

# Product Presentation

Applicant Name: Build.IT Limited  
Product Name: Digital Record of Work (dRoW)  
Specification: Customisable and Scalable E-forms with Workflows, Central Data Hub for Construction Projects

The logo for dRoW features the letters 'dRoW' in a bold, sans-serif font. The 'd' is lowercase, while 'RoW' are uppercase. The letter 'R' is stylized with a blue and white striped pattern on its vertical stem. The letters have a slight 3D effect with a grey shadow on the right side.

- Core Functions:  
Customisable and Scalable E-forms with Workflows, Central Data Hub for Construction Projects
- Technology Used:  
Cloud, Data Analysis, E-workflow, BIM, GIS
- Construction Process involved:  
Record and workflow management throughout construction process
- Key Improvement in Construction Process:  
(details to be given in following slides)
  - Productivity
  - Quality
  - Safety
  - Environmental

# Job References (1)



Contract No.	Project Title	Description	Direct Employer	Client of Main Contract
YL/2020/03	Hung Shui Kiu/Ha Tsuen New Development Area Stage 1 Works – Site Formation and Engineering Infrastructure	DWSS (full)	China Geo-Engineering Corporation	Civil Engineering and Development Department (CEDD)
HY/2020/08	Flyover from Kwai Tsing Interchange Upramp to Kwai Chung Road	EDMS + DWSS (full)	Peako Engineering Co. Limited	Highways Department
DC/2020/06	Village Sewerage for Tseung Kwan O	EDMS + DWSS (full)	RenoPipe Construction Company Limited	Drainage Services Department
9/WSD/20	Construction of Pressure Management and District Metering Installations in Yuen Long, Sheung Shui & Fanling Major Fresh Water Supply Zones	EDMS + DWSS (full)	RenoPipe Construction Company Limited	The Water Supplies Department
MTR TUE & TME	Tung Chung Line Extension Tuen Ma Line Extension	NEC Contract and Document Management System (CADMS)	MTRC	MTR
AA C3303	Third Runway and Associated Works	Mobile Electronic Safety Management System (MESMS)	SAPR JV	Airport Authority
United Christian Hospital MWP2/3	United Christian Hospital MWP2/3	EDMS + DWSS (full)	Hospital Authority	Hospital Authority
HY/2020/07	Widening of Xastle Peak Road between Kwun Tsing Road and Hoi Wing Road	EDMS + DWSS (full)	SoftwareONE Hong Kong Limited	Highways Department
CV/2019/03	Site Formation and Infrastructure Works at Pik Wan Road, Yau Tong.	EDMS + DWSS (full)	China Road and Bridge Corporation (Hong Kong)	Civil Engineering and Development Department (CEDD)
SS J504	Construction of Water Supplies Department Headquarters and Correctional Services Department Headquarters Building in Chai Wan	EDMS, Online Project and Document Management System (OPDMS)	Aggressive Construction Co., Ltd.	Architectural Services Department
1/WSD/19	Provision of Electronic Document Management System (EDMS) and Digital Works Supervision System (DWSS) on dRoW platform	EDMS + DWSS (full)	SoftwareONE Hong Kong Limited	The Water Supplies Department

# Job References (2)



Contract No.	Project Title	Description	Direct Employer	Client of Main Contract
HA20180557	Construction of Subsidised Sale Flats Development at Ma On Shan Road and Public Housing Development at Hang Tai Road Ma On Shan Area 86B Phase 1 / EDMS & Safty	EDMS	Sun Fook Kong Construction Limited	Hong Kong Housing Authority
DE/2018/04	Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 E&M Works for Sewage	EDMS	Bestwise Envirotech Limited	Drainage Services Department
	Ming Hing EDMS	EDMS	Ming Hing Waterworks Engineering Co., Ltd.	Ming Hing Waterworks Engineering Co., Ltd.
DC/2019/11	Upgrading of West Kowloon & Tsuen Wan Sewerage - Phase 2A	DWSS (full) / EDMS	Kum Shing (K.F.) Construction Company Ltd / DSD	Drainage Services Department
YL/2019/02	Hung Shui Kiu/Ha Tsuen New Development Area Advance Works Phase 2 – Site Formation and Engineering Infrastructure	ESIS / SRIS	Adrian Construction Ltd / CEDD	Civil Engineering and Development Department (CEDD)
SD/2019/03	Wan Chai Development Phase II – West Landscaped Deck and Other Roadworks	EDMS / ESIS	Kin Chiu-China Railway First Group Joint Venture / CEDD	Civil Engineering and Development Department (CEDD)
ND/2019/07	Fanling North New Development Area, Phase 1: Site Formation and Infrastructure Works	DWSS (full)	China Road and Bridge Corporation (Hong Kong)	Civil Engineering and Development Department (CEDD)
ND/2019/06	Fanling North New Development Area, Phase 1: Reprovisioning of North District Temporary Wholesale Market for Agricultural Products	DWSS (full)	New Concepts Engineering Development Ltd (Contractor) / CEDD	Civil Engineering and Development Department (CEDD)
MTRC NEX1079	Ground Investigation Work for Tung Chung Line Extension	DWSS (pilots)	Geotechnics and Concrete Engineering (HK) Limited	MTR
MTRC NEX1080	Utilities and E&M Services Survey for Tung Chung Line Extension	DWSS (pilots)	U-Tech Engineering Co Ltd.	MTR
SS H508	Construction of Station Square at Kai Tak Phase 2	NEC CADMS + DWSS (pilots)	Aggressive Construction Company Limited	ASD

# Job References (3)



Contract No.	Project Title	Description	Direct Employer	Client of Main Contract
DC/2017/03	Upgrading of West Kowloon and Tsuen Wan Sewerage – Phase 1	DWSS (pilots)	Po Wing H. P. Drainpipe & Construction Company Limited	Drainage Services Department (DSD)
DE/2018/17	Enhancement of Deodourisation System at Stonecutters Island Sewage Treatment Works	EDMS	Bestwise Envirotech Limited	Drainage Services Department (DSD)
DC/2018/10	Condition Survey and Rehabilitation of Underground Sewers and Stormwater Drains – Stage 1	DWSS (pilots)	Kwan On Construction Company Limited	Drainage Services Department (DSD)
DC/2018/11	Upgrading of Central and East Kowloon Sewerage – Phase 3	DWSS (pilots)	Welcome Construction Company Limited	Drainage Services Department (DSD)
DC/2017/01	Construction of Dry Weather Flow Interceptor at Cherry Street Box Culvert	DWSS (pilots)	CMGC-TECEL Joint Venture	Drainage Services Department (DSD)
SC No. 033 SS G506	Provision of E-Form Platform 2-Year Service Construction of Station Square at Kai Tak (Phase 1)	EDMS	SFK – CEC Joint Venture	Architectural Services Department (ASD)
DC/2018/01	Construction of Village Sewerage at Peng Chau and Mui Wo, Modification Works at Tai Po and Siu Ho Wan Sewage Treatment Works and Minor Drainage and Sewerage Works in Urban Area and New Territories	DWSS (pilots)	Rankine Engineering Company Limited	Drainage Services Department (DSD)
SC-1011	Provision of EDMS & DWSS			
DC/2017/02	Rehabilitation of Trunk Sewers in Kowloon, Shatin and Sai Kung	DWSS (pilots)	China Geo-Engineering Corporation	Drainage Services Department (DSD)
YL/2017/01	Site Formation and Infrastructure Works for Development at Kam Tin South, Yuen Long	DWSS (pilots)	Sun Fook Kong Civil Limited	Civil Engineering and Development Department (CEDD)
DC/2017/01	Construction of Dry Weather Flow Interceptor at Cherry Street Box Culvert	DWSS (pilots)	CMGC-TECEL Joint Venture	Drainage Services Department (DSD)
20170225	Construction of Public Rental Housing Development Phases 1 & 2 and Subsidised Sale Flats Development at Diamond Hill Comprehensive Development Area	EDMS	Sun Fook Kong Construction Limited	Housing Authority (HA)

# Innovative Features



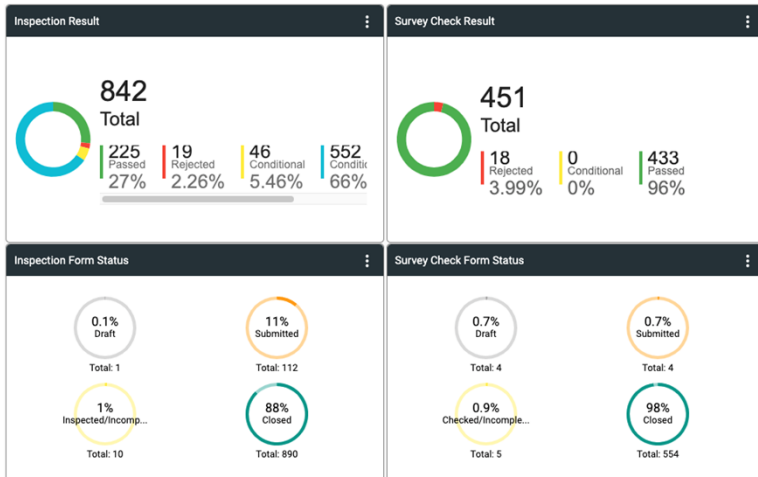
- Core Technology:
  - Customisable and Scalable E-forms with Workflows, Central Data Hub for Construction Projects
- Patents
  - A Blockchain Based Hybrid System and Method Thereof For Construction Document Management
  - Incident-Based Management System for New Engineering Contract
- Comparison with current practice and popular models:
  - Unique in Market - All in one platform for all records
  - Scalable and Customisable - Flexible enough to handle records and workflows for a wide variety of construction projects.
  - Quick deployment of construction forms and workflows by making both the form structure and workflows fully customisable.
- First Launch Date: Late 2018
- Comparison with similar Pre-approved list products and competitors:
  - All in One
  - Easy to Learn
  - Mobile & Paperless
  - Traceability and Immutability – Blockchain
  - Customisability & Scalability
  - Custom Report Templates
  - Rapid Prototyping
  - Dashboard and Management Reports
  - Data Analytics for forecast and alerts
  - Versatile access right control
  - Trade/profession-based modules
  - Export and import

## Adoption Example 1

- Project for illustration: 10+ Projects (See job references above)

Use / Function in project:

- **DWSS** (Digital Works Supervision System)
  - Request for Inspection / Survery Check (RISC)
  - Site Diary & Labour Return
  - Safety, Environmental and Cleaning Inspection Checklist
  - Safety Dashboard



**Create Record**

**A [Contractor] - Draft Form**

**A01 - Request No.** (Auto ID) Generate ID

**A02 - Location of Work** (LongText) Site A

**A03 - Work to be Inspected** (LongText) A03 - Work to be inspected

**A04 - Proposed Inspection Date** (DateTime) A04 - Proposed Inspection ...

**A05 - Operation Proposed after Approval** (LongText) A05 - Operation Proposed after Approval

**A06 - Previous Request No. for Proceeding Operation** (LongText) A06 - Previous Request No. for Proceeding Operation

**A07 - Previous Request?** (Options)

**Create**

Cancel

**Assignee (1)**

Select All Clear All

Assignee: Nicholas Lee (nicholaslee@buildit.c...)

C.C. (0)

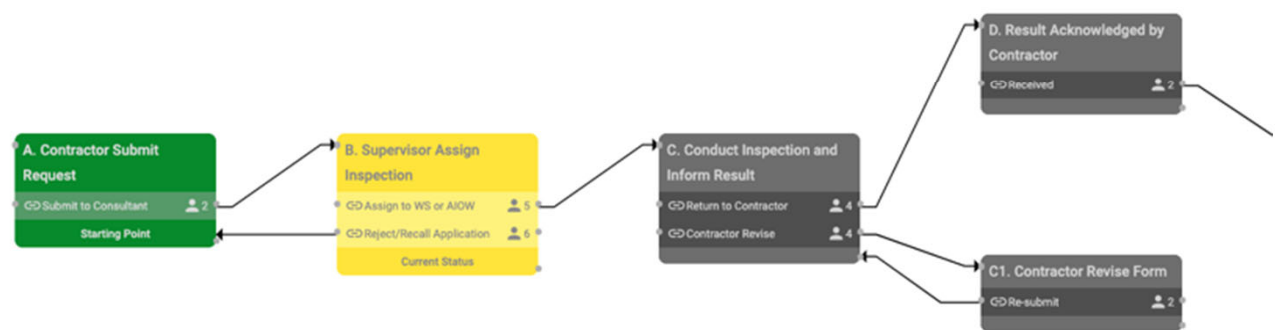
**Due Date**

Duration: 1 Days

Due Date

No Due Date

Task Message



# Adoption Example 2

- Project for illustration: 10+ Projects (See job references above)

Use / Function in project:

- **EDMS** (Electronic Document Management System)

## Column Search

Advanced Search

The screenshot shows the 'Column Search' interface with a 'Property' tab. A calendar pop-up is displayed for '2021 Sep 29'. The calendar shows the days of the week (Su, Mo, Tu, We, Th, Fr, Sa) and the dates (1-30). The 29th is highlighted. Below the calendar are search filters for 'Letter Date', 'Received Date', and 'Filing Date'. The 'Letter Date' filter is set to '2021-09-29'. The 'Received Date' and 'Filing Date' filters are empty. There are 'Clear' and 'Confirm' buttons at the bottom of the calendar pop-up.

EDMS  
EDMS Folder

Search Text

Log No. : >= A00001

Log No.	File Ref.	Letter Date	Subject	From Company	To Company	eCopy
A03304		2021-09-16	TEST REPORT - (Customer Ref. No. CT-0113) (Test Request No. NLCUB2102433) - Compression Test Request for Concrete Cubes - Base Slab for Temporary substation	CEDD-PWL	AECOM	A0330...
A03303		2021-09-28	CE No. 0051: Provision of Spare DN1200 V908 Butterfly Valve to Lion Rock Valve House	AC ATAL - CW - MJV	AECOM	A0330...
A03302	M15/620.B065	2021-09-28	Invitation to Tenderer_B065_Relocation of Equipment from Existing Buildings to WTW Logistics Centre	AC ATAL - CW - MJV	AECOM	A0330...

Letter Search

Incoming Letter | Outgoing Letter

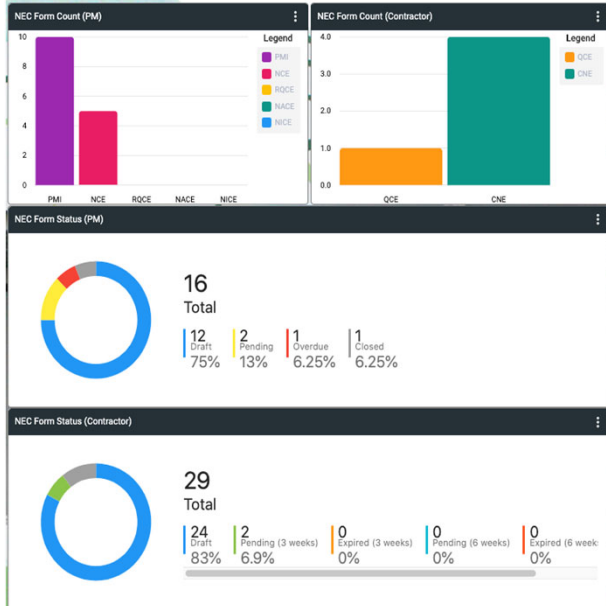
- > C05
- > C10
- > C15
- > C25
- ▼ C35
  - 100
  - 200
  - 300
  - 400



# Adoption Example 3

- Project for illustration: MTR TUE & TME, ASD SSH508, DC/2020/06

Use / Function in project:  
**- NEC Contract Administration and Document Management System**



**Early Warning Register**

Early Warning No.	Instruction no.	Compens
C1201-EWN-EWS-000026		C1201(T... FIN-0000
C1201-EWN-EWS-000027		
C1201-EWN-EWS-000028		
C1201-EWN-EWS-000030		
C1201-EWN-EWS-000031		

**C1201-NCE-EWS-000027**  
 TUE PSC4 PSC Folder

EW No. (if any): C1201-EWN-EWS-000027  
 String

SM's Instruction No. (if any): C1201-SMI-EWS-000027  
 String

Other Relevant Correspondence (if any):  
 String

**---NCE (SM's Notification of Compensation Event)**

The compensation event (CE) happened under 60.1(1) – Changing the Scope  
 NEC Cause No. Options

Subject of NCE Additional Design Requirement to Reduce the TCW Overrun Tunnel  
 String

Description of NCE:  
 LongText

**Assumptions**  
 Table

Yes / Not applicable	assumptions:
Options	LongText
Not applicable	

**Request to submit quotation:**  
 Table

Yes / No / Not applicable	submit by	SM's Reply No.
Options	Formula	String
No, quotation of proposed instruction was accepted. Details refer to attachment.		

**---Application for Extension of Period for Reply**

PM (UE)	Prices



## Adoption Example 4

- Project for illustration: AA 3303, HA20180557

Use / Function in project:

### - Safety Records Management System

- Plant and Equipment Registry
- Staff Certificates and Safety Records
- Safety Permit with Approval Workflows
- QR code and Expiry Reminders

Nr	Permit No.	Type	Maker	Model	Description	Serial No
1	3303-LY-001	Yuen Yuk Chi	KOMATSU	LC785-6	Hoisting Wire: dia. 10mm	31034
^ Show Less						
2	3303-TB-001	Hydraulic Excavator	HITACHI	ZX350H-5-A	Stewing on 360 deg. Control Cab mounted on turntable. Option with Hyd. Breaker	HCMDD1
3	3303-LY-002	Telescopic Jib Crane	SMARTER	SMQ120C	dia. 12mm x 4 falls	12C1702
4	3303-FG-001	Boring Machine	重探	XY-2B	Main wire: dia.14mm x 1 fall, Aux. wire: dia. Dia.9mm x 1 fall	4-1281
5	3303-FG-002	Boring Machine	重探	XY-2B	Main wire: dia.12mm x 1 fall, Aux. wire: dia. Dia.10mm x 1 fall	4-040



地盤名稱：馬鞍山資助出售房屋計劃及馬鞍山第86B恆泰路  
第一期公營房屋發展計劃建築工程

機械許可證編號：	LA-001
機械名稱：	Hydraulic Soil Excavator
機械型號：	KOBELCO
製造廠編號：	YN12070005
安全操作負荷Safe Working Load (S.W.L):	0.8T
證明書編號：	007-240220
有效日期至：	2021-02-22
機械負責人：	天機工程有限公司



# Benefits – Productivity and Quality

## Main **problems** faced in Construction Industry

- HK construction industry lags behind in IT adaptation
- Extremely diverse data
- Simple spreadsheets and papers are used mostly
- Existing systems follow predetermined structure or format
- Long deployment time
- Relationships between records are lost
- Traditional spreadsheets fail to provide a systematic and centralised database
- Fraudulent RISC forms in construction projects

## **dRoW** improves **productivity** and **quality** by:

- Data Centralised, Easy to search and verify the latest data available. e.g. drawings
- E-forms and workflows reduces the use of paper and streamlines traditional processes
- Prevent lost/fraudulent records/forms in construction projects – immutable records using blockchain
- Intricate access right controls to ensure records are funnelled through the correct workflow and approval process. Electronic signature can be configured.
- Interfaces such as BIM and GIS viewer for users to visualise and reference records with visual data for verifications

