The Design and Planning of Financial Institutions

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The Design and Planning of Financial Institutions

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We Certify that we have read this Doctorate Project and that, in our opinion, it is satisfactory in scope and quality as a Doctorate Project for the degree of Doctor of Architecture in the School of Architecture, University of Hawai‘i at Manoa.

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Introduction

Although banks and other financial institutions have been significant examples of modern building types in the developed world for many years, there are few reference guides or books about how to plan, design, or construct them. Architects understand the programming and design process but usually know little about the operational function and equipment needed in a new bank. Similarly, most bankers know a great deal about the operations and desired building functions, but know very little about programming or the design process.

Financial services throughout the world are offered by many different methods, and those methods and institutions are worthy of comparison. Such a study could fill several volumes. This work, however, is meant to provide a useful reference to bankers, their architects, interior designers, builders, subcontractors and suppliers that is not yet available from any single source. It is limited in focus to projects in the United States, (except for one Canadian exception) and much of it to the vast majority of new construction, the typical branch facility.

A brief history of banking is helpful in providing the background for the reader in the evolution of bank building design to the advent of the first motor bank. The impact of the banking regulators and their immense influence and control on banks today is outlined. Next is presented the automobile access that pneumatic tubes made possible, continuing through to the evolution of current motor bank site design methods. The material presented herein will lead the reader to the new design directions that are now possible. A study of current planning practices, recommendations, commonly used and newly available equipment is presented. This will list the spatial needs, uses, and relationships commonly implemented in today’s bank planning and will provide a listing of the equipment needed, as well as the specialized bank equipment now in use. Although there are many photographs and illustrations of equipment and assemblies, these are shown only as a guide since this equipment is constantly being improved and changed.

A major concern in this post-9/11 era is security. Banks may become a preferred target of terrorists, who are overwhelmingly opposed to the very idea of modern western banking, as well as the ever-present bank robber and now the increasingly troublesome identity thief. Architects, designers, and their banker clients must be familiar with the systems needed to insure the required degree of security in these structures.¹

A continuing trend toward a paperless and cashless society seems to be more and more evident. New directions in electronic commerce are rapidly changing the older brick and mortar edifices that have long been the image of banking. While the automobile remains important in modern bank planning, new ideas in using remote teller machines and video are arising, both for customer service and for vivid new forms of marketing. Other new equipment is available to bankers and their customers that had not been developed until recently.

Although most facilities retain personal teller service, some new facilities are being planned to be “tellerless” with most customer access through new teller machines employing televised and pneumatic conveyance. Boutique expresso/café bank shops are also providing teller assistance as well as online and direct financial services.

Personal Bankers are now being provided to some of their clients by the larger banking organizations and some new banks are accepting only those customers who have a high net worth. Many banks have continued to offer trust advisors. Also offered today are new products such as annuities, securities and investments, insurance, real estate, risk management, and other services. These were not possible to offer earlier because of regulations that have only recently been changed.

Some new planning concepts feature multiple computer station operators who provide online teller services for their customers without ever seeing or meeting them in-person. Mobile device banking such as cell phones and personal digital assistants are now being implemented. In a more dense urban area a bank may have a central facility with an online staff only, and that facility becomes more of a high-tech office building than a bank. These usually have multiple full-service branches of a prototypical design as well.

With the ever-increasing competition that now occurs in the financial world, brand identification is becoming increasingly important as a major area of emphasis. Brand images are more than just the institutional logo as they translate to all forms of advertising inside the building and out. In many cases the building itself may become a major part of the brand image.

This work features twenty different banks that have been recently constructed in the United States and illustrates the features that distinguish them. Included is a wide range of types from small neighborhood branch designs to the large head quarter banks in the United States today. This work does not include any of the multi-storied bank towers in the country that are primarily office buildings. It will include a listing of equipment manufacturers, financial institution organizations, and the regulatory agencies with jurisdiction over banking.

Much of the information that is given in this work comes from the important financial equipment manufacturers in the USA today and from this writer’s more than forty years of experience in financial institution (principally branch bank) design.

HLW
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Chapter 1. A Brief History of Banking

There are many books about the detailed history of banking and money, and while this work does not intend to provide that level of historic knowledge, it is helpful to have a general understanding about how banking began and how it evolved in the United States. No one is certain of the date when banking began but the act of exchanging various forms of payment, dates prior to the third millennium BCE.¹ The first banks were likely temples, where people could exchange items such as cattle, or implements, or precious metals, even before coins were invented. When different coins of precious metals were later used as payment, “money changers” were those who understood the relative value of the coins in question and could provide the means for a desired exchange.

Banking then declined in medieval Europe because of religious opposition to “usury,” which is the collection of interest, added to a loaned amount. The Renaissance then brought the revival of banking, most prominently in Italy where Marco Polo had introduced a trade route to the east, and with that, its exotic products. In the 14ᵗʰ century, the famous banking houses in Venice and Florence brought about the first modern practice of banking as it came to be known. In fact the word “bank” derives from the Italian banco, meaning bench—the tables where the early transactions occurred.²

As trade increased and more people traveled greater distances to exchange goods, the need for an accurate means of measure increased as well. Coins soon became difficult and unwieldy to carry in large numbers, and the need for an alternative resulted in the creation of paper money (it was actually first used in China).³

In England, the safekeeping of precious coins or objects was entrusted to the goldsmiths who had the only safe storage vaults or boxes. Their customers knew that was how the goldsmiths safe-kept their valuables, so they began to ask if theirs could be kept in them as well. Written receipts were given that allowed the customers and the goldsmiths to know what was stored at a given time. Soon, the customers and then the goldsmiths began to exchange these written receipts, instead of having to actually exchange the stored items. Thus began an early form of a note.⁴

The practice became so commonplace that in 1694 the Bank of England was chartered by the government and was allowed to issue its own notes, early forms of paper currency. This formerly private bank was later to become England’s Central Bank.⁵

¹ Edwin Heathcote, Bank Builders, (Chichester: Wiley Academy, 2000), 9.
⁵ Mayer, 1987, 27
Banking in the United States developed relatively late. The economy was principally agricultural, and credit was extended to farmers by merchants in cities such as Boston or Philadelphia. These merchants then bought on credit from their British suppliers and when the harvest came in, the whole chain was paid off. Because the British credit system was cut off during the Revolutionary War, the need for indigenous banks became clear. Several of the colonies established Land Banks. These issued notes to make loans against land, but very soon experienced problems with over-issue and depreciation of their notes. The few that did not fail were closed by the British Colonial administration in 1741.6

In 1781, the Bank of North America was started in order to help finance the revolutionary war, but for another 10 years there was no nationally chartered bank. In 1791 the First Bank of the United States was granted by Congress a 20-year charter at the behest of Alexander Hamilton, the first Secretary of the Treasury. The design was attributed to Samuel Blodgett, although that has been questioned.7 The early colonial banks, then state institutions that were competing with the First Bank of the US, objected to its continuation, and in 1811 Congress failed to renew its charter. (See Figure 1.1)

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8 [http://www.en.wikipedia.org/wiki/First_Bank_of_the_United_States](http://www.en.wikipedia.org/wiki/First_Bank_of_the_United_States)
The economic complications resulting from the war of 1812 then caused Congress to create the Second Bank of the United States in 1816, also with a 20-year charter. This bank was designed by William Strickland. (See Figure 1.2) Continuing political differences resulted in President Andrew Jackson’s veto of the extension of that charter in 1836. From then until the civil war era, free banks could be established by anyone who could provide a minimum capital outlay, and deposit specified amounts in the form of bonds with a state agent. With little restraint, however, many of these failed, often because of defaults on the states’ bonds they were holding. By 1860, 18 of the then 32 states had enacted “Free Charter” laws and these contributed significantly to the westward expansion of the country.

For the most part, banks in this era were designed in the classical Greek, Italianate, French Second Empire, Victorian Gothic, or English Queen Anne style. Then the work of Henry H. Richardson brought about a revival of the 11th century Romanesque style in the 1870s. Surprisingly, Richardson only designed one bank, the Agawam Bank in Springfield, Massachusetts, and it was not in the style for which he became famous.

Figure 1.2 Second Bank of the United States, Philadelphia, Pennsylvania, 1820, by William Strickland
His many other commissions, however, were the inspiration for countless banks throughout the United States well into the early 20th century. In 1863, Congress enacted the National Banking Act to finance the Civil War and by 1866 there were 1600 nationally chartered banks, which accounted for 75 percent of all bank deposits in the United States.

This act also brought about the first national uniform currency and established the Office of the Comptroller of the Currency (OCC),10 the bureau that has authority over all national banks in the USA to this day. See the description of the OCC duties and responsibilities in Chapter 2.

The new banks were required to back their notes with federal government securities, and the numbers of new banks quickly grew. Severe financial panics occurred anyway in 1893 and again in 1907, which led to the establishment of The National Monetary Commission, which then recommended the Federal Reserve Act11 in 1913.

The Federal Reserve was then established in order to provide a central bank as the lender of last resort, and to establish monetary policy for the entire country. In Chapter 2 is the description of the Federal Reserve and its responsibilities.

**Louis Sullivan and the Prairie Style**

Louis Sullivan was already a noted architect when he designed his first bank project in 1907, the still famous National Farmers Bank in Owatonna, Minnesota. (See Figure 1.3) His design philosophy of “form follows function,” which his even more famous protégé, Frank Lloyd Wright also espoused, was also carried out by other lesser known, but significant architects in the upper Midwestern USA. These early 20th century architects believed American architecture should cease copying the classic styles. George G. Elmslie, who had worked for Sullivan during the National Farmers Bank project with William G. Purcell, formed Purcell and Elmslie and produced several bank projects including the Merchants Bank of Winona.12 This bank, completed in 1912, was significant in that its floor plan arrangement was a pacesetter in bank design, in addition to its Sullivan-inspired exterior. (See Figures 1.4 and 1.5)

Frank Lloyd Wright, who had produced so many significant buildings in his long career, designed relatively few banks. The architectural significance of the early prairie-style banks is acknowledged by critics and historians alike, and it is unfortunate that this design movement did not continue throughout the rest of the country where the majority of banks continued to be of a classic revival style. It was not until the late 1920s that architects and their banker clients would consider a more modern style for bank design.

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9 Belfoure, 104.
12 Belfoure, 194-211.
Figure 1.3 National Farmers Bank, Owatonna, Minnesota, 1908, by Louis Sullivan

Figure 1.4 Merchants Bank of Winona, Minnesota, 1912, by Purcell & Elmslie

The stock market crash of 1929 marked the beginning of the Great Depression, which soon became a worldwide circumstance. Bank architecture and construction came to a halt and market events led to the insolvency of numerous banks across the country. Most hard hit were rural banks that had financed agricultural loans, but banks in cities also faced great hardship. Continuous “runs” were being made where customers, fearing an immediate collapse of their banks, lined up to ask for their money to be refunded. These difficulties led to the “bank holiday” of 1933 wherein all US banks were closed for four days to allow for a period of time to reevaluate the solvency of remaining banks and assure the public of their financial safety.15

The events stemming from the depression led to the establishment of the Federal Deposit Insurance Corporation that initially provided for $2500 in insurance for each depositor (now $100,000), in case the insured institution became insolvent. It also brought about significantly greater oversight by the regulating agencies.

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One thing the Great Depression did was bring about a change in the architectural style that had been characteristic of American banks to that time. Although the depression did not end immediately, the remaining financial institutions eventually regained their viability and a new outlook in design began to prevail. One of the early modern banks was the 32-story Philadelphia Savings Fund Society building built in 1932. It was designed by William Lezcaze and George Howe and has been called America's first “truly modern skyscraper.” (See Figure 1.6)

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**Figure 1.6 Philadelphia Savings Fund Building, 1932, by Howe & Lezcaze**

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16 Belfoure, 227.
The National Credit Union Administration

In 1934 President Roosevelt signed into law the Federal Credit Union Act. This act authorized the formation of federally chartered credit unions in all states. The National Credit Union Administration (NCAU) was established to charter and supervise the federal credit unions. Backed by the full faith and credit of the United States government, the NCAU operates the National Credit Union Share Insurance Fund (NCUSIF) that insures the account holders of the federal credit unions and many of the state-chartered credit unions.  

World War II and the Post War Era

American commerce and industry were completely dedicated to the war effort after the Pearl Harbor attack and almost all bank construction was put on hold. One thing the war years did was provide bankers with the time to reconsider the kind of bank they wanted and their customers needed.

After the war, bankers were much less interested in the previous classical influences and of the immediate post-war banks to be constructed, the most dramatic was the Fifth Avenue branch of the Manufacturers’ Trust designed by Skidmore, Owings & Merrill, in New York City in 1954. An in-house competition was held over a weekend at SOM and the winner was Charles Evans Hughes III who designed a four-story building with a glass curtain wall that featured the vault prominently visible from the street, a practice that is still favored by many bankers today. (See Figure 1.7)

Photo by Ezra Stoller©

Figure 1.7 Manufacturers’ Trust, New York City, 1954, by SOM Architects

17 http://www.ncau.gov/AboutNCAU/Index.htm (Oct 29, 2007)
18 Belfoure, 248.
From the 1960s to the Present

During the last 40 years banking has undergone some dramatic changes. Apart from the savings and loan debacle of the 1980s, the technological advances of electronic banking, banking by phone, use of debit and credit cards, and the widespread use of the Automatic Teller machines have revolutionized banking and financial institution buildings. Equally important were the regulatory changes in 1999, brought about by the Gramm-Leach-Bliley Act that in essence overturned the strict banking laws enacted in 1933. Those laws had precluded banks from offering investment banking, insurance, and other services.

The most significant operational change was brought about in 2004 with the advent of Check Clearing for the 21st Century called “Check 21.” This law allows a new negotiable instrument, called a substitute check, to be made that in-turn permits a bank to truncate the original check and process the check information electronically. This has had an enormous impact in banking operations throughout the United States. The design of financial institutions has followed this impact as well. More will be presented in the following chapters about the physical requirements these changes have brought and Chapter 8 Part I features a bank workroom that has been recently converted to use the new equipment.
Chapter 2. Financial Institutions Defined

Of the many different financial institutions in the United States today, only those that serve the majority of the United States (and one in Canada) will be the focus of this work. It is helpful for architects to understand the regulators, their responsibilities and duties over these financial institutions as well as the definition of these institutions and their respective consumer base.

Chapter 1 described the establishment of the Office of the Comptroller of the Currency, that is the regulator of all national bank charters, and the Federal Reserve Bank, which is the central bank of the United States. We will consider these agencies and their duties and responsibilities, the state regulating agencies, and then define the institutions to be considered.

The Office of the Comptroller of the Currency (OCC)

As a bureau of the United States Treasury Department, the OCC is headed by the Comptroller, who is appointed by the president to a five-year term, with the advice and consent of the senate. The OCC office is comprised of a nation-wide staff of examiners who conduct on-site reviews of national banks and provide sustained supervision of banking operations. It also issues rules, legal interpretations, and makes corporate decisions about banking, bank investments, bank community development, and other aspects of banking operations. The OCC has complete authority over the practices and procedures of national banks in the United States today, and all must comply with OCC regulations in order to obtain and retain their charters.\(^1\)

In regulating national banks, the OCC has the power to:

- Examine the banks.
- Approve or deny applications for new charters, branches, capital, or other changes in corporate or banking structure.
- Take supervisory action against banks that do not comply with laws and regulations or otherwise engage in unsound banking practices. The agency can remove officers and directors, negotiate agreements to change banking practices, and issue cease and desist orders as well as civil money penalties.
- Issue rules and regulations governing bank investments, lending, and other practices.

The OCC objectives

The OCC’s activities are predicated on four objectives that support the OCC’s mission to ensure a stable and competitive national banking system. The four objectives are:

- To ensure the safety and soundness of the national banking system.

\(^1\) [http://www.occ.gov](http://www.occ.gov) (Oct, 21, 2007)
• To foster competition by allowing banks to offer new products and services.
• To improve the efficiency and effectiveness of OCC supervision, including reducing regulatory burden.
• To ensure fair and equal access to financial services for all Americans.

The Federal Reserve Act

Created to provide the United States with a safer, more flexible, stable monetary and financial system, The Federal Reserve, known also as the “Fed.” became the nation’s central bank, or the bank for all the other banks. It is a network of 12 Federal Reserve banks in different regions and a number of branches with oversight by a seven-member board of governors, a chairman and a vice-chairman. Each member serves a 14-year term except that the chairman and vice-chairman serve four-year renewable terms while serving their regular 14-year terms. Among other responsibilities the Federal Reserve does the following:  

20 http://www.federalreserve.gov
The 12 Federal Reserve regions of the United States are headquartered in Boston, New York, Cleveland, Richmond, Atlanta, Chicago, Saint Louis, Minneapolis, Kansas City, Dallas, and San Francisco. The map below indicates the Federal Reserve regions of the United States. (See Appendix A)

Figure 2.2 The Twelve Federal Reserve Districts of the United States

State Bank Regulators

Each state has a state banking commission or agency that ensures that new banks have the necessary capital and management expertise to meet the public’s financial needs. The charter grantor is the institution’s primary regulator with front-line duties to protect the public from unsafe or unsound banking practices. Like the OCC, the states conduct on-site examinations to assess a bank’s condition and monitor compliance with banking laws. They also issue regulations, take enforcement actions, and close banks if they fail.

22 ibid (23. Oct. 2007)
It is now a requirement of all states that newly chartered state banks must join the FDIC and provide deposit insurance for their depositors.

**Commercial Banks**

A commercial bank is an organization, usually a corporation chartered by a state or the federal government, which does most or all of the following: receives demand deposits and time deposits; honors instruments drawn on them and pays interest on them; discounts notes; makes loans; invests in securities; collects checks, drafts and notes; certifies depositors’ checks; and issues drafts and cashier’s checks.\(^\text{23}\)

These banks, if national charters, are regulated by the Office of the Comptroller of the Currency and are subject to the rules of the Federal Reserve and the Federal Deposit Insurance Corporation (FDIC). If state charters, they are regulated by state banking agencies but if covered by federal insurance, they are also subject to rules of the FDIC.\(^\text{24}\)

There are also now other newer services and products being offered by some commercial banks that will be discussed in Chapter 7.

**State Chartered Banks**

After the charter of the Second Bank of the United States had been terminated in 1836 and until the Civil War, the majority of banking was with state-chartered banks. These banks were given the right to issue banknotes. They were expected to lend money to states governments or to state-sponsored projects such as canals or for railroad expansion. This began a movement towards “free banking” under which a bank charter was no longer a special favor of the state with each one requiring a special act of legislation. Instead, anyone meeting minimum requirements of honesty and capital could receive a charter from the state banking commissioner.\(^\text{25}\) This system of state chartering has continued although the charter itself now requires considerably more in background and substantiation.

There are three categories of state-chartered banks:\(^\text{26}\)

1. Some state chartered banks are members of the Federal Reserve System and these are examined by the Fed and also sometimes by the state. They must be insured by the FDIC.

2. There are also some state-chartered banks that are not members of the Fed but are insured by the FDIC. These are also examined by the FDIC.

3. There are state-chartered banks that are not insured by the FDIC. These are examined by state regulators.


\(^{26}\) Kohn, 596.
National Bank Charters

The National Bank Act of 1863 was passed in response to the difficulties of financing the Civil War. This act reinstated the power to the federal government to charter banks. The new National banks were given the exclusive right to issue bank notes that were used to purchase federal debt. When the state chartered banks were deprived of their right to issue notes they turned to deposits as their principal form of liability and soon recovered from the disadvantage. The chartering of National banks has continued to this day and serves as the other part of the Dual Banking system in the United States.

The OCC grants national charters, approves mergers and new branches, examines these banks, and if necessary, closes them. All nationally chartered banks must be members of the Federal Reserve System, and they must be insured by the FDIC. They are thus subject to all federal laws and regulations.

The Dual Banking System

The continuous system of regulation in the United States at both the state and federal levels depending on which charter an institution has, is known as the “dual banking system” and has continued for nearly 200 years.

Bank Holding Companies

A bank holding company is any entity that directly or indirectly owns, controls, or has the power to vote 25 percent or more of a class of securities of a United States bank. Bank holding companies are required to register with the Federal Reserve System whose board has the responsibility for regulating and supervising bank holding company activities such as the approval of mergers and acquisitions and inspecting the operations of such companies. This authority applies even where an institution is under the primary supervision of the OCC or FDIC.

Savings and Loan Associations

Also called Thrifts and S&Ls, these are financial institutions, organized cooperatively or corporately, that hold the funds of their members or clients in interest-bearing accounts and certificates of deposit. They invest those funds chiefly in home mortgage loans, and many also offer other services. Many former savings and loan institutions became savings banks. These were originally established to help people purchase homes. For many years they were the main source for home mortgages. Now they have become diversified and offer a wide range of services that were formerly available only from banks, such as checking accounts, individual retirement accounts (IRAs), money market accounts and now also consumer and business loans.

27 Kohn, 135.
28 Kohn, 595.
30 Mayer, 67-68.
In the 1980s because of deregulation and increasing unsecured investments in large-scale speculation, financial failures were rampant. Over 500 thrift institutions were forced to close so that by 1989 the FDIC was required to take over the insurance from the previous Federal Savings and Loan Insurance Corporation (FSLIC) insurer; and the Office of Thrift Supervision (OTS) was established as the regulator, an agency of the United States Treasury Department. As of this writing there is serious consideration being given in Washington DC to merge the duties of the OTS into the OCC in the future.

**Savings Banks**

Originally located in New England and New York, and now in other states, these are also known as mutual savings banks. They are also considered thrifts, and they are regulated by the OTS but are controlled by self-perpetuating boards of trustees. They offer savings and checking accounts and make personal or business loans. Their net earnings are paid out as interest to depositors, or are added to surplus as a cushion against losses. State chartered institutions are regulated by state banking commissions, but are insured by the FDIC.

**Credit Unions**

These are non-profit cooperative financial institutions that are owned and controlled by their members and are exempt from federal or state income taxes. They are organized to serve groups that share something in common such as where they live, work, or worship. They provide services for savings and lending as well as other financial services for their members. Credit unions are chartered and supervised by the National Credit Union Association (NCUA), an independent federal agency that also administers the National Credit Union Share Insurance Fund (NCUSIF), a federal fund that insures the member credit unions.

**Investment Banks**

These institutions purchase newly issued stocks and bonds from corporations and governments then resell securities to investors in smaller quantities. They profit by selling these securities at a higher price than they pay for them. In the 1930s they were prohibited by the government from engaging in investments while also accepting deposits and making loans, but by the 1980s large commercial banks were allowed to again buy and sell securities, within certain limits. By 1999 all barriers were removed that separated investment banking from commercial banking.

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32 Mayer, 67.
Chapter 3. Brand Identification

Unlike bankers and most other business professionals who quickly learned the value of effective advertising, architects have never had a fondness for it and thus they usually go about including the required signage on or in their building designs with some trepidation. What they must learn now, however, is that a marketing philosophy is taking place in bank design that will require them to not only provide for signage, but also to implement a thing called “branding” within the entire design scope and equally important design process of their projects.

Author Tom Asacker, who was a recipient of the George Land Innovator of the Year award, says in his best-selling book, A Clear Eye for Branding that branding is more than just a client’s logo, or a slogan or a design scheme, rather, it may extend to the entire project concept in ways that will require new and different thinking about the fundamental design concept. Regarding branding for banks and other financial institutions, Mr. Asacker writes:

“A bank, like any other business today, is in the business of improving customer’s lives. Given the choice in financial products, services, and information, today’s banks must do more than offer competitive rates, services and product choice. They must also provide meaning and a sense of identity to their audience.”

In her book Brain Tatoos, Karen Post says:

“The word brand has many definitions from a variety of respected resources I believe the brand is a mental imprint that is earned and belongs to a product, service, organization, individual, and/or event. It’s the sum of all tangible and intangible characteristics of that entity. A brand is what an audience thinks and feels when it hears a name or sees a sign, a product, and/or a place of activity. It’s what customers expect when they select an offering over a competing one.”

What does this mean to financial institutions and their designers? It means that they must go outside of their typical performance in design and understand how the physical brand image they develop links or drives the brand expression. This process and understanding must continue through all of the delivery channels and associations including those that are online: by video messaging inside the branches; by marketing; by merchandising; by advertising; with phone center operations; in human relations and training; in headquarters design; and in related business subsidiary integration.

35 Asacker, Tom, Email response to the author Nov. 12, 2007
36 Post, Karen, Brain Tatoos, (New York: AMACOM Books, 2005), XV.
37 Paul Seibert, Conversation with the author, Oct 22, 2007
Ms. Post adds, “branding is not merely the logo, some catchy tagline, or the creative pastime for the marketing department.” She explains that it is now “a way of life,” the “heart and soul of an offering” and “should be woven into every important decision and resonate through every point of contact within a market’s span.”

New thinking will require banks and their designers to include brand strategy in a creative way — a way that will work within the overall design theme — and will require an early meeting of minds between the bankers, architects, their brand image consultants, and other team members who are to help accomplish the desired image goals. Some architects have teamed up with brand consultants to provide a full service of strategy and design from a single source. Others have added construction services as well, to provide a complete brand strategy, design and building construction source.

The topic of brand identity, influence and strategic development is one that fills many volumes and is a complete field of study by itself. This work is not that, but it does intend to show the importance of coordinating design concepts, from early schematics through to finished buildings, that successfully reflect the brand strategy that a financial institution has determined to present.

How can this be accomplished? Some methods that help identify a building and add to a brand strategy are the use of distinguishing architectural features such as overhanging canopies or eaves. Others may use a tower or other vertical elements. These might feature a clock, or the institutional logo or both. (Many new sign regulations now reject the time-honored time and temperature pylon signs.) A multitude of materials and techniques can emphasize a particular image. The important question, however, is, “how can this brand strategy be developed for a particular financial institution?”

One effective approach is to have a wide-ranging study done of a particular institution in order to determine the culture of its customer or member base. This cultural analysis should determine their interests, habits, and past-time preferences, as well as vocational and occupational endeavors. A database of this information would then provide the brand consultant and architect with the basis to develop a thematic expression for a brand design. This may extend to all materials that comprise the brand’s presentation to its public.

A number of banks and their architects are using long-standing retail methods of display and photography. New flat-screen technology is another way this is being done. The customer path, as has been mentioned, from entering the building through to the tellers, provides a significant venue, along which the opportunity exists to feature this technology. It has the ability to showcase products and services that are offered by the institution in high-definition video and with high fidelity sound. (See Figure 3.1)

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Post, XV.
Paul Seibert, CMC, of EHS Design, Mark Weber, president of Weber Marketing and their teams, experts on financial institution design and branding applications, designed the North Shore Credit Union in Vancouver, British Columbia. This project represents a design and branding effort to achieve the distinction “to be unrivaled by any other in Canada or the United States. It needed to translate its brand focus on ‘member wellness’ into a truly unique and dynamic retail branch environment that connected with its Vancouver-area target market’s community and lifestyle,” a concept called an “I-branch” by North Shore’s management.

Also termed a “West Coast Financial Spa,” this project complements the many ways the institution’s new prototype improves the quality of its members’ lives. A “concierge” greets and welcomes its members and ensures they are directed to the most appropriate person, thereby creating a more personal and intimate member experience. The new branch “helps to support a local arts initiative — making for an unusual pairing of Art and Banking. A gallery-type exhibition space extends the ways the credit union gives back to the community and provides a unique showcase for local artists, on a rotating schedule. It links the way North Shore does business with the same activities its members deem important and valuable.”

“Throughout the branch, the native materials, colors, and artisan crafts, like Vancouver glass, make for a unique experience.” It creates a distinct brand image that reflects the local lifestyle. Traditional tellers were replaced with “teller pods” that are in front of a zen bamboo wall adorned with flat screens. It is said that the new facility “provides the service quality of a spa combined with the ruggedness of the local environment for a truly different banking experience.”

Among the benefits described for the Credit Union members are: “a fresh and vibrant concierge-style approach that helps bolster North Shore’s standing as a premier boutique financial institution that delivers comprehensive and highly tailored financial solutions and advisory services.” One of the institution’s executive officers summed up the branch design as one that “has enhanced our members’ experience by allowing us to address their financial needs at all levels, from daily transactions to investment advice, in an environment that is at once, innovative, imaginative, informative, and intimate.”

(See Figures 3.2, 3.3 and 3.4)

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40 Seibert, message to the author, Feb. 12, 2008
41 ibid
42 ibid
43 ibid
Figure 3.1 Floor Plan of The North Shore Credit Union, Vancouver, British Columbia, by EHS Design

Figure 3.2 Waiting Area and Entrance Display, North Shore Credit Union, Vancouver, British Columbia, by EHS Design
Roger Brooks Photography

Figure 3.3 Concierge Station, North Shore Credit Union, Vancouver, British Columbia, by EHS Design

Roger Brooks Photography

Figure 3.4 Member Service and Development Lobby, North Shore Credit Union, Vancouver, British Columbia, by EHS Design
Another new project that emphasizes its brand image with a high-profile advertising vehicle is the North Fork Bank’s new 3rd avenue branch in New York City, New York, designed by JRS Architects. In this project, two giant LED screens are displayed inside the bank lobby that can be seen from a great distance through the building’s glass façade by all who pass by. Comprised of 500 LED fixtures, the high-tech displays are controlled from one central computer system. At night this makes for a memorable brand attraction to the new branch. (See Figures 3.5, 3.6 and in Chapter 9.11 Featured Project)
New products are constantly being used in the retail market that may have a place in the branding strategy of the financial industry. One is a “surface” computer by Microsoft® that operates with touch commands, without a keyboard or use of a mouse. It can recognize the stored images in a digital or video camera or phone, and automatically produce those images and related data on the screen in a variety of ways; or it can recognize a credit card and automatically record a charge. These and other high-tech ideas can present a brand image in a recurring manner that is so important in the retention of a customer base. Architects and brand consultants must be able to incorporate this technology without having it detract from the design concept, in a way that combines design excellence with continually repeated customer attraction as the ultimate project goal.

New concepts in virtual reality are lending themselves to real results in graphic three-dimensional features and are influencing how people react and adapt to an environment. There is even a “virtual bank” in the increasingly popular Second Life Internet based virtual world that uses “Linden Dollars,™” a virtual currency that has an exchange rate with real dollars. If, or exactly how this might ultimately affect real banking in the United States, or the world, (there are now many Second Life participants throughout the world) is not known, but its wide-spread popularity is undeniable.

Automatic Teller Machines (ATM) were among some of the early examples in the financial world to emphasize a brand image in promoting the institution. Although they are also now owned and operated by numerous non-banking organizations, they are still used in this manner by banks and credit unions and are still an important part of a brand image. (See Figure 3.7)

Figure 3.7 Typical Through-Wall Walk-Up Automatic Teller Machine

This ATM sign face features the institution’s brand name and/or logo. Pictured is one of the many of Aloha Pacific Federal Credit Union’s ATMs named “Kalabash” from the Hawaiian word Kala, meaning money.46 See Chapter 8 Part II for more information on ATM installations.

46 Rita Ornealas, V.P. of Aloha Pacific Credit Union, conversation with the author, Feb. 5, 2008
Chapter 4 Programming the Facility Needs

One of the processes required in any architectural project is programming. Banks are no different and because they are the holders of the majority of the earnings of American consumers, it is even more critical that this phase of work is completed accurately and completely. Different methods are used to accomplish this important task and most architects have their own system, but all must arrive at a progression that develops information to allow the project design to proceed. In most projects architects or separate programming consultants prepare the following: client conferences; research, this phase of programming, schematic design, design development, construction documents (plans and specifications), bidding contracts or instruments, and construction administration. There may be some variation among these phases but from the very beginning, any resulting work must have adequate and accurate programming.

Early discussions with an architect usually involve the purpose of the building, its functional requirements, budget considerations, site conditions, and an overall description of client objectives. At this point there is probably nothing written in formal terms so it is the architects’ responsibility to prepare this written architectural program.

From the work Problem Seeking by William Peña,\textsuperscript{47} is a very good description of the five steps that should occur in programming which are to:

- Establish Goals
- Collect and Analyze Facts
- Uncover and Test Concepts
- Determine Needs
- State the Problem

What does a financial institution want to achieve and how does that represent the goals in the project? These are sometimes easy to define but usually involve more than a simple list of spaces. How functions relate and occur must be considered carefully in this step of the process. Project goals are not concepts but are implemented through concepts. There are as many variations on bank design as there are banking industry members. The suggestions and steps outlined throughout this chapter are from Problem Seeking by Mr. Peña, but in some cases have been edited by this author to provide additional information pertinent to the programming of financial institutions.

Facts are important and necessary to the program if they are pertinent and appropriate. They may describe the site, including physical, legal, climatic, and aesthetic aspects. Statistical projections, economic data, and user characteristics may be important as well but only if they have a bearing on the project. A number of banks have used outside consultants to determine all aspects of a proposed project.

From the question of whether a new facility is warranted, and if so where should it be located, to just what kind of financial service delivery method is suitable, are among the considerations that financial feasibility planning consultants often prepare. Architects are often an important part of this team.

Concepts with respect to programming do not mean design concepts but refer to performance considerations. There are often twelve recurring programmatic concepts that crop up on nearly every project, depending on its size and complexity, and these are:

1. **Service Grouping**
   Should items such as heating and cooling systems be centralized or decentralized? Bank equipment needs and locations must be considered in this programming phase. Most architects try to plan elements such as restrooms or other facilities that require plumbing in a similar group proximity.

2. **People Grouping**
   How are people placed in an organizational structure? Greeters, customer service representatives, officers, tellers, clerical workers, and specialists of different categories must be considered.
A fundamental decision as to the method of service delivery must be made. Whether the project is a small branch or a large headquarter facility will determine the order of these groups.

3. Activity grouping
Should activities be integrated or compartmentalized? Private offices, workstations or cubicles, or an open-office arrangement must be determined. Different departments and activities are part of this need. New products and services will also impact this consideration.

4. Priorities
The order of importance or a process is important to determine. Public or banking operations and paths are extremely important. The relative sizes of offices, conference rooms, and work-areas are examples of priority judgment. In most circumstances, the larger the institution, the more complex is the order of priorities.

5. Relationships
The efficiencies of space relationships and the effectiveness of people and their activities must be determined. The marketing opportunities created by space or circulation may be part of a branding strategy, and a resulting floor plan.

6. Security Concerns
Perhaps more than most other building types, financial institutions must be analyzed for security. These needs will be discussed in greater detail in chapter 8.

7. Flexibility
This consideration involves expansibility, convertibility, and versatility. All three of these functions should be analyzed. How many times has a new bank needed to expand and had to settle for a less-than-efficient expansion solution? The potential economics of expansion should be considered at the outset of a project. There are numerous construction techniques that can be implemented at a first phase, or at the original project inception, that will result in much less expense in a later construction project phase.

8. Sequential Flow
The progression of people, both employees and customers, as well as items must be carefully planned. A flow chart will be helpful in this consideration. Again, the larger projects will involve more complex sequences of flow, while smaller facilities involve a more simplified approach.

9. Separated Flow
Although similar to item 8 above, the separate flow of employees and the public is important and will need to be considered as separate functions, even though there will be significant intertwine depending on the activity. Security is a very important part of this consideration.
10. Mixed flow

This is the event that requires employees and customers to interrelate. From the time a customer enters and is greeted, through to a customer service representative, an online station, coffee lounge, a specialized department, or simply direction to a teller area or officer, this path is extremely important in the planning of a financial institution. The brand strategy is also important in this consideration.

11. Orientation

A point of reference is important to maintain customer ease of access, especially in large headquarter or multi-story buildings.

12. Energy Conservation and Sustainability

Even in small buildings it is important to plan mechanical, electrical, and plumbing systems carefully and to provide for the use of materials that are more accessible and easily renewed. 48

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48 Peña, 58-75.
Client desires are not always the same thing as a client’s needs. It is difficult to make judgments of quality and adequacy of space, so economic feasibility is soon brought into question.

The cost impact of the required space, the quality of construction, the time factor, sustainability, and very importantly the budget, all have a bearing on a final determination of needs. In some cases a budget is not yet established when programming begins and it depends on the information gained by the program. Owners and architects must work together to establish the resulting budget and it should be a part of the written program document. A professional cost estimator is often an important team member in the effort to establish a realistic construction budget.

The program should state the salient points derived from the preceding steps. It should bring about a resolution of the design problem with clear and concise statements. In larger more complex projects the program will be proportionally larger, but the process of reducing the problems to written statements in this document remains the same. In some cases a client will have a very good understanding of the programming needs of his or her facility and some of these concepts will already be answered. In others this list may help bring out needs that have not been considered.

Figure 4.3 Dekalb State Bank, Tucker, Georgia, Programmed and Designed by FSF Architects

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49 Peña, 76-81.
Chapter 5. Development of Drive-up Banks

Early Drive-up Banks

When World War II ended, Americans were able to resume the pursuit of their hopes and dreams. The national economy began an unprecedented growth rate and many Americans were finally able to purchase homes, automobiles, and other consumer goods. The trend in movement to the suburbs began and continued. Financial institutions, interested in providing convenience to their customers and in developing new ones, moved with them to these new suburban communities. New branch banks were constructed, and it soon became popular to allow customers to access these new facilities while remaining in their cars. Busy housewives could go to their banks without the usual make-up ritual and take their young children along, all the while remaining in their cars.  

There are different accounts of these first “motor banks,” some as early as a 1928 automobile accessible window in Kansas City, Missouri and another at the First National Bank in Nashville, Tennessee in the late 1930s, but any further consideration given to automobile access was postponed until after the war. Most believe the first truly in-car banking was the Exchange National Bank in Chicago in November of 1946. That facility featured 10 drive-up teller windows. In any case the practice has remained popular ever since, and only the method of delivering financial services and equipment has changed.

The early motor banks, or “drive-ups” as they were also called, were designed with single or multiple windows and “deal” drawers, arranged so that the customers could drive their cars to these windows, which were located in tandem along the building, sometimes in a saw-tooth fashion and often arranged on two or three sides of the bank. Obviously, the cars had to proceed in a counterclockwise flow so that the drivers were adjacent to the windows and drawers. (See Figures 5.1 and 5.2).

The resulting effect on the bank floor plan was that an irregular arrangement of teller locations was required because of the placement of these decentralized drive-up windows. This problem led to the use of separate teller-occupied kiosks much like tollbooths that allowed the drive lanes to be located adjacent to each other and under a common canopy.

Teller Occupied Kiosks

The use of separate tollbooth style kiosks (See Figures 5.3 and 5.4), with each housing a teller, was a short-lived experiment since the inefficient use of personnel and insecure and inconvenient delivery of currency and other materials were soon replaced by a new idea that had long been used in department stores, rail yards, and other commercial operations: pneumatic tubes.

Belfoure, 261
Editors of Architectural Record, Drive-ins, (Aug. 1950) 131-139
Architectural Record, Drive-ins, 139.
Figure 5.1 Floor Plan, Central National Bank’s First Drive-up, Junction City, Kansas, by Ed Tanner, Architect, 1962

Illustration by the author

Figure 5.2 Central National Bank’s First Drive-up, Junction City, Kansas, by Ed Tanner, Architect, 1962

Photo by the author
Figure 5.3 Early Kiosk Style Drive-up, 1st National Bank, 1950, Saint Petersburg, Florida by William B. Harvard, architect

Figure 5.4 Early Drive-up, 1st National Bank, 1950, Saint Petersburg, Florida
Early Pneumatic Tubes

With the use of pneumatic tubes in the mid 1960s to deliver and receive currency and other items the use of motor banking finally achieved the goal of convenience and security for both customers and their banks. The early tubes were installed in large culverts, usually of concrete, but sometimes in corrugated metal pipes (practice still being used). These fed the tubes up to the islands through poured-in-place concrete extensions to where automatic receiver and delivery units (now called customer units) were located on top of concrete islands. (See Figure 5.5)

This improvement allowed customer access to multiple lanes, under protective canopies, and the complete teller operations could take place from a central location within the building, usually adjacent to the lobby tellers. The lobby tellers could then double as drive-up tellers when needed. This drive-up configuration continued to require the cars to proceed in a counterclockwise rotation around the building, and in order for the tellers to maintain visual contact with the drivers, the lanes had to remain relatively close to the building. The early pneumatic equipment required closer proximity as well.

The lane adjacent to the building continued to be served by a window and drawer as had been used earlier. The remaining lanes, however, were served by the tubes, which fed early kiosk-type receiver-delivery units that were located on the concrete islands. The kiosk units were each set forward in succeeding lanes, to allow visual contact between the tellers and other customers (a practice also still used) and early audio equipment was used in each lane to provide communication. The canopy was usually large enough to protect the drivers from rain or snow.

Overhead Tube Delivery

A later idea allowed for an overhead fed tube system that eliminated the costly culverts and simplified tube installation by simply installing the tubes in the drive canopy. This system extended the tubes up from the interior drive teller area, through the canopy, and then down to the customer units at the islands. (See Figure 5.6) Access to the tubes was less problematic than crawling through the culverts when a problem occurred. The island configuration remained generally the same except that the kiosk units received the tubes from above rather than from below and the banks could avoid the costly construction of the culverts. This method of pneumatic tube placement is still in use today, although the entire system is now much improved. More about this use in current drive-up design is in chapter 6.
Diebold Inc. Catalog 2008

Figure 5.5 Culvert for Underground Tube Installation

Most early culverts were of concrete but corrugated steel pipe was also used, and although much improved, both methods are still in use today.
Figure 5.6 Plan and Section/Elevation of a Typical Overhead Tube Installation
This drawing depicts the Diebold VAT 21 system (abbreviation for vacuum air tube). As more lanes were added the vision windows were enlarged, requiring additional tellers.
Chapter 6 Selecting and Planning the Site

Planning and Zoning

The site requirements for a new bank depend on many factors. As the previous chapters described, the impact of desired branding and the programming of facilities to be constructed, will determine the building space needs. For a new bank project, such factors as zoning, building setback requirements, type and location of the drive-up planned, and the car stacking space will determine the site size and configuration needed. Many other conditions and circumstances will have an impact on the site selection.

Thorough marketing and economic feasibility studies need to be made by an owner or a separate consultant before the acquisition of a property is made. This kind of analysis is often performed by a consultant who specializes in assisting financial institutions in growth and expansion planning. Sometimes the architect is part of that team, and occasionally a banker will already have a site in mind, and it is the architect’s task to see if such a site will work for the program information established.

The site point or points of access, interior circulation, topography, and building orientation will be important, as will be the adjacent land use. Prevailing winds and storm tracks are very important to consider when planning for entrance locations. Year round solar patterns and reflective glare are critical in drive-up and ATM placement. Most screens are difficult if not impossible to read when struck by direct sunlight. Open space, that is the area not covered by building, parking, drives and sidewalks, has steadily increased due to code changes in many cities. Real estate purchase costs are very important, but the costs to develop a parcel may contribute an even greater amount after all required changes are made for it to be usable.

A fundamental question of building security must be answered. In a large headquarter or multi-story bank building, it may be decided that all vehicular traffic be kept at some distance from the building. In that case, a drive-up will be remote and only served by pneumatic tubes and televised teller assistance. It is now possible to place such facilities farther away from the building to lessen such a security risk. Other site located features such as bollards will be placed to prevent vehicular access at certain points such as adjacent large areas of glass. A recommended reference in this kind of security design is *Security and Site Design* by Hopper and Droge.53

The area for planting and landscape features is important to the overall project success and most cities now also require a certain number of cars to be able to stack in the lanes leading to the drive-up units. The amount of parking for both customers and employees will need consideration. An example of poor planning practice is when customer access to the building entrance has to cross the drive-up lanes.

City planning and zoning departments now typically require an extensive checklist of items to be answered before a project can be realized. In many cases it will require

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several months before hearings can be scheduled, even when the appropriate zoning is already in-place for the project. Every department of a city may have to “sign-off” on a proposed plan for it to be finally approved. When a zoning change is needed, considerably more time is required. This occasionally creates the need for a separate zoning expert to represent the owner in a rezoning matter.

The first important item needed as soon as a site has been chosen is a topographic survey. This survey should include important facts such as the legal description, property boundaries, and any easements or other physical conditions relative to the site. Certainly, the “lay of the land” depicted by the contours or point-elevations is also a necessity in order to establish proper drainage. The existing utilities are also extremely important in that sometimes sites lack sufficient sanitary sewer, water, or storm sewer services.

The zoning usually describes the amount of space that is usable, as well as the set-back distance from property lines. More communities are now also requiring a landscape plan to be submitted with any construction permit application. A qualified landscape architect will add this feature. Before any meaningful planning should start, however, an accurate survey is a must and can usually be obtained only from a licensed land surveyor. Architects and engineers will be able to prepare the needed design documents after they have the building program and the site survey, and most will offer to assist bankers in determining if a certain site is suitable.

Equally important is information about the soil of the site in question. The structural engineer will need a subsurface soils report in order to determine the site suitability and the resulting foundation design. More often than not, a study will be required of the entire site drainage plan. There have been numerous legal entanglements resulting from the runoff caused by new construction onto an adjacent site or parcel. It is far wiser to avoid such a circumstance before it occurs. On some occasions a seemingly good site becomes economically unfeasible because of some subsurface condition such as unseen rock.

**Temporary Facilities**

Banks often acquire a site that is ready for development but need to provide a temporary facility in order to start or stay in business while a new building is being constructed. Prefabricated trailer units that are set up to be banks are readily available, if the site will accommodate them and allow for the new facility construction to take place at the same time. It will be necessary to provide for the construction area of the new building, the equipment and storage space, the staging area, a construction office, and the allowance for deliveries, while also accommodating the temporary bank-trailer, its parking and drives, all on the same site. Most of the prefab bank trailers have a drive-up window, so provision for that access must be provided as well.

The selection of a temporary facility must be made, and pertinent information about it, such as the floor plan and utility connection requirements, is necessary to have. It is helpful if the utility connections can be extended later for the new building without constructing completely new lines, but this is not always possible.
A site must be carefully considered to ensure that both operations can occur at the same time, without presenting a problem for each other. As soon as the new building is completed, the temporary facility is removed, and the site work is finally completed. An example of planning to allow for this temporary dual site use is shown on Figure 6.1. The suppliers of these temporary bank facilities are listed in appendix B. Figure 6.2 shows a typical floor plan for temporary mobile bank units. These can be obtained in a wider 2-bay configuration as well.

**Figure 6.1 Mountain State Bank. Tucker, Georgia, by FSF Architects**
This site plan shows a typical doublewide mobile bank unit used while the permanent bank was being constructed. The temporary facility allowed the bank to get a head start in business. There are various plan arrangements available. Figure 6.2 below shows a typical single width unit.
Figure 6.2 Typical Temporary Mobile Bank Unit Plan. Double width units are also available as shown in Figure 6.1 above.

Conventional Drive-up

A conventional drive-up with cars traveling in a counterclockwise direction, will feature a window at the building, the size of which depends on the number of lanes it serves, an automatic drawer, and an audio system at the first lane. Other lanes will be at islands with customer units served by pneumatic tubes, fed from above or below the drives. (See Figure 6.3 and 6.4) These customer units may be equipped with a television monitor or simply with an audio connection to the tellers who maintain visual access with the customer. With the use of TV monitors and audio units, many banks have eliminated the teller windows and in so doing allow the cars to proceed in either a clockwise or counterclockwise direction. The customer units are then placed accordingly. In these examples, all of the lanes are served with Closed Circuit TV-equipped units. Placement of the television screen is important in that glare from direct sunlight may cause the screen to be unreadable. More about these customer units will be described in chapter 8.
The island design usually is arranged with concrete platforms raised above the pavement 6" and usually a minimum of 2' wide for general customer units. At the drive-up itself, the grade must remain reasonably level in relation to the building. The length of the islands is flexible but usually determined by the need to align the cars and provide for canopy supporting columns. Steel bollards or other appropriate barriers are used to prevent damage to customer units and ATMs as well as the support columns, depending on the design. The number of lanes also determines the length needed for the islands. An important consideration is that the canopy drainage must not become a problem below at the islands. The canopy design is discussed later in this chapter.

Lanes are normally 8' wide and provision for stacking of five cars is usually required for each lane. Some locations however now require as many as ten car spaces. Careful consideration also must be given to the traffic merging, both to and from the drive-up islands. Some bankers prefer wider lanes, but it has been shown that if they are too wide, drivers occasionally become positioned too far from the customer units; and when multiple cars are waiting behind, it is almost impossible for a driver to back-up and attempt to realign his or her car correctly. Thus, the narrower lanes help bring about the correct car placement relative to the customer units. (See Figure 6.5) Diebold Inc. has provided a suggested guide to the turning radius approach to a drive-up. (See Figure 6.6)
Figure 6.5 Typical Conventional Drive-up Minimum Dimensions
This plan is based on the Diebold VAT 21 system. New ATM Units are available in self-contained enclosures and require a narrower ATM island width than this plan. Some customer units, however, require wider islands so it is essential to know exactly what unit is to be used in order to achieve the correct design width.
Figure 6.6 Recommended Turning Radius Approaches for Drive-ups
Bankers usually have a preference for the location of an ATM facility, and that is sometimes also on the last island, requiring that this island be wider to a 2'-6" minimum (many newer units require 3'-6"). The design of the canopy support will also determine island width in that adequate clearance must be provided to protect the structure. Experience also has shown that a by-pass lane is helpful beyond the last island lane, so that when a customer needs to skip the transaction, for whatever reason, that can be done. More about the ATM site location is in this chapter and the units are described in detail in chapter 8 Part II.

Some bankers are exploring the idea of a multiple use facility that may offer more amenities than just banking such as the Freestar Bank of Downs, Illinois by B.E. Design. This facility also has a coffee shop and a dry cleaner operation in addition to a new bank, (See figure 9.3.2) and even a gas station. Figures 6.7 and 6.8 show a bank and gas station/convenience store combination at the North Shore Community Bank and Trust in Glencoe, Illinois, by Myfeski and Cook, Architects.

**Figure 6.7 Combination Bank/Gas Station, Chicago, Illinois, by Myefski & Cook**  
The gas station is at the left and the bank drive-up is at lower right.
Face-up Lanes

Multiple lanes of five or more, in a conventional drive-up arrangement (that is adjacent to the building) results in a considerable distance between the tellers and some cars. This has brought about the idea of a “face-up” drive-up configuration where all lanes face, and are more-or-less equidistant from the tellers. Ample maneuvering and stacking space is required. In some cases, the drive canopy may be connected to the building, providing for overhead tube placement, but in other cases, the drive-up is served with an underground tube arrangement, which is described later in this chapter. The islands may be wider than the 2’ minimum depending on the number of lanes; however, the length is usually only one car length as all cars are aligned in a row at the same distance from the building. These may be perpendicular to the building or set at an angle. The minimum canopy dimension is usually not greater than 25’, more-or-less. Another important factor in the planning of face-up facilities is to provide an adequate turning radius for the departing cars. The illustration presented indicates dimensions often used. In another face-up example the elevation of the islands may be different from the teller or building elevation. In the case of more distant islands, the elevation difference may be greater yet. (See Figures 6.9 and 6.10)
Figure 6.9 Typical Face-up Drive-up Plan
This indicates an arrangement based on the Diebold VAT 23 system using direct-bury pneumatic tubes. This system may be equipped with Closed Circuit TV as well.
Figure 6.10 Typical Face-up Drive-up, by Comco Inc.

While the face-up idea allowed more lanes to be served from a common teller area in the building, it also resulted in a problem when conveying heavier carrier loads from those commercial customers. The equipment manufacturers soon developed a larger capacity customer unit and tube system to accommodate them. Chapter 8 Part II describes the larger units and tubes now available. Another factor that is sometimes a problem is that during winter with short days, the face-up car headlamps are aimed directly at the tellers. This can be remedied by placing the face-up islands at a slight angle from the direct line to the tellers.

Tandem Island Customer Units

A newer design idea that has allowed for simultaneous customer service from the same lane has been used as shown by Figure 6.11. In this system it is possible to retrofit the drive-up customer units within existing facilities. In some cases it may be necessary to lengthen the island and also to extend the canopy to accommodate the second active customer. This configuration can be controlled by a conventional teller or by a modified teller system using a CCTV system from an updated teller area. (See Chapter 7 Existing Branch Transformation)
**Figure 6.11 Plan of Reconfigured Tandem Drive-up**

This System allows existing drive-up lanes to be converted to allow for the two new customer positions, served by the existing drive tellers.

**Direct-bury and Remote Lanes**

In the mid 1970s the development of direct-bury pneumatic tubes and better blower motors has enabled banks to locate drive-up lanes much farther away from the bank building. The capability however has required that a much-improved audio and visual system be available as well. Several equipment manufacturers now offer these improved customer units complete with higher definition television and better audio systems. See chapter 8 for a detailed description of these new customer units.
It is now possible to locate a drive-up as far as 600' from the building and still have a reasonably quick turn-around of carriers between customers and tellers. (In some other industrial uses, pneumatic tubes are extended much greater distances.) The majority of new drive-up facilities where the canopy cannot be connected with the bank building are now equipped with direct-bury pneumatic tubes. (See Figure 6.12)

**Figure 6.12 Direct-Bury Underground Tube Installation**
Figure 6.12 depicts the Diebold VAT 23 System. Multiple customer units may now be located much farther from the bank with several tubes combined in a single trench.

**Commercial Lanes**

As has been mentioned, particularly at remote drive-ups, the heavier carrier loads have created a need for larger commercial lane equipment. There are now units available that will transport loads of 25 pounds in larger tubes. One argument against using these is the heavy lifting needed to load or unload the carrier by the customers and tellers (a bag of coins can weigh 25 lbs.). Some bankers therefore
prefer to simply have these items brought directly in to the bank for deposit. Other suggestions are to plan for a single commercial lane directly at the building, similar to conventional drive-ups. (See Figures 6.13 and 6.14)

Another arrangement has the commercial window located at the drive tellers, but in front of the face-up lanes. A drawback of this idea is that the other cars are sometimes blocked by the commercial customer. (See Figure 6.15) A separate commercial lane requires greater use of space to accommodate the drive and its access, and it also can require a floor plan arrangement with a separate commercial teller location in the building. More is discussed about this requirement in Chapter 7.

Illustration by WRS Architects

Figure 6.13 Face-up Drive-up and Separate Commercial Lane at the Bank Building (See Floor Plan Below), First Bank of Missouri, Kansas City, by WRS Architects
Figure 6.14 Floor Plan Showing Separate Commercial Lane at Building

Figure 6.15 Face-up Drive-up with Commercial Lane at Drive-up Window
ATM Facilities

The ATM, or Automatic Teller Machine, was first used in England in 1967, and after a series of improvements it has become a mainstay in almost all financial institutions in the USA as well, and in fact worldwide. In addition to the use at the buildings or grounds of banks, ATMs have also been placed in countless other locations where a customer need exists.

At first, these units were located inside bank buildings and were accessible by customers from either inside or out, depending on the desired use. Many bankers still prefer the units to be located inside the building in order to service and refill them, which is then less of a security issue. (See Figure 6.16)

Later, units were manufactured that could be placed outside the building, and these often were located at the last drive-up island. This practice is also still popular, although it was not uncommon for thieves to attempt to rob them, sometimes by attempting to take the entire machine. A remedy is to have the ATM unit housed in a building structure, often of a similar design theme as the bank building, thereby minimizing the threat of theft. Bankers soon discovered that the ATM is not only popular with their customers, but it also had become a well-advertised brand destination too. (See Figures 6.17 and 6.18)
Freestanding island ATM facilities are now used, not only at remote locations throughout a city or town, but bankers often place them in a prominent location at a main bank (See Figure 6.19) or branch site as a well lighted advertisement, apart from the building or drive-up. Diebold has provided a suggested guide to the approach and exiting for free standing ATM units. (See Figure 6.20)
Many banks with multiple ATM locations have developed prototypical designs that identify their brand, as they have done with their branch locations. The drawback of remote, island, or exterior placed units is that the constant refilling is a security issue, and many banks are delegating that task to separate security agencies. See chapter 8 Part II for a detailed description of ATM units.

Figure 6.19 Separate Island Free-Standing ATM with Canopy

Figure 6.20 Recommended Vehicle Approach to Island ATM
Canopy Design

As many different canopy design ideas are used as there are architects. Some are quite different and should have a relationship to the building design, but there are a few important considerations to keep in mind. Since there are more and more tourists, it is prudent to consider the height of their vehicles. They often have large busses, vans, or recreational vehicles and because of them, the recommended canopy height should be higher to provide the needed clearance. The new jumbo pickup trucks with campers or stock racks are also taller than other vehicles (the air conditioning units on top of camper shells extend the heights even more). In short, plan for the height needed. Twelve or even fourteen foot canopy heights are often used, although equipment suppliers sometimes suggest lower heights based on the average passenger car. (See Figure 6.21) Diebold has provided a guide to suggested passenger car clearances and areas of coverage for drive-up canopies and for ATM facilities as shown by Figures 6.22, 6.23, and 6.24.

Figure 6.21 Typical Canopy Design, UMB Commercial National, Leawood, Kansas, by ADC Architects
Figure 6.22 Recommended Plan of Canopy Coverage for Conventional Drive-up

NOTE:
Canopy requirements shown are to provide minimum weather protection to the customer at the point of transaction. Dimensions are based on a canopy height of 9'-0" from driveway level to underside of canopy. Consult with your local architect for actual canopy design ansaize to suit building and site conditions.

Figure 6.23 Recommended Minimum Canopy Clearances
Figure 6.24 Recommended ATM Canopy Clearances

Figures 6.22, 6.23, and 6.24 from Diebold Inc. provide various canopy clearances based on an average passenger car. These should be higher if and when campers, trucks or other recreational vehicles will be using them. Careful consideration should be given to the particular institution and its customers in establishing this canopy height.

Another consideration sometimes used effectively is for the building to extend over the drive-up lanes when a two-story building is planned. In this case the building second floor becomes the canopy. Care must be given to provide the necessary clearances in this case as well. An example of this planning is the North Shore Community Bank & Trust in the Sauganash region of Chicago by Myfeski and Cook, architects. (See Figures 6.25 and 6.26)
Figure 6.25 Building Second Floor is Above the Drive-up

Figure 6.26 Site Plan Showing Building Second Floor Over Drive-up
As has been mentioned, canopy drainage is also very important. Water must be channeled down and away from islands or lane surfaces (usually under) in order to prevent freezing in those colder climates. Surface water is still a nuisance even in warmer locations but good design practices should prevent it.

Where overhead pneumatic tubes are installed in the drive-up canopy, consideration must also be given to allow for the radius bends to clear the canopy structure. Diebold Inc has also developed a guide to the suggested tube placement and configuration for drive-up customer units and ATMs is shown in Figure 6.27.

![Figure 6.27 Recommended Radius Bend Clearance for Canopy Design](image)

**Figure 6.27 Recommended Radius Bend Clearance for Canopy Design**
The equipment pictured on the left in Figure 6.27 is a Diebold VAT 30 commercial unit with larger tubes requiring a 42" tube radius bend. The unit on the right is a Diebold VAT 21 standard unit with a 4 ½" tube and a 20"tube radius bend.

Another frequently used feature provides lane lights on the canopy surface to signal drivers as to when to proceed. Most bankers prefer to have well lighted canopies that also have signage on one or more sides of the canopy structure.

**Site Signage**

As more communities enact stricter signage regulations, the familiar time and temperature pylon featuring a large lighted sign, is seen less and less. Most regulations now limit the size, number, and configuration of signs, as well as the type and intensity of the lighting used. A separate sign application is often required that shows the complete design and specifications of proposed signage. Some areas allow only low profile signs that cannot be more than 3’ above the ground or less, and these cannot have letters larger than 1’ in height. (See Figure 6.28)
The orientation of the building often requires signs on more than one side, but regulations limit the number and size of these as well. Consideration for sign identification at the drive-up canopies and at island ATMs is also warranted. It is a constant struggle between sign companies, owners, and community authorities to arrive at a signage result that satisfies all parties. It is advisable for owners and designers to find out well ahead of the permit application time, exactly what the sign regulations will allow, and if the branding strategy of the institution is, or can be, in sync with those regulations.

![Figure 6.28 Low Profile Sign at Norlarco Credit Union, Fort Collins, Colorado, By EHS Design](image)

This sign design is in keeping with the building’s architectural theme. Many cities now limit site signage to this low-profile type, and associated sign lighting is also restricted to avoid glare to surrounding property.
Chapter 7 Building Design Considerations

The Floor Plan

After the site information is received and programming requirements are evaluated, together with the fundamental brand identification strategy, a design direction may proceed. Early on, it is necessary to establish the kind of service delivery method the institution will have. If the delivery of services is based upon the conventional method, then a plan will follow that provides for bringing the customers into the facility, usually through an entrance vestibule, past a reception area that may double as a marketing opportunity, and then to the bank lobby area. Adjacent to this lobby area will be the lobby teller area. Many variations of configuring this customer path may be made, but as mentioned in Chapter 3, it has been shown that an effective marketing opportunity exists when new products or services are “showcased” along this path. The new marketing possibilities include featuring plasma flat-screen television as well as literature displays in bright new venues to show new services or products. A very good example of this planning is shown in the Norlarco Credit Union in Fort Collins, Colorado by EHS-Design. (See figures 7.1 and 7.2, and this project is also featured in Chapter 9)

Figure 7.1 Floor Plan of Norlarco Credit Union, Fort Collins, Colorado, by EHS-Design (Not to scale)
Depending on the facility program, numerous other spaces and uses may be placed adjacent to the lobby. The question of space needs, such as if two or more stories are needed or if a basement is required, will depend on site conditions and the program, and if so, what about the ingress/egress/circulation requirements? If the operational strategy includes it, a vault will be located where it can be easily seen. It also may have one or two coupon booths nearby. Many floor plan concepts will place the workroom near the teller areas and be accessible directly to them and perhaps an exterior entry hall as well.

The workroom will be used for many important activities and the layout will depend on whether the facility is a main bank or a branch, what kind of operation is planned, and how checks are cleared by the banking operation. It may be helpful to define the activity of check clearing as:

“The movement of a check from the depository institution at which it was deposited, back to the institution on which it was written; the movement of funds in the opposite direction and the corresponding credit and debit to the involved accounts. The Federal Reserve operates a nation-wide check-clearing system.”

In layman’s terms this process can be explained as follows:

1. “You go shopping and write a check from an account you have with your financial institution.
2. The store, or merchant, deposits the check with its bank. The store, bank, or the Fed places a magnetic ink code for the dollar amount in the lower right-hand corner of the check.
3. The store, or merchant’s bank sends the check to a private bank, called a “correspondent bank.” (The Federal Reserve clears about one third of all checks written in the country.
4. The Federal Reserve runs the check through its sorting machines.
5. After processing your check, a credit and the check are presented back to the depositing financial institution. The institution then credits or debits the appropriate store or customer account."

For a single banking operation that has in-house accounting and uses the conventional method of check clearing, there may be a need for more workroom equipment than for a branch that simply forwards checks to a central clearing house by electronic means. As mentioned in Chapter 1, the Check-21 Act has brought about innovations in the payments system and has enhanced its efficiency by removing some of the legal impediments to check truncation. In short, the bank holds the check for a limited time and then destroys it. This is the means by which electronic check clearing has come about and which is speeding up the operational processes in banking today.

Bankers and their architects must have a complete and mutual understanding about how the workroom should operate, what items of equipment are needed, and what activities are needed to take place within the space. Specific workroom needs will be discussed later in this chapter and the specialized equipment for these rooms is listed in Chapter 8 Part I.

A break room and employee toilet rooms will usually be near the teller area. Sometimes a separate copy room is needed. Mechanical equipment, a computer server room, and a separate utility room or rooms are also needed. It is not recommended to have the server or LAN equipment located in a utility room where there are also plumbing lines or fixtures. A fundamental decision about offices, e.g., private, or open, or a combination of these, must be made. Is there a conference or boardroom? Where will loan closings take place? We shall examine these topics and spaces later in this chapter.

In some locations, the institutions have chosen to use automatic teller machines, PC stations for online banking, or teller “concierge” pods (more about these later) in the banking lobby. A fundamental decision will be made as to the advisability of providing these real-time machines that offer audio/televised service with pneumatic conveyance instead of personal face-to-face traditional tellers, or perhaps another answer would be to use a concierge station with a personal service representative.

We will consider the pro and con issues of the conventional teller system, the remote teller units that are now available, and the pod stations.

**Conventional Teller Stations**

The single most important reason to use a conventional teller counter system is that most customers are familiar with it and are comfortable with that way of conducting their own banking. Since most bankers do not wish to experiment with the tried and true method of operation, they tend to stick with a traditional arrangement. Even with that in mind, however, the typical bank of 1970 with its plentiful supply of lobby tellers and long lines of waiting customers, has forever changed.

The era of featuring a 10 or 12 teller line inside a moderately sized suburban bank is, for the most part, over. The establishment of scattered branch facilities with drive-up banking, ATM facilities, and personal computers has brought about this change. Most new branch facilities, however, still have two to four lobby tellers; and many also provide a seated teller area to serve handicapped customers. A new headquarter building or even a branch in a dense metropolitan area may need more lobby tellers, but that is the exception and that will depend entirely on a particular bank’s clientele. The teller stations will usually follow an architectural design concept, but they most likely will conform to some usual dimensional standards. (See figures 7.3, 7.4 and 7.5)
Figure 7.4 Standard Casework for Stand-up Tellers  (Not to scale)
This casework is shown as a guide to typical dimensions. Most architects prefer to custom design casework for each project.
Figure 7.5 Standard Back-Counter Teller Station
These are back counter dimensions usually followed. Numerous equipment manufacturers have standardized modules of under-counter teller systems that may be placed under customized cabinets and many manufacture the casework too. Other new banks have chosen to have the entire system made by a local millwork shop. Very attractive and functional results may be obtained from either source.
Plastic laminate tops and sides are still commonly used, but owners and designers have learned that these soon become worn or out-dated and more permanent materials have replaced them in many locations. Relatively new inventions in the supply of currency to teller stations are Cash Dispensing and Cash Recycling Machines. These provide the redistribution of bills as needed by mechanical means (see Figures 7.6 and 7.7), and they are said to provide for additional benefits as follows:

- They boost productivity by eliminating teller time to count or recount cash which allows for up to twice as many customers to be served per hour.
- Increased security by reducing internal fraud opportunities and safe-guarding of funds in the event of a robbery.
- Contains costs due to increased transaction speed, volume in the teller line and drive-up lanes, without the need for additional staff or space.
- Reduces teller cash setup at the start of the day and time to balance at day’s end.
- Shortens drive-up lines by streamlining cash handling.
Countless design variations are possible. Personal ideas about security will influence a resulting concept, such as the use of bullet-resistant glass surrounding the teller area. Others may feel that a more open concept is appropriate, but where there are human tellers in plain sight, this arrangement is undoubtedly less secure than a lobby with a series of remote teller machines. In the end, it will fall on the owner-client to decide which of these methods will be used. It is not recommended to use a combination of these machines and conventional tellers in the same location because customers tend to line up for the traditional tellers as long as they are available and feel slighted if directed to a remote teller in the same location.

Where the customers are older and accustomed to live, face-to-face service, these facilities are likely to have a conventional teller system or perhaps a concierge system (see below). As time passes, however, these facilities may consider a retrofit to accommodate remote teller systems. A detailed suggestion of how to transform a conventional branch into one using concierge stations and remote tellers is shown later in this chapter. Time will tell if and when Americans will accept these inventions as they have done with self-serve gasoline stations.
Conventional Drive-up Teller Counters

Figure 7.8 shows the conventional drive-up teller arrangement. This space is almost always adjacent to the lobby tellers for cross service. A teller counter is usually located at a drive-up window with a drawer serving the first lane, and a back counter is also sometimes provided. Other lanes use pneumatic tubes and direct visual access to the customers along with an audio system for the customer drive-up units. The tubes can be fed overhead or from below. Figure 7.9 shows the teller counter design. Another feature mentioned for lobby teller stations is a cash-recycling machine shown in Figures 7.7. When the customer units are equipped with a televised system there may be a configuration similar to that shown in Figure 7.25. A typical teller operator unit (for voice and CCTV) is shown in Figure 7.10. More will be discussed about this system later in this chapter and the specific equipment will be considered in Chapter 8 Part II.

Photo by Diebold Inc.

Figure 7.8 Conventional Drive-up Teller Counter and Vision Window
The system pictured above is a Diebold Inc VAT 21 pneumatic tube system and Vision Window. (VAT is the abbreviation for “Vacuum Air Tube.”)
Figure 7.9 Drive-up Teller Counter with Under-counter and Deal Drawer

Figure 7.10 Teller Operator Unit (Voice System with CCTV Teller Screen)
Teller Pod Stations

Another innovation introduced in the late 1990s involved pods or island teller stations. This arrangement, also called “concierge stations,” places tellers with stations that deliver all of the required services that the conventional system has, in multiple lobby locations. The design features more of a retail appearance and its proponents believe it enables an institution to provide greater service with fewer staff. Not simply serving as tellers, the staff assigned to these stations act as customer service representatives and loan officers. A name sometimes given them is “universal associate.” The development of these stations has produced several understandings about their use and the duties of the service representatives who accompany them. 57

- “The stations work well in larger branches where it is an active position and the full-time staff can be afforded. They must be well placed with trained personnel to provide these multiple services.
- The service representatives must focus on the customer 100 percent of the time. They are the first point of customer contact but should not be expected to perform secretarial or phone reception duties too.
- They must have thorough knowledge of all products and services and must be able to cross sell.
- They must understand and perform established security procedures.
- The concierge position must be strategically located to greet everyone entering and leaving. It must have full visibility in the facility.
- In facilities with remote teller systems or automated cash transactions, they serve as hosts or hostesses and must create a warm, friendly, and professional environment with their customers.
- They must be able to communicate the rationale behind the brand image.” 58

Two examples of the concierge system are shown by Figure 7.11, the North Shore Credit Union in Vancouver, British Columbia, by EHS Design, and Figure 7.12, the Frandzen Bank & Trust in Forest Lake Minnesota by HTG Architects. This system has been developed by HTG who call it “Evobank” (for evolving bank). (See Figures 7.13, and 7.14)

58 Seibert, 23 Oct, 2007
Figure 7.11 North Shore Credit Union Concierge Pod by EHS-Design

Figure 7.12 “Evobank” Concierge Pod by HTG Architects
Figure 7.13 Evobank Pod Plan and Section by HTG Architects (Not to scale)

Figure 7.14 Evobank Concierge Elevations, by HTG Architects
The Remote Teller System

There has also been in use an idea that makes use of personal teller machines, also called “RTS,” that function much like an ATM except that a live teller is available—a televised one who, coupled with a pneumatic tube delivery system and an audio sound system, can perform all of the services of a conventional teller. They are even face-to-face, just not directly in front of the customer, but on the screen. There are several advantages manufacturers of these RTS machines claim:

- They will improve efficiency by reducing transaction time for the tellers.
- Fewer tellers can serve more customers.
- They greatly increase security because the tellers are somewhere else as is the currency, perhaps not even in the same building.
- It is possible to optimize staffing depending on peak or off times.
- They provide increased marketing opportunities with integrated graphic and video.
- Business hours may be extended.

There are examples of new Integrated Teller Centers where former traditional teller operations have been replaced with tellers in a secure remote room that can serve as many as twice the customers by use of remote teller units in a reconfigured lobby. One such example is the ASI Federal Credit Union in West Wego, Louisiana. In this project ASI built a new branch adjacent to an existing building. ASI made the decision to incorporate a total “teller-less” lobby and move the tellers to a new Integrated Teller Center, equipped with teller units and teller workroom equipment by Comco Manufacturing Co.\(^{60}\)

Tellers that previously staffed a six-position walk-up teller line now serve 12 lobby teller units, while comfortably seated in the new secure and efficient Teller Center. With all teller units easily within reach and serviceable from two sides, plus the use of cash dispensers, the same six tellers are able to process transactions from the 12 customer units, in the same length of time. “Where there used to be lines of members waiting in the old building, members now have very little wait-time to be served.”\(^{61}\)

These are all good reasons for considering these machines, but the downside is the question of customer acceptance, and the answer is for each institution to determine. Where these have been installed, there is a consensus that they are successful.\(^{62}\) A very good example of the measure of customer acceptance is that of the Aloha Pacific Credit Union in Honolulu, Hawai‘i. Its President and CEO, Wallace Watanabe, has stated that it “took about a year for their customers to readily accept the new units, but by that time they were being used without hesitation.” (See figures 7.15 and 9.17.5)

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\(^{62}\) Comco Manufacturing Co. *The Future is Now* Catalog, 2007
Figure 7.15 Remote Teller System (Diebold Inc Remote Teller System pictured above)

Existing Branch Transformation

Of great importance in the effort to upgrade existing facilities is how to modify an existing bank plan to accommodate some of the new ideas and methods of customer service. Diebold\textsuperscript{63} has developed a suggested plan transformation shown by Figures 7.16 through 7.24. In Figure 7.16 the existing plan is shown consisting of a conventional lobby, with a check stand and controlled access to the 4-station teller counter. Behind is the drive-up teller control with a night depository and a through-wall ATM (serviced from inside the building) accessible to the first drive-up lane. A workroom is adjacent to the tellers. The lobby is surrounded by the manager’s office, five other customer-service offices, and an administrative area. A vault and coupon booth are at the other side of the teller area. Figure 7.17 shows the shaded areas of potential modification to the existing plan.

\textsuperscript{63} Branch Design Information, Diebold Inc, by Dan McIntyre, 2008
Figure 7.16 Branch Prior to Transformation

Figure 7.17 Plan of Areas of Potential Transformation

Illustration by Diebold Inc.
Figure 7.18 Transformed Branch Plan

Figure 7.18 shows the complete remodeled and transformed branch plan with changes and features according to a suggested phasing of development. Figure 7.19 shows a cut section of the existing floor plan.

The first construction phase is to convert the existing drive-up islands to use a new tandem arrangement of customer units allowing two customers to be served by each lane. (See Figure 7.20) These may be served by the conventional drive-up tellers while other modifications are made. The next phase would be to modify the teller area to accommodate the CCTV system and new pneumatic tube system for the new tandem drive-up plan. (See Figure 7.21)

This phase also provides for modifications to the workroom and development of the 24-hour lobby, and other changes. Figure 7.22 shows the changes to the main lobby including the Functional Service Counter, a PC Banking Station, and various marketing features including flat screens and a new waiting and educational area.

The fourth phase of interior transformation is shown by Figure 7.23 with the addition of the new concierge pods, a copy center, and newly configured offices for the manager and customer service representative offices. The last cut section in Figure 7.24 in this series shows a suggested new exterior entrance design.
Figure 7.19 Cut Section Plan of Existing Branch

Figure 7.20 Cut Section of Plan (1st Phase Showing New Tandem Drive-up Units)
Figure 7.21 Cut Section Plan (2\textsuperscript{nd} Phase, 24 hour Lobby and New Teller Room)

Figure 7.22 Cut Section Plan (3\textsuperscript{rd} Phase, New Service Center & PCs)
Figure 7.23 Cut Section Plan (4\textsuperscript{th} Phase, New Concierge Pods & Offices)

Figure 7.24 Cut Section Plan of Remodeled & Transformed Branch
Drive-up and Remote Teller Room.

The new equipment available for the televised drive-up units and for remote customer units allows for a teller console that is much better arranged for tellers. Figures 7.25, 7.26, and 7.27 show how this equipment may be arranged. The use of the cash dispensing and cash recycling machines has greatly improved the supplying of currency to these tellers. More about these machines will be described in Chapter 8 Part II.

Figure 7.25 Floor Plan of New Teller Room Concept
The layout depicted here will allow the four remote tellers to handle as many as eight drive-up lanes or remote teller machines.
Figure 7.26 View of New Teller Room Concept by Diebold Inc.

Figure 7.27 Perspective View Down into New Teller Room Concept by Diebold Inc.
The Boutique Bank/Shop

Some new banks are being built with an informal coffee shop or boutique theme. An example of this concept is a facility designed by Gensler Architects for ING Direct in New York City. The bank’s objective was to have a place to attract new customers and serve their existing ones. The upbeat design provides for Internet banking in a café with a street presence.

The major brand emphasis is carried out by the use of a three-part design image termed by the architects as “cube, ribbon, and node.” It was developed to accommodate the program requirements of serving counters, Internet and phone kiosks, graphic messaging walls, and merchandising displays. The bank’s colors are featured in bands of tile on floors, walls, and ceiling areas. Other uses of perforated metal, frosted acrylic, Corian©, plastic laminates, and routed wood inlay add to the desired impression. The existing building façade was kept intact except for the bank logo and canopy that extends over the sidewalk. The sought-after goal of integrated architecture, graphic design, retail design, and high-tech media (flat screen video, food menus, sound system and Internet kiosks) were achieved.64 (See Figures 7.28 and 7.29)

Photo by Craig Duggan

Figure 7.28 ING Direct Café Bank, New York City, by Gensler Architects

64 From the narrative provided by Gensler Associates, Architects
Figure 7.29 ING Direct Café Bank, New York City, by Gensler Architects

Prototypical Design

Almost all large financial institutions having numerous branches, or who operate regionally and nationally, have prototypical branch facilities. Some have more than one prototype, and often when they seek to open a facility in another part of the country, they find that the desired prototype must be modified significantly. Differences in climate and weather account for some of these modifications but there are also numerous different style preferences throughout the USA as well. The Spanish Mission style of the American southwest, for example, does not fit well with the colonial image of Williamsburg, Virginia, nor vice-versa. When a branch is modified for site-specific conditions alone, there are frequently major adjustments that must be made. Certain architectural styles and finishes are now mandated in particular locations because of zoning or developmental restrictions.
Certainly, there are successful prototypes being used regionally or even nationally, but while the buildings may be similar, there may be hundreds of plan variations in order to accommodate the differences in location. Fast-food chains are particularly adept at achieving similar looking facilities. Figures 7.30 and 7.31 show a very successful prototypical branch facility for Wachovia Bank used in the Atlanta, Georgia area, designed by Gensler Architects.

Figure 7.30 Wachovia Bank Prototype Exterior Design by Gensler Architects

Figure 7.31 Wachovia Bank Prototype Floor Plan, by Gensler Architects
Mall, Airport and Supermarket Facilities

There are advantages to locating new branch facilities in malls, airports, and supermarkets. Large discounter retail locations may be added to these as well. They usually have high traffic-counts, adequate parking, they are inside existing structures, and they can be established at relatively lower start-up costs. As with freestanding banks it is equally important to consider the design and brand image. (See Figures 7.32, 7.33 and 7.34)
Online Banking and Tellers

Electronic banking has brought a new category of banker, the electronic teller. Many larger banks are now centralizing these new tellers in facilities that bear almost no resemblance to a bank. They are in office buildings and are usually arranged in cubicles without permanent walls. These tellers work online and seldom, if ever, meet the customers of the bank. These are usually not the tellers who operate the remote teller system, but they are instead responsible for the electronic banking operations instead. An example of this operation is Bank of the Internet, based in San Diego, California. This bank started business in 2001 and has seen its assets grow by 800 percent in 8 years.\(^{65}\)

The floor plans of these spaces provide for a typical office atmosphere together with the normally required amenities. Space for the computer system and little else is commonplace. We will not elaborate further on the design of these spaces as they are already understood by most designers, except to include a photograph of a typical cubicle for these tellers. (See Figure 7.35)

Select Market Banks

Some banks are now limiting their entire customer base to privately held businesses, wealthy families, and individuals who have a high net worth. They offer complete banking and trust services to those clients only and claim to provide a much higher level of personalized assistance. One of these is Private Bank, a publicly traded company based in Chicago with banking offices in numerous other cities.\(^{66}\)

New Products and Services

The federal relaxation of laws that precluded banks from certain lending and investment practices has resulted in numerous new services and “products” being offered that were not possible to provide until recently. Some of these are insurance, annuities, securities, real estate services, and others. A careful analysis of the space needs and relationships of these spaces must be made in order to provide for these new operations. In some cases these must be clearly separated from the main bank area. Because of occasionally changing regulatory guidelines it is prudent to check with the appropriate regulatory agency in determining the exact location and configuration requirements for these spaces prior to the planning process.

Single or Multi-Floor

Depending on the program and the site limitations, a project may need to have more than one story. If a bank is projected to grow and need additional space in the future, it may be wise to build the additional space at the outset. The space may be subleased to a tenant for a period of time until the bank needs the space. Or the bank may determine that additional revenue from the leased space contributes sufficiently to its profitability and therefore continue to rent out the space. If a public meeting room is part of the program, then that space might also be on either a lower or an upper level. Circulation must be carefully considered as stairs and elevators are expensive but necessary in any multiple floor arrangement. Figures 7.36, 7.37, and 7.38 indicate a two-story building with a basement, planned for future bank expansion. The second floor is leased out until the bank needs the space.

Figure 7.36 Liberty National Bank, (Now UMB Bank) Liberty, Missouri, Two-Story Building With Rental Space Above by ADC Architects

The bank initially leases out the area to the left as well as the second floor. When it needs to expand, that area is then available. A full basement provides storage space and room for mechanical and electrical equipment. The vestibule entrance with the stair and elevator provides for access to the other areas of the building while the bank is closed. The project was designed by ADC Architects Inc.
Figure 7.37 Liberty National Bank, Second Floor Rental Area

Figure 7.38 Liberty National (Now UMB Bank) Liberty, Missouri, by ADC Architects
The Community Meeting Room

In smaller communities throughout the country, many banks have provided a community meeting space in their buildings. As a public service these are usually made available at no cost. The idea was that the bank would profit by the goodwill that the use of the space generated. These were often located in a basement area but sometimes on a second floor. The advent of the Americans with Disabilities Act (ADA) in the late 1980s has required all public facilities to be accessible by anyone without regard to physical handicaps. This has resulted in the need to provide an elevator for those uses.

Since these meeting rooms are not often used during business hours, they require a separate access that can bypass the entrance to the institution, but allow use of toilet and kitchen facilities.

Building codes also often require a second stair for life-safety exiting or access. Designers therefore must plan for these needs in financial institutions today, and resulting costs for them must also be considered. Figure 7.39 shows a typical meeting-room and the elevator/stair access.

Figure 7.39 Community Room and Entry Corridor.
This community room, unlike many that are located in a basement floor, is on the main level of this mid western bank.
Operational Space Needs

Whether a headquarter, branch, or other financial institution, most will have space for a lobby, teller areas for inside and drive-ups, offices, meeting rooms, work rooms, break rooms, and many other areas dedicated to their particular mode of operation and service delivery. The following descriptions will define these particular space needs and others.

Lobby and Waiting

A vestibule entrance is recommended especially for areas of the country with temperature extremes and in the cases of multiple tenant or multiple story buildings where it will also provide access to a separate stair and elevator lobby. The appropriate ADA clearances and door swings must be provided. The bank lobby should be designed for the traffic and accessibility. It is necessary to determine if open desks and other furniture and equipment will be used and where they will be located. A check-stand will usually be placed in this area and clearance for it and teller access should also be maintained. Many other options and amenities may be located in or near the lobby, such as a coffee bar, fireplace, waiting area furniture, and perhaps an Internet banking station. All of these needs should be determined in the branding and programming phases. (See Figures 7.40 and 7.41) This project is also featured in Chapter 9-8.

Figure 7.40 First Floor Plan with Vestibule Entrance. The River Bank, Osceola, Wisconsin, by BKV Architects.

The elevator is located at the opposite side of the lobby from the main entrance. The plan features both open-desks and private offices. There are several features that enable this bank to showcase various products and services along the customer path to the tellers. Figure 7.41 shows the bank main entrance’s side view and the two-story vestibule into which it leads.
Figure 7.41 River Bank, Osceola Wisconsin, by BKV Architects

Figure 7.42 Quantum National Bank, Tucker, Georgia, by FSF Architects.
Offices

Successful banks have been built with very few offices, and others operate equally well with private offices for every officer. The decision to have private offices, an open desk arrangement, or a combination of these is decided by the style of operation of the owner client and should be defined in the program. In general, offices are located adjacent to the banking lobby with glass facing the lobby and teller area so that officers can see the activities that are taking place there. In larger headquarter banks offices may be much more extensive and may be on separate floors as well.

Manager or executive offices may have a separate conference area in addition to the normal office furniture, and some also will have access to a private bathroom. This office may also have a separate access to an adjoining conference/board room and others may wish to have a secondary exit. (See Figure 7.44)

![Typical Open Area Office, Mountain State Bank, Cumming, Georgia](image)

Figure 7.43 Typical Open Area Office, Mountain State Bank, Cumming, Georgia by Foreman Seeley Fountain Architects

Photo by Jeff Seeley, FSF Architects®
Figure 7.44 Typical President’s Office Quantum National Bank, Tucker, Georgia, by FSF Architects

Figure 7.45 Typical Manager’s Office with Private Toilet
Conference/Board Rooms and Closing Rooms

In a headquarter bank the boardroom is designed to accommodate the board members, executive staff, and any anticipated guests. The size will depend on what activities occur within and the overall size of the facility. The program should determine this number. Provisions for service and equipment such as audio-visual and Internet access also will be needed. Cabinets with a sink may also be included along with a refrigerator. Many facilities include adjacent private bathrooms too. Larger banks will usually have additional conference rooms and closing rooms of varying sizes placed according to the activity and need. (See Figure 7.45)

In many branch banks the boardroom will also serve as a conference room and depending on the branch size, it is often placed adjacent to the banking lobby along with private offices or officer spaces. Loan closings are also often held in these rooms (they are also frequently used by examiners). These are not usually as large as headquarter bank boardrooms and are sometimes made a part of a manager’s office. Many are equipped with power screens and projectors and other computer-friendly amenities. (See Figures 7.46 and 7.47)

Figure 7.46 President’s Office and Adjacent Conference Room
Note the ATM Room off of the conference room, with a through-wall serviced ATM for drive-up customers. (Regular service to the ATM is more secure because of this feature.) Conference rooms may need to be larger depending on the activities that are planned and the size of the facility. The rooms depicted are in a mid western bank of 4,500 square feet.

In headquarter banks the offices may be much larger and they may need several conference rooms, separate closing rooms, and much larger boardrooms. Examples of these are shown in Chapter 9.

![Photo by FSF Architects](image)

**Figure 7.47 Typical Board Room**

**Work Rooms**

A bank workroom will need numerous items of equipment depending on how it operates. Some or all of the following items may be needed. These are considered in Chapter 8 Part 1.

- ATM Control Equipment
- Auto-Folder
- Check Encoder
- Check Protector
- Coin and Bill Counters
- Computers and LAN Equipment
Copiers and Fax Machines
Integrated Camera System
Laser Printers
Merchant Card Equipment
Micro-filmer and Viewer
Power Files
Proof Machine
Rolling Machine

**Vaults**

Many new branch banks have eliminated the costly walk-in safe deposit vaults in favor of smaller safes or chests that are both secure and fireproof. Others still feature the larger vaults and many are now using the prefabricated modular systems that are available, while fewer are being constructed with poured-in-place concrete. The lower profit from safe deposit box rentals versus the cost of new vault construction is one reason for this trend. The prefabricated vault systems and vault doors that are available are suggested in Chapter 8 Part 2. The manufacturers are listed in Appendix C.

**Accounting**

The accounting for most branch facilities is undertaken at a headquarter facility or home office of the institution or much is outsourced. Where the institution does have an in-house accounting department, the size and configuration of the department depends on each institution. In some cases an arrangement of workstation modules may be used as depicted below, or an office with open desks may be used. The workstation floor plan arrangement is shown in Figure 7.46.

![Figure 7.48 Typical In-house Accounting Department, St. Cloud Federal Credit Union, Sartell, Minnesota, by HTG Architects](image_url)
Figure 7.49 Typical Break Room. These usually include a small kitchen and related appliances together with tables and chairs.

Figure 7.50 Typical Restroom Plan. Most new branch facilities have simple but adequate rest rooms and all need to be designed for ADA compliance.


Building Codes

The new International Building Code has replaced many of the codes formerly used throughout the USA, but many local and state jurisdictions still maintain their own added requirements for various reasons. It is the responsibility of the architects and engineers to design for the appropriate building code and life safety provisions for their projects, including the Americans with Disabilities Act (ADA). None-the-less there are continuing examples of projects that have been constructed in parts of the country that have failed to comply with basic life safety and other code requirements. These are generally projects that have been undertaken without the services of licensed architects or engineers.

It is astounding that some owners, in attempting to keep from paying professional architectural or engineering fees by using shortcuts or unlicensed construction firms, discover later that they have inherited a major life safety or code problem that would have been prevented if they had used licensed professionals in the first place.

Utilities

As mentioned in Chapter 6, the site must have or be able to obtain necessary utilities. The architect, engineers, and/or land surveyors should verify that these utilities are accessible and adequate for the building contemplated. Various parts of the country offer different services and plans should reflect the appropriate design connections. For example, a new building should be designed for the power and energy sources that are available. A heating system cannot be designed for natural gas where such is not available. The electrical service is very important in any financial institution where so many items of equipment rely on a specific power requirement. In some areas transformers may be required in order to obtain the proper power or suitable electrical phase needed.

Sewage disposal is also a common problem where a public system is not available. Engineers are usually able to offer alternatives such as septic systems or even small individual package disposal systems. Proper disposal of runoff and storm water must be made to protect the property of both the owner and neighbors. A common requirement is for the temporary on-site storage of excessive storm water.

Mechanical, Electrical, and Plumbing Systems

Providing a comfortable working environment for customers and employees is a requirement in any present day structure in the USA. Banking presents some added challenges such as the limitation of excessive noise from air-moving systems and the importance of keeping computers and LAN systems within working temperature and humidity ranges. There are numerous kinds of heating and cooling systems throughout the USA. The type of energy used will vary as well. Where natural gas is available it is often the choice for heating. Cooling is most often provided with electrical energy and there are now other exchange methods in use such as the increasingly popular ground-source systems used for heating and cooling.
One problem that sometimes occurs is when engineers design systems that are so complicated that full-time service people are needed to operate them. These systems also are often excessive in the cost of installation. Common sense is needed to arrive at a balance between the system design and the budget, but the long-term costs must be considered as well. The needs should be carefully examined and conveyed to the architects and engineers in order to arrive at a workable solution that is within the project budget. Power requirements are part of the engineer’s design criteria but it is very important to provide accurate equipment information from the suppliers.

**Construction Cost Comparisons**

The shelf life on cost information is very short so this information should be updated regularly. The reference for this data is from the R.S. Means Co. Square-Foot Costs guide of 2007. Variations occur throughout the USA depending on the availability of materials, shipping costs, and labor costs. Numerous factors have an impact on a final cost and the detailed quantity surveying of these factors is itself, a lengthy field of endeavor. This work is not intended to be that.

The size of a project is another important factor. Square foot costs are greater in smaller projects than large ones. The economies of scale have a direct bearing on project costs. An example of this is analysis is given by Means for the square-foot cost of a one-story branch bank of 4,100 square feet. The building considered is to be constructed with a steel frame and a lightweight concrete block and face-brick exterior wall. This example has 256 linear feet of perimeter wall and the average cost per square foot in the USA is $196.05. It should be noted that there are wide ranging costs given for this example and those varied from $117.30 to $288.70 per square foot. (Means lists many other examples of construction types and their relative costs.)

As similarly constructed projects were larger, the respective costs were, $191.60 per square foot for a 4,800 square foot building; $188.15 per square foot for a 5,500 square foot building; $184.20 per square foot for a 6,200 square foot building; and $179.85 per square foot for a 7,600 square foot building. The Means Guide provides a good method of estimating approximate square-foot costs when its system is carefully followed, but it is advisable to obtain the services of a professional cost estimator or contractor in providing detailed cost estimates.67

**Green Banks, LEED, and Sustainability**

There are numerous sources and works about green design and sustainability, and it is not the intent of this work to provide that level of consideration, but with most of us spending more than eighty percent of our time indoors, sustainable design is the healthy choice for better living. In traditional construction the indoor environment is often more polluted than outdoors. This is due to building materials, poor lighting, and other variables.

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“Green buildings are sited, designed, constructed, and operated to enhance the well-being of their occupants and to minimize the negative impact on the community and natural environment.”

Our buildings consume 40 percent of the world’s energy, 25 percent of its wood harvest, and 16 percent of its water. Our society cannot continue to build using wasteful traditional methods. It is a matter of time before we run out of resources so the sooner we change our habits and building methods, the better.

Some examples of the importance of this need to change are included. (See Chapter 9, Featured Project 9-7, Old National Bank and Project 9-13 Colonial Bank.) The first question that seems to come up is about cost. In practice, it has been shown that while a first effort to go green is usually more costly, the second project and those that follow are carried out more smoothly and at less cost. Moreover, the life-cycle operational costs are much less and should be considered as well. These savings soon eclipse the initial cost of construction when compared with the total costs during the life of the building.

An example of the cost comparison is PNC Bank and its effort to achieve certification by the U.S. Green Building Council for a LEED rated project in its Firstside Center. (LEED stands for Leadership in Energy and Environmental Design.) PNC was successful in that achievement and at present has “more buildings LEED certified – 27 – than any company in the world, with more than 40 others already designed and built to USGBC (United States Green Building Council) standards.” The trade-offs include a building with lower operating costs. Wainwright Bank, Boston has two LEED certified branches and the payback time for these is estimated to be ten years or less, with a prediction that it will soon drop to three or four years.

It follows that banks and credit unions must consider the idea of constructing certified projects from an operational standpoint when these paybacks are available even if the initial cost to construct is as much as twenty five percent greater. As stated above, this initial percentage is expected to drop as financial institutions continue the trend. Architects and engineers who are LEED certified designers are able to assist in achieving these rated projects. Perhaps we should take a Native American proverb into account when we consider the question of sustainability:

“*We do not inherit the earth from our ancestors, we borrow it from our children.*”

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70 Streeter, 29
71 "A Native American Proverb" from Sustainable Design Forum. 2006-2008
Chapter 8  Part I

Teller Area, Drive-up Teller Room, and Work Room Plans and Equipment

This chapter depicts typical lobby teller areas, drive-up teller rooms, workrooms that are usually adjacent to them, and the equipment normally used within them. The workroom plan shown here is in a facility that has just converted to Check 21. (See Chapter 6) Some of the equipment indicated is that formerly used, together with the new items required for the conversion. See Chapter 8 Part 2 for the suggested teller arrangement for remote teller operations.

Typical Lobby Teller Area

![Figure 8.1 Typical Lobby Teller Area Floor Plan](Not to scale)

This plan indicates a three-unit stand-up teller counter with returns. Figures 8.2 and 8.3 show the elevations and Figure 8.4, the casework details.

![Figure 8.2 Lobby Elevation of Teller Counter](Illustration by WSKF Architects)
Figure 8.3 Typical Lobby Teller Elevations (Not to scale)

Figure 8.4 Typical Teller Counter Casework Drawings (Not to scale)

Figure 8.5 Teller Counter in Yolo Credit Union, Davis, California, by EHS Design
Cash Dispensing and Cash Recycling Machines

These machines and their advantages are described in Chapter 7 but are included here to indicate their dimensions and characteristics. They are increasingly used by lobby tellers, drive-up tellers, in concierge pods, and in remote teller workroom locations. See Appendix C for manufacturers. A commercial application for customer use is also available.

Figure 8.6 Diebold Cash Dispensing Machine

1 Diebold Product Catalog 2008
Figure 8.7 Diebold Cash Recycling Machine

Figures 8.8 and 8.10 by Diebold Inc.\(^3\) below indicate the suggested placement of these machines in teller and drive-up teller counter uses. They are intended to be easily added to existing counter arrangements.

\(^2\) Diebold Product Catalog 2008

\(^3\) Ibid
Figure 8.8 Diagram of Teller Counters with Cash Recyclers

Drive-up Teller Rooms

Figure 8.9 Conventional Drive-up Teller Room Plan (Not to scale)
Workroom Layout and Equipment

Depending on many factors such as the method of check clearing and whether in-house accounting or other activities are performed, the workroom is usually adjacent to the tellers. The plan below is typical of that relationship.
Figure 8.12 Typical Work Room Plan and Equipment

Workroom Equipment List

1  Fax Machine
2  Security Camera & Control System
3  Printer 900 for Check 21 System
4  Card Swipe Device
5  Employee Time Clock
6  Label Maker
7  Ricoh-IBM Infoprint (Check 21)
8  EFT Router
9  Four-Drawer Legal File
10 Three-Drawer Flat File
11 Martin Yale Auto Folder
12 MicroFilmer (kept as back-up)
13 Power File (Check Storage)
14 Check 21 System Screen
15 Check 21 Keyboard
16 Four Drawer Legal File
17 Office Copier
18 Internet Control for Printer

LAN Room

19 Proof Machine (Kept as Back-up)
20 Main LAN Server
21 Computer for Tellers
22 Coin Roller
23 Shredder

This workroom was designed for a single bank owner and it was just recently converted to Check 21 electronic clearing. The plan shows the equipment, and the numbers indicate the specific item location. The adjacent room to the left was originally used as a proof room and after converting to Check 21, it was the selected location for the new LAN server and teller computer. (The proof machine, coin roller, and shredder remained.)
Figure 8.13
Security Camera Monitor and Control (Item 2)

Figure 8.14
Printer 900 and Card Swipe (Items 3 & 4)

Figure 8.15 Check-21 Copier and Relay (Item 7) Photos this page by author
Figure 8.16 EFT Router and ATM Relay Control (Item 8)

Figure 8.17 Auto-Folder (Statements) (Item 11)
Figure 8.18 Micro-Film Machine. Used Prior to Check 21 (Kept as back-up) (Item 12)

Figure 8.19 Power File (Check Storage) (Item 13)
Figure 8.20 Check Scanner for Check 21 System (Item 15)

Figure 8.21 Internet Control for Wireless Printer (Item 18)
LAN Equipment Room (Formerly used for Proof Machine)

Photo by author

Figure 8.22 Proof Machine (kept as back-up) (Item 19)

Photo by author

Figure 8.23 Main Server (at right) and Teller Computer (Item 20 & 21)
Figure 8.24 Coin Roller (Item 22)  
Figure 8.25 Shredder (Item 23)

Figure 8.26 Teller Room Check Encoder
Figure 8.27 Teller Room
Currency Counter

Figure 8.28 Teller Room Coin Counter

Figure 8.29 Drive-up Teller
Check 21 Computer
Photos this page by author

Figure 8.30 Drive-up Teller
Check 21 Connection
Figure 8.30 In-Lobby Coin Receiver
These machines are a popular draw and help bring in new customers or members.
Chapter 8.

Part II Specialized Banking Equipment

This chapter includes the specialized bank equipment usually included in a major project. These items represent a cross section of those that are available and commonly used, along with some that are increasingly being introduced depending on the specific project. Unless otherwise noted, all information shown in this part II of Chapter 8 comes from the Diebold Inc. Equipment Catalogs of 2003, and 2008, the ComCo Systems Catalog of 2007, or the American Vault Product Catalog of 2007. These manufacturers are listed in Appendix C.

Remote Drive Teller Systems

![Remote Drive Teller System](image)

**Figure 8.32 Remote Drive-up Teller System**

This Remote Customer Teller allows the drive-up to be located out-of-sight from the teller room, and through the use of the audio, CCTV, and in this case, an overhead pneumatic tube carrier delivery system, it can serve cars arranged in almost any configuration or direction. This depicts the ComCo 521 unit that accommodates standard 4 ½" carriers supporting approximately 6 pounds. For the overhead tube delivery to function, a connection must be made at the canopy to the building. (See Figure 8.28.) There are larger commercial sized units available as well. (See Figure 8.39 below.)
Figure 8.33  Typical Overhead Tube Installation (not to scale) depicting Diebold’s VAT 21 System.

Personal Teller Machines

Figure 8.34 Private Video Teller System
This group of six ComCo LTS Series machines are served from a central teller location away from the units. Chapter 7 describes their advantages. The tellers may be located on a different floor, or even in an adjacent building—pointing to the greatly increased security resulting from their use.
Figure 8.35 Private Video Teller Unit
This depicts a customer at a Diebold Remote Teller Unit with the unit’s carrier and her teller via CCTV during the transaction. Figure 8.31 below indicates the physical requirements and installation characteristics of this unit. See Appendix C for the list of manufacturers of Private Teller Units.
Figure 8.36 Remote Teller System Customer Unit (Diebold 13581 Unit Depicted)
**Figure 8.37 Remote Teller Room**
This depicts a ComCo equipped down loaded tube system in the remote teller room with the transactions conducted via CCTV and audio.

**Figure 8.38 Remote Teller room equipped with a ComCo overhead tube system**
Figure 8.39 Conventional Drive-up Customer Units

Used in a conventional drive-up (where tellers are in visual contact with customers) these customer units have been in use for many years but have been steadily improved. The customer units shown are Diebold VAT 21 units equipped with an overhead pneumatic tube delivery system. The standard pneumatic tubes are 4 ½" diameter and are installed with 20" radius bends. The dual blower motors are usually installed in the drive-up canopy and are able to support a carrier load of 6 pounds in a standard operation.

These units have a standard communications system that allows the teller to communicate with different customers waiting in different lanes while the customer terminal features send and call buttons. Some units are equipped with a raised base for access from vans and trucks. The units shown have a small 10" square footprint and are installed on a narrow 24" island. It is important to maintain noise level below objectionable levels; this system is said to operate at below 68 dBA.

The teller work station is subject to UL 114 listings and the system is subject to UL 291 rain test specification. An optional CCTV feature allows these units to be operated by customer and teller, or by teller only where desired. A similar system is available for underground tube installation and it is described in Figure 8.40 below.
Figure 8.40 Underground Pneumatic System, Section/Elevation
This shows the configuration for a conventional direct-bury pneumatic tube system for the customer units (in this case Diebold VAT 23 units.) The customer units are similar to those shown in Figure 8.39, except that the tube connection is from below and the blower package is installed in the customer terminal. These also may be equipped with CCTV video for a more remote installation. Some manufacturers continue to suggest using an underground culvert system to allow for access in case there is any future need to service the tubes – a throwback to the earlier design methods, except that better water-resistant steel culverts are now commonly used in the place of the older concrete systems. The pneumatic tubes are also the standard 4 ½" diameter with 20" or 24" radius bends. The specifications must conform to the UL 114 listing and UL 291 rain test requirements.

Figure 8.41 Commercial Carrier
This higher payload carrier is for use in the 4" by 7" commercial tube system.

Figure 8.42 Standard Carrier
For use in the 4 1/2" tubes
Most pneumatic systems for automobile drive-up lanes use carriers as shown above. The larger carrier shown in Figure 8.41 will accommodate loads up to 25 pounds and bags as shown. Experience has shown that larger tubes and blower motors are needed for the increased load. Some bankers feel that because of the arm reaching involved, the larger loads are too great for customers and tellers alike, and therefore the commercial tellers are located inside the building where the lifting is mainly up and down, and does not involve the amount of reaching required with the tube system.

The commercial tubes are installed only in an overhead system and are usually located in a marked lane along with other standard customer units. Figure 8.43 depicts the larger teller unit (on the right side) along with standard units in the same counter arrangement.

Figure 8.43 Commercial Teller Unit (far right) alongside Standard Units
Figure 8.44 Commercial Customer Unit
These are the customer units depicted in the system described above that can carry the heavier (to 25 pounds) carriers. This unit is a ComCo model 900 and requires a larger 4" by 7" pneumatic tube system. Similar commercial systems are now available with use of 8" diameter tubes.
Window and Drawer Units

Figure 8.45 Drive-up Window and Drawer Installations

Figure 8.46 Single Window and Drawer

The still-popular conventional window and drawer units are available in numerous sizes and types. This shows a Diebold multiple teller arrangement serving multiple lanes. The drawer is located at the first lane while the other lanes are served by pneumatic tube delivery. All are equipped with audio while the standard drive-up still relies on visual contact between the tellers and customers. See Appendix C for the list of manufacturers.

The drive-up windows that are available, range from 4' or 5' wide single width units for a single lane or walk-up, to 15' wide in three glass segments for multiple drive-up lanes. The deal drawer is usually located at the first window segment to the left, seen from the outside. The deal drawer units are 1'- 6" to 2'- 6" in width and are approximately 10" deep; they should meet a UL Level 1 rating.

Figure 8.45 above depicts a double vision window for multiple lanes and Figure 8.46 is a Diebold Counterette deal drawer unit in a typical single window arrangement, for a single drive-up lane, or it could serve a walk-up location. Figures 8.47, 8.48 and 8.49 below show typical window and drawer details for installation.
Figure 8.47 Typical Double Window Elevations with Deal Drawer

Figure 8.48 Standard Drive-up Window Details
Figure 8.49 Drawer Details
Illustrations from Diebold Catalog 2003

Photos by Diebold Inc.

Figure 8.50 Night Depositories
Figure 8.51 Night Drop Safe
Usually connected to a safe or vault, the after-hours depositories, as they are also called, are usually located near the drive-up tellers but sometimes also are placed at a main entrance for walk-up customers and are also less frequently located at an island enclosure. Smaller envelope depository systems are also available and are usually placed at a main entrance for walk-up use. Some new branches use a larger receiving chest connected to the night depositories for secure storage instead of a large walk-in safe deposit or cash vault. In these cases armored car service and delivery are more frequent.

These depositories are usually made of stainless steel and are manually operated. They should meet or exceed UL standard 771 with anti-fish and anti-trap features when installed with an acceptable chest and alarm system. The standard models are made to accommodate bag or envelope deposits up to a 7 1/2" by 11" size. An envelope may be deposited without use of a key but bag deposits are usually only made with use of a key. The bag opening is secured by a UL listed pin-tumbler lock. The exterior face and deposit compartments are illuminated for night use and the assembly is equipped with an alarm contact switch attached to the main alarm system. This contact is activated if tampering or removal by force is attempted.

These units should also comply with ADA requirements in design and installation. Some units are available with an interface for adjacent ATM units for commercial customer use. These are unlocked electronically when a commercial deposit transaction is authorized and then relocked after a set period of time. Refer to the specific manufacturer and model for electrical requirements.

**Figure 8.52 Typical Night Deposit Installation**

Illustrations from Diebold Catalog 2003

This drawing depicts the Diebold 271-70 Receiving Chest and the Securomatic Night Deposit.
Prefabricated Modular Vaults

Illustration by American Vault Inc

Figure 8.53 Prefabricated Vaults (Example shown is by American Vault Inc.)

Photo by Diebold Inc.

Figure 8.54 Diebold Modular Vault Assembled at the Construction Site
Figure 8.55 Class 1 Modular Vault Typical Plan Arrangements

These plans depict the Diebold light-weight ceramic based vault system using steel fiber technology, reinforcing rods and mild steel plate. These are available in UL Class 1 or 2 Panels with an approximate compressive strength of 30,000 psi. The panels should meet or exceed UL 608 standards. Super strength Class 1 panels are 2.5" thick and Class 2 panels are 4" thick while regular strength panels are 5" for Class 1 and 9" for Class 2. They are constructed with a double mat of #3 reinforcing rods spaced at 3" centers each way. The interior of the panels is lined with 11-gauge plate steel. The plans indicate suggested locations of safe deposit boxes and the relative positions of vault doors.
Most vault doors are UL Class 2 or 3 and are greater than 10" thick. A full height locking bar is used and ventilators are built in. A three-movement, 144 hour manual time lock is standard. Most doors are also equipped with ADA compliant day gates and hardware and may be installed in either prefabricated vaults or those that are poured in-place. Figure 8.48 shows the typical construction detail for installation.
Figure 8.57 Typical Plan Detail of Vault Door Installation

Figure 8.58 Biometric Vault Access
Figure 8.59 Biometric Reader In-Use

Figure 8.58 shows the Biometric Vault Access installed adjacent to the vault. Figure 8.59 shows a customer using the hand reader to gain access to the vault. Many institutions are now using these devices that allow access by reading a handprint. The customer or member then needs only his/her deposit box key and an employee is not required to accompany him/her in this process.
Automatic Teller Machines

Since the first ATM was developed in 1967 these machines have been refined and advanced into numerous types occupying many different locations. The types most commonly used in financial institutions are shown in Figures 8.62, 8.63, 8.64 and 8.65.
The unit depicted in Figure 8.62 above is a Diebold Opteva 720 ATM. It may be located in a group and is available with front or rear loading capability. It also is equipped with a \( \frac{1}{2} \)" safe.
Figure 8.63 Through-wall Walk-up ATM
Figure 8.63 shows a through-wall Diebold Opteva 760 ATM unit with a $\frac{1}{2}''$ safe.
Figure 8.64 Through-wall Drive-up ATM
The unit depicted is a Diebold Opteva 740 with a ½" Chest.
Figure 8.65 Drive-up Island ATM

This unit is a Diebold Opteva 750 ATM. Figure 8.65 indicates specifications and details of this unit. Similar information should be available for other manufacturers.
Figure 8.66 Typical Specifications and Details of Drive-up Island ATM
These specifications and details are based on the ATM unit shown in Figure 8.65.
Illustrations from Diebold Catalog 2008

Figure 8.67 Section Showing Drive-up Island ATM Installation
This section indicates the typical connections required for the island ATM unit depicted in Figure 8.65.
Featured Projects Chapter 9

Project 9-1

Norlarco Credit Union, Fort Collins, Colorado by EHS-Design Architects

The CEO of this credit union knew that his institution was on solid ground but needed a new image and brand concept to differentiate it from increasing competition and to increase market share. He also wanted to expand into new markets with an image that would “wow” the community and competition.

EHS Design, the architects, and Weber Marketing Group, the branding consultant, studied the members’ characteristics and preferences, analyzed the market conditions and competitors, and recognized an opportunity. The Fort Collins community was interested in the environment and exercise. Paul Seibert, CMC, a principal with EHS Design and also an expert in brand strategy said, “We connected the members’ lifestyle with Norlarco’s business focus, creating a physical fitness-financial fitness retail branch concept.” It is believed that “no other financial institution in the city or state had made this connection.” Norlarco’s management readily accepted this concept, and EHS Design has applied it to its freestanding branches and mini-branches located on university campuses.

The benefits to Norlarco include a unique and positive new image that significantly differentiates its branches from the competition. They are focused on members’ interests and needs, while encouraging non-members to join. This new branch business model also provides a more effective way to deliver services by using employees in multi-tasking roles, and members are able to use remote delivery services.

The new retail branch concept is described as, “highly professional, expressive, fun, engaging, and directly related to target members’ interests through the use of sports equipment as work surface supports, PC stands, merchandising kiosks, and accessories.” (See the bicycle supported check stands in Figure 9.1.5.) This connection to its members is more than just visual; it is three-dimensional and tactile.1

The resulting project is a very successful example of design and brand strategy. The basic design with a greeter and waiting area at the main entry and then the path to the lobby tellers is perhaps as effective as any shown in this paper. The brand relationship with the sports items such as bicycles for the check stand support and skis for display kiosks is very fitting. The conventional tellers are arranged in a curved plan that faces a queue line with open officers desks and customer representatives.

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1 Naomi Berg, EHS-Design, conversation with the author, Feb. 11, 2008
Figure 9.1.1 Site Plan

Figure 9.1.2 Floor Plan
The main entrance at lower right, leads to the greeter and waiting area by the fireplace.
Figure 9.1.3 Main Entrance Façade at Dusk

Figure 9.1.5 The Reception “Greeter” near the main entrance
Figure 9.1.6 Customer Waiting Area and nearby fireplace

Figure 9.1.7 Teller Lobby
Project 9-2

Farmers Bank of North Missouri, Saint Joseph, Missouri, by WSKF Architects

This bank, headquartered in a small northwestern Missouri town, needed to expand to Saint Joseph, a much larger city to the south, and its owners wanted a new building that would convey the image of modern convenience and service. Several operational requirements were part of the program for the new project. Interior tellers needed to be convenient and accessible from two vestibule entrances and also be placed adjacent to the drive-up tellers. A conventional drive-up should accommodate four lanes but a separate drive access needed to be made for a through-wall ATM.

The main site access is from the south so the building is thus oriented. Customer parking is also from that point of access, and because of the resulting circulation, the employee parking is on the north side of the building. This is facilitated by another access drive from the main street to the east. While most bankers prefer to have one main entrance, this owner wished to have access to the building from both north and south. Another consideration was that space for future expansion was to be left on the north side of the building for planned services and products.

The space requirements were programmed to provide for both vestibule entrances and a spacious lobby with offices for the president, a loan officer, and an insurance office, as well as cubicles for administrative and service representatives. It was designed to have ample natural light by using clerestory windows made possible by the elevated drive canopy. The interior serviced through-wall ATM saves in security and operational expense. The project, while interesting in its exterior appearance with its unusual canopy design, is rather conventional in its plan. All photographs in 9-2 are by Paul Brokering.

Figure 9.2.1 Site Plan

Illustration by Kaw Valley Engineering
Figure 9.2.2 Floor Plan

Figure 9.2.3 Exterior View to Main South Entrance
Figure 9.2.4 Interior of Lobby
The clerestory glass is effective in illuminating the entire lobby area with natural light.

Figure 9.2.5 South Entrance and Drive-up at Dusk
The president of Free Star Bank had a vision to create a cross-marketing facility that would increase his banking operation. By providing “destination” products and services through retail establishments such as a café and a dry-cleaning, the bank would gain exposure to a wider range of potential clients. This facility provides the customer with a one-stop shopping experience as well as allows the bank to soft-sell additional banking services such as loans, financial planning, and online investments to its broader customer base.

The bank is strategically located near a growing bedroom community and on a main route from an Interstate highway to a major corporate headquarters. Target demographics include younger, two-income families that appreciate the convenience of being able to access money at the cash station, drop off their dry-cleaning, and grab a cup of coffee and a muffin all in one trip, without leaving their cars. (The dry-cleaning pick-up window is on the east side of the building)

The building was designed with a contemporary look both inside and out. The main entry leads straight into the “community” area between the retailers and the bank. A comfortable customer lounge area is for having a coffee, laptop use, or a casual meeting. This lounge also provides a perfect location for new marketing materials as well as television viewing that can double with bank promotional video use.

A large 20’ skylight in the center provides significant natural light and is reminiscent of former classic bank designs. Conventional teller counters are arranged around part of the circular lobby and offices are located at the opposite side. A workroom is adjacent to the tellers but access is through the break room. (This may be a purposeful method of keeping staff to reasonable break time limits.) The open glass for offices allows bankers a constant oversight of foot traffic. Color contrasts in the décor and furniture add to the contemporary appeal of the building.

The project exhibits a very imaginative floor plan but less interesting exterior. The coffee shop/deli and dry cleaner are said to be very popular with customers and are successful attractions for the public, as had been envisioned by the owner and architect.
Figure 9.3.1 Site Plan

Figure 9.3.2 Floor Plan
Figure 9.3.3 Exterior View at Main Entrance

Figure 9.3.4 Interior View toward the Main Lobby and Tellers
Focus Photography

**Figure 9.3.5 Interior with Skylight and Waiting Area below**

Focus Photography

**Figure 9.3.6 Detail at Skylight**
Project 9-4

Hyde Park Bank, Chicago, Illinois by Florian Architects

When so many of the former great banking halls have been abandoned or converted into some unidentifiable segment of commercial real estate, this project transformed the former bank “through a dramatic play of modernist and classic vocabularies.”² This 10,000 square foot project was the winner of a 2005 AIA Honor Award and has been described being as “as much a transformation as a renovation.”

In bringing modern banking features to this classic hall, the architects placed receptionist stations near each of the monumental open stairs. Various officer stations were placed behind each in an open arrangement and the teller line is adjacent in the center-south side of the hall. An Internet banking area flanked by the building elevators and a fire-stair, was opposite the tellers on the north side, and there were five customer waiting lounges scattered around the periphery of the hall.

Executive offices, conference rooms, work areas, and workstation files are placed in the balance of the surrounding margins of the hall, freeing it of visual clutter. Indirect lighting that is reflected off of the regilded ceiling adds to the desired effect. Travertine and maple surfaces blend very well with the building walls, and the metal mesh screen walls separate the offices from the lobby of the great hall in a delicate but functional manner. The light is diffused at workstations by the use of translucent glass, and direct sun is kept from the interior with shading devices.

The architect decided to complement rather than obscure the bank’s classical past and described his effort to “create an uplifting interior” but not in a formal sense. He did not want the bank’s customers to feel required to “come in (wearing) a three-piece suit.”³

As described by Blair Kamin in an Architectural Record article about this project, “A bank doesn’t have to be dumbed down architecturally to be approachable and functional. There is a middle ground between history and freshness, grandeur and intimacy, ceremony and informality. That is a lesson worth heeding for all historic bank halls in an age that seems to value them less and less.” ⁴

All Photographs shown in Project 9-4 are by Karant Associates, ©.

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³ Kamin, 137.
⁴ Kamin, 138.
Figure 9.4.1 Main Lobby Floor Plan

Illustrations by Florian Architects

Figure 9.4.2 The Building Main Entrance North Elevation
Figure 9.4.3 Interior View of Main Lobby

Figure 9.4.4 Interior Showing Metal Mesh Screen Divider
Figure 9.4.5 Interior Showing Personal Banking Station

Figure 9.4.6 Open Desks at Lobby Perimeter
Figure 9.4.7 Personal Banking Station
Figure 9.4.8 Check Stand with Online Banking Station beyond
Figure 9.4.9 Travertine Teller Counter with Metal and Translucent Canopy
The brand design for this start-up bank was inspired by the late 19th century Romanesque architecture of Henry H. Richardson. His multi-colored brickwork, dramatic arches and rounded roof turrets may be seen in this distinctive new bank building. The entrance vestibule occupies a round turret-like feature that leads to the main lobby and a waiting area that surrounds the fireplace.

As customers enter this branch, they find themselves in an area that includes a working fireplace, flat screen TVs and other amenities meant to evoke a living room feeling. The 4,200 square foot building also uses wood trusses that have a hand-carved appearance with their distinctive curved lower chord members.

Unlike many new branch facilities in the USA, this one has a traditional teller counter with six stand-up tellers and a night teller station that can be locked off for after-hours service, but it only has two drive-up lanes. The second lane is equipped with an ATM and a customer kiosk as well.

Grouped around the main lobby are a private office, a conference room and a copy room. At the back of the lobby are a prefabricated vault with two coupon booths, the public restrooms, and a break room. Within the lobby are four open desks for banking officers and staff. Files are built in to one side of the lobby.

Although this bank operates with a traditional line of stand-up tellers, it seems attractive and adequate to customers and staff alike so that future branches are planned to continue with this design theme. All photographs in 9-5 are by Bausch Photography.
Figure 9.5.1 Site Plan  Illustrations are by JRS Architects

Figure 9.5.2 Floor Plan  The main entrance at upper left leads to the lobby waiting area and fireplace. A traditional six-station teller line is to the right.
Figure 9.5.3 Exterior View of the Entrance Turret

Figure 9.5.4 Interior of Lobby
Figure 9.5.5 Interior View toward the Main Entrance and Fireplace Waiting Area

Figure 9.5.6 Night View of Main Entrance and South Façade
Project 9-6

Bank Midwest, Spirit Lake, Iowa, by HTG Architects

This project is a remake of an existing 14,000 square-foot space at the end of a strip mall formerly occupied by a grocery store. What makes this project significant is its use of a “concierge banking environment,” the term applied by its architects who first called it a transaction tower. Inside, a half dozen retail banking associates circulate between a greeter station, a transaction tower, a closing room, a lounge with video monitors that flash product promotions, sports scores and news headlines, and a Wi-Fi equipped Internet café with an espresso machine. The resulting plan also provides for a two-lane drive-up facility.

This project and its new method of service delivery required the banking management to reconsider its previous way of conducting business. A fundamental shift was to consolidate the backroom operations of loan and data processing to enable the sales associates to concentrate on their customers instead of performing paperwork. The bank’s goal was to cross-train its retail associates to allow them to converse with knowledge and authority on every product and service available at the bank.

How the floor plan translates this new idea in service delivery is seen in a circular succession of lines that radiate from the entrance vestibule, lobby area and office spaces to the floor beyond into the building. The transaction tower is a feature that allows better personal contact between the customer and the service representatives who serve them. In these transaction towers is the equipment that provides the same capability as the former teller counters provided. What became the immediate requirement were the personnel to provide this new service. Jeff Pflipsen, a partner at HTG, described the bank’s need for finding the right people. “It’s ultimately a sales environment. You have to have the right people. You have to hire for sales, then you teach banking.”

The site is limited in the required space for a drive-up facility, so only two lanes are provided. It remains to be seen if this limited feature will present a drawback in the overall operation of a bank of this size in the years to come. All photographs and illustrations in 9-6 are by HTG Architects.

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Figure 9.6.1 Site Plan

Figure 9.6.2 Floor Plan
Figure 9.6.3 Front Desk Customer Receiving

Figure 9.6.4 Customer Service Representative at Transaction Tower
Figure 9.6.5 Waiting Area with Product Display and Flat Screen Television

Figure 9.6.6 Coffee Bar Adjacent to the Waiting Area
Old National Bancorp Headquarters, Evansville, Indiana, by HOK, Design Architects, and VPDS, Associate Architects

The new Old National Bancorp building in Evansville, Indiana, is an eight-story, 251,000 square-foot office tower joined to an adjacent three-story building by a glass atrium on a site larger than a city block. The entire complex is called Old National Place. It houses Old National’s banking center and serves as the bank’s headquarters and includes a multi-level garage and landscaped plaza for public events. The structure offers a river view from virtually any location from within the building and is one of the first projects in Indiana to pursue a silver rating from the from the U.S. Green Building Council’s Leadership in Energy and Environmental Design (LEED) program.

The new headquarters represents a renewed outlook for the now 174-year-old financial institution. One of the most notable differences is the extensive use of glass all around the building envelope. The design transparency gives the facility an open, airy atmosphere that is new to this traditional financial organization. The expanses of glass around the entire building were incorporated for several reasons, with the proximity to the Ohio River being an important one.

Old National connects the bank’s employees to each other and to the community. Previously they were spread out among five locations. In the new building it is possible to bring together many functions that were previously three or four stories apart. Many private offices were eliminated. Enclosed spaces like the remaining private offices, the boardroom, and theatre were moved to the building core thereby allowing the daylight to spill in from the floor-to-ceiling windows. The project features a daylighting system and has automatically dimmed fixtures based on ambient light levels.

The building’s elliptical shape and curtain-wall system are designed to maximize the sunlight, while a daytime lighting system uses mini-optical light-shelves to reflect sunlight inward, and the automatic dimming system adjusts interior lights according to the needs. It is estimated that these systems will produce minimum thirty percent energy cost savings annually.

The project received an Award of Merit Commercial from Midwest Construction. The Saint Louis office of HOK worked together with Veazey Parrott Durkin and Shoulders, (VPSD) local architects in Evansville on the project. All photographs in 9-7 are by Sam Fentress Photography, and plan illustrations are by HOK Architects.
Figure 9.7.1 Site Plan

Illustrations by HOK Architects

Figure 9.7.2 First Floor Plan
Figure 9.7.3 Third Floor Plan (The plan notes refer to finishes)
Illustration HOK Architects
Figure 9.7.5  Exterior View toward Main Entrance
Figure 9.7.6 Exterior View from Northwest

Figure 9.7.7 Interior View across the Atrium
Figure 9.7.8 Interior at the Dining Room

Figure 9.7.9 Old National Place and the Ohio River
Project 9-8

River Bank, Osceola, Wisconsin, by BKV Group Architects

The River Bank’s Osceola, Wisconsin headquarters facility is a 23,000 square foot multiplex financial services center for the Osceola and St. Croix River Valley communities. The internal spatial concept consists of a two-story atrium with south facing clerestory windows that provide day lighting for the bank’s interior volume.

This project effectively uses the method of brand identification along the customer path. From the entrance, through to the tellers, customers are met by a consecutive series of opportunities that promote interactive financial services. First the customer representative greets them, and there is a very comfortable waiting area with a fireplace and flat screen television if they need to remain there. The next opportunity is an online banking station where they can check on their own accounts or “surf the net.” A third feature is an investment center before they arrive at the teller counter. A number of open-desks with private offices behind them provide specific banking services along the lobby path.

A traditional teller line for four stand-up tellers is adjacent to the drive-up teller room and the drive-up features five lanes with an ATM at the last lane. A safe deposit vault and coupon booths are also near the teller area. The elevator and a second stair are at the opposite end of the main lobby. A file room provides for a movable filing system near the main stair and is accessible from both floors.

A monumental main stair is adjacent to the building entrance and leads to the second floor. The second floor wraps around the lower lobby and provides office space for loan offices, insurance, securities brokerage, and retail banking, all overlooking the first floor. Brightly colored banners that advertise various products, services, and other brand related themes are connected to the two-story columns in the main lobby.

The exterior of the building is designed to provide a visual connection to the two-story scale and character of the nearby downtown by using brick at the first floor and the pavilion-like articulation of the hipped roof, two-story columns, and windows. These clerestory windows effectively use the sun to illuminate the entire open lobby. The intent was to maintain a reflection of both the residential community and the downtown together, in a complementary building design. The pylon sign in front is a feature less frequently used in other banks because of increasingly restrictive sign ordinances.

The two-story entrance connects the downtown streetscape with the atrium lobby. While the exterior design is not as imaginative as one might wish, the project is very successful in its planning and functional endeavors. All photographs and illustrations in 9-8 are by BKV Group, Architects
Figure 9.8.1 First Floor Plan

Figure 9.8.2 Second Floor Plan
Figure 9.8 3 Main Entrance Façade

Figure 9.8.4 Opposite Side of the Building
Figure 9.8.5 Lobby Interior Facing the Main Entrance

Figure 9.8.6 Internet Banking Center
Figure 9.8.7 Investment Center

Figure 9.8.8 Lobby Teller Counters
Figure 9.8. Lobby Interior from Main Stair
The interior color palette was chosen to reflect the River Valley’s natural materials by the use of cherry wood and river slate, brightened by the clerestory natural light.
Project 9-9

Mountain State Bank, Cumming, Georgia, by Foreman, Seeley, and Fountain, Architects (FSF)

This bank, located at the foothills of the Appalachian Mountains north of Atlanta, is noteworthy because of its Arts and Crafts style of design. The traditional bank and drive-up design follows this style very well and it is carried from the exterior treatment of varied color stone, smooth stucco, and painted wood trim through to the interior fixtures and darker stained interior trim. The coffered wood ceiling also provides a dramatic contrast to the interior lighting and the floor tile design brings in the exterior stone coloring.

This project also shows how a temporary (mobile) bank building can be used during construction in order to get a head start into business. The plan is the classic layout of a central lobby surrounded by open desks and private offices behind them, all with a view to the teller line. The four lobby tellers face out to the offices for the manager, and five loan officers as well as a closing/conference room. The drive-up tellers are directly behind the lobby tellers for cross service in the usual fashion.

The four open-desk customer service representatives are located adjacent to the main entrance, in front of loan offices, and in front of the main vault. The main vault is to the left of the tellers and it features a second compartment for a cash vault and second vault door, accessible by the tellers and directly behind the night deposit. At the other side of the teller area is a workroom, break room and a separate record vault.

The manager’s office has a separate conference table and private rest room. (See Figure 7.45) A waiting area is to the left of the lobby. Public toilets are to the left of the vault and there is a separate room for a sprinkler service behind them. A rather awkward location for the server and LAN equipment seems to have been carved out of the corner adjacent to the conference room and the lobby.

The four-lane drive-up has room for future expansion including a bypass lane (this from the area formerly occupied by the temporary facility). Although the “arts and crafts” styled dark wood trim, coffered ceilings, floor tile, and colored stone do not reflect a deep-south stereotype, they all relate well to the surrounding countryside and are refreshing in their selections. All photographs in 9-8 are by Jeff Seeley, and illustrations are by FSF Architects.
Figure 9.9.1 Site Plan (note the location for a temporary mobile bank facility)

Photo by Jeff Seeley, FSF Architects®

Figure 9.9.2 Façade of Main Entrance
Figure 9.9.2 Floor Plan
Figure 9.9.4 Interior at Lobby

Figure 9.9.5 Opposite View of the Lobby
Project 9-10

Frandsen Bank & Trust, Forest Lake, Minnesota, by HTG Architects

This project represents a relatively new direction in financial institution planning and service delivery. It demonstrates an early use of the “concierge pod” stations instead of a traditional teller line. The benefits of serving more customers with fewer staff have been previously mentioned in this text, and this is one of the projects selected to illustrate those features.

The open floor plan encourages the flow of customers between the greeter station, waiting space, concierge area, coffee bar, Internet station and self-service information kiosk. This latter feature promotes bank product information and brand image through a system using a touch-screen computer with a sound directed headphone feature. The concierge stations are equipped with cash recycling systems – secure vault-like machines that are shared between two associates, allowing the intake and dispersing of cash (also previously mentioned). Studies by the technology’s manufacturers have shown the machine to be more accurate than a human and it can actually reduce the bank’s full-time employee count.

Inherent in this design is a separate drive-up teller room behind the lobby tellers. Adjacent to them are a workroom, private offices, and the safe deposit vault. Opposite the lobby are additional banking offices, a president’s office, a real estate banking office, and a conference room. Clerestory windows provide day lighting for the lobby.

The willingness of the Frandsen Financial leadership and staff to experiment with a new banking delivery system (through this new technology and the concierge concept) represents the company’s desire to think beyond the box. Situated in the growing Forest Lake community, Fransen Financial believes this new bank will provide for additional opportunities to reach new customers by standing apart from a traditional banking facility. All photographs and illustrations in 9-10 are by HTG Architects.
Figure 9.10.1 Site Plan

Figure 9.10.2 Floor Plan
Figure 9.10.3 Main Entrance Façade

Figure 9.10.4 Greeter Desk
Figure 9.10.5 Waiting Area

Figure 9.10.6 Lobby Interior
Figure 9.10.7 Concierge Pod

Figure 9.10.8 Opposite Side of Concierge Pod (Cash Recycler in Foreground)
Project 9-11.

North Fork Bank, 3rd Avenue Branch, New York, New York by JRS Architects

North Fork wished to have a new branch to serve as a new concept in vertical banking and to be a high profile advertising vehicle for the bank’s brand. Located in a narrow space across from famed retailer Bloomingdale’s and on a key approach to the 59th Street Bridge, the branch stands at one of the most heavily trafficked commercial intersections in Manhattan.

By day, the white, stainless steel and glass structure is prominent to clients, shoppers, and other passersby. At night, the branch transforms into a lively Times-Square style billboard with its unlimited color pallet constantly changing as new messages flash across two giant video screens. Comprised of 500 LED fixtures, the high-tech displays are controlled from a central computer system.

The designers chose a European-inspired transparency as a metaphor for the bank’s culture of openness in its dealings with customers and the business community. This design theme carries into the interior with stainless steel and acrylic teller counters, terrazzo floors, and contemporary furniture selections. Mechanical equipment is hidden in a penthouse completely encased by aluminum louvers. All photographs are by Zweibel Photography and plan illustrations are by JRS Architects.

Figure 9.11.1 First Floor Plan

A vestibule entrance with a revolving door and three ATM machines leads to the first floor shown above. A queue line to six stand-up and two seated tellers is available in the narrow space. An elevator and door to a rear stair are at the back of the lobby space. The wide box space behind the tellers is for ductwork and mechanical piping.

The project is characteristic of a branch bank in a dense urban setting where drive-up banking is not possible and virtually all customer traffic is walk-in. The use of such a narrow building site with several banking floors and the resulting arrangement of functional requirements is certainly not characteristic.
Figure 9.11.2 Second Floor Plan
The second floor holds four cubicle-like spaces for officers at the front, and a private office at the back, with stair and elevator access between. The extended portion of the stair at the upper right leads directly to an exit from the building on the lower level.

Figure 9.11.3 Third Floor Plan
A conference room, open desk, additional private office, and a rest room are on the third floor pictured above. The giant LED screens are positioned at the room to the left, to face both directions as seen in Figure 9.11.7 below.

Figure 9.11.4 Fourth Floor (Mechanical Space)
Figure 9.11.5 Basement Plan
A break room, toilets, janitor’s room, and storage are available on this floor with access by stair and elevator.

Figure 9.11.6 Interior View of Teller Line and Main Lobby
A dramatic contrast exists between the white finishes of floors, counters, walls and ceilings, and the colorful logo of North Fork behind the tellers.
The LED screens at the third floor space may be seen from a great distance and are prominent images in the bank’s branding effort. An interesting comparison may be made between this bank and the noted Manufacturers Trust by SOM that was constructed in 1954 (a larger but similar bank project shown in Figure 1.7).
Project 9-12

Home State Bank, Willmar, Minnesota, by KKE Architects

In this bank can be seen the architecturally popular trend of offsetting elements at different angles to create more interesting forms and spaces for site and floor plans. Located on a key site in Willmar, where U.S. Highway 12 bends in a slightly more easterly direction, the two-story glass lobby and pylon of the Home State Bank are designed to act as an icon within the western part of the city, and as a window into the community.

Home State has been a key financial institution in the Kandiyohi County area since the 1920s, and sought to build a new headquarters that reflected its progressive banking philosophy and long-time commitment to the community. The site, located within a larger development, was used to maximize visibility, provide some dedicated parking, and allow for simple, easy access to the drive-up. The north facing stone end-wall acts as a signboard for incoming traffic from the east.

The main entrance vestibule leads to the main lobby and a fire-stair. The main lobby then contains a conventional teller line and to the right of that, an elevator. The saw-toothed plan provides for a variation of offices surrounding the extended lobby, and a curved center core intersects the angled office lines on both floors of the two-story structure. This center core holds file space and a workroom as well as public toilets and a second stair.

A safe deposit vault and a coupon booth are located to the other side of the lobby tellers. The traditional plan elements have the drive-up tellers behind the lobby tellers for the four-lane drive-up. Both an ATM and a customer unit are placed at the last lane but there is no bypass lane. Other features of the first floor are a separate closing room and a kid’s room.

The second floor provides space for the president’s office and boardroom to one side of the two-story lobby. A break room and kitchen are designed with a folding partition to allow the outer corridor space to be included for larger events. Other facilities are additional offices, a processing room, records storage and a server room.

The contemporary building is constructed with stone and copper detailed and assembled in a traditional manner. The interior geometry with its saw-toothed office plan provides for traditional functional relationships with a non-traditional look. All offices have a view to the customer entrance to enable bankers to see and welcome customers. The two-story glass enclosed lobby provides a dramatic welcoming space for the community. All photographs in 9-12 are by Scott Gilbertson of KKE Photography and the illustrations are by KKE Architects.
Figure 9-12-3 Second Floor Plan

Figure 9-12-4 Exterior View
Figure 9-12-5 Interior view of Waiting Area and two-story Glass Wall
Figure 9.12.6 View of Two-Story Lobby
Colonial Bank has become one of Nevada’s major business and investment institutions that can provide real estate and construction loans to developers and small corporations. The owners wished to create the illusion of a large building, but also to make it sensitive to the environmental impact it would create. The architects approached the challenge by using simple techniques to create a “mirage” in the desert. The resulting design sought to achieve a building that incorporates basic sustainable qualities as well as current technologies while maintaining the visibility and marketability that were desired by its owners.

Located within an existing shopping development, the project site was finally selected after a number of other sites were considered. One strategy was to bring in two feet of additional fill into the site in order to better manage the water run-off and to create additional height for better visibility. Because of sign restrictions, the architects used walls to support the drive-up canopies, and this also helped give an added dimension to the façade of the building.

The design was significantly influenced by the environmental impact of wind, sun, and water. The main entrance is shaded by a large overhang that prevents the direct sun from hitting the southwest building face or the main south façade. Vertical louvers and horizontal planes allow the wall of the lobby to be open while shading the façade. The entry faces south and is set back from the western façade in order to keep the southwestern winds from entering the building.

A vestibule also was planned to prevent the wind from entering the building and to help maintain a consistent inside temperature, thereby also providing energy savings. Another design decision that contributes to sustainability is the use of native plants that require relatively little watering. Where many projects of this type end up with unsightly mechanical equipment in plain view, this project was designed with equipment such as condensing units placed in a partially hidden yard.

One product that is featured very successfully in the building is a skylight called a Solatube. It is designed to bring in natural light without the radiant heat that usually accompanies such devices, thereby significantly helping to reduce energy costs. Although the project was not submitted for LEED certification, it has been found to meet the basic qualifications for such a rating. All photographs and illustrations in 9-13 are by RAFI Architects.
Figure 9.13.1 Aerial View of Bank Model

Figure 9-13-2 Floor Plan
Figure 9.13.3 Building Elevations

Figure 9.13.4 Exterior View toward the Main Entrance
Figure 9.13.5 Interior of Bank Lobby

Figure 9.13.6 Street View Looking Toward Main Entrance
Project 9-14

Wachovia Bank Prototype for Atlanta, Georgia by Gensler Architects

The merger between Wachovia and First Union created an opportunity to develop a new brand image. The architects were given the task of designing three different freestanding bank branch concepts plus a kit of parts for new and existing locations, including those in an urban infill.

The new brand strategy responded to an emerging customer that focused on product driven business development. New products and services included everything from savings accounts to insurance policies. In collaboration with the bank’s in-house design team, the architects fashioned an evolving solution that met the client’s goals.

Flexibility became a required feature, and even though the program requirements continued to change, eventually resulting in the three prototype scales, the basic design remained consistent.

This project example shows the suggested typical site use with a four lane drive-up, the suggested floor plan, and the resulting building design. Several areas of the lobby are dedicated to customer assistance and marketing/brand emphasis opportunities. These are a seated waiting area, a community center, a writing desk, a focus room, and the teller counter and back wall areas.

The interior features a traditional six-station stand-up teller counter and a back area for two drive-up tellers. A teller manager’s office is also provided. The safe deposit vault is directly available from the lobby and behind it are public rest rooms and the employee lounge.

The building lobby is enclosed with glass, and glass bands surround part of the office area and the upper wall area above the tellers and front canopy. Color and texture have been carefully chosen to reflect the brand image and they will be used in all of Wachovia’s other facilities. All images in 9-14 are by David Joseph and the plan illustrations are by Gensler Architects.
Figure 9.14.1 Typical Site Plan  
(Not to scale)  Illustrations by Gensler Architects

Figure 9.14.2 Typical Floor Plan (Not to scale)
Figure 9.14.3 Night View of the Entrance Façade

Figure 9.14.4 Interior View of Lobby
Figure 9.14.5 Interior of Lobby from Seating Area

Figure 9.14.6 Interior View of Community Center
St. Cloud Federal Credit Union, Sartell, Minnesota, by HTG Architects

Saint Cloud Federal Credit Union is in a new two-story building that makes use of the concierge station concept. The new facility features a lobby with two separate concierge stations that have four member positions instead of a conventional teller line. From these stations member service representatives provide many financial services including typical teller transactions. The main entrance vestibule has stair and elevator access to the upper and lower floors and leads directly to the main lobby and a greeter station. The waiting area is situated at the center of the main lobby where customers are encouraged to relax, have a cup of coffee, or use the online connection to the Internet and monitor their own accounts.

There are three member offices, three lending offices, a manager’s office, a flex office and a file room on the first floor that surround the lobby. Behind the concierge area of the lobby are the drive-up tellers, cash work room, and the head teller’s office. A second stair and a unisex toilet are placed at the opposite side of the lobby together with a secondary exit door.

The second floor has additional offices, a large boardroom, the accounting department, and a call center. There are also public restrooms and a break room. The main server is located in a separate room as well. A partial basement provides space for storage, mechanical equipment, and the elevator equipment room.

Among the new technology features in this bank is the use of biometric vault access. A hand scan and password allow members to enter the vault one at a time without being accompanied by an employee. (See Figure 8.58.) Inside this vault, the boxes are single-keyed and members may view the contents in the privacy of the vault itself or in an adjacent coupon booth.

The open floor plan, accompanied by private areas such as the closing rooms, gives members options for fast simple transactions and more private meetings with in-depth discussions. The closing rooms, when used in concert with the concierge stations, create a place for the credit union staff to provide members with information on a variety of products and to complete more complicated transactions. These rooms are sometimes used as “universal” rooms with identical filing systems, so that if one were occupied, another may be used with ease. This concept allows the employees to move about onto the retail floor where they are able to interact with the credit union members face-to-face without the barrier of a teller line or an office wall.

All photographs and illustrations in 9-15 are by HTG Architects.
Figure 9.15.1 Site Plan

Figure 9.15.2 First Floor Plan
Figure 9.15.3 Second Floor Plan

Figure 9.15.4 Exterior with Main Entrance
Figure 9.15.5 Greeter Desk

Figure 9.15.6 Lobby Interior
Figure 9.15.7 Waiting Area
Figure 9.15.8 Concierge Station

Figure 9.15.9 Internet Access Station
There are numerous examples of fast food and other restaurants that have been converted to banks. This project is a successful example of such a conversion, although it is usually very difficult and costly. For a bank the cost is often comparable with, or even more than new construction. Site issues also are difficult, and if there is a drive-up, it is often necessary to have it in the same location as the restaurant’s former “to-go” window. This bank uses the same respective location and it was able to add a second lane for an island ATM. It is a good example of a former restaurant that was converted to a bank, and where there is little resemblance to the fast-food predecessor. The use of new materials, finishes, colors, and some new image-changing wall construction helped to successfully escape the comparison.

The main entrance is very close to the first drive-up lane but it is separated by the walk and curb. The entrance also contains another through-wall ATM for walk-up customers and it is available after hours.

This new retail branch sought to capture the nearby ambiance of Long Beach by the selection of a red tiled roof, white stucco, and structural accents of large wood beams and copper guttering. This also is an example of a successful branch design that has only one private office (for the manager) and a small conference room, but it provides five open-desk locations for other banking officers and assistants.

There are six lobby teller locations (one to accommodate seated customers) and one behind the teller line to serve the drive-up. Teller counters, floors, and a coffee bar are of decorative stone accented by wood trim. A restroom and janitor’s closet are at the back of the building together with a small mezzanine area above for mechanical equipment. All photographs in 9-16 are by Zweibel Photography and plan illustrations are by JRS Architects.
Figure 9.16.1 Site Plan

Illustrations by JRS Architects

Figure 9.16.2 Floor Plan
Figure 9.16.4 Exterior View, Night Scene from Southeast

Figure 9.16.5 Night View from Southwest
Figure 9.16.6 Interior View of Teller Lobby

Figure 9.16.7 Interior View opposite the Teller Line
Project 9-17

Aloha Pacific Credit Union, Honolulu, Hawai‘i, by EHS-Design Architects

This project is in a renovated building in Honolulu that serves as the flagship design and branding image for this credit union. The five-story building is co-owned by the Aloha Pacific Credit Union and another investor. Aloha Pacific (formerly named the City and County Employees Credit Union) renovated the building and occupies the first and second floors as well as the basement. In downtown Honolulu, an automobile drive-up is not possible because of ground costs, but this credit union makes very effective use of remote personal teller machines with greeters and personal service representatives to help direct the members to the appropriate facility location. These customer service representatives are placed near the main entrance to assist members with any financial questions or direct them to an appropriate destination.

The major use of the remote teller machines in this project was a significant change in how the institution was to operate. Whether its members would accept the seemingly impersonal communications with televised tellers was not known. Wallace Watanabe, its president, has suggested that it took about a year for members to become comfortable with the system. The members eventually became accustomed to it, however, and now are at ease in its use. The resulting savings in teller time per transaction has been a great success and other Aloha Pacific branches are using the same machines.

Better security is also a result in having all teller operations on the lower floor in a secure room, away from any robbery threat. Cash recycling machines are also used in concert with the remote teller equipment. A mortgage lending department and additional offices are on the second floor.

A new entrance was designed for the building and a through-wall ATM is positioned nearby. A coffee bar is across from the service desk and the credit union makes very effective use of branding features such as flat screens and advertising displays on all floors. Other features include an elevator, second stair, additional offices, a break room, mechanical equipment rooms, and public restrooms on the ground floor.
Figure 9.17.1 First Floor Plan  The main entrance is to the left.

Figure 9.17.2 Second Floor Plan
Plan Illustrations are courtesy of Aloha Pacific Credit Union

Figure 9.17.3 Basement Floor Plan The remote teller room is at lower right

Photo Courtesy of Aloha Pacific Credit Union

Figure 9.17.4 New Exterior Looking Southwest
Figure 9.17.5 Exterior View at Main Entrance
Figure 9.17.6 Interior of Lobby

Figure 9.17.7 Remote Teller Machines
Figure 9.17.8 Coffee Bar

Figure 9.17.9 Remote Teller Work Room
Project 9-18

Excel Bank, Minneapolis, Minnesota, by BKV Group Architects

Narrative Description

The client, who spent his initial career working in the Mies van der Rohe designed Seagram building, needed a new corporate office space. The impact of his early iconic architectural experience left a lasting impression that shaped his interest in the power of great design. That interest and his love for Mies became a point of discussion. The Seagram Building had aroused a respect for the simplicity of materials, horizontal planes, and precise detailing — all forming space with elegance and originality. The project, a tenth-floor space within an existing thirty-story building, began as a reflectance, and it became a unique spatial interpretation of a classic building.

There were design challenges that the existing building imposed upon the resulting project. Among those were the problems with achieving a spacious effect with low ceiling heights that were further constrained by the existing mechanical systems, the need to create a strong visual impact using a minimal palette of materials, and using the famous Mies designed Seagram Building as the primary design inspiration.

The project goals were established to create a sense of spaciousness even in the limited space constraints, to develop clear exterior views for all staff members, to arrive at excellence in design with a minimum palette of quality materials, to establish client areas that would be focal points within the project space, and to create spacious staff work areas throughout the project.

As a headquarter facility in the downtown urban area of Minneapolis it would not be possible to provide drive-up banking services and the customer base was familiar and comfortable in coming to the bank in-person. The resulting project is remarkably close in design technique to the earlier classic work of Mies van der Rohe, and in this age of post-modern look-alikes, it is a refreshing return to the uncluttered basics of the International Style.

All photographs and illustrations in 9-18 are by BKV Group Architects.
Figure 9.18.1 Floor Plan of Excel Bank, Minneapolis, Minnesota, by BKV Group Architects

Figure 9.18.2 Interior of Lobby
Figure 9.18.4 Interior of Banking Floor
Figure 9.18.6 Interior of Board Room
Great Northern Bank, Minneapolis, Minnesota, by KKE Architects

Great Northern is in a new 21,000 square-foot, two-story building that has been designed for the bank and for lease space on both floors. On a two-acre site, it has been planned for a future 10,000 square foot addition as well. The design goal was to have a building that would recall the historic character of the community in a warm, old-time atmosphere but also to have the latest features in technology.

The main entrance opens to the building lobby that in turn leads to the bank or to the other suites on the first-floor, in addition to a community meeting room. Two sets of stairs, an elevator, and public restrooms are accessible from the main building corridor. A janitor’s closet and a sprinkler service room are off of the main corridor.

The bank lobby is configured with a customer service desk near the entrance, a waiting area surrounding a working fireplace, and the traditional teller counter. The three stand-up tellers are adjacent to the drive-up tellers who operate the five conventional lanes beyond. A lowered portion of the lobby teller counter accommodates handicapped customers. A workroom and the safe deposit vault are to one side of the tellers. An antique gilded vault doorframe has been reused to highlight the vault.

Five private offices, two conference rooms, and a break room are grouped around the bank lobby, and a separate interior stair leads to the second floor of the bank. The bank’s second floor is comprised of office suites placed around an open two-story space that looks down to the bank lobby and tellers. Another conference room and a room for the computer server equipment are also located on the second floor.

The balance of the building’s second floor consists of two separate suites for lease, the two main stairs, elevator, and additional public restrooms. All photographs in 9-19 are by Phillip Prowse Photography.
Figure 9-19-1 Site Plan  Illustrations by KKE Architects

Figure 9.19.2 First Floor Plan  (Area to right is future lease space.) Illustrations by KKE
Figure 9.19.3 Second Floor Plan (Area to right is future lease space) Illustrations by KKE

Figure 9.19.4 Exterior View of Main Entrance Elevation
Figure 9.19.5 View down to Main Lobby from the Second Floor

Figure 9.19.6 Interior View of Waiting Area and Fireplace
Project 9-20

National City Bank Corporate Headquarters (now M&I Bank), Minneapolis, Minnesota, by BKV Group Architects

This major headquarter banking operation involved the relocation of the 250 employee facility to a 94,000 square foot space in Gaviidae Commons in the downtown Minneapolis business district. The five-story upscale office and retail complex is also connected to adjacent office buildings by second and fourth level skywalks.

The 3,500 square foot first floor contains the Nicollet Mall entrance, tellers, security office, educational theatre, and merchandising portal, including interactive kiosks, ATMs, after hours depository, flat screen television monitors, and take-away literature displays.

The 3,500 square foot second floor has a skywalk access, customer transition area, security office, product merchandising area, interactive kiosks, ATMs, and additional flat screen monitors.

The third floor has 17,000 square feet and is devoted to consumer and business banking, risk management and investments. A primary reception area features an overhead video wall. This floor also contains flexible concierge/teller stations, educational theatre, and additional interactive kiosks.

The larger fourth floor with 25,000 square feet, also has a connecting skywalk, and it is devoted to business development, the bank’s mortgage company, safe deposit and cash vault, corporate and business trust department, trust investments, record keeping, loan and deposit operations, marketing, and human resources.

The largest fifth floor with 45,000 square feet provides space for a separate securities corporation, funds management, accounting, audit services, information systems, operations department, compliance library, and a staff dining and lounge. This floor also contains the executive offices, a multimedia presentation room and board rooms.

All of these features comprise the wide range of financial services offered except for motor banking. The resulting plan is a successful answer to the complex grouping of services that are required. All photographs and illustrations in 9-20 are by BKV Group Architects.
Figure 9.20.1 First Floor Plan

Figure 9.20.2 Second Floor Plan

Figure 9.20.2 Third Floor Plan
Figure 9.20.3 Fourth Floor Plan

Figure 9.20.4 Fifth Floor Plan
Figure 9.20.5 Building Exterior

Figure 9.20.6 Main Bank Entrance
Figure 9.20.7 View from Courtyard toward Banking Floors

Figure 9.20.8 Check Desk and Information Display
Figure 9.20.9 Online Banking Kiosks

Figure 9.20.10 Online Kiosk and Remote Teller Machines Beyond
Chapter 10 The Future of Bank Architecture

These pages have described many of the various types of bank buildings and methods of delivering financial services in the United States today. Where will these methods lead us and how will the industry be affected by the changes that we are now seeing and what further changes we anticipate? Today a wide-range of delivery systems is being used in financial institutions, but many banks are still operating with traditional teller lines and conventional drive-up facilities.

Most new branch banks in the suburbs provide for drive-up banking, while most in dense urban areas, where adequate land acquisition is not possible, do not. Many still use the original method of check clearing by retaining and forwarding the actual check until it is cleared and then sent back to its maker, but more institutions are converting to the electronic advantages of Check 21.

More automation has begun to be implemented in branch design and using flat screens is now almost the norm. “We’ll go from more efforts at personalization and perhaps, better coordination of the Internet and ATM channels, and then move to cash recycling and deposit automation,” states Greg Lowell, a Reston Virginia-based senior manager for Accenture.1 The next progression is teller-assisted functionality, and that has evolved to the use of “concierge stations.” (See the description in Chapter 7.)

Many new branches now are using these with the conclusion that more customers or members can be served by fewer employees, resulting in greater profits. The stations also provide for more subtle marketing opportunities. “Imagine brochures (are) being replaced by interactive kiosks that can, in effect, get the customer far more involved in financial planning – these devices can get the customer engaged far more easily than a brochure.” 2

Changes in the drive-up design with face-up and more distant placement of the cars allows for much greater flexibility in the location and site adaptation of the drive-up itself. Numerous nationally based banking interests have developed prototypical project designs that are being constructed throughout the country.

ATMs that have become so prevalent in this country (and the world) have actually declined in average transaction volumes and on a direct basis, are losing money.3 All the while, kiosks have seen increasingly greater use in numerous locations, from airports to supermarkets and large retailers. While banks have been slow to adopt them, more new facilities are successfully using remote teller machines in lobbies and other locations. Some institutions have adapted so completely in that approach that all of their branches are so equipped. (See the example in Chapter 9-17 of the Aloha Pacific Credit Union in Honolulu, Hawai‘i.)

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2 Bielski, 33
3 Bielski, 33.
A concern in the banking industry has been, and continues to be, the prospect of large retailers or discounters entering into banking. Debit cards, low cost check cashing, and money transfers are already among the services offered by these large organizations. Internet lending through groups such as Prosper.com are increasing their market share of borrowers who might not otherwise qualify for a loan. A part of their clientele, however, may come from people who wish to “avoid the government red-tape that comes with banking transactions.”

Prosper has in fact made more than $65 million in loans since its launch in February of 2006. The effect is that banks must try to compete with a much less regulated industry, and as of this writing there are far reaching regulatory changes being considered in Washington as a result of the sub-prime mortgage debacle of recent years. More regulation will not necessarily be a benefit to the industry; nor will it be without a cost to consumers. These questions remain to be answered and those answers will have a direct impact on design and construction. Nonetheless, many lending institutions are now providing Internet stations for their clients with ready assistance in lobbies and elsewhere, and now there are banks that are accessed solely by the Internet, even though some of those were not expected to last.

One instrument beginning to affect banking is the use of a personal cell phone or personal digital assistant (PDA) to conduct personal banking. With a cell phone it is now possible to view and monitor account activities, check balances, receive alerts, and transfer funds between accounts. An early participant in this direction is the United Bank of Michigan, Grand Rapids. This bank determined to stay ahead of the competition and implemented the Fiserv ITI mobile banking solution in October of 2007, and it reports that while customer demand prior to implementation was limited, the demand has steadily increased and virtually every new customer now chooses the service.

Another much larger bank to enter this market is Wachovia that launched its initiative called “On the Go Banking.” Since it rolled out the new program last September (2007) Wachovia has had an average of 9,000 sessions per day by users of Windows Mobile and RIM devices. In peak periods the demand is much greater, and during December, holiday shoppers logged on to Wachovia’s banking site for as many as 12,000 sessions daily. It is interesting to note that while Wachovia is rapidly integrating this mobile banking feature, it is also building many new prototypical branches throughout the United States.

Other institutions have decided to limit their customer base to only those with high net-worth holdings. A prediction by one prominent banker is that the banks of the future will be limited to those Internet operations that accept the public, or to those that accept high net-worth customers exclusively.

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The examples of featured projects include small branch banks with very limited physical facilities, large headquarter banks, and many of variously sized facilities in between. There are some that offer all of these operational delivery methods in a single large building, while many have numerous branches as well.

The prediction that the United States will become a “cash-less and paper-less” society has not yet occurred and some banking experts believe it will be many years before it will, if ever. It is this writer’s belief that there will be a continuation of offering financial services based in new buildings that are constantly being up-graded in the use of new technology and customer-friendly features, and that exhibit memorable brand connections for their owners, even as many personal banking needs are increasingly being met with the use of cell phones and PDAs.
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The Federal Reserve Bank

National Farmers Bank

Merchants National Bank

National Credit Union Administration
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Comptroller of the Currency Responsibilities

The 12 Federal Reserve Districts

Commercial Banks

Bank Holding Companies

Office of Thrift Supervision

National Association of Federal Credit Union Administrations
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EHS Design
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Microsoft Surface Computer

Second Life

Check Clearing

Federal Reserve, “The life of a Check”

Federal Reserve, Payments System

HTG Architects
Comco Systems Inc.
http://www.comcosystems.com From Comco Systems Website (12 Dec. 2007)

Bank of the Internet

The Private Bank

Sustainable Design Forum, 2006-2008

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“A Native American Proverb” from Sustainable Design Forum. 2006-2008

Carlton, Jim. “Citigroup Tries Banking on the Natural Kind of Green,”
Appendix A Federal Bank Regulators

Board of Governors of the Federal Reserve System
20th Street and Constitution Avenue, NW
Washington, DC 20551
(202) 452-3000

<table>
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<th>Federal Reserve Banks</th>
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<tr>
<td><strong>Boston</strong></td>
<td><strong>Chicago</strong></td>
</tr>
<tr>
<td>600 Atlantic Avenue</td>
<td>230 South LaSalle Street</td>
</tr>
<tr>
<td>Boston, MA 02205</td>
<td>Chicago, IL 60604</td>
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<tr>
<td>(617) 973-3000</td>
<td>(312) 322-5322</td>
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<tr>
<td><strong>New York</strong></td>
<td><strong>St. Louis</strong></td>
</tr>
<tr>
<td>33 Liberty Street</td>
<td>One Federal Reserve Bank Plaza</td>
</tr>
<tr>
<td>New York, NY 10045</td>
<td>Broadway and Locust Streets</td>
</tr>
<tr>
<td>(212) 720-5000</td>
<td>St. Louis, MO 63102</td>
</tr>
<tr>
<td><strong>Philadelphia</strong></td>
<td><strong>Minneapolis</strong></td>
</tr>
<tr>
<td>Ten Independence Mall</td>
<td>90 Hennepin Avenue</td>
</tr>
<tr>
<td>Philadelphia, PA 19106</td>
<td>Minneapolis, MN 55401</td>
</tr>
<tr>
<td>(215) 574-6000</td>
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<td><strong>Cleveland</strong></td>
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</tr>
<tr>
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<td>Cleveland, OH 44114</td>
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<tr>
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<td><strong>Richmond</strong></td>
<td><strong>Dallas</strong></td>
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<tr>
<td>701 East Byrd Street</td>
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<tr>
<td>Richmond, VA 23219</td>
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<tr>
<td>1000 Peachtree Street NE</td>
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Federal Reserve Branch Locations

1 From [http://www.federalreserve.gov/address.htm](http://www.federalreserve.gov/address.htm) (13 Apr. 2008)
New York

Buffalo
Key Center, 40 Fountain Plaza, Suite 650, Buffalo, NY 14202
P.O. Box 961, Buffalo, NY 14240-0961
(716) 849-5000

Cleveland

Cincinnati
150 East Fourth Street, Cincinnati, OH 45202
P.O. Box 999, Cincinnati, OH 45201-0999
(513) 721-4787

Pittsburgh
717 Grant Street, Pittsburgh, PA 15219
P.O. Box 299, Pittsburgh, PA 15230
(412) 261-7800

Richmond

Baltimore
502 South Sharp Street, Baltimore, MD 21201
P.O. Box 1378, Baltimore, MD 21203
(410) 576-3300

Charlotte
530 Trade Street, Charlotte, NC 28202
P.O. Box 30249, Charlotte, NC 28230
(704) 358-2100

Atlanta

Birmingham
524 Liberty Parkway, Birmingham, AL 35242
(205) 968-6700

Jacksonville
800 Water Street, Jacksonville, FL 32204
P.O. Box 929, Jacksonville, FL 32231-0044
(904) 632-1000

Miami
9100 Northwest 36th Street, Miami, FL 33178
P.O. Box 520847, Miami, FL 33152-0847
(305) 591-2065

Minneapolis

Helena
100 Neill Avenue, Helena, MT 59601
(406) 447-3800

Kansas City

Denver
1020 16th Street, Denver, CO 80202
Terminal Annex-P.O. Box 5228, Denver, CO 80217-5228
(303) 972-2300

Oklahoma City
226 Dean A. McGee Avenue, Oklahoma City, OK 73102
P.O. Box 25129, Oklahoma City, OK 73125
(405) 270-8400

Omaha
2201 Farnam Street, Omaha, NE 68102
P.O. Box 3958, Omaha, NE 68103
(402) 221-5500

Dallas

El Paso
301 East Main Street, El Paso, TX 79901
P.O. Box 100, El Paso, TX 79999
(915) 544-4730

Houston
1801 Allen Parkway, Houston, TX 77019
P.O. Box 2578, Houston, TX 77252-2578
(713) 659-4433

San Antonio
126 East Nueva Street, San Antonio, TX 78204
P.O. Box 1471, San Antonio, TX 78293-1471
(210) 224-2141

San Francisco

Los Angeles
950 South Grand Avenue, Los Angeles, CA 90015
Terminal Annex-P.O. Box 2077, Los Angeles, CA 90051
(213) 683-2300

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2 Ibid
Nashville
301 Rosa L. Parks Blvd., Nashville, Tennessee 37203-4407
P.O. Box 4407, Nashville, TN 37203-4407
(615) 251-7100

New Orleans
525 St. Charles Avenue, New Orleans, LA 70130
P.O. Box 61630, New Orleans, LA 70161-1630
(504) 593-3200

Chicago

Detroit
1600 East Warren Avenue, Detroit, MI 48207-1063
P.O. Box 1059, Detroit, MI 48231
(313) 961-6880

St. Louis

Little Rock
Stephens Building, 111 Center Street, Suite 1000, Little Rock, AR 72201
P.O. Box 1261, Little Rock, AR 72203-1261
(501) 324-8300

Louisville
National City Tower, 101 South Fifth Street, Louisville, KY 40202
P.O. Box 32710, Louisville, KY 40232-2710
(502) 568-9200

Memphis
200 North Main Street, Memphis, TN 38103
P.O. Box 407, Memphis, TN 38101-0407
(901) 523-7171

Portland
1500 SW First Avenue, Portland, OR 97201
P.O. Box 3436, Portland, OR 97208
(503) 276-3000

Salt Lake City
120 South State Street, Salt Lake City, UT 84111
P.O. Box 30780, Salt Lake City, UT 84125
(801) 322-7900

Seattle
2700 Naches Avenue SW, Renton, WA 98057
P.O. Box 3567, Seattle, WA 98124
(425) 203-0800
Appendix B State Banking Associations

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<td>Mass.</td>
<td><a href="http://www.massbankers.org">www.massbankers.org</a></td>
</tr>
<tr>
<td>Michigan</td>
<td><a href="http://www.mibankers.com">www.mibankers.com</a></td>
</tr>
<tr>
<td>Minnesota</td>
<td><a href="http://www.minnbankers.com">www.minnbankers.com</a></td>
</tr>
<tr>
<td>Mississippi</td>
<td><a href="http://www.msbankers.com">www.msbankers.com</a></td>
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<tr>
<td>Missouri</td>
<td><a href="http://www.mobankers.com">www.mobankers.com</a></td>
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<tr>
<td>Montana</td>
<td><a href="http://www.montanabankers.com">www.montanabankers.com</a></td>
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<tr>
<td>Nebraska</td>
<td><a href="http://www.nebankers.org">www.nebankers.org</a></td>
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<tr>
<td>Nevada</td>
<td><a href="http://www.nvbankers.org">www.nvbankers.org</a></td>
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<tr>
<td>New Hampshire</td>
<td><a href="http://www.nhbankers.com">www.nhbankers.com</a></td>
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<tr>
<td>New Jersey</td>
<td><a href="http://www.njbankers.com">www.njbankers.com</a></td>
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<tr>
<td>New Mexico</td>
<td><a href="http://www.nmbankers.com">www.nmbankers.com</a></td>
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<tr>
<td>New York</td>
<td><a href="http://www.nyba.com">www.nyba.com</a></td>
</tr>
<tr>
<td>North Carolina</td>
<td><a href="http://www.ncba.com">www.ncba.com</a></td>
</tr>
<tr>
<td>North Dakota</td>
<td><a href="http://www.ndba.com">www.ndba.com</a></td>
</tr>
<tr>
<td>Ohio</td>
<td><a href="http://www.ohiobankersleague.com">www.ohiobankersleague.com</a></td>
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<tr>
<td>Oklahoma</td>
<td><a href="http://www.oba.com">www.oba.com</a></td>
</tr>
<tr>
<td>Oregon</td>
<td><a href="http://www.oregonbankers.com">www.oregonbankers.com</a></td>
</tr>
<tr>
<td>Penn</td>
<td><a href="http://www.pabanker.com">www.pabanker.com</a></td>
</tr>
<tr>
<td>Puerto Rico</td>
<td><a href="http://www.abpr.com">www.abpr.com</a></td>
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<tr>
<td>South Carolina</td>
<td><a href="http://www.scbankers.org">www.scbankers.org</a></td>
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<tr>
<td>South Dakota</td>
<td><a href="http://www.sdba.com">www.sdba.com</a></td>
</tr>
<tr>
<td>Tennessee</td>
<td><a href="http://www.tnbankers.org">www.tnbankers.org</a></td>
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<tr>
<td>Texas</td>
<td><a href="http://www.texasbankers.com">www.texasbankers.com</a></td>
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<tr>
<td>Utah</td>
<td><a href="http://www.uba.org">www.uba.org</a></td>
</tr>
<tr>
<td>Vermont</td>
<td><a href="http://www.vtbanker.com">www.vtbanker.com</a></td>
</tr>
<tr>
<td>Virginia</td>
<td><a href="http://www.vabankers.org">www.vabankers.org</a></td>
</tr>
<tr>
<td>Washington</td>
<td><a href="http://www.wabankers.com">www.wabankers.com</a></td>
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West Virginia  www.wvbankers.org
Wisconsin  www.wisbank.com
Wyoming  www.wyomingbankers.com
US V.I.  www.vibankers.com

For these states call:
Alaska  (907) 777-3011
Hawaii  (808) 524-5161
Idaho  (208) 342-8282
Rhode Island  (401) 276-2637
Appendix C BANK EQUIPMENT MANUFACTURERS

**Airtube Systems**
5322 Rafe Banks Drive, Ste B
Flowery Branch, GA 30342
800 231-4156 T
770 965-8456 F
[www.aerocom.de](http://www.aerocom.de)

**American Vault Co.**
7500 Mars Drive
Waco TX 76712
254 776-0100
[www.americanvault.us](http://www.americanvault.us)

**Comco Systems Inc.**
306 W. Overly Dr.
Lake Dallas, TX 75065
800 533-3794 T
940 498-9937
[www.comcosystems.com](http://www.comcosystems.com)

**Diebold Inc.**
818 Mulbury Rd. SE
PO Box 8230
Canton, OH 44707-3256
800-999-3600 T
[www.diebold.com](http://www.diebold.com)

**Empire Safe Co.**
6 E. 39th St
New York, NY 10016
800 543-5412 T
212 684-2255
[www.empiresafe.com](http://www.empiresafe.com)

**Fenco Inc.**
4422 Route 130 South
PO Box 1238
Burlington, NJ 08016-1238
1 800-486-8484 T
609 387-0803 F
[www.fencobankequipment.com](http://www.fencobankequipment.com)

**Diebold Inc.**

- Remote Teller Systems
- Vault Systems
- Night Deposits
- Windows and Deal Drawers
- Security Systems

**Empire Safe Co.**

- Safe Deposit Boxes
- Teller Lockers
- Under-Counter Equipment
- Prefab Vaults and Vault Doors
- Drive-up Windows

**Fenco Inc.**

- Modular Counters
- Under-Counter Pedestals
- Vault and Safe Interiors
<table>
<thead>
<tr>
<th>Company Name</th>
<th>Services</th>
</tr>
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<tbody>
<tr>
<td><strong>Hamilton Safe Co.</strong></td>
<td>Vaults and Vault Doors&lt;br&gt;Drive-up systems and tubes&lt;br&gt;SD Boxes&lt;br&gt;Lockers and Chests&lt;br&gt;Night Deposits&lt;br&gt;Security Systems&lt;br&gt;Entrance Control Systems</td>
</tr>
<tr>
<td>3143 Production Drive Fairfield, OH 45014</td>
<td></td>
</tr>
<tr>
<td>513 874-3733 T</td>
<td></td>
</tr>
<tr>
<td>513 874-3967 F</td>
<td></td>
</tr>
<tr>
<td>1 800-876-6066 Toll Free</td>
<td></td>
</tr>
<tr>
<td><a href="http://www.hamiltonsafe.com">www.hamiltonsafe.com</a></td>
<td></td>
</tr>
<tr>
<td><strong>C. R. Laurence Co.</strong></td>
<td>Bullet Resistant Windows and Hardware</td>
</tr>
<tr>
<td><a href="http://www.crlaurence.com">www.crlaurence.com</a></td>
<td></td>
</tr>
<tr>
<td><strong>National Burgler and Fire Alarm Assn.</strong></td>
<td>Represents Alarm System Industry</td>
</tr>
<tr>
<td>2300 Valley View Lane. #230 Irving TX, 75062</td>
<td></td>
</tr>
<tr>
<td>888-447-1689 Toll Free</td>
<td></td>
</tr>
<tr>
<td><a href="http://www.alarm.org">www.alarm.org</a></td>
<td></td>
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<tr>
<td><strong>Safeguard Security Services Ltd.</strong></td>
<td>Bullet Resistant Windows and Doors&lt;br&gt;Transaction Drawers&lt;br&gt;Package Receivers</td>
</tr>
<tr>
<td>5926 Corridor Pkwy Schertz TX 78154</td>
<td></td>
</tr>
<tr>
<td>210 661-8306 V</td>
<td></td>
</tr>
<tr>
<td>210 661-8303 F</td>
<td></td>
</tr>
<tr>
<td>1 800 880-8306</td>
<td></td>
</tr>
<tr>
<td><a href="http://www.armortex.com">www.armortex.com</a> and <a href="http://www.frag-stop.com">www.frag-stop.com</a></td>
<td></td>
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<tr>
<td><strong>NCR Co.</strong></td>
<td>ATMs&lt;br&gt;Self-service Terminals</td>
</tr>
<tr>
<td>1700 S. Patterson Blvd. Dayton, OH 45479</td>
<td></td>
</tr>
<tr>
<td>1-800-225-5627 Toll Free</td>
<td></td>
</tr>
<tr>
<td>1-937-445-1936 (outside USA)</td>
<td></td>
</tr>
<tr>
<td><a href="http://www.ncr.com">www.ncr.com</a></td>
<td></td>
</tr>
<tr>
<td><strong>Vault Structures Inc.</strong></td>
<td>Drive-up Systems and Tubes&lt;br&gt;Vaults&lt;br&gt;Safes and Lockers&lt;br&gt;Night Deposits&lt;br&gt;S.D. Boxes&lt;br&gt;Lockers&lt;br&gt;Windows and Drawers</td>
</tr>
<tr>
<td>3640 Work Drive Fort Myers, FL 33916</td>
<td></td>
</tr>
<tr>
<td>239 332-3270 V</td>
<td></td>
</tr>
<tr>
<td>239 332-5593 F</td>
<td></td>
</tr>
<tr>
<td>800 226-3990 Toll Free</td>
<td></td>
</tr>
<tr>
<td><a href="http://www.vaultstructures.com">www.vaultstructures.com</a></td>
<td></td>
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</tbody>
</table>
Williamson Safe Co.
5631 State Rte. 73
Hillsboro, OH 45133
937 393-9919 T
937 393-9586 F
www.wsco.net

Safes and Lockers

Wilson Safe Co.
3031 Island Ave.
Philadelphia, PA 19142
800 345-8053 Toll Free
www.wilsonsafe.com

Under-counter Equipment
Safes
Cash Deposit Safes
## Appendix D Financial Website Reference Links

<table>
<thead>
<tr>
<th>Organization</th>
<th>Website</th>
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<tr>
<td>American Banking Association</td>
<td><a href="http://www.aba.com">www.aba.com</a></td>
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<tr>
<td>American Community Bankers</td>
<td><a href="http://www.acbankers.org">www.acbankers.org</a></td>
</tr>
<tr>
<td>American Society for Industrial Security</td>
<td><a href="http://www.asisonline.org">www.asisonline.org</a></td>
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<tr>
<td>American Stock Exchange</td>
<td><a href="http://www.amex.com">www.amex.com</a></td>
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<tr>
<td>Bank Admin. Institute</td>
<td><a href="http://www.bai.org">www.bai.org</a></td>
</tr>
<tr>
<td>Bank Marketing Assn</td>
<td><a href="http://www.bmanet.org">www.bmanet.org</a></td>
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<tr>
<td>Banker's Round Table</td>
<td><a href="http://www.bankersround.org">www.bankersround.org</a></td>
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<tr>
<td>BITS (Financial Services Round Table)</td>
<td><a href="http://www.bitsinfo.org">www.bitsinfo.org</a></td>
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<tr>
<td>Bond Market Assn.</td>
<td><a href="http://www.bondmarkets.com">www.bondmarkets.com</a></td>
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<tr>
<td>Conference of State Bank Supervisors</td>
<td><a href="http://www.csbs.org">www.csbs.org</a></td>
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<tr>
<td>Consumer Bankers Assn</td>
<td><a href="http://www.cbanet.org">www.cbanet.org</a></td>
</tr>
<tr>
<td>Credit Union National Assn</td>
<td><a href="http://www.cuna.org">www.cuna.org</a></td>
</tr>
<tr>
<td>Export-Import Bank</td>
<td><a href="http://www.exim.gov">www.exim.gov</a></td>
</tr>
<tr>
<td>Electronic Funds Transfer Organization</td>
<td><a href="http://www.efta.org">www.efta.org</a></td>
</tr>
<tr>
<td>FSISAC</td>
<td><a href="http://www.fsisac.com">www.fsisac.com</a></td>
</tr>
<tr>
<td>Federal Home Loan Bank</td>
<td><a href="http://www.fhlbanks.com">www.fhlbanks.com</a></td>
</tr>
<tr>
<td>Federal Reserve Bank, Washington, DC</td>
<td><a href="http://www.federalreserve.gov">www.federalreserve.gov</a></td>
</tr>
<tr>
<td>Federal Reserve of Kansas City, MO</td>
<td><a href="http://www.kc.frb.org">www.kc.frb.org</a></td>
</tr>
<tr>
<td>Federal Deposit Insurance Corporation</td>
<td><a href="http://www.fdic.gov">www.fdic.gov</a></td>
</tr>
<tr>
<td>FSBA Small Business Administration</td>
<td><a href="http://www.fsba.net">www.fsba.net</a></td>
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<tr>
<td>Graduate School of Banking, CO.</td>
<td><a href="http://www.gsbcolorado.org">www.gsbcolorado.org</a></td>
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<tr>
<td>Graduate School of Banking at LSU</td>
<td><a href="http://www.gsblsu.org">www.gsblsu.org</a></td>
</tr>
<tr>
<td>Graduate School of Banking at Wisconsin Univ.</td>
<td><a href="http://www.gsb.org">www.gsb.org</a></td>
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<tr>
<td>FBICC (Federal Bank Info. Infrastructure Committee)</td>
<td><a href="http://www.fbiic.gov">www.fbiic.gov</a></td>
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<tr>
<td>FIFIEC (Fed Financial Institution Exam Council)</td>
<td><a href="http://www.ffiec.gov">www.ffiec.gov</a></td>
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<tr>
<td>Futures Industrial Assn.</td>
<td><a href="http://www.futuresindustry.org">www.futuresindustry.org</a></td>
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<tr>
<td>Investment Bankers Association</td>
<td><a href="http://www.investmentbankersassociation.org">www.investmentbankersassociation.org</a></td>
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<tr>
<td>Investment Co. Institute</td>
<td><a href="http://www.ici.org">www.ici.org</a></td>
</tr>
<tr>
<td>International Trade Administration</td>
<td><a href="http://www.trade.gov">www.trade.gov</a></td>
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<td>Mortgage Bankers Association</td>
<td><a href="http://www.mortgagebankers.org">www.mortgagebankers.org</a></td>
</tr>
<tr>
<td>NASDAQ</td>
<td><a href="http://www.nasdaq.com">www.nasdaq.com</a></td>
</tr>
<tr>
<td>National Assn. Of Federal Credit Unions</td>
<td><a href="http://www.nafcu.org">www.nafcu.org</a></td>
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<tr>
<td>National Automated Clearinghouse Assn</td>
<td><a href="http://www.nacha.org">www.nacha.org</a></td>
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<td>NBFAA (Alarm Assn.)</td>
<td><a href="http://www.alarm.org">www.alarm.org</a></td>
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<tr>
<td>National Investment Bankers Association</td>
<td><a href="http://www.nibanet.org">www.nibanet.org</a></td>
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<tr>
<td>OTS (Office of Thrift Supervision)</td>
<td><a href="http://www.ots.gov">www.ots.gov</a></td>
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<tr>
<td>FMS (Financial Management Services)</td>
<td><a href="http://www.ustreasgov">www.ustreasgov</a></td>
</tr>
<tr>
<td>US Treasury</td>
<td><a href="http://www.ustreasgov">www.ustreasgov</a></td>
</tr>
<tr>
<td>NCUA (National Credit Union Admin)</td>
<td><a href="http://www.ncua.gov">www.ncua.gov</a></td>
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<tr>
<td>New York Clearing House</td>
<td><a href="http://www.nyche.org">www.nyche.org</a></td>
</tr>
<tr>
<td>New York Stock Exchange</td>
<td><a href="http://www.nyse.com">www.nyse.com</a></td>
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</table>
Risk Management Assn.  www.rmahq.org
Small Business Admin.  www.sba.gov
UK Financial Sector Cont.  www.fsc.gov.uk
US Government website  www.usa.gov
Committee on Global Finance System (CGFS)  www.bis.org/cgfs