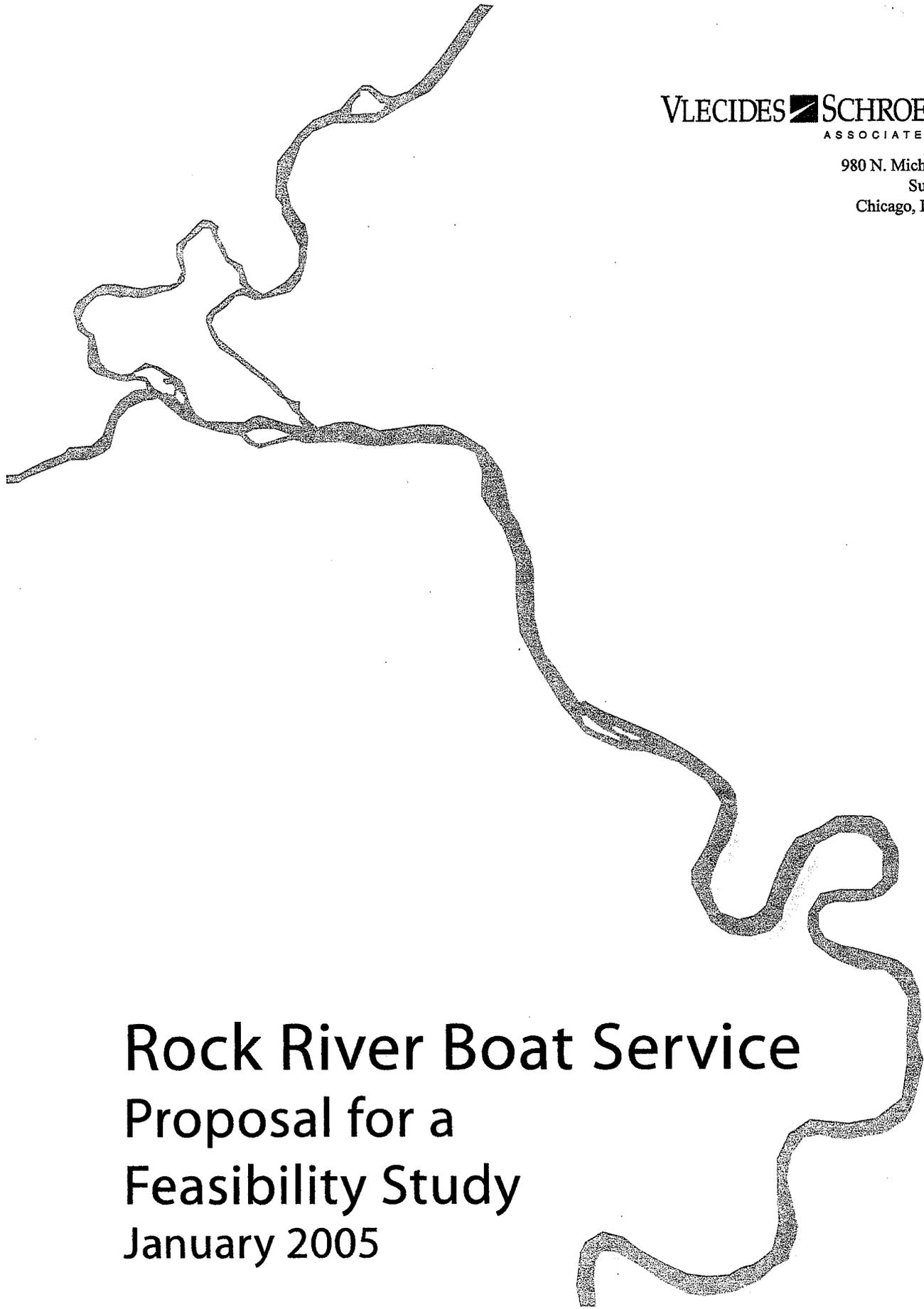


VLECIDES  SCHROEDER
ASSOCIATES, INC.

980 N. Michigan Av.
Suite 1277
Chicago, IL 60611



**Rock River Boat Service
Proposal for a
Feasibility Study
January 2005**

January 25, 2005

The Honorable Dale Adams
President, Village of Rockton
110 E. Main Street
Rockton, IL

Re: Proposal to Evaluate the Feasibility of Boat Service on the Rock River

Dear Mayor Adams:

VleCIDES-Schroeder Associates, Inc., in association with Hanson Engineering, is pleased to submit this proposal to examine the feasibility of establishing public boat service on the Rock River between Rockton and Rockford.

Recognizing that costs are always a serious concern, we have structured this analysis in such a manner that, if a "fatal flaw" becomes apparent at any time, we can cease work at the end of any task. There are three major steps to this evaluation as follows:

- The first involves assessing the navigation conditions on the river. If we find that navigation conditions make it impractical to operate scheduled boat service, our work would conclude. If, however, it appears that operating a river service is feasible, we would proceed to the next phase of work.
- In part two we would develop plans and budgets for physical improvements, operations, and equipment. Participating communities and civic entities would review phase two findings to assure that there is consensus for proceeding to the last step.
- The last step would include tasks leading to service implementation including:
 - Developing a plan for managing the service and supporting it financially
 - Identifying potential sources of federal and state funding
 - Identifying federal and state regulatory requirements and establishing procedures for complying with them
 - Preparing an implementation guide, and
 - Developing a presentation that can be used to inform the public about the initiative

At key intervals, we will document our work, as well as our conclusions and recommendations, present results to our client, and secure consent for progressing to the next series of tasks.

Honorable Dale Adams

page 2

For this project, we have assembled a small, highly qualified team. Joanne Schroeder of Vlecides-Schroeder Associates, Inc. will serve as project manager, actively participating in coordinating and executing the assignment. Ms. Schroeder is experienced in all aspects of transportation system development, from developing public policy to system planning, funding and management. Over the last two years, through her active engagement in projects in the Rock River corridor, she has become familiar with corridor's communities and with many of the area's leaders. Joining Vlecides-Schroeder in this initiative is Hanson Professional Services Inc., an Illinois firm, with offices in Rockford. Hanson is experienced in hydrographic surveys of the inland waterway system, and will be responsible for surveying and determining the navigability of the Rock River.

Collectively, the two firms are experienced in working with the state and federal Departments of Transportation, Illinois Department of Natural Resources, Illinois Department of Commerce and Economic Opportunity, the Army Corps of Engineers, and the Coast Guard, all of which may have funding or regulatory responsibilities in implementing passenger boat service on the Rock River.

We appreciate the opportunity to present this proposal, and look forward to the prospect of working with you in this exciting initiative. Should you have any questions, please call me.

Sincerely,

Joanne V. Schroeder
President

Approach to the Assignment
(Scope)

ROCK RIVER BOAT SERVICE – PROPOSAL FOR A FEASIBILITY STUDY

BACKGROUND AND PROJECT UNDERSTANDING

Winnebago County leaders have expressed interest in establishing a boat service to operate on the Rock River between Rockford and Rockton. The service would run between the late spring and early fall seasons each year, and would target two different markets:

- Commuter water taxi (during morning/afternoon peak hours)
- Tourism and recreation (during midday and weekend hours)

In establishing a boat service, two objectives would be addressed: one is to serve traditional commuting requirements with a non-traditional transport mode. The other is to capitalize on the area's facilities and natural attractions both to draw tourists to the area, and to keep them in Winnebago County for extended stays. Benefits to the communities would potentially accrue through increasing hotel occupancy rates, increasing patronage to area restaurants and retail establishments, and increasing attendance for museums and other cultural attractions.

The Rock River connects the communities in the corridor from Rockford to Rockton. Boat service on the river could serve as a public transportation option for commuters during the warm weather months. In addition, there are numerous historical and recreational attractions along this segment of the Rock River that are of interest to visitors to the area. There is also some consideration to organizing educational "eco-tours" of the river and its surroundings, using docents from the Burpee Museum of Natural History.

Rockton, the home of Winnebago County's first permanent settler, Stephen Mack, Jr., is at the northern boundary and it is the site of the area's earliest settlement, Pecatonic (now preserved as the Macktown Settlement). This historic site is located on the river, which was undoubtedly important to its viability as a trading post. Rockton also has the largest collection of Greek revival homes in Illinois and a traditional Main Street where the early character of the community has been preserved. The riverfront in Rockford would serve as the southern service boundary. Three important Rockford museums are located on the river including the Burpee Museum of Natural History. This museum is in the midst of a major project to add space for the installation of a large permanent dinosaur exhibit, featuring Jane, a member of the tyrannosaur family. Between these two service boundaries are the communities of Roscoe, Machesney Park and Loves Park.

PROJECT PURPOSE

The purpose of this project is to examine the feasibility of establishing boat service within the area bounded by the Rockford and Rockton dams, so it will not be necessary for the service to operate through locks and dams. If the navigation on the Rock River proves feasible, we would then proceed to the next steps, which include:

- Identifying locations for docks and related facilities
- Developing a prototype concept plan for a dock and the area surrounding it
- Identifying suitable boat(s)
- Developing capital and operating cost budgets
- Addressing management structure and financing for the service
- Identifying federal and state funding sources, and
- Identifying and federal and state regulatory requirements and establishing procedures for complying with them
- Preparing an implementation guide, and
- Developing a public presentation that can be used to inform the community and assure support for the initiative

If the client decides to proceed to implementation, subsequent tasks the client must address entail securing grants and regulatory approvals, procuring the boat or boats, building the docks and related facilities, and contracting with an operator or hiring staff to operate the service.

This proposal is organized so that work can cease upon the completion of any task, should any fatal flaws appear that would project make the project infeasible.

SCOPE OF WORK

Phase 1. Assess Navigation Conditions on the Rock River
Hanson Professional Services will lead this task.

Task 1.a. Chart the Streambed

Hanson, a firm that is experienced in hydrographic surveying, will provide a boat and crew to establish a streambed profile of the Rock River. This process will determine approximate channel depth on either side of the main channel from downtown Rockford to Rockton, providing information on water depth and configuration of the channel. In order to provide information on a wide range of conditions and to document variations, Hanson will survey the channel two times, once each in the spring and summer seasons.

Task 1.b. Review Historical Records and Develop a Report Assessing Navigational Viability

Hanson will review historical records, data and hydrographs in order to evaluate historic and annual variances that might affect navigation of the Rock River. At the conclusion of this review, Hanson will develop a report that assesses the river's viability for navigation between Rockford and Rockton. If it is suitable for navigation, the report will:

- Identify areas, if any, that the hydrographic survey determined will require improvements and/or dredging, and
- Identify types of boats that may be suitable for cruising this particular segment of the river

After the spring survey, preliminary findings will be presented to the client. If the results indicate probable navigational feasibility, and the client concurs, we will proceed to Phase 2 in order to keep the project on a reasonable schedule. Findings will again be reviewed with the client at the conclusion of Task 1 to confirm feasibility.

Phase 2. Develop Plans And Budgets For Physical Improvements, Operations, and Equipment
Vlecides-Schroeder Associates, Inc. will lead this task.

Task 2.a. Identify Suitable Locations For Docks and Related Facilities

First, we will conduct a site survey to identify viable sites for docking facilities in each participating community. Next, we will meet with each community's leaders to gain their insights as to suitable and preferred dock locations. Subsequently, we will review any municipal land-use plans to confirm that the preferred sites are compatible with the plans and other criteria, namely that:

- They are in the best location to enhance town development and economic development opportunities, and
- They are not disruptive to the area's ecology and natural environment

Finally, Hanson will review the recommended sites to assure that there are no apparent fatal flaws in the site selection.

Task 2.b. Develop a Prototype Concept Plan for Docks and Related Facilities

Consulting with the client, we will select one of the recommended dock sites for development of a prototype concept plan for a dock and related facilities. All facilities would be fully accessible to persons with disabilities, and would include, at a minimum, the docks, accommodations for selling tickets, a comfort station (restrooms), a passenger waiting area, parking and bicycle storage. Other desirable amenities at or near the dock

could include a bike rental and repair shop, canoe rentals, food services (restaurant and snack bar), and lodging. Our in-house architect is experienced in planning for waterfront development, and will be responsible for this task.

This prototype plan will serve as the basis for an initial review by the US Army Corps of Engineers and other regulatory agencies, such as Illinois' Department of Natural Resources (IDNR) and Environmental Protection Agency (IEPA), which have jurisdiction over facilities built on the inland waterways. As part of the process, we will allow for two sets of plan revisions to address comments from the regulatory agencies.

The prototype plan will also be the basis for identifying the cost of developing docks and facilities.

Task 2.c. Select a Boat

Based on Hanson's Task 1 recommendations, and criteria developed in concert with the client, we will determine the type or types of boat(s) appropriate to the project's objectives and assess the market for availability of such a vessel. We will:

- Survey the market to identify any suitable existing boats that will meet all US Coast Guard requirements, determine their cost and condition (Typically, condition of a boat is determined by a surveyor.)
- If no appropriate "used" boats are available, or if the available boats are not determined to be good values, we would then proceed to assess the merits of acquiring a new vessel
 - Assess current "off the shelf" boats for suitability
 - If no suitable boats are in production, we will address the merits and potential costs of designing and procuring a boat(s) or developing a specification and asking the manufacturers to respond

We will coordinate vessel selection with the US Coast Guard, which must review all vessel plans and specifications, assuring that the vessel complies with all applicable safety standards.

Finally, we will develop cost estimates for the boats.

Task 2.d. Develop Order-of-Magnitude Operating Cost Estimates

Working with the client and Hanson, we will develop a reasonable set of assumptions and use them to prepare an estimated operating cost budget. Items that would be addressed in the assumptions, for example, are: number of boats in operation; crew requirements; operating hours; fuel requirements; boat maintenance requirements; and support staff requirements for administration, ticketing, cleaning and maintaining the ancillary facilities. Contracting out these functions with a private or public operator is an option to

be considered, and may offer many attractive advantages. Nevertheless, it is necessary to understand the magnitude of operating costs in considering project feasibility.

Task 2.e. Develop Projected Capital and Operating Cost Budgets

We will assemble the results of Tasks 2.b., 2.c., and 2.d., as well as any possible costs of dredging resulting from Task 1., and develop capital and operating budget projections, both for optimum build-out and services levels, and for phased implementation.

Task 2.f. Prepare Phase 2 Report

We will prepare a report that compiles the results of all Phase 2 tasks, and present findings to the client. If the client continues to be committed to establishing boat service on the Rock River, we will progress to the third and final phase of the feasibility project.

Phase 3. Developing a Framework for Implementation

Vlecides-Schroeder Associates, Inc. will lead this task.

Task 3.a. Address a Local Structure for Managing and Financing the Service

A range of options is available to the communities that will participate in sponsoring this project, varying from simply developing intergovernmental agreements to establishing a special purpose district, which would require state authorizing legislation. We will review the options, as well as the corresponding revenue-generating capabilities for each alternative, and present the results to the client. Ability to generate local funding is an important component of this task as financial participation is necessary to support both capital and operating costs.

Task 3.b. Identify Federal and State Funding Sources

We will identify the several possible sources of funding for the project, and the specifics pertaining to their potential support. The specifics will address the items that are eligible for funding, amounts or percentages that may be available, and degree of required local participation. The funding agencies include: the US Department of Transportation through its "ferry fund;" Illinois Department of Transportation, Division of Public Transit; Illinois Department of Commerce and Economic Opportunity for ancillary facilities; and Illinois Department of Natural Resources for waterway enhancements or in-kind contributions.

Task 3.c. Identify Federal and State Regulatory Requirements and Establish Compliance Procedures

Each of the regulatory agencies has requirements that affect this project. For example, as noted earlier, the US Coast Guard (USCG) must approve the vessel. USCG also tests the crew before it is approved to operate a boat. The Army Corps of Engineers has regulatory authority over docking facilities and sea walls, as well as dredging, for which

it is required to issue a permit. The Corps cooperates with both the Illinois Department of Natural Resources and the Illinois Environmental Protection Agency, all of which have jurisdiction in some aspects of inland waterways and related facilities. In fact, these three agencies have developed a joint permitting process.

Together with Hanson, we will compile the applicable regulations and develop a checklist of steps that are necessary to comply. Where appropriate, we will also recommend procedures for compliance.

Task 3.d. Prepare an Implementation Guide

We will develop a guide that enumerates the steps necessary to making boat service a reality. The guide will address such issues as: establishing the legal entity that sponsors service; securing funding; developing facilities; buying the boats; providing for operation and maintenance of the fleet; and administration and customer service.

Task 3.e. Prepare a Phase 3 Report

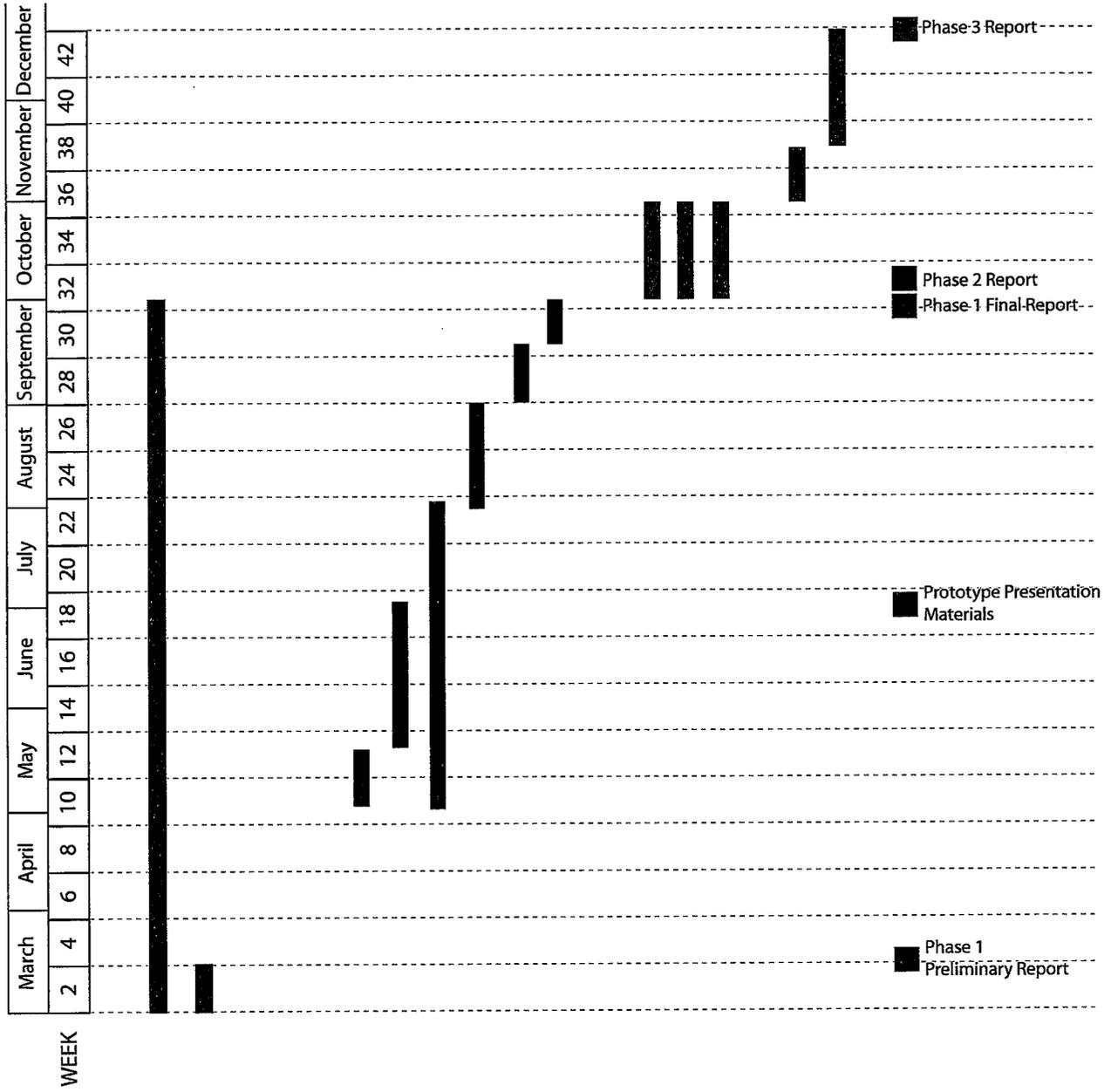
In Phase 3, at the conclusion of each discreet task, a memorandum will be prepared documenting and summarizing the work. The Phase 3 report, rather than reiterating the individual task reports, will instead consist of a Power Point presentation that synthesizes the results of the feasibility study. This presentation will be made available to the client for use in outreach efforts, to inform the public and to build support for the initiative.

PROJECT COMMITTEE

We suggest that a Project Advisory Committee of business and civic leaders be established, including representatives of the communities that will participate in the study and benefit from the boat service. The Rockford Area Economic Development Council (former Council of 100) is an entity that could potentially serve as the convening organization for the Project Advisory Committee, supporting the effort by organizing and hosting meetings, preparing agendas and meeting notes, and serving as liaison between the committee and the consulting team.

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Study Schedule



1. Assess Navigation Conditions on the Rock River

- a. Chart the Streambed
- b. Historical Review and Navigational Viability Report

2. Plans and Budgets for Improvements, Operations and Equipment

- a. Identify Locations
- b. Prototype Concept Plan
- c. Select a Boat
- d. Operating Cost Estimates
- e. Capital and Operating Budgets
- f. Phase 2 Report

3. Framework for Implementation

- a. Management and Financing
- b. Federal and State Funding Sources
- c. Regulatory Requirements and Compliance
- d. Implementation Guide
- e. Phase 3 Report

Products

Budget by Tasks and Hours

Vicides-Schroeder Associates, Inc. -- Budget for Rock River Ferry Feasibility Study
Task Budget

Task	President hours	\$65.00	Architect hours	\$65.00	Architect/Planner hours	\$23.00	Planner hours	\$20.00	Research Associate hours	\$16.00	Overhead 151.6%	Profit 10.0%	Hanson hours	Hanson cost	Total
Phase 1. Assess Navigation Conditions															
1.a. Chart Streambed	4	\$260.00											40	\$12,500.00	
1.b. Review Records; Prepare Report	4	\$260.00							6	\$96.00			40	\$6,500.00	
Subtotal	8	\$520.00							6	\$96.00	\$933.86	\$154.99	80	\$19,000.00	\$20,704.84
Phase 2. Develop Plans and Budgets															
2.a. Locate Facilities	20	\$1,300.00	8	\$520.00									8	\$1,000.00	
2.b. Develop Prototype Plan	4	\$260.00	32	\$2,080.00	80	\$1,840.00	24	\$480.00	30	\$480.00			8	\$800.00	
2.c. Select a Boat	8	\$520.00					16	\$320.00	24	\$384.00			8	\$800.00	
2.d. ROM Costs	8	\$520.00					16	\$320.00					2	\$300.00	
2.e. Budget Projections	8	\$520.00					40	\$800.00	18	\$288.00			18	\$2,100.00	
2.f. Phase 2 Report	56	\$3,640.00	40	\$2,600.00	80	\$1,840.00	96	\$1,920.00	72	\$1,152.00	\$16,906.43	\$2,805.84	18	\$2,100.00	\$32,964.28
Subtotal															
Phase 3. Develop a Framework for Implementation															
3.a. Management/Finance Organization	8	\$520.00					24	\$480.00							
3.b. ID Funding Sources	8	\$520.00					40	\$800.00	24	\$384.00			8	\$800.00	
3.c. ID Regulations; Est. Compliance Procedures	8	\$520.00					24	\$480.00	6	\$96.00					
3.d. Implementation Guide	16	\$1,040.00					40	\$800.00							
3.e. Develop Presentation	12	\$780.00					128	\$2,560.00	54	\$864.00	\$10,314.86	\$1,711.89	8	\$800.00	\$19,630.75
Subtotal	52	\$3,380.00													
Total	116	\$7,540.00	40	\$2,600.00	80	\$1,840.00	224	\$4,480.00	132	\$2,112.00	\$28,155.15	\$4,672.72	106	\$21,900.00	\$73,299.87

Experience

Vicides-Schroeder Associates, Inc.

Hanson Professional Services, Inc.

THE FIRM

Vlecidesschroeder Associates, Inc. provides a full range of consulting services in transportation system development, financing and management, economic development, and urban planning and design. In addition, the firm is experienced in development of new transportation technologies. The company is a woman-owned business, certified by public agencies as a Women's Business Enterprise (WBE). Principal clients include private corporations and institutions, departments of transportation and transit authorities.

THE STAFF

People who are committed to excellence and are highly qualified in regional planning, economic development, and all aspects of developing and managing public organizations and facilities comprise the firm's personnel.

Joanne Vlecidesschroeder is President of Vlecidesschroeder Associates, Inc. Since establishing the company in 1988, she has provided consulting services in strategic planning, environment, urban systems and transportation to numerous public and private institutions, as well as major corporations.

The firm is also staffed to design facilities, and to provide senior architectural and construction management services for all types of building and structural projects including new construction, renovations and alterations.

PROFESSIONAL SERVICES

Policy Analysis

Economic Development

Market Research

Strategic Planning

Financial Analysis

Urban Design

**Transportation Planning and
Financing**

Facilities Planning and Design

Management Consulting

REPRESENTATIVE CLIENTS

- Booz-Allen & Hamilton
- Chicago Transit Authority
- CH2M Hill
- City of Beloit
- City of Chicago
- DMJM+Harris
- Edwards and Kelcey
- Environmental Law and Policy Center
- Illinois Department of Transportation
- Illinois Public Transit Association
- Illinois Institute of Technology
- McDonough Associates Inc.
- Metra
- Museum of Science and Industry
- Pace
- Raytheon
- Regional Transportation Authority
- Rock Island County Metropolitan Mass Transit District
- Rockton and Roscoe, Illinois
- URS Corporation
- Village of Morton Grove
- Wilbur Smith Associates

EXPERIENCE - Representative projects completed since 1997:

- **Northwest Corridor Alternatives Analysis.** As a partner in a project team led by URS, this firm participated in the Phase II study that was designed to develop detailed alternatives for recommendation and selection of a locally preferred alternative for the Northwest Corridor. This complex project involved the Regional Transportation Authority, the three service boards and the municipalities in the affected area. Four alternatives were considered: two differing alignments for a rapid transit extension of the CTA's Blue Line; Bus Rapid Transit that would be operated by Pace; and commuter rail proposed by Metra as part of its STAR Line proposal, using Diesel Multiple Units (DMUs). Metra's proposal was selected as the locally preferred alternative, and will advance to the next stage of Federal Transit Administration (FTA) processes.
- **Five-Year Transit Development Plan for Beloit, Wisconsin.** Beloit's objectives in initiating development of this plan were two-fold. One was to consider system governance options that would lead to improved regional coordination of services and enhance mobility between Beloit, Janesville, Wisconsin and Rockford, Illinois. The other was to address service effectiveness within the City of Beloit. Vlecides-Schroeder Associates, Inc., as prime contractor, recommended a phased approach to developing a regional transit system, and improvements within Beloit that should lead to positive economic impacts. Major recommended initiatives include relocating the transfer center to the downtown, and developing it as a major transit-oriented development; restructuring routes to serve the school markets more efficiently; extending limited service in the central city from 6:00 pm to 10:00 pm to better serve Beloit College students and the transit-dependent population; and providing early morning subscription service to industrial sites to conform with 6:00 am shift starts.
- **Roscoe-Rockton Transit Feasibility Study.** Roscoe and Rockton are neighboring villages located in the corridor between Rockford, Illinois and Beloit, Wisconsin. Though small, the communities are growing rapidly. To avoid the potential congestion that will result from continued growth, and to address the needs of their residents, the communities initiated this feasibility study to enhance their competitiveness and to plan for continued orderly growth. Vlecides-Schroeder was the contractor on this project, which recommends initiating a demonstration of local on-call service that connects to regional bus service operating in the intercity corridor. Other options to consider include a seasonal water taxi between Rockford and Rockton, operating on the Rock River, and possibly establishing a Mass Transit District with the City of South Beloit, to administer and fund transit operations.
- **Chicago Transit Authority (CTA): Reinventing CTA's Transportation Services.** The nature of mobility needs in the CTA service area and in the greater Chicago region is changing. Population and employment had declined in Chicago, while suburban population and employment grew substantially. Corresponding densities also diminished throughout the region. Population, employment and land use projections indicate that suburban growth trends will continue in the 21st century. The impact on the CTA is that systemwide ridership fell by thirty-three percent during the 1990's while funding sources remained generally flat, producing a serious financial shortfall.

VLECIDES-SCHROEDER ASSOCIATES, INC. – Experience...

Vlecides-Schroeder Associates, Inc. joined with Booz Allen & Hamilton, Inc. to define strategies that improve internal business operations, and restructure service delivery mechanisms and support systems that focus on emerging customer needs. Key elements include:

- Reinvesting in and strengthening those routes that provide basic geographic coverage, network connectivity and high levels of mobility
 - Demonstrating and testing new methods of service delivery in low demand areas or time periods, and
 - Initiating consideration of improved connections to suburban job centers.
-
- **Quad Cities MetroLINK: Balanced Growth Project.** As part of the Balanced Growth Project, MetroLINK initiated a Land Use and Rapid Transit Services Study. The study examined the potential for combining land use policies and regulations with the public transit development process, and determined that policy and regulatory adjustments could support a rapid transit system, promote economic development and encourage balanced metropolitan area growth. This study involved documenting existing conditions, creating, illustrating and evaluating alternate development scenarios in the study corridor, examining transportation technology options, analyzing capital cost options, and building consensus for next steps. As part of the examination of technology options, alternative fare vending and collection systems were examined. Vlecides-Schroeder Associates, Inc. was the prime contractor on this project. Booz-Allen & Hamilton, Inc. was the principal subcontractor.
 - **Illinois Department of Transportation: SWS Corridor Balanced Growth Study.** This firm is part of a team that addressed Metra's SouthWest Service Corridor as a balanced growth demonstration project. The project objective was to develop a plan document that highlights the application of balanced growth principles for communities in the corridor, and to provide a "toolbox" for achieving such growth.
 - **Pace (Northeastern Illinois' Suburban Bus Agency).** In Spring 2003, Pace commissioned a strategic and financial review to address funding challenges in view of reduced tax proceeds that subsidize the agency's operations. The review focused on four areas: overhead and administrative costs; potential revenue sources; policy changes and service restructuring. Analysis and recommendations were based on staff interviews, document reviews, data analysis, national transit practices and best organizational practices. The review identified potential annual cost savings or revenue enhancements of over \$12 million that could be implemented through negotiation, policy changes and restructuring. Vlecides-Schroeder worked with Booz-Allen & Hamilton and took the lead in policy analysis for this project.
 - **Village of Morton Grove: Lehigh/Ferris Subarea Plan.** This firm worked with Trkla, Pettigrew, Allen and Payne and McDonough Associates to formulate a comprehensive guide for redeveloping the project area, focusing on the Morton Grove Metra Station. The plan addresses land use, development and redevelopment, public transportation, traffic and pedestrian circulation and urban design. Vlecides-Schroeder Associates' responsibility was to assist the Village in

defining a preferred commuter station location; develop a station plan; examine the extent of transit-oriented development to be promoted in the station area; and to develop the basis for improved intermodal connections.

- **Metropolitan Evansville Transit System Needs Assessment.** The firm identified long term strategies for funding service increases; analyzed financing options to determine potential yields; addressed appropriate methods of levying and administering new taxes; and considered the pros and cons of establishing a Public Transit Corporation.
- **Museum of Science and Industry, Transportation and Accessibility Study.** The firm, in association with McDonough Associates Inc., addressed options for improving access to the museum, and expanding its market. Chicago is home to at least eight major museums, as well as many smaller museums with specialized or ethnic collections. Because the Museum of Science and Industry is farther from the central area than most of the others, its leadership is interested in taking positive steps to maintain and increase its attendance, particularly in light of Chicago's growth in tourism. Our work entailed gathering data, analyzing trends, identifying options for enhancing information and access, analyzing capital and operating cost implications, and identifying the most viable short and long-term approaches. Recommendations focus on enlarging the market area served by direct CTA service to the museum (implemented immediately); enhancing lighting, signs and pathways connecting the Metra station to the museum; and implementing special shuttle services during holiday and other peak periods.
- **Metra Rail Service and Residential Development Study.** The firm is part of a consulting team that studied the relationship between Metra's rail stations and surrounding local residential development. The objective of this study was to provide recommendations and strategies for residential development that maximize commuter rail patronage. Vlecides-Schroeder Associates, Inc. executed rider surveys that address questions of residential location decisions, the influence of Metra in housing choice, and related questions. We also analyzed the various land use patterns, design factors, and access and circulation patterns for all modes (including pedestrians) at each case study site, and prepared graphic illustrations.
- **Lake County Transportation Improvement Project.** This firm participated with CH2M Hill on a study to develop an improved transportation system in Lake County. The objective of this study is to provide for capacity that accommodates recent and projected residential and employment growth, and serves the large number of trips that occur within the county. Vlecides-Schroeder Associates, Inc. was responsible for developing the transit element of this plan, which integrates both Metra rail and Pace bus services into the roadway alternatives. Both capital and operating cost implications were addressed in this plan development.
- **Personal Rapid Transit (PRT).** The firm participated in RTA's Phase I initiative to evaluate the feasibility and costs of installing PRT in a Chicago suburb. Vlecides-Schroeder Associates, Inc. was responsible for urban planning, system alignment, site planning, defining pedestrian circulation and intermodal access patterns, and station design. In support of the feasibility study, the firm produced the *Urban Design Report*, the *Composite Site Report*, the *System Accessibility*

VLECIDES-SCHROEDER ASSOCIATES, INC. – Experience...

Design Report, and four architectural scale models including: a composite site model incorporating the elements of a typical suburban community and a complete system layout; a model of the guideway; a model of the vehicle, including both cabin and chassis; and a model of an elevated free-standing station.

Phase II involved system engineering and prototype development and testing. VleCIDes-Schroeder Associates, Inc., a subcontractor to Raytheon, identified applicable codes and standards, and developed guidance for system certification. Additional Phase II responsibilities of the firm included:

- Developing a full-scale mock-up station for international exhibit purposes. The station mock-up was also used for pedestrian circulation and human factors analysis
 - Providing industrial design support for development of the PRT vehicle
 - Developing concept plans and prototype models for automated fare systems that integrate with other regional carriers
 - Performing alternative alignment studies for system deployment in Rosemont, Illinois
 - Refining designs and developing outline specifications for seven stations and the maintenance and control facility
-
- **RTA Study: Opportunity Costs of Municipal Parking Requirements.** The study was done in association with Fish & Associates, Inc. and K.T. Analytics, Inc. The purpose of the project was to document the nature, extent and possible causes of supply and demand imbalances in suburban parking; quantify the economic consequences and impacts; and identify the underlying perceptions and policies so as to best direct education and policy reform efforts. The geographic focus was entirely in suburban NE Illinois, and it was oriented to newer suburban office developments. The study involved developing a sampling plan and site selection process, identifying case study sites, developing questionnaires and performing a series of interviews, and performing economic impact analysis.

 - **Illinois Department of Transportation: South Lake Shore Drive, Phase I Study.** In association with Edwards and Kelcey, VleCIDes-Schroeder Associates, Inc. addressed design issues and concepts intended to increase accessibility and integrate improved pedestrian, bicycle and transit facilities into the South Lake Shore Drive corridor from approximately 26th Street to 67th Street. In addition to providing for bus services, the firm developed concepts for improving pedestrian access to Jackson Park and the lakeshore based on its analysis of pedestrian and bicycle counts; and designed enhanced bicycle and pedestrian paths to segregate the modes and improve safety.

 - **Chicago Department of Transportation:** (a series of task order contracts executed in association with Edwards and Kelcey, and its predecessor, Meridian Engineers and Planners, Inc.)

Addison Industrial Corridor. VleCIDes-Schroeder Associates, Inc. examined issues of improved freight, passenger and pedestrian access to this mid-city industrial corridor. Particularly important considerations included providing safe approaches to the city bus system for the 3,500 students at Lane Technical High School, and minimizing conflicts between industrial uses and residential development along the Chicago River.

Pedestrian Activity in the Chicago Downtown Area. This study, designed to address pedestrian activity in downtown Chicago, entailed pedestrian counts, interviews, detailed analysis of the findings, and comparison with similar studies conducted in 1981 and 1989. Key findings are: pedestrian traffic is increasing at the edges of the Loop and north of the Chicago River; North Michigan Avenue and River North pedestrian traffic increased dramatically between 1989 and 1999 with the highest volumes occurring on Saturday; while most pedestrians in the Loop are there for work, those in the State Street and Michigan Avenue areas are pursuing leisure and shopping activities; on weekdays, 47% of the pedestrians access the retail areas by CTA and Metra whereas on weekends, over 33% walk from their hotels and residences.

- **Regional Transportation Authority, Alternative Services Feasibility Study.** Providing traditional transit has become very difficult in some suburban environments. Contributing factors include: the growth of suburb-to-suburb commuting; requirements imposed by the Americans with Disabilities Act and welfare-to-work legislation; a spatial mismatch between jobs and housing; and financial pressures on transit operators which are compounded by imbalances between peak and off-peak service requirements. RTA addressed these issues by examining such issues as flexibility in service design, responsive staffing, and cost control. VleCIDes-Schroeder Associates joined with TransTeC America for this study and was responsible for market research and identifying potential funding sources.

About Hanson Professional Services Inc.

Hanson Professional Services Inc. is a single source for architectural, engineering, and management services. From design to construction, Hanson focuses on each stage of a project. Award-winning projects around the world are a testament to Hanson's expertise. Hanson has a long history of business success, providing continuity and stability.

As a full-service consulting firm, Hanson provides a variety of services including airport and railroad planning and design; architectural programming and design; aviation services; civil/structural and transportation engineering; construction and data management; design-build; geotechnical, environmental and waste management services; hydrologic and hydraulic engineering; interior design; land acquisition; mechanical, electrical and electronic engineering; planning; program management; surveying; telecommunications; and Web site design and maintenance.

Additionally, the company specializes in helping clients with grants and funding, project development and strategic planning. These services mirror Hanson's mission to assist clients in meeting their goals.

Hanson has completed projects nationwide and in many foreign countries. These projects range in size from simple engineering studies to large, complex design projects such as the \$92 million Clark Bridge over the Mississippi River near St. Louis, Mo., to the program management of the \$180 million AT&T National Storage Tank Administration Program. Hanson is currently working with the Corps of Engineers, Nashville District, on the design of a \$42 million bridge across the Tennessee River. We are providing services for the acquisition of 24,000 acres in real estate for the South Suburban Airport in eastern Will County, Ill. We are also providing property management and development and implementation of a real-time database linked to a geographic information system. Hanson also worked for the Illinois Commerce Commission to provide services to document 12,200 railroad crossings in the state. A database with survey and photographic information was accessible to the project team and our client.

For the last 17 years, Hanson has consistently appeared in the ENR Top 500 Engineering News-Record Magazine's listing of premiere design firms in the United States. Hanson recently came in at No. 192 on the national list. The firm was also listed as one of the top firms providing design services overseas.

The Springfield, Ill.-based, employee-owned firm has offices from coast to coast, including Rockford, Chicago, Matteson and Peoria, Ill.; Kansas City and St. Louis, Mo.; Indianapolis, Ind.; Seattle, Wash.; Atlanta, Ga.; Orlando and West Palm Beach, Fla.; and Wayne, N.J. (New York metropolitan area).

Resumes

JOANNE VLECIDES SCHROEDER

Joanne VleCIDes Schroeder is President of VleCIDes-Schroeder Associates, Inc. Since establishing the firm in 1988, she has provided consulting services in strategic planning for transportation and urban systems to numerous public and private institutions, as well as major corporations. Before establishing a consulting practice, Ms. Schroeder worked in local and federal government agencies in a senior management capacity for twenty years. Her previous experience includes the: U.S. Department of Housing and Urban Development in Washington, D.C. from 1967 to 1973 where she was charged with integrating the assisted housing programs with community redevelopment objectives; Chicago Transit Authority (CTA) from 1973 to 1975, where she established and managed the Development Planning Department for long range system planning, program budgeting, and strategic planning; and Regional Transportation Authority (RTA) from 1975 to 1988 where she organized and managed the Planning and Development Division. She has taught courses in transportation system management in the College of Business Administration, University of Illinois at Chicago.

Education

B.A., French, Connecticut College

Graduate Studies, Urban and Regional Planning, George Washington University

Affiliations

Current: Metropolitan Planning Council: Resource Board; Transportation Committee
Business Leaders for Transportation
Lambda Alpha Land Economics Society
Chicago Chamber Music Society, Ex-Officio

Previous: American Public Transit Association Planning Committee
Transportation Research Board, Intergovernmental Affairs Committee

Selected Representative Transportation Projects

- Quad Cities Balanced Growth Study, Land Use and Rapid Transit Service
- Transit Feasibility Study for Roscoe and Rockton, Illinois
- 5-Year Transit Development Plan for Beloit, Wisconsin
- Lake Calumet Area Transportation Plan for Chicago DOT
- Downstate Capital Needs Assessment for the Illinois Public Transit Association
- Pace Policies and Financial Impacts Analysis
- RTA Fare Coordination Study
- Public transit elements of the Lake County Transportation Improvement Project
- Metra Rail Service and Residential Development Study
- Metra's SWS Corridor Balanced Growth Study
- Northwest Corridor Alternatives Analysis for service from O'Hare to Schaumburg and Elgin
- Planning, development and implementation of the Link-Up Pass
- RTA planning for the O'Hare Rapid Transit Line Extension
- Preliminary planning for the Southwest Rapid Transit line to Midway Airport
- Preliminary planning for commuter rail service on the North Central Service

JOANNE VLECIDES SCHROEDER – continued

- Public transit elements of Strategic Regional Arterial Plans (4 phases)
- South Lake Shore Drive: Justification for a Phase I Study; pedestrian and bikeway facilities for South Lake Shore Drive Phase I Study; selected facilities for 63rd Street Beach House
- Concept planning and environmental assessment for a new coordinated Metra-Pace station at the junction of I-355 and the Burlington Northern Railroad
- Passenger travel surveys and analysis for each of CTA's four major corridors: Northwest, Southwest, North and South
- Feasibility planning for the Chicago Central Area Circulator
- RTA's first Strategic Plan, resulting in a \$1 billion capital commitment to the RTA systems



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50 years of designs that move

Raymond C. Armstrong, PLS

Manager, Survey and Mapping, St. Louis

PROFESSIONAL REGISTRATION

Registered Land Surveyor/MO
Professional Land Surveyor/IL

PROFESSIONAL AFFILIATIONS

American Congress on Surveying and Mapping
Missouri Association of Registered Land Surveyors
National Society for Professional Surveyors
Missouri Society for Professional Surveyors
Illinois Professional Land Surveyors Association
Society of American Military Engineers

Mr. Armstrong is responsible for all automated hydrographic surveys; acquisition and setup of on-board automated hydrographic equipment, including setup of on-board plotting and field-to-office data transfers; and training in the use of such equipment. He has experience with general automated hydrographic packages, fathometers, side-scan sonar, and positioning systems, including positioning using Differential Global Positioning System (DGPS) and multi-beam bathymetric surveys.

Mr. Armstrong is experienced in the acquisition of bottom depths using the Ross Multi-Beam Bathymetric System and the Reson Seabat 9001 Multi-Beam Bathymetric System. He participated in a weeklong training session using Multi-Beam Channel Sweep Equipment that included Reson Seabat 9001 Multi-Beam Bathymetric Survey System; TSS335B Motion Compensator; S.G. Brown Gyro Compass; and Coastal Oceanographics HYPACK Multi-Beam survey software. He also attends the HYPACK Training Conferences each year, which provides training in collecting, editing, and processing single and multi-beam hydrographic survey data.

U.S. Army Corps of Engineers, St. Louis District, Differential Global Positioning Systems surveys. Project manager for pre- and post-dredge surveys on the upper and lower Mississippi River (Mile 0 to Mile 300) and on the Illinois River (Mile 0 to Mile 80); scour surveys at Lock and Dam #24, #25 and #27, Melvin Price Locks and Dam and Kaskaskia Lock and Dam; and dike and weir surveys to determine as-built conditions and compute volumes on the Mississippi River. In addition, provided cross-sections at 1,000-foot intervals of the Mississippi River (Mile 0 to Mile 300); 500-foot intervals of the Illinois River (Mile 0 to Mile 80); 250-foot intervals of the Kaskaskia River (Mile 0 to Mile 44); and 100-foot intervals of the Ohio River (Mile 964 to Mile 968). Provided hydrographic surveys of Southeast Missouri (SEMO) Port on the Mississippi River at Cape Girardeau, Mo.

U.S. Army Corps of Engineers, Kansas City District, Differential Global Positioning systems survey. Project manager for fixed-fee-type contract requiring DGPS methods for sounding cross-sections at 500-foot intervals on the Missouri River, from the mouth at St. Louis (Mile 0) to the upper end of the navigable channel at Ponca, Neb. (Mile 750).

U.S. Army Corps of Engineers, St. Louis District, Global Positioning System surveys. Project manager for GPS surveys for approximately 55 horizontal control points for photogrammetric mapping at East St. Louis, Ill.; established state plane coordinates on the off-site control pedestals of Kaskaskia Lock and Dam to determine movement of the dam structure; set horizontal and vertical control network for survey of 20 miles of the Wood River Levee system; and surveyed 25 proposed boring sites along the Mississippi River.

U.S. Army Corps of Engineers, Kansas City District, Fort Leonard Wood Global Positioning System survey. Project manager and party chief for GPS surveys at Fort Leonard Wood, Mo., to establish horizontal and vertical control.

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(Raymond C. Armstrong – Continued)

U.S. Army Corps of Engineers, Chicago District. Survey manager for indefinite-delivery contract that called for overland and hydrographic surveys, including surveys on the Des Plaines River, Michigan City Harbor and Creek, Little Calumet River and Harbor, Lake George, Casino Beach, Burns Waterway Harbor, Indiana Harbor and Canal, Chicago Harbor and River, Cady Marsh Ditch, Waukegan Harbor, Trail Creek and Burns Beach, with all deliverables furnished in Intergraph.



James W. Moll, P.E., S.E.
Senior Transportation Engineer

EDUCATION

B.S./1974/Civil Engineering/Purdue University
M.S./1980/Civil Engineering/Purdue University

PROFESSIONAL REGISTRATION

Professional Engineer/IL
Structural Engineer/IL
Professional Engineer/CO
Professional Engineer/LA

PROFESSIONAL AFFILIATIONS

National Society of Professional Engineers
American Public Works Association
American Society of Civil Engineers
Illinois Society of Professional Engineers

Mr. Moll received his master's degree in 1980. His project experience includes design of county and state highway and bridge projects, railroads, civil/site work, structural systems for architectural, industrial and commercial clients; and structural design of water and wastewater treatment facilities. He performed numerous investigation of existing structures. He was also responsible for drainage analysis and the design of storm sewers, ditches and culverts associated with highway and site development projects. He designed parking lots and pavements for institutional and industrial clients.

He has practical experience in surveying, site development, bridge design, roadway design, structural building systems, drainage studies, sewer design, hydraulic analysis, preparation of plans, planning studies, investigations, traffic engineering, specifications, proposals, estimates, construction observation and project management.

Bridge over the Wabash River, Hutsonville, Ill. Project manager. This project included field survey, design, and preparation of construction documents for precast concrete approach spans, steel plate girder channel spans and a large cofferdam for a midchannel pier. The total bridge length was 948 feet. This bridge replaced a critical, load limited crossing of the navigable Wabash River. The depth of the channel made design of a 65-foot-tall concrete pier in a very large cofferdam a true challenge. Earthquake design guidelines, adopted by the Illinois Department of Transportation, were first applied to this structure. Design of approach roadwork was also included.

Port Perry Bridge replacement, Omaha District, U.S. Army Corps of Engineers, Allegheny County, Pa. Project manager for the schematic design of a new main span for a Norfolk Southern bridge that carries the Port Perry branch over the Allegheny River near Pittsburgh, Pa. The Corps of Engineers' Monogahela River project will result in raising the pool and reducing the navigation clearance at the 407-foot navigation span of the Port Perry Bridge. A variety of alternatives were evaluated for strengthening or replacing the 100-year old truss. The recommended alternative included pier modifications and floating in a replacement truss during a 24-hour track shut down. Foundation analysis was a critical consideration. The cost estimate was \$16 million. The project also included determining cost allocation between the Corps and the railroad as prescribed in the Truman Hobbs Act.

Lake Red Rock Multi-Purpose Trail, Pella, Iowa. Project manager for a location study for an 8.5-mile bicycle pedestrian trail along a scenic lake owned by the U.S. Corps of Engineers. The project included complex geometrics, the need to enhance scenic vistas, structures, retaining walls, and slope protection. Services included surveying, drainage design, preliminary alignment selection, coordination with the Corps and engineers, and the local park officials, geometric designs, retaining wall selection, cost estimates and preparation of a project report.

U.S. 20 at Mississippi River, Dubuque, Iowa. Project manager for a study to determine location of a new crossing of the Mississippi River at Dubuque, Iowa. Includes new river bridge and approach roadwork. Services include data



(James W. Moll-Continued)

collection, environmental inventory, preparation of a location design report and environmental impact statement. An extensive public involvement program was also required. Preparation of a geotechnical report and bridge type, size and location was also included.

Pere Marquette State Park Visitor's Center, Grafton and Jersey counties, Illinois. Project manager responsible for the civil/site development of a new visitor's center. This included site surveying, subsurface exploration, soil laboratory testing, and foundation recommendations. Hanson also provided structural design for the foundation, walls, heavy-timber, truss, roof structure and earth retaining structures. Prepared final contract plans and specifications for the structural components.

Hennepin Canal Restoration, Ill. Project manager for reconstruction and bank stabilization of 15 miles of the historic Hennepin Canal for the U.S. Army Corps of Engineers. The canal was originally constructed for barge traffic and is currently operated for recreational use by the Department of Conservation. Erosion and wave action have deteriorated the existing section and sediment had filled the channel. The project included survey of the canal towpath and channel, design of slope protection, and preparation of contract plans for restoration.

