MEP

BIM · CSI · AUTOMATION EDITION

CONSUCONSTRUCT

BIM · CSI · AUTOMATION

SELECTED TECHNICAL EVIDENCE

CURRENT / MEP + BIM AUTOMATION

The full practice, connected.

Four adjacent disciplines. One integrated construction workflow.

COST ESTIMATING SYSTEMS

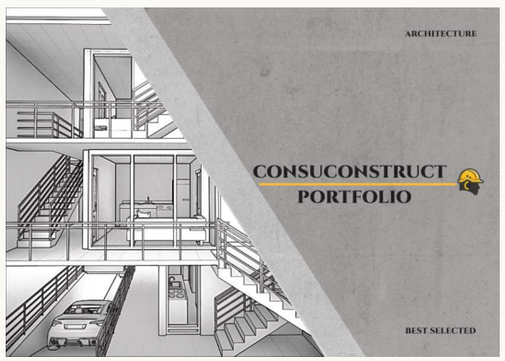
TAKE-OFF / COST CONTROL / BANK OUTPUTS

OPEN >

STRUCTURAL ENGINEERING

ANALYSIS / DESIGN / FIELD EVIDENCE

OPEN >



ARCHITECTURE + BIM

DESIGN / DOCUMENTATION / COORDINATION

OPEN >

LLM + RETRIEVAL DATA

RAG / AGENT GUARDRAILS / DATA LINEAGE

OPEN >

VIDEO CASE STUDY

See the system in motion.

REVIT MEP + COORDINATED AUTOMATION

WATCH CURRENT PORTFOLIO >

PUBLIC PROFILE

consuconstruct.com/en/about-me

Each cover opens the public profile. Source portfolios remain intact.

Ing. David Chinchilla

BIM SPECIALIST · REVIT DEVELOPER · MEP COORDINATION

EDUCATION

CICH 8222
College of Civil Engineers of Honduras. Licensed civil engineer.

Civil engineer
Integrated practice in construction, technical documentation, and BIM coordination.

2020–present
Founder and Technical Director of ConsuConstruct S. de R.L.

EXPERIENCE

12+ years in construction · 6+ years of technical leadership

Evidence reviewed: local drawings, models, and videos · 2026

PROFILE

Civil engineer and Technical Director of ConsuConstruct. I connect construction documentation, BIM coordination, and automation so the model transfers verifiable information to quantities, costs, and drawings through CSI.

I work through an operating chain: coordinated Revit models, constructible documentation, quantification, budgeting, and technical control. In MEP, the demonstrated evidence is electrical and plumbing coordination plus in-house pyRevit automation.

This portfolio separates evidence from promise: it does not claim electrical load calculations, hydraulic calculations, HVAC design, or certifications that the reviewed assets do not prove.

TOOLS & PRACTICE

Revit MEP — author / developer	●●●●●●●●●	Revit 2024–2027 · coordinated models
pyRevit / IronPython	●●●●●●●●○	Conduit by Circuit · Generate Layout
Revit API / MCP	●●●●●●●●○	48 tools · 23 module families
Electrical and plumbing coordination	●●●●●●●●○	Plans · systems · review
CSI and BIM quantification	●●●●●●●●○	195/398 items from Revit
Constructible documentation	●●●●●●●●○	Plans · details · panels
Python / automation	●●●●●●●●○	In-house domain tools
Construction and technical control	●●●●●●●●○	12 years · RFI · submittals · changes

VERIFIED TRACK RECORD

135

REAL CLIENTS — VERIFIED ENGAGEMENTS 2019–2026

48	23	12 YEARS	49%
REVIT MCP TOOLS	MODULE FAMILIES	CONSTRUCTION EXPERIENCE	ITEMS FROM REVIT

7 years of continuous operation · 99 closed · 21 independent · 12 active now.

SERVICE MIX

Budgets / construction quantities	72 cli	53%
Drawings / technical documentation	69 cli	51%
BIM / Revit / 3D models	36 cli	27%
Site photos / visits / progress	42 cli	31%
Permits / bank / document coordination	16 cli	12%

NEW CLIENTS BY YEAR

VERIFIED MEP EVIDENCE

01	Revit MCP — tools / module families	48 / 23	
02	pyRevit extensions — Generate Layout · Conduit by Circuit · TypeMark TagAll	3	
03	Items with quantity directly from Revit	195 / 398	
04	MEP case blocks reviewed in this portfolio	5	

PROFESSIONAL PATH

TRACK RECORD — 12 YEARS

05 PROFESSIONAL PATH (12 YEARS)

2013–2014

Purchasing & Administration — Constructora Briceño

Supplier negotiation and administrative control of the construction supply chain.

2014–2016

Assistant Resident Engineer — Hotel Hyatt

Hotel construction: reinforced concrete, MEP rough-in, RFIs, submittals, and change orders.

2016–2018

General Services Coordinator — Corporación MCC

Multi-site maintenance and minor capex; quotations, purchase orders, and trade coordination.

2019

Remote Senior Estimator — Backmanage HN

Quantity takeoffs and budgets for U.S. general contractors; practical adoption of CSI MasterFormat.

2020–present

Founder & Technical Director — ConsuConstruct

135 end-to-end clients; documentation, BIM, budgeting, technical coordination, and engineer-of-record work where applicable.

06 BIM / MEP PRACTICE

CICH 8222 — College of Civil Engineers of Honduras. Licensed civil engineer.
Electrical and plumbing coordination demonstrated in models, drawings, and in-house automations.
Revit MCP — 48 tools and 23 module families for Revit 2024–2027.
3 pyRevit extensions — Generate Layout · Conduit by Circuit · TypeMark TagAll.

Scope limited by reviewed local evidence.

01 TRACK RECORD (CORE FIGURE)

135 real clients · 2019–2026
7 years of continuous operation · 99 closed · 21 independent · 12 active now

Verified against the client-file index, not estimated.

03 GROWTH

New clients by year: 2019 · 2 — 2020 · 12 — 2021 · 12 — 2022 · 23 — 2023 · 21 — **2024 · 36** — 2025 · 13 — 2026 · 16

02 SERVICE MIX (ACROSS 135 CLIENTS)

SERVICE	CLIENTS	%
Budgets / construction quantities	72	53%
Drawings / technical documentation	69	51%
BIM / Revit / 3D models	36	27%
Site photos / visits / progress	42	31%
Permits / bank / document coordination	**16**	**12%**

SERVICES

01

Electrical coordination in Revit

Circuits, luminaires, conduit, and panels documented within a coordinated model; no load calculation is claimed where no calculation record exists.

02

Plumbing BIM

Potable water, hot water, sanitary, vent, and drainage systems represented as traceable systems in drawings and model.

03

In-house pyRevit automation

In-house tools turn circuit and sanitary-fixture data into routable geometry for review in Revit.

04

BIM → CSI → quantification

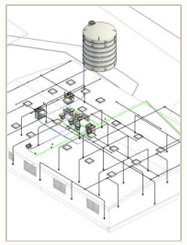
The CSI code follows an element from model to quantity and cost: a verifiable chain, not a decorative label.

05

Constructible documentation

Plans, panels, and CSI specifications communicate technical scope without inventing calculation records or certifications.

01



MEP COORDINATION

TRAINING CENTER — MODEL & DOCUMENTATION

PAGES 2 — 4

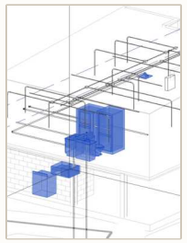
02

CONDUIT BY CIRCUIT

PYREVIT AUTOMATION — ELECTRICAL ROUTING

PAGES 5 — 7

03

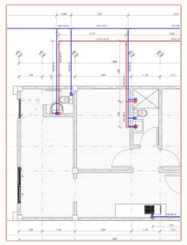


GENERATE PLUMBING LAYOUT

PYREVIT AUTOMATION — PLUMBING LAYOUT

PAGES 8 — 10

04

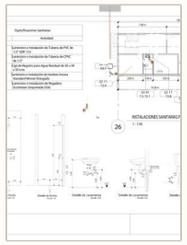


PLUMBING NETWORK

SINGLE-FAMILY RESIDENCE — REVIEWED DOCUMENTATION

PAGES 11 — 12

05



SANITARY INSTALLATIONS

TWO-LEVEL RESIDENCE — CSI SPECIFICATION

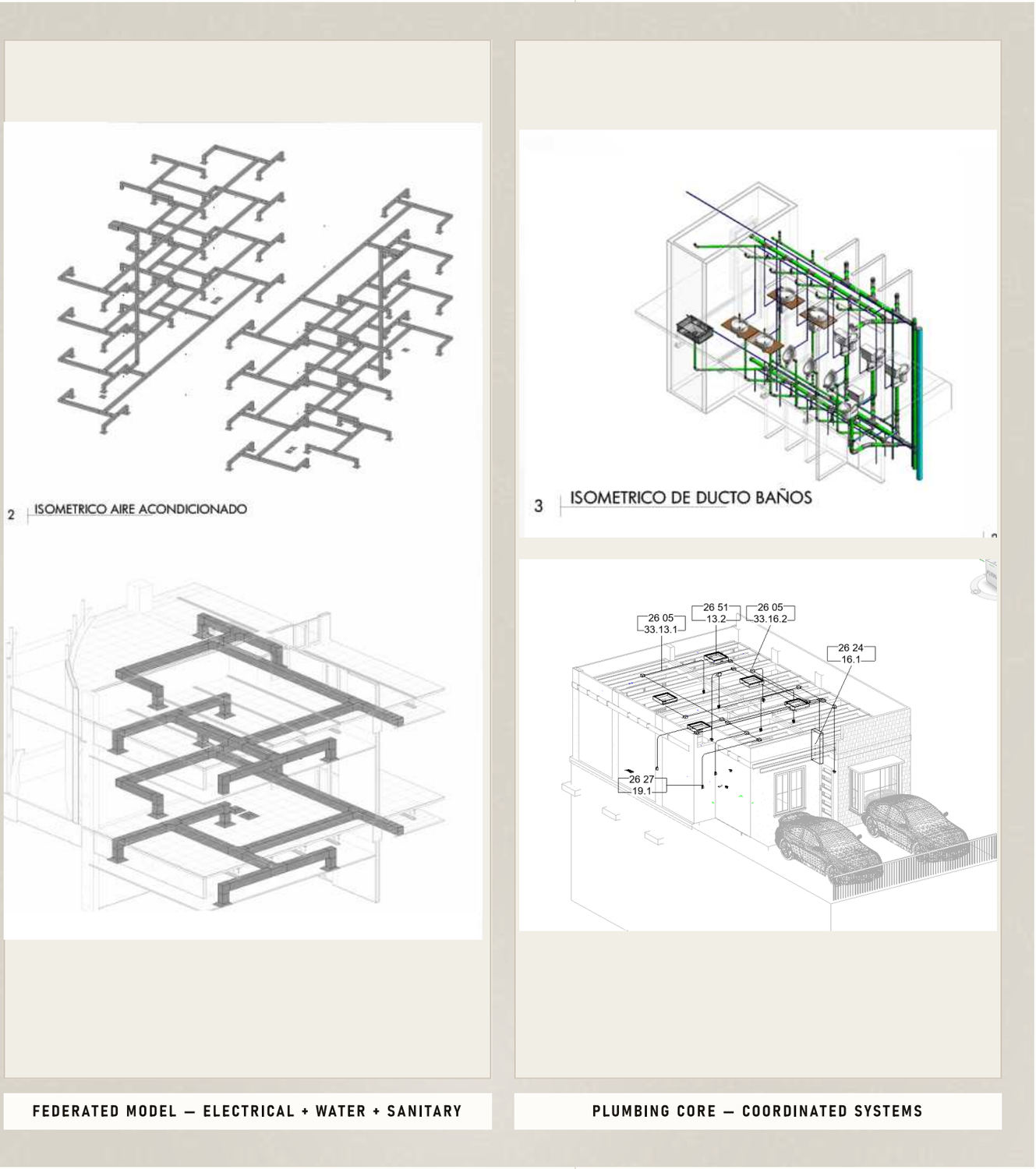
PAGES 13 — 14

CONTENTS

01

MEP COORDINATION

TRAINING CENTER — MODEL & DOCUMENTATION



FEDERATED MODEL — ELECTRICAL + WATER + SANITARY

PLUMBING CORE — COORDINATED SYSTEMS

TECHNICAL SHEET

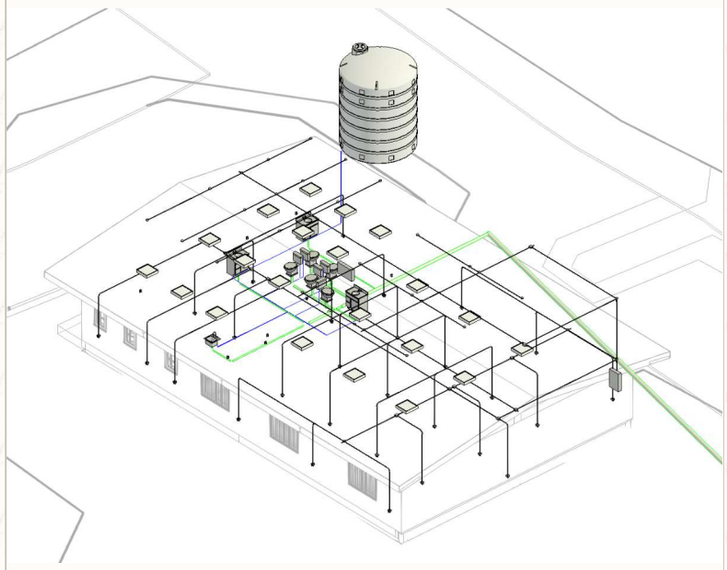
Scope: Built project — Honduras.
Period: 2025–2026.
Role / evidence: Evidence: federated model, MEP sheets, and pyRevit automation..
Capabilities:

CONTEXT & SCOPE

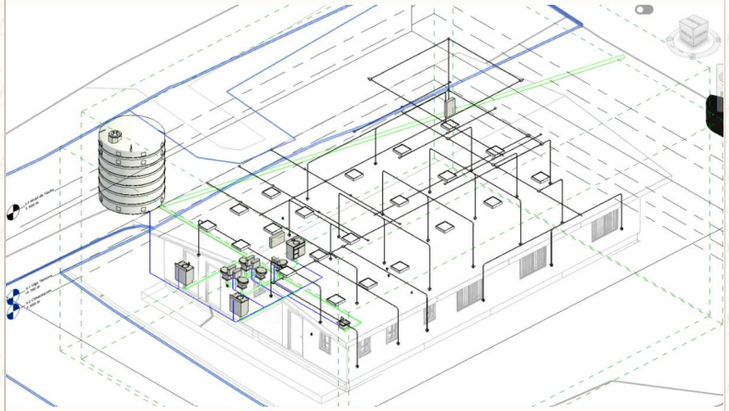
Federated model of electrical and plumbing installations. The visual evidence brings luminaires, conduit, potable water, sanitary systems, and fixtures together in one Revit context. This selection documents model coordination and graphic traceability; it does not present load calculations, calculation records, or certifications.

TECHNICAL DATA

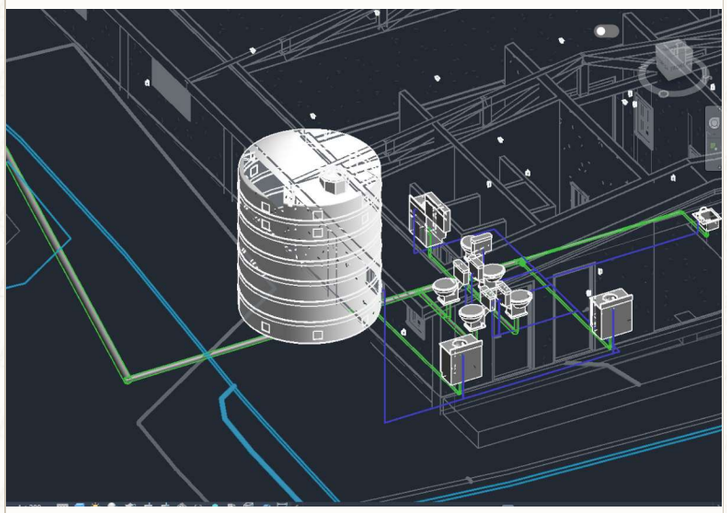
SYSTEMS	**Electrical · potable water · sanitary**
EVIDENCE	**Federated model and coordinated views**
MODEL	**Coordinated Revit**



1 — COORDINATED MODEL



2 — FEDERATED MODEL



3 — PLUMBING CORE

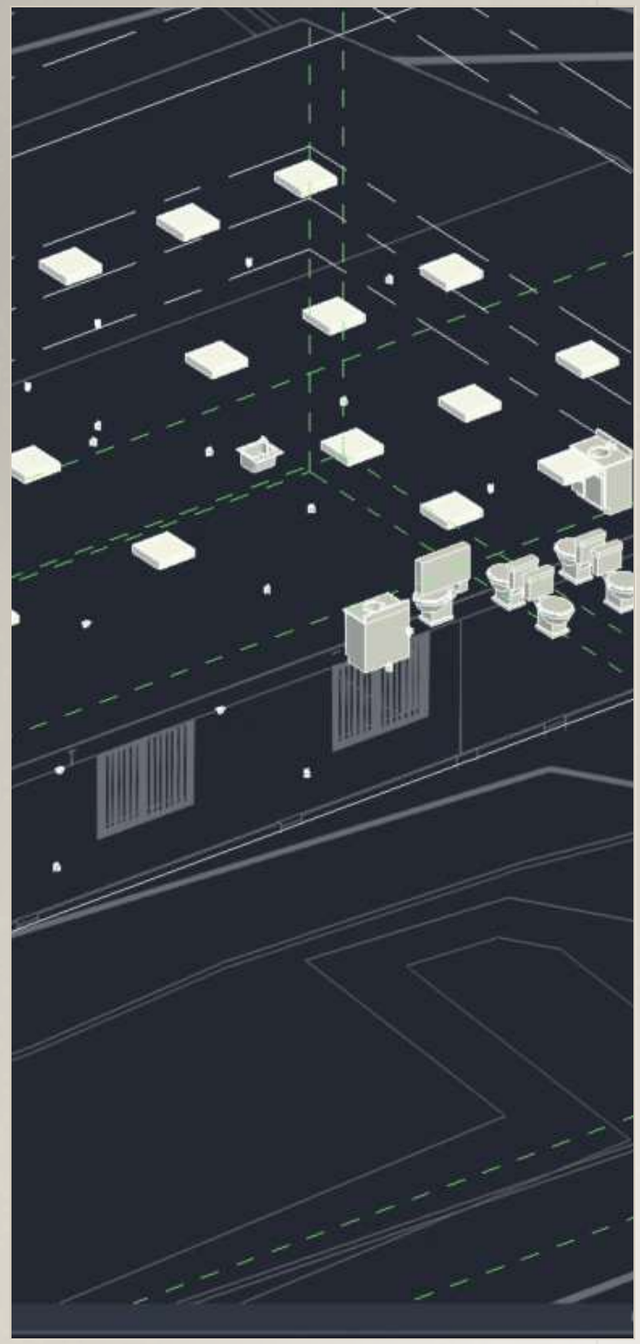
OPERATING THREAD

CSI connects the BIM element with quantity and cost. This evidence does not claim electrical load calculations, hydraulic calculation records, or HVAC design.

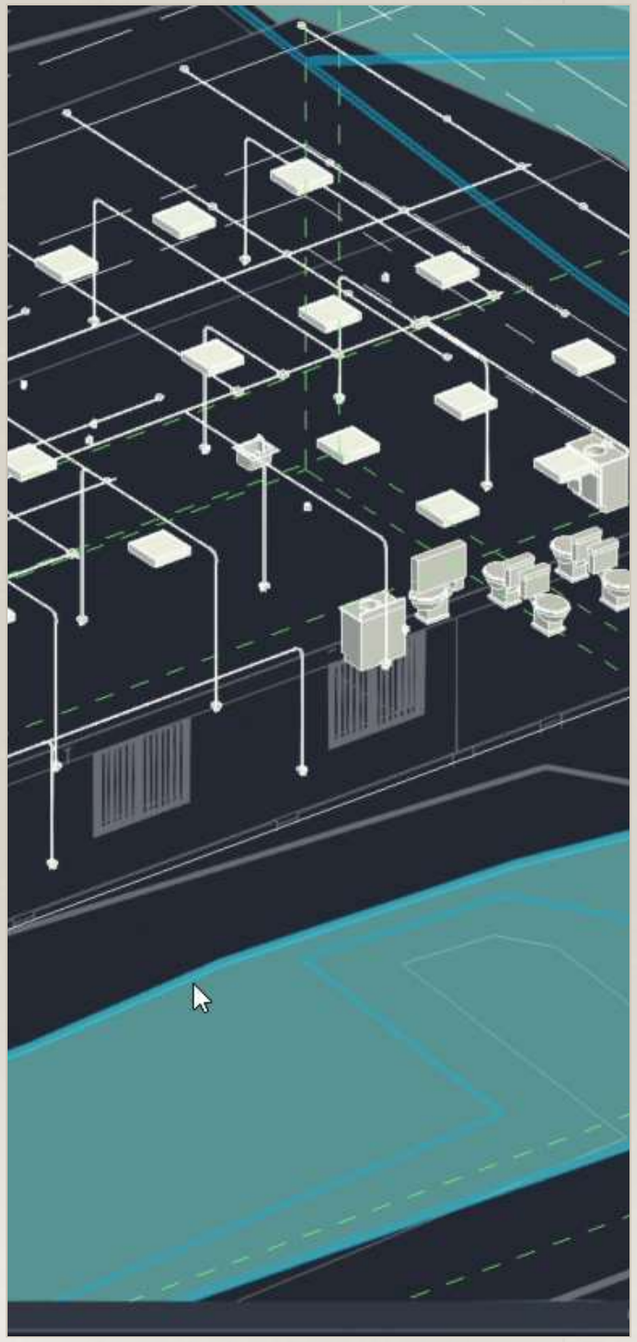
02

CONDUIT BY CIRCUIT

PYREVIT AUTOMATION — ELECTRICAL ROUTING



BEFORE — LUMINAIRES WITHOUT ROUTED CONDUIT



AFTER — ROUTED CONDUIT NETWORK

TECHNICAL SHEET

Scope: Built project model.
Period: 2026.
Role / evidence: In-house pyRevit extension..
Capabilities:

CONTEXT & SCOPE

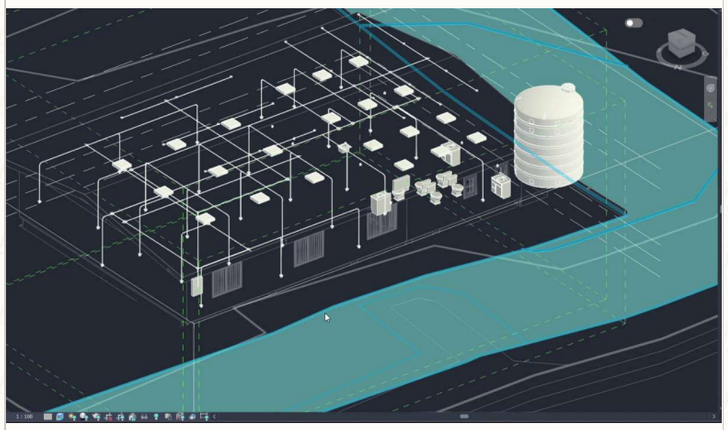
In-house automation that turns circuit relationships into a visible, reviewable conduit network. The documented sequence begins with luminaires without routed conduit and ends with a network that includes drops and connections inside the model.

TECHNICAL DATA

INPUT	**Fixtures and circuit relationships in the model**
OUTPUT	**Reviewable conduit network in Revit**
LIMIT	**Not a load calculation or electrical certification**

1 — RESULT — ROUTED ELECTRICAL NETWORK

2 — INPUT — LUMINAIRES



3 — OUTPUT — CONDUIT

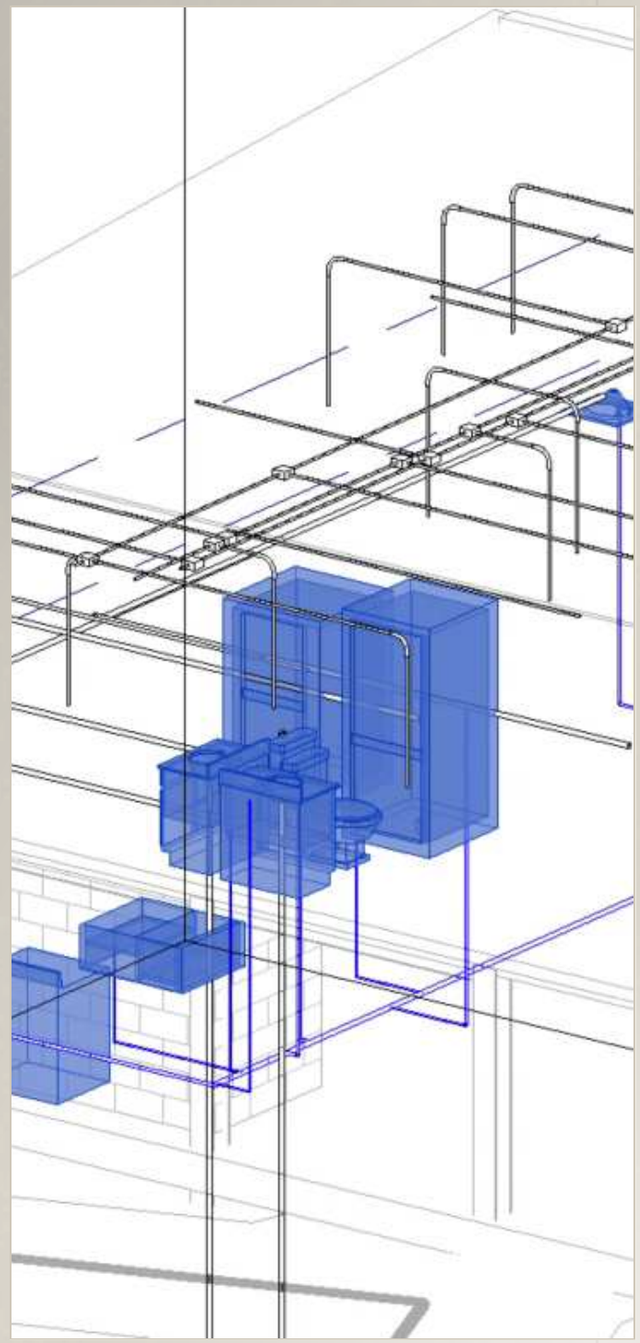
HONEST SCOPE

The tool demonstrates routing and geometry coordination from the circuit. It is not presented as a load calculation or an electrical certification.

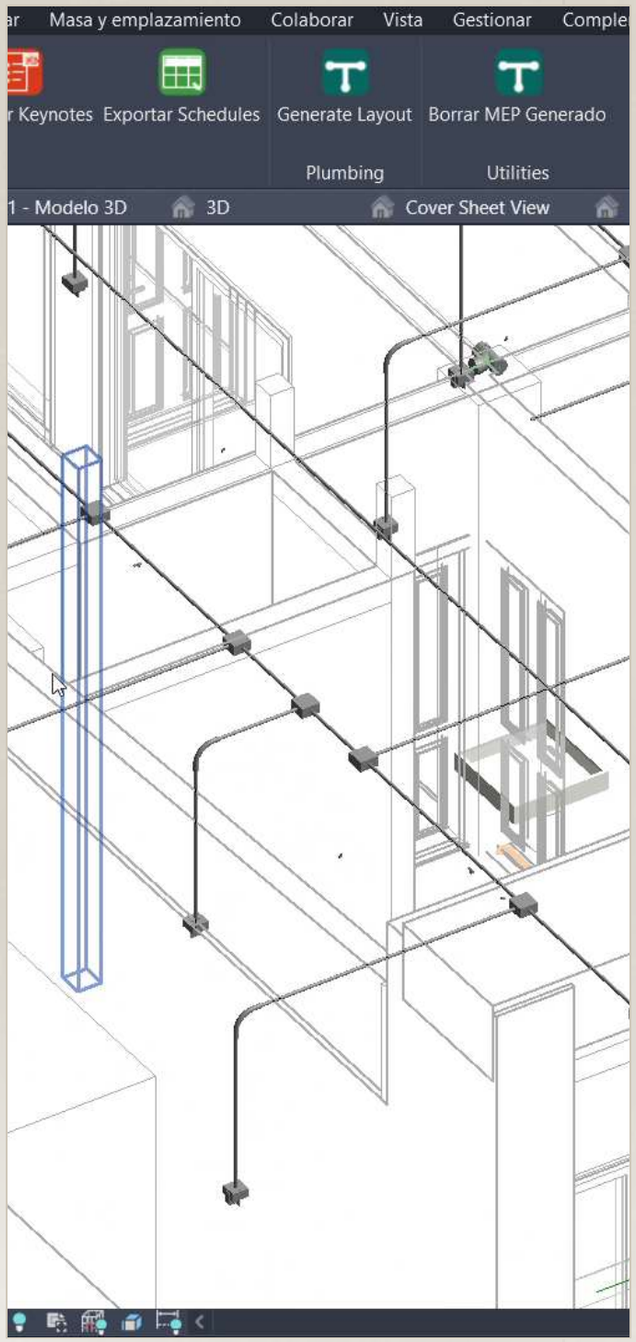
03

GENERATE PLUMBING LAYOUT

PYREVIT AUTOMATION — PLUMBING LAYOUT



ROUTING — LAYOUT GENERATED FROM FIXTURES



MODEL — VISIBLE ROUTES AND CONNECTIONS

TECHNICAL SHEET

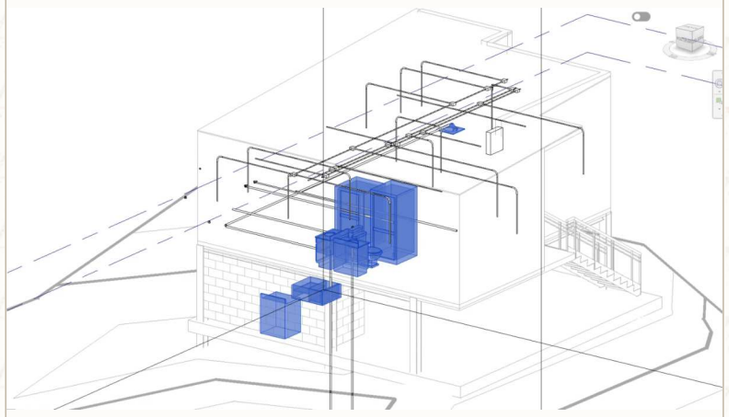
Scope: Built project model.
Period: 2026.
Role / evidence: In-house pyRevit extension..
Capabilities:

CONTEXT & SCOPE

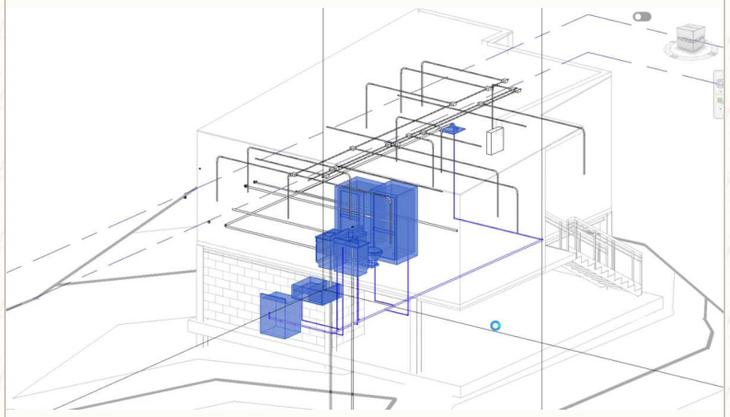
A pyRevit workflow that works from placed sanitary fixtures to generate layout geometry and make the route reviewable inside the model. The evidence shows fixture groups, vertical drops, and visible pipe against the construction context.

TECHNICAL DATA

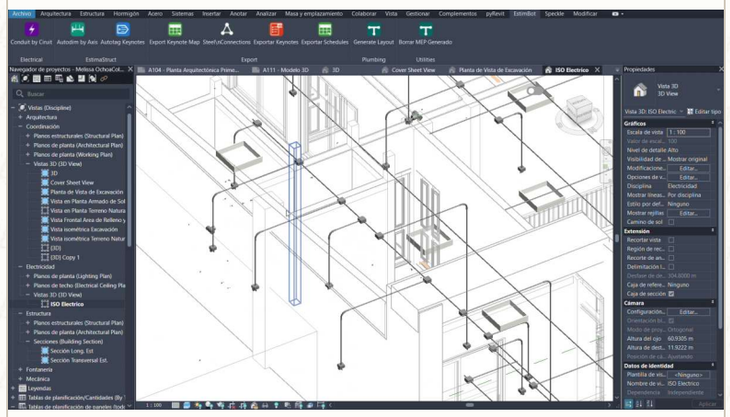
INPUT	**Sanitary fixtures, walls, and levels in Revit**
OUTPUT	**Visible pipe for route and connection review**
LIMIT	**Does not replace hydraulic calculations or diameter selection**



1 — SELECTION AND LAYOUT



2 — ROUTING FROM FIXTURES



3 — ROUTES AND CONNECTIONS

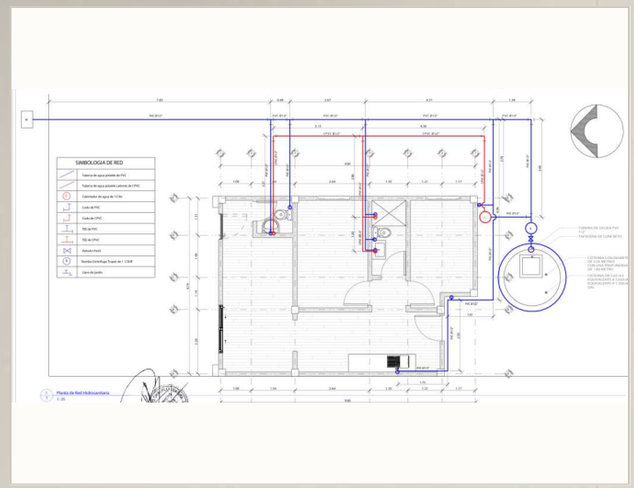
HONEST SCOPE

The evidence supports layout automation and coordination. It does not claim pipe sizing, flows, calculated slopes, or hydraulic compliance.

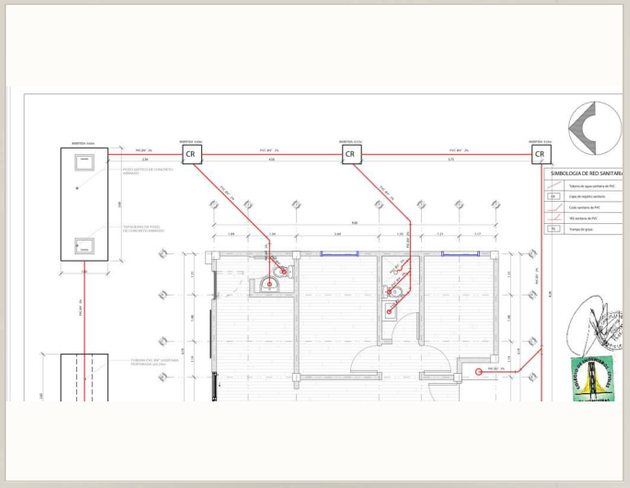
04

PLUMBING NETWORK

SINGLE-FAMILY RESIDENCE — REVIEWED DOCUMENTATION



PLUMBING NETWORK
PVC + CPVC · 5.65 M³ CISTERN · POTABLE AND HOT WATER.



SANITARY NETWORK
PVC Ø2 / Ø4 · 2% SLOPE · INSPECTION BOXES, GREASE TRAP, AND SEPTIC TANK.

TECHNICAL SHEET

Location: Honduras — location withheld.
Period: 2023.
Role / evidence: Reviewed drawings · third-party architectural design..

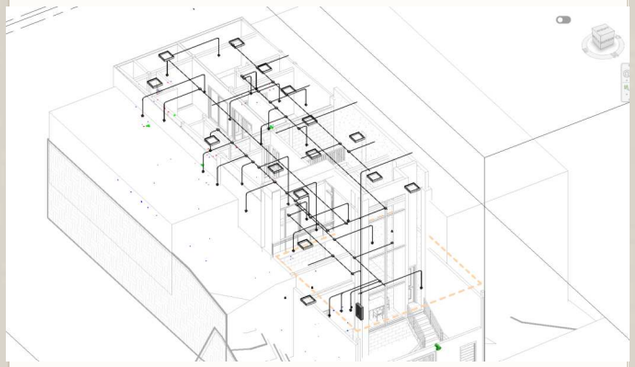
SCOPE

Two plumbing and sanitary-network drawings. The first specifies potable-water PVC Ø1/2, hot-water CPVC Ø1/2, a 1½ HP centrifugal pump, a 151 L water heater, and a 5.65 m³ cistern. The second documents sanitary PVC Ø2 and Ø4, inspection boxes, a grease trap, septic tank, and 2% slope. The evidence documents routing and components; it does not claim hydraulic calculations, sizing, or flow calculation.

05

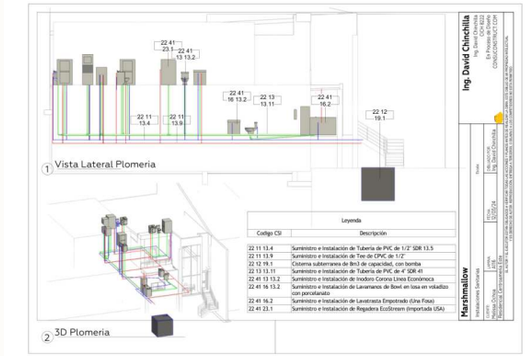
SANITARY INSTALLATIONS

TWO-LEVEL RESIDENCE — CSI SPECIFICATION



LEVEL 1

PVC / CPVC · CSI SPECIFICATIONS, ROUTES, AND FIXTURE DETAILS.



LEVEL 2

CSI · 1,100 L TANK · DRAINAGE, GREASE TRAP, AND SPECIFICATIONS.

TECHNICAL SHEET

Location: Honduras — location withheld.
Period: 2023.
Role / evidence: Evidence of sanitary documentation and CSI sheet · no design authorship claimed..

SCOPE

Level 1 and Level 2 sanitary drawings with CSI specification. The evidence shows PVC 1/2 SDR 13.5 (22 11 13.4), CPVC 1/2 (22 11 13.8), a 50 × 50 × 50 cm inspection box (22 13 53.1), a 1,100 L elevated storage tank, and fixture, drainage, and grease-trap details. The set is presented as evidence of CSI specification and documentation; it does not replace hydraulic calculations.

THE BIM CHAIN

07 BIM → CSI → QUANTIFICATION

The CSI code accompanies an element from model to quantity and cost. It is not a decorative label: it allows the element to be reviewed, the schedule to be cross-checked with its keynote, and traceability to be retained between model, documentation, and budget.

The MEP evidence brings together coordinated Revit models, plans, panels, and CSI specifications. The flow is verifiable where evidence exists; it does not expand into load calculations, flow, sizing, or compliance that the assets do not demonstrate.

What it solves on a job: a quantity born in the model can be reviewed before entering the budget. Coordination does not replace calculation engineering; it makes it auditable where the documented scope permits.

Evidence source: local pyRevit models, drawings, and automations reviewed in 2026.

07C BIM → BUDGET

49%

195 OF 398 ITEMS WITH QUANTITY TAKEN DIRECTLY FROM THE REVIT MODEL

The Revit schedule is cross-checked against each element's CSI keynote, and quantity enters the budget without manual re-entry. This is evidence of BIM quantification; it does not replace electrical or hydraulic calculation records.

TOOLS & SCOPE

08 BUILT TOOLS

TOOL	WHAT IT IS	VERIFIED SCALE
Revit MCP	In-house server for Revit	48 tools · 23 module families · Revit 2024–2027
pyRevit extensions	In-house domain automation	Generate Layout · Conduit by Circuit · TypeMark TagAll
EstimaStruct	**BIM → CSI → quantification chain**	**195 of 398 items with quantity from Revit**

09 MEP COORDINATION

Coordinated Revit models for electrical and plumbing systems.
Selected evidence: model views, documentation, and local automations reviewed in 2026.
In-house automation: reviewable conduit geometry and layout from circuit relationships and sanitary fixtures.

04 EVIDENCE LIMITS

This portfolio documents electrical and plumbing coordination, BIM documentation, and pyRevit automation. **It does not claim electrical load calculations, hydraulic calculation records, HVAC design, or certifications** that the reviewed assets do not prove.

Third-party drawing title blocks are presented as reviewed documentation, not as design authorship.

10 DELIVERY PATH

Coordinated model → constructible documentation → CSI → quantification → budget.
The chain is presented only as far as the evidence reaches. Authorship, location, and responsibility remain within the scope that the title block or asset actually supports.

CONSUCONSTRUCT

MEP · BIM · CSI · AUTOMATION

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