Application form: Community Planning Program and Local Technical Assistance Program

DEADLINE: Noon on Thursday, June 26, 2014

This application form is online at www.rtachicago.com/applications. You may submit the form by email to applications@rtachicago.com. Upon receipt of application, you will receive an e-mail verifying that your application has been received.

1. Name of Applicant:
   Chicago Metro Metal Consortium (“CMMC”)

2. Main Contact for Application (please include name, phone number and email):
   Elaine Romas, Special Assistant – Legal Affairs, Cook County Bureau of Economic Development, (312)603-1016 or elaine.romas@gmail.com

3. Type of Applicant (please check any that apply):
   
   ____ Local government
   
   _X_ Multijurisdictional group*

   Please list the members of the group (including government and nongovernmental organizations):
   - Chicago Metro Metal Consortium
   - Alliance for Illinois Manufacturing
   - Chicago Cook Workforce Partnership
   - Chicago Metropolitan Agency for Planning
   - City of Chicago
   - City of Joliet
   - Choose DuPage
   - Cook County
   - DuPage County
   - DuPage Workforce Board
   - Funk Linko
   - Harper College, on behalf of Illinois Network for Advanced Manufacturing
   - Illinois Manufacturing Excellence Center
   - Kane County
   - Kendall County
   - Lake County
   - Lake County Partners
   - McHenry County Board
   - McHenry County Economic Development Corporation
4. Project Type (please check any that apply):

Please check all statements below that describe characteristics of your project. (This will help us determine whether your project is best handled by CMAP or RTA.)

____ My project involves preparation of a plan.

__X__ My project helps to implement a past plan.

__X__ My project links land use and transportation, but not housing.

____ My project has direct relevance to public transit and supports the use of the existing transit system.

____ My project is not directly related to transportation or land use, but implements GO TO 2040 in other ways.

CMMC’s economic development strategy for the region’s metal cluster implements recommendations in GO TO 2040 and related reports, including the CMAP Manufacturing Report, Freight Cluster Drill Down Report, Freight Manufacturing Nexus Report, Infill Report and Brownfields Study.

5. Project Location:

Please provide a brief description of the location of your project. You may include a map if that helps to describe location, but this is not required. If your project helps to implement a past plan, please include a link to that plan.

The Chicago Metro Metal Region encompasses the seven Northeastern county region—Cook, DuPage, Kane, Kendall, McHenry, Lake and Will.

CMMC submitted a lengthy application to the Department of Commerce, Economic Development Administration.

A copy of the Region’s map, Narrative, Budget and Transportation Projects is attached.

Upon request, a copy of the entire application will be submitted via separate e-mails as Cook County server cannot accommodate the transmittal of the entire application.

6. Project Description:

Please tell us what you would like to do in your community, and what assistance is needed. If you have more than one idea, please submit a separate application for each project. Please be specific, but also brief (less than two pages per project idea)—we simply want to have a basic understanding of what you want to do. CMAP and RTA staff will follow-up with you if we need any additional information to fully understand your proposed project. (Please include any additional information that is relevant, preferably by providing links to online documents.)

Overview

The Chicago Metro Metal Consortium (CMMC) seeks CMAP Local Technical Assistance to help CMMC’s Infrastructure and Site Development Committee to assess and prioritize transportation projects for submittal to the U.S. Department of Transportation’s Transportation Investment Generating Economic Recovery (TIGER) Discretionary Grant program.

CMMC was designated one of twelve IMCP “Manufacturing Communities” by the Department of Commerce. The designation recognized the Chicago Metro Metal Region as one of the nation’s top metal and machinery manufacturing regions with more than 3,700 firms, employing more than 100,000 people, and generating $30 billion in annual revenue.

On the day that the designation was announced, United States Senator Dick Durbin said “Under the leadership of the Cook County Bureau of Economic Development, the Chicago metropolitan area has distinguished itself as one of our country’s leading centers of manufacturing. Today’s federal designation will allow the region’s manufacturing sector to build on its historical strengths and leverage recent growth – including the federally-funded Digital Manufacturing Lab – by expanding access to federal funding and resources.”


Preferential Consideration for DOT TIGER Funding

As a designated IMCP Manufacturing Community, CMMC will receive preferential consideration over two years for a range of future federal economic development funding. One funding source is the U.S. Department of Transportation’s Transportation Investment Generating Economic Recovery (TIGER). TIGER is a highly competitive discretionary grant program which provides a unique opportunity for the Department of Transportation to engage directly with states, cities, regional planning organizations, and rural communities through a competitive process that invests in road, rail, transit and port projects that promise to achieve critical national objectives. Each project is multi-modal, multi-jurisdictional or otherwise challenging to fund through existing programs.

CMMC Transportation Committee and Projects

In its application to the Department of Commerce, CMMC proposed 11 transportation projects which would strengthen metal manufacturing in the region. Each of the seven counties submitted a project and some counties submitted more than one project. CMMC stated that it would create a Transportation Committee which will include representatives from the Transportation Departments of the seven Counties, the city of Chicago and other municipal transportation agencies, CMAP, metal manufacturers, regional Councils of Government, and the private sector.
CMAP Local Technical Assistance is needed to assess and prioritize proposed transportation projects. The goal is to secure TIGER funding for at least one regionally significant transportation project whose completion strengthen our nation's manufacturing sector and contribute to the region's economic competitiveness by improving the movement of goods and workers in metal manufacturing.

Background

National “Manufacturing Community” Competition

The Chicago Metro Metal Consortium (CMMC) was formed in response to a competition by the Department of Commerce, Economic Development Administration (EDA) which was issued as part of the Investing in Manufacturing Communities Partnership (IMCP). IMCP is designed to revolutionize the way federal agencies leverage economic development funds by rewarding best practices. Through the IMCP competition, EDA sought regional economic development plans and implementation strategies which would expand manufacturing. An applicant was required to conduct an integrated data-driven assessment of its local industrial ecosystem and develop an evidence-based plan for integrated investment across six key pillars: 1) workforce and training; 2) supplier network; 3) research and innovation; 4) infrastructure/site development; 5) trade and international investment; and 6) operational improvement and capital access.

Chicago Metro Metal Consortium Cluster Strategy

The Cook County Bureau of Economic Development led the application process and assembled a broad team of stakeholders to assess local manufacturing sectors and develop an integrated growth plan. CMMC found that the Region ranks top third in employment Location Quotients for three metal sectors - 3312 Steel Product Manufacturing, 332 Fabricated Metal Products and 333 Machinery Manufacturing - collectively referred to as the Chicago Metro Metal Cluster (“Cluster”). Over 3,700 Cluster firms in the cluster employ more than 100,000 people and generate more than $30 Billion in revenues. Building on the Region’s metal base, transportation network, and capacity to steer large federal projects, the Consortium developed a menu of integrated investments across the six key pillars: 1) workforce and training; 2) supplier network; 3) research and innovation; 4) infrastructure/site development; 5) trade and international investment; and 6) operational improvement and capital access.

CMAP Role in Developing CMMC Application

As the official regional planning organization for the northeastern Illinois counties, CMAP played a critical role in developing the metal cluster strategy. CMMC defined its regional footprint to mirror CMAP’s jurisdiction because CMAP had laid the groundwork for regional collaboration among the same seven counties. In addition, CMMC relied on CMAP GOTO 2040 and related reports to shape its economic development plan. CMAP staff also served as a resource and provided data for the application.

In its application the Consortium sought Bonus Points for “Infrastructure and Site Development,” as follows:

The region’s planning agency – Chicago Metropolitan Agency for Planning (“CMAP”) – will coordinate development efforts with broad stakeholder guidance and input. Planned investments are guided by GO TO 2040, the Region’s metropolitan Chicago’s first comprehensive regional plan in more than 100 years. Developed by CMAP, GO TO 2040 is
funded through the joint U.S. Departments of Transportation ("DOT"), Housing and Urban Development ("HUD") and Environmental Protection Agency ("EPA") Partnership for Sustainable Communities. The plan and subsequent reports set forth strategies for economic development and job growth. GO TO 2040 confirms the national significance of the Region’s transportation network. The Region is the only domestic region served by 6 of the 7 Class 1 railroads; has seven major interstate highways (the most in the nation); and is home to Chicago O'Hare Airport, the nation’s second busiest international air cargo gateway by value and CenterPoint Intermodal, North America’s largest inland container port. The ecosystem is shaped by the unparalleled concentration and colocation of multi-model freight services and manufacturing that provide rooted economic benefits. The Regions’ intermodal terminals handle up to half of all rail container movements in the U.S. By employment, the region’s Freight Carriers have a LQ of 1.27 and the Logistics Industry has a LQ of 2.0. Each of the proposed transportation projects is linked directly to metal firms.

“Manufacturing Community” Designation and Federal Funding Preference

On May, 28, US Secretary Penny Pritzker announced that CMMC was designated one of 12 Manufacturing Communities. From the 70 communities that applied, these 12 were selected by an interagency panel, based on the strength of their economic development plans, the potential for impact in their communities, and the depths of their partnerships across the public and private sector to carry out their plans.

The 12 designated Manufacturing Communities will receive coordinated support for their strategies from the following eleven federal agencies with $1.3 billion available in federal economic development assistance:

- Appalachian Regional Commission
- Delta Regional Authority
- Environmental Protection Agency
- National Science Foundation
- Small Business Administration
- U.S. Department of Agriculture
- U.S. Department of Commerce
- U.S. Department of Defense
- U.S. Department of Housing and Urban Development
- U.S. Department of Labor
- U.S. Department of Transportation

These communities will also receive a dedicated federal liaison at each of these agencies that will help them navigate available federal resources. They will also be recognized on a government website, accessible to prospective private foreign and domestic investors, looking for information on communities’ competitive attributes.

April 8, 2014

The Honorable Penny Pritzker
Secretary of Commerce
U.S. Department of Commerce
1401 Constitution Ave., NW
Washington, D.C. 20230

Re: *Chicago Metro Metal Consortium*
Letter of Application
Investing in Manufacturing Communities Partnership (IMCP) Application

Dear Secretary Pritzker:

I am writing this Letter of Application on behalf of the Chicago Metro Metal Consortium proposed in the attached Investing in Manufacturing Communities Partnership (IMCP) Application. Cook County is an eligible applicant and has been designated by the Consortium as the Lead Applicant. The Consortium includes the seven counties of northeastern Illinois - Cook, DuPage, Kane, Kendall, Lake, McHenry and Will – as well as the city of Chicago. As lead applicant, Cook County will be primarily responsible for overall coordination, reporting, and delivery of results if this application is approved.

The Chicago Metro Metal Consortium will build upon the region’s metal and transportation assets to create well-paying jobs while accelerating the resurgence of manufacturing. It will expand existing partnerships, enhance current economic development programming, and facilitate best practices. The region is uniquely positioned for this designation given its strategic location, sizeable geography with varied amenities, and strong capacity for economic growth. It has the second highest location quotient for employment in Fabricated Metal Manufacturing and ranks in the top third in employment location quotient for Steel Product and Machinery Manufacturing. Moreover, the greater tri-state Chicago Metropolitan Statistical Area (MSA) ranks in the top third in employment location quotient across all three metal manufacturing sectors. More than half of all rail container movement in the United States passes through the tri-state region.
The Consortium feels the proposed Chicago Metro Metal Consortium merits strong consideration for designation as a Manufacturing Community as it would help to target investments in a leading metal manufacturing region that also lies at the center of a massive transcontinental rail system.

Please direct related questions or requests for additional information to the primary point of contact for this application, Elaine Romas, Special Assistant – Legal Affairs at 312-603-1016 or Elaine.romas@cookcountyil.gov.

Thank you in advance for your consideration of this application.

Sincerely,

Toni Preckwinkle
President
Chicago Metro Metal Consortium

A proposal to create the

**Chicago Metro Metal Cluster:**

*Creating Job Growth and Prosperity in a Leading Global Manufacturing and Transportation Center*

2014 Investing in Manufacturing Communities Partnership
Narrative
Chicago Metro Metal Cluster
Creating Job Growth and Prosperity in a Leading Global Manufacturing and Transportation Center

Overview

The Chicago Metro Metal Consortium (“Consortium”) seeks to be one of 12 communities designated as a Manufacturing Community by EDA. The Consortium has assessed the local ecosystem, and identified industry sectors in metal manufacturing where the Chicago Metro Region (“Region”) is in top 3rd nationally and where through targeted investments jobs can be created further benefitting the region. Investments are needed in each of the 6 elements identified by the EDA – workforce and training; advanced research; infrastructure and site development; supply chain support; trade and international investment; and operational improvement and capital access.

The Consortium will create well-paying manufacturing jobs and broad-based prosperity through targeted investments in one of our nation’s leading manufacturing centers and transportation supply networks. The Chicago Metro Region (“Region”) includes the seven (7) Counties of Northeast Illinois – Cook, DuPage, Kane, Kendall, Lake, McHenry and Will – and the City of Chicago. Together with the University of Illinois (UI), Chicago Metropolitan Agency for Planning (CMAP), World Business Chicago (WBC) and other organizations, they formed a Consortium to assess the local ecosystem and identify industries with substantial growth potential. The Consortium’s assessment found that the Region ranks top third in employment Location Quotients for three metal sectors - 3312 Steel Product Manufacturing, 332 Fabricated Metal Products and 333 Machinery Manufacturing - collectively referred to as the Chicago Metro Metal Cluster (“Cluster”). Over 3,700 Cluster firms in the cluster employ more than 100,000 people and generate more than $30 Billion in revenues. Building on the Region’s metal base, transportation network, and capacity to steer large federal projects, the Consortium developed a menu of integrated investments across six key pillars which create a virtuous cycle of Cluster development. Each dollar of the Consortium’s proposed federally-funded investment is matched over the next 5 years by nine dollars of non-Federal investments.

1. “Workforce and Training” leverages and builds upon prior regional efforts and an existing Department of Labor, Employment Training Administration Department of Labor, Employment Training Administration’s Trade Adjustment Assistance Community College and Career Training ("TAA-CCT") grant. Over the last several years, the Region’s public workforce system, community colleges, employers and training institutions have formed a network and are refocused on manufacturing in response to renewed industry growth and increased demand for skilled workers. Through a TAA-CCT grant, 12 regional Illinois Network for Advanced Manufacturing (“INAM”) community colleges are expanding and improving the network’s ability to deliver education and career training programs leading to industry-recognized certificates or associate. The Consortium seeks funding that leverage these existing resources.

2. “Supplier Network” is anchored by the insights of the Illinois Manufacturing Excellence Center (“IMEC”), a Consortium member and leader of the US Commerce National Institute of Standards and Technology, Manufacturing Extension Partnership (NIST MEP). Metal manufacturers are often situated in more than one supply chain - intersecting with many other types of manufacturing, using outputs from other manufacturers, and making end and intermediate products for multiple markets. IMEC has the proven ability to complete complex supply chain mapping that builds upon existing efforts to identify gaps; develop and implement strategy to address supply chain gaps; develop and implement a targeted outreach strategy to improve integration of supply chain actors in key trade associations; conduct outreach to key stakeholders outside the region; and coordinate with providers to promote International Organization for Standardization (“ISO”) certification.

3. For “Research and Innovation,” the University of Illinois (“UI”) as Consortium member and one of the nation’s leading public research universities, has the capacity to provide strategic through leadership to corral limited resources and effectively address industry specific needs. UI will help the Consortium identify “open innovation” model strategies relative to metal manufacturing; facilitate the adoption of applied research to industry; and share applied research and engage with industry stakeholders including those that represent disadvantaged populations.

4. Bonus Points are sought for “Infrastructure and Site Development.” The region’s planning agency – Chicago Metropolitan Agency for Planning ("CMAP") – will coordinate development efforts with broad stakeholder guidance and input. Planned investments are guided by GO TO 2040, the Region’s metropolitan Chicago’s first comprehensive regional plan in more than 100 years. Developed by CMAP, GO TO 2040 is funded through the joint U.S. Departments of Transportation (“DOT”), Housing and Urban Development (“HUD”) and Environmental Protection Agency (“EPA”) Partnership for Sustainable Communities. The plan and subsequent reports set forth strategies for economic development and job growth. GO TO 2040 confirms the national significance of the Region’s transportation network. The Region is the only domestic region served by 6 of the 7 Class 1 railroads; has seven major interstate highways (the most in the nation); and is home to Chicago O’Hare Airport, the nation’s second busiest international air cargo gateway by value and CenterPoint Intermodal, North America’s largest inland container port. The ecosystem is shaped by the unparalleled concentration and colocaiton of multi-model freight services and manufacturing that provide rooted economic benefits. The Regions’ intermodal terminals handle up

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1 QCEW Employees - EMSI 2013.4 Class of Worker
2 Chicago Cook Workforce Partnership analysis of data from EMSI
to half of all rail container movements in the U.S. By employment, the region's Freight Carriers have a LQ of 1.27 and the Logistics Industry has a LQ of 2.0. Each of the proposed transportation projects is linked directly to metal firms.

5. “Trade and International Investment” is led by World Business Chicago (“WBC”), a public-private partnership between the City of Chicago and its business community. WBC fosters private-sector growth and jobs through the advancement of a business-friendly environment. WBC’s Chicagoland Trade Accelerator will act as a front door for small- and medium-sized metal enterprises to access the support services needed to increase exports.

6. “Operational Improvement and Capital Access” For “Operational Improvement,” two existing institutions and Consortium members – the Alliance for Illinois Manufacturing (“AIM”) and IMEC—will work with metal manufacturers to assess business operational capability and identify key areas for improvement. Sustainability efforts will be coordinated by the Cook County Department of Environmental Control (“CCDEC”) with participation from Illinois Sustainable Technology Center (“ISTC”) and Elevate Energy (“EE”). CCDEC and its partners have a long and successful history of partnering with the U.S. and Illinois Environmental Protection Agencies. “Capital Access” relies on local institutions that can link metal firms to public and private resources. Consortium Member, the AIM and its sister organization, the North Business and Industrial Council (“NORBIC”) will provide counsel to manufacturers regarding access to capital, business development, and equity and debt financing through the Illinois Small Business Development Center (“ISBDC”) at NORBIC.

Eligible Organization and Submitting Official: Proposals for designation as a Manufacturing Community must be submitted on behalf of the region by a consortium that includes one or more of the eligible organizations discussed in this section. The consortium must designate one of these eligible organizations as lead applicant and one member of that organization to be the primary point of contact for the consortium. Cook County, IL is a local unit of government and eligible lead applicant. Cook County Board President Toni Preckwinkle is the Submitting Official.

Point of Contact: Elaine Romas, (312)603-1016, elaine.romas@cookcountyil.gov, Cook County Bureau of Economic Development, 69 W. Washington, Suite 2900, Chicago, IL 60602.

Consortium Members and Letters of Commitment: All members of the consortium must submit letters of commitment or sign a Memorandum of Understanding documenting their contributions to the partnership. Additionally, at a minimum, the applicant must have letters of support from a higher education institution, a private sector partner, and some government entity if not already part of the consortium. Applicants should demonstrate a significant level of regional cooperation in their proposal because only one designation will be made in a particular region. The Consortium includes the following partners: Local Governments: Counties of Cook, DuPage, Kane, Kendall, Lake, McHenry and Will Counties; Cities of Chicago and Joliet; Higher Education Institution University of Illinois Private Sector: Funk Linko Private Member Organizations: Alliance for Illinois Manufacturing (“AIM”) Public Private Partnerships: Choose DuPage, Lake County Partners, World Business Chicago Regional Planning Agency: Chicago Metropolitan Agency for Planning (“CMAP”); State; Illinois Department of Commerce and Economic Development Illinois U.S. Commerce NIST Manufacturing Extension Partnership Center: Illinois Manufacturing Excellence Center National Network for Manufacturing Innovation; UI Labs Workforce Agencies and Training Colleges: Chicago Cook Workforce Partnership (“CCWP”); DuPage Workforce Board, Harper College, Illinois Network for Advanced Manufacturing (“INAM”), McHenry County Workforce Net Board, Will County Workforce Investment Board. Letters of Commitment are attached in the Appendix Section of this Proposal.

Investment Commitment: Extent to which applicants can demonstrate commitments from public and private sectors to invest in public goods identified by the plan, or investments that directly lead to high-wage jobs in manufacturing or related sectors. These commitments should be classified into two groups: those that are not contingent on receipt of a specific Federal economic development funding stream, and those that are contingent on the availability of such a Federal economic development funding stream. In the latter case, applicants should aim to show that each dollar of their proposed Federally-funded public investments will be matched over the next 3-10 years by at least two dollars of other investment, which may be private or public (non-Federal). Each dollar of the Consortium’s proposed IMCP federally funded investment (approximately $376M) is matched over the next five years by at least nine dollars of non-federal investment (approximately $3.4B), which are not contingent on the availability of Federal economic development funding streams. The Budget lists the funds requested and the level of investment commitment. This proposal and the attached Letters of Commitment document related partnerships and investment commitments.

Geographic Scope and Location Quotient

(g) Geographic Scope: Description of the regional boundaries of their consortium and the basis for determining that their manufacturing concentration ranks in the top third in the nation for their key manufacturing technology or supply chain by either: Location quotient for employment in the KTS, or location quotient for firms in the KTS. Geographic Scope: The Chicago Metro Region (“Region”) includes the city of Chicago and 7 Counties of northeastern Illinois - Cook, DuPage, Kane, Kendall, Lake, McHenry and Will. Through regional consensus, the 7 Counties are served by one official regional planning agency – CMAP. The 7 Counties work with CMAP to develop and guide the implementation of GO TO 2040, metropolitan Chicago's first comprehensive regional plan in more than 100 years. The plan and subsequent reports set forth strategies for economic development and job growth. The Consortium’s proposed investments have been guided by GO TO 2040 and related CMAP reports. Key Technology or Supply Chain (KTS) and Location Quotient (LQ) for

1 A letter from Cook County Board President Toni Preckwinkle is attached. http://www.cookcountygov.com/portal/server.pt/community/government/226/leadership.
Employment: The KTS is 3312 Primary Metals - Steel Product Manufacturing (“Steel”), 332 Fabricated Metal Product (“Fab Metal”) and 333 Machinery Manufacturing (“Machinery”). Collectively, these three industries will be referred to as the Chicago Metro Metal Cluster (“Cluster”). The Cluster employs over 100,000 individuals regionally. With approximately 580,000 manufacturing jobs in the Region, approximately 1 out of 6 jobs are in the Cluster. The Cluster also provides on average better paying jobs – $59,464 - as opposed to the Region average of $56,425.

3312 Steel: The Region ranks top third in LQ for 3312 Steel with over 2,900 employees. Primary metal manufacturers use ore or scrap materials to smelt metals such as iron or steel; and primary mineral manufacturers grind, heat, or shape minerals such as sand into products such as glass. Overall the Region is less specialized in 331 Primary Industries, though the greater tri-state Chicago Metropolitan Statistical Area (“MSA”) maintains one of the nation’s leading primary metal centers.

332 Fab Metal: With over 60,000 regional employees, the Region ranks in the top 3rd in 332 Fab Metal. Of the nation’s top ten metro areas, the Region’s 332 Fab Metal LQ of 1.56 is second only to the Houston region and outpaces other manufacturing centers like Los Angeles. Fab Metal industries transform metal into intermediate or end products for a wide variety of uses. Products include such diverse outputs as architectural and structural metals manufacturing, hand tools, hardware, and cutlery manufacturing, and spring and wire manufacturing. Fab industries also shape metal though stamping, bending, and machining.

333 Machinery: The Region ranks in the top third in employment LQ for 3332, 3333, 3335 – 3339. 333 Machinery is the Region’s largest manufacturing sector, with 70,582 employees in 2011. It includes transportation equipment manufacturing, appliances and electrical equipment machinery, and other industrial, commercial, agricultural, and construction machines. In general, individual machinery firms specialize in making very specific arts or machines; one firm may produce only washing machines, another just parts for a diesel engine, while another concentrates simply on electric light fixtures.

Tri-State Region and MSA LQ Ranking: The Cluster is located within one of the nation’s few truly global centers of manufacturing and transportation. The Region is part of the greater Chicago Metropolitan Statistical Area (“MSA”). The MSA includes portions of Indiana and Wisconsin. As economies are fundamentally regional in scope, the manufacturing activities of the greater Chicago MSA serve a vital function in the Region. The greater Chicago MSA is in the top third LQ ranking in NAICS 3312 Steel, 332 Fab Metal and 333 Machinery.

With a gross regional product of over $500 billion a year, the Chicago tri-state MSA’s dynamic economy ranks third largest in the U.S. Indeed, the larger MSA economic output not only outperforms other regions but also surpasses that of many nations; if the Chicago MSA were counted as its own country, it would have the 20th largest world economy. The Region’s most pronounced concentrations have been in manufacturing and freight transportation. In 2011, manufacturing employed over 580,000 individuals regionally, making it the second largest manufacturing region in the country behind only Los Angeles. With the highest economic multiplier of any economic activity, manufacturing provides significant benefits to the regional economy in terms of wages, jobs, and output. Manufacturing serves as a major regional employer and provides on average better paying jobs -- with about 13 percent of regional employment, the manufacturing cluster contributes over to 18 percent of all employee earnings. From developing new products and technologies to exporting consumer goods around the world, manufacturing supports a substantial portion of the regional workforce while bringing new dollars into the economy. Additional enclosed narratives further articulate the local industrial ecosystem.

Implementation Strategy Description and Parties:
The assessment below outlines all strategies by pillar as well as roles and responsibilities for the lead applicant, Consortium members, partners, and other supporters/investors. Formal letters of commitment are also included in this submission. The following narratives as well as the attached support letters document related partnerships and investment commitments

Performance Metrics: The assessment also details the proposed performance measurement system including potential metrics, benchmarks, and milestones throughout strategy implementation.

Assessment of Local Industrial Ecosystem

(b) Assessment of Local Industrial Ecosystem: An integrated assessment of the local industrial ecosystem (i.e., the whole range of physical, capital, and human resource components needed for manufacturing activities) as it exists today in the area defined by the applicant and what is missing; and an evidence-based path for developing chosen components of this ecosystem (infrastructure, transit, workforce, etc.) by making specific investments to address gaps and make a region uniquely competitive;

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4 QCEW Employees - ESI2013.4 Class of Worker
5 QCEW Employees - ESI2013.4 Class of Worker
6 Chicago Metropolitan Agency for Planning CMAP Manufacturing Report, p.22
7 QCEW Employees - ESI2013.4 Class of Worker
8 CMAP Manufacturing Report p. 25
9 CMAP Manufacturing Report p. 25
10 QCEW Employees - ESI2013.4 Class of Worker
11 Chicago Metropolitan Agency for Planning’s “The Freight-Manufacturing Nexus: Metropolitan Chicago’s Built-in Advantage” at p.2. This report will be referred to as CMAP Freight Report.
12 Chicago Metropolitan Agency for Planning’s “Metropolitan Chicago’s Manufacturing Cluster: A Drill-Down Report on Innovation, Workforce and Infrastructure” at p.22. This report will be referred to as CMAP2
1. Workforce and Training

Workforce and Training: Current capability: What are the requisite skills and average compensation for employees in fields relevant to the KTS? How many people with these or similar skills currently reside in the region? The Metal Cluster employs over 100,000 people in the Region, with 70% of workers in production or non-production STEM occupations. Production occupations: There are 60,000 production workers. The median wage is $17.09. They work in 56 different occupations. More than two-thirds hold one of ten positions: 1) Machinists; 2) Team Assemblers; 3) Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic; 4) First-Line Supervisors of Production and Operating Workers; 5) Computer-Controlled Machine Tool Operators, Metal and Plastic; 6) Welders, Cutters, Solderers, and Brazers; 7) Inspectors, Testers, Sorters, Samplers, and Weighers; 8) Tool and Die Makers; 9) Lathe and Turning Machine Tool Setters, Operators, and Tenders, Metal and Plastic; and 10) Helpers-Production Workers. Most of the 56 production occupations require moderate on the job training. Helpers of production workers require short-term training; machinists and tool and die makers require long-term training. First line supervisors of production and operating workers require experience in a related field. Both welding related positions require a postsecondary vocational award. Non-production Occupations: 10,000 workers hold non-production STEM occupations, with a much higher median wage at $36.77 and higher educational requirements. Of the 42 different non-production occupation, 31 require a bachelor’s degree or higher, and 11 require an associate’s degree. Nearly 70% of these workers hold one of ten positions: 1) Mechanical Engineers; 2) Industrial Production Managers; 3) Industrial Engineers; 4) Accountants and Auditors; 5) Engineers, All Other; 6) Architectural and Engineering Managers; 7) Mechanical Drafters; 8) Cost Estimators; 9) Software Developers, Applications; and 10) Computer Programmers. How many employees could be added to the workforce with minimal additional training? Regionally, an estimated 27,000 unemployed workers have some experience in manufacturing, providing a ready pool of candidates that could be added to workforce with targeted training. Current institutions for improving capability: What local community colleges, certified apprenticeships, workforce intermediaries, and other training programs exist that either specialize in the KTS or could develop specialties helpful for the KTS? Over the last several years, the region’s public workforce system and training institutions have refocused on manufacturing in response to renewed industry growth and increased employer demand for skilled workers. Programs focus on advanced manufacturing skills and use industry credentials to align training with job needs. Many programs train in high demand metal fields such as precision machining, welding, and industrial maintenance. The regional public workforce system includes the Workforce Investment Boards of Metropolitan Chicago (WBMC), a consortium of five Workforce Investment Boards (WIBs): Chicago Cook Workforce Partnership (CCWP), DuPage Workforce Board, Lake County Workforce Investment Board, McHenry County Workforce Investment Board and Workforce Board of Will County. Since 2003, WBMC has partnered with employers and economic development leaders on manufacturing initiatives. In 2013, WBMC developed the Manufacturing Industry Cluster Profile report focusing on the key regional strengths and expansion/development opportunities. Also in 2013, the WIBs launched the Metro Suburban Accelerated Training for Illinois Manufacturing (ATIM) program, funded through the DOL-ETA Workforce Innovation Fund. ATIM is administered through DuPage, Kane, Kendall, Lake, McHenry, and Will Counties with their WIBs and local Workforce Investment Act (WIA) Programs / IllinoisworkNet Centers, economic development organizations, industry associations, and manufacturers. Key ATIM elements are: responding to direct demand to fill vacancies for CNC Operators, Robotic Technicians, Welders, and Industrial Machinery Mechanics; investing $2 million in industry-recognized training and education in response to the manufacturers and delivered in an accelerated timeframe; and testing new delivery strategies to provide accelerated services, training and placement of qualifying individuals into available skilled manufacturing jobs as quickly as possible. CCWP prioritizes Workforce Investment Act (WIA) funding for manufacturing as one of seven high-growth, high-demand industries. Job seekers can access Individual Training Accounts (ITAs) for training in 5 occupations (26 SOC codes) within or supporting Metals. Since July 2012, CCWP committed $1.9 million in manufacturing training ITAs for almost 300 individuals. The Will WIB identified six high-growth manufacturing occupations eligible for WIA funding, and invested over $250,000 in ITAs in the last 5 years. Through its contracted workforce service providers, CCWP offers three manufacturing bridge programs that prepare low-skilled workers for entry-level manufacturing jobs and advanced training. CCWP supports the Calumet Green Manufacturing Partnership (CGMP) to create career advancement pathways for low-skilled, underprepared workers and meet employer demands on the south sides of Chicago and suburban Cook. CGMP has trained 152 individuals in manufacturing production and CNC, and placed almost 90 in training-related employment. Community colleges are also investing in advanced manufacturing equipment and curriculum. The Illinois Network for Advanced Manufacturing (INAM) is a statewide consortium of 21 community colleges working to: expand / improve the network’s ability to deliver education and career training programs leading to industry-recognized certificates or associate degrees that can be completed in two years or less; and prepare TAA-eligible and other workers for employment in high-wage, high-skill advanced manufacturing jobs that meet employer needs. Pathways provide access to high-paid jobs within advanced manufacturing through entrance points that match the skill sets and educational attainment of the prospective students. Through a round 2 TAA-CCT grant the 12 Region area INAM colleges have purchased equipment and developed aligned curriculum to train students in precision machining, metalworking, and industrial maintenance careers. By September 2016, the colleges will train almost 900 students using a Learn and Earn model that connects students to jobs and employers to skilled labor more quickly than standard college programs. INAM offers multiple entry points, based on an individual plan that takes into consideration
previous education, skill assessment, and credit for prior work or experience. The model provides internship, mentoring, and job opportunities to help students gain experience and employment. Do these programs result in recognized credentials and pathways for continuous learning that are valued by employers and lead to improved outcomes for employees? All of these programs result in industry-recognized credentials and/or pathways for continuous learning. Some provide Manufacturing Skills Standard Council (MSSC) credentials leading to entry-level jobs in manufacturing with a foundation for specialized training. Precision machining and metalworking programs focus on National Institute of Metalworking Skills (NIMS) and American Welding Society (AWS) credentials. All credentials were industry developed and demonstrate technical job skills proficiency. Community colleges are developing processes to award credits for credentials earned, allowing students with certifications to complete associates degrees more quickly. To what extent do these institutions currently integrate research and development (R&D) activities and education to best prepare the current and future workforce? Training programs and community colleges maintain employer advisory committees that provide input on new technologies and new labor skill needs. However, the small and medium manufacturers that participate on these committees generally conduct little or no R&D themselves, and are often slow to adapt new R&D unless it is mandated by an OEM they supply. To what extent do postsecondary partners engage with feeder programs, such as those in secondary schools? CCWP supports the Manufacturing Career Internship Program (MCIP) that exposes youth to industry career opportunities through job readiness training, company tours, and paid internships. Since MCIP’s launch in 2011, over 90 young adults have completed the program, and more than 75% either found employment or are pursuing additional education. MCIP is now expanding within Cook and into Kane and McHenry Counties. DuPage WIB is developing a pipeline of workers through career exposure activities, such as an annual Manufacturing Career Expo where high school students meet with employers and tour their companies. DuPage also recently launched its My Way manufacturing career exposure and paid internship program for youth ages 18-21 that is funded through a $100,000 WIA investment. What is the nature of engagement of Workforce Investment Boards, employers, community, and labor organizations? The WIBs provide workforce solutions for regional businesses in coordination with economic development agencies by: connecting companies to prescreened, job-ready candidates; providing access to federally-funded training programs and incentives; leveraging tax-based incentive programs to help finance workforce development costs; and counseling employees in danger of layoffs on new jobs and connecting them to potential employers. WBMC engages a large base of regional employers through strong working relationships with industry associations (e.g., Three Rivers Manufacturing Association, Valley Industrial Association, and Technology/Manufacturing Aligned) and the Metropolitan Economic Growth Alliance (MEGA), a consortium of economic development organizations from throughout the region. As active ATIM participants, they disseminate program information, recruit employer partners, and share information on available jobs. As part of this program, employers: validated supply/demand data that guided the selection of targeted occupations for training and development of skilled workers; advised on program elements such as competencies and industry certifications that should be obtained through training; advised on the selection of candidates for enrollment in program as viable future employees; provided work based learning opportunities; and identified job opportunities and consider program candidates for hire. Both WIBs and industry associations use WIA On-the-Job Training (OJT) funding to help manufacturers hire and train new employees. OJT reimburses a firm 50% of a new hire’s wages for up to six months while the employer trains the new hire in the skills needed for the position. Since July 2012, CCWP has committed $388,000 in OJT funding to help manufacturers hire and train almost 190 new employees at an average wage of $13.58 per hour. In the current Program Year, Will County WIB has committed $200,000 for OJT opportunities with manufacturers. In the past three years, the AIM placed over 200 individuals in manufacturing jobs with an average starting pay of over $18.00 an hour and an 86% retention rate. AIM, the Jane Addams Resource Corporation (JARC), and Career Connect will create a manufacturing pilot program entitled the Metro West Manufacturing Workforce Collaborative to improve workforce outcomes for underprepared workers and job seekers in DuPage western Cook Counties for the manufacturing sector. As part of this initiative, DuPage United will create a separate, independent workforce intermediary entitled Career Connect. Career Connect will provide recruitment, prescreening, referrals, career coaching and supportive services to the Collaborative. Through a $400,000 Rapid Response grant with DCEO, Kane County is implementing a rapid re-employment strategy that incorporates a job readiness training pathway with OJT as a direct placement strategy that can provide manufacturers with access to a job ready candidate pool available for hire. The Kane County project includes a business intermediary function that matches employers to the candidate pool and available OJT resources which is being delivered through a contract with AIM. CCWP also supports two manufacturing sector centers that provide services to industry employers including, personnel recruitment and screening, access to on-the-job and customized training resources to fill employer-specific labor skills gaps, and access to hiring tax credits and incentives. A variety of trade associations provide workforce services as part of their employer services. AIM offers a unique set of public and private services to assist companies in identifying and ultimately solving their workforce needs. In addition to OJT, AIM dispersed millions in state and federal grants to upgrade the skills of incumbent workers. IMEC, the state’s US Commerce MEP, is piloting a workforce process model that uses root-cause analysis methodologies to focus employers and workforce providers on relevant, actionable solutions that result in improvements in the workforce service delivery system. All these initiatives engage employers in a variety of capacities. At the most basic level, they help match employers with qualified job seekers. Training programs also engage employers in identifying necessary skills and competencies, assisting with curriculum development and program design, providing paid internships, mentoring, providing equipment and facilities, and assisting with training. Industry associations help
employers address labor and other needs through a variety of services.Gap: Short- and long-term human resources challenges exist for the local economy along the region's proposed development path. In a 2011 national report issued by Deloitte and the Manufacturing Institute,13 67% of employers surveyed reported a moderate to severe shortage of available, qualified workers and 56% anticipated the shortage will grow worse. Those national trends are mirrored in the region. Projections show over 5,300 annual job openings within the 56 production occupations (both within and outside of the Metal Cluster) over the next 10 years. Local employers report difficulty in finding skilled workers to fill key metal production occupations, including CNC operators, CNC programmers, welders, and maintenance mechanics. In some cases, this prevents companies from accepting orders or expanding operations. Fifty-seven percent of workers in metal occupations are age 45 and over. As these workers retire, companies anticipate an even greater labor shortage. On the labor side, a 30-year decline in US manufacturing and the loss of thousands of jobs, has decimated training programs. Over the last several years the workforce system, including community colleges and WIBs, have worked to reinstitute training programs and update them for today's advanced manufacturing technologies. It will take time for programs to reach capacity; and they need to adapt to changing skills and equipment to reflect industry innovations. Employers have also neglected the labor supply chain by not investing in programs to train young workers or in up-skilling their current workforce. When hiring, they look for workers with significant job experience. When experienced workers are not available, firms are reluctant to hire and train inexperienced recruits. Many employers are not aware of the MSSC, NIMS and AWS credentials and how those credentials translate into technical job skills. Given the ongoing uncertainty in the economy, many SMEs are reluctant to invest significant resources in their workforce. As technology evolves and experienced workers retire, it is critical for manufacturing firm to invest in their workforce. What is the local unemployment rate for key occupations in the KTS? Local efforts underway to re-incorporate the long-term unemployed into the workforce that could be integrated into KTS? WIB’s focus heavily on the approximately 6% of the region’s unemployed with experience in manufacturing. CCWP’s Platform-to-Employment pilot serves the long-term unemployed. Best practices learned from these initiatives will be integrated into strategies for the Cluster. Plans: Communities that intend to focus on workforce issues as a priority should explain how they intend to build on local assets to improve KTS in areas such as: (1) Linkage (including training, financial and in-kind partnerships) with employers (or prospective employers) in the KTS and labor/community groups to ensure skills are useful, portable, and lead to a career path; The region is making significant investments in manufacturing workforce training, most of which focus on metal occupations. Through the Consortium, partners will work together to create stronger linkages across training programs, with employers, and with R&D. Programmatic Linkages: Collaborative initiatives such as INAM, ATIM, and CGMP are working with multiple colleges, WIBs, and other partners to align training curriculum across programs and incorporate industry-recognized credentials. Workforce partners plan to strengthen existing and create new articulation agreements and dual credit programs between secondary schools and community colleges, and between community colleges and 4-year degree institutions. Initiatives are already underway to provide students with credit for credentials and prior work experience. These linkages will create more accessible pathways for individuals to continue training and advance in manufacturing careers. Employer Linkages: While each program engages employers to provide input and feedback, there is no vehicle to disseminate this input to the workforce system as a whole. In response, IMEC is piloting a process model to convert business and talent problems to pre- and post-hire solutions, working with employers and the workforce system. IMEC will work to expand the pilot and help the workforce system understand the business process changes it needs to adopt to better meet manufacturing employer needs. Additionally, programs and trade associations will better educate employers about how industry-recognized credentials (e.g. MSSC, NIMS, and AWS) translate to advanced manufacturing job skills. Once employers understand the value of the credentials, they will feel more confident in hiring credentialed workers who do not have extensive on-the-job experience. The Alliance for Illinois Manufacturing will work with firms and utilize its proprietary assessment to analyze a company’s workforce needs. This will include an assessment of hiring needs as well as incumbent workforce needs and providing subsidies and referrals to quality training partners. Plans to ensure broad distribution of benefits, e.g., through programs to upgrade jobs and wages or support disadvantaged populations; The Cluster employs 21% females, 38% Hispanics, 8% African-Americans, and 4% Asians. The Consortium will recruit, train, and retain these populations along with Veterans and ex-offenders. High wages, the availability of benefits, and the decreased need for physical labor make the industry a great fit for women who are often their families’ main breadwinners. Building on the CGMP models, workforce partners will develop materials and strategies to market the industry to women. Workforce programs will recruit Veterans and help them crosswalk their military training to manufacturing skills. Partners will work with employers to understand their HR policies and restrictions, and place ex-offenders appropriately. Extent of plan to integrate R&D activities and education to best prepare the current and future workforce as appropriate to the KTS focus specified. UI Labs and DMDI will help integrate R&D with education and training. As they work with companies on applied R&D, they will also document the new job skills needed to accompany the new processes and technologies developed. They will communicate this to the workforce partners, which will develop the appropriate curricula and programs. The DMDI demonstration facility will provide a place where instructors can access and train on the new technologies to facilitate curriculum development and knowledge transfer. Implementation Strategy Parties: Workforce Investment Boards of Metropolitan Chicago and members - Chicago Cook Workforce Partnership, DuPage Workforce Board, Lake County Workforce Investment Board, McHenry County Workforce

Investment Board and Workforce Board of Will County; the Alliance for Illinois Manufacturing Excellence Center; UI Labs and DMDI. Commitment to carry out strategy and contributions are set forth in their Letters of Commitment. Investment commitments are set forth in the Budget and Letters of Commitment. Milestones: 1. Integration with Research and Development (R&D), document the new or enhanced job skills needed to support new or updated processes implemented and technologies developed. 2. Refine job training programming and curricula to better address jobs/skills mismatch. 3. Identify opportunities for creation of new or expansion of existing linkages (including training, financing, and in kind partnerships) between current/prospective employers, education and training institutions, workforce development industry groups, labor groups, etc. 4. Develop and implement an outreach strategy to publicize workforce development resources for underserved populations including low-income, racial/ethnic minority, women, etc. 6. Convene quarterly meetings with workforce partners to develop templates and processes that will translate R&D development into workforce training needs. Performance Metrics: 1. Train 1,250 workers for metal production occupations annually through existing programs. 2. Place 1,000 workers in metal occupations annually through existing programs. 3. Increase the advanced manufacturing skills of the incumbent workforce. Worker progress for items 1-3 will be measured through metrics such as, skill credentials earned, employment status, hours worked, and wages earned. These metrics will be assessed before and after Network activities. 4. Impact of Network activities on employers as measured through metrics such as, employer rating of worker performance, average length of time job vacancies are unfilled, and employer rating of Metro as a place to manufacture. These metrics will be assessed before and after Network activities. 5. Integrate R&D with education and training, measured by: a) Number of training sessions with workforce partners; and b) Development of curriculum.

2. Supplier Network

Current Capability: What are key firms in the KTS? Illinois Tool Works is a Fortune 200 global industrial manufacturer headquartered in Cook County. With 2012 total revenue of $17B, 13% were attributed to automotive original equipment manufacturers (components and fasteners for automotive-related applications); and 11% to welding (arc welding equipment, consumables and accessories for a wide array of industrial and commercial applications). Chicago Tube and Iron (NAICS 332) in Romeoville, is one of the largest steel service centers in the U.S. and they house over 30,000 line items of inventory from some of the world’s premier manufacturers. They were also the Tube and Pipe Journal’s 2012 Industry Award Winner. Other key firms are Nu-Way Industries Inc. (2012 revenue $45M) in Des Plaines, IL and Ace Metal Crafts (2012 revenue $15M) in Bensenville, IL. Within 332 Fab Metals, there are over 2,000 firms of which over 50% have fewer than 10 employees (and 32% have fewer than five). What parts of the KTS are located inside and outside the region defined by the applicant? There are more than 3,700 metal firms in the region - 50 firms in 3312 Steel Product; 2,274 in 332 Fab Metal; and 1,387 in 333 Machine. Within the larger Chicago tri-state MSA, there are 4,000 firms. How are firms connected to each other? Metal products run the gamut from small automotive components, such as fuel injectors, to large panels used in thermal shields for nuclear reactor vessels. Metal manufacturers are often situated in more than one Supply Chain (SC) - intersecting with many other types of manufacturing, using outputs from other manufacturers, and making end and intermediate products for multiple markets. The Cluster includes: core suppliers, manufacturers, and customers. Suppliers include Primary Metals, Components and Metal Services. Primary Metals, often steel, can be sourced from around the world, and many firms have several sources in order to meet demand in a timely manner (about 10-20% in the Midwest). Some firms require especially high-quality steel which may limit them to fewer suppliers/locations (many of which are located within the Midwest). With an LQ of 2.0, the Region ranks top third in LQ for 3312 Steel. The greater tri-state Chicago MSA ranks top third in LQ for 331 Primary Metals. Components include fasteners, hardware, electrical components, fabric, plastic, that firms use in their products. Metal Services is performed in house and outsourced. This primarily refers to coating, engraving, heat-treating, plating, finishing, annealing, etc. This sector is represented primarily by NAICS code 3328, in which the region with an LQ of 2.05 and the Chicago tri-state MSA with an LQ of 1.97 rank in the nation’s top third. Core firms include Fab Metals. Fab Metal has, at its core, the small and medium-sized companies that transform metal into intermediate (or occasionally end) products and join separate parts together, using one or multiple techniques (such as bending, cutting, welding, forging, forming, stamping, machining, etc.). Customers include Tier 1 integrators (TI), Original Equipment Manufacturers (OEMS) and wholesalers. TI may be fabricated metal, machinery or other types of manufacturing firms; what distinguishes them from the cluster core is their slightly higher place on the SC. TI combines fabricated metal outputs with other components to create an intermediary product for OEMs. For example, a TI auto-supplier might buy fenders created by a metal stamping

16 Source: Cook County Bureau of Technology, Geographic Information Services
17 RW Ventures pp. 1-2, represented primarily by NAICS code 331.
18 RW Ventures pp. 1-2, this portion of the cluster includes parts of NAICS 335, 326 and 313, among others.
19 RW Ventures pp. 1-2, represented primarily by NAICS code 3328.
20 RW Ventures pp. 1-2. These firms are represented by all of NAICS code 332 except 3328, which is covered under “Metal Services.” Interestingly, in the Chicago region, the core firms have a higher share of office and headquarters related functions than the national average.
The Fabricators & Manufacturers Association, International (FMA) is an organization with more than 2,300 individual and company members working together to improve the metal forming and fabricating industry. FMA brings metal fabricators and equipment manufacturers together through technology councils, educational programs, and networking events. FMA also has two technology affiliates, the Tube & Pipe Association, International (TPA) and the Sustainable Manufacturer Network (SMN). FMA serves members involved in the following processes: bending, blanking, cutting, drawing, extruding, fastening, finishing, leveling, piercing, punching, roll forming, shearing, slitting, spinning, straightening, stamping, swaging, and welding. TPA serves members involved in production and fabrication of welded and seamless pipe and tube. SMN serves members deploying sustainable manufacturing practices.

Technology/Manufacturing Aligned, formerly the Tooling and Manufacturing Association (TMA) supports U.S. manufacturing through good quality and a cost-effective marketing strategy that is part of their mission to encourage investment and economic growth in the industrial corridor of the Mid-western USA. Three River’s Manufacturers Association (TRMA) provides significant benefits to manufacturers by offering diverse programs and shared resources. Valley Industrial Association (VIA) adds value to its member companies by providing strategic resources and educational and networking opportunities that helps their members meet or exceed their business objectives. Outside the region there are world conferences such as Fabtech 2014 North America’s largest metal forming, fabricating, welding and finishing event. FABTECH provides a convenient 'one stop shop' venue where you can meet with world-class suppliers, see the latest industry products and developments, and find the tools to improve productivity, increase profits and discover new solutions to all of your metal forming, fabricating, welding and finishing needs. How might customers or suppliers (even outside the region) support suppliers in the region? FMA, TPA, and SMN membership spans the United States, Canada and Mexico, and reaches into more than 30 other countries. Members include customers and suppliers who support each other regardless of their location within a specific region. Examples of projects/shared assets across these firms? The National Institute for Metalworking Skills (NIMS) was formed in 1995 by the metalworking trade associations to develop and maintain a globally competitive American workforce. NIMS sets skills standards for the industry, certifies individual skills against the standards and accredits training programs that meet NIMS quality requirements. NIMS has a stakeholder base of over 6,000 metalworking companies. The major trade associations in the industry- the Association for Manufacturing Technology, the National Tooling & Machining Association, the Precision Machine Products Association, the Precision Metalforming Association, and the Tooling and Manufacturing Association - have invested over $7.5 million in private funds for the development of the NIMS standards and its credentials. The associations also contribute annually to sustain NIMS operations and are committed to the upgrading and maintenance of the standards. What new KTS products have been launched recently? New products include composites and additive manufacturing. Recent breakthroughs in materials and additive manufacturing processes have been launched recently are revolutionizing manufacturing. These new smart manufacturing processes require high quality data and accurate, reliable data exchange mechanisms. The NIST The Product Information for Composite and Additive Manufacturing project will develop measurement science to improve data quality of the models that drive advanced manufacturing processes. This project will develop measurement science to evaluate data model integrity for composite-structure manufacturing and metal-based additive manufacturing. If your community is participating in SBA Supply Chain Analysis grant, how will you leverage their work? Our community is not participating in a SBA SC Analysis grant. ii. Current Institutions for Improving Capability: What processes or institutions (foundations, medical or educational institutions, trade associations, etc.) exist to promote innovation or upgrade supplier capability? Supply chain (SC) flexibility has become a rallying cry for competitive advantage. As the global economy has grown in size and complexity, a multitude of factors from climate disasters and political changes, to economic downturns, currency fluctuations, and the rise of new competitors, have led to volatility and uncertainty. The effects of this complexity are driving new conversations around reshoring and suggestions that the concept of “supply chain” is antiquated given the more networked approach of global supply systems. Companies are no longer able to rely on the conventional wisdom of lowest price, shortest lead time, and quality excellence. Top SC performers are creating agility throughout the whole value chain to handle this permanent market volatility. Yet, for most company leaders, deeply understanding their potential SC gaps and defining a long-term collaborative roadmap towards optimizing SC performance are a challenging task. Manufacturing executives from sixty-eight organizations, representing a cross-section of industries, company size and geography, participated in a study conducted by the NIST Manufacturing Extension Partnership (MEP) system to identify and validate key performance gaps affecting U.S. supply chain performance. Three primary themes can be identified that serve as a baseline towards building an appropriate roadmap for optimized SC performance: 1) responding to volatility and risk through agility; 2) collaboration and supplier sourcing; and 3) strategic deployment across the SC. From these market insights, IMEC, the Illinois Manufacturing Excellence Center, one of our local partners and leader of the US Commerce NIST Manufacturing MEP has launched the national SC optimization initiative:
The Supply Chain Optimization (SCO) program improves SC performance by quantifying the needs of the SC and focusing on improving the points in the process which are impeding the output throughout the entire SC. This is relevant for all industries, particularly complex sectors such as metal fabrication, by understanding constraints in the SC as well as total cost of ownership. Through such analysis, the MEP is able to support a strategy development and deployment which includes a risk mitigation approach. The program assists companies understand the critical areas controlling the performance of the SC and foster collaboration among its SC members. IMEC’s SCO program helps U. S. manufacturers achieve this optimization. Please provide performance measures and/or case studies as evidence of these capabilities. IMEC worked successfully with Tri-C Company, a metal company that manufactures component parts for the automotive, agriculture and construction equipment sectors.\(^\text{22}\) The South Carolina MEP’s work with SynStrand is a national SC success story.\(^\text{23}\) **Gaps:** What short- and long-term supply chain challenges exist for the local economy along the region’s proposed development path? OEMs and other customers of metal manufacturers are managing their inventories more tightly, requiring suppliers to deliver inventory on much shorter lead times than in the past. For example, the once-typical six- to eight-week advance notice period has shortened to just one to three weeks. Customers increasingly demand product customization, as well as are willing to pay more for it. In order to be flexible enough to provide both standard and customized products on short notice, manufacturers need more sophisticated technology and processes. These ensure reliably higher quality and increased productivity (particularly through the latest automation technologies). Are there institutions that convene suppliers and customers to discuss improved ways of working together, roadmap complementary investments, etc.? \(^\text{22}\) **The Fabricators & Manufacturers Association, International (FMA)** brings metal fabricators and equipment manufacturers together through technology councils, educational programs, and networking events. The Alliance for Illinois Manufacturing (AIM) and its sister organization, the North Business and Industrial Council (NORBIC) are nonprofit economic development organizations dedicated to assisting small and medium sized industrial companies. AIM and NORBIC have served over 250 metal firms in the past 3 years alone. AIM/NORBIC host educational seminars with a variety of public and private partners for its clients to address all types of issues ranging from workforce, to financing, to operations. Other key associations include TMA (Technology/Manufacturing Aligned formerly the Tooling and Manufacturing Association), TRMA (Three River’s Manufacturers Association), and VIA (Valley Industrial Association). **Plans:** Communities that intend to focus on improving supplier networks as a priority area in seeking future grants should explain how they intend to build on local assets to improve KTS in areas such as: a. Establishing an industrial park conducive to supply chain integration, including support for convening and upgrading supplier firms of all sizes; The Region is home to a broad range of industrial parks. The Consortium will work with IMEC to assess current industrial parks and determine whether a metal specific park is needed or whether existing parks can accommodate the needs of metal firms. b. Remediing gaps and/or undertaking more intensive supply chain mapping; IMEC will remedy gaps and undertake more intensive SC mapping. The Supply Chain Strategy Partner Engagement focuses on the full SC and improving supplier capability.\(^\text{24}\) c. Measuring and improving supplier capabilities in innovation, problem-solving ability, and systematic operation (e.g. lean, International Organization for Standardization (ISO) certification); Establishing a performance baseline is essential to improving results. IMEC will measure and improve supplier capabilities in innovation, problem-solving ability, and systemic operation (e.g. lean, International Organization for Standardization (ISO) certification). IMEC recommends the “total cost of ownership (TCO)” and “risk management” (RM) components of their SC curriculum are most relevant to metal fabricators. The TCO allows for the quantification of costs for every activity along the supply stream, and focuses on minimizing total costs while maximizing value to the customer. RM sessions teach companies how to identify the general categories and events that most adversely affect SCs, and the benefits of developing an effective overall risk mitigation strategy. d. Leveraging organizations that work with suppliers, such as Manufacturing Extension Partnership (MEP), U.S. Export Assistance Centers (USEAC), Small Business Development Centers (SBDCs), SCORE chapters and Women Business Centers (WBCs). The proposed Chicago Metro Metal Consortium will include partners from the following organizations to leverage their work with suppliers. IMEC is the leader of the US Commerce NIST Manufacturing Extension Partnership (MEP) supply chain optimization initiative: \http://www.mepsupplychain.org/. AIM and NORBIC provide professional and technical services to manufacturers in the Region. NORBIC is a 501(c)3 funded in significant parts by the U.S. Small Business Administration and is home to the Illinois Small Business Development Center, the Illinois Government Procurement and Technical Assistance Center, an International Trade Center and a NAFTA and Latin American Trade Center. NORBIC is one of the few places in the country to have all of these federally funded business development centers. AIM/NORBIC will connect metal manufacturers with resources both public and private to assist companies in optimizing their SCs. This includes but is not limited to referrals of the MEP and/or private firms and leveraging state and federal programs to offset the cost of implementing these types of initiatives. The Illinois Trade Office (ITO) of the Illinois Department of Commerce and Economic Opportunity (DCEO) is the State of Illinois’ lead international advocate in promoting job retention and creation in Illinois through International Trade and Investment. e.\(^\text{22}\) Measuring and improving trade association activity, interconnectedness, and support from key customers or suppliers (even if outside the region)\(^\text{22}\)

\(^{22}\) The goals and results are set forth in [http://www.imec.org/Tri-CSuccessStory.cfm](http://www.imec.org/Tri-CSuccessStory.cfm)


3. Research and Innovation

i. Current Capability: What are the community’s university/research assets in KTS? The Chicago Metro Metal Region is one of the nation’s foremost centers for basic science and engineering research which have the most potential for manufacturing applications. In 2009, universities in Illinois conducted nearly $2 billion of this science and engineering R&D, the seventh largest outlay of any state. Three of the Region’s universities (University of Illinois at Chicago [UIC], Northwestern University, and University of Chicago) as well as the University of Illinois Urbana (UIU) account for 85 percent of this R&D. These four universities constitute a tremendous asset for the region: all are in the top 60 nationally for R&D expenditures in science and engineering, led by University of Illinois (ranked 27th nationally in expenditures), followed by Northwestern (30th), University of Chicago (48th), and UIC (57th). The Region is one of only four domestic regions containing at least two national labs and two of the largest: Argonne National Laboratory and Fermi National Accelerator who together in 2009 conducted over $1 billion in R&D expenditures.

To what extent do training institutions currently integrate R&D activities and education to best prepare the current and future workforce? College communities participate in the Illinois Network for Advanced Manufacturing (INAM) Project Lead’s workforce development efforts funded by the Department of Labor, Employment Training Administration’s Trade Adjustment Assistance Community College and Career Training (TAACCCT) grant. TAACCCT funds community colleges to expand / improve their ability to deliver education and career training programs. The Illinois Manufacturing Learning Exchange and INAM have adopted the National Association of Manufacturing (NAM) endorsed national skills certification framework for all major manufacturing career pathways including those in metal working and welding. Does the community have shared facilities such as incubator space or research centers? Yes, facilities include Chicago Innovations Exchange, UI Labs, University Technology Park at IIT, and 1871 digital start-up hub. What is the community’s record for helping the ecosystem develop small businesses and start-ups? The

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25 Along with other institutions, these four universities constitute a tremendous asset for the region: all are in the top 60 nationally for R&D expenditures in science and engineering, led by University of Illinois (ranked 27th nationally in expenditures), followed by Northwestern (30th), University of Chicago (48th), and UIC (57th). CMAP Manufacturing Cluster Report p. 63
26 CMAP Manufacturing Cluster Report, p. 64
27 CMAP Manufacturing Cluster Report, p. 64
28 Illinois Network for Advanced Manufacturing http://www.dacc.edu/jobs/INAM%20Project%20Lead.html
30 https://innovation.uchicago.edu/page/chicago-innovation-exchange
31 http://www.uiilabs.org/#aboutus
32 http://www.universitytechnologypark.com/
Region has a robust eco-system for small businesses and start-ups. In 2012, entrepreneurs created 22,351 new businesses in metropolitan Chicago. What processes or institutions exist to promote innovation or upgrade supplier capabilities? IMEC helps firms respond to a more demanding global economy, including programs on innovation and advanced technology adoption. Since 1996, IMEC has helped over 2,500 small manufacturers in the state realize $1.5 billion in cost savings. IMEC leads the US Commerce NIST Manufacturing Extension Partnership (MEP) supply chain optimization initiative. How relevant are local institutions’ program of research and commercialization for the proposed development path? Because patents are widely used to gauge innovations in research that have commercial applications, they will be used to illustrate the relevance of local research and commercialization to development of the Cluster. Nationwide, the Chicago region ranks #2 in Metalworking and #3 nationwide in Transportation Machinery. How robust is the revenue model? The 2013 Annual Cluster revenue is $30 Billion. What local entities work with new and existing firms to help promote innovation? IMEC and AIM work with new and existing manufacturers to promote innovation. How integrated are industry and academia (including Federal Laboratories)? Per the Illinois Innovation Index, transfer of research conducted at regional universities into the private market has accelerated. However, institutions in other states continue to outperform those in Illinois. What short- and long-term research challenges exist for the local economy along the region’s proposed development path? The short-term challenges are the little or no R&D conducted by small and medium manufacturers who make up about half of all metal manufacturers, and the decade long decline in the region’s manufacturing R&D. The long-term challenge for metal manufacturers is to implement new processes including digitization, additive manufacturing, 3D printing and new robotics. For example, metal manufacturing has centered on transforming stock materials into refined goods. Additive manufacturing adds materials layer by layer; using the amount of materials needed producing no scrap. The chief instrument of additive manufacturing is a 3D printer. Additive manufacturing will affect almost every industry, though it seems most poised for dealing with low-scale high-customized production such as machine shops or other fabrication activities. The short-term challenges are the little or no R&D conducted by small and medium manufacturers who make up about half of all metal manufacturers, and the decade long decline in the region’s manufacturing R&D. The long-term challenge for metal manufacturers is to implement new processes including digitization, additive manufacturing, 3D printing and new robotics.

http://www.1871.com/
http://www.mepsupplychain.org/

CMAP Manufacturing Cluster Report p. 73
Chicago Cook Workforce Partnership analysis of data from EMSI.
According to analysis by the Brookings–Rockefeller Project on State and Metropolitan Innovation, most small and medium-sized manufacturers conduct no or little R&D since they lack resources and in-house expertise. Though less than one percent of all manufacturing firms, large companies, universities, nonprofits, and research labs received a $70 million Department of Defense led NNMI grant to establish the DMDI. DMDI creates a novel partnership between world-leading manufacturing experts and cutting-edge software companies to enable interoperability across the supply chain, develop enhanced digital capabilities to design and test new products, and reduce costs in manufacturing processes across multiple industries. UI Labs and DMDI will research information technologies, tools, standards, models, sensors, controls, practices and skills, and then transition these capabilities to the industrial base for full-scale commercial application. UI Labs and DMDI will gather cross-disciplinary teams to integrate IT and manufacturing solutions, and multi-industry collaboration to promote interoperability in supply chains. The Consortium with work with UI Labs and DMDI to promote open innovation-based R&D which can foster growth in the metal ecosystem. The Consortium will engage promote open innovation among stakeholders promoting strategies: to source and use external knowledge source, ideas, intellectual assets, and technologies to complement their intellectual property rights in ways that balance the goals of rewarding inventors and sharing knowledge. The Consortium will partners with UI Labs and the Design Manufacturing and Design Institute (DMDI) to develop strategies for “open innovation” which balances inventors’ intellectual properties rights of inventors with the demands of today’s marketplace in which a premium is placed on getting to the market as quickly as possible. UI Labs gathers leading educational institutions and industries, with the support of government, to create the springboard for world-class applied research leadership and development of new technologies. UI Labs with a consortium of 73 companies, universities, nonprofits, and research labs received a $70 million Department of Defense led NNMI grant to establish the DMDI. DMDI creates a novel partnership between world-leading manufacturing experts and cutting-edge software companies to enable interoperability across the supply chain, develop enhanced digital capabilities to design and test new products, and reduce costs in manufacturing processes across multiple industries. UI Labs and DMDI will research information technologies, tools, standards, models, sensors, controls, practices and skills, and then transition these capabilities to the industrial base for full-scale commercial application. UI Labs and DMDI will gather cross-disciplinary teams to integrate IT and manufacturing solutions, and multi-industry collaboration to promote interoperability in supply chains. The Consortium with work with UI Labs and DMDI to promote open innovation-based R&D which can foster growth in the metal ecosystem. The Consortium will engage promote open innovation among stakeholders promoting strategies: to source and use external knowledge source, ideas, intellectual assets, and technologies to complement their intellectual property rights in ways that balance the goals of rewarding inventors and sharing knowledge. The Consortium will partners with UI Labs and the Design Manufacturing and Design Institute (DMDI) to develop strategies for “open innovation” which balances inventors’ intellectual properties rights of inventors with the demands of today’s marketplace in which a premium is placed on getting to the market as quickly as possible.

http://www.1871.com/
http://www.mepsupplychain.org/

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to facilitate the adoption of applied research by metal manufacturers. Partners include: University of Illinois (UI), UI Labs, and the Digital Manufacturing & Design Innovation Institute (DMDI), and World Business Chicago (WBC). UI is renowned for its excellence in nanomanufacturing, modeling, simulation, advanced materials, and processing technologies. UI Labs creates partnerships between leading educational institutions and industries, with the support of government, to create the foundation for world-class applied research leadership, new technologies. UI Labs with a consortium of 73 companies, universities, nonprofits, and research labs received a $70 million Department of Defense led NNMI grant to establish the DMDI. DMDI creates a novel partnership between world-leading manufacturing experts and cutting-edge software companies to enable interoperability across the supply chain, develop enhanced digital capabilities to design and test new products, and reduce costs in manufacturing processes across multiple industries. UI Labs and DMDI will research information technologies, tools, standards, models, sensors, controls, practices and skills, and then transition these capabilities to the industrial base for full-scale commercial application. UI Labs and DMDI will gather cross-disciplinary teams to integrate IT and manufacturing solutions, and multi-industry collaboration to promote interoperability in supply chains. WBC collaborated with UILabs to build an unprecedented consortium of 40 industry partners, more than 30 academic, government and community partners. WBC helped UI Labs secure $250 million in public-private matching funds for the DMDI initiative. University of Chicago (UC), the Chicago Innovation Exchange (CIE), Argonne National Laboratory (ANL), and Fermi National Accelerator (FNA) On behalf of the Department of Energy, UC manages ANL and FNA. The labs -- both major global research centers -- serve as a regional advantage by providing advances that fuel growth in advanced manufacturing. UC established the Chicago Innovation Exchange (CIE) to serve as a hub for multidisciplinary collaborations and support for business start-up activities. UC is a DMDI partner. Northwestern University (NU) is home to the Northwestern University Transportation Center (NUTC) which has been the hub and catalyst for multimodal transportation-related research, education and service and a pace setter nationally and internationally for cross-disciplinary, leading-edge, industry-focused and policy-relevant research in transportation-related matters. The NIST funded Center for Hierarchical Materials Design (CHiMad) at NU will integrate the complementary strengths of computation, instrumentation, and creative modeling to help keep America at the forefront of the materials revolution and a leader in the economically important domain of advanced manufacturing. UC and ANL are CHiMad partners. NU is a DMDI partner. Leveraging other Federal innovation initiatives such as the National Network for Manufacturing Innovation, MEP, Manufacturing Technology Accelerator Centers and The Consortium will leverage NNMI (DMDI), MEP (IMEC) and NIST(CHiMad). Plans to ensure broad distribution of the benefits of public investment, including benefits to disadvantaged populations. The public investment in the Chicago Metro Metal Cluster research and innovation will unlock tremendous value for the Region, the greater tri-state Chicago MSA as well as for the nation. World Business Chicago will lead efforts to build an advanced manufacturing hub in Chicago, which will include a focus on metal manufacturing. Immediate beneficiaries will include more than 3,700 core firms – the corporations, small and medium enterprises (SMEs), original equipment manufacturers (OEMs), and hardware and software tool-makers that generate $30 Billion in revenue for the region. The investment will directly benefit supply, support and customer industries. The Consortium will serve as a national model. Innovation activity at one of the nation’s metal manufacturing region and home to the Digital Manufacturing and Design Institute will lead to new products, improved processes, and job growth that will be replicated on a national scale. With respect to disadvantaged populations, the Workforce Boards of Metropolitan Chicago and the Cook County Workforce Partnership will directly work with partners to develop strategies to ensure that investments in the Metal Cluster will benefit those populations. Of over 100,000 employees, 21% are female, 38% are Hispanic, 8% are Black and 4% are Asian. Approximately, four percent of firms are minority owned. Milestones: 1. Identify “open innovation” model strategies relative to metal manufacturing. 2. Share models with stakeholders. 3. Select and implement a model. 4. Develop a corresponding “open innovation” strategy for inventors’ intellectual property rights. 5. Facilitate adoption of applied research to industry. 6. Develop system and methodology for sharing applied research. 7. Share applied research and engage with industry stakeholders including those that represent disadvantaged populations. 8. Identify/create/secure shared space for incubation and research. Performance Metrics: 1. Number of new products introduced, by detailed industry. 2. Number of new production processes introduced, by detailed industry. 3. 

46 http://www.uilabs.org/
47 https://innovation.uchicago.edu/page/chicago-innovation-exchange
48 http://www.nist.gov/mmi/coe-120313.cfm
49 http://www.uilabs.org/
50 IMEC assists manufacturers directly, leverages pre-qualified service providers, and draws from a pool of more than 1,300 manufacturing engineers from Department of Commerce Manufacturing Extension Partnership (MEP) centers nationwide. IMEC leads the MEP supply chain optimization initiative: http://www.mepproject.org/
51 http://www.nist.gov/mmi/coe-120313.cfm
52 Chicago Cook Workforce Partnership analysis of data from EMSI
54 RW Ventures at p 6
Number of firms introducing a new product. 4. Number of firms introducing a new production process. 5. R&D spending by firms and R&D spending as percent of sales revenue, by detailed industry. 6. R&D spending by firms on R&D conducted at universities. 7. Market value of new products introduced. 8. Number of patents, by detailed industry. 9. Value of in-kind participation of DMDI, IMEC and CHiMad (all of which are partners funded through Federal innovation initiatives and who have agreed to leverage their resources). 10. Length of time before related products reach market. 11. Number of new firms, by detailed industry. 12. Scientists, engineers, and science/engineering technicians as percent of total employment of firms

4. Infrastructure / Site Development

Current capability: Describe the quality of existing physical infrastructure and logistical services that support manufacturing

The Chicago Metro Metal Region boasts a superior transportation network that grants the region a competitive edge in the global economy. The ecosystem is shaped by the unparalleled concentration and colocation of multi-model freight services and manufacturing that provide rooted economic benefits. Metropolitan Chicago’s intermodal terminals handle up to half of all rail container movements in the U.S. 55 Described as “Chicago’s Freight-Manufacturing Nexus,” the region’s manufacturing strengths are inextricably linked to transportation infrastructure and logistical assets. By employment, the region’s Freight Carriers have a LQ of 1.27 and the Logistics Industry has a LQ of 2.0. 56 The link between freight and metal manufacturing is also reflected in the region’s rail equipment manufacturing industry with an employment LQ of 1.87 in NAICS 3336. 57 The Region’s intermodal terminals handle up to half of all rail container movements in the U.S. 58 The Region is the only domestic region served by 6 of the 7 Class 1 railroads; has seven major interstate highways (the most in the nation); O’Hare Airport, the nation’s second busiest international air cargo gateway by value; and CenterPoint Intermodal, North America’s largest inland container port. Specifically, CenterPoint Intermodal Center (CIC) - Joliet/Elwood, IL is the largest master-planned inland port in North America. It is situated on more than 6,500 acres just 40 +/- miles southwest of downtown Chicago; and adjacent to the I-55/I-80 interchange and anchored by the BNSF Logistics Park-Chicago and Union Pacific-Joliet Intermodal Terminal. With this concentration of freight carriers and logistics firms, regional manufacturers can better develop supply chains, realize cost savings and efficiencies, optimize distribution and inventory, and exploit comparative advantage. The region’s freight-industry specialization contributes to its manufacturing strength and significance as a national transportation hub. Chicago’s metal manufacturing cluster will further national growth objectives as a result of strategic federal investments to improve supply chain efficiency and resiliency, promote increased trade and exports, attract manufacturing jobs back to the U.S. and train the manufacturing workforce to respond to technological innovation. And provide analysis of availability of sites prepared to receive new manufacturing investment (including discussion of specific limitations of those sites, i.e., environmental concerns or limited transportation access). In a 2008 study, the Chicago Metropolitan Agency for Planning (CMAP) CMAP estimated over 184,000 acres of underutilized land in the region poised for development, underscoring the region’s potential for infill development. 59 Many communities have numerous sites of vacant or underutilized industrial land, yet after use for a century or more this land often has been split into numerous smaller parcels with individual owners. This fragmentation of parcels makes underutilized land in existing communities less attractive for manufacturing purposes that require large footprints, leading many to propose redevelopment towards alternative uses and/or sites (typically in suburban communities) that don’t require land assembly. While land assembly will remain a challenge for some large scale manufacturing, many more projects will be small and medium-sized operations that can take advantage of the region’s infill stock. For example, over 50% of fabricated metal firms have fewer than 10 employees. 60 Environmental Concerns: In a 2008 Study, CMAP developed a Brownfield Redevelopment Strategy 61 and found that the region’s rich industrial and manufacturing history, coupled with its fast-paced growth into the undeveloped periphery, most likely makes brownfield sites even more prevalent than other regions. CMAP found that there is a widespread prevalence of brownfields. A survey of the Illinois Environmental Protection Agency’s Site Remediation Program (SRP), found that the majority of SRP sites were in Cook County and 51% were in the city of Chicago. A survey conducted in 2005 by the U.S. Conference of Mayors estimated identified brownfields within the city of Chicago at approximately 325 sites. This is in the top ten percentile of all the cities surveyed, and only includes —identified sites (The US Conference of Mayors 2006). 62 CMAP’s analysis of vacant land in EPA’s database found that 84% of land had one type of contamination; 14.5% had 2 types; and 1.5% had three types. 63 Transportation Access: 59% of sites identified by CMAP – or 100,000 acres - were located near transit, job centers or in denser areas. 64 Targeting future manufacturing expansion towards infill areas can leverage existing transportation

55 CMAP Freight Cluster Drill Down Report p. 107
56 CMAP Freight Manufacturing Nexus Report p. 3
57 CMAP Manufacturing Report p. 26
58 CMAP Freight Manufacturing Nexus Report p. 8
60 RW Ventures p 7
61 http://www.cmap.illinois.gov/documents/10180/47947/Brownfields+report.pdf/e6ff5a18-e60b-4a82-b0b2-d5a83ebf7b49
62 CMAP Brownfields Study p. 1
63 CMAP Brownfields Study p. 7
64 CMAP Infill Report p. 5
assets - rail lines, expressway assets and intermodal freight terminals - and also better connect jobs to where people live. The same infill areas serviced by existing transportation infrastructure often lie in close proximity to an existing workforce familiar with manufacturing. Other Limitations: Compounding the issue, manufacturing land use generates no sales tax revenue to the individual municipality unless the final point of sale also coincides in the same location. Because of these varied factors many municipalities in the region have oriented land use planning towards other uses that generate fewer externalities and more revenue, like retail and single-family residential. Clouded title on properties is another impediment to the expansion of manufacturing companies. On the other hand the Chicago Industrial market is the largest in the U.S. with over 1 billion sq. ft. of industrial space. This provides a variety of facility space options for manufacturers of all sizes. For example, 11.5 million square feet of industrial facilities have been built in and around Will County intermodals. Large-scale warehouses and distribution centers, newly-built to current technological standards, have attracted national retail tenants like Wal Mart, Bissell and Home Depot to Will County. A large number of third party logistics providers, or 3PLS, are located in Will County and offer supply chain solutions for manufacturers doing business in the region. Logistics companies and large-scale distribution centers have become heavily concentrated along I-55 in Will County, a key corridor in the region for industrial development and the movement of freight. Logistics industry growth has travelled further south along I-55 in Will County with the newest logistics park coming on-line in 2013. Provide detailed analysis on how transportation infrastructure serves KTS in moving people and goods. While an advanced ecosystem of highways, trains, and buses retains an excellent national and global reputation, it is aging quickly and falling behind other industrialized parts of the world, many of which have invested significantly to create, operate, and maintain world-class systems. The Metropolitan Planning Council (MPC) analyzed the cost of the ecosystem’s congestion and found that the region squandered an estimated $7.3 billion a year in wasted time and fuel, and environmental damages due to excess traffic congestion on its expressways and arterials. If nothing is done, that amount was predicted to grow by about 55 percent by 2030, more than twice as fast as the region’s population, to $11.3 billion a year. Eliminating excess road congestion in the region would create an estimated 87,000 jobs that today are lost due to labor and transportation costs. Congestion also slows the region’s economy by adding 22 percent to peak period travel times. In fact, while climbing gas prices are hurting individuals across Chicagoland, people may be surprised to learn lost time is costing them 19.5 times more than wasted fuel. Moving people: In a 2008 Study of the Jobs Housing Balance, CMAP found that residents in the region spend 203 million hours a year in traffic delays, burning an extra 142 million gallons of fuel. Residents were also experiencing 5.5 times more travel delay than they did 20 years ago. Region residents want more focused investment in transportation infrastructure. About 95 percent favor expanding or maximizing funding for transit improvements, while 70 percent favor expanding or maximizing funding for road improvements.

Moving goods – the Metal Freight Advantage: The Region’s unparalleled transportation infrastructure serves the metal manufacturing industry. The ecosystem’s supply chain - primary metal, to metal fabrication, to final machinery - exemplifies how freight and manufacturing co-location enables impressive advantages in regional industrial output. Unlike lower weight, higher value goods such as electronics that tend to utilize a global production system, trade flows in heavier and capital-intensive industries like metalworking and machinery are still dominated by regional transport systems integrated into regional production systems. This pattern of heavy and capital-intensive industries utilizing regional supply chains hold in metropolitan Chicago as well. A greater proportion of the nearly 300 million tons of freight moving within the region each year are in primary metals, minerals, and metal fabrication. CMAP analyzed annual metal and machinery commodity flows within metropolitan Chicago in 2007. In the first step, heavy goods (81 tons) and relatively low value ($1.2M) Primary Metal products (NAICS 331) move through the region. They become inputs in the second step for regional fabricators to create more valuable and less heavy semi-finished goods and discrete parts – Fabricated Metals (NAICs) are depicted at 51 tons with a value of $20M. Original equipment

65 MPC Moving p 2 https://www.metroplanning.org/multimedia/publication/272
66 CMAP GO TO 2040, Investing in Transportation p 249
manufacturers then assemble these intermediate inputs into high value machinery. Freight—provides the link between these steps, illustrating how the region’s value added in manufacturing supply chains is contingent on access to freight firms and infrastructure. Moving goods—the Cost of Congestion: Congestion threatens to undermine the transportation advantages currently enjoyed by manufacturers in the Chicago region. Already the region is among the most congested in the nation, costing firms billions of dollars a year in lost time and fuel. Even more than lost fuel and time, regional manufacturers may be most impacted by decreased shipment reliability, especially for those firms operating under just-in-time models. Projected increases in both population and freight traffic will only exacerbate these issues. The cost of congestion in wasted time for trucks is an estimated $1 billion, which accounts for about 14 percent of the $7.3 billion cost of congestion on the region’s roads. The cost of congestion delays to trucks in wasted fuel could not be readily estimated, however, so the cost to the region’s freight businesses easily surpasses $1 billion a year. Conversely, new intermodal capacity in Will County contributes to supply chain efficiency in the region by increasing throughput and reducing transit time for manufactured goods shipped by rail to Chicago. With rail connections to the western U.S. Ports of LA/Long Beach, Will County has become a key node in the global supply chain for containerized imports from Asia. The high volume of inbound containers to Chicago and the development of local grain and bulk trans load facilities have boosted the region’s grain exports through Will County’s intermodals reducing the freight traffic burden in Chicago. Over 60 million bushels of grain, valued at $29 billion, shipped in 2013 from Will County.

Do KTS firms contribute significantly to air or water pollution, or sprawl? Air or water pollution: According to the USEPA, metal manufacturing has the potential of having an adverse impact on the environment and the population of nearby communities. Air pollutants, contaminated waste water and hazardous wastes are generated by the production process. Sprawl: There is no specific research that metal manufacturing contributes to urban sprawl. However, the decade long loss of manufacturing jobs coupled with the growth of high paid service industries and low-wage personal service jobs has been cited as contributing to urban sprawl. These economic shifts have stimulated the development of downtown office space, convention centers, and cultural facilities where relatively well-off professionals work and play, and the suburban communities where they tend to live. Downtown and outlying suburban development has proceeded while many urban neighborhoods and inner-ring suburbs—former homes to manufacturing sites—have deteriorated. Because of the impediments to manufacturing infill, many developers eschew previously used industrial areas, and prefer to acquire farmland or other open space in exurban areas for industrial parks. Such sprawl development is understandable when there is no holistic vision or public sector support for the redevelopment of existing industrial areas. Current institutions for improving capability: The Consortium with Partner Chicago Metropolitan Agency for Planning (CMAP) has the capacity to lead and organize transportation and site projects. CMAP is the official regional planning organization for the northeastern Illinois counties of Cook, DuPage, Kane, Kendall, Lake, McHenry, and Will. CMAP developed and now guides the implementation of GO TO 2040, metropolitan Chicago's first comprehensive regional plan in more than 100 years. The Consortium will create a Transportation Committee which will include representatives from the Transportation Departments of the 7 Counties, the city of Chicago and other municipal transportation agencies, CMAP, metal manufacturers, regional Councils of Government, and the private sector. The Consortium will create a Land Use Committee which will include representatives from the Land Use Departments of the 7 Counties, the City of Chicago, municipal planning agencies, CMAP, regional Councils of Government, and the private sector. A representative from the Cook County Department of Environmental Control will serve on both Committees to ensure that projects are sustainable. Is there capability for on-going analysis to identify appropriate sites for new manufacturing activity, and efforts necessary to make them “implementation ready?” The Land Use Committee will identify appropriate sites (with an emphasis on “shovel ready”) projects and implement strategies to make the “implementation ready.” Do the applicants control the land? Some sites are controlled by municipalities and counties. The Land Use Committee will work with partners to identify sites. Partners will include the recently formed Cook County Land Bank Authority and South Suburban Land Bank and Development Authority. The Authorities facilitate the productive acquisition, renovation and reuse of properties as a means of stabilizing distressed neighborhoods, stabilizing the tax base, and enhancing economic activities that promote sustainable communities in a manner consistent with local government plans and priorities. Are they well-located, requiring readily achievable remedial or infrastructural support to become implementation-ready? The Land Use Committee will have the capability to identify sites that are implementation ready, with the support and guidance of the seven counties. CMAP has already identified approximately 100,000 acres of vacant sites with potential for infill development. This land is located near transit, job centers or in denser areas. These sites have not been evaluated to determine whether remediation is needed. However, many of them are available in suburban growth corridors and would help facilitate new manufacturing development close to transportation and the available workforce. Are they

67 CMAP Freight Manufacturing Nexus Report p. 13  
68 CMAP Manufacturing Drill Down p 109  
69 MPC Moving p. 5  
70 http://www.epa.gov/ttn/atw/area/fr23/jy08.pdf  
71 http://www.urban.org/books/urbansprawl/one.cfm  
72 https://www.cmap.illinois.gov/about  
73 CMAP Infill Report, p. 5
easily accessible by potential workers via short commutes or multiple modes of transportation? In a 2008 study, the Chicago Metropolitan Agency for Planning (CMAP) estimated over 184,000 acres of underutilized land in the region poised for development, underscoring the region’s potential for infill development.\textsuperscript{74} Of those, approximately 100,000 acres were located near public transit, near job centers or in areas of moderate to high density.\textsuperscript{75} CMAP’s analysis of vacant land in EPA’s database found that 84% of land has one type of contamination; 14.5% had 2 types; and 1.5% had three types.\textsuperscript{76} Remediation is dependent upon funding. Are they located in areas where planned uses will not disproportionately impact the health or environment of vulnerable populations? The Land Use Committee will have the capability to map those sites and identify opportunities for development that will balance the health or environmental impact they may have on their communities, including those with vulnerable populations. CMAP has identified approximately 100,000 acres of vacant sites with potential for infill development.\textsuperscript{[1]} This land is located near transit, job centers or in denser areas. The land is distributed among communities with diverse racial/ethnic populations across a wide array of income levels including the most vulnerable. Approximately 46% of the land is located in Cook County where half the population is composed of racial/ethnic minorities (24.8% African American, 24.6% Latino).\textsuperscript{[2]} Lake and Du Page have 23% and 13% of the land and their population is predominantly Caucasian at 83% and 82 respectively. As indicated in the Lake County Economic Development Strategy, February 2013, Chapter 4 Demographic Analysis, Lake County has increased diversity in a number of its submarkets, with centers of high unemployment and high poverty rates. Are they suitable for manufacturing investment in accordance with Brownfield Area-Wide plans? In addition to the Land Use Committee, there are organizations which have the capability to assess manufacturing investments in accordance with Brownfield Area-Wide plans. The Cook County Department of Environmental Control (CCDEC) and the EPA Technical Assistance to Brownfields Program co-hosted an event to share resources, technical assistance and funding opportunities surrounding Brownfields redevelopment. Sixty participants from over a dozen municipalities attended the conference co-hosted by the West Central Municipal Conference, Cook County, Illinois EPA, Illinois Department of Transportation, USEPA and West Suburban Chamber of Commerce and Industry. CCDEC received USEPA funding in 1999 to assess brownfield sites in Cook. As a result, the South Suburban Mayors and Managers Association (SSMMA) spearheaded several green redevelopment projects. The Chicago Southland GREEN TIME Zone has secured a $1 million Brownfield Assessment Grant to evaluate the environmental conditions of sites in the Logistics Park Calumet area and identify steps for their remediation.\textsuperscript{77} As part of that initiative, the Chicago Southland Calumet Green Manufacturing Partnership has secured an $850,000 Green Jobs Innovation grant from the US Department of Labor to support career advancement through training curriculums that lead to Manufacturing Skills Standard Council (MSSC) and National Institute for Metalworking Skills (NIMS) credentials. The Brownfield Remediation and Intermodal Promotion Act (BRIMPA) incentivizes the remediation and re-use of brownfields to create intermodal, warehousing and light manufacturing jobs on over 1,500 industrial acres selected for their high redevelopment potential in a designated zone in freight-rich southern Cook County.\textsuperscript{78} The Center for Neighborhood Technology (CNT) provided analysis and support for the GREEN TIME Zone and BRIMPA. CNT (CNT) is an award-winning innovations laboratory for regional sustainability. CNT works across disciplines and issues, including transportation and community development, energy, water, and climate change Comprehensive Economic Development Strategies (CEDS). The Consortium’s proposal is developed in accordance with the CEDS of Cook, Lake, and Will counties as well as in accordance with a number of targeted industry initiatives in the Region. One such initiative is the Will County Advanced Manufacturing Council Blueprint, which is helping to attract and retain manufacturing companies using innovative technologies for metals and machinery processes. Or other plans that focus on economic development outcomes in an area such as those associated with metropolitan planning organizations or regional councils of government? CMAP is the official regional planning organization for the northeastern Illinois counties of Cook, DuPage, Kane, Kendall, Lake, McHenry, and Will.\textsuperscript{79} The South Suburban Mayors and Managers Association (SSMMA) is a regional council of government. CMAP and SSMMA have played a significant role in the development of the Consortium. Other regional Councils of Government and Councils of Mayors also contributed to this proposal. Their letters of support are attached. Are there opportunities to improve the environmental sustainability of the KTS? Opportunities to improve the environmental sustainability of metal manufacturing include: technological progress (finding more revolutionary primary metal production technology; energy and resource use; waste minimization and elimination; business operations (a responsible supply chain management and product post sales tracking system); and product end-of-life (implementing recycling design and incentives).\textsuperscript{80} As manufacturing continues to shift to hi-tech products and process, advanced manufacturing such as additive 3D printing or bio-manufacturing reduce manufacturing’s negative externalities. For example, Will County is making efforts to implement more coordinated, integrated land use, transportation and economic development planning within the Illiana Corridor in order to locate new

\begin{thebibliography}{1}
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\bibitem{75} CMAP Infill Report p. 5 \url{http://www.cmap.illinois.gov/documents/10180/35654/RS_INFILL_web819.pdf/bb889acca-2ccc-4538-bad2-fb40ba97935c/}
\bibitem{76} CMAP Brownfields Study p. 7 \url{http://quickfacts.census.gov/qfd/states/17/17031.html}
\bibitem{77} \url{http://www.cnt.org/media/CNT_GTZ.pdf}
\bibitem{78} \url{http://www.dot.state.mn.us/frac/PDF/Brownfield.pdf}
\bibitem{79} \url{https://www.cmap.illinois.gov/about}
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\end{thebibliography}
facilities close to manufacturing supply chains, reduce air pollution from congested area freeways and create manufacturing jobs where population growth is occurring in the region.

**Gaps:** Provide analysis of gaps in existing infrastructure relevant for proposed path to ecosystem development, including barriers and challenges to attracting manufacturing-related investment such as lack of appropriate land. Preserving manufacturing land for future industrial development represents a serious challenge -- without dedicated land use, the region’s manufacturing future could face challenges. Many communities have numerous sites of vacant or underutilized industrial land. This land often has been split into numerous smaller parcels with individual owners. This fragmentation of parcels makes underutilized land in existing communities less attractive for manufacturing purposes that require large footprints, leading many to propose redevelopment towards alternative uses that don’t require land assembly. Years of industrial activity also means that existing underutilized industrial land could be environmentally contaminated; municipalities often look to remediate land back to a productive use that won’t propagate environmental degradation. Because of these varied factors many municipalities in the region have oriented land use planning towards other uses that generate fewer externalities and more revenue, like retail and single-family residential.  

Or transportation use planning: The region is finding it more difficult to finance infrastructure improvements because of the decreasing purchasing power of federal and state motor fuel tax receipts among other issues. In short, the methods and sources for financing transportation infrastructure are not keeping pace with the demand for maintenance, modernization, and expansion. And explains how plans will address them. “Section iv. Plans” sets forth the plans to address barriers and challenges to attracting manufacturing such as land use and transportation planning. To what extent have firms indicated interest in investing in the region if infrastructure gaps are addressed? Local manufacturing firms are already investing in the region’s rail infrastructure. Firms rely on rail networks to bring in bulk inputs as well as export finished products to distant markets. As the only domestic region served by six of the seven major railroads Metropolitan Chicago moves an astonishing half of the nation’s rail freight, yet this concentration leads to congestion and delays. Recognizing that freight rail supports not only the manufacturing cluster but the overall economy as a whole, a group of public and private partners including the U.S. Department of Transportation, the State of Illinois, the City of Chicago, Metra, Amtrak, and the nation’s freight railroads formed the Chicago Region Environmental and Transportation Efficiency Program (CREATE) to prioritize and fund rail infrastructure projects. CREATE showcases the level of collaboration often seen in clusters, drawing on the region’s freight institutions to address a serious infrastructure congestion challenge.  

iv. **Plans:** Communities that intend to focus on infrastructure development as a priority area in seeking future grants should explain how they intend to build on local assets to improve KTS in areas such as:  

- a. Transportation projects that contribute to economic competitiveness of the region and United States as a whole by (i) improving efficiency, reliability, sustainability and/or cost-competitiveness in the movement of workers or goods in the KTS, and (ii) creating jobs in the KTS: The Transportation Committee will coordinate efforts to identify transportation projects that contribute to the region’s economic competitiveness by improving the movement of goods and workers in metal manufacturing; and by creating jobs in metal manufacturing. The Committee will be guided by the DOT TIGER program’s use of a rigorous cost-benefit analysis throughout the process to select projects with exceptional benefits to the region and our nation; and explore ways to deliver projects faster and save on construction costs.  

- b. Site development for manufacturing to take advantage of existing transportation and other infrastructure and facilitate worker access to new manufacturing jobs: The Land Use and Transportation Committees will analyze how existing transportation and other infrastructure can facilitate worker access to new manufacturing jobs.  

- c. Infrastructure and site reuse that will generate cost savings over the long term and efficiency in use of public resources: Both the Transportation and Land Use Committees will be charged with identifying infrastructure and site projects that will generate cost savings over the long term and efficiency in the use of public resources.  

- d. Improvement of production methods and locations so as to reduce environmental pollution and sprawl: Both Committees seek projects and sites that improve production methods and create locations that reduce environmental pollution and sprawl. Project and site selection will be guided by USEPA Sustainable Development Plan. The Illinois Sustainable Technology Center (ITSC) will provide consulting services to assist metal manufacturers to reduce management costs enhance efficiency and promote resilience. Outreach and assistance will be provided to a minimum of 250 firms over five years. The ISTC team will drive the metal manufacturing sector towards zero waste and implementation of energy efficiency technologies. As part of these efforts ISTC will establish up consortia to connect waste streams to feedstock streams. ITSC will help create a Green Enterprise Zone that would serve to work with metal manufacturing establishments, their suppliers and their surrounding communities.

### Proposed Transportation Projects

**Investment Commitment:** For all proposed transportation projects the Funding Request meets the requirement set forth in the federal opportunity. Each dollar of the proposed Federally-funded public investment will be matched over the next 5 years by at least two dollars of other investment, which are private or public (non-Federal). The specific investment for each proposed project is set forth in the Appendix and Budget.

**Appendix – Project Narratives:** For all proposed transportation projects, the Appendix includes Project Narratives which set forth a Map, TIGER BCA status, Federal / State Review status, Other Studies, Funding Request, and Investment Commitment.

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81 CMAP Manufacturing Report p. 110  
82 CMAP Manufacturing Report p. 109  
83 CMAP Manufacturing Report p. 109
Appendix - Budget: For all proposed transportation projects, the Budget sets forth the Funding Request and details the amount and source (both non-federal and federal) of the Investment Commitment.

Cook County Department of Transportation and Highway (CCDOTH):
1. Project Name: Center Street – 171st Street to 159th Street
2. Project Description: The Cook County Department of Transportation and Highways will restore and widen 1.51 miles of Center Street to a State of Good Repair which will enable it to handle increased traffic associated with the CN terminal expansion. These improvements will be accomplished through the following activities:
   - Rebuilding the entire roadway to modern commercial truck route standards;
   - Adding additional turning lane capacity as needed;
   - Enlarging the intersection on Center Street at 167th Street to provide for truck movements;
   - Enlarging the intersection on Center Street at the CN Gateway Intermodal Terminal’s main entrance;
   - Construction of a traffic signal at the intersection of Center Street and 167th Street;
   - Upgrade the traffic signals at the intersection of Center Street and 171st Street;
   - Reconstruct the roadway culvert at the Cal-Union Drainage Ditch with 2 - 10’ X 8.5’ culverts; and
   - Widen two at-grade spur railroad crossings and upgrade safety equipment and warning devices at the crossings.

3. Benefit to Metal Manufacturing: Center Street is a designated intermodal connector serving 309 metal manufacturers located in south Cook County, northern Will County and northwest Indiana needing to access CN’s Gateway Intermodal Terminal in Harvey, IL. CN’s proposal to more than triple the number of containers processed at its Harvey terminal from 440,000 to 1.5 million annually depends upon Center’s reconstruction and widening as its main gate faces it. This truck route also provides metal manufacturers such as Allied Tube and Conduit and LB Steel direct access to other truck routes like 159th (US Route 6), 167th and 171st streets that connect to major interstate highways including I-80, I-57 and the Tri-State I-294 Tollway. Both Center Street and the intersecting 167th Street are vital roadways for these companies, but both have deteriorated and are in need of reconstruction and widening to handle the volume of heavy trucks that use them daily. The poor and under-built condition of these roads impedes the efficient operation of existing businesses and serves as a significant disincentive for manufacturers that are considering investment in South Cook County. The Illinois Department of Transportation has scheduled reconstruction of 167th Street for the 2014 construction season so it will not interfere with Center Street’s construction. The reconstruction of Center Street is the last critical link that will provide an adequate connection between the national highway system and CN’s Gateway Intermodal Terminal.

Cook County Department of Transportation Corridor Connector (CACC)
1. Project Name: Central Avenue Corridor Connector (CACC)
2. Project Description: The proposed improvement for CACC will provide an alternate north-south connection across CSX’s Bedford Park Intermodal Yard. The scope of work involves construction of the missing segment of Central Avenue between 67th and 70th Streets at the Bedford Park Yard, and widening and reconstructing the existing roadway between 63rd and 67th Streets and between 70th and 79th Streets to provide two continuous through lanes in each direction, matching similar cross sections at the project limits. At two miles in length, the proposed Central Avenue Connector is designed to pass beneath the rail yard and to support existing railroad tracks on bridges above the roadway. The roadway will return to grade at 79th Street on the south and 65th Street on the north. The improvement will provide additional capacity, more connectivity between roads, and better access for other modes of transportation, such as bicycles and pedestrians. In addition, improved traffic flow and increased capacity will help provide economic development for the area.

3. Benefit to Metal Manufacturing: CACC working in concert with the Bedford Park Yard will serve up to 670 metal manufacturers operating in southwest and south Cook County, southeast DuPage County and northeast Will County. In 2012, the Bedford Park Terminal processed more than 838,000 twenty-foot equivalent shipping containers—an increase of 36.7 percent over 2000—the second busiest intermodal facility in the Chicago region after Logistics Park Chicago. The Yard is accessed by trucks from Harlem Avenue, which has Average Daily Traffic (ADT) counts of 45,800 vehicles. CACC with its lower ADT of 20,800 will reduce congestion along Harlem and along Cicero Avenue with its high ADT of 52,800 vehicles by providing additional north-south capacity along an industrial corridor with a high concentration of metal processing firms. The savings associated with improved travel times will benefit this manufacturing base.

Cook County Department of Highway and Transportation:
1. Project Name: Joe Orr Road Extension (JORE)
2. Project Description: JORE involves the extension of Joe Orr Road from Torrence Avenue east to Burnham Avenue. This investment in Cook County infrastructure will produce a new five-lane roadway. A future component of the Project will extend the road further east to the Illinois-Indiana state line where it will connect with Main Street in Dyer, Indiana, providing an additional east-west connection between northwest Indiana and southeast Cook County—a bi-state region that effectively functions as a single economy.

3. Benefit to Metal Manufacturing: Joe Orr Road will provide a direct regional route between the cluster of 243 metal manufacturers in and around the City of Chicago Heights and the population to the east in the Village of Lynwood. Three Class
Project Description:

1. **Project Name**: Kendall County: Longmeadow Parkway Bridge Corridor (LPBC)

2. **Project Description**: The proposed LPBC is envisioned as a regional roadway stretching from Huntley Road to Illinois Route 62 with a new bridge over the Fox River. The ultimate scope of work for this improvement is a new 4-lane corridor including a new bridge over the Fox River that extends 5.6 miles from Huntley Road to Illinois Route 62.

3. **Benefit to Metal Manufacturing**: LPBC will pass through Northern Kane County and it will be in close proximity to Southern McHenry County. This new corridor will provide vital transportation connections and accessibility for both the sub-regional and regional metal manufacturing clusters. The corridor will enhance the operations of 327 metal manufacturing businesses within a 10 mile radius; and by the year 2040 it is projected to support over 50,000 new jobs within a five-mile radius. Currently, the region experiences traffic congestion which hampers access to numerous manufacturing businesses and makes the transportation of goods and services inefficient and cost prohibitive. The LPBC will improve travel times for workers, transit times for goods and services and it will be an asset to the metal manufacturing community in Northern Kane County and Southern McHenry County.

**Kane County**:

1. **Project Name**: Longmeadow Parkway Bridge Corridor (LPBC)

2. **Project Description**: The proposed LPBC is envisioned as a regional roadway stretching from Huntley Road to Illinois Route 62 with a new bridge over the Fox River. The ultimate scope of work for this improvement is a new 4-lane corridor including a new bridge over the Fox River that extends 5.6 miles from Huntley Road to Illinois Route 62.

3. **Benefit to Metal Manufacturing**: LPBC will pass through Northern Kane County and it will be in close proximity to Southern McHenry County. This new corridor will provide vital transportation connections and accessibility for both the sub-regional and regional metal manufacturing clusters. The corridor will enhance the operations of 327 metal manufacturing businesses within a 10 mile radius; and by the year 2040 it is projected to support over 50,000 new jobs within a five-mile radius. Currently, the region experiences traffic congestion which hampers access to numerous manufacturing businesses and makes the transportation of goods and services inefficient and cost prohibitive. The LPBC will improve travel times for workers, transit times for goods and services and it will be an asset to the metal manufacturing community in Northern Kane County and Southern McHenry County.

**Kendall County**:

1. **Project Name**: Burlington Northern Santa Fe Rail Spur

2. **Project Description**: Construction of rail spur off of BNSF line in Sandwich Industrial Park

3. **Benefit to Metal Manufacturing**: BNSF, a Class I railroad and the second largest freight rail network in North America, traverses through the northern area of Kendall County. This area has the highest concentration of metal manufacturing clusters in the County. There are 27 metal firms within a 10 mile radius of the project. Adding rail access to the area would open up additional service for existing metal manufacturers in county and increase likelihood of additional firms.

1. **Project Name**: Eldmain Bridge and Road Expansion (EBRE)

2. **Project Description**: Eldmain Bridge and expansion from North of U.S. Route 34 to south or Illinois Route 71.

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84 http://blog.cookcountygov.com/2013/01/31/joe-orr-road-realignment-creates-islands-of-opportunity/

85 http://ssmma.org/program-areas/transportation/
3. **Benefit to Metal Manufacturing**: Kendall County has no direct interstate access in areas with concentrated development and metal manufacturing clusters. This lack of infrastructure adds traffic pressure on local roads. Creating a north south corridor that connects major arterial roads (including U.S. and State highways) will improve the movement of metal manufactured goods and services. There are 66 metal firms within a 10 mile radius of the proposed expansion. The North/South route would serve the concentrated northern area of the County containing metal manufacturing clusters.

1. **Project Name**: Orchard Road Utility Expansion
2. **Project Description**: Utility expansion and improvements along Orchard Road
3. **Benefit to Metal Manufacturing**: Caterpillar, Kendall County’s largest private employer and globally recognized metals manufacturer, is adjacent to Orchard Road Corridor. Utility expansion to this area would open up availability for metal manufacturers to locate and help improve Caterpillar’s supply chain. There are 147 metal firms within a 10 mile radius of the proposed expansion.

Lake County:
1. **Project Name**: 14th Street Reconstruction
2. **Project Description**: A Phase I engineering study for the reconstruction 14th Street from Green Bay Road /IL Rte. 131 to Jackson Street is currently underway. The study includes analysis of the existing signalized intersections at 14th Street /Green Bay Road and 14th Street /Lewis Avenue as well as the intersections of 14th Street/Dugdale Road and 14th Street/Jackson Street. Alternate geometrics are also being evaluated including complete streets design and the possibility of a roundabout at the intersection of 14th Street /Dugdale.
3. **Benefit to Metal Manufacturing**: This new corridor will provide vital transportation connections and accessibility for both the sub-regional and regional metal manufacturing clusters. There are 134 metal manufacturing businesses within a 10-mile radius of the new corridor. Currently, the region experiences traffic congestion which hampers access to numerous manufacturing businesses and makes the transportation of goods and services inefficient and cost prohibitive. The project will improve travel times for workers, transit times for goods and services and it will be an asset to the metal manufacturing community in the Cities of Waukegan and North Chicago. The corridor will enhance the operations of many nearby metal manufacturing businesses.

1. **Project Name**: Quentin Road from US Route 12 to Illinois Route 22
2. **Project Description**: This project is currently in Phase II (design stage) and includes the proposed widening and reconstruction of approximately 1.8 miles of Quentin Road from US Route 12 to Illinois Route 22 (excluding both intersections). The project limits extend through the Villages of Kildeer and Lake Zurich in Lake County, Illinois. Quentin Road is classified as a minor arterial and serves as an important north-south corridor connecting northern Cook County to southern Lake County. Quentin Road also provides access to residential properties located along the corridor as well as retail and commercial land uses just outside the project limits. Quentin Road was originally constructed as a two-lane rural roadway and, as transportation demand increased through the years, isolated improvements were completed to provide auxiliary turn lanes.
3. **Benefit to Metal Manufacturing**: This new corridor will provide vital transportation connections and accessibility for both the sub-regional and regional metal manufacturing clusters. There are 354 metal manufacturing businesses in Lake County within a 10-mile radius of the new corridor. Currently, the region experiences traffic congestion which hampers access to numerous manufacturing businesses and makes the transportation of goods and services inefficient and cost prohibitive. The project will improve travel times for workers, transit times for goods and services and it will be an asset to the metal manufacturing community in Southern Lake County and Northern Cook County. The corridor will enhance the operations of many nearby metal manufacturing businesses.

Will County:
1. **Project Name**: Interstate Route 55 @ Weber Road
2. **Project Description:** The improvement will include the reconstruction of the Weber Road interchange at Interstate Route 55 to a Diverging Diamond Interchange (DDI). The project also includes the reconstruction of Weber Road to a six-lane cross section with barrier median from 119th Street/Rodeo Drive to 135th Street/Romeo Road.

3. **Benefit to Metal Manufacturing:** Weber Road (County Highway 88) runs in a north-south direction through the communities of Crest Hill, Romeoville and Bolingbrook, within the northern portion of Will County. Rapid population and employment growth occurring in this part of the region in recent decades has created the need for additional capacity along with operational and safety improvements at the I-55/Weber Road interchange. The Weber Road corridor has become a center of employment in Will County for metal manufacturing (222 in a 10 mile radius) and logistics companies. Continued growth in this industry sector will depend on enhanced access to I-55 and regional and national supply chains. Interstate 55 has long been a key trucking corridor and critical to the movement of freight in the region. Metal manufacturing firms in Will County currently contribute to the large volume of trucks using the I-55 interchange at Weber Road. Average daily traffic on Weber Road near the interchange was nearly 40,000 vehicles in 2010 and projected to increase by 2040. Severe congestion at the interchange during the AM and PM rush hours has created costly delays for commuters and further impedes the flow of commerce. The reconstructed interchange will improve access to jobs in the metal cluster, deliver travel time savings for commuters and deliveries using the interchange, improve overall freight mobility and increase productivity for metal manufacturing operations in the Weber Road corridor.

**Milestones:**
1. Conduct inventory of existing physical infrastructure and identify needs/gaps by geography.
2. Identify prospective sites for new or expanded manufacturing with close proximity to transit and minimal or surmountable environmental challenges.
3. Obtain site control as appropriate.
4. Identify brownfields remediated/prepared for development.
5. Value of infrastructure funds leveraged.
6. Percentage of sites within 1, 5, and 10 miles of public transportation, freight, intermodal facilities, highways, airports, etc.
7. Number of sites remediated/prepared for development.
8. Average commute times of employees working in site target area.
10. Reduction in environmental contaminants.
11. Number of clouded titles cleared.
12. Number and acreage of sites assembled.
13. Number and acreage of brownfields remediated.
14. Number of workforce housing units.
15. Volume of available land.

5. **Trade and International Investment**

i. Current capability: What is the current level and rate of change of the community's exports of products or services in the KTS? In 2011, Machinery (NAICS 333) was the largest export industry from the Chicago MSA and accounted for $9.5 billion or 14% of the trade. Primary metals (NAICS 331) were the fifth largest export industry at $3.5 billion or 6.6% of all exports. Fabricated Metal (NAICS 332) was the twelfth largest export industry at $2 billion or 4% of all exports. Across the Metal Cluster, the export growth from 2009 – 2010 was impressive with growth of 20.9% in Machinery (333); 18.5% in Fab Metals (332); and 11.3% in Primary Metals (331). The growth in Fab Metal manufacturing has been linked to the “reshoring” phenomenon – the return to the United States of manufacturing companies that over the last few decades moved production to lower-wage countries like China. RW Ventures’ analysis can be applied across all metal sectors. The cost structure of manufacturing overseas for delivery to North American markets no longer offers sufficient advantage, due to rising wages, stronger currencies and uncertain transportation costs. Concerns surrounding quality control, intellectual property and time to market further tip the scales in favor of domestic manufacturing. Getting in front of this reshoring trend, metal firms are courting overseas customers that seek access to the U.S. marketplace. Chicago-area firms are finding ways to exploit rapid economic growth in China and Southeast Asia, partnering with peer manufacturing firms overseas that can make their products to meet Chinese customer specifications. Some firms are working with Chinese distributors to market their products, while maintaining all of their production in Chicago/the U.S. Still others are opening their own small sales offices abroad, utilizing sales staff employed by Chicago-area firm. Identify existing number of international KTS firms, inward investment flow, outward investment flow, export and import figures, KTS trends in the region and internationally. The Inland Port has established rail connections to the western U.S. Ports of LA/Long Beach; Will County has become a key node in the global supply chain for containerized imports from Asia. The capacity of the inland port at full build-out is 6 million TEUs.

ii. Current institutions for improving export capability and support: What local public sector, public-private partnership, or nonprofit programs have been developed to promote exports of products or services from the KTS? World Business Chicago (WBC) has led the regional effort to improve export capability in manufacturing and has the ability to organize efforts to promote exports of products and services in metal manufacturing. Chaired by Chicago Mayor Rahm Emanuel, WBC fosters private sector growth and jobs through the advancement of a business-friendly environment that attracts world class talent. WBC leads the city's business retention, attraction and expansion efforts, raises Chicago's position as a premier global business destination, and guides

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87 RW Ventures “Fabricated Metal Excerpts,” pp 3 -4
implementation of the Plan for Economic Growth & Jobs (PEGJ)\textsuperscript{88}. With WBC’s support, Chicago was selected by the Brookings Institution to participate in its Metropolitan Export Initiative (MEI), a ground-up collaborative effort to help a pilot group of regional civic, business, and political leaders create and implement customized Metropolitan Export Plans (MEP). WBC’s Chicagoland Trade Accelerator will act as a front door for small- and medium-sized enterprises to access the support services needed to increase exports. Along with WBC, the Region’s ecosystem has a broad range of institutions which can promote metal manufacturing exports, including but not limited to the following: Public Sector: Federal – U.S. Export Assistance Center, Commercial Service, Export-Import Bank (Midwest Center in Chicago), District Export Council, Consulates / Embassies; State – Illinois Department of Commerce and Economic Opportunity (DCEO), Office of Trade and Investment (1 OTI with 9 international locations); International Trade Centers; Illinois International Trade NAFTA and Latin America Trade Center at NORBIC, which are funded in part by the Illinois Small Business Development Center and the IDCEO, Chicago Metropolitan Agency for Planning (CMAP) Public Private Partnerships: World Business Chicago and Chicagoland Chamber of Commerce.\textsuperscript{89} The Illiana is an innovative project for the region as the first state project being delivered as a public-private partnership. Nonprofit Programs: Chicago Council on Global Affairs International Trade Center, Global Manufacturers’ Alliance, Illinois Chamber of Commerce International Business Center, Illinois District Export Council. iii. Gaps: What are the barriers to increasing KTS exports? The region lacks a coordinated strategy to increase exports in metal manufacturing. SMEs make up 1.8% of Primary Metals, 19.7% of Fab Metal, and 11.7% of Machinery firms. They lack the resources and capacity to enter foreign markets on their own. Identify strategic needs or gaps to fully implement a program to attract foreign investment. Outreach missions and marketing materials: Outreach missions and marketing materials need to be developed. Infrastructure / Site Development, the Cluster’s most critical need is continued transportation infrastructure investment. Congestion threatens to undermine the transportation advantages currently enjoyed by manufacturers in the Chicago region. The Cluster lacks the capacity to share information and technology. Data or Research, Missing Capabilities: Through MEI, WBC and Brookings have developed a data-driven assessment of the regions’ current exports and weaknesses. The Consortium needs to build on that effort and drill-down further to gather data conduct research and identify missing capabilities that relate specifically to metal manufacturing exports. iv. Plans: Trade and International Investment Committee: The Consortium will create a Trade and International Investment (TII) Committee which will include representatives from the Economic Development departments / agencies of the 7 Counties, the IDCEO Office of Trade and Investment (OTI), WBC, the private sector, and regional Councils of Government. The TII Committee will be charged with developing a Chicago Metro Metal Cluster Export Plan. The Consortium will determine whether the CMMCEP will be developed separately from or in within the scope of WBC’s Chicago Metropolitan Export Plan (CMEP), which is currently underway. CMEP is an ongoing initiative led by the city Chicago and WBC, with the participation of the 7 Region Counties. Localized export plans apply market intelligence to develop better targeted, integrated export-related services and strategies to help regions connect their firms to global customers, as outlined by their individualized export goals. To help metropolitan leaders successfully adopt their own plans, Brookings developed the six-to-twelve-month Exchange program that utilizes classroom instruction, peer learning opportunities, regional team work assignments, and targeted advice to help metropolitan areas successfully design and launch their own MEPs by the end of the Exchange period.

\textit{Communities that intend to focus on exports or foreign direct investment as a priority area in seeking future grants should explain how they intend to build on local assets to improve KTS in areas such as: a. Developing global business-to-business matching services; or planning and implementing trade missions.}

The TII Committee will be charged with developing a CMMCEP which will be guided by the “Brookings Ten Steps to Delivering a Successful Export Plan”\textsuperscript{90} and modeled on WBC’s Chicagoland Trade Accelerator, which is currently underway. The TII Committee will develop global B2B matching services working with agencies such as the Chicago office of the U.S. Gold Key Matching Service\textsuperscript{91} (Gold Key), a U.S. Dept. of Commerce fee-based service that assists businesses in the United States with transactions and planning that take place overseas. Through its sister organization NORBIC and its International Trade Center and NAFTA and Latin American Trade Center, the Alliance for Illinois Manufacturing will identify that firms have an exportable product and assist them in navigating the various state and federal incentives already in this area. Or planning and implementing trade missions. Gold Key assistance includes travel planning, interpreters, and a business-to-business service that matches American businesses with relevant potential clients, partners, and legislators who can help increase exports. This is one of several matchmaking services the U.S. Department of Commerce offers, in addition to activities related to foreign and domestic trade shows, as well as trade missions. As such, counties like Will have attended missions to India and China. In addition, reverse missions from China and the Country of Oman have visited the Will County Inland Port to understand how logistics work in the US. \textit{Regional advisory services for engaging international markets and international trade officials:} The TII Committee will also link metal manufacturers to regional advisory services that engage international markets and trade.
officials. Partners will include the Illinois District Export Council\textsuperscript{92}, an organization of international trade professionals who use who use their knowledge and international business experience to act as peer consultants to small- and medium-sized businesses that want to export their products into markets outside of the United States.  

\textit{b. Location (investment) promotion in target markets and within target sectors to build the KTS.} The TII Committee will invest in promoting target markets and sectors within the Metal Cluster. \textit{Investment Missions; IIT Committee will assess the need for investment missions.} Top foreign markets for the greater Chicago tri-state region include Canada, Mexico and the United Kingdom.\textsuperscript{93} Iron and Steel Manufacturing and General Industrial Machinery will continue to be top imports of Brazil, India, and China (BIC) over the next 10 years.\textsuperscript{94} Business accelerators or soft landing sites to support new investors; The IIT Committee will launch a business accelerator. It will consider whether to develop soft landing sites to support new investors. \textit{Marketing materials; Marketing materials will be developed.}

\textit{Organizational capacity to support investment strategy implementation.} The IIT Committee will retain a consultant to build organizational capacity to support investment strategy implementation. \textit{(c) Implementation Strategy Description:} A description of the proposed investments and implementation strategy that will be used to address gaps in the ecosystem; \textit{Milestones:} 1. Conduct export barriers analysis. 2. Conduct inventory of existing partnerships for trade and international investment and identify gaps as well as opportunities for new or expanded linkages. 3. Develop and implement an outreach strategy to attract foreign investment. 4. Conduct trade missions. \textit{Performance Metrics:} 1. Number of international firms in metropolitan Chicago. 2. Value of inward investment by detailed industry. 3. Value of outward investment by detailed industry. 4. Value of exports by detailed industry. 5. Value of imports by detailed industry. 6. Number of programs promoting exports from area. 7. Number of trade missions. 8. Number of new/existing international trade partnerships. 9. Number of peer manufacturing partnerships.

\section*{6. Operational Improvement and Capital Access}

\textit{For operational improvement and capital access, the applicant should consider:} \textit{i. Current capability: For the KTS, what data is available about business operational costs?} Manufacturing costs can be classified into three categories – materials, labor and overhead. The cost associated for labor and overhead categories encompass 60,000 production workers. The median wage is $17.09. They work in 56 different occupations. More than two-thirds hold one of 10 positions: 1) Machinists; 2) Team Assemblers; 3) Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic; 4) First-Line Supervisors of Production and Operating Workers; 5) Computer-Controlled Machine Tool Operators, Metal and Plastic; 6) Welders, Cutters, Solderers, and Brazers; 7) Inspectors, Testers, Sorters, Samplers, and Weighers; 8) Tool and Die Makers; 9) Lathe and Turning Machine Tool Setters, Operators, and Tenders, Metal and Plastic; and 10) Helpers - Production Workers.  

\textit{And local capital access?} According to Crain’s Chicago Business, metropolitan Chicago has a network of venture capital and private equity firms specialized in manufacturing.\textsuperscript{95} Consortium Member Chicago Metropolitan Agency for Planning (CMAP) developed a capital intensity quotient (CIQ) to compare the capital outlay of Illinois manufacturing industries for machinery and facilities.\textsuperscript{96} Illinois industries with a capital intensity quotient above one invested more capital in machinery and facilities compared the national average, while a measure below one indicated industries in the state spending less capital relative to the size of the workforce. While it is only one data point, the capital intensity indicator hints at what industries are making the capital investments today in order to compete in advanced manufacturing tomorrow. Primary Metals (NAICS 331) had a CIQ of 1.97 and Fabricated Metals (NAICs 332) had a CIQ of 1.23. Per CMAP, those industries with a capital intensity above one may indicate growth opportunities here in Illinois as firms in these industries invest more in state of the art machinery, expanded facilities, data processing equipment and other improvements compared to those same industries in other states or regions. Machinery (NAICs 333) had a CIQ of 0.77 and may not be investing for the next generation at a rate concurrent with competitor regions. The applicant can provide general description of what is available, and more detailed description of key areas of comparative advantage or of concern. \textit{Business Operational Costs:} By optimizing production planning on the basis of forecasted demand and up-to-date material, capacity, and resource availability, you can increase plant efficiency – and reduce operational costs. You also gain better visibility and control of material flow through support for multilevel production planning and execution.  

\textit{Local Capital Access:} Approximately 90\% of the Metal Manufacturers are small manufacturing enterprises (SMEs), with less than 200 employees. The Manufacturing Extension Partnership (MEP)—a program of the U.S. Department of Commerce’s National Institute of Standards and Technology (NIST)— commissioned an independent capital access assessment study to better understand the current state of the capital marketplace and how it impacts the ability of small manufacturing enterprise (SMEs) to obtain the necessary capital to support innovation and growth.\textsuperscript{97} Issued in November, 2011, MEP’s Report recognized that SMEs comprise the backbone of the U.S. manufacturing industry, accounting for about half of all

\textsuperscript{92} http://export.gov/illinois/ildistrictexportcouncil/eg_us_il_023406.asp  
\textsuperscript{93} Brookings Institution Export Nation 2012 (data as of 2010), total export volume  
\textsuperscript{94} Moody’s Projections FIND CITE  
\textsuperscript{95} CMAP Manufacturing Drill Down p.115 referencing Crain's Manufacturers Breakfast, November 15, 2012.  
\textsuperscript{96} CMAP Manufacturing Drill Down, p. 118. Sufficient data was not available at the regional level so this measure uses data for the state of Illinois. The measure compared industry capital expenditure in machinery and facilities per worker in Illinois to the national average.  
\textsuperscript{97} Issued in November, 2011, MEP’s Report recognized that SMEs comprise the backbone of the U.S. manufacturing industry, accounting for about half of all
Manufacturing jobs. The MEP Report found that a lack of available capital restricted SMEs' ability to grow and compete in the current business environment. Company and stakeholder surveys cited delayed capital investment as the biggest impact of the 2008 recession and financial crisis, and a constraint to future growth. The business challenges related to accessing capital particularly impact the manufacturing sector, which is by its nature asset-intensive, requiring financing for equipment, inventory, and receivables. Furthermore, the cash conversion cycle for manufacturers was often longer than that for other types of industries, as inventory is purchased in bulk, processed through production and sold as needed to satisfy customer demand. With their liquidity tied up in inventory, finished goods and accounts receivable, SMEs required more working capital than other industry types. Manufacturers have historically used commercial or residential real estate, equipment, inventory and receivables as collateral to finance operations. With the well-documented depreciation in both commercial and residential real estate and the general tightening in the credit markets, even manufacturers who were performing well experienced difficulty in maintaining their existing borrowing capacity. **How does industry partner with utility companies to achieve efficient energy distribution and delivery and/or more energy efficient manufacturing operations?** The Illinois Sustainable Technology Center (ISTC) Prairie Research Institute at the University of Illinois integrates applied research, technical assistance, and information services to advance efforts in the areas of pollution prevention; water and energy conservation; and materials recycling and beneficial reuse. ITSC Technical Assistance helps businesses reduce all types of solid waste as well as toxic releases into the air or water. Industrial sectors that have been extensively served by ISTC include metal forming, metal finishing, and metal casting. In collaboration with ISTC, Elevate Energy will work directly with companies to assess their facilities operations, identify energy conservation measures, and assemble financing and utility rebate packages to help pay for cost-cutting measures. Additionally, Elevate Energy will assess electricity loads and identify peak demand shifting opportunities that will decrease electricity costs. The joint energy conservation and demand reduction efforts will help the businesses achieve their energy efficient manufacturing goals. **What (if any) local institutions exist to help companies reduce business operational costs while maintaining or increasing performance?** The Illinois Manufacturing Excellence Center (IMEC) helps companies develop profitable business strategies, meet customer quality requirements, contain operating costs, increase capacity and on-time delivery, and solve technical operating problems such as product defects or process bottlenecks. **What (if any) sources of capital and infrastructure are available (public and private) to businesses to expand or locate in a community?** Consortium Member AIM and its sister organization, NORBIC are nonprofit economic development organizations dedicated to assisting small and medium sized industrial companies. The ISBDC at NORBIC provides counsel to manufacturers regarding access to capital, business development, and equity and debt financing. The MEP Report inventories sources of capital for manufacturing SMEs. It listed the SBA 7(a) Guaranteed Loan Program, the SBA 504 Fixed Asset Program, and the Export-Import Bank programs. The Export-Import (Ex-Im) Bank was recognized as increasing the number of small manufacturers that use its products to expand exporting operations. The most commonly recognized federal equity programs were the Community Development Financial Institution (CDFI) and Small Business Investment Company (SBIC), funds, administered by the U.S. Department of the Treasury and U.S. Small Business Administration (SBA), respectively. The SBA provides an online tool to identify SME friendly banks. **What evidence exists regarding their performance?** The 2011 MEP Report assessed whether available capital meets the needs of SMEs. The Report identified: 1) availability issues — gaps in the availability of specific types of capital and financing options; 2) awareness issues—gaps in the general awareness of available capital or financing options; 3) accessibility issues—Identified gaps in the accessibility of available capital or financing options; and 4) federal strategic or programmatic issues—Identified gaps in the requirements of a program, in the operational or programmatic infrastructure of MEP’s programs and centers. **Plans: Communities that intend to focus on operational improvements and/or capital access as a priority area in seeking future grants should explain how they intend to build on local assets to improve KTS in areas such as:** **i. Reducing manufacturers' production costs by reducing waste management costs, enhancing efficiency, and promoting resilience** The Consortium will create a Sustainability Committee led by the Cook County Department of Environmental Control (CCDEC) with participation from ITSC, Elevate Energy, metal manufacturers and other stakeholder. ISTC will provide consulting services to assist metal manufacturers to reduce management costs, enhance efficiency, and promote resilience. The ISTC team will drive the metal manufacturing sector towards zero waste and implementation of energy efficiency technologies. As part of these efforts ISTC will establish consortiums to connect waste streams to feedstock streams and create a Green Enterprise Zone that would serve to work with metal manufacturing establishments, their suppliers and their surrounding communities.

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98 http://www.istc.illinois.edu/tech/tech_assist_services.cfm
99 IMEC is the leader of the US Commerce NIST Manufacturing Extension Partnership (MEP) supply chain optimization initiative: http://www.mepsupplychain.org/
100 MEP Report p 3
101 MEP Report p.23
102 MEP Report p 53
Establishing mechanisms to help firms measure and minimize life-cycle costs (e.g., improving firms’ access to innovative financing mechanisms for energy efficiency projects, such as a revolving energy efficiency loan fund or state green bank): The Alliance for Illinois Manufacturing’s (AIM) Energy Program will improve firms’ access to innovative financing mechanisms for energy efficiency. The AIM Energy Program is a manufacturing energy cooperative offering a full range of comprehensive energy solutions. Building concerted local efforts and capital projects that facilitate industrial energy efficiency, combined heat and power, and commercial energy retrofits: The Sustainability Committee will build local efforts and capital projects that facilitate industrial energy efficiency, combined heat and power, and commercial energy retrofits. The Sustainability Committee will research and incorporate best practices, i.e., the ITSC Technical Assistance Program, the Business Case and Tools set forth by the USEPA Sustainable Manufacturing program. Developing public-private partnerships that provide capital to commercialize new technology, and develop/equip production facilities in the KTS: World Business Chicago and AIM will lead the efforts to develop public-private partnerships that provide capital to commercialize new technology, and develop/equip production facilities in the KTS. AIM through its existing networks of private equity investors, banks, microlending partners and CDCs already assist companies with capital access. Milestones: 1. Conduct an analysis of business operational costs and local capital access. 2. Develop and implement a strategy to attract public and private capital to support operational efficiency improvements. 3. Coordinate with local building authorities to incorporate energy efficient components within related codes and requirements and to incentivize participation through expedited processing, etc. Performance Metrics: 1. Amount of reduction in operational costs. 2. Number of energy efficient improvements. 3. Value of energy efficient improvements. 4. Number of partnerships between utility companies and industry leaders. 5. Value of capital for business expansion. 6. Number of infrastructure improvements to facilitate business expansion. 7. Number of business expansions and number of new jobs added through those expansions. 8. Reduction in waste management costs. 9. Number of commercial energy retrofits. 10. Number of public/private partnerships furnishing related capital. 11. Value of financing from public/private partnerships. 12. Reduction in production timeframes. 13. Increase in production levels. 14. Number of patents. 15. Number of new firms, by detailed industry. 16. Number of new products. 17. Increases in production. 18. Amount of time between product development and market launch. 19. Value of investments in related technology. 20. Total value added of firms in metropolitan Chicago supply chain by detailed industry. 21. Value added per work hour, and change in value added per work hour, of firms in metropolitan Chicago supply chain by detailed industry. 22. Scrap rate. 23. Rework rate. 24. Defect rate. 25. Percent of firms systematically tracking measures of product quality, defects, scrap, rework, or recurring errors.

Evaluation Performance Metrics: A description of metrics, benchmarks and milestones to be tracked and of evaluation methods to be used (experimental design, control groups, etc.) over the course of the implementation to gauge performance of the strategy

Broad Performance Evaluation Approach: For this project, the Consortium will retain the University of Illinois Center for Urban Development ("UICUD") to perform an evaluation. The Consortium and UICUD will further develop and implement a tiered system for outcomes evaluation which will be inclusive of performance metrics for short- (1-2 years), medium- (3-4 years), and long-term (5-10 years) development and employment goals. These metrics will follow the SMART (Specific, Measurable, Achievable, Relevant, Time-bound) approach. It is expected that a “balanced scorecard” or “BSC” approach will be utilized to assess strategy implementation. The BSC method utilized here will track performance related to finances, customers, internal operations, innovation, and employees. All metrics will be tracked over time (annually if possible). Please see below a summary of milestones and metrics by pillar.

Evaluation Methods: The evaluation of the workforce activities will have three components. (1) An implementation evaluation will track the progress of the programs over time. It will use qualitative data obtained from semi-structured interviews with program staff, training providers, Workforce Investment Board staff, participating workers, and participating employers, as well as quantitative administrative data from the programs themselves. (2) An outcomes evaluation comparing the pre- and post-participation outcomes of workers receiving training. Key variables may include the following: number and types of manufacturing skill credentials, employment status, average weekly work hours, hourly wage, quarterly earnings, and industry and occupation of employment. (3) An evaluation of employer outcomes will compare participating employers’ initial-year (before any programs have begun) and final-year (after all programs have ended) outcomes on variables such as the following: average rating of worker performance, average length of time job vacancies are unfilled, percent of production workers with less than one year of job tenure, employer rating of Chicago area as a place to manufacture, value added per work hour, and average hourly wage for production workers.

The evaluation of the supplier network and operational improvement and activities will have three components. (1) An implementation evaluation will track the progress of the programs over time. It will use qualitative data obtained from semi-structured interviews with participating firms and with consortium members and other organizations (e.g., supplier

103 http://www.istc.illinois.edu/tech/tech_assist_services.cfm
105 http://www.epa.gov/sustainablemanufacturing/index.htm
Overall Leadership Capacity, Sound Partnership Structure, and Federal Financial Assistance Experience:
i. Overall leadership capacity—lead organization’s capacity to carry out planned investments in public goods, e.g., prior leadership of similar efforts, prior success attracting outside investment, prior success identifying and managing local and regional partners, and ability to manage, share, and use data for evaluation and continuous improvement.

ii. Sound partnership structure, e.g., clear identification of project lead, clarity of partner responsibilities for executing plan, and appropriateness of partners designated for executing each component; clarity of partnership governance structure; and strength of accountability mechanisms, including contractual measures and remedies for non-performance, as reflected in letters of commitment or Memorandum of Understanding among consortium members.

All of the Consortium members have demonstrated significant capacity to administer and manage Federal funding. For example, the Cook County Bureau of Economic Development has received and disbursed hundreds of millions of dollars in Federal funding for community development, affordable housing, and economic development. In addition to funds received via one-time formula allocations under the economic stimulus programs and successful competitive applications, the CCBED administers three Federal funding sources on an annual entitlement basis: CDBG, ESG, and HOME.

Cook County has become a model in the region and nation as it relates to timely commitment and expenditure as well as effective deployment of Federal funds, specifically through its continuing receipt of HUD dollars. To date, 99% of all CDBG, ESG, and HOME funds received have been formally committed. Additionally, 98% of CDBG, 94% of ESG, and 87% of HOME dollars have been expended for positive community impacts. Annually, the CDBG program provides direct benefits approximately 5,000 persons who are homeless or at-risk of homelessness in a given year. Through the support of development or preservation of affordable housing for low-income households, the County’s HOME program has assisted 2,475 rental, 315 homeowner, and 551 homeowner units and households. Cook County ranks first in the State in leveraging for rental activities and the percentage of completed rental disbursements to all rental commitments as noted in the HUD HOME Snapshot Report as of September 30, 2013.

Going forward, efforts to enhance internal and funding recipient capacity as well as improve funding commitment, disbursement, and project completion rates will continue and expand. While recent decreases in Federal entitlement dollars nationwide will be challenging given increasing community needs and service demands, Cook County is poised to move forward to seek and solicit additional competitive funding, better evaluate critical local needs, and strategically leverage available resources under the leadership of current senior management including the Bureau Chief, Director, and three Deputy Directors, focused upon housing, economic development, and community development respectively.

Cook County has also launched an innovative strategic planning process known as Planning for Progress which will guide partnerships, investments, and funding applications over Program Year 2015-2019 related to economic development, affordable housing, and community development. The Chicago Metropolitan Agency for Planning (CMAP) is providing technical assistance to this initiative. In developing this plan, the County is committed to: 1) Initiating a Countywide and sub-regional
dialogue around housing, community, and economic development issues and strategies; 2) Engaging partners, stakeholders, and citizens in the development, review, and implementation of the proposed Plan; 3) Identifying overall and geographically focused priorities as well as five-year and annual goals and objectives; and 4) Aligning and coordinating Federal, State, and/or local resources for expanded community impact. More information on the plan may be found at:


Through phases 1 and 2 of the project, Planning for Progress has engaged over 1,300 Cook County stakeholders through an interactive online survey, social media, electronic mailings, a kickoff public workshop and three well attended sub-regional public workshops. These engagement initiatives have garnered valuable input about the priorities and issues that the resulting Consolidated Plan and the Comprehensive Economic Development Strategy (CEDS) should address over the next five years. This marks the first time that both plans, required by HUD and EDA respectively, are being combined into a single planning process and document in Cook County, the region, and possibly the nation.

Cook County recognizes that the plan will only be as effective as its implementation. Towards this end, the County seeks to undertake a multi-faceted program implementation evaluation that will inform related outreach, planning, implementation, reporting, and monitoring efforts going forward. It is believed that this work will also inform similar initiatives throughout the region and nation and may establish a replicable model. This evaluation will include but not be limited to: 1) Review/analysis of current County internal/external performance reporting systems, workflows, and documentation; 2) Development of a performance measurement framework and indicators ensuring compliance with Federal, State, local requirements and incorporating best practices; and 3) Retooling of County funding recipient reporting systems and documentation to integrate fully with this new performance measurement framework. This work would help to measure County progress in:

- Marketing programming and special initiatives to key groups and individuals;
- Achieving and sustaining substantive stakeholder and public engagement;
- Leveraging public and private resources and partnerships;
- Developing actionable and targeted strategies with a particular emphasis upon geographies of opportunity;
- Coordinating investments within and beyond the County’s funding streams; and
- Maximizing community impacts through strategic allocation of resources.

The County is currently soliciting foundation support for this evaluation work which could coordinate with the performance evaluation system for this IMCP designation if awarded.

Please see below for a summary of Federal funding management by key Consortium members:

**DuPage County** expended $21.3 million in Federal funding in 2013 from 10 federal agencies (excluding the Health Department). DuPage County has administered millions of dollars in funding from multiple Federal agencies for decades.

**Kane County** currently manages $21,031,946 in Federal funding from various Federal agencies, including the U.S. Departments of Agriculture, Housing and Urban Development, Justice, Labor, Transportation, Environmental Protection Agency, Energy, Election Assistance Commission, Health and Human Services, and Homeland Security. Kane County has administered various forms of Federal funding since 1973.

**Kendall County** currently manages $5,741,228 in Federal funding from U.S Department of Health & Human Services, U.S. Department of Justice, U.S. Office of National Drug Control Policy, U.S. Department of Agriculture, FHA, EPA, and US DOT.


**McHenry County** currently manages approximately $1.8 million in Federal funding from the U.S. Department of Housing and Urban Development.

**Will County** managed approximately $22 million in federal grant funds in FY13.

**Partnership**

Verifier Commitment From Existing and Prospective Stakeholders—Both Private and Public—To Executing a Plan and Investing in a Community, [2]

i. Cohesion of partnership. This may be shown in part by evidence of prior collaboration between the IMCP lead applicant, applicant consortium members, and other key community stakeholders (local government, anchor institutions, community, business and labor leaders and local firms, etc.) that includes specific examples of past projects/activities.

ii. Strength/extent of partnership commitment (not contingent upon receipt or specific funding stream) to coordinate work and investment to execute plan and strategically invest in identified public goods. Documented match for current project and evidence of past investments can help serve to demonstrate this commitment.

iii. Breadth of commitment to the plan from diverse institutions, including local anchor institutions (e.g., hospitals, colleges/universities, labor and community organizations, major employers small business owners and other business leaders, national and community foundations) and local, state and regional government officials. The 7 Counties of northeastern Illinois - Cook, DuPage, Kane, Kendall, Lake, McHenry and Will – have a cohesive partnership as demonstrated by prior collaborations. Through regional consensus, the Counties have one regional planning agency, CMAP. CMAP is also a Consortium member. The have worked cooperatively to implement Go to 2040, metropolitan
Chicago’s first comprehensive regional plan in more than 100 years. This plan establishes coordinated strategies that help the region’s 284 communities address transportation, housing, economic development, open space, environmental, and other quality of life issues. Developed by CMAP, GO TO 2040 is funded through the joint U.S. Departments of Transportation (“DOT”), Housing and Urban Development (“HUD”) and Environmental Protection Agency (“EPA”) Partnership for Sustainable Communities. The plan and subsequent reports set forth strategies for economic development and job growth. The Consortium is a continuation and expansion of these ongoing inter-jurisdictional coordination efforts.

The enclosed support letters confirm the Consortium Members’ commitment to this effort.
Budget
## Implementation Strategy Coordination & Evaluation

<table>
<thead>
<tr>
<th>Implementation Strategy Coordination &amp; Evaluation</th>
<th>IMCP Federal Funding Request</th>
<th>Investment Commitment - contingency on receipt of a specific Federal economic development funding stream (i.e. in-kind as result of participating in meetings)</th>
<th>Investment Commitment - Non Federal Amount Not Contingent on IMCP - not contingent on receipt of a specific Federal economic development funding stream (i.e. County funds already committed to a transportation project)</th>
<th>Investment Commitment - Federal Amount Not Contingent on IMCP Funding - not contingent on receipt of a specific Federal economic development funding stream (i.e. U.S. DOT funds already committed to a transportation project)</th>
<th>Non IMCP Federal Funding Source for USDOT TIGER projects, FY 14 TIGER NOFA provides even though &quot;matching&quot; funding may be provided by a State DOT or transit agency, DOT will not consider those funds to be matching funds if the source of those funds is ultimately a Federal program.)</th>
<th>Non IMCP Federal Funding Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Implementation Strategy Coordination - Cook County Bureau of Economic Development</td>
<td>$ 1,500,000</td>
<td>$</td>
<td>$ 5,000,000</td>
<td></td>
<td></td>
<td>Cook County Bureau of Economic Development HUD Community Development Block Grants</td>
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<tr>
<td>Evaluation - University of Illinois Center for Urban Development</td>
<td>$ 2,057,550</td>
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</tr>
<tr>
<td>Implementation Strategy Coordination &amp; Evaluation Sub-Total</td>
<td>$ 3,557,550</td>
<td></td>
<td>$ 5,000,000</td>
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<td></td>
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</tbody>
</table>

## 1. Workforce and Training

| Alliance for Illinois Manufacturing | $ 3,950,000 | | | | | Dept of Labor-Workforce Investment Act |
| Cook County Workforce Partnership | | | $ 10,000,000 | | | Department of Labor-Workforce Investment Act |
| Illinois Network for Advanced Manufacturing Project Lead - Region's 12 Community Colleges | $ 24,000,000 | | | | | Department of Labor-Workforce Investment Act |
| McHenry County Workforce Investment Board | | | $ 1,750,000 | | | Department of Labor-Workforce Investment Act |
| River Valley Workforce Board (Kane and Kendall Counties) | $ 1,125,000 | | | | | Department of Labor-Workforce Investment Act |
| World Business Chicago 1000 Jobs Campaign | $ 500,000 | | $ 1,500,000 | | | Private-sector fundraising Chicagoland Workforce Funders Alliance |
| Workforce and Training Sub-Total | $ 28,450,000 | $ 20,000 | $ 1,500,000 | $ 12,875,000 | | |

## 2. Supplier Networks

| Illinois Manufacturing for Excellence | $ 3,000,000 | | $ - | | | Dept of Commerce |
| AIM/NORBIC | $ 600,000 | | $ - | | | Dept of Commerce |
| Supplier Network Sub Total | $ 3,600,000 | | $ - | | | Dept of Commerce |

## 3. Research and Innovation

| World Business Chicago Advanced Manufacturing Hub | $ 2,500,000 | $ 2,500,000 | | $ 1,250,000 | | Dept of Commerce |
| Research and Innovation Sub Total | $ 2,500,000 | $ 2,500,000 | | $ 1,250,000 | | Dept of Commerce |

## 4. Infrastructure and Site Development

| Cook County Center Street Construction to support CN Gateway Intermodal Terminal Expansion | $ 2,000,000 | | $ 10,000,000 | | | Transportation and Highway Motor Fuel Tax |
| Cook County Central Avenue Corridor | $ 70,000,000 | | $ 170,400,000 | | | State of Illinois Department of Transportation |
| Cook County Joe Orr Road Extension | $ - | | $ 7,200,000 | | | Mitigation and Air Quality Improvement Program |
| Non IMCP Federal Funding Source | | | $ 34,700,000 | | | Transportation and Highway Motor Fuel Tax |
### Investment Commitment - Federal
- **Amount Not Contingent on IMCP** - not contingent on receipt of a specific Federal economic development funding stream (i.e. US DOT funds already committed to a transportation project)
- **Non IMCP Non Federal Funding Source**

<table>
<thead>
<tr>
<th>County, Project Description</th>
<th>Funding Source</th>
<th>Subtotal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cook County Touhy Avenue reconstruction as part of Elgin O'Hare Western Access Regional Improvements</td>
<td>Cook County Department of Transportation and Highway Motor Fuel Tax</td>
<td></td>
</tr>
<tr>
<td>DuPage County EOWA· At Prospect Road Interchange</td>
<td>Illinois Tollway</td>
<td></td>
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<tr>
<td>Gallatin County EOWA· At Illinois Route 83 Interchange</td>
<td>Illinois Tollway</td>
<td></td>
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<tr>
<td>DuPage County EOWA· Interstate 294 at Illinois 64</td>
<td>Illinois Tollway</td>
<td></td>
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<tr>
<td>DuPage County EOWA· Elimhurst Road at Oakton Street</td>
<td>Illinois Tollway</td>
<td></td>
</tr>
<tr>
<td>Kane County Longmeadow Parkway Bridge Corridor</td>
<td>Kane County Department of Transportation, Illinois Department of Transportation, and Federal STP Kane/Kendall Council of Mayors and Federal CMAQ funds</td>
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</tr>
<tr>
<td>Kendall County RNSF Rail Spur</td>
<td>Municipal/Private Sector</td>
<td></td>
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<tr>
<td>Kendall County Elaman Road Bridge and Expansion - North of U.S. Route 34 to South of Illinois Route 71</td>
<td>Kendall County Highway Funds</td>
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<td>Kendall County Orchard Road Utility Expansion</td>
<td>Municipal/Private Sector</td>
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<tr>
<td>Lake County Quentin Road Corridor</td>
<td>Lake County 1/4% Sales Tax</td>
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<tr>
<td>Lake County 14th Street Corridor</td>
<td>Lake County 1/4% Sales Tax</td>
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<tr>
<td>Will County I-55 at Weber Road</td>
<td>County MFT &amp; RTA Funds; IL Jump Start</td>
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<tr>
<td>Infrastructure and Site Development Sub-Total</td>
<td>$313,229,495 $</td>
<td>$3,450,639,789 $</td>
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### Investment Commitment - Non Federal
- **Amount Contingent on receipt of a specific Federal economic development funding stream (i.e. County funds already committed to a transportation project)**
- **IMCP Federal Funding Request**

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<tr>
<th>County, Project Description</th>
<th>Funding Source</th>
<th>Subtotal</th>
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<tr>
<td>DuPage County Elgin O'Hare Western Access</td>
<td>Federal Highway Administration Congestion Mitigation and Air Quality</td>
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<tr>
<td>Cook County Department of Transportation and Highway Motor Fuel Tax</td>
<td>Federal Highway Administration Congestion Mitigation and Air Quality</td>
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### Operational Improvement and Capital Access Sub-Total
- **Alliance for Illinois Manufacturing**
- **Cook County Department of Environmental Control**
- **Elevate Energy**
- **Illinois Sustainable Technology Center**

<table>
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<th>Funding Source</th>
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<tr>
<td>Alliance for Illinois Manufacturing</td>
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<tr>
<td>Cook County Department of Environmental Control</td>
<td>$6,500,000</td>
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<tr>
<td>Illinois Sustainable Technology Center</td>
<td>$5,000,000</td>
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<tr>
<td>Elevate Energy</td>
<td>$1,250,000</td>
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### Trade and International Investments Sub-Total
- **Department of Commerce Economic Development Administration**
- **World Business Chicago - Chicago Trade Accelerator**
- **World Business Chicago Export Plan**
- **Alliance for Illinois Manufacturing / NORBIC International Trade Center**

<table>
<thead>
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<th>Funding Source</th>
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<tbody>
<tr>
<td>Department of Commerce Economic Development Administration</td>
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<tr>
<td>World Business Chicago - Chicago Trade Accelerator</td>
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<tr>
<td>World Business Chicago Export Plan</td>
<td>$1,500,000</td>
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<tr>
<td>Alliance for Illinois Manufacturing / NORBIC International Trade Center</td>
<td>$650,000</td>
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</table>

### Trade and International Investments Sub-Total
- **Gold Key Matching Service**
- **World Business Chicago - Chicago Trade Accelerator**
- **World Business Chicago Export Plan**
- **Alliance for Illinois Manufacturing / NORBIC International Trade Center**

<table>
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<tr>
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<tr>
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<td>$10,000,000</td>
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<tr>
<td>World Business Chicago Export Plan</td>
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<tr>
<td>Gold Key Matching Service</td>
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<tr>
<td>World Business Chicago - Chicago Trade Accelerator</td>
<td>$10,000,000</td>
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<tr>
<td>World Business Chicago Export Plan</td>
<td>$1,500,000</td>
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<tr>
<td>Alliance for Illinois Manufacturing / NORBIC International Trade Center</td>
<td>$650,000</td>
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### TOTAL
- **Non IMCP Federal Funding Source**
- **IMCP Federal Funding Request**

<table>
<thead>
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<tr>
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<tr>
<td>IMCP Federal Funding Request</td>
<td>$2,520,000 $</td>
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<tr>
<td>TOTAL</td>
<td>$3,452,139,789 $</td>
</tr>
</tbody>
</table>

2 of 2
Transportation Projects
1. **Project Name**: Center Street – 171st Street to 159th Street

2. **Project Description**: The Cook County Department of Transportation and Highways will restore and widen 1.51 miles of Center Street to a State of Good Repair which will enable it to handle increased traffic associated with the CN terminal expansion. These improvements will be accomplished through the following activities:
   - Rebuilding the entire roadway to modern commercial truck route standards;
   - Adding additional turning lane capacity as needed;
   - Enlarging the intersection on Center Street at 167th Street to provide for truck movements;
   - Enlarging the intersection on Center Street at the CN Gateway Intermodal Terminal’s main entrance;
   - Construction of a traffic signal at the intersection of Center Street and 167th Street;
   - Upgrade the traffic signals at the intersection of Center Street and 171st Street;
   - Reconstruct the roadway culvert at the Cal-Union Drainage Ditch with 2 - 10' X 8.5' culverts; and
   - Widen two at-grade spur railroad crossings and upgrade safety equipment and warning devices at the crossings.

3. **Benefit to Metal Manufacturing**: Center Street is a designated intermodal connector serving 309 metal manufacturers located in south Cook County, northern Will County and northwest Indiana needing to access CN’s Gateway Intermodal Terminal in Harvey, IL. CN’s proposal to more than triple the number of containers processed at its Harvey terminal from 440,000 to 1.5 million annually depends upon Center’s reconstruction and widening as its main gate faces it. This truck route also provides metal manufacturers such as Allied Tube and Conduit and LB Steel direct access to other truck routes like 159th (US Route 6), 167th and 171st streets that connect to major interstate highways including I-80, I-57 and the Tri-State I-294 Tollway. Both Center Street and the intersecting 167th Street are vital roadways for these companies, but both have deteriorated and are in need of reconstruction and widening to handle the volume of heavy trucks that use them daily. The poor and under-built condition of these roads impedes the efficient operation of existing businesses and serves as a significant disincentive for manufacturers that are considering investment in South Cook County. The Illinois Department of Transportation has scheduled reconstruction of 167th Street for the 2014 construction season so it will not interfere with Center Street’s construction. The reconstruction of Center Street is the last critical link that will provide an adequate connection between the national highway system and CN’s Gateway Intermodal Terminal.

4. **TIGER BCA**: Completed 3/19/2012

5. **Federal / State Review**: Wetland, Biological and Cultural Clearances received 2012. Phase I Design Approval pending TS&L review submitted 3/26/2014

6. **Other Studies**: Army Corps 404 Permit and IDNR Floodway Permit pending Culvert approval

7. **Funding Request**: $2,000,000.

8. **Leverage: Coordinated Policies and Leveraged Investments**
   This project epitomizes the coordination and reciprocal leveraging of investments among units of government and the private sector embodied by the Sustainable Community Partnership’s Livability Principles. The reconstruction of Center Street is a critical component of South Suburban Mayors and Managers Association’s job creation strategy, The Green TIME Zone, which was selected as one of the US Department of Housing and Urban Development’s Sustainable Communities Challenge Grant recipients (2010). Examples of other leveraged investments in the TIME Zone (GTZ) strategy are as follows:
   - Roadways that connect terminals and industrial sites to the national highway system form the backbone of GTZ. In March 2012 the State of Illinois coordinated a combination of federal, state, and local funding to rebuild the 167th Street intermodal connector.
   - In 2011-12 IDOT funded a consultant study that described market opportunities and challenges in the development of GTZ. This study will serve as the basis for a master plan governing the area.
   - Over $3 million in USEPA grants have been invested in the assessment and cleanup of brownfield sites targeted for logistics and manufacturing businesses in LPC.
   - In 2013 with urging from Cook County and South Suburban Mayors and Managers Association (SSMMA), the Illinois General Assembly passed the Brownfield Redevelopment and Intermodal Promotion Act, which will capture up to $3M annually in revenues from State payroll taxes generated by new jobs at finished facilities in south Cook for the remediation and re-use of brownfields and/or to cover the costs of public infrastructure improvements essential to attracting new or expanding existing manufacturing operations.
   - In September 2013, Sterling Lumber, a family-owned manufacturer that outgrew its Blue Island headquarters.
relocated 112 employees to a vacant facility in nearby Phoenix, IL that can accommodate the expected addition of 50 more workers over the next two years. The relocation was conditioned upon SSMMA clearing the site of any environmental concerns and Cook County and IDOT’s commitment of $1.6 million in funding to rebuild 151st Street as a truck route to handle the 50-80 trucks averaging 80,000 lbs. each that serve Sterling on a daily basis.

These coordinated initiatives and more than $10 million in leveraged investments are required to carry out a major infill industrial project at a location that capitalizes on existing transportation assets and captures the environmental, economic, and social justice benefits of rebuilding older industrial communities.

9. Map: The map below shows the Center Street route in relation to metal manufacturing operations in Cook County. The map shows that there are 309 metal manufacturing businesses within a 10-mile radius of the new corridor in Cook County alone. These businesses will directly benefit from the increased mobility in the region.
1. **Project Name**: Central Avenue Corridor Connector (CACC)

2. **Project Description**: The proposed improvement for CACC will provide an alternate north-south connection across CSX’s Bedford Park Intermodal Yard. The scope of work involves construction of the missing segment of Central Avenue between 67th and 70th Streets at the Bedford Park Yard, and widening and reconstructing the existing roadway between 63rd and 67th Streets and between 70th and 79th Streets to provide two continuous through lanes in each direction, matching similar cross sections at the project limits. At two miles in length, the proposed Central Avenue Connector is designed to pass beneath the rail yard and to support existing railroad tracks on bridges above the roadway. The roadway will return to grade at 79th Street on the south and 65th Street on the north. The improvement will provide additional capacity, more connectivity between roads, and better access for other modes of transportation, such as bicycles and pedestrians. In addition, improved traffic flow and increased capacity will help provide economic development for the area.

3. **Benefit to Metal Manufacturing**: CACC working in concert with the Bedford Park Yard will serve up to 670 metal manufacturers operating in southwest and south Cook County, southeast DuPage County and northeast Will County. In 2012, the Bedford Park Terminal processed more than 838,000 twenty-foot equivalent shipping containers—an increase of 36.7 percent over 2000—the second busiest intermodal facility in the Chicago region after Logistics Park Chicago. The Yard is accessed by trucks from Harlem Avenue, which has Average Daily Traffic (ADT) counts of 45,800 vehicles. CACC with its lower ADT of 20,800 will reduce congestion along Harlem and along Cicero Avenue with its high ADT of 52,800 vehicles by providing additional north-south capacity along an industrial corridor with a high concentration of metal processing firms. The savings associated with improved travel times will benefit this manufacturing base.

4. **TIGER BCA**: Not Applicable

5. **Federal/ State Review**: A public hearing is anticipated to be held in the fall of 2014 followed by completion of Phase I studies late in the year. Phase II (contract plan preparation and land acquisition) will take place in 2015 and 2016. If funding is available for all or an operationally independent portion of the project and adequate land acquisition is completed, Phase III (construction) could begin as soon as 2017.

6. **Other Studies**: Preliminary Alternatives Analysis - Four alternatives were analyzed for addressing the transportation needs. The alternatives evaluated were widening Harlem Avenue, the Central-Narragansett Alternative, the Central-Central Alternative, and widening Cicero Avenue. After evaluating all alternatives, the project team found that the Central-Central Alternative was the most practical plan from a transportation service and cost perspective.

7. **Funding Request**: $70,000,000.

8. **Leverage**: The Department of Transportation and Highways has included $170.4 million towards the Central Avenue Corridor Connector improvement. This funding source is the Illinois Department of Transportation FY 2014–2019 Proposed Multi-Modal Transportation Improvement Program. This funding includes the completion of Phase I and Phase II. Phase III (Construction) is not included in the Program but may be included in a subsequent Program based on project readiness and funding availability. The Central Avenue Connector’s entire construction cost of $350 million is currently unfunded.

9. **Map**: The map below shows the CACC route in relation to metal manufacturing operations in Cook County. The map shows that there are over 670 metal manufacturing businesses within a 10-mile radius of the new corridor. These businesses will directly benefit from the increased mobility in the region.
Cook County
Central Avenue Corridor Project
Metal Cluster

670 Metal Manufacturers within 10 mile radius

The Cook County Metal Cluster includes firms in Steel Product Manufacturing (NAICS 3311), Fabricated Metal Manufacturing (NAICS 3331), and Machinery Manufacturing (NAICS 3332), https://www.census.gov/geo/mapsdata

Business locations and tabular data sources: Infogroup, Basemap sources: Esri, DeLorme, NAVTEQ, USGS, Intermap
Cook County

1. **Project Name**: Joe Orr Road Extension (JORE)

2. **Project Description**: JORE involves the extension of Joe Orr Road from Torrence Avenue east to Burnham Avenue. This investment in Cook County infrastructure will produce a new five-lane roadway. A future component of the Project will extend the road further east to the Illinois-Indiana state line where it will connect with Main Street in Dyer, Indiana, providing an additional east-west connection between northwest Indiana and southeast Cook County—a bi-state region that effectively functions as a single economy.

3. **Benefit to Metal Manufacturing**: Joe Orr Road will provide a direct regional route between the cluster of 243 metal manufacturers in and around the City of Chicago Heights and the population to the east in the Village of Lynwood. Three Class I railroads and one short line railroad pass through Chicago Heights making this area prime for increased investment by metal and related manufacturers seeking properties with direct rail access. Three such industrial sites totaling 65 acres south of Joe Orr Road are being marketed to manufacturers as redevelopment sites by South Suburban Mayors and Managers Association in conjunction with the City of Chicago Heights. Residential growth in Lynwood and Indiana has put a strain on the existing road network, particularly during rush hour, as commuters travel between home and work; future economic development will further aggravate the situation. The completion of Joe Orr Road is expected to alleviate much of the traffic congestion in this area, improve the efficient movement of people and goods, and support the growth of manufacturing businesses.

4. **TIGER BCA**: Under review

5. **Federal/ State Review**: The JORE Project has completed the Illinois Department of Transportation (IDOT) Phase I Study (NEPA) process and is in Phase II Design Engineering.

6. **Other Studies**: JORE is part of a multiple-stage improvement. Phase I Engineering included realignment of Joe Orr Road from Stoney Island to Torrence Avenue, which construction has been completed. During the Phase I Study process the required information was submitted to all pertinent environmental review agencies. Correspondence was received from the following agencies which indicated that no further action is required: Illinois Department of Natural Resources, Illinois Historic Preservation Agency, and Illinois Department of Conservation. Communication is ongoing with the U.S. Army Corps of Engineers regarding the necessary construction permits for wetland impacts mitigation.

7. **Funding Request**: $0.

8. **Leverage**: The Cook County Department of Transportation and Highway has committed $7,200,000 in funds to construction of the JORE Project.

9. **Map**: The map below shows the JORE route in relation to metal manufacturing operations in Cook County. The map shows that there are 243 metal manufacturing businesses within a 10-mile radius of the new corridor in Cook and Will Counties as well as portions of Northwest Indiana. These businesses will directly benefit from improved mobility in the region.
1. **Project Name:** Touhy Avenue – Elmhurst Road to Mount Prospect Road

2. **Project Description:** Improvements to Touhy Avenue is one component of the Elgin O’Hare Western Access (EOWA) Project. The scope of work on Touhy stretches 1.25 miles and involves associated cross roads including pavement rehabilitation, pavement reconstruction and construction of roadway on new alignment. Two (2) new bridges will also be constructed on Touhy Avenue, one over the future Western Access Corridor and the second over the Union Pacific Railroad, providing a grade separation. Furthermore, five major intersections along the project corridor will be constructed or improved along with associated traffic signals to address travel demands into the 2040 projected year. New drainage infrastructure will be provided along with all other appurtenant and miscellaneous items. Proposed improvements along Touhy Avenue will greatly increase mobility at the center of a Metal Cluster.

The EOWA Project is considered a Project of National and Regional Significance by the U.S. Department of Transportation due to its potential to dramatically improve mobility, freight connectivity and enhance national and regional economies.

3. **Benefit to Metal Manufacturing:** Northern Cook County and northeast DuPage County are home to the region’s largest concentration of metal manufacturers (1,327) and the second largest employment center in the Chicago metropolitan area after downtown Chicago with more than 170,000 workers. Many companies locate here to be near the following economic drivers: UP’s Global II and CP’s Bensenville intermodal terminals and O’Hare International Airport in addition to the easy access to area expressways (I-90, I-294, I-290 and I-390). The lack of direct public transit service to this job center means that area roadways are congested: Jane Addams Tollway (I-90) (170,000 ADT), Elgin-O’Hare (I-390) (79,800 ADT) and I-294 (ranges from an ADT of 168,800 at O’Hare’s south end to 185,000 at its juncture with I-90). Nineteen communities and townships, two counties and the Illinois State Toll Highway Authority are collaboratively planning the Elgin O’Hare Western Access Project so that it can: accommodate triple the number of vehicles that local roads now carry, provide new access to the west and south sides of O’Hare via new connectors, reduce the number of grade crossings and improve travel time by 25 percent, saving $145 million in time and fuel annually by 2040. Together, these elements will open vacant and underutilized parcels to new development.

4. **TIGER BCA:** Not Applicable

5. **Federal/State Review:** Phase I design approval has been obtained from the State (IDOT) and the federal level (FHWA) via the Final Combined Design Report (February 2013) for the overall EOWA Project, which includes Touhy Avenue Improvements. Phase II (contract plan preparation and land acquisition) will take place from the Summer of 2014 through early 2017. If funding is available for all or an operationally independent portion of the project and adequate land acquisition is completed, Phase III (construction) could begin the spring of 2017.

6. **Other Studies:** Touhy Avenue Improvement studies were completed as part of the overall Elgin O’Hare Western Access tiered study process. Tier One studies focused on defining the overall improvement type (a set of roadway, transit and bicycle/pedestrian improvements) and a preferred corridor. Tier Two studies expanded on Tier One with detailed engineering and environmental studies.

Tier Two studies concluded with approval of the Tier Two Environmental Impact Statement/Record of Decision (December 2012) along with Design Approval (IDOT and FHWA) for the Final Combined Design Report (February 2013).
7. **Funding Request:** $25,000,000.

8. **Leverage:** The Department has included over $34 million towards the Touhy Avenue Improvements in non-federal, committed funds between Cook County and the Illinois State Highway Tollway Authority; said commitment includes Cook County matching funds for obtaining over $34 million in federal CMAQ funding. All funding will provide for the completion of Phase II (Design) and Phase III (Construction).

9. **Map:** The map below shows the Touhy route in relation to metal manufacturing operations in Cook County. The map shows that there are 1,327 metal manufacturing businesses within a 10-mile radius of the new corridor. These businesses will directly benefit from the increased mobility in the region.
1. **Project Name:** Elgin O’Hare- Western Access (EOWA)

2. **Project Description:** The EOWA Project includes construction of a new 17 mile toll road around the western border of O’Hare International Airport linking the Jane Addams Memorial Tollway (I-90) and the Tri-State Tollway (I-294), the extension of the Elgin O’Hare Expressway (Illinois 390) east along Thorndale Avenue to O’Hare International Airport and the rehabilitation and widening of the existing Illinois Route 390. New or improved interchanges are proposed at Rohlwing Road (Illinois Route 53), I-290, Park Boulevard/Arlington Heights Road/Prospect Avenue, Wood Dale Road, Illinois Route 83 and I-294 at Illinois 64. Also, a new western access to O’Hare International Airport will be provided. The new facility will include accommodations for transit options.

3. **Benefit to Metal Manufacturing:** EOWA will serve up to 1,770 metal manufacturers operating in DuPage and Cook Counties and portions of Kane and Lake Counties. Primary and fabricated metals manufacturers and machinery manufacturers comprise at least 50 percent of the manufacturing activity in the Inner O’Hare South/West Industrial Submarket area and O’Hare Industrial Corridor. The project is located at a transportation crossroads that includes O’Hare International Airport, a robust freight rail, multi-modal transfer facilities and existing interstates. The Canadian Pacific’s Intermodal Facility is located adjacent to the EOWA corridor. The facility processes in excess of 500 lifts per day (more than 187,000 per year) and is steadily increasing as the CPRR consolidates its facilities. The EOWA is projected to carry in excess of 115,000 vehicles a day that would otherwise be on local arterials. The EOWA project is expected to yield up to 65,000 direct and indirect jobs by 2040 when combined with completion of the western terminal at O’Hare Airport. In addition, drivers are expected to save $145 in time and fuel annually by 2040. These project benefits will positively affect this manufacturing base.

4. **TIGER BCA:** Not Applicable

5. **Federal/State Review:** The Environmental Impact Statement has been completed and a Record of Decision was issued by USDOT in December, 2012. The EOWA project is expected to be constructed in phases over several years. Construction contracts have already been awarded for the initial phases of work. Design engineering and land acquisition are well underway.

6. **Other Studies:** During the Tier I EIS process, numerous alternatives were considered, evaluated and vetted publicly before selecting a preferred corridor/alignment that was the subject of a more rigorous evaluation during the Tier 2 EIS process.

7. **Funding Request:** $127,200,000.

8. **Leverage:** The EOWA project is estimated to cost $3.4 billion. The Illinois Tollway has committed $3.1 billion toward the $3.4 billion needed to build the project. DuPage County has donated needed right-of-way for the project at a value of $25 million. In addition, approximately $69 million in federal congestion mitigation and air quality funds have been secured. Partner agencies are also committing local funding resources for design engineering.

9. **Map:** The map below shows the EOWA corridor in relation to metal manufacturing operations in DuPage, Cook, Kane and Lake Counties. The map shows that there are over 1,770 metal manufacturing businesses within a 10-mile radius of the new corridor. These businesses will directly benefit from the increased mobility and accessibility in the region.
Kane County:

1. **Project Name:** Longmeadow Parkway Bridge Corridor (LPBC)
2. **Project Description:** The proposed LPBC is envisioned as a regional roadway stretching from Huntley Road to Illinois Route 62 with a new bridge over the Fox River. The ultimate scope of work for this improvement is a new 4-lane corridor including a new bridge over the Fox River that extends 5.6 miles from Huntley Road to Illinois Route 62.
3. **Benefit to Metal Manufacturing:** LPBC will pass through Northern Kane County and it will be in close proximity to the counties of McHenry, Lake and Cook. This new corridor will provide vital transportation connections and accessibility for the sub-regional and regional metal manufacturing clusters. The corridor will enhance the operations of 327 metal manufacturing businesses within a 10 mile radius; and by the year 2040 it is projected to support over 50,000 new jobs within a five-mile radius. Currently, the region experiences traffic congestion which hampers access to numerous manufacturing businesses and makes the transportation of goods and services inefficient and cost prohibitive. The LPBC will improve travel times for workers, transit times for goods and services, and it will be an asset to the metal manufacturing community in Kane County and the region.
4. **TIGER BCA:** Currently underway.
5. **Federal / State Review:** Yes, EIS Determination Acquired on November 20, 2009 & Phase I Design Approval was granted on November 20, 2013.
6. **Other Studies:** LPBC Traffic Projections and Financial Feasibility Study, Value Engineering Study. Due to the regional priority of this project, Kane County initiated and completed the Longmeadow Parkway Traffic Projection and Financial Feasibility Study to determine the viability of a toll bridge along this corridor to cover some of the costs. This innovative financing mechanism has received support from the FHWA and could be used to reduce the requested Federal funding required and for the continued maintenance of the facility.
7. **Funding Request:** $29,246,495
8. **Leverage:** The State of Illinois, recognizing the far-reaching benefits of this improvement to the State and local transportation system, has committed to splitting the required local match towards any Federal funds secured by the County for the LPBC Project.

**Funded Project Elements:**

Kane County has obligated funding from the following sources for the subject project:

- $4 million in Federal HPP funds from the SAFETEA-LU Transportation Bill. These funds supported Phase I Engineering and a portion of the needed land acquisition. The State of Illinois and Kane County split the $1,000,000 local match, at $500,000 each (Total $5M).
- $680,000 of Federal HPD funds from Transportation Equity Act for the 21st Century (TEA 21) (P.L. 105-178) (obligated on October 25, 2002), $1,500,000 State of Illinois, $85,000 local match (Total $2.265M). These funds are supporting Phase II Engineering.
- $3,000,000 of Federal HD funds from Transportation Equity Act for the 21st Century (TEA 21) (P.L. 105-178) (obligated on July 13, 2004)

Kane County has been awarded or anticipates funding from the following sources for construction of the subject project:

- $5 million of Federal STP Kane/Kendall Council of Mayors funds. These funds are supporting construction and construction engineering. $625,000 State of Illinois, $625,000 local match (Total $6.250M)
- $768,000 of Federal Congestion Mitigation and Air Quality (CMAQ) funds through the Chicago Metropolitan Agency for Planning. These funds are supporting construction and construction engineering of the Randall Road at Longmeadow Intersection Improvements. $96,000 State of Illinois, $96,000 local match (Total $960,000)
- IDOT has jurisdiction over Illinois Route 31, Illinois Route 25, and Illinois Route 62. Intersection improvements to provide adequate turning movements will be required along Longmeadow Parkway at each of these intersections. IDOT’s participation towards the cost of construction of these intersection improvements, estimated at approximately $6 million each, for a total contribution of an additional $9 million, has been requested.
- Toll revenues of up to $50,000,000, as set forth in the Longmeadow Parkway Traffic Projection and Financial Feasibility Study which determines the viability of a toll bridge along this corridor to cover some of the costs. This innovative financing mechanism has received support from the FHWA and could be used to reduce the requested Federal funding required and for the continued maintenance of the facility.
9. **Map:** The map below shows the LPBC route in relation to metal manufacturing operations in Kane, McHenry, Lake and Cook County. The map shows that there are 327 metal manufacturing businesses within a 10-mile radius of the new corridor. These businesses will directly benefit from the increased mobility in the region.
1. Project Name: Burlington Northern Sante Fe Rail Spur

2. Project Description: Construction of rail spur off of BNSF line in Sandwich Industrial Park

3. Benefit to Metal Manufacturing: BNSF, a Class I railroad and the second largest freight rail network in North America, traverses through the northern area of Kendall County. This area has the highest concentration of metal manufacturing clusters in the County. There are 27 metal firms within a 10 mile radius of the project. Adding rail access to the area would open up additional service for existing metal manufacturers in county and increase likelihood of additional firms.

4. TIGER BCA: N/A

5. Federal / State Review: N/A

6. Other Studies: N/A

7. Funding Request: $300,000.

8. Leverage: $700,000.

9. Map: The map below shows the Burlington Northern Sante Fe Rail Spur in relation to metal manufacturing operations in Kendall and adjacent counties. The map shows that there are 27 metal manufacturing businesses within a 10-mile radius of the spur. These businesses will directly benefit from the increased mobility in the region.
1. **Project Name**: Eldamain Bridge and Road Expansion (EBRE)

2. **Project Description**: Eldamain Bridge and expansion from North of U.S. Route 34 to south or Illinois Route 71.

3. **Benefit to Metal Manufacturing**: Kendall County has no direct interstate access in areas with concentrated development and metal manufacturing clusters. This lack of infrastructure adds traffic pressure on local roads. Creating a north south corridor that connects major arterial roads (including U.S. and State highways) will improve the movement of metal manufactured goods and services. There are 66 metal firms within a 10 mile radius of the proposed expansion. The North/South route would serve the concentrated northern area of the County containing metal manufacturing clusters.

4. **TIGER BCA**: N/A

5. **Federal / State Review**: N/A

6. **Other Studies**: N/A

7. **Funding Request**: $10,000,000.

8. **Leverage**: $20,000,000.

9. **Map**: The map below shows the proposed project in relation to metal manufacturing operations in Kendall and adjacent counties. The map shows that there are 66 metal manufacturing businesses within a 10-mile radius of the spur. These businesses will directly benefit from the increased mobility in the region.

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The map below shows the proposed project in relation to metal manufacturing operations in Kendall and adjacent counties. The map shows that there are 66 metal manufacturing businesses within a 10-mile radius of the spur. These businesses will directly benefit from the increased mobility in the region.
1. **Project Name**: Eldamain Road Utility Expansion

2. **Project Description**: Utility expansion and improvements along Eldamain Road.

3. **Benefit to Metal Manufacturing**: Eldamain Road has the potential for an increase in metal manufacturing. Already zoned as Manufacturing, the increase in metal manufacturing along the route will improve supply chain for the concentration of metal manufacturing clustered in the area. Manufacturing is contained within the land use plans of the City of Plano and the United City of Yorkville as well as the County. There are 84 metal firms within a 10 mile radius of the proposed expansion. Limited utility capacity currently exists on corridor that prevents future growth unless addressed.

4. **TIGER BCA**: N/A

5. **Federal / State Review**: N/A

6. **Other Studies**: N/A

7. **Funding Request**: $1,000,000.

8. **Leverage**: $2,000,000.

9. **Map**: The map below shows the proposed project in relation to metal manufacturing operations in Kendall and adjacent counties. The map shows that there are 84 metal manufacturing businesses within a 10-mile radius of the spur. These businesses will directly benefit from the increased mobility in the region.
**Kendall County**

1. **Project Name** Orchard Road Utility Expansion

2. **Project Description:** Utility expansion and improvements along Orchard Road.

3. **Benefit to Metal Manufacturing:** Caterpillar, Kendall County’s largest private employer and globally recognized metals manufacturer, is adjacent to Orchard Road Corridor. Utility expansion to this area would open up availability for metal manufacturers to locate and help improve Caterpillar’s supply chain. There are 147 metal firms within a 10 mile radius of the proposed expansion.

4. **TIGER BCA:** N/A

5. **Federal / State Review:** N/A

6. **Other Studies:** N/A

7. **Funding Request:** $2,000,000.

8. **Leverage:** $4,000,000.

9. **Map:** The map below shows the proposed project in relation to metal manufacturing operations in Kendall and adjacent counties. The map shows that there are 147 metal manufacturing businesses within a 10-mile radius of the spur. These businesses will directly benefit from the increased mobility in the region.
Lake County – 14th Street Corridor:

1. **Project Name:** 14th Street Reconstruction

2. **Project Description:** A Phase I engineering study for the reconstruction 14th Street from Green Bay Road /IL Rte. 131 to Jackson Street is currently underway. The study includes analysis of the existing signalized intersections at 14th Street /Green Bay Road and 14th Street /Lewis Avenue as well as the intersections of 14th Street/Dugdale Road and 14th Street/Jackson Street. Alternate geometrics are also being evaluated including complete streets design and the possibility of a roundabout at the intersection of 14th Street /Dugdale.

3. **Benefit to Metal Manufacturing:** This new corridor will provide vital transportation connections and accessibility for both the sub-regional and regional metal manufacturing clusters. There are 134 metal manufacturing businesses within a 10-mile radius of the new corridor. Currently, the region experiences traffic congestion which hampers access to numerous manufacturing businesses and makes the transportation of goods and services inefficient and cost prohibitive. The project will improve travel times for workers, transit times for goods and services and it will be an asset to the metal manufacturing community in the Cities of Waukegan and North Chicago. The corridor will enhance the operations of many nearby metal manufacturing businesses.

4. **TIGER BCA:** N/A

5. **Federal / State Review:** The project is being developed following Federal Guidelines and has been submitted to the Lake County Council of Mayors for their approval for the use of locally programmed federal Surface Transportation Program funds. The project is currently listed in federal fiscal year 2019 in the Council’s Surface Transportation Program.

6. **Other Studies:** N/A

7. **Funding Request:** $5,331,500

8. **Leverage:**
   - Funded Project Elements:
     - Lake County has obligated funding from the following sources for the subject project:
       - $905,500 of County Sales Tax to support Phase I Engineering.
     - Lake County anticipates funding from the following sources for phase II engineering, right of way and construction of the subject project:
       - $868,100 of County MFT to support Phase II Engineering.
       - $594,700 of County MFT and Sales Tax to support ROW acquisition.
       - 13,642,200 of Federal, County MFT, County Bridge, and County Sales Tax funds to support construction and construction engineering.
9. **Map:** The map below shows the 14th Street project in relation to metal manufacturing operations in Lake County. The map shows that there are over 134 metal manufacturing businesses within a 10-mile radius of the new corridor. These businesses will directly benefit from the increased mobility in the region.

![Map of Lake County, Illinois showing the 14th Street Corridor Project and metal manufacturing cluster within a 10-mile radius.](image-url)
Lake County – Quentin Road Corridor:

1. **Project Name:** Quentin Road from US Route 12 to Illinois Route 22
2. **Project Description:** This project is currently in Phase II (design stage) and includes the proposed widening and reconstruction of approximately 1.8 miles of Quentin Road from US Route 12 to Illinois Route 22 (excluding both intersections). The project limits extend through the Villages of Kildeer and Lake Zurich in Lake County, Illinois. Quentin Road is classified as a minor arterial and serves as an important north-south corridor connecting northern Cook County to southern Lake County. Quentin Road also provides access to residential properties located along the corridor as well as retail and commercial land uses just outside the project limits. Quentin Road was originally constructed as a two-lane rural roadway and, as transportation demand increased through the years, isolated improvements were completed to provide auxiliary turn lanes.

3. **Benefit to Metal Manufacturing:** This new corridor will provide vital transportation connections and accessibility for both the sub-regional and regional metal manufacturing clusters. There are 354 metal manufacturing businesses in Lake, Cook, Kane and McHenry Counties within a 10-mile radius of the new corridor. Currently, the region experiences traffic congestion which hampers access to numerous manufacturing businesses and makes the transportation of goods and services inefficient and cost prohibitive. The project will improve travel times for workers, transit times for goods and services and it will be an asset to the metal manufacturing community in Southern Lake County and Northern Cook County. The corridor will enhance the operations of many nearby metal manufacturing businesses.

4. **TIGER BCA:** N/A
5. **Federal / State Review:** A Combined Design Report was completed and approved on May 13, 2013, which followed the federal guidelines. An Environmental Assessment was performed regarding the environmental effects of the preferred alternative and associated mitigation measures.
6. **Other Studies:** N/A
7. **Funding Request:** $9,851,500
8. **Leverage:**

   **Funded Project Elements:**
   - $785,300 of County Matching Tax to support Phase I Engineering.
   - $1,840,700 of County Matching Tax and Sales Tax to support Phase II Engineering.
   - $2,116,900 of County Matching Tax and Sales Tax to support ROW acquisition.
   Lake County anticipates funding from the following sources for construction of the subject project:
   - $25,110,400 of Federal, County Sales Tax and County Bridge funds to support construction and construction engineering.
9. **Map**: The map below shows the Quentin Road project in relation to metal manufacturing operations in Lake County. The map shows that there are 354 metal manufacturing businesses in Lake, Cook, Kane and McHenry Counties within a 10-mile radius of the new corridor. These businesses will directly benefit from the increased mobility in the region.
1. **Project Name:** Interstate Route 55 @ Weber Road

2. **Project Description:** The improvement will include the reconstruction of the Weber Road interchange at Interstate Route 55 to a Diverging Diamond Interchange (DDI). The project also includes the reconstruction of Weber Road to a six-lane cross section with barrier median from 119th Street/Rodeo Drive to 135th Street/Romeo Road.

3. **Benefit to Metal Manufacturing:** Weber Road (County Highway 88) runs in a north-south direction through the communities of Crest Hill, Romeoville and Bolingbrook, within the northern portion of Will County. Rapid population and employment growth occurring in this part of the region in recent decades has created the need for additional capacity along with operational and safety improvements at the I-55/Weber Road interchange. The Weber Road corridor has become a center of employment in Will County for metal manufacturing (222 in a 10 mile radius) and logistics companies. Continued growth in this industry sector will depend on enhanced access to I-55 and regional and national supply chains. Interstate 55 has long been a key trucking corridor and critical to the movement of freight in the region. Metal manufacturing firms in Will County currently contribute to the large volume of trucks using the I-55 interchange at Weber Road. Average daily traffic on Weber Road near the interchange was nearly 40,000 vehicles in 2010 and projected to increase by 2040. Severe congestion at the interchange during the AM and PM rush hours has created costly delays for commuters and further impedes the flow of commerce. The reconstructed interchange will improve access to jobs in the metal cluster, deliver travel time savings for commuters and deliveries using the interchange, improve overall freight mobility and increase productivity for metal manufacturing operations in the Weber Road corridor.

4. **TIGER BCA:** A BCA can demonstrate strong quality of life and economic competitiveness benefits of a federal investment in reconstructing I-55 interchange at Weber Road in Will County.

5. **Federal/State Review:** Led by the Illinois Department of Transportation, the study of the interchange at I-55 and Weber Road is currently near the end of Phase I. A public hearing was held in November, 2013. Design approval is expected in Spring, 2014. Originally funding for the construction of this improvement was contingent upon the sale of unused property owned by the Illinois Department of Corrections. Illinois House Bill 3657 was filed in 2013 to allow construction funding to be programmed for the improvement independent of the sale of this property and was signed into law by Governor Quinn to go into effect on February 3, 2014.

6. **Funding Request:** $31,300,000

7. **Leverage:** The total non-federal leverage is over $62 million, combining State of Illinois and Will County funds. The largest source is over $39.5 million in funding from the Illinois Department of Transportation. Phase I engineering was funded through a partnership between IDOT and Will County. IDOT and the Will County Highway Department entered into an agreement for the Department to be the lead agency contingent on Will County funding the initial costs for Phase I. As a top local priority, Will County provided the initial $6 million for Phase I, with IDOT covering any additional costs required beyond this. The Will County Board took action in June, 2013 to appropriate additional funding for Phase II of the project. IDOT and Will County will be sharing 50/50 in funding Phase II, with a maximum participation of $6.5 million from Will County in Phase I and II. The total cost for Phase II Engineering is $6.9 million. In recognition of its status among regional highway priorities, funding to the Phase II Engineering, Land Acquisition, Utility Adjustment and Construction Engineering for this project is included in the Illinois Department of Transportation’s FY2014-2019 Proposed Multi-Modal Transportation Improvement Program. The Villages of Bolingbrook and Romeoville have advocated for the need for timely completion of these improvements and will participate in local costs related to the signalization, sidewalk and multi-use path portions of the proposed project.

8. **Map:** The attached map below shows the location of the I-55 at Weber Road interchange in relation to 222 metal manufacturing operations in northern Will County, southern DuPage County and portions of Kane and Kendall Counties. There are 41 metal manufacturing businesses located in the towns of Bolingbrook and Romeoville alone,
with a total of 1,528 employees. Metal manufacturing jobs in the Weber Road corridor were over 25% of total metal manufacturing employment in Will County in 2013. Metal manufacturing production in the Weber Road corridor will directly benefit from enhanced access to the interstate system, intermodal connections and the labor market.
Chicago Metro Metal Consortium

A proposal to create the

**Chicago Metro Metal Cluster:**
Creating Job Growth and Prosperity in a Leading Global Manufacturing and Transportation Center

2014 Investing in Manufacturing Communities Partnership