

# Mark James Frise

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## BIOGRAPHY IN BRIEF:

- **Draftsman and designer:** Architectural, Civil, Environmental and Geotechnical.
- **Developer:** Developed custom software solutions for a variety of industries, specializing in software to communicate between Autodesk, Adobe, ESRI, and Microsoft applications. Created numerous add-ons to provide new tools and streamline workflows. Designed custom query and reporting interfaces.
- **Field Technician:** Earthworks, mining and survey experience.
- **Instructor:** Access, AutoCAD, Civil 3D, Visual Basic & .Net

## WORK EXPERIENCE:

### AMEC Earth and Environmental - Senior Designer - 05/2010 to present

Drafting & design for AEE with a focus on geotechnical and environmental mining projects. Involved in the design of a gold mine in northern Ontario, including the tailings impoundment facility, quarries, dumps, roads, ponds and ditches. Created standards and templates to facilitate the assimilation of AutoCAD drawings into MicroStation. Presently conducting an in house training program for Autodesk's Civil 3D and related programs.

### Wardrop Engineering - Mining Division - Senior Layout Designer - 10/2009 to 05/2010

Layout Designer - Cameco - Cigar Lake and Key Lake Projects

Coordinated new and renovated site earthworks and facility infrastructure layouts with project managers, designers and draftsman. Responsibilities included staff management, training, conceptual & design drawings, and quantities.

Layout Designer for a feasibility study of a nickel mine in northern Manitoba. Created drawings and 3D models to illustrate engineered earthworks (and calculate volumes) at various stages of construction throughout the life of the mine to closure. Involved in the design and illustration of infrastructure layout, the tailings management facility (earth and rock fill dams, deposition, stage storage curve), seepage collection ditches, rock dumps, overburden dumps, borrow areas and the overall site plan. Coordinated design criteria, drawings and quantified design data with engineers and designers. Trained junior and intermediate draftsman on AutoCAD & Civil 3D.

### CADD Productivity - Computer Aided Drafting & Design Services - 2000 to 2011

Self employed providing services to clients in the Architectural, Civil, Geotechnical, GIS and Mining industries. Services included drafting, design, database design, GIS, programming, support (hardware and software) & instruction.

Programming, for water management - Cunha Irrigation - 07/2009 to 09/2009

Designed new software to track and project water usage vs. budgets on large sites with multiple meters and irrigation coverage types. The software's GUI allows for easy data entry, retrieval, quantification and output by passing data back and forth through AutoCAD, Access and Excel.

Drafting and programming, Civil & Geotechnical - Strabag Engineering - 04/2009 to 07/2009:

As a consultant on the Niagara Tunnel Project, developed new methodology to import survey data in to AutoCAD. Created aligned and layered views for each 12.5m section of the tunnel over several kilometres, in order to satisfy exacting concrete formwork placement specifications. Designed dynamic blocks to determine sectional thicknesses and offsets relative to the variable tunnel centerline and shotcrete surface. Trained engineering staff on Civil 3D.

Drafting and design, Geotechnical - Wardrop Engineering - 10/2008 to 04/2009:

Chief draftsman for a scoping study, of a nickel mine in northern Manitoba. Created drawings and 3D models to illustrate engineered earthworks at various stages. Involved in the scoping of the tailings management facility, seepage collection ditches, rock dumps, borrow areas and the overall proposed site plan.

Drafting and design, Architectural - FBP Architects - 06/2008 to 11/2009:

Shadow studies of proposed condominium developments, for permit applications to the cities of Markham and Toronto. Produced rendered perspective drawings to illustrate building shadows at yearly solstices & equinoxes.

Network plans and diagrams - IT Solutions - 03/2008 to 08/2008:

Created proposed and as-built network diagrams and documentation in AutoCAD and Visio, including LAN, WAN and wireless access points on Cisco based systems. The project, for big-box retailers, spanned southern Ontario.

Software for geotechnical engineering - Isherwood Geotechnical Engineers - 08/2007 to 07/2009:

Given (spreadsheet driven) parameters such as alignment, excavation depth, load, caisson diameter, pile size, tieback length and angle, the software automatically illustrates multiple plans, elevations and sections in AutoCAD.

CAD Standards Software - Ontario Realty Corporation - 05/2007 to 06/2007 plus support to date:

Designed ORC's CAD Standards software to facilitate the creation, checking and documentation of contractor submitted drawings. Linking to AutoCAD and MS Access, the software's configurable interface generates detailed reports and manages over six hundred thousand possible layer combinations. The objective of the software is to ensure uniform layered input in to the corporation's Oracle GIS database.

Instruction - Global CADD Systems (a division of Cansel) - 07/2006 to 04/2007

Provided AutoCAD & Civil 3D support & instruction (remotely and on-site) to clients throughout southern Ontario including several leading engineering firms. Taught classes in Civil 3D including best use of the software for grading and earthworks. Presented with Autodesk at various industry trade shows. Demonstrated Autodesk's MAP 3D (GIS) software on the show floor and in seminars. Graduated from Autodesk's boot camp for Civil 3D trainers in Huston.

Drafting and design, Geotechnical - Agra Earth & Environmental, a division of AMEC - 04/2001 to 09/2003:

Worked with engineers to produce drawings illustrating proposed and as-built conditions on various mine sites in Ontario and New Brunswick. Projects included tailings dam raisings, site remediation and environmental monitoring.

Software for golf & commercial irrigation designers - Cunha Irrigation & RMA Irrigation Inc. - 08/2000 to 12/2010:

Automated the processes of GPS & GIS data translation, design and as-built documentation. Created a pipe tracing algorithm to record the relationships of pumps, valves, pipes and sprinkler heads to a relational database. Employed SQL for quick load calculations, color coding, and bills of material. Designed for use with Autodesk, ESRI, Microsoft and Rainbird products; PGA courses and property management groups in the states of Hawaii, California & Nevada use maps and databases processed with our software. Further developed software compatible with EPANET, using GIS data to create hydraulic simulations for irrigations systems, including maps, load calculations and graphs.

**Lovat Inc.** - Manufacturer of Tunnel Boring Machines - Toronto ON - 1999 to 2000

#### **CADD Administrator**

As CADD Administrator, provided support and training for forty engineers and designers. Managed the TBM parts database throughout the development of a CAD/CAM/database integrated solution. The project delivered an enterprise wide database, linking materials, templates, and drawings for inventory, engineering and CNC data. Gained further IT experience assisting the Network Administrator with Novell, NT and Groupwise network issues. Hardware support for desktops, digitizers and plotters was part of the daily work detail. Designed and supervised the Lovat Engineering office renovation.

**SNC♦Lavalin - Geocon division** - Geotechnical & Environmental Engineers - Toronto ON - 1993 to 1999

#### **Chief Draftsman**

As chief draftsman for SNC's Geocon division, produced various engineering drawings using AutoCAD and MicroStation. Office work involved the design and development of above and below ground mine waste management, closure and remediation projects. Set standards for the presentation and organization of drawing and data files. Trained junior draftspersons and provided support to the Geocon office, in cooperation with SNC IT, solving software and hardware issues.

Field work: Represented Barrick Gold at the Lac Properties Rehabilitation Project in Geraldton Ontario. Throughout the construction of an earthworks cap on an abandoned processing facility and tailings area, responsibilities included the identification of borrow areas, coordination of contractors, preparation & testing of engineered earthworks (gradation and pH), inspection of work and as-built data collection.

Field work: Represented Noranda at the GECO Tailings Regrading and Rehabilitation Project in Manitouwadge Ontario. Duties included inspection of work and materials, testing of material gradation & compaction, and the production of as-built drawings.

Field work: Represented Noranda at Heath Steele Mine in Miramichi, New Brunswick. Worked with various contractors throughout the construction of two major earthworks tailings dams. Duties included inspection of work and materials, concrete testing, soils testing, nuclear density testing, field books, and as-built data collection.

**RN Design** - Architectural Design Firm - Toronto ON - 1992/1993

**Draftsman:** Responsibilities included the drafting of residential designs for developers, new designs and the acquisition of approvals from municipalities for zoning, services and streetscapes. Within this small firm other appointments ranged from the production of working drawings to the coordination of printers and couriers.

**EDUCATION**

**Centennial College** 1993  
Architectural Technologist

**SOFTWARE EXPERIENCE**

**Adobe**

- Acrobat Professional
- Photoshop CS

**Autodesk**

- AutoCAD (V.10 to 2010)
- Civil 3D
- Map 3D

**Bentley**

- MicroStation
- ProjectWise

**ESRI**

- ArcInfo, ArcPad, ArcView
- MAP Objects

**Google**

- Earth & Sketchup

**Macromedia**

- Dreamweaver
- Flash
- Fireworks

**Microsoft**

- Office Professional
- Visio
- Visual Studio
- Vista, XP, W2K, NT, DOS

**Rainbird**

- Cirrus, Nimbus & Decoder

**PROGRAMMING EXPERIENCE**

**Java script**

**Ruby**

**SQL**

**Visual LISP**

**Visual Basic 6.0, VBA & .NET**

- Access & dBase
- AutoCAD versions 10 to 2011
- Autodesk Civil 3D & MAP 3D
- Microstation V.8
- ESRI MAP Objects
- Excel, Word, Visio and XML

**SUPPORTED CLIENTS & PROJECTS (brief)**

**AMEC**

- Agra Earth & Environmental
- Barrick Gold Corporation
- Xstrata/Falconbridge
- Northgate Minerals

**Cunha Irrigation**

- Pebble Beach Golf Links
- Spyglass Hill Golf Course
- The Olympic Club

**FBP Architects**

- City of Toronto
- Town of Markham

**Geocon**

- Noranda Inc.
- Geocon Engineering staff

**Isherwood Associates**

- Isherwood Engineering staff
- Monir Precision Monitoring Inc.

**IT Solutions**

- Telus

**Lovat Inc.**

- Lovat Engineering staff
- Toronto Transit Commission

**National Tree and Garden**

- Oak Creek Golf Club

**Russ Mitchell & Associates**

- Coyote Moon Golf Course
- City of Berkeley CA
- City of Burlingame CA

**SNC♦Lavalin**

- Barrick Gold Corporation
- Diavik Diamond Mines
- Noranda Inc.

**Strabag**

- OPG - Niagara Tunnel Project

**Wardrop Engineering**

- Cameco
- Kria Resources
- Victory Nickel