

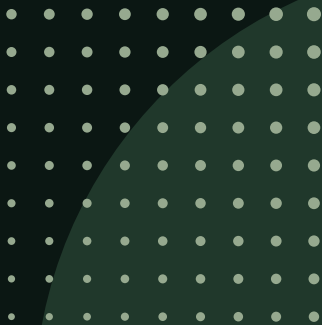
REPRESENTATIVE FINAL REPORT

Data Dictionary & Record Standards Report

A plain-language operating contract for the records, fields, identifiers, relationships, validation rules, permissions, and AI-use boundaries underneath a connected workflow.

Prepared for	Representative Construction Client
Prepared by	StructuredLayer
Workflow	Representative RFQ-to-Bid Operating Path
Document	Version 1.0 19 July 2026
Status	Illustrative client-ready sample

Illustrative records and values are used throughout. A client-issued report replaces them with approved terms, systems, owners, rules, evidence, and decisions.



01 / START HERE

What this report means

A data dictionary is the agreed language of the operating system. It tells people, software, integrations, dashboards, and approved AI tools exactly what each record and field means. Without it, two teams can use the same word while referring to different facts.

Plain-language example

A field named **due date** is not enough. The dictionary states whether it means the client deadline, internal review deadline, estimator response deadline, or portal closing time; which timezone applies; where the value came from; and who may change it.

Meaning	Control	Reuse
A precise business definition that removes interpretation and guesswork.	The source, owner, validation, permission, and correction path for the value.	A stable contract that future tools, vendors, reports, and AI workflows can follow.

What the client receives

- An approved catalogue of records and fields used by the selected workflow.
- Stable IDs and relationships that keep records connected across tools.
- Required, optional, calculated, candidate, sensitive, and deprecated field classifications.
- Validation rules, accepted values, defaults, exception routes, and edit permissions.
- A change-control process so future additions do not silently break reports or automations.

This report does not require one database product. The same approved structure can be implemented in a relational database, Airtable, Teable, a client platform, or another suitable client-owned system.

02 / EXECUTIVE SUMMARY

The operating contract in one page

The representative RFQ-to-bid workflow uses seven connected record types and a controlled set of identifiers, dates, statuses, documents, assignments, approvals, and outcomes. The dictionary makes those meanings portable and prevents automations from inventing their own interpretation.

7 core records

Company, opportunity, project, document, assignment, estimate, and submission/outcome.

44 governed fields

Illustrative required and optional fields across the operating path.

6 control classes

Source, type, validation, owner, permission, and lifecycle rule.

Decision area	Approved approach	Why it matters
Business terminology	One definition per field and status	Teams and systems stop using the same label differently
Identity	Immutable internal ID plus retained source IDs	Records stay connected when names or source systems change
Source authority	Every field names its approved source	Corrections occur in the right system
AI-extracted values	Candidate until accepted by an authorised role	The model does not silently create business truth
Sensitive information	Classification, access, retention, and redaction rules	Downstream use respects approved boundaries
Change management	Versioned proposals, impact review, approval, migration	Existing reports and workflows do not break unexpectedly

Executive decision

Approve the dictionary before broad integration or automation. A workflow cannot be reliably automated when the business has not agreed what its records and fields mean.

The result

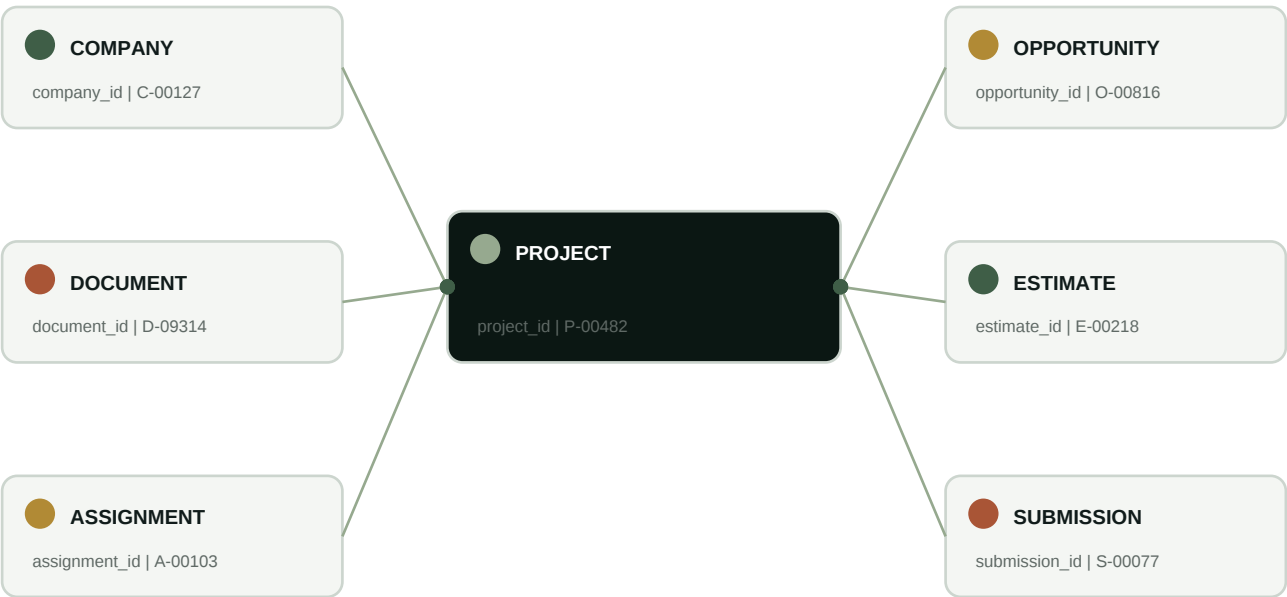
A new implementation partner can read this report and understand the data contract without reverse-engineering the original build. The client retains the structure, documentation, and decision history.

03 / CORE RECORDS

The records that make the workflow understandable

A record represents a real business object or event. Separating records prevents one oversized spreadsheet row from mixing company facts, opportunity facts, document facts, assignments, estimates, and outcomes.

Record	Business purpose	Stable ID	Typical relationships
Company	Organisation involved in the opportunity or delivery chain	company_id	Contacts, opportunities, projects
Opportunity	A potential piece of work before award or no-bid	opportunity_id	Company, documents, assignments
Project	The controlled delivery record after authorised conversion	project_id	Opportunity, estimates, submissions
Document	A source file, revision, attachment, or issued artefact	document_id	Opportunity or project, source evidence
Assignment	Responsibility given to an estimator or reviewer	assignment_id	Opportunity, person, acknowledgement
Estimate	A versioned commercial calculation and assumptions set	estimate_id	Project, estimator, baseline version
Submission	The approved external issue event and receipt evidence	submission_id	Opportunity, approval, outcome



Stable IDs preserve relationships even when names, files, systems, or owners change.

Why this matters

A company can participate in many opportunities. An opportunity can contain many documents and assignments. An approved opportunity may become one project. Keeping these as connected records allows a dashboard or agent to retrieve the correct context without scanning unrelated rows or folders.

04 / FIELD-LEVEL CONTRACT

Every field needs more than a name

The field specification below is the minimum contract for implementation. It defines meaning, format, source, requirement, validation, permissions, and behaviour when the value is missing or uncertain.

Dictionary attribute	What it answers	Example
Field name	What is the stable machine-readable name?	controlling_due_at
Display label	What does the person see?	Controlling submission deadline
Business definition	What exact fact does it represent?	Latest approved external deadline, with timezone
Record	Which object owns the value?	Opportunity
Data type	How is it stored and validated?	Timezone-aware date-time
Requirement	Is it required, conditional, optional, or calculated?	Required before qualification
Authority	Which system or evidence establishes it?	Approved portal notice or RFQ
Owner	Who may confirm or correct it?	Bid coordinator
Validation	What must be true before acceptance?	Future date; timezone present; source retained
Permission	Who may view, propose, approve, or write?	Estimator views; coordinator approves
Exception rule	What happens if the value is missing or conflicts?	Block release and create review item

Field classifications

Authoritative Accepted source-owned value used by the operating workflow.	Candidate Extracted, inferred, enriched, or AI-proposed value awaiting review.	Calculated Derived from approved fields using a named formula and version.
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05 / WORKED DICTIONARY

Opportunity and assignment fields

The following entries demonstrate the level of detail expected in a client-issued dictionary. Final values, owners, and rules are confirmed during discovery and validation.

Record / field	Type / requirement	Authority / owner	Validation and operating use
Opportunity / opportunity_id	Text / required	Operating database / system	Immutable after creation; never reused
Opportunity / source_reference	Text / required	Original source / coordinator	Portal ID, email message ID, or upload reference retained
Opportunity / title	Text / required	Approved source / coordinator	Human-readable title; does not replace stable ID
Opportunity / controlling_due_at	Date-time / required	Approved RFQ evidence / coordinator	Timezone required; conflicts route to review
Opportunity / qualification_state	Controlled select / required	Qualification workflow / commercial owner	New, review, pursue, no-bid, hold, closed
Opportunity / confidence_score	Number / optional	Rule or approved model / reviewer	Decision support only; never replaces qualification approval
Assignment / estimator_id	Relationship / required	Estimating lead	Must reference an active authorised person record
Assignment / requested_at	Date-time / required	Workflow event	Created when the approved request is issued
Assignment / acknowledged_at	Date-time / conditional	Workflow event / estimator	Created only by explicit acknowledgement
Assignment / response_due_at	Date-time / required	Workflow rule / estimating lead	Cannot exceed controlling opportunity deadline
Assignment / state	Controlled select / required	Assignment workflow	Requested, acknowledged, declined, working, returned, cancelled

Important boundary

A confidence score, classification, or extracted date may help prioritise work. It does not become an accepted business fact until the field's approval rule has been satisfied.

06 / WORKED DICTIONARY

Document, estimate, submission, and outcome fields

Record / field	Type / requirement	Authority / owner	Validation and operating use
Document / document_id	Text / required	Operating database / system	Immutable ID; retained when file name changes
Document / source_url	URL / required	Approved source / document owner	Must identify authorised origin or controlled storage
Document / revision	Text / conditional	Issued document source	Compared with current and superseded relationships
Document / is_current	Boolean / required	Document-control decision	Cannot be true for two revisions of the same document
Document / checksum	Text / recommended	Ingestion service	Detects duplicate or changed file content
Estimate / baseline_version	Text / required	Approved estimating record	Locked at release; later changes append events
Estimate / total_amount	Currency / required	Estimating system / lead estimator	Currency required; calculation evidence retained
Estimate / assumptions	Relationship / required	Approved estimate evidence	Links to versioned assumption records
Submission / approval_id	Relationship / required	Approval record / commercial owner	Required before external release
Submission / receipt_evidence	File or URL / conditional	Submission channel	Retains time, channel, and source
Outcome / result	Controlled select / required	Commercial owner	Win, loss, no-bid, withdrawn, pending
Outcome / reason	Text / conditional	Commercial owner	Required for loss, no-bid, or withdrawal

A field can be technically populated and still be operationally incomplete. For example, a document URL without source authority, revision state, permission classification, or project relationship is not yet reliable context for automation.

07 / VALIDATION & QUALITY

Good data is measured at the field and workflow level

Completeness alone is not enough. The implementation tests validity, uniqueness, consistency, freshness, relationship integrity, provenance, and permission compliance before a record becomes automation-ready.



Illustrative accepted required fields / total required fields

Illustrative quality view only. A client report uses agreed rules and actual validation results.

Quality dimension	Test	Failure response
Completeness	Required and conditional fields are present	Block state transition or route exception
Validity	Value matches type, format, range, and accepted set	Reject candidate value with reason
Uniqueness	Stable ID and approved natural keys do not collide	Quarantine duplicate for review
Consistency	Related dates, statuses, versions, and amounts agree	Create conflict with both source values
Freshness	Value is within approved age threshold	Refresh source or mark stale
Provenance	Source reference and retrieval evidence exist	Prevent authoritative use
Permission	Role and system may perform the attempted action	Block, log, and notify owner

08 / FIELD LIFECYCLE

Values change, so the dictionary must control change

A field begins as a sourced or proposed value, passes validation and review, becomes accepted for operational use, and may later be changed or retired. The system retains enough history to explain what happened.



Every field has a controlled life from source capture through retirement.

Lifecycle state	Meaning	Permitted use
Raw	Captured from a source but not yet checked	Restricted processing only
Candidate	Parsed, enriched, inferred, or proposed	Review queues and comparison
Accepted	Validated and approved according to field rule	Operational workflows, reports, retrieval
Rejected	Reviewed and not accepted, with reason	Audit and model/rule evaluation
Superseded	Previously accepted but replaced by a later approved value	History and dated reporting
Deprecated	Field is being retired but remains mapped during migration	Compatibility only

Never overwrite silently

Material changes append history or retain effective dates.

Retain the reason

Approvals, rejections, and corrections capture who, when, and why.

Protect compatibility

Deprecated fields stay mapped until reports and integrations migrate.

09 / PERMISSIONS & AI USE

The dictionary defines what AI may read and propose

AI can extract values, classify records, compare evidence, prepare drafts, and recommend next actions. It should not gain authority over a field merely because it can technically populate it.

Field class	Example	AI use	Human authority
Public operational	Opportunity title	May classify or summarise	Owner confirms corrections
Internal commercial	Estimate amount	Permissioned retrieval or comparison	Commercial role approves release
Personal data	Estimator contact	Minimum necessary use only	Access owner controls purpose
Sensitive document	Contract or pricing file	Approved model and environment only	Document owner controls access
Consequential decision	Bid/no-bid or external submission	May prepare recommendation or draft	Named person decides and issues
System credential	Password, token, MFA secret	Never stored as an ordinary business field	Managed in approved secret storage

Candidate-value rule

AI-extracted or enriched values are stored separately from accepted values, with model or method, timestamp, source evidence, confidence where appropriate, and review outcome. Rejected values remain available for evaluation without contaminating the source of truth.

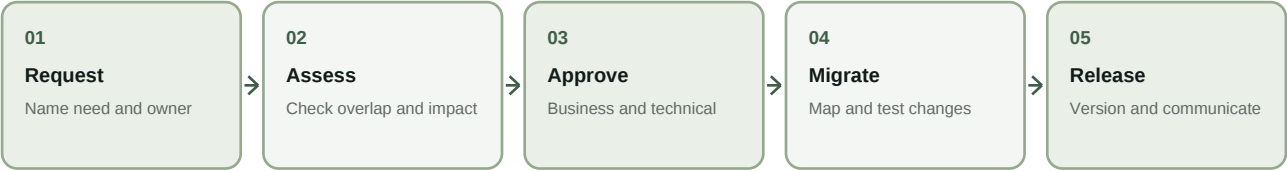
Actions that remain human-controlled

- Commercial commitments, submissions, bid/no-bid decisions, pricing approval, and client communication.
- Safety, compliance, employment, access, payment, legal, and contractual determinations.
- Changes to field authority, validation rules, permission levels, and retention policies.

10 / DICTIONARY GOVERNANCE

How new fields and changes are approved

The dictionary is a living controlled document. Teams may add fields, but every change must preserve meaning, ownership, compatibility, security, and downstream behaviour.



Change request must include	Impact review must cover	Release evidence
Business reason and requested owner	Records, integrations, automations, reports	Approved version and effective date
Proposed definition and accepted values	Security, privacy, retention, permissions	Migration or backfill result
Source authority and validation rule	Historical data and compatibility	Test cases and acceptance result
Required/optional classification	Documentation and team training	Communicated deprecation timeline

Versioning rules

- Minor versions clarify meaning without changing operational behaviour.
- Major versions change structure, validation, authority, or downstream behaviour.
- Calculated fields retain formula version and source-field lineage.
- Deprecated fields remain documented until every dependency has migrated.

11 / ACCEPTANCE & HANDOVER

What must be true before the dictionary is approved

The client accepts the dictionary when business owners understand the records, confirm the definitions, approve authority and permissions, and validate representative workflow cases.

Acceptance area	Evidence required	Approval role
Record model	Every in-scope object has purpose, ID, relationships, and lifecycle	Workflow owner
Field definitions	No material ambiguity remains in required fields and statuses	Business owners
Source authority	Each authoritative field has approved source and correction path	Data owners
Validation	Happy path, missing, invalid, duplicate, stale, and conflict cases tested	Business and QA
Permissions	View, propose, approve, write, export, and delete boundaries tested	Security owner
AI boundaries	Candidate values, citations, approvals, and prohibited actions verified	Business sponsor
Handover	Client can maintain fields, review exceptions, export data, and revoke access	System owner

Handover package

Client-owned dictionary Editable source plus issued PDF, version history, and decision log.	Operating guidance How to add fields, resolve exceptions, review candidates, and retire fields.	Technical portability Record schema, IDs, mappings, exports, and integration notes for future providers.
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Final principle

The database may change. The software may change. The AI provider may change. The agreed business meaning, ownership, evidence, and decision rights should remain portable and understandable.

Representative sign-off

Role	Name	Decision	Date
Business sponsor	_____	Approve / revise	_____
Workflow owner	_____	Approve / revise	_____
Data owner	_____	Approve / revise	_____
Security owner	_____	Approve / revise	_____