Infra Suite 2010

In short, Infra Suite is a simple, cost effective and time saving way to do civil engineering works.

Infra Suite is a collection of civil engineering Suite. It is specially designed for civil and structural consulting engineers. It consists of WaterRec(WR), Urban Stormwater Design Version 2.0(USDV2), Drain Network Analysis and Design (DNAAD), Sewer Network Analysis (SNAAD) and Design and Earthworks Computation version 2.0(ECV2).

One of the main tasks as civil and structural consulting engineers is to prepare design drawings. Civil engineers may know that they are always in fighting with time. A number of clients who they meet will only asking for engineering drawings. These clients may not want to know how good an engineering design is. They only concern about when the engineering drawings can be ready. As a result, a civil and structural engineer will always looking for a smart way to prepare the engineering drawings. As current market, civil and structural consulting firm also facing problem in get experience draft persons and civil and structural engineers.

Shortage of experience draft persons and civil engineers!

The shortage can be overcome by using computer software such as Infra Suite

Infra Suite offers a good solution for civil and structural engineers. It comes out with a total solution. Infra Suite can offer a solution for civil engineering works. The solutions are output in layout, cross sections and design calculation. These solutions are primary target for civil engineers. Engineers need layout and cross section drawings for construction and quantities. Engineers need design calculation for submission to relevant authorities. In short, it means that these software can do drafting in layout and cross sections, it can produce design calculations. Do more with work less!

Output drawings in layouts and cross sections; and design calculations!

Most of the time, beside site matters; civil and structural engineers are always in position of producing drawings and design calculations. The engineers also facing problem on producing a few project's drawings in the same time. Design office works are important. Failure to produce these will cause civil and structural engineers losing their business.

Do more with work less!

Infra Suite Benefits.

In short, it summary as below:

Simple, affordable and easy to learn!

Infra Suite is simple software that only requires some civil engineering knowledge to work on. The user who has manually design civil engineering knowledge will able to learn the software in short of period. The software is custom make to suit civil engineers used. It targeted for consulting engineers. Infra Suite does not like other total solution engineering software; where engineer needs to do drafting and design concurrently. The software was created in such a way that drafting works remain to draft person and design work to designer or civil engineer.

In a way, civil engineers do not require to do drafting. Engineers can 'SAVE' out the drafting time to do more effective tasks. No doubt, engineer can do drafting works in Infra Suite. It has become optional.

Infra Suite has been simplified that only practical items are incorporate into program. It will not perform very detail calculations.

Below are the benefits of Infra Suite:

*Time saving on drafting and design

It replaces manual computation and drafting by computer especially the iteration work on network and transferring data from design output into layouts and cross sections.

*Simple civil engineering software

Software created by making it simple, less design parameter and reduces complexity. User with basic understanding of civil engineering works can easily catch up.

*Short learning curve of software

With some technical knowledge on civil engineering, user is able to learning the software in very short of time. It does not required intensive training like other complicated engineering software.

*Do not require very technical person to use software

Since design or drafting work can partly given to draft person to work out, designer or civil engineer needs to work only on the design portion. Even engineer can train civil engineering draft person to use the software.

As we know; It is common that special trained operator on certain special software is highly demand in market. Consulting engineer firm may face this dilemma. With simple software, the operator can be able to replace by another person any time. The software will not be "wasted" by reason of no one can operate the software.

*Interlink with CAD software

Software is created in such a way that interlink with common CAD software in market. CAD software that supported is AutoCAD and IntelliCAD compatible. User does not require to learn new CAD application. It works in CAD software. A CAD operator can easily pick up to use the CAD portion of software.

*Affordable

The cost of software can easily be returned by a small scale of few acres project size. The maximum price of software is about RM6500.00. Consulting engineer does no needs to worry of wrong investment of buying the software. The risk of software is low.

Infra Suite Features.

Our list of features wills surprisingly you.

Each application is rich in features. Software is continually being improved and updated to ensure our customers' benefit from the latest in software technology. Software features such as:

*Ease of use

A clear, user friendly interface includes help. Software is automatically checks for mistakes during data input. It ensures a high level of accuracy in design work.

*Easy Installation & Flexible Licensing

Installing software is simple. It provides flexibility of transferring software license by introducing of hardware dongle. Simply shift the hardware dongle to another system; user is able to use software. The software can be installed to any number of computer systems. Without hardware dongle, the software will perform as DEMO mode or unable to run. Infra Suite also is created that support on most common operating system in market. It supports Microsoft Windows XP,Vista and Windows 7(32bits).

*CAD Suite.

Since most of consulting engineers firm has CAD software, Infra Suite offer an Interlink feature. The Interlink feature available in WR, DNAAD and SNAAD. Our software provides support on multiple versions of AutoCAD to minimize the need to upgrade frequently. It works on AutoCAD 2004 or later.

Besides, software also provides further support in BricsCAD V9.0 Professional Version. Bricscad provide an optional budget CAD software. It can save user for investing in expensive AutoCAD software.

*Multiple units support.

Infra Suite allow user to use metric or imperial unit in design(depend on software).

*Flexibility of custom sizes in DNAAD and SNAAD.

Software allows user to custom define own sizes in design of DNAAD and SNAAD.

*Free Updates

Software's latest fixes and minor new features are available on our website at no additional cost to customers.

As a result, software is producing final products that are a "NEED" for civil engineer in dealing with civil engineering works. It listed as below:

-  *Output in layout**
-  *Output in cross sections*
-  *Design calculation*

*It needs CAD software to work on.

Applications

WaterRec (WR)

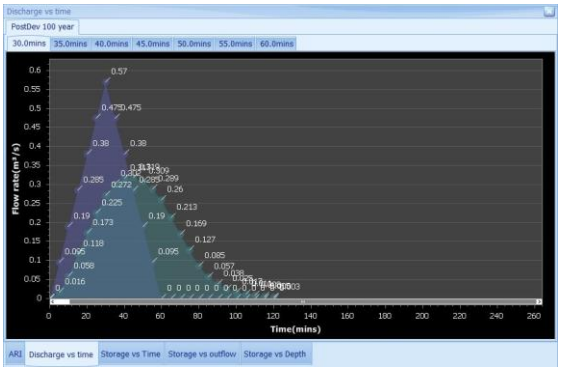
WR is a software that can perform analysis and design on water supply system. It works either on loops system or branches system. It provides in graphical input with unit either in SI or imperial unit. It also gather for peak and average flow system. Special add on for hydrant input. It can import water layout from *CAD system. Analysis output can export to MS Excel file format for further manipulation on report preparation. It has auto error messaging system to help user on inputting data.

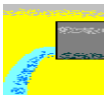
- Graphical input
- Junction method for branch system
- Hardy cross method for loop system.
- SI or imperial unit
- Average flow and peak flow
- Special add on for hydrant input
- CAD import/export layout
- Excel file format

Urban Stormwater Design Version 2.0(USD)

USD simplifies the application of Urban Stormwater Management Manual for Malaysia(MSMA) by automation the computations. It leads the user through the drainage design sequence involving the IDF curves, design rainfall by rational method or time area method, OSD design and level pool routing. User a run a design at a click.

- Friendly user interface, easy to learn, short learning curve.
- User interface leads user through process of rainfall design, hydrograph and pond design.
- Allow user for multiple trial runs and options.
- Output to MS Excel.
- Graphical interface
- Multiple storm events.
- Multiple rain duration.
- CAD support for pond area.
- Auto pond area in CAD for storage outflow function
- Auto pond sizing design.
- Control pond design depth.
- New OSD with outflow
- Auto Post Q check for pond design.
- Shorten design time for pond design.
- Enrich graphs presentation.
- Auto C coefficients in Manning equation





Drain Network Analysis and Design (DNAAD)

DNAAD is a software that resolve problem in drain network. Drain network design is the most tedious work in drain design. No doubt is it simple but it is time consuming. With DNAAD, it can provide a great help to civil engineer. DNAAD can carry out computation in drain sizes, gradients, and invert levels. Finally produce cross sections drawings in DXF format. Somehow, it also produces an optional feature in CAD software. User can start drawing nodes and lines for a drain network in CAD

software. After that user can transfers the file data to DNAAD software to perform further computation.

- Simple spread sheet format
- Calculate sizes, gradient and levels.
- Generate cross section drawings in DXF.
- Easy input and fast output.
- Incorporate part of MSMA (Malayisa only).
- Simple quantities computation.
- CAD input and output.
- Design data can export to Microsoft Excel.

Sewer Network Analysis and Design (SNAAD)

SNAAD is a software that has similar feature as DNAAD. It resolves the problem of sewer network design. Sewer network design also is a simple but tedious computation as drain network. It requires sewer reticulation to calculate sizes, gradient and levels. Final result to be transferred into sewer layout drawing and cross section drawings. SNAAD is able to produce layout in CAD file and cross sections drawing in DXF format. The ability of layout producing requires a independent of CAD software such as AutoCAD or IntelliCAD compatibles.

- Simple spread sheet format
- Calculate sizes, gradient and levels.
- Generate cross section drawings in DXF.
- Easy input and fast output.
- Incorporate IWK format (Malayisa only).
- Simple quantities computation.
- CAD input and output.
- Design data can export to Microsoft Excel.

Earthworks Computation (ECV2) CAD version

EC is simple software that performs earthwork quantities computation. Method of computations are grid system method. It speeds up quantities computation. User has have the CAD drawing in dwg format. In the dwg drawing, two more info are required are existing levels by surveyor and proposed levels by engineer. These two data must be stored in two separate layer in CAD drawing. User just need to import the drawing into our ECV2 and setup a grid system to perform earthworks. The existing levels and proposed levels to be automated retrieved into software. Cross section to be built

- Grid system
- Calculate cut and fill and total volume.
- Generate cross sections drawing in dwg format.
- Graphical display.
- Suitable for property developers and earthworks contractor.
- CAD input for cross section method.
- 3D view in existing levels.
- Calculation in Excel format.

Crash Control (CC)

Crash control is a special module that only available for user who has DNAAD and SNAAD software. CC must work under DNAAD and SNAAD. After outputs are obtained in CAD application, user is able to run CC to check any crash sewer and drain line. CC will inform user that which location of crash or conflict of networks. This module is “FREE” for DNAAD and SNAAD user.

Summary

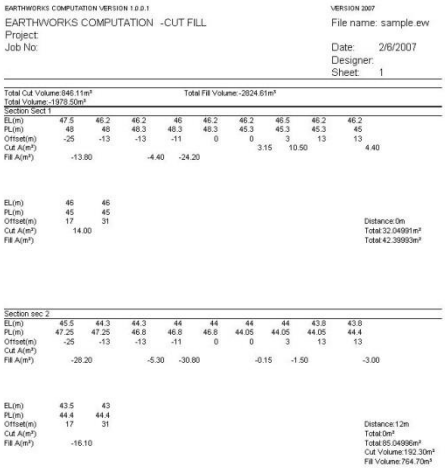
Each productivity of software can be purchased separately or as a bundle copies for adding saving. The choices of Suite depend on user requirement. User can refer to our pricing list for further information.

Thanks for interested in our software. Please visit our website at www.civilstructural.com.my to get more information on the products.

You can also contact us by email, phone or fax anytime to the following contact.

C & S SOFTWARE SOLUTIONS SDN BHD
No 460, 2nd Floor, Jalan Haruan 4/3,
Oakland Commercial Centre,
70300 Seremban,
Negeri Sembilan Darul Khusus
Malaysia

Fax 06-6016118
Tel 06-6016117
Email sales@civilstructural.com.my
Website www.civilstructural.com.my



EARTHWORKS COMPUTATION VERSION 1.0.0.1

EARTHWORKS COMPUTATION -CUT FILL

VERSION 2007

File name: sample.ew

Project:
Job No:

Date: 2/6/2007
Designer:
Sheet: 1

Total Cut Volume:846.11m³
Total Volume:-1978.50m³
Total Fill Volume:-2824.61m³

Section Sect 1

EL(m)	47.5	46.2	46.2	46	46.2	46.2	46.5	46.2	46.2
FL(m)	48	48	48.3	48.3	48.3	45.3	45.3	45.3	45
Offset(m)	-25	-13	-13	-11	0	0	3	13	13
Cut A(m²)							3.15	10.50	
Fill A(m²)		-13.80		-4.40	-24.20				4.40

EL(m)	46	46
FL(m)	45	45
Offset(m)	17	31
Cut A(m²)		
Fill A(m²)	14.00	

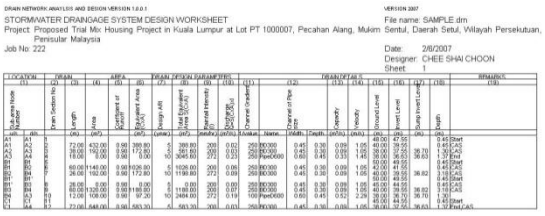
Distance:0m
Total:32.04991m²
Total:42.39993m³

Section sec 2

EL(m)	45.5	44.3	44.3	44	44	44	44	43.8	43.8
FL(m)	47.25	47.25	46.8	46.8	46.8	44.05	44.05	44.05	44.4
Offset(m)	-25	-13	-13	-11	0	0	3	13	13
Cut A(m²)									
Fill A(m²)		-28.20		-5.30	-30.80		-0.15	-1.50	-3.00

EL(m)	43.5	43
FL(m)	44.4	44.4
Offset(m)	17	31
Cut A(m²)		
Fill A(m²)	-16.10	

Distance:12m
Total:0m²
Total:85.04996m³
Cut Volume:192.30m³
Fill Volume:764.70m³



DRAIN NETWORK ANALYSIS AND DESIGN VERSION 1.0.0.1

STORMWATER DRAINAGE SYSTEM DESIGN WORKSHEET

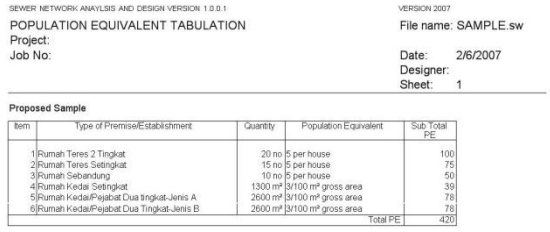
VERSION 2007

File name: SAMPLE.drn

Project: Proposed Trial Mix Housing Project in Kuala Lumpur at Lot PT 1000007, Pecahan Alang, Mukim Sentul, Daerah Setul, Wilayah Persekutuan, Peninsular Malaysia

Job No: 222

Date: 2/6/2007
Designer: CHEE SHAI CHOON
Sheet: 1



SEWER NETWORK ANAYLSIS AND DESIGN VERSION 1.0.0.1

POPULATION EQUIVALENT TABULATION

VERSION 2007

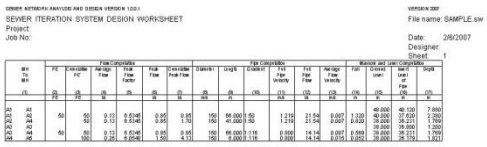
File name: SAMPLE.sw

Project:
Job No:

Date: 2/6/2007
Designer:
Sheet: 1

Proposed Sample

Item	Type of Premise/Establishment	Quantity	Population Equivalent	Sub Total PE
1	Rumah Teres 2 Tingkat	20 no	5 per house	100
2	Rumah Teres Setingkat	15 no	5 per house	75
3	Rumah Sebandung	10 no	5 per house	50
4	Rumah Kedai Setingkat	1300 m²	3/100 m² gross area	39
5	Rumah Kedai/Pejabat Dua tingkat-Jenis A	2600 m²	3/100 m² gross area	78
6	Rumah Kedai/Pejabat Dua Tingkat-Jenis B	2600 m²	3/100 m² gross area	78
			Total PE	420



SEWER NETWORK ANAYLSIS AND DESIGN VERSION 1.0.0.1

SEWER ITERATION SYSTEM DESIGN WORKSHEET

VERSION 2007

File name: SAMPLE.sw

Project:
Job No:

Date: 2/6/2007
Designer:
Sheet: 1

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Revised 26/10/07

Revised 15/1/10

Revised 22/5/10

Revised 17/7/10