

Before Construction Starts: Planning Considerations

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Data Centers Are Their Own Land Use

Do not force a hyperscale campus into office, warehouse, or generic industrial categories.

Traditional zoning buckets miss the operational profile

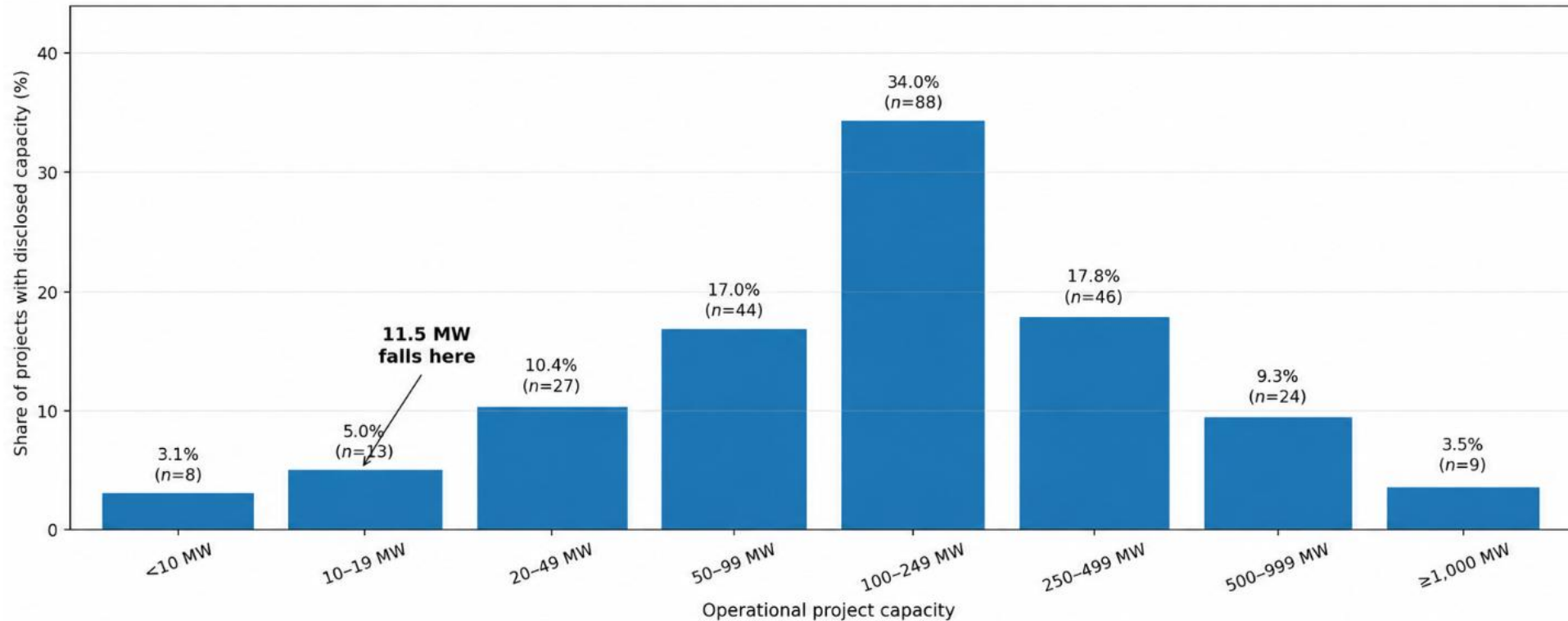


Planning lesson:

Define data centers separately, then decide scale tiers, approval path, and required information before the first application arrives.

Not every data center is a hyperscale campus

One land use — very different footprints, electrical loads and infrastructure requirements.



Planning lesson:

Consider separate requirements and approval pathways for different scales of data center projects.

Regulate the Campus, Not Just the Building

A per-building threshold can miss the cumulative impact of phased hyperscale development.

Two examples of ways to measure scale

Fairfax County, Virginia

Measures gross floor area per building.

40,000 SF in C-3/C-4

80,000 SF in I-2/I-3/I-4

Above threshold → Special Exception

building
A

building
B

building
C

tested separately

VS.

Linn County, Iowa

Measures cumulative campus impacts.

All related buildings and phases are counted together.

> 20 MW electrical design capacity

OR > 50 gpm annualized water use

phase 1

+

phase 2

+

phase 3

Takeaway

A campus-level rule prevents a multi-building project from being reviewed as a series of smaller, disconnected approvals.

Decide on Approval Pathway



Loudoun County Example: how the approach evolved



How you define the use determines where it belongs and whether it should be reviewed by right or case by case.

Turn Concerns Into Measurable Standards

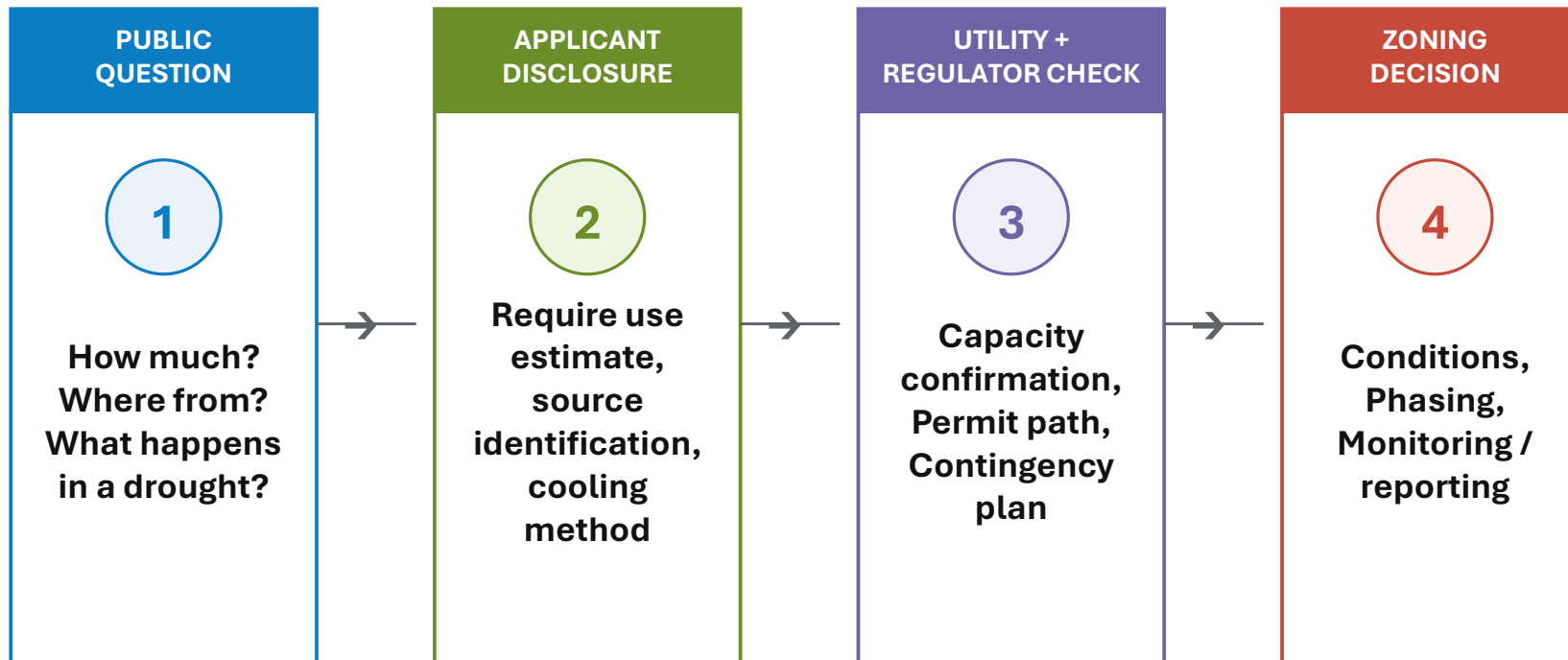
The zoning role is to convert public concerns into reviewable requirements.

Concern		Zoning Tool
NOISE	→	dBA + dBC limits; receiving-property standard; pre/post testing; generator testing limits
VISUALS	→	setbacks from sensitive receptors; landscaped buffers; façade/equipment screening standards
CONSTRUCTION	→	traffic management plan; haul routes; hours; road-use agreement; temporary laydown permits
SCALE + PHASING	→	campus master plan; full buildout assumptions; phase triggers; related buildings counted together
INFRASTRUCTURE	→	utility coordination letters; power/water disclosure; emergency access; off-site impacts identified early

Good standards are objective enough to administer and specific enough to address the actual impact.

Water Transparency and Utility Coordination

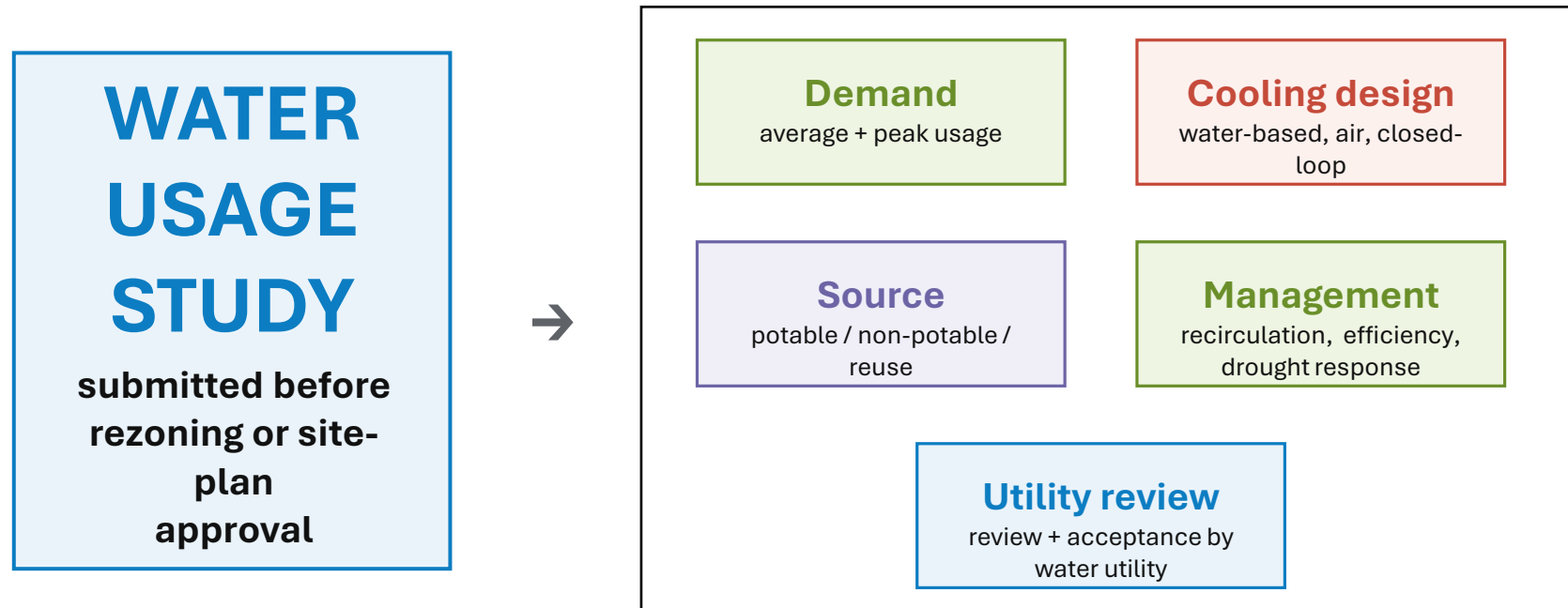
Zoning cannot regulate the water system, but it can make the applicant, utility, and regulators answer the public's questions before approval.



Zoning usually cannot allocate water rights, set rates, or manage regional supply. **It can require transparent, reviewable information.**

Case Study: Water Transparency

Prince William County, Virginia — the emerging “water usage study” model



Planning lesson: Make water demand visible, technical, and reviewable before approval.

Construction Impacts Don't Stop at the Zoning Boundary

A project approved in one jurisdiction can create road, traffic and temporary-use impacts in another.

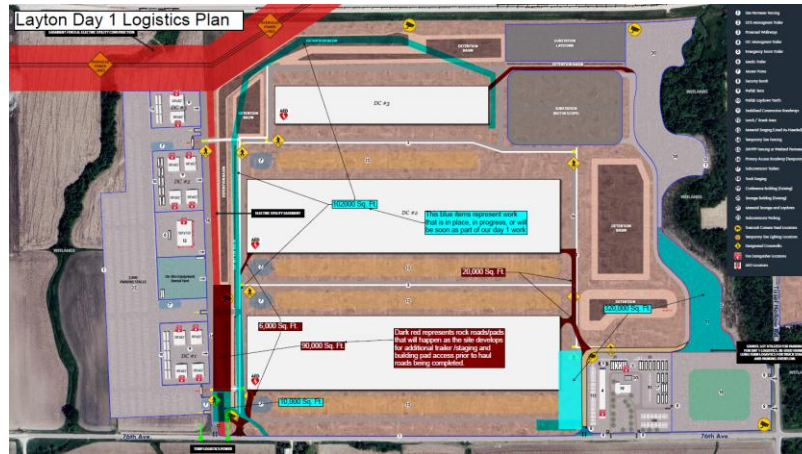
LAND-USE APPROVAL
City approves campus



CONSTRUCTION ROUTE
Trucks, dewatering, staging



COUNTY IMPACT
Roads + permits + coordination



Regulatory response before construction begins

Baseline road conditions

Approved haul routes

Repair obligations

One coordination contact

Key lesson: construction-management standards should follow the route, not just the zoning boundary.

Community Consideration: Property Taxes

Primary local-government benefit: new taxable value — and under Iowa’s revenue caps, new construction is fiscal capacity.

One 280,000 SF building

Estimated taxable value: 280,000 SF × \$400/SF = \$112M

\$2.49M–\$3.24M

gross property taxes / year before TIF, abatement, exemption, or incentive terms

Unincorporated
\$2.49M/yr

Incorporated
\$3.24M/yr

If six buildings are built

\$15M–\$19M

per year

from one campus, before incentive-specific terms

That scale explains why tax-base questions belong in the community-benefit discussion.

Why new construction matters now

1

Existing base is capped
Most general levy growth is roughly limited to 2%.

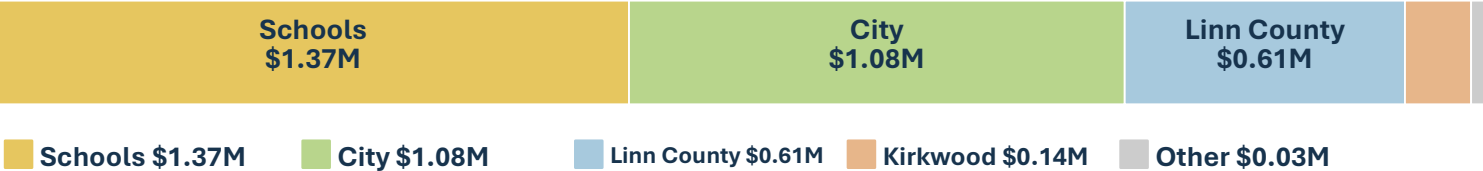
2

New growth is the engine
New valuation/construction remains outside the cap.

3

No growth means pressure
If costs rise faster than 2%, service capacity shrinks over time.

Where one incorporated building tax dollar goes



Entity	Amount
Schools	\$1.37M
City	\$1.08M
Linn County	\$0.61M
Kirkwood	\$0.14M
Other	\$0.03M

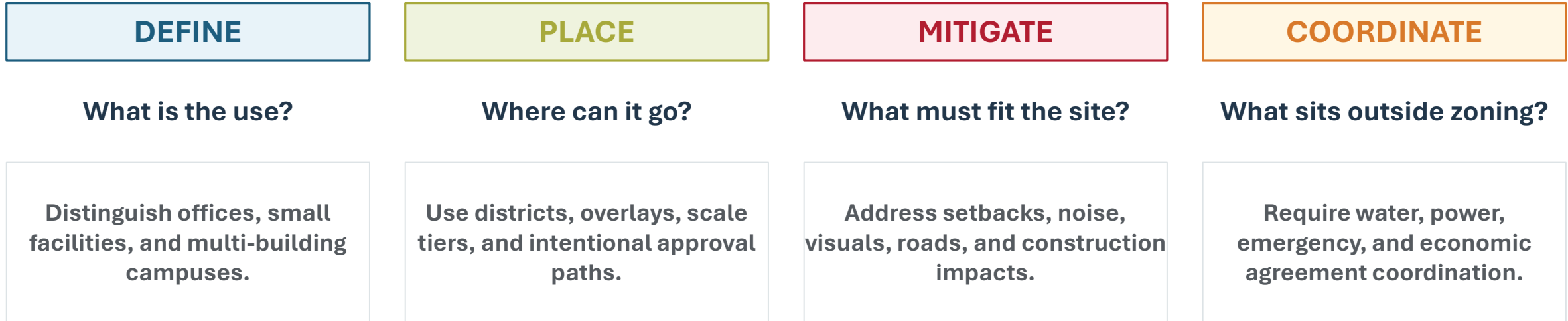
\$3.24M/year gross tax estimate for one 280,000 SF building

Takeaway

Tax value is a major public benefit — but it should be clear, public, durable, and not traded away without a defined return.

Lessons Learned: Four Decisions Before the First Application

A good ordinance can turn a high-pressure project into a predictable public review.



Then connect the pieces:



Final message: build the rules before the project.