

## STATEMENT OF QUALIFICATIONS

# CONSTRUCTION MATERIALS TESTING AND IBC SPECIAL INSPECTIONS



### **SERVING THE INTERMOUNTAIN WEST!**



### GREETINGS FROM IME!

Thank you for considering Inberg-Miller Engineers for your construction materials testing (CMT) and special inspection needs. The following information has been compiled to give you a better understanding of the services offered by our Construction Materials Department, as well as share our qualifications, and provide general information about IME as a Company.

Inberg-Miller Engineers is equipped to provide field testing and in-house laboratory testing services. Construction materials testing and inspections play a vital role in reducing future expenses and revealing potential quality issues, which can save you time and money! Our on-site engineers and technicians are knowledgeable, certified, and will provide timely and accurate results to ensure that your project starts off on a firm foundation.



At Inberg-Miller, we take pride in our accuracy, timeliness, and on-site safety. Please contact us to discuss the details of your projects, ask us questions, and get a personalized proposal. We look forward to working with you now and in the future!

Sincerely,

**INBERG-MILLER ENGINEERS** 

mpa me

Michael McClure

CMT Department Director

mmcclure@inberg-miller.com



## **OVERVIEW**

Inberg-Miller Engineers is a "one-stop-shop" for construction materials testing. We offer comprehensive CMT and special inspection services throughout the design and construction phase.

Construction materials testing is a core business practice at IME and we have provided testing services for the past 50 years. Projects range from small renovations to large-scale multi-million dollar commercial and industrial building projects. Our clients include local and state governments, commercial developers, local industry, oil and gas producers, pipeline companies, school districts, and U.S. military installations.

We have developed a reputation for quality and good working relationships with many local and regional contractors. Stakeholders know us by our attention to detail, responsiveness, timely reporting of results, and effective communication, which helps to solve problems as they inevitably arise.

Our materials laboratories are staffed and equipped to provide complete construction materials testing services. The engineering staff supports the field and laboratory technicians and provides project administration and engineering consultation as required. Our staff is particularly knowledgeable of local soil conditions, earth construction, and foundation design and construction. IME's field and laboratory technicians have participated in the Certification Program of the Wyoming Department of Transportation (WYDOT).









Inberg-Miller Engineers is committed to a successful partnership with you in order to provide accurate data, on time, and within budget!

### We want to work with you!



Safety is a top priority.



Our flexible scheduling allows you to schedule 24 hours in advance. \* Please schedule night work, and weekend requests with at least 48-hours notice.



A big project involves overseeing a lot of moving parts. Our project manager outlines the project scope, monitors deliverables, and mitigates risks.



Projects are delivered on schedule.



Open communication from start to finish.



Many services are provided in house.

OVERVIEW PAGE 2

## PROJECT EXPERIENCE

Inberg-Miller Engineers has experience providing construction materials testing on a variety of projects. Contact us if you would like to see specific examples of the type, size, and complexity of awarded projects.





## **OUR EXPERIENCE INCLUDES:**

- Industrial
- ✓ Oil & Gas
- Roadways, Bridges, and Airports
- Educational Facilities
- ✓ Multi-Family Housing
- Community Projects
- Retail / Commercial

Thank you for reviewing our Statement of Qualifications.

We are happy to provide you with specific project experience that is relevant to your needs!

INBERG-MILLER ENGINEERS



## FIRM PROFILE

### **EXPERTISE**

Inberg-Miller Engineers employs over 65 civil, geotechnical, and environmental engineers, land surveyors, scientists, technicians, and administrative staff.

Our staff holds advanced degrees and training in specific disciplines, in addition to being versatile enough to assist in Inberg-Miller's overall mission of "Quality Solutions through Teamwork."

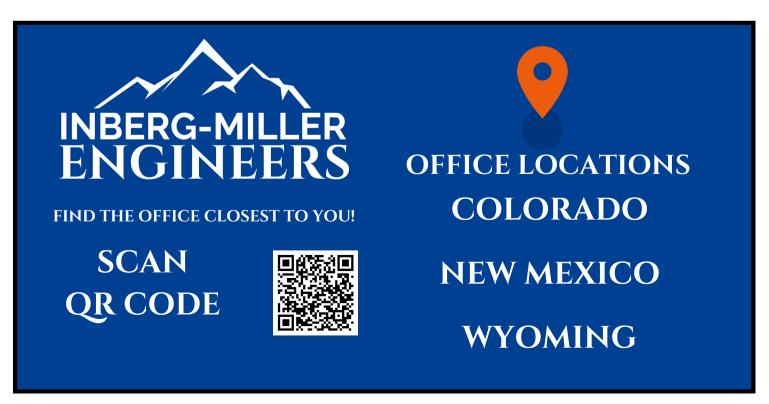
We have Certified Federal Surveyors (CFedS) in house to perform those surveys requiring this certification.

### **EQUAL OPPORTUNITY EMPLOYER**

Inberg-Miller Engineers is an equal opportunity employer. All applicants will be considered for employment without attention to age, race, color, religion, sex, sexual orientation, gender identity, national origin, veteran or disability status.

### **SAFETY**

At Inberg-Miller Engineers safety is our top priority. As such, we have developed a "culture" of safety which all our employees have adopted as standard working practice. Our culture of safety transcends our work in the office, laboratory, and field, to the homes of our employees. We have developed this longstanding culture of safety by conducting weekly safety meetings, job site tailgate meetings, performing job site analysis (JSAs), attending site-specific safety training at various facilities, as well as hosting company-wide safety meetings during our annual corporate week. During our annual safety meeting, we discuss concerns, equipment, and review standard safety practices. We are proud of our low incident rates and have received numerous safety awards through the Wyoming Contractors Association for zero-incident rates based on man-hours worked. Our clients have grown to appreciate our attention to safety.



FIRM PROFILE PAGE 4

## **MEET OUR TEAM**

## YOUR SITE, OUR PRIORITY!



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Services

IME

GIVE US A CALL TODAY TO GET YOUR PROJECT STARTED!

MEET OUR TEAM PAGE 5

## **CONSTRUCTION SERVICES**

### Soils / Aggregates

- Standard Proctor
- Modified Proctor
- Sieve Analysis
- Moisture Content
- Specific Gravity and Absorption
- Atterberg Limits
- Relative Density
- Wilting Point & Field Capacity
- Nuclear Gauge Density Testing
- Hydrometer Analysis
- Sand Equivalent Test
- Organic Content
- California Bearing Ratio
- Minimum Resistivity
- pH of soil
- Water Soluble Sulfate
- Clay Lumps and Friable Particles
- Organic Impurities of Fine Sand
- Fractured Faces
- Flat and Elongated Particles
- Unit Weight/Voids in Aggregates
- Degradation by L.A. Abrasion
- Sulfate Soundness by Na/Mg SO4
- Fine Aggregate Angularity
- Constant Head Permeability
- Falling Head Permeability
- Triaxial Shear
- Direct Shear
- Consolidation Swell Test
- Balloon Method Density Testing
- Sand Cone Density Testing
- Field Resistivity Testing
- Percolation Testing
- Dynamic Cone Penetrometer
- Pin Hole Dispersion Test



### Concrete

- Compressive Strength Testing
- Slump/Air/Temperature/Unit Weight
- Concrete Shrinkage
- Flexural Test of Beams
- Concrete Coring
- Moisture Content
- Swiss Hammer

### **Asphalt**

- Nuclear Gauge Density Testing
- Marshall Testing
- Superpave (Gyratory) Compaction
- Bulk Specific Gravity
- Theoretical Max Specific Gravity
- Extraction of Bitumen from Asphalt
- Asphalt Content by Ignition
- Immersion Compression Test
- Asphalt Coring
- Core Density

### **IBC Special Inspections**

- Structural Steel Welding
- Structural Steel Bolting
- Reinforced Concrete
- Structural Masonry
- Soils
- Drilled Pier Foundations
- Fireproofing Testing

### Masonry/Grout/Mortar

- Compressive Strength Testing
- Masonry Unit Prism Strength
- Slump/Air/Temperature/Unit Wt.
- Grout/Masonry Coring
- Specific Gravity of Grout
- Viscosity of Grout

SERVICES SUMMARY PAGE 6

### WHAT YOU SEE IS WHAT YOU GET!

### INBERG-MILLER BELIEVES IN TRANSPARENCY.

### OUR REPORTS ARE GENERATED IN REAL-TIME AND REVIEWED PRIOR TO TRANSMITTAL.

### **Construction Materials Testing Reports**

Construction materials testing reports are sent out daily. You can expect to see the results within 24-72 hours of the test completion. Our reports are detailed and informational. Example reports are shown below, they include test results, field reports, safety observations, and site pictures. The data is reviewed by a project manager before submittal.

### **Concrete Testing Summary Report**



Concrete Testing Summary Report																
CLIENT: EXAMPLE					PROJECT: The Example Project				IME Project Manager: MRM						IME PROJECT NO.: 27783-HM	
Set	1 1	Concrete	Date of Placement	Time Cast	Field Tech	Concrete Breaks (psi)			% of Spec		A:- (0/)	Slump	Unit Weight	Concrete		
#		Supplier				3	7	28	56	7	28	Air (%)	(in)	(lbs./ft <sup>3</sup> )	Temp (°F)	Location, Description & Batch Ticket No.
1		Concrete Supplier	6/8/2021	11:11	QCM	6/11/2021	6/15/2021 4080	7/6/2021	8/3/2021	102%		5.0	2 1/2	144.1	67	Douglas, WY, Jackolope River North Bank, #231847
		- пррс.					4000									

### Soil Report



## IME INBERG-MILLER ENGINEERS





FIELD REPORT OF IN-PLACE DENSITY OF SOIL AND AGGREGATE BY NUCLEAR METHODS (ASTM D6938)

### PROJECT INFORMATION:

Client: EXAMPLE Project Name: General Testing Project Number: 22073-HM

Test Date: 5/18/2021 Technician: EBR

### TEST INSTRUMENT DATA:

Manufacturer: TROXLER Model Number: 3430 Serial Number: 67878 Standard

Density Count: 2013 Standard Moisture Count: 686

### LABORATORY SOIL DATA:

Sample No.	Laboratory ID No.	Max. Dry Density (pcf)	Optimum Moisture (%)	Sample Description
1	22073-1	121.5	11.5	Light Brown, Silty SAND w/ Trace Gravel
2				
3				
4				

### FIELD TEST DATA:

Test No.	Test Location	Sample No.	Test Elev.	Probe Depth (inches)	Wet Density (pcf)	Dry Density (pcf)	Comp. (%)	Moist. (%)
1	North edge of pad, center East/West	1	Top of first lift	6	127.3	118.2	97	7.7
2	South edge of pad, center East/West Lat, Long: °, °	1	Top of first lift	6	129.4	119.7	99	8.1

Reviewed By: Michael McClure

### **Field Observation Report**



### (ÍME) INBERG-MILLER ENGINEERS



### FIELD OBSERVATION REPORT

Client: EXAMPLE PROJECT Project Number: 29001-HM

Project Name: Example Project Date: 5/6/2021

Project Location: Laramie, WY Department: CMT

Weather: Clear Temp(°F): 40's Time: 7:00 AM to 8:10 AM

General Contractor: / Sub-Contractor: Example Company

Construction Equipment: Loaders, compactor, excavator

Safety Concerns / Observations: Proper Gloves to Protect Hands, Visual Contact with Operators, PPE: Hat, Vest, Boots, Glasses.

 $\textbf{Site Observation / Discussion:} \ \underline{\text{I arrived on-site approx 7:00 AM for scheduled compaction testing. I first met with} \ \underline{\text{name, with approx 7:00 AM for scheduled compaction testing. I first met with a name, with a name of the name of t$  $\underline{\text{company, and he pointed out all of the areas that they wanted testing done.}} \ I \ \text{standardized my} \ \underline{\text{nuclear gauge and then performed}}$ compaction testing on the southeast and southwest parking lots, the canopy pad, and the building pad. All compaction tests were within site specification and all results were reported to name. I left the site approx 8:10 AM.

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Reviewed By: Michael McClure Date: 7/22/21

## LABORATORY SERVICES

Inberg-Miller Engineers has 6 laboratories located across the state of Wyoming and in Northern Colorado. In addition, we have 3 mobile laboratories available. We strive to provide Efficiency, Quality, and Accuracy to our clients. Below are some of the ways we are able to live up to those standards.

IME is currently enrolled in the American Association of State Highway and Transportation Officials (AASHTO) re:source and the Cement and Concrete Reference Laboratory (CCRL) assessment & proficiency sample programs, in accordance with AASHTO R18, ASTM C1077, D3666, D3740 & E329. Inberg-Miller Engineers has accredited laboratories in Casper & Cheyenne granted by the AASHTO Accreditation Program (AAP). The accreditation status and specific standards for each laboratory can be verified in the AAP Directory at the following links:



Casper, WY: <a href="http://www.aashtoresource.org/accreditation-details?LaboratoryID=eOHy9AgHTvE\*V">http://www.aashtoresource.org/accreditation-detailsLaboratoryID=xhKQU8VRksc\*V</a>
Cheyenne, WY: <a href="http://www.aashtoresource.org/accreditation-detailsLaboratoryID=xhKQU8VRksc\*V">http://www.aashtoresource.org/accreditation-detailsLaboratoryID=xhKQU8VRksc\*V</a>

As part of this accreditation program, AASHTO re:source and CCRL personnel perform regularly scheduled assessments of our laboratory equipment, methods, and procedures in our Casper and Cheyenne laboratories. We share these inspection results with each of our laboratories so that we are consistent and comply with applicable standards. For additional assurance, our laboratory and field construction materials testing services also comply with ASTM D3740 which is not specifically required.

IME participates in the proficiency sample program as part of the accreditation process. As part of this program, samples are sent to our laboratory at regular intervals and we perform tests on the samples to monitor our testing accuracy.



IME chooses to enroll in these programs in order to provide a higher level of accuracy. We have recently added a gyratory compactor to our Casper laboratory which allows us to provide asphalt mix designs and perform volumetric testing for Gyratory/Superpave mixes using the most accurate equipment on the market.

We also established and maintain a Quality System Manual (QSM) for our geotechnical engineering and construction materials laboratories. Our QSM includes our methods for training, education, and experience of supervisory personnel. A copy of this manual is available upon request.

## **MOBILE LABORATORIES**

### **NEED ONSITE LABORATORY SERVICES?**

## Inberg-Miller has three mobile laboratories.

Inberg-Miller Engineers has two fully equipped mobile construction materials testing laboratories and one asphalt-specific mobile laboratory. These lab trailers can be used to provide materials testing services to meet project requirements.

### **REASONS TO UTILIZE OUR MOBILE LAB:**

- **✓** Benefit from fast turnaround
- **✓** Reduce costs
- Take advantage of IME's technical expertise
- ✓ Gain flexibility
- Focus on core aspects of your project
- ✓ Service remote project locations

FAST. EFFICIENT. ACCURATE.





### TAKE A PEEK INSIDE THE ASPHALT TRAILER!







## **ASPHALT GYATORY COMPACTOR**

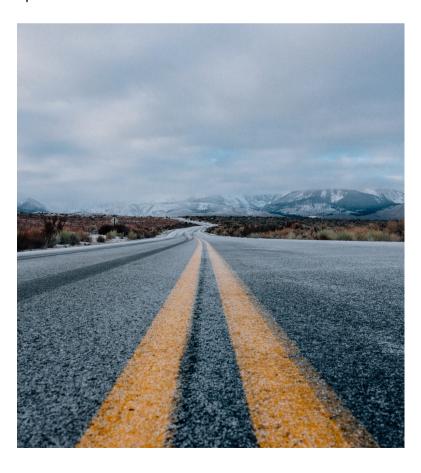
## SUPERPAVE™ GYRATORY COMPACTOR

Inberg-Miller offers asphalt mix design and verification gyration services using the Model 5850v2 Superpave™ Gyratory Compactor. This allows IME to provide our clients with the most accurate and reliable data possible!

The Model 5850v2 is Troxler's newest Superpave™ Gyratory Compactor and the most advanced gyratory compactor on the market today.

The 5850v2 simulates actual compaction conditions the asphalt will be subjected to in the field and produces accurate and reliable test results.

The Model 5850 meets or exceeds all Federal Highway Administration (FHWA) Superpave specifications.





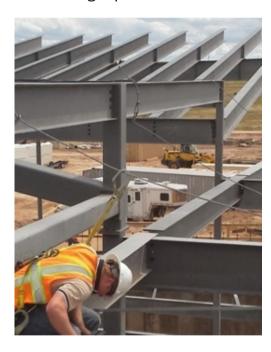
## SPECIAL INSPECTIONS

## Structural Steel, Bolting, and Welding Special Inspections

Structural steel, bolting, and welding inspections are offered in accordance with IBC, Section 1705.2 and include:

- Verification of materials to be used in assembly including structural steel fasteners.
- Inspection of high-strength bolting in both bearing and slip-critical connections.
- Verification of weld filler materials
- Visual inspection and observation of various welds performed on structural elements including; complete and partial penetration groove welds, multi-pass and single-pass fillet welds.





## **Concrete Construction Special Inspections**

Concrete construction inspections are offered in accordance with IBC, Section 1705.3, and Table 1705.3 and include:

- Inspection and observation of bolts and anchors installed in concrete, concrete anchors, and reinforcement at prestressing tendons and reinforcement welding.
- Verification of the required concrete mix design.
- Inspection and observation of concrete prior to and during placement including formwork, proper placement, and maintenance during concrete curing.
- Fabricating specimens for strength testing and performing slump, air, and temperature testing of fresh concrete.
- Placement of prestressed concrete and cast in place concrete components.

### **Soil Inspections**

Soil inspections are offered in accordance with IBC, Section 1705.6, and Table 1705.6. and include:

- Checking observed conditions against the geotechnical report and that excavations comply and are consistent with project plans and specifications.
- Perform classification and testing of compacted fill materials.
- Verify use of proper materials, densities, and lift thicknesses during placement and compaction of compacted fill.
- Prior to placement of compacted fill, observe subgrade and verify that the site has been prepared properly.

## SPECIAL INSPECTIONS

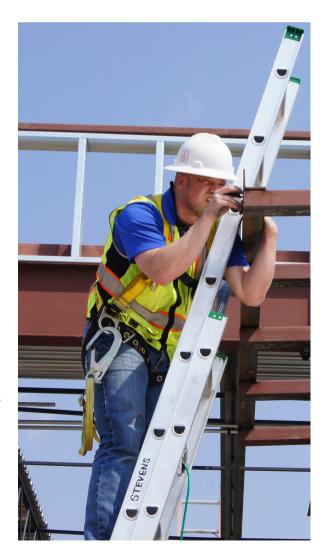




### **Structural Masonry Special Inspections**

Structural masonry inspections are offered in accordance with IBC, Section 1705.4, and TMS602/ACI 530.1 and include:

- Level B or Level C inspections as determined by occupancy or specifications.
- Verification of proportions and mixing of mortar and grouts prepared on site.
- Construction of mortar joints.
- Verification of grade and size of prestressing tendons and anchorage.
- Location of reinforcement, connectors, pressing tendons, and anchorages. Verify prestressing technique.
- Placement of masonry units and joint type including grout space, reinforcement, proportions of grout, and construction of mortar joints.
- Placement of structural elements including reinforcing steel and anchors.
- Verify placement of grout and observe the preparation of grout, mortar, and prism specimens.



## SPECIAL INSPECTIONS

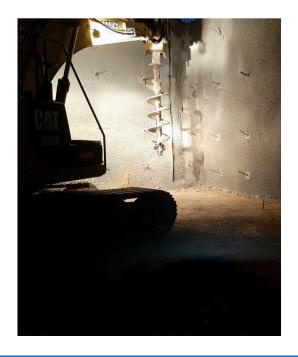
### **Foundation Systems**

Driven deep foundation inspections are offered in accordance with IBC, Section 1705.7, and Table 1705.7 and include:

- Verify element materials, sizes, and lengths comply with the requirements.
- Determine capacities of test elements and conduct additional load tests.
- Observe driving operations and maintain complete and accurate records for each element.
- Verify placement locations and plumbness, confirm the type and size of the hammer, record the number of blows per foot of penetration, determine required penetrations to achieve design capacity, record tip, and butt elevations, and document any damage to the foundation element.

Cast-in-place deep foundation inspections are offered in accordance with IBC, Section 1705.8, and Table 1705.8 and include:

- o Observing drilling operations and maintain complete and accurate records for each element
- Verifying placement locations and plumpness, confirm element diameters, bell diameters (if applicable), lengths, embedment into bedrock (if applicable), and specified end-bearing strata conditions
- Recording concrete and grout volumes
- Concrete materials testing will be tested for the slump, air content, temperature, and compressive strength per IBC, Section 1705.3





## **OUR COMPLETE SERVICES**

### CIVIL ENGINEERING

- Land Use Planning & Engineering
- Subdivisions
- Commercial and Industrial Site Plan
- Highways, Streets, and Parking Areas
- Water Supply and Sewage Disposal Systems
- Storm Water Systems
- Site Reclamation Planning and Design
- Civil 3D Drafting Services

### **ENVIRONMENTAL**

- Phase I, II, & III Environmental Site Assessments
- Asbestos Surveys
- Environmental Remediation Wells
- Groundwater Sampling
- Surface Water Sampling
- Well Installation / Permitting
- Solid Waste Management, Planning, Permitting, and Design
- NEPA Environmental Assessment
- Spill Prevention, Control, and Counter Measure (SPCC)
- Storm Water Pollution Plans (SWPPP)
- Wetlands Delineation
- Vapor Encroachment and Intrusion Assessment

### LAND SURVEYING

- Property Surveys
- Topographic Surveys
- Global Positioning System (GPS)
- Pipeline and Utility Route Surveys, As-Built Surveys
- Construction Staking
- Water Rights
- Oil & Gas Well Locations and Pipelines
- Computer Aided Design and Drafting (CADD)
- ALTA/NSPS Land Title Surveys
- Drone Surveys

### **GEOTECHNICAL**

- Subsurface Exploration and Drilling
- Geology and Hydrogeologic Studies
- Geotechnical Studies
- Analysis / Recommendations on all types of Structures
- Foundation Excavation & Construction Observation
- Groundwater Monitoring Wells
- · Geotechnical Laboratory Testing
- · Geophysical Testing and Exploration

### **DRILLING**

- Contract Drilling
- Solid Flight Auger Drilling
- · Air Rotary Drilling
- Air Coring
- Mud Rotary Drilling
- Macro Sampling (Contract Drilling)
- Environmental Drilling Licensed in Wyoming, Montana, Nebraska, Idaho, North Dakota, and South Dakota

# CONSTRUCTION MATERIALS TESTING

- Concrete Testing air content, slump, temperature, and unit weight
- Concrete Lab Testing compressive and flexural strength
- Field Testing in place density and moisture content of soils
- Soil and Aggregate Testing compaction characteristics, particle size analysis, and atterberg limits testing

## SPECIAL INSPECTIONS

- Soils
- Reinforced Concrete
- Structural Masonry Construction
- Structural Steel S1 & S2
- Spray Applied Fire Proofing







**FAST** 







**ACCURATE** 

YOUR SITE, OUR SERVICE!



