



STATEMENT OF QUALIFICATIONS

Municipal Services

**GOSLING CZUBAK
ENGINEERING SCIENCES, INC.**
WWW.GOSLINGCZUBAK.COM



Gosling Czubak
Engineering Sciences, Inc.



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Services

CIVIL ENGINEERING

ENVIRONMENTAL SERVICES

SURVEYING

GEOTECHNICAL ENGINEERING

CONSTRUCTION SERVICES

DRILLING

LANDSCAPE ARCHITECTURE

Company Overview

**GOSLING CZUBAK
ENGINEERING SCIENCES, INC.
1280 BUSINESS PARK DRIVE
TRAVERSE CITY, MICHIGAN 49686**

Gosling Czubak is a professional consulting firm providing engineering, surveying, environmental, landscape architecture, geotechnical and construction testing services to a large variety of clients. Located in Traverse City, the firm has served public and private clients throughout Michigan and the Midwest since 1957.

To complement our consulting services, Gosling Czubak has a fully equipped materials testing laboratory (soils, asphalt, and concrete), construction testing field equipment, drill rigs, and certified engineering technicians trained in construction materials testing procedures and specifications. Our survey crews are equipped to provide the most technologically advanced surveying available.

Gosling Czubak looks forward to providing you with the personal attention, enthusiasm, and professional services needed to support the success of your project.

ORGANIZATIONAL STRUCTURE

Gosling Czubak, established in 1957, is a Michigan corporation governed by a board of directors and corporate officers.

We currently employ a staff of about 50 experienced professional and technical people.

Contact

Mark J. Hurley, M.S., P.E.
Director of Engineering Services

Ph: (800) 968-1062

Ph: (231) 946-9191

Fax: (231) 941-4603

www.goslingczubak.com
mjhurley@goslingczubak.com



Funding Assistance

Gosling Czubak has helped many local units of government acquire and administer funding to complete the construction of water and sewer projects. Primary sources of funding for wastewater projects are the USDA-Rural Development grant/loan program, and the MDEQ State Revolving Fund (SRF) low-interest loan program. Other project funding experience includes projects funded by MEDC, CDBG, EDA, and TEA-21 loans. Assistance includes completing applications for grants and loans, preparing project plans, conducting required public hearings for the local unit of government, and administering the extensive array of paperwork associated with grant programs for the owner.

Gosling Czubak also has experience with special assessment district bonds, revenue bonds, authority bonds, and general obligation bonds. Communities we have assisted include:

Briley Township

Mancelona Township

City of East Jordan

City of Frankfort

Denton Township

Moran Township

Village of Buckley

Village of Beulah

Harbor Springs Area SDA

Village of Kalkaska

Village of Kingsley

Village of Elk Rapids

Village of Ellsworth

City of Big Rapids

Roscommon County

Village of Benzonia

Betsie Lake Utility Authority

City of Traverse City



The City of East Jordan recently broke ground on a new wastewater treatment plant, funded in part by a \$3.4M grant from USDA Rural Development. Gosling Czubak assisted the City in securing funding for the new plant, and designed the plant. Construction is underway and scheduled to be complete in August 2018.



NEW WASTEWATER TREATMENT PLANT - VILLAGE OF ELK RAPIDS

Highlights

ROADS

MDOT Design & Construction Oversight
Road & Intersection Design
Bridge Design and Inspection

SITE DEVELOPMENT

Site Engineering
Soil Erosion Control
Stormwater Management

WATER AND SEWER

Wastewater Treatment
Water Systems
Municipal Wells

UTILITY RATE STUDIES

Operations Cost Review
Equipment Replacement Plans
Evaluation of REU Assignments
Billing Methods & Usage Measurement

PROJECT FUNDING

State Revolving Fund (SRF)
USDA Rural Development
Clean Michigan Initiative (CMI)

Civil Engineering

Our civil engineering staff provides a variety of services to help municipalities, commercial and residential developers, resorts, industrial clients, and other professional consultants build their projects. These clients use our services to plan community improvements, evaluate existing infrastructure facilities, secure funding to make projects affordable, and design developments that are easy to maintain and operate.

Our professional staff of registered professional engineers, engineering technicians, and CAD drafters have excellent working relationships with regulatory officials. We have long-standing relationships with more than 40 communities. Gosling Czubak has successfully completed some of the most substantial and most complex development projects in Northern Michigan. The large majority of our work is from repeat clients and referrals.

From small residential projects to large commercial and municipal projects, Gosling Czubak provides clients with thoughtful and efficient design, excellent value, and quick response.

Water Supply and Treatment

There is no more important natural resource than our drinking water. Gosling Czubak has helped provide safe, dependable drinking water to numerous municipalities and private developments in Michigan. Our staff has obtained grant funding for water system improvements, located and developed drinking water wells, constructed elevated and ground storage tanks, treated water to improve quality, designed water main distribution systems, and prepared computer models of water systems to analyze fire flows and service pressures.

VILLAGE OF KALKASKA WATER SYSTEM IMPROVEMENTS

Gosling Czubak designed \$4.2M in improvements to the Village of Kalkaska water and sewer systems. Water system improvements included replacement of over 18,000 linear feet of vintage watermain, a new SCADA control system and well house improvements and new radio read water system meters. Sewer system improvements included rebuild of three system pump stations, force main replacement, and improvements at the Clean Water Plant. As well, a storm water system was added to the original IDC Industrial Park to eliminate flooding and inflow into the Village sanitary sewer system.

VILLAGE OF BEULAH WATER SYSTEM IMPROVEMENTS

Gosling Czubak is working for the Village of Beulah to upgrade the current water system. The proposed new elevated storage tank is to be 150,000 gallons, which upgrades the Village's current 50,000 gallon storage tank. Also, 9,000 linear feet of 8" and 10" water main will be replaced. The Village's current water mains are undersized, aged and constructed with inadequate material. As part of the water main replacement project, a booster station will be built to reassume customers currently serviced by Benzonia. The booster station will provide these customers will adequate water pressure and increase the Village revenue. These projects are being funded by Rural Development.





Gosling Czubak designed ten miles of gravity sewer and five miles of force main to serve the growing Blair Township in Grand Traverse County.

Wastewater Collection

Gosling Czubak has planned, designed, and helped communities obtain grant funding for new sanitary sewer systems and extensions to existing systems. More than one hundred municipalities and developments in Northern Michigan have used Gosling Czubak's services to design and permit wastewater collection systems to provide a safe and efficient system to collect and transport wastewater. These systems include conventional gravity sewers, pressure sewers, community cluster systems, pumping stations and force mains.

SUTTONS BAY COLLECTION SYSTEM

Gosling Czubak designed 3000 feet of new and relocated water main and sanitary sewer and nearly one mile of 10-inch force main. The project also included a new submersible pump station to handle both current and future flows. The pump station pumps are operated by variable frequency drives and a natural gas emergency generator was installed.

BLAIR TOWNSHIP SEWER EXTENSION

Gosling Czubak provided engineering services from inception to the completion of Blair Township's sewer system. This included: planning, preliminary engineering, facilitating the public process, designing, permitting, assisting development of special assessment and rate structures, acquiring easements, and providing construction engineering, stakeout and testing. The sewer system includes 10 miles of gravity sewer, 5 miles of force main and a pumping station this is expandable to 1 MDG. The total project cost was approximately \$4,500,000.



Top: The Village of Kalkaska's new 600,000 GPD Wastewater Treatment Plant is capable of expansion for future growth.

Bottom: Gosling Czubak participated in the design and construction engineering of the Traverse City Regional Wastewater Treatment Plant, the world's largest membrane filtration treatment plant.

Wastewater Treatment

Gosling Czubak has designed more wastewater treatment systems than any firm in northern Michigan. Our considerable knowledge of available waste treatment technologies, grant funding, and excellent working relationship with regulatory officials have helped communities provide affordable wastewater treatment that protects the environment and provides capacity for future growth. We have also helped communities avoid costly enforcement action by state and federal officials.

VILLAGE OF ELK RAPIDS SEWER SYSTEM IMPROVEMENTS

Gosling Czubak designed \$5.2M of improvements to the Elk Rapids wastewater treatment plant, the result of a long-term improvement needs study. The improvements added activated sludge processes to the plant along with headworks improvements to remove grit and to screen the influent, allowing the Village to accept high strength fruit processing waste from Burnette Foods. Construction was completed in 2016.

CITY OF TRAVERSE CITY WASTEWATER TREATMENT PLANT EXPANSION

Gosling Czubak participated in the design and construction engineering of award-winning \$31M expansion and improvements to the Traverse City Regional Wastewater Treatment Plant. Working for CH2MHill, we helped design portions of one of the world's largest (8.5 MGD) membrane filtration treatment plants. The project increased the plant's treatment capability from secondary to tertiary. It allowed the plant to continue to discharge into the Boardman River at its design flow and meet more stringent discharge limits imposed on it by the State. Gosling Czubak also designed an ultraviolet disinfection system for the treatment plant.



Top: A low-impact storm sewer installed in the City of Grayling significantly reduced the discharge of untreated stormwater into the AuSable River.

Bottom: A small pocket park in Suttons Bay was part of a bigger project to improve stormwater management with new storm sewers.

Stormwater Management

Stormwater runoff and erosion control are often the most challenging aspects of site planning and design. Protection of neighboring properties and natural resources from the affects of increased run-off caused by development is a critical part of creating sustainable development.

Gosling Czubak is a leader in the design of effective, creative measures to manage stormwater and prevent erosion. By utilizing stormwater Best Management Practices, solutions include underground infiltration of stormwater in urban settings, systems with staged releases to emulate pre-developed conditions, and designing systems to handle runoff from large paved areas, including shopping mall parking lots.

ACME TOWNSHIP EXPERT WITNESS

Gosling Czubak worked with Acme Township to oversee and alleviate stormwater runoff issues at the Villages of Grand Traverse mixed-use commercial development. The site and stormwater/soil erosion measures were designed by a third party engineering consultant. Our involvement entailed working with the Township and MDEQ to review proposed modifications, make recommendations on corrections, and monitor the site stormwater system and soil erosion measures to eliminate off-site discharges.

GRAYLING LOW-IMPACT DEVELOPMENT STORM SEWER

Gosling Czubak designed Phase I and II of the City's innovative program to reduce the discharge of untreated stormwater to the AuSable River, one of the highest quality cold water trout habitats and naturally stable rivers in the Unites States. The project eliminated the direct discharge of stormwater runoff to the river from 12 drainage zones within the City through a hybrid "low-impact development and an end-of-pipe" treatment approach.



Top: Gosling CZubak completed construction engineering of a nearly 4-mile stretch of Spencer Road through Kalkaska County.

Bottom: Gosling CZubak provided design, construction engineering and observation for the reconstruction of Main Street through the Village of Ellsworth.

Roads, Streets and Bridges

Gosling Czubak has designed both improvements to existing roads and bridges as well as new facilities. Municipalities, county road commissions, and developers have used our design services. Our work includes roads and bridges to accommodate high traffic volumes, context-sensitive designs in neighborhoods and environmentally significant areas, and bridges for bicycle and walking paths in remote areas. By combining our surveying, geotechnical, design, and construction materials testing services, Gosling Czubak can efficiently design and oversee construction of roads and bridges for clients.

KALKASKA COUNTY SPENCER ROAD RESURFACING

Gosling Czubak provided full time Construction Engineering services for this 3.7 mile HMA resurfacing project. The project included fine grading and paving approximately 1.9 miles of previously crushed roadway along with HMA wedging of 1.8 miles of existing HMA pavement with excessive quarter crown. The entire project was overlaid with a final HMA surface and permanent pavement markings were applied. Gosling provided a full time on-site inspection, laboratory testing, and contract administration in accordance with MDOT requirements.

ELLSWORTH MAIN STREET RECONSTRUCTION

Gosling Czubak designed 0.62 miles of road reconstruction including crushing the existing bituminous road surface, shaping, curb, gutter and sidewalk removal and replacement, and new bituminous paving.

SOUTH AIRPORT ROAD WIDENING AND RECONSTRUCTION

Gosling Czubak designed the South Airport Road Improvement project in partnership with the Grand Traverse County Road Commission. The overall project included widening about 1.5 miles of a major roadway from two lanes to five lanes with 10' paved shoulders, and intersection improvements.



ROOF STAKING - EMMET COUNTY HEADLANDS DARK SKY PARK

Services

GPS Surveys
 Hydrographic Surveys
 Topographic Surveys
 Boundary Surveys
 ALTA Land Title Surveys
 Subdivision Design & Platting
 Condominiums
 Oil and Gas Surveying
 Telecommunications Surveys
 Highway Surveys
 Construction Staking
 Riparian Surveys
 Bottomlands Distribution Surveys
 Easements & Rights-of-Way
 Stream Crossings
 Wetlands Surveys
 Road Crossing Surveys
 Directional Drilling Surveys
 Division Order Surveys
 Mineral Rights Allocation Surveys
 Environmental Well Surveys
 Insurance Forensic Surveys
 Aerial Photo Control

Surveying

Using innovative methods and equipment, our survey department serves a variety of clients including:

- Development
- Architecture
- Oil and Gas
- Industrial
- Telecommunications
- Institutional
- Commercial
- Navigation
- Governmental
- Utilities

Working throughout Michigan, we provide precise surveys for all of your land, development, spatial, geodetic, control and hydrographic projects. By providing a blend of technology, creativity, and experience, the Gosling Czubak surveying staff helps communities, landowners, developers, utilities, industry, and governments to make their projects successful. Inventive in our approach, we are uniquely receptive to clients' concerns, concentrating on and succeeding at completing projects efficiently and promptly.

Gosling Czubak has multiple survey crews utilizing the most technically advanced equipment. Each crew is supplied with robotic total station survey equipment, real time and static global positioning systems (GPS), and tracked amphibious vehicles for accessing difficult terrains. Each crew is 40 hour HAZWOPER trained.

We have utilized 3-D laser scanning on projects and routinely use a combination of GPS with wireless Internet features and total stations with robotic functions, allowing staff to complete precise and comprehensive surveys quickly.



Services

Phase I/II ESAs & BEAs
Brownfield Redevelopment
Wellhead Protection Plans
Wetlands Permitting
Compliance Audits
Hazardous Waste Management
Hydrogeologic Investigations
Risk Assessments
Sampling and Monitoring
Air Quality Management
SPCC, SWPPP, and PIPP Plans
Soil and Groundwater
Investigations and Cleanups
Underground Storage Tank
Assessments and Cleanups
Asbestos Surveys
Ground Penetrating Radar
(GPR) Investigations
Remediation System Design,
Construction, O&M

Environmental

Gosling Czubak maintains one of the largest environmental staffs in Northern Michigan, including licensed engineers, certified geologists, certified hazardous materials managers, and trained field technicians. Our professionals are prepared to meet all of your environmental needs, whether your business area is manufacturing, oil and gas, landfills, mining operations, municipal works, or underground storage tanks.

By understanding funding programs and complex environmental regulations, Gosling Czubak can save you money and alleviate the problems of dealing with regulatory requirements.

Gosling Czubak is a State of Michigan Qualified Underground Storage Tank Consultant. Our staff offers clients decades of experience, in-house drilling capabilities, and an array of services to handle all phases of your project.

Regardless of your environmental needs, Gosling Czubak's Environmental Service Professionals are equipped to provide you with state of the art services, assisting you in achieving successful results on your project.



TESTING OF SOIL PLACEMENT & COMPACTION - CHARLEVOIX, MICHIGAN

Services

- Soil Borings
- Pavement Investigation
- Materials Engineering
- Pile Load Testing Oversight
- Pile Design
- Soils Investigations and Reporting
- Foundation Engineering
- Laboratory Testing

Geotechnical Engineering

GEOTECHNICAL ENGINEERING

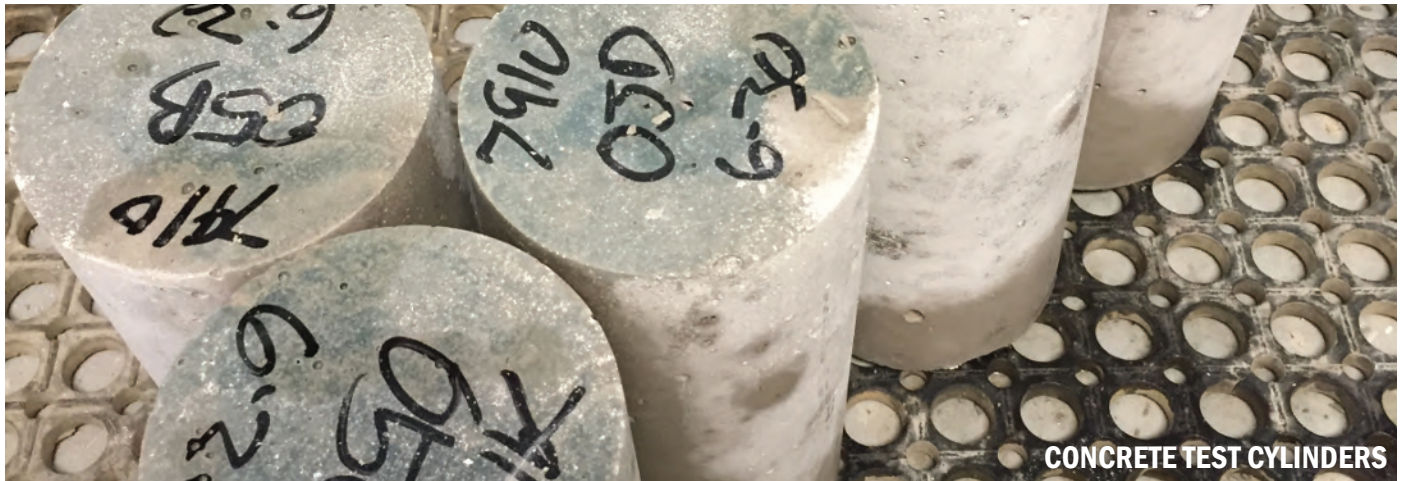
Gosling Czubak's geotechnical and foundation engineering department serves clients on projects ranging from retail centers, hospitals, commercial and industrial buildings to bridges, roads, public works, and private development projects. We conduct soils investigations, recommend appropriate foundation options, and provide construction observation for our clients. Our engineers define difficult conditions, recommend proper construction methods, and achieve reliable, timely, and affordable solutions.

We make problem sites buildable.

Our in-house drilling capability provides prompt and thorough investigations of the on-site soil and groundwater conditions. Drilling crews have worked on thousands of projects throughout Michigan. Our drillers have a wealth of experience on jobs where the accurate and careful determination of geologic conditions is critical to a project's success.



Pile load testing



Services

Concrete Testing
Soils Testing
Construction Observation
Road Construction Engineering
Laboratory Analysis
Mix Design

Construction Services

MATERIALS TESTING

Our approach to construction observation and materials testing goes beyond the obvious quality assurance role of determining if the construction work meets the plans, specifications, and industry standards. We become a member of the construction team. We help complete the project in an efficient, cost-effective, and quality manner. We offer positive, constructive input when difficulties do occur and participate in finding solutions. By emphasizing frequent communication between our clients and project personnel, we help keep your projects moving forward.

Our staff of field technicians is HAZWOPER certified and MDOT prequalified in the following classifications:

- Construction Inspection: Roadway
- Construction Inspection: HMA Pavement
- Construction Testing: Aggregates
- Construction Testing: Concrete
- Construction Testing: Density



Services

Geotechnical Test Borings
Environmental Test Borings
Split Barrel Sampling
Shelby Tube Sampling
Multi-Level Ground Water/
Vapor Well Installation
Full Development and Well
Completion Services
Monitor Well Installation
Piezometer Installation
Well Abandonment
Site Access Snow Plowing

Drilling

Drilling services are performed by our in-house drilling rig. Gosling Czubak has provided geotechnical and environmental drilling services throughout Michigan since 1978. Drilling personnel complete rigorous safety training and refresher courses annually.

Environmental and geotechnical drilling and site investigation services play an ever increasing role in providing positive project outcomes. By providing important soils and ground water information early in the design phase of a project, the engineer can take full advantage of the unique site characteristics. This can reduce the cost of overly conservative designs or can focus on site problems to develop solutions prior to the start of construction.

We have the ability to access difficult sites using ATV and tracked drill rigs. Our rigs can be mounted on barges to provide soils information about rivers and lake bottoms. Site investigation and sampling for environmental projects are critical in evaluating risks and potential cleanup requirements. The environmental professional must be able to depend on reliable drilling and sampling services to evaluate site conditions.



BARRIER FREE TRAIL AND OVERLOOK - ARCADIA DUNES

Services

Urban Design / DDA /
Downtown Streetscape and
Corridors

Recreation Planning / Park
Facility Development

Sustainable Site and
Landscape Design

Marinas and Waterfronts

Residential / Commercial /
Campus Site Development

Sports Facilities and Athletic
Complexes

Non-motorized Trail Planning
and Development

Landscape Architecture

Gosling Czubak provides our clients with a full range of landscape architectural (LA) services. Our staff brings innovation, public awareness, and design creativity to help visualize a project dream. Our staff also possesses the technical training, licensure, funding and financing knowledge, and successful track record of taking dreams envisioned to a built reality.

We believe the most successful project approach is created when stakeholders are actively engaged at an appropriate level and frequency on each project. Our staff helps coordinate decision makers, their constituents, and funding and permitting agencies by developing valuable and cost effective tools to communicate the project's intent and goals. Computer generated and hand rendered graphics and visualizations, along with detailed unit cost projections, phasing and funding action programs, design charrettes and visioning sessions, are some of the tools frequently utilized by our team.

Our landscape architectural services integrate with other services the firm also provides. Engineering and environmental staff members provide key technical expertise on many LA led design projects. Survey, geotechnical, and construction testing staff support our multidisciplinary project design and implementation.

We help project dreams evolve into functional, aesthetic assets by use of effective communication, calculated stakeholder engagement, clearly defined phasing and funding, and well managed construction project implementation. We carefully listen to our clients and communities to guide them throughout the process.

Listed are Gosling Czubak's key managing staff members. Detailed resumes will be provided upon request. A full listing of Gosling Czubak's 50 employees and their titles will also be available upon request.

Name & Title

Responsibilities

DOUGLAS A. COATES, PE
President

President and Chief Executive Officer. Responsible for client relations and QA/QC.

MARK J. HURLEY, PE
Director of Engineering Services

Supervises municipal engineering projects. Responsible for client relations, scheduling training, management of water, wastewater and other municipal projects.

CRAIG J. PULLEN, PS
Director of Surveying Services

Supervises survey activities, survey training, business development and QA/QC.

KEVIN D. RINGWELSKI, CPG, PG
Director of Environmental and Drilling Services

Manages environmental engineering projects. Responsible for client relations and technical oversight. Specialized experience in hydrogeological evaluations.

JEFFREY H. KOWALSKI
Director of Construction Services

Manages materials testing and construction observation of municipal and private development projects. Provides QA/QC and manages client relations.

DONALD G. CONWAY, CPG, PG
Senior Project Manager

Manages environmental site assessments, site investigations, corrective action plans, remediation systems, closure applications for sites, wellhead protection programs.

JEFFREY V. SIMSA, CPG, PG
Senior Project Manager

Manages regulatory compliance issues for manufacturing and industrial clients, designs remediation systems for oil & gas industry, provides technical oversight and QA/QC review.

KLAUS D. HEINERT, PLA
Landscape Architect

Manages landscape architecture services for municipalities and agencies.