EAST REGIONAL LIBRARY

The East Regional Library is a branch of the Fort Worth Library located in east Fort Worth. The building occupies a good location off of Interstate 30 and just west of Loop 820, 7.56 miles from the Central Library.

Official Name: The East Regional Library

Building Address: 6301 Bridge Street

Library Facility Code: ESTR

Site Description

The building is situated on a landscaped lot of 4.92 acres, at the corner of Bridge Street and Oakland Hills Drive. The topography of the site slopes downward, from the building in all directions. The primary maintenance responsibility for the site falls under the supervision of the City of Fort Worth Parks and Community Services Department. Routine maintenance includes cutting of the grass and landscaping around the building and in the parking lot. Drawing ESTR-1 illustrates the site of the East Regional Library (11" x 17" overleaf).

Architectural Description

Construction of the original building was completed in 1996, with no additions or renovations since. The facility appears to be well built and in good condition. Drawing ESTR-2 depicts the Ground Floor of the East Regional Branch (11" x 17" overleaf). Drawing ESTR-3 depicts the square footage of each room of the Ground Floor (also 11" x 17" overleaf) as tabulated below in Table A5.6.1.

Square Footage: There are currently 23,990 building gross square feet (bgsf), and 22,448 net assignable square feet (nasf) within the facility. The library currently occupies the entire building. Table A5.6.1 contains a room-by-room square footage tabulation for the facility.

Table A5.6.1
Existing Square Footage Tabulation, Room-by-Room, East Regional Library

Ground Floor

room no.	room name	net assignable	building gross
101	Entry	637.77	
102	Men's Toilet		199.55
103	Women's Toilet		266.21
104	Projection Room	47.82	
105	Storage	112.50	
106	Meeting Room	1,556.00	
107	Storage	18.20	
108	Storage	15.72	
109	Kitchen	159.41	
110	Staff Break Room	238.51	
111	Reading Room	16,128.12	
112	Circulation	745.51	
113	Manager's Office	203.96	
114	Conference Room	224.99	
115	Staff Work Room	1,883.69	
116	Multi-media Studio	88.93	
117	Multi-media Studio	79.47	
118	Multi-media Studio	79.47	
119	Multi-media Studio	106.86	
120	Storage	79.94	
121	Electrical/Telephone Room		81.00
122	Janitor's Room		65.60
123	Staff Toilet		49.10
124	Book Drop	42.00	
125	Vestibule		34.20
	assigned rooms and spaces	22,448.87	
	unassigned walls, pipe chases, etc.		1,540.83
	TOTAL		23,989.70
	EFFICIENCY		93.58%

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Table A5.6.1 (continued)
Existing Square Footage Tabulation, Room-by-Room,
East Regional Library

Summary

	floor	net assignable square footage	building gross square footage	efficiency
100	Ground Floor	22,448.87	23,989.70	93.58%
TOTAL		**22,448.87**	**23,989.70**	**93.58%**

The T/PW facilities database attributes 24,000 bgsf to the East Regional Library, which is an approximation of the actual square footage.

Trade Area Population

The population within the 10-minute trade area for the East Regional Library is 63,715, as determined by the Customer Analytics Consultants.

Driving Distance/Time to Other Libraries

Meadowbrook	2.84 miles	9 minutes
Central Library	7.56 miles	11 minutes

Demographics

Households with children	8,495
Persons age 17 and under	15,757
Persons age 18 to 64	40,273
Persons age 65+	7,685
Percent black/African-American	37.1%
Percent Hispanic	21.2%

Output Measures

The Library Consultants calculated a number of measurements of operating efficiency and their respective rankings among the 15 current FWL libraries, as summarized in Table A5.6.2.

Existing Facility Assessment

Table A5.6.2
Output Measures, East Regional Library

output	measure	ranking
Contacts per capita	7.34	12 of 15
Cost efficiency per contact	$2.33	12 of 15
Cost efficiency per SF to operate	$47.02	3 of 15

Collections

The current total collection size is 103,422. At 1.62 items per capita, the collection compares somewhat favorably to the minimum standard of 2.00 items per capita.

The responsiveness of collections to younger core customers reveals that the population under 17 years of age is 24.7 percent of the total, and the combined Children's/Teen collections are 33.4 percent of total.

The library service most likely to be used at East Regional is PC Logins.

The space required to house the collections in an ADA/User-Friendly standard is 12,575 square feet, or 52.4% of the total building size.

Computers & Seating

Based on the per capita number of computers provided for the public, the East Regional Library, with 32, is at the "Basic" when compared to Texas State Library standards.

The current public seating ratio, including computers, at East Regional Library is one seat per 709 (1:709) collection items. This compares most favorably to the community library standard of 1:1,200/1:1,500 collection items.

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Site & Building Capacity

The East Regional Branch currently provides 124 parking spaces on site. At just under 24,000 gross square feet, the East Regional Branch exceeds the minimum standard of one space per 200 bgsf of building by 4.

Staff workspace is 9.3% of total net assignable square feet (nasf) of the building – a slight shortfall when compared to the minimum standard of 10% for buildings of up to 25,000 gross square feet. In terms of square footage, the shortfall equates to 157 nasf less than the minimum need of 2,245 nasf.

Table A5.6.3 compares the current capacity of the East Regional Library to the needed capacity based on the minimum space standards presented in Appendix Three.

Table A5.6.3
Site & Building Capacity, East Regional Library

unit of capacity	current 2010	2010 need to standards	current vs. standards
Net assignable square feet	22,449	23,039	97.4%
Building gross square feet	23,990	27,105	88.5%
Site area, in acres	4.92	2.86	172.2%
Parking spaces	124	156	79.7%

Growth Potential

Adaptability: The building is composed of open spaces, with structural spans ranging from 32 feet east-to-west and from 30 feet north-to-south. One exception is Meeting Room 106, which is a clear span of 36 by 46 feet. Changes to the configuration of the spaces appear to be feasible. Indeed, the building is constructed with a crawl space under the Ground Floor, which provides for ease in modifying power, data, and voice systems.

Existing Facility Assessment

Expandability: Were the building needing to be expanded, a major addition to the north appears most feasible, using undeveloped land for future horizontal expansion. It is not conceivable that vertical expansion could be achieved, given a preliminary analysis of the roof structure.

Technology Assessment

Historic computer usage at the East Regional Library is presented below for fiscal years 2007 through 2009. See Table A5.6.4 for PC logins, PC logins to library visits, and wi-fi connections.

Table A5.6.4
Historic Computer Usage, East Regional Library

service item	2007	2008	2009
PC Logins	76,651	74,760	43,589
PC Logins to Visits Ratio	17.6%	24.7%	20.5%
Wi-Fi Connections	n/a	1,426	4,085

Computer Network: The building was designed with technology in mind. Power outlets and network connectivity are accessible in both floor boxes and in the columns in the public space. Public computers were moved to use the connections in the columns because the cables in the floor boxes were under customers' feet and easily damaged because of that. Power outlets are available in the floor boxes under the study tables, which are used by the Wi-Fi users. Wi-Fi has been available since June of 2008. A satellite serves the library rather than cable, due to the cost.

Public Computers: A summary of the distribution of public computers is provided in Table A5.6.5 below. Computer reservation stations and print release stations are not included in the Adult Services quantity.

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Table A5.6.5
Public Computer Distribution, East Regional Library

computer location	quantity
Public Access Catalog (PAC)	4
Adult Services	22
Teen Services	2
Children's Services	4
TOTAL	32

The four PACs are provided face away from the information desk, making it more difficult for staff to determine when a customer may need assistance. Of the Internet computers provided in the adult area, two are express, Teen Services 30-minute computers. One PAC and all Internet stations accommodate wheelchairs. The library's public computers were used 28.7% fewer hours per computer than the system-wide average of public computer use.

Public Technology: The TV is above the circulation desk and is kept turned to the news every day. It may also be used for the digital signage system but is not used for that purpose at this time. A second TV in the meeting room is used for gaming. A portable TV is also available for this use. Staff wants to offer multimedia production capabilities, including the ability to edit audio and video, in part to attract Teen Services. A material security system is installed.

Computer Training: Training for the public is offered in six week sessions. Because no training lab is available, the public computers must be used, and training must be held before the library opens.

Self-Service: No self-check is provided now, but staff would like to offer self-check. A location near the information desk that has power and network connectivity already may be acceptable for this use.

Study Rooms & Meeting Spaces: Power outlets and network jacks are installed in the study rooms. Public computers were previously installed in the rooms but were removed because of misuse. A TV is installed in the meeting room and is used for gaming. A recessed screen is installed. Power outlets and network connectivity are available. A portable projector is available.

Technology for Staff: A total of 17 staff computers are provided. Five computers are provided at the circulation desk. Two computers are provided at the reference desk. The outside drive-up book return is used more than the inside return. Given the existing space, it may be possible to install a small automated two bin sorter in the area of the inside return. The drive-up return delivers materials into a room specifically designed for this purpose. There is space in the room to add a small automated sorter but the distance of the return from the floor of the room will impact the design, and possibly the options, for the unit. Materials are currently checked in at the computers in the workroom. Nine computers are provided in the workroom but two more are needed. Two desks are available that could accommodate the additional computers. Staff must now be scheduled for tasks according to the availability of computers due to the shortage. The Branch Manager's computer is in the Branch Manager's office.

Site Improvements

G2010 Roadways: Driveways, curbs, and gutters are typically constructed of concrete. Brick pavers are deployed to mark pedestrian traffic ways near the main entrance. A fire lane/driveway provides access to the exterior book drop into the building, though the direction of traffic is backwards. *composite rating: 4.*

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G2020 Parking Lots: A striped concrete parking lot for 124 cars, including five spaces reserved for the handicapped, is situated to the east of the building. Storm water drainage from paved parking areas is effective during moderate rains. *composite rating: 4.*

G2030 Pedestrian Paving: Handicapped access to the public and staff entrances appear to be compliant, however, neither of the other two egress points from the building provide an accessible route. *composite rating: 4.*

G2040 Site Development: Lighting on the site uses both pole- and wall-mounted light fixtures with metal halide lamps, and appears adequate. An internally lighted sign is located at the corner of Bridge Street and Oakland Hills Drive. A clock tower, three flag poles, and one bike rack for eight bikes are provided at the public entrance. Library personnel report that clock tower lights flood with rain. New, weather-proof fixtures need to be installed. *composite rating: 3.*

G2050 Landscaping: Several trees are present on the site, mostly at the edges of the parking lot, and the north and south building facades. Shrubs and flower beds are planted on the east, north, and south sides of the building. *composite rating: 4.*

G3000 Site Utilities: Underground utilities which appear to be available at the site include water, sanitary sewer, storm sewer, gas, cable television, power, and telephone. *composite rating: 4.*

Substructure

A1010 Foundations: As indicated on the original construction drawings, the building utilizes a foundation comprised of steel-reinforced concrete grade beams supported by steel-reinforced concrete pier footings under each column and around the perimeter. No evidence of settlement was observed. *rating: 4.*

B1010 Floor Slabs: Interior concrete floors are six-inch thick floor slabs on steel decking, per the original construction drawings. No evidence of settlement was observed. *rating: 4.*

Building Shell/Exterior Envelope

B1020 Superstructure: The building's superstructure is comprised of load-bearing steel columns, supporting steel beams and open-web steel joists supporting the galvanized steel roof deck. Lateral bracing was undetermined. *rating: 4.*

B2010 Exterior Walls: The building uses a brick and concrete masonry unit veneer, with stucco and cast stone accents, backed by six-inch 16 gauge steel stud walls in most locations. Six-inch thick batt insulation appears to have been provided within the wall cavity, as indicated on the original construction drawings, but is difficult to verify from visual inspection. *rating: 4.*

B2020 Exterior Windows: Window units are fixed glass with insulated glass in aluminum frames. *rating: 4.*

B2030 Exterior Doors: An aluminum storefront entrance on the east façade of the building employs fixed insulated glass in aluminum frames. The automatic entrance doors are aluminum with vision glass, which appears to be tempered. All other exterior doors in the building are hollow metal in hollow metal frames. *rating: 4.*

B3010 Roofing: The roof of the building is primarily flat, utilizing a two-ply modified bituminous/thermoplastic membrane roofing system, according to the T/PW database. The substrate material under the roofing membrane is rigid insulation board over metal decking, as indicated on the original construction drawings. Roof leaks which have developed around the roof-top HVAC units have not been remedied, according to staff. *rating: 3.*

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Interior Items

These items were surveyed and rated on a room-by-room basis, and include composite ratings for all rooms in the entire building.

C1020 Interior Doors & Hardware: The interior doors are solid core wood in hollow metal frames. Door hardware includes of lever handles, which are ADA compliant. Panic hardware is provided on the entrance/exit doors, original to the building. *composite rating: 4.*

C3010 Wall Finishes: Predominate wall finishes throughout are light colored paint on drywall partitions. Toilet Rooms 102 and 103 have ceramic wall tiles. The light colors offers good light reflectance and do not appear to be a cleaning or maintenance problem. *composite rating:* 4.

C3020 Floor Finishes: Floor covering throughout the building is predominantly carpet tile, with terrazzo used in high-traffic areas, vinyl composition tile used in utility and staff areas and ceramic tile used in Toilet Rooms 102 and 103. Generally, floor finishes are in very good condition. *composite rating: 4.*

C3030 Ceiling Finishes: The dominant ceiling finish throughout the building is two-foot by two-foot lay-in suspended acoustical ceiling tile, with paint on drywall in the Toilet Rooms 102 and 103, and Entry 101. All ceiling finishes appear to be in very good condition. *composite rating: 4.*

Vertical Movement & Egress

C2010 Stairs/Ramps/Ladders: No fire stairs are required for this one-story building. *rating: 4.*

D1010 Elevators: No elevator is required for this one-story building. *rating: N/A.*

Z1020 Handicapped Accessibility: The building provides four means of egress at grade level, of which two are accessible routes. Toilet Rooms appear to meet current TAS standards. *rating:* 4.

Equipment & Furnishings

E2010 Millwork & Casework: The cabinetry in each space appears to be original to the building, but is in working condition. The Circulation Desk appears to function adequately. *composite rating: 4.*

E2020 Furnishings, Fixtures, & Equipment: In general, the furnishings in each space are those originally installed when the building opened, and are in very good condition. *composite rating: 4.*

Mechanical System Description

There are ten packaged rooftop units (RTU's) with direct expansion (DX) refrigeration and natural gas heating for this facility. Rooftop units are all constant volume units.

Plumbing System

D2020 Domestic Water Distribution: Copper piping is utilized throughout the building. Water pressure appears adequate with a 2-inch city water service to the building. *rating: 4.*

D2020 Domestic Water Heater: There are two electric water heaters for this facility. One water heater is suspended above the ceiling of Janitor Room 122 and the other is located under the counter in Staff Break Room 110. Both units were installed in 1996. The under counter water heater is Lochinvar 19 gallon storage unit, 1500 watts. Both water heater systems do not include a thermostatic mixing valve to limit hot water temperatures to public lavatories. *rating: 3*

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D2030 Sanitary Collection: Piping is a combination of PVC and cast iron. *rating: 4.*

D2040 Storm Water Collection: Internal leaders provide roof drainage, according to the original construction drawings. No overflow scuppers are utilized. At four- to six-inch diameter, piping for roof drainage appears to be adequate. *rating:* 4.

D2090 Natural Gas Piping: Piping is predominantly located on the roof with supports. Piping exterior shows signs of paint wear. *rating: 3.*

Air Conditioning System

D3050 Packaged Units: There are 10 packaged rooftop units which serve various rooms throughout the facility and are original to the building (1996). These units are direct expansion with refrigerant R-22 and natural gas heat exchangers. All units are Carrier brand with a total nominal tonnage for the building of 78.5 tons and an Energy Efficiency Ratio (EER) of 8.8 per unit. All units have condenser fin damage and require cleaning and combing. Rust is visible on base of all units. Average life expectancy for a RTU is 15 years.

The staff indicated there is an issue with water leaks at the roof along the line where the RTU's are situated. It has been an on-going battle between the roofers and the HVAC contractors as to what is causing the problem. *rating: 1.*

D3040 HVAC Distribution Systems: All heating, ventilating, and air conditioning (HVAC) systems are ducted supply and partial ducted return air which utilize an above ceiling return air plenum. The staff indicated there are no apparent comfort issues with the systems.

Electrical/Telephone Room 121 houses the information technology equipment along with the electrical panels for the facility. Currently, there is one supply grille located in the room

tapping from ductwork serving other common areas. This room was warm. A separate air conditioning system would alleviate this condition and provide independent control for this room. *rating: 3.*

Automatic Temperature Controls

D3060 Automated HVAC Controls: There is no centralized HVAC control system for the facility. *rating: 0.*

Interior Mechanical Items

D2010 Plumbing Fixtures: Men's Toilet 102 has three counter-mounted handicapped accessible lavatories, two urinals, and two wall-mounted flush valve water closets, with one handicapped accessible. All fixtures are vitreous china. Women's Toilet 103 has four counter-mounted handicapped accessible lavatories and eight wall-mounted flush valve water closets, with two of the water closets handicapped accessible. All fixtures are vitreous china and are in good condition.

The Staff Toilet 123 has one counter-mounted lavatory and one wall-mounted flush valve water closet. Fixtures are handicapped accessible, are vitreous china, and are in good condition.

There are two single electric water coolers near Staff Toilet 123 and Janitor Room 122. There are three single electric water coolers of varying heights in Entry 101. These fixtures are in good condition.

Staff Break Room 110 has one stainless steel double compartment sink that is not handicapped accessible. There is one floor mounted mop sink in Janitor Room 122 in good condition. *rating: 4.*

D3040 Ventilation: Throughout most of the facility, air movement was good. *rating: 4*

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D3040 Diffusers: Diffusers are predominantly ceiling mounted and side wall air devices. Air devices are original to the building and appear to be in good condition. *rating: 4.*

D3060 Local Automatic Temperature Control: Thermostat control for the building is individual programmable thermostats. *rating: 4.*

Fire Protection System

D4010 Fire Protection Sprinklers: Book Drop 124 has self-contained clean-agent fire protection system by Ansul with 3M Novec 1230 releasing fluid. The remaining part of the facility is not fire protected. *rating: 0.*

Electrical System Description

The electrical distribution system consists of one 800A, 480/277V, 3-phase, 4-wire distribution panel, one 480/277V, 3-phase, 4-wire lighting panel, two 120/208V, 3-phase, 4-wire branch circuit panels, and one load center located in the Electrical/IT Room. A 30KVA transformer above the ceiling lowers the voltage for the 120V panels. The main distribution panel feeds HVAC equipment and the other panels. The facility has no emergency power system.

D5010 Service Equipment: The main distribution panel is original equipment. This panel is in good condition. There is no evidence that feeders need to be replaced. *rating: 4.*

D5010 Power Distribution Panels: The two branch circuit panels are original equipment, are full, and have no spare circuits. These panels are in good working condition. *rating: 4.*

D5020 Lighting & Branch Wiring: The load center has approximately 16 spaces available for additional branch circuits. Although this is enough for normal maintenance and small modifications, it is not enough in case of renovation work. There

is no evidence that branch circuits, and other conductors need to be replaced. *rating: 4.*

D5040 Emergency Power: Building does not have emergency power distribution system. *rating:: 0.*

Interior Electrical Items

D5020 Receptacles: Floor-mounted receptacles are located throughout the reading and stack areas. Computers are clustered around columns. *composite rating: 4.*

D5020 Lighting: Direct/indirect fluorescent fixtures are the primary source of illumination. Reading areas have lighting levels approximately 60 foot-candles (FC). Meeting Room 104 has 40 FC. Switching in public areas is done manually at Circulation 112. Automatic switching needs to be added to all areas. *composite rating: 2.*

D5030 Data Infrastructure: Data infrastructure is managed from an IT rack located in Electrical/Telephone Room 121. This rack is full, with equipment on the floor. There is no space for growth at its current location. It is recommended that any future renovations include at least one dedicated space for IT infrastructure. *composite rating: 3.*

D5030 Public Address System: The facility has a public address system. Personnel reports that the system is in good working condition. *composite rating: 4.*

D5030 Security System: This building has a security system. *composite rating: 4.*

D5040 Fire Alarm: This building has a fire alarm system. There is no evidence of deficiencies. *composite rating: 4.*

D5040 Emergency/Egress Lighting: Battery packs are present at the Library entrance. Although the lighting system has night lights, it could not be verified that the night lights are

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emergency lights. A more comprehensive emergency lighting system needs to be installed. *composite rating: 1.*

Additional Systems

The following are systems which are either good practice in library facility design or would be required by current building codes if a renovation or expansion were to be undertaken. They do not presently exist in the building, so it is suggested they be added.

Handicapped Accessibility: Provisions are adequate to access the building, and essential facilities within.

Exiting: Provisions are adequate, so no additional requirements are applicable to this facility.

Install Building Energy Management System: The consultants recommend installation of a building automation system for energy management.

Install Fire Protection: No fire protection system is provided, but should be installed throughout the building.

Install Smoke Detection: This code requirement was applicable to this facility when built, but current codes may require additional system components, depending on the extent of renovation.

Construction Cost Impacts

The building-wide survey includes the identification of issues which may impact the cost of expansion. Examples of these issues include the degree of difficulty of construction on the site, the current state of the local economy, how renovation will impact the operations of a facility, etcetera.

Location: The site is near a main thoroughfare, and is in a good location for the delivery of construction materials and labor.

Site Limitations: Ample land is available for future horizontal expansion, or for staging of construction.

Construction Difficulty: No apparent limitations exist to additional construction at the site. Given no evidence of settlement, sub-surface conditions may be stable. However, a geotechnical analysis of the soil should be conducted prior to any expansion of the facility.

Phasing: Future horizontal additions can be constructed to the west, possibly without impact to the existing operations. While it is conceivable that an on-site addition could be completed without requiring the Library to relocate to another building, but such a phasing plan would not be advisable.

Historic Issues: The building is not located within a historic district, however, if expansion or new construction is to occur, any new addition should be sensitive to the character of the neighborhood.

Asbestos: No asbestos is known to exist in the building or on the site at this time.

Costs to Retrofit Existing Building Systems

Table A5.6.6 provides the unit costs of the various retrofit projects. The unit prices apply to either the overall gross area of the building (bgsf), or net assignable square footage (nasf), as appropriate, to develop the cost for system retrofits.

Analysis. The total cost to retrofit the building systems is $451,498, or $18.82 per square foot. Most of the systems affected would be made more energy efficient.

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Table A5.6.6
Retrofit of Existing Building Systems, East Regional Library

uniformat code	construction element	rating	weight factor	square footage		unit cost	total cost	comments
A1010	Foundations	4	0%	23,990	bgsf	$5.22	$0	
A1030	Slabs on grade	4	0%	23,990	bgsf	2.65	0	
B1020	Superstructure	4	0%	23,990	bgsf	12.45	0	
B2010	Exterior walls	4	0%	23,990	bgsf	9.55	0	
B2020	Exterior windows	4	0%	23,990	bgsf	8.11	0	
B2030	Exterior doors	4	0%	23,990	bgsf	4.85	0	
B3010	Roofing	3	25%	23,990	bgsf	6.89	41,323	budget for leaks & RTU replacement
C1020	Interior doors & hardware	4	0%	22,449	nasf	3.15	0	
C2010	Stairs/ramps/ladders	4	0%	23,990	bgsf	7.55	0	
C3030	Ceiling finishes	4	0%	5,542	nasf	3.28	0	
C3010	Wall finishes	4	0%	22,449	nasf	3.33	0	
C3020	Floor finishes	4	0%	22,449	nasf	3.15	0	
C3030	Ceiling finishes	4	0%	22,449	nasf	3.28	0	
D2010	Plumbing fixtures	4	0%	22,449	nasf	2.50	0	
D2020	Domestic water distribution	4	0%	23,990	bgsf	1.72	0	
D2020	Domestic water heaters	3	25%	23,990	bgsf	0.25	1,499	add thermostatic mixing valve
D2030	Sanitary collection	4	0%	23,990	bgsf	1.15	0	
D2040	Storm water collection	4	0%	23,990	bgsf	1.77	0	
D2090	Distribution piping	3	25%	23,990	bgsf	1.05	6,297	rooftop gas piping needs painting
D3040	HVAC ductwork	3	25%	22,449	nasf	4.25	23,852	install stand-alone unit for Room 121
D3040	Ventilation	4	0%	22,449	nasf	2.03	0	
D3050	Air conditioning units	2	50%	22,449	nasf	6.55	73,520	10 RTUs need replacing
D3050	HVAC diffusers	4	0%	22,449	nasf	1.21	0	
D3060	Building temperature controls	0	110%	22,449	nasf	3.15	77,786	install new system
D3060	Local temperature controls	4	0%	22,449	nasf	0.48	0	
D4010	Fire protection system	0	110%	23,990	bgsf	3.90	102,917	install dry-pipe sprinkler system
D5010	Electrical service equipment	4	0%	23,990	bgsf	1.97	0	
D5010	Distribution panels	4	0%	23,990	bgsf	3.43	0	
D5010	Branch power distribution	4	0%	23,990	bgsf	2.30	0	
D5020	Lighting fixtures	3	25%	22,449	nasf	3.50	19,643	add automatic control system

Table A5.6.6 *(continued)*
Retrofit of Existing Building Systems, East Regional Library

uniformat code	construction element	rating	weight factor	square footage		unit cost	total cost	comments
D5020	Emergency lighting	1	75%	22,449	nasf	$0.90	$15,153	upgrade current system
D5020	Convenience receptacles	4	0%	22,449	nasf	2.90	0	
D5030	Data infrastructure	3	25%	23,990	bgsf	3.77	22,611	increase capacity in Room 121
D5030	Public address system	4	0%	22,449	nasf	1.55	0	
D5030	Building security system	4	0%	23,990	bgsf	1.10	0	
D5040	Fire alarm system	4	0%	23,990	bgsf	1.75	0	
D5040	Emergency power	0	110%	23,990	bgsf	1.66	43,806	install new system
E2010	Casework & millwork	4	0%	22,449	nasf	8.22	0	
E2020	Furniture & equipment	4	0%	22,449	nasf	22.50	0	
G2010	Roadways	4	0%	23,990	bgsf	1.12	0	
G2020	Parking Lots	4	0%	23,990	bgsf	0.97	0	
G2030	Pedestrian Paving	4	0%	23,990	bgsf	0.76	0	
G2040	Site Development	3	25%	23,990	bgsf	1.42	8,516	water-proof clock tower lights
G2050	Landscaping	4	0%	23,990	bgsf	0.23	0	
G3000	Site Utilities	4	0%	23,990	bgsf	1.44	0	
Z1010	Handicapped access	3	25%	23,990	bgsf	2.43	14,574	address accessible egress

TOTAL RETROFIT COST $451,498

Appendix Five: Current Facilities/Future Needs   *Library Facilities Study*
East Regional Library   Fort Worth Library 2010 System Master Plan
page A5.11   Godfrey's Associates, Inc.