caddy.

Strategic AI Audit

Wrenfield Civil & Utility

Heavy civil and underground utilities general contractor · Greeley, Colorado · 190 people

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AUDIT SESSION
October 26, 2026

REPORT DELIVERED
November 6, 2026

PREPARED BY
the Caddy team

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Sample report. Wrenfield Civil & Utility is a made-up business: the company, its people, its numbers and its quotes are invented to show what a Strategic AI Audit report contains. The software facts are real and dated. Nothing here is a result or a promise for your business.

SECTION 1

The summary

Of the 243 hours a week your team spends on repeat work, about 65 can stop without asking a foreman to type anything new, most of it copying and chasing numbers between HeavyJob, Sage, LCPtracker and spreadsheets.

65 hours

a week of repeat work the new system can take over, across 13 roles

calculated from your numbers: the 14 deliverables in section 5 add to 65, each with its own hours; about a quarter of the 243 repeat-work hours a week in section 2

$201,500

a year of staff time put back on the work each role was hired for

calculated from your numbers: 65 hours × 50 weeks × $62, the loaded hourly rate you told us for office and field-management staff

Week 1

of your engagement, the first win: a daily list of missing and miscoded HeavyJob time cards, in payroll's inbox

the roadmap in section 8; it needs a read-only access key for HeavyJob, created by your HCSS administrator once HCSS has enabled the read scope, and the two accounts added in section 7

WHAT YOU TOLD US THIS HAS COST YOU

$41,000	A scope exclusion missed on a lift station bid last year. *you told us*
$38,400	Two repairs this year after missed services: a final drive on an excavator and a turbo on a loader. *you told us*
	A CDOT pay estimate held for 19 days in June while a rejected certified payroll was fixed and recertified. *you told us*
	A dozer rented for nine days in July while one of your own sat idle at a finished job. *you told us*
	A transposed figure in the WIP workbook last spring that overstated one job's margin by two points. *you told us*

Confirmed **5** systems Bridge **2** systems Replace **2** systems

What we recommend

We recommend four phases, starting where the hours and the risk are both highest: payroll, certified payroll and locate tickets. HeavyJob, HeavyBid, Procore, Microsoft 365 and Samsara connect directly through their own supported interfaces, while Sage 300 and LCPtracker are bridged: the new system reads the data the ways the vendors support and prepares files that a person imports, uploads and certifies. The equipment maintenance workbook and the locate ticket sheet are replaced by lists inside the Microsoft 365 you already pay for, unless you choose HCSS's own modules for them (section 6). You pick from the ranked list, and the Caddy team builds what you pick through your engagement.

The five builds that matter most

1. **Daily time card check** 5 hours a week back, $15,500 a year
2. **Locate list with update alerts** 4 hours a week back, $12,400 a year
3. **Certified payroll upload files** 8 hours a week back, $24,800 a year
4. **Bid invitations straight into the bid list** 3 hours a week back, $9,300 a year
5. **Subcontractor payroll tracker** 2 hours a week back, $6,200 a year

Phase 1, the first three months. The rest of the list is in section 5.

What cannot be done today

- Nothing is written into Sage by the new system: Sage's read connection must never write, and Sage's API opens only to development partners. What goes in goes through Sage's own import screens, run by your people, or Procore's own connection if you turn it on.
- No machine uploads to or certifies in LCPtracker. It takes files, not connections. The new system builds and checks the file; your payroll team uploads and certifies.
- Colorado 811 offers no feed of your tickets. They are submitted, updated and checked in its own system; the new system reads the confirmation emails it sends.
- Production history cannot flow from HeavyJob back into HeavyBid until your chief estimator realigns the activity codes that drifted in 2021.

What we need from you first

1. Have your HCSS administrator create a read-only access key for HeavyJob, once HCSS has enabled the read scope for your account, so the daily time card check runs in week 1.
2. Give us a read-only Sage user on the Windows computer where Sage is installed (your office has one). That is the way Sage supports reading its data, and it lets certified payroll files be built from the payroll you already post.
3. Decide whether locate tickets live in a new list or in HCSS's own dig permits log.
4. Ask your Sage reseller to install Sage SQL Replicator 2.0 in the build Sage ships for your version 24.2, on a SQL Server instance on your accounting server. It keeps a live reporting copy of your job cost and payroll, and it does not wait for an upgrade. Upgrade Sage on your own calendar.
5. Decide whether to turn on Procore's own Sage connection for commitments. It needs a small Procore program on your Sage server and a named accounting approver, and Procore's own page says bringing jobs already in progress into it carries an additional fee.

BEFORE YOU GO ON

How to read this report

Start with section 1: the finding, the three numbers, the five builds that matter most, what cannot be done today and what we need from you first. Section 5 is the ranked list you pick from. Sections 2 to 7 show the evidence, system by system and workflow by workflow, and sections 8 to 11 turn it into a plan with owners, gates and a written scope. Every number shows where it came from in small type beside it. In this report, the new system means what the Caddy team builds for you, in your own accounts.

Every system gets one path

Confirmed	We read the vendor's own developer documentation on the date shown and know what we can read and write on your plan.
Bridge	No usable connection, but a documented import, export or database view. We prepare the file or read the data; a person posts it.
Replace	It cannot do the job or give us a way in. We recommend a replacement in your own accounts, move the data once and you stop using the old tool.

Other paths a system can get, none needed here: **Plan gate**, works, but only on a named plan, add-on or commitment; **Partner program**, the vendor opens access only to approved partners or to an app you register yourself; **To confirm**, named in the audit but not checked yet.

Every deliverable gets one status

Ready now	Can start in the first weeks with what you already have.
Next	Starts once the first wins are running.
Later	Worth doing; waits on something earlier in the plan.
Needs a decision	Waits on a choice only you can make.

Where every number comes from

Each figure carries its source in small type beside it: *you told us* (the intake or the session), *your department head's figure* (given in the session), *measured* (we watched it on screen with you), *estimated* (what we expect back, from those figures), *calculated from your numbers* (the math is shown), or a vendor's own page with the date we read it. A number nobody gave us stays blank and becomes a question.

You own everything

Everything we build lives in your own accounts: your Microsoft 365, your HCSS and Samsara accounts, and your Sage server. You owe Caddy no rent to keep using any of it. Every access key is created by your administrators inside your own accounts, and you can revoke any of them at any time. A person on your team approves anything that touches money, payroll or a signature.

SECTION 2

Where you stand

Wrenfield runs good software in the right places. The waste sits in the gaps between those systems, where capable people retype, reconcile and chase.

Wrenfield Civil & Utility builds water and sewer mains, storm drainage, lift stations, site development and road widening across northern Colorado. You told us you did about $72 million in revenue last year, with a backlog of about 14 months, and that about 55 percent of revenue is public work for CDOT, two counties and four cities, so prevailing wage and weekly certified payroll apply on 14 of your 38 active jobs today. Estimating lives in HCSS HeavyBid, field time and quantities in HCSS HeavyJob, accounting and payroll in Sage 300 on your own server, project paperwork in Procore, and email and files in Microsoft 365. Samsara gateways sit on 76 trucks and larger machines (you told us). The field side works: foremen enter time and quantities every day and you trust the numbers. The office side is where the hours go, and nearly every hour we found is a person copying a number that already exists in another system.

The team by role

ROLE	PEOPLE	HOURS A WEEK, EACH	REPEAT-WORK HOURS A WEEK, EACH	WHAT FILLS THE WEEK
Owner and president	1	60	4	Key bids, bank and surety, Monday status calls.
Chief financial officer	1	50	4	Cash, bank, surety, insurance, the WIP review.
Controller	1	50	12	Month-end close, the WIP workbook, job cost reports.
Project accountant	1	45	9	New jobs and budgets in Sage, pay applications.
Payables and billing clerks	3	42	10	Invoices, commitments retyped from Procore, waivers.
HR and payroll	3	45	8	A manager and two administrators: payroll, LCPtracker.
Chief estimator and estimators	4	52	7	Takeoffs, HeavyBid estimates, quotes, bid day.
Operations manager	1	55	8	Crews and iron across 38 jobs, time card approvals.
Project managers	6	50	6	Procore RFIs, submittals, changes, cost to complete.

ROLE	PEOPLE	HOURS A WEEK, EACH	REPEAT-WORK HOURS A WEEK, EACH	WHAT FILLS THE WEEK
Superintendents	9	55	3	Two to five jobs each, agency daily reports, locates.
Field coordinator	1	45	12	Colorado 811 locate tickets, lowboy and truck dispatch.
Safety director	1	50	3	Training, site audits, incident reports, meetings.
Foremen	22	55	1	Crews; time, quantities and diaries in HeavyJob.
Equipment manager	1	50	10	About 210 owned units, services, rentals, buying iron.
Shop foreman and mechanics	7	50	2	Services and repairs, written on paper work orders.
Operators, pipe layers, laborers, drivers	128	45	0	The work itself. This plan asks them to type nothing.

team and department figures: you told us (the intake and the session); repeat-work hours are per person, each department head's own figure given in the session

Each department today

Estimating

Four estimators bid about nine jobs a week in season, mostly public. Pricing is strong. The waste is a separate bid log, about 40 quote emails on a bid morning, and production rates that never come back from HeavyJob in usable form.

Operations and field

Twenty-two foremen enter time, quantities and a diary in HeavyJob every day, and the numbers are good. Superintendents rewrite much of it in a Word report for agency inspectors, and locate tickets live in one person's spreadsheet.

Project management

Six project managers run RFIs, submittals and change orders in Procore, and your owners like it. Commitments written in Procore are typed again into Sage, and cost to complete is done in pen on printed reports.

Accounting

Sage 300 on your own server holds job cost, payables, receivables, the ledger and payroll. Month end takes the controller about three days, mostly building the WIP workbook by hand.

HR and payroll

Weekly payroll for about 165 hourly people runs from HCSS's export into Sage, and that works. Certified payroll for 14 jobs is retyped into LCPtracker every week, and one city still wants the WH-347 by email.

Equipment and shop

About 210 owned units, 76 with Samsara gateways. The service schedule is an Excel workbook on the shop PC, hours are copied in weekly, and work orders are on paper. Two missed services this year became major repairs, about $38,400 together.

Safety

The safety director runs training and audits. Locate compliance is the biggest worry: in August a crew dug on a ticket that had expired four days earlier, and nobody knew until the safety director checked.

Leadership

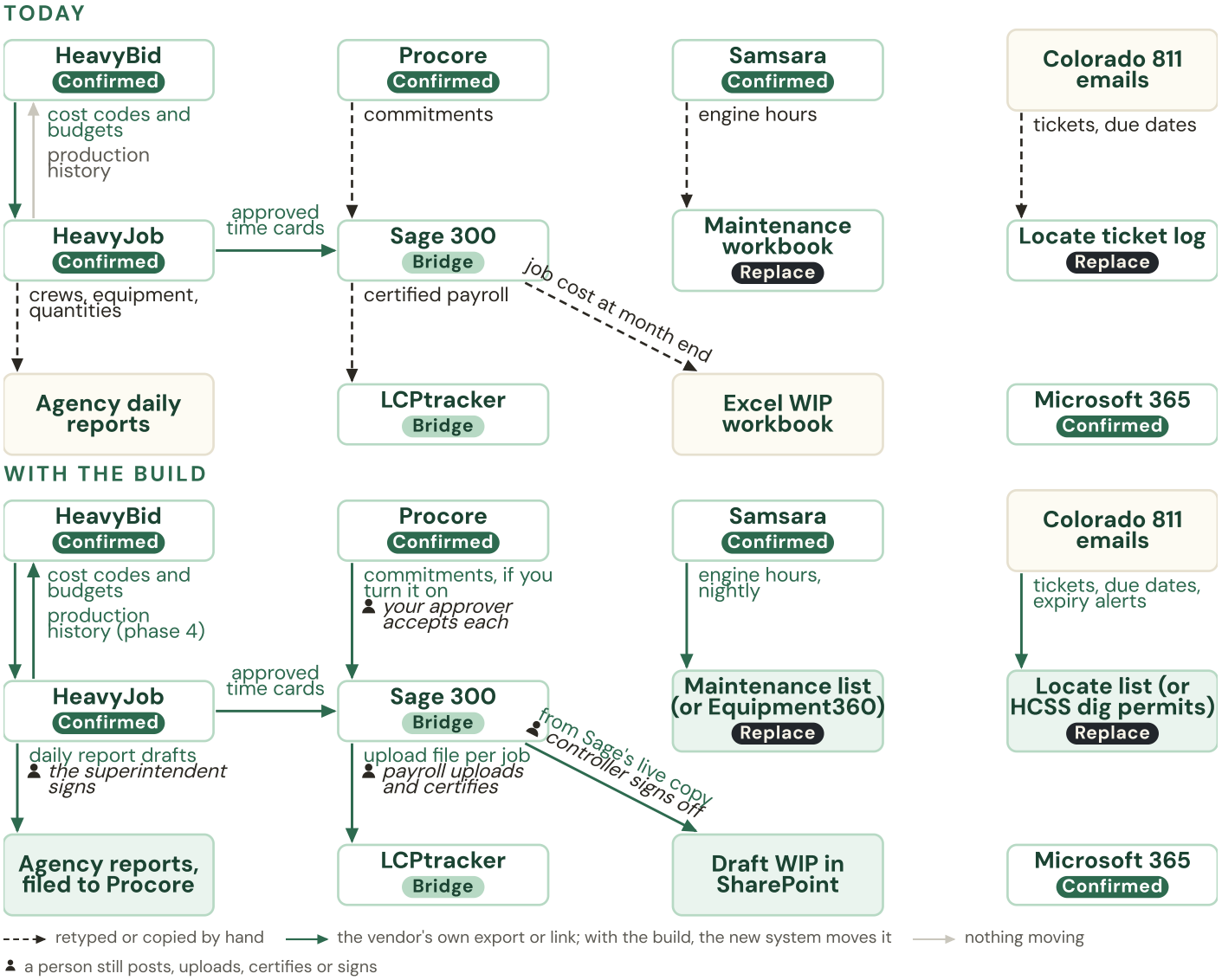
The owner and CFO see the business through the WIP, about three weeks after month end; the bank and surety see it quarterly, and each copy is rebuilt by hand. In between, the owner calls around on Monday to learn how jobs stand.

SECTION 3

Your systems

We walked through nine systems with your team in the session and checked each one on the vendor's own pages, on the dates in the appendix. Five are Confirmed, two are bridged by files, and two are spreadsheets we recommend replacing.

What feeds what



SYSTEM AND WHAT IT DOES	PLAN AND VERSION	MONTHLY COST	PATH	HOW THE DATA MOVES	CHECKED
Sage 300 Construction and Real Estate Accounting, job cost, payables, receivables, ledger, payroll and equipment cost.	Subscription with Sage support (you told us) Version 24.2 on your own server (you told us) · Desktop	$2,415 not published; you told us	Bridge	Reads: Sage supports its read connection with Microsoft Office only, set up as a 32-bit link on the Windows computer where Sage is installed. So the new system reads Sage through saved Excel reports on that computer, and from a live reporting copy once your reseller installs Sage's SQL Replicator for your version. Writes: only through Sage's own import screens, or through Procore's own connection if you turn it on. Sage's API needs a key Sage gives only to development partners, so the plan does not use it.	2026-10-20
HCSS HeavyBid Estimating and bidding, with Pre-Construction for the bid list.	Advanced, 4 seats, with Pre-Construction (you told us) Desktop, synced to HCSS · Both	$1,140 not published; you told us	Confirmed	HCSS's APIs: one reads estimates, bid items, activities and resources; another reads and writes the Pre-Construction bid list. Your HCSS administrator creates the access key and chooses what it may touch.	2026-10-20
HCSS HeavyJob Time cards, quantities, equipment hours, diaries and forecasts.	31 field and office users (you told us) HCSS Field app and web · Cloud	$2,630 not published; you told us	Confirmed	HeavyJob's API reads time cards, hours, equipment hours, quantities, diaries and forecasts. Reading and writing are separate permissions: we start read only and ask for writing only when a build needs it. HCSS's own export already sends approved time to Sage.	2026-10-20
Procore RFIs, submittals, drawings, change events and commitments.	Annual fee ÷ 12, unlimited users (you told us) Current release · Cloud	$4,180 not published; you told us	Confirmed	Procore's API, through an app we register and your Procore admin installs and approves, plus messages Procore sends the moment a record is created, changed or deleted. Procore also offers its own Sage 300 connection, which runs through a small Procore program on your Sage server; you do not use it today.	2026-10-20
Microsoft 365 Email, calendars, Teams, SharePoint files, Excel and Lists.	Business Standard, 96 seats (you told us) Current release · Cloud	$1,344 calculated: 96 seats × $14.00	Confirmed	Microsoft's API covers mail, calendars, files, SharePoint lists, Teams and Excel in one place. Your IT provider approves each permission. Seat price $14.00 on Microsoft's page, read 2026-10-20.	2026-10-20
Samsara Location, engine hours, fuel and fault codes for trucks and larger machines, including OEM data from some Cat and Komatsu units.	76 gateways plus OEM data (you told us) Cloud dashboard · Cloud	$2,290 not published; you told us	Confirmed	Samsara's API, plus messages Samsara sends when something changes. The access key is made in the Samsara dashboard and limited to reading engine hours, location and fuel.	2026-10-20
LCPtracker Certified payroll and prevailing wage reporting that CDOT and two cities require.	Logins issued by each agency (you told us) Web · Cloud	$0 you told us	Bridge	Upload files: LCPtracker's Excel template, no more than 200 payroll records a file, or a supported payroll format. LCPtracker's contractor help describes uploads, not an API. A person uploads and certifies.	2026-10-20

SYSTEM AND WHAT IT DOES	PLAN AND VERSION	MONTHLY COST	PATH	HOW THE DATA MOVES	CHECKED
Equipment maintenance workbook and paper work orders Service intervals and history for about 210 owned units.	Workbook, paper pads, an unused app Since 2017 (you told us) · Desktop	$189 you told us	Replace	Nothing moves on its own. Hours are typed in weekly from Samsara, and work orders sit on paper in a cabinet. Replaced by Microsoft Lists, fed by Samsara and HeavyJob.	2026-10-20
Locate ticket log Tracks Colorado 811 tickets: due dates, expiry, positive response.	Excel sheet and a whiteboard Since 2019 (you told us) · Desktop	$0 you told us	Replace	Typed by hand from Colorado 811's confirmation emails, with dates as free text and one reader. Replaced by a Microsoft List filled from those emails, with update alerts.	2026-10-20

SECTION 4

Workflow teardowns

Six workflows hold the repeat work we can take off your team. For each one you will find how it runs today, in your department heads' own figures; where it breaks; how it runs with the build; and the hours it gives back. Together they account for the 65 hours in section 1. The rest of the 243 hours stays with your people for now.

1. Bid to award

Owner: Chief estimator

Today

1. Bid invitations arrive by email from plan rooms, agencies and general contractors. An estimator reads each one and types it into the bid log workbook.
   Estimators · about 3 hours a week, nine invitations
2. The chief estimator picks the jobs to chase in the Monday bid meeting, from a printed bid log.
   Chief estimator · 1 hour a week
3. Takeoff and pricing in HeavyBid.
   Estimators · the core work; not counted here
4. Subcontractor and supplier quotes arrive by email, most in the last 24 hours. An estimator opens each one, retypes the numbers into a comparison sheet and then into HeavyBid.
   Estimators · about 6 hours a week in season
5. Bid results come from the agency's bid tab. Someone updates the bid log when they remember.
   Estimators · about 30 minutes a week
6. Crew production rates are set from memory and old estimates. HeavyJob actuals are pulled by hand for the biggest activities only.
   Chief estimator · about 3 hours a week

With the build

1. The new system reads each invitation in the estimating mailbox and adds the project to HeavyBid Pre-Construction with its due date, owner and a link to the documents.
   The new system; the chief estimator approves the go list
2. Each quote email is filed under its bid as it lands and summarized into one comparison sheet, with inclusions and exclusions flagged against your scope.
   The new system; estimators check and choose
3. Estimators key the chosen numbers into HeavyBid, as today.
   Estimators
4. After the bid opening, the new system records the tab and the result against the project.
   The new system
5. Once a month the chief estimator gets estimated against actual production for every activity that ran, read from HeavyBid and HeavyJob.
   The new system; the chief estimator decides what changes

Where it breaks

- The bid log is a separate workbook, so it and HeavyBid Pre-Construction disagree and nobody fully trusts either.
- Bid morning brings about 40 quote emails on a mid-size bid (you told us). A missed scope exclusion on a lift station cost you about $41,000 last year (you told us).
- HCSS can bring HeavyJob production history back into HeavyBid, but only when the historical activity codes match, and yours have drifted since 2021 (you told us).
- Results are not captured consistently, so your hit rate by agency and by type of work is a guess.

12 hours a week back

estimated from your department heads' figures in the session: 3 hours of logging, 6 of quote handling and 3 of production lookups

HCSS HeavyBid **Confirmed**
HCSS HeavyJob **Confirmed**
Microsoft 365 **Confirmed**

2. Award to job setup and budget

Owner: Controller

Today

1. The chief estimator conforms the winning estimate and sends cost codes and budgets to HeavyJob.
   Chief estimator · 1 to 2 hours a job; this part works
2. The project accountant sets up the job, cost codes and budget in Sage by hand, from a printed HeavyBid report.
   Project accountant · about 3 hours a job, about one award a week
3. The project manager creates the Procore project and its budget codes again.
   Project managers · about 1 hour a job
4. Subcontracts and purchase orders are written and signed in Procore, then retyped into Sage.
   Accounts payable clerks · about 3 hours a week
5. Cost code mismatches surface weeks later as cost posted to the wrong line.
   Controller · cleanup at month end

With the build

1. When a bid is marked won, the new system compares the HeavyJob cost codes with your Sage code list and flags every mismatch before anything is set up.
   The new system
2. The new system prepares the Sage Job Cost estimate import file from the conformed estimate. The project accountant reviews it and runs the import.
   Project accountant
3. The new system creates the Procore project and maps its cost codes to your Sage code list. Codes are always created in Sage; once Procore's Sage connection is on, they flow from Sage into Procore.
   The new system; the project manager checks
4. If you decide yes, commitments move from Procore to Sage through Procore's own integration, after your accounting approver accepts each one.
   Accounting approver

Where it breaks

- Three setups of the same job make three code lists. One code typed differently in Sage sends cost to the wrong line until month end.
- Commitments typed twice mean Procore and Sage disagree on committed cost until someone reconciles them.
- Procore offers its own Sage 300 connection for jobs, cost codes, commitments and job cost, but it needs a small Procore program on your Sage server and an accounting approver, and nobody has decided to turn it on.

7 hours a week back

estimated from your department heads' figures in the session: about 4 hours of setup on one award a week, plus 3 hours of commitment entry

HCSS HeavyBid **Confirmed**
Sage 300 **Bridge** Procore **Confirmed**

3. Field time, production, daily reports and locates

Owner: Operations manager

Today

1. Foremen enter time, quantities and a short diary in HeavyJob on a tablet each day.
   Foremen · about 10 minutes a day; this part works
2. Monday morning, payroll finds missing, unapproved and miscoded time cards and calls superintendents to fix them before the export.
   Payroll administrators and the operations manager · about 5 hours every Monday
3. On public jobs where the agency wants its own daily report, superintendents copy crews, equipment and quantities out of HeavyJob into a Word report for the inspector.
   Superintendents · about 6 hours a week across the nine superintendents
4. Superintendents ask the field coordinator for locates. The coordinator submits each ticket in Colorado 811's system and types the confirmation into the locate sheet.
   Field coordinator · about 6 hours a week
5. Before a crew digs, the coordinator checks the sheet and the positive responses by hand and calls the superintendent if a ticket is close to expiring.
   Field coordinator · about 2 hours a week; nobody covers when the coordinator is out

With the build

1. Foremen keep entering time, quantities and diaries in HeavyJob exactly as today.
   Foremen
2. Every morning at 6, the new system reads yesterday's HeavyJob time cards and sends each superintendent a short list: missing, unapproved, wrong cost code, or a pay class that does not match the job's wage decision. Whatever is still open escalates to the operations manager the same morning.
   The new system; superintendents fix it the same day
3. For public jobs, the new system drafts the agency daily report from the HeavyJob diary, crews, equipment and quantities, and files it to Procore's daily log once the superintendent signs it.
   The new system; the superintendent reviews and signs
4. Colorado 811 confirmation emails go to one locate mailbox. The new system adds each ticket to the locate list with its due date and expiry, and posts the tickets that need an update five business days before the deadline.
   The new system; the field coordinator updates tickets in Colorado 811's system
5. Before digging, positive response is still checked, as Colorado law expects.
   The field coordinator, with the foreman

Where it breaks

- Time card problems are found on Monday, after the week is over, so each fix depends on a foreman remembering what happened last Tuesday.
- On prevailing wage jobs, a wrong pay class on a HeavyJob time card flows into Sage and then into certified payroll, where an agency rejects it weeks later.
- The superintendent's daily report repeats what the foreman already entered in HeavyJob.
- Colorado 811 locate marks are valid for 30 days from the ticket's due date or until they are no longer visible, and the ticket must be updated at least two business days before that. The sheet cannot warn anyone, and in August a crew dug on a ticket four days past expiry (you told us).

15 hours a week back

estimated from your department heads' figures in the session: 5 hours of Monday cleanup, 4 hours of locate logging and checking, and 6 hours of daily report copying across nine superintendents

HCSS HeavyJob **Confirmed**
Procore **Confirmed**
Microsoft 365 **Confirmed**
Locate ticket log **Replace**

4. Equipment and maintenance

Owner: Equipment manager

Today

1. Every Monday the equipment manager reads engine hours off the Samsara dashboard and types them into the maintenance workbook.
   Equipment manager · about 2 hours a week
2. Machines without a gateway get hours from foremen by text, or not at all.
   Equipment manager · about 1 hour a week
3. The workbook's colors show what is due, and the equipment manager prints a due list for the shop foreman.
   Equipment manager · about 1 hour a week
4. Mechanics write work orders on paper. The shop foreman keys parts and hours into the workbook on Friday, when there is time.
   Shop foreman and mechanics · about 4 hours a week together
5. Idle owned equipment is checked only when someone asks why a rental was ordered.
   Equipment manager · about 2 hours a week of one-off checks

With the build

1. Each night the new system reads engine hours from Samsara, and HeavyJob equipment hours for units without a gateway, and updates each unit in the maintenance list.
   The new system
2. The shop foreman gets a due-soon list every morning, ranked by hours to service and by which job the machine is on.
   The new system; the shop foreman schedules
3. Mechanics open and close work orders on a phone form: unit, hours, problem, parts, labor and photos.
   Mechanics; about the same time as the paper pad
4. Every Monday the equipment and operations managers get the owned units idle more than three days.
   The new system; the operations manager decides the moves

Where it breaks

- Hours are up to a week old when they are typed, so a machine can pass its service interval and keep working for days before anyone sees it.
- Two missed services this year ended in a final drive on an excavator and a turbo on a loader. You put the two repairs at about $38,400 together (you told us).
- Paper work orders leave no cost history by unit when you decide to keep, rebuild or sell a machine.
- You rented a dozer in July while one of your own sat idle at a finished job for nine days (you told us).

9 hours a week back

estimated from your department heads' figures in the session: 5 hours of the equipment manager's week and 4 hours of shop paperwork

Samsara Confirmed · HCSS HeavyJob Confirmed · Microsoft 365 Confirmed · Maintenance workbook Replace

5. Cost to complete and the monthly WIP

Owner: Controller, with the chief financial officer

Today

1. After close, the controller exports job cost by cost code from Sage to Excel for each of 38 jobs.
   Controller · about 8 hours a month
2. Each project manager marks up printed reports with cost to complete, using HeavyJob quantities and pending changes in Procore.
   Project managers · about 4 hours each a month
3. The controller types the project managers' numbers into the WIP workbook and reconciles it to the general ledger.
   Controller · about 14 hours a month
4. The CFO prepares the review and walks the owner through over and under billings and fade.
   Chief financial officer and owner · about 4 hours a month
5. Between WIPs, the owner and operations manager call superintendents and project managers for status.
   Owner and operations manager · about 3 hours a week

With the build

1. The new system reads job cost from the live reporting copy of Sage, plus HeavyJob installed quantities and forecasts and Procore's pending changes.
   The new system
2. Each project manager gets a prefilled cost-to-complete sheet that shows only the cost codes where cost, quantity and forecast disagree.
   Project managers confirm or change
3. The new system assembles the draft WIP workbook in your SharePoint, with every figure traced to its source. Nothing is posted to Sage.
   The new system; the controller reviews and signs off
4. Every Monday the owner, the chief financial officer and the operations manager get one page per job: production against budget, open changes, locates near expiry and overdue services.
   The new system

Where it breaks

- The WIP is ready about three weeks after month end, so fade on a job shows up a month late.
- Percent complete comes from cost, not from the installed quantities HeavyJob already holds, so front-loaded jobs look healthier than they are.
- Typing project manager numbers into the workbook invites errors. Last spring a transposed figure overstated one job's margin by two points (you told us).
- Your surety and your bank each ask for the WIP quarterly, and each request is rebuilt by hand.

12 hours a week back

calculated from your numbers: about 50 controller, CFO and project manager hours a month on the WIP (about 11.5 a week), of which about 9 can stop, plus 3 hours a week of status calls

Sage 300 **Bridge**
HCSS HeavyJob **Confirmed**
Procore **Confirmed**
Microsoft 365 **Confirmed**

6. Certified payroll and compliance

Owner: HR and payroll manager

Today

1. Payroll posts in Sage on Tuesday from the HCSS time export.
   Payroll administrators · this part works
2. For each of 14 prevailing wage jobs, a payroll administrator prints the Sage certified payroll report and retypes each worker's hours, classification, rates and fringes into LCPtracker.
   Payroll administrators · about 8 hours a week
3. Agency rejections come back by email and are fixed and recertified by hand.
   Payroll administrators · about 1 hour a week
4. One city takes the federal WH-347 form by email, filled in by hand.
   Payroll administrator · about 1 hour a week
5. Subcontractor certified payrolls are chased by email and phone.
   Payroll and project managers · about 3 hours a week
6. The HR and payroll manager certifies each payroll in LCPtracker.
   HR and payroll manager · stays human

With the build

1. After payroll posts, a payroll administrator refreshes a saved Excel report on the Sage computer, the read route Sage supports. The new system builds one LCPtracker upload file per job from it, in files of 200 records or fewer. Once the reporting copy is running it reads that instead.
   A payroll administrator refreshes; the new system builds
2. Before upload, each line is checked against the job's wage decision and your classification map, and anything that does not match is listed for payroll.
   The new system; a payroll administrator fixes
3. A payroll administrator uploads the files and the HR and payroll manager certifies, as today.
   Payroll administrators; HR and payroll manager
4. The new system drafts the city's WH-347 from the same data for the manager to sign and send.
   HR and payroll manager
5. A weekly tracker, filled from the payroll emails subcontractors send, shows which payrolls are in, with a reminder email drafted for the project manager to send.
   The new system; project managers send

Where it breaks

- Retyping about 600 lines a week (you told us) from a printed report invites exactly the classification and rate errors agencies reject.
- Nothing checks a line against the job's wage decision before it goes in, so the agency is the first to catch a wrong rate or classification.
- A rejected payroll holds up the pay estimate on that job until it is recertified. CDOT held one for 19 days in June (you told us).
- The city's WH-347 is filled in by hand from the same printout, so a fix made in LCPtracker has to be made again on the form.
- Subcontractor payrolls are tracked in someone's inbox, so a missing week is found when the agency asks, not when it is due.

10 hours a week back

estimated from your department heads' figures in the session: about 10 hours of LCPtracker entry, rejections and the WH-347, of which about 8 can stop, plus 2 of the 3 hours of subcontractor chasing (deliverables 3 and 5)

Sage 300 **Bridge** LCPtracker **Bridge**
HCSS HeavyJob **Confirmed**
Microsoft 365 **Confirmed**

SECTION 5

Your ranked list

Fourteen deliverables came out of the session, in build order: the first win first, then the ones that carry legal or safety risk, then by what each returns a year, and anything that waits on an install or a decision after the thing it waits for. The largest return on the list, the WIP draft at 11, starts once the Sage reporting copy is running and the job setup build at 8 has settled the one code list it reads. You pick from this list, everything or part of it. Each one is tied to something a department head said, with the hours that department gave us; the quote behind each one is in the appendix.

#	DELIVERABLE	TODAY → TARGET	HOURS A WEEK	SYSTEMS	EFFORT	PHASE	STATUS
1	**Daily time card check** Payroll and tax **Automation · More output · $15,500 a year**	Bad time cards found on Monday → A 6 a.m. list to each superintendent Needs: A read-only HeavyJob key	5	HeavyJob, M365	S	Phase 1	Ready now
2	**Locate list with update alerts** Spreadsheets and paper **Automation · Enterprise value · $12,400 a year**	811 emails retyped into one sheet → A list with update alerts Needs: Your decision on where locates live	4	M365 (replacement)	S	Phase 1	Needs a decision
3	**Certified payroll upload files** Payroll and tax **Automation · Headcount not added · $24,800 a year**	Payroll retyped line by line → Files from a Sage report, wage-checked Needs: A read-only Sage user and your classification map	8	Sage, LCPtracker	M	Phase 1	Ready now
4	**Bid invitations straight into the bid list** Estimating, measurement and supply **AI · More output · $9,300 a year**	Invitations retyped into a bid log → Added to Pre-Construction from the email Needs: Access to the estimating mailbox	3	M365, HeavyBid	S	Phase 1	Ready now
5	**Subcontractor payroll tracker** Payroll and tax **AI · More output · $6,200 a year**	Sub payrolls chased from inboxes → A weekly tracker and drafted reminders Needs: Access to the mailbox subcontractors send to	2	M365	S	Phase 1	Ready now
6	**Subcontractor and supplier quote intake** Estimating, measurement and supply **AI · More output · $18,600 a year**	40 quote emails retyped on bid morning → Filed and summarized, exclusions flagged Needs: Access to the estimating mailbox	6	M365, HeavyBid	M	Phase 2	Next

#	DELIVERABLE	TODAY → TARGET	HOURS A WEEK	SYSTEMS	EFFORT	PHASE	STATUS
7	**Agency daily reports drafted from HeavyJob** Jobs, work orders and field service **AI · More output · $18,600 a year**	Daily reports rewritten in Word → Drafted from HeavyJob, signed, filed Needs: A HeavyJob key and our app installed in Procore	6	HeavyJob, Procore	M	Phase 2	Next
8	**One job setup from the award** Accounting and job cost **Automation · Headcount not added · $12,400 a year**	Each award set up three times → Codes set in Sage, Procore project mapped Needs: Your Sage code list and our app installed in Procore	4	HeavyBid, Sage, Procore	M	Phase 2	Next
9	**Maintenance list fed by Samsara** Equipment, telematics and weather **Automation · Enterprise value · $21,700 a year**	Hours typed weekly; paper work orders → Nightly hours, due list, phone work orders Needs: A Samsara key and Microsoft 365 approval	7	Samsara, HeavyJob, M365 (replacement)	L	Phase 2	Needs a decision
10	**Commitments through Procore's Sage integration** Accounting and job cost **Automation · More output · $9,300 a year**	Commitments retyped from Procore → Exported by Procore after approval Needs: Your decision and an accounting approver	3	Procore, Sage	M	Phase 2	Needs a decision
11	**Draft WIP and cost-to-complete sheets** Accounting and job cost **AI · Enterprise value · $27,900 a year**	WIP by hand, three weeks late → Draft WIP from live data Needs: SQL Replicator installed by your reseller, and one code list (deliverable 8)	9	Sage, HeavyJob, Procore, M365	L	Phase 3	Next
12	**The owner's Monday job page** Spreadsheets and paper **AI · Enterprise value · $9,300 a year**	Status gathered by phone → One page per job every Monday Needs: The Sage reporting copy	3	Sage, HeavyJob, Procore, M365	M	Phase 3	Later
13	**Field production back into estimates** Estimating, measurement and supply **Automation · Enterprise value · $9,300 a year**	Rates set from memory → Production history working, monthly variance Needs: Activity codes realigned by your chief estimator	3	HeavyJob, HeavyBid	M	Phase 4	Later
14	**Idle equipment report** Equipment, telematics and weather **Automation · More output · $6,200 a year**	Idle units found by accident → A Monday idle list Needs: HeavyJob and Samsara keys	2	Samsara, HeavyJob	S	Phase 4	Later

hours: each department head's own figure in the session, as section 4 shows; counts in the Today column: you told us; M365 is Microsoft 365; a year: the hours × 50 weeks × $62, calculated from your numbers

Enterprise value: cleaner numbers, less risk, less hanging on one person. **Headcount not added:** work that would otherwise take another hire as you grow. **More output:** more done by the people you already have. **AI:** reads, summarizes or drafts. **Automation:** moves data on a fixed rule. Section 4 shows where a person stays. Every deliverable sits in one of the eight workloads we build in: accounting and job cost;

payroll and tax; CRM and sales; jobs, work orders and field service; phones, texting and inbox; estimating, measurement and supply; equipment, telematics and weather; spreadsheets and paper.

Impact against effort

	SMALL EFFORT	MEDIUM EFFORT	LARGE EFFORT
HIGH IMPACT	**1** Daily time card check **2** Locate list with update alerts	**3** Certified payroll upload files **6** Subcontractor and supplier quote intake **7** Agency daily reports drafted from HeavyJob **8** One job setup from the award	**9** Maintenance list fed by Samsara **11** Draft WIP and cost-to-complete sheets
MEDIUM IMPACT	**4** Bid invitations straight into the bid list **14** Idle equipment report	**10** Commitments through Procore's Sage integration **12** The owner's Monday job page **13** Field production back into estimates	
LOW IMPACT	**5** Subcontractor payroll tracker		

Start top left: high impact, small effort.

SECTION 6

Bridge or replace

Five of your nine systems are Confirmed and need no special handling. These four do. Each page says why the system gets its path, what we build, which data moves and how, how we switch over, and what it saves.

Sage 300 Construction and Real Estate Bridge

Sage stays. It is your book of record and your accounting team knows it well. It runs on your own server, and Sage's API opens only with a key Sage issues to development partners; even then it covers lookups, time entry, job cost entries and a few project records, not the job cost reports you need. Sage's read connection (its ODBC driver) is supported only with Microsoft Office, as a 32-bit link on a Windows computer where Sage is installed, and your office has one. So the new system reads Sage the ways Sage supports: saved Excel reports on that computer now, and a live reporting copy once your reseller installs Sage's SQL Replicator. Sage ships a build of it for each current version, including your 24.2, so nothing here waits for an upgrade. Anything that goes back into Sage enters through Sage's own import screens, run by your people, or through Procore's own connection if you turn it on.

What gets built

- Saved Excel reports on the Windows computer where Sage is installed, linked through Sage's read connection the way Sage supports it, and signed in as a Sage user that can see job cost and payroll and change nothing. A person refreshes them after payroll posts and at month end, and they save to your SharePoint.
- Sage SQL Replicator 2.0, in the build Sage ships for version 24.2, keeping a live reporting copy of your data on a SQL Server instance on your accounting server. It becomes the source for the WIP draft, the Monday job page and the certified payroll files.
- A Sage Job Cost estimate import file built from each conformed HeavyBid estimate, for the project accountant to review and import.
- A weekly check that compares the HeavyJob, Sage and Procore cost code lists and flags any difference.

Which data moves, and how

- Payroll lines, employees, classifications and rates: read every week from the refreshed Excel report.
- Job cost by cost code, committed cost and billings: read at month end from the Excel report, then nightly from the reporting copy once it runs.
- Cost codes: always created in Sage. The new system maps them into each new Procore project, and Procore's own Sage connection carries them if you turn it on.
- New job budgets: written only by import file, run by the project accountant. Approved time keeps moving through HCSS's own export, as today.

The cutover

- Weeks 3 to 4: the Excel reports are tested against three reports your controller already trusts.
- Nothing is ever written to Sage through the read connection. Sage's own guide warns that changes made that way leave no audit trail.
- Weeks 6 to 9: your reseller installs SQL Replicator, after we measure your company folders so the SQL Server choice is made on your data. When you upgrade Sage, your reseller installs the matching Replicator build and the copy carries on.

What it saves

Sage keeps its subscription; it simply stops being retyped from. The read side supports 21 of the 65 hours: 8 in certified payroll, 4 in job setup and 9 in the WIP.

calculated from your numbers: deliverables 3, 8 and 11 in section 5

LCPtracker Bridge

CDOT names LCPtracker as its system for prevailing wage compliance, and the agencies own your logins, so it stays. LCPtracker's contractor help describes file uploads, not an API, so we bridge it: the new system builds the upload file and checks it, and your payroll team uploads it and certifies it. Needs a decision: LCPtracker lists hh2 among the payroll providers whose data it takes in, and hh2's payroll works with Sage 300. You do not use hh2 today. If you ever move payroll there, ask both vendors whether certified payroll can flow into LCPtracker that way; if it can, we connect to that route instead of building files. LCPtracker also offers a Direct Payroll Interface, where LCPtracker maps a contractor's own payroll export; we ask LCPtracker whether it takes a Sage 300 report before we build the file, and build the file if it does not. Sage 300 contractors on Sage's own community site build exactly this bridge today.

What gets built

- A weekly upload builder that turns the posted Sage payroll into LCPtracker's Excel template, one job at a time, split into files of no more than 200 payroll records.
- A classification map from your Sage pay classes and unions to each job's wage decision, owned by the HR and payroll manager.
- A pre-upload check that lists every line where the classification, rate or fringe does not match the job's wage decision.
- A WH-347 draft for the city that still takes the federal form by email.

Which data moves, and how

- From Sage: employee, classification, daily hours, rates, fringes and deductions, read from the weekly Excel report on the Sage computer.
- To LCPtracker: upload files that a payroll administrator uploads. Certification stays a person's act inside LCPtracker.
- Fringe benefit statements stay as they are: uploaded once per job, as CDOT asks.

The cutover

- Weeks 3 to 6: one CDOT job runs in parallel, with the file compared line by line against the hand entry.
- Weeks 7 to 8: all 14 jobs move to files once three weeks in a row match.
- If LCPtracker changes its template, hand entry stays available while the file builder is updated.

What it saves

The 8 hours a week of certified payroll retyping and fixes in deliverable 3, delivered together with the Sage bridge and counted once, on the Sage page. Fewer pay estimates are held for a rejected payroll.

estimated from your department heads' figures in the session: about 10 hours a week today on LCPtracker entry, rejections and the WH-347, of which about 8 can stop

---

Equipment maintenance workbook and paper work orders Replace

The workbook does an important job badly. It only knows what someone typed on Monday, it lives on one PC, and the paper work orders never reach it in full. Nothing gets in or out reliably. We replace it inside your own Microsoft 365 with a set of Microsoft Lists your shop can open on a phone, fed by the hours Samsara and HeavyJob already record. The unused maintenance app is cancelled. Needs a decision: HCSS sells Equipment360, a maintenance system whose API reads and writes work orders and takes in maintenance requests. You do not license it today. If you add it, the maintenance log lives there and we connect to it instead of replacing the workbook.

What gets built

- A units list: every owned machine and truck, with its Samsara or HeavyJob link, service intervals and current hours.
- A work orders list with a phone form for mechanics: unit, hours, problem, parts, labor and photos.
- A nightly update of hours from Samsara's equipment and vehicle data, and from HeavyJob equipment time cards for units without a gateway.
- A due-soon list each morning for the shop foreman.

Which data moves, and how

- Once: the workbook's units, intervals and last-service records move into the lists, checked by the equipment manager.
- Nightly: engine hours from Samsara and equipment hours from HeavyJob, both read only.
- Ongoing: work orders entered by mechanics on the phone form. Nothing is written back into Samsara or HeavyJob.

The cutover

- First two weeks of phase 2: lists built and loaded, with the workbook still open beside them.
- Two weeks in parallel, with the equipment manager comparing the due list to the workbook every morning.
- Once two weeks match, the workbook becomes read only, the paper pads stop, and the unused app is cancelled the same week.

What it saves

About 7 hours a week of copying and filing across the equipment manager and the shop, $189 a month for the unused app, and services caught before they turn into repairs like this year's two.

estimated from your department heads' figures in the session; the app cost and the repair figures you told us

---

Locate ticket log Replace

The locate sheet carries safety and legal risk on one person's desktop, with dates typed as free text, and it cannot warn anyone. We replace it with a list in your Microsoft 365, filled from the confirmation emails Colorado 811 already sends, with alerts tied to the 30-day life of the marks. Tickets are still submitted, updated and checked in Colorado 811's own system by your people. Needs a decision: HCSS's HeavyJob Project Management module keeps a dig permits log, the place HCSS names for 811 tickets, and its API can read and write it. You do not use it today; your HCSS rep can say whether your subscription includes it. If you turn it on, the locate log lives there and we connect to it instead of replacing it.

What gets built

- One shared locate mailbox that receives every Colorado 811 confirmation email.
- A locate list: ticket number, job, address, due date, 30-day expiry, members notified, positive response status, and the update deadline two business days before expiry.
- An alert five business days before each update deadline, to the field coordinator and the job's superintendent.
- A view by job that a superintendent can open on a phone before a crew digs.

Which data moves, and how

- Once: open tickets in the current sheet move into the list and are checked against Colorado 811's ticket lookup.
- Daily: new confirmation emails are read from the locate mailbox into the list.
- Positive response is checked by your people in Colorado 811's system, and the list records who checked and when.

The cutover

- Week 2: the locate mailbox is set up and your Colorado 811 contact details point to it.
- Weeks 3 to 4: list and sheet run side by side, and the field coordinator confirms every ticket matches.
- The sheet and whiteboard retire after a full 30-day cycle runs without a miss.

What it saves

About 4 hours a week of logging and checking, and an alert before any ticket expires.

estimated from your department heads' figures in the session; the field coordinator's hours as the operations manager gave them

SECTION 7

Your software stack

You keep every system you pay for except one unused app. The plan adds an enterprise AI plan in your company's name, an automation platform for the scheduled jobs and one Sage add-on, and uses parts of Microsoft 365 you already own.

Keep

Sage 300 Construction and Real Estate, HCSS HeavyBid, HCSS HeavyJob, Procore, Microsoft 365 Business Standard, Samsara and LCPtracker, as in section 3: $13,999 a month between them.

Add

Your own enterprise AI plan	What the new system runs on, held in your company's name and paid by you.	Priced when you choose the seats	no number until you choose the plan and the seats
An automation platform (n8n, Pro plan)	Runs the scheduled jobs, such as the 6 a.m. time card check and the nightly hours update, in your own account.	€50	n8n pricing page, read 2026-10-20: 10,000 runs a month, billed yearly, priced in euros
Sage SQL Replicator 2.0	A live reporting copy of Sage for the WIP draft, the Monday page and certified payroll. Sage ships a build for your version 24.2 and one for each later version.	Your reseller's quote	no price on Sage's pages; your Sage reseller quotes it
SQL Server Express	The database SQL Replicator writes to, if your data fits its 10 GB per database limit. Full SQL Server is bought separately if it does not.	$0	Sage SQL Replicator setup guide, read 2026-10-20
Microsoft Lists	The maintenance and locate lists. Part of the Microsoft 365 Business Standard you already pay for.	$0	Microsoft's Business Standard page, read 2026-10-20

Retire

Unused maintenance app	Nobody has logged in since 2025. The new maintenance list does its job.	$189	you told us

SOFTWARE TODAY

$14,188 a month

SOFTWARE AFTER THE PLAN

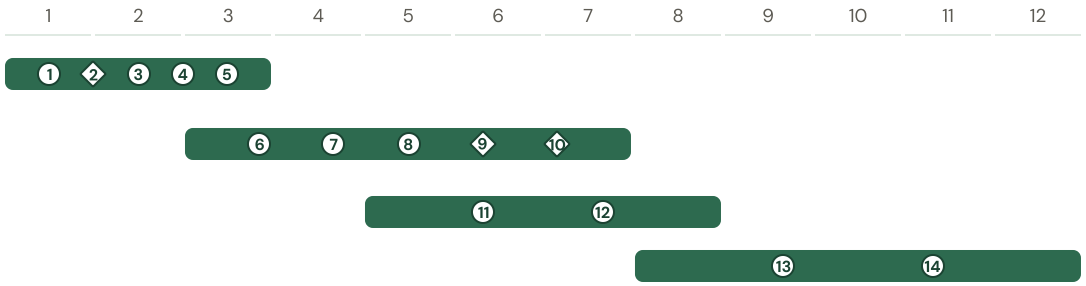
$13,999 a month, plus €50 and your AI plan

Software subscriptions only. After the plan: the $13,999 you keep, the automation platform's €50 as n8n prices it, and the AI plan at the seat price on the provider's page when you choose it. Not included: the SQL Replicator quote, Procore's fee for bringing jobs already in progress into its Sage connection (ask before deliverable 10), and HCSS's price for Equipment360 or the dig permits log, if chosen.

SECTION 8

The roadmap

If you pick the whole list, it runs in four phases over twelve months. Pick part of it and the term follows. The Caddy team builds each phase, and the owner named on it signs its gate. This plan puts the first win in week 1 of the engagement.



① a deliverable, numbered as in section 5, on the phase that builds it ② one that waits on your decision

Phase 1: Payroll, locates and the daily checks months 1 to 3 · owner: HR and payroll manager

- Daily HeavyJob time card check to superintendents and payroll (deliverable 1)
- Locate list with update alerts (deliverable 2)
- Certified payroll upload files and wage checks for all 14 jobs (deliverable 3)
- Subcontractor payroll tracker (deliverable 5)
- Bid invitations into Pre-Construction (deliverable 4)
- Sage SQL Replicator 2.0 installed by your reseller, after we measure your company folders for the SQL Server choice

Gate: Three weeks in a row of LCPtracker uploads with no rejection caused by the file, and a full 30-day locate cycle with no expired ticket in use.

Phase 2: Job setup, field reports and the shop months 3 to 7 · owner: Operations manager

- One job setup from the award (deliverable 8)
- Subcontractor and supplier quote intake (deliverable 6)
- Agency daily reports drafted from HeavyJob (deliverable 7)
- Maintenance list fed by Samsara and HeavyJob (deliverable 9)
- Commitments through Procore's Sage integration, if you decide yes (deliverable 10)

Gate: Two new jobs set up from one code list with no mismatches, and two weeks where the maintenance list's due list matches the workbook.

Phase 3: The WIP and the Monday page months 5 to 8 · owner: Controller

- The reporting copy tested against three reports the controller trusts, then the saved Excel reports retire
- Draft WIP and prefilled cost-to-complete sheets (deliverable 11)
- The owner's Monday job page (deliverable 12)

Gate: Two month ends where the draft WIP ties to the general ledger and the controller signs it off without retyping a number.

Phase 4: Feedback loops months 8 to 12 · owner: Chief estimator

- Activity codes realigned, production history back in HeavyBid, and a monthly variance report (deliverable 13)
- Idle equipment report (deliverable 14)
- A review of the year against the numbers in section 1

Gate: The chief estimator uses the variance report on three live bids and confirms the rates it shows.

The first 13 weeks

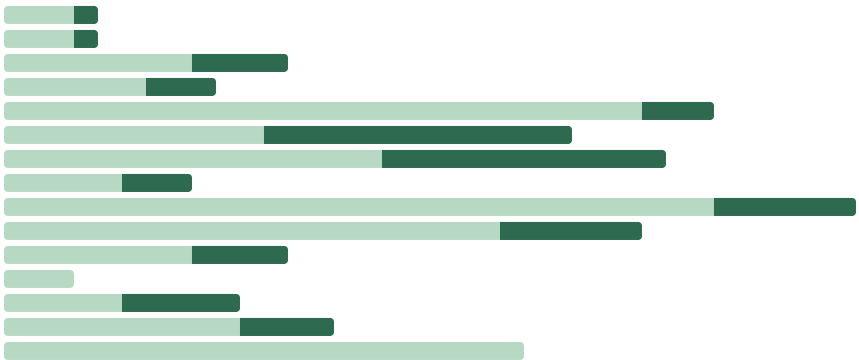
WEEKS	WHAT HAPPENS	OWNER
1	Your AI plan and automation platform accounts are set up in your company's name, and your IT provider approves Microsoft 365 mail access for payroll. Your HCSS administrator creates a read-only HeavyJob access key, once HCSS has enabled the read scope. The first daily time card check runs and reaches payroll and two pilot superintendents.	HR and payroll manager
1-2	Your IT provider approves the rest of the Microsoft 365 access: the mailboxes, SharePoint site and Lists the plan uses. You decide where locates live, and the locate mailbox is set up.	Operations manager
2-4	Locate list built, open tickets moved in and checked, and the sheet and list run side by side.	Safety director
3	We measure your Sage company folders against Sage's 6 GB line for SQL Server Express, so the SQL Server choice is made on your data.	Controller
3-4	Saved Excel reports set up on the Sage computer, read only, and tested against three reports the controller trusts.	Controller
3-6	Certified payroll file for one CDOT job runs in parallel with hand entry, and the wage check is tuned with payroll.	HR and payroll manager
4	The daily time card check goes to all nine superintendents.	Operations manager
5-8	Bid invitations flow into Pre-Construction, and the chief estimator runs the Monday go list from it.	Chief estimator
6-9	Your Sage reseller installs SQL Replicator 2.0 for version 24.2, and the reporting copy is tested against the same three reports the controller trusts.	Controller
7-8	All 14 prevailing wage jobs move to upload files, and the subcontractor payroll tracker goes live.	HR and payroll manager
9-10	Phase 1 gate review. Decisions on Procore's Sage connection, on whether Equipment360 holds the maintenance log, and on full SQL Server if your data is over Sage's line.	HR and payroll manager, with the owner and president
10-13	Phase 2 starts: job setup checks on the next award, maintenance lists built with the shop, and daily report drafts piloted with two superintendents.	Operations manager

SECTION 9

The people plan

This plan is built to give time back, not to cut jobs. About 65 hours a week of copying and chasing moves off 13 roles, and the time goes back to the work each role was hired for.

ROLE	REPEAT-WORK HOURS A WEEK	NOW	STOPS
Owner and president		4	1
Chief financial officer		4	1
Controller		12	4
Project accountant		9	3
Payables and billing clerks		30	3
HR and payroll		24	13
Chief estimator and estimators		28	12
Operations manager		8	3
Project managers		36	6
Superintendents		27	6
Field coordinator		12	4
Safety director		3	0
Equipment manager		10	5
Shop foreman and mechanics		14	4
Foremen		22	0



The full bar is the hours now; the dark end is the hours that stop with the plan.

ROLE	REPEAT-WORK HOURS A WEEK, NOW	AFTER THE PLAN	STOPS DOING	STARTS DOING
Owner and president	4	3	Monday status calls to the field.	Reading one page per job each Monday.
Chief financial officer	4	3	Waiting three weeks for the WIP.	Acting on fade while it is fresh.
Controller	12	8	Typing project manager numbers into the WIP.	Reviewing a traced draft and its exceptions.
Project accountant	9	6	Setting up each job by hand in Sage.	Reviewing the import file, and billing.
Payables and billing clerks	30 (3 people)	27	Retyping commitments from Procore.	Lien waivers and billing.
HR and payroll	24 (3 people)	11	Monday time card calls and retyping payroll.	Fixing flagged lines, and onboarding.
Chief estimator and estimators	28 (4 people)	16	Keeping the bid log and retyping quotes.	Pricing with real production rates.
Operations manager	8	5	Chasing time cards and status.	Moving crews and iron by the data.
Project managers	36 (6 people)	30	Marking up printed cost reports.	Confirming exceptions on a prefilled sheet.
Superintendents	27 (9 people)	21	Rewriting HeavyJob in a Word report.	Signing a drafted daily report.
Field coordinator	12	8	Typing locate confirmations into a sheet.	Updating tickets from an alert list.
Safety director	3	3	Nothing.	Seeing every locate alert the field coordinator sees.
Equipment manager	10	5	Copying hours from Samsara.	Fleet decisions from each unit's history.
Shop foreman and mechanics	14 (7 people)	10	Keying paper work orders on Friday.	Closing work orders on a phone.
Foremen	22 (22 people)	22	Nothing.	Nothing new; HeavyJob stays as it is.

Hours are each role's repeat work as its department head gave it in the session, totaled for the role; the after column assumes the whole list is live.

SECTION 10

Risks and constraints

These are the things most likely to go wrong, and what we do about each one before it can.

WHAT COULD GO WRONG	WHAT WE DO ABOUT IT
A wrong certified payroll is a legal problem, not a typo.	The new system never certifies or submits. It builds the file and flags mismatches; a payroll administrator uploads and the HR and payroll manager certifies, as today. One job runs in parallel for three weeks before anything switches.
A write into Sage damages the books.	Nothing is ever written through Sage's read connection; Sage's own guide warns that changes made that way leave no audit trail. That connection is used only the way Sage supports it, through Excel on the Sage computer. Anything that enters Sage goes through Sage's import screens, run by your accounting team, or through Procore's own connection if you turn it on.
The locate list gets trusted more than the law.	The list reminds; it does not replace Colorado 811. Tickets are submitted and updated in Colorado 811's system, and positive response is checked before digging, as today.
Your Sage data outgrows SQL Server Express.	Sage's guide says that over 6 GB of company data you must use full SQL Server, bought separately. We measure your company folders in week 3, before your reseller installs anything, so the choice is made on your data.
Your Sage upgrade falls inside the term.	Nothing in the plan waits for it. Sage ships a Replicator build for each version; when you upgrade, your reseller installs the matching build and the reporting copy carries on. Schedule it with your reseller away from year-end payroll and W-2s.
Access to HCSS, Samsara or Microsoft 365 grows beyond what a build needs.	Access keys are made in your own accounts, read only first. Write access is added only for a named build, with the operations manager's approval, and you can revoke any key at any time.
The field sees this as more data entry.	Foremen and crews type nothing new. Mechanics trade a paper pad for a phone form of the same length, tried with the shop foreman before it goes live.
One person holds the knowledge.	Each build gets a one-page runbook in your SharePoint, and the payroll and locate checks name a backup person.
A superintendent ignores the 6 a.m. list.	Whatever is still open escalates to the operations manager the same morning. Two superintendents pilot the list in week 1 before all nine get it in week 4.
The owner never opens the Monday page.	It goes to the chief financial officer and the operations manager as well, so the numbers are read and acted on whether or not the owner opens it.

Constraints every build honors

- Foremen and crews type nothing new. HeavyJob stays as it is.
- Nothing is written to Sage except through Sage's own import screens, by your people, or through Procore's own connection if you turn it on.
- A person certifies every payroll and signs every agency daily report.
- Nothing that touches money, payroll or a payment moves without a person's approval.
- Every system is reached with access keys made in your own accounts, which you can revoke at any time.
- Locate tickets are submitted, updated and checked in Colorado 811's own system.

SECTION 11

Your written scope and what comes next

This report is the scope. You pick what we build from the ranked list in section 5, everything or part of it, and the Caddy team builds it through your engagement.

What happens next

1. **You pick from the list.** Mark what you want built, everything or part of it.
2. **We set the term from your list.** The term comes from how deep the list is and how much of it you want.
3. **The audit rolls into your engagement** when you step up within thirty days of your audit.

How it gets built

- An AI Chief Executive from the Caddy team works inside your business, with engineers building behind them.
- The Caddy team builds, deploys and integrates everything you pick, in your accounts, and trains your people on it.
- Nothing moves past a gate in section 8 until your team signs it.
- We keep working on the next viable solution at no added cost.

In scope

- Every deliverable you pick from section 5, on the path shown for each system in section 3.
- Each bridge and replacement run side by side before anything switches.
- A one-page runbook for each build and training for each department.

Not in scope

- Changes to how foremen enter time or quantities in HeavyJob.
- Submitting, certifying or signing anything with an agency on your behalf.
- Software subscriptions, which you pay the vendors directly (section 7).

The rules

- Every system on this list has a path. If one has no direct connection, we bridge it or recommend a replacement, so nothing is left as a dead end.
- Anything you want outside the eight workloads in section 5 is scoped and priced as a change before we start it.

If you stop here

This report is yours to keep, whether or not you go further.

Before the term ends

You decide what comes next: renew, a Caddy Care plan, or nothing further. Everything we built stays in your accounts.

SECTION 12

Appendix

The evidence: what you said, for every deliverable

1	Daily time card check	"Monday is me on the phone asking superintendents what a crew did last Tuesday." HR and payroll manager
2	Locate list with update alerts	"In August we dug on a ticket that was four days dead. Nobody got hurt. That was luck, not a system." Safety director
3	Certified payroll upload files	"Every Wednesday two of us retype what Sage already printed. And when we get a classification wrong, the agency sits on the pay estimate." HR and payroll manager
4	Bid invitations straight into the bid list	"Half the time the bid log says one thing and Pre-Con says another, so I keep the real list in my head." Chief estimator
5	Subcontractor payroll tracker	"I find out a sub is three weeks behind on payrolls when the city emails me." Senior project manager
6	Subcontractor and supplier quote intake	"Bid morning is forty emails and a prayer. We missed one exclusion on the lift station last year and ate forty-one grand." Chief estimator
7	Agency daily reports drafted from HeavyJob	"My supers type the same crew and the same quantities the foreman already put in HeavyJob, just in a Word file for the inspector." Operations manager
8	One job setup from the award	"Every new job gets set up three times, and I still find cost sitting in the wrong code at month end." Controller
9	Maintenance list fed by Samsara	"Samsara knows the hours. My workbook finds out on Monday, if I get to it." Equipment manager
10	Commitments through Procore's Sage integration	"The subcontract is in Procore, signed. Then my AP people type the whole thing into Sage again." Controller
11	Draft WIP and cost-to-complete sheets	"By the time I see fade on a job, it is a month old. I want to see it while I can still do something about it." Owner and president
12	The owner's Monday job page	"I spend Monday calling around to find out what I could have read in five minutes." Owner and president
13	Field production back into estimates	"We know the real production is sitting in HeavyJob. Getting it back into a bid is the part that never happens." Chief estimator
14	Idle equipment report	"We rented a dozer in July while ours sat at a finished job for nine days." Equipment manager

The software facts and where they come from

SYSTEM	FACT	SOURCE	READ ON
Sage 300 CRE	The ODBC driver reads most Accounting and Management records and can create or delete some; ODBC changes leave no audit trail. Sage tests only Microsoft Office (Access, Word, Excel) with it, and Customer Support addresses only that use. Office and other non-Crystal links need 32-bit DSNs, set up in Windows with the Timberline Data driver.	docs.sage.com/docs/en/customer/300cre/26/open/UserGuide_26.pdf	2026-10-20
Sage 300 CRE	The Web APIs are deployed to the customer's accounting server; each request needs a development partner API key from Sage. Endpoints cover common lookups, equipment, Job Cost lookups and batch posting, Payroll lookups and time submission, and Project Management field reports and RFIs.	docs.sage.com/docs/en/customer/300cre/26/open/Sage300CRE_WebAPI_UserGuide.pdf	2026-10-20
Sage 300 CRE	Sage SQL Replicator 2.0 copies Sage 300 CRE data into a SQL Server database and can synchronize continuously. The current guide covers build 2.0.460.0 for version 25.2 and higher and points earlier versions to their own setup guide. SQL Server Express is available at no additional cost, with a 10 GB per database limit.	docs.sage.com/docs/en/customer/300cre/26/open/SQL_Replicator_V2_Sep2025.pdf	2026-11-02
Sage 300 CRE	Sage ships a Replicator build per version: 2.0.460.0 for 25.2 and later, 2.0.459.0 for 25.1, 2.0.421.0 for 24.2 and 24.3, 2.0.374.0 for 24.1 and earlier. If the company data totals more than 6 GB, you must use the full SQL Server version.	docs.sage.com/docs/en/customer/300cre/26/open/26IMPORTANT.pdf	2026-11-02
Sage 300 CRE	Sage SQL Replicator 2.0.421.0 is compatible with Sage 300 Construction and Real Estate version 24.2 and higher.	docs.sage.com/docs/en/customer/300cre/24/open/SQL_Replicator_V2_Sep2024.pdf	2026-11-02
Sage 300 CRE	Product documents list a version 26 User's Guide and Web API User Guide alongside version 25.	docs.sage.com/docs/en/customer/300cre/Documentation.htm	2026-10-20
Sage 300 CRE	No price is published; the page offers subscription pricing through a talk-to-an-expert request.	www.sage.com/en-us/products/sage-300-construction-and-real-estate/	2026-10-20
Sage 300 CRE	Job Cost accepts an estimate import file (the JCE file); the layout is in Job Cost Help under import estimates (verified answer on Sage's community site).	communityhub.sage.com/us/sage_construction_and_real_estate/f/sage-300-construction-and-real-estate/185268/importing-estimates-into-sage-300-cre/468372	2026-10-20
HCSS	Developer APIs include HeavyBid Estimate Insights (estimates, bid items, activities, resources), Pre-Construction (projects), HeavyJob (time cards, cost codes, equipment hours, quantities, diaries, forecasts), HeavyJob Project Management (dig permits, read and write), Equipment360 (work orders read and write, maintenance requests created, schedules read), Telematics and webhooks.	developer.hcssapps.com/products	2026-11-02
HCSS	HeavyJob has a heavyjob:read scope to view jobs, employees and time cards, and a heavyjob:write scope for operations that change data. HCSS configures which scopes a company may request.	developer.hcssapps.com/hcss/docs/api-scopes	2026-11-02
HCSS	A company admin generates client credentials on the HCSS credentials page under Product Setup, choosing the scopes needed.	developer.hcssapps.com/hcss/docs/getting-credentials.md	2026-10-20
HCSS	Export to Accounting lists Sage 300 CRE (Timberline) among supported systems; HeavyJob exports approved employee time, configured at no additional charge in most cases.	www.hcss.com/accounting	2026-10-20
HCSS	Prices are not published: pricing is customized; HeavyJob is sold by subscription or license; HeavyBid comes in Basic, Advanced and Comprehensive levels.	www.hcss.com/faqs/	2026-10-20
HCSS	Estimates sent to HeavyJob carry a historical activity code; locked time card data flows back to HeavyBid as production history, which must be turned on in HeavyBid preferences.	www.hcss.com/events/past-webinars/the-full-circle-heavybid-to-heavyjob-back-again/	2026-10-20

SYSTEM	FACT	SOURCE	READ ON
HCSS	Pre-Construction tracks prospective and upcoming work and links HeavyJob jobs to projects; Estimate History compares historical and active estimates once synced.	www.hcss.com/products/pre-construction/	2026-10-20
HCSS	HCSS is working to bring its Marketplace partner 811spotter, which organizes 811 tickets, into HCSS's dig permits log, with integration into Project Management and HeavyJob Mobile.	www.hcss.com/case-studies/partnership-811spotter/	2026-10-20
HCSS	Existing HeavyJob users turn on the HeavyJob Project Management module in HCSS Credentials, under Groups, HeavyJob Manager. The page does not say whether it costs extra.	www.hcss.com/blog/activate-heavyjob-project-management/	2026-10-20
HCSS	Equipment360 is a separate HCSS product with its own pricing request: work orders, due-date alerts, and preventive maintenance from telematics or meter readings.	www.hcss.com/products/equipment360/	2026-10-20
Procore	No price is published; Procore charges an annual fee by product based on annual construction volume, with unlimited users.	www.procore.com/pricing	2026-10-20
Procore	The Sage 300 CRE integration runs through the hh2 Synchronization Client installed on your Sage server (needs .NET Framework 4.8 or higher); exports to Sage must be approved by a designated accounting approver. Bringing projects already in progress into the integration is available for an additional fee.	support.procore.com/products/online/user-guide/company-level/erp-integrations/sage-300-cre/things-to-know	2026-11-02
Procore	A company admin installs a custom app from App Management by entering the 36-character App Version ID the app's developer provides, then confirms the install.	support.procore.com/products/online/user-guide/company-level/admin/tutorials/install-a-custom-app	2026-11-02
Procore	Commitments, commitment change orders and budget changes export from Procore to Sage; job costs and transaction details import from Sage to Procore. Standard cost codes and categories sync from Sage to Procore; new cost codes must be created in the ERP and cannot be created in Procore.	v2.support.procore.com/en-gb/product-manuals/sage-300-cre/detailed-data-mapping	2026-10-20
Procore	Company administrators can let third-party integrators subscribe to webhooks for API resources on create, update and delete.	v2.support.procore.com/en-gb/product-manuals/admin-company/tutorials/configure-company-webhooks/	2026-10-20
Microsoft 365	Business Standard is $14.00 per user a month, paid yearly, for up to 300 users, and includes Microsoft Lists, Planner, Forms and Teams.	www.microsoft.com/en-us/microsoft-365/business/microsoft-365-business-standard	2026-10-20
Microsoft 365	Microsoft Graph is one REST endpoint for Outlook mail and calendar, OneDrive and SharePoint files, SharePoint sites and lists, Teams and Excel workbooks.	learn.microsoft.com/en-us/graph/overview-major-services	2026-10-20
Samsara	REST APIs and webhooks; API tokens are created in the dashboard under Settings and can be limited by tags and scopes.	developers.samsara.com/docs/getting-started	2026-10-20
Samsara	The equipment stats endpoint returns engine seconds, GPS and fuel percent for equipment.	developers.samsara.com/reference/getequipmentstats	2026-10-20
Samsara	OEM cloud integrations bring in location, engine hours, fuel and fault codes, including data from John Deere, Caterpillar and Komatsu.	www.samsara.com/ca/blog/new-construction-oem-integrations	2026-10-20
Samsara	The pricing page shows no published price.	www.samsara.com/pricing	2026-10-20
LCPtracker	CDOT uses LCPtracker to monitor prevailing wage compliance; prime contractors and subcontractors submit and certify payrolls in it every week.	www.codot.gov/business/civilrights/compliance/systems/lcp	2026-10-20
LCPtracker	Payroll records upload through a supported accounting system format or LCPtracker's Excel template, which is limited to 200 payroll records per file.	kb.lcptracker.com/support/solutions/articles/154000235249-upload-records	2026-10-20

SYSTEM	FACT	SOURCE	READ ON
LCPtracker	Contractors can upload through a payroll system export, LCPtracker's Excel template, a Direct Payroll Interface where LCPtracker maps the contractor's existing payroll, or by hand. There is no cost to contractors for the service.	kb.lcptracker.com/support/solutions/articles/154000169999-contractor-quick-start-guide	2026-11-02
Sage 300 CRE	Sage 300 CRE users on Sage's community site report building LCPtracker upload files themselves, through an Office Connector report or an ODBC link, because Sage produces no LCPtracker file of its own.	communityhub.sage.com/us/sage_construction_and_real_estate/f/sage-300-construction-and-real-estate/247335/lcp-tracker-compatible-with-sage-300cre	2026-11-02
LCPtracker	The payroll providers page lists hh2 to bring payroll data into LCPtracker, and says to check current compatibility.	lcptracker.com/preferred-providers	2026-10-20
hh2	hh2 Remote Payroll has two-way integrations with ERPs including Sage 300 CRE, with certified payroll and WH-347 reports built in.	www.hh2.com/solutions/payroll-and-compliance/government-union-reporting	2026-10-20
Colorado 811	An email confirmation gives the ticket number and the members notified; locate marks are valid for 30 days from the ticket's due date or until no longer visible, and the ticket must be updated at least two business days before the period ends.	a-us.storyblok.com/f/1021538/x/160e66dfe5/excavator-handbook.pdf	2026-10-20
Colorado 811	Positive Response is mandated under Colorado law; facility owners post it in the Colorado 811 Exactix system, and excavators can check it by ticket.	www.colorado811.org/utility-owners/positive-response	2026-10-20
US Department of Labor	Form WH-347 is optional, but contractors on Davis-Bacon work must submit certified payroll weekly.	www.dol.gov/agencies/whd/forms/wh347	2026-10-20
n8n	Cloud Pro is 50 euros a month billed annually for 10,000 workflow executions; Starter is 20 euros for 2,500. An execution is one run of a whole workflow, and all plans include unlimited users and workflows.	n8n.io/pricing/	2026-10-20

Plain words

The new system	What the Caddy team builds for you, in your own accounts.
WIP	Work in progress schedule: each job's contract, cost to date, cost to complete, and over or under billing, reviewed every month.
Cost to complete	What a project manager expects a cost code still to cost before the job is done.
Fade	Margin a job loses between the bid and the finish.
Certified payroll	The weekly report of wages paid on a prevailing wage job, signed as true by the contractor.
Wage decision	The published minimum wage rates and fringes for each trade classification on a public job.
WH-347	The Labor Department's optional form for weekly certified payroll on federal work.
Positive response	A utility owner's posted answer to a locate ticket, checked before digging.
Conforming the estimate	HCSS's term for mapping estimate activities to HeavyJob cost codes before sending them over.
ODBC	Sage's read connection, a standard way to read a database. Sage supports it with Microsoft Office only.
SQL Replicator	A Sage add-on that keeps a live reporting copy of your Sage data in a SQL Server database. Sage ships a build of it for each version of Sage 300.
API	A supported way for other software to reach a system's data, opened only with an access key you control.
Webhook	A message a system sends the moment something changes.
Access key	A key your admin creates that lets the new system in and can be revoked any time.
Scope	The part of a system an access key is allowed to touch, such as read only.
Gateway	The Samsara device on a truck or machine that reports hours and location.