We underwrite and pool urban Public-Private Partnerships – ultimately linking small-scale infrastructure to capital markets.

**THE OPPORTUNITY**

In a recent survey, US mayors reported that due to public financing constraints, they can meet just 52% of infrastructure needs over the next five years.\(^1\) At the same time, we are in a record fundraising environment for infrastructure private equity – much of which remains undeployed: infrastructure investors held $75B in dry powder in 2016,\(^2\) and 52% of fund managers report deal flow as their biggest challenge.\(^3\)

The US is increasingly using Public-Private Partnerships (P3s) to bridge the gap between available private capital and infrastructure needs.\(^4\) But two key barriers deter investment into Public-Private Partnerships for municipal infrastructure:

1. Projects often lack sufficient scale to attract interest.\(^5\)
2. Unlike listed infrastructure (inclusive of large-scale projects like toll roads, airports, oil and gas infrastructure, and seaports\(^6\)), smaller urban P3s lack access to capital markets.

As a result, although the P3 market in the US is growing slowly, it currently has limited impact on **US demand for $150B in annual infrastructure investments**.\(^7\) This shortfall has a direct effect on communities: American households lose an estimated $3,400 per year due to infrastructure deficiencies – with low-income areas disproportionately bearing the cost.\(^8\)

Overcoming these financing obstacles for municipal P3s would help to meet infrastructure investment needs and deliver sustainable infrastructure solutions to communities, including:

- Microgrids and power storage solutions
- Energy efficiency retrofits and LED lighting upgrades
- Small- to mid-scale water treatment solutions
- Waste management and recycling

**OUR STRATEGY**

Jane Urban Infrastructure Partners addresses the two key investment barriers affecting municipal P3s, specifically by:

1. **Building a network of infrastructure Special Purpose Vehicles (SPVs)** that collect local impact capital and deliver affordable, small-scale ($1M - $10M) debt financing to P3s;
2. **Aggregating P3 debt into marketable, securitized products** – building tranches based on asset type and risk, and selling these tranches to mid-market and institutional investors.

This two-tiered structure – between local investors and SPVs and between SPVs and capital markets – is outlined below.

Mobilizing local impact capital through community SPVs:

We will target municipalities with (1) formalized approaches for P3 project delivery, and (2) demonstrated demand for infrastructure financing, accessible through either a pipeline of P3 RFPs or through unsolicited proposals. Washington, D.C., meets these criteria and is a helpful illustrative case for an SPV:

**THE MARKET:** According to its Office of Public-Private Partnerships, which offers a ready source of P3 RFPs as well as a destination for unsolicited P3 proposals, DC has an infrastructure spending shortfall $4.9B over 6 years. P3 opportunities to help cover this gap span waste management, microgrids, and LED upgrades. P3 opportunities are expected to grow, as DC is projected to hit its 12% debt limit by 2022.

**THE SPV:** An open-ended SPV will allow us to raise and deploy local capital for local projects, without incurring the high legal and accounting fees associated with GP/LP structures. Each city SPV will target between $10M and $20M in capital raised.
**LOCAL INVESTORS:** We will target local investors seeking to improve infrastructure within their own communities while generating financial returns. Local family offices (for example, DC’s Case Family Office), endowments (such as Georgetown University’s Investment Office), and impact investors (like ImpactAssets in DC) all represent promising sources of capital.

We have identified similar P3 opportunities in other markets — including LA and Chicago, where dedicated P3 offices (the Chicago Infrastructure Trust and the LA Office of Extraordinary Innovation) offer a pipeline of P3 financing opportunities. But DC, LA, and Chicago are just a starting point. Assuming:

- US municipal infrastructure bonds market\(^9\) $175B
- Target P3 spending as % of infra. finance\(^{10}\) x 5%
- Estimated projects less than $10M in size\(^{11}\) x 25%
- Typical % leverage for infrastructure SPVs x 50%

We estimate an annual addressable US market of: $1.1B

Deploying accessible debt from SPVs to local P3s:

Delivering accessible debt financing is critical to unlocking this $1.1B asset class of municipal P3s. Presently, US P3s rely on 40% to 60% debt financing — typically provided by infrastructure funds, through debt capital markets, or from commercial banks. But for municipal P3s, projects are often too small for infrastructure funds; capital markets are inaccessible; and banks are less willing to provide long-term, low-interest debt.\(^{12}\)

At the SPV level, Jane Urban Infrastructure Partners will fill this credit gap by deploying debt to local P3 implementers. Access to impact capital with lower return thresholds will enable us to match the 5% to 6% interest rates typically available to large-scale P3s. Further, underlying cashflows from a government-backed P3 contract will lower perceived risks for SPV investors.

In assessing opportunities, we will examine three key P3 components: credit terms, structure, and operator experience:

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Review Process / Due Diligence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transaction Size and Tenor</td>
<td>Review P3 agreement to confirm $1M to $10M debt need with 5- to 10-year tenor.</td>
</tr>
<tr>
<td>P3 Structure and Risks</td>
<td>Review risk of not meeting P3 performance goals and cost obligations of all parties.</td>
</tr>
<tr>
<td>P3 Operator Experience</td>
<td>Examine contracting and O&amp;M record to affirm the operator’s ability to execute P3.</td>
</tr>
</tbody>
</table>

Pooling P3 loans into marketable tranches for investors:

In deploying capital through SPVs, our goal will be to reach a critical mass in which similar transactions across geographies — for example, multiple power transactions or multiple high-risk, high-yield credit lines — can be bundled into single packages, initially totaling between $10M and $30M in disbursed debt.

**INVESTMENT TERMS AND RISKS**

<table>
<thead>
<tr>
<th></th>
<th>Local SPVs</th>
<th>Pooled Securities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Term</strong></td>
<td>10-year SPV horizon</td>
<td>10- to 15-year P3 assets</td>
</tr>
<tr>
<td><strong>Fees</strong></td>
<td>1% mgmt. &amp; 2.5% carry</td>
<td>None</td>
</tr>
<tr>
<td><strong>Returns</strong></td>
<td>Targeted 4% IRRs</td>
<td>Targeted 5% IRRs</td>
</tr>
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<table>
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<tr>
<th>Key Risks</th>
<th>Mitigants</th>
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<tr>
<td>P3 Origination Challenges</td>
<td>Our team will align with P3 procurement offices – both as a dedicated source of financing and as a partner to P3 operators.</td>
</tr>
<tr>
<td>Complexity of Securitized P3s</td>
<td>We will follow established practices for Asset-Backed Security valuation and sales.</td>
</tr>
<tr>
<td>P3 Non-Performance</td>
<td>Our team will establish relationships with frequent P3 operators and will perform rigorous due diligence on new partners.</td>
</tr>
</tbody>
</table>

**OUR IMPACT AND OUTLOOK**

The Jane Urban Infrastructure Partners model creates opportunities for both direct and indirect scalability:

- We will directly scale through the replicability of our SPV approach: financing vehicles can be launched in new markets, targeting P3 opportunities advertised through municipal procurement offices.
- In addition, we will catalyze broader financing for small-scale urban infrastructure through the creation of a secondary market of investors buying P3-backed securities. Connecting capital markets

We will measure impact based on public investment saved, the value of infrastructure financed, and volume of small P3s closed.

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\(^9\) Credit Suisse, “US P3 Market Slowly Builds on Four Fronts” (2016)

\(^{10}\) In economies that make strong use of P3s, spending typically represents 5 – 10% of investment in infrastructure. McKinsey, “Bridging Global Infrastructure Gaps” (2016)

\(^{11}\) Public Works Management & Policy, “Satisfaction Rating of Alternative Project Delivery Methods Used in Water and Wastewater Infrastructures” (2016)


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**Who is Jane?** Our namesake is Jane Jacobs, an activist and urbanist who believed in the power of local communities to build better cities.

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Advisors on this project include: Bruce M. Kahn, Sustainable Insight Capital Management; Lauren Counts and Jesse Amin, Capital Impact Partners; and Andrew Straub, HP5 Partners