

HRV Conformance Verification Associates, Inc.

Materials QA/QC Inspection



Statement of Qualifications 2025

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SECTION 1 Company Profile



About Us



In 2003, H. Rochelle Stachel founded HRV on the principle of helping to assure the quality of materials used in the construction of civil and transportation infrastructure. Today, HRV is a leader in materials (steel, concrete, coatings, FRP, etc.) QA and QC inspection, construction management and construction inspection

focused on delivering services for transportation, rail & transit, oil & gas, power, commercial, water/wastewater, and aviation markets worldwide. HRV is a certified Woman-Owned Business Enterprise with approved DBE status in more than 30 states and with numerous transportation authorities nationwide.

We are *Quality*. Assured.

- Key Professional Certifications:
 - Professional Engineers
 - Certified Construction Managers (CCM)
 - Construction Inspectors (NICET)
 - American Concrete Institute (ACI)
 - Precast/Prestressed Concrete Inst. (PCI)
 - Association for Materials Protection & Performance (AMPP, NACE/SSPC)
 - American Welding Society (AWS)
 - American Society for Nondestructive Testing (ASNT MT, PT, RT, UT)
 - International Code Council (ICC)
- Applicable NAICS Codes
 - 237310 Highway, Street, & Bridge Construction
 - 237990 Other Heavy & Civil Eng. Construction
 - 541990 All Other Professional, Scientific, & Technical Services
 - 561320 Temporary Help Services (Office Support & Technical Inspectors, Outsourcing of Office Support & Technical Inspectors)



Our Clients Are Our Focus

HRV delivers Quality Assurance—our "product" for 20 years. We excel by maintaining high standards of technical training, leveraging deep industry knowledge and experience, practicing ethical conduct, applying innovative technologies, and communicating openly with our clients. Everything we do is intended to enhance the client's experience.

- Key Client Types:
 - State Departments of Transportation
 - Turnpike/Tollway Authorities
 - Rail/Transit Authorities
 - Oil & Gas Pipeline Owners
 - Energy Companies
 - Municipal Authorities
 - Sports & Entertainment

Core Service Lines



Steel

- Witness welder qualifications
- Verification of QC documents
- Inspection of raw materials
- Material cutting inspection
- Fit-up & welding inspection
- General visual inspection
- Dimensional inspection
- Bolting inspection
- Coatings inspectionFinal inspection /acceptance
- Final Inspection /accept
 Virtual Inspection

NDT

- Magnetic Particle Testing (MT)
 Ultrasonic Testing (UT),
- Phased Array
- Radiographic Testing (RT)
- Penetrant Testing (PT)NDT Training/certifications
- Review fabricators NDT
- qualifications & procedures Monitor & witness the
- actual NDT testing process & results
- Review NDT test reports for accuracy
- Communicate NDT testing results with the client /owner

Concrete

- Precast concrete;
 Prestressed concrete;
 Prestressed straight strand;
 Prestressed draped strand
- Aggregate sampling and admixture utilization
- Witness/document construction and utilization of formwork
- Inspect/document reinforcement steel installation
- Observe product loading and document shipping operations from fabricator to jobsite

Coatings

- Corrosion surveys
 Corrosion failure assessments
- Paint samplingPaint system analysis
- Verification of paint
- application Monitoring of
- environmental conditions • Hazardous materials
- Hazardous materials abatement procedures review
 - QC plan review



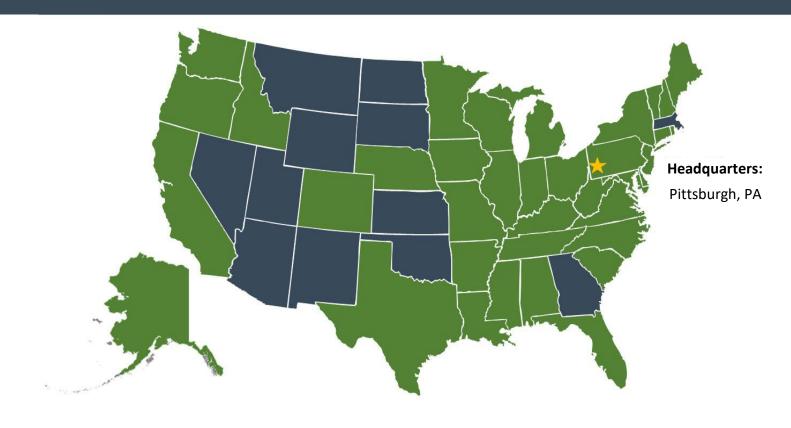
Construction Services

- = CM/CI
- Constructability reviews
- Planning, scheduling, & estimating
- Submittal reviews
- Progress meetings & reports
- Monitor construction sites
- by verifying activities to ensure overall compliance

Consulting & Training

- Facility assessments/ supplier audits
- Integrity assessments
- Welding & fabrication procedure reviews
- Expert witnessing
- Personnel training/ certification
- Radiographic Interpretation
- Prefabrication meetings

Growth & Geographic Reach



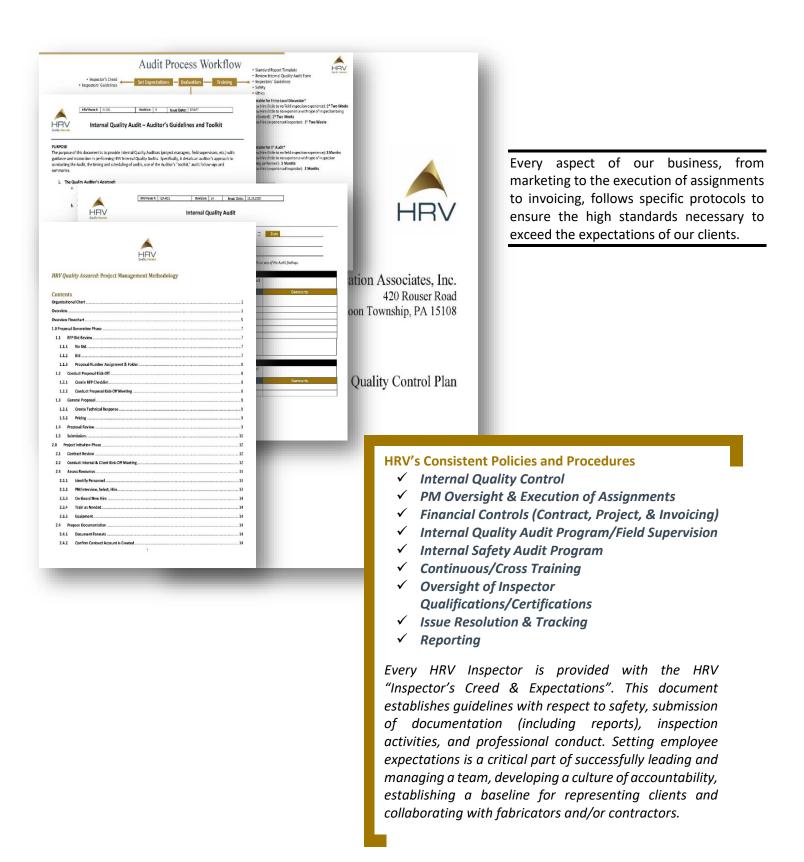


States in which HRV has previously worked or holds a current state DOT QA Inspection contract

SECTION 2 Internal Quality Control



HRV's Quality Management System includes standardized procedures to ensure consistent delivery of results. Applying extensive project experience, executive management has implemented comprehensive standardized reporting, a *Quality Manual*, a *Project Management Methodology*, computerized time reporting, and organizational procedures. HRV's quality-related manuals and procedures reflect the requirements of ISO 17020, *Conformity assessment—Requirements for the operation of various types of bodies performing inspection*.



SECTION 3 Technical Staff



Key Personnel



ROBERT STACHEL, PE, EVP

<u>Certifications</u>: PE (in 17 states), AWC CWI, ASNT LIII (MT, PT, RT, UT), PCI LIII Yrs. of Experience: 46 Mr. Stachel is one of the few professionals in the QA industry possessing a structural PE, PCI Level III, CWI, and ASNT Level III NDT. This, in addition to his dedicated career in QA inspection and fabrication, lends to his credibility as an expert in the industry. His proficiency and integrity are recognized through achievement awards from American Society of Civil

Engineers, Association for Bridge Construction & Design, and Engineers Without Borders. He lectures and conducts training for numerous DOTs and professional organizations throughout the US. He is sought after for his expertise and ability to effectively foster collaboration between engineers and fabricators because of his unique perspective as an engineer with incomparable experience in QA/QC materials fabrication inspection.



 KEVIN CHATARY, Ops Manager
 <u>Certifications</u>: CCM, AMPP Basic Coatings Inspector, Incident Command System Certified, PCI LII
 <u>Yrs. of Experience</u>: 15 Mr. Chatary is experienced in the areas of engineering, construction inspection, and construction/fabrication inspection project management. He has extensive NHI Bridge & Highway Training, and a broad range of certifications/training related to emergency management. He was an active member of the "Senior Inspector in Charge Committee" for 4 years and the Safety Committee Chairperson

for Allegheny County (PA) Maintenance (District 11-1) for 6 years. He is now an active member of ACEC, ASHE, CMAA, AMPP/NACE, and PCI. He was a Project Engineer with Lane Construction/Northeast Paving for PA Turnpike Commission projects; and held several supervisory roles as an employee of Pennsylvania DOT. Since joining HRV, he has further expanded his expertise and experience as it related to the construction/maintenance of transportation infrastructure.



GREGORY BENNETT, Coatings PM

<u>Certifications</u>: AMPP Senior Certified Coatings Inspector Yrs. of Experience: 20 Mr. Bennett is NACE International NIICAP Program Committee Member with a career dedicated to the application and quality inspection of coatings. His project experience involved protective coatings for exterior, liners, FBE, fiberglass, carbon-fiber wrap, and polyvinyl chloride wraps; intumescent and cementitious fireproofing inspection; and cryogenic and high heat industrial insulation. Mr. Bennett has worked on

bridge projects for transportation agencies and has conducted multiple surveys/assessments and failure analysis for DOTs, United States Military, and energy providers. Since joining HRV, he has provided services on projects for PennDOT (vehicular bridges) and the New York Power Authority (pedestrian bridges).



NOAH HOLDEN, NDT PM

<u>Certifications</u>: AWS CWI and NDT LII (MT, PT, RT, UT) <u>Yrs. of Experience</u>: 13 Mr. Holden has contributed expertise and inspection services on a variety of airports, bridges and highways, commercial buildings, power, railroads, and transit projects. Other qualifications/experience include: writing quality procedures related to MT, PT, RT, UT methods and welding procedures for various projects; developing RFI's for Clarion

University's Pierce Science Center project; and providing field inspection services for agencies including Port Authority of NY & NJ (MT of pipe to base plates); SEPTA (MT on web to flange for bridge girders); Delta Rail (visual inspection, UT, MT for various projects); and Pennsylvania DOT (witnessing welding and performing MT on guard rail posts).

HRV'S NATIONWIDE TECHNICAL CERTIFICATION TOTALS								
CWI	NDT Level II				NACE/AMPP/SSPC	PCI		
	MT	PT	RT	UT		L1	L2	L3
75	37	24	22	27	15	2	6	3

SECTION 4 Project Experience



Signature Projects – Transportation (DOT)

\$85.5M Liberty Bridge Reconstruction



Pennsylvania DOT

- Services Provided:
 - Coatings Inspection Onsight
 - HRV's team was available for additional services to repair damage after the heat from a construction fire caused a 30-foot steel support structure – at a critical load bearing section of the pier - to bend out of place.
 - Additional services included: Nondestructive testing of bolts, hardness testing of existing steel, and weld inspection associated with temporary jacking of the structure during repairs.

\$3.98B Mario Cuomo Bridge (Tappan Zee) (Cable-Stayed Bridge)

New York State Thruway Authority

- Services Provided:
 - 40 HRV Inspectors with CWI & ASNT Level II
 - UT, MT, RT Inspection/Interpretation
 - Welder Qualification Verification
 - 47 Different Fabrication Facilities (Steel)
 - Coatings Inspection
 - *HRV provided 100% of all steel fabrication inspection*
 - "One of the largest single design-build contracts for a transportation project in the United States"



\$3.8B Hampton Roads Bridge-Tunnel Expansion (HRBT)



Virginia DOT & Maryland State Highway Administration

- Services Provided:
 - Steel Fabrication/Weld Inspection
 - Coatings Inspection
 - 4 Different Fabrication Facilities (to date)
 - Currently one of the largest highway projects in Virginia's history, as well as one of the largest active transportation infrastructure projects in the nation

\$15.6M Rehabilitation of the Johnstown Incline

Pennsylvania DOT Bureau of Public Transportation

- Services Provided:
 - Construction inspection services to monitor the overall construction performance regarding technical quality and compliance with specification requirements
 - Considered the "world's steepest vehicular inclined plane. It can carry automobiles and passengers, up or down a slope with a grade of 71.9%."



Photo by CamTran <u>https://www.inclinedplane.org/history/</u>

\$700M North Shore Connector



Pittsburgh Regional Transit (formerly Port Authority of Allegheny County)

- Services Provided:
 - Steel fabrication/weld inspection
 - Shop and field coatings inspection
 - Witness and perform NDT (shop and field)
 - Technical consultation such as coatings analysis and submittal review of the shop quality practices and fabrication procedures
 - Project included 3 new stations and a new aerial structure

\$10M Venango County Multimodal Transit Facility

Pennsylvania DOT Bureau of Public Transportation Crawford Area Transportation Authority

- HRV retained for Phases 1 & 2
 - Phase 1 involved the expansion and improvements at the existing operations facility and expanded parking
 - Phase 2 the construction of a 25,000 square-foot facility on the existing parking lot
- Services Provided:
 - Construction management support services that included oversight of work practices and procedures; compliance to safety policies; record/document retention; and assisted the Resident Engineer with the coordination work



\$293M George V. Voinovich Bridge Design-Build

Ohio DOT

- Services Provided:
 - Coatings inspection
 - The consistency and thorough nature of HRV's inspection activities were a contributing factor in the substantial progress made towards the project's completion.



\$1.5B Goethals Bridge P3 Replacement



Port Authority of New York & New Jersey

- Services Provided:
 - Public-Private Partnership (P3) design, build, finance, & maintenance (DBFM)
 - Steel Fabrication Inspection
 - Precast/Prestressed Concrete Member Inspection
 - Coatings Inspection
 - Nondestructive Testing (NDT) including UT & MT
 - Approximately 10 to 15 Inspectors with CWI, PCI, ACI, NICET, ASNT, & NACE certifications throughout the duration of the project



PA Rapid Bridge Replacement P3 Project

- Services Provided:
 - QC field construction & coatings inspection coverage for the replacement/rehabilitation of 558 steel & concrete bridge structures
 - *HRV provided services at 60 different job sites*

Signature Projects – Transportation (Rail)

\$2B Purple Line Light Rail Extension



https://www.purplelinemd.com/gallery?light-rail-vehicle-in-testing-at-the-production-facility

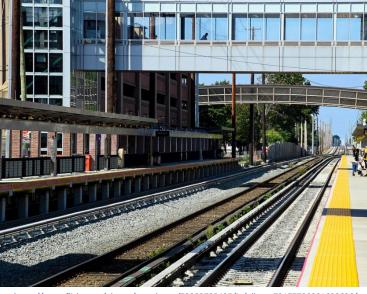
Maryland DOT's

- Services Provided:
 - Steel Fabrication/Weld Inspection
 - Concrete Inspection
 - Coatings Inspection
 - Facility Audits
 - Technical Consultation
 - HRV provided CWI, PCI, and NDT Level II services at over 20 different fabrication facilities during the fabrication of materials for various stations, 7 steel rail bridges, and 21 concrete rail bridges

Long Island Railroad's \$2.6B Third Track Expansion Design/Build Project

NYC MTA

- Services Provided:
 - Steel fabrication/weld inspection
 - Concrete inspection
 - Coatings inspection
 - Facility Audits
 - Technical Consultation (review of ITPs, welding, and fabrication procedures)
 - *HRV* acted as a subject matter expert during the fabrication of materials
 - 57 full- and part-time inspectors (CWI, PCI, ASNT NDT Level II, and NACE) at 26 different manufacturing facilities



https://www.flickr.com/photos/mtaphotos/52322705435/in/album-72177720301699636/

Yellow Line Tunnel & Bridge Rehabilitation \$3.98B



Washington Metropolitan Area Transit Authority

- Services Provided:
 - Welding and NDT inspection (Tunnel)
 - Weld Procedure Reviews
 - *HRV's work contributed to WMATA's mission to ensure that structures function safely for years to come*

Photo by Er1ckRailfan - Own work, CC BY-SA 4.0 https://commons.wikimedia.org/w/index.php?curid=132597282

Conrail's Point-No-Point Replacement Bridge

- Steel inspection at Tampa Tank, G&G Steel, and High Steel
- Existing swing span being replaced with a single leaf bascule bridge

Norfolk Southern Railway Bridges

- Bridge No-84.5 located in Hattiesburg, MS (steel inspection at G & G Steel)
- Bridge B-115.19 located in Conneaut, OH (steel inspection at Veritas Steel)
- Bridges CD-513.86 & CD-514.08 CM located in Chicago, IL (steel inspection at Littell Steel)
- HRV is a subcontractor (for shop and field inspections) under Michael Baker's contract for System Statewide Engineering and Design Services. It's a 2-year agreement that expires in 2024.

BNSF

- Hamilton Creek and Wind River Bridge Rehabs (steel inspection at Utah Pacific and Fought & Company)
- Bridge # 34.1 over the Majave River (steel inspection at Utah Pacific and RJ Watson)

CSX

• Bridge 407.80 Replacement (steel inspection at W&W|AFCO Steel)

Kansas City Southern Railway Company

• Audit of a steel fabrication facility in Mexico

SEDA-COG

• Bridge 194.07 Replacement (steel inspection at US Bridge and Regal)

Union Pacific Railroad

• Colorado's Central 70 Reconstruction P3 Project (steel inspection at W&W|AFCO Steel)



Signature Projects – Transportation (Aviation)

\$1.57B Pittsburgh International Airport Terminal Modernization Program



Allegheny County Airport Authority

- Services Provided:
 - Steel fabrication/weld inspection
 - Coatings inspection
 - ICC bolt inspection
 - HRV is monitoring the welding of the Y-Columns both in-shop and on-site for the roof structure of the PIT Terminal Modernization Project.
 - Additionally, we are performing ultrasonic testing/inspection to evaluate the full penetration welds of the Y-Columns.

\$8B LaGuardia Airport Delta Airline Airfield Reconfiguration

Delta Airlines

- Services Provided:
 - QA inspection during the fabrication of structural steel and piling:
 - Welding inspection
 - Witness magnetic particle testing services
 - Paint inspection
 - HRV's technical team provided services for the new Terminal C, which consolidated 37 gates and required a new roadway



Dulles Metrorail Station Windscreen Repairs



Metropolitan Washington Airports Authority

- Services Provided:
 - Field Inspection services that included visual inspection and weld inspection
 - Technical consultation that included the development of Ultrasonic Testing Procedures for the detection and interpretations of discontinuities in structural groove welds

Signature Projects – Water/Wastewater

\$300M Wet Weather Plant Expansion Construction Management Capital Project



Allegheny County Sanitary Authority (ALCOSAN)Services Provided:

- Construction management support services
- Technical consultation
- Special inspection such as sprayed fire-resistant materials inspection, construction inspection, coatings inspection, fabrication inspection, nondestructive testing, and field inspection of welds.
- HRV is a subconsultant to Michael Baker

Worldwide Technical Inspection, Special Inspections and Concrete Quality

NYC Department of Environmental Protection

- Services Provided:
 - Fabrication inspection of metals (steel, aluminum, piping, castings, forgings, pumps, valves, etc.)
 - Fabrication inspection of concrete products
 - Fabrication inspection of equipment (mechanical, flow control, etc.), storage tanks
 - Fabrication inspection of fiber reinforced polymer
 - Shop and field coatings inspection
 - Shop and field welding inspection
 - Facility audits
 - Provided services at more than 60 facilities located in China, Canada, and the US
 - *HRV* has provided services on multiple agreements, for a variety of project (tunnels, bridges, treatment plants, water meter upgrades) since 2011



Tank Inspection



Crownsville Hospital

- Services Provided:
 - Coating inspection during the painting of a 250,000 gallon above-ground water storage tank located on the hospital's property

Signature Projects – Energy

Tuscarora Compressor Station Construction

Dominion Transmission

- Services Provided:
 - Project involved an above and below ground piping and applied twopart epoxy coating systems
 - Coatings Inspection
 - Monitoring setup/tear down, rigging, and any containment operations
 - Monitoring environmental conditions, monitored paint mixing and recoat times, performed wet film thickness (WFT) tests and holiday testing on finished coatings.



Tank Integrity Testing for Maintenance of Above Ground LNG Tanks



Rex Energy Services

(company acquired by PennEnergy Resources in 2018)

- Services Provided:
 - Visual coatings inspection on 50+ LNG tanks
 - Utilized the SSPC Vis-Guide 2 to assign rust grade to the coated exterior and determine if there are any detrimental coatings failures
 - Measured paint thickness on each LNG tank
 - Reviewed current coating system, compiled, and submitted recommendations

Signature Projects – Commercial

PNC Park



Pittsburgh Sports and Exhibition Authority

Services Provided:

- Facility Assessment and Materials Fabrication Inspection:
 - Structural Steel Fabrication Inspection
 - Light standards masts
 - Center field scoreboard
 - Upper deck sunscreen canopy
 - Cantilever seating trusses
 - Main stadium braced frame bent
 - Arched trusses at main seating bowl
 - Pedestrian ramps
 - Expansion joints
 - Precast Concrete
 - Main seating bowl
 - Bleachers
 - Pre-cast elements: review of the condition of sealants at joints
 - Precast elements: signs of ponding or improper drainage
 - Cast-in-Place Concrete
 - Exposed framed (elevated) concourses and promenade slab
 - Observed for signs of ponding and improper drainage
 - Inspect topping slabs for large cracks, spalling and signs of water damage
 - Observe all in-field seating bowl that is cast-on-grade
 - Observe all edge of slab conditions bounded by handrail
 - Observe all infill cast in place steps and accelerated stairs
 - Observe the various site-walls in the outfield, promenade, and riverwalk

Handrails, Gates and Misc. Steel

- Inspection of leading edge handrails for corrosion, damage or connection failure
- Inspection of non-leading edge handrail
- Load testing of handrail / retaining rail on Spiral Ramps
- Inspection of seat attachments onto precast and cast-in-place place concrete
- Inspection of galvanized steel gates and non-gate panels for connection failure

World Trade Center One (New York)



Port Authority of New York and New Jersey Client: Atema

- Services Provided:
 - Fabrication Materials Inspection in a facility in Spain:
 - Weld inspection of fracture critical steel
 - Witness welding qualifications

Consol Energy Center (now PPG Paints Arena, Pittsburgh, PA)

Sports and Exhibition Authority Client: Professional Service Industries, Inc. (PSI) Services Provided:

- Fabrication Materials Inspection and Field Inspection:
 - Visual weld inspection, nondestructive testing and concrete production inspections in the fabrication facility and at the project site (including UT of roof beams for garage).
 - Fabrication of structural steel for the project took pla in St. Gideon, Quebec, Canada and Point of Rocks, Maryland
- Production of precast and prestressed façade and structu members occurred regionally in Pennsylvania.



Globe Life Field - New Texas Ranger Stadium (Arlington, TX)

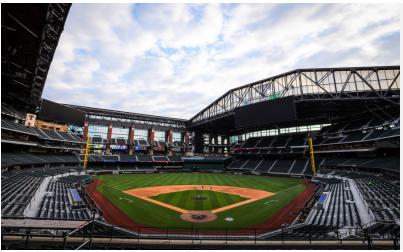


Photo Source: <u>https://www.arlington.org/listings/globe-life-field/546/</u>

City of Arlington, TX Client: W&W/AFCO Steel

- Services Provided:
 - HRV provided field inspections on structural components including the North and the South rail sections; connection splice plates; curb angles and heights; main tower bracing that supports the retractable roof; and roof decking. Steel erection and site fabrication activities were also performed to ensure compliance with engineering drawings.

Sunlife Stadium (now Hard Rock Stadium, Miami, FL)



This Photo by Unknown Author is licensed under <u>CC BY-NC-ND</u>

Client: CardnoATC Owner: Privately Funded

- Services Provided:
 - Fabrication Materials Inspection:
 - Visual and dimensional verification of welded steel connections
 - Surface preparation and protective coating thickness verification of the specified paint system
 - Monitoring of welding operations to verify compliance with approved project specifications
 - Observation of bolting operations and inspecting completed connections to AISC recommended practices