and return air ductwork be internally cleaned throughout the entire facility.
3. Remove all existing refrigerant piping insulation and replace with insulation that meets current codes.
4. Remove existing abandoned condensing unit, and associated air handler and accessories.

### **PLUMBING EVALUATION**

#### **CONDITION OF CURRENT SYSTEMS AND OTHER NOTATIONS**

Plumbing systems typically consist of sanitary waste and vent, hot and cold water, and storm roof drainage. Unfortunately, most of these systems are located below the floor or within walls and the condition of the existing piping could not be confirmed. We can typically estimate the piping material used and condition based upon age of building served.

Due to the age of the building, we anticipate that all the waste and vent piping is hub and spigot cast iron piping. We would anticipate that all the vent and waste piping is in good condition. However, due to the age of the building, we recommend that a Plumbing Contractor be hired to scope the inside of the existing waste piping to determine if there are any signs of breaks or leaks in the systems.

Due to the age of the building, we anticipate that the domestic water system inside the building is a mixture of galvanized and copper piping. Typically, galvanized piping of this age has accumulated excessive mineral build-up within the piping.

The roof storm drainage systems are collection scuppers with exterior downspouts that drain onto grade (refer to photo P3).

The gas meter is located at the southwest corner of the building. A 1" gas line is routed along grade from the meter to serve the emergency generator (refer to photo P4). Another gas line from the meter

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extends down below grade and into a vault below the emergency generator. From there, the gas line is routed through the vault into an old boiler room and then splits to serve the floor heaters and furnaces on the fourth floor (refer to photos P5 and P6).

There is a single electric water heater located in a Janitor's Closet on the first floor (refer to photo P7). The water heater has not been operational for some time and does not have a recirculation pump. At the time of our visit, none of the plumbing fixtures have hot water delivered to them.

The existing water closets are tank type and operate properly. Urinals are flush valve and wall mounted. We believe that the water heater had been turned off due to the building being vacant.

The building does not have a sprinkler system for fire protection.

### CURRENT CODE VIOLATIONS OR PUBLIC HEALTH CONCERNS

- Currently hot water is not supplied to the lavatories or sinks in the building as required by the 2009 International Plumbing Code (IPC) Section 607.
- Hot water piping systems do not appear to be insulated as required by the 2009 International Energy Conservation Code (IECC) Section 504.
- We recommend that all domestic cold-water piping be insulated.
- Gas service piping to furnaces are not equipped with dirt legs. Dirt legs allow sediment in the gas piping to settle before entering the equipment. We recommend that dirt legs be added.
- The multiple gas unvented space heaters throughout the building can produce carbon monoxide, and other toxic gases when the natural gas is burned. These byproducts are being released into the space, and with inadequate ventilation air being introduced into the spaces, the concentration of these toxic gases can increase over time and cause health issues to workers in the spaces. These space heaters also have long exposed flexible tubing routed along the floor to the units. There are concerns of this tubing becoming crushed or damaged and leaking into the space. During our visit, one employee reported that the tubing in his office had a pin hole leak that was not found until he became ill.
- There is exposed waste and vent piping routed around the perimeter of the main court room on the 4<sup>th</sup> floor. This piping is open to the space in several locations (refer to photo P6). We do not know if this piping is connected into the sanitary sewer system. If it is, then this piping will allow sewer gas back into the building.
- There are three hose bibbs stubbed up through the sidewalk around the outside of the building. These are located approximately 12" from the building (refer to photo P1). These hose bibbs present a tripping hazard to the public and also are not equipped with backflow prevention.

In the event that renovations are undertaken, most or all the items noted above will need to be addressed where the renovations will require a permit to be issued by City of Memphis or by the State.

### ELECTRICAL EVALUATION

### **Existing Building Electrical System Overview**

The courthouse receives its power from an overhead electric service on the southwest corner of the property. At this location a pair of pole mounted transformers feed the courthouse from a three phase 240v open delta arrangement which is derived from a single-phase overhead utility primary. **(Refer to exhibits "A" and "B")** The transformers are tapped multiple times through multiple meters to serve the building. One tap serves electrical equipment in the basement. A second tap feeds a panel on the fourth floor in a space behind the courtroom. A third tap feeds a small panel in the COUNTY CLERK'S office 104. And we believe a fourth tap is serving the elevator although it could not be visually confirmed. This installation also serves the light poles that illuminate the courthouse square at the sidewalk perimeter. What appears to be the only true three phase panel in the building was found in a mechanical closet in the sheriff's office on the fourth floor. The only other three phase load in the building is the elevator pump in the basement.

There is a single-phase overhead primary which spans the courthouse square from the pole on the southwest corner of the courthouse property (described above) to a pole at the corner of 6<sup>th</sup> and Noel streets. The overhead then proceeds due west one block to a three-phase pole which holds three transformers for another utility customer. **(Refer to exhibit "B")**

On each floor of the building can be found panels that have been added over decades. While some of these panels are commercial panelboard construction many of them are residential grade load centers. Many are in remote and difficult to find locations like mechanical spaces and one panel was found in the plumbing chase of the MEN'S RESTROOM on the first floor. In many locations in the building, three-phase panels have been wired for single phase distribution. This is an NEC code violation.

Many panels and load centers are inadequately marked with circuit labels or completely lack a properly filled out circuit directory card. Most of the panels in the building have no panel ID or labeling. The only exception would be those panels in the basement elevator equipment room, and these have been labeled with a magic marker. It is impossible to discern the actual architecture of the electrical distribution system or if any of the panels, subfeeds, or branch circuit conductors are properly protected as required by the NEC.

There is a small natural gas emergency generator outside, on the southwest corner of the building. According to the courthouse facilities maintenance representative, the generator has not been used in several years and was taken out of service when it was discovered to be wired incorrectly. According to the facilities maintenance representative it was taken out of service when it was determined to be wired incorrectly. **(Refer to exhibit "C")**

To summarize we would describe the condition of the existing electrical system as non-code-compliant and potentially hazardous.

### **Electrical Systems Recommendation-**

If the courthouse is ultimately remodeled, the existing electrical service should be completely demolished and replaced with a new 3-phase, 208v distribution system. The local electric utility could extend a third

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primary phase to the courthouse and a new pad transformer or pole transformer rack could be installed at a location acceptable to the THC.

The building could then be completely rewired with code compliant branch circuit wiring, and HVAC systems.

A new generator could be a part of a future remodel if required, or the existing Generac generator could be re-used if in suitable condition.

### Miscellaneous Electrical Systems

Main building telephone and CATV comes in at the west corner of the building although signal cable of various types can be seen routed into the building at various points on the façade for expediency and convenience. **(Refer to exhibit "C")**

The building has no fire alarm system although there are fire extinguisher stations throughout the building.

Lighting in the building is mostly 8' long exposed fluorescent strip lights installed on both plaster and grid ceilings. Some of the restrooms are lighted by 2x4 troffers in a grid ceiling. There are also strings of Christmas lights on the roof parapet fed from a load center at the southwest corner of the roof. There are some antique/period fixtures in the corridors and the main courtroom on the third floor **(Refer to exhibit D")**. These light fixtures will have to be evaluated by the architect and THC for re-use in any potential historical remodel. Modern lighting technology could be incorporated into appropriate custom-made period light fixtures as part of an overall historical restoration.

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## About the Texas Historic Courthouse Preservation Program

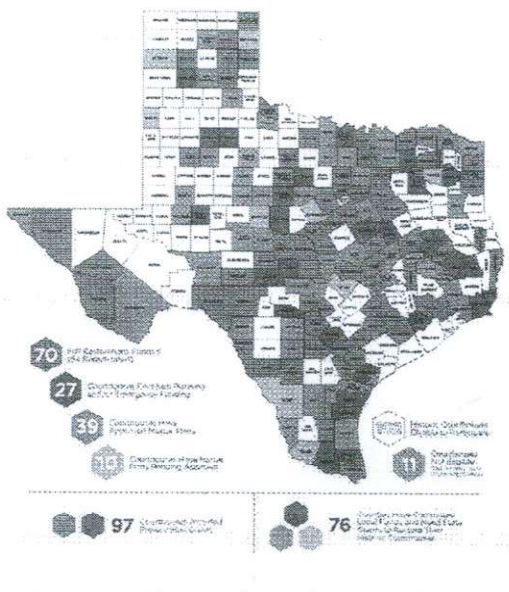
Texas has more historic courthouses than any other state. Today more than 240 courthouses still stand that are at least 50 years old. About 80 were built before the turn of the 20th century. By the end of that century, most of these structures were significantly deteriorated due to inadequate maintenance, insensitive modifications or weather related damage. The Texas Historical Commission (THC) documented the condition of 50 of the state's oldest courthouses in the late 1990s and determined that counties lacked the resources to preserve the buildings for future generations.

Providing assistance to counties reached a critical point when Texas county courthouses were added to the [National Trust's 11 Most Endangered Places](#) list in 1998. [The state's response was to create the Texas Historic Courthouse Preservation Program \(THCPP\), the largest preservation grant program ever initiated by a state government. This nationally recognized preservation program has turned around the trend of disrepair and begun the process of restoring the state's most treasured historic landmarks.](#)

Established in June 1999 by the Texas Legislature and Gov. George W. Bush, through House Bill 1341, the THCPP provides partial matching grants to Texas counties for the restoration of their historic county courthouses, codified in [Texas Government Code, Section 442.008-83](#) (PDF). The program typically awards the following types of grants: *planning* grants for the county to produce architectural plans and specifications; *construction* grants for the county to undertake construction of some kind; and *emergency* grants to address issues endangering a historic courthouse or its occupants. The program awards planning and construction grants based upon the sum of scores assigned to 20 criteria, and emergency grants based primarily upon the score assigned to the endangerment category.

The program began with a \$50 million appropriation for the grants, which were awarded in two rounds in 2000 and 2001. Subsequently, the program's success led to continued funding from the Texas Legislature:

- In 2001, legislators approved another \$50 million allocation to fund Round III grants.
- In 2003, the 78th Texas Legislature approved the sale of \$45 million in bonds to continue the program.
- In 2005, the 79th Texas Legislature earmarked \$80 million for courthouses from the federal transportation enhancement program; however, these funds were not approved for use by the Federal Highway Administration.



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### HISTORIC SITES ATLAS

The Atlas features nearly 300,000 site records, including markers, historic places, courthouses, cemeteries, museums, and sawmills across the state.

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- In 2007, as a result of what occurred in the previous biennium, the 80th Texas Legislature appropriated \$62 million in bond funding for a long-awaited Round V grant cycle.
- In 2009, the 81st Texas Legislature allocated \$20 million in bond funding for the 2010-2011 grant cycle.
- In 2011, the 82nd Texas Legislature allocated \$20 million in bond funding for the 2012-2013 biennium.
- In 2013, the THC requested \$20 million from the 83rd Texas Legislature but it appropriated \$4.2 million, which allowed the program to address small, emergency issues on 18 Texas courthouses rather than the full or partial restoration and planning projects like those completed in Rounds I through VII.
- In 2015, the 84th Texas Legislature allocated \$20 million for the 2016-2017 grant cycle. Eight counties were selected for funding, which includes four full restoration projects, three emergency project, and one planning project.
- In 2017, the 85th Texas Legislature allocated \$20 million in bond funding for the 2018-19 biennium.
- In 2019, the 86th Texas Legislature allocated \$25 million in bond funding for the 2020-21 biennium.

See more details about [Current Grant Recipients \(Round X\)](#).

The THCPP has been recognized by the Texas Society of Architects and the National Trust for Historic Preservation with honor awards. In May 2008, the program received the Preserve America Presidential Award. Today, a total of 136 Texas courthouses are listed in the National Register of Historic Places, 145 are Recorded Texas Historic Landmarks, and 109 are State Archeological Landmarks, and as of 2018, 70 of those have been fully restored through THCPP grants and another 29 have received emergency or planning grants.

In 2012, Texas' historic courthouses were again placed on the National Trust's 11 Most Endangered Historic Places list, stressing the significant amount of work still left to do in order to save these threatened structures. Read more about [historic courthouses in danger](#).

In support of the projects completed with state grant funds, the THC also created the [Texas Courthouse Stewardship Program](#), which provides technical assistance and training to county staff on how to maintain their newly restored courthouse.

[2019 Courthouse Cornerstones \(PDF\)](#)



Read more about the [Texas Historic Courthouse Preservation Program](#) in the Handbook of Texas Online.

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