Torres Rojas, Genara FOI#14993

From: agarrahan@gpinet.com
Sent: Wednesday, June 11, 2014 12:40 PM
To: Duffy, Daniel
Cc: Torres Rojas, Genara; Van Duyne, Sheree; American, Heavyn-Leigh
Subject: Freedom of Information Online Request Form

Information:

First Name: Anita
Last Name: Garrahan
Company: Greenman-Pedersen, Inc.
Mailing Address 1: 325 West Main Street
Mailing Address 2:
City: Babylon
State: NY
Zip Code: 11702
Email Address: agarrahan@gpinet.com
Phone: 631-587-5060
Required copies of the records: Yes

List of specific record(s):
The proposal for Call-In Contract for Traffic ITS Services, Reference number P41514031, won by HNTB.

THE PORT AUTHORITY OF NY & NJ

FOI Administrator

June 20, 2014

Ms. Anita Garrahan
Greenman-Pedersen, Inc.
325 West Main Street
Babylon, NY 11702

Re: Freedom of Information Reference No. 14993

Dear Ms. Garrahan:

This is in response to your June 11, 2014 request, which has been processed under the Port Authority's Freedom of Information Code (the "Code") for a copy of the "proposal for Call-In Contract for Traffic ITS Services, Reference number P41514031, won by HNTB."

Material responsive to your request and available under the Code can be found on the Port Authority's website at http://www.panynj.gov/corporate-information/foi/14993-C.pdf. Paper copies of the available records are available upon request.

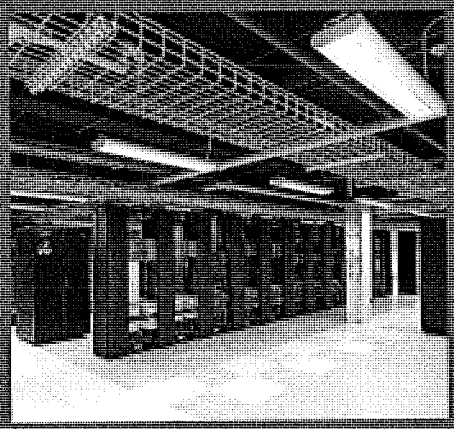
Certain material responsive to your request is exempt from disclosure pursuant to exemption (1) of the Code.

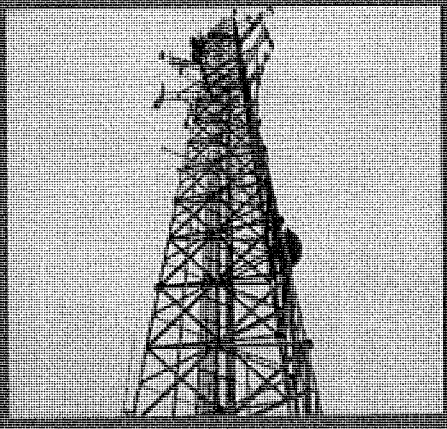
Please refer to the above FOI reference number in any future correspondence relating to your request.

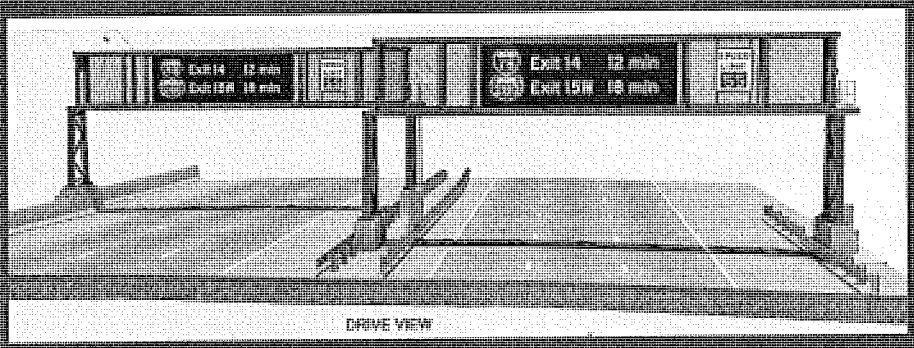
Very truly yours,

Daniel D. Duffy
FOI Administrator

225 Park Avenue South, 17th Floor
New York, NY 10003
T: 212 435 3642
F: 212 435 7555







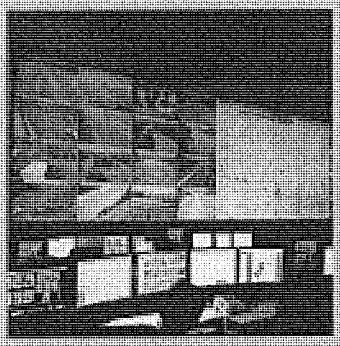
PANYNJ Proposal for Expert Professional Intelligent Transportation Systems (ITS) Services as Requested on a Call-In Basis during 2011

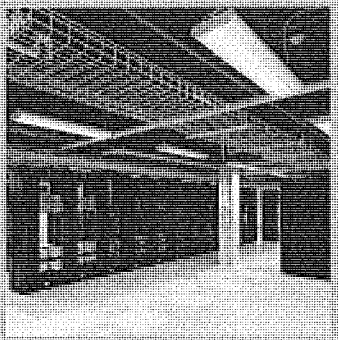
RFP #21988

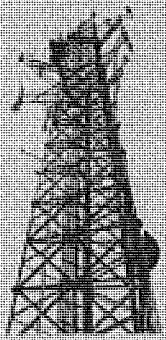
Submitted to:
Port Authority of
New York and New Jersey

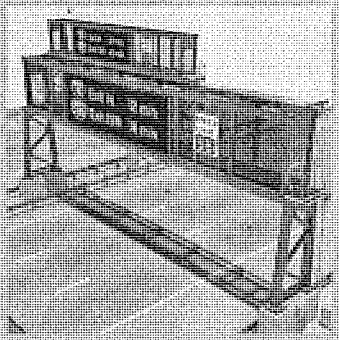
Submitted by:
HNTB New York Engineering &
Architecture, PC
An affiliate of HNTB Corporation

HNTB









HNTB Corporation
Engineers Architects Planners

5 Penn Plaza, Floor 6
New York, NY 10001

Telephone (212) 594-9717
Facsimile (212) 947-4030
www.hntb.com

September 22, 2010

HNTB

The Port Authority of New York and New Jersey
One Madison Avenue, 7th Floor
New York, NY 10010
Attn: RFP Custodian

Re: Proposal for the Performance of Expert Professional Intelligent Transportation Systems (ITS) Services as Requested on a "Call In" Basis During 2011 - RFP # 21988

To Whom It May Concern:

To successfully serve the Port Authority of New York and New Jersey (the Authority) through an on-call agreement for ITS services, a firm needs a locally-based team that has expertise in all aspects of ITS design, master plan development and strategic planning, together with first-hand familiarity of your facilities, your organization and staff. **HNTB is that team.** Our personnel know how to address the essential issues key to effectively delivering your ITS on-call projects. We will provide the resources and highly-skilled engineers to support the project deliverables and milestones. In support of this, HNTB has teamed with DVI Communications, CellGain and Arora and Associates. We are aware of the Authority's 12-percent MBE and five-percent WBE goals for this agreement and will strive for meaningful participation of these enterprises. *Specifically, there are three key benefits to selecting the HNTB Team:*

Key Personnel. Led by **Project Manager Tony Bartello, PE,** HNTB brings to your on-call project the talent and expertise of qualified ITS professionals (see section D). With more than 21 years of extensive, applicable experience, Tony brings a proven track record managing similar complex ITS projects, **including serving as project manager on your 2008 - 2010 ITS Services On-Call Agreement,** in which Tony and his staff are assisting the Authority with the development of their ITS Strategic Plan. Tony's experience includes serving as project manager of the New Jersey Statewide Traffic Management Center (STMC), the development of the NJTA's 10-year ITS Master Plan, the design of ITS Standards, Automatic Traffic Management Software (ATMS) procurement, more than 240 VMS procurements for New Jersey, and the design of a WiMAX Radio Network for two-way ITS communations. Supporting Tony are experts in ITS, information technology, software, communications, and traffic operations and engineering throughout the company that are ready to serve the Authority. With more than 15 ITS personnel in the New York/New Jersey region and more than 92 nationwide, the HNTB Team has the resources to provide you with the staff members for your call-in projects. **We are committed to providing the Authority with the right team of experts who will provide comprehensive ITS services to complete your on-call projects in a timely, cost-efficient manner.**

Extensive experience providing call-in services. No other firm, locally or nationally, has provided on-call consultant services to more state authorities than HNTB. HNTB has held many call-in contracts with the Authority, including the 2008 – 2010 ITS Services On-Call Agreement. As such, we have a thorough understanding of your processes, procedures

and requirements. You know our team and our successful history of delivering quality work on time and on budget. HNTB knows the Authority's importance in the region and can assist the Authority with regional ITS integration, while leveraging existing assets and technologies. Alongside targeted ITS experience, HNTB can offer a wide range of traffic signal and incident management expertise (see Section F) from our work with clients such as the NJTA and DRBA. **Our combination of experience on similar projects and knowledge of your procedures enables us to provide you with timely services and solutions that will meet or exceed your expectations.**

Responsive Approach to Address Project Challenges. We understand the challenges of successfully delivering your projects, such as providing in-depth QA/QC reviews, successful project management, and being on time and on budget. Through past experience, our team has developed innovative and responsive management systems to successfully manage call-in projects. For your contract, before receiving our first assignment, we will prepare a detailed call-in outline with contact information and task assignment procedures for all involved personnel. Establishing this outline early in the process will help to streamline communication procedures and set forth a coordinated action plan for specific assignments, allowing your projects to move smoothly from start to finish. Through this approach, HNTB can mobilize the appropriate personnel to address various assignments in the Design and Planning groups within the Traffic Engineering Division. **Our extensive resources allow us to respond to your needs in a timely manner and deliver on the most important performance goals - quality work, on time, and within budget that will meet or exceed your expectations.**

The HNTB Team looks forward to continuing our successful relationship with the Authority, and further discussing our capabilities and qualifications. Should you have any questions regarding our submittal, please do not hesitate to contact me or Project Manager Tony Bartello at (973) 237-1650.

Respectfully submitted,
HNTB New York Engineering & Architecture, PC
An affiliate of HNTB Corporation

Thomas J. Hicks

Thomas J. Hicks, PE
Vice President / Principal-in-Charge

Anthony Bartello, PE
Project Manager

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ATTACHMENT B

PERFORMANCE OF EXPERT PROFESSIONAL INTELLIGENT TRANSPORTATION SYSTEMS (ITS) SERVICES AS REQUESTED ON A "CALL-IN" BASIS DURING 2011 (RFP #21988)

AGREEMENT ON TERMS OF DISCUSSION

The Port Authority's receipt or discussion of any information (including information contained in any proposal, vendor qualification, ideas, models, drawings, or other material communicated or exhibited by us or on our behalf) shall not impose any obligations whatsoever on the Port Authority or entitle us to any compensation therefor (except to the extent specifically provided in such written agreement, if any, as may be entered into between the Port Authority and us). Any such information given to the Port Authority before, with or after this Agreement on Terms of Discussion ("Agreement"), either orally or in writing, is not given in confidence. Such information may be used, or disclosed to others, for any purpose at any time without obligation or compensation and without liability of any kind whatsoever. Any statement which is inconsistent with this Agreement, whether made as part of or in connection with this Agreement, shall be void and of no effect. This Agreement is not intended, however, to grant to the Port Authority rights to any matter, which is the subject of valid existing or potential letters patent. The foregoing applies to any information, whether or not given at the invitation of the Authority.

Notwithstanding the above, and without assuming any legal obligation, the Port Authority will employ reasonable efforts, subject to the provisions of the Port Authority's Freedom of Information Policy and Procedure adopted by the Port Authority's Board of Commissioners on November 20, 2008, which may be found on the Port Authority website at: *http://www.panyni.gov/corporate-information/pdf/Freedom-of-Information-Policy-and-Procedure.pdf*, not to disclose to any competitor of the undersigned, information submitted which are trade secrets or is maintained for the regulation or supervision of commercial enterprise which, if disclosed, would cause substantial injury to the competitive position of the enterprise, and which information is identified by the Proposer as proprietary, which may be disclosed by the undersigned to the Port Authority as part of or in connection with the submission of a proposal.

HNTB New York and Engineering, PC
an affiliate of
HNTB Corporation
(Company)

(Signature)

Vice President, Northeast Division
(Title)

09/22/10
(Date)

ORIGINAL AND PHOTOCOPIES OF THIS PAGE ONLY.
DO NOT RETYPE.

ATTACHMENT C

COMPANY PROFILE

REQUEST FOR PROPOSALS FOR THE PERFORMANCE OF EXPERT PROFESSIONAL INTELLIGENT TRANSPORTATION SYSTEMS (ITS) SERVICES AS REQUESTED ON A "CALL-IN" BASIS DURING 2011 (RFP #21988)

1. Company Name (print or type): HNTB New York Engineering & Architecture, PC
   An affiliate of HNTB Corporation

2. Business Address (to receive mail for this RFP):
   5 Penn Plaza, Floor 6, New York, NY, 10001

3. Business Telephone Number: (212) 594-9717

4. Business Fax Number: (212) 947-4030

5. Firm website: www.hntb.com

6. Federal Employer Identification Number (EIN): Ex. 1

7. Date (MM/DD/YYYY) Firm was Established: 11 / 04 / 1992

8. Name, Address and EIN of Affiliates or Subsidiaries (use a separate sheet if necessary):
   See following page

9. Officer or Principal of Firm and Title:
   Thomas J. Hicks, PE, Vice President

10. Name, telephone number, and email address of contact for questions:
    Thomas J. Hicks, PE, Vice President
    (973) 237-1650 thicks@hntb.com

11. Is your firm certified by the Authority as a Minority-owned, Woman-owned or Small Business Enterprise (M/W/SBE)? ☐ Yes ☒ No

    If yes, please attach **Port Authority** certification as a part of this profile.

    If your firm is an M/WBE not currently certified by the Authority, see the Authority's web site – http://www.panynj.gov/business-opportunities/supplier-diversity.html, to receive information and apply for certification.

ATTACHMENT C (continued)

8. Name, Address, and EIN of Affiliates or Subsidiaries

- 1914 Holding Company (43-1765234). This entity is the ultimate parent of the HNTB Companies. Address: 715 Kirk Drive, Kansas City, MO 64105
- HNTB Holdings Ltd (56-2422024). This entity is 100% owned by 1914 Holding Company and owns 100% of the following 3 subsidiaries. Address: 715 Kirk Drive, Kansas City, MO 64105
- HNTB Corporation (43-1623092). This entity is 100% owned by HNTB Holdings Ltd. Address: 715 Kirk Drive, Kansas City, MO 64105
- HNTB International Corporation (43-1665797). This entity is 100% owned by HNTB Holdings Ltd. Address: 715 Kirk Drive, Kansas City, MO 64105
- HNTB Design/Build Inc (43-1673754). This entity is 100% owned by HNTB Holdings Ltd. Address: 715 Kirk Drive, Kansas City, MO 64105
- HNTB Corporation (a Massachusetts Corporation) (43-3346152). This entity is 100% owned by Robert E. Sutton, a shareholder of HNTB New York Engineering & Architecture, PC. Address: PO Box 412197, Kansas City, MO 64141
- HNTB Pennsylvania, Inc. (43-1634931). This entity is 50% owned by John G. Finn, a shareholder of HNTB New York Engineering & Architecture, PC. Address: PO Box 412197, Kansas City, MO 64141
- HNTB Alabama Inc. (43-1628393). Address: PO Box 412197, Kansas City, MO 64141
- HNTB Arkansas, Inc. (43-1628405). Address: PO Box 412197, Kansas City, MO 64141
- Howard Needles Tammen & Bergendoff California Architects PC (43-1628390). Address: PO Box 412197, Kansas City, MO 64141
- HNTB Connecticut Architecture, PC (43-1628389). Address: PO Box 412197, Kansas City, MO 64141
- HNTB District of Columbia Architecture, PC (43-1634930). Address: PO Box 412197, Kansas City, MO 64141
- HNTB District of Columbia, PC (43-1634929). Address: PO Box 412197, Kansas City, MO 64141
- HNTB Georgia, Inc (43-1628402). Address: PO Box 412197, Kansas City, MO 64141
- HNTB Idaho, PA (43-1638956). Address: PO Box 412197, Kansas City, MO 64141
- HNTB Illinois, Inc. (43-1627255). Address: PO Box 412197, Kansas City, MO 64141
- HNTB Indiana, Inc. (20-3233524). Address: PO Box 412197, Kansas City, MO 64141
- HNTB Iowa, Inc. (43-1628394). Address: PO Box 412197, Kansas City, MO 64141
- HNTB Louisiana Architecture, Inc. (52-2418384). Address: PO Box 412197, Kansas City, MO 64141
- HNTB Maine, Inc. (43-1628396). Address: PO Box 412197, Kansas City, MO 64141
- HNTB Maryland, Inc. (43-1627252). Address: PO Box 412197, Kansas City, MO 64141
- HNTB Michigan, Inc. (43-1628395). Address: PO Box 412197, Kansas City, MO 64141
- HNTB Mississippi Architecture, PC (83-0379507). Address: PO Box 412197, Kansas City, MO 64141
- HNTB Montana, Inc. (74-3046837). Address: PO Box 412197, Kansas City, MO 64141
- HNTB Nevada, Inc. (43-1628391). Address: PO Box 412197, Kansas City, MO 64141
- HNTB New Jersey Architecture, Inc. (43-1628399). Address: PO Box 412197, Kansas City, MO 64141
- HNTB New York Engineering & Architecture, PC. (43-1635518). Address: PO Box 412197, Kansas City, MO 64141.
- HNTB New York Architecture, PC (83-0379503). Address: PO Box 412197, Kansas City, MO 64141
- HNTB North Carolina, PC (56-2017391). Address: PO Box 412197, Kansas City, MO 64141
- HNTB, PC (43-1635520). Address: PO Box 412197, Kansas City, MO 64141
- HNTB Ohio, Inc. (43-1628397). Address: PO Box 412197, Kansas City, MO 64141
- HNTB Oklahoma, PC. (43-1639329). Address: PO Box 412197, Kansas City, MO 64141
- HNTB Oregon Architecture, PC. (43-1647732). Address: PO Box 412197, Kansas City, MO 64141
- HNTB Rhode Island, Inc. (43-1627674). Address: PO Box 412197, Kansas City, MO 64141
- HNTB Virginia Architecture, Inc. (83-0379509). Address: PO Box 412197, Kansas City, MO 64141
- HNTB Vermont Engineering, PC. (27-0357375). Address: PO Box 412197, Kansas City, MO 64141

C. Multiplier

Detailed below are the proposed multipliers for HNTB staff under the 2011 ITS Services On-Call agreement. A breakdown of our FAR overhead can be found on page C2.

HNTB OFFICE

The proposed multiplier for staff assigned to work at HNTB's office for this agreement is:

Labor	1.000
Proposed Contract Overhead	1.479
Sub-Total	2.479
Profit (9%)	0.198
Total	**2.677**

PROJECT OFFICE

The proposed multiplier for staff assigned to work at the Authority's office for this agreement is:

Labor	1.000
Proposed Contract Overhead	1.320
Sub-Total	2.320
Profit (9%)	0.186
Total	**2.506**

HNTB Corporation

Schedule of Design and Project Office Overhead Rates Excluding Overtime Premium Calculated in Accordance With the Federal Acquisition Regulation Part 31

Year Ended December 31, 2009

	FAR Cost Pool	FAR Unallowable	FAR Ref.	FAR Allowable	Project Office	Design Office
Job costs – payroll	$ 201,656,899	$ –		$ 201,656,899	$ 14,624,207	$ 187,032,692
Premium portion of overtime	666,112	–		666,112	17,615	648,497
Direct straight-time payroll	$ 200,990,787	$ –		$ 200,990,787	$ 14,606,592	$ 186,384,195
Salary related						
Paid leave	$ 38,152,662	$ –		$ 38,152,662	$ 2,766,839	$ 35,385,823
Employee's insurance	25,689,665	–		25,689,665	1,863,021	23,826,644
Payroll taxes	22,974,480	–		22,974,480	1,666,115	21,308,365
Miscellaneous employee benefits	8,334,975	740,868	1	7,594,107	550,740	7,043,367
Total salary related	95,151,782	740,868		94,410,914	6,846,715	87,564,199
% of direct straight-time payroll					46.87%	46.98%
General overhead costs						
Indirect salaries	69,164,492	4,800,039	2	64,364,453	4,667,727	59,696,726
Rent and maintenance	29,834,159	–		29,834,159	330,392	29,503,767
Insurance	12,927,145	122,820	3	12,804,325	928,572	11,875,753
Taxes	2,513,454	–		2,513,454	152,334	2,361,120
General	56,654,132	6,369,215	4	50,284,917	2,485,656	47,799,261
Bid and proposal/marketing	41,141,662	3,810,734	5	37,330,928	2,707,248	34,623,680
Firm support services	2,540,312	124,744	6	2,415,568	175,178	2,240,390
Other expense (income)	2,204,277	2,214,500	7	(10,223)	(740)	(9,483)
Total general overhead costs	216,979,633	17,442,052		199,537,581	11,446,367	188,091,214
% of direct straight-time payroll					78.36%	100.92%
Total overhead cost pool	$ 312,131,415	$ 18,182,920		$ 293,948,495	$ 18,293,082	$ 275,655,413
% of direct straight-time payroll					125.23%	147.90%
Facilities capital cost of money					$ 27,333	$ 624,997
% of direct straight-time payroll					0.19%	0.34%

See accompanying notes.

This document contains information HNTB Corporation considers to be confidential and privileged and not subject to disclosure under the Freedom of Information Act and which HNTB Corporation considers as information that cannot be disclosed under the Trade Secret Act.

D. Technical Qualifications

EXPERIENCED STAFF TO KEEP YOUR PROJECTS ON TRACK

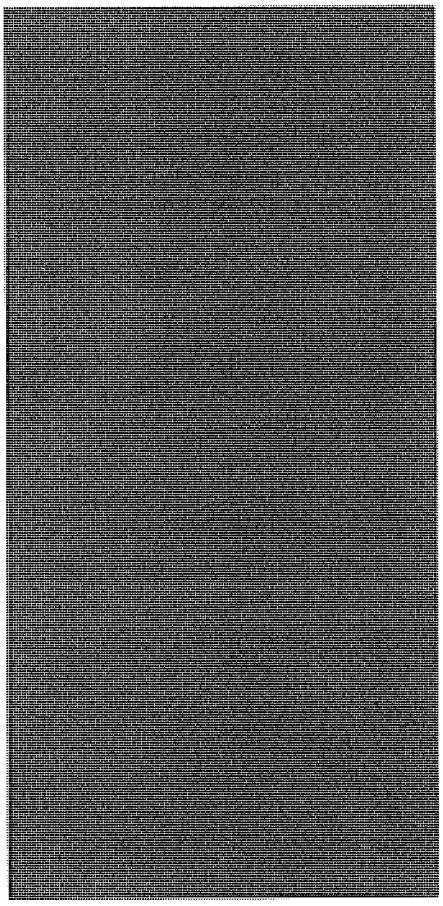
HNTB, a nationally recognized engineering, architecture and planning firm, specializes in planning, design and construction management of transportation facilities, bridges and ports. The New Jersey/New York metropolitan area serves as HNTB's center of excellence for structural, mechanical, electrical and transportation engineering. HNTB employs nearly 4,000 professionals in 63 locations nationwide. This structure allows each office to serve its immediate locale with the flexibility and sense of personal involvement of a small organization, yet provides the professional skills, facilities and manpower for a wider variety of services. HNTB's resources are more than adequate to complete your on-call projects within your timeframe and budget.

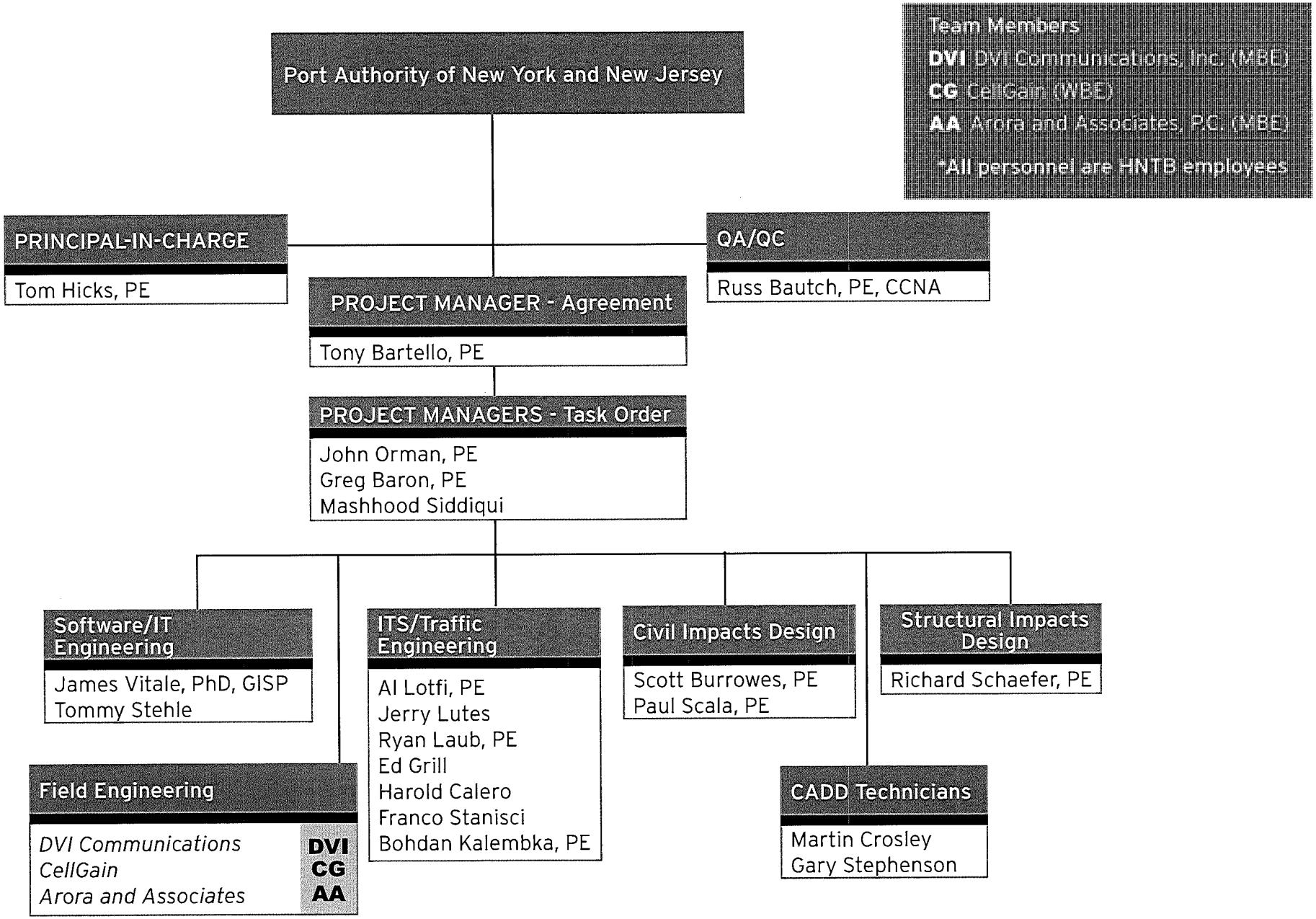
For your project, HNTB will serve as prime consultant and provide overall project management, scheduling, and ITS services.

STAFFING ANALYSIS

The HNTB Team is committed to providing you with the technical resources needed to provide expert ITS services at Authority facilities. We have assembled a team that understands, from experience, the challenges that will be key to successfully delivering your projects, such as maximizing the utility of investments, providing interoperability of systems, increasing the efficiency of legacy systems, and coordinating participation and input from stakeholders. As a leader in the planning and design of the nation's bridges, highways and toll road systems, HNTB is adept at integrating technologies that equip surface transportation facilities to function at peak efficiency.

Beginning on page D.2 are our organization chart and key personnel resumes for the performance of each task listed in Attachment A of the RFP.




Team Members
DVI DVI Communications, Inc. (MBE)
CG CellGain (WBE)
AA Arora and Associates, P.C. (MBE)
*All personnel are HNTB employees
Port Authority of New York and New Jersey
PRINCIPAL-IN-CHARGE
Tom Hicks, PE
QA/QC
Russ Bautch, PE, CCNA
PROJECT MANAGER - Agreement
Tony Bartello, PE
PROJECT MANAGERS - Task Order
John Orman, PE
Greg Baron, PE
Mashhood Siddiqui
Software/IT Engineering
James Vitale, PhD, GISP
Tommy Stehle
ITS/Traffic Engineering
Al Lotfi, PE
Jerry Lutes
Ryan Laub, PE
Ed Grill
Harold Calero
Franco Stanisci
Bohdan Kalembka, PE
Civil Impacts Design
Scott Burrowes, PE
Paul Scala, PE
Structural Impacts Design
Richard Schaefer, PE
Field Engineering
DVI Communications
CellGain
Arora and Associates
DVI
CG
AA
CADD Technicians
Martin Crosley
Gary Stephenson

TONY BARTELLO, PE

Tony is associate vice president and director of the Northeast Electrical Technologies Group for HNTB Corporation. His present responsibilities include the management of a diverse technologies engineering group consisting of 14 electrical/electronics engineers. Tony was project manager for the Authority's Electronics and ITS On-Calls from 2008-2010. He is experienced in the design of electronics and process control systems, programmable logic controllers (PLCs), communications, toll systems, ITS integration systems and signal control. Tony was also project manager for the complete building architectural and systems design of the New Jersey Statewide TMC, which won several awards. Additionally, he was program manager and lead designer for the New Jersey Turnpike Authority's ITS Master Plan and design standards presently being deployed from 2009-2020. He has extensive management experience in bringing large teams and numerous stakeholders together to coordinate system solutions and develop integrated designs. Tony's project experience includes:

Port Authority of New York and New Jersey, Administration Building 1 Police Radio System, Newark Airport, Newark, NJ

Project manager responsible for the design of a new police radio communications system and facility utilizing state-of-the-art touchscreens and log recorders. As part of HNTB's On-call Service contract with the Authority, HNTB was responsible for the complete Police Radio 800MHz communications system design of police/air rescue fire fighter computerized dispatcher system for interfacing into existing trunked and conventional radio systems.

New Jersey Turnpike Authority, New Jersey Statewide Traffic Management Center, Woodbridge, NJ

Senior project manager responsible for the coordination of the study, design, construction, and system integration for the new Traffic Management Center. The project involved the consolidation and systems integration of NJTA, including the Turnpike and Garden State Parkway, New Jersey State Police and NJDOT into one central operations center for interagency operability. His responsibilities involved conducting peer-reviews of ConOps and application of current technologies. Peer reviews were conducted in weekly workshops prior to and throughout the design process. Anthony assembled the complete design team and managed the architectural and systems design of a new 28,000-square-foot building to house the new operations and data centers where 42 operator workstations view an 18- by 50-foot video wall for the monitoring and control of more than 450 CCTV cameras, and detection systems. A total of 225 computer monitors exchange video and data information seamlessly among the agencies. The new center employs state-of-the-art equipment with wireless capabilities and data to and from field personnel and roadway devices. The project also included the erection of a 250-foot tower for radio communications. The facility was opened and fully operational in April 2008 after 18 months of construction with a cost of $29 million.

FIRM:
HNTB

ROLE:
Project Manager - Agreement

EDUCATION:
BS, 1988, Electrical Engineering, New Jersey Institute of Technology

REGISTRATIONS:
Professional Engineer: NJ/2005/#45842

ASCE PVI

AFFILIATIONS:
National Society of Professional Engineers

ITS America

Heavy Movable Structures Group

American Association of Airport Executives

National Fire Protection Agency

TONY BARTELLO, PE (CONTINUED)

New Jersey Turnpike Authority, Intelligent Transportation System (ITS) Master Planning, Various Locations, NJ

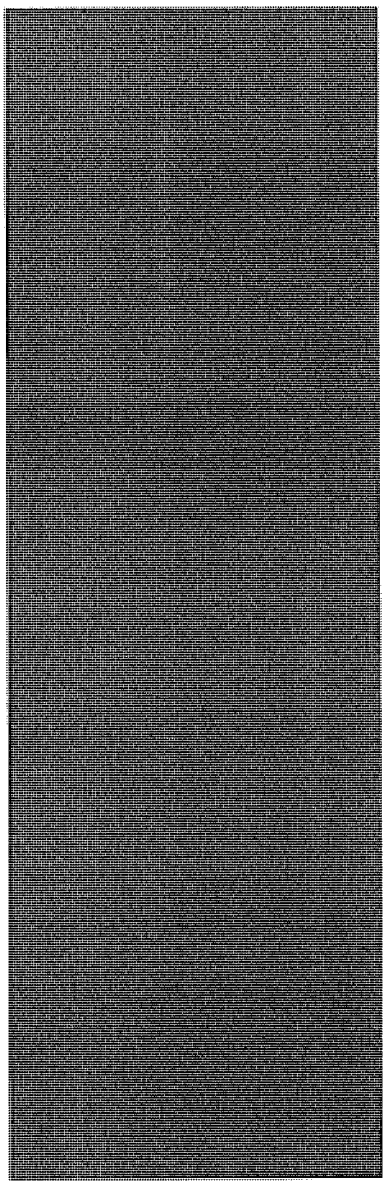
Senior project manager responsible for the Master Planning efforts towards state-of-the-art ITS implementation and deployment for Turnpike and Parkway roadways (321 centerline miles of toll roadway and 116 Interchanges). The project involved an in-depth analysis all present, new and future ITS assets for CCTV, traffic detection and monitoring, high-resolution color VMS, weather stations and other ITS systems. Business models were developed assessing return-on-investments for deployment of certain technologies. The project involved peer review of intended integration for an overall regional ITS solution that integrates with the new NJ TMC for all agencies with the intent to improve efficiency of roadway operations and share and optimize the use of state resources. The master planning effort included the complete evaluation of ITS resources for both roadways and the development of new ITS concepts to improve efficiency and safety. The program outlined a 10-year capital program and schedule for full implementation.

New Jersey Turnpike Authority, Communications Study for ITS Operations, Various Locations, NJ

Senior project manager responsible for the in-depth analysis and testing of various wireless data communications technologies for full-state coverage of both roadways out to intelligent roadway metrics, including traffic detection devices, CCTV and signage control. Although a separate project, the intent was to integrate the results of the communications study into the overall ITS Master Plan report. The purpose of the study was to evaluate the feasibility of WiMAX technology and other alternative broadband wireless technologies for full roadway coverage. The main purpose is to "anywhere" placement of ITS assets and future "intelligent" communications with state vehicles for mobile CCTV, rate and optimization of salt deployment and future IntelliDrive technologies (formerly VII), all communicating back to the NJ TMC. Tony conducted peer review workshops and vendors were invited to present their products for a statewide broadband wireless solution.

New Jersey Turnpike Authority, Variable Message Sign Procurement, Various Locations, NJ

Project manager responsible for the assessment of operational needs for the Turnpike and Parkway roadways and the development of new full-color, full-matrix, high-resolution VMS design for the procurement of 240 such signs to be deployed on the Turnpike and Parkway over the next five years. His responsibilities included the development of performance specifications, adapting design modifications of standard NTCIP LED signs to accommodate photographic quality graphics and full matrix color. The signs will be integrated into the NJTA's new TMC for integrated information distribution and asset sharing by NJTA, NJSP, and NJDOT. This new technology selection is in anticipation of future iconic and graphic display of roadway information and incidents using color to help highlight distinctions between emergency and non-emergency measures. The new signs will meet commercial graphic capabilities and still accommodate legacy NTCIP protocol and meet NEMA-TS4 requirements.



TOM HICKS, PE

Tom has more than 34 years of experience in all facets of highway and traffic engineering and transportation planning. His portfolio consists of more than 24 traffic studies, including a traffic engineering on-call contract with the Port Authority of New York and New Jersey; more than 10 HOV projects; and more than 23 highway design projects. Tom's project experience includes:

New Jersey Department of Transportation, Traffic Signal Contract No. 16, Atlantic, Burlington, and Camden Counties, NJ

Principal-in-charge for traffic signal contract where HNTB used system loops to develop a closed-loop signal system for 97 signalized intersections placed on a fiber network. This project incorporated state-of-the-art traffic and ITS equipment, including countdown pedestrian heads and video detection. This project included fiber-optic communication for closed-circuit television, closed-loop traffic management, highway advisory video and variable message signs. A new control center was also designed for NJDOT's South Jersey Traffic Operations Center.

Port Authority of New York and New Jersey, Traffic Engineering On-Call Services 2008-2010, Statewide, NY/NJ

Principal-in-charge responsible for expert professional services for a traffic engineering call-in contract to the traffic, planning, operations, safety and design groups. The assignments in 2008 included a SIB roadside safety audit, traffic on-site engineer available at all times, Howland Hook Marine Terminal conceptual planning and design, and Howland Hook Parcel C study.

Port Authority of New York and New Jersey, Traffic Engineering On-Call Services, 2005-2007, Statewide, NY/NJ

Principal-in-charge and project supervisor involved in performing traffic engineering services on an on-call basis at various Authority facilities. Traffic operational and safety studies were performed at the George Washington Bridge and the Holland and Lincoln Tunnels. In addition, Stage I, Phases I and II traffic studies were performed for the Goethals Bridge Modernization project. As part of that project, highway design concepts were developed for approaches to the George Washington Bridge, connections to the Howland Hook Marine terminal, and the missing movements for the I-278/ Route 1 & 9 Interchange.

Port Authority of New York and New Jersey, World Trade Center Traffic Study, New York, NY

Project traffic engineer responsible for data collection, analyses and development, as well as evaluation of various improvements to this vital area of downtown New York City.

Ocean County, County Route 530, Ocean County, NJ

Principal-in-charge for this project which includes the reconstruction of approximately three miles of County Route 530 in Ocean County. The project includes the projection of future traffic volumes, capacity and safety analyses, evaluation of alternative improvement, schemes and preparation

FIRM:
HNTB

ROLE:
Principal-in-Charge

EDUCATION:
MS, 1975, Civil Engineering, Northwestern University

BS, 1974, Civil Engineering, Manhattan College

REGISTRATIONS:
Professional Engineer:
NY/1980/#57906
NJ/1994/#38782

AFFILIATIONS:
Institute of Transportation Engineers

National Cooperative Highway Research Program

American Society of Civil Engineers

TOM HICKS, PE (CONTINUED)

of construction documents for the selected alternative, which included traffic signals.

New Jersey Department of Transportation, Open-Ended Preliminary Engineering Agreement, Region II, NJ

Project manager who provided traffic and engineering services to NJDOT on an "on-call" basis for highway and interchange improvement at various locations throughout Region II. Improvements included interchange modifications, provision of standard geometric design and signalization improvements at ramp termini. Locations included the fly-over at the Route 23/I-80 interchange, Route 78 at Diamond Hill Road, Route 80 at Route 20 and the complete Route 46/23/80 Interchange.

New Jersey Department of Transportation, Statewide Feasibility Assessment Task Order Agreement, NJ

Principal-in-charge for the performance of a feasibility assessment (preliminary scoping) for numerous locations throughout NJDOT's Northern Region. As part of this project's traffic and safety analyses, highway geometric and bridge studies were performed. Feasibility assessment reports and design exception reports were also prepared as part of this project.

New Jersey Department of Transportation, Open-Ended Preliminary Engineering Agreement, Region II, NJ

Project manager who provided traffic and engineering services to NJDOT on an on- call basis for highway and interchange improvement at various locations throughout Region II. Improvements included interchange modifications, provision of standard geometric design, and signalization improvements at ramp termini.

New Jersey Department of Transportation, Route I-78 Connector Section 23, Newark, NJ

Project director for this accelerated schedule project, which includes modifications to existing ramp configurations and bridge reconstruction to increase capacity and improve traffic flow. The scope also includes safety improvements and a comprehensive guide sign plan to be coordinated with various agencies, including the Authority, to efficiently direct traffic to key Newark attractions.

Bergen County Department of Planning and Economic Development, NJ Route 17 Bottleneck Project, Alternative Analysis, Preliminary Engineering and Environmental Documentation, Maywood, Rochelle Park and Paramus Counties NJ

Principal-in-charge for the advancement of this multi-million dollar transportation improvement program that was seeking to correct the highest ranked congestion corridor in northern New Jersey. Proposed improvements included a widening of the existing corridor from four lanes to six lanes with particular focus placed on the maintenance and protection of traffic and construction staging, access, right-of-way and community involvement.

RUSS BAUTCH, PE, CCNA

Russ is a project manager and senior ITS systems engineer with 17 years of ITS and urban signal system planning, design and integration experience. He is a Cisco Certified Network Associate (CCNA) who has led multi-discipline design and integration teams on ITS projects across the country. His ITS experience ranges from IntelliDrive communications system design to traffic management center integration. Russ has a national reputation for delivering complex ITS projects. His project experience includes:

New Jersey Department of Transportation, Statewide Traffic and Incident Management Master Plan, NJ

Assisted in the development of a communications master plan for New Jersey transportation agencies. He identified alternative communications media and their applicability to incident detection, ramp metering, wide area networks, electronic toll collection, traffic signal interconnection, video surveillance, and passenger information systems.

Michigan Department of Transportation, IntelliDrive (VII) Demo Support, MI

Network adviser for the planning, design, integration, operation and support of the 2009 ITS Michigan Annual Meeting IntelliDrive Model Deployment in Novi, May 12-13, 2009 and the IntelliDrive Demonstration Session at the 2009 AASHTO Mississippi Valley Conference in Grand Rapids, July 15-17, 2009.

I-405 Sepulveda Pass Widening, Los Angeles, CA

Communication and network designer in the development of ethernet communication architecture for a 10-mile corridor along I-405 freeway in coordination with other disciplines, along with design plans and specifications for the builder. The project includes careful choreographing of the installation of new components, rerouting existing communications, and using temporary devices and communications to minimize down time during the reconstruction of the roadway. This $750 million design-build project will add an additional HOV lane to I-405 NB from I-10 to the Ventura Boulevard, complete the SB HOV lane, improve geometrics at nine interchanges, and upgrade the shoulder and lane widths to current design standards.

Grand Rapids ITS System Manager, Grand Rapids, MI

Project manager leading a multidiscipline team in the development of plans, specifications and estimates, as well as management of system integration and oversight of construction for the installation of a region-wide ITS in Grand Rapids, MI. The project covers central control equipment and field devices along 52 miles of state trunkline and local primary and secondary routes, and dynamic message signs, CCTV cameras, vehicle detectors, and traffic signal interconnects. The communications system is a fully redundant Ethernet/IP mesh network that uses both fiber and wireless technology.

FIRM:
HNTB

TASKS:
QA/QC

EDUCATION:
MS, 1992, Civil Engineering, Northwestern University

BS, 1991, Civil Engineering, Bradley University

REGISTRATIONS:
Professional Engineer:
IL/ 2002/#62056012)
VA/1996/#0402 029983
MI/2001/#6201047204
NC/2001/#026835
MO/2003/#2003022184

Cisco Certified Network Associate

AFFILIATIONS:
Institute of Transportation Engineers

ITS America/ITS Midwest

RUSS BAUTCH, PE, CCNA (CONTINUED)

Western Michigan Traffic Management System, MI

Project manager for the development of a complete system design for a new traffic management center, including analysis of requirements, architectural space, system functions, and development of alternatives and final PS&E package. The design included a DLP cube video wall, audio/video distribution system, network design, and cutover plan from the old center to the new. HNTB is also providing technical support during the construction and integration phase.

St. Louis Regional Communications Network Integration, St. Louis, MO

Provided on-site integration support for MoDOT's regional ITS system in St. Louis, MO. Russ' responsibilities included configuring switches and routers, provisioning SONET multiplexers and troubleshooting a wide area network that covers 250 route miles. The network features digital video and a fiber optic network with a Resilient Packet Ring (RPR) backbone.

Honolulu Freeway Surveillance System, Honolulu, HI

Lead designer for an all wireless CCTV surveillance system on H1, H2, and Maunaloa Freeway in Honolulu, HI. Russ performed wireless path analysis, on-site testing and developed fresnel zone profiles for the wireless communications network using Cisco 1600 series wireless bridges. He also developed plans, specifications, and estimates for the system, which included 18 cameras covering 35 freeway miles.

Grand Rapids ITS Deployment Plan, Grand Rapids, MI

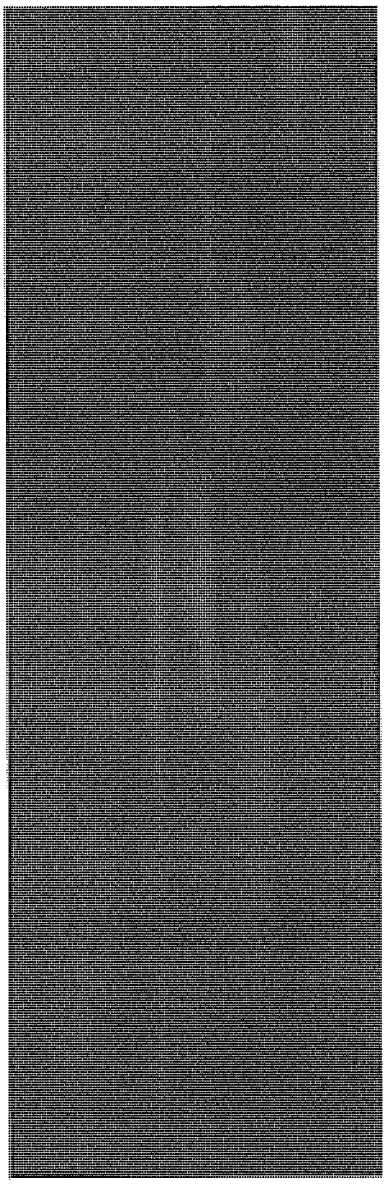
Project manager for a region-wide ITS plan for Grand Rapids, MI. Russ was responsible for the development of the preliminary design of a multi-agency regional wide-area network using a gigabit Ethernet mesh topology. The project included a communications master plan, phased deployment plan, regional ITS architecture and the development of a regional incident management program.

I-44 ITS Design, St. Louis, MO

Technical director for the deployment of ITS devices and communications on along the I-44 Corridor in the St. Louis region. Russ was responsible for communications design and PS&E preparation. The project includes the design of closed-circuit television cameras, dynamic message signs, and portable traffic control systems on a hybrid fiber-optic/wireless backbone using an IP-over-SONET configuration. It also includes the tie-in of several arterials to the regions ACTRA central signal management system over the same IP communications network.

I-70 ITS, St. Louis, MO

Lead communications designer for the deployment of ITS devices on the I-70 Corridor in the St. Louis region. The project included the design of closed-circuit television cameras, vehicle detectors, and dynamic message signs on a hybrid fiber-optic/wireless backbone using an IP-over-SONET configuration. The design was used as a standard for the region's Gateway Guide communication backbone.



JOHN ORMAN, PE

John is experienced in all aspects of communications systems as they relate to the application of digital computer information transmission. He has designed systems using all of the major communications technologies, including fiber- optics, coaxial cable, twisted pair, satellite and radio. He played a key role in the design of communication backbone systems using multiplexing techniques for video, voice and data transmission. John's recent fiber optic designs include work for both the NJTA and NJDOT. These implementations utilize the synchronous optical network standard (SONET). SONET communication is based on an all digital communications system representing the state-of-the-art in fiber optic telecommunication, which permits the transmission of compressed video data for both processing and visual confirmation of traffic conditions. John has also designed the integration of various communication systems for the Authority for use at the new AirTrain connection with Amtrak and New Jersey Transit at Newark's Liberty International Airport.

John has also been responsible for the design, installation and upgrade of traffic control and freeway management systems throughout the United States and Canada. He has extensive experience in the design and interface of various types of computer peripheral and communication equipment. He is familiar with the structure, programming and operation of presently available computer systems and has worked on control systems that utilize personal computers, mini-computers, and larger computer complexes.

John has designed and integrated a wide range of communication and control systems, recently, including the design and production of plans and specifications for the installation of hardware and equipment required for the implementation of E-ZPass electronic toll collection (ETC) on the Maine Turnpike and Express E-ZPass ETC on the Garden State Parkway (GSP) and New Jersey Turnpike. John's project experience includes:

Port Authority of New York and New Jersey, All Electronic Tolling, Statewide, NY/NJ

Senior project engineer who proposed infrastructure and sites where equipment could be located for this new concept in cashless tolls at all Authority toll facilities. John prepared recommendations and estimates, and is currently designing contract plans and specifications for the implementation of this project.

Port Authority of New York and New Jersey, On-Call Security, Statewide, NY/NJ

Senior project engineer who performed various on-call design projects, including the design of communications for PATH security and network operations center, design for passive infra-red surveillance camera system, as well as designs for the control of 800 MHz radio back-up systems at various facilities. John also performed design work, including development of plans, specifications and estimates.

Port Authority of New York and New Jersey, Toll System Replacement, Statewide, NY and NJ

Senior project engineer who inspected all existing toll facilities and central toll computer systems controlled by the Authority

FIRM:
HNTB

TASK:
Project Manager - Task Order

EDUCATION:
MS, 1974, Electrical Engineering, Polytechnic Institute of Brooklyn

BS, 1970, Electrical Engineering, Polytechnic Institute of Brooklyn

REGISTRATIONS:
Professional Engineer:
NJ/1996/
#24GE03969100
TX/1998/#83175
GA/2001/#026813

AFFILIATIONS:
Institute of Electronic and Electrical Engineers

JOHN ORMAN, PE (CONTINUED)

to evaluate existing conditions and make recommendations for improvement and replacement. John was responsible for preparing recommendations and estimates.

New Jersey Turnpike Authority, Garden State Parkway Micro-loop Data Collection, Cape May to Paramus, NJ

Senior communications engineer responsible for the design of a system to count traffic at interchanges that were converted to one-way tolling.

New Jersey Turnpike Authority, Traffic Management Center, Woodbridge, NJ

Senior communications engineer responsible for performing an analysis of existing facilities and making recommendations for the future design of an integrated traffic management center facility for NJ operations.

Port Authority of New York and New Jersey, Trans-Hudson (PATH) Closed-Circuit Television (CCTV) and Access Control Upgrades, Newark to Hoboken, NJ

Senior communications engineer for the survey of 12 locations including passenger stations and power substations to determine existing level of security. John proposed and designed plans, specifications and estimates for the upgrades.

New Jersey Turnpike Authority, Traffic Management Software, NJ

Senior communications engineer responsible for the design of proposed operation of new software for the Traffic Management Center. John developed recommendations for the transition and design of integrated software and systems.

Port Authority of New York and New Jersey, Goethals Bridge Replacement, Preliminary Investigation of Existing Systems, Staten Island, NY/NJ

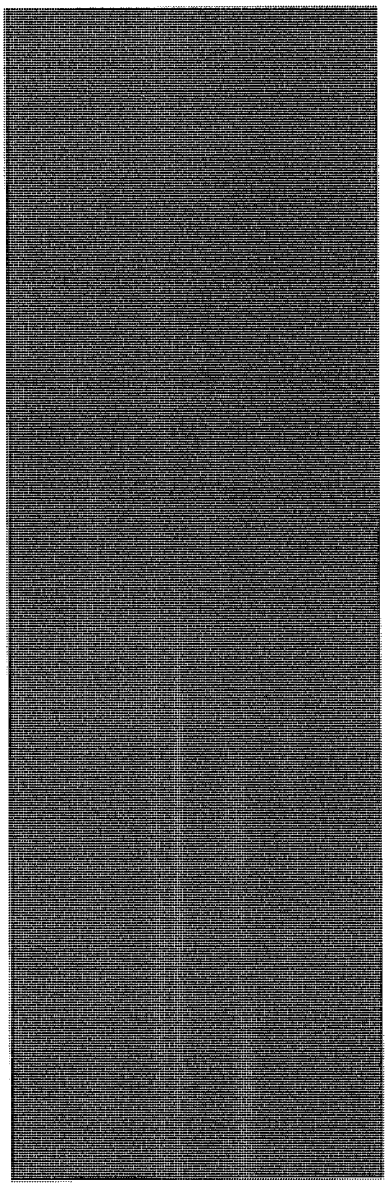
Senior communications engineer responsible for surveying the existing systems and developing recommendations for the proposed replacement.

New Jersey Turnpike Authority, Review of As-Built Plans for Electronic Tolls on NJ Turnpike, Salem to Bergen Counties and Garden State Parkway, Wildwood to Hillsdale, NJ

Senior communications engineer responsible for providing comments on the as-built plans provided by ACS for the implementation of E-ZPass tolls at each interchange of the New Jersey Turnpike.

New Jersey Turnpike Authority, Interchange 18W Express E-ZPass, NJ

Senior communications engineer responsible for the design of infrastructure to support high-speed operation of electronic tolling.



GREG BARON, PE

Greg is an electrical project manager and assistant department head with more than 15 years of experience. He is responsible for preliminary and final design efforts as well as construction support, including quality control, coordination and management of electrical projects.

Greg is experienced in the design of roadway, highmast, parking area lighting systems, electronic toll collection systems (ETC), power and control systems for movable bridges, building electrical systems, and aviation lighting, navigation, weather reporting, power, and sign guidance systems. His additional responsibilities include the preparation of contract plans and specifications, coordination and management of design projects and review of shop drawings. He has assisted in the electrical inspection of more than 20 movable bridges, as well as the design of more than 14 movable bridges in the Northeast and Southeast regions of the United States. Greg's project experience includes:

New Jersey Turnpike Authority, Traffic Management Center (TMC), Woodbridge, NJ

Electrical engineer involved in the study, design, construction and system integration for the New Jersey Statewide TMC. The project involves the consolidation and systems integration of the New Jersey Turnpike, Garden State Parkway, New Jersey State Police (NJSP) and New Jersey Department of Transportation (NJDOT) into one central operations center for interagency operability. Greg's responsibilities include assisting with the design of a new 28,000-square-foot building to house the new operations and data centers where 42 operator workstations view an 18- by 50-foot video wall for the monitoring and control of surveillance and detection systems.

New Jersey Turnpike Authority, Variable Message Sign (VMS) Procurement, Woodbridge, NJ

Electrical engineer involved with the evaluation of new ITS sign technologies and assessment of operational needs for the New Jersey Turnpike and Garden State Parkway roadways. Greg's responsibilities include the development of specifications for the procurement of 240 LED variable message signs for the two roadways; and the design modifications of standard NTCIP LED signs to accommodate high-resolution graphics, full-motion video and full-matrix color. The signs will be integrated into the NJTA's new TMC for integrated information distribution and asset sharing by NJTA, NJSP and NJDOT. This new technology selection is in anticipation of future iconic and graphic display of roadway information and incidents using color to help highlight distinctions between emergency and non-emergency messages. The new signs will meet commercial graphic capabilities and still accommodate legacy NTCIP protocol and meet NEMA-TS4 requirements.

Port Authority of New York and New Jersey, JFK International Airport, Airport Security Display Processor, New York, NY

Electrical engineer responsible for the testing of an Airport Security Display Processor for airport perimeter intrusion detec-

FIRM:
HNTB

TASK:
Project Manager - Task Order

EDUCATION:
BS, 1994, Electrical Engineering, University of Pittsburgh

REGISTRATIONS:
Professional Engineer:
NJ/2005/#GE45781
NC/2006/#31843
MD/2009/#37814
MA/2009/#48286
VA/2009/#046936

GREG BARON, PE (CONTINUED)

tion. The scope included design of a complete testing procedure, coordination with Authority forces for testing, implementation of the test procedure and a detailed report of findings, results and recommendations.

South Jersey Transportation Authority, Electronic Toll Collection System, Various Locations, NJ

Electrical engineer responsible for the complete review and approval of contract documents for an electronic toll collection system. The scope also included providing field engineering and supervision services, punchlist preparation, and design of an RFP compliance matrix.

New Jersey Turnpike Authority, Regional Electronic Toll Collection System, Various Locations, NJ

Electrical engineer responsible for leading the site visits to all of the toll plazas along the Garden State Parkway for firms submitting proposals and bids on the project. The scope also included review and evaluation of bid documents submitted by firms, as well as design of a bid scoring procedure to make certain all proposals were reviewed on a fair and equivalent basis.

Harris County Toll Road Authority, Electronic Toll Systems, ETC/Toll Plaza Application, TX

Electrical engineer responsible for design and plan preparation for the complete construction and installation of new ETC equipment along the entire toll road. The scope included design and detailed layout of raceway and conduit systems, equipment mounting and placement, equipment interconnection design, electrical panelboard sizing design, toll island equipment layout design, equipment specification, retrofit of new equipment to existing toll plazas, placement of E-ZPass antenna and traffic signalization equipment, and contract plan set preparation.

New Jersey Turnpike Authority, Express E-ZPass, Various Locations, NJ

Electrical engineer involved in the design and plan preparation for the complete construction and installation of new high-speed electronic toll collection equipment at various locations along both the NJ Turnpike and the Garden State Parkway. The scope included the design and detailed layout of raceway and conduit systems, equipment mounting and placement, equipment interconnection design, electrical panelboard sizing design, toll island equipment layout design, equipment specification, retrofit of new equipment to existing toll plazas, placement of E-ZPass antenna and traffic signalization equipment, highway lighting, and contract plan set, specification and cost estimate preparation.

Port Authority Transit Corporation, Miscellaneous Services, NJ

Electrical engineer involved in the design of a variable message/public announcement system throughout the PATCO rail system customer platforms.

MASHHOOD SIDDIQUI

Mashhood has nearly 10 years of experience specializing in electrical engineering. He has worked on projects related to electrical and ITS design, design guidelines, installation, repair and inspection. Mashhood's project experience includes:

Port Authority of New York and New Jersey, Lincoln Tunnel Helix Structural Rehabilitation Design, Weehawken, NJ

Electrical engineer for the New Jersey Approach Helix Structures to the Lincoln Tunnel carry three lanes inbound and four lanes outbound, connecting the New Jersey Turnpike to Midtown Manhattan. He was responsible for field inspections and developing the Electrical/Roadway lighting plans and details for preliminary design.

Port Authority of New York and New Jersey, George Washington Bridge – Main Span Upper Level Structural Steel Rehabilitation, NY/NJ

Electrical engineer responsible for creating contract plans for relocation of existing electrical utilities for this project which includes field inspection, rehabilitation of the orthotropic deck, drainage improvements, priority repairs to supporting steel and CCTV camera.

Port Authority of New York and New Jersey, PATH CCTV and Access Control Upgrades, Jersey City, NJ

Electrical engineer for the survey of 12 locations that included passenger stations and power substations for PATH train. The project determined the existing level of security and suggested added CCTV coverage and access control for additional doors.

New Jersey Turnpike Authority, New Jersey Turnpike 6 to 9 Widening Program, NJ

Electrical engineer for the NJ Turnpike Interchange 6 to 9 Widening Program (Widening Program) consists of approximately 35 miles of road widening and associated interchange improvements from the vicinity of Interchange 6, in Mansfield Township, Burlington County (Milepost 48) to just south of Interchange 9 in East Brunswick Township, Middlesex County (Milepost 83).

HNTB is acting as a design Program Manager for the widening program. Mr. Siddiqui is acting as an Electrical/ITS liaison for the New Jersey Turnpike Interchange 6 to 9 widening project. Responsible for reviewing and providing guidelines related to design issues for both Roadway lighting and Intelligent Transportation System (ITS) design.

New York City Department of Transportation, 145th Street Bridge over Harlem River, Bronx, NY

Electrical engineer for the rehabilitation of 145th Street/ Swing-span movable bridge. Job responsibilities include providing construction support services for the bridge electrical system (both power & controls) towards the day-to-day construction issues by responding to RFI`s and reviewing shop drawings. Bridge control system is designed to operate on both PLC and Relay mode, PLC mode being the primary control system.

FIRM:
HNTB

TASKS:
Project Manager - Task Order

EDUCATION:
MS, 2002, Electrical Engineering, New Jersey Institute of Technology

BS, 1999, Electronic Engineering, Sir Syed University of Engineering and Technology, Karachi

AFFILIATIONS:
IEEE

MASHHOOD SIDDIQUI (CONTINUED)

New York City Department of Transportation, Metropolitan Avenue Bridge over English Kills, Brooklyn, NY

Electrical inspector for the rehabilitation of Metropolitan Avenue Bridge double-leaf bascule bridge. Job responsibilities included monitoring installations and configuration of bridge power distribution system and bridge control system, including the main control desk, user desk, MCC, and PLC cabinets comprising of an Allen Bradley PLC5 processor, PLC5 I/O cards and a panel view electronic operator interface. He monitored the bridge contractor electrical activities in conformance with plans and specification.

New Jersey Turnpike Authority, General Consultant Services for Emergency Speed Warning/ Speed Limit Signs, NJ

Electrical engineer responsible for full inspection of all existing (141 signs) emergency speed warning/speed limit (ESW/SL) signs and their control equipment along the New Jersey Turnpike corridor. Phase I, to inspect physical and mechanical condition of the existing neon signs and their control equipment, including remote terminal units, control cabinets, conduits, field wiring and control relays. He prepared a report for each sign with field findings for the client, existing signs were replaced with variable message signs.

U.S. General Services Administration, Region 2, Champlain Border Station Expansion, Champlain, NY

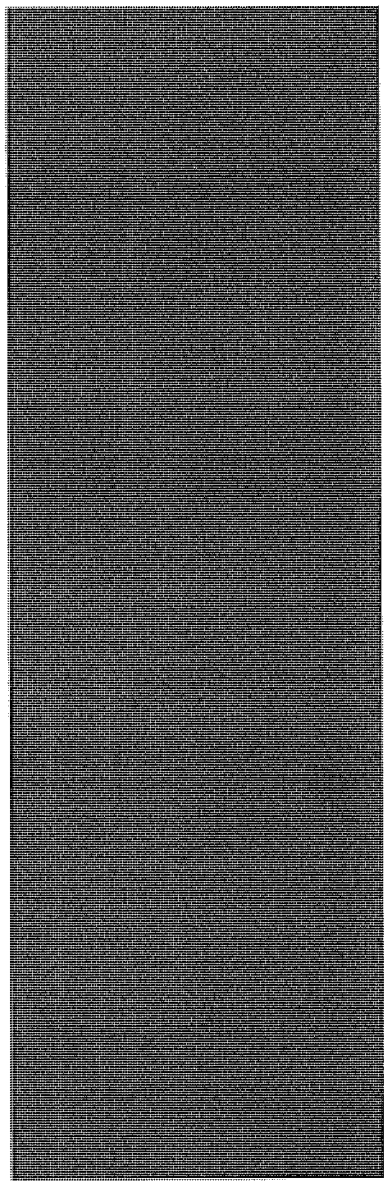
Electrical engineering design team member for the planning and design of this "Port of Excellence" project. He is responsible for the design of transformers and the emergency lighting system. For Phase II, designed the lighting for the inspection facility, the canopy, the parking lot staging lighting, and access road lighting. For Phase III, Mashhood designed the interstate lighting, lighting for the access road, the canopy, and the inspection of the plaza.

Metropolitan Transportation Authority - Bridges and Tunnels (TBTA) On-Call Services (Queens Mid-Town Tunnel), New York, NY

Electrical systems design for the TBTA on an on-call basis for highway, toll plaza, VMS sings and miscellaneous improvements at various locations throughout the TBTA Facilities.

New Jersey Department of Transportation, Route 1&9 South Roadway Lighting, NJ

Electrical engineer responsible for the design and plan preparation for roadway lighting along the Route 1&9 at the intersection of I-295. The scope included photometric analysis, circuitry design, detail development and coordination with utilities.



JAMES VITALE, PHD, GISP

James is a senior program/project manager with demonstrated experience in planning, developing and implementing cutting-edge geospatial information solutions to address business problems and opportunities. He is experienced in planning and managing multiple large-scale IT projects that involve integrating geospatial technologies with enterprise applications. James' related experience includes:

Bowne Management Systems, Inc., Vice President, Mineola, NY

Senior manager for IT systems integrator specializing in geospatial solutions. James' broad scope of responsibility included strategic market planning, customer relationship management, business development, allocation and reallocation of programming resources, project management, risk management and mitigation, and delivery management including 'scope creep' amelioration. In this position he:

- Successfully rehabilitated relationships with numerous county, town and village clients on Long Island and in the mid and lower Hudson River Valley.
- Implemented procedures to insure proper allocation of programming resources so that projects were completed on time at minimum cost.
- Successfully controlled scope while managing client expectations for a portion of a multi-million dollar implementation project.
- Served as program manager responsible for overseeing four project managers and all developers assigned to projects under their purview.

W.E.C. Engineers, Inc., Executive Vice President, 1981-2008

Senior executive for this multi-disciplinary civil engineering and IT firm, including 25 years of project management experience, 15 of which was focused primarily on IT and Geospatial Information Management Systems projects. James developed, nurtured and grew the GIS group until it was nationally recognized as an award-winning Geospatial Technologies team.

- Increased IT-related sales from start-up to $2 million per year for last three years.
- Established a nationally-recognized group that was focused on customer satisfaction.
- Delivered transportation-related IT consulting services for 12 years to the Pennsylvania Turnpike Commission (PTC).
- Led a PTC project that was awarded the IBTTA Excellence in Technology Award in 2000.
- Designed and managed development of the OpCenterOnline application for the PTC's Operations Center. Key features of this browser-based application include:
- Served as geospatial team lead and project manager for the PTC's SAP Implementation project.
- Specified and acquired the in-house computing capabilities used to emulate client operating environments, including hardware, operating systems, databases, other software and network infrastructure.

FIRM:
HNTB

TASK:
Software/IT Engineering

EDUCATION:
PhD, Civil Engineering, University of Pittsburgh

MS, Civil Engineering, University of Pittsburgh

BS, Civil Engineering, University of Pittsburgh

GIS Professional Certification, GIS Certification Institute

REGISTRATIONS:
Certified Geographic Information Systems Professional

AFFILIATIONS:
Project Management Institute - Member

TOMMY STEHLE

Tommy joined HNTB in 1993 as a VMS system programmer. In this position he was responsible for all VAX/VMS system programming, networking and program updates for the firm's network of VAX computers. Since 1994, Tommy has assumed an active role in engineering programming application development. He currently works in the firm's Technology Incubation Center, where he focuses on intelligent transportation systems (ITS) technologies, with an emphasis on tolling and traffic monitoring software. Tommy's project experience includes:

EZ-CMS, NJ

Principal software engineer developing EZ-CMS, a management program for changeable message signs located at each of the toll plazas on the New Jersey Turnpike and Garden State Parkway. The application allows the operator to remotely control the sign network for each lane so that a lane may be closed or changed to cash-only or E-ZPass-only. This program is still in development and is scheduled for deployment in March 2008. E-Z-CMS is developed in C++ using the modbus protocol to communicate with the CMS signs over an RS-485 network.

RapidAssessment™

RapidAssessment™ is a software product that enables quick collection of bridge inspection data after a disaster. By integrating GPS on a Windows CE device with the latest National Bridge Inventory (NBI) data, RapidAssessment™ software enables personnel with minimal training and no previous knowledge of a geographic area to locate bridges and roadways (or sites where these structures once stood) and compare current conditions to the most recent NBI inspection data. Tommy was responsible for creating a management program that allows the data to move from a handheld device to a PC without any interaction from the user. The management program then updated the data in Oracle. This process required the creation of two C++ programs (one for the handheld computer and one for the desktop) to manage many handheld computers. Technologies included Win32, WinCE, C++ and Oracle.

Marquette Interchange Project Web Site, Traveler Information System ITS Integration

HNTB played the lead role in the innovative ITS integration techniques for the Marquette Interchange Project web site (www.mchange.org). Tommy worked on the team that built the site's Traffic Information Map, which made use of ITS data from the Milwaukee Traffic Operations Center (TOC). This effort included a custom XML Generator Application to display road conditions, closures and pictures outside the TOC firewall. Tommy was responsible for publishing data from WisDOT's Monitor system to the Web using PL/SQL and Java. He was also responsible for application design and implementation of TrafficBug, a desktop application that allows users to access custom traveler advisories using C++, Web services, and Java. Tommy continues to support several back-end processes that feed data to the Web site. Technologies include Win32, C++, Java, SQL Server 2000 and Oracle.

FIRM:
HNTB

TASKS:
Software/IT Engineering

EDUCATION:
BS, 1993, Computer Science, Southwest Missouri State University

TOMMY STEHLE (CONTINUED)

HNTB, Bridge Design and Geometry System (BDGS)

HNTB's Bridge Design and Geometry System (BDGS) is a modular program that combines several bridge design tools into one intuitive interface: computer-aided drafting (CAD), geometric design, steel girder design, and plan production drawings. Tommy assists with development, coding and testing of various drawing and mathematical functions for BDGS. He also worked on the development of reporting, memory management and interfaces between code written in FORTRAN and C. Technologies include Windows and C.

BDGS 2.0

Responsible for program design for the porting of BDGS from a 16 bit C program to an object-oriented Win32 C++ program. He also assisted with the implementation of BDGS 2.0. Technologies include Win32 and C++.

New Jersey Turnpike Authority, Automated Traffic Surveillance and Control System (ATSCS), NJ

Provides consulting services for the Automated Traffic Surveillance and Control System (ATSCS) for the New Jersey Turnpike Authority. The ATSCS is a real-time ITS system that controls roadway devices on the New Jersey Turnpike. Tommy's responsibilities include adding new functionally to the system and porting the system from VAX to an Alpha processor. Technologies included VMS, Pascal, C, Motif, Oracle and GDS.

DataTrax

Responsible for the database design, application design and implementation of DataTrax. This custom GIS application provides easy access to maps and rail corridor data for the Peninsula Corridor Joint Powers Board. Technologies included Win32; C++, MapObjects and Oracle.

HNTB, Flight Data Modeler

Assisted in the development of HNTB's Flight Data Modeler (FDM) software. This custom software uses an airport's radar data to model noise exposure patterns. Technologies included Win32, C++, ObjectARX and SQL Server 2000.

HNTB, SeatCount

Assisted in the development and coding of HNTB's SeatCount, a program used to automate the calculation of stadium seating. Technologies included Windows and C.

AL LOTFI, PE

Al is the senior project manager and operations manager in HNTB's Wayne office and has more than 24 years of experience with significant transportation design experience. He has participated in the planning and design of numerous highway, transit, aviation, traffic, and water resources projects. He is a multidisciplinary engineer, familiar with design criteria in numerous states. Al's project experience includes:

Port Authority of New York and New Jersey, Traffic Engineering On-Call Services 2008, 2009, 2010, NY/NJ

Project manager who provides expert professional services for a traffic engineering call-in contract to the traffic, planning, operations, safety and design groups. The assignments in 2008 include SIB Roadside Safety Audit, provide traffic on-site engineer, Howland Hook Marine Terminal conceptual planning and design, and Howland Hook Parcel C study.

Port Authority of New York and New Jersey, Goethals Bridge Modernization, NY/NJ

Project manager responsible for Stage I preliminary design alternatives and criteria for the replacement of the Goethals Bridge. The scope of work consisted of providing a Stage I design effort for replacing the existing bridge with a new six-lane structure – either to the north or south of the existing bridge. Also included in this effort are conceptual evaluations and recommendations for performance enhancing realignments and/or reconfigurations of the New York and New Jersey Interchanges. Traffic conditions and flow patterns for both interchanges were studied and conceptual improvements provided. In addition, conceptual evaluations for direct tie-ins to the Howland Hook Marine Terminal on the New York side and to the "missing links" from Routes I-278 to Routes 1 and 9 in New Jersey are provided. The effort also includes recommended locations for security truck inspection facilities on both the New York and New Jersey Interchanges.

Port Authority of New York and New Jersey, Traffic Engineering On-Call Services 2005, 2006, 2007, NY/NJ

Project manager who provided expert professional services for a traffic engineering call-in contract. Traffic operational and safety studies were performed at the George Washington Bridge and the Holland and Lincoln Tunnels. In addition, Stage I, Phases I & II traffic studies were performed for the Goethals Bridge Modernization project. As part of that project, highway design concepts were developed for approaches to the Bridge, connections to the Howland Hook Marine Terminal, and the missing movements for the I-278/Route 1&9 Interchange. Other assignments performed under this call-in included, but were not limited to, Howland Hook Marine Terminal Parcel C study, Elizabeth Land Track and South Bay Avenue project, Corbin Street Intermodal Yard, Port Ivory demolition of 50 service buildings, development of 50 service buildings MPT plans, and supervision of HNTB's on-site engineers.

FIRM:
HNTB

TASKS:
ITS/Traffic Engineering

EDUCATION:
MS, 1982, Transportation Planning and Engineering, Polytechnic Institute of NY

BS, 1980, Civil Engineering, New Jersey Institute of Technology

REGISTRATIONS:
Professional Engineer:
NJ/1995/#GE39091
PA/1995/#PE050129
DE/1994/#9411

AFFILIATIONS:
American Society of Civil Engineers

American Society of Highway Engineers

AL LOTFI, PE (CONTINUED)

Port Authority of New York and New Jersey, Traffic Engineering On-Call Services 2002, 2003, 2004, NY/NJ

Project engineer who provided expert professional services for a traffic engineering call-in contract. Traffic operational and safety studies were performed at the George Washington Bridge and the Holland and Lincoln Tunnels. Other assignments performed under this call-in included, but were not limited to, Port Ivory Block B study and design, George Washington Bridge sign inventory, and providing an on-site traffic engineer.

Port Authority of New York and New Jersey, Highbridge Interchange and 178th/179th Street Tunnels Ramp System, NY

Civil task leader to perform a feasibility study to identify any fatal flaws in the constructibility of Pennsylvania and NYSDOT alternatives for the ramp system connecting the 178th/179th Street tunnels to the adjoining roadways. The project includes review of the proposed alignments of the ramp system, along with available bridge and roadway plans of the existing infrastructure to judge the feasibility of the vertical and horizontal alignments proposed using AASHTO bridge and roadway standards. Additional responsibilities are to prepare budgetary level cost estimate for each alternative for preliminary design and final design of the alternatives, prepare design and construction schedules, and develop preliminary extent of right-of-way by showing the limits of construction on the topographic maps for the alternatives.

Port Authority of New York and New Jersey, Howland Hook Marine Terminal Parcel C Study, NY/NJ

Project manager responsible for developing interim solutions for the local Staten Island traffic network to mitigate growing truck traffic from a New York containers terminal until a new Goethals Bridge is built. Also included in this effort is to develop short- and long-term solutions for local network with and without Parcel C development. Conceptual designs included direct ramp access via I-278 and local intersection improvements.

New Jersey Department of Transportation, Portway Phase 1, NJ

Project manager responsible for the feasibility-assessment study of this important and high profile assignment for NJDOT. The Portway Phase 1 route extends approximately six miles, and begins at Port Elizabeth in Union County, follows along Corbin and Ports Streets, and traverses north on an improved Doremus Avenue at the Moremus/Port Street intersection. North of Wilson Avenue, the route crosses the Passaic River (across a planned new bridge) into Hudson County, joining Central Avenue in South Kearny. Portway continues along Central Avenue to Pennsylvania Avenue and Fish House Road, crossing the Hackensack River via the Wittpenn Bridge. It follows Route NJ 7 and U.S. Route 1 & 9T to a redesigned Charlotte Circle and St. Paul's Avenue in Jersey City, Hudson County, accessing Croxton Yards via a proposed road on railroad right of way.

JERRY LUTES

Jerry is a senior project manager with 25 years of experience in the design and implementation of transportation projects. His recent work has focused on traffic management and ITS. Jerry's project experience includes:

Virginia Department of Transportation, Dulles Airport Tunnels, Fairfax County, VA

Engineer who designed a communication network within tunnels, providing communication and power to security equipment, fire protection equipment, emergency phones, and SCADA systems. He reviewed contractor submissions and responded to contractors' requests for information.

Virginia Department of Transportation, Capital Beltway (I-495) HOT Lanes, Fairfax County, VA

Lead engineer who prepared conceptual and preliminary designs for proposed traffic management equipment, including cameras, detectors, power distribution, dynamic message signs and communication.

Virginia Department of Transportation, I-66 Spot Improvements (Design-Build), Arlington and Fairfax, VA

Lead engineer who prepared conceptual and preliminary plans for work to keep VDOT's existing traffic management equipment operation despite roadway construction. John recommended locations for additional CCTV cameras to provide complete coverage of the project area. He prepared plans for the installation of VDOT cable along WMATA tracks.

Virginia Department of Transportation, I-95 Widening, Newington and Occoquan, VA

Lead engineer who prepared two sets of plans, specifications and quantities relating to the widening of I-95 between Newington and Occoquan. One was for the relocation of traffic management infrastructure, including primarily cabinets, conduits, and cables, which was prior to roadway construction. The other was for the installation of additional traffic management equipment during or after the roadway construction.

Virginia Department of Transportation, Springfield Interchange Reconstruction, Springfield, VA

Engineer who designed modifications to the existing communication infrastructure and central software. He developed step-by-step phasing of communication-related construction activities to preserve the Smart Traffic Center's ability to control equipment despite the destruction of cables and communication cabinets during the roadway construction. He also prepared specifications for ITS equipment and software.

Dallas Area Rapid Transit, Multi-Agency ITS Planning/ Conceptual Design, TX

Engineer for a consortium of transportation agencies in the Dallas-Fort Worth area, including TxDOT's Dallas and Fort Worth districts, Jerry identified interagency communication needs, existing communication assets, technology choices, and recommended methods of exchanging ITS data and video. He performed a similar service for New Jersey's transportation agencies.

FIRM:
HNTB

TASK:
ITS/Traffic Engineering

EDUCATION:
MS, 1974, Management, Massachusetts Institute of Technology

BES, 1969, Chemical Engineering, Johns Hopkins University

AFFILIATIONS:
Institute of Transportation Engineers

JERRY LUTES (CONTINUED)

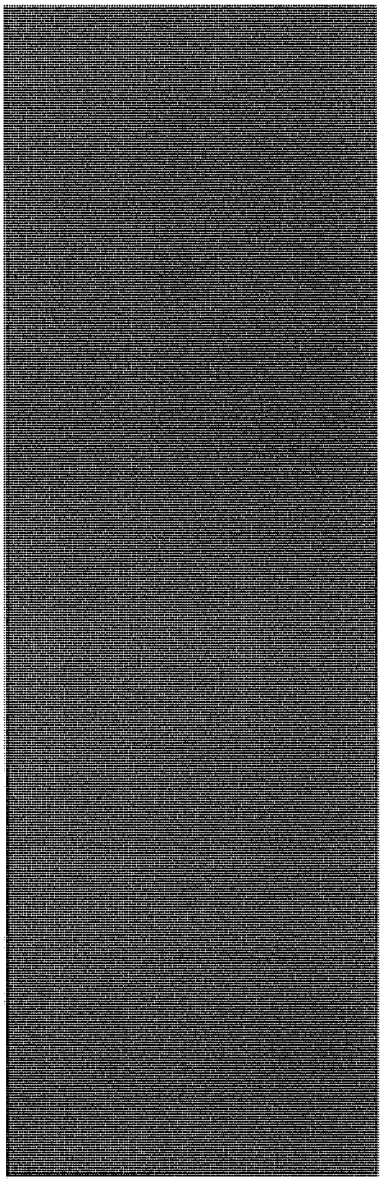
Delaware River and Bay Authority, New Jersey Turnpike Authority, New Jersey Department of Transportation, North Texas Tollway Authority (NTTA), Single-Agency ITS Planning/ Conceptual Design, NJ, TX, MD

Engineer who identified traffic management needs, evaluated technology alternatives and proposed and prioritized projects for construction.

Various Clients, Traffic Management System Detailed Design, Various Locations, NJ, NC, MD, VA

Engineer who developed specifications and assisted in plan development of traffic management systems for the NYSDOT freeway system, FDOT bridge system in Panama City, VDOT freeway and signal systems, NJTA traffic signals, Garden State Parkway, Route 1, NCDOT signal systems, Maryland State Highway Administration freeway system, City of Richmond traffic signals, and City of Louisville signal systems. Jerry prepared specifications for:

- Variable message signs (Garden State Parkway, New Jersey Turnpike Authority, Route 1, Penn Lincoln Parkway, Hampton Roads, and Northern Virginia)
- Reversible roadway gates and controllers (Hampton Roads, Northern Virginia, and Pittsburgh)
- Traffic monitoring and classification systems (Garden State Parkway, Hampton Roads, Panama City, Northern Virginia, and Penn Lincoln Parkway)
- Traffic signal controllers (Richmond, Louisville, Greenville)
- Closed circuit television (Penn Lincoln Parkway, Northern Virginia, Maryland, Hampton Roads, Wilmington, Hickory, Rochester, Panama City, Greenville)
- Software (Garden State Parkway, Route 1 NJ, Pittsburgh, Rochester, Greenville, Hampton Roads and Northern Virginia)
- Highway advisory radio (Route 1, Rochester, and Penn-Lincoln Parkway)
- Roadway weather stations (Rochester, Panama City)
- Truck regulatory compliance station (North Carolina)
- Surge suppression (Garden State Parkway, New Jersey Turnpike Authority, Route 1, Panama City, Penn Lincoln Parkway, Hampton Roads, and Northern Virginia)
- Communication systems (Hampton Roads, Hampton, Garden State Parkway, Route 1, Wilmington, Hickory, Maryland, Louisville, Panama City, Northern Virginia, Rochester)



RYAN LAUB, PE

Ryan has 10 years of experience working on a variety of transportation planning and design projects. He has performed traffic data collection and analysis. Ryan's past experience includes various internships with PennDOT District 5-0 working in their bridge unit. He also has extensive computer experience including TranPlan, Viper, HCS Software, ArcExplorer, Syncro/Simtraffic, Paramics, MicroStation/Inroads, and MS Office. His project experience includes:

New Jersey Turnpike Authority, General Engineering Contract (GEC), NJ

Project engineer responsible for the redesign of the Asbury Park toll plaza on the Garden State Parkway. This included elimination of the southbound toll plaza and adding a high speed or Express E-ZPass lane to the northbound side. Responsibilities included the geometric, guide rail, earthwork, and pavement design. In addition assisted with the communications and electrical changes to the Asbury Park, Raritan, and Toms River toll plazas for high-speed E-ZPass.

New Jersey Department of Transportation, Traffic Signal Contract No. 16, Atlantic, Burlington, and Camden Counties, NJ

Project engineer, then became the primary contact for the client, and was the project manager for the last year of construction. Responsible for developing 11 change of plans, including adding additional intelligent transportation system (ITS) devices to the project. Developed electrical and utility relocation plans for signalized intersections, including the fiber-optic cable for interconnection. The project included 97 signalized intersections placed on a fiber network and used system loops to develop a closed-loop signal system. Developed site plans for variable message signs (VMS) and closed-circuit television (CCTV) on Routes 30, 38, 70, 73, I-76 and I-295 corridors. Modified fiber-optic communication plans to add CCTV to the SONET fiber-optic communication backbone designed as part of this project. Developed the traffic signal plans and the electrical as-built plans for Routes 30, 38, 70 and 73. Provided construction consultation for the project, which included the redesign/relocation of ADA ramps, traffic signal pole foundations, signal controllers, signing, striping and junction boxes; this task also included approval of ITS equipment submission by the contractor for use in construction. The project involved relocation/redesign of the NJDOT Southern Traffic Operations Center. This project incorporated state-of-the art traffic and ITS equipment; including count-down pedestrian heads and video detection.

City of Allentown, American Parkway/New England Avenue, Lehigh County, City of Allentown, PA

Traffic engineering task manager for the Allentown Parkway/New England Avenue roadway/bridge project in the City of Allentown, PA. He was responsible for identifying traffic operational impacts of a new Lehigh River Bridge and associated roadway improvements, and development of new traffic

FIRM:
HNTB

TASKS:
ITS/Traffic Engineering

EDUCATION:
BS, 1998, Civil Engineering, Rutgers University

MS, 2000, Civil Engineering, Rutgers University

REGISTRATIONS:
Professional Engineer:

NJ/2004/ #24GE0452450

Traffic Signal Design Course, Rutgers University, January 2007

AFFILIATIONS:

ITS Pennsylvania, By-Laws Committee Member

Institute of Transportation Engineers

Society of American Military Engineers

RYAN LAUB, PE (CONTINUED)

signal control strategies at 39 signalized intersections. Reviewed sub-consultant's plans for maintenance and protection of traffic (MPT), signing and pavement markings for various phases of the project. Associated work with the traffic signal design included evaluation of emergency vehicle preemption, video detection and closed loop system limits.

Pennsylvania Turnpike Commission, Traffic Open-end, PA

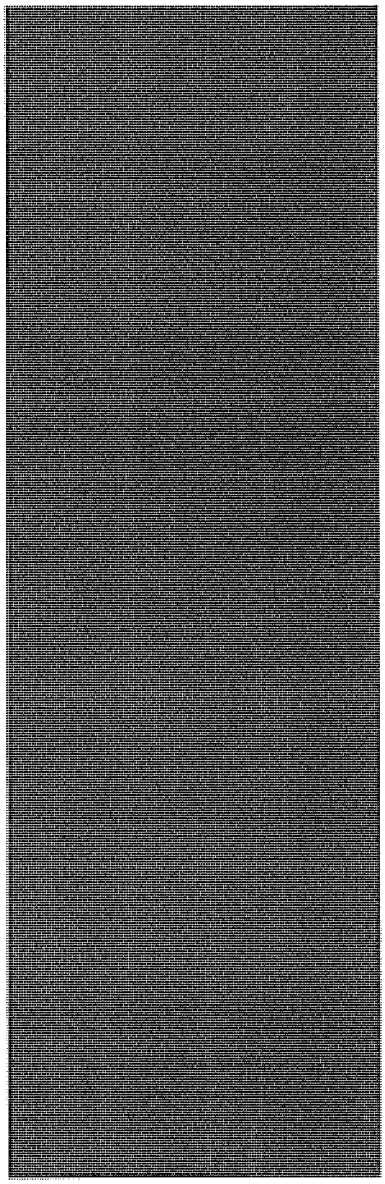
Project manager responsible for the development of the 2005 update to the PTC System Assessment Report. The report provides a summary of the crash statistics for the entire mainline and northeast extension of the Turnpike. The update contains four years of data 2001 to 2004 and is an update to the report produced by HNTB in 2000.

Pennsylvania Department of Transportation, District 5-0 General Engineering Open-end, Lehigh and Northampton Counties, PA

Project engineer responsible for first work order included in the traffic safety and congestion management study for the Route 209 corridor. This project consisted of various broad-based systemic improvements, in addition to localized intersection improvements. Performed various tasks for this project, such as data collection, attending township meetings, interviews with township officials, traffic projections and analysis, developing a list of improvements, and developing a report of the study. Other work orders included signing, striping, and detours designed for the emergency replacement of the SR 10 Bridge. Ryan was involved with the MPT development for the Passimore Bridge work order. Due to the constraints of the bridge reconstruction, various alternatives were investigated, such as detour, one-way detours, temporary signalization, and temporary bridges, to accommodate heavy traffic volumes. Other work orders included the development of closed-loop signal systems in the City of Reading and the City of Allentown. These work orders included traffic data collection and analysis, signal design, and coordinating with local municipal engineering staff.

Pennsylvania Department of Transportation, District 10-0, Traffic Open-end, Jefferson and Clarion, Counties, PA

Project manager responsible for the site locations determination, special provisions, intelligent transportation system (ITS) details, engineering estimate and ITS consultation for the I-80 traveler information system. This included the development of a construction package which included 21 variable message signs (VMS), 10 highway advisory radio (HAR) transmitters which included four distinct regions of global positioning system (GPS) synchronization, and 32 flashing HAR alert signs. In addition, Ryan was project manager for the construction consultation work order, which included the review of contractor's submissions, and test plan. In addition provided factory testing for both the HAR and VMS, including the testing of national transportation communications for ITS protocol (NTCIP) communication.



ED GRILL

Ed is a project electrical engineer responsible for the design and development of contract plans, review of shop drawings and coordination design efforts with clients. His experience includes the design and development of heavy movable structures, electronic toll collection systems telecommunication systems, roadway lighting systems, motor control centers (MCC), process control systems, programmable logic control systems, power distribution systems, and relay circuits. Ed's project experience includes:

Port Authority of New York and New Jersey, Pavement Replacement at Outerbridge Crossing and Goethals Bridge, New York, NY

Project electrical engineer responsible for the plans, specifications and estimate for the installation of roadway tolling equipment at toll plazas in support of repavement projects.

Port Authority of New York and New Jersey, Air Train Security Surveillance, Newark International Airport, Newark, NJ

Electrical engineer responsible for the design and analysis of a real time digital recording video surveillance system for a monorail train encompassing Newark International Airport. Ed's responsibilities included creating specifications of recording equipment, equipment location, construction plans, system design analysis, and coordination with existing electrical systems.

New Jersey Department of Transportation, Route 46 and Dover, NJ

Project electrical engineer responsible for the design review and analysis for the construction of roadway lighting improvements to the intersection of Route 46 and Dover, which included the photometric analysis, design of roadway lighting systems and evaluation of proposed lighting fixtures according to NJDOT standards.

South Jersey Transportation Authority, Final Design of the Atlantic City Expressway Egg Harbor Toll Plaza, Atlantic County, NJ

Electrical project engineer responsible for the design improvements at Egg Harbor Toll Plaza and Implementation of Express E-ZPass.

New Jersey Turnpike Authority, Intelligent Transportation Systems (ITS) Master Plan, NJ

Project electrical engineer responsible for creating a written directive which the Authority adopted for all future ITS installations on both the New Jersey Turnpike and the Garden State Parkway.

New Jersey Turnpike Authority, Variable Message Sign (VMS) Procurement, Woodbridge, NJ

Project electrical engineer responsible for creating RFP documents for the Authority to furnish and install more than 200 VMSs on both the New Jersey Turnpike and Garden State Parkway.

FIRM:
HNTB

TASK:
ITS/Traffic Engineering

EDUCATION:
BS, Ongoing, Electrical Engineering, Fairleigh Dickinson University

Additional Computer Engineering Credits, 1997 - 2002, University at Buffalo

AFFILIATIONS:
Institute of Electronic and Electrical Engineers

ED GRILL (CONTINUED)

New Jersey Turnpike Authority, 6-9 Widening Program Management, Various Locations, NJ

Project electrical engineer responsible for review of design contracts and coordination between design engineers for the widening of more than 30 miles of the New Jersey Turnpike.

New Jersey Turnpike Authority, Intelligent Transportation Systems (ITS) Standard Drawings, NJ

Project electrical engineer responsible for updating, modifying and creating NJTA intelligent transportation system (ITS) standard drawings. Ed's responsibilities included production of standard drawings for the installation of ITS devices along both the New Jersey Turnpike and Garden State Parkway.

New Jersey Turnpike Authority, Traffic Detection Stations, NJ

Project electrical engineer responsible for creating plans, specifications and estimates for the installation of wireless traffic detection equipment at 17 different locations to monitor traffic on both the New Jersey Turnpike and the Garden State Parkway.

Delaware River Joint Toll Bridge Commission, I-78 Open Road Tolling (ORT) Lanes, Morrisville, PA

Project electrical engineer responsible for creating design documents, including plans, specifications and estimates for the commission to furnish and install a two-lane express tolling system at an existing plaza.

New Jersey Turnpike Authority, Installation of LED Variable Message Signs (VMS), PNC Arts Center, Garden State Parkway, NJ

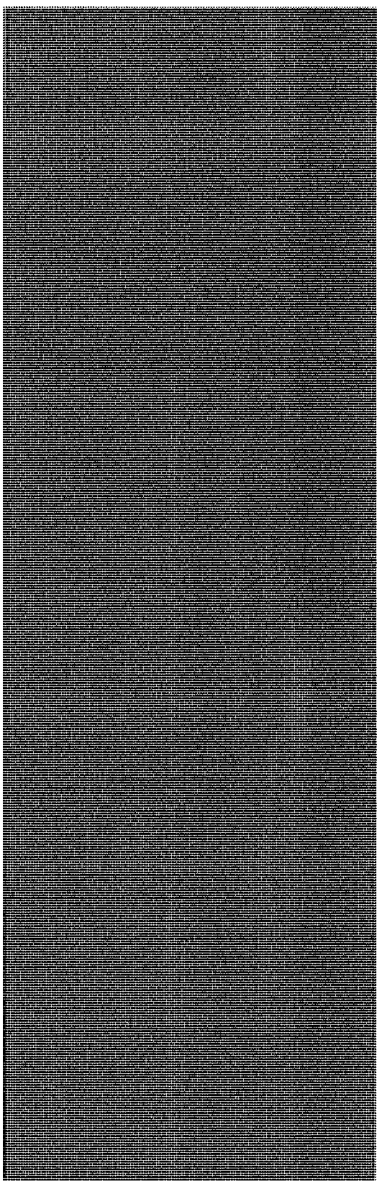
Project electrical engineer responsible for helping create RFP documents for the Authority to furnish and install two LED advertising message signs at the PNC Arts Center to replace existing signs. The design included coordination of utility power, fiber optic links and CCTV.

New Jersey Turnpike Authority, Roadway Weather Information System (RWIS), NJ

Project electrical engineer responsible for creating design documents, including plans, specifications and estimates for the Authority to furnish and install a total of 36 new RWIS stations along the New Jersey Turnpike and Garden State Parkway throughout the state of New Jersey.

Port Authority of New York and New Jersey, Miscellaneous Structural Improvements, Bronx-Whitestone Bridge, Bronx, NY; Throgs Neck Bridge, New York, NY; and Verrazano-Narrows Bridge, New York, NY

Project electrical engineer responsible for the design, analysis and development of construction plans for the coordination of existing electrical systems with structural improvements of the bridge. Project design included the relocation plan for existing electronic infrastructure, system specifications and coordination of structural disciplines for modifications of the bridges.



HAROLD CALERO

Harold has more than 14 years of experience in HNTB's Traffic Department. He is extremely familiar with several traffic/highway software programs, including SYNCHRO 6, TRANSYT 7-F, Signal 2000/TEAPAC, HCS-2000, HCS+, PASSER II-90, GuidSign, AutoCAD, Microstation, TSDWIN and TAPS. His project experience includes:

New Jersey Turnpike Authority, NJ Turnpike Interchange 12 Improvements, NJ

Traffic engineer involved in the design phase of this project. His tasks included the layout of traffic signal equipment and the design of signal operations, including the preparation of timing plans.

New Jersey Department of Transportation, FY03 Feasibility Assessment Task Order Agreement, NJ

Traffic engineer involved in concept development and feasibility assessment for four different project locations as part of this task order agreement. He is responsible for the collection, verification and database management of traffic data. His tasks included manual classification counts (characteristic data), automatic recorder counts, accident data evaluation, verification of collected traffic data, generation of peak hourly traffic volumes, projection of future traffic volumes, and the development of spreadsheets that contain a summary of all data collected for analysis. In addition, he is responsible for the development of detailed traffic analysis including capacity, LOS evaluation, and computer simulation of existing conditions and proposed conceptual designs. Projects included in this task order agreement are the Route 17 and Route 120 TSM improvements, Route I-80 at Squirrelwood Road, Route 280 at Broad Street, and Route 10 at Jefferson Road.

New Jersey Department of Transportation, Route U.S. 46 Sections 7L and 8K, NJ

Traffic engineer involved in feasibility assessment and design phase of project. He is responsible for the collection, verification and database management of traffic data. His tasks included manual classification counts (characteristic data), automatic recorder counts, accident data evaluation, verification of collected traffic data, generation of peak hourly traffic volumes, characteristic data, projection of future traffic volumes, and the development of spreadsheets that contain a summary of all data collected for analysis. In addition, he is responsible for the development of detailed traffic analysis including capacity, LOS evaluation, coordination of signalized intersections, and computer simulation of existing and proposed conditions. He is responsible for the layout of traffic signal equipment and the design of traffic signal operations, including the preparation of traffic signal timing plans. The scope of project included the realignment of Route 15 to intersect with Route U.S. 46, as well as the installation of a new signalized intersection at the junction of Route 15 with Route U.S. 46 and coordination with two existing signals to the east.

FIRM:
HNTB

TASKS:
ITS/Traffic Engineering

EDUCATION:
BS, 2003, Computer Engineering, New Jersey Institute of Technology

HAROLD CALERO (CONTINUED)

New Jersey Department of Transportation, Route U.S. 46 Section 52, NJ

Traffic engineer involved in the feasibility assessment and design phase of project, who is responsible for the collection, verification, and database management of traffic data. His tasks included manual classification counts (characteristic data), automatic recorder counts, accident data evaluation, verification of collected traffic data, generation of peak hourly traffic volumes, characteristic data, projection of future traffic volumes, and the development of spreadsheets that contain a summary of all data collected for analysis. In addition, he was responsible for the development of detailed traffic analysis including capacity, LOS evaluation, coordination of signalized intersections, and computer simulation of existing and proposed conditions. He was responsible for the layout of traffic signal equipment and the design of signal operations. Scope of project included the development of conceptual designs that would improve the traffic flow at the intersection of Route U.S. 46 and Plymouth Street/Clinton Road. The project included the installation of two new signalized intersections.

New Jersey Department of Transportation, FY00 Feasibility Assessment Task Order Agreement, NJ

Traffic engineer responsible for seven different project locations as part of a task order agreement. He was responsible for the collection, verification and database management of traffic data. His tasks included manual classification counts (characteristic data), automatic recorder counts, accident data evaluation, verification of collected traffic data, generation of peak hourly traffic volumes, projection of future traffic volumes, and the development of spreadsheets that contain a summary of all data collected for analysis. In addition, he was responsible for the development of detailed traffic analysis including capacity, LOS evaluation and computer simulation of existing conditions and proposed conceptual designs.

New Jersey Department of Transportation, Portway Intermodal Corridor Phase 1 – NJ Turnpike Interchange 15E/Doremus Avenue/Central Avenue, NJ

Traffic engineer responsible for the collection, verification, and database management of traffic data. Tasks included manual classification counts (characteristic data), verification of collected data, generation of peak hourly traffic volumes, and the development of spreadsheets that contain a summary of all data collected for analysis. In addition, responsible for development of detailed traffic analysis, including capacity and LOS evaluation of existing conditions and for more than a dozen proposed conceptual designs. Scope of project was to develop conceptual designs that would improve the flow of future commuter and Port Newark/Elizabeth freight traffic through project area.

FRANCO STANISCI

Franco has more than 30 years of experience in the design of electrical systems for marine facilities, highway and bridges, parking facilities and commercial and industrial buildings. He is experienced in the design of roadway, high mast and area lighting systems; variable message (VMS), changeable message (CMS) and emergency speed warning/speed limit (ESW/SL) sign systems with related communications and control facilities; intelligent vehicle highway system (IVHS); toll plaza facilities; building electrical systems; architectural and industrial lighting system. He also taught for 10 years (1984 to 1994) at the Mechanics Institute (20 West 44th Street, NY): Lighting Design and Application; Electrical Engineering and Fundamental Theory of DC and AC Circuits. His project experience includes:

New York City Department of Transportation, 145th Street Bridge over Harlem River, Bronx, NY

Senior project engineer/group leader-electrical for the rehabilitation of the 145th Street Bridge. His responsibilities included the redesign of the submarine cables, lighting and power distribution to the bridge and to the roadway approach to the bridge. He provided construction support on a daily basis by responding to RFI's, reviewing shop drawings and attending weekly meeting with the Contractor (Kiewit) and the NYCDOT engineers.

New York City Department of Transportation, Metropolitan Avenue Bridge over English Kills, Brooklyn, NY

Senior project engineer/group leader-electrical who performed inspection for the rehabilitation of the Metropolitan Avenue double-leaf Bascule Bridge. His responsibilities included monitoring installations and configuration of bridge power distribution system and bridge control system, as well as monitoring contractor electrical activities in conformance with plans and specification. He witnessed and coordinated all bridge testing prior to final acceptance by the NYCDOT.

MTA- Bridges and Tunnels (TBTA), 2004-2007 Miscellaneous Design Services on an As-Needed Basis, New York, NY

Senior project engineer-electrical who performed electrical systems design for TBTA on an on-call basis for highway, toll plaza and miscellaneous improvements at various locations throughout the TBTA Facilities.

GSA U.S. General Services Administration, Region 2, Champlain Border Station Expansion, Champlain, NY

Senior project engineer-electrical for the planning and design of this "Port of Excellence" project. He is responsible for design of transformers, switch gear, and the emergency lighting system. For Phase II, Franco designed the lighting for the inspection facility, the canopy, the parking lot staging lighting, and access road lighting. For Phase III, Franco designed the interstate lighting, lighting for the access road, the canopy, and the inspection of the plaza. Franco also coordinated with NISE at each step.

FIRM:
HNTB

TASKS:
ITS/Traffic Engineering

EDUCATION:
BS, 1984, Electrical Engineering, New York Institute of Technology

AS, Telecommunication, Technical Institute Taranto Italy

AFFILIATIONS:
IES-Illuminating Engineering Society

FRANCO STANISCI (CONTINUED)

New Jersey Turnpike Authority, General Consultant Service for Roadway Lighting Systems, Brunswick, NJ

Senior project engineer-electrical responsible for the development of the revision to the design criteria, standard drawings and standard specifications to be used in conjunction with the NJTA Route 92 Project.

New Jersey Department of Transportation, Route 46 over the Passaic River, Section 13D, Summit, NJ

Senior project engineer-electrical responsible for the design and plan preparation for roadway lighting along the bridge over the Passaic River. The scope included photometric analysis, circuitry design, detail development and coordination with utilities.

Maine Turnpike Authority, Variable Message Signs, Portland, ME

Senior project engineer-electrical responsible for the procurement design and the installation of 13 variable message signs (VMS) along the Maine Turnpike. Provided full inspection at the sign manufacturer site (Daktronics-Brookings, SD) for all 13 signs.

Trump/New World - Riverside South Street Lighting, Trump/New World, New York, NY

Senior project engineer-electrical responsible for the design and plan preparation for the street lighting, park lighting, fire alarm system and power distribution for the Riverside South Complex.

Prior to joining HNTB:

New York State Department of Transportation, Hutchinson River Parkway, Westchester County, NY

Senior engineer-electrical for final design of power and lighting distribution system for relocated sections of the parkway. Design of modifications to existing system for a rehabilitated section of the parkway.

New Jersey Department of Transportation, Route 1 & 9 Highway Interchange and Garden State Parkway, Jersey City, NJ

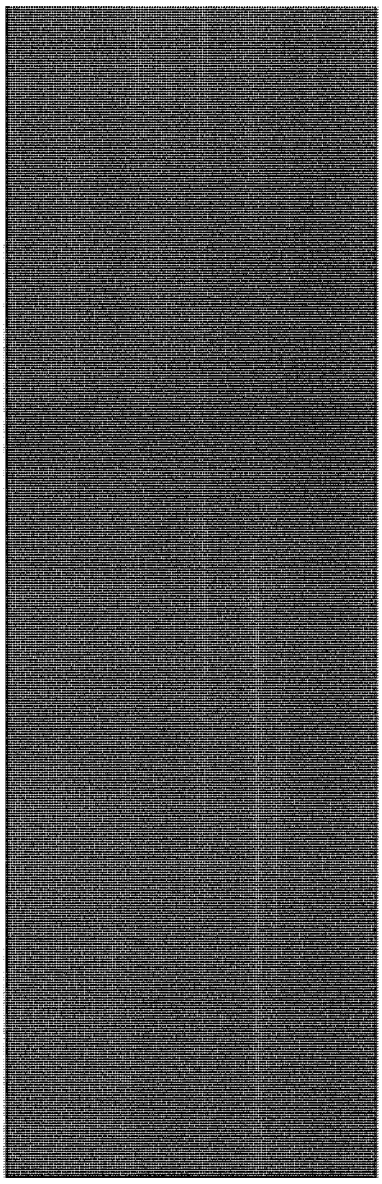
Lead engineer for final design of power and lighting distribution system for roadway, parking and bridge lighting.

Garden State Parkway Authority, Service Areas, Cheesequacke, Montville & Mommouth, NJ

Senior engineer for final design of gas station service area including gas pumps, dispensers and on leak detection monitoring system. Work so included the power and lighting distribution system for the service area building.

Garden State Parkway Authority, Hillsdale Toll Plaza, Hillsdale, NJ

Senior engineer for final design for lighting and power for the toll plaza and 11 collection booths.



BOHDAN KALEMBKA, PE

Bohdan recently joined HNTB in 2007 as a senior electrical engineer responsible for design efforts, cost estimating, construction services, as well as the coordination of various electrical projects.

Bohdan has experience in many areas of electrical engineering, such as power distribution, lighting design, electrical motor application, control and automation, and instrumentation. In addition, Bohdan teaches an electrical preparatory course for professional engineering licensure at Rutgers University, NJ. Bohdan's project experience includes:

Trenton Airport, Standby Generator, NJ

Electrical engineer for the standby generator installation and power distribution modifications for the Johnson & Johnson facilities at the Trenton Airport.

City of New Brunswick, Water Treatment Plant, NJ

Electrical design engineer for the new filtration building, replacement of high-lift pumps, and installation of the two 1,250kW generators for operation in case of a utility power failure. Project work involves the replacement of pumps driven by constant speed motors at 450HP and 250HP with new motors controlled by variable frequency drives. This project is currently in progress - under construction - and scheduled for completion in February 2008.

Trenton Water Works, Replacement of a Substation, NJ

Design engineer for the replacement of existing outdoor substation at 33kV-4.16kV, with a new indoor substation housed together with two 1750kW generator sets in unitary and prefabricated metal building. Additionally, a replacement of the pump motors ranging from 250HP to 700HP for operation on 4.16kV variable frequency drives and the modifications to ancillary equipment. Detailed construction scheduling for seamless transition without any interruption of water delivery from the pump station.

Amerada-Hess, Upgrade of Stand-by Generator, NJ

Design engineer for the upgrade of the standby generator, modifications and addition to central UPS system. Preliminary investigation, as well as an interview with Amerada-Hess personnel was included.

Whitlock Mills Development, Power Distribution Work, NJ

Electrical engineer who worked on the area-wide power distribution for housing development encompassing 24 new buildings and conversion of old industrial buildings for future residential use. Site and parking lighting, stand-by generator for a five story building and internal distribution were included in the project.

Middlesex County Utilities Authority, Speed Pump Motors Replacement, NJ

Electrical design engineer for the replacement of the constant speed pump motors of 500HP with the variable frequency drives and an installation of existing two 1,500kW generators for operation, parallel to utility company and independently, in case of a power failure. Design work included temporary relo-

FIRM:
HNTB

TASKS:
ITS/Traffic Engineering

EDUCATION:
BS, 1967, Electrical Engineering, New Jersey Institute of Technology - Newark College of Engineering

REGISTRATIONS:
Professional Engineer: NJ/1971/#24GE01874800

BOHDAN KALEMBKA, PE (CONTINUED)

cation of the existing 13.2kV outdoor substation and the satellite equipment. This project is under construction.

Lockheed Martin, Satellite Tracking Station, NJ

Electrical engineer who installed the 200kW generator set and managed the modifications to the existing electrical distribution system at a satellite tracking station. The scope of work included prelim investigation, design, cost estimate, as well as construction phase services.

Marie Katzenbach State School, Electrical Lighting, NJ

Electrical design engineer for the new roadway and site lighting, the replacement of interior lighting in eight dormitories and academic buildings.

Port Newark State Police, Electrical System, NJ

Electrical design engineer for the new electrical system and standby generator for the state police post at the Port Newark site.

Johnson & Johnson Products, Various Electrical Work, NJ

Design engineer for the replacement of 33kV/4.16kV outdoor substation, replacement of 4.16kV indoor switchgear, modifications and addition to several indoor substations and motor control centers and new site and parking area lighting.

Air Separation Plant, Power Distribution System, Rio de Janeiro, Brazil

Electrical engineer for medium and low voltage power distribution system for air separation plant. Additional task included site lighting and the control and instrumentation wiring layout were included.

Air Separation Plant, Banting, Power Distribution System, Malaysia

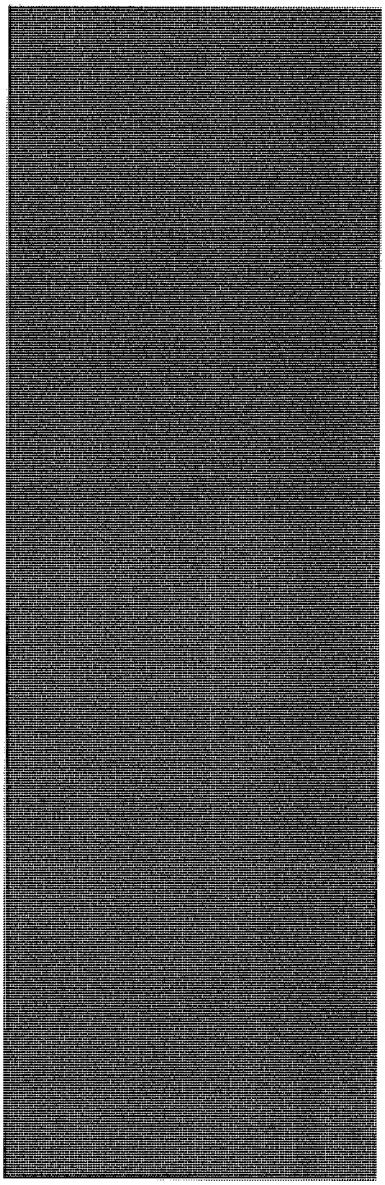
Electrical engineer for medium -and low-voltage power distribution system for air separation plant. Additional task included site lighting and control/instrumentation wiring layout were included.

Mid-State Correctional Facility, New Generator and Substation, NJ

Electrical engineer for installation of new diesel generator set (250kW) and replacement of existing indoor substation.

New Lisbon Development Center, Electrical Distribution System, NJ

Electrical engineer for modifications to the campus-wide 2.5kV electrical distribution system, and an addition of a new generator set and design of synchronization switchgear for two existing generators and the new generator.



SCOTT BURROWES, PE

Scott is the transportation department manager for HNTB's New Jersey operations and has 18 years of experience relating to roadway design and construction. He has been involved in several aspects of roadway design and rehabilitation projects, including producing "Bid Quality" documents. Scott has also prepared plans, specifications, estimates and schedules for highway projects performing new construction, realignments, and utility relocations, and guiderail design. In addition, he has been the facilitator for an ACEC sponsored Geometric Design Principles Workshop. Scott's project experience includes:

New Jersey Turnpike Authority, Design Manual Update, NJ

Project manager for the review, update and subsequent rewrite of the NJTA's current design manual to reflect current practices and design criteria. Two distinct documents outlining the procedural process (Procedures Manual) and design criteria (Design Manual) will be created. The Design Manual will incorporate those design standard drawings relative to the update along with the creation of a sample plan set of drawings.

New Jersey Turnpike Authority, General Engineering Consultant (GEC), Various Locations, NJ

Chief highway engineer for the review of phase submissions for various projects including Turnpike 6-8A Widening and Garden State Parkway Interchange 142. He also responds to general engineering questions in accordance with NJTA Design Manual criteria.

North Carolina Turnpike Authority, Triangle Expressway Design Directives, NC

Chief highway engineer for the writing of the design directives for the newly created NCTA to reflect current practices and design criteria relative to toll plaza geometry and signing.

New Jersey Department of Transportation, Route 46 and Route 15 Interchange Improvements, Morris County, NJ

Project manager and roadway design team leader for the replacement of two existing structures along Route 46 over NJ Transit's electrified railway/Rockaway River and Morristown & Erie's railway, 1/2-mile of pavement reconstruction along Route 46, realignment of Route 15, including construction of a new structure over the Morristown and Erie railway, and associated roadway improvements, including a new Route 46/15 at-grade signalized interchange and reconstructed Route 46/Pequannock Street signalized intersection within a limited right of way in an extremely urbanized township. Responsibilities include horizontal and vertical geometric design and the preparation of final design documents, including design exceptions, alternative analysis, construction plans, traffic signing and striping plans, traffic signal plans, staged construction sequence, maintenance and protection of traffic plans including detour plans, and temporary traffic signal plans. Also included is overall management and quality assurance of the contract documents including plans, specifi-

FIRM:
HNTB

TASKS:
Civil Impacts Design

EDUCATION:
BS, 1992, Civil Engineering, University of Rhode Island

REGISTRATIONS:
Professional Engineer: NJ/1999/#GE04921

AFFILIATIONS:
American Society of Highway Engineers

American Society of Civil Engineers

SCOTT BURROWES, PE (CONTINUED)

cations, estimates and schedule. Environmental considerations include hazardous material cleanup, Categorical Exclusion Document, General Wetlands and Stream Encroachment permits and water quality basins. This Pipeline 2 design project is currently being prepared in accordance with NJDOT Procedures, Bridges and Structures and Roadway Design Manuals, Standard Specifications and The State of New Jersey Utility Accommodation Policy.

New Jersey Department of Transportation, Route 17 Transportation Management System, Bergen County, NJ

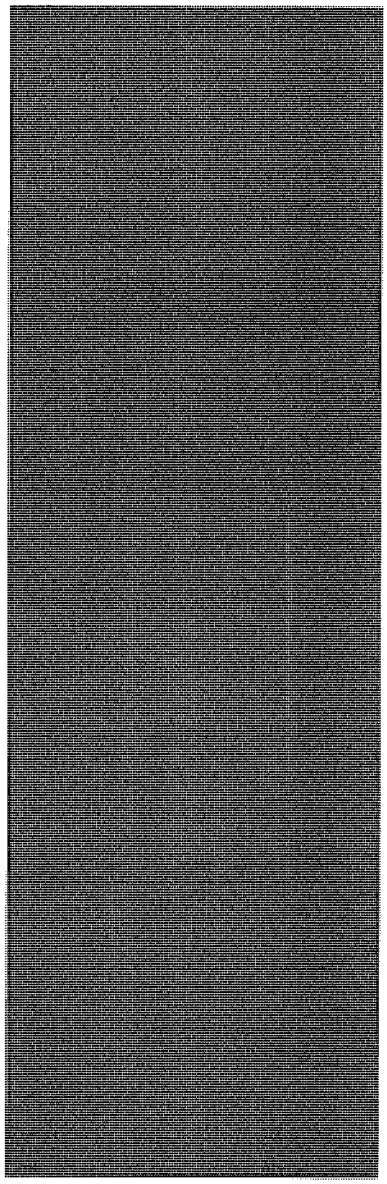
Project manager for the Route 17 Transportation Systems Management project which includes four intersections to be improved in response to the New Jersey Meadowlands Commission's 2004 Master Plan which has indicated that significant growth and development is expected over the next decade. His responsibilities include overall management and quality assurance of the contract documents including plans, specifications, estimates and schedule. Environmental considerations include a General Wetlands permit. This accelerated Pipeline 2 design project is currently being prepared in accordance with NJDOT Procedures and Roadway Design Manuals, and Standard Specifications with a construction cost of approximately $15 million.

Camden County Engineering, Route 42 and College Drive Interchange Improvements, Camden County, NJ

Deputy project manager and roadway design team leader for the creation of a new full interchange including a new structure over Route 42, rehabilitating the existing College Drive structure and associated roadway improvements including a new local roadway network with traffic signals and roundabouts while implementing Smart Growth initiatives in conjunction with the development of adjacent parcels. Responsibilities include horizontal and vertical geometric design and the preparation of final design documents, including alternative analysis, construction plans, traffic signing and striping plans, traffic signal plans and maintenance and protection of traffic plans. Also included is quality assurance and preparation of contract documents including plans, specifications, estimates, and schedule. Environmental considerations include Individual Wetlands and Stream Encroachment Permits and water quality basins.

New Jersey Department of Transportation , Route 1 Southbound at I-95/295 Interchange Operational Improvements, NJ

Project manager for the splitting of the I-295 exit traffic from I-95 traffic by providing a slip-ramp and separate exit farther to the south along Route 1 southbound dedicated for the I-295 traffic. Responsibilities include overall management and quality assurance of the contract documents including plans, specifications, estimates, and schedule. Environmental considerations include General Wetlands and Stream Encroachment Permits. This Pipeline 3 design project is currently being prepared in accordance with NJDOT Procedures and Roadway Design Manuals and Standard Specifications with a construction cost of approximately $1.5 million.



PAUL SCALA, PE

Paul is a project engineer in HNTB's New Jersey Transportation Group with more than 14 years of experience in multi-disciplinary projects and all aspects of highway design. He is experienced in all phases of contract submission, including scope development and plan preparation from initial design through final submission. Paul oversees plan preparation of large multi-disciplined, multi-subconsultant projects. He has performed engineering services for several highway projects throughout New Jersey for the New Jersey Department of Transportation, New Jersey Turnpike Authority, and Port Authority of New York and New Jersey. Paul's project experience includes:

Port Authority of New York and New Jersey, Goethals Bridge, NY and NJ

Project engineer who provided a Stage I design effort for replacing the existing bridge with a new six-lane structure – either to the north or south of the existing bridge. Also included in this effort were conceptual evaluations and recommendations for performance enhancing realignments and/or reconfigurations of the New York and New Jersey Interchanges. Traffic conditions and flow patterns for both interchanges were studied and conceptual improvements provided. In addition, conceptual evaluations for direct tie-ins to the Howland Hook Marine Terminal on the New York side and to the "missing links" from Routes I-278 to Routes 1 and 9 in New Jersey were provided. The effort also included recommended locations for security truck inspection facilities on both the New York and New Jersey Interchanges.

Port Authority of New York and New Jersey, Traffic On-Call - Laguardia Airport Road Safety Audit, NY and NJ

Project engineer in charge of a Road Safety Audit at Laguardia Airport. A Road Safety Audit is a formal and independent safety performance review. An auditing process will be completed through a review of background data, including site geometry and physical characteristics, traffic controls, traffic operations, safety performance and maintenance information. A clear zone analysis will be conducted of all non-protected hazards. A conceptual design will be created of all safety devices found substandard or missing to meet the current AASHTO standard. Guide rail, end terminals, barrier and attenuators will be designed for each specific location.

Port Authority of New York and New Jersey, Traffic On-Call - Staten Island Bridges Road Safety Audit, NY and NJ

Project engineer in charge of a Road Safety Audit of three Staten Island Bridges, Goethals, Bayonne and Outerbridge Crossing. A Road Safety Audit is a formal and independent safety performance review. An auditing process was completed through a review of background data, including site geometry and physical characteristics, traffic controls, traffic operations, safety performance and maintenance information. A clear zone analysis was conducted of all non-protected hazards. A conceptual design was created of all required safety devices found substandard or missing to meet the current AASHTO standard. Guide rail, end terminals, barrier and attenuators were designed for each specific location.

FIRM:
HNTB

TASKS:
Civil Impacts Design

EDUCATION:
BS, 1995, Civil Engineering Technology; Rochester Institute of Technology

REGISTRATIONS:
Professional Engineer; NJ/2002/#GE43475

PAUL SCALA, PE (CONTINUED)

New Jersey Turnpike Authority, Interchange 16E-18E Improvements, Secaucus, NJ

Project engineer in charge of roadway design of the Route 495 ramp to the Turnpike SB to accommodate the replacement of existing structure E112.58A over the Turnpike. Both approaches were widened to meet the width of the new structure, which resulted in the re-alignment of the XBL bus lane. The design was very sensitive because this is a major travel way out of New York City and acts as a weekday commuter lane for busses. His responsibilities included horizontal geometric design, guide rail and attenuator layout, signing and striping, MPT and grading.

New Jersey Department of Transportation, Route 17 Transportation Systems Management Intersection Improvements, Rutherford, East Rutherford, and Hasbrouck Heights, NJ

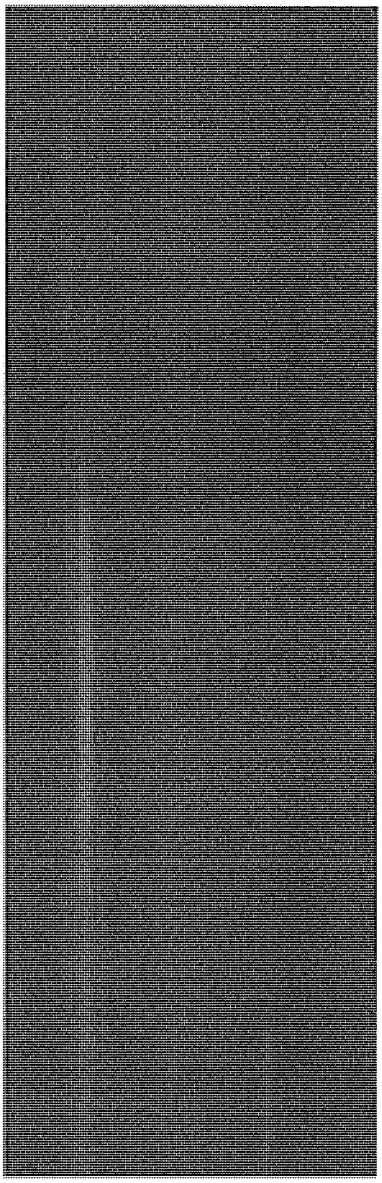
Project engineer for the Route 17 Transportation Systems Management project, which has identified four intersections to be improved in response to the New Jersey Meadowlands Commission's 2004 Master Plan which has indicated significant growth and expected development over the next decade. The following four signalized intersections along Route 17 have been included for improvements: Highland Cross, Union, Franklin, Malcolm, and Williams Avenues. Responsibilities included, horizontal and vertical geometric layout, guide rail design, attenuator design, cross sections, typical sections, estimate, scheduling and overall plan preparation.

New Jersey Department of Transportation, Route 46 at Fifth Street and Jefferson Avenue Intersection Improvements, Bergen County, NJ

Highway engineer for the operational improvements to the existing signalized intersection including the extension of the Route 46 left turn lanes, converting existing shoulders to auxiliary lanes for added capacity, and associated roadway improvements including two new traffic signal systems within a limited right of way in an extremely urbanized township. Responsibilities include horizontal and vertical geometric design and preparation of the contract documents including design exceptions, alternative analysis, plans and estimates.

New Jersey Turnpike Authority, Express E-ZPass Lanes on the Garden State Parkway (GSP), Toms River Toll Plaza, NJ

Project engineer who designed horizontal and vertical geometry of express E-ZPass lanes through existing plaza. Realigned approach roadways. The new lanes were designed to meet AASHTO requirements for the express design speed. Designed superelevation, roadway sections, grading, drainage, signing, striping, guide rail, attenuators and construction staging. Each aspect was evaluated and created to maximize the overall design. Environmental impacts including water run off and impact areas were analyzed and minimized while maintaining proper design criteria. Developed quantity calculations and cost estimates for the project.



MARTIN CROSLEY

Martin is a CADD technician and lighting designer for HNTB. His responsibilities include various lighting design aspects including interior and exterior lighting design as well as airport airfield lighting, parking area and egress lighting, bridge aviation and navigational lighting, and lighting design for parks and aesthetic lighting. As CADD and technical support for the largest electrical group in the firm, he works on a multitude of projects in many different aspects, focusing on plan and detail development. He is experienced with movable bridges; lighting for roadways, bridges, parks and building facilities; and aviation systems design for both airside and landside airport projects. Additionally, he has been involved with various ITS roadway sign systems including rotary drum changeable message signs (CMS); LED VMS as well as ETC; automatic traffic surveillance and control systems (ATSCS) and other related ITS facilities. Martin's project experience includes:

Port Authority of New York and New Jersey, Newark Liberty International Airport, Northeast Corridor, Monorail Station Complex, Newark, NJ

CADD technical who was responsible for detail and plan development as well as CADD support and field inspection visits. Project involved the design, coordination, and construction staging planning for all communications facilities within the new NEC Monorail Station Complex. The new station is an extension of EWR's existing monorail over Route 1&9, which allows NJ Transit and Amtrak passengers immediate access to the airport monorail. Communications facilities included nearly 100 CCTV cameras with full-time digital storage capabilities, passenger information displays (PIDS), pubic address system (PAS) with remote emergency preemption paging provisions for the Port Authority from any PBX phone on EWR property, full security system provisions with card access capabilities, public telephones, and a sophisticated equipment monitoring system (EMS) which allows monitoring of temperature, escalator and elevator activities throughout the complex.

Delaware River and Bay Authority, Delaware Memorial Bridge, New Castle, DE

CADD technician responsible for plan and detail development, as well as lighting analysis and 3-D modeling of the towers. This project involved complete rehabilitation and replacement of the twin span's 12KV power distribution systems. Included was the upgrade of two primary substations and the design of two secondary substations at the bridge approaches. Substations within all four anchorages were redesigned and new electrical distribution cabinets replaced throughout. Additionally, included in the project was the design of anchorage and bridge tower aesthetic lighting and new interior lighting throughout the towers and anchorages. New underspan security lighting was also designed beneath the raised approaches over land.

FIRM:
HNTB

TASK:
CADD Technican

EDUCATION:
Architecture Coursework, Oklahoma State University

MARTIN CROSLEY (CONTINUED)

Delaware River and Bay Authority, Delaware Memorial Bridge, Fiber Optic Cable Duct System, DE

CADD technician responsible for detail and plan development as well as CADD support. Project involved the design of five miles of a two-way, four-inner duct fiber system that crosses both spans of the Delaware Memorial Bridges. Included was an integrally supported cable tray system to facilitate the future replacement of the bridges' 5KV medium voltage distribution system with a new 12KV system. The design of the fiber system included environmentally controlled outer shelters for customer splice enclosures and a special support design to allow for up to 23 inches of bridge joint horizontal and transitional movements.

New Jersey Turnpike Authority, Express E-ZPass Toll Plaza Implementation, NJ

CADD technician responsible for detail and plan development as well as CADD support. Project involved the modifications of six Garden State Parkway (GSP) and NJ Turnpike toll plazas to implement high-speed E-ZPass for the center six lanes of each plaza. The GSP plazas required the addition of an overhead pedestrian bridge for the employees including elevator systems, lighting and power distribution for the new facility.

New Jersey Turnpike Authority, Interchange 5 Toll Plaza Reconstruction, Bordentown, NJ

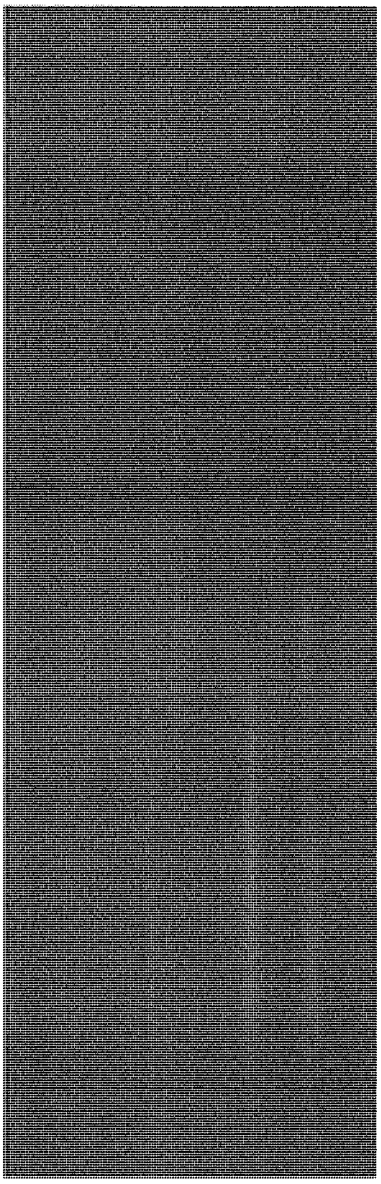
CADD technician responsible for detail and plan development as well as CADD support. Project involved the complete reconstruction of the toll plaza. Work also included the design and development of electrical details including toll facility power and control circuitry, raceways, and electronic toll communications. Special details involved the temporary staging of power and control wiring distribution.

New Jersey Turnpike Authority, Interchange 6 Toll Plaza Reconstruction, Florence, NJ

CADD technician responsible for detail and plan development, as well as CADD support. Project involved the partial reconstruction of the toll plaza. Work also included the design and development of electrical details including toll facility power and control circuitry, raceways, and electronic toll communications. Special details involved the temporary staging of power and control wiring distribution.

New Hampshire Department of Transportation, Route 1 Memorial Bridge Inspection, Portsmouth, NH

CADD technician responsible for in-depth inspection of all aspects of electrical system, and generating report of deficiencies for the Memorial Vertical Bridge.



GARY STEPHENSON

Gary is a technician I in the Electrical Technologies Group in HNTB's Wayne, New Jersey office. His primary responsibilities include preparing contract drawings in CADD, performing preliminary electrical designs and calculations, and performing shop drawings review. Gary's project experience includes:

New Jersey Turnpike Authority, Garden State Parkway, Electronic Toll System, Interchange 6 to 9, Various Locations, NJ

CADD technician for this project, which included the complete plan of the electronic infrastructure of the toll collection system, canopy and tunnel system to support the toll collection method, system specifications, integration with existing toll collection organization, and coordination with manufacturer for existing system.

New Hampshire Department of Transportation, Memorial Bridge, Portsmouth, NH

CADD operator involved in the creation of electrical CADD drawings for the rehabilitation of the Portsmouth Memorial Bridge in New Hampshire.

Massachusetts Highway Department, Brightman Street Bridge, Boston, MA

Primary technician responsible for performing shop drawing reviews of the bridge electrical and control systems, along with pier lighting of a four-leaf bascule bridge.

North Carolina Department of Transportation, Alfred Cunningham Bridge, New Bern, NC

Primary technician responsible for performing shop drawing reviews of the bridge electrical and control systems of a two-leaf bascule bridge.

North Carolina Turnpike Authority, Triangle Expressway, NC

CADD operator involved in the creation of electrical CADD drawings for the Triangle Expressway Lighting Design Guidelines.

Delaware River Joint Toll Bridge Commission, I-78 Open Road Tolling (ORT) Lanes Design, Easton, PA

CADD operator involved in the creation of electrical CADD drawings for the I-78 ORT project.

New Jersey Turnpike Authority, General Engineering Consultants, Statewide, NJ

CADD operator involved in the creation of new cell libraries, sample plans, and drawings of electrical standard sheets for the NJTA.

New Jersey Transit, Contract 06-084A, In-Depth Mechanical and Electrical Inspection of Movable Structures, Various Locations, NJ

CADD technician for this project which includes in-depth inspections of movable and fixed structures.

FIRM:
HNTB

TASK:
CADD Technican

EDUCATION:
BS, In Progress, Electrical Engineering, Bergen County Community College

RICHARD SCHAEFER, PE

Rich is a structural engineer with ten years of experience at HNTB's Wayne, NJ office. He has been responsible for preliminary, final, and rehabilitation designs of a variety of structures. His project experience includes:

Port Authority of New York and New Jersey, Port Authority Southern Access Roadway Project, Part III, NJ

Structural engineer responsible for design of plate steel girder superstructures for two Authority structures - one straight two-span steel girders, the other curved single-span steel girders. Both bridges were designed using latest LRFD methodology.

Delaware River Joint Toll Bridge Commission, Route 78 ORT Toll Plaza High Speed E-ZPass Retrofit, PA

Technical resource for the design of Toll Gantries and Space frames to implement the addition of High-Speed E-ZPass facilities to an existing toll plaza at the Route 78 crossing from New Jersey to Pennsylvania.

New Jersey Turnpike Authority, Design Manual Update to Include LRFD Design Methodology, NJ

Project engineer contributing to the development of LRFD code implementation and codification for various sections of the NJTA design manual, including curved steel girder design, sign structure design, pedestrian bridge design, and deck design.

Monmouth County, 2006 On-Call Contract for Movable Bridges, NJ

Project engineer whose responsibilities for 2006 Monmouth Movable Contract include first-response on-call for all client requests. He performed the inspection of client-specified structural and mechanical problems for all four client-owned movable structures. Experience under this contract includes inspection and repair strategies for the Oceanic Bridge (S-31) traffic swing gates, inspection and repair recommendations for the bascule span and steel-approach spans of the Oceanic Bridge (S-31), inspection and repair recommendations for the bascule-span trunions of the Glimmerglass Bridge (W-9), and preparation of contract plans for the purposes of replacing the CCTV camera system on the Shark River Bridge (W-43).

New Jersey Turnpike Authority, General Engineering Consultant (GEC) Contracts, NJ

Project engineer responsible for various structural repair and improvement tasks on NJTA-owned structures. Designed and prepared structural details for emergency repair of vehicular collision damage, load ratings of overweight permit vehicles on NJTA owned structures, and structural improvements to deficient bridge features while coordinating all actions with the NJTA Engineering Department.

New Jersey Turnpike Authority, General Engineering Consultant (GEC) Contracts, NJ

Project engineer responsible for structural analysis of existing NJTA and Garden State Parkway (GSP) toll plazas in order to replace existing fixed-panel signs with variable message signs.

FIRM:
HNTB

TASKS:
Structural Impacts Design

EDUCATION:
BS, 1998, Civil Engineering, New Jersey Institute of Technology

REGISTRATIONS:
Professional Engineer: NJ/2004/#45200

RICHARD SCHAEFER, PE (CONTINUED)

Virginia Department of Transportation, Capital Beltway (I-495) HOT Lanes Conceptual Design, VA

Project engineer responsible for conceptual design of tolling equipment gantries for the proposed inclusion of High Occupancy Toll (HOT) lanes for the I-495 Beltway road.

New Jersey Turnpike Authority, Noise Wall Replacement and Structural Strengthening of Structure 67.89, NJTA Mainline over Route 33, Hightstown, NJ

Project engineer responsible for emergency rehabilitation and strengthening design of NJTA bridge superstructure to support proposed 23-foot-tall noise wall following forensic analysis of structural failure of original bridge mounted noise wall system.

New Jersey Department of Transportation, Route 202, Morristown: Jenks Road to Old Harter Road: Replacement of Retaining Walls, NJ

Project engineer responsible for scoping, type selection, and final design for five historically significant retaining walls in Morristown. The project featured soldier pile and lagging type retaining walls with architectural treatment in close proximity to historic homes. The project emphasized avoidance of disturbance and damage to local residents, and context sensitive design of structures.

New Jersey Turnpike Authority, Interchange 12 Final Improvements, NJ

Project engineer responsible for design, checking, and revision of various elements for eight curved steel I-section bridge units designed via LFD methodology. Bridge units included two steel box beam piers with integrated girder field splices.

New Jersey Turnpike Authority, Signing Improvements and Repairs, NJ

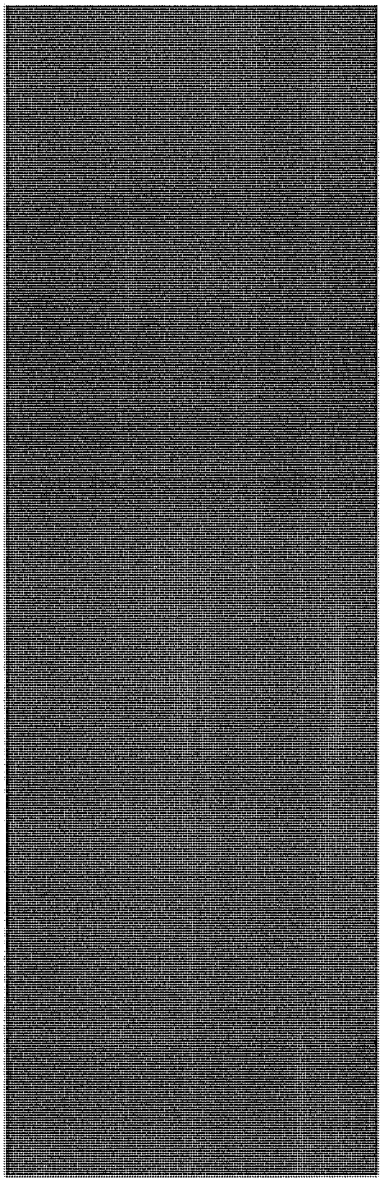
Project engineer responsible for design, plan preparation, and construction support for the rehabilitation of bridge mounted variable message signs and the relocation of a bridge mounted sign to a new custom sign structure founded on drilled shafts over the NJTA mainline.

New Jersey Turnpike Authority, Interchange 1 Express E-ZPass Retrofit, NJ

Project engineer responsible for the conception, design, and construction support of E-ZPass tolling equipment and camera support gantry at the NJTA Interchange 1 toll plaza. The plaza structure had previously been equipped with E-ZPass facilities from an obsolete vendor and required additional structural support for equipment supplied by the new vendor.

New Jersey Turnpike Authority, Express E-ZPass Toll Equipment, NJ

Structural engineer responsible for the conceptual design of a 70-foot by 100-foot spaceframe canopy spanning four lanes of high-speed traffic at the Interchange 18W toll plaza. Design was subsequently copied and used at multiple Turnpike and Garden State Parkway (GSP) toll plazas throughout NJ.



E. Salary

The chart on the following page is the salary schedule for key personnel, showing their job classifications and rates. Please note that these rates are subject to annual increases in July of each year, in line with HNTB's ethos of competitive compensation in order to attract and retain quality talent. The increases will adhere to all approved guidelines of the Authority.

In accordance with FLSA guidelines, employees categorized as non-exempt cannot voluntarily work overtime without compensation and will be compensated 1 1/2 times their hourly rate for hours worked in excess of 40 per week. Employees categorized as exempt may receive additional compensation in the form of straight time for hours worked in excess of 40 per week. HNTB does not have a premium for union differentials.

NAME	TITLE	RATE
Tom Hicks	Principal-in-Charge*	$250.00
Russ Bautch	QA/QC	$72.08
Tony Bartello	Project Manager	$79.04
John Orman	Task Order Project Manager	$61.60
Greg Baron	Task Order Project Manager	$65.68
Mashhood Siddiqui	Task Order Project Manager	$42.24
Al Lotfi	ITS/Traffic Engineering	$84.96
Jerry Lutes	ITS/Traffic Engineering	$72.88
Ryan Laub	ITS/Traffic Engineering	$48.16
Ed Grill	ITS/Traffic Engineering	$38.96
Harold Calero	ITS/Traffic Engineering	$45.28
Franco Stanisci	ITS/Traffic Engineering	$56.56
Bohdan Kalembka	ITS/Traffic Engineering	$63.04
James Vitale	Software/IT Engineering	$73.44
Tommy Stehle	Software/IT Engineering	$52.40
Scott Burrowes	Civil Impacts Design	$79.92
Paul Scala	Civil Impacts Design	$46.16
Richard Schaefer	Structural Impacts Design	$54.08
Martin Crosley	CADD Technologies	$40.08
Gary Stephenson	CADD Technologies	$23.28

*Note: billing rate

F. Experience of the Firm

THE HNTB TEAM

As a leader in the planning and design of the nation's bridges, highways and toll road systems, HNTB is adept at integrating technologies that equip surface transportation facilities to function at peak efficiency. HNTB has planned, designed and implemented the most comprehensive ITS systems in use today. We know what technologies to use, when to use them, and why.

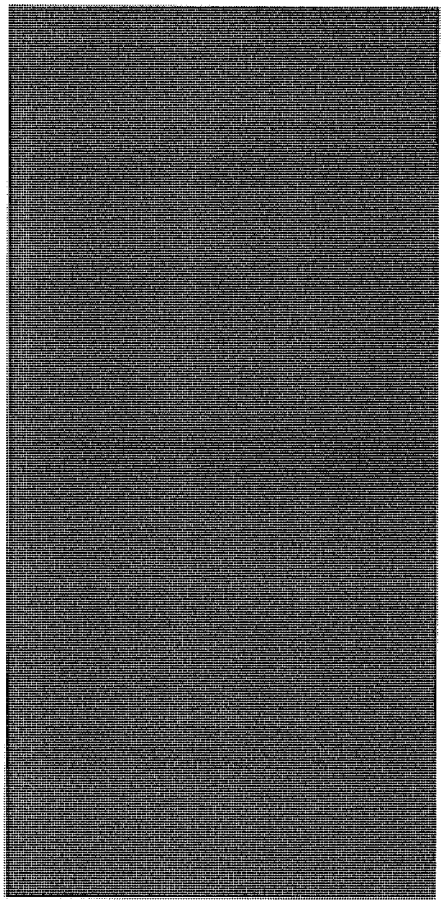
Early adoption and a long-term commitment to the many facets of intelligent transportation systems technology have positioned HNTB as an ITS adviser to state departments of transportation, local municipalities and toll agencies both in the New Jersey/New York metropolitan area and across the nation.

EXPERIENCE WE WILL APPLY TO YOUR PROJECT

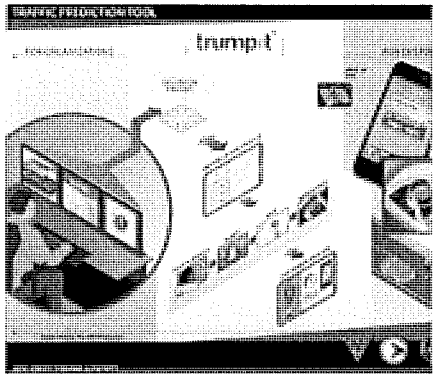
HNTB understands the importance of implementing ITS to reduce travel times, delays and accidents, improve emergency response time and attain environmental benefits through reduced fuel consumption and emissions. We will work together with you to identify system needs and requirements up front, match requirements with available technologies, test those technologies in real world situations and develop a comprehensive plan for operation, staffing and maintenance of the system.

HNTB can offer expertise in the following areas:

- Traffic management center design
- ITS strategic and master planning services
- Development of ITS design standards
- Regional ITS solutions and integration
- Adaptive traffic signal systems design
- Procurement of automatic traffic management software systems (ATMS)
- Design and procurement of dynamic message signs
- Design and procurement of traffic detection systems
- Conversion to All Electronic Tolling (AET) collection systems
- Radio/microwave and fiber-optic ITS communications systems



NEW JERSEY TURNPIKE AUTHORITY, ITS MASTER PLANNING AND ITS CORE SOFTWARE DEVELOPMENT, NJ



Client:
NJTA

Reference:
Nisha Patel
(732) 750-5300 x8285

Completion Date:
2009

The project involved an in-depth analysis and testing of various wireless data communications technologies for full state coverage of both roadways out to intelligent roadway metrics, including traffic detection devices, CCTV and signage control. The master planning effort included the development of new innovative ITS infrastructure concepts and standards with the goal of developing and locating effective ITS technologies, which will reduce costly electrical infrastructure, improve worker safety, improve functionality and operational capability, and allow for scalability. The ITS Master Plan includes a 10-year implementation program for the deployment of new color LED VMS/VSLS to replace ESW/SL signage, the deployment of new Hybrid Changeable Message Signs (HCMS), CCTV, Wireless Traffic Detection Stations (TDS), Wireless Roadway ITS Communications using WiMAX, Highway Advisory Radio (HAR) and Roadway Weather Information Systems (RWIS). Through collaborative design between electronics and structures disciplines, HNTB developed a new type of ITS structure which would allow maintenance to have full access to all ITS devices without the need for lane closures. The new concept eliminated the need for conduits on structures and reduced underground conduits that would normally extend to roadside mounted ITS devices. **This consolidated approach and localized methodology of ITS deployments with local communications nodes saved the Authority more than $50 million from their estimated $175 million program.** All of the listed systems will interface to the new TMC Intelligence Software Engine which will improve operational efficiency and bring the Authority at the forefront of ITS technology. HNTB developed the RFP for the new self-automated ITS Core Software which will automatically change signs and bring up cameras without human intervention. HNTB has also developed an "App" for smartphones which feeds from the NJ511 system to audio announce traffic events as you drive. The new system called "Trumpit" is set to release in the fourth quarter 2010.

HNTB successfully completed this project within budget and on schedule. Construction and deployments are to occur from 2010 through 2014 with future deployments out to 2020.

NEW JERSEY TURNPIKE AUTHORITY, STATEWIDE TRAFFIC MANAGEMENT CENTER, NJ

This project included the study of existing TMCs and national best practices for determining the functional and operational advantages/disadvantages of different centers in the country. The project involved the consolidation and systems integration of New Jersey Turnpike Authority, including the New Jersey Turnpike and Garden State Parkway, New Jersey State Police and New Jersey Department of Transportation into one central operations center for interagency operability. HNTB was responsible for managing the architectural and systems design of a new 28,000-square-foot building to house the new 6,500-square-foot operations floor where 42 operator workstations view an 18-foot by 50-foot video wall for the monitoring and control of more than 450 CCTV cameras and detection systems. A total of 225 computer monitors exchange video and data information seamlessly among the agencies. The new center employs state-of-the-art equipment with wireless capabilities and data to and from field personnel and roadway devices. The project also included the design of radio communications erection of a 250-foot radio tower adjacent to the new building.

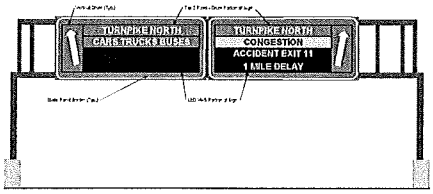
HNTB successfully completed the architectural and systems design of this entire facility within budget and on schedule. The total cost of construction was $29 million.

Client:
NJTA

Reference:
Daniel Destefano
732-750-5300 x8264

Completion Date:
2008

NEW JERSEY TURNPIKE AUTHORITY, LED VARIABLE MESSAGE AND HYBRID DRUM MESSAGE SIGN SYSTEM PROCUREMENT



Dual Hybrid Changeable Message Signs at Mainline Diverge
(Sample Congestion Condition)

Client:
NJTA

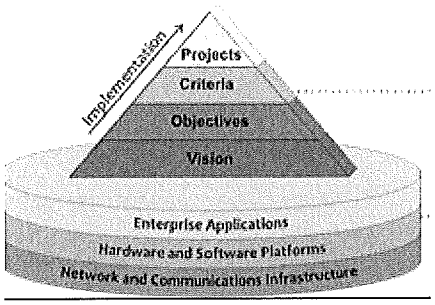
Reference:
John Withers
(732) 750-5300 x8283

Completion Date:
2009

HNTB performed the investigative study of existing emergency speed warning/speed limit (ESW/SL) signs and their conditional assessment and placement for the NJTA. This involved the evaluation of new ITS sign technologies and assessment of operational needs for the Turnpike and GSP Roadways to replace the older ESW/SL signs on the Turnpike and older Glo-Cube technology signs on the Parkway. The project included the functional needs assessment and best practices approach for technologies and placement of the signs to meet present and future needs. HNTB was responsible for the development of RFP specifications for the procurement of 240 new LED high-resolution, full matrix, color variable message signs (VMS) and more than 150 LED variable speed limit signs (VSLS) and controllers for the two roadways throughout NJ. The signs will be monitored and controlled from the NJTA's new Statewide TMC designed by HNTB and integrated information distribution and asset sharing by NJTA, NJSP and NJDOT. This new technology selection is in anticipation of future iconic and graphic display of roadway information and incidents using color to help highlight distinctions between emergency and non-emergency messages and to convey more information to drivers using less words. The new signs will meet commercial graphic capabilities and still accommodate legacy NTCIP protocol and meet NEMA-TS4 requirements. Additionally, HNTB has designed all of the existing rotating drum signs on the Turnpike and is now designing a newer state-of-the-art hybrid drum/LED sign, which will provide both directional information to drivers (top drum portion) and detailed information regarding the incident (bottom LED portion). Thirty-two Hybrid Changeable Message Signs (HCMS) of this type will be installed throughout the Interchange 6-9 Widening.

HNTB successfully completed this project in 2009 within budget and on schedule. The total cost of the VMS procurements is $54 million and installations are to occur over several contracts from 2010 through 2014.

PORT AUTHORITY OF NEW YORK AND NEW JERSEY, ITS STRATEGIC PLAN DEVELOPMENT, NJ



Client:
PANYNJ

Reference:
Rizwan Baig
(973) 565-7834

Completion Date:
2010

As part of HNTB's ITS On-Call for 2008-2010, HNTB was asked to assist the Authority in the development of their ITS Strategic Plan. HNTB's involvement in the ITS Master Plan development for New Jersey, the design of the New Jersey Traffic Management Center and daily involvement with the Authority's regional partners has provided critical knowledge for the Authority in understanding ITS technology trends and the leveraging of existing assets in the region to assist in enhancing their regional participation.

The project involved coordination with NJDOT, NJTA, NYCDOT and Transcom to provide a clear direction and approach on the Authority's ITS strategies moving forward. The project included the weighted evaluation of ITS objectives, measureable benefits and the employment of Transcom's OpenReach platform for regional participation.

This project is ongoing and is expected to be completed within budget by December 2010.

PORT AUTHORITY OF NEW YORK AND NEW JERSEY, ALL ELECTRONIC TOLLING (AET) SYSTEM REPLACEMENT PROGRAM, NEW YORK, NY

In 2006, HNTB completed a Port Authority Toll System (PATS) study and evaluation to document the condition of existing toll facilities equipment and recommendations for upgrade/improvements. This detailed report provided the foundation for Stage II and III efforts to perform upgrades at all of the Authority's toll facilities. In 2009, HNTB was asked as part of the Electronics On-Call to perform Stage II and III design services to convert all Authority toll facilities to All-Electronic Tolling (AET), also known as video tolling. Early concepts still need to be tested under urban traffic conditions - as such, the Authority investigated direct conversion with specialized gantries installed at all plazas for new equipment. Upon consideration of the risks involved, the Authority decided to implement a two-phased approach. Phase I would implement the replacement of existing toll equipment with newer equipment capable of employing either traditional or video tolling methods, while Phase II would implement video tolling in either a phased approach or simultaneously without removal or modification to the toll plaza itself. Once implementation is proven, conversion to AET alone will be commissioned. HNTB assisted with the RFQ development and managed and performed the coordination of disciplines and the detailed development of RFPs for vendors and contractors to bid on. The project involved research, design and installation of new toll equipment, calculations, diagrams, project schedules and estimates, as well as attendance to bi-weekly meetings. The design interfaces with existing facility communications and power.

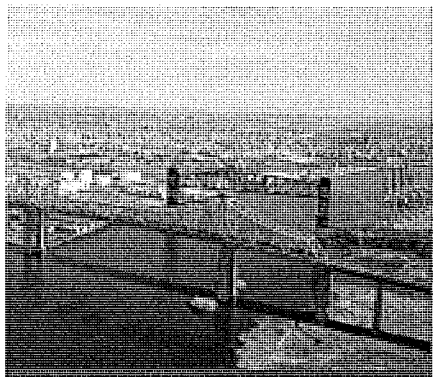
Client:
PANYNJ

Reference:
Rob Becker
(973) 792-4394

Completion Date:
2011-2012 (construction)

HNTB has successfully completed stages II and II within budget and construction is tentatively scheduled for 2011-2012.

PORT AUTHORITY OF NEW YORK AND NEW JERSEY, GOETHALS BRIDGE MODERNIZATION PROJECT, NY/NJ



Client:
PANYNJ

Reference:
Edward Lopez
(973) 792-4627

Completion Date:
2010 (design)
2012 (construction)

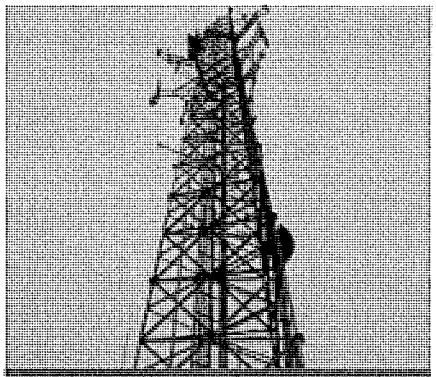
As part of the $1 billion new Goethals Bridge project, the HNTB Technologies Group was responsible for developing the functional design criteria and ITS metrics for the new bridge facility, which will employ state-of-the-art, high-resolution color, full-matrix LED Variable Message Signs (VMS); wireless traffic detection systems (TDS); LED Variable Speed Limit Signs (VSLS); high-definition security cameras, Roadway Weather Information Systems (RWIS) and Automatic Traffic Management Software (ATMS). The new ATMS will automatically detect incidents, control electronics signage and bring up CCTV images in near-realtime. Implementation of Transcom's OpenReach platform will ensure regional reporting and updates to New Jersey and New York 511 systems.

Plans for the project are to advertise in 2011 under a Design Build Finance Maintain (DBFM) procurement. HNTB was actively involved in the preliminary structural, civil, mechanical, electrical and electronics design of the bridge and its systems.

Completion of the design phase is expected in December 2010, with construction to occur through 2012. The project is set to be completed within budget.

NEW JERSEY TURNPIKE AUTHORITY, PROCUREMENT OF WIMAX RADIO SYSTEM, NJ

As general consultants for the New Jersey Turnpike Authority, HNTB was assigned the task of performing a detailed communications study and cost-benefit analysis of various technologies for high-speed, high-bandwidth communications with ITS devices, scheduled to be deployed throughout the entire New Jersey Turnpike and Garden State Parkway roadways from 2010 through 2014. HNTB evaluated both wireless and wired technologies including fiber-optic, free-space optics, spread-spectrum radio, Wi-Fi, Microwave and WiMAX technologies. Through a detailed cost-benefit analysis, the Authority selected WiMAX as the prevailing solution and standard to be employed for all full ITS communications and full geographic coverage of both roadways for planned and future ITS deployments.



Client:
NJTA

Reference:
Alan Zehnbauer
(732) 442-8600 x2065

Completion Date:
2011 (construction)

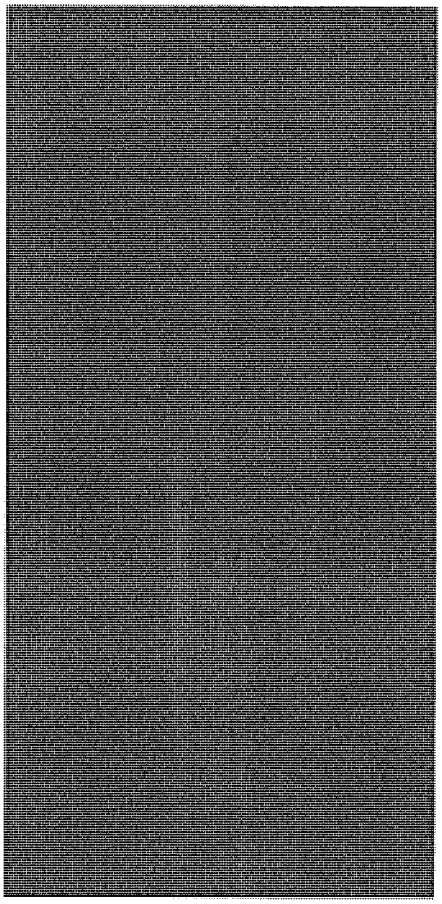
HNTB conducted factory tests on various WiMAX products through an independent testing laboratory to determine full-load bandwidth and speed capabilities. Proof of concept installation on the Secaucus tower demonstrated a 10-mile reliable range. HNTB helped the Authority obtain FCC licensing for the 3.5GHz band, for potential private or backup use. Ultimately, the new WiMAX system will utilize public frequency band at 4.9GHz. HNTB performed coverage analyses utilizing the NJTA's 33 existing towers and to determine if full coverage was possible. HNTB developed the functional requirements and detailed radio parameters for an RFP package specification, conducted interviews with the proposing vendors and assisted the selection committee through the procurement process. **HNTB successfully completed this project within budget and on schedule.** Total estimated construction cost is $6.6 million. Construction is to occur from 2010 into first quarter 2011.

G. Management Approach

Management is the most important aspect of any project to ensure a quality product that is delivered within budget, on schedule, and to the Authority's satisfaction. **HNTB has demonstrated this approach on Intelligent Transportation System (ITS) projects throughout the country and is actively assisting the Port Authority with the development of their ITS Strategic Plan.**

One example to the success of HNTB's management approach is the award-winning New Jersey Statewide Traffic Management Center (STMC), commissioned in 2008. Tony was the project manager who made the project a success. HNTB provided complete architectural and integrated systems design services for the new center and with multiple stakeholder involvement. The successful management of this project further allowed HNTB to provide complete ITS Master Planning design services for the New Jersey Turnpike and Garden State Parkway, including the development of new ITS design standards and the procurement of more than 240 variable message signs (VMS) and the implementation of an intelligent Automatic Traffic Management Software (ATMS). So successful was the ITS Master Planning approach, that through innovative design, HNTB was able to save $50 million from the New Jersey Turnpike Authority's ITS deployment program.

HNTB's management technique for technology projects is a bottom-up design approach. Oftentimes the best solutions come from the individuals who are directly involved in the daily process of ITS implementation and have first-hand experience in working with the real world issues. The New Jersey STMC employed the concepts of the facility's users. For larger, more complex ITS projects, HNTB recommends the establishment of a technical committee with a single representative for each of the disciplines. Through either weekly or bi-weekly meetings, concepts are discussed and solutions are produced with all perspectives taken into account. Complex projects are broken down into smaller "assignable" tasks. Each task has an owner who is the most familiar with the issue and who is responsible for obtaining or providing necessary information for closure of that item. Tony and/or his project leaders will run the technical meetings to assign tasks and integrate the information for analysis. The final design approach to the project will be the result of everyone's efforts and input for the best possible design solution. This proven, interactive approach to systems projects has been



successfully implemented by Tony on numerous ITS projects performed by HNTB throughout the region.

The effectiveness of HNTB's project management is reflected in the hundreds of projects which the firm has successfully completed. In each instance, the client was afforded the advantages that come from planning, scheduling and monitoring - lower costs, on-time or early completion, and avoidance of unnecessary delays. This applies to small and short-term projects similar to the Authority's request in this proposal.

HNTB's management system is predicated on:

- Access to national HNTB resources and staff for specific client needs
- Direct principal involvement
- Critical path schedules, if required
- Frequent communications with clients
- Quick reaction and response to client needs
- Staff allocation
- Budget monitoring
- Progress reports
- Strict cost control

HNTB's personnel are very familiar with the Authority's Professional Service Firms - Project Planning & Reporting Information Manual and, if selected to perform this assignment, will submit the appropriate planning and reporting information to the chief engineer or project manager, if so directed.

The management team's objective for this project is to provide strong leadership that will allow an organized progression of the project to completion while meeting the quality, budget, schedule and acceptance goals established by the Authority. Specific detail on the achievements of this objective begins on the following page.

TEAM COMMITMENT

To successfully advance the assignments of this project in the time-frame desired by the Authority, a team atmosphere must be developed among HNTB, its subconsultants and the Authority's personnel. To facilitate the development of the team relationship, the team holds an internal meeting at the start of the project for all key project participants. This meeting will develop the team's mission statement, define individual roles, tasks and critical success factors, prioritize activities and refine approaches to critical path problem/concern areas. This session will be a first step in developing the team-building attitude necessary to successfully complete this project and ensure the goals and objectives are clear and understood.

PROJECT TEAM APPROACH

A team approach is critical to address solutions and deadlines for any task assignment and is key to the success of any project. HNTB's **Project Manager, Tony Bartello, PE** will assess and determine the needs of the project by its size and complexity. More complex projects may be best approached through the establishment of a Port Authority technical committee with a representative for each stakeholder or discipline involved. Decisions and design solutions are thoroughly vetted through the technical committee to determine optimal approach and implementation of the design solution.

A broad outline for the conduct of an HNTB project is established by **Principal-in-Charge Tom Hicks, PE** and **Tony** at the initiation of the project. Tony will take into account the goals and objectives of the assignment, any special needs expressed by the client, budget and scheduling requirements, the personnel involved, and other details such as coordination with subconsultants and the logistics for fieldwork. Both Tom and Tony are responsible for maintaining a high level of quality control and quality assurance throughout the project, as well as compliance of the deliverable with the Authority's standards. In addition, HNTB always assigns a quality assurance/quality control team to monitor the quality of the work effort as it progresses.

HNTB will employ a process-entitled project team approach (PTA). This approach consists of project management procedures which result in a higher level of project coordination, increased communication among disciplines and an improvement in the overall quality and control of projects. PTA consists of two essential items: the project memorandum and project meetings. At the beginning of the project and each subsequent assignment, Tony will prepare a project memorandum which will be distributed to the project staff, including subconsultants as well as the Authority's key staff. The project memorandum will include:

- Project description
- Work program/task description
- Contract deliverables
- Task Assignments and Ownership
- Project schedule
- Criteria, codes and standards
- Listing of available project data
- Project Organization Chart
- Client contacts
- Project administration
- Communications
- Project budget progress

REPORTING

This memorandum will be thoroughly discussed at an initial kick-off meeting in order to provide the entire project team an overview of each assignment as it comes in. Any new staff members added later in the project will be given the memorandum to quickly orient them to the project. The memorandum will allow for a high level of communication among team members from the start.

Project meetings will be held with the team to maintain proper communication throughout the duration of each assignment and to properly organize the work effort. In some cases, the meetings may be held with the Authority staff for projects with quick-turnaround requirements. The meetings will consist of:

- A weekly or bi-weekly schedule, being held on the same day and time of each week
- Established agendas
- Representation from all project stakeholders/disciplines
- Ownership Assignments for each task (larger complex projects)
- Reviews of project status
- Reviews of staffing needs
- Reviews of project milestones/ schedules
- Review of independent tasks
- Resolution of conflicts that may affect on-time completion of the project

The meetings will provide:

- A record of minutes and critical information
- Identification of action items and responsible parties
- Project information to all attendees, department heads and managers

The meetings will assist the project team in maintaining the proper communication and organization required to meet any proposed schedule on this project. They will also allow the team to adjust the progression of work to meet the program of the project.

INTERNAL MANAGEMENT HIERARCHY

Tony will report on a monthly basis to the Authority's designated engineering program manager and on a weekly or bi-weekly basis to the Authority project manager assigned to manage the design and technical services call-in program. If the project has an aggressive schedule, such conversations may occur on a more frequent basis. The HNTB Team will use the Authority's Engineering Department monthly progress report as a basis of monthly reporting. The report will include accomplishments, current issues/concerns and actions required, as well as cost and schedule status relative to the initial work plan for each assignment.

At the kick-off meeting, both Tony and the assignment leader will meet with the Authority project manager, the Authority engineering staff, and the line department personnel that initiated the assignment request, to more fully understand the scope of the project. If necessary, the scope will be further refined prior to preparing the estimate.

The kick-off meeting should occur within a day or two of receipt of the notice of assignment. For high-priority assignments, HNTB may start the assignment immediately with meetings and paperwork to follow. This is an approach that has worked well under our other Authority call-in services.

The team will plan to submit the further refined scope, estimate and schedule for the assignment within a few days to a week, depending on the number of subconsultants involved. To provide quick turnaround and shared understanding, the HNTB project manager will hand-deliver estimates and review them with the key agency personnel. Upon receipt of an advance notice to proceed, the team will immediately start work. In the case of more routine assignments, an authorization letter will initiate the start of work.

TRACKING SYSTEM

To provide comprehensive project tracking, Tony will establish three separate tracking systems for cost, schedule and documents. To monitor cost, Tony will track the status of an assignment using a similar system to those that have been employed on other Authority call-in contracts. Each month (or more frequently for short and high-intensity assignments), Tony will prepare an estimate at completion based on the level of effort required to complete the assignment. This information will be entered on the spreadsheet and compared to the authorized amount. Any overage will be reviewed as an exception with the Authority's project manager as soon as it is identified. The last portion of the spreadsheet tracks the total invoiced, the amount paid to date and the amount outstanding. When the final invoice is issued, it is noted in the comments section and a formal closeout for that assignment is on request.

To keep updated with the project status, Tony will establish a scheduling tracking system to monitor key milestones such as receipt of permits, submittal dates for deliverables, and critical reviews. Since CPM scheduling systems like Primavera Suretrak and Microsoft Project are readily available and easy to use, HNTB assignment leaders will utilize these programs to prepare their assignment schedule and update monthly status reports. If there is an issue to any change in the scope, the project and assignment leaders will surface the issues for agency direction.

Tony will also establish a document control tracking system. This system will use the same work breakdown system (WBS) used for the cost and schedule line items so that filed documents are readily at hand. Most importantly, a decision log will be kept to document when, by whom, and under what circumstance decisions were made.

Further, an action item list will be maintained for each assignment with the person responsible and results obtained listed based on meeting minutes. This system relies upon the timely issuance of meeting minutes with identified decisions and action items. The HNTB Team proposes that project manager Tony, assisted by two individuals on an as-need basis, a scheduler, and a cost control manager will coordinate all project-tracking systems.

QUALITY

HNTB, as the prime consultant, will lead the effort and mobilize the resources ensuring quality control and individual task leadership. **HNTB's Quality Management Program has been an important factor in establishing the firm as a leader within the A/E/P profession and has gained Engineering News-Record (ENR) recognition as one of the nation's top eight pure design firms.** Tony will submit a quality control/quality assurance program addressing the particular character of this ITS Call-in contract prior to starting work. Russell Bautch, an experienced ITS designer in HNTB's Chicago office, will perform QA/QC services for all on-call assignments. Tony will also conduct audits during the course of the assignment.

To provide adequate coordination among subconsultants, HNTB will institute a master agreement for each subconsultant. The agreement will provide a contractual arrangement, affirm the Authority's contractual requirements and define insurance requirements so the subconsultant can prepare and submit certificates in advance of receipt of any specific task orders. It will also establish the more routine items, such as ownership of documents, proprietary information, and EEO. Terms of compensation are defined with median hourly rates for individuals by level of responsibility and discipline, as well as the overall multiplier as included in this proposal. The master agreement will include a sample task order so that the subconsultant may anticipate its format, which includes: the scope of services (and any services not included that may be authorized at a later date, such as construction phase services), a list of deliverables, compensation for performance of the services, list of items provided to the subconsultant by HNTB, and any other special provisions specific to a particular task.

Critical to coordinating subconsultant responsibility and accountability is the establishment of a regular reporting routine. In addition to the routine weekly teleconferences on job status and outstanding issues, Tony will establish a monthly reporting schedule and format. The team members will be required to provide the following information with the invoice: staffing hours expended during the current month, cumulative hours expended, the hours estimated at completion compared to those budgeted and any over/under noted; similarly the amount of funds expended during the current month, cumulative expenditures, a current estimate at completion and any over/under amount noted.

CONFLICT MANAGEMENT

The best conflict management approach is one that avoids conflict before it occurs. HNTB's program promotes communication among all involved entities to minimize the number of conflicts. By developing trust and understanding of all project concerns for each assignment, the team can appropriately prepare for management of conflicts that may arise. As part of our approach, our team will initiate key schedule-sensitive activities early on. These activities, in particular, will be monitored on a proactive critical path basis and met head-on with aggressive evaluation of potential approaches during the team meetings.

Successful resolution of the issues associated with these items in a partnering approach will promote the timely completion of this project.

Tony will serve as the project manager for any assignments anticipated throughout 2011. For certain projects, Tony may assign one of his designated task leaders who has a background that more specifically matches the project assignment. The project manager will be responsible for identifying the appropriate HNTB Team to fulfill each assignment in accordance with the scope of services as developed with the Authority. His previous experience with the Authority on similar assignments makes him uniquely qualified to fill this role, having managed large complex ITS designs such as **TMCs, Master Planning, development of ITS design standards, traffic signal control, the procurement, deployment and installation of ITS devices, and traffic impacts and staging.**

M/WBE PARTICIPATION

HNTB is fully committed to the Authority's goals of DBE participation. HNTB has teamed with **DVI Communications**, with whom the Authority has previously partnered. Additionally, **CellGain** will be assisting us with any radio design or testing efforts that may be required during the project. **Arora and Associates** will serve as an extension of staff based on project needs.

Each assignment will be carefully evaluated so that the maximum DBE participation can be developed. Other data collection, inspection, analysis and plan preparation efforts can be assigned to additional minority firms to meet the Authority's goals on an as-needed basis.

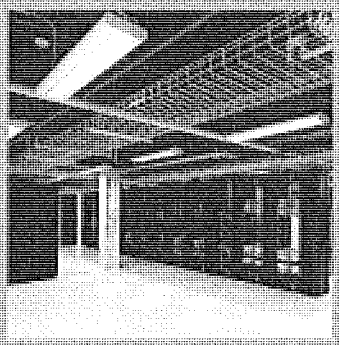
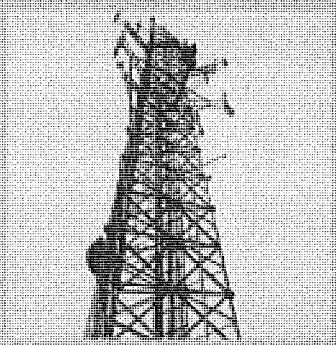
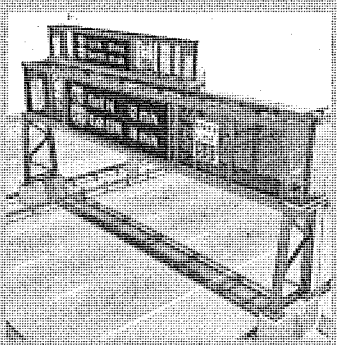
H. Firm Affiliates

A listing of all HNTB affiliates is shown below:

- 1914 Holding Company (43-1765234). This entity is the ultimate parent of the HNTB Companies. Address: 715 Kirk Drive, Kansas City, MO 64105
- HNTB Holdings Ltd (56-2422024). This entity is 100% owned by 1914 Holding Company and owns 100% of the following 3 subsidiaries. Address: 715 Kirk Drive, Kansas City, MO 64105
- HNTB Corporation (43-1623092). This entity is 100% owned by HNTB Holdings Ltd. Address: 715 Kirk Drive, Kansas City, MO 64105
- HNTB International Corporation (43-1665797). This entity is 100% owned by HNTB Holdings Ltd. Address: 715 Kirk Drive, Kansas City, MO 64105
- HNTB Design/Build Inc (43-1673754). This entity is 100% owned by HNTB Holdings Ltd. Address: 715 Kirk Drive, Kansas City, MO 64105
- HNTB Corporation (a Massachusetts Corporation) (43-3346152). Address: PO Box 412197, Kansas City, MO 64141
- HNTB Pennsylvania, Inc. (43-1634931). Address: PO Box 412197, Kansas City, MO 64141
- HNTB Alabama Inc. (43-1628393). Address: PO Box 412197, Kansas City, MO 64141
- HNTB Arkansas, Inc. (43-1628405). Address: PO Box 412197, Kansas City, MO 64141
- Howard Needles Tammen & Bergendoff California Architects PC (43-1628390). Address: PO Box 412197, Kansas City, MO 64141
- HNTB Connecticut Architecture, PC (43-1628389). Address: PO Box 412197, Kansas City, MO 64141
- HNTB District of Columbia Architecture, PC (43-1634930). Address: PO Box 412197, Kansas City, MO 64141
- HNTB District of Columbia, PC (43-1634929). Address: PO Box 412197, Kansas City, MO 64141
- HNTB Georgia, Inc (43-1628402). Address: PO Box 412197, Kansas City, MO 64141
- HNTB Idaho, PA (43-1638956). Address: PO Box 412197, Kansas City, MO 64141
- HNTB Illinois, Inc. (43-1627255). Address: PO Box 412197, Kansas City, MO 64141
- HNTB Indiana, Inc. (20-3233524). Address: PO Box 412197, Kansas City, MO 64141
- HNTB Iowa, Inc. (43-1628394). Address: PO Box 412197, Kansas City, MO 64141
- HNTB Louisiana Architecture, Inc. (52-2418384). Address: PO Box 412197, Kansas City, MO 64141
- HNTB Maine, Inc. (43-1628396). Address: PO Box 412197, Kansas City, MO 64141
- HNTB Maryland, Inc. (43-1627252). Address: PO Box 412197, Kansas City, MO 64141
- HNTB Michigan, Inc. (43-1628395). Address: PO Box 412197, Kansas City, MO 64141
- HNTB Mississippi Architecture, PC (83-0379507). Address: PO Box 412197, Kansas City, MO 64141
- HNTB Montana, Inc. (74-3046837). Address: PO Box 412197, Kansas City, MO 64141
- HNTB Nevada, Inc. (43-1628391). Address: PO Box 412197, Kansas City, MO 64141
- HNTB New Jersey Architecture, Inc. (43-1628399). Address: PO Box 412197, Kansas City, MO 64141
- HNTB New York Engineering & Architecture, PC. (43-1635518). Address: PO Box 412197, Kansas City, MO 64141
- HNTB New York Architecture, PC (83-0379503). Address: PO Box 412197, Kansas City, MO 64141
- HNTB North Carolina, PC (56-2017391). Address: PO Box 412197, Kansas City, MO 64141
- HNTB, PC (43-1635520). Address: PO Box 412197, Kansas City, MO 64141
- HNTB Ohio, Inc. (43-1628397). Address: PO Box 412197, Kansas City, MO 64141
- HNTB Oklahoma, PC. (43-1639329). Address: PO Box 412197, Kansas City, MO 64141
- HNTB Oregon Architecture, PC. (43-1647732). Address: PO Box 412197, Kansas City, MO 64141
- HNTB Rhode Island, Inc. (43-1627674). Address: PO Box 412197, Kansas City, MO 64141
- HNTB Virginia Architecture, Inc. (83-0379509). Address: PO Box 412197, Kansas City, MO 64141
- HNTB Vermont Engineering, PC. (27-0357375). Address: PO Box 412197, Kansas City, MO 64141

I. Conflict of Interest

HNTB certifies to the best of our knowledge and belief that no affiliation exists that presents a possible conflict of interest for the Authority's ITS Services Contract (RFP# 21988)

J. Terms and Conditions

HNTB Corporation accepts the standard agreement and its terms and conditions put forth by the Port Authority of New York and New Jersey.