REQUEST FOR PROPOSALS

MASTER DEVELOPER FOR SHERMAN PARK

RFP-13DMD-2024-1

May 10, 2024
RFP RELEASED

July 10, 2024
RESPONSES DUE

DMD INDY
DEPARTMENT OF METROPOLITAN DEVELOPMENT

CONTENTS

PROPERTIES

- 604 N Sherman Dr
- 710 N Sherman Dr
- 3518 E Michigan St
- 3324 E Michigan St
- 625 N Tuxedo St

CONTACT

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Department of Metropolitan Development
piers.kirby@indy.gov

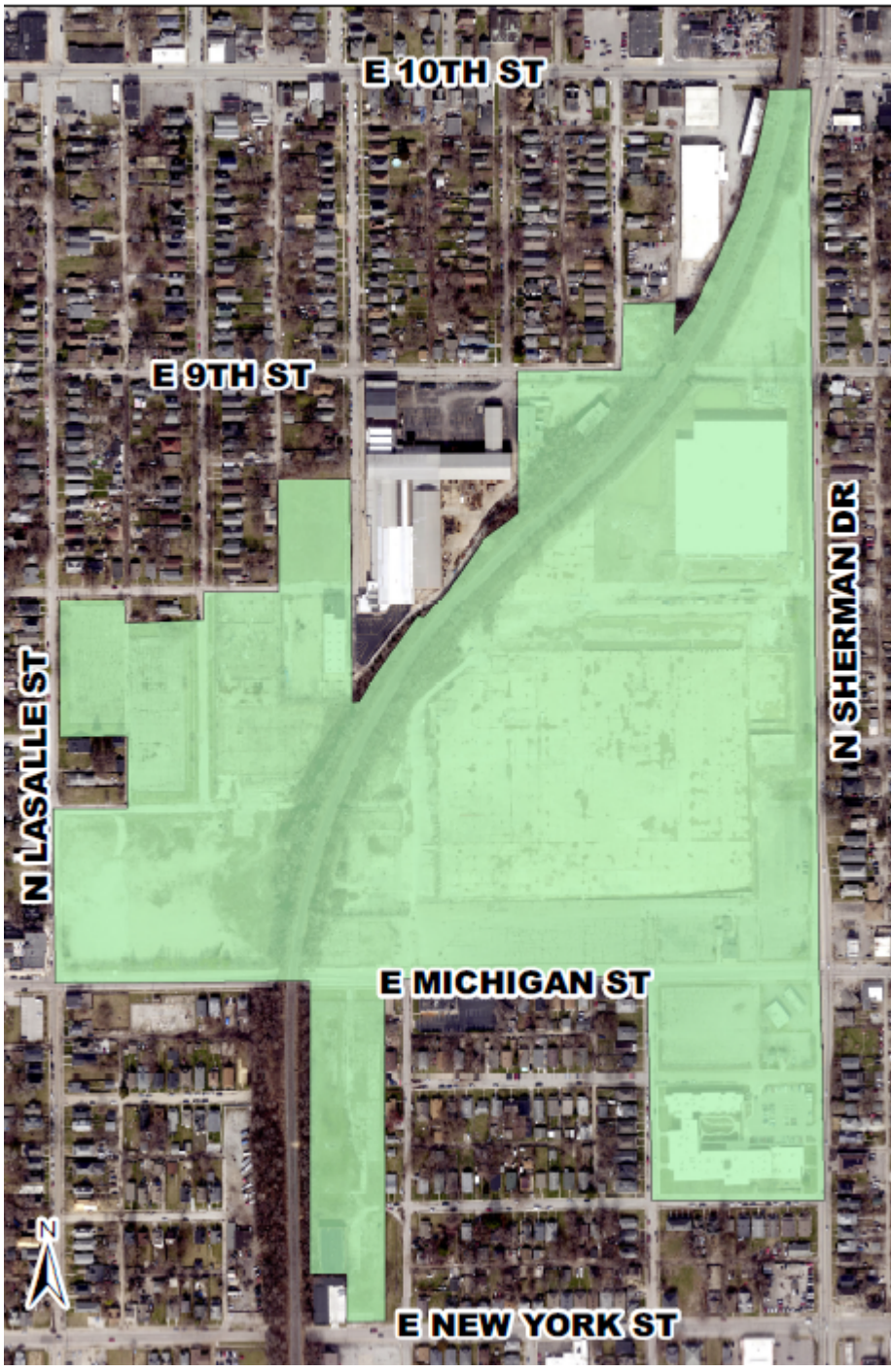
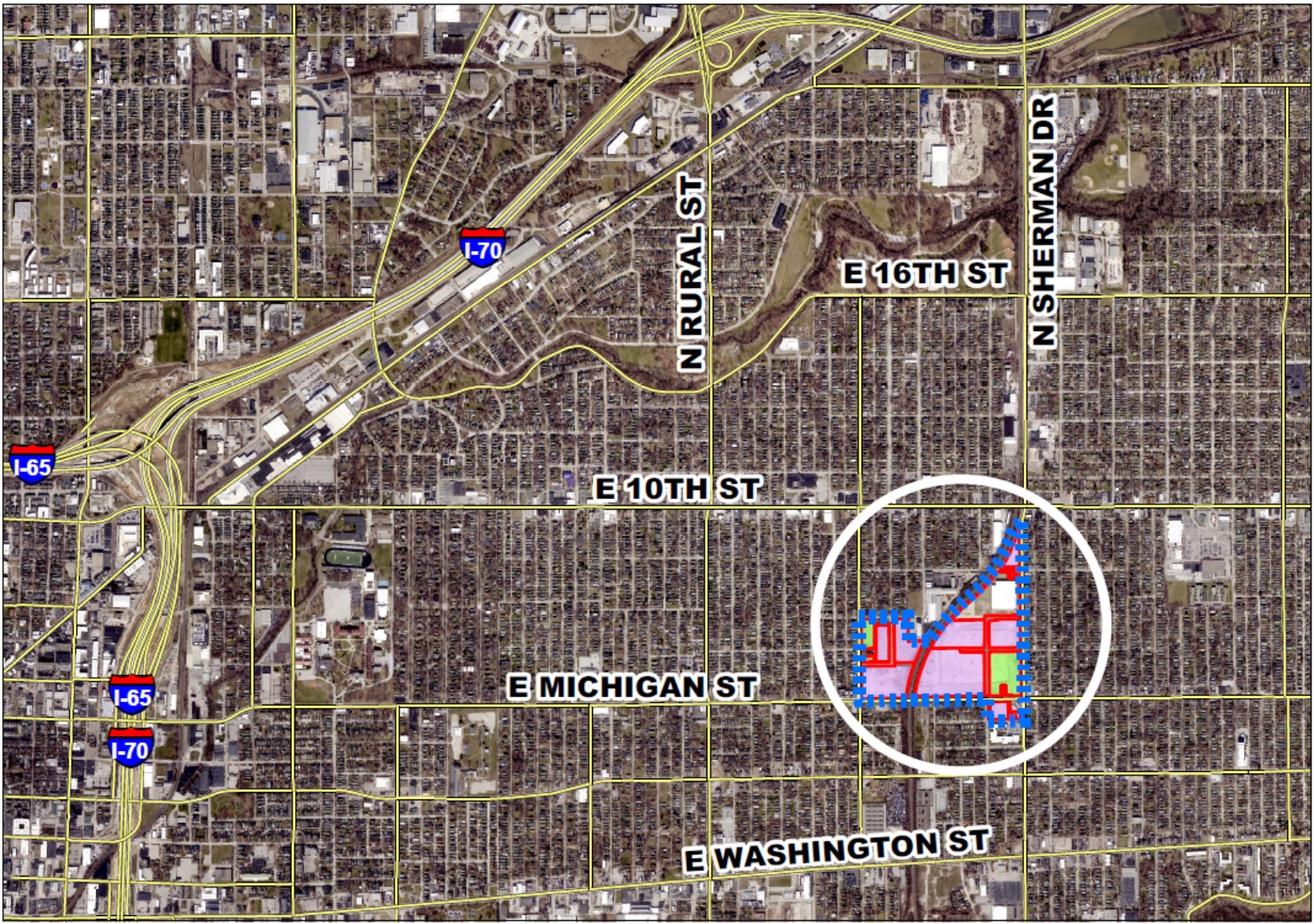


EXHIBIT D - SHERMAN PARK TIF MAP

DMD INDY
DEPARTMENT OF METROPOLITAN DEVELOPMENT

NOTICE is hereby given by the Department of Metropolitan Development (Indy DMD), that on July 17, Indy DMD will open and review responses to the Request for Proposal (RFP) regarding the redevelopment of Sherman Park.



01. LETTER FROM THE DIRECTOR

On behalf of the office of Mayor Joe Hogsett and the City of Indianapolis Department of Metropolitan Development ('DMD'), the City is pleased to issue this Request for Proposals ('RFP') for a Master Developer for the Sherman Park site. This solicitation for redevelopment proposals calls for an experienced developer that can serve as a partner in executing the vision for the holistic redevelopment of the vacant former manufacturing facility.

In 2017, the City acquired this former industrial site after years of neglect, abandonment, and tax delinquency, and initiated its rejuvenation. Working in collaboration with the community and other partners, the City is endeavoring to make Sherman Park a catalyst for job creation and reinvestment for the Near Eastside. Alongside other redevelopment projects in the area, the City envisions the future use of Sherman Park complementing the surrounding area, addressing issues ranging from environmental justice and sustainability, to creating safer and more welcoming streetscapes.

This RFP is an opportunity for the right partner to play a pivotal role in bringing about the highest and best use for the remaining ~30-acres of this important redevelopment site.

Thank you for your interest. We look forward to proposals that will define the future of Sherman Park and the Near Eastside.

Sincerely,

Megan Vukusich, *Director*
Department of Metropolitan Development

02. STATEMENT OF NEED

The City of Indianapolis, Department of Metropolitan Development ('DMD') is seeking a creative and qualified property developer to serve as the 'Master Developer' for a multi-parcel 52-acre former industrial site it owns known as 'Sherman Park' ('Site' or 'Development Site'). This catalytic redevelopment opportunity on the City's Near East Side is a critical component of the urban fabric affecting multiple neighborhoods and represents one of the largest concentrations of vacant industrial land in the urban core of Indianapolis. The City and its partners for Sherman Park have undertaken extensive site planning and community engagement to inform the parameters for its future use and are poised to see a comprehensive and coordinated redevelopment that achieves the goals outlined in reuse plans.

The selected Master Developer is expected to directly undertake the redevelopment of portions of the Site and undertake marketing, end-user selection, and generally assist with coordinating redevelopment activities in partnership with the City and other partners for portions it would not directly redevelop. It is further anticipated the Master Developer will take a lead role developing plans for infrastructure, site maintenance and related tasks. End-user attraction is anticipated to address community needs as expressed in prior planning and outreach efforts, emphasizing job creation and site activation primarily by for-profit (tax generating) entities. Responses to this RFP are expected to underscore the prospective Master Developer's experience with similar sites and outline their comprehensive approach for coordinating infrastructure planning and installation, environmental conditions, general site constraints, utilization of financial tools, and adherence to existing plans for future development of the Site.

Since taking title to the Site, the City has undertaken extensive redevelopment activities. These include a comprehensive series of environmental investigations, demolition of remaining structures, property maintenance, reuse planning funded by the EPA, and infrastructure design. Infrastructure design for the site is at 30 percent design completion. The City has also partnered with neighborhood groups and community development corporations that serve this area to engage the community and plan redevelopment of the site, including issuing a RFP for affordable housing at the corner of Michigan Street and Sherman Drive

03. PROJECT SITE OVERVIEW, HISTORY + AREA WIDE PLAN

OVERVIEW

The 'Sherman Park' site is located on the City's Near East side, in the Rivoli Park neighborhood. The site is bordered by E. Michigan St., N. LaSalle St., 9th St., and Sherman Drive. Comprised of multiple parcels of varying sizes, the total acreage of Sherman Park is ~52-acres, with ~35-acres still available for new redevelopment. A notable feature of Sherman Park is a rail line that roughly bisects the site, running north-to-south. All structures formerly at Sherman Park were removed by either a prior property owner or more recently the City. Appurtenances such as parking lots and concrete building pads remain in place across much of the site. Neighboring uses include Wheeler Mission Ministries, a realtor office, a cell tower, a steel products manufacturing facility, and many single- and two-family homes.

Near East Side

The Near East Side is bound by I65/I70 to the west, I70 to the north, Emerson Avenue to the east, and the CSX railroad tracks due south of East Washington Street to the south. Composed of twenty distinct neighborhoods, and covering an area of ~6.3 square miles, over twenty-nine thousand Indianapolis residents call this area home. Many of the neighborhood residents and organizations have coalesced their vision for the Near Eastside in a Quality of Life plan. The development of Sherman Park has been identified as a priority action item in the Economic & Workforce Development section of the plan.

https://neareastplan.org/

Rivoli Park

Known for its diversity and rich history, the Rivoli Park neighborhood is bounded by Sherman Drive to the east, East Michigan Street to the south, Rural Street to the west, and East 10th Street to the north. Approximately twenty-five hundred people currently reside in Rivoli Park.

https://rivoliparkneighborhood.org/

HISTORY

Historically, the area to the west developed primarily between 1880s and 1910s, while the neighborhoods to the east developed in the 1910s through 1950s with the expansion of the RCA plant and other east side manufacturers.

In 1877, a railroad was built to bypass the main line running directly through Indianapolis that would be used to attract businesses along the bypass or beltline. Similar to how recent road bypasses have been used to open up real estate for economic growth, the beltline railroad did the same in the late 1800s and early 1900s as urbanization was expanding outward from the center of Indianapolis. Today, this railroad divides the Sherman Park area. While historically the beltline railroad had multiple rail spurs for industry, there are no longer any local connections to the beltline, which is now owned and operated by CSX Corporation.

Most of the Sherman Park site was once part of the sprawling RCA manufacturing facility that built radios, televisions, and electronic components from the mid-1930s to the mid-1990s. The complex started with the five-story Westinghouse Lamp Company plant (1920-1921) at the Northeast corner of North Michigan Street and North Lasalle Street. The Indianapolis Westinghouse plant was acquired by RCA through a 1930 merger, which led to the plant closing as the Great Depression started. RCA in turn leased the plant to the Works Progress Administration, the largest New Deal agency. The WPA occupied the plant as its district headquarters and employed millions of low-skill workers to complete necessary public works projects nationwide.

In 1936, RCA opened a new manufacturing plant in the building. The plant produced sound equipment for the motion picture industry, public address systems and radio broadcasting equipment. Three years later, a new addition was built to manufacture phonograph records. The next year, in 1940, the company expanded again, buying the majority of the neighborhood bounded by the beltline railroad, the alley west of North Sherman Drive, North Street and East St. Clair Street. An underpass was built under the beltline to connect with the plant.

In 1941, the plant expanded again. In 1987 the Site ownership transferred to Thomson Consumer Electronics, which continued operations as a manufacturer of electronic and plastic components for radios and televisions, printed circuit board and other small electronics. Electronics manufacturing at the Site was discontinued in 1995, after which it used it for heavy machinery repair and storage and a variety of other purposes.

CITY REDEVELOPMENT ACTIVITIES

The City of Indianapolis DMD has been heavily involved with the Sherman Park site for almost 20 years. After manufacturing activity at the site had ceased operations, in the 2000's the City's Departments of Code Enforcement and Public Works were tenants for several years in one of the many vacated office buildings left by the prior use. As conditions at the site deteriorated and it was left abandoned and heavily tax-delinquent, the City spearheaded acquisition, taking title to all portions of Sherman Park via the Marion County Treasurer in 2017. Two parcels that were historically a part of Sherman Park but are not part of the City's holdings include a cell tower at 3739 E. 9th Street and Barron Property Services located at 3718 E. Michigan Street.

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COMPLETED/ANTICIPATED REVELOPMENT PROJECTS

RecycleForce

In January 2024, the first new development at Sherman Park was completed. An electronics recycling firm called RecycleForce, constructed a new 102,500-sf headquarters facility on a ~7-acre site located on the northeastern portion of Sherman Park. This relocation and expansion allowed RecycleForce to double its current capacity, while providing transitional employment, training, and support services annually to 600 individuals.

Bridges Townhomes

A partnership consisting of Gratus Development, Englewood Community Development Corporation, and Wheeler Mission, are in the preliminary stages of a project called Bridges Townhomes. The project is proposed on the northwestern corner of Sherman Park and consists of (40) 2- and 3-bedroom townhomes and a small community meeting location. Construction is anticipated to commence in Summer 2024, having received a 9% LIHTC award in Fall 2024.

Additional Affordable House Project

The City is negotiating with a developer for approximately a 5-acre portion of Sherman Park on the southeast corner of the site. The project would consist of four separate multi-family buildings that would create 186-units of housing with affordable and mixed-use components. The developer is applying for 4% LIHTC credits in 2025 with the hopes of breaking ground in Spring 2025.

Thriving Communities

The Thriving Communities Program is a planning, technical assistance, and capacity-building support program funded by the U.S. Department of Transportation. The program enables disadvantaged and under-resourced communities to work with community partners whose voices are typically left out of decision-making to advance a pipeline of transformative infrastructure projects that will increase mobility, reduce pollution, and expand affordable transportation options. A team of technical-assistance providers (“capacity builders”) provide direct relationship building support, facilitate workshops, and coaching on financing and fundraising. Eight communities across the country have been chosen for the 2024-2025 program year, including Indianapolis, Indiana. The capacity-builder team is led by RMI and includes Equitable Cities and ioby,. The team brings expertise in transportation planning, equitable community engagement, and coalition-building.

Indianapolis and Thriving Communities

The metro area in surrounding counties is rapidly growing and creating jobs that cannot be filled due to a lack of labor force with the means to reach these job centers. **The primary goal of technical assistance is to transform Sherman Drive into a safe, accessible corridor that supports multi-modal transportation and serves the needs of those who live and work in the IndyEast Promise Zone.** The Indianapolis team will work towards this goal through:

- Transportation Data Collection
- Community Updates to Indy Moves Plan
- Pursuing Funding for Projects

Key Community Partners

The City of Indianapolis – The city government is committed to continuing to make Indianapolis a great city to live in for all its residents.

RecycleForce – RecycleForce is an evidence-based provider of workforce development for returning citizens.

John Boner Neighborhood Centers – The Center leads the IndyEast Promise Zone and hosts a Center for Working Families, a community-based workforce development program. The Center is a space for convening, partnering on outreach, and facilitation of community meetings.

IndyEast Promise Zone – The Promise Zone Champions equitable redevelopment, convened 60+ orgs around issues of workforce development, safety, etc.

https://www.transportation.gov/grants/thriving-communities

Michigan Street Two-Way Conversion

With construction beginning in March 2024, the Department of Public Works is updating Michigan Street and New York Street. Historically one-way streets, both are being converted to two-way streets between College Avenue and Ellenberger Park. Separated bike lanes are also being added to the streets as part of this conversion. This project is currently scheduled for completion by the end of 2025.

04. FRAMEWORK FOR DEVELOPMENT

ENVIRONMENTAL CONSIDERATIONS

Due to historic usage of much of the Site for a variety of commercial and industrial purposes, the Sherman Park site is a brownfield for which any redevelopment on any portion will require environmental due diligence. The necessity on the part of any developer to conduct environmental investigation/remediation/mitigation for their project will be contingent on the particular use(s) being proposed, environmental conditions relative to the area of the proposed project, and the relative land-use restrictions and regulatory status.

As the current site owner since 2017, the City has conducted numerous environmental investigations as part of its due diligence and to inform future redevelopment. These investigations build on and complement many environmental assessments conducted prior to the City's ownership. The successful Master Developer will be required to develop a comprehensive understanding of environmental conditions and regulatory status for all the parcels at Sherman Park, and to coordinate redevelopment efforts with the City's Brownfield Redevelopment Program staff and Qualified Environmental Professional for the Site. Further information regarding the Site's participation in the Indiana Brownfields Program is available through the Indiana Department of Environmental Management ('IDEM') Virtual File Cabinet under AI ID #4071003. Note that at the time of issuance of this RFP, the City is actively working with the regulator to revise all Environmental Restrictive Covenants currently recorded for the site.

In addition to the City's environmental work and participation in the Indiana Brownfields Program, a third-party currently has enrolled a portion of the Site in the Indiana Department of Environmental Management ('IDEM') Voluntary Remediation Program ('VRP'). This third-party is presently conducting active remediation of contaminated soil, soil gas, and groundwater. In addition to coordinating with the City and its environmental consultant, the Master Developer will also assist the City and future users of the Site to coordinate redevelopment proposals and activities with this active remediation project. Further information regarding the Site's participation in the IDEM VRP is available through the IDEM Virtual File Cabinet under AI ID #6020801.

PLANNING

US EPA Area-Wide Plan (2018)

In 2017 the Near East Area Renewal Community Development Corporation ('NEAR') was awarded a $200,000 US EPA Brownfields Area-Wide Planning grant to study Sherman Park and areas surrounding the Site, engage the community, and create a comprehensive redevelopment plan. The grant was implemented by NEAR, DMD, and a consultant team composed of planning, economic development, and environmental professionals, assisted by EPA Region V staff throughout...

The Area-Wide Plan (Exhibit A) for the Site was finalized and published in 2018. The completed Plan includes a record and results of the extensive community stakeholder outreach efforts, a summary of the Site environmental regulatory status at that time, and recommendations for future redevelopment for the various portions of the Site. The report also includes infrastructure, economic, and demographic analyses to further inform prospective end-user's and other regarding the characteristics and anticipated needs for the Site and surrounding areas.

Sherman Park Advisory Group (2017 – Present)

Prior to the City's involvement with Sherman Park, local residents and community organizations would convene to specifically discuss the Site and related issues. During implementation of the EPA Area-Wide Planning grant, these individuals and groups coalesced to form the 'Sherman Park Advisory Group' ('Advisory Group'). The Advisory Group consists of community entities NEAR, Rivoli Park Neighborhood Association, Near East Side Community Organization, Inc. ('NESCO'), Englewood Community Development Corporation, the John H. Boner Center, RecycleForce, the City of Indianapolis, and additional partners.

The Advisory Group meets quarterly to share information, collaborate, troubleshoot, and strategize redevelopment priorities for Sherman Park. The selected Master Developer is expected to be an integral partner and active participant in the Advisory Group throughout the redevelopment process.

'Commercial Special' ('C-S') District - Development Statement & Design Guidelines (2023)

The majority of the Site is subject to a set of development commitments and Design Guidelines as part of being zoned a 'Commercial Special' ('C-S') zoning district. The C-S designation is intended to allow for development of the Site as a multi-use campus with common oversight, ensuring compatible land-uses and design. Portions of the Site located east of the railroad tracks are subject to different lists of allowable uses, with other types of uses listed as either prohibited or subject to approval as a 'Special Use'. Permitted uses include medium industrial and artisanal manufacturing, other types of commercial uses, and some limited residential and institutional uses in certain specified areas.

All subsequent architectural and site plans for areas of Sherman Park within this C-S district are required to meet a certain level of design as specified in the approved 'Sherman Park Design Guidelines', including the 'Placemaking Element Guidelines' Appendix, Final Version dated 8/10/22 (Exhibit C). The guidelines may be adapted to the particular circumstances for a site or type of development, contingent on existing site conditions and the degree of development or change proposed for a property.

Infrastructure Plan

Sherman Park consists of approximately 52 acres of former manufacturing sites that produced radios, televisions, and related electronic components. Final demolition of the manufacturing buildings occurred in 2017 rendering the property a Brownfield site. The site now suffers from elevated levels of soil and groundwater contamination stemming from years of previous manufacturing operations. A large portion of the site is in the voluntary remediation program overseen by the Indiana Department of Environmental Management, and other portions are in the Indiana Brownfields Program. Additionally, decades of disinvestment in the community has resulted in job and population losses. The necessity for environmental remediation and the negative impacts to the quality of life of nearby residents provide a need to revitalize Sherman Park. The Sherman Park site provides an ideal opportunity to catalyze economic activity and reinvigorate the Near Eastside community.

In 2017 Near East Area Renewal (NEAR) was awarded an EPA Brownfield Area-Wide Planning (AWP) Grant for the Sherman Park area which allowed the potential of Sherman Park to be realized. Goals, ideals, and guiding principles were identified from the AWP and used as the foundation to the Sherman Park Transportation Infrastructure Impact and Opportunity Assessment. The AWP can be found in Exhibit A.

The Sherman Park Transportation Infrastructure Impact and Opportunity Assessment provides a strategic approach towards safety, business market demand, connectivity, industrial service, operational capacity, and transportation logistics into the Sherman Park development and surrounding areas while coordinating with Indianapolis trail and development planning efforts. The scope of this study examined the roadway networks, pedestrian and trail networks, and rail networks of Sherman Park and the surrounding area to develop a combined transportation assessment of truck, rail, pedestrian, and bicycle facilities that will be useful for directing future infrastructure investments. These investments will be paramount towards maximizing the economic development potential of Sherman Park and the surrounding neighborhoods.

Efforts should be made to update pedestrian infrastructure where needed when making roadway improvements. This can be accomplished by improving ADA facilities, reconstructing curb ramps, updating signal push buttons, and widening sidewalk widths where feasible throughout the Sherman Park Development site. Where pedestrian facilities such as sidewalk and curb ramps are not present, effort should be made to incorporate these components where they are missing while ensuring ADA compliance.

Sidewalks should be constructed at several locations within the study area. Most notably, a north-south bicycle and pedestrian network connection on the west side of Sherman Drive should be constructed to provide a link between the existing greenways of Pogue's Run and Pleasant Run. A sidewalk should also be provided on the north side of Michigan Street.

It is encouraged that a designated route be identified to direct the flow of goods going to and from the Sherman Park site. Due to the number of CSX mainline track crossings, forecasted impacts to intersection operations, and number of turning maneuvers required along the route, Sherman Drive to 21st Street to Emerson Avenue is the recommended freight traffic route to and from the site. networks. The interior roads will be a complementary extension of the existing roadway network in the neighborhood. The intersection of the new St. Clair Street and Sherman Drive should be outfitted with facilities and space allocated for a potential signal installation in the future.

Significant portions of the site are zoned for light-industrial/commercial development that provides the potential to create new job opportunities in the area. Multi-family housing parcels could also be allocated at the site that would contribute to the neighborhood form and feel.

The total estimated cost of all proposed improvements was $30,000,000 in 2022. The estimated costs have been developed such that the City will be able to select infrastructure projects according to the pace of development at Sherman Park. It is likely that federal grants or monies will need to be used to fund various aspects of the site redevelopment. These improvements to the surrounding transportation network will provide holistic area-wide opportunities to better utilize, transform, or interface with existing transportation infrastructure and contribute to economic growth in the Sherman Park site and surrounding neighborhoods.

For a federally funded project in 2022, a NEPA review was conducted and finalized on the parcels indicated on the map in Exhibit E. As a result, any future NEPA reviews that may become necessary will need to be updated but the process should be simplified for developers.

More information about the Infrastructure Plan can be found in Exhibit B.

SUSTAINABILITY REQUIREMENTS

The selected master developer will assist the City of Indianapolis DMD and Office of Sustainability with efforts to reduce overall greenhouse gas emissions in Indianapolis to reach overarching goals related to greenhouse gas emissions, as laid out in the Thrive Indianapolis Plan:

1. Increase community resilience by prioritizing equity in policy, planning and project implementation.
2. Achieve net zero greenhouse gas (GHG) emissions by 2050.
    A. Incorporate sustainable design features in new construction; new structures will meet LEED standards
    B. Incorporate renewal energy features for onsite power generation
    C. Anticipate overall development including additional clean energy features such as electric vehicle charging infrastructure
3. Increasing community-wide waste diversion rates by 40% by 2030.

These goals will be reached through partnerships with AES Indiana, Citizens Energy Group and other stakeholders to develop a roadmap to source 100% of the community's energy from renewable resources by 2050; supporting businesses that divert waste by providing new life for used products; supporting a "reduce first" approach to waste and actively promoting waste minimization policies and programs; transit-oriented development; and analyze construction and demolition waste generated and propose reduction and diversion measures.

For additional information regarding local sustainability initiatives, visit https://www.thriveindianapolis.com/.

END-USER MARKETING

As the primary project lead, the Master Developer should generate leads via their own marketing platforms, partnerships, and relationships. However, the Master Developer should expect to work closely with Develop Indy, the economic development organization for the City of Indianapolis. The selected Master Developer will play a key role in attracting desirable developments to the Site, as specified in plans for reuse and articulated above in the Statement of Need. Job creation is required to align with the City's Inclusive Incentive baseline criteria and Target and Opportunity Industries. As a key partner, Develop Indy will actively engage in vetting potential leads and participating in discussions related to prospective end users. To ensure a cohesive and effective marketing strategy, the selected Master Developer should also collaborate closely with Develop Indy in coordinating all marketing materials and plans. This cooperative approach will leverage Develop Indy's expertise and reach in the local market, allowing for a comprehensive and targeted outreach to potential end users.

INCENTIVES

Contingent on the nature and other particular aspects of projects proposed to go at Sherman Park, multiple different types of incentives are potentially available. The selected Master Developer is expected to demonstrate their experience with utilization of these and other types of incentives. Contingent on availability, sources may include:

- TIF
- PILOT
- New Markets Tax Credits
- Brownfield Redevelopment Funds
- CDBG & HOME
- Real & Personal Property Tax Abatement
- Waiver of Land-Use Petition Fees
- Funds for design of necessary infrastructure

PROPERTY TRANSFERS

Per applicable disposition statutes and best practices for disposition of publicly owned property, the City will transfer ownership of Site / portions of Site as specific redevelopment projects are confirmed to be feasible and subject to all necessary approvals.

MBE/WBE/VBE/DOBE PARTICIPATION + REQUIREMENTS

It is the policy of the City that Minority Business Enterprises (MBEs), Women Business Enterprises (WBEs), Veteran Business Enterprises (VBEs), and Disability-Owned Business Enterprises (DOBEs) shall have the maximum feasible opportunity to participate in the performance of contracts. Consequently, the City, through Article IV, Section 202-401 of the revised municipal code & The Consolidated City of Indianapolis and Marion County MBE/WBE/VBE/DOBE Business Utilization Plan in Indianapolis, has established MBE participation goals of 15%, WBE participation goals of 8%, VBE participation goals of 3%, and DOBE participation goals of 1% for its dollars spent on public works, goods, and services.

In order to help accomplish this goal, the City is requesting that you include with your proposal information regarding your status as an MBE, WBE, VBE, or DOBE. Additionally, please include contact information for any MBE, WBE, VBE, or DOBE owned Vendors directly participating in your business operations. The City also requests contact information for any MBE, WBE, VBE, or DOBE sub-contractors that you might use in the course of doing business with the City. Some examples of this kind of service include, but are not limited to: office suppliers, courier services, shipping services, etc. These services can occur at the local, state, or national level. Please include an estimated percentage or dollar amount that you anticipate using.

Be advised that the information provided on MBE/WBE/VBE/DOBE participation will be included as part of the scoring criteria for this RFP. Accordingly, it is imperative that you do everything possible to obtain the information above and supply it as part of the proposal.

In order to be recognized by the City of Indianapolis/Marion County as an MBE/WBE/VBE/DOBE participant, your company must be certified with the Office of Minority &Women Business Development (OMWBD). The City will recognize only City of Indianapolis certified firms regardless of any other state or national affiliation.

If you should need assistance in obtaining information or certification for possible participation in a contract, please contact the OMWBD on the Internet at www.indy.gov/omwbd or by phone at (317) 327-5262.

Respondents can view a list of City OMWBD approved MBE/WBE/VBE/DOBE vendors by going to this web page: https://www.indy.gov/activity/find-omwbd-contractor and selecting the appropriate monthly "Vendor Listing" spreadsheet.

05. SUBMISSION REQUIREMENTS + OBLIGATIONS

A complete response will provide the following details:

1. **COVER LETTER:** Must containi organization name, address , phone + email

2. **TEAM ORGANIZATION**
   - Description of Team
   - Organizational Chart with Names
   - Key Staff
   - Description of Roles (inc. % of each team member's time devoted to project)
   - Percent Minority-, Women-, Veteran-, and Disabled-Owned Business participation
   - Resumes
   - Demonstrated Experience with various types of incentives and finance tools
   - Demonstrated experience in a Master Developer role on large-scale mixed-use/commercial redevelopment projects
     - » With Public-Private Partnerships and Community Engagement

3. **GENERAL DESCRIPTION** of concept plan(s), including specific proposed project(s)
   - Outline of development and financial terms (Proforma expected in later stages)
   - Proposed project schedule
   - Plan to phase overall redevelopment
   - Anticipated schedule of infrastructure improvements
   - Details regarding incentives Developer will be requesting
   - Project renderings or images
   - Portions of site proposed to be developed by respondent vs. portions proposed to be marketed for redevelopment by other entities

4. **SAMPLE STRUCTURE FOR PUBLIC/PRIVATE PARTNERSHIP**
   - Including plan to coordinate infrastructure improvements / phasing of redevelopment / financial incentives, with roles outlined

5. **MANAGEMENT PLAN**
   - Include post-construction management plans for projects being proposed

6. **DESCRIPTION OF PROPOSED DEVELOPERS + OPERATORS**
   - Identity and relationships with other firms involved in the project
   - Description of firm's in-house capabilities
   - Number of years in business
   - Documentation of financial capacity to execute concept plan

7. **EXAMPLES OF PRIOR RELEVANT WORK**
   - Project Description(s)
   - Project Cost
   - Examples/Imagery

Proposals will be scored based on the evaluation criteria provided in Exhibit F.

QUESTIONS + SUBMISSION INSTRUCTIONS

Questions shall be submitted to piers.kirby@indy.gov no later than 5:00 p.m. local time, June 3, 2024. The DMD intends to respond in writing or email to all questions that will be an addendum to the RFP, and such information will be provided to all respondents receiving a packet. All such addenda shall become part of the RFP, and all respondents shall be bound by such addenda, whether or not received by the bidder.

Respondents shall submit their responses electronically to piers.kirby@indy.gov and should reference proposal number RFP-13DMD-2024-01 in both the subject line of the email and in the proposal document. All response files should be in PDF format, with individual file sizes limited to 20MB. All responses must be received by 12:00 p.m. local time, July 10, 2024. Hard copies may be required at a later date.

RFP TIMELINE

RFP Release:	May 10, 2024
*Site Visit	May 29, 2024
Questions Due:	June 3, 2024
Question Responses Provided:	June 13, 2024
Proposals Due:	July 10, 2024
MDC Proposal Opening:	July 17, 2024
Interviews:	August-September 2024

The site visit will be held on Wednesday, May 29, 2024 between 10:00 AM and 12:00 PM. We will meet in the parking located at the northwest corner of E. Michigan St. and N. Sherman Dr. This visit is required for all respondents.

OPTION AGREEMENT & MASTER DEVELOPER AGREEMENT

To ensure timely transfer and commencement of site redevelopment, within 90-days of notification of selection, the selected Developer may be required to enter into an Option Agreement for eventual sale of the Site. Upon notification of selection Developer shall concurrently proceed with due diligence, pre-development activities, requests for incentives, and pursuit of real estate entitlements, while also working with the City to negotiate a required Master Developer Agreement for eventual sale of the property.

PUBLIC NOTICE

The disposition of the Property will be duly advertised in The Indianapolis Star and The Court and Commercial Record. The disposition of the Property will be governed by the procedures that have been established by the MDC in accordance with all applicable laws and rules. The MDC may consider offers for alternative proposed Fair Market Value of the property if appropriate justification can be demonstrated in the Developer's proposal.

The MDC will open proposals at 1:00 p.m. local time on July 17, 2024, in the Public Assembly Room of the City-County Building or any other location designated on the public notice for the hearing. All exhibits, drawings, renderings and other material to be used in such presentation that are in addition to the sealed bid shall be deposited by each bidder at the time of the submission of the written offers and shall be retained by the DMD. All exhibits and graphics of the successful bidder(s) remain the property of the DMD. The MDC reserves the right to accept, reject, or table any and/or all offers. In determining the highest and best offer, the DMD, on behalf of the MDC, shall take into consideration all factors relevant to desirable development, including the following: the terms offered, the project description, the economic development benefits of the Proposal, compliance with the Request for Proposals, Experience and Qualifications of the Respondent Team, and the readiness to enter into a Master Developer Agreement. Satisfying these factors will assure the DMD and the MDC that the sale, if made, will best serve the interests of the community both from the standpoint of human and economic welfare.

DISCLAIMER

NO CONTRACT; COSTS AND EXPENSES; ADDITIONAL INFORMATION

By responding to this RFP with a written submission or otherwise participating in the process as outlined by this RFP, each submitting party expressly agrees that no contract is guaranteed.

Each respondent is solely responsible for its own costs and expenses in preparing and submitting a response to this RFP and participating in the RFP process, including any provision of any additional information or attendance at meetings or interviews.

The City shall have no monetary obligation to any respondent to this RFP. The City will make information available to respondents via its website at https://www.indy.gov/workflow/find-bid-opportunities and will not respond to requests for additional information or make copies of documents as part of this solicitation process except through the Q and A process. See Q and A timeline and submittal process below.

OWNERSHIP OF SUBMISSIONS AND PUBLIC RECORDS ACT

The City will be entitled to retain all submissions received in response to this RFP without pay or compensation. Submitting parties are advised that the City is subject to the Indiana Access to Public Records Act, and that any documents or other records provided to the City may, by law, be subject to disclosure.

Any material respondent considers confidential should be marked as such. However, the final determination on the confidentially of the material shall be determined by the City under the Indiana Public Access Laws.

06. EXHIBITS

Exhibit A
(Area Wide Plan)

Exhibit B.1
(Infrastructure Plan)

Exhibit B.2
(30% Plan)

Exhibit C.1
(C-S Zoning Commitment)

Exhibit C.2
(Sherman Park Design Guidelines)

Exhibit D
(Sherman Park TIF Map)

Exhibit E
(NEPA Review Map)

Exhibit F
(RFP Scoring Matrix)

NEAR
Near East
Area Renewal

SHERMAN PARK
BROWNFIELD AREA-WIDE PLAN

June 2018

RATIO VS ENGINEERING METRIC ENVIRONMENTAL

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TIRE & WHEEL SERVICE
ONE WAY
Michigan St

01

INTRODUCTION

INTRODUCTION AND VISION

In 2017, Near East Area Renewal (NEAR) was awarded an EPA Brownfield Area-Wide Planning (AWP) Grant for the Sherman Park area.

Sherman Park consists of approximately 50 acres of former manufacturing sites. Most of the area was once part of the large RCA / Thompson / GE facility that produced radios, televisions, and related electronic components. RCA once employed 8,000 people, and for two generations the facility was one of the major economic engines and employers of near east side residents. Today, most of the buildings have been demolished, the site is vacant, and much of it suffers from elevated levels of ground and groundwater contamination.

Through this redevelopment planning process, NEAR desires to chart a course for the environmental remediation and economic revitalization of Sherman Park, catalyzing further redevelopment throughout the near east side.

This existing conditions report will provide an in-depth understanding of the historical, environmental, and economic trends and conditions to prepare a redevelopment plan for economic growth and future employment in the Sherman Park area that meets the long-term goals of the surrounding community.

Insert Vision Statement Here

SITE HISTORY AND CHARACTER

Neighborhood Development

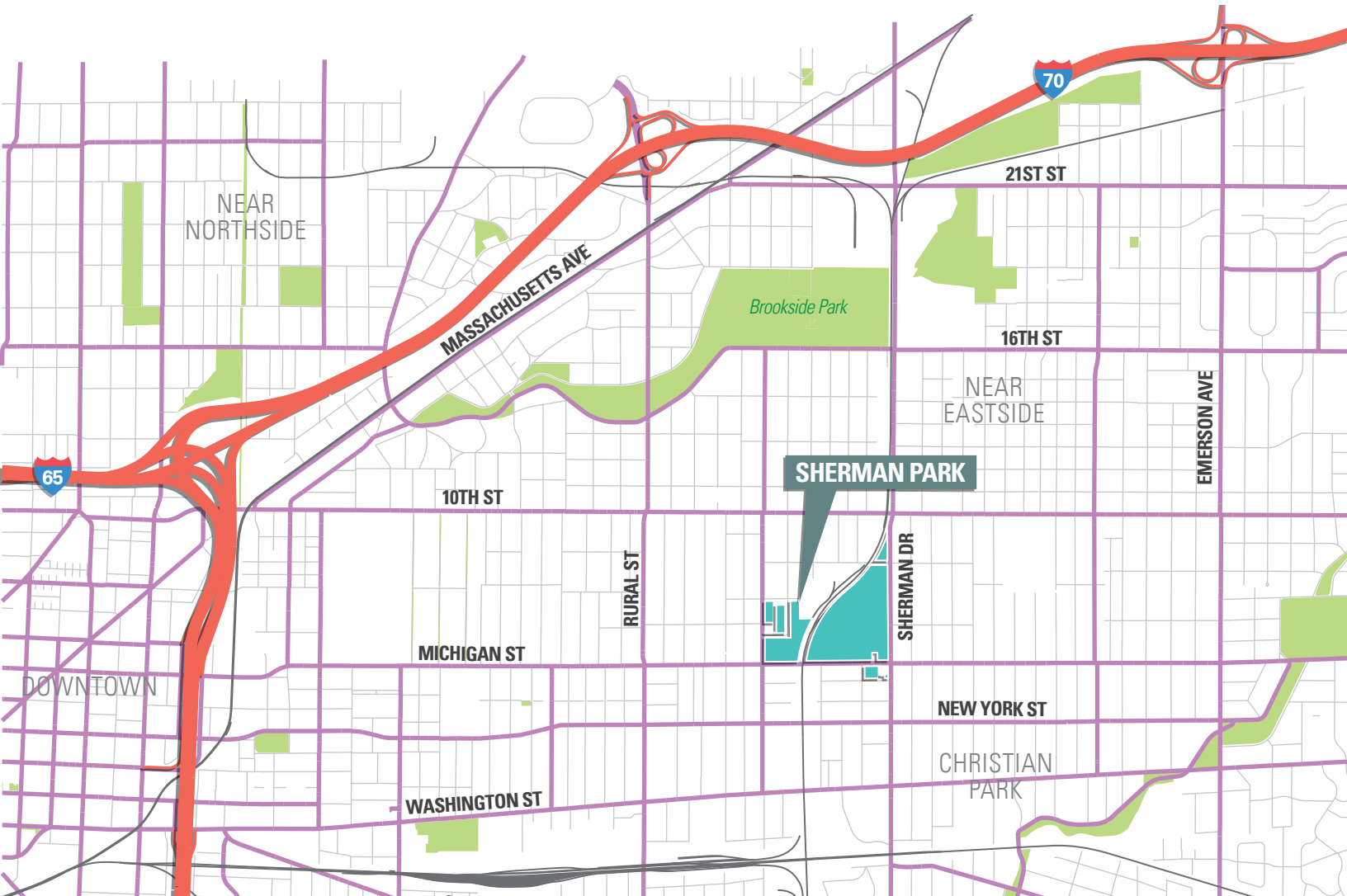
Sherman Park is located to the northwest of the intersection of East Michigan Street and North Sherman Drive, two major corridors on the near east side.

Historically, the area to the west developed primarily between 1880s and 1910s, while the neighborhoods to the east developed in the 1910s through 1950s with the expansion of the RCA plant and other east side manufacturers.

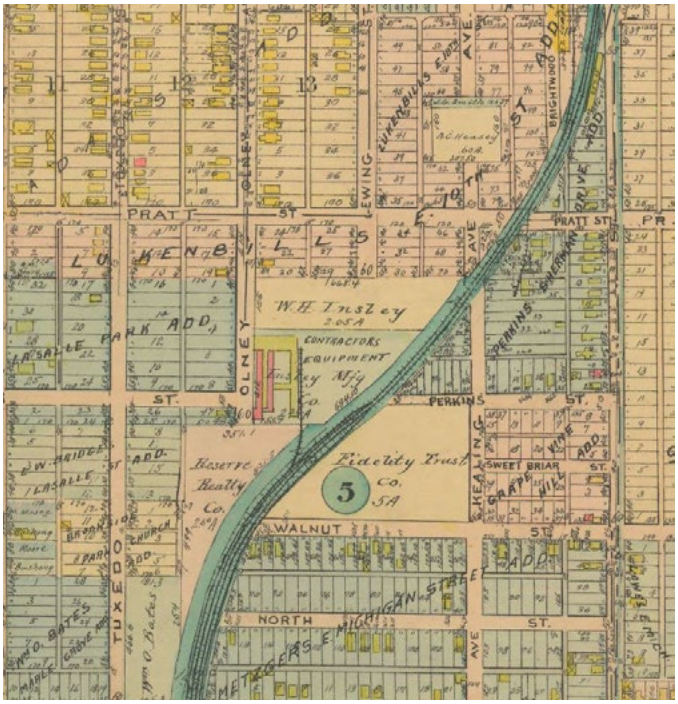
Beltline Railroad

In 1877, a railroad was built to bypass the main line running directly through Indianapolis that would be used to attract businesses along the bypass or beltline. Similar to how recent road bypasses have been used to open up real estate for economic growth, the beltline railroad did the same in the late 1800s and early 1900s as urbanization was expanding outward from the center of Indianapolis.

Today, this railroad divides the Sherman Park area. While historically the beltline railroad had multiple rail spurs for industry, there are no longer any local connections to the beltline, which is now owned and operated by CSX Corporation.



1906 Sanborn Fire Insurance Map



1916 Sanborn Fire Insurance Map

RCA Manufacturing History

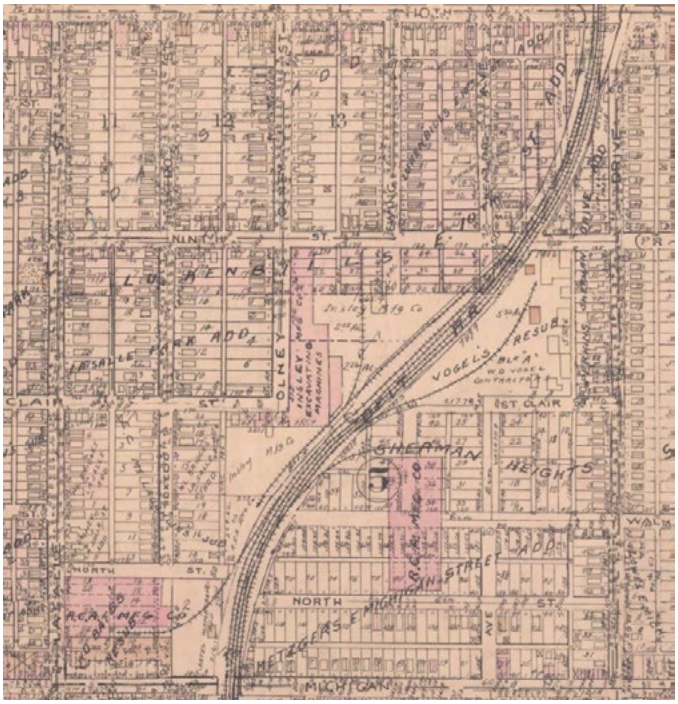
Most of the Sherman Park site was once part of the sprawling RCA manufacturing facility that built radios, televisions, and electronic components from the mid-1930s to the mid-1990s. The complex started with the five-story Westinghouse Lamp Company plant (1920-1921) at the Northeast corner of North Michigan Street and North Lasalle Street.

The Indianapolis Westinghouse plant was acquired by RCA (Radio Corporation of America) through a corporate merger in 1930, which led to the closure of the plant at the onset of the Great Depression. RCA then leased the plant to the Works Progress Administration (WPA), the largest New Deal agency. The WPA, which occupied the Westinghouse plant as its district headquarters, employed millions of low-skill workers to complete badly needed public works projects across the country.

In 1936, RCA opened a new manufacturing plant in the Westinghouse building. The plant produced sound equipment for the motion picture industry, public address system equipment, and radio broadcasting equipment.

In 1939, a new addition was built for manufacturing phonograph records.

In 1940, the company undertook a major expansion of the plant, buying up most of the neighborhood bounded by the beltline railroad, North Street, the alley west of North Sherman Drive, and East St. Clair Street. An underpass was built below the beltline to connect to the Westinghouse plant site. Ten houses were moved off the site of the new plant and many streets were vacated. The new plant manufactured both civilian radio equipment and sound equipment for the US Army, Navy, Marine Corps, and various federal agencies. The plant was expanded with the opening of another unit in 1941.



1939 Sanborn Fire Insurance Map

1956 Historical Aerial Image (Indianapolis Historical Society)

1986 Google Earth Aerial Imagery

2017 Google Earth Aerial Imagery

PREVIOUS PLANNING EFFORTS

In preparation for this planning effort, a number of recent and not-so-recent documents were reviewed to provide an understanding of neighborhood goals and strategies for redevelopment.

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Brownfields Remediation: Impact on Local Residential Property Tax Revenue

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Accepted 4 August 2017
Published 13 September 2017

The US Environmental Protection Agency (EPA) Brownfields Program provides grants to assess and clean up brownfields. There are few studies that estimate tax revenue impacts from cleanup beyond those generated directly from within the remediated site's property lines. This study estimates the increased residential property tax revenue attributable to brownfields cleanup at 48 sites remediated between 2004 and 2011 under the EPA Brownfields Cleanup Grants Program. Findings from a previous study of a 5% to 15.2% property value increase following cleanup at these sites are applied to the assessed values of nearby residential properties along with local tax laws, assessment ratios, and rates to estimate tax revenue gained as a result of brownfields cleanup. The estimated increase in residential property tax revenue for a single tax year from remediating 48 brownfields properties was between $29 million and $97 million (2014 USD).

Keywords: Brownfields; contaminated land; property values; remediation; tax revenue.

*Disclaimer: The views expressed in this paper are those of the author and do not necessarily reflect the views or policies of the U.S. Environmental Protection Agency.

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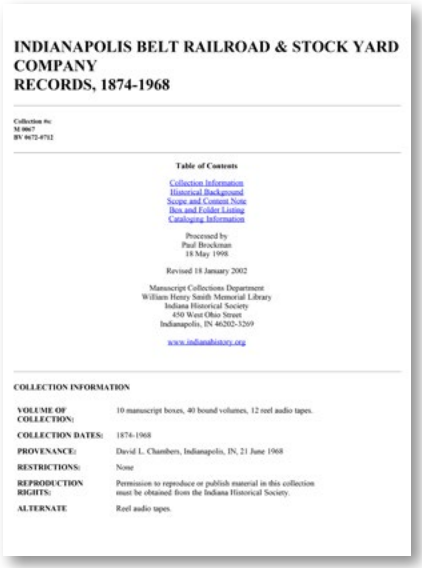
1750013-1

USEPA Brownfields Remediation: Impact on Local Residential Property Tax Revenue | 2017

Metro Indianapolis Global Trade and Investment Strategy | 2017



INDIANAPOLIS BELT RAILROAD & STOCK YARD COMPANY RECORDS, 1874-1968

Collection #s:
M 0067
BV 0672-0712

Table of Contents

Collection Information
Historical Background
Scope and Content Note
Box and Folder Listing
Cataloging Information

Processed by
Paul Brockman
18 May 1998

Revised 18 January 2002

Manuscript Collections Department
William Henry Smith Memorial Library
Indiana Historical Society
450 West Ohio Street
Indianapolis, IN 46202-3269

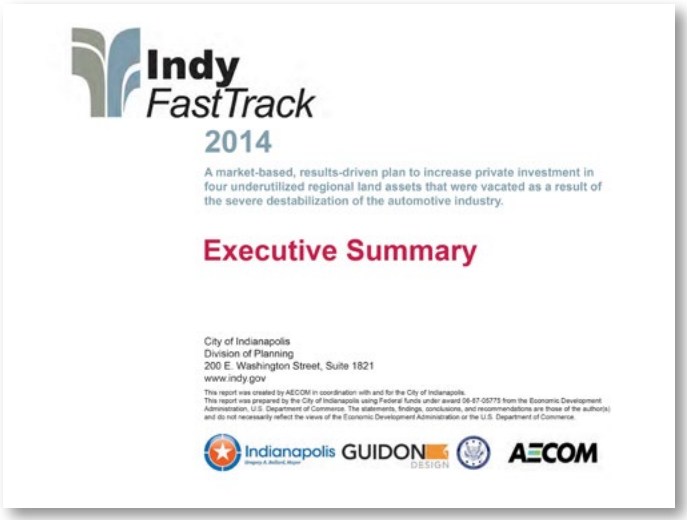
www.indianahistory.org

COLLECTION INFORMATION

VOLUME OF COLLECTION:	10 manuscript boxes, 40 bound volumes, 12 reel audio tapes.
COLLECTION DATES:	1874-1968
PROVENANCE:	David L. Chambers, Indianapolis, IN, 21 June 1968
RESTRICTIONS:	None
REPRODUCTION RIGHTS:	Permission to reproduce or publish material in this collection must be obtained from the Indiana Historical Society.
ALTERNATE	Reel audio tapes.

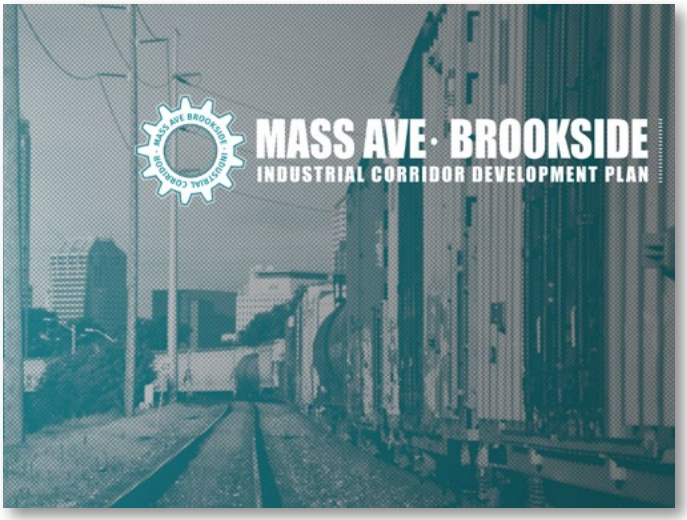
Indianapolis Belt Railroad and Stockyard Company Records | 1874-1968

Near Eastside Neighborhood, Indianapolis, IN Baseline Report | 2011



Indy Fast Track | 2014

Englewood Village – A Comprehensive Development Plan | 2016



Mass Ave / Brookside Corridor Plan | 2015

NESCO East-Side Quality of Life Plan | 2005

COMMUNITY ENGAGEMENT

With the guidance of NEAR and a Steering Committee established for this planning process, regular community engagement meetings were held to receive public input and direct feedback on the plan.

Most importantly, the Steering Committee and neighborhood residents were in sync on planning and redevelopment goals: that job creation and employment facilities are needed to spur job growth within Sherman Park.

- 2017-08-01 | Public Input Meeting 1 / Kick-Off Meeting
- 2017-08-26 | Feast of Lanterns
- 2017-09-26 | Steering Committee Meeting 1
- 2017-10-10 | Public Input Meeting 2
- 2017-10-21 | Walking Tour
- 2017-10-24 | Steering Committee Meeting 2
- 2017-11-14 | Public Input Meeting 3
- Ongoing | Project Website www.ShermanParkPlan.com

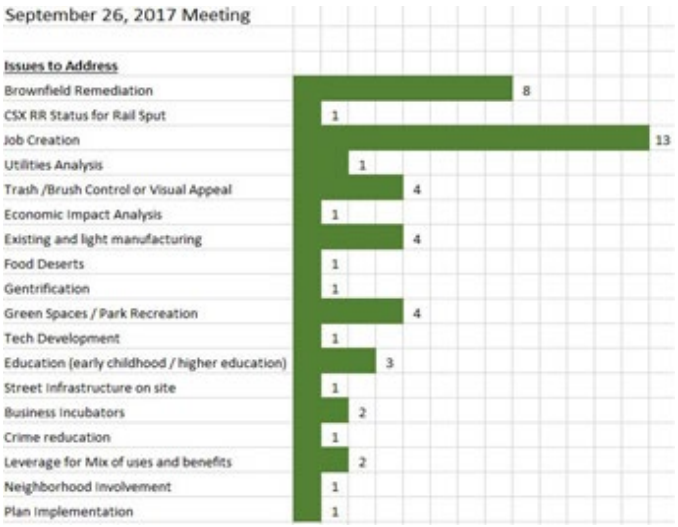
2017-08-01
PUBLIC INPUT MEETING 1 / KICK-OFF MEETING

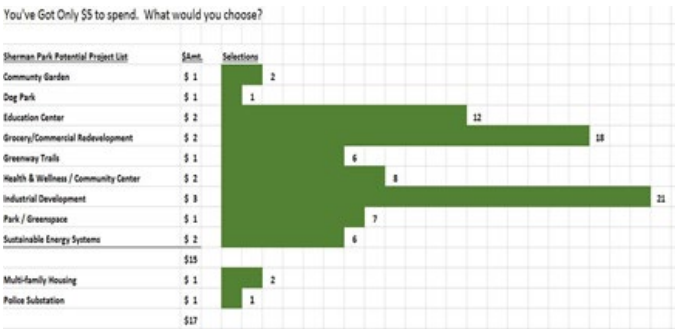
NEAR Executive Director John Franklin Hay presents at the Project Kick-off Meeting.

2017-08-26
FEAST OF LANTERNS

RATIO employee Lora Teagarden discusses Sherman Park issues with neighborhood residents at the Feast of Lanterns.

2017-09-26
STEERING COMMITTEE MEETING 1





Both the Steering Committee and neighborhood residents have offered input and feedback on a vision statement for the redevelopment effort.

2017-10-10
PUBLIC INPUT MEETING 2

Neighborhood residents identify issues to be addressed in the planning process.

Neighborhood residents participate in a visioning exercise.

Neighborhood residents discuss issues to be addressed.

Results of the visioning exercise.

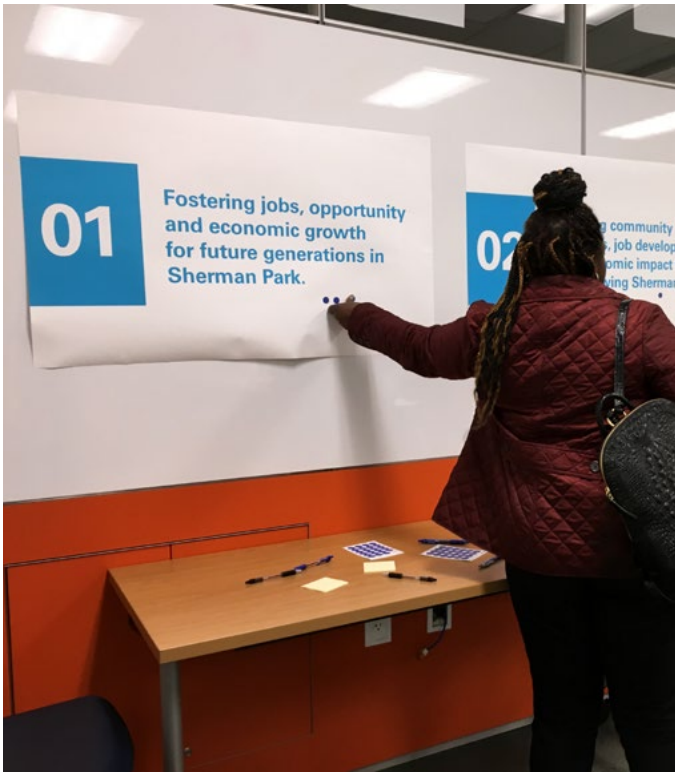
2017-10-21 WALKING TOUR

Neighborhood residents participate in a walking tour of Sherman Park.

2017-10-24 STEERING COMMITTEE MEETING 2

Steering Committee Member, Jim B. discusses his small group's draft vision statement titled "Jobs, Jobs, Jobs."

2017-11-14
PUBLIC INPUT MEETING 3



Residents vote for their top priorities.

2017-12-12
STEERING COMMITTEE MEETING 3


NON-
HAZARDOUS
White

02

ENVIRONMENTAL CONDITIONS

INTRODUCTION

As a Brownfield Area-Wide Planning Grant recipient, NEAR is utilizing those resources to redevelop the approximately 50-acre Sherman Park area.

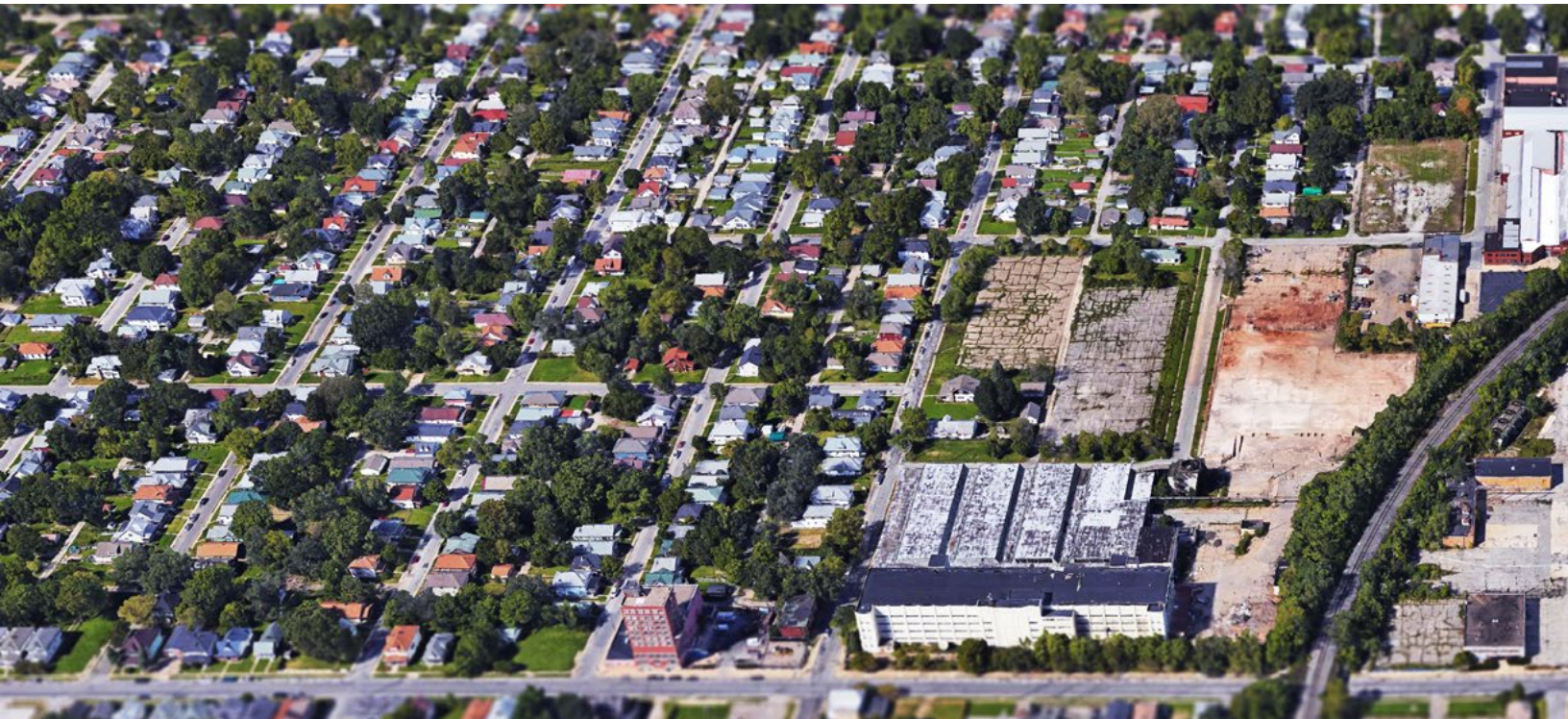
Some of that acreage has a history of environmental contamination, having been used for electronics assembly, plastics manufacturing, and heavy machinery warehousing from at least 1920 through the early 2000s.

As a result, the site will still require major environmental remediation and utilities investments to prepare for "transformational" redevelopment of the area.

PROJECT DESCRIPTION

As part of the Area-Wide Plan Grant, Metric Environmental, LLC, conducted an existing conditions analysis of the former RCA plant, which included known environmental conditions, data gaps, and potential remedial and/or development requirements.

This analysis and the subsequent Area-Wide Plan developed for this brownfield site will help facilitate site assessment, cleanup, and eventual redevelopment.



SITE BACKGROUND

The former RCA plant is currently referred to as the Sherman Park Facility, which is collectively comprised of the former Thomson Consumer Electronics, former General Electric (GE), and former RCA site. The site was historically located at 600-604 North Sherman Drive. The site had been developed by at least 1920 by RCA Manufacturing Inc., which manufactured radio and television components. In 1987 the site changed ownership to Thomson Consumer Electronics (Thomson), which continued operation as a manufacturer of electronic and plastic components for radios and televisions. Thomson manufactured plastic injection molded television cabinets and other plastic components for radios and televisions, along with printed radio circuit boards and small electronics. The site was acquired by Johnson Machinery/Sherman Park, LLP in 1995, who utilized the site for the repair and storage of heavy machinery. It was then transferred to Harshman Property Services in 2006 and remained vacant from 2006 through 2012. In 2012 the main building was demolished, and the site graded.

Manufacturing operations conducted within Sherman Park included the operation of at least five underground storage tanks ranging in size from 1,000 gallons to 230,000 gallons, various above ground storage tanks, a reclamation solvent still, and numerous manufacturing processes which resulted in hazardous and nonhazardous wastes such as flammable liquids and solids, chlorinated solvents, bulk and waste petroleum products, cupric chloride, heavy metals (including lead, mercury, and cadmium), and paints.

In addition to the former RCA facility, the Sherman Park redevelopment area includes the former Continental Metal Products, located at 3724 East 9th Street. The Continental site had been developed by at least 1935 as the Pyramid Stone Company. The site was then developed as a machining and tool company by at least 1948 and operated as such until the 1990s. In 2001, the site was developed as Continental Metal Products. The site was demolished and cleared in April 2018.

SITE LOCATION AND DESCRIPTION

The Sherman Park site consists of nine environmental parcels, which were resurveyed through development of an Environmental Restrictive Covenant (ERC), and are comprised of 16 tax parcels. The site is located in Section 5, Township 15 North, Range 4 East in Marion County, Indiana.

The site consists of vacant land with a concrete, asphalt, gravel areas, and landscaped areas. The site parcels can be accessed from driveways off of North Sherman Drive, East Michigan Street, and East 9th Street.

The Continental site consists of one tax parcel addressed at 3724 East 9th Street and is located north of the former RCA facility across East 9th Street in the northwest corner of the intersection of East 9th Street and North Sherman Drive.

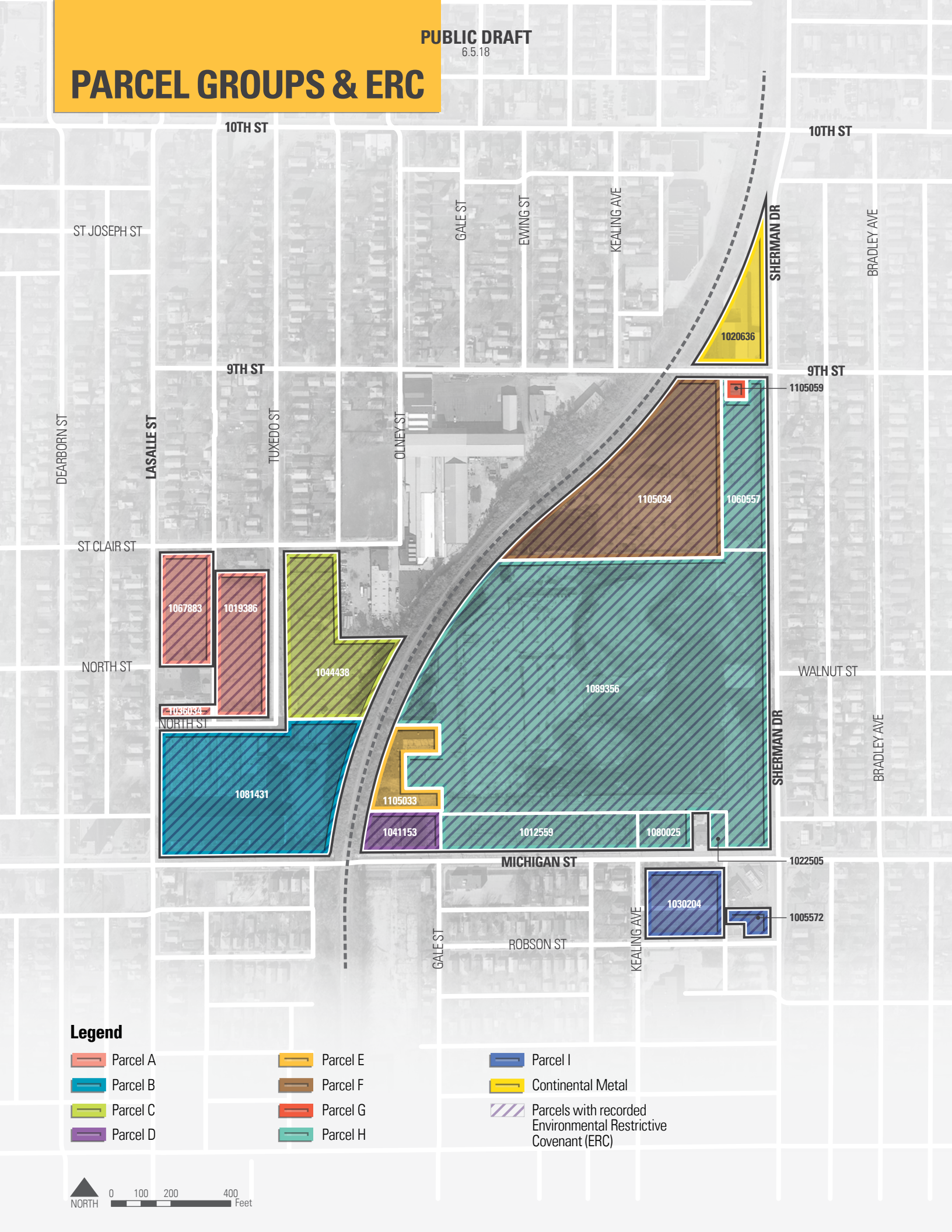
The Sherman Park area and associated ERC and parcel boundaries are shown on the map to the right.

Table 4-1: Parcel Group and Tax Parcel Information

Sherman Park Parcel	Tax Parcel(s)	Address	Owner
Parcel A	1036034	601 North LaSalle Street	City of Indianapolis Development
	1019386	628 North Tuxedo Street	
	1067883	3309 East St. Clair Street	
Parcel B	1081431	501 North LaSalle Street	City of Indianapolis Development
Parcel C	1044438	625 North Tuxedo Street	City of Indianapolis Development
Parcel D	1041153	3518 East Michigan Street	City of Indianapolis Development
Parcel E	1105033	604 North Sherman Drive	City of Indianapolis Development
Parcel F	1105034	604 N. Sherman Drive	City of Indianapolis Development
Parcel G	1105059	3739 E. 9th Street	Crown Castle South, LLC
Parcel H	1012559	604 North Sherman Drive	City of Indianapolis Development
	1060557	800 N. Sherman Drive	
	1080025	604 North Sherman Drive	
	1022505	604 North Sherman Drive	
	1089356	604 North Sherman Drive	
Parcel I	1030204	3701 East Michigan Street	City of Indianapolis Development
	1005572	440 N. Sherman Drive	
Continental Metal Products	102036	3724 East 9th Street	City of Indianapolis Development

PUBLIC DRAFT
6.5.18

PARCEL GROUPS & ERC



Legend

- Parcel A
- Parcel B
- Parcel C
- Parcel D
- Parcel E
- Parcel F
- Parcel G
- Parcel H
- Parcel I
- Continental Metal
- Parcels with recorded Environmental Restrictive Covenant (ERC)

NORTH 0 100 200 400 Feet

POLLUTANTS OF CONCERN

On November 12, 2003, GE entered into a Voluntary Remediation Agreement (VRA) with the Indiana Department of Environmental Management (IDEM) under IDEM's Voluntary Remediation Program (VRP) for the Sherman Park Facility (primarily in the area of Parcels E, F, and H) and was assigned Site No. 6020801. GE has conducted significant environmental investigations at the site to characterize geologic/ hydrogeologic conditions; define the nature and extent of constituents of concern (COCs) in soil, soil vapor, and groundwater; and evaluate potential remedial options. The investigations identified chlorinated volatile organic compounds (CVOCs), primarily Trichloroethylene and Tricholoracetic Acid and to a lesser degree their degradation products [i.e., cis-1,2-dichloroethene (1,2-DCE), 1,1-dichloroethene (1,1-DCE), 1,1- dichloroethane (1,1-DCA), and vinyl chloride (VC)].

On August 12, 2010, IDEM approved a final Remediation Work Plan (RWP), which was submitted by GE on May 17, 2010. GE then began implementing the remedial activities and monitoring as specified in the RWP. Activities completed and previously reported include:

- Monitoring: Pre-injection groundwater monitoring was completed in 2009-2011.
- Cap Installation (November 13-22, 2010): an asphalt cap was installed as an engineered barrier adjacent to the west side of the main building.
- Injection Well Installation (January 10 to February 20, 2011): 58 dual-screened injection wells were installed in and around the on-site source areas.
- Bioenhancement (May 19 to June 20, 2011): a total of 601,675 gallons of dilute emulsified vegetable oil (EVO) solution containing 91,500 lbs of EVO was injected into the groundwater.
- 130 injection wells as a carbon source to support biological growth and the reductive dechlorination of TCE and TCA in groundwater.
- Bioaugmentation (August 15-18, 2011): 72.6 liters of a BCI bacteria culture specially adapted to high TCA concentrations was added to 22 injection locations in the high TCA area and 154.8 liters of the KB-1® bacteria culture was added to 43 injection locations in the low TCA area.
- Monitoring: Post-injection groundwater monitoring was completed in 2011-2013.
- Supplemental Injection Well Installation (May 13 through May 17, 2013): 10
- Supplemental dual-screened injection wells (IW-566 to IW-575) were installed to provide substrate injection locations where persistent VOC remained. In addition, one groundwater extraction well (EW-1) was installed to provide additional makeup water for the donor injections.
- Bioenhancement (July 17 to August 6, 2013): a total of 706,715 gallons of dilute emulsified vegetable oil (EVO) solution containing 101,997 lbs of EVO was injected into 148 injection wells as a carbon source to support biological growth and the reductive dechlorination of TCE and TCA in groundwater.
- Monitoring: Post-injection groundwater monitoring was completed in 2013-2015.
- Supplemental Injection Well Installation (August 17-19, 2015): 7 supplemental dualscreened injection wells (IW-576 to IW-582) were installed to provide substrate injection locations where persistent VOC remained.
- Bioenhancement (September 17 to October 6, 2015): a total of 624,100 gallons of dilute emulsified vegetable oil (EVO) solution containing 88,213 lbs of EVO was injected into 128 injection wells as a carbon source to support biological growth and the reductive dechlorination of TCE and TCA in groundwater.
- Monitoring: Post-injection groundwater monitoring was completed in 2015-2016
- Additionally, several site assessment activities unrelated to the RWP and VRP have occurred at the Sherman Park Area Parcels, including Parcels B, C, D and I, and Continental Metal Products. COCs of concern at these Parcels also include arsenic and lead in soil and groundwater.

The maximum COC concentrations reported in groundwater, based on the most recent analytical data available, are provided in Table 4-2 below. The maximum COC concentrations reported in soil, based on the most recent analytical data available, are provide in Table 4-3 below. Soil and groundwater COC inferred extents, relative to IDEM Risk Closure Guidance (RCG) Screening Levels (SLs) are depicted in both tables. The Sherman Park Facility (former Thomson Consumer Electronics / RCA / GE) site layout and current TCE contaminant plume, in addition to the Sherman Park Area and the inferred extents of current contamination are depicted in following overall graphic.

Table 4-2: Maximum COC Concentrations in Groundwater

Sherman Park Parcel	Tax Parcel(s)	Sample Date	Sample Location	Maximum Concentrations (µg/L) Carbon Tetrachloride	Tetrachloroethene (PCE)	Trichloroethene (TCE)	Cis-1,2 Dichloroethene (cis-1,2 DCE)	Trans-1,2 Dichloroethene (trans-1,2 DCE)	1,1, Dichloroethene	1,2, Dichloroethane	Vinyl Chloride	Arsenic	Lead
RCG Residential Tap GWSLs (µg/L)				**5**	**5**	**5**	**70**	**100**	**7**	**5**	**2**	**10**	**15**
Parcel A	1036034	2016	offsite MW-333	BDL	BDL	BDL	BDL	213	BDL	BDL	**1,850**	--	--
	1019386	2016	offsite MW-333	BDL	BDL	BDL	BDL	213	BDL	BDL	**1,850**	--	--
	1067883	2016	offsite MW-333	BDL	BDL	BDL	BDL	213	BDL	BDL	**1,850**	--	--
Parcel B	1081431	2017	various locations throughout	**67.9**	**207**	**2,570**	**635**	**143**	**38.1**	--	**100**	**17.9***	**13,000**
Parcel C	1044438	2017	NE corner SB-3 and SB-6	--	--	--	--	--	--	--	--	**47.9**	**15.8**
Parcel D	1041153	2016	center and SE corner (MW-426 and W-9)	BDL	BDL	BDL	BDL	BDL	BDL	2.9	BDL	--	--
Parcel E	1105033	2016	south central MW-427	BDL	BDL	BDL	BDL	1.2	BDL	BDL	1.8	--	--
Parcel F	1105034	2007	NE corner and SW corner F2-W-2 and F3-W-1	--	--	0.95	0.39	--	0.26	17	0.5	**1,250**	**1,270**
Parcel G	1105059	--	--	--	--	--	--	--	--	--	--	--	--
Parcel H	1012559	2016	center MW-82	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	--	--
	1060557	2010	southeast corner W-1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	--	--
	1080025	--	--	--	--	--	--	--	--	--	--	--	--
	1022505	2008	southeast corner MW-191 (SB-301)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	--	BDL
	1089356	2016	east center boundary MW-401	BDL	**157**	**27,800**	**6,420**	**136**	**1,530**	BDL	**862**	--	--
Parcel I	1030204	2007	east boundary H-1	--	0.6	0.36	--	--	--	--	--	--	**245**
	1005572	2007	north boundary H-2	--	BDL	BDL	--	--	--	--	--	--	**637**
Continental Metal Products	1020363	2008	northeast boundary MW-1	--	--	--	--	--	--	--	--	BDL	**70**

Source: IDEM, USAPA, Metric Enviromental

Bold indicates the concentration exceeds the RCG GWSL
-- = No Data
** = Dissolved Concentration*
BDL = Below Detection Level

GWSLs = Groundwater Screening Levels
MW = Monitoring Well
RCG = Risk Closure Guidance
µg/L = Micrograms per Liter

Table 4-3: Maximum COC Concentrations in Soils

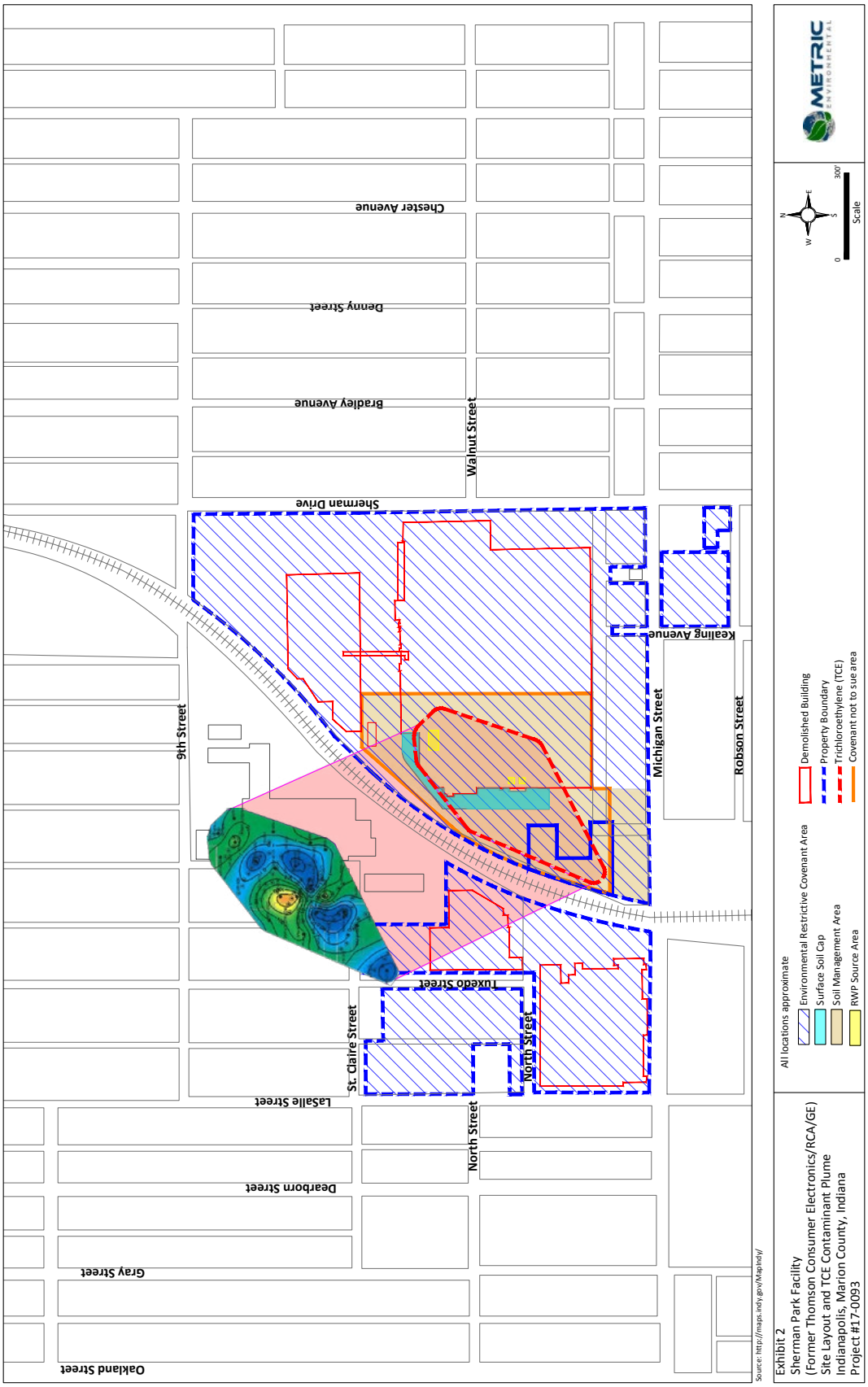
Sherman Park Parcel	Tax Parcel(s)	Sample Date	Sample Location	Maximum Concentrations (mg/kg)									
				Carbon Tetrachloride	Tetrachloroethene (PCE)	Trichloroethene (TCE)	Cis-1,2 Dichloroethene (cis-1,2 DCE)	Trans-1,2 Dichloroethene (trans- 1,2 DCE)	1,1, Dichloroethene	1,2, Dichloroethane	Vinyl Chloride	Arsenic	Lead
RCG Residential Direct Contact SL (mg/kg)				**9**	**110**	**6**	**220**	**1,900**	**320**	**6**	**1**	**10**	**400**
RCG Commercial/Industrial Direct Contact SL (mg/kg)				**29**	**170**	**19**	**2,300**	**1,900**	**1,000**	**20**	**17**	**30**	**800**
Parcel A	1036034	--	--	--	--	--	--	--	--	--	--	--	--
	1019386	--	--	--	--	--	--	--	--	--	--	--	--
	1067883	--	--	--	--	--	--	--	--	--	--	--	--
Parcel B	1081431	2017	various locations throughout (SB-12 for lead)	BDL	0.06	**18.5**	0	0	0	--	0.10	**28.4**	**894**
Parcel C	1044438	2017	various locations throughout	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	**52.1**	41.6
Parcel D	1041153	2007	SE corner MW-22	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	--	--
Parcel E	1105033	2008	NE central E1-5	--	--	**92.6**	--	--	--	--	--	--	--
Parcel F	1105034	2017	along north wall of former building	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	**12.4**	17
Parcel G	1105059	--	--	--	--	--	--	--	--	--	--	--	--
Parcel H	1012559	--	--	--	--	--	--	--	--	--	--	--	--
	1060557	--	--	--	--	--	--	--	--	--	--	--	--
	1080025	--	--	--	--	--	--	--	--	--	--	--	--
	1022505	2008	SE boundary SB-301	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	--	--
	1089356	2008	Various locations beneath the former building	BDL	12.1	**64,000**	**15,400**	104	**7,400**	BDL	**5.07**	**10.9**	107
Parcel I	1030204	2008	NE corner H-1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	--	4.37
	1005572	2008	NE corner H-3	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	--	3.73
Continental Metal Products	1020363	2008	Adjacent NE corner of building SB-12 and SB-14	--	--	--	--	--	--	--	--	5.8	46

Bold indicates the concentration exceeds the RCG Residential Direct Contact SL

Red and Bold indicates the concentration exceeds the RCG Commercial/Industrial Direct Contact SL

-- = No Data
BDL = Below Detection Level
mg/kg = Milligrams per kilogram
MW = Monitoring Well
RCG = Risk Closure Guidance
SB = Soil Boring
SL = Screening Level

Source: IDEM, USAPA, Metric Enviromental


Chester Avenue
Denny Street
Bradley Avenue
Walnut Street
Sherman Drive
9th Street
Keating Avenue
Michigan Street
Robson Street
Tuxedo Street
St. Claire Street
North Street
LaSalle Street
North Street
Dearborn Street
Gray Street
Oakland Street
Source: http://maps.indy.gov/MapIndy/
All locations approximate
Environmental Restrictive Covenant Area
Surface Soil Cap
Soil Management Area
RWP Source Area
Demolished Building
Property Boundary
Trichloroethylene (TCE)
Covenant not to sue area
N
E
W
S
0
300'
Scale
METRIC ENVIRONMENTAL
Exhibit 2
Sherman Park Facility
(Former Thomson Consumer Electronics/RCA/GE)
Site Layout and TCE Contaminant Plume
Indianapolis, Marion County, Indiana
Project #17-0093

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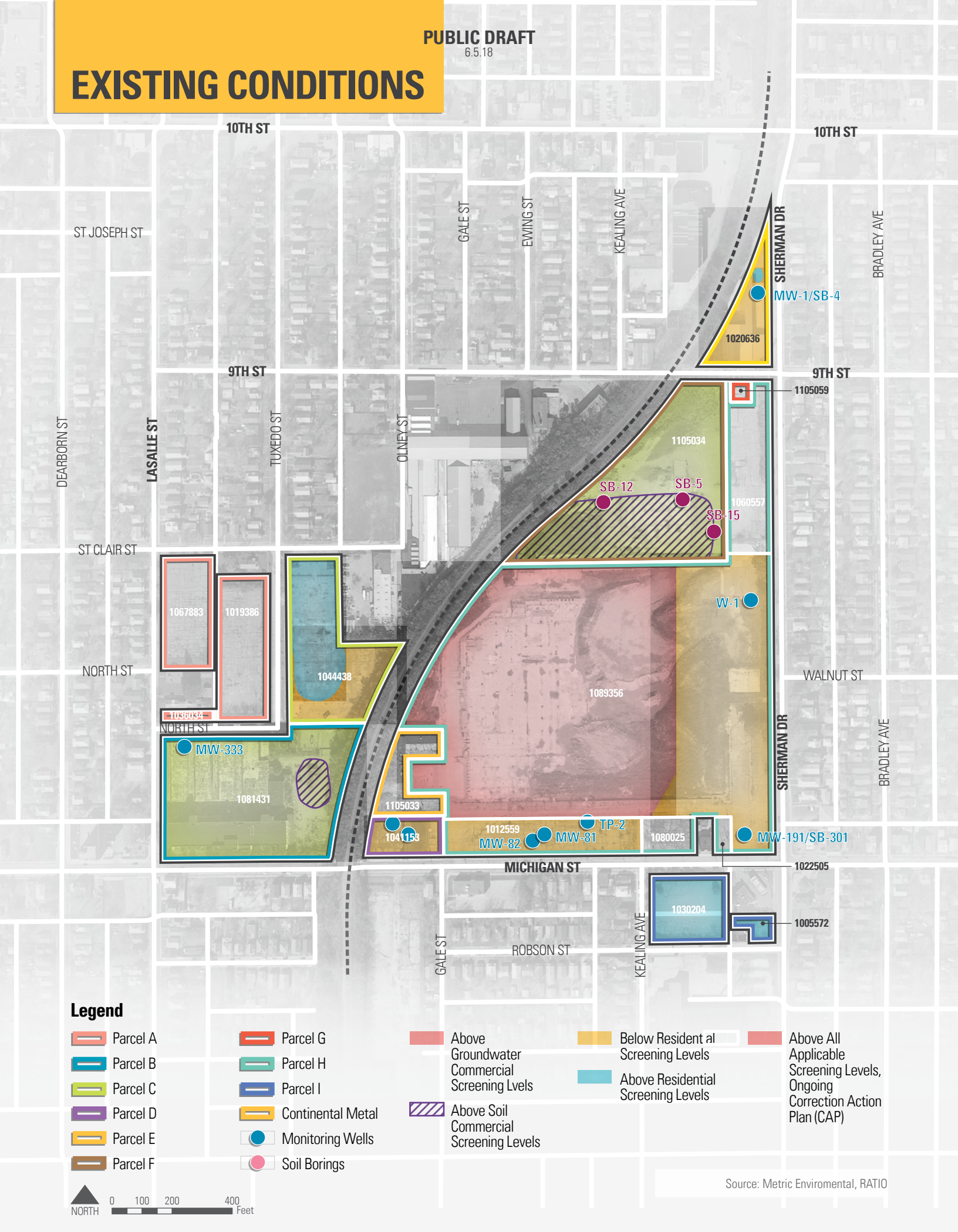
6.5.18

EXISTING CONDITIONS



Legend

- Parcel A
- Parcel B
- Parcel C
- Parcel D
- Parcel E
- Parcel F
- Parcel G
- Parcel H
- Parcel I
- Continental Metal
- Monitoring Wells
- Soil Borings
- Above Groundwater Commercial Screening Lvels
- Above Soil Commercial Screening Levels
- Below Resident al Screening Levels
- Above Residential Screening Levels
- Above All Applicable Screening Levels, Ongoing Correction Action Plan (CAP)

NORTH 0 100 200 400 Feet

Source: Metric Enviromental, RATIO

EXISTING ENVIROMENTAL CONDITIONS AND REDEVELOPMENT STRATEGIES

NEAR seeks to identify and prioritize desirable and feasible uses, based on neighborhood and community-wide stakeholder input, for redevelopment of Sherman Park.

To do this, it is necessary to determine the assessment and cleanup activities needed to be compatible with the brownfield reuse scenarios.

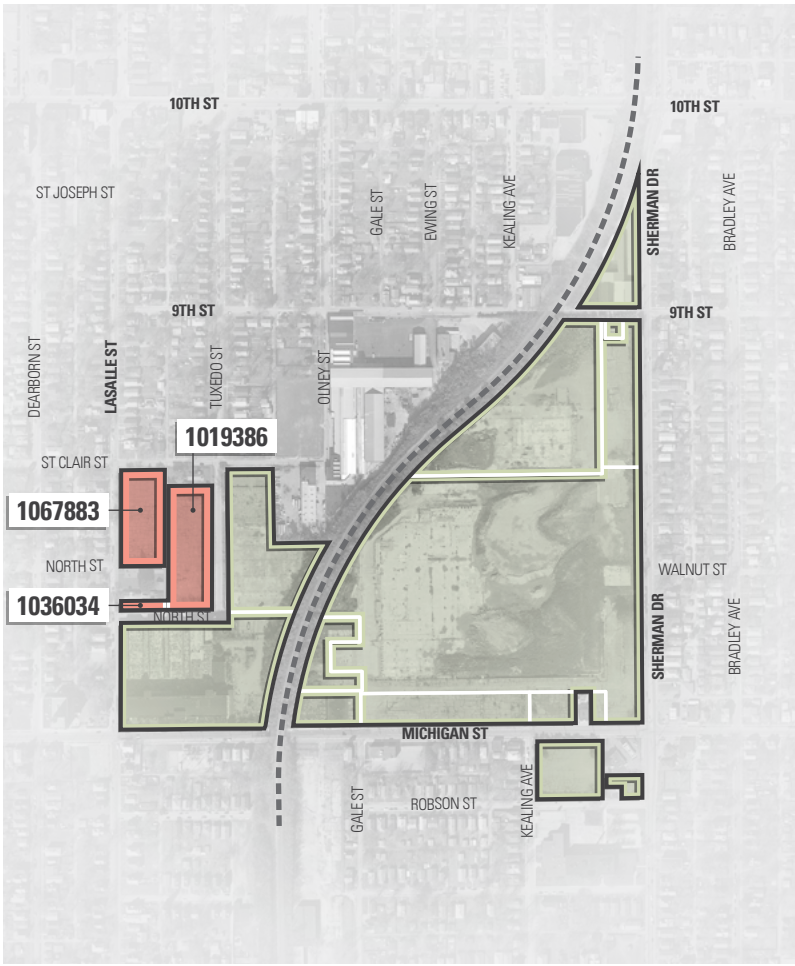
Existing conditions were evaluated based on two reuse scenarios, residential redevelopment and commercial/industrial redevelopment.

Conditions were evaluated based on reasonable ability to meet remediation objectives while considering limiting conditions such as physical characteristics, estimated costs and schedules, fatal flaws, and permitting requirements.

Existing conditions and reuse scenarios for each environmental parcel and associated tax parcel(s) are detailed in the following sections. Evaluation of the commercial/industrial redevelopment option assumes the property is accepted “as is” and no soil and/or groundwater remediation efforts will be made.

PARCEL A

Parcel A consists of three tax parcels: 1036034, 1019386, and 1067883. Parcel A historically consisted of residential development prior to being developed as parking lots. According to a Phase I Environmental Site Assessment (ESA) conducted by Kerr Environmental, Inc. in 2007, no recognized environmental concerns were identified, and no further action was recommended. Parcel A was subsequently recorded with an environmental restrictive covenant (ERC) in 2008. According to the ERC, no recognized environmental concerns were identified by the Phase I ESA and no environmental sampling has ever been conducted. However, groundwater sampling data from MW-333 (2016), located on adjacent Parcel B to the south, has historically contained elevated levels of vinyl chloride, which exceed the RCG Residential Tap and Vapor Exposure SLs. The ERC prohibits residential development and groundwater use (i.e. no groundwater extraction wells), and excavated soils generated during construction activities must be disposed of in accordance with state and local laws, including the Resource Conservation Recovery Act (RCRA).



Parcel A Alternatives

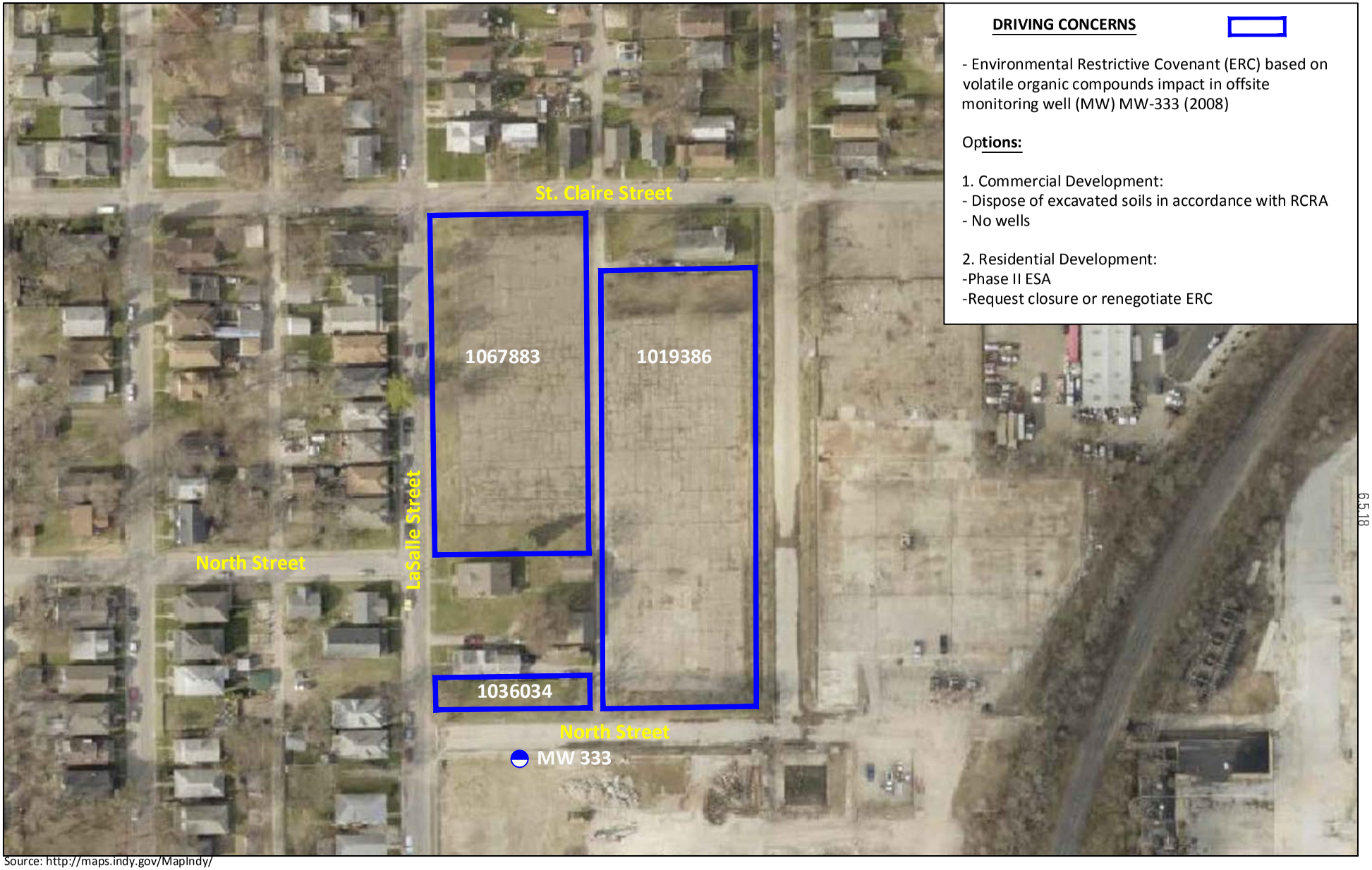
The driving concerns for this parcel and associated tax parcels are the groundwater contamination in off-site monitoring MW 333, and the fact that no analytical data has been collected on site. Alternatives and potential requirements for commercial/industrial or residential development, along with an estimated range of associated costs, are summarized as follows:

Commercial / Industrial Development

Tax Parcel	Needs	Lifecycle Cost Range
1036034	Waste Characterization for disposal of any soils generated during redevelopment construction activities. Clean fill will also need to be brought in to replace excavated soils as needed.	$2,000 to $3,000
1019386	Dispose of excavated soils as needed in accordance with RCRA	~$35 per ton
1067883	No wells	Not applicable

Residential Development

Tax Parcel	Needs	Lifecycle Cost Range
1036034	Conduct a subsurface site assessment to determine the current conditions onsite.	$5,000 to $10,000
1019386	Depending on analytical results from the Phase II, request closure from IDEM and/or renegotiate the ERC. IDEM may request full site characterization.	$5,000 to $40,000
1067883	The data may show contaminated soil and/or groundwater that would restrict residential development. Or, alternatively, remediation would be required to develop residentially.	Unknown pending current data



DRIVING CONCERNS

- Environmental Restrictive Covenant (ERC) based on volatile organic compounds impact in offsite monitoring well (MW) MW-333 (2008)

Options:

1. Commercial Development:
- Dispose of excavated soils in accordance with RCRA
- No wells

2. Residential Development:
-Phase II ESA
-Request closure or renegotiate ERC

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Source: http://maps.indy.gov/MapIndy/

Exhibit 4
Sherman Park - Parcel A
Existing Conditions Analysis
Indianapolis, Marion County, Indiana
Project #17-0093

All locations approximate

Parcel Outline

Relevant Monitoring Well (MW)

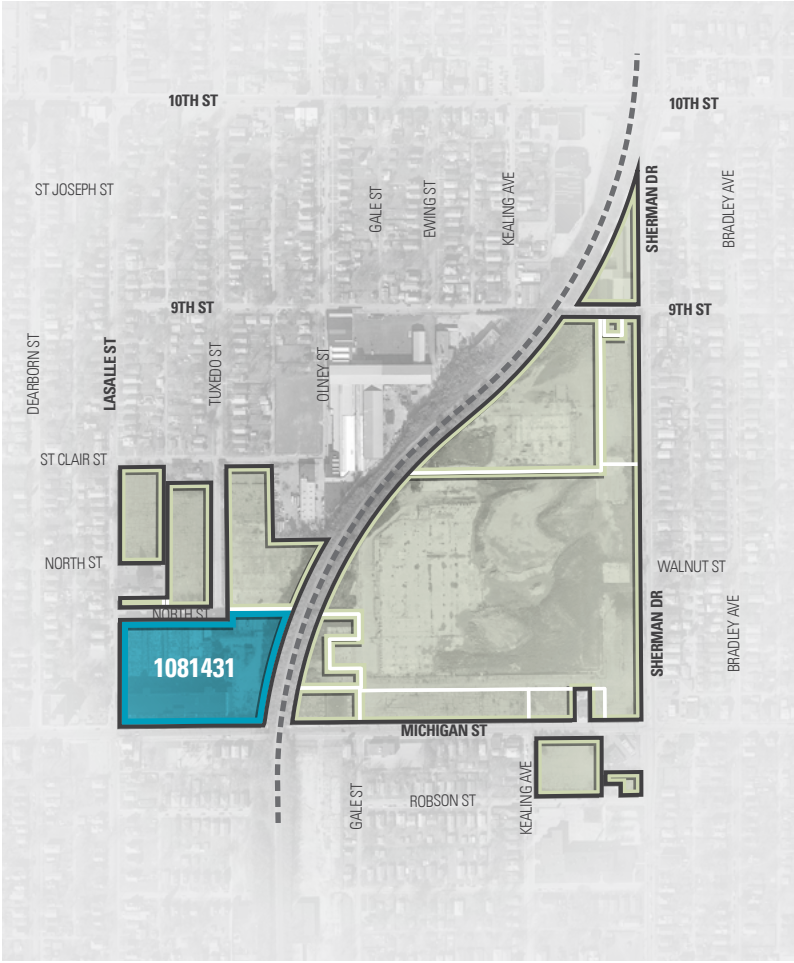
N
W E
S
0 150'
Scale

METRIC ENVIRONMENTAL

PARCEL B

Parcel B consists of tax parcel 1081431. Parcel B historically was vacant land prior to being developed with one four-story 175,000 square foot building and one single-story 100,000 square foot building, which were used for manufacturing, warehousing, storage, and office space. The buildings have since been demolished (in 2017) and the site is vacant. Based on the most recent analytical data, collected by Heartland Environmental Associates, Inc. in July and August 2017, lead and arsenic are present in groundwater above RCG Residential Tap SLs, arsenic in soil is above RCG Residential Direct Contact SLs at locations sampled across the site, and TCE and lead in soil are above RCG Commercial/Industrial Direct Contact SLs in an area along the eastern boundary.

Parcel B was recorded with an ERC in 2012 based on soil and groundwater contamination identified in earlier investigations. According to the ERC, although soil and groundwater contamination is present, the potential for vapor intrusion is not a concern; therefore, there are no potential exposure pathways and the site can be developed for commercial/industrial use provided compliance with certain restrictions. The ERC prohibits residential development and groundwater use (i.e. no groundwater extraction wells). Additionally, any excavated soils generated during construction activities must be disposed of in accordance with state and local laws, including RCRA.



Parcel B Alternatives

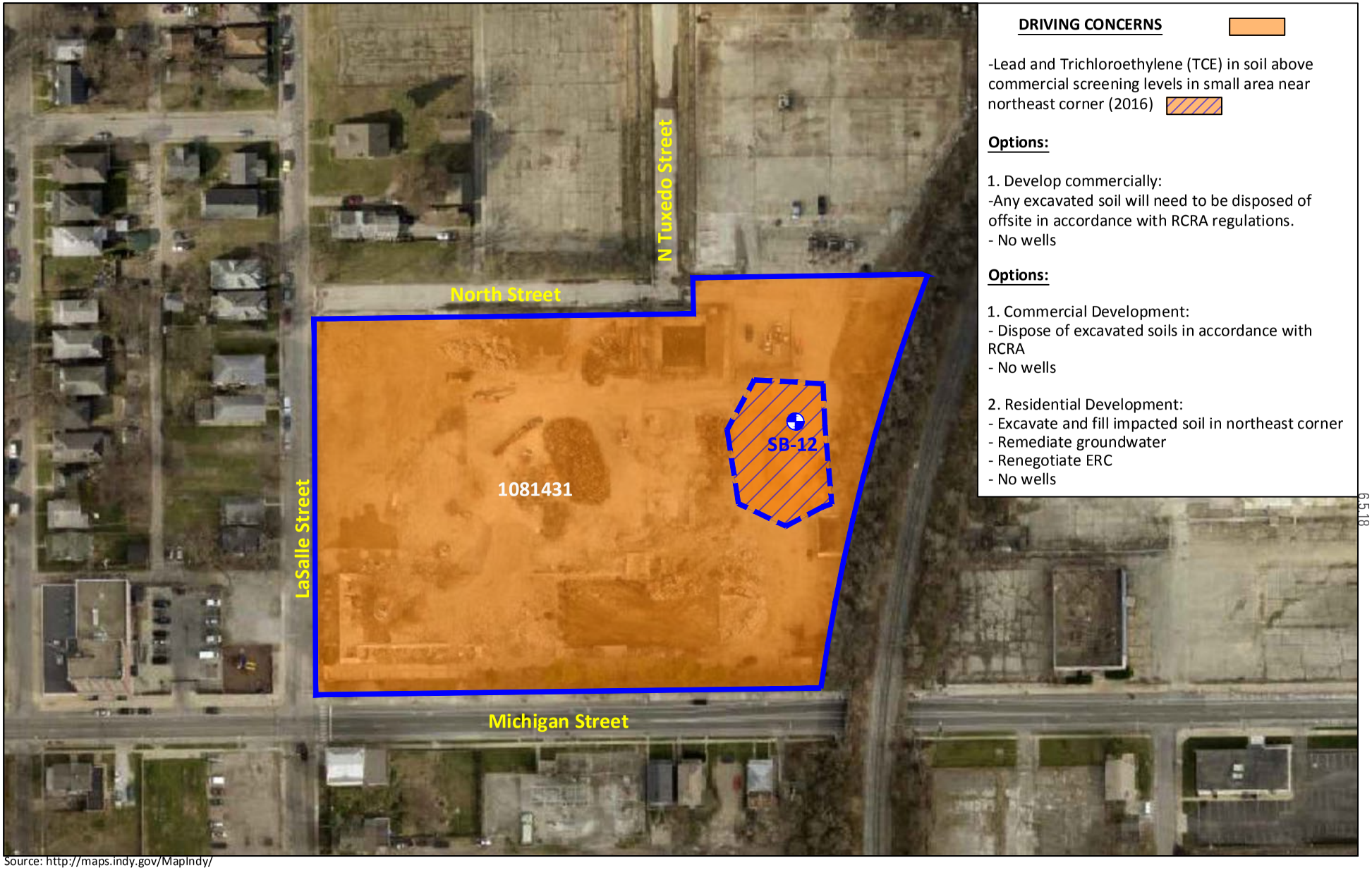
The driving concern for this parcel is the arsenic contaminated soil that remains across the site, and lead and TCE contaminated soil that is concentrated in a small area along the eastern boundary. Arsenic and lead are also present in groundwater above RCG Residential Tap; however, arsenic and lead do not pose a vapor intrusion concern and groundwater use can be restricted. Alternatives and potential requirements for commercial/industrial or residential development, along with an estimated range of associated costs, are summarized as follows:

Commercial / Industrial Development

Tax Parcel(s)	Needs	Lifecycle Cost Range
1081431	Waste Characterization for disposal of any soils generated during redevelopment construction activities. Clean fill will also need to be brought in to replace excavated soils as needed.	$2,000 to $3,000
	Dispose of excavated soils as needed in accordance with RCRA	~$35 per ton
	No groundwater extraction wells	Not applicable

Residential Development

Tax Parcel(s)	Needs	Lifecycle Cost Range
1081431	The contaminated soils would need to be excavated and disposed of, or the site capped with an impervious surface to prevent contact with soil.	Disposal Est: 32,970 CF = 1,220 CY = 1,700 tons *$35 = ~$60,000 Clean Fil Est: 1,700 Tons * $25 = ~$42,500 Labor & Eqpt: $10,000 to $20,0000
	The groundwater could be remediated to below Residential Tap SLs, or the groundwater use could be restricted.	~$100,000 to $500,000
	Renegotiate ERC based on the selected method for addressing the soil and groundwater contamination.	Included in Remediation Costs



DRIVING CONCERNS

-Lead and Trichloroethylene (TCE) in soil above commercial screening levels in small area near northeast corner (2016)

Options:

1. Develop commercially:
-Any excavated soil will need to be disposed of offsite in accordance with RCRA regulations.
- No wells

Options:

1. Commercial Development:
- Dispose of excavated soils in accordance with RCRA
- No wells

2. Residential Development:
- Excavate and fill impacted soil in northeast corner
- Remediate groundwater
- Renegotiate ERC
- No wells

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6.5.18

Source: http://maps.indy.gov/MapIndy/

Exhibit 5
Sherman Park - Parcel B
Existing Condition Analysis
Indianapolis, Marion County, Indiana
Project #17-0093

All locations approximate
Parcel Outline
Dashed where inferred
Relevant Soil Boring (SB)
Above Groundwater Commercial Screening Levels
Above Soil Commercial Screening Levels

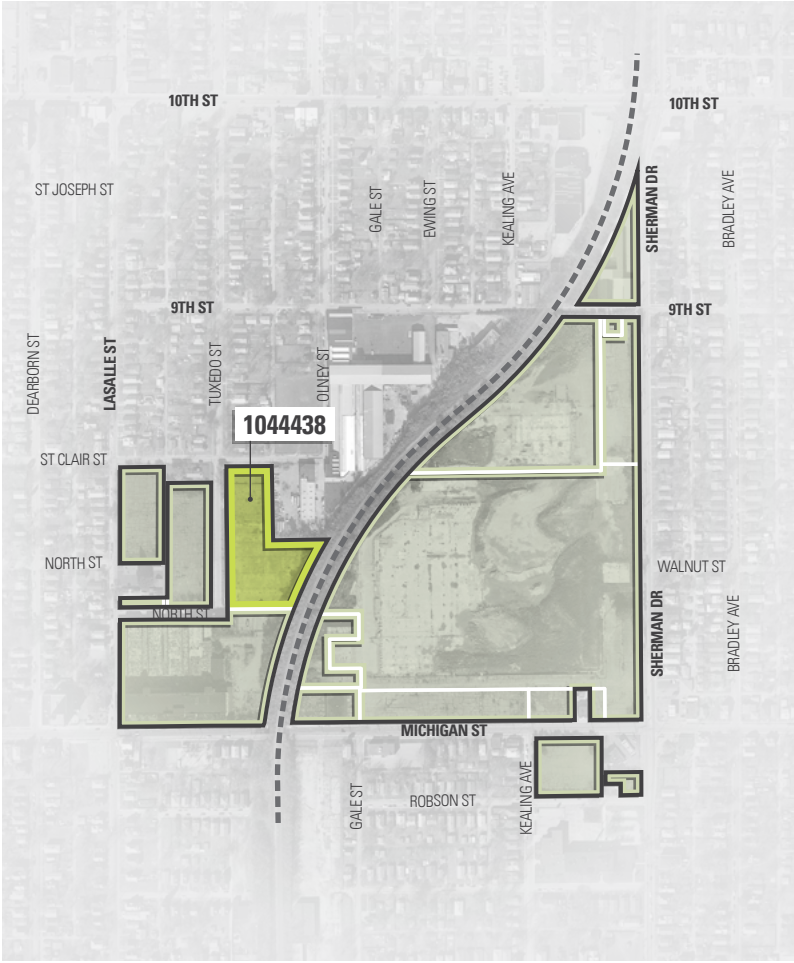
N
W
E
S
0
150'
Scale

METRIC ENVIRONMENTAL

PARCEL C

Parcel C consists of tax parcel 1044438. The site was originally developed in the mid-1940s with a 69,000 square foot building, which operated as part of the former RCA plant. The building was demolished sometime after 2001 and the site is currently vacant and consists mostly of concrete. Based on the most recent analytical data, collected by Heartland in July and August 2017, lead and arsenic are present in groundwater above RCG Residential Tap SLs in along the northeast border of the site, and arsenic in soil is above RCG Commercial/Industrial SLs across the site.

Parcel C was recorded with an ERC in 2012 based on soil and groundwater contamination identified in earlier investigations. According to the ERC, although soil and groundwater contamination is present, the potential for vapor intrusion is not a concern; therefore, there are no potential exposure pathways and the site can be developed for commercial/industrial use provided institutional controls are in place and maintained. The ERC prohibits residential development and groundwater use (i.e. no groundwater extraction wells). Additionally, any excavated soils generated during construction activities must be disposed of in accordance with state and local laws, including RCRA.



Parcel C Alternatives

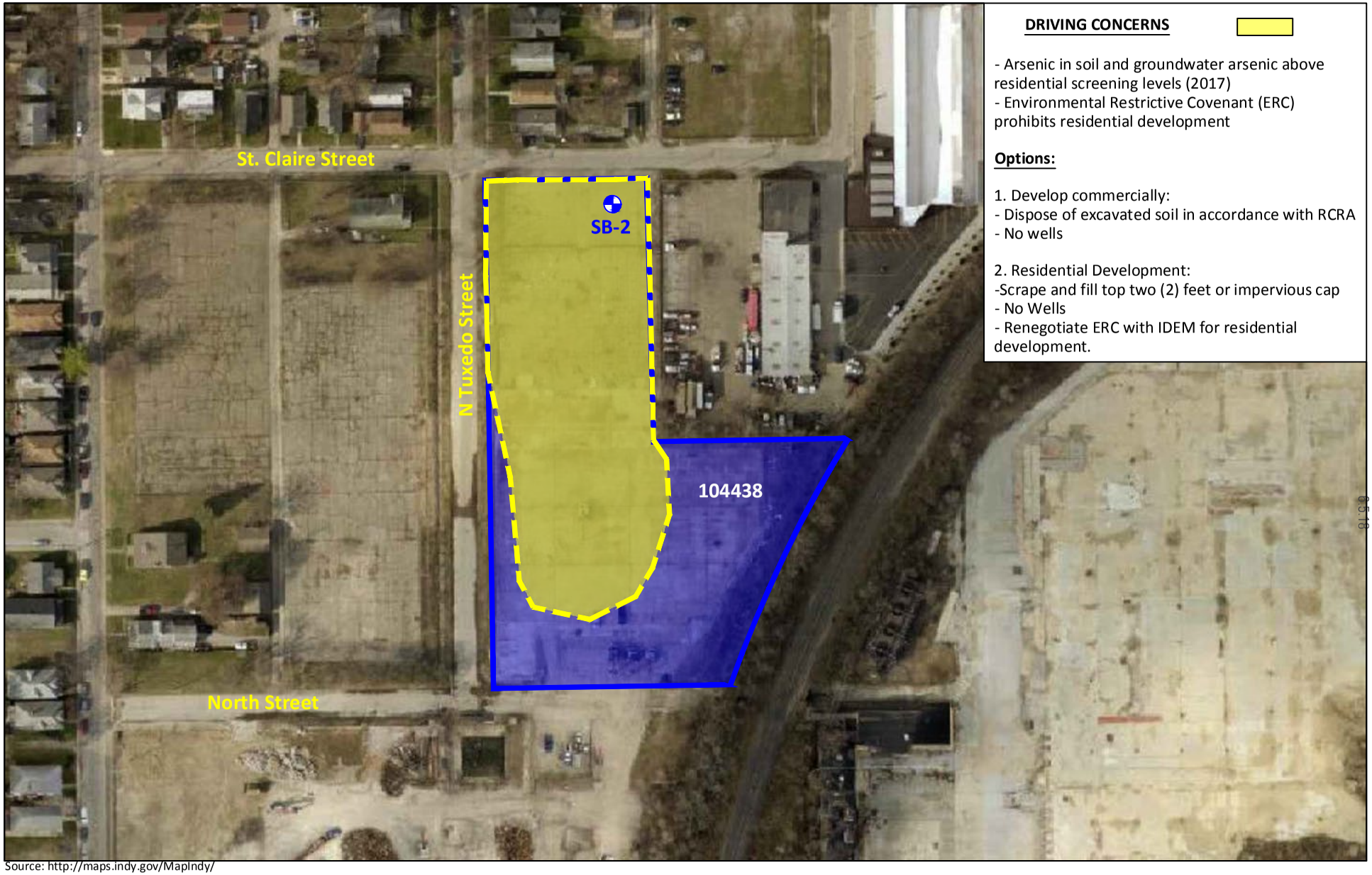
The driving concern for this parcel is the arsenic in soil contamination across the site. Although arsenic and lead are present in groundwater above RCG SLs, arsenic and lead do not pose a vapor intrusion concern and groundwater use can be restricted. Alternatives and potential requirements for commercial/industrial or residential development, along with an estimated range of associated costs, are summarized as follows:

Commercial / Industrial Development

Tax Parcel(s)	Needs	Lifecycle Cost Range
1044438	Waste Characterization for disposal of any soils generated during redevelopment construction activities. Clean fill will also need to be brought in to replace excavated soils as needed.	$2,000 to $3,000
	Dispose of excavated soils as needed in accordance with RCRA	~$35 per ton
	No groundwater extraction wells	Not applicable

Residential Development

Tax Parcel(s)	Needs	Lifecycle Cost Range
1044438	The contaminated soils would need to be excavated and disposed of, or the site capped with an impervious surface to prevent contact with soil.	Disposal Est: 200,000 CF = 7,400 CY = 10,360 Tons * $35.00 = ~$365,000 Clean Fill Est: 10,360 Tons * $25 = $260,000 Labor &Eqpt: $20,000 to $50,000
	If soils are excavated and removed, resample groundwater in the areas of SB-3 and SB-6 using filtration methodology.	$3,000 to $5,000
	Renegotiate ERC based on the selected method for addressing the soil and groundwater contamination. IDEM may require full site characterization.	$5,000 to $40,000



DRIVING CONCERNS

- Arsenic in soil and groundwater arsenic above residential screening levels (2017)
- Environmental Restrictive Covenant (ERC) prohibits residential development

Options:

1. Develop commercially:
- Dispose of excavated soil in accordance with RCRA
- No wells

2. Residential Development:
-Scrape and fill top two (2) feet or impervious cap
- No Wells
- Renegotiate ERC with IDEM for residential development.

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Source: http://maps.indy.gov/MapIndy/

Exhibit 6
Sherman Park - Parcel C
Existing Condition Analysis
Indianapolis, Marion County, Indiana
Project #17-0093

All locations approximate

Parcel Outline — Dashed Where Inferred

Below Groundwater and Soil Residential Screening levels.

Above Groundwater Residential Screening Levels

Relevant Soil Boring (SB)

N W E S

0 150'

Scale

METRIC ENVIRONMENTAL

PARCEL D

Parcel D consists of tax parcel 1041153. The site was originally developed in 1953. Based on the most recent analytical data, collected by Tetra Tech, Inc. in April 2016, no volatile organic compounds (VOCs) were detected above laboratory method detection limits in groundwater. An analysis for metals, including lead and arsenic, was not conducted. Additionally, no soil samples were collected at that time. The most recent soil analytical data, collected by Kerr in November and December 2007, did not identify VOCs in soil above laboratory method detection limits. An analysis for metals was not conducted at that time.

Parcel D was recorded with an ERC in 2012 based on groundwater contamination identified in earlier investigations. According to the ERC, VOCs in groundwater also pose a vapor intrusion concern; however, the site can be developed for commercial/industrial use provided institutional controls are in place and maintained. The ERC prohibits residential development and groundwater use (i.e. no groundwater extraction wells) and any excavated soils generated during construction activities must be disposed of in accordance with state and local laws, including RCRA. Additionally, a vapor mitigation system must be installed and maintained in occupied buildings.

Parcel D Alternatives

The driving concern for this parcel is VOCs in groundwater across the site: however, it appears VOC concentrations have decreased below laboratory method detection limits resulting from ongoing remediation activities being conducted on the adjacent parcel to the north. Alternatives and potential requirements for commercial/industrial or residential development, along with an estimated range of associated costs, are summarized as follows:

Commercial / Industrial Development

Tax Parcel(s)	Needs	Lifecycle Cost Range
1041153	Waste Characterization for disposal of any soils generated during redevelopment construction activities. Clean fill will also need to be brought in to replace excavated soils as needed.	$2,000 to $3,000
	Dispose of excavated soils as needed in accordance with RCRA	~$35 per ton
	No groundwater extraction wells	Not applicable
	Install and maintain a vapor mitigation system in any occupied buildings.	Initial Installation: $20,000 to $50,000 Ongoing operation and maintenance: $8,000 to $15,000 annually

Residential Development

Tax Parcel(s)	Needs	Lifecycle Cost Range
1041153	Conduct a subsurface site investigation to determine current c soil and groundwater conditions, especially along the northern boundary.	$10,000 to $20,0000
	If applicable, based on newly obtained data, request site closure and removal of the ERC. IDEM may require full site characterization.	$5,000 to $40,000

DRIVING CONCERNS

- All constituents of concern in soil below residential screening levels except for a small are in the southeast corner (2008)
-VOCs in groundwater were above commercial screening levels; groundwater analytical data from MW-426 indicated offsite active remediation sysem has reduced VOC levels to below detection limits

Options:

1. Commercial Develop:
- Dispose of any excavated soil in accordance with RCRA
- No wells

2. Residential Development:
- Phase II ESSA
Excavate and disposed of small area of impacted soil
-Renegotiate ERC

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6.5.18

Source: http://maps.indy.gov/MapIndy/

Exhibit 7
Sherman Park - Parcel D
Existing Condition Analysis
Indianapolis, Marion County, Indiana
Project #17-0093

All locations approximate
Parcel Outline
Relevant Monitoring Well (MW)
Dashed Where Inferred
Below Groundwater Residential Screening Levels.
Above Soil Residential Screening Levels

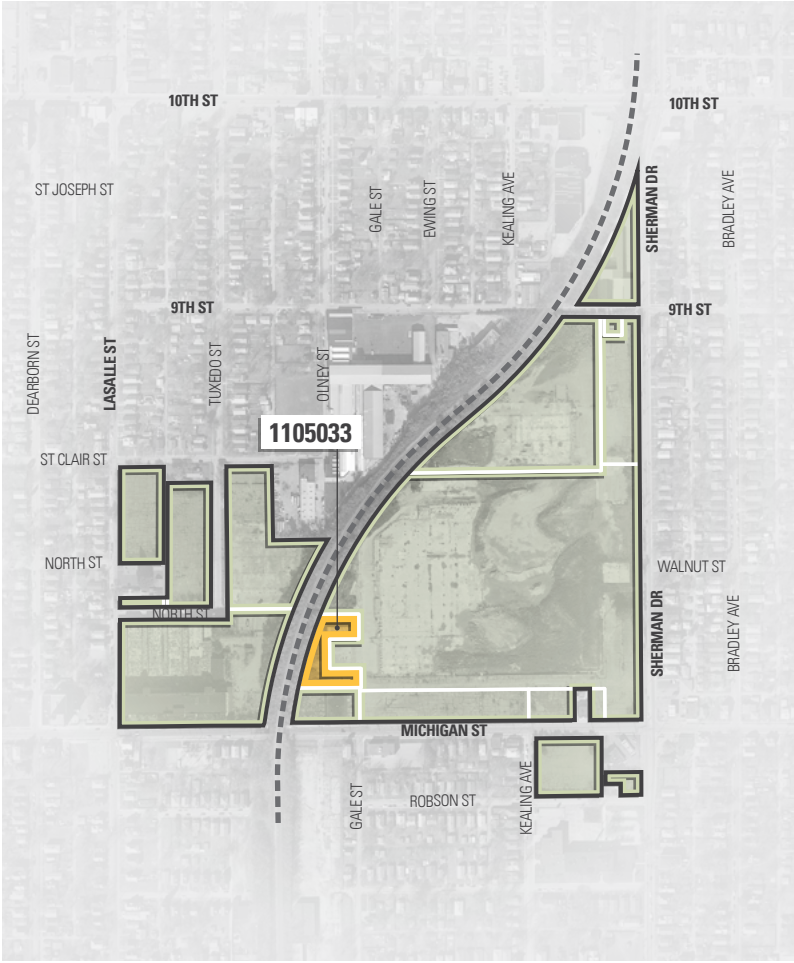
N
W
E
S
0
100'
Scale

METRIC ENVIRONMENTAL

PARCEL E

Parcel E consists of tax parcel 1105033. The site was originally developed with a powerhouse building, with the remainder of the property being paved, and operated as part of the former RCA plant. The building has since been demolished and the site is currently vacant land. Based on the most recent analytical data, collected by Tetra Tech in April 2016, VOC concentrations in groundwater were either below laboratory method detection limits or below RCG Migration to Groundwater SLs. An analysis for metals, including lead and arsenic, was not conducted. Additionally, no soil samples were collected at that time. The most recent soil analytical data, collected by Kerr in November 2007, identified TCE in soil above RCG Commercial/Industrial Direct Contact SLs in soil boring E1-5 located in the northeast quadrant of the site. An analysis for metals was not conducted at that time.

Parcel E was recorded with an ERC in 2012 based on groundwater contamination identified in earlier investigations. According to the ERC, the main area of concern on this site was the VOC contamination associated with the former location of the fuel oil USTs adjacent to the building. The ERC also indicated that vapor intrusion was not a concern. The ERC states that the site can be developed for commercial/industrial use provided institutional controls are in place and maintained. The ERC prohibits residential development and groundwater use (i.e. no groundwater extraction wells) and any excavated soils generated during construction activities must be disposed of in accordance with state and local laws, including RCRA.



Parcel E Alternatives

The driving concern for this parcel is VOCs in groundwater across the site; however, it appears VOC concentrations have decreased below laboratory method detection limits resulting from ongoing remediation activities being conducted on the adjacent parcel to the north and east. Given the parcel is bordered to the north and east by a parcel with elevated groundwater VOC contamination and currently undergoing active remediation, this site is not likely a candidate for residential development; however, alternatives and potential requirements for commercial/industrial or residential development, along with an estimated range of associated costs, are summarized as follows:

Commercial / Industrial Development

Tax Parcel(s)	Needs	Lifecycle Cost Range
1105033	Waste Characterization for disposal of any soils generated during redevelopment construction activities. Clean fill will also need to be brought in to replace excavated soils as needed.	$2,000 to $3,000
	Dispose of excavated soils as needed in accordance with RCRA	~$35 per ton
	No groundwater extraction wells	Not applicable

Residential Development

Tax Parcel(s)	Needs	Lifecycle Cost Range
1105033	Conduct a subsurface site investigation to determine current soil and groundwater conditions, especially along the northern and eastern boundaries.	$10,000 to $20,0000
	If applicable, based on newly obtained data, request site closure and removal of the ERC. IDEM may require full site characterization. Analytical data may potentially indicate the site is not suitable for residential development without further remediation.	$5,000 to $40,000

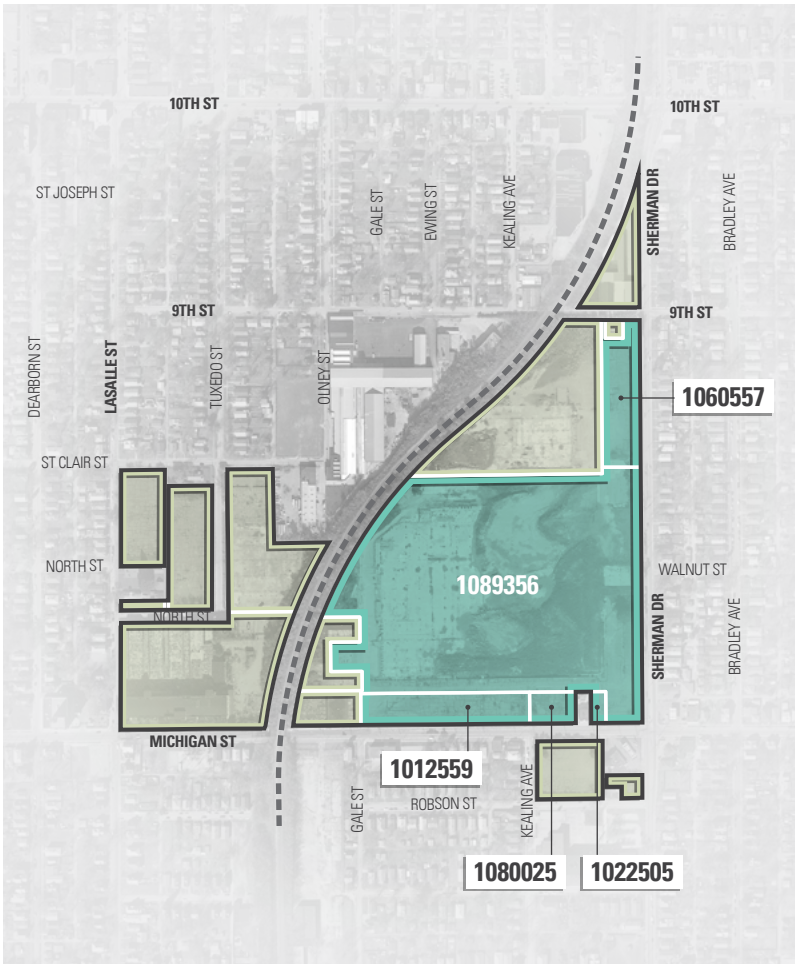
PARCEL H

Parcel H consists of the following five tax parcels: 1012559, 1060557, 1080025, 1022505, and 1089356. These parcels were occupied by more than 750,000 square feet of industrial/commercial and office space, which made up the primary manufacturing operations of the former RCA plant. All buildings have since been demolished and the parcel is currently vacant, with concrete covering most of the area. As part of ongoing remediation activities, historical and recent groundwater analytical data was summarized in the 2016 Annual Progress Report for the Sherman Park Facility, prepared by Tetra Tech and dated January 2017. The analytical data reported varies by tax parcel as follows:

- **1012559:** Analytical data collected in 2016 from monitoring well MW-82, located in the center of the tax parcel, indicates VOCs were not detected above laboratory method detection limits.
- **1060557:** Analytical data collected in 2007 from monitoring well W-1, located adjacent to the southeast corner of the tax parcel, indicates VOCs were not detected above laboratory method detection limits.
- **1080025:** No analytical data has been collected from this parcel.
- **1012505:** Analytical data collected in 2008 from monitoring well MW-191, located in the southeast corner of the tax parcel, indicates VOCs and lead were not detected above laboratory method detection limits.
- **1089356:** Analytical data collected in 2016 indicates VOCs are above RCG Residential Tap SLs by orders of magnitude in a large area in the eastern portion of the tax parcel centered around monitoring well MW-401.

The most recent soil analytical data was collected by Kerr in January 2008 and from only tax parcels 1022505 and 1089356:

- **1012505:** Analytical data collected from soil boring SB-301 near the southeast boundary of the tax parcel, indicates VOCs and lead were not detected above laboratory method detection limits. No analysis for other metals was conducted.
- **1089356:** Analytical data collected at various locations across the tax parcel, and more specifically beneath the former building, indicates VOCs were above RCG Commercial/Industrial Direct Contact SLs by orders of magnitude. Additionally, arsenic was present above RCG Residential Direct Contact SLs, but within anthropogenic background concentrations commonly encountered within urban environments in Indiana.



Parcel H was recorded with an ERC in 2012 based on soil and groundwater contamination and sub-slab and indoor air samples collected from 1989 to at least 2007. According to the ERC, the main areas of concern include the former chemical storage building, manufacturing area, fuel oil USTs, former battery charging areas, former tank farm, former plating areas, former degreasing room, former garage, and former paint room. The ERC states that the site can be developed for commercial/industrial use provided institutional controls are in place and maintained. The ERC prohibits residential development and groundwater use (i.e. no groundwater extraction wells) and any excavated soils generated during construction activities must be disposed of in accordance with state and local laws, including RCRA. Additionally, a vapor mitigation system must be installed and maintained in occupied buildings.

Parcel H Alternatives

The driving concerns for Parcel H vary by tax parcel. Current analytical data for tax parcels 1012559, 1060557, 1080025, and 1022505 indicates alternative redevelopment options may be feasible. Analytical data for tax parcel 1089356 indicates soil and groundwater contamination remain present above RCG Commercial/Industrial SLs by orders of magnitude and industrial development may be the only currently feasible alternative for this tax parcel. However, contamination within tax parcel 1089356 appears to be limited to the western portion of the site; therefore, it may be feasible to develop the eastern portion of the site. Alternatives and potential requirements for commercial/industrial, or residential development applicable to each tax parcel, along with an estimated range of associated costs, are summarized as follows:

Commercial / Industrial Development

Tax Parcel(s)	Needs	Lifecycle Cost Range
1105059	Conduct a Phase I ESA as typically required in commercial property transactions.	$2,500 to $3,500
	The Phase I ESA could generate a recommendation for a subsurface investigation.	$5,000 to $10,000

Residential Development

Tax Parcel(s)	Needs	Lifecycle Cost Range
1105059	Conduct a Phase I ESA as typically required in commercial property transactions.	$2,500 to $3,500
	The Phase I ESA could generate a recommendation for a subsurface investigation.	$5,000 to $10,000

Source: http://maps.indy.gov/MapIndy/

DRIVING CONCERNS

- Volatile Organic Compounds (VOCs) in soil and groundwater above residential screening levels (2008)
- Most recent groundwater data indicates VOC reduction to below detection limits (2016)
- Environmental Restrictive Covenant (ERC)

Options:

1. Commercial Development
- Dispose of any excavated soil in accordance with RCRA
- No wells
- Install Vapor Mitigation System for buildings construction onsite

2. Residential Development
- Phase II ESA
- Renegotiate ERC, and/or request closure

DRIVING CONCERNS

- No analytical data collected
- Environmental Restrictive Covenant (ERC)

Options:

1. Commercial Development:
-Dispose of any excavated soil in accordanc with RCRA
- Install Vapor Mitigation System for building constructed on site
- Dispose of soil in accordance with RCRA

2. Residential Development:
- Phase II ESA
- Renegotiate ERC, and/or request closure

DRIVING CONCERNS

- VOCs in soil and groundwater above residential and commercial screening levels (2018)

-Environment Restrictive Covenant (ERC)

Options:

1. Commercial Development Only :
-Dispose of any excavated soil in accordance with RCRA
- No wells
-Install Vapor Mitigation System for bildings construction onsite
- Do not disturb soil cap

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Exhibit 8
Sherman Park - Parcels E and H
Existing Condition Analysis
Indianapolis, Marion County, Indiana
Project #17-0093

All locations approximate

- Parcel Outline
- Dashed Where Inferred
- Relevant Monitoring Well (MW)
- Relevant Soil Boring (SB)
- Active Remediation/VOCs in Soil and Groundwater above Commercial Screening Levels
- Below Groundwater and Soil Residential Screening Levels

N W E S

0 300'

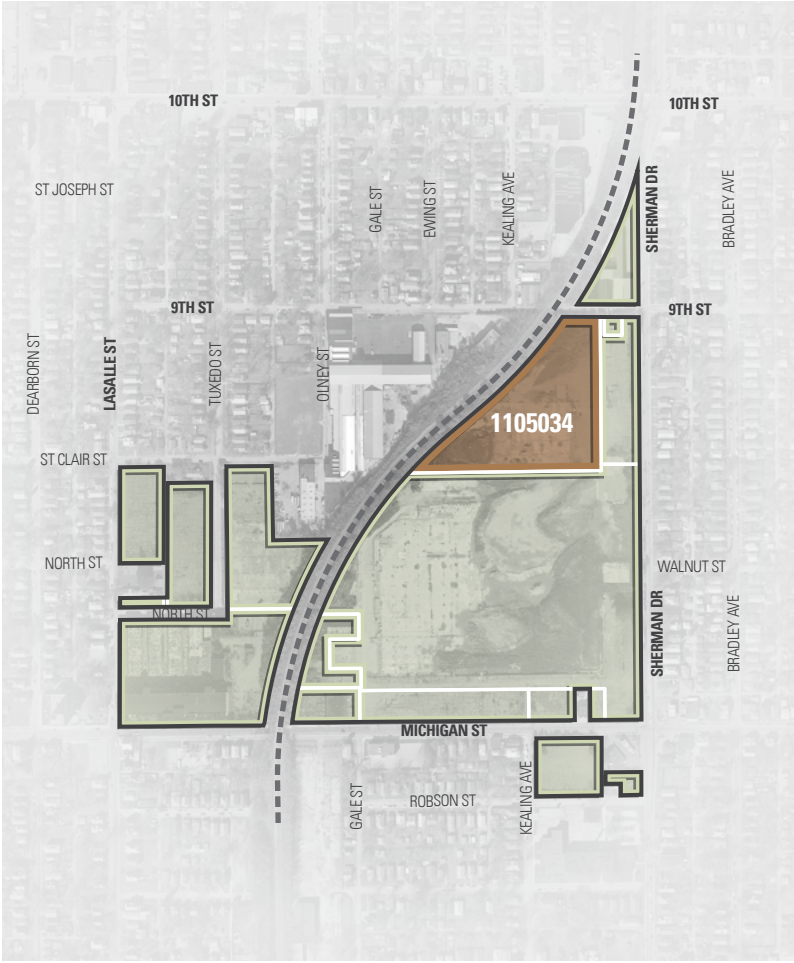
Scale

METRIC ENVIRONMENTAL

PARCEL F

Parcel F consists of tax parcel 1105034 and makes up the northern portion of the primary manufacturing operations of the former RCA plant. The associated buildings have since been demolished and the site is currently vacant. Based on the most recent analytical data, collected by Heartland in April 2017, arsenic and lead in groundwater were above RCG Residential Tap SLs and arsenic in soil was above RCG Residential Direct Contact SLs. Although the arsenic in soil is above the SLs, the concentration is within anthropogenic background concentrations commonly encountered within urban environments in Indiana which can range from undetectable concentrations up to approximately 13 mg/kg.

Parcel F was recorded with an ERC in 2012 based on soil and groundwater contamination identified in earlier investigations. According to the ERC, the main areas of concern include the open dumping on the north side of the building and the hazardous waste storage area in the southwest portion of the building. The ERC states that the site can be developed for commercial/industrial use provided institutional controls are in place and maintained. The ERC prohibits residential development and groundwater use (i.e. no groundwater extraction wells) and any excavated soils generated during construction activities must be disposed of in accordance with state and local laws, including RCRA.



Parcel F Alternatives

The driving concern for this parcel is arsenic and lead in groundwater across the site and arsenic in soil across at least the south half of the parcel. Although arsenic and lead are present in groundwater above RCG SLs, arsenic and lead do not pose a vapor intrusion concern and groundwater use can be restricted. Additionally, as previously stated, the concentration of arsenic in soil is within anthropogenic background concentrations commonly encountered within urban environments in Indiana. Alternatives and potential requirements for commercial/industrial or residential development, along with an estimated range of associated costs, are summarized as follows:

Commercial / Industrial Development

Tax Parcel(s)	Needs	Lifecycle Cost Range
1105034	Waste Characterization for disposal of any soils generated during redevelopment construction activities. Clean fill will also need to be brought in to replace excavated soils as needed.	$2,000 to $3,000
	Dispose of excavated soils as needed in accordance with RCRA	~$35 per ton
	No groundwater extraction wells	Not applicable

Residential Development

Tax Parcel(s)	Needs	Lifecycle Cost Range
1105034	The contaminated soils would need to be excavated and disposed of, or the site capped with an impervious surface to prevent contact with soil. Alternatively, an argument could be made to IDEM that soil contamination is within background levels.	Disposal Est: 135,000 CF = 5,000 CY = 7,000 Tons * $35 = ~$245,000 Clean Fill Est: 7,000 Tons * $25 = ~$175,000 Labor & Eqpt: $20,000 to $50,000
	If soils are excavated and removed, conduct an additional assessment of the groundwater to determine conditions.	$5,000 to $40,000
	Renegotiate ERC with IDEM, which may require a full site characterization and remedial action plan, etc.	Included in above costs

DRIVING CONCERNS

- Arsenic in soil and groundwater above commercial screening (2005)
- Environmental Restrictive Covenant (ERC)

Options:

1. Commercial Development:
- Dispose of excavated soil in accordance with RCRA
- No wells

2. Residential Development:
-Phase I ESA
- Excavate and fill top two (2) feet of arsenic impacted soil
- Renegotiate ERC
- No wells

PUBLIC DRAFT
6.5.18

Source: http://maps.indy.gov/MapIndy/

Exhibit 9
Sherman Park - Parcel F
Existing Condition Analysis
Indianapolis, Marion County, Indiana
Project #17-0093

All locations approximate
Parcel Outline
Dashed Where Inferred
Relevant Soil Boring (SB)
Monitoring Well (MW)
Above Groundwater Commercial Screening Levels
Above Soil Commercial Screening Levels
Demolished Building

N
W
E
S
0
200'
Scale

METRIC ENVIRONMENTAL

PARCEL G

Parcel G consists of tax parcel 1105059, located adjacent to the northernmost end of Sherman Park and bordered by Parcel H to the east and Parcel F to the south and west. Historically the site has been occupied by a residence. According to a Phase I ESA by Kerr, dated October 1, 2007, no recognized environmental concerns were identified. Subsequently, IDEM issued a letter, dated March 28, 2008, denying a request for a Comfort Letter. IDEM stated the site was historically used as a residence, and that the 2007 Phase I ESA did not identify any recognized environmental concerns. No analytical data has been collected at this Parcel, nor has an ERC been recorded.

Parcel G Alternatives

The driving concern for this parcel is location relative to Parcels H and F and the possibility of migration of contaminants. Based on data established in ongoing investigations across the Sherman Park Facility, groundwater flow is in a southwesterly direction. Therefore, contaminant migration would likely be away from the parcel. Alternatives and potential requirements for commercial/ industrial or residential development, along with an estimated range of associated costs, are summarized as follows:

Commercial / Industrial Development

Tax Parcel(s)	Needs	Lifecycle Cost Range
1105059	Conduct a Phase I ESA as typically required in commercial property transactions.	$2,500 to $3,500
	The Phase I ESA could generate a recommendation for a subsurface investigation.	$5,000 to $10,000

Residential Development

Tax Parcel(s)	Needs	Lifecycle Cost Range
1105059	Conduct a Phase I ESA as typically required in commercial property transactions.	$2,500 to $3,500
	The Phase I ESA could generate a recommendation for a subsurface investigation.	$5,000 to $10,000

DRIVING CONCERNS

- Letter from IDEM stating the property was historically residential and there are no concerns (2008)
- Phase I EAS (Kerr Environmental) stating there are no RECs (2008)
- No analytical data

Options:

1. Residential/Commercial development:
-Phase I ESA for property transaction
- May require Phase II EAS

Source: http://maps.indy.gov/MapIndy/

Exhibit 10
Sherman Park - Parcel G
Existing Condition Analysis
Indianapolis, Marion County, Indiana
Project #17-0093

All locations approximate

Parcel Outline

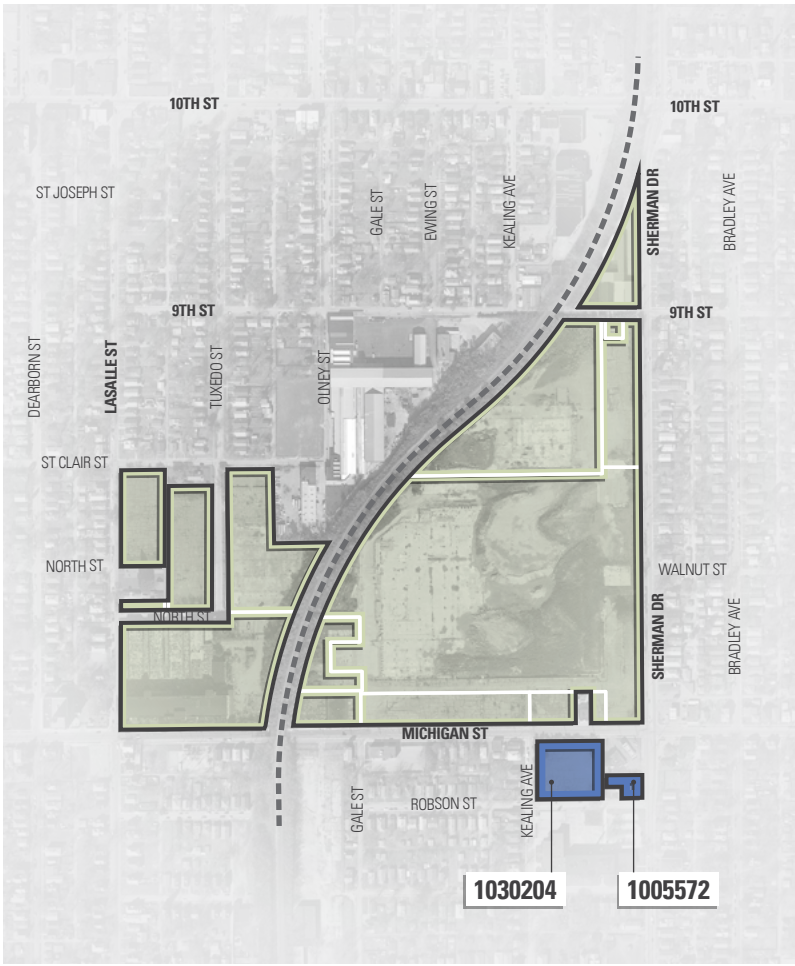
N
W E
S
0 50'
Scale

METRIC ENVIRONMENTAL

PARCEL I

Parcel F consists of tax parcels 1030204 and 1005572. Historically the site consisted of residential housing since at least the early 1940s. Beginning in the 1970s the site was used as a parking lot for the former RCA plant. Based on the most recent analytical data, collected by Kerr in November and December 2007, lead was present in groundwater above RCG Residential Tap SLs at the eastern boundary of tax parcel 1030204 (monitoring well H-1) and the northern boundary of tax parcel 1005572 (monitoring wells H-3 and H-4).

Parcel I was recorded with an ERC in 2012 based on groundwater contamination identified in the 2007 investigation by Kerr. According to the ERC, the concern may potentially be attributable to offsite migration from nearby and adjacent gas stations. Additionally, the ERC stated that the groundwater samples were turbid at the time of collection and that the analytical results are likely biased high due to sediments in the groundwater. However, since the concentrations exceed the SLs, the ERC was established.



Parcel I Alternatives

The driving concern for this parcel is lead in groundwater along the north and east boundaries. However, as indicated above, turbid groundwater samples can bias analytical results high as contaminants will adhere to suspended sedimentary particles. Alternatives and potential requirements for commercial/industrial or residential development, along with an estimated range of associated costs, are summarized as follows:

Commercial / Industrial Development

Tax Parcel(s)	Needs	Lifecycle Cost Range
1030204 1005572	Waste Characterization for disposal of any soils generated during redevelopment construction activities. Clean fill will also need to be brought in to replace excavated soils as needed.	$2,000 to $3,000
	Dispose of excavated soils as needed in accordance with RCRA	~$35 per ton
	No groundwater extraction wells	Not applicable

Residential Development

Tax Parcel(s)	Needs	Lifecycle Cost Range
1030204 1005572	Conduct a limited subsurface investigation of the groundwater, particularly along the northern and eastern boundaries. Collect metal samples using approved filtration methodologies and water quality stabilization parameters.	$5,000 to $8,000
	If applicable, based on newly obtained data, request site closure and removal of the ERC. IDEM may require additional site characterization.	$5,000 to $40,000

DRIVING CONCERNS

- Lead in groundwater above residential screening levels (2008)
-Environmental Restrictive Covenant

Options:

1. Commercial Development:
- Dispose of soil in accordance with RCRA
- No wells

2. Residential Development:
-Phase II ESA
- Renegotiate ERC

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6.5.18

Source: http://maps.indy.gov/MapIndy/

Exhibit 11
Sherman Park - Parcel I
Existing Condition Analysis
Indianapolis, Marion County, Indiana
Project #17-0093

All locations approximate

Parcel Outline — Dashed Where Inferred

Below Groundwater and Soil Residential Screening Levels

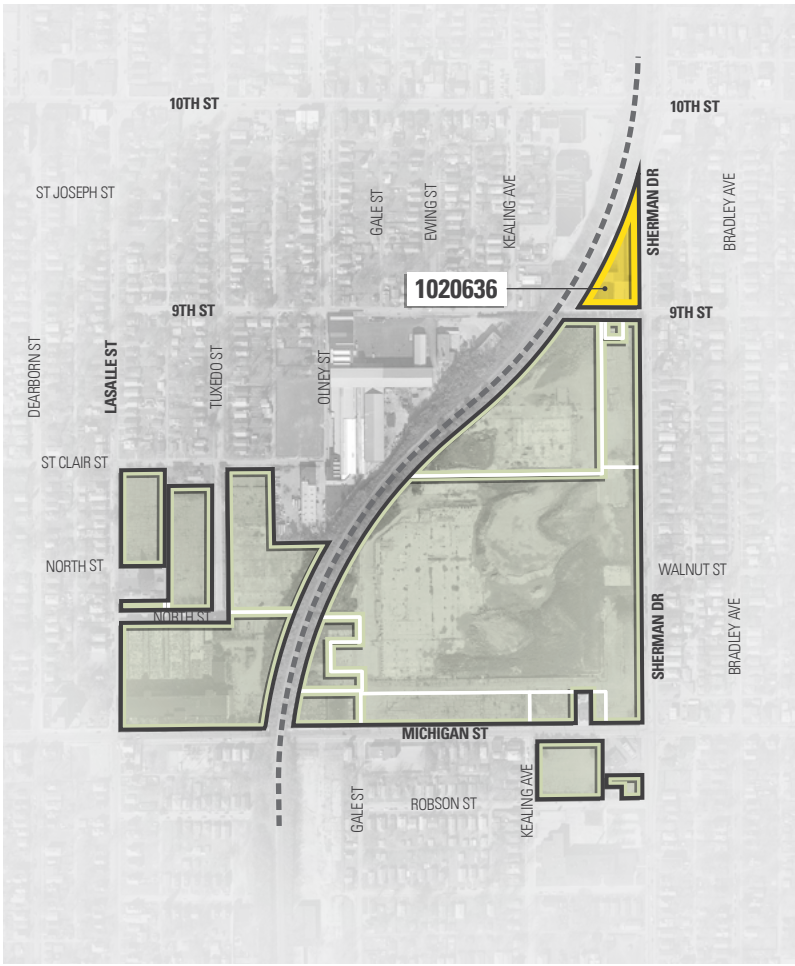
Relevant Monitoring Well (MW)

N
W E
S
0 100'
Scale

METRIC ENVIRONMENTAL

CONTINENTAL METAL PRODUCTS

Continental Metal Products consists of tax parcel 1020363 and is not part of the larger Sherman Park Facility. The parcel is situated north of the Sherman Park Facility across East 9th Street. The site was formerly owned by Dickey & Son Machine and Tool Company. No additional historical information was available for this parcel. Based on the most recent analytical data, collected by Environmental Services Associates, LLC in January 2008, lead was present in groundwater above RCG Residential Tap SLs at the northeast boundary (monitoring well MW-1). No restrictions have been recorded for this site.



Continental Metal Products Alternatives

The driving concern for this parcel is lead in groundwater at the northeast boundary. However, it is possible a turbid groundwater sample was collected, which can create a high bias analytical result as contaminants will adhere to suspended sedimentary particles. Alternatives and potential requirements for commercial/industrial or residential development, along with an estimated range of associated costs, are summarized as follows:

Commercial / Industrial Development

Tax Parcel(s)	Needs	Lifecycle Cost Range
1030204	Conduct a Phase I ESA as typically required for commercial property transactions.	$3,000 to $5,000
1005572	A subsurface investigation may be recommended in the Phase I ESA	$8,000 to $15,0000

Residential Development

Tax Parcel(s)	Needs	Lifecycle Cost Range
1030204 1005572	Conduct a limited subsurface investigation of the groundwater, particularly along the northeast boundary. Collect metal samples using approved filtration methodologies and water quality stabilization parameters.	$8,000 to $15,000
	If applicable, based on newly obtained data, request site closure from IDEM. IDEM may require additional site characterization.	$5,000 to $40,000

DRIVING CONCERNS

- Lead in one groundwater sample above residential screening levels (2008)
- No ERC in place
- Only metal samples historically collected

Options:

1. Residential/Commercial Development:
- Conduct a Phase II ESA
- Request closure or negotiate ERC

PUBLIC DRAFT
6.5.18

Source: http://maps.indy.gov/MapIndy/

Exhibit 12
Continental Metal Products
Existing Condition Analysis
Indianapolis, Marion County, Indiana
Project #17-0093

All locations approximate
Parcel Outline
Dashed Where Inferred
Above Residential Screening Levels
Below Residential Screening Levels
Relevant Soil Boring (SB)
Relevant Monitoring Well (MW)

N
W E
S
0 150'
Scale

METRIC ENVIRONMENTAL

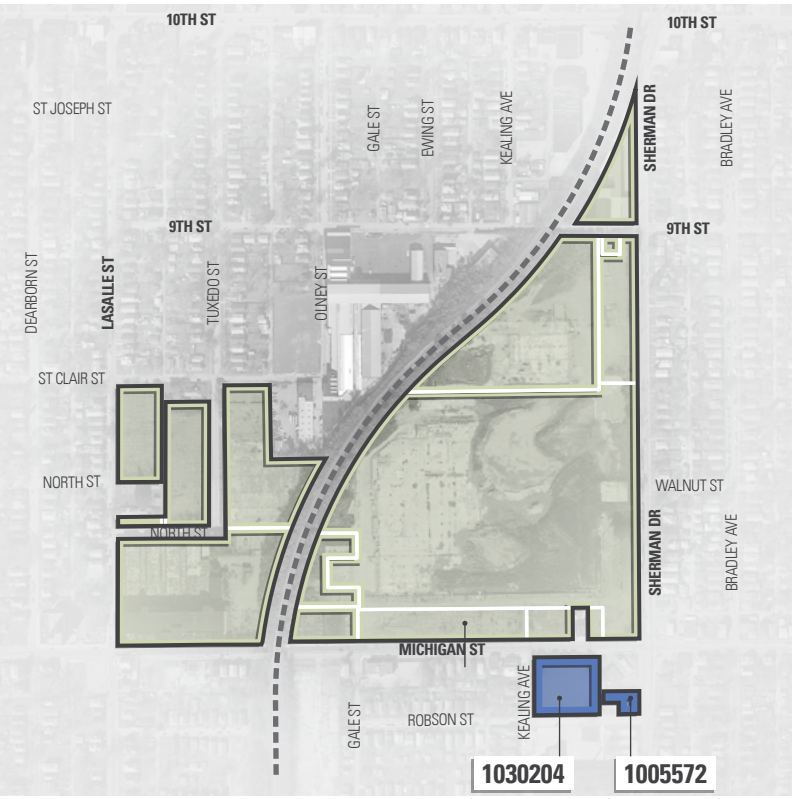
CONCLUSIONS AND RECOMMENDATIONS

PARCELS A, H (TAX PARCELS 1080025, 1022505 AND 1060557), AND G

Of the 16 tax parcels, at least seven do not appear to have ever had analytical data collected.

All three Parcel A tax parcels (1036034, 1019386, and 1067883) and three Parcel H tax parcels (1080025, 1022505 and 106557) are incorporated into ERCs by default due to their relation to the larger Sherman Park Facility. Additionally, no analytical sampling was conducted at Parcel G based on its history as a residence and a 2007 Phase I ESA stating no recognized environmental concerns were identified. An ERC has not been established for Parcel G.

An additional subsurface investigation is recommended to establish conditions at these tax parcels. Once the newly acquired analytical data is reviewed, it can be determined whether any of these tax parcels are suitable for residential or other non-commercial redevelopment, and whether the ERC may be eligible for renegotiation.



PARCEL I

An ERC was established for both Parcel I tax parcels (1030204 and 1005572) based on lead in groundwater above RCG Residential Tap SLs along the north and east boundaries, which appears to be attributable to offsite migration from nearby and adjacent gas stations. Additionally, turbid groundwater samples were collected, which can result in high bias analytical results as contaminants will adhere to suspended sedimentary particles. A limited subsurface investigation of the groundwater, particularly along the northern and eastern boundaries is recommended. Metal samples should be collected using approved filtration methodologies and water quality stabilization parameters.

Once the newly acquired analytical data is reviewed, it can be determined whether either of these tax parcels are suitable for residential or other non-commercial redevelopment, and whether the ERC may be eligible to be reopened.

PARCELS B, C, AND F

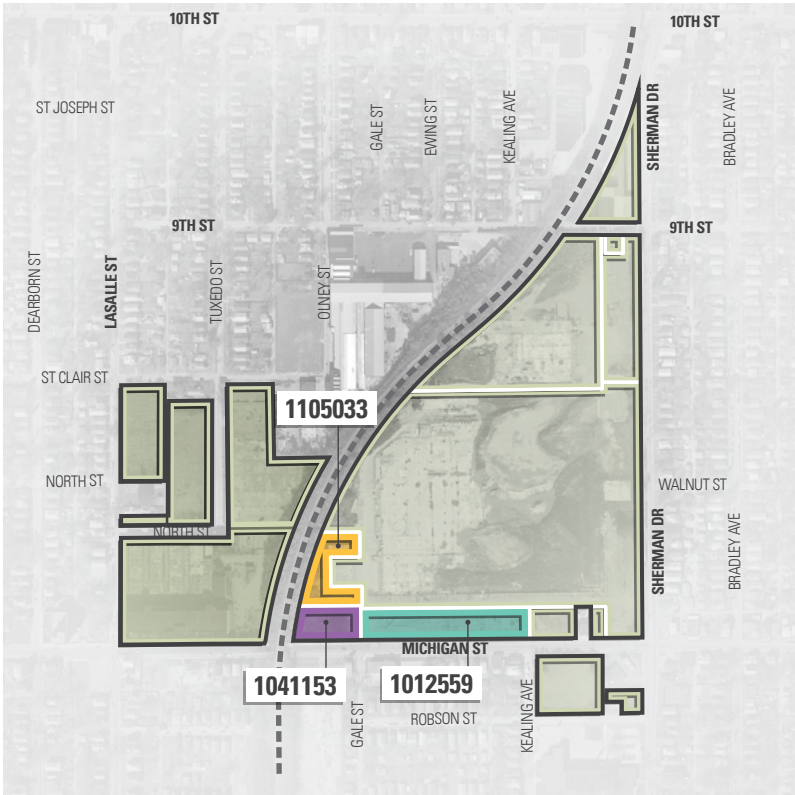
Parcel B, Parcel C, and Parcel F (tax parcels 1081431, 1005572, and 1105034, respectively) have historically been contaminated with arsenic and lead in soil and groundwater. Based on the most recent analytical data, arsenic contaminated soil remains throughout both these parcels. Additionally, lead and TCE contaminated soil is concentrated in a small area along the eastern boundary of Parcel B. Arsenic and lead are also present in groundwater above RCG Residential Tap SLs: however, arsenic and lead do not pose a vapor intrusion concern and groundwater use can be restricted.

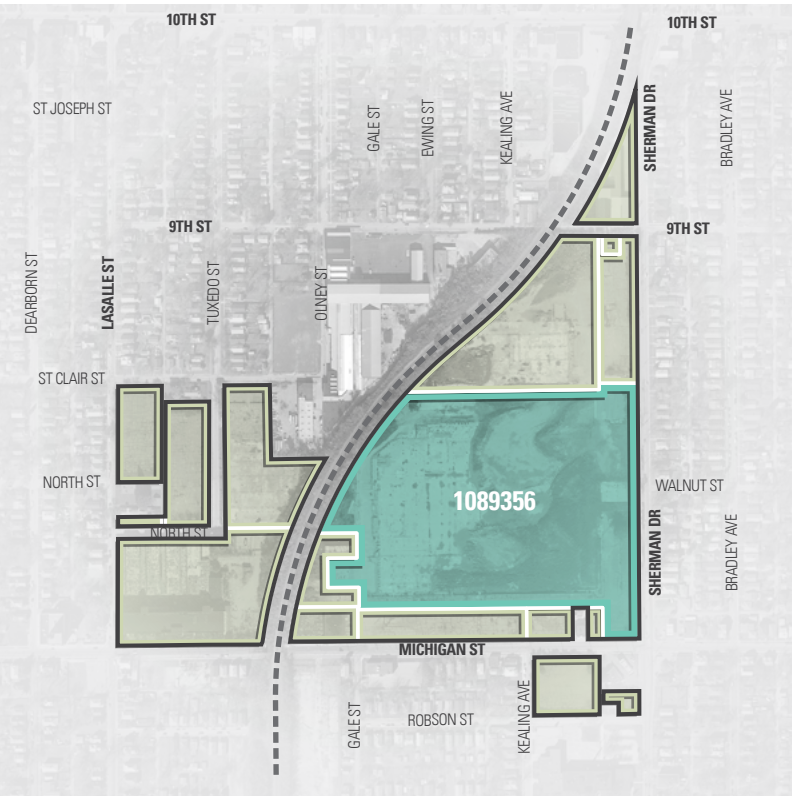
To consider residential or other non-commercial redevelopment on any of these tax parcels, contaminated soil would need to be excavated and removed, capped with a layer of soil, or capped with an impervious surface. Any of these soil remediation methods would require an IDEM approved Corrective Action Plan. Additionally, the ERC would need to be reopened and renegotiated to allow non-commercial use with a groundwater restriction.

PARCELS D, E, AND H (TAX PARCEL 1012559)

Parcel D, Parcel E (tax parcels 1041153 and 1105033), and Parcel H (tax parcel 1012559) have historically been contaminated with VOCs in groundwater across the site. Based on recent analytical data, it appears VOC concentrations have decreased below laboratory method detection limits resulting from ongoing remediation activities conducted on the adjacent parcel to the north. Parcel D and Parcel H (tax parcel 1012559) are accessible by Michigan Street; therefore, an additional subsurface investigation is recommended to establish current conditions at these parcels. Once the newly acquired analytical data is reviewed, it can be determined whether any of these parcels are suitable for residential or other non-commercial development, and whether the ERC may be eligible to be reopened and renegotiated.

Parcel E is not immediately accessible and is bordered by Parcel H on three sides. Although it appears VOC contaminates have decreased, this parcel may not be suitable for residential or other non-commercial redevelopment until such time that Parcel H has been remediated to applicable RCG SLs.

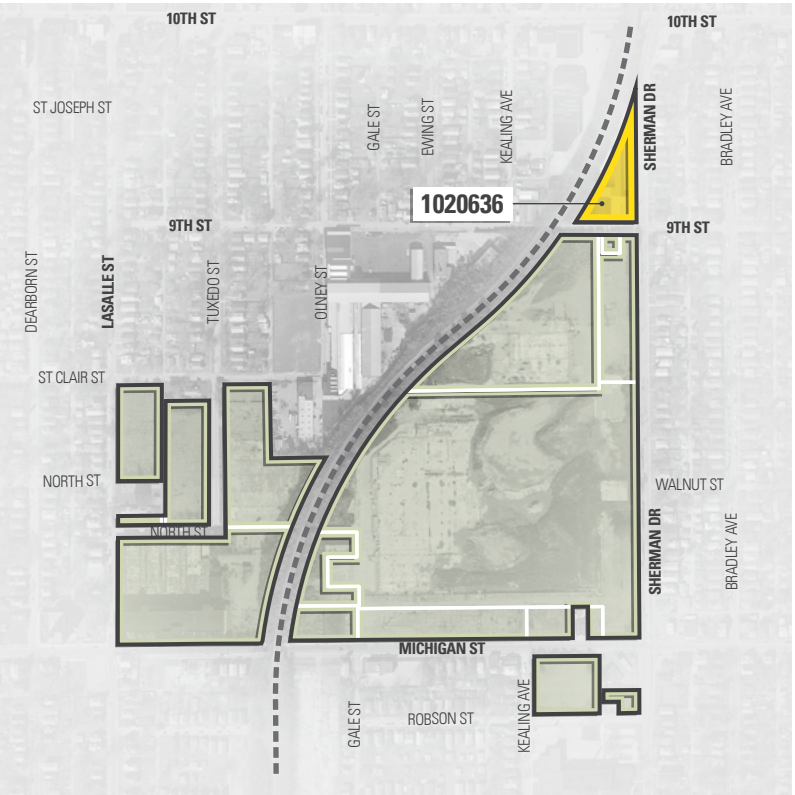




PARCEL H (TAX PARCEL 1089356)

Parcel H (tax parcel 1012559) has historically been contaminated with VOCs in soil and groundwater across the site. Based on current analytical data, soil and groundwater contamination remains present above RCG Commercial/Industrial SLs by orders of magnitude. The site is currently in active remediation under an IDEM approved workplan. Commercial/Industrial redevelopment may be the only alternative until such time that Parcel H has been remediated to applicable RCG SLs.

Although this tax parcel remains contaminated with VOCs in soil and groundwater, the contamination appears to be limited to the western portion of the site. Additionally, the eastern portion of the tax parcel is accessible by Sherman Drive; therefore, an additional subsurface investigation is recommended along the eastern portion to establish current conditions. Once the newly acquired analytical data is reviewed, it can be determined whether the eastern portion of the tax parcel is suitable for residential or other non-commercial development, and whether the ERC may be eligible to be reopened and renegotiated. The tax parcel may need to be resurveyed and split to renegotiate the ERC.



CONTINENTAL METAL PRODUCTS

Continental Metal Products consists of tax parcel 1020363. An ERC has not been established for this tax parcel. Analytical data collected in 2008 indicated lead in groundwater at the northeast boundary. It is possible turbid groundwater samples were collected, which can create a high bias analytical result as contaminants will adhere to suspended sedimentary particles. A limited subsurface investigation of the groundwater, particularly along the northern boundary is recommended. Metal samples should be collected using approved filtration methodologies and water quality stabilization parameters. Once the newly acquired analytical data is reviewed, it can be determined whether this tax parcel is suitable for residential or other non-commercial redevelopment.

03

INFRASTRUCTURE

INFRASTRUCTURE EXISTING CONDITIONS

To ensure all important aspects and stakeholders are included in this analysis, the surrounding context will be examined in addition to the more focused project area. While many characteristics between the two areas will be similar, it's important to understand how existing and future development interacts with the surrounding community.

FLOODPLAIN

There is no floodplain within the project area.

WETLAND

There are no known wetlands within the project area, according to the National Wetland Inventory.

TOPOGRAPHY

The elevation in the project area varies from about 760 to 790 feet above sea level. The lowest elevations are near the parcels west of the railroad and the highest are near the north corner of the project area and near the railroad.

Elevations for the surrounding neighborhoods range from 820 near East 10th Street and Emerson Avenue to 730 near East State Avenue and East Washington Street. The terrain of the broad area generally falls northeast to southwest with the lowest nearby waterways Pleasant Run to the south and Pogues Run to the north.

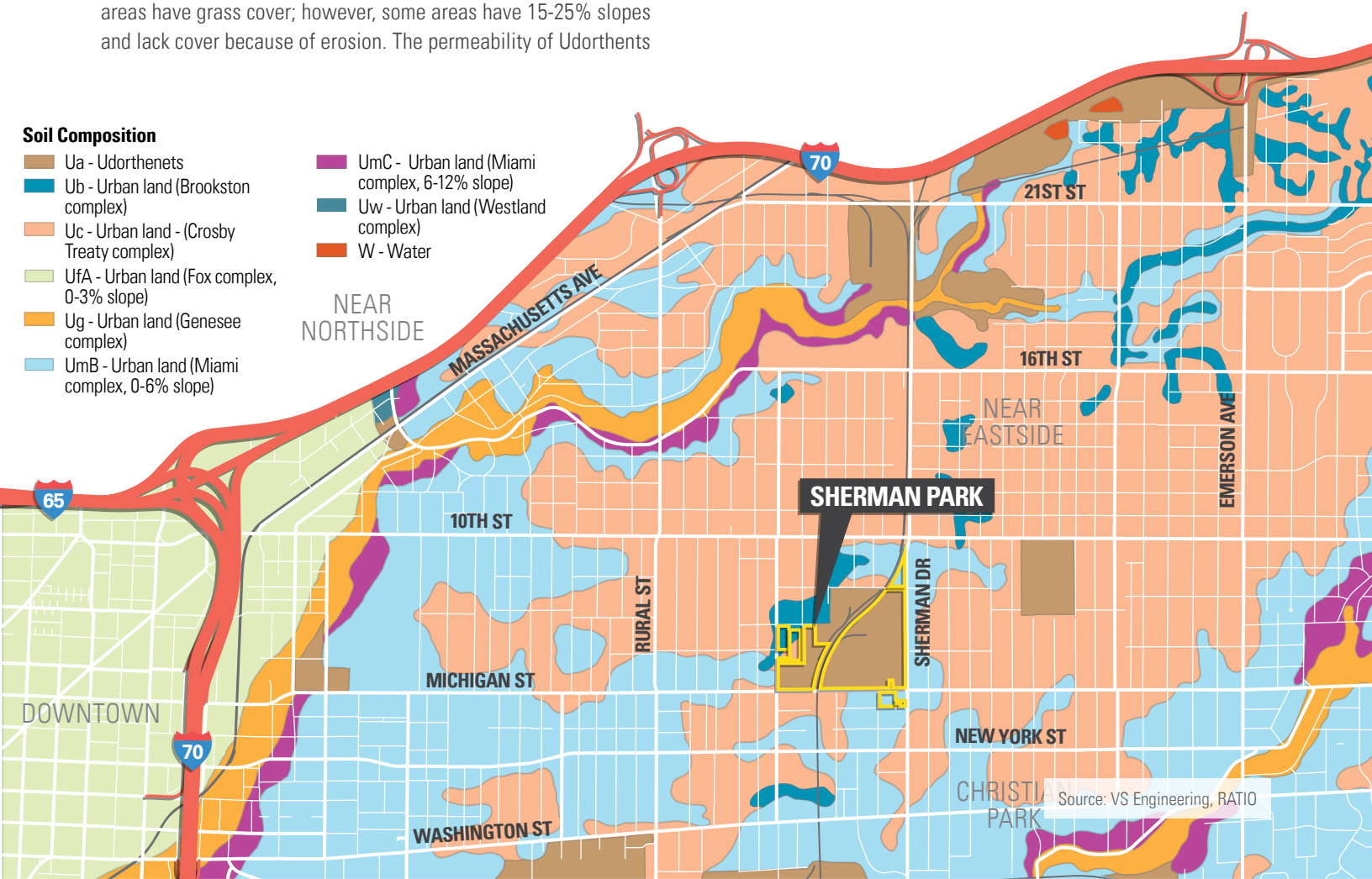
The project area has no significant naturally occurring waterways and is generally flat, with the exception of the railroad corridor, which is approximately 10-20 feet higher than surrounding areas.

SOILS

The existing soils of the project area are suspected to be contaminated. There are Environmental Restrictive Covenants with the Indiana Department of Environmental Management on all but four of the 18 parcels. These restrictive covenants are described further in the Environmental Assessment provided by Metric Environmental. The migration or containment of contaminants is highly dependent on the type of soil and groundwater movement through the soil so it's important to understand the characteristics of local soil types and broader groundwater movements.

The majority of the soils are Udorthents, which are areas where the original soil has been removed and/or covered with gravelly fill material and capped with a layer of topsoil. The majority of these areas have grass cover; however, some areas have 15-25% slopes and lack cover because of erosion. The permeability of Udorthents is moderate to very high and the seasonal high water table is generally greater than 6 feet deep. Although soil characteristics in these areas can vary significantly, they are usually well-suited for building sites. Extensive site investigations are typically necessary to determine the appropriate level of soil remediation.

The underlying aquifer, the Silurian and Devonian Carbonates Aquifer System, is described by the Indiana Department of Natural Resources as being overlain by think clay deposits. The clay deposits help to prevent contaminated groundwater from entering the aquifer; however, in areas where the clay deposits have been thinned or replaced with more permeable soil, such as Udorthents, there is a high risk for contamination.



ROADWAYS

The primary east-west traffic corridors adjacent to the project area are East 10th Street on the north end and North Michigan Street to the south. North-south traffic is concentrated on North Sherman Drive and secondary streets. Truck traffic is limited by the railroad bridge crossings at East 10th Street, East 8th Street, and East Michigan Street, which requires trucks to detour to higher bridges to the north or south to access all parcels within the project area.

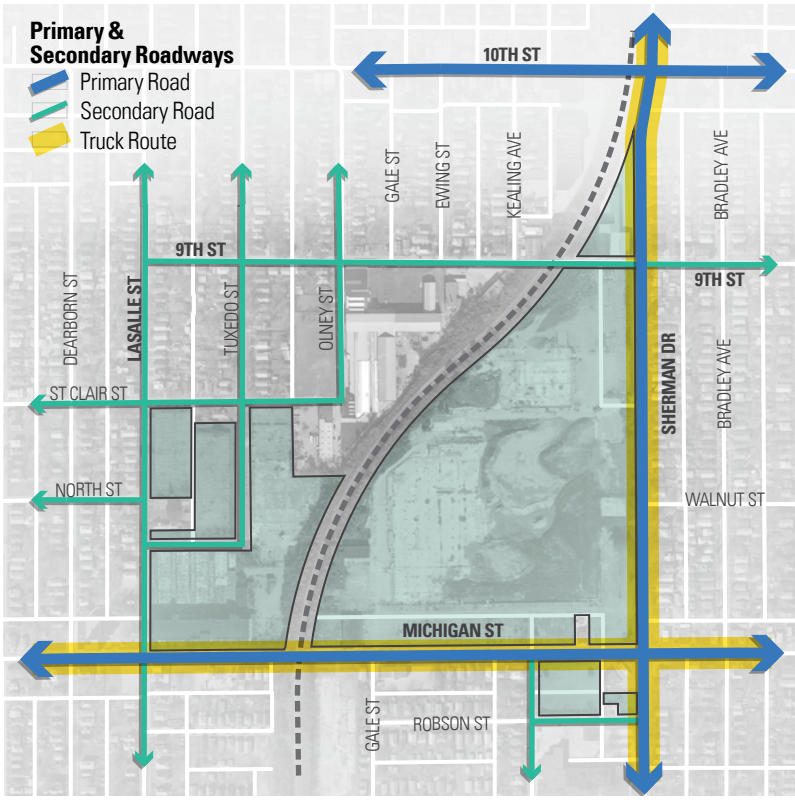
According to the 2016 Update to the Indianapolis and Marion County Thoroughfare Plan, East 10th Street is a two-lane Primary Arterial Roadway; however, the roadway actually has four lanes through the project area and then narrows to two lanes west of the project area. There is heavy small traffic on East 10th Street with typical peak hours of 8-9 am and 4-6 pm; however, there is minimal to no truck traffic because of insufficient vertical clearance under the railroad bridge.

East Michigan Street is a four-lane Primary Arterial Roadway through the project area. There is heavy small traffic with typical peak hours of 8-9 am and 4-6 pm; however, there is minimal to no truck traffic because of insufficient vertical clearance under the railroad bridge.

North Sherman Drive is a four-lane Primary Arterial Roadway through the project area. There is heavy traffic with typical peak hours 8-9 am and 4-6 pm. Truck traffic is not limited by railroad bridge crossings; however, North Sherman Drive does not have direct access to an Interstate.

Secondary streets adjacent to the project area, along with their description, include:

- North Lasalle Street – North/South, 2 lane, 1 lane street parking
- East North Street – East/West, 2 lane, no street parking
- North Tuxedo Street – North/South, 2 lane, 1 lane street parking
- East St. Clair Street – East/West, 2 lane, no street parking
- North Olney Street – North/South, 2 lane, 1 lane street parking
- East 9th Street – East/West, 2 lane, 2 lane street parking
- North Kealing Avenue – North/South, 2 lane, 1 lane street parking
- East Robson Street – East/West, 2 lane, 1 lane street parking



Truck routes and traffic to and from the broad area is generally focused to the following streets:

- North Emerson Avenue (North/South) from the northeast with access to I-70
- North Emerson Avenue (North/South) from the southwest
- North Rural Street (North/South) from the northwest with access to I-70
- North Rural Street (North/South) from the southwest
- EastMichigan Street (East/West) from the west and east
- East Washington Street (East/West) from the south with access to I-70 and I-65 to the west
- East New York Street (East/West) from the south
- Southeastern Avenue (East/West) from the south

TRUCK ROUTES

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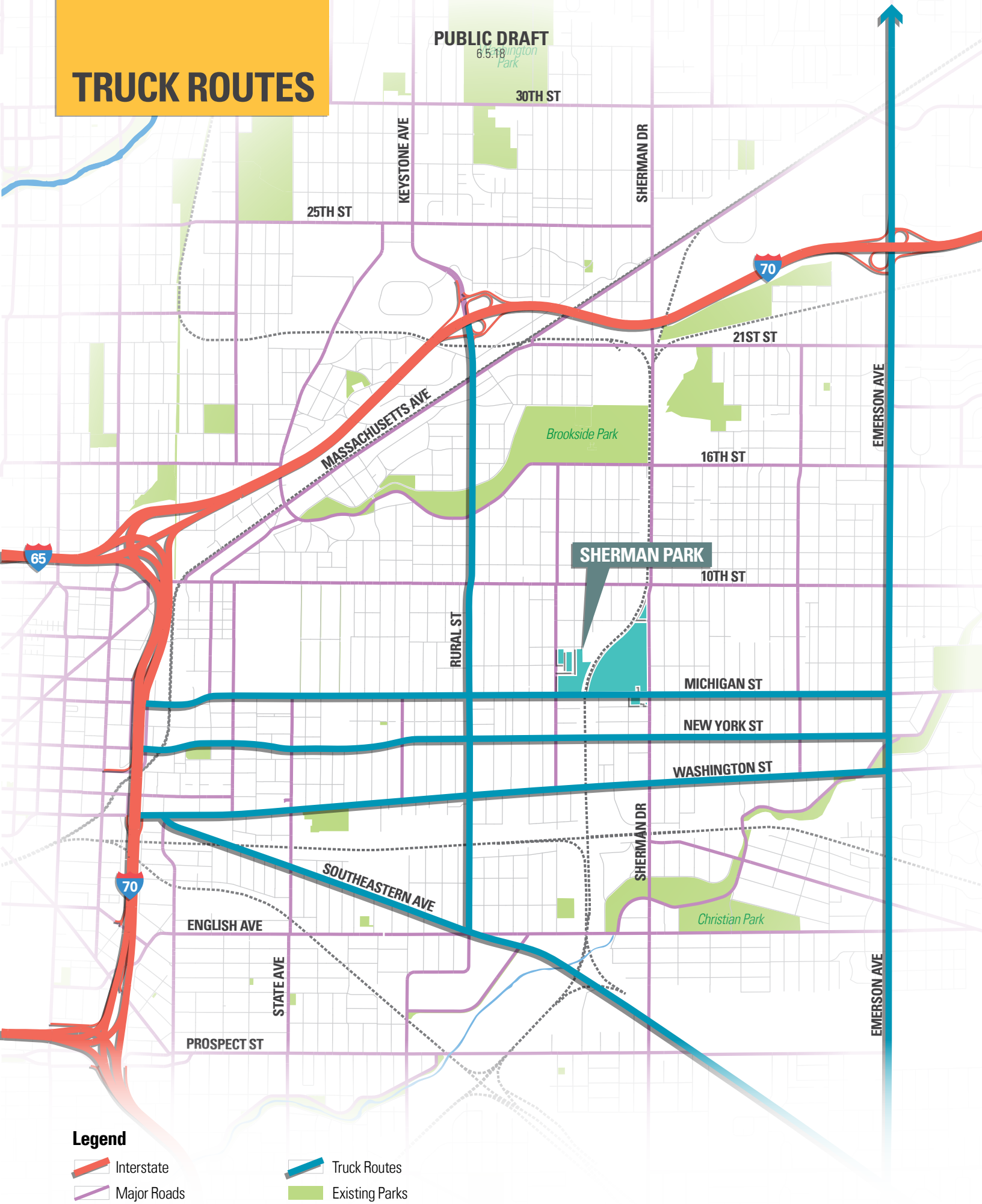
6.5.18



Legend

- Interstate
- Major Roads
- Truck Routes
- Existing Parks

Source: VS Engineering, RATIO

RAILROADS

There is an existing CSX Railroad that crosses both the project area and the broad area. The railroad is active and expected to remain active through development. In the project area, the railroad is elevated above the adjacent surface by 10-20 feet. This elevated track creates the need for bridges at each crossing road. As shown on page 71, there is a railroad bridge over East 9th Street, East 10th Street, and East Michigan Street. All bridges have less than 14 feet of vertical clearance, which is less than the typical minimum clearance for truck traffic. There is also a bridge just east of East North Street. This bridge is not over a public street, but could potentially still be utilized as a service entrance for future development.

The 10th East Street railroad bridge is a four-span, reinforced concrete bridge, with two spans over sidewalk corridors and two larger spans over vehicular traffic. The deck concrete exhibits spalling, or cracking; however, it is well within typical standards for an operational bridge. The end bents and piers appear to be in good condition. It has an eastbound vertical clearance of 13 feet, 9 inches and a westbound clearance of 13 feet, 7 inches. All visible pavement is asphalt; however, there could be concrete pavement underneath the asphalt.

The 9th Street Railroad is a two-span, reinforced concrete bridge that was constructed in 1926, with sidewalks on both sides of the road. The deck shows concrete spalling and exposed reinforcing steel; however, it is within typical standards for an operational bridge. The end bents and piers appear to be in good condition. It has an eastbound vertical clearance of 13 feet, 0 inches and a westbound clearance of 13 feet, 0 inches. All visible pavement is asphalt; however, there could be concrete pavement underneath the asphalt, which is in need of repair. The lanes are 11-12 feet. Narrow horizontal and vertical clearance causes problems for wide and/or tall traffic.

The East Michigan Street railroad bridge is a three-span bridge with a reinforced concrete deck and steel piers. There are two spans over sidewalk corridors and one larger span over vehicular traffic. A portion of the bridge on the west end may have been impacted and is severely damaged. Other areas of the deck show concrete spalling; however, it is well within typical standards for an operational bridge. The end bents appear to be in good condition. The steel piers show rust and other corrosion. It has an vertical clearance of 11 feet, 8 inches. All visible pavement is asphalt; however, there could be concrete pavement underneath the asphalt.

The bridge over what would be East North Street, if it was extended east, is a single-span, reinforced concrete and steel bridge, with a sidewalk on the south side of the road. The end bents appear to be in good condition and it has a vertical clearance of less than 13 feet. All visible pavement is concrete and modifications to the existing pavement and structure may be challenging without significant improvements. There is a clear roadway width of approximately 20 feet.

There used to be several additional railroad spurs within the project area from 1939. The remnants of the old spurs may provide sufficient subgrade to install a new spur railroad for access to the railroad; however, it is also possible that the old spur corridors were demolished and redeveloped after 1939. The railroad is elevated from the surrounding surface, so any additional access tracks or spurs will need to be maintained at or very near the same elevation, which will require fill and installation of sufficient railroad bedding. While previous spurs and access to the railroad may increase the likelihood of railroad access being reestablished, investigations, planning, and design efforts should not assume that the previous railroad corridors will provide a significant benefit to redevelopment.

Depending on the type of development, access to the railroad may increase interest in the project area by providing larger industrial developments rail access for transportation of goods. CSX Railroad owns and operates the railroad and access and expansion of the railroad will require significant coordination with CSX representatives.

ACTIVE RAIL LINE

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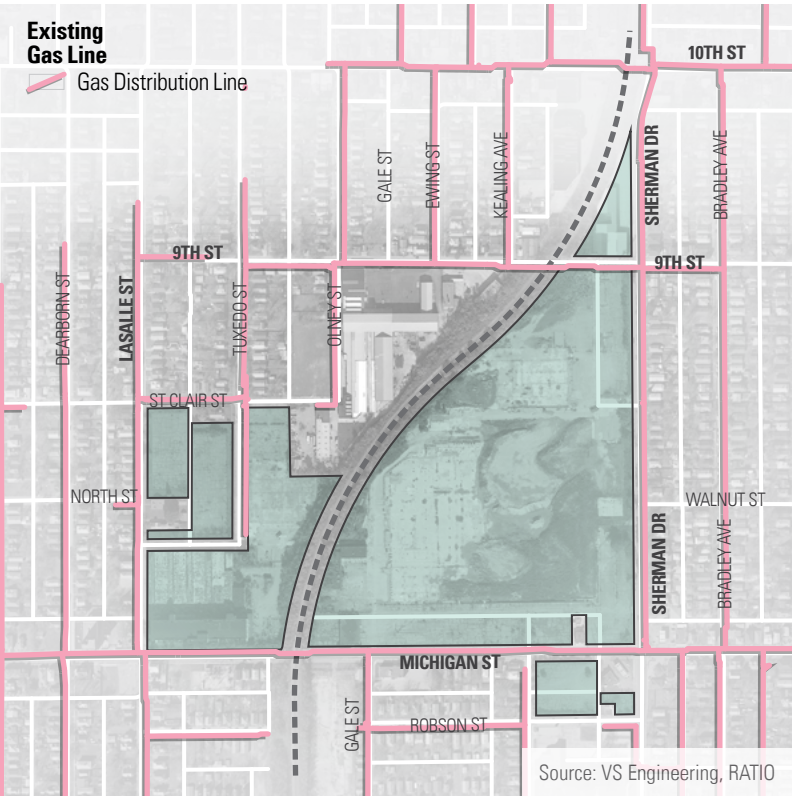
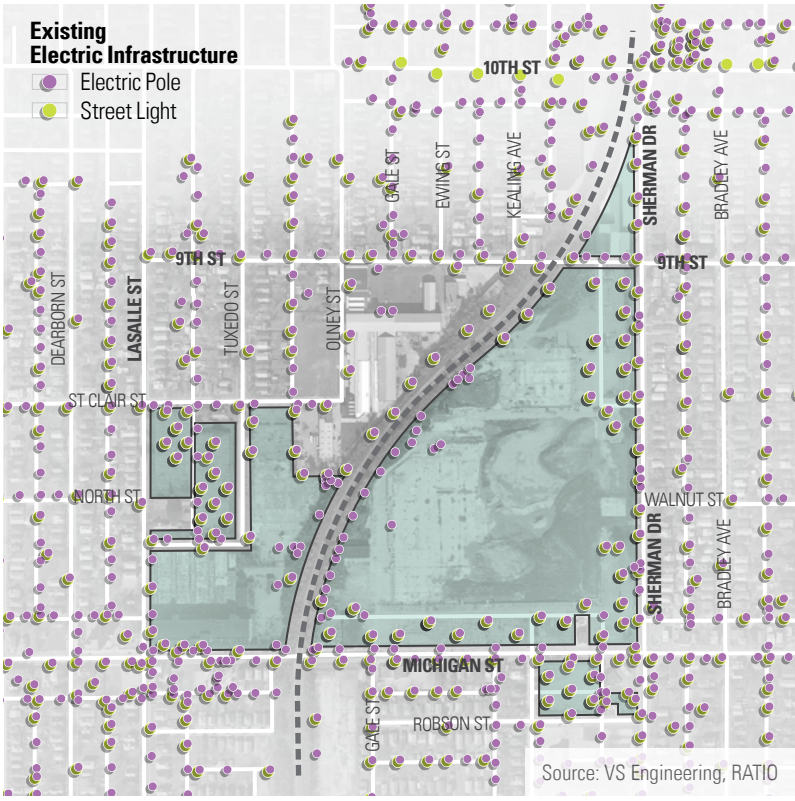
6.5.18

Legend

- Interstate
- Major Roads
- Existing Parks
- Active Rail Line
- Rail Yard & Spur

Source: VS Engineering, RATIO





UTILITIES

Access to utilities is not a foreseeable constraint for redevelopment of the project area.

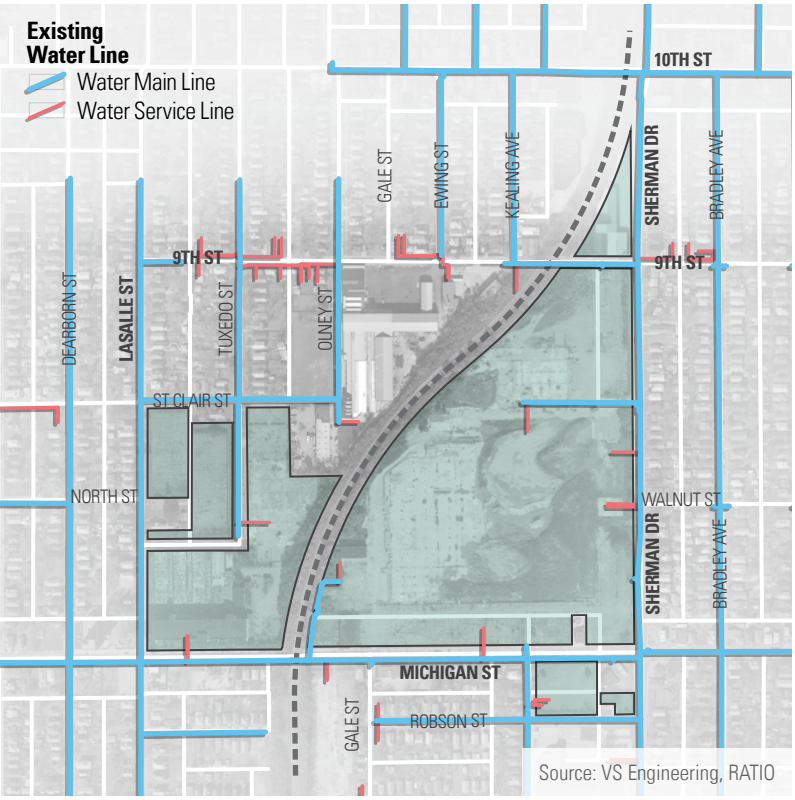
The area has full access to utilities including:

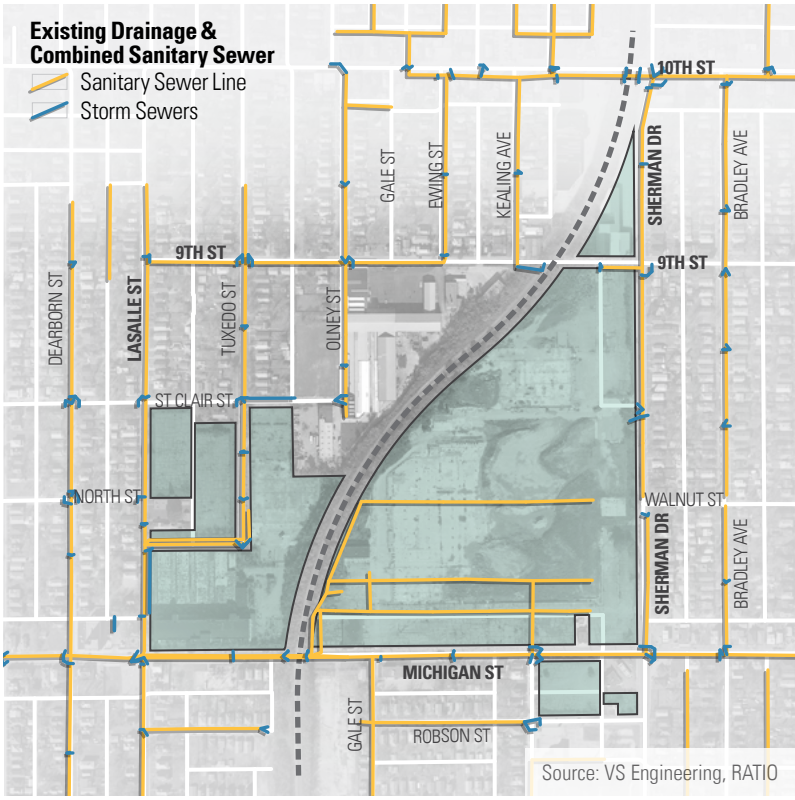
- Natural Gas provided by Citizens Energy Group
- Electric provided by Indianapolis Power & Light Company (AES)
- Water, provided by Citizens Energy Group
- Sanitary Sewer provided by Citizens Energy Group
- Telecommunications provided by AT&T, Comcast, Spectrum

Drainage and Combined Sanitary Sewer

The project area is within the combined storm and sanitary sewer system owned and operated by Citizens Energy Group. The capacities of the existing combined sewers are typically undersized for larger storm events and, therefore, the stormwater release rates from development sites are highly regulated and limited to ensure sanitary sewer overflows are avoided.

Assuming a large portion of the developed site will be impervious, limiting the release rates to the regulatory maximum will likely require detention. Detention typically requires large amounts of excavation which could increase remediation efforts.





The drainage infrastructure in the project area ranges between open ditches along roads and railroads to underground storm sewer and combined sewer pipe, as shown in above graphic. Typically, stormwater is collected along curbs and inlets and conveyed through a pipe and into a sanitary sewer. Most inlets are at intersections. The railroad corridor is a general divider, with stormwater and sanitary flow moving west and south for the areas west of the railroad and flow moving south and west for areas east of the railroad.

The project area can be serviced by multiple underground storm sewers and combined sanitary sewers with a significant sanitary sewer network on parcels east of the railroad. All parcels are within 300 feet of a public sanitary sewer. These public storm and combined sewers all lead to an 84-inch combined sewer at the southwest corner of the site. The drainage area for the 84-inch combined sewer is significant and it should not be interpreted that there is abundant capacity for additional flow.

The broad area drainage and combined sanitary sewer system general flow downhill towards Pleasant Run and Pogues Run, with Sherman Park approximately halfway between the two. The combined sewer system services the entire broad area and sanitary sewer service will be improved upon completion of the Citizens Deep Tunnel projects (~2025) by reducing overflows into waterways and backups into homes.

DEVELOPMENT OPPORTUNITIES

Sherman Park and the project area have sufficient infrastructure to support several types of development. With the project area within a developed area, surrounding infrastructure is conducive to new development. There are local challenges to overcome, such as the accessibility of trucks under the existing railroad bridges at East 10th Street, East 9th Street, and East Michigan Street. There is also possibility to use the railroad for heavier transport of goods, depending on negotiations with CSX.

SITE CONSTRAINTS

There are several constraints that increase risk or the level of effort to redevelop the project area:

Constraint	Magnitude (1-10)	Probability of Occurrence	Mitigation Effort
Soil Contamination	5-10	75%	Identify contaminated areas and avoid with future development. Remediate all other contaminated areas impacted by development.
Limited Stormwater and Sanitary Release Rates	5	100%	Reduce stormwater and sanitary discharges through green infrastructure. Install stormwater detention systems.
Detention Installation	2-6	90%	Identify contaminated areas and avoid with detention installation. Install detention systems with minimal underground disturbance.
Truck Access	7	100%	Increase vertical clearance to bridges over East 10th Street, East 9th Street, and East Michigan Street by removing asphalt pavement, adjustments to the bridges, or lowering and replacement of the road.

Source: VS Engineering


600 N NORTH ST
A NESCO COMMUNITY

04

SOCIO-ECONOMIC TRENDS AND MARKET ANALYSIS

REGIONAL TRENDS

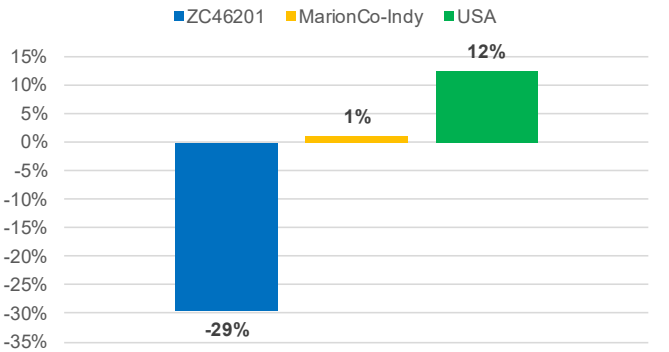
Regional growth over the past few decades has not transferred to the near east side as the RCA plant and other manufacturers closed.

While national employment grew by 12% between 2000 and 2015, Marion County-Indianapolis employment grew by only 1% over the same period (see Figure A). The Sherman Park neighborhoods (zip code 46201) experienced significant a decline in employment of 29%.

Furthermore, the employment decline did not occur evenly across all industries. Instead, the manufacturing sector declined dramatically within the United States where automation and foreign employment displaced many jobs. As Figure B illustrates, the US unemployment rate rose from 3.7% to 5.2% from 2000-2015. Marion County-Indianapolis' unemployment rate increased slightly as well, from 3.7% to 6.8%. The Sherman Park area's unemployment rate increased from 6.4% to 17.8% over the same period. Indianapolis' manufacturing sector lost 11,000 jobs between 2000 and 2015, with Sherman Park's share being 1084 jobs - **nearly 10% of total losses.**

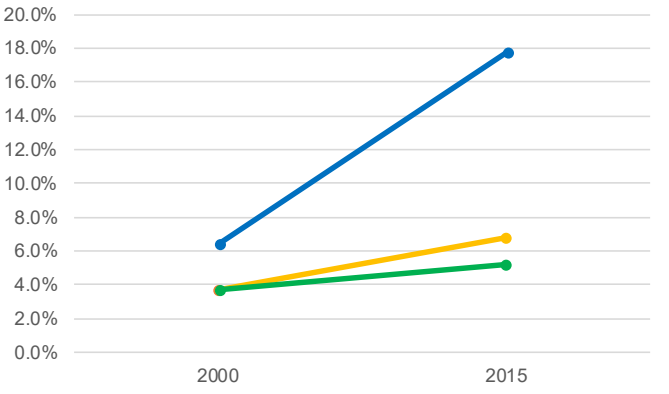
The effects of significant employment loss were felt throughout Sherman Park. Most notable was the real income decline within the

A. Percent Total Employment Change 2000-2015



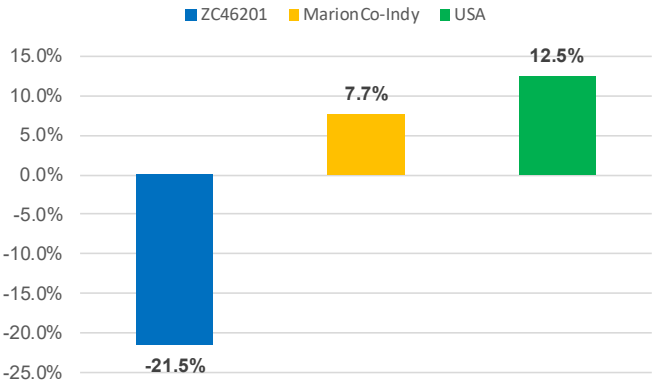
Source: US Census

B. Unemployment Rate 2000-2015



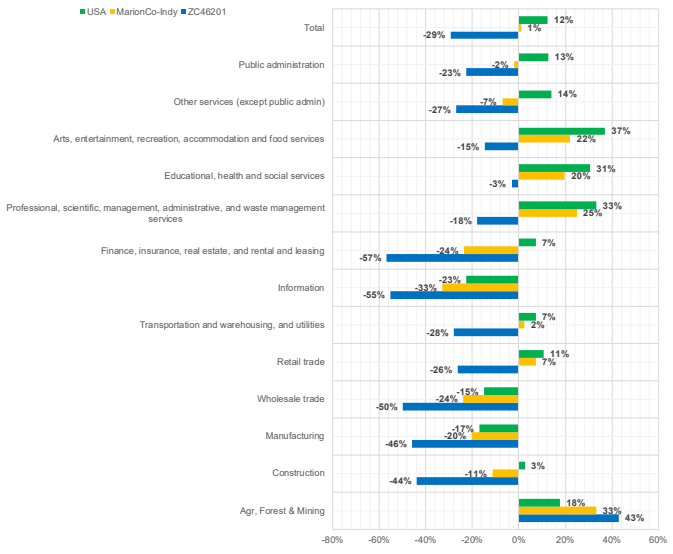
Source: US Census

C. Percent Population Change 2000-2015



Source: US Census

D. Percent Employment Change by Industy 2000-2015



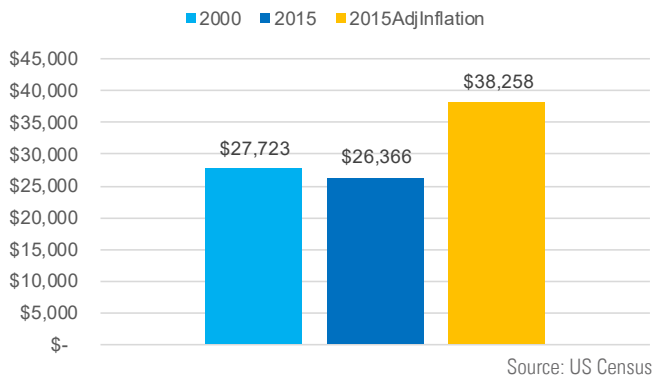
Source: US Census

neighborhoods (see Figure E). The Median Household Income (MHI) in 2000 was $27,723, and this dropped by 2015 to a non-adjusted MHI of $26,366. When adjusted for inflation from 2000 to 2015, the Sherman Park MHI, if it had kept up with inflation, should have increased to $38,258, but instead it fell to $26,366. **In real income and purchasing power, residents in Sherman Park lost nearly $12,000 over that time.**

While the US poverty rate rose from 12.4% to 15.5% and the poverty rate rose significantly within Marion County-Indianapolis from 11.4% to 21.1%, with the large loss of employment and drop in real income within Sherman Park, its poverty rate increased dramatically from 24% to 37%. **Today, nearly 2 out of every 5 persons living within Sherman Park neighborhoods lives in poverty.**

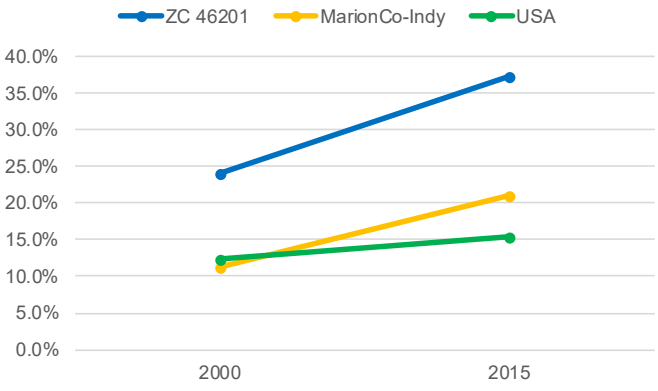
After several decades of disinvestment and job and population losses, Sherman Park may have reached its "bottom." That said, it may well rise again to realize a new period of economic growth and prosperity for residents and businesses. There are signs of hope for the near east side neighborhoods that suggest an economic renaissance may be on its way. The Sherman Park brownfield site represents an ideal opportunity to catalyze economic activity once again, as the RCA plant did nearly 80 years ago.

E. ZC46201: Median Household Income Estimates



Source: US Census

F. Percent Persons Below Poverty Level



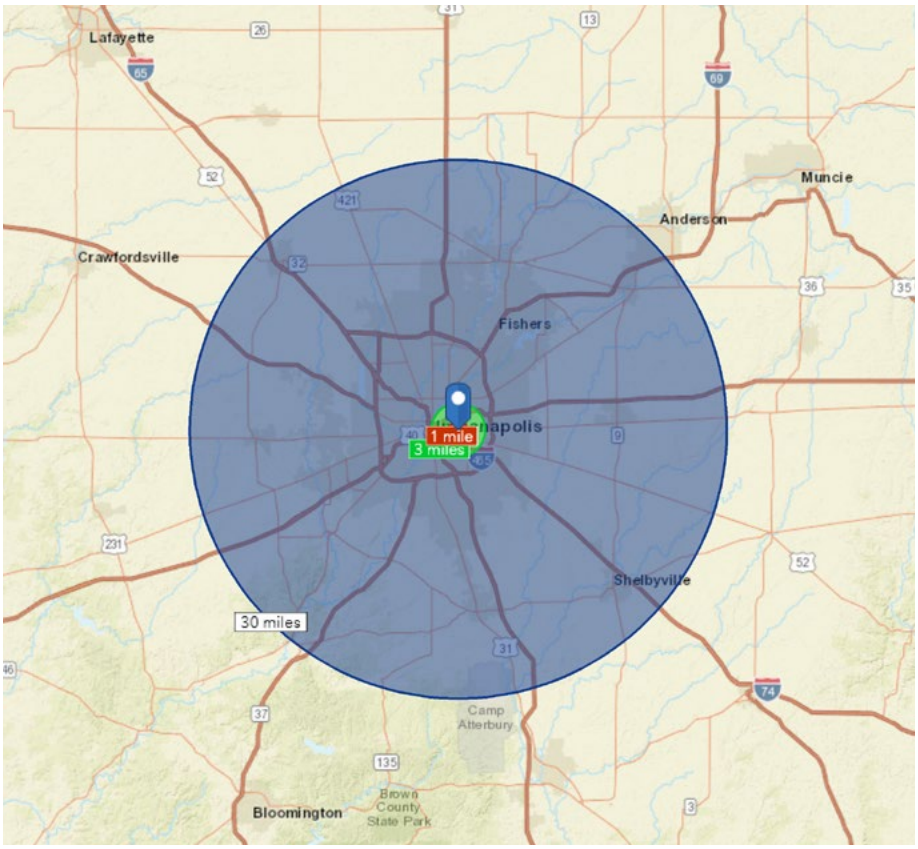
Source: US Census

INDIANAPOLIS REGION

While the recent past has brought economic hardship to Sherman Park, there are indications that better economic times may be forthcoming.

To understand the socio-economic trends, regional mileage rings with radii from Sherman Park will be used to describe the regional context within three, fifteen, and thirty miles.

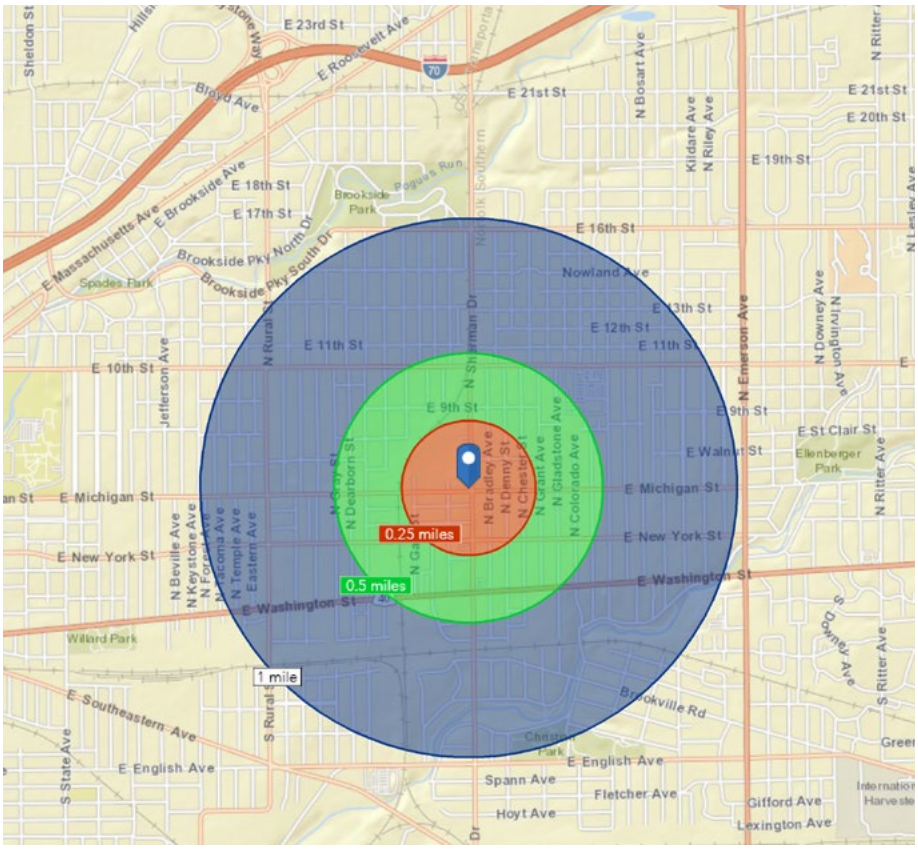
The main purpose is to highlight economic and market forces that vary based on the distance from Sherman Park, and how they may influence economic decisions, growth, and development.



Source: ESRI

SHERMAN PARK NEIGHBORHOOD

Within Sherman Park, a smaller set of mileage radii will be used to describe the economic conditions within the neighborhood contexts of ¼, ½, and one mile.

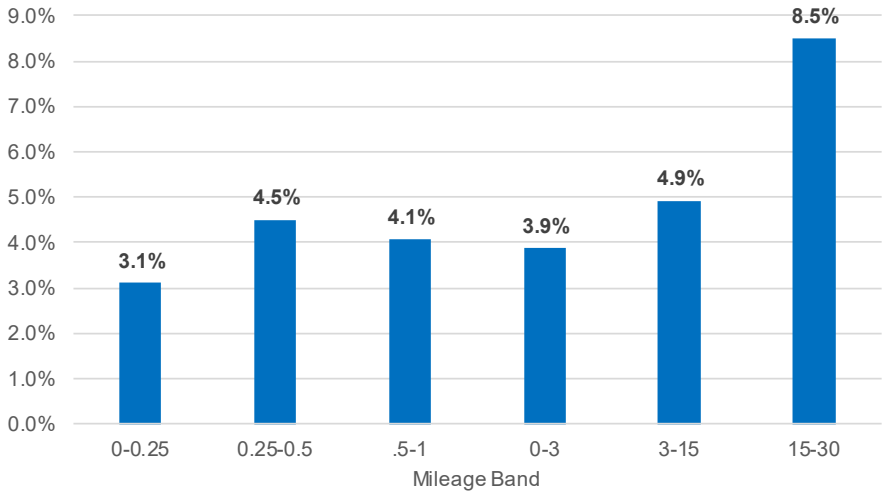


Source: ESRI

POPULATION

The Indianapolis region is expected to see an increase in population of 4.5 - 8.5% over the next five years (see Figure G). Though Sherman Park and much of Indianapolis' near east side lost significant population from 2000 to 2015, recent trends indicate that the neighborhood around Sherman Park may experience population growth over the near term of between 3% and 4.5% from 2017 to 2022.

G. Population % Change 2017-2022



Source: ESRI

HOUSING

The anticipated increase in population should increase the number of housing units as well. The change in housing units should range from an increase of 2% to 4% near Sherman Park to between 4% and 8% further away in the outlying areas of Indianapolis region.

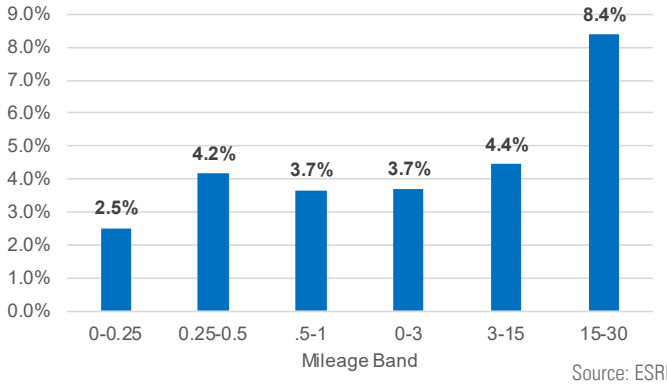
These are positive signs for a housing market that has struggled since the Great Recession of 2008-2009.

As Figure I indicates, owner-occupied share of housing units increases as the distance from Sherman Park increases. The neighborhoods within Sherman Park have nearly twice as many housing units occupied by renters than owners. The housing vacancy rate within Sherman Park is very high, with vacancies ranging between 30% and nearly 40%. While it appears there will be a slight uptick in housing demand in the near term (between 2017 and 2022), most if not all of the owner-occupied housing units remain at an oversupply within Sherman Park. This would suggest that there is no need for additional single-family, owner-occupied housing.

While vacancies and oversupply for single-family homes exist within Sherman Park, another big issue is housing renovation costs due to the age of the homes and the relative home values within the neighborhood market. As Figure J illustrates, nearly 90% of all owner-occupied home values are below $100,000. This is especially the case closer to the former RCA plant site. Due to the high cost of many renovations, it may become financially impracticable to receive private mortgage financing when the loan-to-value ratio exceeds 80% of the appraised value of the renovated home. It therefore becomes very important to target specific blocks for home renovations and repairs, so that home values may rise together. This may make it more feasible for new homeowners to repair aging structures, but it still may require additional subsidy, as NEAR is demonstrating with its Teachers Village just south of the East 10th St. and North Rural St. intersection.

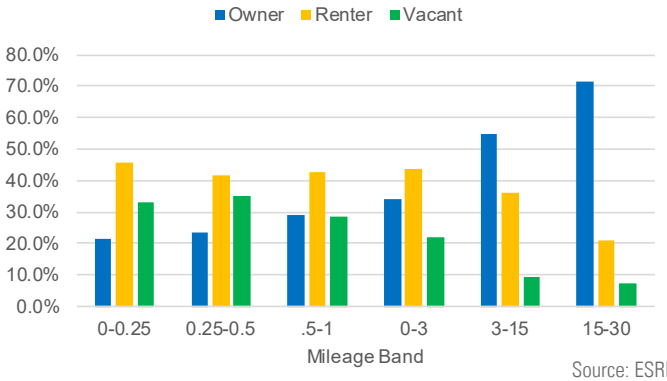
Rents within Sherman Park range from $0.45/SF to $0.66/SF per month, well below market rate of around $1.00/SF per month. This fact, combined with the existing oversupply of housing in the immediate area, makes it unlikely that new multifamily residential developments could be privately developed without significant assistance of some kind to fill the development gap.

H. Housing Unit % Change 2017-2022



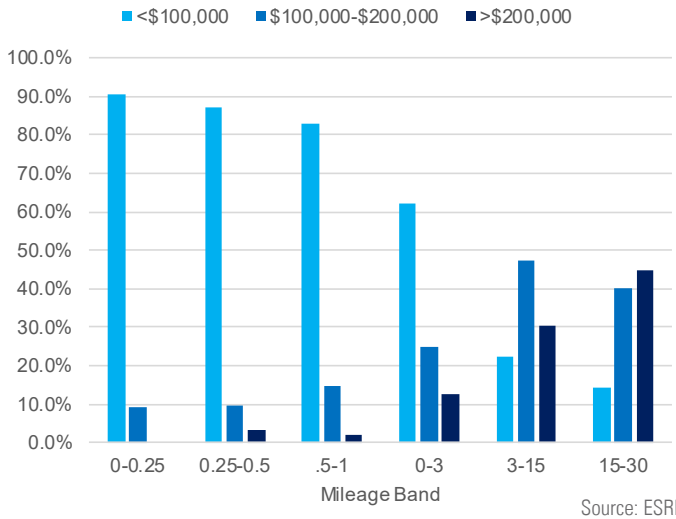
Source: ESRI

I. % of Housing Units - 2017



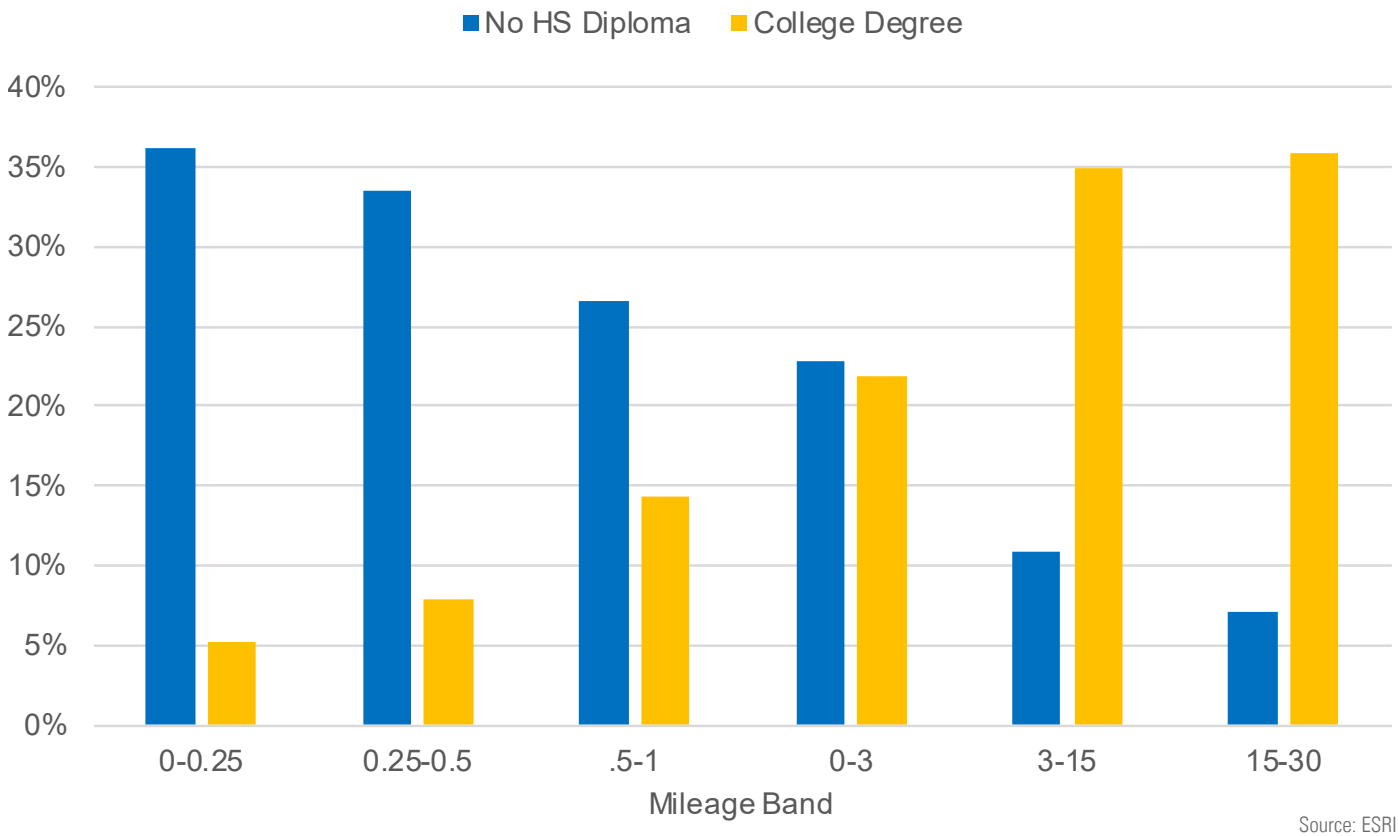
Source: ESRI

J. % Owner-Occupied Households with Home Values- 2017



Source: ESRI

K. Education Attainment



Source: ESRI

EDUCATION

One of the challenges for Sherman Park employers will be finding nearby residents who have enough education and skills to fill potential openings. For nearly 80 years individuals who worked at RCA did not need a high school degree to fill entry-level positions. Today, all employees need some form of a high school degree, and many will need college or advanced technical training beyond high school to fill even entry-level positions.

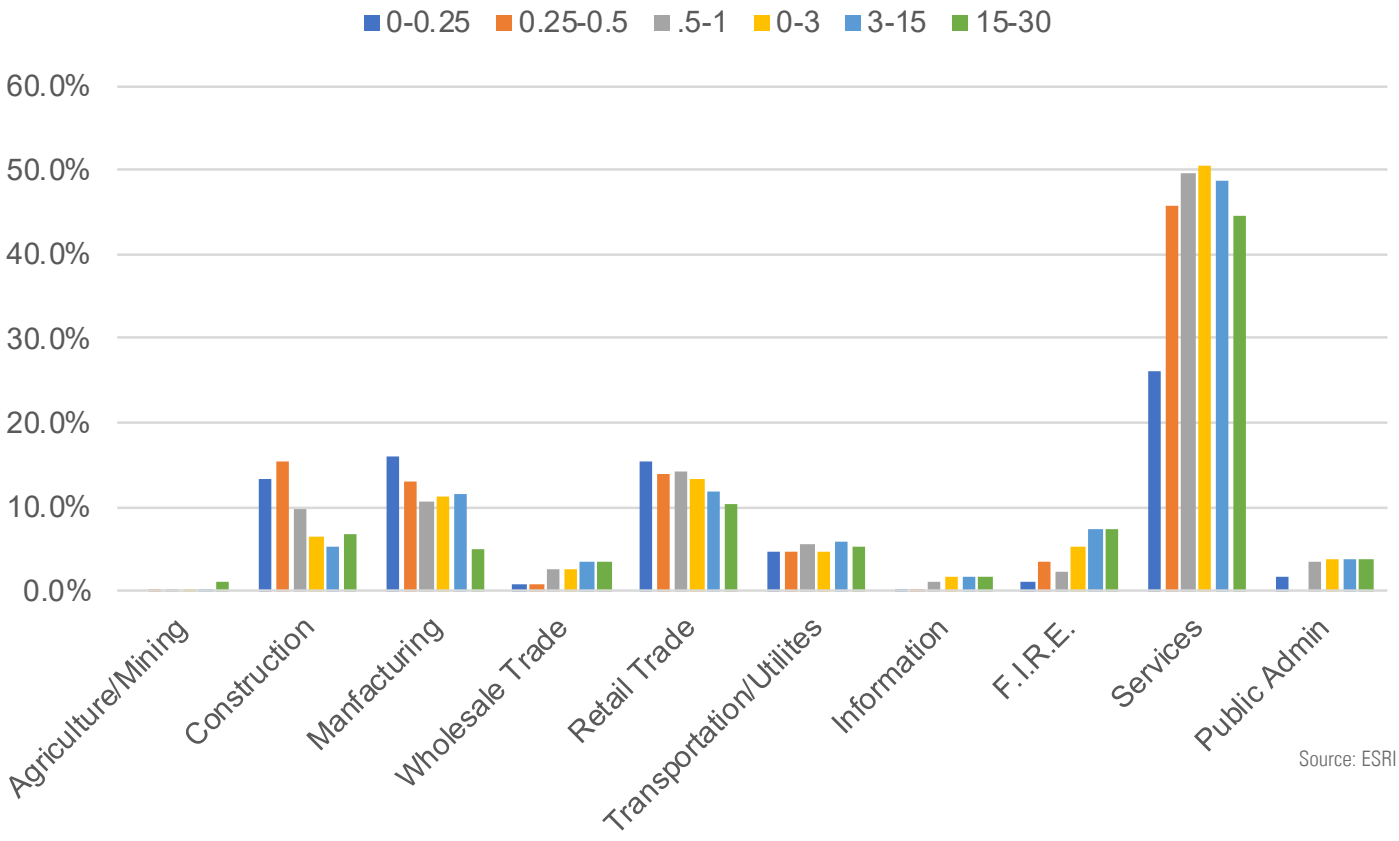
Figure K illustrates the dramatic lack of educational attainment near Sherman Park, as more than 35% of adults lack a high school degree. Furthermore, only 5-15% of adults within neighborhoods near Sherman Park have a college degree.

This lack of workforce readiness appears to be one of the critical reasons that the poverty rate has increased with the loss of low-skill manufacturing jobs over the past several decades.

For Sherman Park businesses to spur wealth generation within immediate neighborhoods, they will need to be able to hire nearby residents. Many of these residents lack the necessary skills that will likely be required.

Correcting this may require a job training and employment apprenticeship program for adults who would like to increase their skill levels but do so while they are employed, as the income is critical for them to live and work independently.

L. 2017 Employment by Industry Group



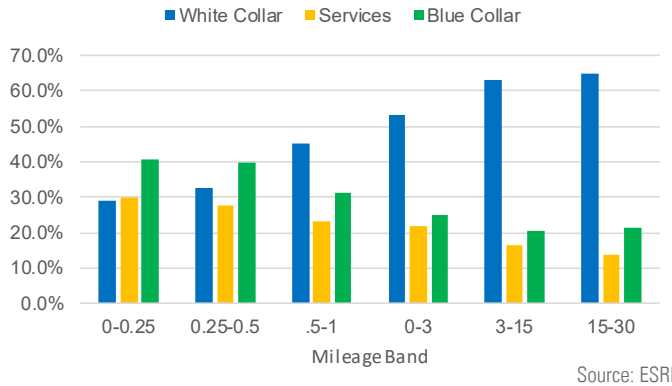
Source: ESRI

EMPLOYMENT

As Figure L illustrates, employment across industry sectors vary with distance from Sherman Park. Most notably, there are higher percentages of employment in manufacturing and retail trade closer to Sherman Park, and higher levels of services away from Sherman Park.

Currently, Figure M indicates that, as anticipated, residents closer to Sherman Park hold a higher percentage of "blue collar" and "services" occupations while further away from there is a higher percentage "white collar" employment. This will be important regarding what type of employers may be most attracted to Sherman Park for future investment and employment opportunities.

M. 2017 Pct. Employment by Occupation

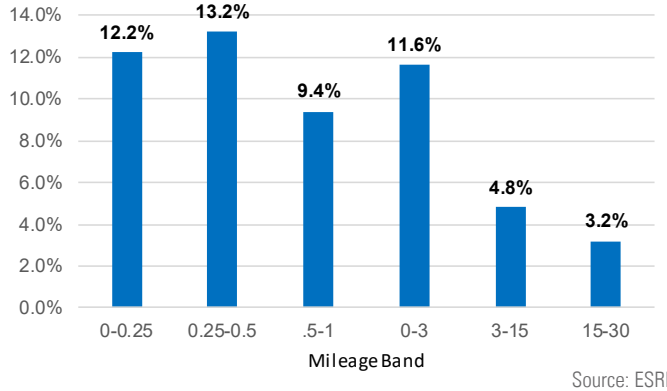


Source: ESRI

There is generally a higher percentage of unemployment among blue collar and services occupations than white collar occupations. This is clear as the estimated unemployment rate near Sherman Park is much higher than those mileage bands further away by nearly three times. This is another reason that is critical to find employers who will need employees from within the surrounding neighborhood of Sherman Park.

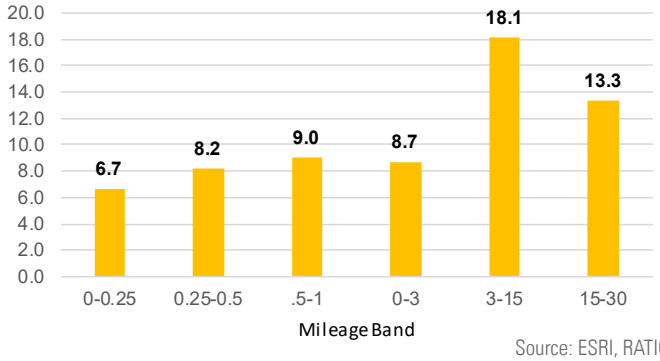
Furthermore, the employers who may be most attracted to the Sherman Park area may not necessarily be large employers, as many of those manufacturers and wholesale businesses have closed over the past several decades. As Figure O illustrates, near Sherman Park most employers tend to be smaller, while larger employers are further away in areas that may be more conducive to large-scale, modern production and logistics facilities. Therefore, it may be important to find employers who operate at a smaller scale and who will hire dozens, rather than hundreds, of employees. The growth of more small and more diverse businesses will make Sherman Park a more economically resilient area.

N. Estimated Unemployment Rate (2017)



Source: ESRI

0. Estimated Average # of Employees per Business (2017)



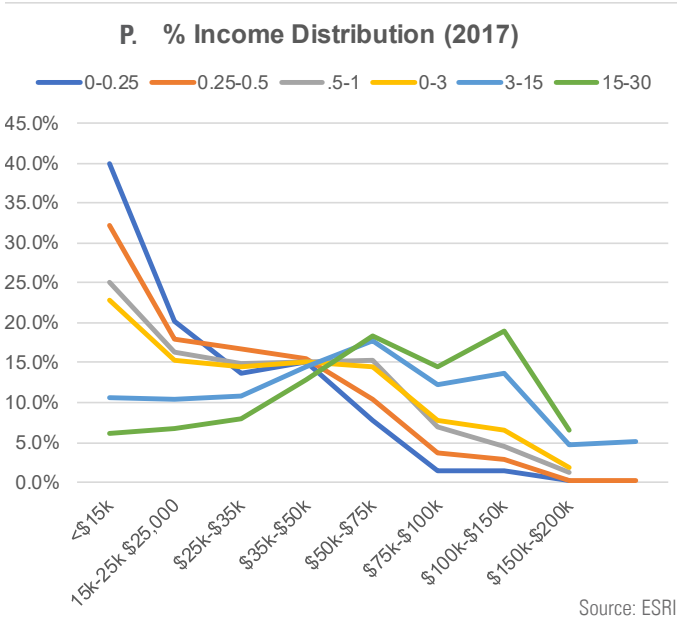
Source: ESRI, RATIO

INCOME

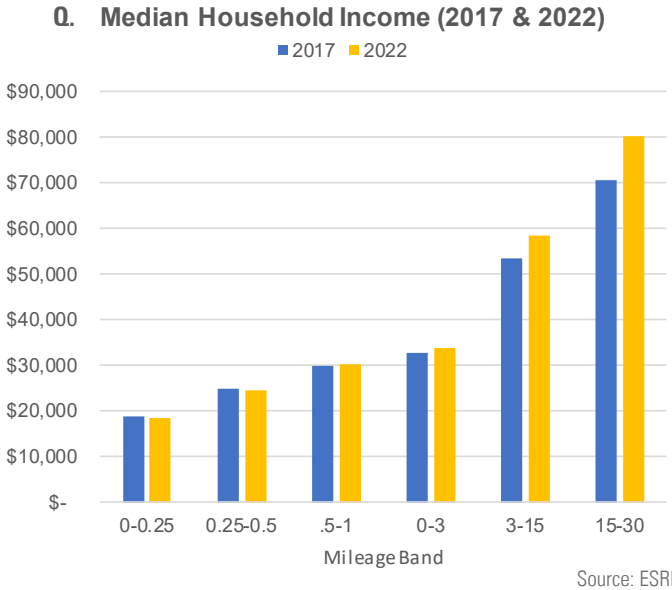
One of the most challenging economic woes of Sherman Park, Indianapolis, and the nation has been the fact the household incomes have not kept pace with inflation over the past decade. Many families have lost ground or are at best standing in place. Figure P indicates that this phenomenon is not going to be reversed in the near term, as Median Household Incomes are anticipated to actually fall in nominal and real terms over the next five years near Sherman Park. Those who will be realizing more income growth reside in the outlying areas of Indianapolis.

Furthermore, the income distribution within Sherman Park is skewed toward lower income households earning less than $35,000 per year. Again, areas further out from Sherman Park are skewed toward mostly higher income households. All this means is that the redevelopment of Sherman Park must clearly focus as a top priority the economic renewal for those residents and neighborhoods nearest Sherman Park.

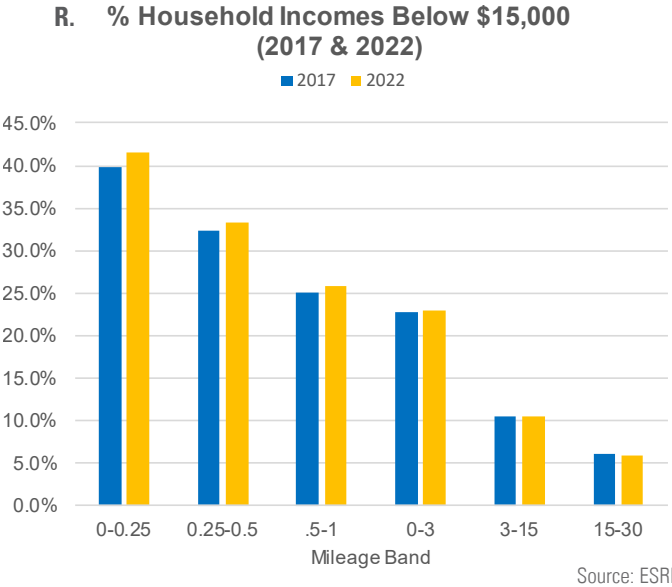
Over the same period of time, the percentage of households living at or below the poverty line near Sherman Park will increase over the next five years. This will continue to exasperate an already severe poverty rate within the Sherman Park area. All the more reason that as a community, Sherman Park's renewal must encourage investments and employment that will provide a real and measurable benefit to those who live near Sherman Park.



Source: ESRI



Source: ESRI



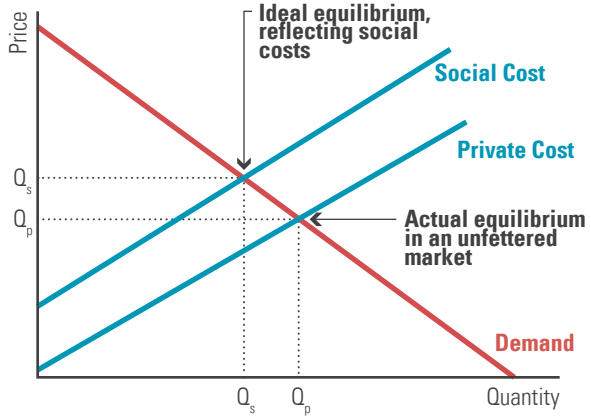
Source: ESRI

MARKET EXTERNALITIES

One of the realities of economics is that there are "externalities" that are beyond the direct control of any one investor, employer, or employee. Externalities may be positive, in that they reduce the cost of doing business in a market, or they may be negative, as they increase the costs of doing business. For instance, a negative externality may be real and perceived crime, because a business may need to add additional security, etc. Therefore, they may need to increase prices to recover these externality costs, which decreases the amount of goods and services they may otherwise be able to sell. Sherman Park has a mix of positive and negative externalities for doing business.

Figure S illustrates a negative externality for Sherman Park, as it is a relatively central location to all of Indianapolis, with an easy commute by car or bus.

S. Negative Externality Causes Increased Price and Decreased Quantity



Source: RATIO

T. Sherman Park Commute Times by Car of Bus

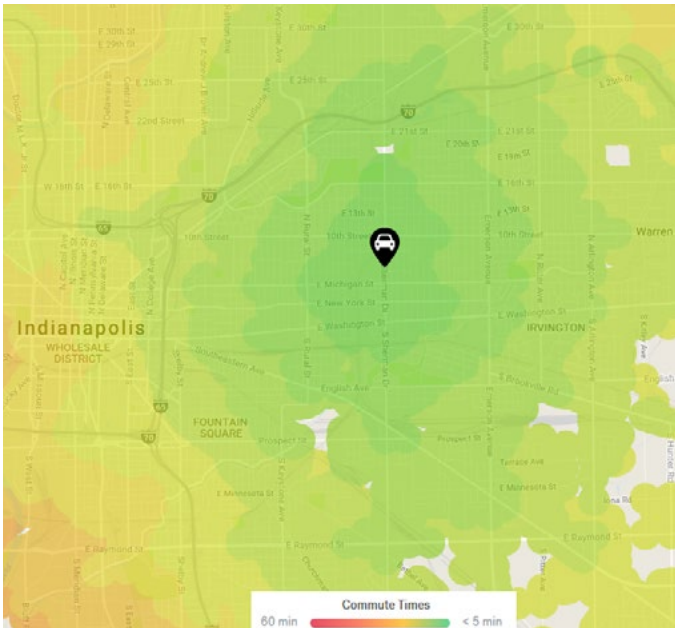


Diagram from Trulia.com showing commute time by car from North Sherman Drive between East 10th Street and East Michigan Street.

Source: ESRI

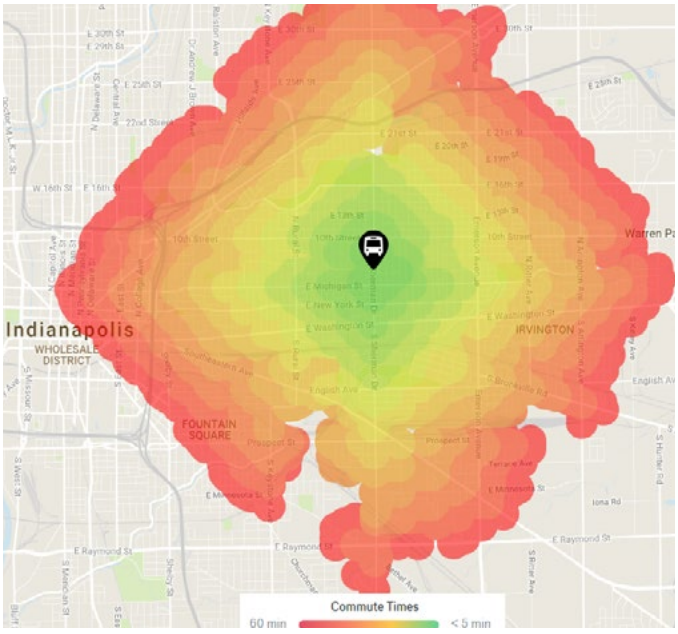
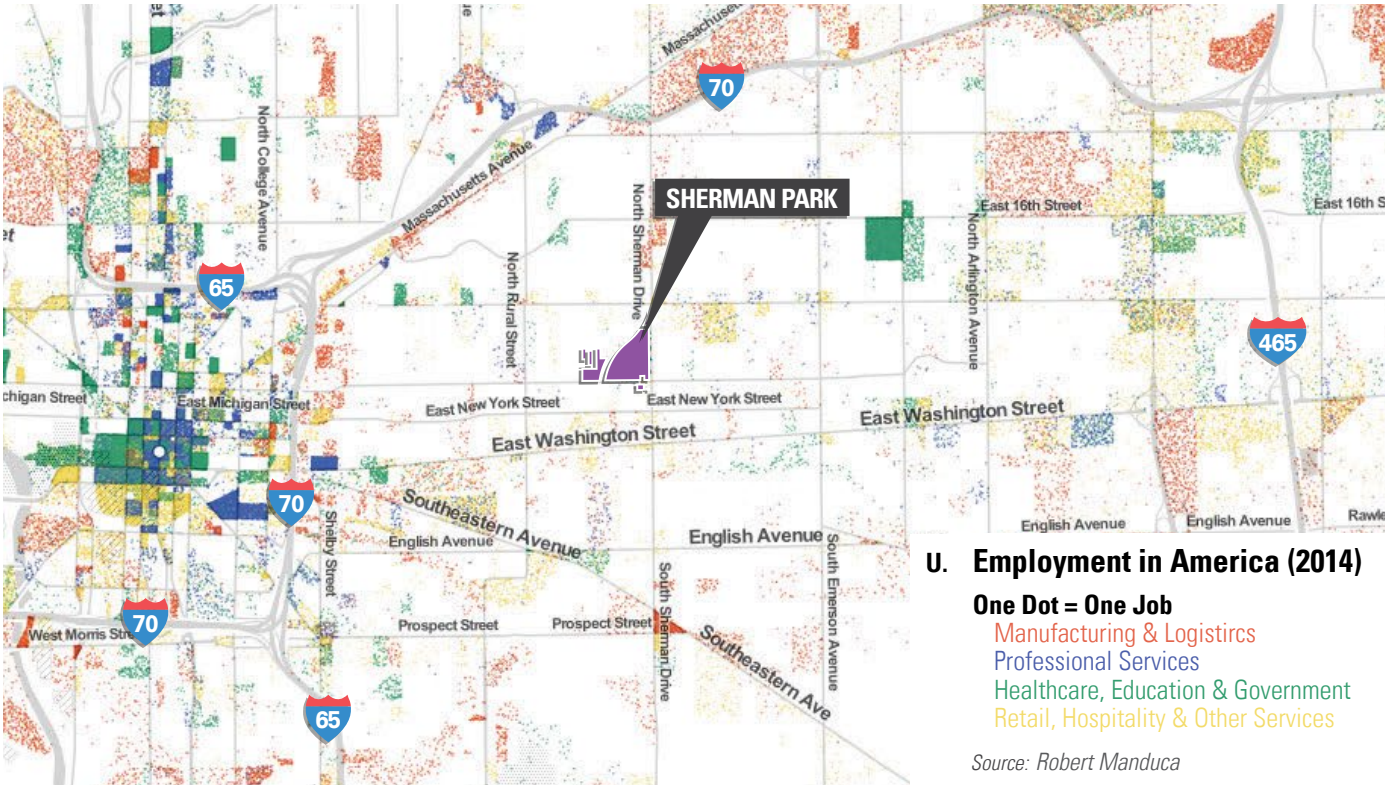


Diagram from Trulia.com showing commute time by public transit from North Sherman Drive between East 10th Street and East Michigan Street.

Source: ESRI



U. Employment in America (2014)

One Dot = One Job

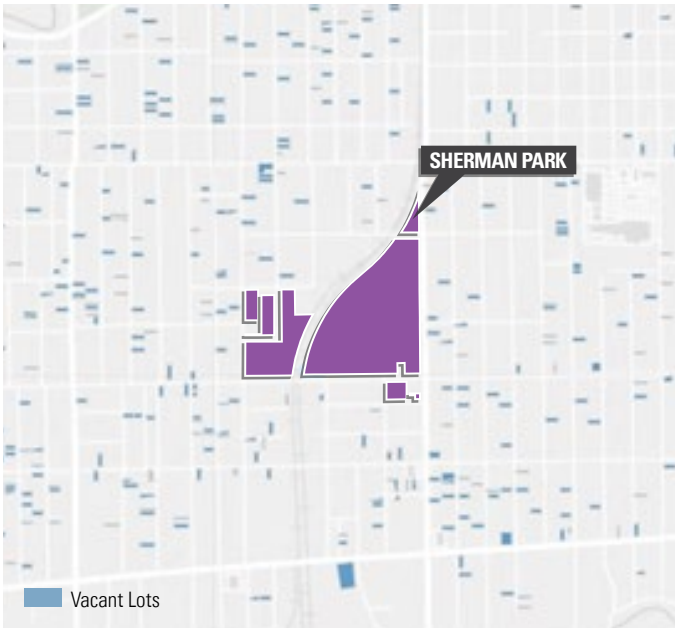
Manufacturing & Logistircs
Professional Services
Healthcare, Education & Government
Retail, Hospitality & Other Services

Source: Robert Manduca

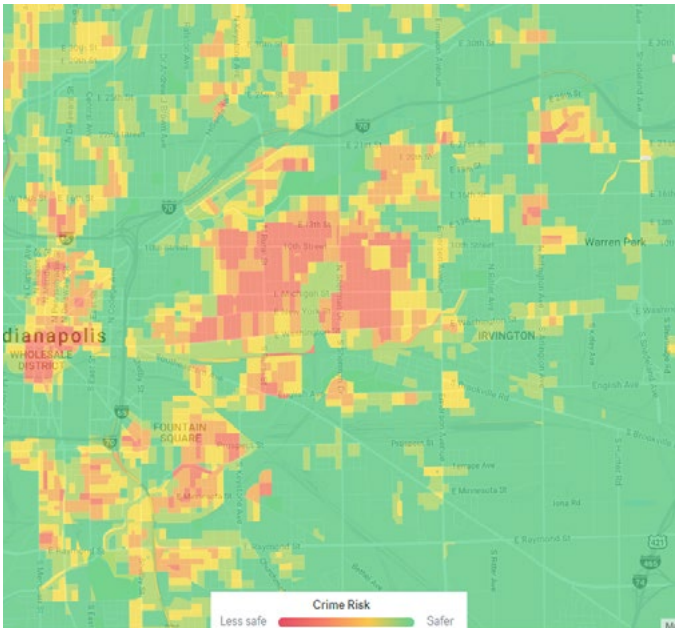
Another externality of note is that Sherman Park is located within close proximity to a number of employment clusters, from downtown to I-70 and I-465 on the east side. This makes it an excellent location for "business to business" firms.

Another positive externality is the daily traffic count of around 10,000 vehicles at the corner of North Sherman Drive and East Michigan Street. This count is important to any potential retail businesses that may be interested in locating at Sherman Park.

Source: ESRI



Source: City of Indianapolis

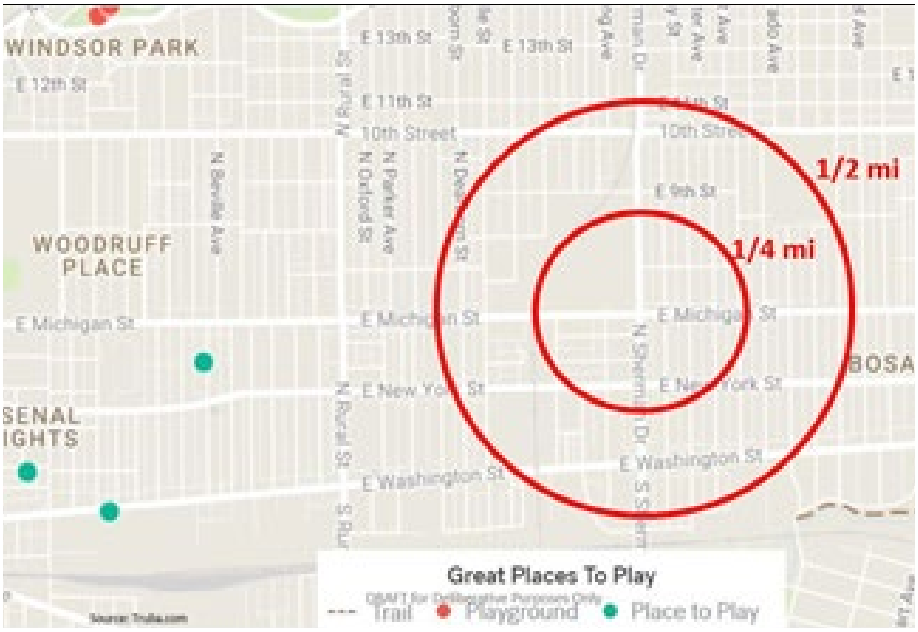


Source:Truila.com

With the high residential vacancy rate there are many vacant and/or abandoned properties within Sherman Park. This is a negative externality, as it would discourage potential investors who may be looking to invest in the area.

Another negative externality is crime. There is no hiding the fact that the Sherman Park area is a higher-than-average crime area. This negative externality has the potential to drive up business costs from security to insurance.

While parks and recreational areas are often considered benefits to residents, many employees enjoy the amenities that nearby parks provide. The lack of parks and recreational amenities in near proximity to workplaces can be considered a negative externality for an area that is trying to attract investment and hire residents from within the neighborhood.



Source:Truila.com

MARKET ANALYSIS

HOUSING MARKET

While a local developer is converting a former school into 40 units of senior housing using an LIHTC subsidy, more of this type of new or renovated multifamily housing is needed in Sherman Park. Single-family housing has an existing oversupply that will keep home prices fairly low at least in the near term. Furthermore, with many vacancies and some abandoned housing in the neighborhood, the community should focus on a block-by-block approach to create new infill single-family housing or renovate housing as possible. This would be much like the NEAR organization is doing with the Teachers Village near North Rural St. and East 10th St. intersection. Multi-family housing would be a viable addition at the Sherman Park site, especially in support of creating a mixed-use and retail commercial node at East Michigan Street and North Sherman Drive. There is a very price -sensitive residential market as neighborhood rents range quite low, making any new housing construction difficult to privately develop and challenging to afford for homebuyers or renters in the neighborhood. The residential market will need to be sustained initially with assistance from government housing rehab programs such as CDBG and HOME funds, Low Income Housing Tax Credits (LIHTC) and Community Reinvestment Act (CRA) requirements of national banks. These programs may assist businesses and developers who may be very interested in financing opportunities within Sherman Park. But without these programs, the market is too weak to support their development projects.

As noted below, most owner-occupied housing is valued below $100,000 and most of the housing stock was built prior to 1950. This would indicate that many homes will need significant rehabilitation that will likely be costly. Most residents within the neighborhood cannot afford such investment. While Sherman Park has experienced significant population decline in the past few decades, it appears that the bottom may have been reached. It is estimated that the neighborhood will experience a slight increase in owner-occupied housing units and rental units. Despite this, the challenge of vacant housing will likely remain. This will be a long-term problem to address on a block-by-block basis.

Housing Summary

- 85% of single-family residential owner-occupied housing units valued less than $100,000
- 30% vacancy rate
- 27% owner-occupied housing units
- 43% renter housing units
- Most housing units in immediate neighborhood built prior to 1950 pose higher rehabilitation cost per square feet.

Housing Units	2017	2022	Change 17'-22'
Owner-occupied housing	3,112	3,240	+128
Renter-occupied housing	4,843	4,992	+149
Vacant housing units	3,367	3,511	-144
Total housing units	11,322	11,743	+421

Source: ESRI

Existing residential homes near the Sherman Park site.

RETAIL MARKET

Neighborhood Retail

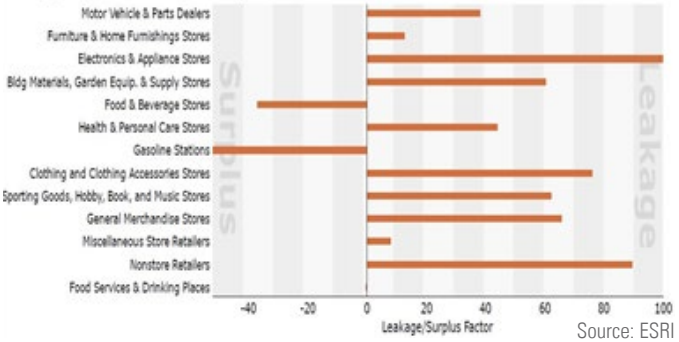
Within one mile of Sherman Park there are about 20,000 people and 8,000 households. This is a fairly strong local shopping market. The challenge is that the households have limited spending capacity, so their focus will be primarily on inelastic purchases or necessities: food, shelter, health care, and travel-related expenses. The median disposable income for this one-mile area is only $24,213, which means again that most purchases will be considered "necessities" not luxuries.

The North Square Shopping Center, located on East 10th Street just east of Sherman Drive, is within about a half-mile of Sherman Park and serves as a strong neighborhood shopping center. There appears to be potential retail opportunity within the one-mile radius of Sherman Park. Figure V illustrates the "leakage" that is leaving the one-mile radius that may be able to be served by new retail at Sherman Park. Even though there is a CVS pharmacy at Linwood Square and a Walgreens pharmacy about a half-mile south on Washington Street, there appears to be leakage that may be captured at Sherman Park for a pharmacy. The health and personal care sector is leaking more than $5,000,000 from the neighborhood, even with a CVS and Walgreens within the market.

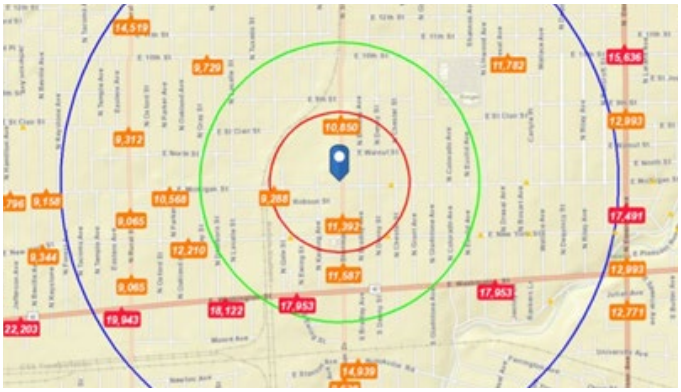
While the local one-mile marketplace indicates several potential opportunities for retail, especially health and personal care, traffic counts are fairly strong (around 10,000 vehicles per day at the East Michigan Street and North Sherman Drive intersection).

While traffic counts through the area indicate the possibility of attracting driving consumers as well as neighborhood consumers to a retail node at Sherman and Michigan, one liability for the intersection is that East Michigan Street is a one-way street west. Retail prefers two-way streets, which double the number of "eyeballs" that see their retail stores. While the traffic count may not double along East Michigan Street if it were converted to a two-way street, it would be anticipated that significantly more traffic would pass through the area every day, making the intersection more conducive to attracting and sustaining retail businesses.

V. Leakage/Surplus Factor by Industry Subsector



Source: ESRI



Source: ESRI

Retail Summary

- Rents ranges between $6/SF and $18/SF.
- Retail appears to have some opportunities but must be price sensitive for immediate residential and near east side market.
- One-way East Michigan Street lowers the attractiveness and limits vehicle count.
- Future incubator space with office mix may be possible at low rents with other types of tenants, such as makers and small manufacturers.
- Flexible space that is adaptable to the market may need to be subsidized with TIF or other funding gap assistance to support development, as market rents will not sustain 100% private investment.

OFFICE MARKET

At this time, most new office development is occurring in downtown Indianapolis or on the northern periphery of the Indianapolis metro market. Most existing space within the Sherman Park one-mile market is outdated for current office configurations. There is little office space, and the likelihood of a significant office "park" or "flex-office" space at Sherman Park is limited, as these developments need more land and are attracted to more suburban locations in the regional market. While office space will likely not be a development driver here, office space could be included as part of a larger mixed-use development of retail and residential uses.

Flexible office space for IT coders and for IT hardware maintenance businesses may be a good fit for offices that don't desire Class A office locations.

Office Summary

- Rents ranges between $5/SF and $12/SF. (Loop.net)
- Class B and C space only (no Class A space).
- Limited market for offices; only small individual tenants likely at this time, such as real estate, insurance, etc.
- Future incubator space with office mix may be possible at low rents with other types of tenants, such as makers and small manufacturers.
- Flexible space that is adaptable to the market may need to be subsidized with TIF or other funding gap assistance to support development, as market rents will not sustain 100% private investment.

INDUSTRIAL MARKET

Local job creation appears to be the needed most within the immediate Sherman Park area, as indicated by recent economic employment losses that have created real income losses for households, especially those nearest Sherman Park. To that end, there are a number of strong manufacturing businesses near Sherman Park that may be able to expand in the area.

First and foremost is Amerifab, located just west of the CSX Railroad adjacent to Sherman Park at the intersection of East Tuxedo and North 9th Streets. Amerifab is interested in much of the land on the west side of Sherman Park between Lasalle Street and the CSX Railroad. If they were able to expand at this site, they may add an additional 80 employees to their existing 80 employees. These are specialized steel manufacturing positions that require technical training in welding and steel processing. Amerifab is interested in creating a job training center at its facility for steel processing positions. This would be a specialized facility that would not be open to the public, but could potentially be used by other steel manufacturers within Indianapolis. Another local not-for-profit firm is Recycle Force, which specializes in recycling computer and electronic components for reuse. This not-for-profit has the potential to locate along the east side of Sherman Park between East St. Clair and North 9th St. with CSX Railroad on the west and North Sherman Drive on the east.

Other existing businesses on the city's east side may find Sherman Park attractive, and it would be ideal to keep these businesses within the city's east side if at all possible. This is not to move them from their existing locations, but only to make available needed additional space and/or modernized facilities.

Some trends in manufacturing may also attract small maker manufacturers who specialize in custom design and custom products. These may be products that cannot be easily duplicated or mass produced. 3D printing facilities that can produce detailed custom products may be another example of a future business that would find a location near the center of Indianapolis convenient for servicing their business clients.

Similarly, the warehousing and distribution logistics geography appears to be bifurcating into extremely large 1,000,000 SF or greater warehouses that are located on the outskirts of metropolitan areas and smaller distribution hubs called "last-mile" distribution centers. These are small warehouses are located in the heart of cities and service businesses on a daily basis from close proximity to the business recipient, which lowers costs for the distributor.

These are just some examples of locational advantages that Sherman Park provides as businesses continue to evolve their manufacturing and distributions systems. Many of these types of jobs would be available to residents within Sherman Park who could be trained "on-the-job" and/or at a facility that provides hands-on job training in coordination with local jobs.

Industrial Summary

- Rents ranges between $3/SF and $8/SF. (Loop.net)
- No recent industrial development, except Enterprise Park near North Keystone / I-70 interchange.
- Existing manufacturing along Sherman Drive corridor appears healthy.
- Remains attractive to ready workforce for lower-skilled positions.
- "Last-mile" distributors may find Sherman Park attractive due to proximity to downtown and central to Indianapolis metro market.
- Large-scale manufacturers need ready access to I-70/65 and lots of land.

SHERMAN PARK MARKET SUMMARY

- Socio-economic trends and externalities are mixed.
- **Residential:** Cautious due to age/conditions of housing stock and financial response in market without subsidized assistance for rehabilitation.
- **Retail:** Cautious as to what may be right fit for Sherman Park immediate neighborhoods, but could support driving market as well.
- **Office:** Limited marker, potential with other market, such as industrial and/or retail.
- **Industrial:** Appears healthy along Sherman Drive Corridor, and may be attractive to smaller manufacturers and "last-mile" distributors.

05

FUTURE REDEVELOPMENT SCENARIOS

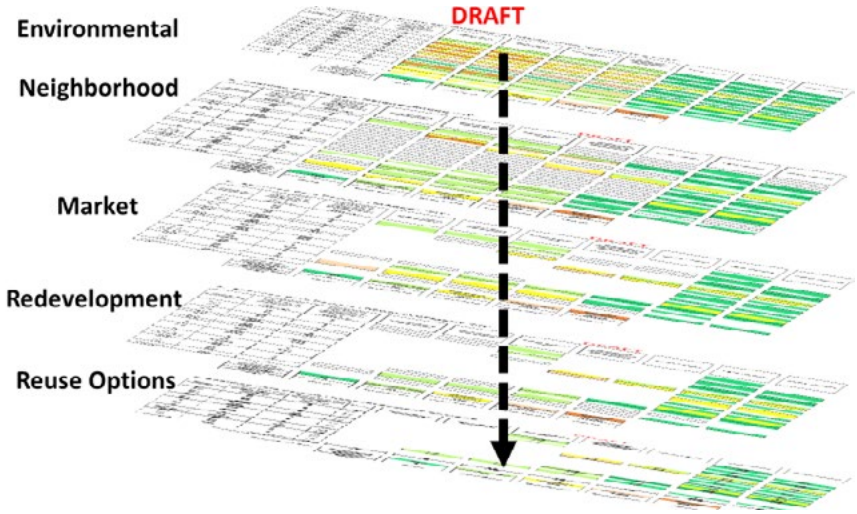
REUSE OPTION ANALYSIS

This chapter focuses on how the various parcels within the larger 50 acres of Sherman Park may best be reused to meet the community's economic growth and improve the quality of life of the near east side of Indianapolis.

To eventually determine the highest and best use for the parcels, it is necessary to review through several "filters." The most significant filter regards the severity or non-severity of environmental contamination on or impacting the parcel, and determining how difficult and costly remediation may be for various reuses.

Each parcel of the Sherman Park brownfield site will be evaluated for its development fit test for:

- Environmental Remediation
- Neighborhood Context Adjacency
- Market Demand and Response
- Redevelopment Site Fit
- Reuse Options



PARCEL KEY MAP

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Legend

- Parcel A
- Parcel B
- Parcel C
- Parcel D
- Parcel E
- Parcel F
- Parcel G
- Parcel H
- Parcel I
- Continental Metal Products (CMP)

NORTH 0 100 200 400 Feet

PARCEL A-1 & A-2

Land Available for Reuse

- A-1 = ~ 1.8 acres
- A-2 = ~2.2 acres
- Total = ~ 4.0 acres

Environmental

Remediation costs are low, and the site is ready for industrial development, but would likely still be able to be used for residential uses as well.

Neighborhood

Adjacent land uses indicate single-family residential development, and this would be appropriate, but there may be higher uses that serve broader neighborhood needs such as green space or additional job creating businesses.

Market

With many blocks with vacant homes and lots, the sites seem to best serve either green space needs of the larger neighborhood or industrial business uses.

Redevelopment

The site has space to accommodate soccer fields, but is limited and may require on street parking for intensive uses. The site also could support parking for expanded industrial and business uses on nearby parcels.

Reuse Options

Green Space/Park and Industrial Uses

PARCEL B-1 & B-2

Land Available for Reuse

- B1 = ~ 3.4 acres
- B2 = ~2.1 acres
- Total = ~ 5.5 acres

Environmental

Remediation costs are a concern especially for parcel B2 as there appears to be some costs for remediation, and the site is ready for industrial development, but would not be suitable for other residential or green space/park uses except at a higher remediation cost than cleaning up to industrial levels.

Neighborhood

Adjacent land uses indicate mix of commercial and residential uses. The site has been industrial, and this may present more appealing reuses for business development purposes. Green space/park is possible by capping and monitoring below-grade contamination to prevent contact with any potential contamination.

Market

Site appears to relatively ready for industrial reuse as it has been historically for the past 80 years. The market may possibly respond to this industrial reuse. It will be important to prepare truck ingress and egress to the site, especially if not on North Lasalle Street, which has an existing traffic control signal at East Michigan Street.

Redevelopment

Industrial reuse will fit well on the rectangular site. It is possible that B1 could be carved off for green space/park use as it is across the street from existing residential properties and a day care facility.

Reuse Options

Industrial and possibly a portion of B1 for Green Space/Park Uses

PARCEL C-1 & C-2

Land Available for Reuse

- C1 = ~ 1.9 acres
- C2 = ~1.2 acres
- Total = ~ 3.1 acres.

Environmental

Remediation costs are a concern, especially for parcel C2 as there appears to be some costs for remediation. The site is ready for industrial development, but would not be suitable for other residential or green space/park uses except at a remediation cost higher than cleaning up to industrial standards.

Neighborhood

Adjacent land uses indicate a mix of industrial and residential uses. The site has been industrial, and this may present more appealing reuses for business development purposes. Other uses do not fit the neighborhood context, as these parcels are within the interior of the Sherman Park site adjacent to the CSX RR and other ongoing industrial uses.

Market

Site appears to relatively ready for industrial reuse. It has been historically industrial for the past 100 years. The market seems likely to respond to industrial reuse. It will be important to ensure semi-truck traffic access is available.

Redevelopment

industrial reuse will fit well on this rather small site.

Reuse Options

Industrial Uses only

PARCEL D-1 & D-2

Land Available for Reuse

- D1 = ~ 0.7 acres
- D2 = ~0.2 acres
- Total = ~ 0.9 acres.

Environmental

Remediation costs are a small concern for parcel D2, though there appears some small-scale remediation may be necessary. The site is ready for commercial and industrial redevelopment, and it would be suitable for other residential or green space/park uses, which may present a slightly higher remediation cost to clean-up to residential levels. Remediation should not be excessively expensive for any reuse except single-family residential.

Neighborhood

Adjacent land uses indicate a mix of commercial, industrial, and residential uses. The site has been industrial, and this may present more appealing reuses for industrial or commercial business development purposes. D-1 is vacant land that may be able to be repurposed for additional business or institutional reuses, such as a job training center to complement business development efforts. Trucks would have ready access to Interstate I-70 via North Sherman Drive north to East 21st St., and then east to the I-70/ North Emerson Ave. interchange.

Market

Site appears to relatively ready for commercial, industrial, and/ or institutional reuses. It has been historically residential, but was converted to parking lots in the 1960s and 1970s by RCA. The market seems likely to respond to commercial and/or industrial reuses.

Redevelopment

The site would fit commercial reuses very well, and could be more attractive for industrial reuse if adjoining parcels such as E or Parcel H-4 and H-2 were combined with it. Otherwise, it may be too narrow for industrial reuses as currently configured.

Reuse Options

Commercial, Industrial, and Institutional Uses

PARCEL E

Land Available for Reuse

- E = ~ 0.7 acres

Environmental

Remediation costs are a concern, as the parcel is currently influenced by ongoing remediation of H-2, though remediation appears to be reducing groundwater contamination issues under H-2. Therefore, remediation may be a smaller concern than anticipated. The site is suitable and ready for industrial reuses, but may have higher remediation costs for residential reuses.

Neighborhood

Adjacent land uses are industrial, and the site has been industrial for more than 80 years. The CSX Railroad is adjacent to the site on the western border of Parcel E, and a Railroad spur line may be an infrastructure option for this parcel. Industrial reuses are likely the best neighborhood fit as the parcel sits within the interior of Sherman Park.

Market

Site appears to relatively ready for industrial reuse. It has been historically industrial for the past 80 plus years. The market seems likely to respond to industrial reuse. Trucks would have ready access to Interstate I-70 via Sherman Drive north to 21st St., and then east to the I-70/Emerson Ave. interchange.

Redevelopment

Industrial reuse will fit well on this rather small site if it is combined with adjoining parcels H-2 and/or D-1 and D-2.

Reuse Options

Industrial Uses only

PARCEL F-1 & F-2

Land Available for Reuse

- F1 = ~ 2.1 acres
- F2 = ~2.7 acres
- Total = ~ 4.8 acres.

Environmental

Remediation costs are a concern, especially for parcel F-2. The site is ready for industrial development, but would not be suitable for residential or green space/park uses except at a remediation cost higher than cleaning up to industrial standards.

Neighborhood

Adjacent land uses indicate a mix of industrial and residential uses. The site has been industrial, and this may present more appealing reuses for business development purposes. Other uses do not fit the neighborhood context as these parcels are within the interior of the Sherman Park site adjacent to the CSX Railroad and other current industrial uses.

Market

Site appears to relatively ready for industrial reuse. It has been historically industrial for the past 80 years. The market seems likely to respond to industrial reuse. Trucks would have ready access to Interstate I-70 via Sherman Drive north to 21st St., and then east to the I-70/Emerson Ave. interchange.

Redevelopment

Industrial reuse will fit well on this nearly five-acre site.

Reuse Options

Industrial Uses only

PARCEL G

Land Available for Reuse

- G = ~ 0.1 acres

Environmental

Remediation costs are of no immediate concern for parcel G. All uses are an option at little to no remediation cost.

Neighborhood

Adjacent land uses indicate mix of industrial and residential uses. The site has been industrial, and it was converted in the past twenty years to cell tower reuse. This seems to fit within the context of the Sherman Park site.

Market

Site appears to remain for utility cell tower, and it could be converted to industrial uses with adjacent land at some future date should the utility cell tower use end.

Redevelopment

The site fits current utility cell tower use.

Reuse Options

Utility Use only

PARCEL H-1, H-2, H-3 & H-4

Land Available for Reuse

- H1 = ~ 2.1 acres
- H-2 = ~ 16.2 acres
- H3 = ~ 7.5 acres
- H4 = ~ 1.9 acres
- Total = ~ 28.5 acres.

Environmental

Remediation costs are a concern, especially for parcel H-2 as there is significant and ongoing remediation. The site is ready for industrial development once the remediation effort has achieved its goal of cleaning up to industrial levels. Parcel H-2 would not be suitable for residential or green space/park reuse without significantly higher remediation efforts. Parcels H-1, H-3, and H-4 are currently suitable for other reuses besides industrial.

Neighborhood

Parcel H-2 has adjacent industrial land uses. The site has been industrial, and this may present more appealing reuses for business development purposes. Other uses do not fit the neighborhood context, as these parcels are within the interior of the Sherman Park site adjacent to the CSX Railroad and other ongoing industrial uses. A CSX Railroad spur may be available for parcel H-2. Parcels H-1, H-3, and H-4 are suitable for residential, commercial, and industrial reuses even though they sit across from residential uses. Historically, these parcels have been used for industry.

Market

Once remediated, H-2 would be ready for industrial reuse. It has been historically industrial for the past 80 years. The market seems likely to respond to industrial reuse only for H-2. Trucks would have ready access to Interstate I-70 via Sherman Drive north to 21st St., and then east to the I-70/Emerson Ave. interchange. Parcels H-1, H-3, and H-4 present market options. As the surrounding neighborhood has an oversupply of single-family residential properties, these cleaner parcels may accommodate multifamily residential, mixed-use, commercial, and/or industrial reuses.

Redevelopment

Parcel H-2 is only suitable for industrial reuse. Parcels H-1, H-3, and H-4 may be reused for a variety of market purposes individually or in combination with each other, or combined with parcel H-2 for industrial reuse.

Reuse Options

- Industrial Uses only on parcel H-2
- Parcels H-1, H-3, and H-4 suitable for MFR, Mixed-use, Commercial, and Industrial reuses

PARCEL I-1 & I-2

Land Available for Reuse

- I1 = ~ 2.1 acres
- I2 = ~1.5 acres
- Total = ~ 0.2 acres.

Environmental

Remediation costs are somewhat of a concern, with lead in the soil, but it is not anticipated that any necessary soil remediation would amount to a significant cost. Therefore, the costs are likely relatively low for both parcels. All uses could be accommodated on either site, but cleaning up to residential standards may require additional expense.

Neighborhood

Adjacent land uses indicate a mix of commercial and residential uses. The site has been residential historically, and converted to parking lots in the 1960s and 1970s. Reuses should be respectful of existing small commercial uses at the intersection of East Michigan Street and North Sherman Drive while also not impacting adjacent residential properties. Commercial and residential reuses are appropriate for these two parcels.

Market

Site appears to relatively ready for commercial and/or residential infill reuse. Commercial trucks would have ready access to Interstate I-70 via Sherman Drive north to 21st St., and then east to the I-70/Emerson Ave. interchange.

Redevelopment

Commercial and residential infill would be suitable on these relatively small parcels.

Reuse Options

Commercial and Residential Uses, no Industrial use.

PARCEL CONTINENTAL METALS

Land Available for Reuse

- Continental Metals parcel = ~ 1.5 acres.

Environmental

Remediation costs are somewhat of a concern, with contaminates in the soil, but it is not anticipated that any necessary soil remediation would amount to a significant cost. Contamination is currently below industrial levels, making the property ready for industrial reuse.

Neighborhood

Adjacent land uses indicate mix of commercial, industrial and residential uses. The site has been industrial historically. Continued industrial use is suitable for this property adjoining the CSX Railroad.

Market

Site appears to relatively ready for Industrial reuse. Commercial trucks would have ready access to Interstate I-70 via Sherman Drive north to 21st St., and then east to the I-70/Emerson Ave. interchange.

Redevelopment

The fit of industrial reuse on this relatively small parcel.

Reuse Options

Industrial Uses only

1. Sherman Park Parcels: ENVIRONMENTAL REMEDIATION "DIFFICULTY & COST"

Parcel & Sub parcels	Remediation Cost Order of Magnitude to RESIDENTIAL Low $ …. $$$$$ High	Remediation Cost Order of Magnitude to INDUSTRIAL / COMMERCIAL Low $ …. $$$$$ High	Single-Family Residential	Multi-Family Residential	Green Space / Park	Mixed-Use (Commercial & Multi-Family Residential)	Office / Retail	Light Industry	Heavy Industry
A-1	$$	$							
A-2	$$	$							
B-1	$$$	$							
B-2	$$$$$	$							
C-1	$$$	$							
C-2	$$$$$	$							
D-1	$$	$							
D-2	$$$	$$							
E	$$$	$							
F-1	$$$	$$$							
F-2	$$$$	$$$							
G	$	$							
H-1	$$	$							
H-2 (RCA Main Plant)	$$$$$	$$$							
H-3	$$	$							
H-4	$$	$							
I-1	$$	$							
I-2	$$	$							
Continental Metals	$$$	$							

"FIT" Key:

Environmental Remediation	Easy	Moderately Easy	Moderately Difficult	Very Difficult	Extremely Difficult
Order of Magnitude	$	$$	$$$	$$$$	$$$$$
Estimated Remediation Cost Range	<$25,000	$25,000-$50,000	$50,000-$100,000	$100,000-$500,000	>$500,000

2. Sherman Park Parcels: NEIGHBORHOOD "FIT"

DRAFT

Parcel & Sub-parcels	Remediation Cost Order of Magnitude to RESIDENTIAL Low $ .... $$$$$ High	Remediation Cost Order of Magnitude to INDUSTRIAL / COMMERCIAL Low $ .... $$$$$ High	Single-Family Residential	Multi-Family Residential	Green Space / Park	Mixed-Use (Commercial & Multi-Family Residential)	Office / Retail	Light Industry	Heavy Industry
A-1	$$	$							
A-2	$$	$							
B-1	$$	$							
B-2	$$	$							
C-1	$$$	$							
C-2	$$$$$	$							
D-1	$$	$							
D-2	$$$$	$$							
E	$$$	$							
F-1	$$$	$$$							
F-2	$$$$	$$$							
G	$	$							
H-1	$$	$							
H-2 (RCA Main Plant)	$$$$$	$$$							
H-3	$$	$							
H-4	$$	$							
I-1	$$	$							
I-2	$$	$							
Continental Metals	$$$	$							

"FIT" Key:

Environmental Remediation	Easy	Moderately Easy	Moderately Difficult	Very Difficult	Extremely Difficult
Order of Magnitude	$	$$	$$$	$$$$	$$$$$
Estimated Remediation Cost Range	<$25,000	$25,000-$50,000	$50,000-$100,000	$100,000-$500,000	>$500,000

3. Sherman Park Parcels : MARKET "FIT"

DRAFT

Parcel & Sub-parcels	Remediation Cost Order of Magnitude to RESIDENTIAL Low $ …. $$$$$ High	Remediation Cost Order of Magnitude to INDUSTRIAL / COMMERCIAL Low $ …. $$$$$ High	Single-Family Residential	Multi-Family Residential	Green Space / Park	Mixed-Use (Commercial & Multi-Family Residential)	Office / Retail	Light Industry	Heavy Industry
A-1	$$	$							
A-2	$$	$							
B-1	$$	$							
B-2	$$	$							
C-1	$$$	$							
C-2	$$$$$	$							
D-1	$$	$							
D-2	$$$	$$							
E	$$$	$							
F-1	$$$	$$$							
F-2	$$$$	$$$							
G	$	$							
H-1	$$	$							
H-2 (RCA Main Plant)	$$$$$	$$$							
H-3	$$	$							
H-4	$$	$							
I-1	$$	$							
I-2	$$	$							
Continental Metals	$$$	$							

"FIT" Key:

Environmental Remediation	Easy	Moderately Easy	Moderately Difficult	Very Difficult	Extremely Difficult
Order of Magnitude	$	$$	$$$	$$$$	$$$$$
Estimated Remediation Cost Range	<$25,000	$25,000-$50,000	$50,000-$100,000	$100,000-$500,000	>$500,000

4. Sherman Park Parcels : REDEVELOPMENT "FIT"

DRAFT

Parcel & Sub-parcels	Remediation Cost Order of Magnitude to RESIDENTIAL Low $ …. $$$$$ High	Remediation Cost Order of Magnitude to INDUSTRIAL / COMMERCIAL Low $ …. $$$$$ High	Single-Family Residential	Multi-Family Residential	Green Space / Park	Mixed-Use (Commercial & Multi-Family Residential)	Office / Retail	Light Industry	Heavy Industry
A-1	$$	$							
A-2	$$	$							
B-1	$$	$							
B-2	$$	$							
C-1	$$$	$							
C-2	$$$$$	$							
D-1	$$	$							
D-2	$$$	$$							
E	$$$	$							
F-1	$$$	$$$							
F-2	$$$$	$$$							
G	$	$							
H-1	$$	$							
H-2 (RCA Main Plant)	$$$$$	$$$							
H-3	$$	$							
H-4	$$	$							
I-1	$$	$							
I-2	$$	$							
Continental Metals	$$$	$							

"FIT" Key:

Environmental Remediation	Easy	Moderately Easy	Moderately Difficult	Very Difficult	Extremely Difficult
Order of Magnitude	$	$$	$$$	$$$$	$$$$$
Estimated Remediation Cost Range	<$25,000	$25,000-$50,000	$50,000-$100,000	$100,000-$500,000	>$500,000

5. Sherman Park Parcels : REDEVELOPMENT OPTIONS

DRAFT

Parcel & Sub-parcels	Remediation Cost Order of Magnitude to RESIDENTIAL Low $ .... $$$$$ High	Remediation Cost Order of Magnitude to INDUSTRIAL / COMMERCIAL Low $ .... $$$$$ High	Acres	Single-Family Residential	Multi-Family Residential	Green Space / Park	Mixed-Use (Commercial & Multi-Family Residential)	Office / Retail	Light Industry	Heavy Industry
A-1	$$	$	1.6			1.6			1.6	
A-2	$$	$	2.2			2.2			2.2	
B-1	$$	$	3.4			3.4			3.4	3.4
B-2	$$	$	2.1						2.1	2.1
C-1	$$$	$	1.9						1.9	1.9
C-2	$$$$$	$	1.2						1.2	1.2
D-1	$$$	$$	0.7				0.7	0.7	0.7	0.7
D-2	$$$$	$$$	0.2				0.2	0.2	0.2	0.2
E	$$$	$	0.7						0.7	0.7
F-1	$$$	$	2.1						2.1	2.1
F-2	$$$$	$	2.7						2.7	2.7
G	$	$	0.1						0.1	0.1
H-1	$$	$	1.8						1.8	1.8
H-2 (RCA Main Plant)	$$$$$	$$$	16.2						16.2	16.2
H-3	$$	$	7.5				7,5	7.5	7.5	7.5
H-4	$$	$	1.9				1.9	1.9	1.9	1.9
I-1	$$	$	1.5		1.5	1.5	1.5	1.5		
I-2	$$	$	0.2		0.2	0.2	0.2	0.2		
Continental Metals	$$$	$	1.5						1.5	1.5
Total Acres ~			48	0	1.7	8.9	4.5	12	46.3	42.5
Percent of Total Acres			100%	0%	4%	19%	9%	25%	96%	89%

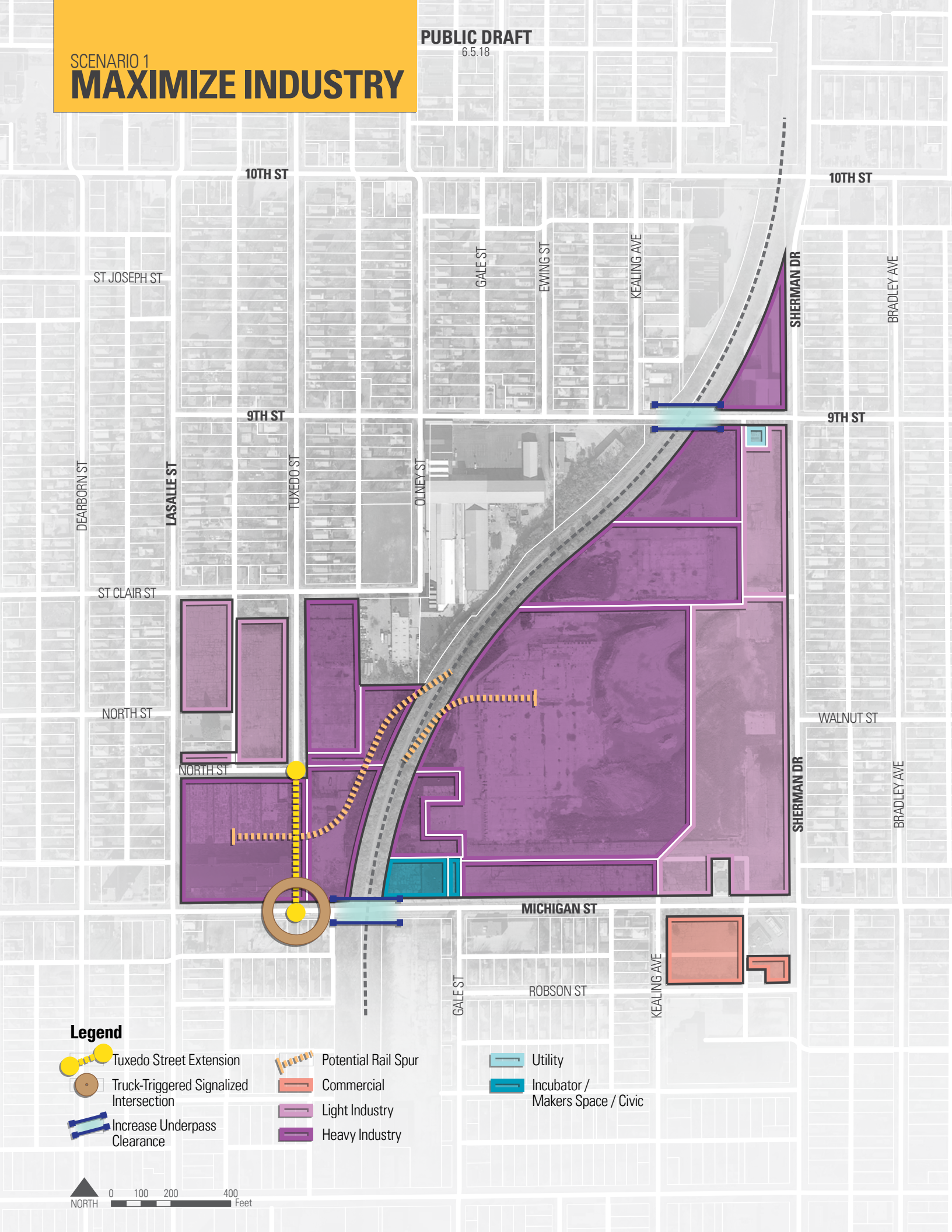
Remediation Key:

Environmental Remediation	Easy	Moderately Easy	Moderately Difficult	Very Difficult	Extremely Difficult
Order of Magnitude	$	$$	$$$	$$$$	$$$$$
Estimated Remediation Cost Range	<$25,000	$25,000-$50,000	$50,000-$100,000	$100,000-$500,000	>$500,000

SCENARIO 1

MAXIMIZE INDUSTRY

PUBLIC DRAFT
6.5.18



Legend

- Tuxedo Street Extension
- Truck-Triggered Signalized Intersection
- Increase Underpass Clearance
- Potential Rail Spur
- Commercial
- Light Industry
- Heavy Industry
- Utility
- Incubator / Makers Space / Civic

NORTH 0 100 200 400 Feet

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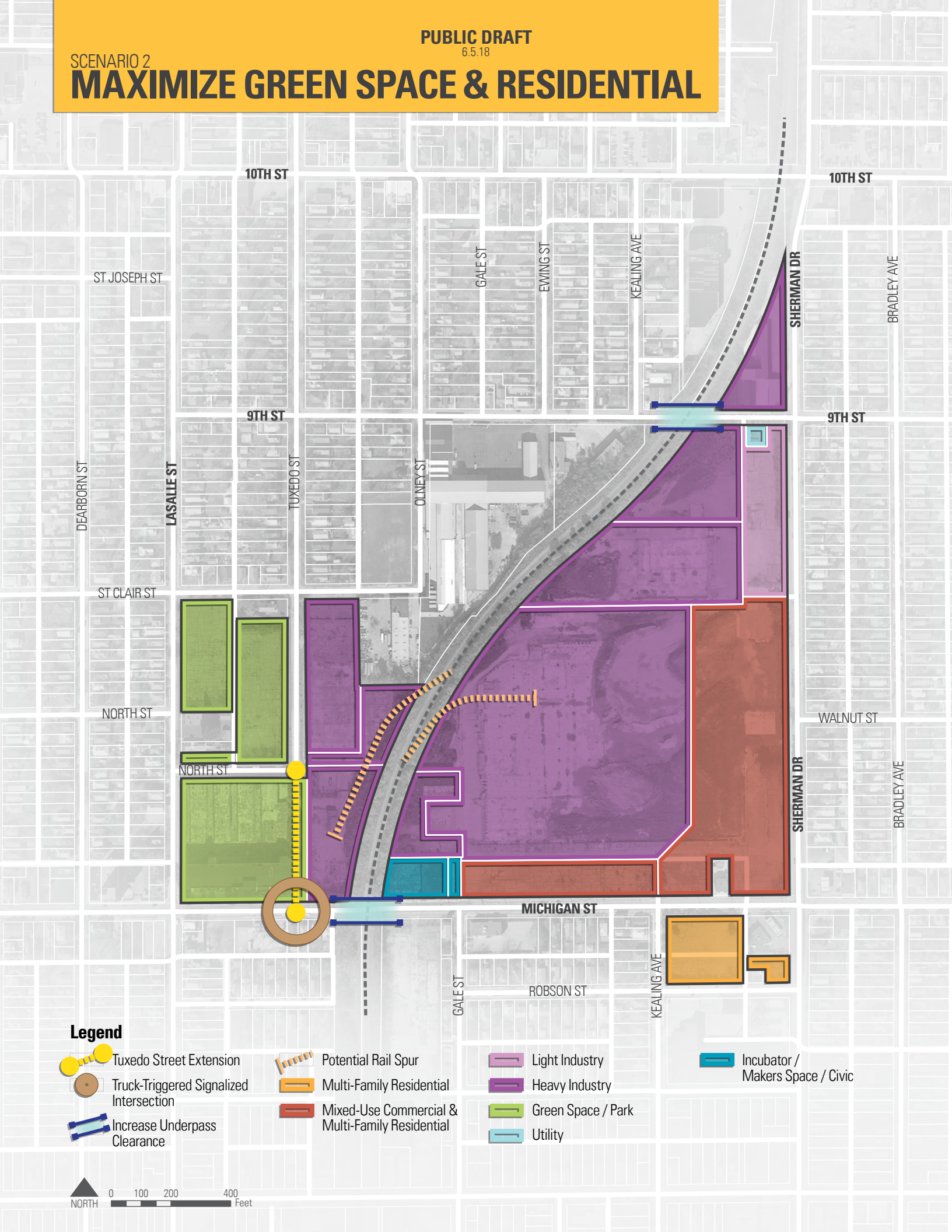
SCENARIO 2

MAXIMIZE GREEN SPACE & RESIDENTIAL



Legend

- Tuxedo Street Extension
- Truck-Triggered Signalized Intersection
- Increase Underpass Clearance
- Potential Rail Spur
- Multi-Family Residential
- Mixed-Use Commercial & Multi-Family Residential
- Light Industry
- Heavy Industry
- Green Space / Park
- Utility
- Incubator / Makers Space / Civic

NORTH 0 100 200 400 Feet

SCENARIO 3

BLENDED USES

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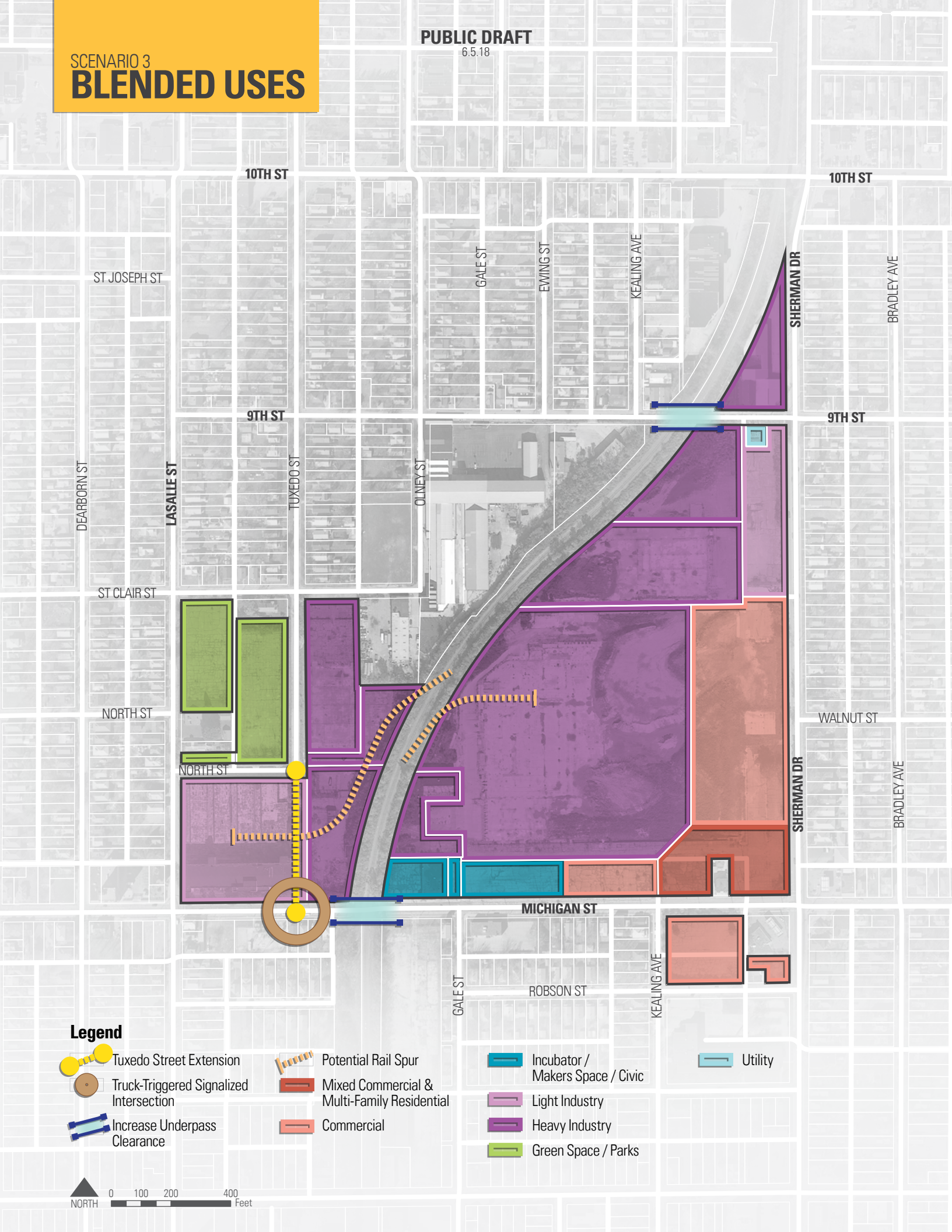

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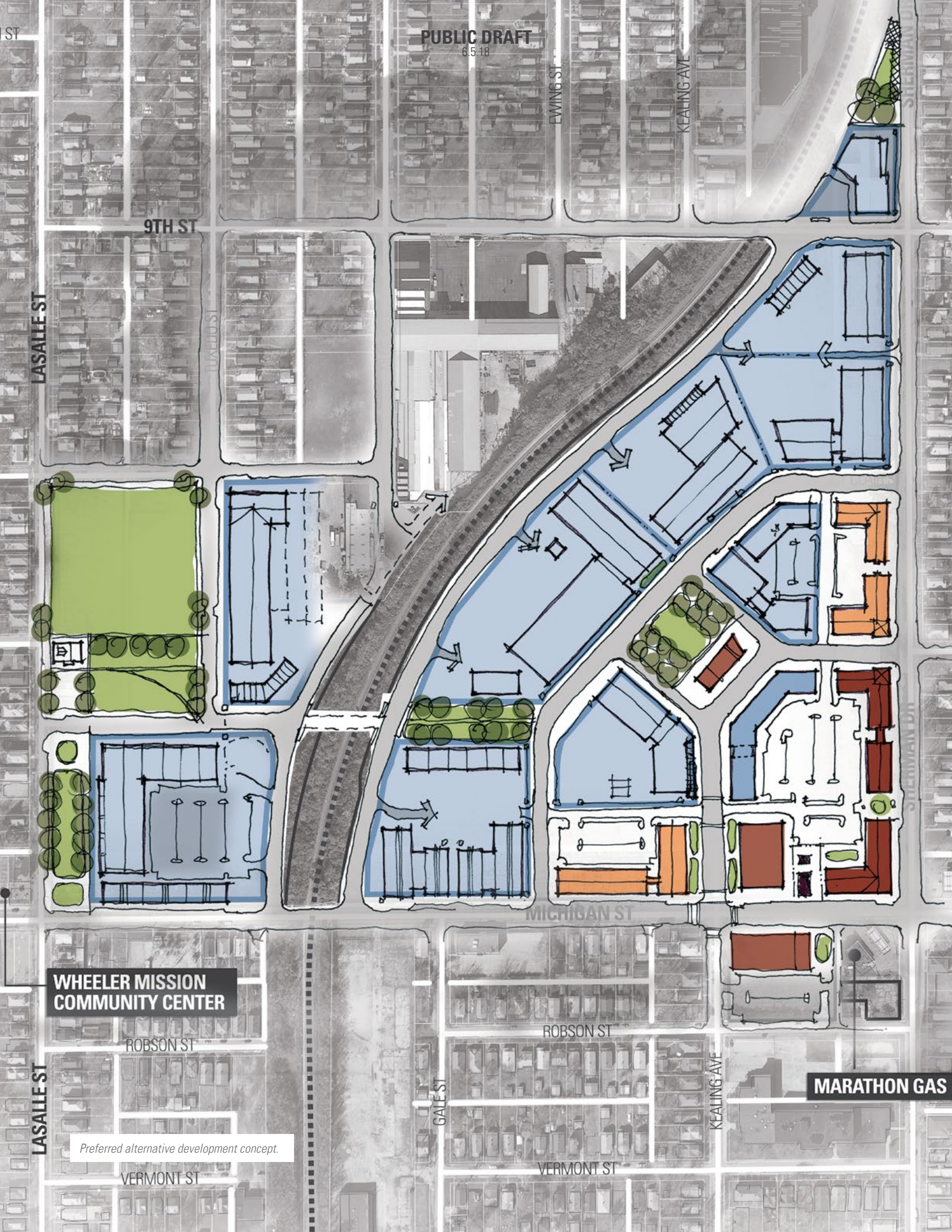
NORTH 0 100 200 400 Feet



Preferred alternative development concept.

06

DEVELOPMENT PLAN

The development strategy was informed by reviewing existing environmental, infrastructure, and market conditions, weighted with expressed community and neighborhood goals. Additionally, the development strategy builds upon **Scenario 3: Blended Use,** which was the preferred development scenario of the steering committee.

A vision statement was prepared that focused on neighborhood employment and community revitalization, and economic and environmental sustainability.

Once it was clear that environmental conditions would not constrain development throughout most of Sherman Park, then the market analysis provided a sense of the market demand for potential redevelopment uses, including retail, office, industrial, institutional, and residential opportunities. This analysis included potential square footage absorption based on demand, providing a sense of scale to the types of reuses.

This information was eventually organized into a development concept that illustrated how the reuses could best be positioned to achieve development goals.

STRATEGIC DEVELOPMENT GOALS

The Steering Committee met in mid-December to review reuse types and where those may be best located. The Committee suggested several goals should be utilized in preparing the development strategy for Sherman Park:

- Create jobs conducive for local resident employment
- Add greenspace/park space for neighborhood families and children
- Enhance connectivity to other parks and schools on the near east side
- Add retail that would serve adjacent neighborhood household needs
- Develop mixed-use concepts that could optimize the commercial and residential potential of the site
- Create a Learning Center that would support local families with local business workforce skill development
- Provide buffer space between residential neighborhoods and industrial reuses within Sherman Park
- Create multifamily residential development that would increase the market base to support a commercial node at North Sherman and East Michigan while bringing a blend of incomes to the near east side

SCENARIO 3

BLENDED USES

PUBLIC DRAFT
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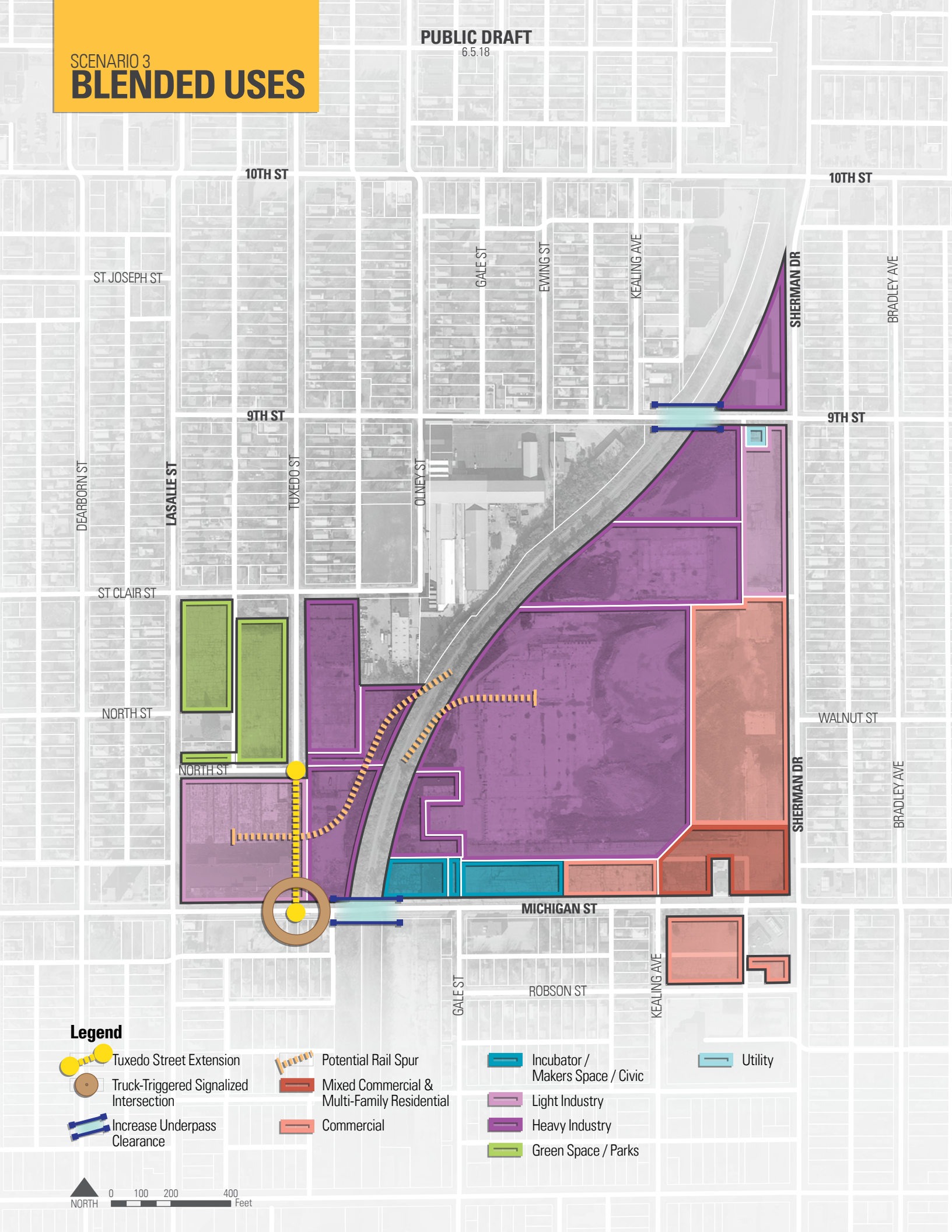

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- Utility

NORTH 0 100 200 400 Feet

Participants vote on potential re-uses during the fourth public input meeting.

STRATEGIC DEVELOPMENT GOALS & REUSE DESIGN

At the fourth public input meeting in late January, residents reviewed development strategy goals and precedent images that reflected the potential reuses outlined in the blended reuses map. These precedents focused on types of industrial, commercial, and institutional buildings, multifamily housing, and recreational uses.

Below is a summary of neighborhood support for the various reuses:

Industrial: There is a strong desire to support employment opportunities. Residents would like to accommodate new businesses that are sized to fit the surrounding neighborhood context. This means that most industrial buildings should be smaller in size if located near the periphery of the Sherman Park site across from single-family residences. In general, this would mean industrial buildings under 100,000 SF.

The table at the right illustrates the types of evolving industrial and office market segments and their attributes. Sherman Park should focus primarily on market segments that would most likely attract local neighborhood employment: services, manufacturing, and warehousing. While these segments may be the primary focus, due to its proximity to Downtown and easy access throughout the City, Sherman Park may also attract secondary market segments for innovative creation and fabrication. This is especially true as technology continues to transform these market segments, and it will likely be a variety of market segments that are attracted to Sherman Park.

Commercial Center: Participants felt that the design and layout for a commercial center should again fit a more urban context with parking in the rear of businesses, so surrounding residents did not have to view large parking lots from their homes.

Multifamily Residential: Regarding multifamily residential development, neighborhood residents tended to select low-rise buildings not higher than four floors. Again, the emphasis should be on those buildings at or near the edge of the property or sidewalk, with parking in the rear.

INDUSTRIAL / OFFICE USE MARKET SEGMENTS

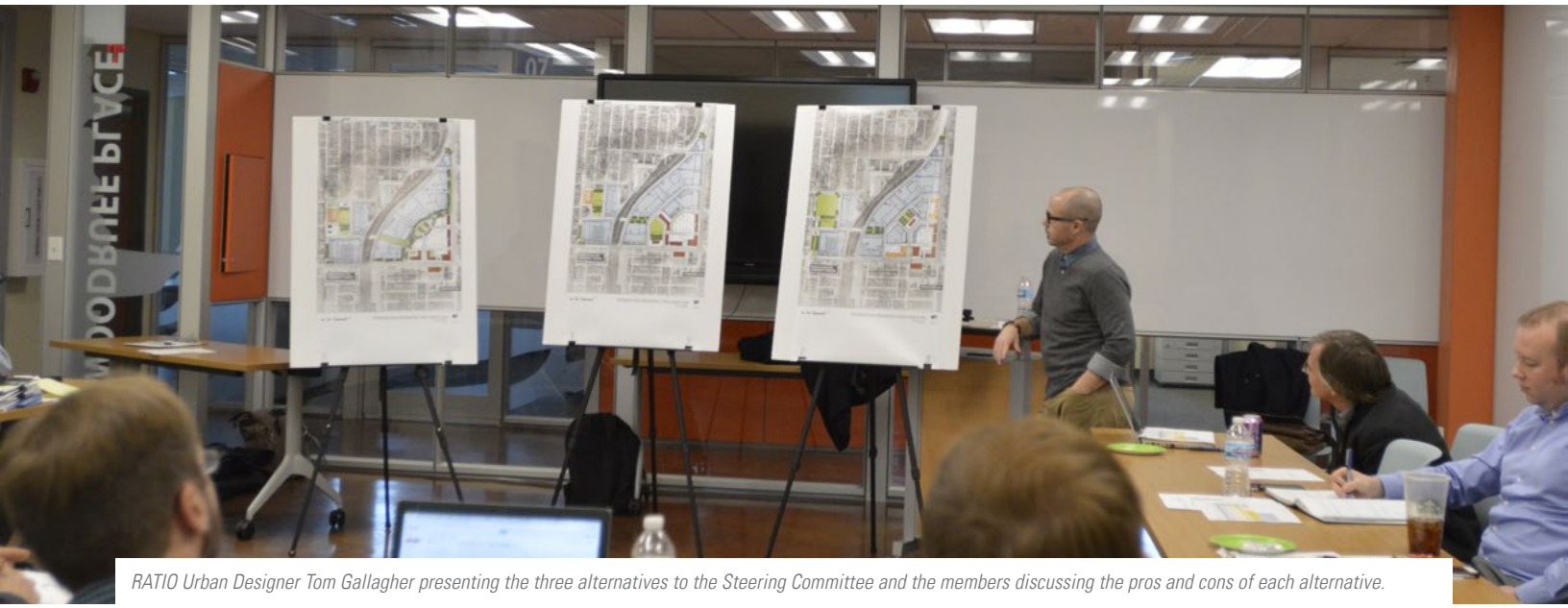
Business Needs	Market Segment	Sherman Park Targeted Market Segments				
		Secondary Focus		Primary Focus		
	Incubate	Innovative & Create	Fabricate	Service	Manufacture	Warehouse
Character	Mind	Mind + Hand	Mind + Hand + Machine	Hand + Machine	Machine	Building + Lot
Value Creation	$$$$$	$$$$	$$$	$$-$$$	$	$
Barrier to Entry	Very High	Moderately High	Moderate	Low	Low	Low
Differentiation	Very High	Moderately High	Moderate	Moderate	Moderate to Low	Low
Workforce Education/ Training	PhD, Master	Masters, Bachelors, Associate	Bachelors, Associate, High School	Associate, High School	Associate, High School	High School
Wages	High	Moderate to High	Moderate	Moderate	Moderate	Moderate
Quality of Space	Inspired, boutique, campus, co-creative environments, access to knowledge lifestyle	Creative urbanism, Co-creative environments, access to lifestyle amenities	Industrial urbanism, efficient and flexible	Industrial flex, efficient and flexible	Factory, buffers and separate uses	Large lot, buffers, separate uses
Compatible Uses	Education, housing, live-work, service retail, office, light industrial	Education, housing, live-work, service retail, office, light industrial	Service retail, office, light industrial	Service retail, office, light industrial	Service retail, office light industrial	Service retail, office, light industrial
Transportation Needs	Multiple modes, including transit within 1/4 mile	Multiple modes, including transit within 1/4 mile	Multiple modes, ease of truck movement	Roads, central location relative to customers	Shipping corridors - road, rail, air, water	Shipping corridors - road, rail, air, water
Real Estate Needs	Diverse, gile and high investment space, new construction	Small-medium footprint space, IT infrastructure, adaptive use	Small-medium footprint space, IT infrastructure, adaptive use	Medium footprint space, simple low-investment buildings, low costs	Medium to large footprint space, simple low-investment buildings, utility ready sites	Large footprint space, simple low-investment buildings
Critical Network	University, R&D, knowledge clusters	Related service providers, material providers	Complementary service providers, transportation	Customer base, supply chain	Raw material providers and parts providers, utility infrastructure, storage and waste recyclers	Transportation
Example	16 Tech Park	The Spark Easy, Co-working Office Space	Amerifab, Maker Space, 3D Printing	Construction service providers - Indy Garage Door, Mr. Quik	Hurco	Recycle Force

Source: Urban Land Institute, Urban Green LLC, Greenstreet, RATIO

Education / Institutional Building: There is a desire and need for some kind of facility that would serve local workforce training needs to match residents with jobs at future Sherman Park businesses and within the greater east side of Indianapolis. See MET Center case study at the end of this chapter.

Mixed-Use Development: Residents expressed a desire for low-rise mixed-use not higher than four stories. Again, site design should be urban, with buildings brought to or near the sidewalk edge and parking in the rear. On-street parking would be acceptable if it could be accommodated on East Michigan Street.

Outdoor Recreation: This is a priority for residents and was discussed at every public input meeting. There are no parks within walking distance of Sherman Park. Residents did not feel the need for a large park such as Brookside, located about a mile away to the northwest of Sherman Park, but rather, desired a place for families to picnic, fields for accommodating a variety of ball games such as soccer and softball, and a playground for small children.



RATIO Urban Designer Tom Gallagher presenting the three alternatives to the Steering Committee and the members discussing the pros and cons of each alternative.

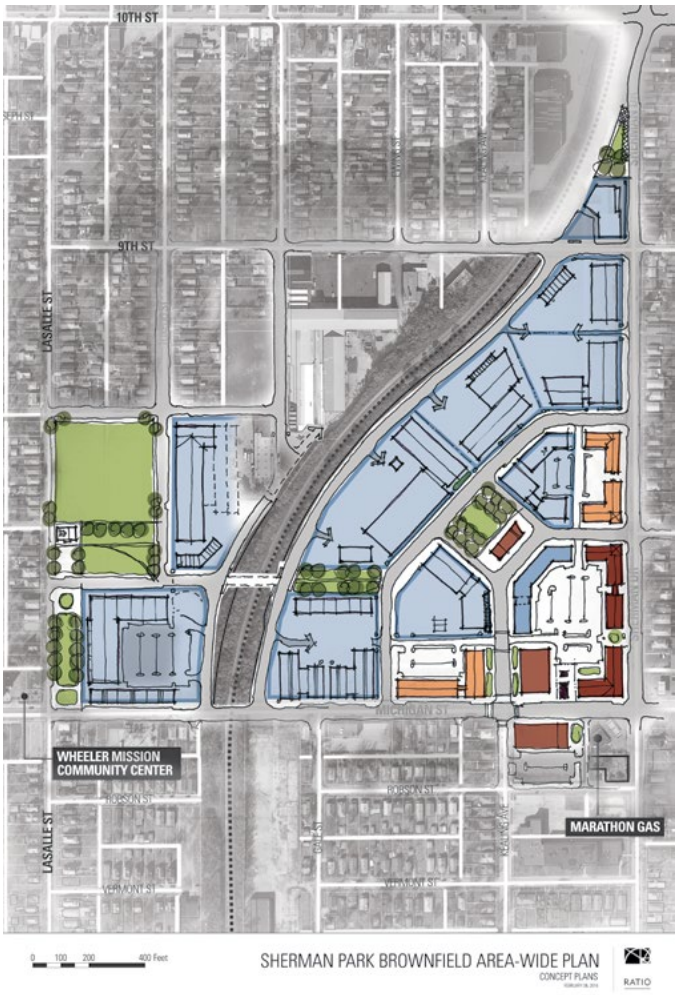
DEVELOPMENT CONCEPT

With the strategic development goals expressed by the Steering Committee and the public feedback on the scale and configuration of uses, the project team prepared development alternatives for further evaluation by the Steering Committee. This would assist the project team in refining the alternatives to one preferred development concept for Sherman Park.

The preferred development concept is illustrated at the right, with industrial uses in blue, parks in green, residential in orange, mixed-use retail/residential in rust, and single-use retail in brown.

Retail: It was projected that a variety of small retail establishments may eventually absorb about 15,000 SF, needing about 1.5 acres. Additionally, market data indicated a pharmacy of about 7,500 SF may have adequate demand at corner of North Sherman Drive and East Michigan St. Based on neighborhood interest and further market review, it was felt that a small grocery of about 10,000 SF may be a good fit as part of an overall retail node at the North Sherman Drive and East Michigan St. intersection. This retail development is contingent on the anticipated modification of East Michigan Street as a two-way street.

Multifamily Residential: While there is no interest in adding single-family residential product in Sherman Park, because the surrounding neighborhoods have high single-family vacancy rates along with a number of vacant lots that could serve as infill locations for new single-family housing. The rental market appears sluggish, but this may be due to the lack of adequate supply of quality rental product within the surrounding neighborhoods. The Whitsett Group (TWG) is planning to develop a low-income housing tax credit rehab of 64 units for Seniors in the former School 78 just south of Sherman Park. Market data indicates that new rental product may fill a missing niche on the near east side as other



newer rental developments have quickly leased up.

The neighborhood seems ready for new multifamily residential development as long as it serves working families at the right price point. Therefore, a development that may be able to support both market rate and affordable rents at 60% AMI or higher appears to be in strong demand. Also, East Michigan St. and North Sherman Drive represents a strong transit location and a fairly easy commute to most Downtown and East Indianapolis employment centers. The market may be able to absorb around 175,000 SF and 225,000 SF of multifamily housing over the next several years, or about 150 to 200 units.

Office (none shown): No specific square footage was generated for office, as it is not a reuse that would be drawn naturally to the site and neighborhood. That said, it was felt that office would be a filler in either the flex space or within the smaller retail footprint at Sherman and Michigan.

Industrial/Flex: There are two ongoing industrial projects of interest in the Sherman Park site, Recycle Force and Amerifab. Recycle Force employs individuals who have been recently released from incarceration, rebuilding their employment skills and habits as they transition to a fully independent and productive life. Recycle Force retains and provides 18 months of temporary employment for these individuals while they begin to re-establish their workforce skills. Amerifab produces customized metal products for a variety of uses primarily throughout the United States. Amerifab relies on several metal vendors for resources and supplies; these vendors may make up a group of future tenants for other industrial spaces within Sherman Park as land becomes available for redevelopment.

Several stakeholders mentioned that they have had to turn away firms who would like to locate in the near east side of Indianapolis, as there is a lack of adequate land and building square footages to accommodate their needs. Many are small industrial firms looking for space between 5,000 SF and 25,000 SF with proximity to Downtown and Interstates 65 and 70. These smaller firms tend to have more employees per1000 SF than larger "footprint" manufacturers and distributors.

While it may take time to absorb industrial growth, the market may be able to secure space for about 350,000 SF - 500,000 SF of industrial uses on about 40 acres over the next ten years. Again, ideally these would be smaller footprint facilities with a range of square footage needs from 5,000 SF to about 40,000-50,000 SF.

As technology continues to modify industrial processes, more customized work can be done by fewer individuals using advanced manufacturing technology. Therefore, the Sherman Park development concept aims to create opportunities for those businesses to flourish that would provide more employment per SF than larger-scale facilities. Neighborhood and East Side trends indicate an opportunity to stay relatively small and nimble in size, but broad in terms of diversity of industry types while creating more employment opportunities for neighborhood residents.

The site plan below demonstrates how these reuses may be best configured within Sherman Park. It is important to note that the majority of the acreage, about 40 acres or almost 80% of the land, is still dedicated to industrial/flex spaces. Also, a new park is proposed for the west side of Sherman Park along North LaSalle Street. This park is on what should be a clean site that could be converted relatively quickly to fill the void of green space that exists on the near east side.

The remainder of the development concept consists the Sherman Park "village" with the purpose of connecting North Sherman Park to the neighborhoods east of Sherman Drive (Grace Tuxedo) and south of East Michigan Street (Hollywood Place). To accomplish this the concept proposes reintroducing the neighborhood street grid for this corner of Sherman Park.

Besides being the most logical place to reintroduce a commercial area and the street grid, it is also an environmentally clean area within the Sherman Park site.

While much of the residential may be built in single-use three-story buildings along either North Sherman Drive or East Michigan St., there is an opportunity to introduce mixed-use retail/residential at the intersection on the southeast corner of Sherman Park.

RATIO Urban Designer Tom Gallagher presenting the overall concept and development sections to participants of the fifth public input meeting.

DEVELOPMENT CONCEPT & PUBLIC INPUT

The fifth public input meeting focused on reviewing a 3D model of the Steering Committee's preferred development concept. The project team answered questions following the presentation to neighborhood residents.

The development plan focuses on employment through industrial/flex space development. The plan also emphasizes green space, with a new park along North Lasalle St. and a greenway trail moving east to west along East North Street under the CSX Railroad tracks.

The 3D model renderings on the next page illustrate the mixed-use opportunities near the Sherman and Michigan intersection within a more densely built neighborhood commercial node and a recreated neighborhood street grid.

The concept is strengthened by additional multifamily residential development north along North Sherman Drive and west along East Michigan Street. In the illustrations below, residential development is yellow, retail/office is red, and industrial/flex is blue.

Residents were generally pleased with the Steering Committee's preferred development concept for Sherman Park. They felt the Steering Committee and project team had heard most of their concerns and comments, and they appreciated the new park and the opportunity for retail/small grocery/pharmacy possibilities.

With a general conCensus from the public, it was now necessary to lay out an infrastructure concept to meet the needs of the preferred development approach.

East Side viewed from North Sherman Drive and East Michigan Street intersection NW toward Sherman Park

West Side viewed from SW above the North Lasalle Street and East Michigan Street intersection.

The illustration below shows the new park along North Lasalle Street and the balance of the site as industrial/flex space. It accommodates the expansion of Amerifab south toward East Michigan St. from its current location along the CSX Railroad at East 9th St.

Overall development concept viewed from south side above East Michigan Street.

This vantage point illustrates that the majority of the land in Sherman Park will be dedicated to industrial/flex employment opportunities (shaded in blue).

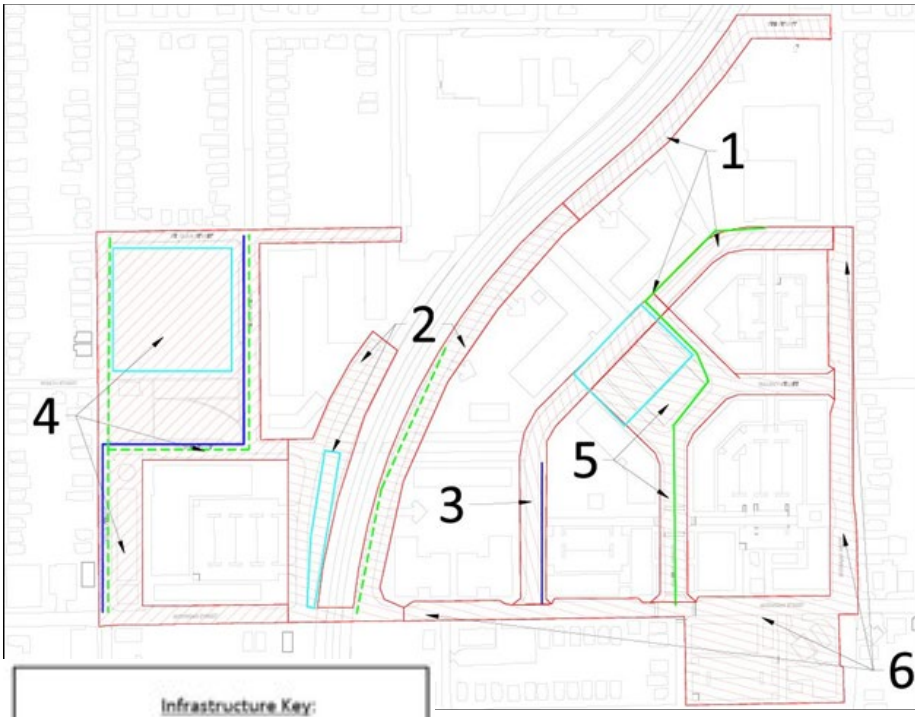
DEVELOPMENT CONCEPT INFRASTRUCTURE

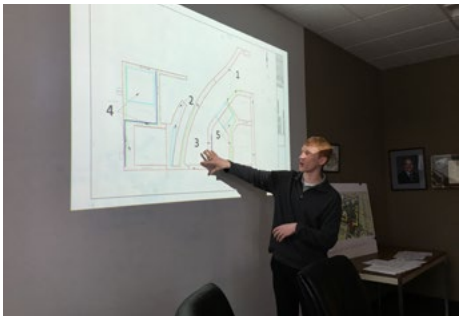
Preliminary infrastructure concepts were presented to the Steering Committee to understand the challenges and concerns of implementing the development concept. The Steering Committee discussed the implementation challenges and preliminary estimates for construction of the six sections outlined in the preliminary infrastructure planning.

There are several key infrastructure design goals for Sherman Park. First, it is proposed that a common detention system be designed for stormwater management on the west and east sides of Sherman Park, separated by the CSX Railroad that bisects the site. This will allow a more efficient use of land and incentivize private developers and new businesses.

Second, the infrastructure concept proposed a truck drive for each side of Sherman Park running adjacent to the CSX Railroad to allow semi-truck traffic easy access to North Sherman Drive and Interstate 70 at North Emerson Avenue about a mile northeast. To accomplish this, it is proposed that East Michigan become a two-way street. This would require lowering the surface of East Michigan St. about two feet to ensure semi-trucks can move underneath the CSX underpass. It would also likely require some type of traffic signal control that may be triggered by semi-trucks as they approach the underpass.

Third, water infrastructure and sanitary sewers will need to be extended along the new street routes into the site. This is only necessary on the east side and in a fairly limited scope, since the entire site is surrounded by an existing utilities network with adequate capacity to serve future development.





ECONOMIC BENEFITS & FISCAL IMPACTS

The Sherman Park Development Plan would have a significant impact on the near east side in an area that has experienced severe disinvestment for more than a decade. At full build-out, the plan would create nearly $50 million in private investment and about $850,000 of property tax revenue per year. These private developments would also generate about 450 new jobs. These jobs would create about $10.5 million in annual payroll that would increase local income tax revenues by about $325,000 per year.

While the total employment and economic impact will never reach the significance of the former RCA Manufacturing Facility, the Sherman Park Development Plan would generate significant employment through a diversity of businesses, making the area more economically resilient and sustainable long-term.

Furthermore, the City of Indianapolis would realize a return on its initial infrastructure investment in 10 years, assuming it made the investment all at once.

Estimated Property Investment & Tax Revenue at Full Build-Out

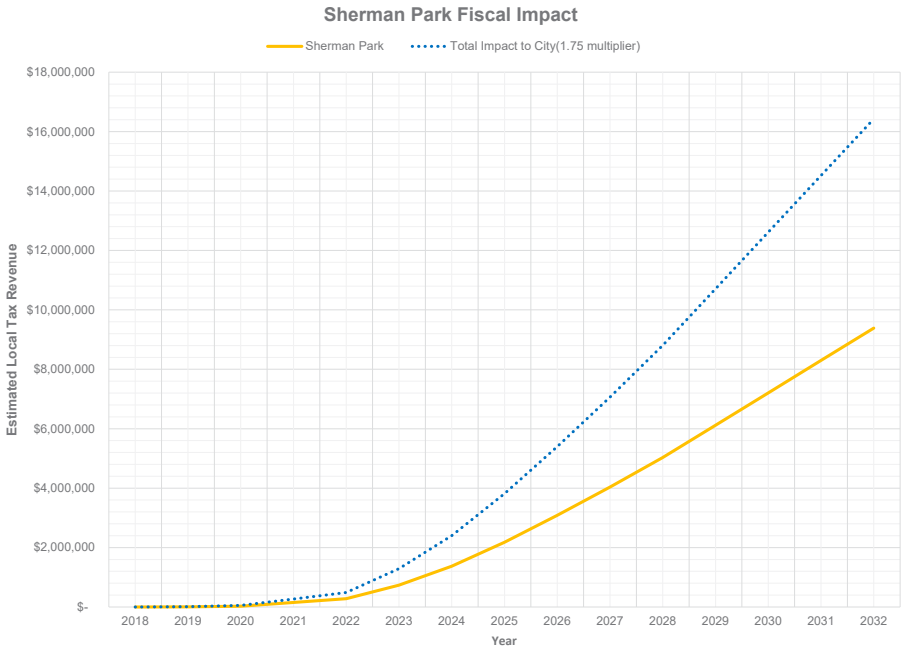
Sherman Park Development Plan

Reuse Investment Type	Est. Private Investment	Est. Yearly Property Tax Revenues
Multifamily Residential	$18,300,000	$294,000
Retail/Commercial	$4,200,000	$56,000
Industrial/Flex	$25,000,000	$492,000
Total	**$47,500,000**	**$842,000**

Estimated Job Creation & Income Tax Revenue at Full Build-Out

Sherman Park Development Plan

Reuse Type of Employment	Estimated Jobs	Estimated Payroll	Estimated Income Tax Revenue
Retail/Commercial	50	$1,500,000	$25,000
Industrial/Flex	400	$9,000,000	$300,000
Total	**450**	**$10,500,000**	**$325,000**



CASE STUDY MET CENTER, ST. LOUIS

Focused on social, family, and workforce development.

The MET Center is a strategic partnership created to stimulate the economic self-sufficiency of individuals living in low to moderate income communities of the St. Louis region. The Center seeks to accomplish this mission by delivering focused, comprehensive, and accessible job training, placement, assessment, career development services and transportation services. We serve the underemployed, unemployed, and displaced workers, leading to sustainable work and a competitive regional economy. The MET Center is a member of the Working Families Success Network (WFSN).

MET Center focuses on:

- Centrally Located Near the Metro Link
- Comprehensive Skill-based Training
- Focused Individual Employment Planning
- Accessible Career Development and Placement Services
- Personal Financial Education/Transportation Services

PROGRAM & SERVICES

Adult Basic Education Program (HiSet)

Offers academic skills enhancement and HiSET preparation. Classes are taught by staff of St. Louis Public Schools. Must be 18 years of age or older.

American Job Center/ Next Generation Career Center (NGCC)-- Satellite Office

The Next Generation Career Center focuses on providing customers with an integrated approach to identifying and securing employment. Job seekers are able to receive employment services such as staff assisted and online job search, job searching tools, job coaching, labor market information, and supportive services. Job Skills Training is available for career transition into skilled-based training and/or post-secondary education, and career counseling. Services are available to customers ages 18 and above, unemployed and underemployed, dislocated/laid off workers, and veterans.

Socio-Economic Comparison
Sherman Park & MET Center Neighborhoods

Population	Sherman Park - Indianapolis, IN	Met Center - St. Louis, MO
.25 Mile	1,275	278
.5 Mile	5,341	3,279
1 Mile	20,838	17,127
Per Capita Income	**Sherman Park - Indianapolis, IN**	**Met Center - St. Louis, MO**
.25 Mile	$9,848	$9,868
.5 Mile	$11,855	$13,074
1 Mile	$15,105	$19,000
No High School Degree	**Sherman Park - Indianapolis, IN**	**Met Center - St. Louis, MO**
.25 Mile	36%	12%
.5 Mile	33%	17%
1 Mile	28%	14%
Unemployment Rate	**Sherman Park - Indianapolis, IN**	**Met Center - St. Louis, MO**
.25 Mile	12.3%	30.1%
.5 Mile	12.4%	18.4%
1 Mile	10.2%	12.4%
Businesses	**Sherman Park - Indianapolis, IN**	**Met Center - St. Louis, MO**
.25 Mile	21	25
.5 Mile	100	91
1 Mile	345	512

Bioscience Technology Program-- SLCC/FWCA 12 weeks

Training and classroom experience in preparation for entry-level, career oriented employment in Life Sciences. Life Sciences includes an intro to biology, intermediate to advanced math, and computer skills. Preparation for employment as a lab technician and the opportunity for continued education.

Business Office Administrative Training (BOAT) -- 12 Weeks

This unique accelerated computer/soft skills training will help you master the skills you need to excel in today's competitive workplace. The hands-on instruction in Microsoft Office Suites, Word, Excel, PowerPoint and Outlook prepares career-seekers for entry-level administrative and management positions. Individuals learn essential workplace skills and how to handle people more professionally and keep pace with fast-changing workplace conditions. It also prepares career-seekers to earn employer recognized certificates including the National Career Readiness Certificate (NCRC) offered by ACT, Microsoft Office Specialist (MOS) Certifications and the Internet and Computing Core Certification (IC3) both offered by Microsoft. Successful completion earns you 8 credit hours towards completion of a Certificate of Specialization in Microcomputer Applications or count toward completion of a degree at STLCC.

Carpentry/Building Maintenance (CRP)-- MTA 8 weeks

This course will teach participants hand and stationary power tool safety, proper handling and disposal of waste materials, installation of early detection devices and how to deal with mold and mildew issues. Students will focus on the essentials of residential framing including interior and exterior doors, new and replacement windows, and various types of insulation. Students will also learn residential plumbing and electrical essentials covering faucet, shower head, and toilet installation and repair as well as the proper installation of switches, outlets and lighting fixtures. Miscellaneous residential repairs and energy conversation will also be discussed. All students are enrolled in Ranken Technical College.

Diesel Technology (DT) – 2-year Associates Degree

Program is offered as a Certificate of Specialization, Certificate of Proficiency or an AAS Degree. Training includes diesel engine operation and repair, electronic system, drivetrains, fuel systems, preventative maintenance inspection, welding, heating, ventilation and air conditioning service and parts management. Preparation for employment as a medium to heavy truck repair technician. Program is administered, and classes are taught by St. Louis Community College Forest (SLCC) Park. To enroll in this program, you must enroll at SLCC – Forest Park. More information at **www.STLCC.edu.**

DOL Training to Work Adult Reintegration Program (T2W) -- FWCA/FSC

Provides placement & retention services to ex-offenders referred from Fathers' Support Center

Early Explorers Child Development Academy (EECDA)--FWCA

An 18,000 sq. ft. facility adjacent to the Wellston Metrolink that serves 120 children, ages 6 weeks to 5 years old. In addition to child care, the facility will also offer early childhood education and parenting classes. While following the developmentally appropriate practices outlined by the National Association for the Education of Young Children (NAEYC), Early Explores will follow the Creative Curriculum, which provides a hands-on approach to learning. EECDA is open Monday-Friday from 6 A.M. to 6 P.M. Family and Workforce Centers of America (FWCA) operates and manages the facility.

Entrepreneurship Training Program (ETP)-- FWCA/The PrivateBank 15 weeks

15-week program designed for entrepreneurs wanting to start their own business. Upon successful completion of the program, participants have the opportunity to apply for a $10k loan. Additionally, the participant is matched with a mentor for the first year of business.

Heating Ventilation & Air Conditioning Services Technician Program (HVAC)-- MTA 8 Weeks

This course will teach students trade principles and the basics of refrigeration, including a description of what is taking place inside each of the main parts of a system. Students learn to read a temperature pressure chart, apply it to systems using different refrigerants and evaluate the system using their gauges. The course covers soldering and brazing of copper tubing. Also covered are basic electrical principles in a theory/shop format. Students begin with the nature of electricity and progress to electrical safety, electrical values, and generation of electricity, electrical circuits, electrical meters and wiring diagrams. Additionally, residential wiring and control circuits are covered. All students will be required to take the EPA 608 Universal Service Technician Test. All students are enrolled in Ranken Technical College.

Industrial Certification Program (ICP)-- MTA 4 Weeks

This course will provide students with the basic industry certifications required to work in today's high growth job market. Training includes orientation to the high growth industries, workplace vocational math, and introduction to blueprint reading, precision measuring, pc fundamentals, osha-10 certification, and forklift certification.

Licensed Practical Nurse Program (LPS) 1-year

Provides training, which prepares students for the licensing exam administered by the State of Missouri to become an LPN. Classes are taught by the Special School District.

Pathways to Responsible Fatherhood Program (PTRF)-- FSC/ FWCA-6 Weeks

Provides employment assessment and job preparation services to fathers referred by Fathers Support Center (FSC). Fathers are also enrolled in the Within My Reach Healthy Marriage and Relationship Education curriculum.

Pre-Employment Services-- FWCA

FWCA can provide two – four weeks of work readiness which includes soft skills training, introduction to employer culture, cognitive skills development, behavior modifications, decision making, effective communications, interpersonal skills and leadership development, time management, appearance, etc.

Precision Machining Technology (CNC)-- MTA 8 weeks

This course will provide students with all aspects of Computer Numerical Control Machining Industry. Students will be provided instructions for the CNC milling & lathe machines. Focuses will be on numerical control techniques in metal forming and machine processes, applications of computer numerically controlled machine tools, G and M code programming. The course includes theory and practice in lathe and milling machine computer numerical control program writing, setup, safe operation and manual programming of the CNC. All students are enrolled in Ranken Technical College.

ProjectXcel (Take control of your job future, FAST)--SLCC 10weeks

This professional training program designed specifically for young people aging out of foster care (17-21) to introduce them to meaningful careers with opportunities for advancement. Career-seekers will learn essential universal skills that build on a strong foundation in service excellence, including interpersonal and business communications, critical thinking, diversity and much more. It also prepares career-seekers to earn employment recognized certificates including the National Career Readiness Certificate (NCRC) offered by ACT, the National Retail Federation's National Professional Certification in Customer Service, and the Internet and Computing Core Certification (IC3). Trained community career coaches follow participants in the first 6-12 months of employment to ensure they are on track. Taught by STLCC.

PARTNER ORGANIZATION

St. Louis County Government

St. Louis County was created on October 1, 1812 by Governor William Clark. In 1876 the City of St. Louis separated from St. Louis County, becoming an independent city that provides its own county services. Local government service delivery in St. Louis County is divided among over 150 political jurisdictions. The State of Missouri, St. Louis County government, 91 municipalities, and a large number of special districts levy taxes separately and provide services directly to County citizens.

St. Louis Economic Development Partnership

To lead in the development and growth of long-term diversified business and employment opportunities by creating innovative solutions that generate increased wealth and enhanced quality of life for the citizens, businesses and institutions of the St. Louis region.

St. Louis County WIB

Saint Louis County provides direction on local workforce issues by identifying needs and developing strategies for administering the Title One Program of the Workforce Investment Act and the Temporary Assistance to Needy Families/Career Assistance Program (TANF/CAP). The WIB contracts with partner agencies to provide a wide range of direct services to our clients.

East-West Gateway Council of Governments

Designated by state and federal agencies as the metro planning organization for the bi-state area, Its Board of Directors has responsibility for selecting the road, bridge and transit projects in the region that will receive federal funds. Transportation investment decisions are made in the context of a 20-year Transportation Plan which places the region's economic, community and environmental needs at the top of its agenda.

St. Louis City WIB (SLATE)

Their mission is to develop a quality workforce that meets the economic and labor market needs of the region by providing leadership and promoting collaboration among public, private and elected official partners.

St. Louis Community College (STLCC)

Established in 1962, Saint Louis Community College has been educated the Saint Louis Region for 48 years. With 11 college transfer options and more than 90 career programs, as well as an ever-evolving array of courses and programs for personal development, St. Louis Community College continually offers area students and potentials the opportunity to explore their interests, examine their options and expand their minds.

Special School District (SSD)

SSD offers special education services to all students with disabilities in St. Louis County. The district covers 510 square miles, and SSD staff educates more than 28,000 students in 23 public school districts and 265 schools. More than 97 percent of students who receive special education services from SSD staff attend a school in the school district in which they live.

St. Louis Public Schools (SLPS)

St. Louis Public Schools is the district of choice for families in the St. Louis region that provides a world-class education and is nationally recognized as a leader in student achievement and teacher quality. They provide a quality education for all students and enable them to realize their full intellectual potential, with the belief that all children can learn, regardless of their socioeconomic status, race, or gender.

Family and Workforce Centers of America (FWCA)

FWCA was established in July 2011 and is dedicated to enhancing the lives of American youth and adults who are in need of family supportive and workforce services. Our purpose is to implement programs that set youth and families on a pathway to sustainable and lucrative careers, and/or secondary education or training by emphasizing pre-employment skills and reality-based learning.

Annie E. Casey Foundation

Established in 1948 by Jim Casey, one of the founders of UPS, and his siblings, who named the Foundation in honor of their mother. The mission of the Foundation is to foster public policies, human-service reforms, and community supports that meet the needs of today's vulnerable children and families. In pursuit of this goal, the Foundation makes grants that help states, cities and neighborhoods fashion more innovative, cost-effective responses to these needs.

Metropolitan Training Alliance (MTA)

The Manufacturing Training Alliance (MTA) is a non-profit, 501 (3) (c) organization offering Missouri and Illinois residents industry certification programs in Computer Numerically Controlled (CNC) Machining and Advanced Manufacturing. MTA incorporates hands-on training; alternative classroom skills development in applied shop math, blueprint reading, computer skills and precision measuring. MTA also offers advanced courses in Integrated Systems Technology (IST), Welding, Sheet Metal Fabrication, CADD and CNC Programming through Florissant Valley Community College and Southwest Illinois Community College (SWICC). Students can receive up to 18 college credit hours towards an Associate of Sciences Degree.

National Disability Institute

The mission of National Disability Institute is to build a better economic future for Americans with disabilities. We envision a world where people with disabilities have equal opportunity to achieve financial stability and independence as people without disabilities.

St. Louis Community Credit Union

St. Louis Community Credit Union is a progressive, full-service financial institution. Since 1942, we've been committed to providing our members with an outstanding selection of savings and investment products, loans and convenience services – all designed to help families like yours achieve greater prosperity now and in the years ahead.

The Private Bank

Our mission is to provide personal and commercial banking and private wealth services in the same way we always have – by building strong relationships, one client at a time. Our experienced professionals care about our clients and are thoughtful and creative in meeting your needs.

RCGA/ Greater St. Louis Works

Private- and public-sector partners who have come together to make sure that St. Louis attracts, develops, and retains the great IT talent we need to compete in the global marketplace. They serve a resource for professionals, entrepreneurs, students, employers – anyone who wants to know what's happening for tech-talented people in St. Louis.

Father' Support Center, St. Louis

Founded on December 10, 1997, Fathers' Support Center has consistently provided a comprehensive program of services for men who want to learn to be a responsible father, committed to a strong family relationship. Since its founding, Fathers' Support Center has served more than 10,000 fathers and their families -- including over 25,000 children. FSC has experienced continued success - 75% job retention, 62% employment placement, 75% financially support their children and 80% interact with their children. The program delivers positive results for fathers, their children and the community as a whole.

Washington University in St. Louis

Washington University's mission is to discover and disseminate knowledge, and protect the freedom of inquiry through research, teaching, and learning. Washington University creates an environment to encourage and support an ethos of wide-ranging exploration. Washington University's faculty and staff strive to enhance the lives and livelihoods of students, the people of the greater St. Louis community, the country, and the world.

Grace Hill Settlement House

To provide high quality health care and exceptional service, while promoting healthy lifestyles." Grace Hill Health Centers, Inc. (GHHC) was established in 1906. Grace Hill is a 501 (c) (3) non-profit corporation, and a Federally Qualified Health Center (FQHC). GHHC provides low-cost, primary and preventive health care at six locations to primarily low-income and uninsured residents in the City of St. Louis. GHHC is accredited through The Joint Commission.

Urban Strategies

To empower residents in distressed urban core neighborhoods to lead healthy, prosperous lives in thriving, self-sustaining communities. Urban Strategies, Inc. is a national nonprofit with extensive experience in implementing place-based human capital development strategies in public housing communities that are undergoing comprehensive physical revitalization. Founded in 1978, Urban Strategies works to help communities build safe neighborhoods, enhanced schools, and a range of comprehensive human service supports. Our work is focused in urban core residential communities and is designed to build social and economic mobility for low-income families living in mixed-income communities.

AARP

It is a nonprofit, nonpartisan organization, with a membership of more than 37 million, that helps people turn their goals and dreams into real possibilities, strengthens communities and fights for the issues that matter most to families such as healthcare, employment security and retirement planning. AARP advocate for consumers in the marketplace by selecting products and services of high quality and value to carry the AARP name as well as help our members obtain discounts on a wide range of products, travel, and services.

Boeing

It is a nonprofit, nonpartisan organization, with a membership of more than 37 million, that helps people turn their goals and dreams into real possibilities, strengthens communities and fights for the issues that matter most to families such as healthcare, employment security and retirement planning. AARP advocate for consumers in the marketplace by selecting products and services of high quality and value to carry the AARP name as well as help our members obtain discounts on a wide range of products, travel, and services.

WFF Facility Services

Our mission is to maintain the highest level of business integrity and employment practices while providing a high-quality service to our customers. All programs are tailored to our customers' specific requirements, supported by on-site and corporate management, while maintaining value-based competitive pricing.

Missouri Department of Social Services-Family Support Division

Family Support Division (FSD) maintains and strengthens Missouri families, helping people achieve an appropriate level of self-support and self-care through needs-based services.

American Job Center

Americans looking for work shouldn't have to go through a complex administrative process or navigate multiple websites just to figure out how to get the services and training they need...It's time to modernize the system. As the cornerstone of the American Job Center Network this site provides a single access point - open 24-7 - for key federal programs and critical local resources to help people find a job, identify training programs, and tap into resources to gain skills in growing industries. This site, and the nearly 3,000 federally funded brick-and-mortar employment centers that are part of the American Job Center Network provide an easily-identifiable source for the help and services individuals and businesses need.

07

IMPLEMENTATION

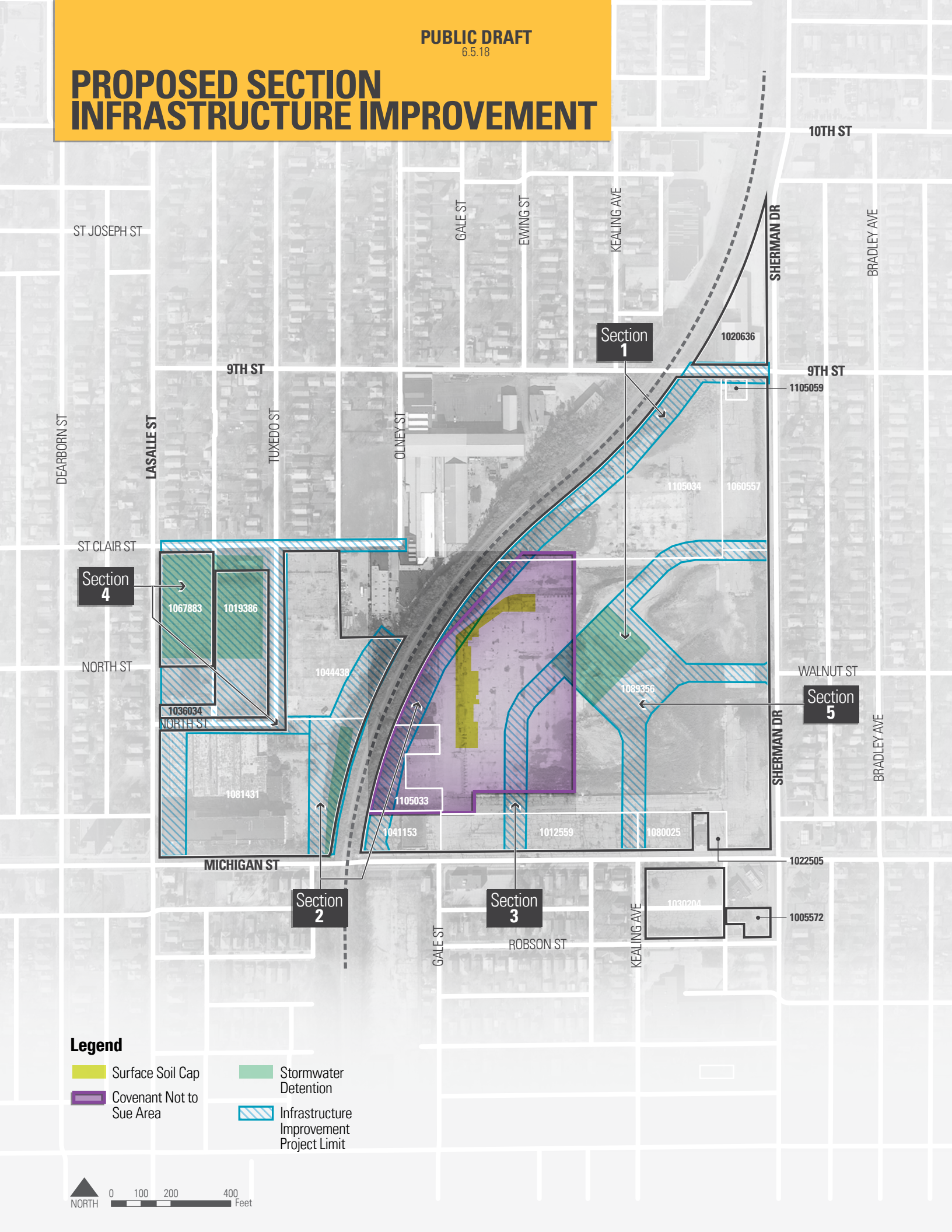
The implementation plan is prepared to resolve outstanding environmental issues and complete infrastructure improvements that will support private investment and job creation for industrial/flex, mixed use, commercial, and residential development. Each section is designed to open areas of the Sherman Park site for redevelopment.

The map at the right overlays the critical environmental remediation areas with the proposed section infrastructure improvements. The most challenging area is identified in the map as the "Covenant Not to Sue" area. It is within this area that GE is completing ongoing groundwater remediation, projected to be complete in 2020 and likely to be followed by an additional year to document and close out all binding legal responsibilities of GE. Therefore, it is unlikely significant construction would occur within this area until final closure is approved by all parties involved.

Each section identified in the map is shown with a preliminary schedule, a planning budget for estimated remediation and infrastructure costs, and projected fiscal impacts.

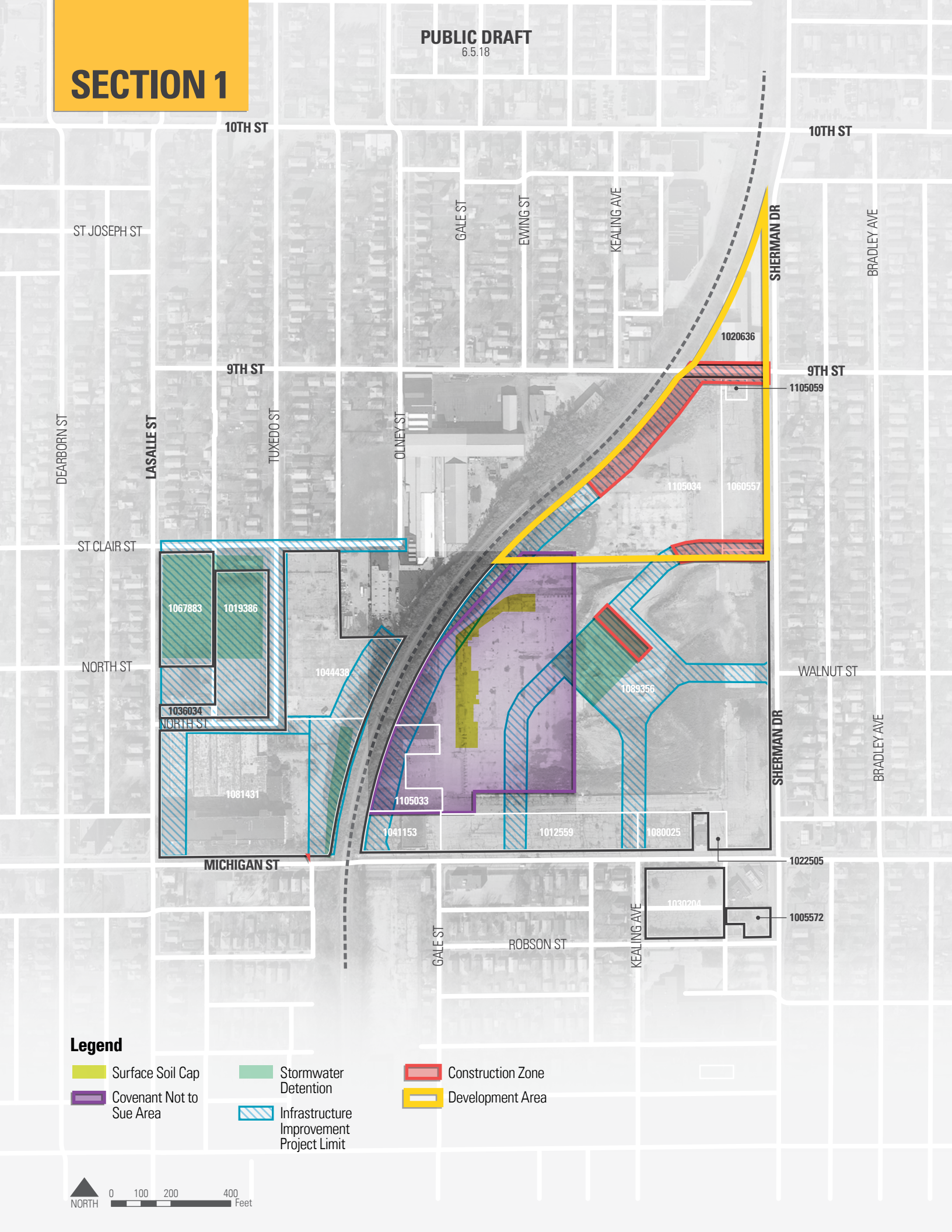
PUBLIC DRAFT
6.5.18

PROPOSED SECTION INFRASTRUCTURE IMPROVEMENT



SECTION 1

PUBLIC DRAFT
6.5.18



Legend

- Surface Soil Cap
- Covenant Not to Sue Area
- Stormwater Detention
- Infrastructure Improvement Project Limit
- Construction Zone
- Development Area

NORTH 0 100 200 400 Feet

Section 1

Environmental														
Property No.	Description	Budget	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
1020636	Ph-I, Ph-II, ERC closure	$25,000											
1105034	Waste Characterization, Remove contaiminated soil if necessary during construction, ERC closure	$5,000											
1060557	Move to ERC Closure	$500											
1105059	No Action, cell tower remains	$0											
1089356	Move to ERC Closure only for the area outside of Convenant Not to Sue Area	$1,000											
	Sub-total	**$31,500**											

Infrastructure													
Property No.	Description	Budget	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
1105034	New Road	$615,000	D	B									
1089356	Underground Detention	$765,000	D	B									
	Sub-total	**$1,380,000**											
	Preliminary Estimate	$1,411,500											
	Cntingency (25%)	$352,875											
	Non-Construction	$346,575											
	Section 1 - TOTAL	**$2,110,950**											

D = Design ; B = Build

Project Description: RecycleForce nonprofit electronics recycling processing center

Total Square Feet: 75,000 SF

Estimated Cost: $4,500,000

Property Tax: N/A

Land Size: ~7 Ac

Employment Estimates: 100-150 employees

Annual Est. Payroll: $2,000,000

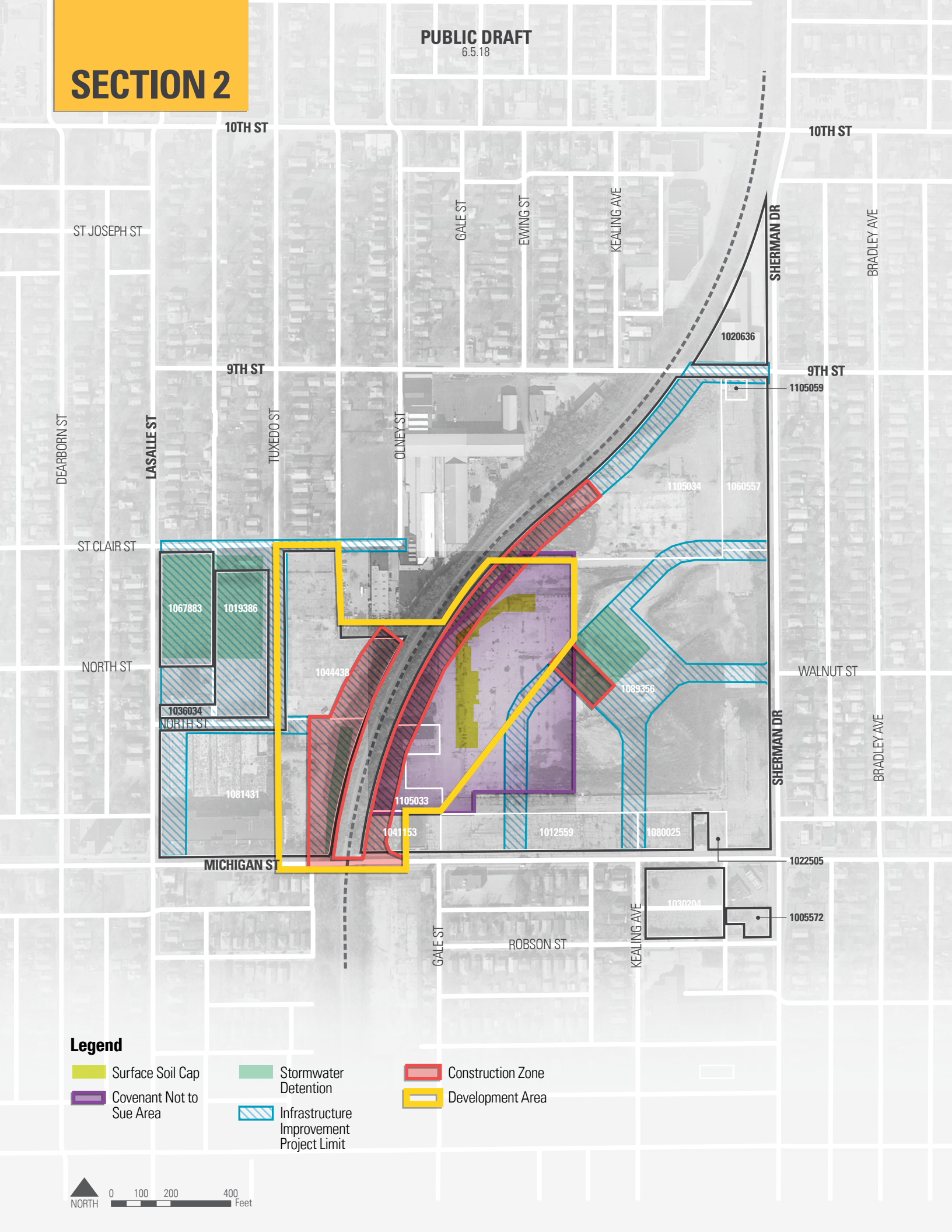
Annual Est. Income Tax: $47,000

Special Needs: Space and truck stacking capacity to manage semi-truck traffic volume of 50-75 trucks per day

Zoning: Light Industry

SECTION 2

PUBLIC DRAFT
6.5.18



Legend

- Surface Soil Cap
- Covenant Not to Sue Area
- Stormwater Detention
- Infrastructure Improvement Project Limit
- Construction Zone
- Development Area

NORTH 0 100 200 400 Feet

Section 2

Environmental														
Property No.	Description	Budget	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
1044438	Waste Characterization, Remove contaiminated soil if necessary during construction, ERC closure	$5,000											
1081431	Waste Characterization, Remove contaiminated soil if necessary during construction, and VAPOR Mitigation System, ERC closure	$60,000											
1041153	Waste Characterization, Remove contaiminated soil if necessary during construction, and VAPOR Mitigation System, ERC closure	$30,000											
1105033	Must wait for Remediation Closure, then Waste Characterization, Remove contaiminated soil if necessary during construction, ERC closure	$5,000											
1089356	Must wait for Remediation Closure, then Waste Characterization, Remove contaiminated soil if necessary during construction, ERC closure	$5,000											
Sub-total		**$105,000**											

Infrastructure													
Property No.	Description	Budget	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
1044438	New Road and Utilites extensions				D	B							
1081431	New Road and Underground Detention				D	B							
1041153	New Road and Lowering of Michigan Street Underpass, Utillities extensions				D	B							
1105033	New Road and Utillities extensions				D	B							
1089356	New Road and Utillities extensions				D	B							
	Sub-total	**$1,590,500**											
	Preliminary Estimate	$1,695,500											
	Contingency (25%)	$423,875											
	Non-Construction	$402,875											
	Section 2 - TOTAL	**$2,522,250**											

D = Design ; B = Build

Project Description: Amerifab is reviewing expansion plans for an additional manufacturing building (Phase I). Amerifab Phase II would create a Metals Institute for metalworking skill development that would be used by other metals manufacturers in Central Indiana. Closer to the intersection of North LaSalle and East Michigan would be a "makerspace" building that could accommodate different types of industrial and related businesses.

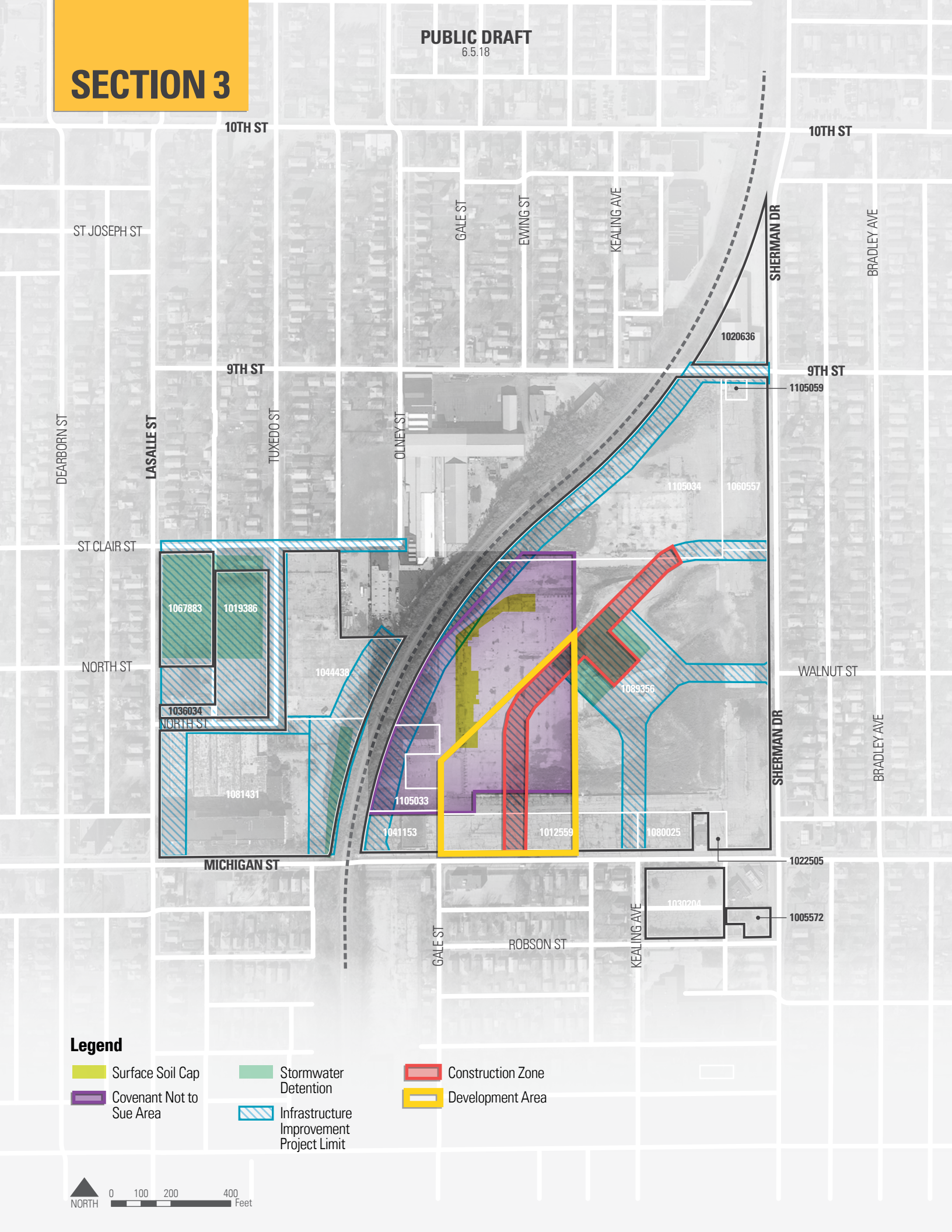
	Amerifab Phase I	Amerifab Phase II Metal Institute	Makers-Space
Total Square Feet	35,000 SF	50,000 SF	10,000 SF
Land Size	~3 Ac	~1-2 Ac	~1 Ac
Estimated Bldg. Cost	~$2,100,000	~$3,750,000	~$950,000
Annual Property Tax	~$50,400	~$90,000	~$22,800
Employment Estimates	60-100 jobs	2-3 jobs	20-30 jobs
Annual Est. Payroll	~$2,500,000	~$80,000	~$624,000
Annual Est. Income Rev.	~$50,000	~$1,500	~$12,500

Special Needs: Amerifab Phase I requires oversize semi-truck access north to I-70 via Sherman Park truck route and lowered underpass on Michigan St.

Zoning: Heavy Industry (Amerifab Phase I) and Light Industry (Metals Institute and Makerspace)

SECTION 3

PUBLIC DRAFT
6.5.18



Legend

- Surface Soil Cap
- Covenant Not to Sue Area
- Stormwater Detention
- Infrastructure Improvement Project Limit
- Construction Zone
- Development Area

NORTH 0 100 200 400 Feet

Section 3

Environmental														
Property No.	Description	Budget	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
1089356	Must wait for Remediation Closure, then Waste Characterization, Remove contaiminated soil if necessary during construction, ERC closure (should be resolved)	$0											
1012559	Move toward ERC closure	$500											
	Sub-total	**$500**											
Infrastructure													
1089356	New Street and Utilities extension				D	B							
1012559	New Street and Utilities extension				D	B							
	Sub-total	**$806,000**											
	Preliminary Estimate	$806,500											
	Contingency (25%)	$201,625											
	Non-Construction	$201,525											
	Section 3 - TOTAL	**$1,209,650**											

D = Design ; B = Build

Project Description: Additional industrial/office flex space along Michigan St. and added space for heavy industrial uses north of East Michigan St. near CSX Railroad.

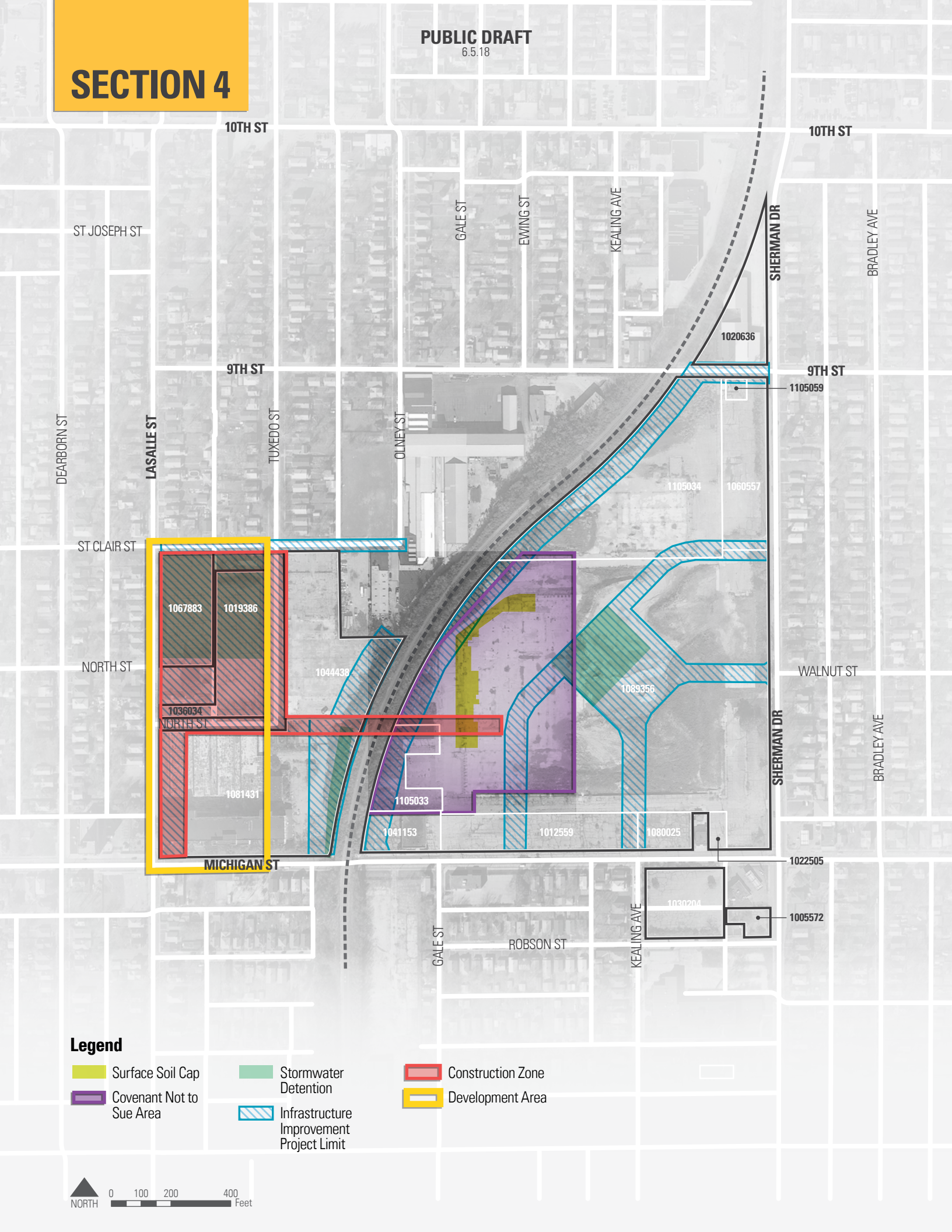
	Amerifab Phase I	Industrial A	Industrial B	Industrial C	Industrial D
Total Square Feet	60,000 SF	10,000 SF	5,000 SF	40,000 SF	50,000 SF
Land Size	~6 Ac	~1 Ac	~0.5 Ac	~4.5 Ac	~5.5 Ac
Estimated Bldg. Cost	~$4,200,000	~$700,000	~$375,000	~$2,400,000	~$3,000,000
Annual Property Tax	~$100,800	~$16,800	~$9,000	~$57,600	~$72,000
Employment Estimates	60-90 jobs	10-15 jobs	~5-9 jobs	20-25 jobs	25-30 jobs
Annual Est. Payroll	~$1,800,000	~$312,000	~$156,000	~$624,000	~$780,000
Annual Est. Income Rev.	~$38,000	~$6,300	~$3,100	~$12,600	~$15,700

Special Needs: Remediation must be complete and reach close-out with a revised Environmental Restricted Covenant (ERC) that allows construction within the former "covenant not to sue" area.

Zoning: Light Industry (Industrial/Office flex space) and Heavy Industry one block north of East Michigan St. along CSX Railroad

SECTION 4

PUBLIC DRAFT
6.5.18



Legend

- Surface Soil Cap
- Covenant Not to Sue Area
- Stormwater Detention
- Infrastructure Improvement Project Limit
- Construction Zone
- Development Area

NORTH 0 100 200 400 Feet

Section 4

Environmental														
Property No.	Description	Budget	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
1067883	Move toward ERC closure	$500											
1019386	Move toward ERC closure	$500											
1036034	Move toward ERC closure	$500											
1081431	Waste Characterization, Remove contaiminated soil if necessary during construction, and VAPOR Mitigation System, ERC closure Should be in place)	$0											
	Sub-total	**$1,500**											

Infrastructure													
Property No.	Description	Budget	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
1067883	New Sidewalks and Storm Water Piping and Underground Detention			D	B								
1019386	New Sidewalks and Storm Water Piping and Underground Detention			D	B								
1036034	New Sidewalks and Storm Water Piping and Underground Detention			D	B								
1081431	New Sidewalks, Greenway Trail, and Storm Water Piping and Storm Water Buffer			D	B								
	Sub-total	$691,000											
	Preliminary Estimate	$692,500											
	Contingency (25%)	$173,125											
	Non-Construction	$172,825											
	Section 4 - TOTAL	**$1,038,450**											

D = Design ; B = Build

Project Description: Additional industrial/office flex space in the center of East Side.

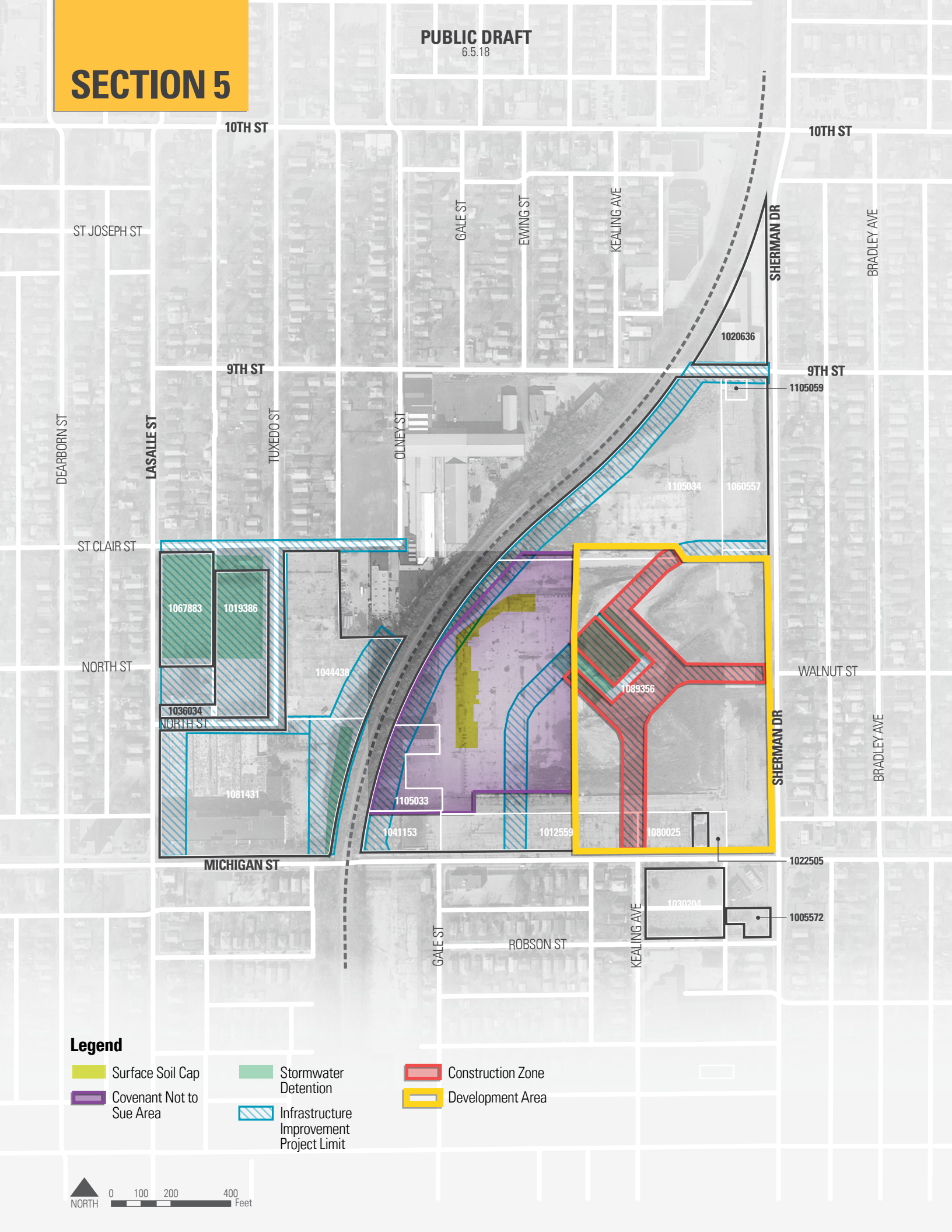
	Industrial E	Industrial F	Learning Center (Institutional / Nonprofit)
Total Square Feet	10,000 SF	15,000 SF	6,500 SF
Land Size	~1 Ac	~1.5 Ac	~1 Ac
Estimated Bldg. Cost	~$700,000	~$1,050,000	~$650,000
Annual Property Tax	~$16,800	~$25,200	~$0
Employment Estimates	20-30 jobs	30-40 jobs	3-5 jobs
Annual Est. Payroll	~$1,000,000	~$1,250,000	~$105,000
Annual Est. Income Rev.	~$20,000	~$25,000	~$2,100

Special Needs: Remediation must be complete and reach close-out with a revised Environmental Restricted Covenant (ERC) that allows construction within the former "covenant not to sue" area.

Zoning: Light Industry (Industrial/Office flex space)

SECTION 5

PUBLIC DRAFT
6.5.18



Legend

- Surface Soil Cap
- Covenant Not to Sue Area
- Stormwater Detention
- Infrastructure Improvement Project Limit
- Construction Zone
- Development Area

NORTH 0 100 200 400 Feet

Section 5

Environmental														
Property No.	Description	Budget	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
1089356	Modify Environmental Restrictive Covenant (ERC) to release clean east area property for commercial, mixed-use, and residential development.	$0											
1012559	Move toward ERC closure	$500											
Sub-total		**$500**											

Infrastructure													
Property No.	Description	Budget	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
1089356	New Street, Underground Detention, and Utilities extension			D	B	D	B						
1012559	New Street and Utilities extension			D	B	D	B						
	Sub-total	**$1,484,000**											
	Preliminary Estimate	$1,484,500											
	Contingency (25%)	$371,125											
	Non-Construction	$371,025											
	Section 5 - TOTAL	**$2,226,650**											
	All Sections - TOTAL	**$9,107,950**											

D = Design ; B = Build

Project Description: Final industrial/office flex space in center of East Side.

	Industrial G	Mixed-Use	Multi-Family Residential	Small Grocery	Pharmacy
Total Square Feet	20,000 SF	15,000 SF	175,000 SF	10,000 SF	7,500 SF
Land Size	~2.5 Ac	~2 Ac	~6.5 Ac	~1 Ac	~0.75 Ac
Estimated Bldg. Cost	~$1,300,000	~$1,900,000	~$18,300,000	~$800,000	~$750,000
Annual Property Tax	~$31,200	~$30,000	~$294,000	~$12,800	~$12,600
Employment Estimates	15-20 jobs	15-20 jobs	2-4 jobs	15-20 jobs	7-10 jobs
Annual Est. Payroll	~$1,000,000	~$1,250,000	~$105,000	~$375,000	~$245,000
Annual Est. Income Rev.	~$20,000	~$25,000	~$2,100	~$7,500	~$5,500

Special Needs: Remediation must be complete and reach close-out with a revised Environmental Restricted Covenant (ERC) that allows construction within the former "covenant not to sue" area.

Zoning: Mixed-Use/Commercial

IMPLEMENTATION PARTNERS

Indianapolis Department of Metropolitan Development

As current owner of the Sherman Park site, the City is heavily vested in the redevelopment of the entire site. The City has supported this USEPA Brownfield Area-Wide Plan process and has been an active participant. The City's goal is comprehensive redevelopment that meets its long-term economic development goals while integrating into and supporting adjacent neighborhood redevelopment.

The City has a history of successfully working with third party agents/developers to redevelop former brownfield sites (see below), and brings many strengths to redeveloping the site, from its current ownership, to its redevelopment powers under the DMD, to its access to a variety of incentives and funding sources, such as the EPA grant that funded this planning effort. The City is required to follow a formal and public transaction process to comply with State law regarding the sale of publicly-owned property.

The City has earned a significant amount of neighborhood trust through its staff's active participation in this planning effort, and it is anticipated the City will remain an active partner in the long-term redevelopment of Sherman Park.

Near East Area Renewal (NEAR)

NEAR is the umbrella organization that represents about a dozen Near East Side neighborhood organizations and is the lead grantee of this EPA Brownfield Area-Wide Planning Grant.

NEAR has led this planning effort and works every day with those neighborhoods and neighbors who are likely to be the most affected by the redevelopment of Sherman Park. With the surrounding neighborhood organizations represented on the Steering Committee, NEAR has established itself as the managing leader for this effort. NEAR has the staff sophistication and capacity to potentially continue to assist the implementation of this plan forward in coordination with other the City, Develop Indy, and neighborhood groups. They have a successful track record of residential and community development on the near eastside, and as Sherman Park plan has been very much a neighborhood -based planning effort, NEAR would have the acceptance and trust at the street level with neighborhood residents to implement this plan.

Develop Indy

As the primary business development arm for the City of Indianapolis, it is critical to making new and existing businesses aware of the availability of Sherman Park property. Develop Indy has played a key role as a Steering Committee member in this redevelopment planning effort. It will remain involved long-term in the redevelopment of Sherman Park, but due to its significant role throughout the City, it is likely not able to be involved day-to-day.

Englewood Community Development Corporation (CDC)

While the Englewood CDC's geographic focus is just south of Sherman Park, it has provided strong and able leadership on the Steering Committee throughout this planning effort. This CDC has the sophistication and successful track record of completing complicated redevelopment projects in its neighborhood, primarily along East Washington Street. While Sherman Park may not be included within its official boundaries, the CDC should be considered a strong partner for the future implementation of this plan.

John Boner Neighborhood Center

A vital member of the Steering Committee, the John Boner Neighborhood Center is the City's official partner for the Federal Promise Zone of which Sherman Park is within. Like Englewood CDC, the John Boner Neighborhood Center is a sophisticated organization with the administrative capacity to manage complex redevelopment projects and multiple grant programs.

Given the scale and unique neighborhood fit of Sherman Park within the near east side, it may be possible and indeed necessary for long-term success that a neighborhood-based advisory committee be formed to coordinate the redevelopment effort of Sherman Park. This would be somewhat unique in Indianapolis, but this is because the other major brownfield sites within the City have not had strong neighborhood organizations. With the administrative capacity, sophistication with complex redevelopment projects, and the history of success that NEAR, Englewood CDC, and the John Boner Neighborhood Center would bring, they should play a vital role in assisting through a Neighborhood Advisory Committee the implementation of this plan.

INDIANAPOLIS BROWNFIELD PRECEDENTS

Keystone Business Park (former manufacturing sites)

Managing Entity: City DMD with assistance from the Indianapolis Enterprise Zone

Types of Reuses: Manufacturing

Strengths: Adjacent to Interstate 70 / Keystone Avenue interchange

Weaknesses: Redevelopment has no relationship to surrounding neighborhood. It functions as a suburban industrial park shoehorned into an urban neighborhood setting.

Central Greens (former State Central Hospital)

Managing Entity as Master Developer: City DMD with assistance from private sector developer

Types of Reuses: Multifamily housing, education, single-family housing

Strengths: One mile west of Downtown with strong small business corridor along West Washington Street. While redevelopment was delayed due to the Great Recession, redevelopment that did occur in the forms of multifamily residential development and a new charter school have been well-received by surrounding residents and businesses.

Weaknesses: Due to delays in redevelopment, the City has had to play a more active role as private developers struggled through the Great Recession. Recently, the City has selected a different private developer to finish master developing the site.

Citizens Coke Plant / Twin Aire Site (former Citizens Utility coke processing facility)

Managing Entity: Citizens Energy as the current owner of property with strong support from City

Type of Reuses: Site of the new Indianapolis Community Justice Center, office, possible residential

Strengths: Location about a mile east of the vibrant Fountain Square neighborhood and along major SE side commuter corridor into Downtown Indianapolis. New Community Justice Center and related services will increase market activity as an anchor institution for the Twin Aire neighborhood.

Weaknesses: While the Community Justice Center will increase local business activity with its presence, it may not significantly increase employment opportunities for nearby residents as most jobs within the new facility will be relocated from other parts of the city.

GM Stamping Plant

Managing Entity as Master Developer: City DMD with assistance from private sector developer

Types of Reuses: Multifamily housing, mixed-use, office/corporate

Strengths: Adjacent to the White River, Indianapolis Zoo, and Downtown. Offers an excellent creative/knowledge worker setting for increasing new employment and new businesses in the downtown area. Only location near downtown with 100 acres of real estate. Excellent bike, pedestrian, and vehicular connectivity.

Weaknesses: Stakeholders will need to work to incorporate surrounding neighborhood businesses and residents into the eventual redevelopment. Long-term redevelopment will take time, but an excellent partnership exists between the City and the private developer in a very attractive market site for Downtown Indianapolis.

IMPLEMENTATION FUNDING SOURCES & USES

Funding Sources & Uses Matrix

The Implementation Funding Matrix shades the cells where Local, State, and Federal funding sources and/or agencies are matched with their eligible uses. Please see fact sheets for US Department of Commerce, Economic Development Administration, Public Works Grant and Indiana Economic Development Corporation Industrial Recovery Tax Credit Program on pages 156 and 157.

Local	Streets	Stormwater Management	Sanitary Sewer Extension	Water Extension	Greenway Trails	Parks	Family Learning / Workforce Training Center	Sustainable Energy	Industrial Development	Commercial Development	Residential Development
Local Road & Streets	■										
TIF (Tax Increment Finance)	■	■	■	■	■	■	■	■	■	■	■
EDIT (Economic Development Income Tax)	■	■	■	■	■	■	■	■	■	■	■
Citizens Energy			■	■			■	■			■
Private Foundations					■	■	■				■

State	Streets	Stormwater Management	Sanitary Sewer Extension	Water Extension	Greenway Trails	Parks	Family Learning / Workforce Training Center	Sustainable Energy	Industrial Development	Commercial Development	Residential Development
INDOT	■										
IDFA-SRF		■	■	■							
IEDC									■	■	■
IHCDA											■
IDNR					■	■					
Indiana Workforce One							■				
Private Foundations					■	■	■				

Federal	Streets	Stormwater Management	Sanitary Sewer Extension	Water Extension	Greenway Trails	Parks	Family Learning / Workforce Training Center	Sustainable Energy	Industrial Development	Commercial Development	Residential Development
USDOT	■				■						
USEPA		■	■	■							
US COMMERCE-EDA	■	■	■	■			■		■	■	
US COMMERCE-SBA							■		■	■	
USHUD-CDBG Section 108, Promise Zone	■	■	■	■	■	■	■	■	■	■	■
US ENERGY								■			
New Market Tax Credits - US Treasury									■	■	
National Foundations					■	■	■				
Opportunity Fund/ Opportunity Zone									■	■	■

RECOMMENDATION

MASTER DEVELOPER(S) REQUEST FOR PROPOSAL

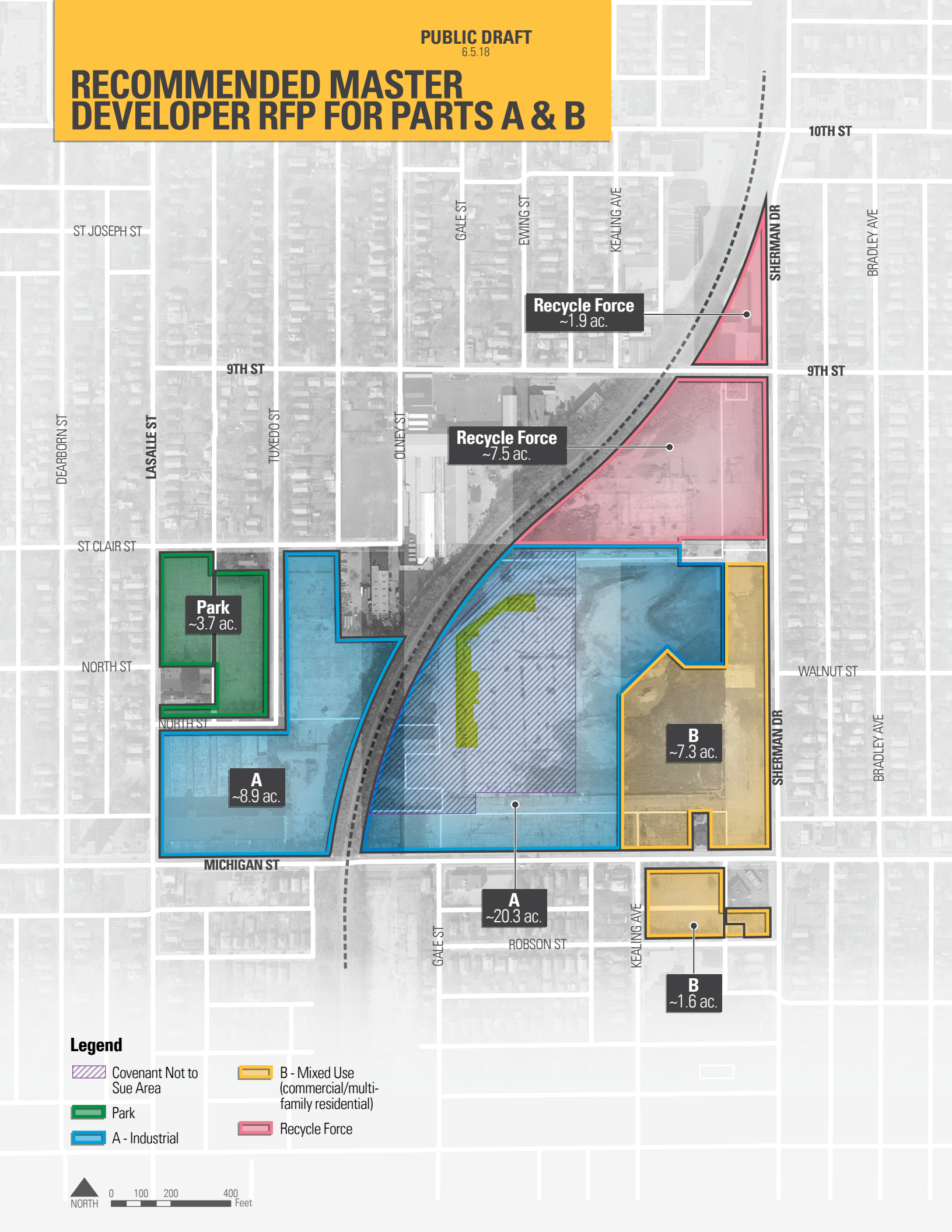
City of Indianapolis' Department of Metropolitan Development (DMD) should consider preparing a Request for Proposal (RFP) for a Master Developer of Sherman Park Area-wide Plan who would work with a Neighborhood Advisory Committee on the implementation of the plan. The RFP may receive the highest and best responses if Sherman Park RFP is divided into two parts A and B. Part A would be for developers who specialize in urban industrial redevelopment, and Park B would be for developers who specialize in urban mixed-use residential/commercial redevelopment. Finally, there are developers who could submit a RFP response for both parts A and B. By issuing the RFP for a Master Developer with an industrial part and a mixed-use part, it is believed that the City and the neighborhood would receive the best and most complete set of responses to meet the intent of the Sherman Park Area-wide Plan.

ZONING CLASSIFICATION

Other than the Recycle Force real estate in which the City DMD is currently negotiating a zoning classification and the potential public park located along North Lasalle Street on the west edge of Sherman Park, it is recommended that zoning classification for the real estate included in the Master Developer RFP be "Special Commercial District (C-S)" classification. The C-S zoning classification provides reasonable controls for the City DMD and neighborhoods, but it also provides the Master Developer(s) with flexibility to meet the overall goals and principles of the Sherman Park Area-wide Plan without unnecessary and burdensome requirements for redevelopment. Please see C-S zoning classification description from the City of Indianapolis Zoning Code on pages 154-155.

PUBLIC DRAFT
6.5.18

RECOMMENDED MASTER DEVELOPER RFP FOR PARTS A & B



Legend

- Covenant Not to Sue Area
- Park
- A - Industrial
- B - Mixed Use (commercial/multi-family residential)
- Recycle Force

NORTH 0 100 200 400 Feet

G. *Special Commercial District (C-S).*

1. *General.*

a. The Special Commercial District (C-S) is established for the following purposes:

1. To encourage:

i. A more creative approach in land planning.

ii. Superior site and structural design and development.

iii. An efficient and desirable use of open space.

2. To provide for a use of land with high functional value.

3. To assure compatibility of land uses, both within the C-S District and with adjacent areas.

4. To permit special consideration of property with outstanding features, including, but not limited to, historical, architectural or social significance, unusual topography, landscape amenities, and other special land characteristics.

5. To provide maximum adaptability and flexibility in zoning and development controls to meet the changing and diverse needs of the metropolitan area.

b. The C-S District is designed to permit, within a single Zoning District, multi-use commercial complexes or land use combinations of commercial and noncommercial uses, or single-use commercial projects. The primary objective of this District is to encourage development which achieves a high degree of excellence in planning, design or function, and can be intermixed, grouped or otherwise uniquely located with maximum cohesiveness and compatibility. The District provides flexibility and procedural economy by permitting the broadest range of land use choices within a single District, while maintaining adequate land use controls. The C-S District can include high-rise or low-rise developments, can be applied to large or small land areas appropriately located throughout the metropolitan area, and can be useful in areas of urban renewal or redevelopment.

c. Development site plans should incorporate and promote environmental considerations, working within the constraints and advantages presented by existing site considerations, including vegetation, topography, drainage and wildlife.

2. *Permitted uses.*

a. All land uses within the C-S Districts shall be limited to the use or uses specified in the applicable rezoning petition or ordinance redistricting and zoning the particular land to the C-S District. A site and development plan for a proposed C-S District shall be filed with the zoning petition and approved by the Metropolitan Development Commission. The Commission may approve, amend or disapprove the plan and may impose any reasonable conditions upon its approval. If such plan submitted is a preliminary rather than final plan, the Commission's approval shall be conditioned upon the approval, by the Administrator, of a final site and development plan, in total or in phases. Such final plan approval by the Administrator shall be conditioned upon the Administrator's findings that the final plan is consistent and in substantial conformity with the preliminary plan, as approved by the Metropolitan Development Commission. All development within the C-S Districts shall be subject to any further standards, restrictions or requirements specified in such rezoning petition or ordinance and commitments filed, made or presented in support of such rezoning petition.

b. All C-S District uses shall:

1. Be so planned, designed, constructed and maintained as to create a superior land development, in conformity with the Comprehensive Plan of Marion County, Indiana; and

Source: City of Indianapolis

2. Create and maintain a desirable, efficient and economical use of land with high functional value and compatibility of land uses, within the C-S District and with adjacent uses; and

3. Provide sufficient and well-designed access, parking and loading areas; and

4. Provide traffic control and street plan integration with existing and planned public streets and interior access roads; and

5. Provide adequately for sanitation, drainage and public utilities; and

6. Allocate adequate sites for all uses proposed - the design, character, grade, location and orientation thereof to be appropriate for the uses proposed, logically related to existing and proposed topographical and other conditions, and consistent with the Comprehensive Plan for Marion County, Indiana.

3. *Other standards.*

a. *Windows/doors/transparency.*

1. On the side of each primary building that has a public pedestrian entrance, at least 40% of the wall surface area between three feet and eight feet above grade level and within 50 feet of each side of the entrance shall be of glass or other transparent materials. On any facade or side of a primary building that is located within 50 feet of a local, collector or arterial street, at least 40% of the wall surface area between three feet and eight feet above grade level shall be of glass or other transparent materials.

2. Required ground floor glass or other transparent materials shall allow two-way visibility between three feet and eight feet above grade level.

3. No glass or other transparent materials shall reflect more than 30% of visible light.

4. Replacing windows in an existing building is permitted; however, the replacing window must match the building's original window opening within a tolerance of two inches of each opening side.

b. *Roof.*

1. All roof-mounted mechanical equipment shall be completely and effectively screened from view on all sides of the building with a parapet consistent with the building's design and materials.

Source: City of Indianapolis

Indiana A State that Works

Indiana Economic Development Corporation

IRTC

INDUSTRIAL RECOVERY TAX CREDIT

DESCRIPTION

The Industrial Recovery Tax Credit (IRTC) provides an incentive for investment in former industrial facilities requiring significant rehabilitation or remodeling expenses. The credit is established by Ind. Code 6-3.1-11.

PROJECT ELIGIBILITY

The credit is available to taxpayers that make qualified investments for the redevelopment of vacant industrial buildings that are at least 15 years old with 100,000 square feet or more of interior floor space. As of January 1, 2017, buildings that were demolished within the 5 years preceeding an application may qualify if demolished for health and safety concerns.

ELIGIBLE QUALIFIED INVESTMENT COSTS

A qualified investment is made when the taxpayer incurs expenditures for the rehabilitation of a qualifying building or complex of buildings. Rehabilitation expenditures include the remodeling, repair, betterment, enlargement, or extension of real property. Eligible costs may include:

- Acquisition costs, when made to enlarge or extend the industrial recovery site
- Architectural and engineering fees
- Construction management and demolition costs
- Environmental remediation costs
- FF&E, if nonmovable
- Permitting costs directly related to rehabilitation
- Other hard costs

INELIGIBLE INVESTMENT COSTS

- Legal and accounting fees
- Developer fees
- Feasibility studies
- Property insurance
- FF&E, if movable
- Loan costs
- Other professional fees not related to rehabilitation of the property
- Reserves
- Other soft costs

CALCULATION

The IEDC intends to partner with local government in the revitalization of qualified industrial sites; therefore, any award under this program likely will not exceed the financial support offered by the locality. The credit amount is equal to the amount of qualified investment multiplied by the applicable percentage:

- 15 percent for a plant placed in service between 15 and 29 years ago
- 20 percent for a plant placed in service between 30 and 39 years ago
- 25 percent for a plant placed in service at least 40 years ago

The credit may be claimed by the taxpayer, passed through, or assigned to a lessee. The credit is applied against the taxpayer's state tax liability and may be carried forward.

APPLICATION

A complete application must be submitted before an investment is made. See the application on the IEDC's website for additional requirements.

1 NORTH CAPITOL AVENUE, INDIANAPOLIS, INDIANA 46204 | 800.463.8081 | TEL 317.232.8800 | FAX 317.232.4146 | iedc.in.gov

REV 09.16

Economic Development Assistance Programs Application submission and program requirements for EDA’s Public Works and Economic Adjustment Assistance programs.
Department of Commerce
Economic Development Administration

Document Type: Grants Notice

Funding Opportunity Number: EDAP-2017

Funding Opportunity Title: FY 2017 Economic Development Assistance Programs Application submission and program requirements for EDA’s Public Works and Economic Adjustment Assistance programs.

Opportunity Category: Discretionary

Opportunity Category Explanation:

Funding Instrument Type: Cooperative Agreement
Grant

Category of Funding Activity: Other (see text field entitled "Explanation of Other Category of Funding Activity" for clarification)

Category Explanation: The Economic Development Administration's (EDA's) mission is to lead the Federal economic development agenda by promoting innovation and competitiveness, preparing American regions for economic growth and success in the worldwide economy. EDA fulfills this mission through strategic investments and partnerships that create the regional economic ecosystems required to foster globally competitive regions throughout the United States. EDA supports development in economically distressed areas of the United States by fostering job creation and attracting private investment. Specifically, under the Economic Development Assistance programs (EDAP) Notice of Funding Availability (NOFA), EDA will make construction, non-construction, and revolving loan fund investments under the Public Works and Economic Adjustment Assistance (EAA) Programs. Through this NOFA, EDA will also designate a portion of its EAA funding to support communities and regions that have been negatively impacted by changes in the coal economy (Assistance to Coal Communities, or ACC 2017). Grants made under these programs will leverage regional assets to support the implementation of regional economic development strategies designed to create jobs, leverage private capital, encourage economic development, and strengthen America's ability to compete in the global marketplace. Through the EDAP NOFA, EDA solicits applications from rural and urban communities to develop initiatives that advance new ideas and creative approaches to address rapidly evolving economic conditions.

Expected Number of Awards:

CFDA Number(s): 11.300 -- Investments for Public Works and Economic Development Facilities
11.307 -- Economic Adjustment Assistance

Cost Sharing or Matching Requirement: Yes

Estimated Total Program Funding:

Award Ceiling: $3,000,000

Award Floor: $100,000

THE CITY OF INDIANAPOLIS
METROPOLITAN DEVELOPMENT

July 1
2022

SHERMAN PARK INFRASTRUCTURE DEVELOPMENT

Transportation Infrastructure Impact And Opportunity Assessment

PREPARED BY:

CMT

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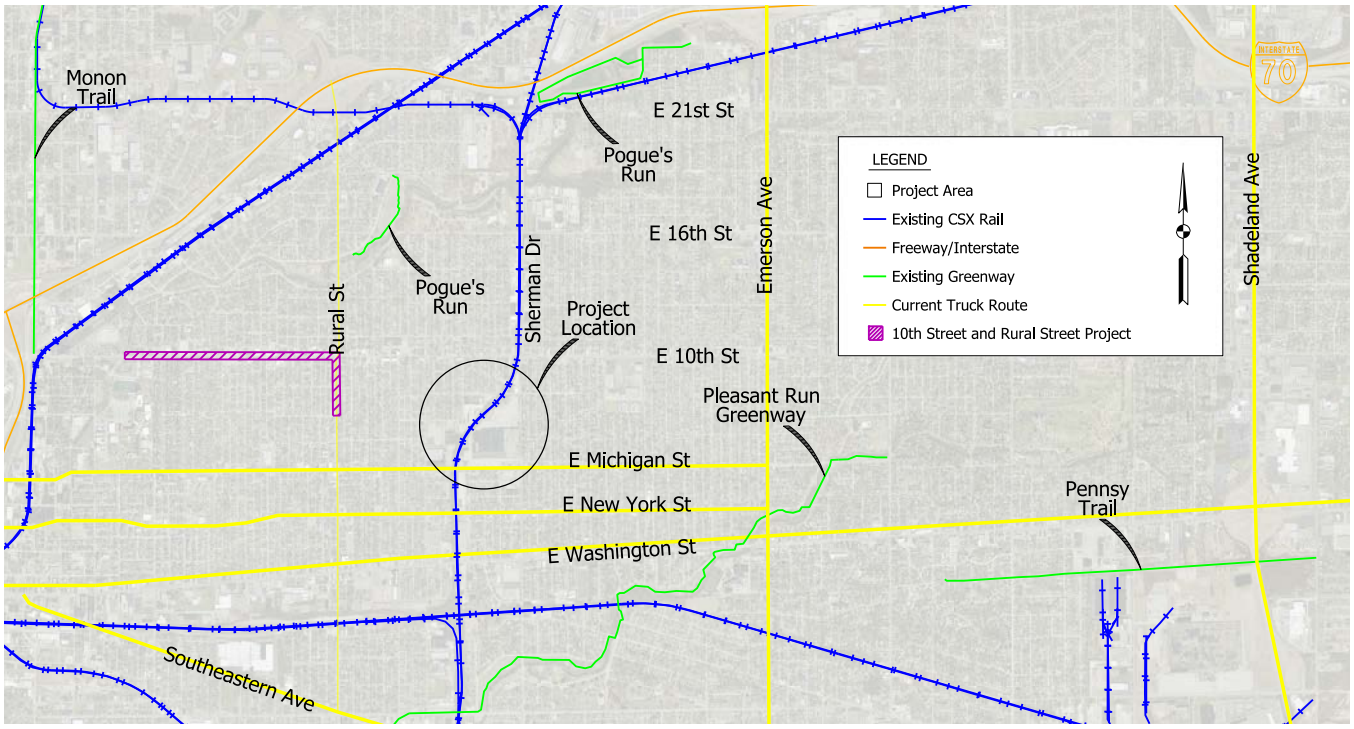


Figure 1: Project Location

Executive Summary

Sherman Park consists of approximately 60 acres of former manufacturing sites that produced radios, televisions, and related electronic components. Final demolition of the manufacturing buildings occurred in 2017 rendering the property a Brownfield site. The site now suffers from elevated levels of soil and groundwater contamination stemming from years of previous manufacturing operations. The site is under the voluntary remediation program overseen by the City of Indianapolis Brownfield Program. Additionally, decades of disinvestment in the community has resulted in job and population losses. The necessity for environmental remediation and the negative impacts to the quality of life of nearby residents provide a need to revitalize Sherman Park. The Sherman Park site provides an ideal opportunity to catalyze economic activity and reinvigorate the Near Eastside community.

In 2017 Near East Area Renewal (NEAR) was awarded an EPA Brownfield Area-Wide Planning (AWP) Grant for the Sherman Park area which allowed the potential of Sherman Park to be realized. Goals, ideals, and guiding principles were identified from the AWP and used as the foundation to the Sherman Park Transportation Infrastructure Impact and Opportunity Assessment. The AWP can be found in **Appendix N**.

The Sherman Park Transportation Infrastructure Impact and Opportunity Assessment provides a strategic approach towards safety, business market demand, connectivity, industrial service, operational capacity, and transportation logistics into the Sherman Park development and surrounding areas while coordinating with Indianapolis trail and development planning efforts. The scope of this study examined the roadway networks, pedestrian and trail networks, and rail networks of Sherman Park and the surrounding area to develop a combined transportation assessment of truck, rail, pedestrian, and bicycle facilities that will be useful for directing future infrastructure investments. These investments will be paramount towards maximizing the economic development potential of Sherman Park and the surrounding neighborhoods.

Efforts should be made to update pedestrian infrastructure where needed when making roadway improvements. This can be accomplished by improving ADA facilities, reconstructing curb ramps, updating signal push buttons, and widening sidewalk widths where feasible throughout the Sherman Park Development site. Where pedestrian facilities such as sidewalk and curb ramps are not present, effort should be made to incorporate these components where they are missing while ensuring ADA compliance.

Sidewalks should be constructed at several locations within the study area. Most notably, a north-south bicycle and pedestrian network connection on the west side of Sherman Drive should be constructed to provide a link between the existing greenways of Pogue's Run and Pleasant Run. A sidewalk should also be provided on the north side of Michigan Street.

It is encouraged that a designated route be identified to direct the flow of goods going to and from the Sherman Park site. Due to the number of CSX mainline track crossings, forecasted impacts to intersection operations, and number of turning maneuvers required along the route, Sherman Drive to 21st Street to Emerson Avenue is the recommended freight traffic route to and from the site.

Sherman Drive should be widened to the west from Michigan Street to 10th Street to accommodate an added travel lane that will provide auxiliary left-turn lanes at intersections along the street. Michigan Street should be widened to the north from Kealing Avenue to Sherman Drive to provide space for an added travel lane. This added lane will complement the City's plans to convert Michigan Street to a two-way street, eventually becoming an eastbound left-turn lane. Additionally, the existing streets within the study area are in poor condition and should receive appropriate base repairs and resurfacing.

A new interior road network should be constructed within the site, providing several key access points to Sherman Park and allow for vehicular and pedestrian mobility. These new interior roads will provide access to planned and future developments and will be a key component of future trucking networks. The interior roads will be a complementary extension of the existing roadway network in the neighborhood. The intersection of the new St. Clair Street and Sherman Drive should be outfitted with facilities and space allocated for a potential signal installation in the future.

Significant portions of the site are zoned for light-industrial/commercial development that provides the potential to create new job opportunities in the area. Multi-family housing parcels could also be allocated at the site that would contribute to the neighborhood form and feel.

The total estimated cost of all proposed improvements is **$28,000,000**. A detailed breakdown of the estimated costs can be found in **Appendix H- Opinion of Probable Cost**. The estimated costs have been developed such that the City will be able to select infrastructure projects according to the pace of development at Sherman Park. It is likely that federal grants or monies will need to be used to fund various aspects of the site redevelopment. These improvements to the surrounding transportation network will provide holistic area-wide opportunities to better utilize, transform, or interface with existing transportation infrastructure and contribute to economic growth in the Sherman Park site and surrounding neighborhoods.

Introduction & Existing Conditions

Purpose & Need

Sherman Park consists of approximately 60 acres of former manufacturing sites. When in operation, these industries provided employment opportunities and financial security to the surrounding Near Eastside communities. However, the lots that once housed industrial powerhouses now sit vacant; buildings have been demolished and the site now suffers from elevated levels of soil and groundwater contamination. Further, decades of disinvestment in the community has resulted in job and population losses. In 2018, nearly 2 out of every 5 persons living within the surrounding neighborhoods of Sherman Park lived in poverty[1]. The necessity for environmental remediation and the negative impacts to the quality of life of nearby residents provide a need to revitalize Sherman Park, as this site affords an ideal opportunity to catalyze economic activity and reinvigorate the vibrant Near Eastside community. As a result, in 2017 Near East Area Renewal (NEAR) was awarded an EPA Brownfield Area-Wide Planning (AWP) Grant for the Sherman Park area which allows the potential of Sherman Park to be realized. The Area-Wide Plan identified the following eight goals around redevelopment:

- Create jobs conducive for local resident employment,
- Add greenspace/park space for neighborhood families and children,
- Enhance connectivity to other parks and schools on the near eastside,
- Add retail that would serve adjacent neighborhood household needs,
- Develop mixed-use concepts that could optimize the commercial and residential potential of the site,
- Create a learning center that would support local families with local business workforce skill development,
- Provide buffer space between residential neighborhoods and industrial reuses within Sherman Park, and
- Create multi-family residential development that would increase the market base to support a commercial node at North Sherman Drive and East Michigan Street while bringing a blend of incomes to the near eastside.

In February 2020, NEAR and the Indianapolis Department of Metropolitan Development (DMD) commissioned an independent study to verify the AWP and further progress infrastructure design to reach the goals of the community. This included analysis of the transportation infrastructure impacts of planned and future developments within the site. The study provides a holistic approach to better utilize, transform, and interface with existing transportation surrounding the site.

The Sherman Park Transportation Infrastructure Impact and Opportunity Assessment has been completed in order to provide a strategic approach towards safety, business market demand, connectivity, industrial service, operational capacity, and transportation logistics into the Sherman Park development and surrounding areas while coordinating with Indianapolis trail and development planning efforts. The scope of this study examined the roadway networks, pedestrian and trail networks, and rail networks of Sherman Park as well as the surrounding area to develop a combined transportation assessment of truck, rail, pedestrian and bicycle facilities that will be useful for directing future transportation investments. These investments will be paramount towards maximizing the economic development potential of Sherman Park and the surrounding area.

1 **Sherman Park Brownfield Area-Wide Plan**. June 2018. (p. 79)

Existing Site Conditions

The Sherman Park Brownfield area is located in the heart of the Near Eastside community of Indianapolis, Indiana and is approximately three miles east of the downtown Mile Square. It is centrally located in the Rivoli Park neighborhood.

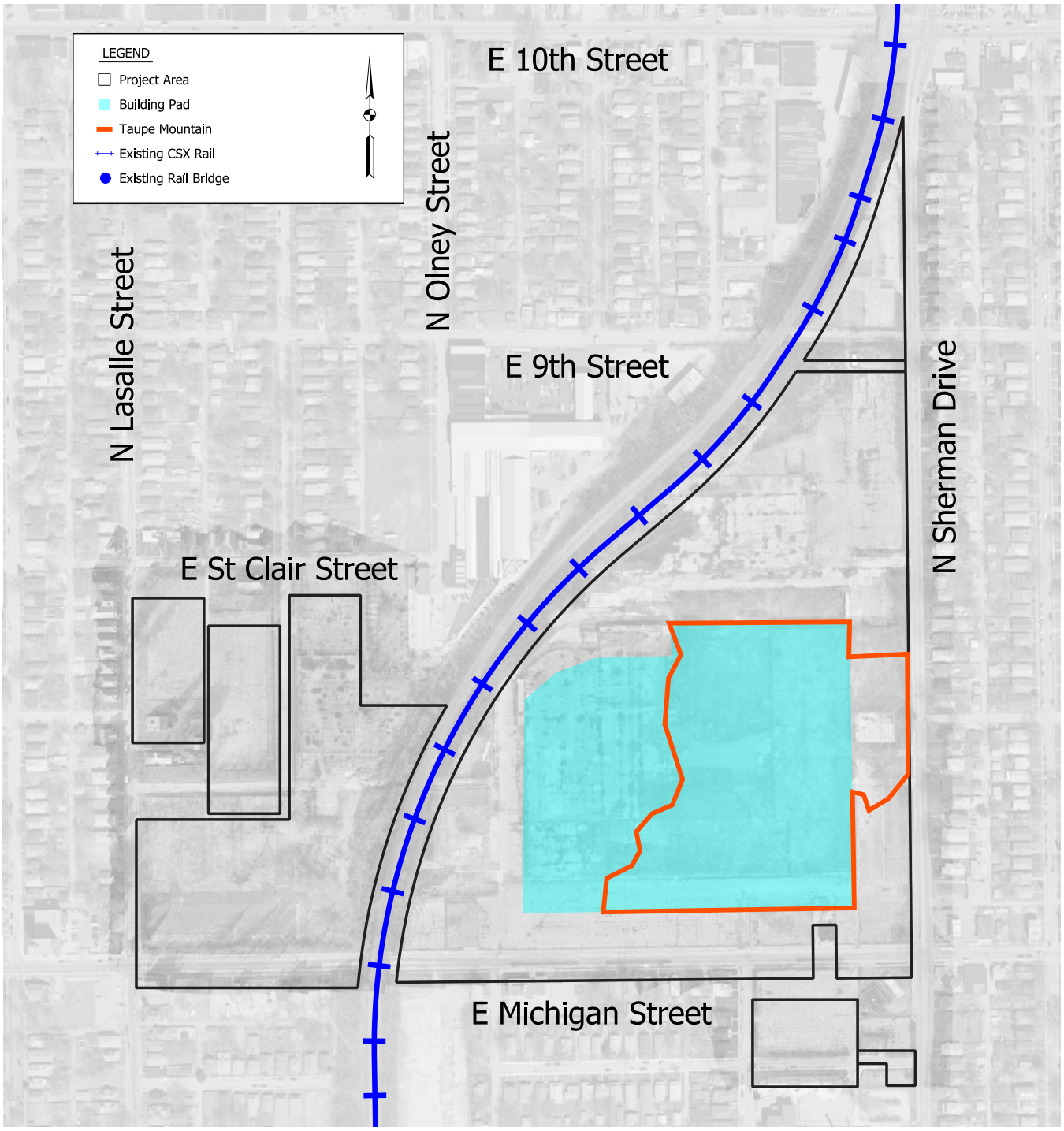


Figure 2: Existing Site Map

Sherman Park consists of approximately 60 acres of former manufacturing sites. Most of the area was once part of the large RCA / Thompson / GE facility that produced radios, televisions, and related electronic components. The remaining manufacturing buildings were demolished in 2017. The site now suffers from elevated levels of soil and groundwater contamination stemming from years of previous manufacturing operations.

Manufacturing operations conducted within Sherman Park included the operation of at least five underground storage tanks ranging in size from 1,000 gallons to 230,000 gallons, various above ground storage tanks, a reclamation solvent still, and numerous manufacturing processes which resulted in hazardous and nonhazardous wastes such as flammable liquids and solids, chlorinated solvents, bulk and waste petroleum products, cupric chloride, heavy metals (including lead, mercury, and cadmium), and paints.

The former RCA building pad is present at the site and contains unsafe levels of contaminants. Undocumented earth ("Taupe Mountain") is also present at the site. A geotechnical investigation of the existing fill, including Taupe Mountain, was conducted in winter 2020/2021. Fill consisting of both fine-grained and coarse-grained soils containing construction debris (brick fragments, concrete fragments, plastic, and rebar) was observed. The height of the existing fill at the site ranged from 7 to 21 feet. In addition, organic matter consisting of roots and wood pieces was observed in the fill. Groundwater was not observed during this phase of the study. The results of the geotechnical report concluded that Taupe Mountain and other existing fill at the site were not anticipated to be suitable for reuse as structural fill without improvement to the soil. This is due to the frequency and size of construction debris observed. However, it was concluded that Taupe Mountain and other existing fill at the site were suitable for reuse as general fill without requiring improvement to the soil. The full geotechnical study and report can be found in **Appendix D – Existing Conditions**. Prior to any development within the site, Taupe Mountain will require mitigation and removal.

Due to years of neglect, vegetation has overtaken Sherman Park in numerous areas. A tree survey conducted in 2020 indicated there were over 350 trees within the Sherman Park site area, 70% of which were recommended for removal. Additional information regarding the tree survey conducted can be found in **Appendix D – Existing Conditions**.

Based on an Indiana 811 Design Inquiry, the following utilities were found to be within the proposed study area:

- AT&T – Distribution
- AT&T – Transmission
- Citizens Energy (Gas)
- Citizens Energy (Sanitary)
- Citizens Energy (Water)
- AES Indiana (Formerly Indianapolis Power & Light)
- LUMEN (Formerly Century LINK)
- Verizon Business
- Zayo Bandwidth

During additional investigation it was determined that Crown Castle has a cellphone tower within the development. This cell tower will be left in place and the coordination will continue to determine if any servicing facilities need to be relocated to accommodate proposed improvements.

Communications have been conducted with each of the utilities to determine their locations and the impact to the project. This includes any conflicts that will require relocations or design considerations to allow utility facilities to remain in place based on feasibility of the design modifications. Further coordination with proposed improvements will need to be ongoing.

The correspondence with the various utilities can be found in **Appendix R – Utility Coordination Log**s.

Existing Transportation Network

The Sherman Park site is vacant but is encapsulated by major thoroughfares and bisected by an active rail network: Michigan Street to the south, 10th Street to the north, LaSalle Street to the west, Sherman Drive to the east, and the active north-south CSX Indianapolis Belt Mainline. There are five (5) existing rail bridges within the site and at-grade crossings are present to the north. Several local trucking routes are also present near Sherman Park. These routes utilize roadways such as Michigan Street, New York Street, and Emerson Avenue to navigate through the area to access nearby interstates (Interstate 65 [I-65], Interstate 70 [I-70], and Interstate 465 [I-465]) for regional and transcontinental freight movement.

Connectivity near Sherman Park abounds as bus routes are present on nearby roadways such as 10th Street, Michigan Street, New York Street, Washington Street, and Rural Street. On Michigan Street alone, two bus stops are adjacent to the site. Sidewalks are also present on the surrounding roadways, providing mobility to pedestrians in the area. Mobility and recreational opportunities are enhanced with the presence of bike lanes on Michigan Street and New York Street. Active segments of the greenway network include the Pogue's Run and Monon Trails to the north and west, respectively, the Pennsy Trail to the east, and the Pleasant Run Trail to the south. These trails provide recreational opportunities and increased connectivity throughout the region for residents.

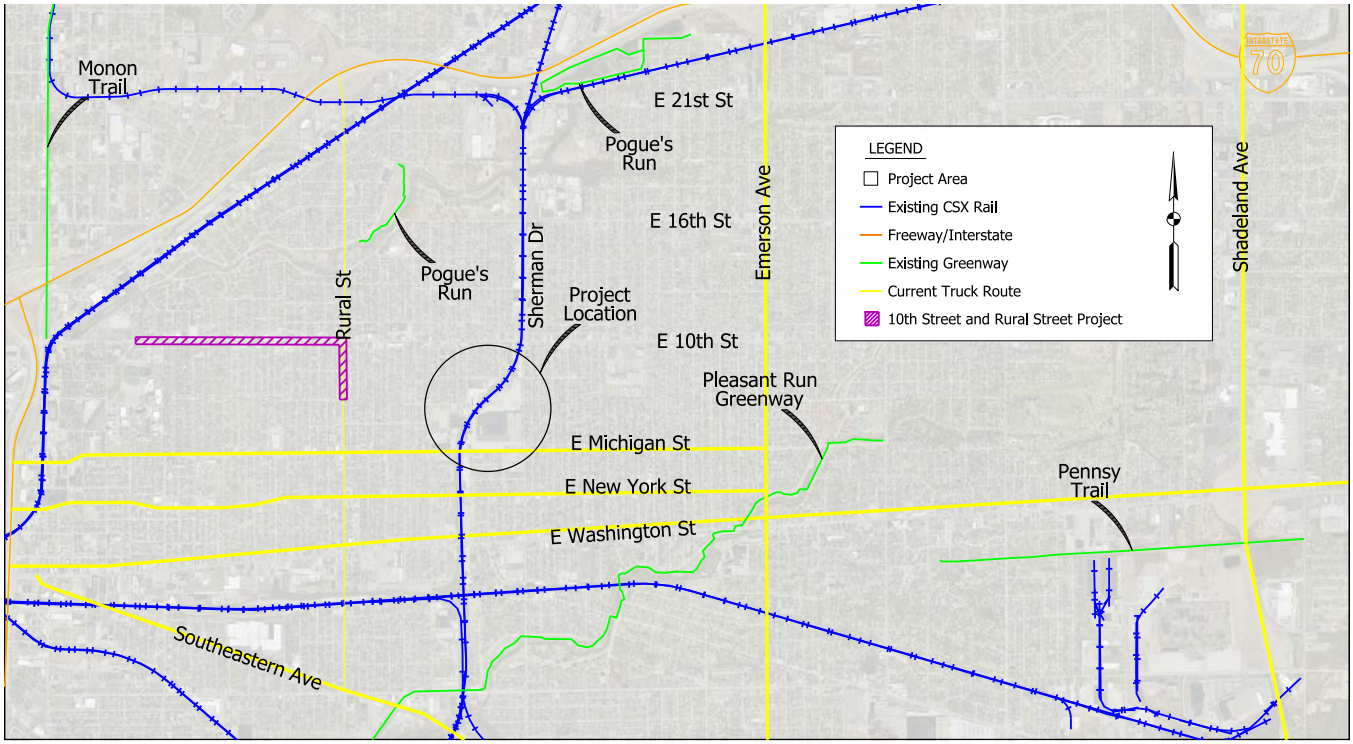


Figure 3: Project Location Map

The synergy of the existing transportation infrastructure of the area with proposed development at Sherman Park is a major concern for residents and stakeholders. Connections to existing and proposed greenways, improvements to current roadways, and collaboration with CSX will help to stimulate the Sherman Park area to its greatest potential locally and regionally.

Existing Corridor Conditions

There are several major corridors in the vicinity of Sherman Park. These corridors provide vehicle and truck access to businesses, recreational opportunities, and greater connectivity throughout the study area. **Table 1** summarizes these corridors within the study area. A description of existing pavement conditions for select roadways can be found in **Appendix D – Existing Conditions**.

TABLE 1: MAJOR CORRIDOR SUMMARY

Direction of Travel	Corridor	Functional Classification	Number of Lanes	Bike Lane
West	East Michigan St	Primary Arterial	2	Y
East	East New York St	Primary Arterial	2	Y
East-West	East Washington St	Primary Arterial	4	N
East-West	I-70	Freeway/Expressway	8	N
North-South	North Sherman Dr	Primary Arterial	2 (4 north of site)	N
North-South	North Rural St	Primary Arterial	2	N
North-South	North Emerson Ave	Primary Arterial	2 (4 north of site)	N
North-South	North Shadeland St	Primary Arterial	6	N
North-South	I-65	Freeway/Expressway	8	N
North-South	I-465	Freeway/Expressway	8	N

EAST-WEST CORRIDORS

Adjacent to the project area, the primary east-west corridor is East Michigan Street to the south. East Michigan Street is a one-way street with traffic traveling from east to west. This route leads into downtown Indianapolis and to I-65/I-70. Other major corridors near the site include East New York Street and East Washington Street to the south. East New York Street is the one-way pair to Michigan Street, with traffic traveling from west to east from I-65/I-70 or from downtown Indianapolis. While Michigan Street and New York Street operate as one-way-pairs, there are pending plans set forth by the Indianapolis Department of Public Works (DPW) to convert these corridors to two-way streets as early as 2022. Washington Street is the next major street south of New York Street, and is a two-way street that will host the future IndyGo Bus Rapid Transit Blue Line.

I-70 is approximately 1.5 miles north of Sherman Park. This corridor is a major route for east-west travel through Indiana and provides a transcontinental connection from Utah to Maryland. Relative to Sherman Park, I-70 is easily accessible to truck traffic on the east side of the site. However, access to the west is a challenge as the CSX mainline divides the Near Eastside community and presents obstacles for larger trucks attempting to access the Sherman Park site due to low railroad bridge clearances.

NORTH-SOUTH CORRIDORS

North Sherman Drive is the primary north-south corridor adjacent to Sherman Park and is located on the east side of the site. This roadway has two travel lanes (one lane in each direction) to the south of Sherman Park and four travel lanes (two lanes in each direction) to the north of the site. It should be noted that North Sherman Drive does not provide direct access to an interstate. Other nearby corridors that provide access to an interstate include North Rural Street to the west and North Emerson Street and North Shadeland Street to the east.

I-65 and the I-465 beltway are major highways near the Sherman Park site. I-65 is a major route for north-south travel through Indiana and provides a transcontinental connection from the Gulf of Mexico to Lake Michigan. I-65 is located west of Sherman Park and requires trucks to utilize accessible railroad crossings. However, trucks can also access I-65 from the site via I-70 to the north or I-465 to the east. I-465 is an auxiliary beltway route of I-65 and encircles Indianapolis. It is located approximately 4 miles east of the site and provides access to I-70 to the north and I-65 to the west.

CURRENT TRUCK ROUTES

Several routes commonly used by freight trucks, which are identified as "truck routes" henceforth, are present within the immediate area of Sherman Park and are presented in **Figure 4**. These routes utilize the following corridors to provide access throughout the area and to nearby interstates:

- Michigan Street,
- New York Street,
- Washington Street,
- Southeastern Avenue,
- Rural Street,
- Emerson Avenue, and
- Shadeland Avenue.

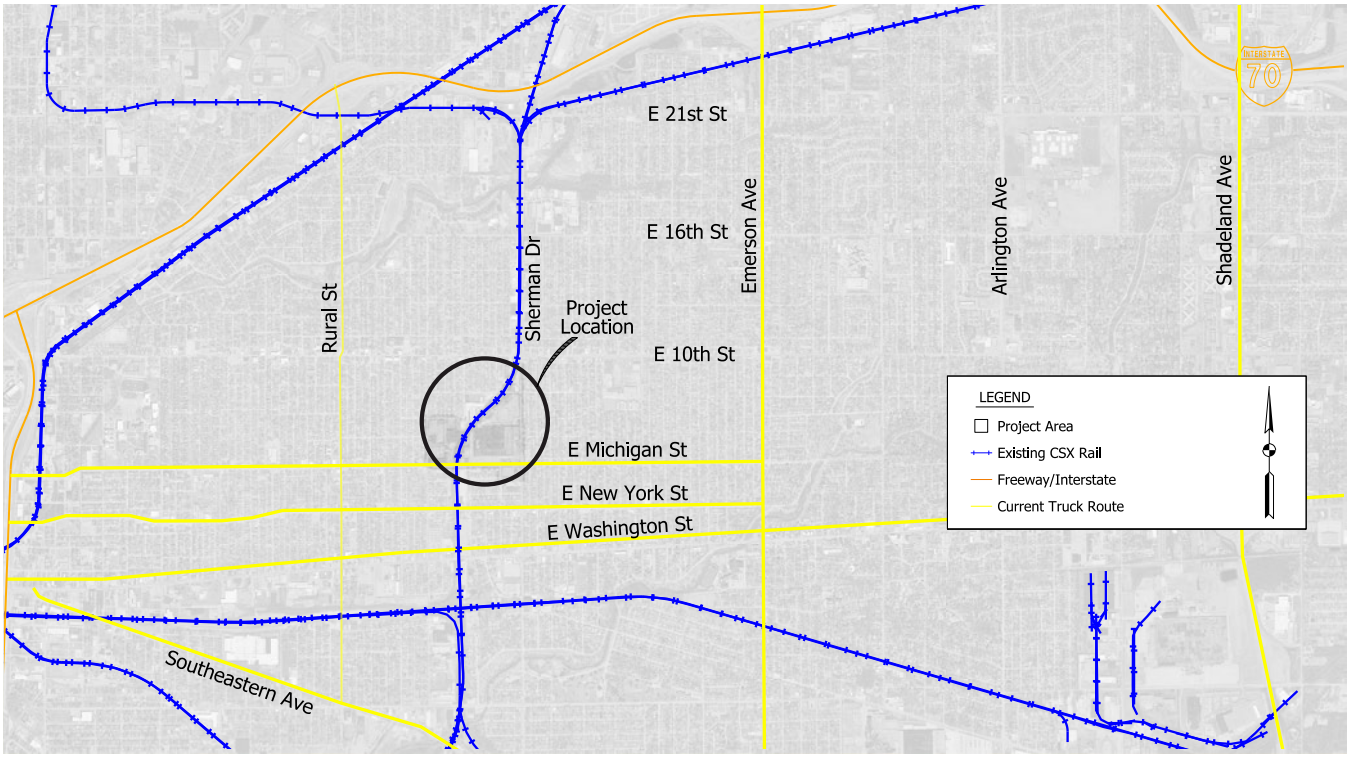


Figure 4: Current Truck Routes

East New York Street and East Michigan Street are historically used by trucks; however, truck traffic is limited by insufficient vertical clearance under the railroad bridges along these roadways. The rail bridge (underpass) at East Michigan Street has a vertical clearance of 13'-5" while the rail bridge (underpass) at New York Street has a vertical clearance of 11'-8". The vertical clearance of the rail bridge at Washington Street is greater than those on Michigan Street and New York Street and allows for higher truck traffic volumes. As such, trucks are required to detour to routes with higher vertical clearances to the south or via at-grade rail crossings to the north for access to the project area.

North Sherman Drive does not provide direct access to an interstate. As such, trucks are required to utilize other nearby north-south corridors such as North Rural Street, North Emerson Avenue, or North Shadeland Avenue, all of which provide access to I-70 to the north. It should be noted that although North Rural Street is utilized by trucks, the corridor is flanked almost entirely by residential developments and bisects a heavily trafficked greenway causing safety concerns for pedestrians and cyclists; this route should be discouraged for use by trucks. NEAR would prefer that Rural Street should not be utilized by trucks due to its residential identity and narrow lanes. The intersection of 10th Street and Rural Street has been identified by NEAR as a gateway to their community with a desire for increased pedestrian safety and connectivity/activity. An ongoing Indianapolis DMD and DPW project is developing those enhancements, which will include bump outs and chicanes along Rural Street as traffic calming measures. Due to the desire for traffic calming and increased pedestrian activity, Rural Street is not a desirable truck route.

CSX RAILWAY

Indianapolis serves as a major hub for regional rail traffic within the State of Indiana and nationally, with rail lines from the Northeast, Southeast, and South all converging in one place, providing direct access west to Chicago and St. Louis. Specially, Indianapolis is a significant hub for the CSX Transportation Railway (CSX), with a majority of the mainline rails being owned by the CSX, as evidenced in **Figure 5**.

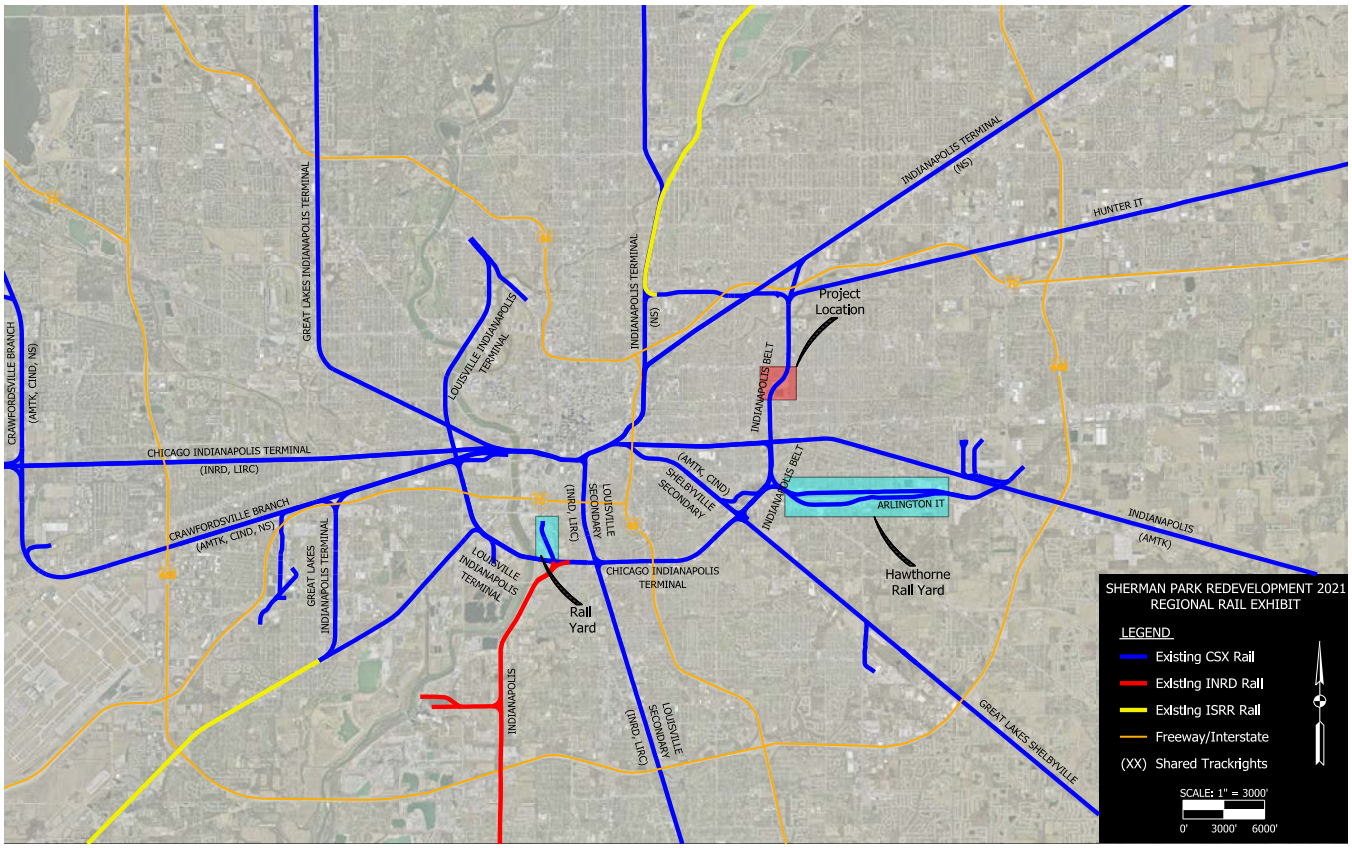


Figure 5: Indianapolis Regional Rail Network

The mainline rail through the Sherman Park project location is owned and operated by the CSX, as part of the Great Lake Division and Indianapolis Terminal Subdivision. The line serves as part of the southern by-pass, a rail route that encircles the southern edge of the city and acts as a reliever to mainlines that converge near Downtown Indianapolis.

There are a total of four (4) highway-rail crossings located within the Sherman Park Project Area (**Table 2**), of which all are grade-separated (RR over). There is one (1) mainline track that serves an average of 10 daily switching trains with a maximum timetable speed of 10 MPH. It should be noted that the grade-separated crossing at North Street is supported by two parallel bridges, one of which used to serve a now-removed spur line to the previous RCA facility.

TABLE 2. RAIL CROSSINGS WITHIN PROJECT AREA

Crossing Roadway	USDOT #	Milepost	Crossing Position	Bridge Clearance	2020 Roadway AADT (vpd)
E Michigan Street	850445V	9.86	RR Over	13'-5"	5,819
E North Street/RCA Underpass (Private)	850446C	10.00	RR Over	12'-9"*	N/A
E 9th Street	850447J	10.30	RR Over	13'-0"	800 (Est.)
E 10th Street	850448R	10.46	RR Over	13'-7"	10,650

*Field measurement

The 2020 roadway AADT of 9th Street was estimated for the study as traffic counts were not collected at this location and historical counts were not available. 9th Street serves as a local street for residents and has on-street parking. As such, it was assumed that it is a low-volume road. To estimate the AADT, engineering judgement was used based on the length of 9th Street within the study area, the functional classification, and the surrounding roadway network to estimate the existing AADT. To be conservative, the upper end of the low-volume road threshold (400 vpd) was doubled to estimate the 2020 AADT of 9th Street.

The CSX overpasses are of high importance to the City of Indianapolis and DMD, as they effectively divide the City in half, due to low roadway clearances. As shown in **Table 2**, the clearances are not conducive to large industrial truck traffic to access the site and limit the available local truck routes in the area.

Figure 6: Michigan St. Rail Bridge (Looking West)

Figure 7: North St. Rail Bridge (Looking West)

Figure 8: 9th St. Rail Bridge (Looking West)

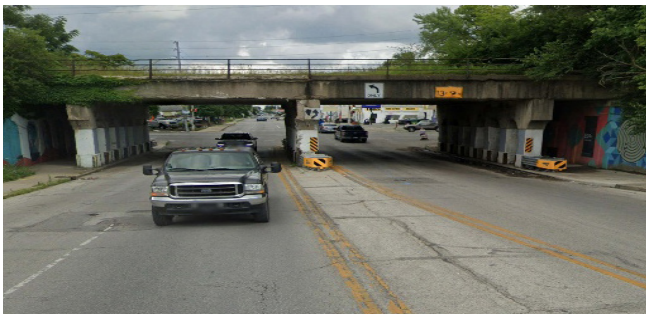


Figure 9: 10th St. Rail Bridge (Looking East)

EMERGENCY RESPONDER ACCESS AND CRIMINAL JUSTICE CENTER

Currently there are three (3) fire stations and one (1) hospital within the vicinity of Sherman Park, as seen in **Figure 10**. The closest fire station is located on 10th Street, approximately 0.6 miles away from the site. Sherman Drive is used by emergency responders; however, their mobility is limited adjacent to the site as Sherman Drive is a two-lane road from 10th Street to Pleasant Run Parkway. As such, there is difficulty for emergency response vehicles to maneuver around other vehicles present on the roadway. The inability to maneuver around other vehicles can result in the delay of emergency responders providing life-supporting or life-saving care.

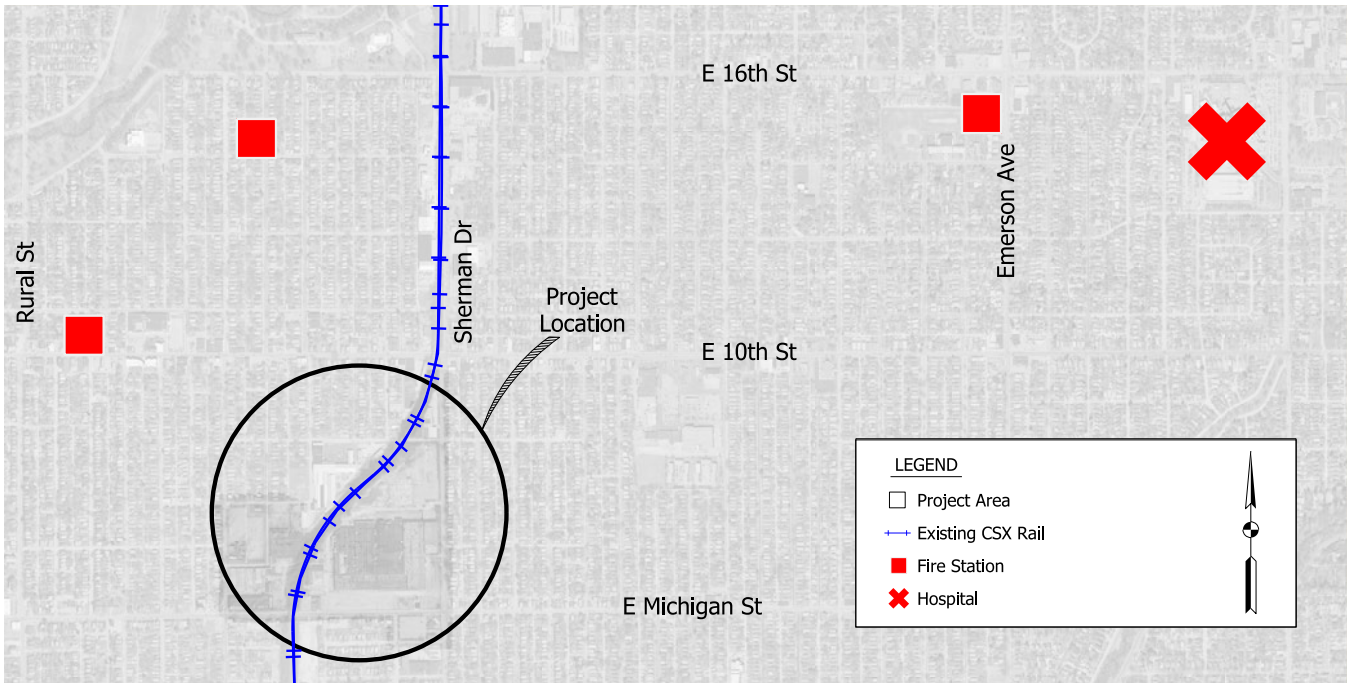


Figure 10: Emergency Responder Locations

Larger emergency vehicles, such as Indianapolis Fire Department (IFD) aerial ladder trucks, are restricted when responding to emergencies in the Near Eastside area. There are several low-clearance railroad bridges that limit the safe clearance of a standard rear-mount aerial ladder truck. A clearance of roughly 14 feet must be provided for rear-mount trucks to pass under rail bridges. Standard trucks have gotten stuck under the rail bridges several times in the past, most commonly at the rail bridge at East Michigan Street, as a clearance of 13'-5" is provided. As such, the IFD must invest in specialty mid-mount aerial ladder trucks that can traverse under the low-clearance rail bridges that are littered throughout the area. These specialty trucks require an additional $225,000 investment than its standard rear-mount counterpart. Not only are these mid-mount trucks more expensive, they also do not provide the same accessibility via ladder extension compared to the standard trucks.

It is imperative that emergency responders have efficient and adequate access to support the Near Eastside community. In a collaborative effort with local emergency services stakeholders, the study sought ways to enhance the existing road network to improve emergency response mobility, specifically by providing adequate safe clearance for standard rear-mount fire trucks under rail bridges, and, as a result, reduce emergency response times.

In addition to fire stations and a hospital, the Criminal Justice Center (CJC) is located approximately 1.5 miles south of Sherman Park in the Twin Aire neighborhood, as seen in **Figure 11**. The Center includes an adult detention center, an Assessment and Intervention Center (AIC), and a 12-story courthouse building. Currently, the only way to travel between the CJC and Sherman Park is via automobile using Southeastern Avenue, Rural Street, and Michigan Street or via multiple bus lines that require transferring through downtown Indianapolis. There are existing bikeways that surround both areas; however these bikeways do not connect. The Pleasant Run Trail is adjacent to the CJC and is easily accessible for recreation access. Currently there are no trails that connect the CJC to Sherman Park.

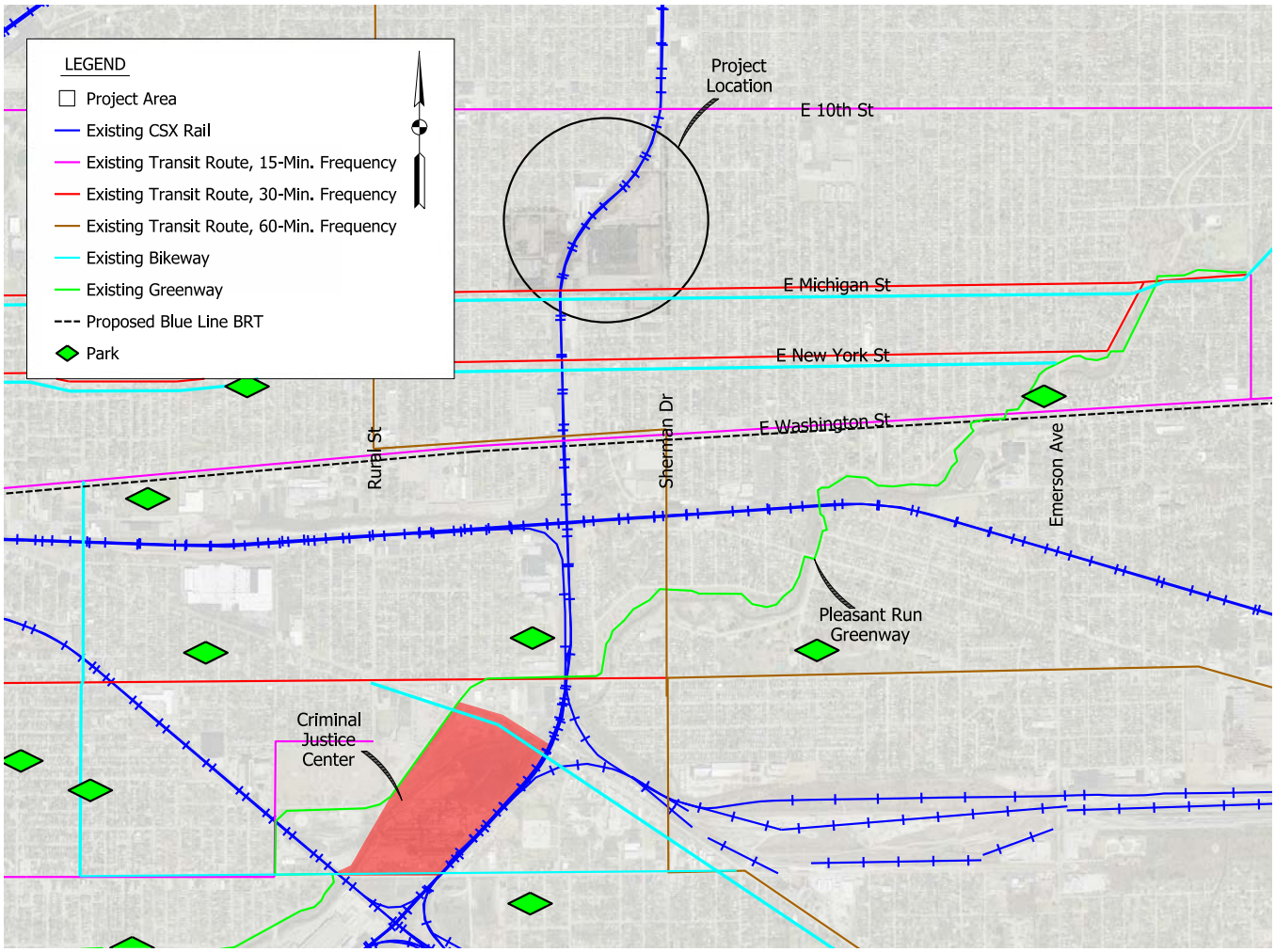


Figure 11: Criminal Justice Center Location

INDYGO TRANSIT

The IndyGo transit network services many areas of Indianapolis and provides numerous routes for riders. Of the many routes serviced, four transit routes provide service to the corridors neighboring Sherman Park; these include Routes 3, 8, 10, and 26. Route 3 services Michigan Street, New York Street, and Arlington Avenue and provides connections to the Pleasant Run Trail and downtown Indianapolis. It should be noted that Route 3 will remove service from New York Street once Michigan Street and New York Street are converted to two-way streets. Route 8 services Washington Street and offers riders connections to the Pleasant Run Trail, Pennsy Trail, and downtown Indianapolis; Route 10 services 10th Street and runs through downtown Indianapolis; Route 26 services Rural Street and intersects the Pogue's Run Trail and the Pleasant Run Trail. These transit routes are also interconnected, as Route 26 intersects Routes 3, 8, and 10 with stops available at the intersections of Routes 3 and 8. It should be noted that IndyGo has planned service enhancements for Route 8; the project will convert the existing bus route to a bus rapid transit (BRT) route that will be known as the "Blue Line." **Table 3** summarizes the transit routes within the study area.

TABLE 3: EXISTING TRANSIT SYSTEM SUMMARY

Route No.	Frequency (min)	Corridor	Number of Stops	
			0.5-mi	1.0-mi
3	30	Michigan/New York/Arlington	7	16
8	15	Washington	N/A	13
10	15	10th	6	17
26	60	Rural	N/A	16

The interconnected nature of these routes, as evidenced in **Figure 12**, provides passengers with greater mobility and increased access to businesses and recreation throughout the region. It should be noted that Routes 3, 8, and 26 coincide with current truck routes.

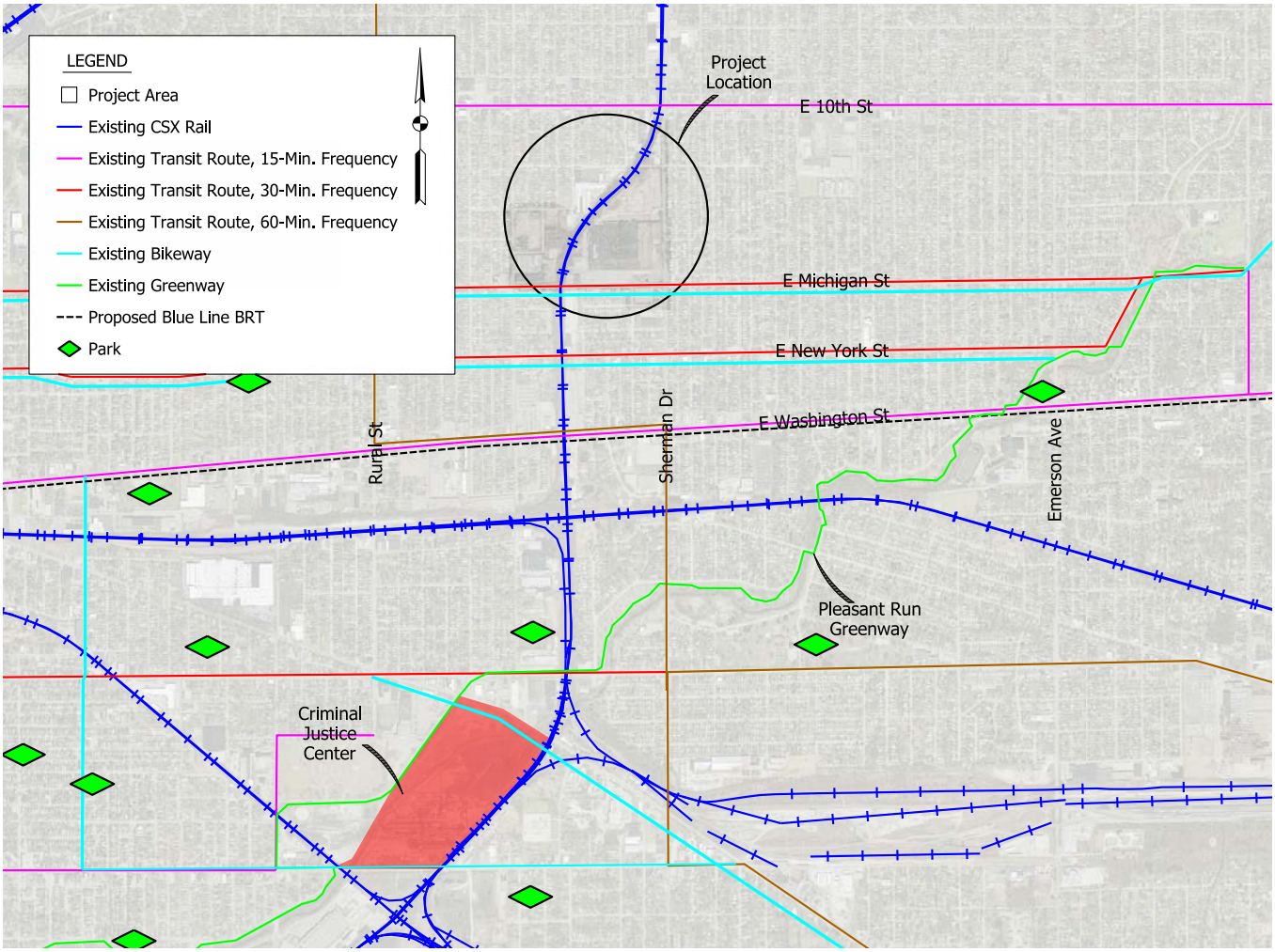


Figure 12: Existing Transit Routes

GREENWAYS

Several parks, greenways, and trail networks are accessible near Sherman Park, as evidenced in **Figure 13**. These greenways include the Monon, Pogue's Run, Pleasant Run, and the Pennsy Trails. Numerous trailheads and other access points to these greenways can be found within a two-mile radius of Sherman Park. These greenways offer a source of recreation to surrounding neighborhoods and contribute to the diverse transportation network connectivity within the region. **Table 4** provides a summary of the greenways in the surrounding area.

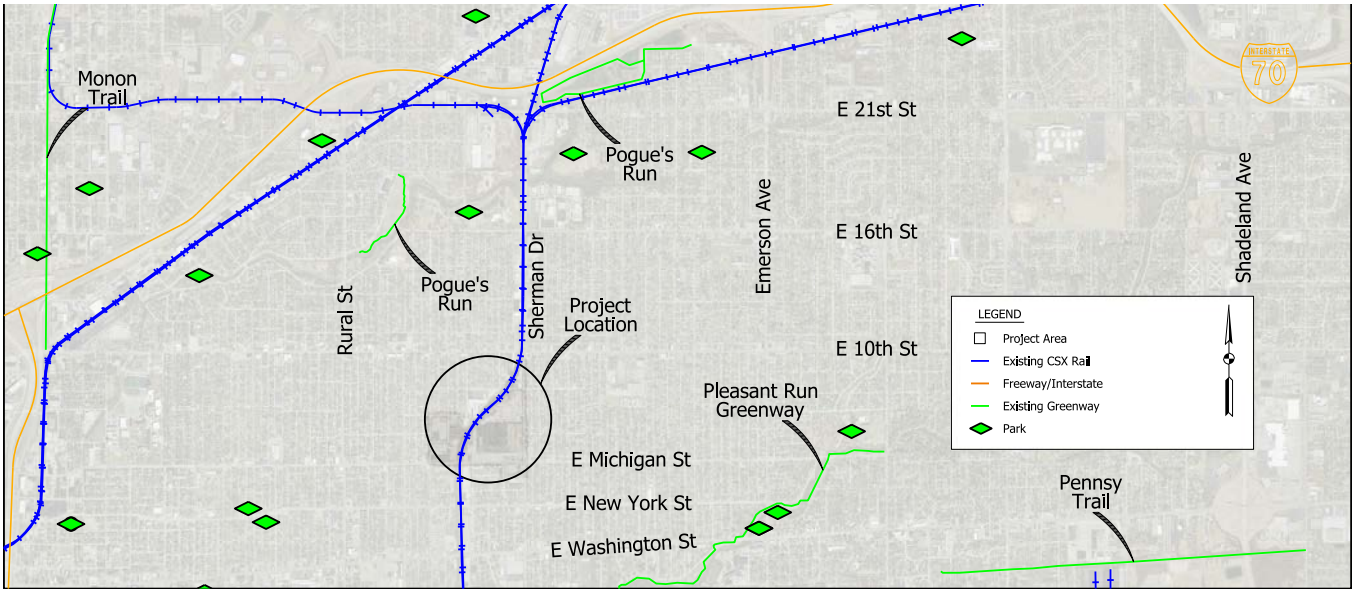


Figure 13: Existing Greenways and Parks

The Pogue's Run Trail to the north of the site stretches from North Rural Street to Brookside Park, providing connectivity throughout the northern portion of the Near Eastside community. The Monon Trail to the northwest is a well-established rail trail system that stretches from Westfield and Carmel to the north, runs through Broad Ripple, and passes by the Indiana State Fairgrounds. The southernmost trailhead of the Monon intersects the Indianapolis Cultural Heritage Trail, providing a direct connection to downtown Indianapolis. Greenways and trails to the southeast of Sherman Park include the Pleasant Run Trail and the Pennsy Trail. The Pleasant Run Trail stretches from Ellenberger Park in the historic Irvington area, to Christian Park and on to Garfield Park. This trail also connects recreation facilities such as the Kin Hubbard Memorial and Garfield Park & Conservatory. The Pennsy Trail currently exists in three disjointed segments that follow the now-abandoned Pennsylvania Railroad. The westernmost segment is located within Indianapolis and links the Irvington and Warren neighborhoods.

TABLE 4: EXISTING GREENWAY SUMMARY

Greenway	Distance from Sherman Park (mi)	Length (mi)
Pogue's Run	1.0	2.3
Monon	2.0	26.0
Pleasant Run	1.5	6.9
Pennsy	1.8	1.2

Existing Transportation Safety Analysis

RAIL

Due to the existing nature of the rail network being grade-separated, there is limited risk for vehicle-train collisions. In fact, the inherent Exposure Risk is 0.00 and Existing Crash Prediction is 0.00 through the Sherman project site.

While the collision risk is non-existent, other hazards along the railway do exist. The low clearances on the existing rail bridge structures pose a risk for large vehicles and trucks getting stuck and damaging critical infrastructure. In the event this occurs, it could result in severe damage to the rail bridge and possibly disrupt rail traffic. In the event a large vehicle hits the bridge while a train is crossing, the impacts could result in catastrophic damage, including derailment, personal injury, and loss of critical freight.

Additionally, the existing conditions of the Sherman Park area have resulted in the establishment of homeless camps, leading to an increase in pedestrian traffic. At times, this could become a trespassing issue with pedestrians crossing the tracks at unmarked and unsafe locations, posing significant risk for personal injury. While a majority of pedestrian users utilize the roadway underpasses, there are cases in which pedestrians cross the tracks unsafely.

ROADWAY

A safety analysis was performed to evaluate historic crash data for several major intersections surrounding Sherman Park. The crash data were provided by the DPW from the ARIES crash database. Within a 4-year period between October 2016 and October 2020, 579 crashes were reported at these intersections. **Table 5** breaks out the crashes per year and the percent of fatalities and injuries for each intersection.

TABLE 5: INTERSECTION CRASH HISTORY BY YEAR

E-W Street	N-S Street	2016	2017	2018	2019	2020	Total	Fatalities & Injuries		
								F+IC	NIC	% of Crashes
Southeastern Avenue	Sherman Drive	0	2	3	10	4	19	0	6	32%
English Avenue	Sherman Drive	2	5	5	4	8	24	1	5	25%
English Avenue	Emerson Avenue	3	8	13	19	9	52	5	10	29%
Brookville Road	Emerson Avenue	2	9	15	7	3	36	10	5	42%
English Avenue	Brookville Road	1	2	5	3	3	14	2	1	21%
Brookville Road	Shadeland Avenue - SB Exit Ramp	0	2	5	2	3	12	3	3	50%
Washington Street	Sherman Drive	7	11	8	17	10	53	1	8	17%
Washington Street	Emerson Avenue	8	25	15	24	17	89	8	18	29%
New York Street	Sherman Drive	1	4	10	4	6	25	2	5	28%
New York Street	Emerson Avenue	0	4	3	5	0	12	1	1	17%
Michigan Street	Sherman Drive	4	16	21	11	12	64	6	6	19%
Michigan Street	Emerson Avenue	0	1	1	2	3	7	0	2	29%
10th Street	Sherman Drive	3	17	10	14	15	59	6	8	24%
10th Street	Emerson Avenue	1	8	12	19	8	48	3	7	21%
21st Street	Sherman Drive	3	13	4	9	7	36	5	9	39%
21st Street	Emerson Avenue	2	4	12	6	5	29	3	8	38%
Total		**37**	**131**	**142**	**156**	**113**	**579**	**56**	**102**	**27%**

NIC = Non-Incapacitating Injury IC = Incapacitating Injury F = Fatal

Twenty-seven percent of the total crashes analyzed resulted in injuries and/or fatalities. At a few intersections, the injury/fatality rate was significantly higher than the average. Half of the crashes at Brookville Road and the Shadeland Avenue southbound off-ramp resulted in injuries or fatalities. The severity percentage for Brookville Road and Emerson Avenue was over 40%, and it was over 30% for three intersections: Sherman Drive and Southeastern Avenue, 21st Street and Sherman Drive, and 21st Street and Emerson Avenue.

In addition to a higher severity, a few intersections are seeing crash totals that are noticeably higher than the rest of the studied intersections. There are six intersections that stand out above the rest. Those intersections, from highest to lowest totals, are:

1. Washington Street at Emerson Avenue
2. Michigan Street at Sherman Drive
3. 10th Street at Sherman Drive
4. Washington Street at Sherman Drive
5. English Avenue at Emerson Avenue
6. 10th Street at Emerson Avenue

Two of these intersections (10th and Sherman, Michigan and Sherman) are adjacent to corners of the Sherman Park Brownfield site and are of particular interest in this study. Washington Street and Emerson Avenue carry the highest daily traffic volumes of the roadways studied. While that does not exclude potential safety issues at intersections along those roads, higher traffic volumes come with increased exposure, typically resulting in higher numbers of crashes. The crash history and AADTs were run through INDOT's RoadHAT 3.0 software to compare the crash history against similar intersections across the state. Since none of the intersections includes a state-controlled facility, the local settings were used. Those results for index of crash cost (Icc) and index of crash frequency (Icf) are in **Table 6** below.

TABLE 6: ROADHAT ANALYSIS RESULTS

Intersection		2017-2020	
Major Roadway	Minor Roadway	Icf	Icc
Sherman Drive	Southeastern Avenue	3.84	2.54
Sherman Drive	English Avenue	4.44	1.87
Emerson Avenue	English Avenue	6.86	3.09
Emerson Avenue	Brookville Road	5.62	3.48
English Avenue	Brookville Road	3.57	1.65
Brookville Road	Shadeland Avenue (SB Exit Ramp)	2.8	1.97
Washington Street	Sherman Drive	6.86	2.72
Washington Street	Emerson Avenue	9.13	4.04
Sherman Drive	New York Street	4.52	2.05
Emerson Avenue	New York Street	2.81	1.27
Sherman Drive	Michigan Street	7.72	3.20
Emerson Avenue	Michigan Street	1.97	1.1
10th Street	Sherman Drive	7.38	3.22
Emerson Avenue	10th Street	6.58	2.65
Sherman Drive	21st Street	5.60	2.89
Emerson Avenue	21st Street	4.74	2.44

Many intersections have Icc values over two standard deviations higher than similar intersections, indicating the crashes are more severe at the studied intersections. Some Icf values are also over two standard deviations higher (indicating crashes are happening more frequently) than similar intersections state-wide. Two standard deviations is not a magic number, but it is a number that indicates an intersection's crash history is significantly higher than a majority of similar intersections statewide and should prompt further investigation.

To develop safety improvements, an understanding of crash causality is needed. Breaking down the crash types in the study area may provide insight to some causes of the higher-severity crashes occurring. **Figure 14** provides this breakdown of historical crashes by type.

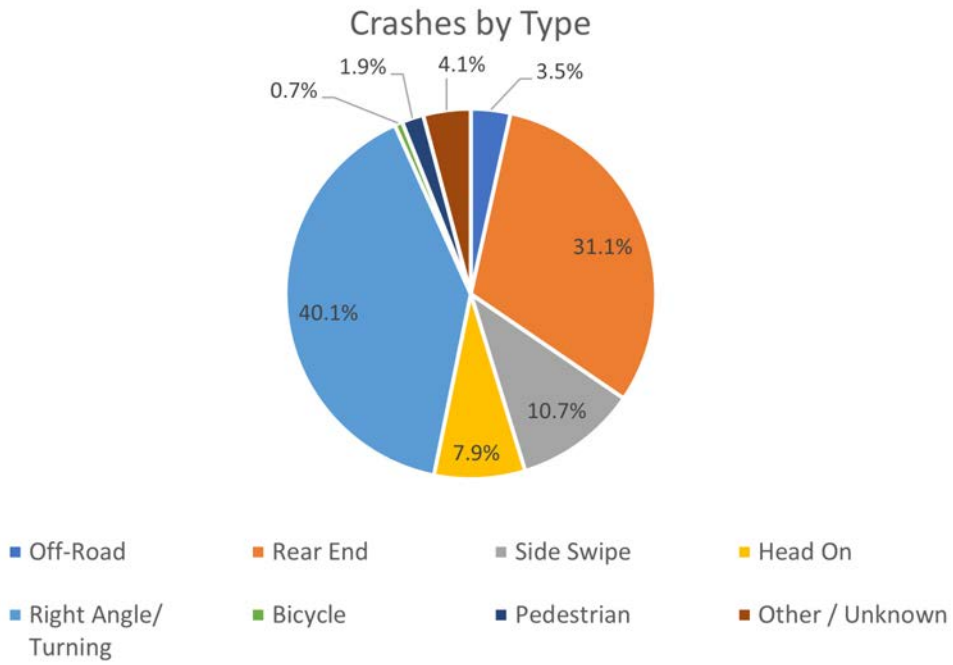


Figure 14: Historical Crashes by Type

The crash reports indicate that approximately 40% of incidents were a result of right angle or turning movement crashes; crashes of this type represented the highest percentage of incidents. Some common factors cited in these crashes involved drivers disregarding the traffic signals or failure to yield the right of way. Other contributing factors include increased congestion, nonadherence to posted speed limits, and wet roadway conditions. An additional 31% of incidents were a result of rear-end crashes. At the intersections near Sherman Park, many of these rear-end crashes occurred at signalized intersections or in a signal queue, which suggests increased levels of roadway congestion and potentially nonadherence to posted speed limits at these intersections. Of note, 40% of crashes at the intersection of Sherman Drive and 10th Street were rear-end crashes. Other factors contributing to rear-end crashes include stalled vehicles in the travel lane attempting to turn off the roadway to access businesses. Sideswipe crashes accounted for approximately 11% of crashes. Many of these crashes were caused by vehicles attempting to pass others on a narrow roadway and by vehicles veering too far into the opposing travel lane with oncoming traffic nearby. A breakdown of crashes by the reported primary factor is provided in **Figure 15**.

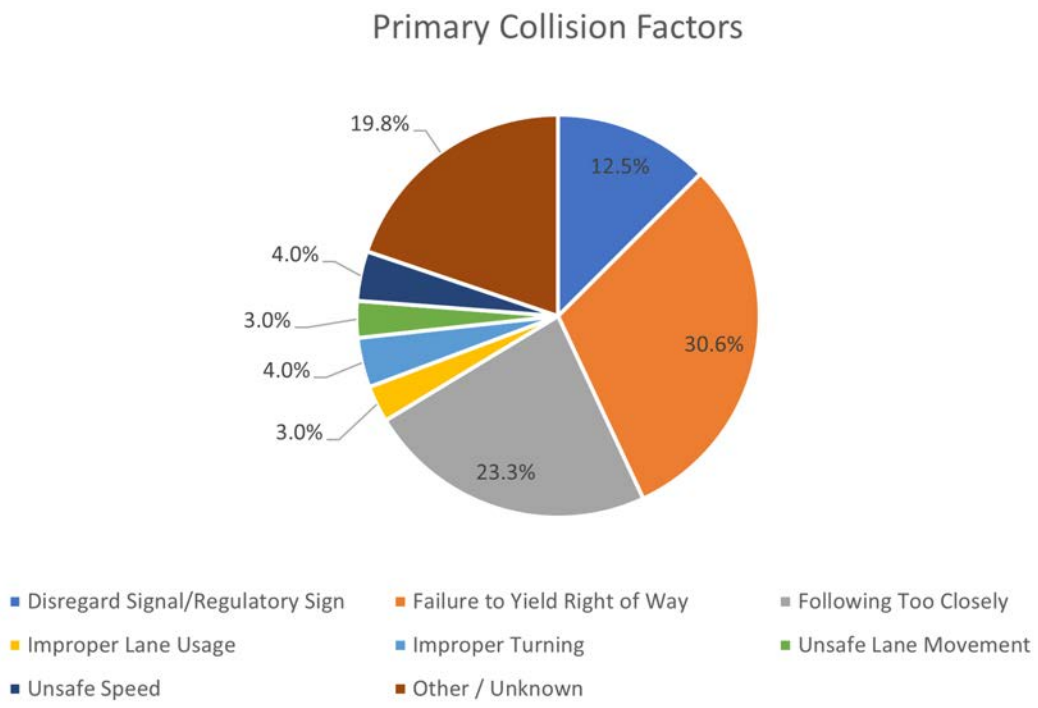


Figure 15: Primary Collision Factors

While right angle/turning and rear end crashes are common crash types seen at urban intersections where there is signal control and/or congestion, it does not provide much insight into intersection-specific factors that may affect safety. Understanding what types of crashes are happening by intersection may help identify causes of some crashes. **Table 7** takes the information from **Figure 14** and breaks it out by intersection.

TABLE 7: CRASH HISTORY BY CRASH TYPE

Location		Southeastern Ave. & Sherman Dr.	English Ave. & Sherman Dr.	English Ave. & Emerson Ave.	Brookville Road & Emerson Ave.	Brookville Road & English Ave.	Brookville Rd. & Shadeland Ave.	Washington St. & Sherman Dr.	Washington St. & Emerson Ave.	New York St. & Sherman Dr.	New York St. & Emerson Ave.	Michigan St. & Sherman Dr.	Michigan St. & Emerson Ave.	10th St. & Sherman Dr.	10th St. & Emerson Ave.	21st St. & Sherman Dr.	21st St. & Emerson Ave.	TOTAL	Percentage
Off-Road	PDO	0	0	1	2	1	1	2	2	1	0	0	0	0	1	0	0	11	3.5%
	NIC	0	0	0	0	0	1	1	1	0	0	0	0	1	0	0	0	4	
	IC	0	0	0	1	0	1	0	1	0	0	0	0	2	0	0	0	5	
	F	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Rear End	PDO	7	7	10	6	4	1	21	20	9	7	11	1	21	13	1	7	146	31.1%
	NIC	2	2	0	0	0	0	2	9	2	0	1	0	1	4	2	1	26	
	IC	0	1	0	0	0	0	0	0	1	1	1	0	2	1	1	0	8	
	F	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Side Swipe	PDO	2	1	4	0	2	0	2	12	2	0	13	0	4	6	4	3	55	10.7%
	NIC	0	1	0	0	1	0	1	0	0	0	2	0	0	0	0	0	5	
	IC	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	
	F	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	
Head On	PDO	0	1	8	2	2	1	4	5	1	1	0	0	4	2	3	1	35	7.9%
	NIC	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	2	4	
	IC	0	0	0	1	0	2	0	0	1	0	1	0	1	0	0	1	7	
	F	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Right Angle/ Turning	PDO	4	9	12	11	2	1	12	23	5	2	26	4	12	13	14	5	155	40.1%
	NIC	4	2	8	5	0	1	4	5	3	1	2	1	3	2	7	5	53	
	IC	0	0	2	7	1	0	0	5	0	0	3	0	0	1	2	2	23	
	F	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
Bicycle	PDO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.7%
	NIC	0	0	0	0	0	0	0	0	0	0	1	0	2	0	0	0	3	
	IC	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	
	F	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Pedestrian	PDO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.9%
	NIC	0	0	1	0	0	0	0	1	0	0	0	1	0	1	0	0	4	
	IC	0	0	2	1	0	0	0	1	0	0	1	0	1	0	1	0	7	
	F	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Other / Unknown	PDO	0	0	2	0	0	2	3	1	0	0	2	0	4	3	0	2	19	4.1%
	NIC	0	0	1	0	0	1	0	1	0	0	0	0	0	0	0	0	3	
	IC	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	2	
	F	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total		19	24	52	36	14	12	53	89	25	12	64	7	59	48	36	29	579	100%

PDO = Property Damage
NIC = Non-Incapacitating Injury
IC = Incapacitating Injury
F = Fatal

Due to significant pending changes to Washington Street from the Blue Line BRT construction and the one-way to two-way conversion of New York Street and Michigan Street, intersections on those three streets were not analyzed in further detail except for Michigan Street and Sherman Drive because it is adjacent to the Sherman Park site. The changes proposed on those three streets will cause substantial changes in traffic patterns along with some additional improvements that will change crash patterns. The intersections discussed below either had higher crash totals or had significance to the project site and were analyzed with a brief review of Google ™ aerial and Streetview imagery. These were not formal road safety audits.

ENGLISH AVENUE AND EMERSON AVENUE

Right angle/turning crashes account for almost 40% of the crashes at this intersection. Rear end and head on crashes account for approximately 20% and 15%, respectively. Protected left turn phasing may reduce the occurrence of right angle/turning crashes but would increase intersection delay, which would need evaluated. A higher cost countermeasure would install raised medians on all approaches to prevent left turns out of drives near the intersection.

MICHIGAN STREET AND SHERMAN DRIVE

Right angle/turning crashes account for almost 50% of the crash history at this intersection. Sideswipe and rear end crashes each account for almost 25% of the crashes. Other than some vertical obstructions, particularly along the south side of Michigan St., the only other physical feature that could be a cause of some crashes is the close presence of parcel driveways to the intersection.

10TH STREET AND SHERMAN DRIVE

Rear end crashes account for approximately 40% of the crashes at this intersection on the northeastern corner of the Sherman Park site. Another 25% of crashes were right angle/turning crashes. There have been two bicycle crashes and one pedestrian crash in recent history at this intersection. There are several factors that contribute to the occurrence of these crashes, such as nonadherence to posted speed limits, distracted driving, and roadway congestion. CSX rail line is elevated over the west approach of and immediately adjacent to the intersection with a bridge pier in between the eastbound and westbound lanes of 10th Street. The retaining walls of the bridge end piers extend up to the intersection, limiting sight distance. The vertical clearance under the rail bridge is posted as 13' – 7".

10TH STREET AND EMERSON AVENUE

Approximately 37% of crashes at this intersection were rear end crashes, and another 33% were right angle/turning crashes. A fatal sideswipe crash occurred at this intersection during the study period. There are several factors that contribute to the occurrence of these crashes, such as nonadherence to posted speed limits, distracted driving, and roadway congestion. Southbound Emerson transitions from 2 through lanes to one at this intersection, which may cause unexpected lane changes due to drivers not paying close enough attention. The left turn lanes on Emerson Avenue have a negative offset, creating sight distance issues during permitted left turn phases. Queued traffic in right turn lanes may limit sight distance for right turning vehicles. Restricting right turns on red for all approaches with right turn lanes and eliminating permitted left turns on Emerson may improve safety but would need evaluated for capacity impacts.

21ST STREET AND SHERMAN DRIVE

Almost 64% of crashes at this intersection were right angle/turning crashes. One additional crash involved a pedestrian. There are multiple railroad crossings on three of four legs in close proximity of the intersection. The signal head style and configuration are not typical for current or newer Indianapolis intersections, and there is not one signal head for each approaching lane. Vegetation does restrict sight distance along the south side of 21st Street, and there are driveways near the intersection. Many of the crashes at this intersection cite failure to yield the right of way or disregarding a traffic signal as the primary factor in the crash. With crosswalks being present in an industrial area, crosswalk signage and pavement markings may heighten awareness to motorists

of potential pedestrians crossing the intersection. This intersection also lacks pedestrian push buttons and signal heads, the addition of which would provide clearer crossing guidance to pedestrian traffic.

21ST STREET AND EMERSON AVENUE

Right angle/turning crashes account for 41% of recent historic crashes at this intersection. Rear end crashes are the second-most common crash type at approximately 28%. The northbound and southbound left turn lanes have a negative offset, which affects sight distance during permitted phases. The southbound lanes narrow as they approach the stop bar, which could lead to some sideswipe crashes.

Previous efforts to evaluate roadway safety in the Near Eastside community have been conducted by local and City organizations. The results of these studies can be found in **Appendix E – Health by Design Reports**. The reports indicate that there is a desire from the community to encourage slower vehicle speeds throughout the area. As such, traffic calming measures will be assessed by the design team and will be implemented near the site where feasible.

PEDESTRIAN

The safety of pedestrians is of vital importance, as there is an extensive sidewalk network encompassing the study area, along with nearby greenways and trails. Of the 593 vehicle crashes analyzed within the study area, 18 incidents involved bicycle/pedestrian crashes. As evidenced in **Figure 16**, five bike/ped crashes occurred at intersections adjacent to Sherman Park. The reports for these incidents indicate that the pedestrian(s) involved sustained injuries. It should be noted that the lack of overhead street lighting creates safety issues at night for pedestrians, as two bike/ped crashes occurred at night.

Figure 16: Bicycle/Pedestrian Crashes Near Sherman Park 2016-2020

There have been previous attempts by local and City organizations to assess pedestrian safety within the Near Eastside community. These studies afforded the opportunity to identify countermeasures for pedestrian-related crashes and potential road network improvements to prevent such crashes in the future. The outcomes and recommendations from these studies can be found in **Appendix E– Health by Design Reports**. The reports indicate that there is a major emphasis on pedestrian safety in the community, as evidenced by the recommendations and opportunities provided within the reports. Some identified priorities to enhance safety within the area include enhanced crosswalk visibility, improved connectivity, upgraded crosswalk and pedestrian signage, and improved lighting. These suggested pedestrian safety enhancements and others detailed in these reports will be assessed by the design team and will be implemented throughout the site where feasible. Many of the safety countermeasures, such as enhanced crosswalk visibility and upgraded

signage, may be implemented concurrently with proposed roadway improvements. Other countermeasures such as improved connectivity and pedestrian-scale features will require intentional planning and design to reflect desired outcomes of the community.

Market and Developer Validation

The investment and development thesis for the 2017 Sherman Park Area-Wide Plan (AWP) was tested against the underlying market fundamentals as an important step to ensuring a successful project launch. The market is changing rapidly and the market fundamentals of supply and demand, vacancy, pricing, and employment growth need to be revised regularly during the planning and disposition process, and adjustments made accordingly. Rather than recreate the market study portion of the Sherman Park AWP, a peer review was conducted of the market fundamentals supporting the strategy which underlies the plan.

Another important step to ensuring a successful launch is testing the investment and development thesis for the Sherman Park AWP with the development and brokerage community. As such, industrial, commercial, and residential mixed-use developers, brokers, and end users with the capacity and experience to execute the Sherman Park AWP were interviewed. These developer interviews were all conducted via video conference.

The relevant findings from this validation are as follows:

PRIMARY END-USE

Employment-supporting light-industrial, commercial, and distribution uses should be prioritized to allow job creation and adhere to current market conditions.

- A shortage in the supply of modern, mid-sized (60-120,000 square feet) industrial/commercial buildings combined with strong demand drivers in the industrial market provide a clear direction for Sherman Park. Land use and site development should reflect this priority by subdividing the site into larger orthogonal parcels allowing easy access for truck and delivery access.
- Residential use should be limited, given the potential abutting to industrial users and related impacts, particularly from truck traffic. Residentially zoned land is in abundance around Sherman Park, whereas large sites appropriate for employment uses are not. Residential development may be appropriate at the intersection of Michigan Street and Sherman Drive, or as a buffer in conjunction with greenspace on the western edge of Sherman Park.
- The current outlook for retail is bleak, amidst the recession brought on by the pandemic and resulting mitigation efforts. Further, a post-Covid recovery timeline is uncertain, and shopping habits continue to shift online. Thus, space held for retail should be limited, if planned for at all. Showing retail amenities as a way of enticing housing or other components will be misleading and work against the AWP's vision for Sherman Park.

FLEXIBILITY IN EXECUTION

Development of this site will take years, and underlying conditions may change. To support successful and cohesive redevelopment of the site, a flexible street grid pattern should yield flexible parcels, with flexible zoning. This zoning should allow for a range of employment uses to be built as demands shift, while also allowing for some mixed use on the periphery that reestablishes a walkable urban fabric at the edge of surrounding neighborhoods. New zoning designation should match these priorities, while eliminating inappropriate uses that do not support the employment or potential walkable residential or mixed-use node at Michigan Street and Sherman Drive, or the western edge of the site.

TRANSPORTATION NETWORK AND PUBLIC SPACE DESIGN

The street design within Sherman Park should facilitate the safe and efficient transportation necessary for the previously mentioned uses. Semi truck traffic should have clear routes to their destinations and access to nearby interstates. This keeps them away from residential streets and neighborhoods, supporting walking and biking where more appropriate, including Michigan Street and immediate neighborhoods to the west.

Transportation Logistics Implementation Plan

Assessments of the pedestrian and trail, rail, and roadway networks surrounding the Sherman Park development site were conducted to understand the impacts of planned improvements scheduled by various City agencies and organizations and to identify potential transportation network improvements. These assessments identify and focus on holistic area-wide opportunities to better utilize, transform, or interface with existing transportation infrastructure. The scope and feasibility of different alternatives were identified in collaboration with the City DMD and DPW and CSX to identify synergies, costs, and impacts to the area and planned development location, which are provided herein.

Pedestrian and Trail Network Assessment

Several parks, greenways, and trail networks are accessible near Sherman Park. These greenways include the Monon Trail, Pogue's Run, the Pleasant Run Greenway, and the Pennsy Trail. Numerous trailheads and other access points to these greenways can be found within a two-mile radius of Sherman Park, with vital connections to downtown Indianapolis via the Indianapolis Cultural Trail. These greenways offer a source of recreation to surrounding neighborhoods and contribute to the diverse transportation network connectivity within the region. A summary of the existing greenways in the surrounding area has been previously provided in the Existing Conditions section of the study.

TRAIL CONNECTIVITY

The greenways and trails located in the Near East community currently function as isolated locations for recreation and provide limited regional connectivity. To address these concerns, the Indianapolis Parks & Recreation plans to expand the network of trails and greenways in the Near East community and throughout the Indianapolis metropolitan area. The planned trail network expansions in the Sherman Park area are shown in **Figure 17**. Additional information regarding the planned trails can be found in **Appendix F – IndyGreenways Master Plan**. The expansions of the Pogue's Run greenway and the Pennsy Trail will directly impact the Near East community. **Table 8** provides a summary of the connections to be established among the planned greenway expansions.

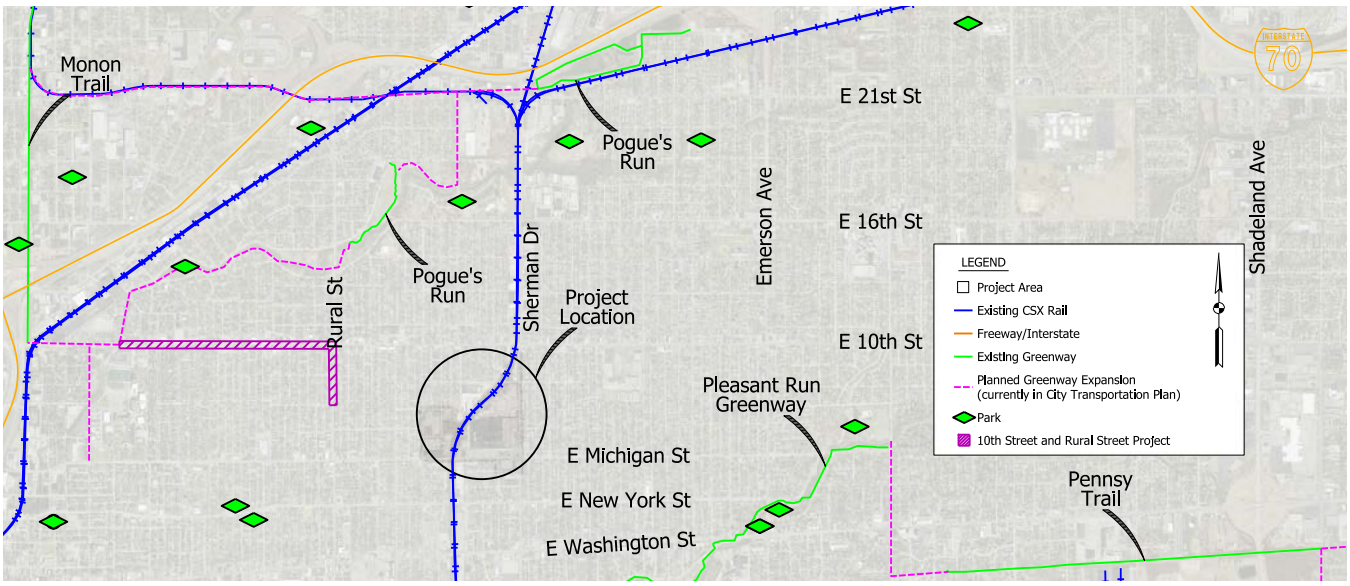


Figure 17: Indy Greenways Planned Greenway Connections Near the Study Area

Pennsy Trail

The Pennsy Trail expansions will establish a significant east-west connection on the east side of the City. The planned trail, once completed, will be 7.2 miles in length that will ultimately connect Irvington to the Town of Cumberland and will extend to Greenfield. Other key connections include linkages to the Pleasant Run greenway at Ellenberger Park and to the planned Lick Creek, Grassy Creek, and Buck Creek greenways. Additionally, there are plans to construct connections

to future planned transit stations/stops, including potential connections to the future Blue Line BRT stations along the corridor. Exact locations of stations are unknown at this time.

Pogue's Run

Planned expansions to the Pogue's Run greenway will connect the two currently disjointed segments of the greenway and will provide access to Brookside Park. An east-west connection trail is also planned that will provide major connections to the Monon Trail and the Indianapolis Cultural Trail, allowing for increased bike/ped mobility to the north and downtown. The future Pogue's Run greenway will also provide a connection to Arsenal Technical High School, a key asset in the Near East community. Once complete, the Pogue's Run greenway will be 5.3 miles in length, providing connections to three parks and five neighborhoods.

Potential Connectivity

The expansions of the Pogue's Run Greenway and Pennsy Trail will create key connections through the northern and southern reaches, respectively, of the Near East community. These connections also afford broader regional trail connectivity, allowing increased bike/ped mobility throughout Indianapolis. It should be noted that the planned greenway connections in the Near East community are primarily east-west connections; no true north-south trail connections are currently planned for the area by Indy Parks & Recreation. This presents the opportunity to explore the feasibility of a north-south connection.

A north-south shared-use path would be a vital corridor in the Near East community as it would have the potential to link the Pleasant Run greenway to Pogue's Run; these trails currently do not have a direct connection. Regionally, this would create a broader connection from the Pennsy Trail to the Monon Trail and the Indianapolis Cultural Trail, ultimately providing a bike/ped route from Greenfield to downtown Indianapolis and from Garfield Park to Carmel. Given the potential regional impacts, the Sherman Park site development will establish this north-south connection as well as other potential bike/ped facilities.

TABLE 8: PLANNED GREENWAY SUMMARY

Greenway	Distance from Sherman Park (mi)	Length (mi)	Park Connections	Neighborhood Connections	Greenway/Trail Connections
Pogue's Run	1.0	5.3	3	5	3
Monon	2.0	26.0	4	9	7
Pleasant Run	1.5	8.4	5	4	4
Pennsy	1.8	7.2	1	4	6

PROPOSED GREENWAY CONNECTIONS

The Sherman Park Development site provides several opportunities to incorporate new bicycle and pedestrian facilities within the study area. Such facilities include a shared-use path on the west side of Sherman Drive, a sidewalk on the north side of Michigan Street, neighborways on Olney Street and Tuxedo Street, and a pedestrian walkway on North Street. Such facilities would allow for improved bike/ped mobility and safer passageway through the site. Additionally, the shared-use path and sidewalk proposed along Sherman Drive and Michigan Street would give impetus for growing the trail system in the Near East community. The proposed greenway connections for the site and recommended bike/ped facilities for the area are presented in **Figure 18**, while a summary of the proposed connections among these facilities are presented in **Table 9**.

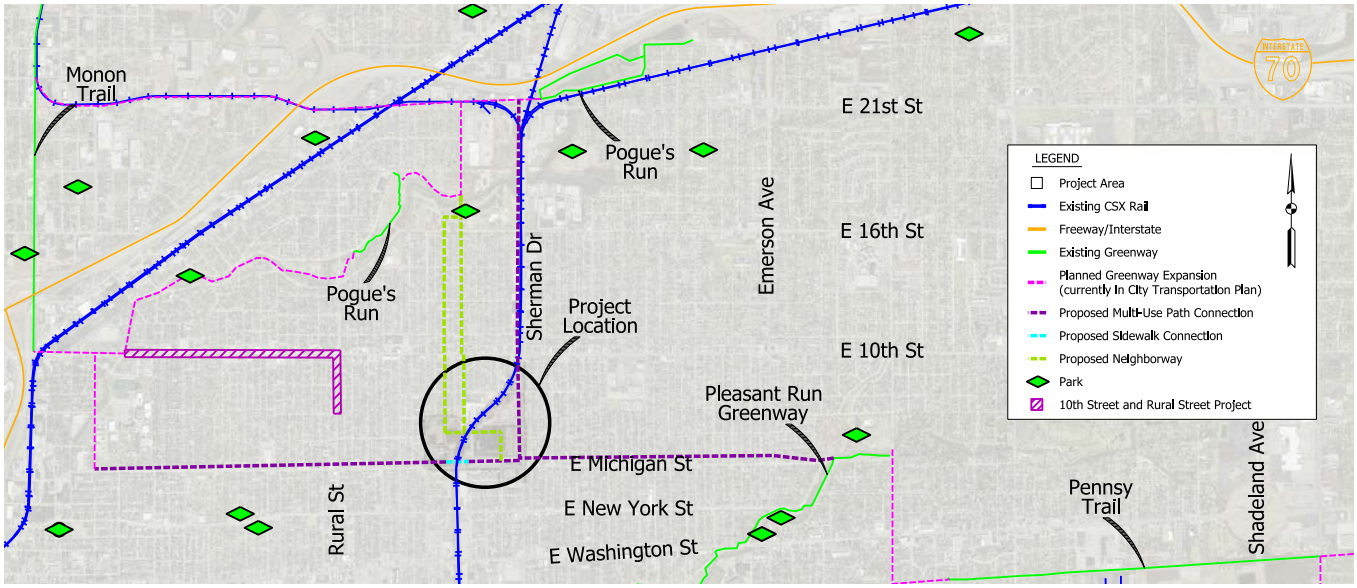


Figure 18: Proposed Greenway Connections Near the Study Area

The north-south connections along Sherman Drive, Olney Street, and Tuxedo Street would provide a link between the Sherman Park Development site and Brookside Park. The addition of an east-west sidewalk on the north side of Michigan Street through the site could be the first step to establishing even more bicycle and pedestrian infrastructure connections throughout the community. It is recommended that additional bicycle and pedestrian infrastructure be built on Michigan Street outside the study area to connect Ellenberger Park with Brookside Park and Arsenal Technical High School. These proposed shared-use paths, sidewalks and neighborways would create potentially three connections to other existing or currently planned greenways. Essentially, the entire Near East community and eastern region of Indianapolis would be surrounded by a network of shared-use paths, sidewalks, and greenways. Note that the Sherman Park Site Development will draw heavy commercial/industrial traffic, so separating bicyclists and pedestrians with visible and safe options will be essential.

The proposed trails could be used for commuter use, as well. Given the proximity of the new CJC and the existing bike network in the Near East community, the recommended bicycle and pedestrian network improvements would be a complementary addition to the existing pedestrian and trail network in the area, allowing for increased bike/ped mobility in the Near East and surrounding communities.

TABLE 9: PROPOSED GREENWAY CONNECTIONS SUMMARY

Adjacent Roadway	Facility Type	Length (mi)	Park Connections	Greenway/Trail Connections
Sherman Drive	Shared-Use Path	2.8	2	3
Michigan Street	Shared-Use Path	2.8	1	3
Olney Street	Neighborway	1.0	1	2
Tuxedo Street	Neighborway	1.1	1	2
North Street	Pedestrian Path	0.3	0	3

Shared-Use Path on Sherman Drive

The installation of a new shared-use path on west side of Sherman Drive is planned through the study area. This path would provide the first step to creating a key north-south connection to other existing greenways/parks and planned greenway expansions. The 10-foot-wide path would be separated from the roadway by a grass buffer, ranging from 5 to 10 feet in width. **Figure 19** details the proposed path improvement. Currently, there is not sufficient available right-of-way (ROW) to install the path. Therefore, an additional 17.5 to 22.5 feet of ROW on the west side of Sherman Drive would be required. This additional ROW would allow space for the shared-use path, relocated utilities such as overhead power poles, a grass buffer, new curb and gutter, and the widening of Sherman Drive. The proposed roadway improvements to Sherman Drive will be presented in later sections of this study.

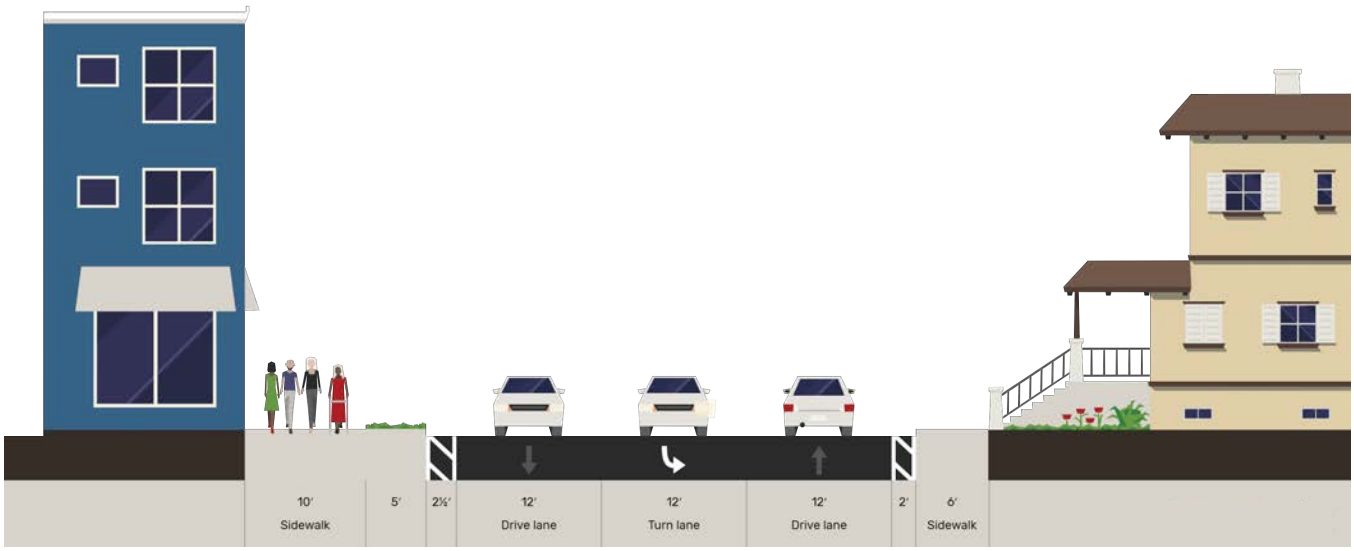


Figure 19: Section on Sherman Drive with Proposed Shared-Use Path (Looking North)

While not within the Sherman Park Development study area, shared-use paths like what are proposed through the Sherman Park site, should be continued north on Sherman Drive from 10th Street to Brookside Park, if possible. Should a sidewalk also be constructed on Michigan Street, as detailed in the following section of the study, the installation of the proposed path on Sherman Drive would connect Ellenberger Park and Brookside Park. Installation of a path on this section of roadway would likely require removing a travel lane from Sherman Drive to make room for the path in order to stay within ROW. Regionally, the shared-use path on Sherman Drive would connect Greenfield with Carmel via the Pennsy Trail, Pleasant Run greenway, Pogue's Run, and the Monon Trail.

Sidewalk on Michigan Street

A new sidewalk and on-street bike lane on Michigan Street are planned that will supplement the planned cycle track expansion anticipated with the Michigan/New York two-way conversion project which will connect to existing facilities at Arsenal Technical High School to the west and to Ellenberger Park to the east. The 10-foot-wide sidewalk would be separated from the roadway by a grass buffer 5 feet in width. The 5-foot-wide on-street bike lane would be located on the north side of Michigan Street. **Figure 20** details the proposed improvements. If a new rail bridge were to be constructed at Michigan Street, additional pedestrian facilities such as wider sidewalks and protected bike lanes at the rail bridge location could be provided. As indicated previously, DPW plans to convert the one-way pairs of Michigan Street and New York Street to two-way streets as early as 2022. Therefore, any proposed bicycle and pedestrian network enhancements would require coordination with DPW. The proposed roadway improvements to Michigan Street will be presented in later sections of this study.

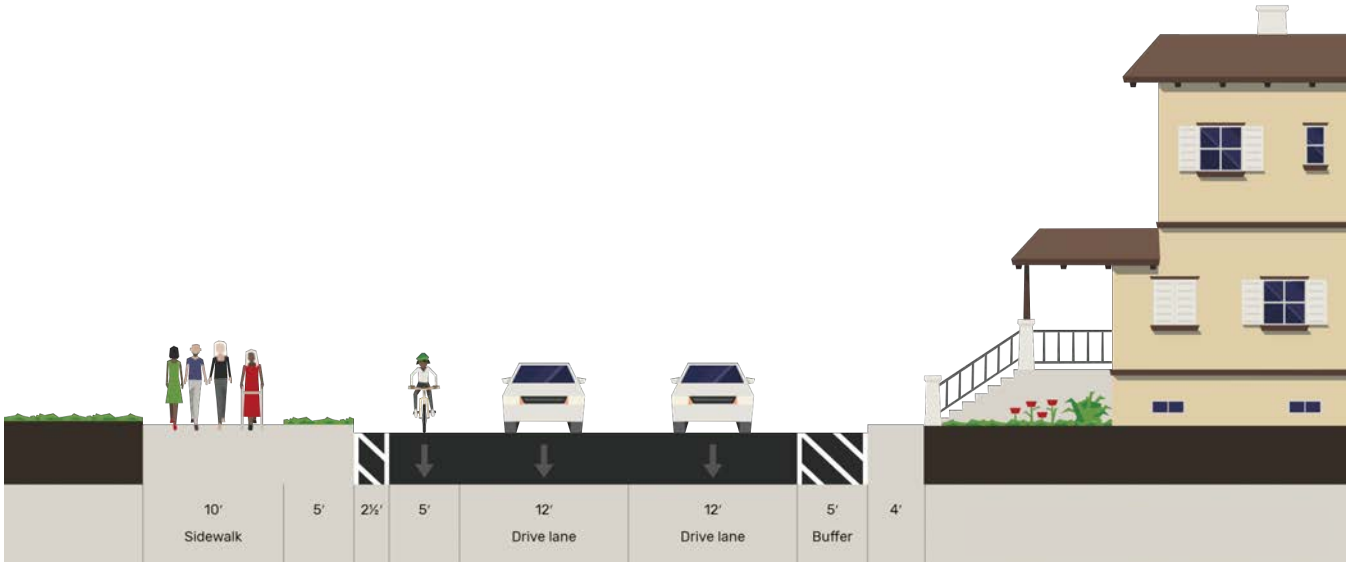


Figure 20: Existing Section on Michigan Street with Proposed Sidewalk (Looking East)

While not within the Sherman Park Development study area, sidewalks like what is proposed through the Sherman Park site, should be installed on Michigan Street from Ellenberger Park to the existing trail network at Arsenal Technical High School. This would create connections between the existing Pleasant Run greenway/Pennsy Trail and the planned Pogue's Run greenway expansion. Regionally, the Michigan Street sidewalk would connect Greenfield with downtown Indianapolis via the Pennsy Trail, Pleasant Run greenway, Pogue's Run, and the Indianapolis Cultural Trail.

Neighborways at Olney Street & Tuxedo Street

In addition to the proposed shared-use path on Sherman Drive and sidewalk on Michigan Street, Olney Street and Tuxedo Street should be converted to neighborways within the study area and farther north towards Brookside Park. Neighborways are low-volume streets optimized for bicycle travel through pavement markings, signage, traffic calming, and intersection crossing treatments. Neighborways often parallel an arterial roadway, as well. Sherman Drive is classified as an arterial roadway by the City and Olney/Tuxedo are low-volume streets primarily used for on-street residential parking. Therefore, transforming Olney Street and Tuxedo Street to neighborways could provide a safer alternative to connect Sherman Park to Pogue's Run and Brookside Park. This upgrade also creates a safe non-motorized transit connection to East 10th Street. An example of neighborway signage that could be utilized within the site is shown in **Figure 21**.

There are plans by the City to incorporate a bike route on 10th Street east of Sherman Drive. Should Olney Street and Tuxedo Street be converted to neighborways, efforts should be made by the City to extend the planned bike system improvements on 10th Street to connect to these neighborways. This would provide increased bike/ped connectivity throughout the area.

Figure 21: Neighborway Signage

North Street

When RCA was active, North Street served as a passageway that connected parking lots west of the CSX rail line to the manufacturing buildings to the east. Currently within the study area, North Street is maintained between Lasalle Street and Tuxedo Street. East of Tuxedo Street, North Street is abandoned and in disrepair. An old rail (Private RCA) underpass is present to the east of Tuxedo Street. While North Street can accommodate vehicular traffic west of the CSX rail line, there is potential to provide a focused pedestrian path along both the maintained and abandoned sections of the street. This pedestrian path could be provided in the form of an exclusive pedestrian sidewalk or in the form of wider sidewalks on either side of a reconstructed North Street roadway. **Any future development of North Street within the study area should strongly consider the installation of a widened sidewalk to provide a pedestrian connection between the Sherman Park development and the residential areas west of the rail line.** A focused pedestrian path at North Street would also provide a connection between planned pedestrian facilities within the site and the proposed neighborway conversions at Olney Street and Tuxedo Street. At a minimum, 65' of of ROW should be provided for the future development of North Street. In addition, this route can be used as a pedestrian and cyclist connection, in lieu of utilizing the Michigan Street underpass's narrow sidewalks.

Rail Network Assessment

The Greater-Indianapolis area is a major regional and national rail hub responsible for the transport of vast amounts of freight across the country. The rail network near the Sherman Park site is owned by the CSX Railroad. While there are several various railroad owners and operators in the Greater-Indy area, CSX owns and operates a majority of the infrastructure in the greater metropolitan area.

An analysis of the rail network was performed and coordination facilitated with the CSX Railroad. The Indianapolis Belt Subdivision that runs through Sherman Park, as shown in **Figure 22**, services about 10 trains daily and serves as a bypass connection of downtown on the eastern edge of the main rail hub.

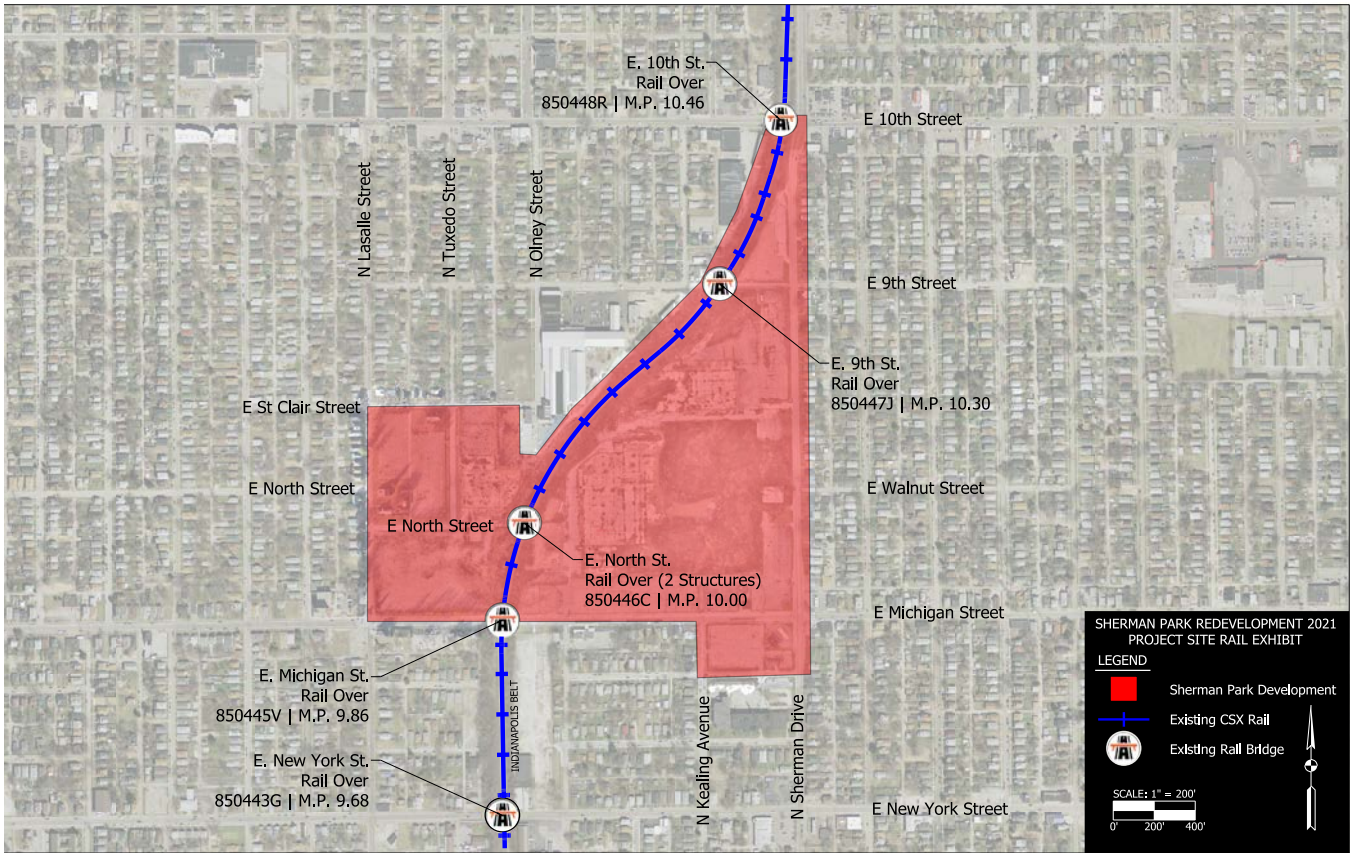


Figure 22: Indianapolis Beltline Through Site

SPUR TRACKS

There are no existing spur tracks in the Sherman Park vicinity. The North Street/RCA Grade-separated crossing has two (2) structures, one track previously served a now-removed spur line to the former RCA facility. No future railroad spurs or railroad transport are anticipated from the Sherman Park Development, based on conversations with potential and Indianapolis area developers.

Roadway Network Assessment

There are several major road corridors in the vicinity of Sherman Park. These corridors provide vehicle and truck access to businesses, recreational opportunities, and greater connectivity throughout the study area. A summary of the existing roadway network, including current truck routes and major corridors in the area, has been previously provided in the Existing Conditions section of the study.

CONNECTIVITY TO SHERMAN PARK

Goods going to and from the Sherman Park site will arrive and leave via semi-trucks. Identifying a preferred truck route for the site was key to evaluating impacts to existing roadway infrastructure. A viable truck route is also critically important to the development potential of Sherman Park, providing accessibility needed to encourage developers to consider the site. First, the project team needed an understanding of existing truck routes and their viability; this analysis was presented in Section 1 – Introduction & Existing Conditions.

Truck Routes

Several options were considered for a truck route to serve the Sherman Park site. There are existing truck routes nearby or adjacent to the site. Once the conversion of New York Street and Michigan Street from a one-way pair to two-way traffic on both streets occurs, the residential nature of those streets is not conducive to a truck route. Similarly, with the future installation of the Blue Line BRT route on Washington Street eliminating one through lane in each direction, Washington Street becomes less desirable as a truck route. As previously mentioned, there is a desire by residents of the Near East community to implement traffic calming measures on Rural Street to maintain a neighborhood feel to the street. As such, a truck route was not considered on Rural Street south of Massachusetts Avenue. Another hindrance to truck routes to and from the Sherman Park site are railroad bridges that cross collectors and arterials with less than necessary clearance to accommodate large semi-trucks, particularly to the west and south of the site. This leaves a couple access points to I-70 to the north as the likeliest and most feasible truck routes.

The first potential north-south truck route to I-70, starting from the project site would: travel north on Sherman Drive to 21st Street; turn west onto 21st Street until Dearborn Street; follow Dearborn north to Roosevelt Avenue; turn southwest onto Roosevelt Avenue to Rural Street, where traffic would turn right and end at the interchange of I-70 and Rural Street.

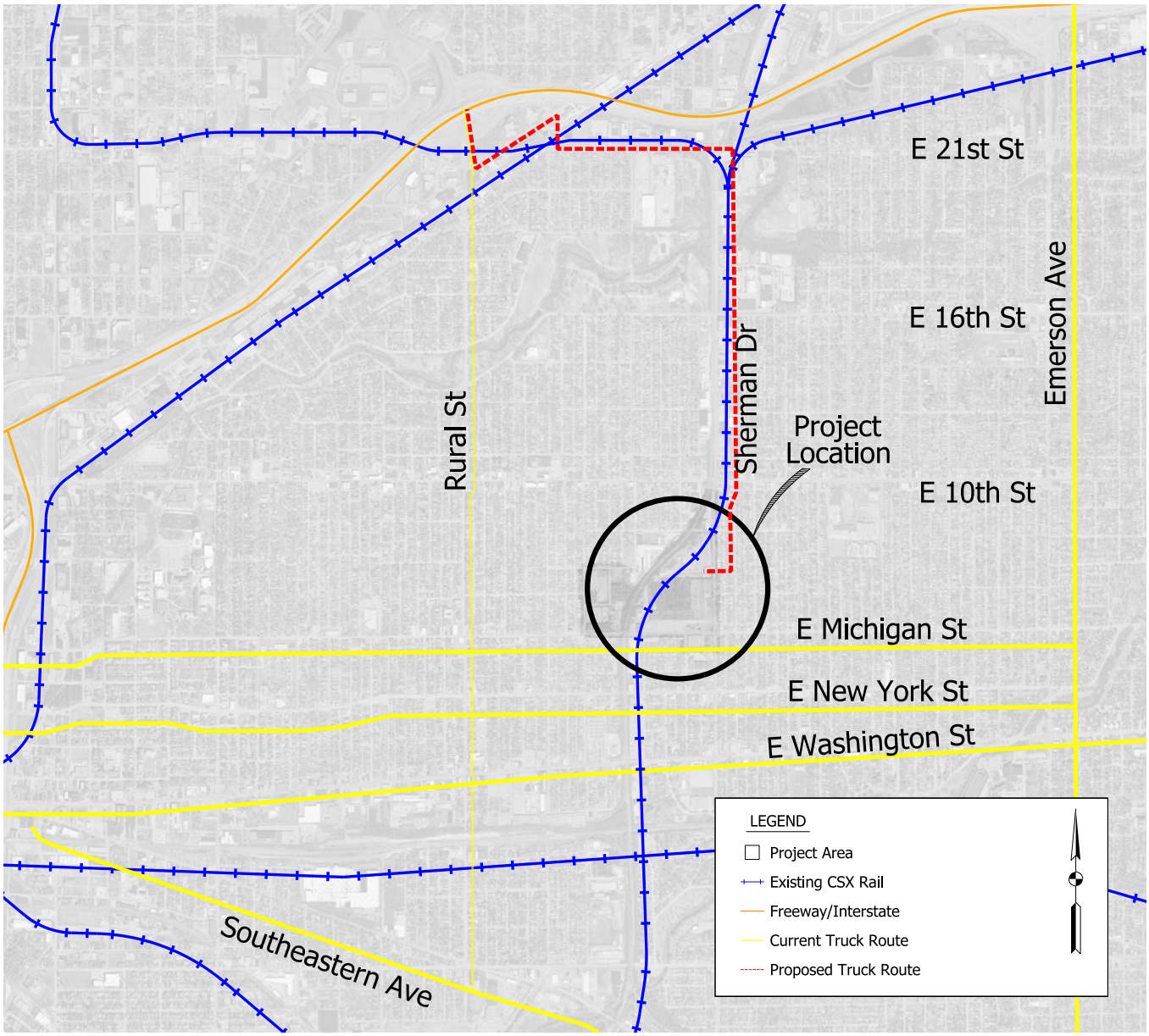


Figure 23: Truck Route Option 1

The second potential north-south truck route to I-70, starting from the project site would: travel north on Sherman Drive to 21st Street; turn east onto 21st Street to Emerson Avenue; and turn north onto Emerson Avenue to the I-70 interchange ramps.

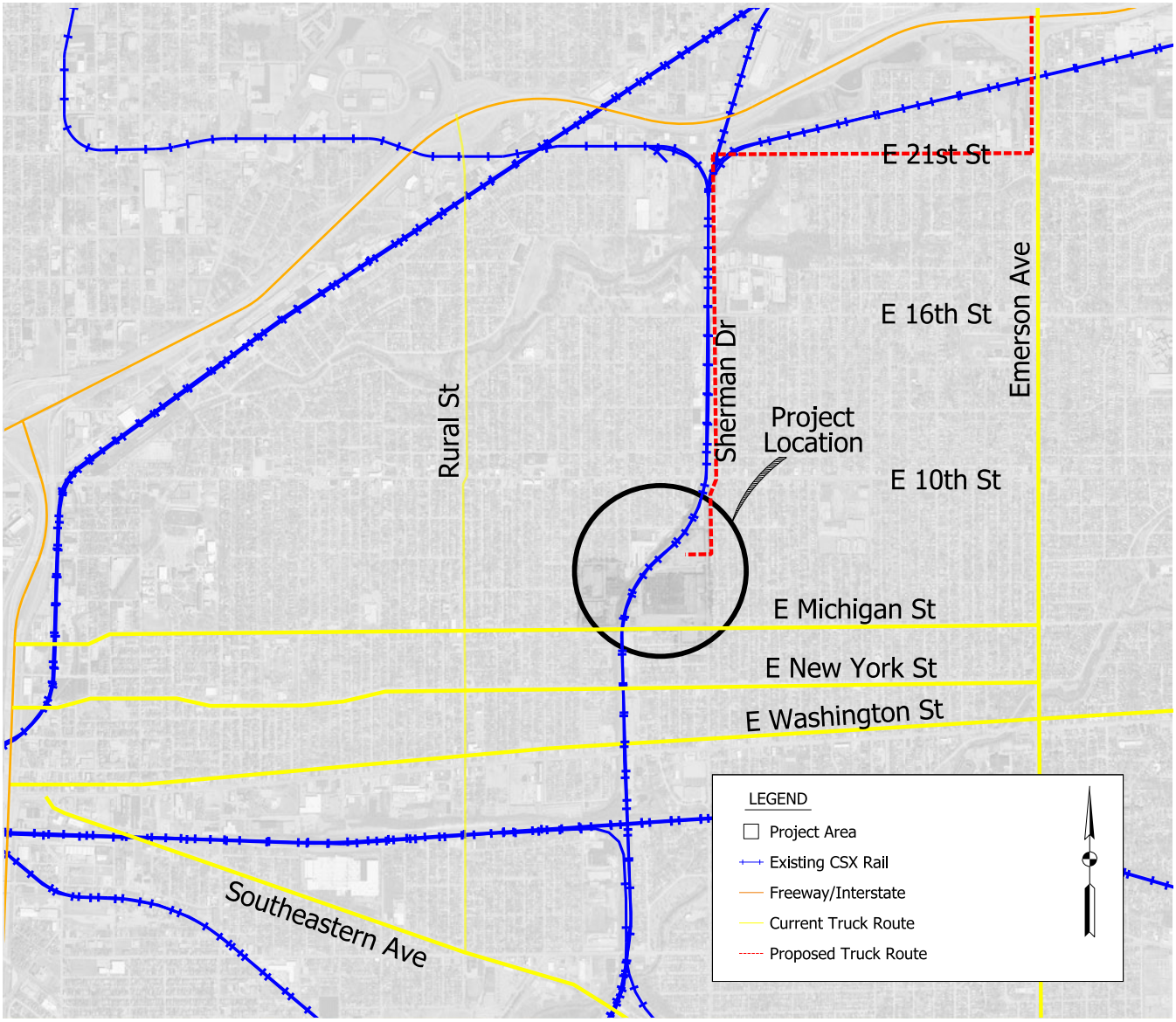


Figure 24: Truck Route Option 2

Both alternatives require capacity analysis to determine feasibility as a truck corridor. The results of that analysis are presented in the following sections.

Transit Routes

A BRT service is planned along Washington Street between the Town of Cumberland and the Indianapolis International Airport that will replace and improve the existing Route 8 local service. Known as the Blue Line, fast, frequent, and reliable transit service will be available for the entirety of its 24-mile route length. The 39 proposed stations, which will offer level boarding for passengers, will be spaced approximately 0.5- to 1-mile apart. Construction is set to begin on the Blue Line in 2023, with an anticipated start of service in 2025.

To ensure the Blue Line remains able to maintain its speed and frequency, eliminate any impacts caused by congestion or traffic incidents, and improve safety for all users in all modes of transportation along the Blue Line corridor, the Blue Line will operate in dedicated lanes. Therefore, one through lane in each direction on Washington Street will be eliminated along the length of Blue Line service to accommodate operation in exclusive or semi-exclusive center-running lanes. This means that the center-running lanes may be used only by rapid transit vehicles and emergency vehicles; motor vehicle traffic may use them only under certain conditions. As an example, when rapid transit vehicles are traveling in Bus Only Lanes, drivers will only be permitted to turn at signalized intersections for their safety. All signalized intersections will include a protected U-Turn phase and construction includes the addition of new signals to improve safety and flow.

Preliminary designs of the Blue Line indicate significant roadway network upgrades to Washington Street. These upgrades include:

- 65 new or upgraded traffic signals,
- 499 new or replaced ADA curb ramps,
- 17.5 miles of street resurfacing,
- 10.5 miles of new or replaced sidewalk,
- 3.3 miles of new or refreshed crosswalks,
- 12 stations with bike parking, and
- 2.2 miles of multi-use paths.

The permanence of BRT infrastructure supports increased private investment in the corridor, contributing to increased economic opportunity and quality of life. It is likely that the anticipated opportunities for economic growth along Washington Street will have effects on nearby streets such as New York Street and Michigan Street, thereby aiding the future economic opportunities of the Sherman Park Development. Further, the introduction of well-lit stations with security cameras and other security systems can result in a perceived-safer pedestrian environment.

Additional information regarding the Blue Line is provided in **Appendix A– Blue Line BRT**. The planned Blue Line route and stations is provided in **Figure 25**.

Figure 25: Planned Blue Line Route

Transit Connections

There are opportunities to improve access to the existing transit network surrounding the Sherman Park development. Features such as the neighborways on Olney Street and Tuxedo Street would provide a safe corridor for cyclists to access transit stops on 10th Street. The installation of a shared-use path and sidewalk on Sherman Drive and Michigan Street, respectively, would also provide a protected corridor for cyclists and pedestrians to access transit stops on Michigan Street. Should a focused pedestrian path be installed at North Street, a key connection to transit would be provided as this pedestrian path would link the neighborways west of the CSX rail line with the multi-use paths east of the CSX rail line, allowing for a safe non-motorized connection from Route 10 on 10th Street to Route 3 on Michigan Street.

CONNECTIVITY WITHIN SHERMAN PARK

An established roadway network within the site would be vital for end-users, future developments, and economic opportunity. An interior roadway network would provide key points of access within and throughout Sherman Park and would likely serve as a key component of any required trucking networks. The existing road network within the site is limited and only present west of the CSX rail line. Due to the lack of roadway maintenance at the former RCA site, there are no apparent street networks east of the rail line.

The presence of the rail line does impede the feasibility of a fully connected vehicular network within the site. Future work to the rail line is not anticipated within the study area. Therefore, any pedestrian or road network within the site must take the existing configuration of the rail line and existing low rail bridge clearances into consideration.

Aligning with the vision of the AWP, a road network within the Sherman Park site should be constructed that accommodates vehicles and pedestrians. This will allow for the movement of people and goods throughout the site. The layout of this interior road network will have a significant influence on the economic opportunities of Sherman Park. The layout of the road(s) will influence the location, size, and type of feasible developments. Therefore, it will be important to maximize the potential developable land within the site while also maximizing the connections between these developments.

PROPOSED DEVELOPMENTS

The Sherman Park Development site would provide the opportunity for residential, commercial, and light-industrial developments within the study area. Several light-industrial/commercial parcels should be allocated at the site that would create job opportunities in a low-income area. Multi-family housing parcels could also be allocated at the site that would contribute to the neighborhood form and feel. It is highly advised that curb cuts on Michigan Street be minimized by encouraging developments to have building faces closer to the ROW and offer parking behind buildings.

Attracting the right developer(s) and investor(s) that are well-capitalized, experienced, and aligned with the goals of the Sherman Park AWP is a critical and strategic undertaking. There are several strategies for disposition of a significant development opportunity with multiple sites. One is a master developer approach, with the intent of identifying one firm with the capacity to develop the land and infrastructure improvements. The master developer then sells parcels to other developers for build to suit and/or speculative projects under a well-conceived master plan. Another approach is to have a public or non-profit entity, like the City or a Community Development Corporation (CDC), act as a master developer and coordinate the development of land and infrastructure. The public entity then oversees the disposition of land and vertical development to parcel developers, again under a well-conceived master plan. The long-term vision is for the site to house several light-industrial developments, serving as an industrial park with some commercial and residential developments.

At the writing of this report, the City intends to serve as master developer for the Sherman Park site. Sec.742-108 of city code contemplates the creation of Development Plan Districts (DP) that Sherman Park would be designated, much like that of Central State on the City's near west side. The Department of Metropolitan Development and the Office of Corporation Council will lead these efforts through appropriate approvals.

The City is looking at an "Industrial Homeowners Association" to fund common maintenance and operations. Additionally, the City is amenable to vacating Tuxedo & North St ROW, if a developer desires this. But note that access would need to be provided from St. Clair Street for the existing house on the southwest corner of Tuxedo at St. Clair.

RecycleForce

There are plans for RecycleForce – an organization committed to reducing crime through employment and job training, while improving the environment through electronics recycling – to occupy two parcels within the Sherman Park site and is expected to break ground in late 2021. This development would likely draw heavy industrial traffic to the site. As such, it is imperative that the existing and planned road networks be able to support the anticipated increase in heavy vehicle volumes. It is anticipated that access to RecycleForce will be provided from the proposed interior street network. Most notably, entrances to the site are expected to be located at the southwest and southeast corners of the occupied parcel.

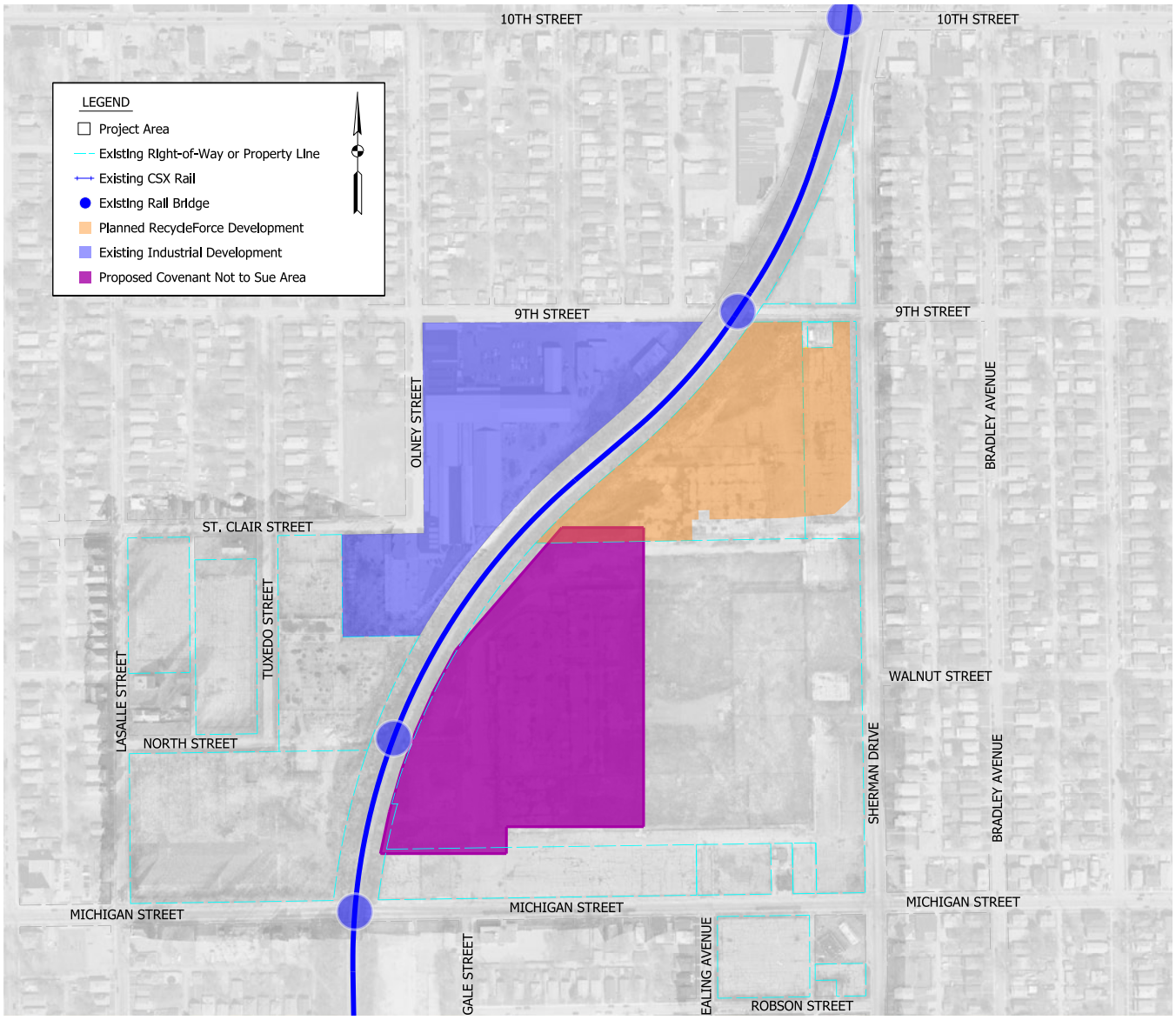


Figure 26: RecycleForce

Utilities

New utility installations such as water, sewer, and broadband are needed in the interior of the Sherman Park site. These new utilities will be used to service the planned residential, commercial, and light-industrial developments that would occupy the site.

Crown Castle has a cellphone tower within the development. This cell tower will be left in place and the coordination will continue to determine if any servicing facilities need to be relocated to accommodate proposed improvements.

Spectrum/Brighthouse covers the entire project area. It is mostly aerial plant that previously provided service to now-demolished buildings at Sherman Park. However, that aerial plant is now dead. Although there are no expected future plans to build additional utility infrastructure within the site, Spectrum/Brighthouse would be reactive to any forced relocates that are generated and would be willing to participate in any future development in the project area.

Zayo currently has fiber cables running along Sherman Drive. As such, Zayo can offer cost-effective, high-bandwidth solutions within the development areas.

LUMEN through its brand "CenturyLink" does not offer any local high-speed internet (HSI) services in the Indianapolis area. However, there is a LUMEN presence in the area through the brand "Quantum" (formerly Metro) that is able to provide fiber-base services to homes and small business.

Stormwater

The site will need to meet the requirements set forth in the Indianapolis Stormwater Manual for quantity stormwater discharge per **Table 10** below but not the quality requirements as the entire area drains to combined sewers which will be treated by Citizen's Energy Group (CEG). Additionally, CEG has their own stormwater requirements which will need to be met. These requirements are for no increase in stormwater flow or volume, investigate total separation of stormwater or how it is not viable, inclusion of infiltration practices where applicable, to provide the drainage model to CEG for evaluation with their entire system, and other infrastructure considerations to be reviewed and incorporated during design.

TABLE 10: ALLOWABLE RELEASE RATE PER INDIANAPOLIS STORMWATER MANUAL

Proposed Outfall	Equivalent Existing Outfall
2YR	0.5*2yr
10YR	2 YR
25YR	0.75*10YR
100YR	10YR

Existing flows reduced per the Indianapolis Stormwater Manual are presented in **Table 11**.

TABLE 11: EXISTING FLOWS REDUCED PER INDIANAPOLIS STORMWATER MANUAL

	Allowable Outfalls (CFS)				
Duration (HR)	Return Frequency (Year)				
	2	5	10	25	100
0.5	33.73	N/A	67.45	65.66	87.55
1	32.79	N/A	65.58	65.72	87.63
2	27.10	N/A	54.19	58.13	77.51
3	21.11	N/A	42.21	52.35	69.80
6	18.77	N/A	37.53	43.04	57.38
12	13.54	N/A	27.07	30.86	41.15
24	8.52	N/A	17.04	19.10	25.47

The project will construct roads and stormwater drainage infrastructure in the Sherman Park area to prepare for future construction and development of an industrial park. The project will also address drainage concerns on Michigan Street and make improvements to Sherman Drive.

The recommended drainage option for this development is the utilization of Hybrid Ditches along all new internal roadways within the Sherman Park limits. Approximately 6100 LF of ditches will collect stormwater from the roadways, infiltrate through an engineered soil layer to an underdrain system, and storm sewers are then sized to handle this reduced flow for the entire Sherman Park development. The ditches vary in size from 10 to 20 feet wide to handle the expected flows. Overflow structures will be provided in each hybrid ditch in case of clogging of the ditch as well as to handle large storm events. No infiltration into the existing ground is anticipated in this drainage model as the underground hazards are not fully known at this time. Precautions may need to be made in the final design to prevent water from leeching into the ground and water table through the use of an impervious liner at the bottom of the hybrid ditch section. Coordination with GE, the Responsible Party performing remediation efforts at the site, will need to occur as part of any stormwater plan.

Each parcel of developable land will need to provide its own stormwater detention. These calculations have limited the developer properties to 40% of their current flow into the hybrid ditch system. This allowable flow will need to include the new sanitary flow from the proposed development, as well, per the CEG stormwater connection standards.

Proposed flows in the Hybrid Ditches are presented in **Table 12**.

TABLE 12: HYBRID DITCH PROPOSED FLOWS

Duration (HR)	Option (Hybrid Ditches) Outfalls (CFS) Return Frequency (Year)				
	2	5	10	25	100
0.5	33.26	51.22	56.04	59.74	59.89
1	30.24	40.11	55.77	59.73	59.76
2	23.21	31.26	37.41	55.50	59.73
3	19.04	23.37	31.48	38.20	57.61
6	15.50	20.36	24.62	28.00	38.50
12	10.26	12.31	13.89	17.70	20.56
24	7.56	9.08	10.07	11.38	13.42

It is expected that the ditches will be contained either within the public right-of-way or drainage utility easements. Maintenance of all ditches with regards to mowing, trimming, trash and debris removal will be the responsibility of the adjacent property owner. The maintenance of storm inlets and manholes will be the responsibility of the City of Indianapolis.

One other alternative was considered for stormwater control which was the use of surface detention ponds. This option included the construction of two large detention ponds, one on each side of the CSX railroad, for storage purposes. These ponds would detain water from the proposed conditions of the site and release at controlled rates. Additional stormwater inlets will be constructed along Michigan Street to alleviate flooding. Both detention ponds as well as the additional Michigan Street inlets connect into the existing combined sewer in Michigan Street. The ponds help offsite the additional flow from Michigan Street due to the increased inlet capacity. This alternative was not chosen due to the hazard presented with a wet pond, infiltration and potential effects to the ongoing GE remediation, maintenance, and the removal of developable land within the site.

Additional information regarding the stormwater mitigation on the site can be found in **Appendix O – Stormwater Report**.

Environmental Remediation

The ongoing remediation efforts have an end goal of reducing concentrations of Contaminants of Concern to levels at or below the Indiana Department of Environmental Management (IDEM) commercial default standards; therefore, future development of the site will be limited to commercial or industrial land use unless a variance is obtained from IDEM. Supporting information regarding the limitations and recommendations for future development can be found in **Appendix C – Environmental Remediation.**

Although the restrictions detailed above preclude the use of eight of the nine parcels for residential land, it may be possible to construct residential units atop commercial businesses as long as the residential units are not on surface grade or below. If such a development is considered, approval from IDEM may be required.

The surface (0 – 2ft below grade) soils in public areas and greenspace areas will likely need to be demonstrated to comply with the IDEM residential land use standards or be covered with an engineered cap, such as concrete, asphalt or 2 ft of documented "clean soil."

Due to the ongoing groundwater remediation efforts, stormwater management and control features must consider their potential impact to the groundwater flow and chemistry that would interfere with the selected remedial technology (in-situ reductive dichlorination through the injection of emulsified vegetable oil and long-term monitoring) at the site. Coordination with GE, the Responsible Party performing remediation efforts at the site, will need to occur as part of any development plan.

CAPACITY ANALYSIS

The redevelopment of the Sherman Park site will create additional traffic usage on the surrounding roadway network, either generated by the site or attracting trips to the site. Much of the site is assumed to develop as light industrial (Land Use Code [LUC] 110); some single family and townhome residential (LUC 210 & 220) and mixed use (LUC 221 & 231) development was also included based on input from some surveyed development firms. The new traffic was assigned an entrance and exit to the Sherman Park site based on assumptions of easiest access. Traffic leaving the project site was projected out 0.5 mile or the next closest major intersection (whichever was greater) in all directions, using destinations in between and a number of alternative routes to assume a certain volume lost between intersections. Key intersections were analyzed for operational performance and capacity to determine the level of impact that the full build-out of the Sherman Park site may have. Sherman Drive itself was also checked for adequate capacity between intersections.

Traffic counts were taken at most key intersections in September 2020. Some intersections had intersection counts just prior to the COVID-19 pandemic that were used to develop both a COVID adjustment factor (for counts conducted during the pandemic) and annual growth factors. The COVID factor was calculated to be 19.4%, meaning traffic volumes would be increased by that factor to normalize them to pre-COVID levels. East-west routes (other than Washington Street) used a 1.1% growth rate, and north-south routes used a 1.0% annual growth rate. Because of the future implementation of the Blue Line BRT, which will remove a travel lane in each direction on Washington Street, it was assumed traffic volumes would stay constant with the loss of capacity. East-west routes were given a slightly higher growth than north-south due to expected diversion from Washington Street.

Synchro (Version 10.3.151) and HCS7 (Version 7.6) were used to conduct capacity analyses. HCS7 was used to confirm results at stop-controlled intersections in Synchro where appropriate. Capacity was analyzed for existing conditions (2020), the estimated construction year (2024) and the design year twenty years beyond construction (2044).

Key intersections were analyzed for operational performance and capacity in the study area and surrounding intersections. The redevelopment of the Sherman Park site will generate additional vehicular and truck traffic, which will impact operations at intersections surrounding and leading to the site. Certain routes may provide better mobility for truck traffic or have more available capacity to handle increased traffic volumes. These factors were used to evaluate Sherman Park's impact to the surrounding roadway network.

As mentioned, operational analyses were conducted on the study area's key intersections to evaluate the impacts of added traffic generated by development of the Sherman Park site. The traffic study for the two-way conversion of Michigan Street and New York Streets was used to redistribute traffic on those two streets as a no-build condition from the construction year out to the design year. Aerial images were used to lay out the existing intersection configurations. The results of the capacity analyses are shown in **Table 13**. Supporting information can be found in **Appendix P – Traffic Analysis**.

Assumptions were made for lane configurations with the two-way conversion of Michigan Street and New York Street (left turn lanes at all currently signalized intersections on Michigan and New York). Reconfigurations of lanes and inclusion of the Blue Line BRT along Washington Street are outside the scope of this study and were omitted. The intersections were only checked for impacts to operations based on existing lane configurations.

TABLE 13: CAPACITY ANALYSIS RESULTS

Intersection	2020 Existing		2024 No Build		2024 Build		2044 No Build		2044 Build	
	AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak
21st & Emerson	D (37.9)	C (29.4)	D (45.7)	C (32.7)	C (32.8)	D (39.2)	F (104)	E (74.8)	D (42.1)	D (47.1)
21st & Sherman	B (11.9)	B (11.9)	B (12)	B (12.1)	B (12.1)	B (12.1)	B (12.4)	B (13)	B (12.6)	B (12.1)
Massachusetts & Rural	B (10.8)	C (21.5)	B (11.8)	C (24.9)	B (11.8)	C (24.9)	C (26.5)	F (83.9)	C (26.5)	F (80.4)
10th & Rural	B (17.3)	B (16)	B (18.2)	B (16.7)	B (18.2)	B (16.7)	C (24.8)	C (21.5)	C (24.8)	C (21.5)
10th & Sherman	B (15.5)	C (25.4)	B (15.7)	C (27.9)	B (16.6)	C (32.4)	B (17.3)	E (66.9)	B (18.5)	E (66)
10th & Emerson	C (28.6)	F (127.9)	C (30.5)	F (145.5)	C (30.5)	F (145.5)	D (46.5)	F (243.7)	D (46.7)	F (244.1)
Michigan & Rural	B (16.3)	B (19.7)	B (16.5)	C (23.7)	B (16.7)	C (23.7)	B (18.1)	D (42.3)	B (19)	C (26.2)
Michigan & Sherman	B (13.4)	B (13.7)	B (12.6)	B (16.3)	B (13.5)	B (17.7)	B (13.7)	C (23.1)	B (15.8)	C (25.5)
Michigan & Emerson	B (12.2)	B (12.5)	B (12.8)	B (16.5)	B (12.9)	B (17.1)	B (14.5)	C (21.5)	B (14.6)	C (21.6)
New York & Rural	B (14)	B (13.7)	B (12.8)	B (13.9)	B (12.8)	B (13.9)	B (13.1)	B (15)	B (13.1)	B (15)
New York & Sherman	B (15.9)	B (21.5)	B (16.3)	B (23.2)	B (16.4)	C (26.1)	B (17.8)	D (39.7)	B (17.9)	D (45.5)
New York & Emerson	A (9.3)	B (14.4)	A (8.7)	B (11)	A (8.7)	B (11)	A (9.7)	B (13)	A (9.6)	B (13)
Washington & Southeastern	C (28.3)	C (22.6)	C (29.1)	C (22.9)	C (29.1)	C (22.9)	D (43.1)	C (24.9)	D (43.1)	C (24.9)
Washington & Rural	B (13.6)	B (18.6)	B (13.9)	B (19.6)	B (13.9)	B (19.6)	B (15.5)	C (24.4)	B (15.5)	C (24.4)
Washington & Sherman	C (23.4)	C (22.7)	C (24.4)	D (42.2)	C (24.9)	D (46.7)	C (29)	E (73.9)	C (29.6)	D (50)
Washington & Emerson	C (24)	C (34.6)	C (24.5)	D (39)	C (24.5)	D (39)	C (26.6)	E (66.9)	C (26.6)	D (37.3)
Southeastern & Rural	D (50.5)	D (38.2)	D (50.4)	D (38.7)	D (50.2)	D (38.7)	D (51.6)	E (67.5)	E (61.4)	D (45.8)
Southeastern & Sherman	B (12.4)	B (15.4)	B (12.7)	B (16.1)	B (12.7)	B (16.1)	B (14.5)	C (20.9)	B (14.5)	C (20.9)
Brookville & Emerson	C (16.7)*	F (51.5)*	C (17.7)*	F (67.3)*	C (17.7)*	F (67.3)*	C (24.5)*	F (708.8)*	C (24.5)*	F (708.8)*
Brookville & Shadeland SB	A (4.8)	A (8.8)	A (4.9)	A (9)	A (4.9)	A (9)	A (5.4)	B (10.5)	A (5.4)	B (10.5)
English & Rural	C (23.7)	C (22.2)	C (23.7)	C (22.5)	C (31.5)	C (22.5)	C (23.8)	C (24.9)	D (46.1)	C (27.1)
English & Southeastern	E (67.9)	F (193.4)	F (83.8)	F (206.8)	D (48.6)	F (206.8)	F (177)	F (283.1)	F (101.5)	F (306)
English & Sherman	B (12.7)	B (15.2)	B (12.8)	B (15.7)	B (12.8)	B (15.7)	B (13.8)	C (20.2)	B (13.8)	C (20.2)
English & Emerson	B (15.6)	C (26.3)	B (15.8)	C (29.7)	B (15.8)	C (29.7)	B (17.3)	D (54.1)	B (17.3)	C (25.6)

TABLE 13: CAPACITY ANALYSIS RESULTS (CONT.)

Intersection	2020 Existing		2024 No Build		2024 Build		2044 No Build		2044 Build	
	AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak
English & Brookville	B (14.2)*	C (22.1)*	B (14.8)*	C (24)*	B (14.8)*	C (24)*	C (18.5)*	E (44.5)*	C (18.5)*	E (44.5)*
Sherman & St. Clair	(N/A)	(N/A)	(N/A)	(N/A)	A (6)	A (6.4)	(N/A)	(N/A)	A (5.9)	A (6.9)
21st/Mass Ave & Dearborn	C (17.9)*	C (24.8)*	C (19.8)*	D (28)*	C (22.3)*	D (34.8)*	E (39.1)*	F (92.7)*	B (10)	C (31.9)

*LOS & Delay shown for worst stop-controlled approach.

Three intersections (10th and Emerson, Brookville and Emerson, and English and Southeastern) currently operate at LOS F in the PM peak hour. The English Avenue and Southeastern Avenue intersection (part of three intersections all controlled by one signal) operates at LOS E in the AM peak hour. The Brookville and Emerson intersection is stop-controlled and will likely not reach the excessive amount of delay indicated in the design year as other route options are available. Overall, most intersections operate at an acceptable LOS for existing traffic volumes.

When traffic volumes are projected out to the design year for the No-Build alternative, additional intersections begin reaching capacity. Massachusetts Avenue and Rural Street, 21st Street and Emerson Avenue, and 21st Street/Massachusetts Avenue and Dearborn Street all have at least one peak hour that reaches LOS F in 2044. Several intersections reach LOS E in one or both peak hours by 2044, indicating additional intersections will be nearing capacity.

For the build alternative, cycle lengths and splits were optimized using Synchro to see if signal timing changes would improve intersection LOS. Signal timing optimization was successful for some intersections; intersections with Washington Street were some of those intersections. Optimization was not successful for the intersection of 10th Street at Emerson Avenue. This intersection will need a more detailed analysis once City and community goals are identified. Adding capacity would likely require at least one business relocation. This intersection was not more thoroughly analyzed because it was not on a potential truck route for the Sherman Park site.

The Rural Street / English Street / Southeastern Avenue group of intersections was also not analyzed further. It is a complex group of intersections that will require in-depth analysis outside the scope of this project. Additionally, a future project is programmed to convert the intersection to a dual-lane roundabout.

The 21st Street / Massachusetts Avenue / Dearborn Street intersection was analyzed as a stop-controlled intersection in the construction year build alternative and would operate at LOS F in both peak hours in the design year if left stop-controlled. Adding signal control to the intersection improved the intersection to an acceptable LOS. The signal would create queues extending past the CSX mainline rail crossing, a safety concern that does not exist currently because the southbound approach is free flowing. The intersections are under design to be reconfigured to all-way stop-control (AWSC) at Massachusetts Avenue & Dearborn Street and two-way stop-control (TWSC) at 21st Street and Dearborn Street. The intersection was not reanalyzed as it would not change any recommendations in this report. The intersection of English Avenue and Southeastern Avenue is planned for a dual-lane roundabout but was not analyzed as such. Knowledge of this improvement was not attained until analysis was complete. The changes in performance by analyzing as a roundabout would not change any recommendations; therefore, it was not analyzed as a roundabout.

Overall, the additional traffic created by the Sherman Park site would not cause most intersections to operate with much additional delay over what would be expected for the no build alternative.

Alternatives Analysis/Options

Based on the assessment of the surrounding pedestrian, rail, and roadway network within the study area, many improvements could be accomplished with an array of alternatives. These alternatives and their respective analyses are provided below.

ENCOURAGED TRUCK ROUTE

A designated truck route is recommended to direct the flow of goods going to and from the Sherman Park site. Two potential truck routes were identified and evaluated. The two truck routes proposed would provide access between Sherman Park and I-70, accommodating the heavy vehicle traffic to be induced by future developments at the site. Improvements to pavement structure and intersections would likely be required along each truck route. **Table 14** provides a comparison of the two proposed routes.

When considering the feasibility of Truck Route 1, the 2.33-mile route would require four turning movements and a mainline at-grade rail crossing. Additionally, there are significant impacts forecasted to intersection operations along the route, most notably at the 21st Street / Massachusetts Avenue / Dearborn Street and Rural Street / Roosevelt Avenue intersection, as indicated previously in the Capacity Analysis.

The proposed route of Truck Route 2 is 16% longer than its counterpart but would allow a more direct path to I-70 as only two turning movements would be necessary. While Truck Route 2 would require an at-grade rail crossing, a crossing over a main CSX rail line is not anticipated. As indicated previously in the Capacity Analysis, there are forecasted impacts to intersection operations, most notably at the intersection of 21st Street and Emerson Avenue.

Both routes analyzed include the incorporation of a shared-use path on the west side of Sherman Drive from 10th Street to 21st Street. Construction of the path would require the reduction of one travel lane on Sherman Drive, resulting in one northbound lane, one southbound lane, and one center turn lane from 10th Street to 21st Street. The shared-use path would be part of a larger proposed pedestrian network that would tie into the Sherman Park development, ultimately connecting the site with parks and greenways to the north such as Brookside Park and Pogue's Run.

TABLE 14: COMPARISON OF PROPOSED TRUCK ROUTES

Parameter	Truck Route 1	Truck Route 2
Route	Sherman / 21st / Dearborn / Roosevelt / Rural	Sherman / 21st / Emerson
Length (mi)	2.33	2.70
Major Rail Crossings	1	0
Total Rail Crossings	3	2
# of Turns Required to I-70	4	2
Intersection Improvements	21st / Massachusetts / Dearborn signal installation	21st / Emerson lane reallocation
Remarks	Crosses main CSX dual-track line on Dearborn Crosses CSX beltline on Sherman Limited storage space at Rural / Roosevelt	Crosses CSX beltline on Sherman

The future truck routes intersect with two at-grade highway-rail crossings, providing roadway freight access from the Sherman Park site to I-70. The Dearborn Street and Sherman Drive at-grade crossings were analyzed for existing safety to better understand the impact of additional truck traffic along the route, based on the USDOT Highway-Rail Grade Crossing Handbook, 3rd edition. Truck Route 1 will intersect both the Sherman and Dearborn crossings, while Truck Route 2 will intersect the Sherman crossing only.

The existing crash prediction results, shown in **Table 15** and **Table 16**, yield a combined average of 0.033 and 0.012 annual crashes over the last 5 years for Truck Route 1 and Truck Route 2, respectively. In the proposed condition, traffic was projected to 2044 and assumes a 6% increase in rail traffic over the same period. The proposed crash prediction safety value results in a combined average of 0.051 and 0.047 annual crashes for Truck Route 1 and Truck Route 2, respectively.

TABLE 15: TRUCK ROUTE 1 RAIL SAFETY ANALYSIS RESULTS

Highway-Rail Crossing	USDOT #	M.P.	Crash Prediction[2]	
Existing At-Grade Rail Safety				
Dearborn Street	539243V	280.17	0.052	0.033
Sherman Drive	296166X	63.31	0.013	
Proposed At-Grade Rail Safety				
Dearborn Street	539243V	280.17	0.056	0.051
Sherman Drive	296166X	63.31	0.047	

TABLE 16: TRUCK ROUTE 2 RAIL SAFETY ANALYSIS RESULTS

Highway-Rail Crossing	USDOT #	M.P.	Crash Prediction
Existing At-Grade Rail Safety			
Sherman Drive	296166X	63.31	0.013
Proposed At-Grade Rail Safety			
Sherman Drive	296166X	63.31	0.047

SHERMAN DRIVE

The design alternatives considered for Sherman Drive within the project area examine potential improvements to the pedestrian and roadway network. Various improvements should be made to Sherman Drive that will require ROW acquisition or allocation of DMD property as DPW ROW.

Michigan Street to 10th Street

In initial conversations with stakeholder groups, emergency services expressed concerns about their ability to respond to calls using Sherman Drive near the project site. Sherman Drive is a two-lane road from Michigan Street to 10th Street, and motorists are not always willing to pull out of the way to allow emergency vehicles through. Because the development of the Sherman Park site would add traffic to Sherman Drive, Sherman Drive was analyzed to determine if a center turn lane was warranted. Multiple references were used to evaluate the need for a center turn lane. Below is a summary of the analysis.

- Per the Indiana Design Manual (IDM) Section 46-5.01, Sherman Drive from Michigan St to 10th Street does not meet the general physical conditions under which a center turn lane should be considered. The single-family homes have their driveways off alleys, so there are few access points other than intersections with public approaches.
- Sherman Drive from Michigan to 10th is well within the speed limit range (35 MPH) and is above the AADT range (12,700 - 13,300 vehicles per day, factoring for COVID) per the IDM where a center turn lane is considered advantageous.
- Per FHWA's guidance on road diets and Ohio DOT's Location and Design Manual, Sherman Drive's volumes are within a range where a three-lane road section is appropriate.
- Calculated site trips utilizing a left turn from Sherman Drive to St. Clair do not meet dedicated left-turn lane warrants per IDM Section 46-4.01(02).
- IDM Section 46-4.01(02) states, "An exclusive left-turn lane should be provided… at each intersection on an arterial, where practical." Sherman Drive is a classified as a minor arterial by the Indianapolis Metropolitan Planning Organization (MPO).

Based on the information, a center turn lane is warranted based on traffic volumes on Sherman Drive from Michigan Street to 10th Street. The center turn lane, as shown in **Figure 27**, would improve mobility along Sherman Drive by moving left turning vehicles out of through traffic. Emergency responders would have improved mobility along Sherman Drive aiding in response times, as well as the use of the center turn lane (versus using the opposing traffic lane) to advance around vehicles while responding to emergency situations. A center turn lane would also allow trucks turning into and out of Sherman Park at St. Clair Street to use that width to make right turns, allowing the intersection footprint to be smaller, shortening the intersection crossing distance for non-motorized traffic along the shared-use path along Sherman Drive.

Alternatively, Sherman Drive could be widened to provide left turn pockets at intersections in accordance with IDM Section 46-4.01(02) and a raised center median between intersections. The raised center medians would allow for neighborhood enhancement features such as landscaping and local art installations. This would contribute to the neighborhood form and feel along Sherman Drive.

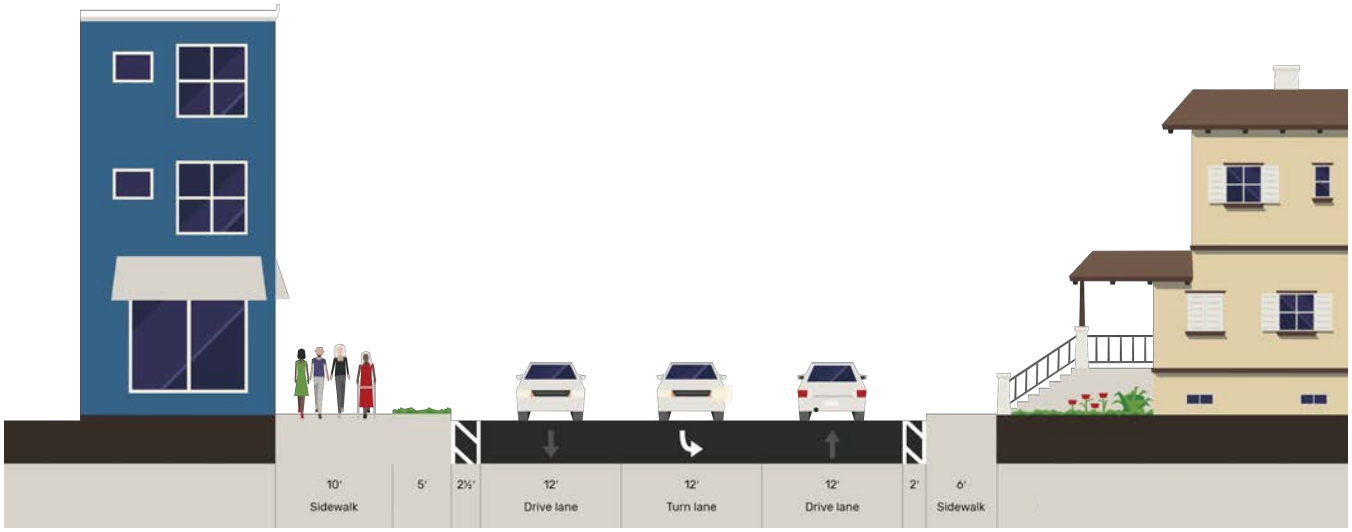


Figure 27: Proposed Section on Sherman Drive (Looking North)

Sherman Drive & St. Clair Street

The warrant for a traffic signal at the intersection of Sherman Drive and St. Clair Street was evaluated as a part of the Sherman Park Redevelopment project. Traffic volumes on St. Clair Street were estimated using ITE's Trip Generation Manual 10th Edition for the expected land uses of each parcel, then assigning trips to the various entries and exits to the site. Site entrances and exits were assumed based off a preliminary layout that received more positive feedback than others; the actual volumes at entrances and exits to the site may change based on continued coordination of the internal site road network.

Because neither the AM nor PM peak hours met any of signal warrants 1-3, no additional signal warrant analysis was completed. A traffic signal is not currently, or in the near future, warranted for the intersection of Sherman Drive and St. Clair Street based on the Sherman Park Redevelopment site's estimated traffic volumes. With that said, there previously was a signal at St. Clair Street and Sherman Drive prior to the previous plant closing. A traffic signal would provide necessary gaps for large trucks to turn out of the Sherman Park site as traffic volumes continue to increase on Sherman Drive. A traffic signal is not recommended at this time; as the site is built out, future signal warrant analyses may show different results.

10th Street Intersection Improvements

Currently there is a significant kink in the alignment of Sherman Drive at 10th Street, causing through lanes to not precisely direct traffic into the continuation of those lanes on the far side of the intersection. On the south approach, a horizontal curve seems to guide northbound through traffic into the northbound left turn lane rather than the through lane. Additionally, the through lanes of the north and south approach are not aligned through the intersection.

Significant geometric modifications are likely needed to improve safety at this intersection. Modifying the south approach so that the through lane continues into the intersection instead of the left turn lane would make navigation easier. Further, adding a horizontal curve on the north approach would remove the kink in the alignment of Sherman Drive, allowing lane lines to better align through the intersection. Adding backplates to all signal heads and providing one signal head per lane would also help improve signal visibility.

These intersection improvements would simplify the driving experience, which eliminates one factor drivers must assess while navigating the intersection, thereby enhancing intersection safety for drivers and pedestrians.

MICHIGAN STREET

The design alternatives considered for Michigan Street within the project area examine potential improvements to the pedestrian, rail, and roadway network. The improvements made should be done in coordination with DPW, as there are plans to convert the one-way pairs of Michigan Street and New York Street to two-way streets as early as 2022. Two

alternatives were analyzed at the location of the CSX rail bridge. An option to enhance the road network east of the CSX rail bridge was also considered.

Road Lowering at Rail Bridge

Alternative #1 would leave the existing CSX bridge structure in place while lowering Michigan Street to achieve greater vertical clearance for emergency vehicles. The road would be lowered 7" to achieve a 14'-0" vertical clearance, which is the minimum clearance required for IFD standard rear-mount aerial ladder trucks. The Michigan Street lane configurations and available pedestrian facilities would match what is existing.

To achieve the desired 14'-0" vertical clearance, approximately 450' of roadway on Michigan Street at the CSX rail bridge would require reconstruction. Since the roadway would be lowered significantly, ponding of stormwater under the rail bridge would remain a concern. Therefore, two options to provide stormwater drainage were considered. The first drainage option would require the installation of additional inlets along Michigan Street. The second drainage option would pump stormwater out to a detention pond located within the study area. Additional information regarding the lowering of Michigan Street at the CSX rail bridge and the drainage options evaluated can be found in **Appendix B - CSX Rail Analysis and Coordination.**

It should be noted that the existing top of pier footing is 14'-0" from the low beam based on the existing CSX bridge plans. The depth of the pier footing is unknown. If Michigan Street were to be lowered at this location and a new railroad bridge structure were to be constructed in the future at existing railroad grade, the vertical clearance would be reduced to 12'-1". If this alternative is selected for design, coordination with CSX is crucial to understand the long-range plans for the rail network in the area.

New Rail Bridge

Alternative #2 would include replacing the CSX overpass bridge structure, raising the rail track elevation, and lowering Michigan Street. The track grade would be raised as to not impact the rail bridge structures north and south of the Michigan Street structure. The 9th Street structure is approximately 2020' north of the Michigan Street structure and the New York Street structure is approximately 960' south of the Michigan Street crossing. Approximately 1,140' of track work would be required, utilizing a 0.5% grade. Similar to Alternative #1 the road would be lowered 7", but a new pavement section would be constructed. The cross section of Michigan Street under the new CSX rail bridge would offer two 12-foot travel lanes with curb and gutter. The combined rail and road network reconstruction would provide a vertical clearance of 16'-6". This increased clearance would facilitate improved IndyGo and emergency services access in the area. Additional information regarding the feasibility and impacts of a new CSX rail bridge can be found in **Appendix B - CSX Rail Analysis and Coordination.**

Added Left-Turn Lane

Currently, Michigan Street is a one-way pair of New York Street, providing westbound travel through the Near East community. However, DPW plans to convert the one-way pairs of Michigan Street and New York Street to two-way streets as early as 2022. Therefore, the proposed roadway network enhancements along Michigan Street would require coordination with DPW. With this in mind, Michigan Street should be widened to the north from Kealing Avenue to Sherman Drive to provide space for an added travel lane. Until the completion of the two-way conversion, the interim condition of Michigan Street between Kealing Avenue and Sherman Drive will provide two 11-foot-wide westbound travel lanes, a 5-foot-wide bicycle lane adjacent to the north curb line, and an 11-foot-wide "striped-out" lane between the bicycle lane and the westbound travel lanes. Upon completion of the two-way conversion, the striped-out" lane will become an eastbound left turn lane at the intersection of Michigan Street. The pavement cross section of Michigan Street at the intersection of Sherman Drive, shown in **Figure 28**, would provide three 11-foot travel lanes: one eastbound through lane, one eastbound left turn lane, and one westbound through lane.

This option to improve the Michigan Street road network could be constructed independently or in conjunction with either CSX rail bridge alternative previously presented.

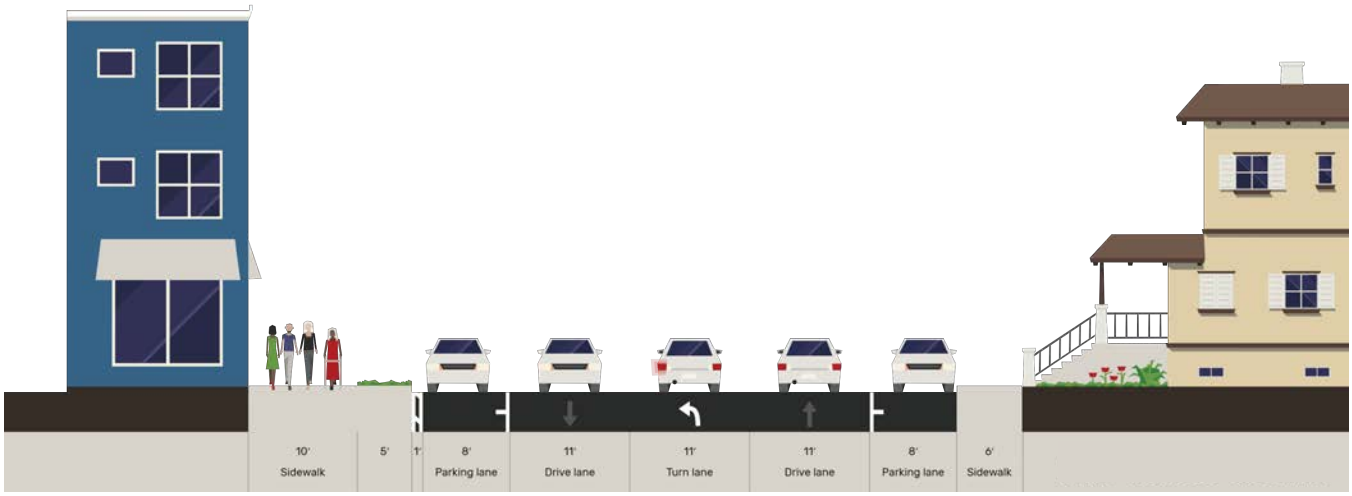


Figure 28: Proposed Section on Michigan Street (Looking East)

INTERIOR ROAD NETWORK

The construction of a new interior road network at the Sherman Park Development site would require the removal of Taupe Mountain and portions of the RCA building pad. Removal of Taupe Mountain would also allow future developments on site to be constructed. Removal of the building pad may be necessary at interior roadway locations as the building pad would interfere with the planned pavement, storm, and utility infrastructure.

The new interior road network would provide several key access points to Sherman Park and allow for vehicular and pedestrian mobility within the site. Further, the configuration of the interior street network would contribute to the areas available for future development within the site. Numerous alternatives were considered for the interior street network. These alternatives offered varying layouts for future developments. Renderings of the various alternatives considered can be found in **Appendix L - Project Graphics and Exhibits**. **Figure 29** shows the preferred interior street network configuration at the site with suggested land uses.

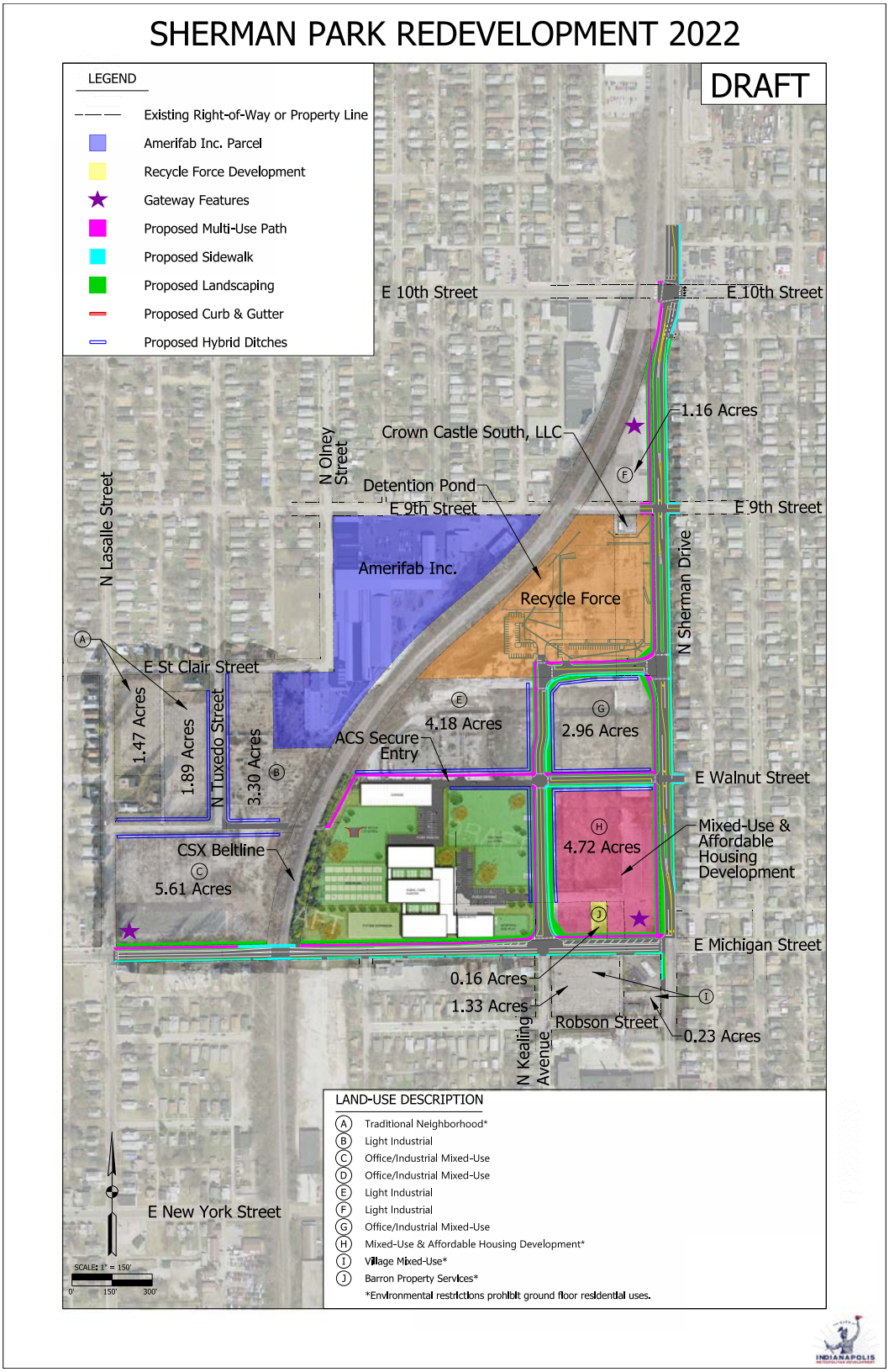


Figure 29-A: Proposed Interior Street Network and Land Uses

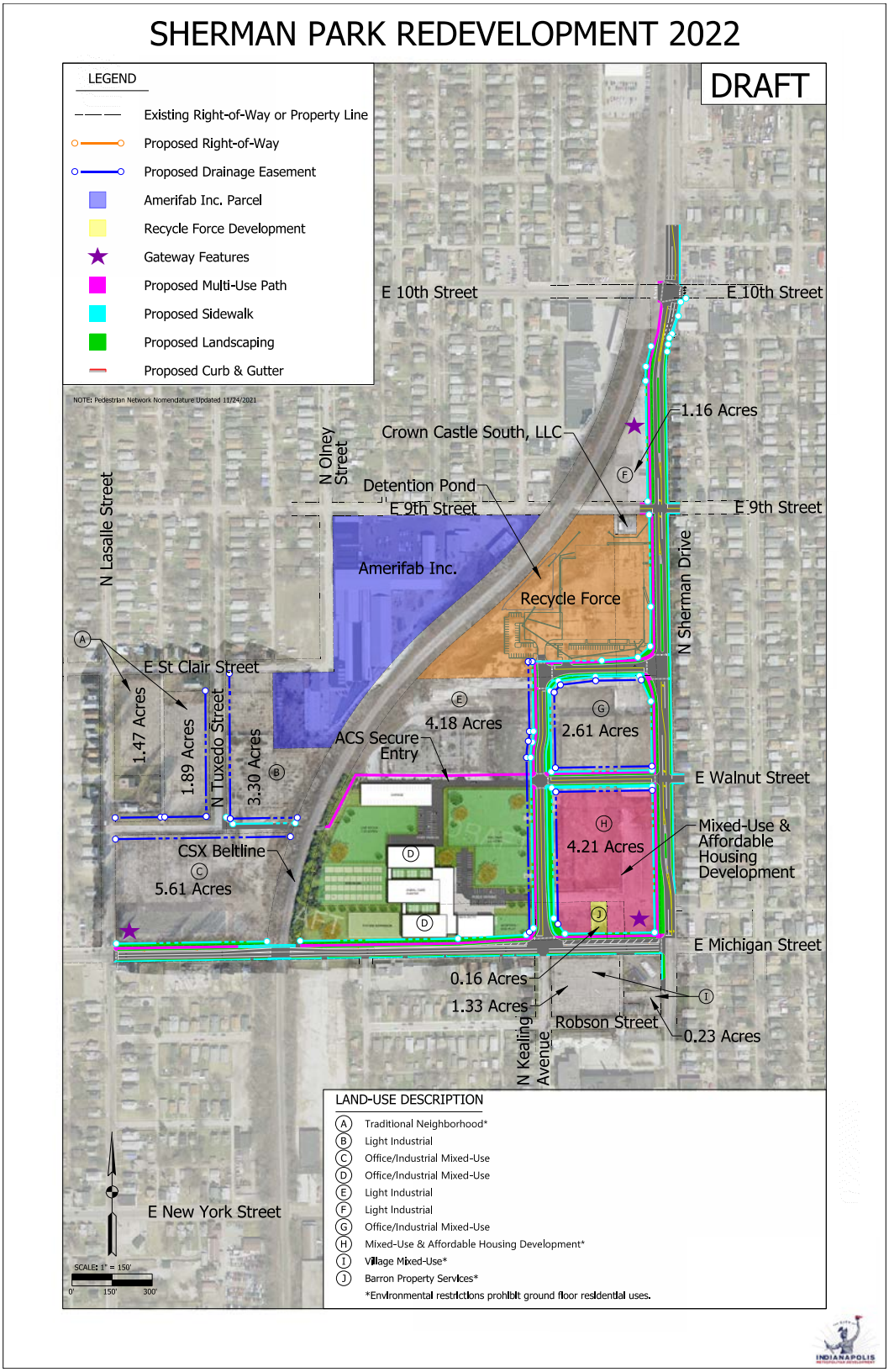


Figure 29-B: Proposed Interior Street Network and Land Uses (Continued)

The configuration above was chosen as the preferred layout for the following reasons:

- It was the most natural extension of the existing roadway network around the site;
- It accommodated direct access to the site interior from Sherman Drive and Michigan Street; and
- It provided reasonable parcel areas/shapes for future development.

These new interior roads would provide access to planned developments such as RecycleForce and would be a key component of their trucking network (new St. Clair Street). St. Clair Street at Sherman Drive would be the main access to the site, especially for truck traffic. The interior roads would also be a complementary extension of the existing roadway network in the neighborhood (new Walnut Street, new Kealing Avenue). The interior streets are anticipated to have two 12-foot travel lanes, a 10-foot-wide shared-use path that will be separated from the roadway by a grass buffer 5 feet in width, and a 6-foot-wide sidewalk that will also be separated from the roadway by a 5-foot-wide grass buffer. **Figure 30** shows the proposed section of the interior roads. Construction costs for the new interior road network are provided in Section 3 – Opinion of Probable Cost. A breakdown of the probable 2022 construction costs can be found in **Appendix H – Opinion of Probable Cost**.

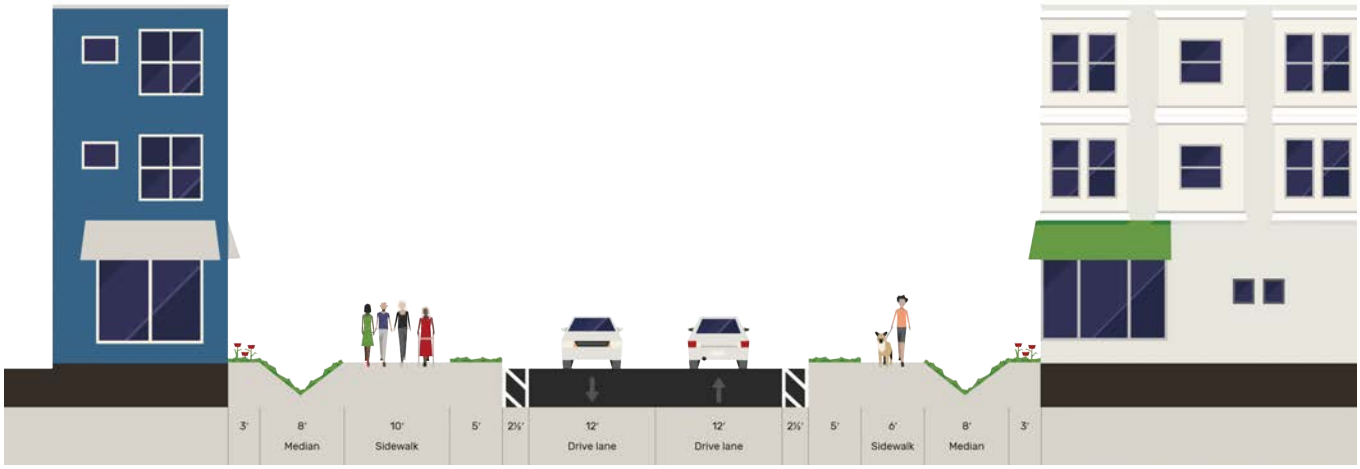


Figure 30: Proposed Section of Interior Roads

New St. Clair Street

The northernmost interior east-west road would be known as St. Clair Street. The proposed layout of the new St. Clair Street would provide access to the planned RecycleForce development from Sherman Drive. This new road would serve as a critical portion of the RecycleForce truck route, as it would convey heavy vehicles from Sherman Drive to the loading docks at RecycleForce.

The new St. Clair Street would be over 400 feet long and would offer east-west travel between Sherman Drive and the new Kealing Avenue to the west. One 12-foot lane with curb and gutter would be provided in each direction of travel. An entrance to the planned RecycleForce development is anticipated to be the western terminus of the new road. An additional drive entrance to the RecycleForce parking lot is planned, which would provide two points of access to the RecycleForce facilities. The new St. Clair Street could be extended west beyond the new Kealing Avenue if developments warrant this extension.

Pedestrian facilities would be provided via a 10-foot-wide shared-use path on the north side of the street and a 6-foot-wide sidewalk on the south side of the street. The shared-use path and sidewalk would connect to the proposed shared-use path on the west side of Sherman Drive and the new Kealing Avenue. A visual representation of the proposed St. Clair Street is provided in **Figure 31**.

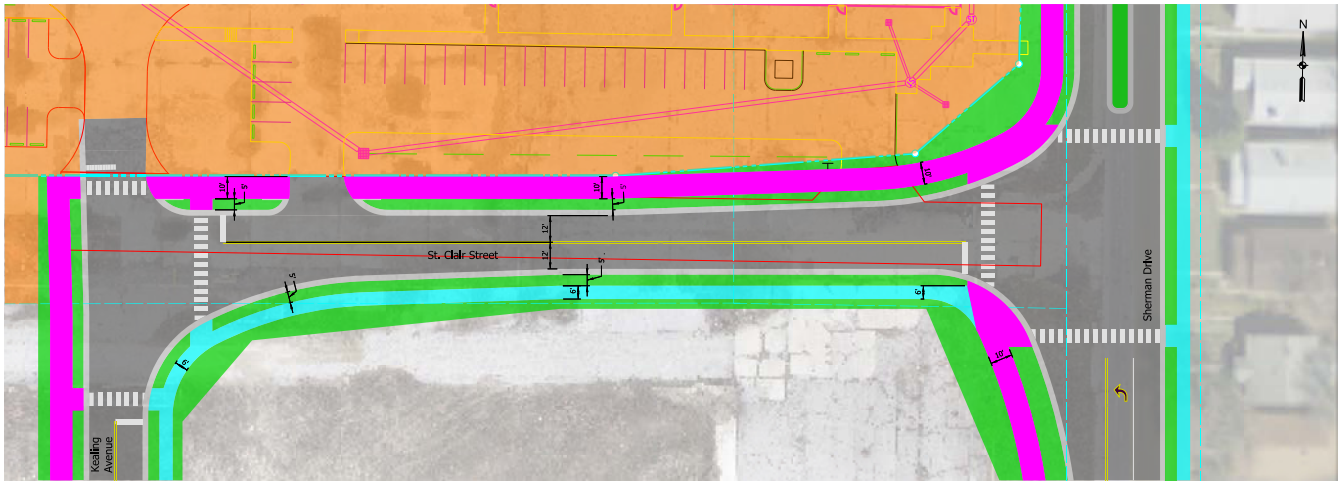


Figure 31: New St. Clair Street

This street would serve as the boundary between a mixed-use residential/commercial area and the planned RecycleForce development. As such, establishing urban form and useable greenspace within the ROW should be a priority. Further, RecycleForce and the Sherman Park Site Development as a whole would draw heavy commercial/industrial traffic to the site, so separating bikers/pedestrians from the new St. Clair Street with very visible and safe options will be essential.

A warrant for a traffic signal at the intersection of Sherman Drive and St. Clair Street was evaluated as a part of the Sherman Park Redevelopment project. The actual volumes at entrances and exits to the site may change based on continued coordination of the internal site road network and the future development types.

Because neither the AM nor PM peak hours met any of signal warrants 1-3, no additional signal warrant analysis was done. A traffic signal is not currently, or in the near future, warranted for the intersection of Sherman Drive and St. Clair Street based on the Sherman Park Redevelopment site's estimated traffic volumes. With that said, historically a signal was present at St. Clair & Sherman drive prior to the RCA plant closing. A traffic signal would provide necessary gaps for large trucks to turn out of the Sherman Park site as traffic volumes continue to increase on Sherman Drive. A traffic signal is not recommended at this time; as the site is built out, future signal warrant analyses may show different results.

New Kealing Avenue

The proposed layout of the new Kealing Avenue would provide access to the planned RecycleForce development from Michigan Street and would provide access to other future developments east of the CSX rail line within the site. Note it is desired that freight traffic should not be directed to Michigan Street from the new Kealing Avenue.

The new Kealing Avenue would be over 1,000 feet long and would offer north-south travel between Michigan Street, North Street, the new Walnut Street, and the new St. Clair Street. An entrance to the planned RecycleForce development is anticipated to be the northern terminus of the new road. One 12-foot lane with curb and gutter would be provided in each direction of travel. If desired by potential end users, it is feasible for parallel parking stalls to be added on one or both sides of Kealing Avenue while still keeping the roadway improvements within the proposed right of way.

Pedestrian facilities would also be provided via a 10-foot-wide shared-use path on the west side of the street and a 6-foot-wide sidewalk on the east side of the street. The shared-use path and sidewalk would connect to several proposed pedestrian facilities on Michigan Street, North Street, the new Walnut Street, and the new St. Clair Street. The most notable pedestrian facility connections would be the connection to the sidewalk on the north side of Michigan Street and the connection to the shared-use path and sidewalk on the new St. Clair Street. These connections would afford pedestrian mobility from the planned RecycleForce development to the trail networks on Michigan Street and Sherman Drive, respectively. A visual representation of the proposed Kealing Avenue is provided in **Figure 32**.

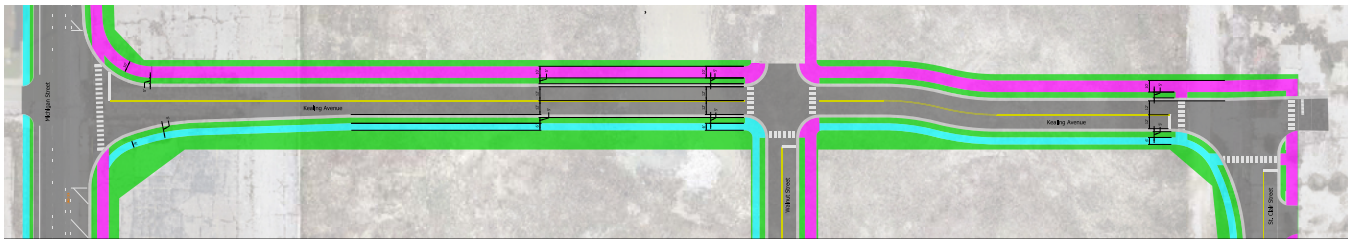


Figure 32: New Kealing Avenue

This street would serve as the boundary between a mixed-use residential/commercial area and various light-industrial/commercial areas. As such, establishing urban form and useable greenspace within the ROW should be a priority. Further, the Sherman Park Site Development will draw heavy commercial/industrial traffic, so separating bicyclists and pedestrians from the new Kealing Avenue with very visible and safe options will be essential.If desired by potential end-users, it is feasible for the new Kealing Avenue to terminate at Walnut Street. This would allow for one continuous parcel bound by St. Clair Street to the north, Walnut Street to the south, Sherman Drive to the east, and the CSX rail line to the west. A visual representation of this option is provided in **Figure 32-A**.

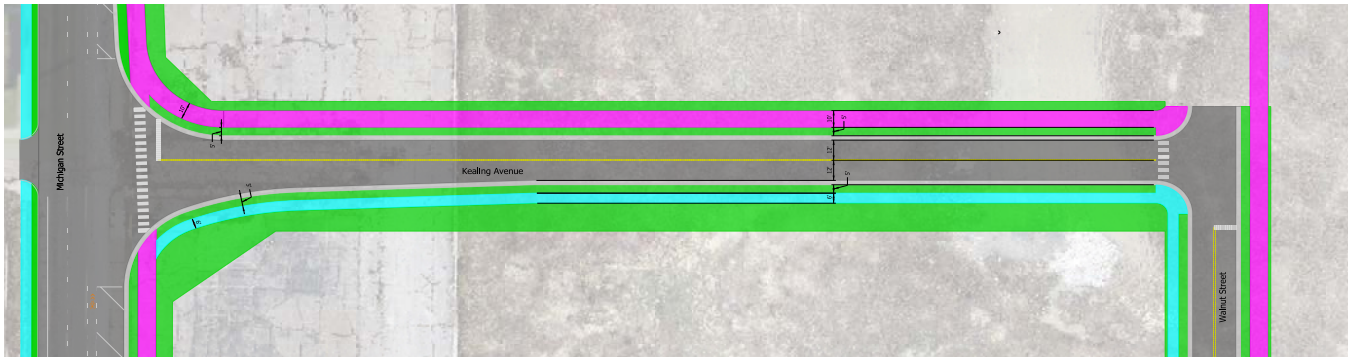


Figure 32-A: Optional New Kealing Avenue

New Walnut Street

The proposed layout of the new Walnut Street would provide a secondary access point to the Sherman Park Development site from Sherman Drive. Further, the new Walnut Street would provide access to the future developments east of the CSX rail line within the site.

The new Walnut Street would be over 400 feet long and would offer east-west travel between Sherman Drive and the new Kealing Avenue. One 12-foot lane with curb and gutter would be provided in each direction of travel. Pedestrian facilities would also be provided via a 10-foot-wide multi-use trail on the north side of the street and a 6-foot-wide sidewalk on the south side of the street. The multi-use trail and sidewalk would connect to the proposed multi-use trail on the west side of Sherman Drive and the proposed sidewalk on the east side of the new Kealing Avenue. A visual representation of the proposed Walnut Street is provided in **Figure 33**.

Figure 33: New Walnut Street

This street would serve as the boundary between a mixed-use residential/commercial area and a light-industrial/commercial area. As such, establishing urban form and useable greenspace within the ROW should be a priority. Further, the Sherman Park Site Development will draw heavy commercial/industrial traffic, so separating bicyclists and pedestrians from the new Walnut Street with very visible and safe options will be essential. It should be noted that the practicality and construction of the new Walnut Street is dependent on future development and potential end-users at the site.

New Utilities Infrastructure

Coordination with utility companies (utilities) will designate corridors for the utilities to install their new infrastructure to service the development. Discussions with the utilities include the installation of conduits for the telecommunication utilities and electrical utilities to be able to install their handholes, manholes, cables and conductors at a later date. They also include the designation of corridors for electrical, gas, sanitary, telecommunication and sanitary that the utilities would install their own facilities prior to, during or post construction. Corridors would be monitored by the City of Indianapolis during the permitting process to assure placement in the designated locations. **Figure 34** displays the proposed utilities corridors for the site as a whole, while **Figure 35** displays a more detailed view of the proposed utilities corridors east of the CSX rail line.

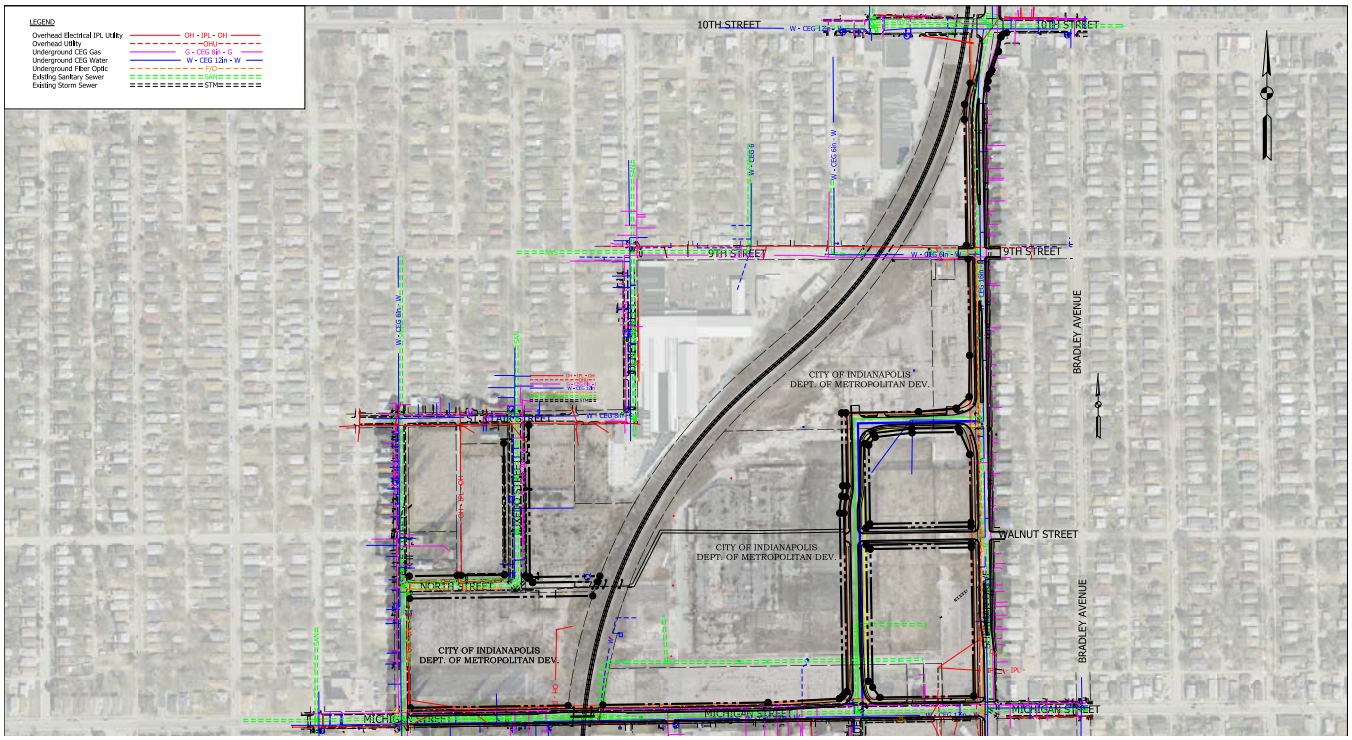


Figure 34: Proposed Utilities Development Corridors

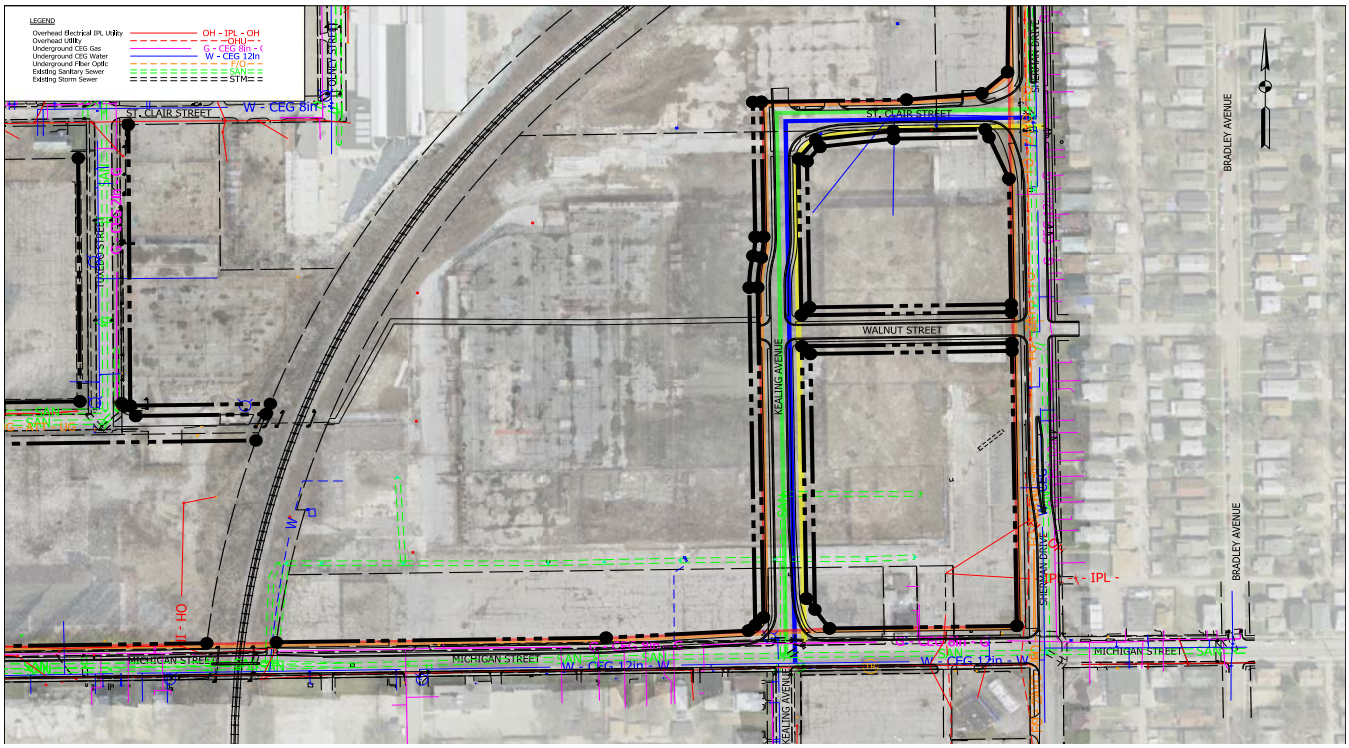


Figure 35: Zoomed View of Proposed Utilities Development Corridors

RESURFACING

While much of the Sherman Park site east of the CSX rail line would be used to create a new roadway network, the existing streets west of the CSX rail line within the study area are in poor condition and should also be improved. The following streets are located within the study area and should be considered for resurfacing and base repairs:

- 9th Street,
- East St. Clair Street,
- Kealing Avenue (south of Michigan),
- Lasalle Street,
- Olney Street,
- Robson Street, and
- Tuxedo Street.

Improvements to the pedestrian network should also be considered on these streets in accordance with the guiding principles in **Appendix E – Health by Design Reports**. This could be accomplished by updating existing sidewalks to become ADA compliant, installing new ADA compliant sidewalks, and installing new curb ramps and ADA facilities.

Additionally, portions of Sherman Drive and Michigan Street not impacted by roadway construction necessary for added travel lanes should also be resurfaced.

Costs for resurfacing the aforementioned streets are provided in Section 3 – Opinion of Probable Cost. A breakdown of the probable 2022 construction costs can be found in **Appendix H – Opinion of Probable Cost**.

Recommendations

The recommendations provided are based on a combined analysis of the pedestrian and trail network, rail network, and roadway network within the study area while also considering the desired outcomes of the 2017 Sherman Park AWP. If implemented, these recommendations have the potential to increase the quality of life and economic opportunities for residents and businesses within the Sherman Park area and the Near East community as a whole. The opinion of probable costs for these recommendations are provided in subsequent sections of the report.

PEDESTRIAN AND TRAIL NETWORK

Efforts should be made to update pedestrian infrastructure where needed when making roadway improvements. This can be accomplished by improving ADA facilities, reconstructing curb ramps, updating signal push buttons, and widening sidewalk widths where feasible throughout the Sherman Park Development site. Where pedestrian facilities such as sidewalk and curb ramps are not present, effort should be made to incorporate these components where they are missing while ensuring ADA compliance.

Multi-Use Paths and Sidewalks

Shared-use paths should be constructed at several locations within the study area. Most notably, a north-south trail connection on the west side of Sherman Drive should be constructed to provide a link between the existing greenways of Pogue's Run and Pleasant Run. A widened sidewalk should also be provided on the north side of Michigan Street.

Additional sidewalks should be built where existing roadways do not provide such facilities and where new roadways, such as an interior road network within the Sherman Park site, will be constructed. The existing sidewalks on the east side of Sherman Drive and the south side of Michigan Street should be updated and widened throughout the study area. Additionally, existing sidewalk and curb ramp facilities present east of the CSX rail beltline should be upgraded or replaced where necessary.

Neighborways

Olney Street and Tuxedo Street should be converted to neighborways within the study area and farther north towards Brookside Park. This can be accomplished by installing designated neighborway signs and appropriate pavement markings. These streets are low-volume roadways primarily used for on-street residential parking. Transforming these streets to a neighborway would provide added safety for bikers and would be an alternate route to connect the Sherman Park development to parks and greenways to the north such as Brookside Park and Pogue's Run. The neighborways would also provide connections to existing transit on 10th Street and would provide improved pedestrian connectivity within the study area and the Near East community.

Safety Enhancements

There is heavy emphasis on pedestrian safety from residents in the community. Therefore, pedestrian safety should be a key focus when considering the pedestrian and roadway improvements within the study area.

Local and City organizations have previously attempted to identify measures to improve pedestrian-related safety in the area. The measures identified have yet to be implemented in the community. As such, these measures were used as guiding principles when developing the bicycle and pedestrian network improvements within the study area. These measures should be implemented where feasible within the project scope and limits. These safety measures can be found in **Appendix E – Health by Design Reports.**

The Sherman Park Site Development will draw heavy commercial/industrial traffic, so separating bicyclists and pedestrians in safe and visible manners is essential. Further, higher visibility of pedestrians and consideration of them by motorists is desired by the community. Increased pedestrian visibility could be achieved with the proposed shared-use path and sidewalk on Sherman Drive and Michigan Street, respectively, as there would be a minimum 5-foot grass buffer between the path/sidewalk and the back of curb throughout the study area. Additionally, prominent pavement markings for bike lanes and crosswalks could be utilized to increase driver awareness.

There is a desire from residents of the Near East community to slow vehicles down throughout the neighborhoods/this section of the city. Therefore, traffic calming measures such as narrow lanes and prominent pavement markings for cross-walks and bike lanes should be implemented to achieve these desired outcomes.

Placemaking Elements

Key expectations for the site's redevelopment are identified in this report and serve as the foundation for negotiations with potential developers on the uses. While certain aspects of a development may need to vary based on economic factors and engineering requirements, consistency with the Plan's intent is a key principle. The Design Guidelines in this document are thus based on the analysis and concepts in this Plan. These Design Guidelines set the intent for private and public space development as compatible and additive to adjacent NEAR neighborhoods. Around the study area, the character of these neighborhoods, including Englewood, Tuxedo Park, Grace Tuxedo Park, Rivoli Park, Little Flower and others are in an area characterized as urban residential with some commercial development along Michigan Street. The tighter scale of structures, streets, and open spaces give definition and identity to these neighborhoods and inform these Design Guidelines.

These Design Guidelines illustrate the level of design expected by the City of Indianapolis for new development and significant redevelopment or changes in use. The intent is that property owners, businesses, developers, and design professionals can use these Guidelines as a reference when site plans are being developed. The city may publish an amendment to the Zoning Ordinance to reference these Guidelines or modify them into regulatory Design Standards language. This document is intended to be used in concert with the Marion County Land Use Plan Pattern Book. It is expected that these standards will be codified as part of a Planned Unit Development Agreement that individual developers and property owners will apply as they design and submit site plans for approval by the City of Indianapolis. City staff and officials will use these standards as a checklist. These standards are intended to advance the level of design and promote thoughtful approaches to:

- Frontage and interior landscaping
- Landscape, screening, and buffers
- Access and circulation
- Building scale, placement, and materials
- Parking scale and placement
- Signage
- Lighting
- Streetscape and walkability
- Open space
- Gateways

Once adopted, the design guidelines will become Design Standards. Design Standards are intended to offer some degree of flexibility. In the standards, "shall" generally means it is required, and "should" means it is expected but a variation may be allowed. In all cases the City may consider and approve an alternative that meets the intent, but it needs to be specifically requested. As plans are developed, the market changes, and site investigations occur, new information may be identified that could influence full conformity with certain elements of the Plan concepts and the Standards. But the City also expects that any variation will not dilute the final full development from meeting overall goals and neighborhood compatibility. When a variation is sought, the City should make a finding that the following criteria are met:

- The overall integrity envisioned in the Plan is retained.
- The change is not due primarily to development cost savings.
- A different design improves the overall design concept.
- Any removal of features is offset by the addition of new features or amenities.

The Design Guidelines in this document, included as **Appendix I – Placemaking Elements Design Guidelines**.

Street Lighting

Based on the crash history reviewed, pedestrian crashes have occurred at night within the study area. Therefore, street lighting should be installed to enhance driver visibility of pedestrians. Comprehensive lighting improvements within the study area would increase the economic and social environment in the neighborhood, as well. At a minimum, lighting intersections and pedestrian crossings would light critical areas where most vehicle-vehicle and vehicle-pedestrian interactions occur.

RAIL NETWORK

No proposed changes to the railroad infrastructure or network are anticipated as a result of this study. The current grade-separated crossings through the project site mitigate safety risk and eliminate the need for train horn soundings and associated noise pollution, except in the event of emergencies. The various proposed roadway enhancements for developing a truck route from Sherman Park to I-70 will reduce the frequency of trucks utilizing the Michigan Street underpass, resulting in a safer scenario for vehicles and trains in the event trucks become stuck due to low clearance issues.

Additionally, the old North Street (Private RCA) underpass is proposed to be upgraded to a public underpass for vehicle and/or pedestrian access upon the redevelopment of Sherman Park. No further roadway or site changes are anticipated to result in impacts or modifications to the rail network or existing grade-separated crossings. Any work on or under the rail facilities needs to be coordinated with CSX. Indy DPW already has an open account with the CSX for preliminary engineering discussions and reviews.

ROADWAY NETWORK

Various enhancements are recommended for implementation to the existing and planned roadway network within the Sherman Park study area. These enhancements would improve safety, capacity, and operations. As previously mentioned, efforts should be made to update pedestrian infrastructure where needed when also making roadway improvements.

Traffic Signals

Signal enhancements are recommended at intersections adjacent to the project site and at signalized intersections along the truck route. It is assumed The two-way conversion project on Michigan will address this for the signal at Sherman Drive & Michigan Street.

At the intersection of the new St. Clair Street and Sherman Drive, a traffic signal is not warranted. However, a traffic signal should be planned for future installation. As such, it is recommended that the intersection should be outfitted with conduit during construction for a potential signal installation in the future. If traffic volumes on Sherman Drive grow quicker than anticipated, or if gaps for trucks to access the site prove unacceptable, a traffic signal could quickly be installed.

Intersection Geometrics

Some intersections would benefit from geometric improvements, but some or many of those improvements may be beyond the scope of this project. Those improvements are detailed in the list below.

- The through lanes on Sherman Drive at 10th Street should be realigned. This would allow motorists to follow the correct path more naturally into the continuation of the through lane on the opposite side of the intersection, improving safety by simplifying the driving experience. The alignment changes to the north approach could be deferred until more significant pavement work is necessary while the south approach should be adjusted in conjunction with the widening of Sherman Drive from Michigan Street to 10th Street to be compatible for a future alignment shift on the north side of the intersection.
- The intersection of 10th Street at Emerson Avenue will need a more detailed analysis once City and community goals are identified. Adding capacity would likely require at least one business relocation. This intersection was not more thoroughly analyzed because it was not on a potential truck route for the Sherman Park site.
- The Rural Street / English Street / Southeastern Avenue group of intersections is a complex group of intersections

that will require in-depth analysis outside the scope of this project. It is recommended that, when analyzed, a couple approaches be realigned to simplify the geometry of the intersection. This will likely allow shorter cycle lengths that could be coordinated together across signalized intersections, and it would simplify decision making and comprehension for motorists, which should improve safety.

- At the ingress/egress points of Sherman Park, intersection turning radii should be designed to accommodate truck turning movements.

Truck Access

Encouraging trucks to access Sherman Park along certain streets is recommended to direct the flow of goods going to and from the Sherman Park site. Due to the number of CSX mainline track crossings, forecasted impacts to intersection operations, and number of turning maneuvers required along the route, **Sherman Drive to 21st Street to Emerson Avenue is the recommended truck access for the site**. Although this truck route is longer, the long-term impacts of this route are much more advantageous. **Figure 24** provides the route of the encouraged truck access.

Along the recommended truck access, it is advised that pavement cores are collected to determine any pavement treatment required. Improvements could also be made to intersection radii where turns are anticipated, such as the intersections of Sherman Drive / 21st Street and Emerson Avenue / 21st Street. To accommodate the anticipated increase in traffic volumes generated from the Sherman Park redevelopments, the inside eastbound through lane at the intersection of 21st Street and Emerson Avenue could be reallocated to become a second dedicated eastbound left turn lane as noted above.

Sherman Drive

Sherman Drive should be widened to the west from Michigan Street to 10th Street to accommodate an added auxiliary lane that will provide left-turn lanes at intersections along the street. This will allow left-turning vehicles to leave the through traffic lanes, improving mobility and operations. It also provides opportunities for emergency responders to pass vehicles without having to navigate into oncoming travel lanes.

If desired, portions of the center lane that are not utilized as an auxiliary left-turn lane could provide the opportunity to incorporate landscaping or neighborhood enhancement features within a raised center median. This would contribute to the neighborhood form and feel along Sherman Drive.

DPW plans to convert the one-way pairs of Michigan Street and New York Street to two-way streets as early as 2023. Any proposed roadway network enhancements at the intersection of Michigan Street would require coordination with DPW. Therefore, the southbound lane configuration at the intersection of Michigan Street and Sherman Drive should allow for a delineated southbound left turn onto Michigan Street in the future to accommodate the anticipated eastbound traffic.

Michigan Street

Any proposed roadway network enhancements along Michigan Street would require coordination with DPW. With this in mind, the intersection of Michigan Street and Sherman Drive should be reconfigured as part of the project scope to accommodate these anticipated traffic flow changes. Michigan Street should be widened to the north from Kealing Avenue to Sherman Drive to provide space for an added travel lane. This added lane will eventually become an eastbound left-turn lane. Coordination efforts with CSX should continue to determine the feasibility of a new rail bridge, which would directly impact the future roadway improvements of Michigan Street.

Interior Road Network

A new interior road network should be constructed to provide several key access points to Sherman Park and allow for vehicular and pedestrian mobility within the site. These new interior roads would provide access to planned developments such as Recycle Force and would be a key component of their trucking network. The additional interior roads would be a complementary extension of the existing roadway network in the neighborhood. The interior roads should utilize Urban Collector design criteria.

Resurfacing

The following streets are located within the study area and should be considered for resurfacing:

- 9th Street,
- East St. Clair Street,
- Kealing Avenue (south of Michigan Street),
- Lasalle Street,
- Olney Street,
- Robson Street, and
- Tuxedo Street.

Opinion of Probable Cost

The opinion of probable construction costs for the recommended improvements below were developed according to preliminary design of the study area. Note that these costs have several exclusions and unique considerations. Exclusions for many opinions of probable costs include utility relocations, right-of-way and more. All opinions of probable cost were developed for improvements within the study area unless noted otherwise. The total cost of all proposed improvements is **$28,000,000**. A detailed breakdown of the estimated costs can be found in **Appendix H - Opinion of Probable Cost.** The estimated costs have been developed such that the City will be able to select infrastructure projects according to the pace of development at Sherman Park. These improvements to the surrounding transportation network will provide holistic area-wide opportunities to better utilize, transform, or interface with existing transportation infrastructure and contribute to economic growth in the Sherman Park site and surrounding neighborhoods.

Pedestrian and Trail Network

Critical improvements to the pedestrian and trail network that will enhance the quality of life of the communities surrounding the Sherman Park development include the installation of shared-use paths, installation of new sidewalk, and sidewalk reconstruction.

The total estimated probable cost to install a shared-use path on on the west side of Sherman Drive and a sidewalk on the north side of Michigan Street would be $3,331,900. The probable cost was determined with the assumption that Sherman Drive would be narrowed to a three-lane section from 10th Street to 21st Street in order to accommodate a shared-use path to the west. However, if the shared-use path were to not be installed north of 10th Street, the total estimated probable cost for installation of a shared-use path on Sherman Drive and a sidewalk on Michigan Street in the study area would be $1,219,400.

The total estimated probable cost to install new sidewalks on existing streets would be $921,300. These costs also assume the installation of ADA compliant facilities such as curb ramps.

The total estimated probable cost to reconstruct existing sidewalks and provide ADA compliant facilities on existing pedestrian infrastructure within the Sherman Park development site would be $3,896,200.

Various other pedestrian and trail network improvements and their respective opinions of probable cost are provided in **Table 17**.

TABLE 17: OPINION OF PROBABLE COSTS FOR PEDESTRIAN AND TRAIL NETWORK

Recommended Pedestrian and Trail Network Improvement	Street/Location	Probable 2023 Construction Cost	Remarks
Shared-Use Path Installation	Sherman Drive	$471,800	Michigan Street to 9th Street
		$212,200	9th Street to 10th Street
		$2,112,500	10th Street to 21st Street; includes removal of one (1) travel lane
	Michigan Street	$535,400	
New Sidewalk Installation	North Street	$208,200	Lasalle Street to Tuxedo Street
	St. Clair Street	$231,100	Tuxedo Street to Olney Street
	9th Street	$482,000	South side of street
Sidewalk Reconstruction	Sherman Drive	$402,200	Michigan Street to 9th Street
		$202,000	9th Street to 10th Street
	Michigan Street	$692,000	
	Lasalle Street	$511,900	
	Tuxedo Street	$265,200	St. Clair Street to 9th Street
		$369,000	9th Street to 10th Street
	Olney Street	$263,800	St. Clair Street to 9th Street
		$366,000	9th Street to 10th Street
	Kealing Avenue	$137,000	
	Robson Street	$209,100	
	St. Clair Street	$272,000	Lasalle Street to Tuxedo Street
	9th Street	$206,000	North side of street

TABLE 17: OPINION OF PROBABLE COSTS FOR PEDESTRIAN AND TRAIL NETWORK (CONT.)

Recommended Pedestrian and Trail Network Improvement	Street/Location	Probable 2023 Construction Cost	Remarks
Neighborway Conversion	Olney Street	$2,000	Includes signage
	Tuxedo Street	$2,000	Includes signage
Wayfinding Signs & Gateway Features	Site-wide	To Be Determined	
Street Lighting	Site-wide	To Be Determined	

Rail Network

During the study, numerous rail improvement options and impacts to the surrounding rail network were considered. The outcomes of the study resulted in no anticipated costs associated with the rail network within or surrounding the Sherman Park development site.

Roadway Network

Critical improvements to the roadway network that will enhance the economic opportunities of the Sherman Park development include the widening of Sherman Drive and Michigan Street, construction of the interior road network, and resurfacing of the existing surface streets.

The total estimated probable cost to widen Sherman Drive and Michigan Street within the study area would be $5,136,900. The probable costs were determined with the assumption that the existing road on Sherman Drive and Michigan Street would be resurfaced 1.5" and pavement required for widening would be Arterial Type D pavement.

The total estimated probable cost for the construction of the interior road network east of the CSX rail line would be $7,854,700. **It should be noted that this cost does not include the removal of Taupe Mountain or the RCA building pad.** The probable costs were determined with the assumption that the streets would be classified as Urban Collectors – Type C with underdrains.

The total estimated probable cost for resurfacing the existing streets within the study area would be $6,365,300. The probable costs were determined using the following assumptions:

- 3" depth of asphalt milling,
- 165 lbs/sys (1.5") HMA Type C Surface,
- 220 lbs/sys (2") HMA Type C Intermediate, and
- A percentage of the resurfaced pavement area would require base repair.

Various other roadway network improvements and their respective opinions of probable cost are provided in **Table 18**.

TABLE 18: OPINION OF PROBABLE COSTS FOR ROADWAY NETWORK

Recommended Roadway Network Improvement	Street/Location	Probable 2023 Construction Cost	Remarks
Removal of Taupe Mountain	East of CSX rail line	N/A	
Removal of Building Pad	East of CSX rail line	$5,800,000	
Traffic Signals	St. Clair Street/ Sherman Drive	$28,000	Assumes placement of conduit only
	Michigan Street/ Sherman Drive	$107,000	
Intersection Geometrics	10th Street/ Sherman Drive	$309,600	Improvements to SB approach
Roadway Widening	Sherman Drive	$2,517,100	Michigan Street to 9th Street; includes resurfacing of existing roadway
		$1,208,500	9th Street to 10th Street; includes resurfacing of existing roadway
	Michigan Street	$1,431,300	CSX rail bridge to Sherman Drive; includes resurfacing of existing roadway
Interior Road Network	St. Clair Street	$1,241,200	Includes construction costs of pedestrian infrastructure
	Kealing Avenue	$3,356,200	Includes construction costs of pedestrian infrastructure
	Walnut Street	$3,257,300	Includes construction costs of pedestrian infrastructure
Utility Infrastructure	Site-wide	$4,161,000	Assumes reimbursable relocates plus new utilities; Underground only

TABLE 18: OPINION OF PROBABLE COSTS FOR ROADWAY NETWORK (CONT.)

Recommended Roadway Network Improvement	Street/Location	Probable 2023 Construction Cost	Remarks
Resurfacing	9th Street	$1,391,600	
	St. Clair Street	$661,800	
	Kealing Avenue	$466,200	Concrete pavement
	Lasalle Street	$761,800	
	North Street	$366,100	Lasalle Street to Tuxedo Street
	Olney Street	$453,400	St. Clair Street to 9th Street
		$627,200	9th Street to 10th Street
	Robson Street	$538,700	Concrete pavement
	Tuxedo Street	$467,800	St. Clair Street to 9th Street
		$630,700	9th Street to 10th Street

Funding Alternatives

A cursory review was conducted to evaluate potential funding sources for the various aspects of the Sherman Park Infrastructure Improvement Project. Several potential funding sources were identified to support the various transportation network and site improvements planned. It is likely that federal grants or monies will need to be used to fund various aspects of the site redevelopment.

Potential Funding Sources

Twelve potential funding sources applicable to the transportation network and site improvements planned for the Sherman Park Infrastructure Development project were identified. Below is a summary of the funding alternatives identified and how each funding source could be utilized. It should be noted that this is not an exhaustive list of potential funding sources, as other funding options may be available that were not explored during the course of this study. Additionally, the funding sources listed will require further investigation as development progresses to determine their applicability.

1. US DOT RAISE grants – RAISE grants are awarded to projects with a significant local or regional impact. In an urban area, the minimum award is $5 million, with a $25 million maximum award.
2. Future grant programs targeting equity/environmental justice – If a federal infrastructure bill is passed in 2021, it may include grant programs that prioritize projects that address equity and environmental justice.
3. Surface Transportation Block Grant Funds – STB funds administered through the MPO could be used for roadway upgrades. Bike/ped infrastructure and streetscaping could be funded through the Transportation Alternatives Set-Aside.
4. INDOT Community Crossings funding – Construction of new roads may be eligible for these state funds if tied to an in-process economic development project.
5. US HUD Community Development Block Grant (CDBG) – Existing CDBG entitlement funds could be used for certain public improvements, including road facilities or water/sewer service, if the project would create jobs for low- and moderate-income people.
6. US EDA Public Works Program – These funds can be used on water and sewer system improvements, industrial parks, Brownfield redevelopment and more. New interior roads are likely to be eligible if they are directly linked to making the site usable for industrial users and creating long-term jobs.
7. IDNR Indiana Trails Program grants – Can be used for construction of trails; acquisition of property for trails; construction of bridges, boardwalks and crossings. $50k-250k awards with an 80/20 cost-share.
8. US DOT Local Transportation Priorities funding – Federal fund that can be "earmarked" by members of Congress with a normal 80/20 cost-share.
9. Federal earmarks for Economic Development Initiative projects – Federal account that can be "earmarked" for uses similar to CDBG.
10. American Rescue Plan local government funds – COVID-19 relief funds directed to states and local governments under the American Rescue Plan can be used for water, sewer, and broadband infrastructure. These funds are available until the end of 2024.
11. US EPA Revolving Loan Fund – Can be used to address Brownfield sites contaminated by hazardous substances, pollutants, contaminants (including hazardous substances co-mingled with petroleum), and/or petroleum.
12. US EPA Brownfields Assessment Grant – Site-specific assessment grants are available for up to $200,000 to assess a site contaminated by hazardous substances. A waiver for large or highly contaminated sites can be issued to request up to $350,000. Grants can be used "to inventory, characterize, assess, conduct a range of planning activities, develop site-specific cleanup plans, and conduct community involvement related to Brownfield sites" over three years.

New Roadway Infrastructure

A new interior road network will be constructed to provide several key access points to Sherman Park and allow for vehicular and pedestrian mobility within the site. These new interior roads will provide access to planned developments such

as Recycle Force and will be a key component of their trucking network (new St. Clair Street). The interior roads will be a complementary extension of the existing roadway network in the neighborhood (new Walnut Street, new Kealing Avenue). Potential funding sources for the planned new roadway infrastructure include:

- Surface Transportation Block Grant funds,
- INDOT Community Crossings funding,
- US HUD Community Development Block Grant (CDBG),
- US EDA Public Works Program, and
- US DOT RAISE grants.

Bike/Ped Facilities

A new shared-use path on west side of Sherman Drive is planned that will serve as a key north-south connection to other existing greenways/parks and planned greenway expansions. Neighborways on Olney Street and/or Tuxedo Street are planned to connect to Brookside Park to the north. A new widened sidewalk on Michigan Street is planned that will connect to existing bike/ped infrastructure at Arsenal Technical High School to the west. The Sherman Park Site Development will draw heavy commercial/industrial traffic, so separating bikers/pedestrians with very visible and safe options will be essential.

If a new rail bridge were to be constructed at Michigan Street, additional pedestrian facilities such as wider sidewalks and buffered bike lanes at the rail bridge location could be provided. Potential funding sources for the planned bike/ped facilities include:

- Surface Transportation Block Grant Funds,
- IDNR Indiana Trails Program grants,
- US DOT Local Transportation Priorities funding, and
- US DOT RAISE grants.

Streetscapes/Landscaping

Several parcels within the site are planned for residential/greenspace/low-intensity development. Neighborhood form is important for these parcels. Other parcels within the site are planned for multi-use residential/commercial development where usable greenspace is important. Gateway features to accentuate the Sherman Park development are planned at the intersections of Lasalle/Michigan, Sherman/Michigan, and Sherman/10th. Potential funding sources for the planned streetscapes/landscaping include:

- Surface Transportation Block Grant Funds and
- US DOT Local Transportation Priorities funding.

Utilities Infrastructure

New utility installations such as water, sewer, and broadband are needed in the interior of the Sherman Park site. These new utilities will be used to service the planned residential, commercial, and light-industrial developments that are planned to occupy the site. The commercial/light-industrial developments would create job opportunities for low- and moderate-income persons. Plans for Recycle Force to occupy the northeast section of the site shows promise of the job opportunities to come. The long-term vision is for the site to house several light-industrial developments, serving as an industrial park with some commercial and residential developments. Potential funding sources for the planned utilities infrastructure include:

- US HUD Community Development Block Grant,
- Federal earmarks for Economic Development Initiative projects,
- US EDA Public Works Program, and
- American Rescue Plan local government funds.

New Stormwater Infrastructure

Michigan Street under the CSX rail line floods during heavy rain events. Road lowering on Michigan Street at the existing rail bridge will further exacerbate this issue unless additional stormwater inlets are added to collect water prior to it ponding at this low point. Accumulated stormwater will need to be pumped out if the road is lowered at this location.

There are plans to have open retention ponds, water features, detention ponds, and/or underground detention throughout the Sherman Park site. Potential funding sources for the planned stormwater infrastructure include:

- US EPA Sewer Overflow and Stormwater Reuse Municipal Grant Program and
- American Rescue Plan local government funds.

Brownfield Cleanup/Mitigation

Sherman Park consists of approximately 60 acres of former manufacturing sites. Most of the area was once part of the large RCA / Thompson / GE facility that produced radios, televisions, and related electronic components. Manufacturing buildings have been demolished and the site now suffers from elevated levels of soil and groundwater contamination. Further, decades of disinvestment in the community has resulted in job and population losses.

Manufacturing operations conducted within Sherman Park included the operation of at least five underground storage tanks ranging in size from 1,000 gallons to 230,000 gallons, various above ground storage tanks, a reclamation solvent still, and numerous manufacturing processes which resulted in hazardous and nonhazardous wastes such as flammable liquids and solids, chlorinated solvents, bulk and waste petroleum products, cupric chloride, heavy metals (including lead, mercury, and cadmium), and paints.

The former RCA building pad is present on the site and could contain unsafe levels of contaminants; sampling and analysis of the pad will be necessary to determine appropriate mitigation. Undocumented earth ("Taupe Mountain") is also present on site and contains materials not suitable for reuse as construction fill. Removal of Taupe Mountain is critical to allow for construction of the internal road network and to allow for future developments on site. Removal of the building pad may be necessary at interior roadway locations as the building pad would interfere with the planned pavement, storm, and utility infrastructure. Potential funding sources for Brownfield cleanup/mitigation include:

- US EDA Public Works Program,
- US EPA Brownfields Assessment Grant,
- US EPA Revolving Loan Fund, and
- US EPA Brownfields Cleanup Grants.

Overall Funding Options

A set of transportation improvements at Sherman Park could be packaged together for submittal for federal discretionary grants. These grants include the following:

- US DOT RAISE grants and
    - The most competitive application might include a significant element like a new rail bridge and/or the internal road additions, as well as bike and ped improvements.
- Future grant programs targeting equity/environmental justice.
    - Components of the overall Sherman Park plan may make it a good fit.

Coordination Efforts

CSX Railroad

A meeting was held with representatives from CSX on March 26, 2021. Eight individuals representing four agencies were present, including CSX and IndyDMD. At this meeting, the significance of the existing CSX rail through the Sherman Park site was described. Anticipated impacts to the existing CSX rail and surrounding transportation system from the planned Sherman Park site development were also discussed. Additionally, conceptual alternatives for the lowering of Michigan Street and a new rail bridge with a 16'-6" clearance were presented.

Developers

A series of brokers, developers, and end users were engaged in September and October of 2020 via video conference. They were asked a series of questions regarding future use of the site; based on these questions, recommended infrastructure upgrades for the site and surrounding areas were provided from the parties of interest. Information related to the developer engagement can be found in **Appendix G – Market and Developer Validation.**

IndyGo

Correspondence was held with IndyGo's Manager of Service Planning in December 2020 to understand the impacts the proposed site developments would have on existing IndyGo transit services.

Should funding become available to provide additional clearance at the CSX rail bridge at Michigan Street, this would provide IndyGo with more operational flexibility. Currently hybrid busses cannot operate along Route 3 due to the existing clearance height. Increasing the clearance would allow the use of hybrids on that route. IndyGo is planning to operate a greater number of hybrid buses in the future as well, so this proposal would be a beneficial change for IndyGo.

As design progresses, further coordination with IndyGo's current services will be warranted to ensure incorporation of bus stop ADA improvements within the study area.

Emergency Services and Schools

A call was held with a representative of the Indianapolis Metropolitan Police Department (IMPD) on November 2, 2020. During this call, it was identified that emergency responders have difficulty navigating around vehicles on the existing two lanes of Sherman Drive. Additionally, the lack of pedestrian and street lighting in the area was discussed.

A meeting was held with the deputy chief of the IFD on November 18, 2020 to gain insight on the current conditions of the surrounding transportation network and how these existing conditions impact IFD operations. Key topics from the meeting include:

- The minimum rail bridge clearance for standard rear-mount ladder trucks is 14 feet;
- Specialty midship mount aerial ladder trucks are used in the Near East community due to low bridge clearances. These specialty trucks are an additional $225,000 than standard rear-mount aerial ladder trucks; and
- Improved access on Sherman Drive would be helpful when responding to emergencies.

Further coordination with nearby schools will be warranted as development within the Sherman Park site continues.

Stakeholder Involvement

Various stakeholders were consulted to develop an appropriate and consensus-based vision that aligned with the desired outcomes of the AWP and encouraged the future economic development of Sherman Park. These stakeholders provided valuable local insight and contributed to the overall success of the study.

Community engagement is crucial to a successful planning process and requires multiple means of promoting awareness of the project. Outreach in 2020 and 2021 was impacted because of COVID-19, however virtual meetings with stakeholders and the community proved to be valuable resources to the study. **Table 19** details the timeline of outreach events.

TABLE 19: TIMELINE OF ENGAGEMENT

Date	Activity
10/22/2020	Stakeholder Meeting #1
1/28/2021	Stakeholder Meeting #2
4/22/2021	Stakeholder Meeting #3

Stakeholder engagement and public engagement in 2020 and 2021 was needed so that community input could be gathered to help define the needs of the study area and inform the overall study process.

Next Steps

In order for the redevelopment of the Sherman Park site to continue, various action items were identified as next steps. These items are as follows:

- Secure funding for the proposed developments and improvements.
- Removal of Taupe Mountain. Taupe Mountain removal will be starting in July 2022.
- Removal of RCA building pad.
- Incorporate the improvements presented in this study into the City's Capital Improvement Program (CIP). When added, the dollar value of proposed improvements should also be included.
- Continue marketing the site to developers with the understanding that the infrastructure within the site will be completed by the City. Note that proposed infrastructure improvements west of Kealing Avenue are flexible to anticipated developments and end-users.
- Efforts should be made by the City to extend the planned bike system improvements on 10th Street to connect to the neighborways on Olney Street and Tuxedo Street. This would provide increased bike/ped connectivity throughout the area.
- Additional survey information should be collected within the site. The key areas of interest include:
    - The interior of site east of CSX rail line – most notably the location of Taupe Mountain,
    - Along the western edge of Sherman Drive from 9th Street to approximately 200' north of 10th Street,
    - Around the planned RecycleForce development adjacent to Sherman Drive, 9th Street, and the proposed St. Clair Street.
- During the design process Subsurface Utility Engineering (SUE) will need to be performed to confirm a more precise location of the existing utility facilities. This will allow for the review of the existing facilities to confirm if a conflict exists. If conflicts do exist, then potential design modifications to avoid a utility relocation will be reviewed or the utility will have to propose relocations to eliminate the conflict with the new design feature.
- Determine which utilities will allow the development to install new infrastructure for utilities. This could include a combined conduit system where telecommunication utilities will be assigned conduits within the utility corridor for them to place new cables.
- Continue discussions with CSX regarding the rail bridge crossings within the study area.
- Some construction could occur soon, such as Sherman Drive widening and Michigan Street widening, if desired. Once Taupe Mountain and the building pad is addressed, construction of the internal street can occur. Also, utility infrastructure work (by the utility companies) could occur, should the utilities want to place infrastructure before development occurs. Work on the west side of the CSX line, such as street resurfacing, sidewalk repair, curb ramps, could also occur soon if desired.
- Present the study to City leadership, such as DPW and DMD, to provide details of the flexible nature of the proposed transportation network improvements.
- Present the study to community members at the community meeting in July 2021 to provide details of the flexible nature of the proposed transportation network improvements and to explain that the Sherman Park development is ongoing and subject to change from what has been presented within this study to meet the needs of future developers and end-users.

Disclaimer

The traffic counts collected in 2020 for this study were collected during the 2020 COVID-19 pandemic. Traffic patterns and volumes were significantly different from those in 2019. An adjustment factor was developed to apply to the 2020 counts. For future intersection improvements at any of the analyzed intersections, though, designers/analysts are recommended to obtain new traffic counts to validate the analysis presented in this study. The COVID adjustment factor applied to all intersections may not accurately reflect the changes in patterns and volumes at all intersections studied.

Appendices

- Appendix A - Blue Line BRT
- Appendix B - CSX Rail Analysis and Coordination
- Appendix C - Environmental Remediation
- Appendix D - Existing Conditions
- Appendix E - Health by Design Reports
- Appendix F - IndyGreenways Master Plan
- Appendix G - Market and Developer Validation
- Appendix H - Opinion of Probable Cost
- Appendix I - Placemaking Elements Design Guidelines
- Appendix J - Potential Funding Sources
- Appendix K - Preliminary Engineering Plans
- Appendix L - Project Graphics and Exhibits
- Appendix M - Roadway Safety Analysis
- Appendix N - Sherman Park Brownfield Area Wide Plan
- Appendix O - Stormwater Report
- Appendix P - Traffic Analysis
- Appendix Q - Traffic Impact Study
- Appendix R - Utility Coordination Logs

Appendix K

Preliminary Engineering Plans

SHERMAN PARK INFRASTRUCTURE DEVELOPMENT

TRANSPORTATION INFRASTRUCTURE IMPACT & OPPORTUNITY ASSESSMENT

CITY OF INDIANAPOLIS
DEPARTMENT OF METROPOLITAN DEVELOPMENT

SHERMAN PARK REDEVELOPMENT

MARION COUNTY
CENTER TOWNSHIP
PROJECT NO. TBD

MAYOR: JOSEPH H. HOGSETT
DIRECTOR: SCARLET ANDREWS MARTIN

RECEIVED FOR PUBLIC BID _____ DATE

BY: _____ NAME, EMPLOYEE IN RESPONSIBLE CHARGE (ERC)

COUNTY: MARION

PROJECT AREA

MICHIGAN STREET RECONSTRUCTION
FROM LASALLE STREET TO SHERMAN DRIVE

SHERMAN DRIVE RECONSTRUCTION
FROM MICHIGAN STREET TO 10TH STREET

KEALING AVENUE NEW CONSTRUCTION
FROM MICHIGAN STREET TO ST. CLAIR STREET

ST. CLAIR STREET NEW CONSTRUCTION
FROM KEALING AVENUE TO SHERMAN DRIVE

WALNUT STREET NEW CONSTRUCTION
FROM KEALING AVENUE TO SHERMAN DRIVE

9TH STREET RESURFACING
FROM OLNEY STREET TO SHERMAN DRIVE

10TH STREET RESURFACING
FROM KEALING AVENUE TO SHERMAN DRIVE

LASALLE RESURFACING
FROM MICHIGAN STREET TO ST. CLAIR STREET

NORTH STREET RECONSTRUCTION
FROM LASALLE STREET TO TBD

OLNEY STREET RESURFACING
FROM ST. CLAIR STREET TO 9TH STREET

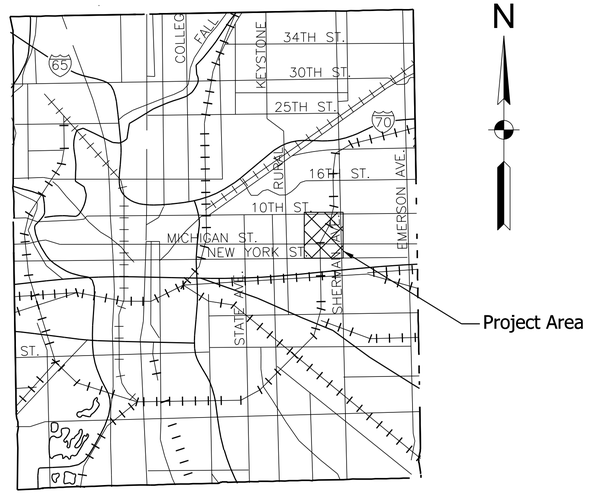
ST. CLAIR STREET RESURFACING
FROM LASALLE STREET TO OLNEY STREET

TUXEDO STREET RESURFACING
FROM NORTH STREET TO ST. CLAIR STREET

KEALING AVENUE RESURFACING
FROM ROBSON STREET TO MICHIGAN STREET

ROBSON STREET RESURFACING
FROM KEALING AVENUE TO SHERMAN DRIVE

PROJECT DESCRIPTION LOCATED IN SECTION 5,
TOWNSHIP 15N, RANGE 4E IN CENTER TOWNSHIP
LATITUDE: 39°46'36.63"N LONGITUDE: 86°6'20.06"W



LOCATION MAP
CENTER TOWNSHIP
NTS

INDIANAPOLIS METROPOLITAN DEVELOPMENT

CITY OF INDIANAPOLIS
DEPARTMENT OF METROPOLITAN DEVELOPMENT
200 E WASHINGTON STREET,
SUITE 2042
INDIANAPOLIS, IN 46204

INDIANA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS DATED 2022, INDIANAPOLIS DEPARTMENT OF PUBLIC WORKS (DPW) SANITARY DISTRICT STANDARDS 2006, AND THE CURRENT DPW STORMWATER DESIGN AND CONSTRUCTION MANUAL ARE TO BE USED WITH THESE PLANS.

L:\Indy\DMD\19072501-00\Draw\Sheets\Sht_Title.dgn

REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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CERTIFIED BY: _____ DATE

APPROVED
FOR LETTING: _____ CITY OF INDIANAPOLIS - DPW DATE

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

SHERMAN PARK INFRASTRUCTURE PROJECT

HORIZONTAL SCALE	NTS
VERTICAL SCALE	N/A
PROJECT NUMBER	TBD
SHEETS NUMBER	1 OF 159

GENERAL LEGEND

- (A) Road Construction Ahead Sign XW20-1, 36 in. X 36 in.
- (AC) Casting, Adjust to Grade
- (B) End Construction Sign XG20-2, 60 in. X 24 in.
- (BC) Brush Clearing
- (BM) Milling, Asphalt
- (BM1) Milling, Asphalt,1½ IN.
- (BM4) Milling, Asphalt, 4 IN.
- (BR) HMA Patching, Type C, for Base Repairs
- (BY) Line, Thermoplastic, Broken, Yellow, 4 IN.
- (BW) Line, Thermoplastic, Broken White, 4 IN.
- (C) Curb, Concrete, 20 in.
- (C1) Curb, Concrete, Monolithic, 20 IN.
- (CC) PCCP Patching, Full Depth
- (CCG) Combined Curb and Gutter, Concrete
- (CCR) Curb, Concrete, Remove (All Types)
- (CD) PCCP for Approaches, 6 IN.
- (CD1) PCCP for Approaches, 8 IN.
- (CM) Existing Communications Manhole
- (CR) Curb, Remove, (All Types)
- (CS) Inlet, Clean Existing
- (CY1) Transverse Marking, Thermoplastic, Crosshatch Line, Yellow, 12 IN.
- (CW1) Transverse Marking, Thermoplastic, Crosswalk Line, White, 6 IN.
- (CW2) Transverse Marking, Thermoplastic, Crosswalk Line, White, 24 IN.
- (CW3) Transverse Marking, Thermoplastic, Crosswalk Line, White, 8 IN.
- (D) Existing Storm Manhole
- (DW) Line, Thermoplastic, Dotted White, 4 IN.
- (DW6) Line, Thermoplastic, Dotted, White, 6 IN.
- (EX) Excavation, 9.5 IN.
- (G) Existing Gas Manhole
- (GE) Guardrail, End Treatment, I
- (GR) Guardrail, Remove
- (GT) Guardrail, MGS, Height Transition
- (GU) Guardrail, MGS W-Beam, 6 Ft. 3 In. Spacing
- (H) Widening With HMA, Type C
- (K) HMA Pavement, TBD
- (K1) HMA Pavement, TBD (Shared-Use Path)
- (LG) Linear Grading
- (MA) Milling, Approach
- (MA1) Milling, Approach, 1 - ½ IN.
- (MA2) Milling, Approach, 2 IN.
- (MS) Mulched Seeding U
- (MS2) Mulched Seeding Grass, 2
- (O) Compacted Aggregate, No. 53
- (R1) 165#/Sys. HMA Surface, Type C
- (R2) 220#/Sys. HMA Surface, Type C
- (R3) 165#/Sys. HMA Surface, Type C on 330#/Sys. HMA Intermediate, Type C
- (R4) 165#/Sys. HMA Surface, Type C on 275#/Sys. HMA Intermediate, Type C on 495#/Sys. HMA, Base, Type C
- (RA) 165#/Sys. HMA For Approaches, Type C
- (RA3) 330#/Sys. HMA For Approaches, Type C
- (RA4) 440#/Sys. HMA For Approaches, Type C
- (S) Sidewalk, Concrete, 4 IN.
- (S1) Sidewalk, Concrete, 6 IN.
- (SB) Transverse Marking, Thermoplastic, Stop Line, White, 24 IN.
- (SG) Pavement Marking, Green Lane
- (SO) Sodding
- (SR) Sidewalk, Remove (All Types)
- (SS) Existing Sanitary Manhole
- (ST) Surface Treatment, Type III
- (SW) Line, Thermoplastic, Solid White, 4 IN.
- (SW6) Line, Thermoplastic, Solid, White, 6 IN.
- (SW8) Line, Thermoplastic, Solid, White, 8 IN.
- (SY) Line, Thermoplastic, Solid Yellow, 4 IN.
- (T) Existing Traffic Manhole
- (TC) Asphalt for Tack Coat
- (TCD) Temporary Check Dam
- (TIP) Temporary Inlet Protection
- (TS) Topsoil
- (TY) Temporary Pavement Marking, Yellow, 4 IN.
- (TW) Temporary Pavement Marking, White, 4 IN.
- (UIP) Use In Place
- (W) Existing Water Manhole
- Temporary Erosion Control: Inlet Protection
- Snowplowable Raised Pavement Marking, Blue (Two Way)
- Snowplowable Raised Pavement Marking, White (Two Way)
- Detector Loop, Circular, 6' x 6', Replace
- Detector Housing, Remove and Replace
- Pavement Message Marking, Thermoplastic, Lane Indication Arrow
- Pavement Message Marking, Thermoplastic Only
- Pavement Message Marking, Thermoplastic, Bike Symbol and Arrow
- Pavement Message Marking, Thermoplastic, Sharrow
- Adjustment of Monument
- Fire Hydrant
- Construction Sign
- (DND) Do Not Disturb
- Relocate Sign
- Signal Detector Housing
- Water Valve
- Gas Valve
- Power Pole
- MB-S Mailbox Assembly, Single Reset
- Pavement Core
- CW Concrete Washout
- G Gas Line
- W Water Line
- STM Storm Sewer Line
- SAN Sanitary Sewer Line
- SF Temporary Silt Fence

INDEX

									Sherman Drive	Michgan Street	9th Street	10th Street	Kealing Avenue	LaSalle Street	North Street	Olney Street	Robson Street	St. Clair Street	Tuxedo Street	Walnut Street
Utility Name	**Utility Type(s)**	**Contact Name**	EMAIL	PHONE	US_MAIL_AD	CITY	STATE	ZIP												
AT&T Distribution	Comm	William Wire	ww2949@att.com	317-610-5469	240 N. Meridian St., Room 1791	Indianapolis	IN	46204	X	X	X	X	X	X	X	X	X	X	X	
AT&T Transmission	Comm	Luke Dillow	ldillow@jmceainc.com	574-842-8830	110 N. Main Street	Culver	IN	46511	X											
Brighthouse - Spectrum	Comm	Ronald Hinrichs	ronald.hinrichs@charter.com	317-734-0755	3030 Roosevelt Ave	Indianapolis	IN	46218	X	X	X	X	X	X	X	X	X	X	X	
Century Lunk (LUMEN)	Comm	Steve Lederle	Steve.M@.Lederle@lumen.com	574-306-5586	110 N. Chauncey Street	Columbia City	IN	46725	X											
Citizens Energy	Water / Sanitary / Gas / Castings	Larry Nichols	LNichols@citizensenergygroup.com	317-263-6315	2150 Dr. Martin Luther King Jr. St	Indianapolis	IN	46200	X	X	X	X	X	X	X	X	X	X	X	
Citizens Group (Gas)	Gas	Rich Miller	RMiller@citizensenergygroup.com	317-927-4684	2150 Dr. Martin Luther King Jr. St	Indianapolis	IN	46200	X	X	X	X	X	X	X	X	X	X	X	
Citizens Engery Group (Water)	Water	Scott Ritter	sritter@citizensenergygroup.com	317-927-4434	2150 Dr. Martin Luther King Jr. St	Indianapolis	IN	46200	X	X	X	X	X	X	X	X	X	X	X	
Citizens Energy Group (Thermal)	Thermal	Gordon Rundle	GRundle@citizensenergygroup.com	317-693-8854	2150 Dr. Martin Luther King Jr. St	Indianapolis	IN	46200												
Citizens Engery Group (Sanitary)	Sanitary	Robert Mausbaum	bmasbaum@citizensenergygroup.com	317-429-3961	2150 Dr. Martin Luther King Jr. St	Indianapolis	IN	46200	X	X	X	X	X	X	X	X	X	X	X	
City of Indianapolis	Storm / Traffic	Theresa Mendoza	UtilityCoordination@indy.gov	317-327-2302	1200 S. Madison Ave., Suite 200	Indianapolis	IN	46225	X	X	X	X	X	X	X	X	X	X	X	
Comcast Cable	TV	William Morris	William_Morris@cable.comcast.com	317-516-2237	5330 East 65th St.	Indianapolis	IN	46220	X	X	X	X	X	X	X	X	X	X	X	
Crown Castle	CELL Tower	Mona Couch	Mona.Couch@crowncastle.com	317-249-2029	9045 River Road, Suite 425	Indianapolis	IN	46240	X		X									
Department of Public Works Utility	General	Theresa Mendoza	UtilityCoordination@indy.gov	317-327-2302	1200 S. Madison Ave., Suite 200	Indianapolis	IN	46225	X	X	X	X	X	X	X	X	X	X	X	
Department of Urban Forestry	Forestry	Bill Kincius	Bill.Kincius@indy.gov	317-327-2302	1200 S. Madison Ave.	Indianapolis	IN	46225	X	X	X	X	X	X	X	X	X	X	X	
AES Indiana (formerly IPL)	Electric Dist. and Trans.	Brenton Vogt	brenton.vogt@aes.com	317-261-8085	1230 W. Morris St.	Indianapolis	IN	46221	X	X	X	X	X	X	X	X	X	X	X	
Verizon Business	Comm	Dennis Craig	dennis.craig@verizon.com	518-498-1242	720 West Henry Street	Indianapolis	TX	46225	X											
Zayo Bandwidth	Fiber Optic	Waylon Higgins	waylon.higgins@zayo.com ; INKY_Relo@zayo.com	371-341-1199	9209 Castlegate Dr.	Indianapolis	IN	46256	X											
Indianapolis Historic Preservation Commission (IHPC)	Historic Preservation	Emily Jarzen	emily.jarzen@indy.gov	317-327-4460																
GIS Analysis	GIS	Matthew McCormack	mathew.mcCormack@indy.gov	317-327-2153																
Marion County Surveyor's Office	Monuments	Joshua Lindo	Joshua.Lindo@Indy.Gov	317-327-4150																

REVISIONS			
XX/XX/XX	A	DESCRIPTION	XXX
XX/XX/XX	A	DESCRIPTION	XXX
XX/XX/XX	A	DESCRIPTION	XXX
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XX/XX/XX	A	DESCRIPTION	XXX

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8790 PURDUE ROAD
INDIANAPOLIS, IN 46268-6128
PHONE: (317) 298-4500

Not For Construction

RECOMMENDED FOR APPROVAL: _____ DESIGN ENGINEER DATE

DESIGNED: RCC | DRAWN: RCC

CHECKED: CMR | CHECKED: MRR

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

LEGEND/INDEX AND UTILITIES

HORIZONTAL SCALE: N/A

VERTICAL SCALE: N/A

PROJECT NUMBER: TBD

SHEETS NUMBER: 2 OF 159

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NOTE TO REVIEWER:
30% plans - Not For Construction
Subject to change as further development in the Sherman Park area happens. Coordination with other City street projects is ongoing.

GENERAL NOTES

1	THESE PLANS AND CONTRACT DOCUMENTS HAVE BEEN PREPARED PER THE SCOPE OF WORK PROVIDED BY THE CITY OF INDIANAPOLIS ~~DEPARTMENT OF PUBLIC WORKS. THIS PROJECT IS FOREMOST A RESURFACING AND BASE REPAIR PROJECT, NOT A TOTAL REHABILITATION, TOTAL UPGRADE, OR RECONSTRUCTION. THESE DOCUMENTS HAVE BEEN PREPARED TO MEET THE GOALS SET OUT IN THE SCOPE OF THE ENGINEER'S REPORT AND DO NOT NECESSARILY MEET ALL OF THE CRITERIA OF AASHTO OR INDOT FOR DESIGN. ALL PROPOSED WORK AS SHOWN ON THESE PLANS HAS BEEN COORDINATED AND APPROVED BY INDIANAPOLIS DPW.~~
2	THE CONTRACTOR IS RESPONSIBLE FOR ALL UTILITY COORDINATION, SHOWN OR NOT SHOWN. THE CONTRACTOR SHALL HAVE ALL UTILITIES FIELD LOCATED AS NECESSARY PRIOR TO BEGINNING WORK. THE SUPPORT, PROTECTION, AND RESTORATION OF ALL UTILITIES AND APPURTENANCES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
3	~~THE STATIONING AND OFFSETS SHOWN HEREIN ARE FOR REFERENCE PURPOSES AND APPROXIMATE LOCATIONS OF EXISTING FEATURES ONLY, AND DO NOT REPRESENT THE RESULTS OF A ROUTE SURVEY AS DESCRIBED IN 865 IAC 1-12-20 THRU 1-11-25 (MINIMUM STANDARDS). THE CONTRACTOR SHALL VERIFY FIELD CONDITIONS.~~
4	ANY PLACE ON THE PLANS OR IN THE SPECIFICATIONS WHERE IT IS SPECIFIED FOR THE CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR APPROVAL, SAID SHOP DRAWINGS MUST BE APPROVED BY THE ENGINEER PRIOR TO ORDERING OR PLACEMENT OF ANY MATERIALS FOR SAID IMPROVEMENT.
5	~~THIS IS A PAVEMENT RESURFACING PROJECT. CENTERLINE CONTROL, MONUMENTATION OF CENTERLINE AND BENCHMARKS ARE NOT REQUIRED AND NOT PROVIDED. LINES ARE SHOWN FOR STATIONING INFORMATION ONLY.~~
6	TACK COAT IS REQUIRED WITH EACH LAYER OF ASPHALT PLACED. TACK COAT IS REQUIRED ON VERTICAL SURFACES NEXT TO ASPHALT (I.E. GUTTER, SHOULDER, WIDENING, ETC.) TACK COAT SHOULD BE CONSIDERED INCIDENTAL TO THE COST OF HMA PAVEMENT.
7	THE CONTRACTOR SHALL TRANSITION PAVEMENT SLOPE THROUGH CORNER RADII AT A CONSTANT RATE SO AS TO MATCH THE ADJACENT TYPICAL SECTIONS. WEDGE AND LEVEL MATERIAL OR OTHER MATERIAL ACCEPTED BY THE ENGINEER SHALL BE USED AS NECESSARY TO PROVIDE POSITIVE DRAINAGE OF THE INTERSECTION.
8	FOR ANY BID ITEM FOR WHICH A QUANTITY IS BID (SEE ITEMIZED PROPOSAL), PRIOR WRITTEN APPROVAL FROM THE ENGINEER TO EXCEED THE BID QUANTITY IS REQUIRED OR NO PAYMENT WILL BE MADE FOR THE OVERAGE.
9	~~RIGHT-OF-WAY INFORMATION PROVIDED IS FOR ILLUSTRATIVE PURPOSES ONLY. THESE APPROXIMATE LOCATIONS ARE PROVIDED FROM THE CITY OF INDIANAPOLIS IMAGIS DATA. ENGINEER/DESIGNER ASSUMES NO LIABILITY FOR ANY PROBLEMS RESULTING FROM USE OF UNRESEARCHED PROPERTY RECORDS OR UNVERIFIED SURVEY ON THIS PROJECT. INDIANAPOLIS DPW WILL PROVIDE CONTRACTOR WITH THE "RIGHT OF ENTRY" RELEASES FROM ALL AFFECTED PROPERTYOWNERS. CONTRACTOR SHALL RESTORE ALL DISTURBED AREAS TO ORIGINAL CONDITION. DISTURBED LAWNS SHALL BE REPLACED WITH SOD, AS DIRECTED BY THE ENGINEER.~~
10	ALL DISTURBED AREAS WITHIN THE PROJECT LIMITS SHALL BE MULCHED SEEDED UNLESS OTHERWISE SHOWN ON THE PLANS. PAYMENT TO BE INCLUDED IN THE COST OF OTHER PAY ITEMS IN THE CONTRACT.
11	ALL DRAINAGE STRUCTURE ADJUSTMENTS SHALL USE 2 IN. CONCRETE RISER RINGS. BRICKS WILL NOT BE ALLOWED ON CITY OF INDIANAPOLIS DPW PROJECTS.
12	IF EXISTING ROADWAY SIGNS INTERFERE WITH THE PROSECUTION OF THE WORK FOR THIS PROJECT, SUCH SIGNS AND POSTS SHALL BE REMOVED AND STORED AS DIRECTED. THE CITY INTENDS TO REINSTALL THESE SIGNS WITH THEIR OWN PERSONNEL. THE COST OF REMOVING AND STORING THESE SIGNS WILL NOT BE PAID FOR DIRECTLY. THE COST SHALL BE INCLUDED IN OTHER PAY ITEMS. IF SIGNS ARE NOT IN CONFLICT, THEY REMAIN IN PLACE.
13	UTILITY MANHOLES SURROUNDED BY CONCRETE PAD SHALL BE REMOVED AND REPLACED BY UTILITY AS DESIGNATED ON PLANS OR DIRECTED BY THE ENGINEER.
14	CONTRACTOR TO ENSURE THAT POSITIVE DRAINAGE IS MAINTAINED AT ALL INTERSECTIONS ALONG CURB AND GUTTER FLOWLINES AFTER THE COMPLETION OF CURB RAMP CONSTRUCTION.
15	POSITIVE DRAINAGE SHALL BE MAINTAINED AT ALL TIMES.
16	THE CITY OF INDIANAPOLIS DPW SAFETY POLICY FOR RESIDENT PROJECT REPRESENTATIVES SHALL BE STRICTLY ENFORCED ON THIS PROJECT. A COPY OF THE POLICY CAN BE FOUND IN THE CONTRACT DOCUMENTS, OR REQUESTED BY THE ENGINEER.
17	CONCRETE WASHOUTS SHALL BE IN A CONTAINED SYSTEM PER MCSWD. WASHOUT SHALL NOT BE PERFORMED DIRECTLY ONTO THE GROUND OR INTO A STORM SEWER.
18	BASE REPAIRS SHALL BE COMPLETED AFTER MILLING OPERATIONS, UNLESS OTHERWISE NOTED. IF BASE REPAIR IS TO BE COMPLETED PRIOR TO MILLING, AS APPROVED BY THE ENGINEER, A TRANSITION WILL BE REQUIRED AND THE DEPTH TOBE LEFT 1 IN. (MAX.) BELOW EXISTING OR FINISHED SURFACE. NO ADDITIONAL PAYMENT FOR MOBILIZATION AND/OR DEMOBILIZATION WILL BE MADE FOR ADDITIONAL BASE REPAIRS REQUIRED AFTER MILLING OR FOR UNDISTRIBUTED BASE REPAIR.
19	REMOVAL OF PLANT MATERIAL ON PAVEMENT OR AT CURBS OR SIDEWALKS SHALL BE INCIDENTAL TO COLD PLANING OR OTHER ITEMS. NO DIRECT PAYMENT WILL BE MADE.
20	THE CONTRACTOR SHALL VERIFY ALL DRAINAGE STRUCTURES AND PIPE TYPES, MATERIAL, WALL THICKNESSES, INVERTS, DEPTHS, DIAMETERS, SIZES, AND CONDITIONS PRIOR TO ORDERING MATERIALS FOR ADJUSTMENTS, CONNECTIONS, EXTENSIONS, OR ALTERATIONS. CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR PROPER FIT.
21	ALL PROPOSED PAVEMENT MARKINGS SHALL MATCH EXISTING PAVEMENT MARKINGS AT THE PAVING LIMITS SHOWN ON THE RESURFACING PLANS.
22	CONTRACTOR SHALL INSTALL ONE (1) RAISE PAVEMENT MARKER CAST METAL BASE, TYPE 1 (INDOT STD. DWG. NO. 3-808-MKRM-10) WITH BLUE PRISMATIC REFLECTOR AT THE CENTERLINE OF EACH ROADWAY, DIRECTLY ACROSS FROM EACH FIRE HYDRANT AS DIRECTED BY THE ENGINEER.
23	EXISTING CURB TYPES MAY VARY AT STREETS. CONTRACTOR SHALL INSPECT CURB PRIOR TO BEGINNING WORK TO ASSURE PROPER FIT AND TRANSITION.
24	THE MARION COUNTY SURVEYOR REQUIRES 96 HOURS NOTICE TO PROVIDE ASSISTANCE AS NEEDED IN LOCATION OF ALL HARRISON MARKERS. THE TELEPHONE NUMBER FOR THE MARION COUNTY SURVEYOR IS (317) 327-4150. THE WORK ON ALL HARRISON MONUMENTS WILL BE COORDINATED WITH AND SUPERVISED BY THE MARION COUNTY SURVEYOR. SECTION CORNERS ARE TO BE LOCATED, MARKED, AND STRADDLED BY THE MARION COUNTY SURVEYOR PRIOR TO EXCAVATION. CENTERLINE LOCATONS ARE TO BE LOCATED AND MARKED BY THE CONTRACTOR'S SURVEYOR AND STRADDLED BY THE MARION COUNTY SURVEYOR PRIOR TO EXCAVATION.
25	THE PROPOSED CURB RADII AT DRIVES AND STREET APPROCHES THAT ARE TO BE REPLACED SHALL MATCH EXISTING CURB RADII.
26	THE WIDTH OF THE PROPOSED DRIVES TO BE REPLACED SHALL MATCH EXISTING DRIVE WIDTH.
27	AT ANY LOCATION WHERE COLD PLANING IS INDICATED, A 1 INCH BUTT JOINT IS REQUIRED WHERE THE COLD PLANING AND RESURFACING MEET EXISTING PAVEMENT.
28	ALL ROADWAY PAVEMENT MARKINGS, BIKE LANE PAVEMENT MARKINGS, BIKE LANE SIGNS, AND CONSTRUCTION SIGNS SHALL BE IN ACCORDANCE WITH THE 2011 INDIANA MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND ANY SUPPLEMENTS THEREAFTER.
29	THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL COMMERCIAL AND PRIVATE PROPERTIES DURING CONSTRUCTION.
30	ONE LANE OF TRAFFIC TO BE MAINTAINED AT ALL TIMES DURING ALL RESURFACING AND BASE REPAIR OPERATIONS ON A TWO LANE ROADWAY UNLESS OTHERWISE NOTED. SEE INDOT STANDARD DRAWING NO. E-801-TCFO-01 FOR FLAGGER OPERATIONS.
31	ALL AREAS OF BASE REPAIR SHALL ASSUME THE SAME OVERLAY TREATMENT AS THE ADJACENT PAVEMENT AREA.
32	ALL WATER, GAS, SANITARY, AND COMBINED SANITARY CASTINGS WILL BE ADJUSTED BY CITIZENS ENERGY GROUP (CEG). CONTRACTOR SHALL COORDINATE WITH CEG FOR CASTING ADJUSTMENTS.
33	THERE SHALL BE NO DIRECT PAYMENT FOR SAW CUTS. THESE CUTS SHALL BE INCLUDED IN THE COST OF OTHER ITEMS.
34	THE HYDRAULIC CAPACITY OF ALL INLETS MUST BE MAINTAINED DURING AND AFTER CONSTUCTION OPERATIONS UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
35	ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES MAY BE REQUIRED BY THE INSPECTOR.
36	INLET PROTECTION MUST BE PROVIDED BY THE CONTRACTOR DURING MILLING OPERATIONS AND UNTIL THE SURFACE COURSE IS PLACED.
37	THE CONTRACTOR SHALL MAINTAIN ACCESS TO EXISTING TRANSIT SERVICE THROUGHOUT THE LENGTH OF THE PROJECT, AND FOR THE DURATION OF THE WORK. THE CONTRACTOR SHALL COORDINATE WITH INDYGO IN ORDER TO SCHEDULE WORK IN A MANNER THAT MAINTAINS TRANSIT STOPS. INDYGO SHALL BE NOTIFIED 14 DAYS PRIOR TO WORK ADJACENT TO ANY EXISTING TRANSIT STOP. THE INDYGO CONTACT IS: RYAN GALLAGHER, TRANSIT PLANNER (317) 614-9334 RGALLAGHER@INDYGO.NET EXISTING TRANSIT STOPS MAY BE TEMPORARILY RELOCATED WITH INDYGO CONCURRENCE. ALL TRANSIT STOPS SHALL BE MAINTAINED IN AN ADA ACCESSIBLE MANNER. BUS PULL OFF/THROUGH AREA MAY BE REQUIRED. IF TRANSIT STOPS ARE RELOCATED DURING CONSTRUCTION, INDYGO SHALL BE NOTIFIED 14 DAYS PRIOR TO THE COMPLETION OF WORK THAT WOULD RESTORE THE ORIGINAL TRANSIT STOP LOCATION. ALL COST ASSOCIATED WITH THIS WORK SHALL BE INCLUDED IN THE COST OF MAINTAINING TRAFFIC.
38	TRAFFIC DETECTION LOOPS AS INDICATED IN PLANS SHALL BE REPLACED IN ACCORDANCE WITH INDOT STD. DWG. E 805-SGLI-06 AND ALL OTHER APPROPRIATE STANDARD DRAWINGS INCLUDING PROXIMITY TO STOP LINES AND SPACING. LOOP WIRE TO BE REPLACED FROM DETECTOR HOUSING SOURCE THROUGH 6'-0" DIAMETER LOOP AND SHALL BE PAID FOR AS EACH. DETECTOR HOUSINGS SHALL BE ADJUSTED TO GRADE MATCH THE PROPOSED ROADWAY PER INDOT STD. DWG. E 805-SGDH-01.
39	CASTINGS TO BE ADJUSTED BY OTHERS SHOULD BE COORDINATED WITH CITIZENS ENERGY GROUP. CONTACT POINT IS LARRY NICHOLS.
40	EROSION CONTROL MUST BE PROVIDED BY THE CONTRACTOR DURING ALL CONSTRUCTION OPERATIONS AND UNTIL SURFACE COURSE IS PLACED. INLET PROTECTION SHALL BE MAINTAINABLE AND MUST HAVE AN OVERFLOW FUNCTION, GEOTEXTILE FABRIC BENEATH THE CASTING SHALL NOT BE USED. EROSION CONTROL SHALL BE INCIDENTAL TO MILLING AND NO DIRECT PAYMENT WILL BE MADE UNLESS OTHERWISE INDICATED IN THE CONTRACT DOCUMENTS.
41	DO NOT DISTURB EXISTING BRICK GUTTERS.
42	NEW INLET CASTINGS SHALL HAVE THE WORDS "NO DUMPING, DRAINS TO STREAM", OR SIMILARLY APPROVED OF MESSAGE, CAST IN RAISED OR RECESSED LETTERS AT A MINIMUM OF 1" IN HEIGHT AND A FISH SYMBOL.
43	STORM SEWER MANHOLE COVERS SHALL HAVE THE WORDS "STORM SEWER" CAST IN RECESSED LETTERS TWO (2) INCHES IN HEIGHT.
44	GROOVING SHALL BE INCLUDED ON THE SURFACE OF CURB RAMPS AS APPROVED BY THE ENGINEER.
45	THE PROTECTION OF EXISTING TREES WILL INCLUDE THE CONTRACTOR ERECTING A PROTECTIVE FENCE AROUND THE TREES, AS SPECIFIED IN THE PLANS AND SPECIFICATIONS. THE RADIUS AT WHICH THE FENCE SHALL BE PLACED IS LISTED IN THE PLANS. DEVIATIONS FROM THIS RADIUS ARE AT THE DISCRETION OF THE ENGINEER. THE COST FOR THIS PROTECTION FENCE WILL NOT BE PAID FOR DIRECTLY AND IS TO BE INCLUDED IN THE COST OF OTHER ITEMS.
46	THE CONTRACTOR SHALL PROVIDE AN ACCESSIBLE ROUTE FOR ADA RAMPS AT INTERSECTIONS DURING CONSTRUCTION. AN INTERSECTION SHALL NOT HAVE ALL RAMPS CLOSED AT THE SAME TIME FOR CONSTRUCTION.
47	ALL PROPOSED EROSION AND SEDIMENT CONTROL SHALL BE IN CONFORMANCE WITH CHAPTER 600 OF THE CITY OF INDIANAPOLIS STORMWATER SPECIFICATIONS MANUAL, LATEST EDITION. DISCREPANCIES BETWEEN THE PLANS AND THE MANUAL SHALL NOT ALLEVIATE THE CONTRACTOR FROM ADHERING TO THE REQUIREMENTS AS SET FORTH IN THE MANUAL.
48	INLET PROTECTION MUST HAVE AN OVERFLOW, BE MAINTAINABLE WITHOUT DROPPING COLLECTED SEDIMENT AND OTHER POLLUTANTS INTO THE STORM SEWER AND NOT IMPEDE ACTIVE TRAFFIC.
49	CONSTRUCTION POLLUTION PRECENTION CONTROLS SUCH AS EROSION CONTROL, SEDIMENT CONTROL, AND STREAM DIVERSIONS OR PUMP AROUNDS ARE REQUIRED TO PROTECT THE STORM SEWERS AND WATER BODIES FROM POLLUTANTS DURING ALL PHASES OF CONSTRUCTION.
50	IF CONTAMINATED SOILD ARE ENCOUNTERED, "CONTAMINATED SOIL, REMOVE" SHALL BE PERFORMED IN ACCORDANCE TO INDOT SPECIFICATION 202.
51	SIZE, MATERIAL, DEPTH, AND LOCATION OF KNOWN EXISTING DRAINAGE OR SANITARY SEWER FACILITIES IS FROM AVAILABLE HISTORIC INFORMATION AND ABOVE-GROUND INSPECTION AND MEASUREMENT. LIMITED CONFINED SPACE ENTRY WAS UTILIZED. THE CONTRACTOR SHALL THEREFORE VERIFY ALL DRAINAGE OR SANITARY SEWER INFORMATION CONTAINED IN THE CONTRACT DOCUMENTS PRIOR TO ANY CONSTRUCTION WHICH WOULD BE IMPACTED BY FACILITIES NOT LOCATED AS SHOWN IN THE CONTRACT DOCUMENTS. THE COST TO CORRECT ANY FACILITIES INSTALLED PRIOR TO VERIFICATION OF EXISTING CONDITION BY THE CONTRACTOR SHALL BE AT NO COST TO THE OWNER.
52	THE LOCATION OF UTILITIES AND STRUCTURES, BOTH SURFACE AND SUBSURFACE, ARE SHOWN ON THE PLANS FROM DATA AVAILABLE AT THE TIME OF SURVEY AND ARE NOT NECESSARILY COMPLETE OR CORRECT. DETERMINING THE EXACT LOCATION AND PROTECTING THE UTILITIES AND STRUCTURES IS THE RESPONSIBILITY OF THE CONTRACTOR. DURING CONSTRUCTION, THE CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES AND STRUCTURES WHETHER SHOWN ON THE PLANS OR NOT. IF DAMAGE IS CAUSED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR AND RESTORATION OF SAME IN ACCORDANCE WITH THE REQUIREMENTS OF THE UTILITY OWNER AND FOR ANY RESULTING CONTINGENT DAMAGE AND COST. ALL REPAIRS SHALL BE AT NO COST TO THE OWNER.

REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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PHONE: (317) 298-4500

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RECOMMENDED FOR APPROVAL: _____ 6/30/2022
DESIGN ENGINEER DATE

DESIGNED: DDB | DRAWN: DDB
CHECKED: CMR | CHECKED: CMR

THE CITY OF INDIANAPOLIS METROPOLITAN DEVELOPMENT

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

GENERAL NOTES

HORIZONTAL SCALE
VERTICAL SCALE
PROJECT NUMBER
TBD
SHEETS NUMBER
3 OF 159

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GENERAL NOTES, CONT.

53	IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN IN SERVICE ALL EXISTING UTILITIES ENCOUNTERED DURING CONSTRUCTION UNLESS OTHERWISE INDICATED IN THE DRAWINGS. ANY UTILITY WHICH CAN BE REMOVED DURING CONSTRUCTION WITHOUT UNDUE INTERRUPTION OF SERVICE MAY BE REMOVED AND REPLACED BY THE CONTRACTOR WITH THE PERMISSION OF THE OWNER AND THAT APPLICABLE UTILITY OWNER.
54	THE CONTRACTOR SHALL CONTACT AND COORDINATE WITH THE APPLICABLE UTILITY COMPANY 48 HOURS BEFORE WORKING WITH OR AROUND EXISTING UTILITIES.
55	THE CONTRACTOR SHALL PRESERVE AND PROTECT PROPERTY MARKERS, SECTION CORNERS, SURVEY MARKS, AND BENCH MARKS SUCH AS STONES, PIPES, OR OTHER MONUMENTS ENCOUNTERED. IF THE CONTRACTOR MUST DISTURB THE PROPERTY MARKERS OR MONUMENTS, THEIR HORIZONTAL AND VERTICAL LOCATION SHALL BE DETERMINED AND RECORDED BY A REGISTERED LAND SURVEYOR AND THE OWNER NOTIFIED BEFORE DISTURBING. ALL PROPERTY MARKERS AND MONUMENTS DISTURBED DURING CONSTRUCTION SHALL BE RE-ESTABLISHED BY A REGISTERED LAND SURVEYOR AT NO COST TO THE OWNER.
56	THE CONTRACTOR SHALL FAMILIARIZE THEMSELVES WITH THE AREA; NO EXTRA COMPENSATION CONNECTED WITH OVERHEAD UTILITIES WILL BE ALLOWED.
57	ROADWAY SURFACING AND BASE MATERIALS, OR ANY OTHER PROPERTY REMOVED OR DAMAGED, SHALL BE REPLACED OR REPAIRED TO ORIGINAL CONDITION OR BETTER UNLESS OTHERWISE NOTED IN THE CONSTRUCTION DOCUMENTS.
58	THE CONTRACTOR IS RESPONSIBLE FOR ALL CONSTRUCTION TRAFFIC CONTROL AND MAINTENANCE.
59	THE CONTRACTOR IS SOLELY AND COMPLETELY RESPONSIBLE FOR JOB SITE CONDITIONS DURING CONSTRUCTION OF THIS PROJECT, INCLUDING EROSION CONTROL AND THE SAFETY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND THE CONTRACTOR SHALL DEFEND, INDEMNIFY, AND HOLD THE OWNER, CONSTRUCTION INSPECTOR, AND ENGINEER HARMLESS FROM ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OR WORK ON THE PROJECT.
60	THE COST OF ABIDING BY THE PROVISIONS OR PERMITS ISSUED BY VARIOUS AGENCIES SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT. ALL ASSOCIATED BONDING REQUIREMENTS AND COSTS SHALL ALSO BE CONSIDERED INCIDENTAL TO THE REPORT.
61	THE CONTRACTOR SHALL COORDINATE ALL CONSTRUCTION ACTIVITIES WITH THE OWNERS OF PROPERTY ON OR NEAR WHICH CONSTRUCTION IS TAKING PLACE. THE CONTRACTOR SHALL ALSO DILIGENTLY ATTEMPT TO ACCOMMODATE THE NORMAL ACTIVITIES OF PROPERTY OWNERS ALONG THE PROJECT ROUTE.
62	COORDINATION AND PROPER FIT OF ALL PROJECT ELEMENTS IS THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL CONDUCT A PRE-CONSTRUCTION STAKEOUT OF THE PROJECT ELEMENTS TO VERIFY THE COORDINATES PROVIDED. SUSPECTED ERRORS OR DISCREPANCIES SHALL BE REPORTED TO THE CONSTRUCTION INSPECTOR AND RESOLVED BEFORE CONSTRUCTION BEGINS.
63	THE CONTRACTOR IS ENCOURAGED TO PRACTICE WORKPLACE RECYCLING OF ALL REFUSE GENERATED BY EMPLOYEES AND VISITORS AND BECAUSE OF CONSTRUCTION. THIS SHALL INCLUDE, AS A MINIMUM, PROVIDING SEPARATE DEPOSITORIES FOR EACH UNIQUE RECYCLABLE MATERIAL AND DELIVERY OF SAME TO A LOCAL RECYCLING FACILITY.
64	THE CONTRACTOR SHALL ABIDE BY ALL REQUIREMENTS FOR DISPOSAL OF HAZARDOUS MATERIALS, INCLUDING PROVIDING DOCUMENTATION OF LEGAL DISPOSAL FOR REVIEW BY THE CONSTRUCTION INSPECTOR. ~~THE COST OF THIS SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE PROJECT.~~
65	THE CONTRACTOR SHALL PROVIDE SAFE, CONTINUOUS VEHICULAR ACCESS TO ALL PROPERTIES FOR NORMAL DAILY USE AND FOR EMERGENCY SERVICES. SUCH ACCESS SHALL INCLUDE, BUT NOT NECESSARILY BE LIMITED TO, PROVIDING, INSTALLING, AND MAINTAINING TEMPORARY GRAVEL OR HMA ROADWAY ON OR ADJACENT TO EXISTING ROADS ANYWHERE NORMAL ACCESS IS HAMPERED BY CONSTRUCTION ACTIVITIES. PARTICULAR CARE IS TO BE GIVEN TO ROADS WITHOUT MULTIPLE ENTRANCES, SUCH AS CUL-DE-SACS AND DEAD ENDS. THE CONTRACTOR SHALL OBTAIN ALL PERMITS AND SHALL PROVIDE ANY SIGNAGE OR FLAGGING THAT MAY BE REQUIRED OR, IN THE OPINION OF THE CONSTRUCTION INSPECTOR OR OWNER, BE NECESSARY TO PROVIDE ADEQUATE ACCESS. ALL TEMPORARY ACCESS SHALL BE REMOVED, AND ALL DISTURBED SURFACES SHALL BE RESTORED BY THE CONTRACTOR.
66	REMOVAL OF EXISTING CONCRETE AND ASPHALT PAVEMENT INDICATED ON THE PLAN SHALL INCLUDE ALL AGGREGATE BASE AND SUB-GRADE MATERIALS. SAW CUT ALL EXISTING PAVED AREAS. ALL CUTS SHALL BE CLEAN, NEAT, AND TRUE TO LINE. ALL CONCRETE AND ASPHALT PAVEMENT MATERIAL TO BE DEMOLISHED SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN A LEGAL MANNER.
67	ALL DISTURBED AREAS INCLUDING, BUT NOT LIMITED TO, STREETS, DRIVES, WALKS, LAWNS, ETC. SHALL BE RESTORED TO ORIGINAL OR BETTER CONDITION.
68	CONTRACTOR SHALL REMOVE ALL MUD, DIRT, GRAVEL, AND ANY OTHER MATERIALS TRACKED ONTO ANY PUBLIC OR PRIVATE STREETS, PARKING LOTS, OR WALKS. THIS MATERIAL REMOVAL OR SWEEPING OF THE STREETS SHALL BE DONE AS FREQUENTLY AS NECESSARY TO MAINTAIN REASONABLY CLEAN STREETS. THE CONTRACTOR MUST ALSO KEEP AIRBORNE DIRT AND DUST TO A MINIMUM BY USING WATER OR OTHER MATERIALS AS NECESSARY.
69	ALL STORMWATER/SYSTEM INFRASTRUCTURE THAT IS ALTERED OR REPLACED SHALL COMPLY WITH CHAPTER 400/500 (MATERIALS AND INSTALLATION) OF THE CITY OF INDIANAPOLIS STORM WATER DESIGN AND SPECIFICATIONS CONSTRUCTION MANUAL UNLESS OTHERWISE NOTED.
70	THE CONTRACTOR SHALL VERIFY ALL DRAINAGE STRUCTURES AND PIPE TYPES, MATERIALS, WALL THICKNESSES, INVERTS, DEPTHS, DIAMETERS, SIZES, AND CONDITIONS PRIOR TO ORDERING MATERIAL FOR ADJUSTMENT, CONNECTIONS, EXTENSIONS, CORE DRILLING, OR ALTERATIONS. THE CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR PROPER FIT.
71	THE CONTRACTOR SHALL NOT DAMAGE EXISTING TREES OR TREE LIMBS DURING CONSTRUCTION. LIMBS HANGING OVER THE RIGHT-OF-WAY THAT INTERFERE WITH THE CONSTRUCTION MAY BE TRIMMED WITH APPROVAL OF THE INSPECTOR.
72	POSITIVE DRAINAGE SHALL BE MAINTAINED ALWAYS. THE CONTRACTOR IS TO ENSURE THAT POSITIVE DRAINAGE IS MAINTAINED AT ALL INTERSECTIONS AND ALONG CURB AND GUTTER FLOWLINES AFTER THE COMPLETION OF CURB RAMP CONSTRUCTION.
73	THE HYDRAULIC CAPACITY OF ALL INLETS MUST BE MAINTAINED DURING AND AFTER CONSTRUCTION OPERATIONS UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
74	WHERE CONNECTIONS ARE MADE TO EXISTING MANHOLES OR INLET STRUCTURES, THOSE STRUCTURES SHALL BE REHABILITATED OR REPLACED TO THOSE MINIMUM STANDARDS OUTLINED IN CHAPTERS 400 AND 500 OF THE CITY OF INDIANAPOLIS STORMWATER SPECIFICATIONS MANUAL, LATEST EDITION. THE REHABILITATION SHALL INCLUDE THE INSTALLATION OF BENCH WALLS, AS WELL AS PRESCRIBED MEASURES TO ELIMINATE THE POTENTIAL FOR MIGRATION OF BACKFILL MATERIALS INTO THE STORMWATER SYSTEM.
75	ALL PROPOSED STORM SEWER AND DRAINAGE APPURTENANCES SHALL BE IN CONFORMANCE WITH CHAPTERS 400 AND 500 OF THE CITY OF INDIANAPOLIS STORMWATER SPECIFICATIONS MANUAL, LATEST EDITION. DISCREPANCIES BETWEEN THE PLANS AND THE MANUAL SHALL NOT ALLEVIATE THE CONTRACTOR FROM ADHERING TO THE REQUIREMENTS AS SET FORTH IN THE MANUAL.
76	CONTRACTOR SHALL VERIFY ALL DRAINAGE STRUCTURES AND PIPE TYPES, MATERIAL, WALL THICKNESS, INVERT, DEPTHS, DIAMETER, SIZES AND CONDITIONS PRIOR TO ORDERING MATERIAL FOR ADJUSTMENT, CONNECTIONS, EXTENSIONS, CORE DRILLING OR ALTERATIONS. CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR PROPER FIT.

STORMWATER POLLUTION PREVENTION NOTES

1	ALL PROPOSED EROSION AND SEDIMENT CONTROL SHALL BE IN CONFORMANCE WITH CHAPTER 600 OF THE CITY OF INDIANAPOLIS STORMWATER SPECIFICATIONS MANUAL, LATEST EDITION. DISCREPANCIES BETWEEN THE PLANS AND THE MANUAL SHALL NOT ALLEVIATE THE CONTRACTOR FROM ADHERING TO THE REQUIREMENTS AS SET FORTH IN THE MANUAL.
2	ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES MAY BE REQUIRED BY THE INSPECTOR.
3	WASTE WATER, SUCH AS CONCRETE WASHOUT, SHALL BE COMPLETELY CONTAINED AND DISPOSED OF PROPERLY. NO WASTE WATER SHALL BE ALLOWED ON THE GROUND, IN A SEWER, IN A STREAM OR ANY OTHER LOCATION WHERE IT IS NOT CONTAINED.
4	~~HYDRODEMOLITION WASTE WATER SHALL BE COMPLETELY CONTAINED AND REMOVED FROM THE PROJECT SITE PER INDOT CONSTRUCTION MEMO 15-01.~~
5	~~NO FILL MATERIAL, SUCH AS STONE FOR TEMPORARY CROSSINGS, CONSTRUCTION MATERIALS, DEMOLITION DEBRIS OR EQUIPMENT IS ALLOWED IN A WATERWAY WITHOUT THE APPROPRIATE PERMITS.~~
6	INLET PROTECTION MUST BE PROVIDED BY THE CONTRACTOR DURING MILLING OPERATIONS AND UNTIL THE SURFACE COURSE IS PLACED.
7	INLET PROTECTION MUST HAVE AN OVERFLOW, BE MAINTAINABLE WITHOUT DROPPING COLLECTED SEDIMENT AND OTHER POLLUTANTS INTO THE STORM SEWER AND NOT IMPEDE ACTIVE TRAFFIC.
8	NEW INLET CASTINGS SHALL INCLUDE THE WORDS "NO DUMPING, DRAINS TO STREAM" CAST IN RAISED OR RECESSED LETTERS AT A MINIMUM OF 1-INCH TEXT HEIGHT AND A FISH SYMBOL.
9	POST-CONSTRUCTION WATER QUALITY MEASURES SHALL NOT BE USED AS CONSTRUCTION SEDIMENT CONTROL MEASURES.
10	SILT FENCE SHALL BE TRENCHED INTO THE GROUND, SHALL NOT BE LOCATED IN CONCENTRATED FLOW AREAS SUCH AS DITCHES AND SHALL BE PLACED PARALLEL TO THE CONTOUR.
11	CONSTRUCTION POLLUTION PREVENTION CONTROLS SUCH AS EROSION CONTROL, SEDIMENT CONTROL AND STREAM DIVERSIONS OR PUMP AROUNDS ARE REQUIRED TO PROTECT THE STORM SEWERS AND WATER BODIES FROM POLLUTANTS DURING ALL PHASES OF CONSTRUCTION.
12	PUMP AROUND SYSTEMS AND COFFERDAMS, OR SIMILAR, SHALL BE INSTALLED BEFORE ANY WORK IN THE STREAM INCLUDING DEMOLITION AND REMOVED AFTER ALL WORK IS COMPLETE AND STREAM BANKS ARE STABLE.
13	DEWATERING WATER SHALL BE FILTERED PRIOR TO DISCHARGE INTO A STORM SEWER OR WATER BODY.
14	IF CONTAMINATED SOILS ARE ENCOUNTERED, "CONTAMINATED SOIL, REMOVE" SHALL BE PERFORMED IN ACCORDANCE TO INDOT SPECIFICATION 202.

REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

Indiana 811 Know what's below. Call before you dig.

CMT Engineers and Consultants
8790 PURDUE ROAD
INDIANAPOLIS, IN 46268-6128
PHONE: (317) 298-4500

Not For Construction

RECOMMENDED FOR APPROVAL: _____ 6/30/2022
DESIGN ENGINEER DATE

DESIGNED: DDB | DRAWN: DDB
CHECKED: CMR | CHECKED: CMR

THE CITY OF INDIANAPOLIS METROPOLITAN DEVELOPMENT

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

GENERAL NOTES

HORIZONTAL SCALE	
VERTICAL SCALE	
PROJECT NUMBER	TBD
SHEETS NUMBER	4 OF 159

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TO BE PROVIDED IN FUTURE SUBMISSION

REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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THE CITY OF INDIANAPOLIS METROPOLITAN DEVELOPMENT

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

SUMMARY OF QUANTITIES

HORIZONTAL SCALE: N/A

PROJECT NUMBER: TBD

SHEETS NUMBER: 5 OF 159

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LEGEND:

1. CITY OF INDIANAPOLIS DEPT. OF METROPOLITAN DEV.
2. CITY OF INDIANAPOLIS DEPT. OF METROPOLITAN DEV.
3. CITY OF INDIANAPOLIS DEPT. OF METROPOLITAN DEV.
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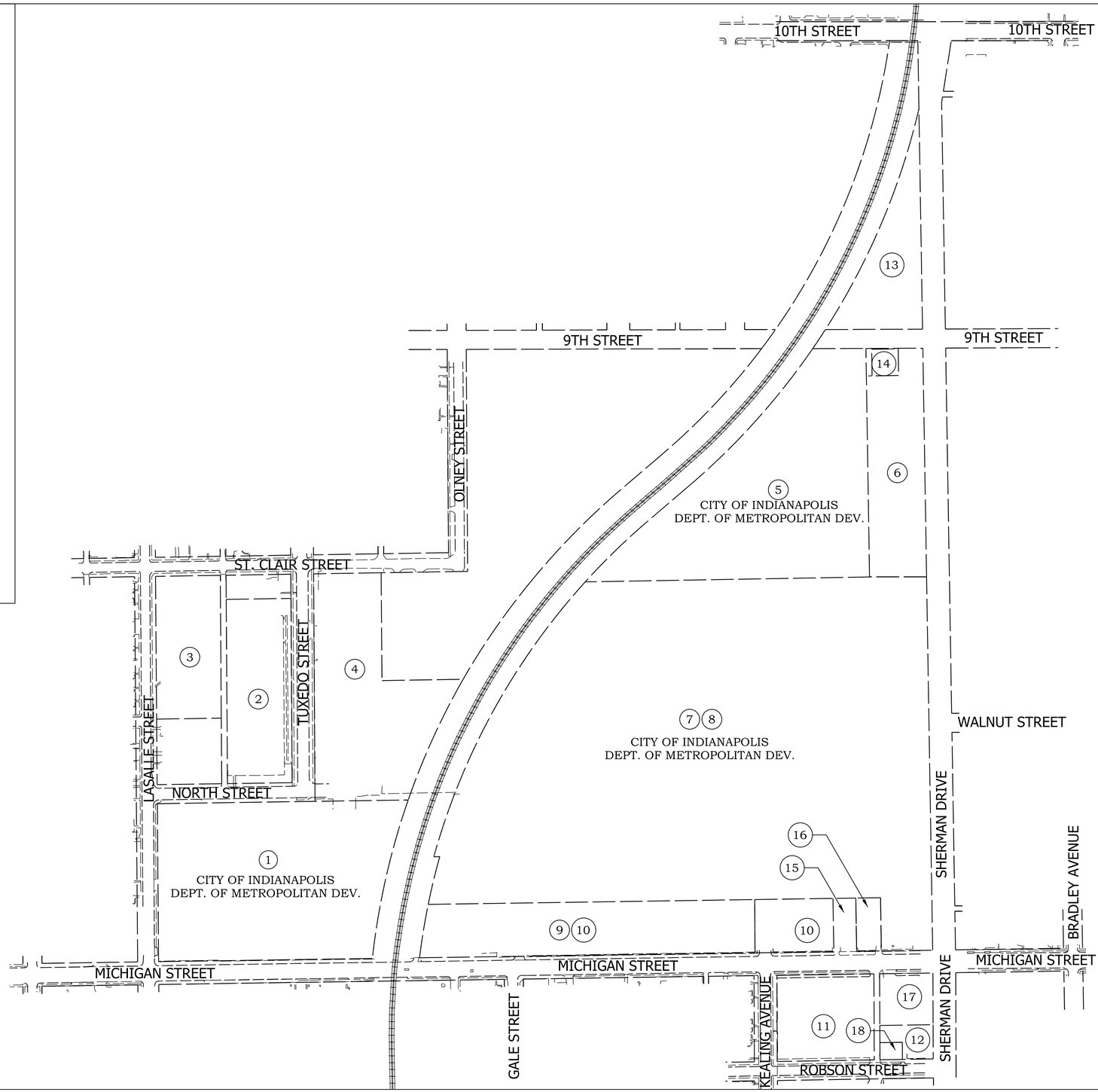
13. CITY OF INDIANAPOLIS DEPT. OF METROPOLITAN DEV.
14. CROWN CASTLE SOUTH, LLC
15. BARRON PROPERTY SERVICES
16. CITY OF INDIANAPOLIS DEPT. OF METROPOLITAN DEV.
17. DILRAJ INVESTMENTS, LLC
18. DARKO VENTURES LLC-S



REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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DESIGN ENGINEER DATE

DESIGNED: DDB	DRAWN: DDB
CHECKED: CMR	CHECKED: CMR

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

SHERMAN PARK
OVERALL EXISTING SITE PLAN

HORIZONTAL SCALE
1" = 150'
VERTICAL SCALE
N/A
PROJECT NUMBER
TBD
SHEETS NUMBER
6 OF 159

L:\IndyDMD\19072501-00\Draw\Sheets\Sht_OverallSitePlan.dgn

LEGEND:

1. CITY OF INDIANAPOLIS DEPT. OF METROPOLITAN DEV.
2. CITY OF INDIANAPOLIS DEPT. OF METROPOLITAN DEV.
3. CITY OF INDIANAPOLIS DEPT. OF METROPOLITAN DEV.
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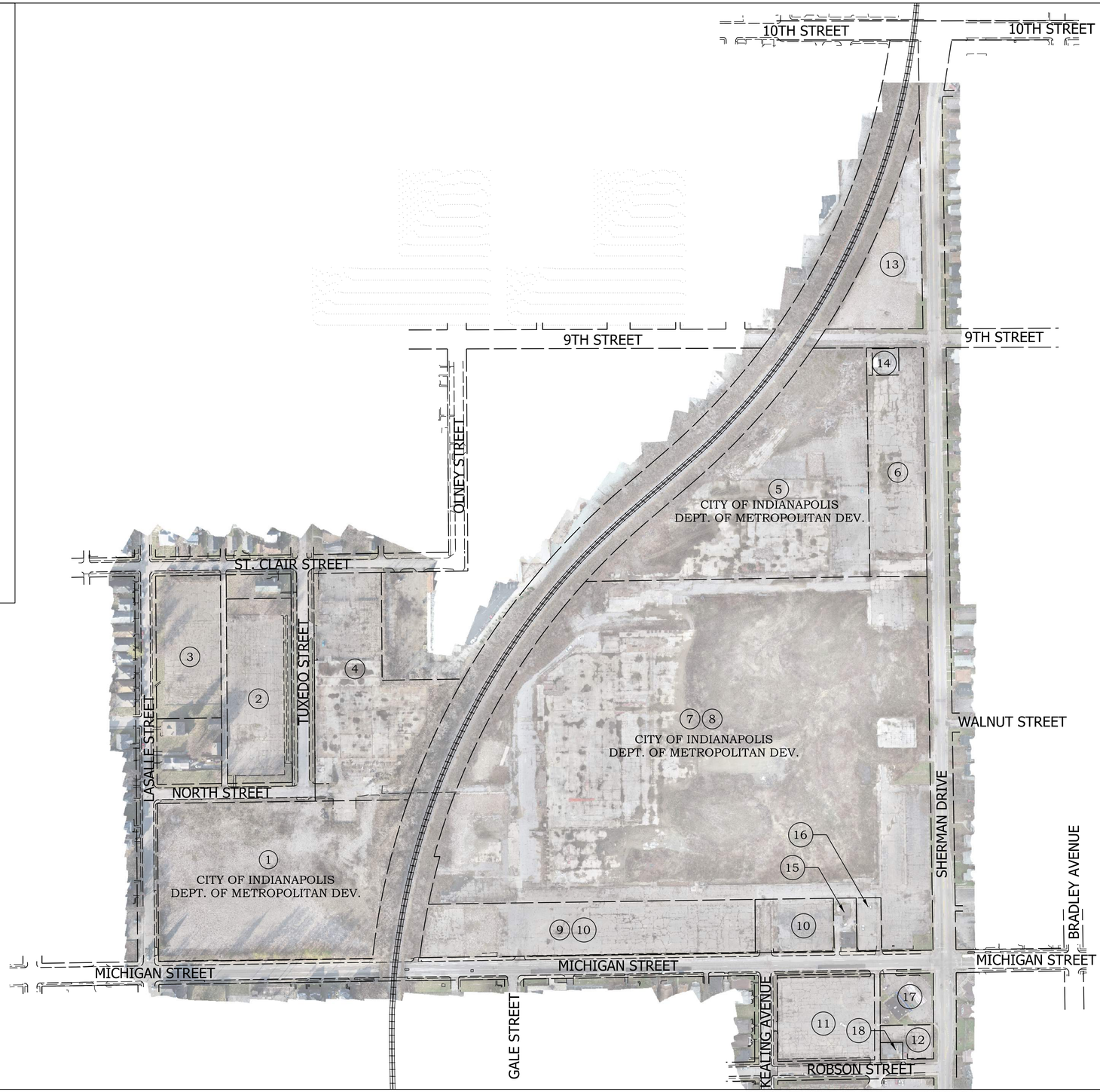
13. CITY OF INDIANAPOLIS DEPT. OF METROPOLITAN DEV.
14. CROWN CASTLE SOUTH, LLC
15. BARRON PROPERTY SERVICES
16. CITY OF INDIANAPOLIS DEPT. OF METROPOLITAN DEV.
17. DILRAJ INVESTMENTS, LLC
18. DARKO VENTURES LLC-S

Note: Imagery Date: 2020



REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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CMT Engineers and Consultants
8790 PURDUE ROAD
INDIANAPOLIS, IN 46268-6128
PHONE: (317) 298-4500

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RECOMMENDED FOR APPROVAL: _____ DESIGN ENGINEER 6/30/2022 DATE

DESIGNED: DDB | DRAWN: DDB

CHECKED: CMR | CHECKED: CMR

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

SHERMAN PARK
OVERALL EXISTING SITE PLAN

HORIZONTAL SCALE	1" = 150'
VERTICAL SCALE	N/A
PROJECT NUMBER	TBD
SHEETS NUMBER	7 OF 159

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LEGEND:

1. CITY OF INDIANAPOLIS DEPT. OF METROPOLITAN DEV.
2. CITY OF INDIANAPOLIS DEPT. OF METROPOLITAN DEV.
3. CITY OF INDIANAPOLIS DEPT. OF METROPOLITAN DEV.
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14. CROWN CASTLE SOUTH, LLC
15. BARRON PROPERTY SERVICES
16. CITY OF INDIANAPOLIS DEPT. OF METROPOLITAN DEV.
17. DILRAJ INVESTMENTS, LLC
18. DARKO VENTURES LLC-S

Note: Imagery Date: 2013 Outside Project Limits
2020 Project Limits

10TH STREET
10TH STREET
9TH STREET
9TH STREET
OLNEY STREET
ST. CLAIR STREET
TUXEDO STREET
LASALLE STREET
NORTH STREET
BRADLEY AVENUE
WALNUT STREET
SHERMAN DRIVE
MICHIGAN STREET
MICHIGAN STREET
MICHIGAN STREET
GALE STREET
KEALING AVENUE
ROBSON STREET
CITY OF INDIANAPOLIS DEPT. OF METROPOLITAN DEV.
CITY OF INDIANAPOLIS DEPT. OF METROPOLITAN DEV.
CITY OF INDIANAPOLIS DEPT. OF METROPOLITAN DEV.

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REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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INDIANAPOLIS, IN 46268-6128
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CHECKED: CMR | CHECKED: CMR

THE CITY OF INDIANAPOLIS METROPOLITAN DEVELOPMENT

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

SHERMAN PARK OVERALL EXISTING SITE PLAN

HORIZONTAL SCALE
1" = 150'
VERTICAL SCALE
N/A
PROJECT NUMBER
TBD
SHEETS NUMBER
8 OF 159

CORING LOCATIONS

PC-01
PC-02
PC-03
PC-04
PC-05
PC-06
PC-07
PC-08
PC-09
PC-10
PC-11
PC-12
PC-13
PC-14 - PC-17
PC-18 - PC-21
PC-22
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PC-26
PC-27
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PC-29
PC-30
PC-31
PC-32
PC-33
PC-34
PC-35
PC-36
PC-37

E Saint Joseph St
E 9th St
E Saint Clair St
E North St
E Michigan St
N Oakland Ave
N Gray St
N Lasalle St
N Tuxedo St
N Olney St
N Keating Ave
N Sherman Dr
N Bradley Ave
N Denny St
N Dearborn St
N Alley 3150 E

REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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DESIGN ENGINEER DATE

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CHECKED: CMR | CHECKED: CMR

INDIANAPOLIS METROPOLITAN DEVELOPMENT

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

PAVEMENT CORES
SITE OVERVIEW

HORIZONTAL SCALE
N/A
PROJECT NUMBER
TBD
SHEETS NUMBER
9 OF 159

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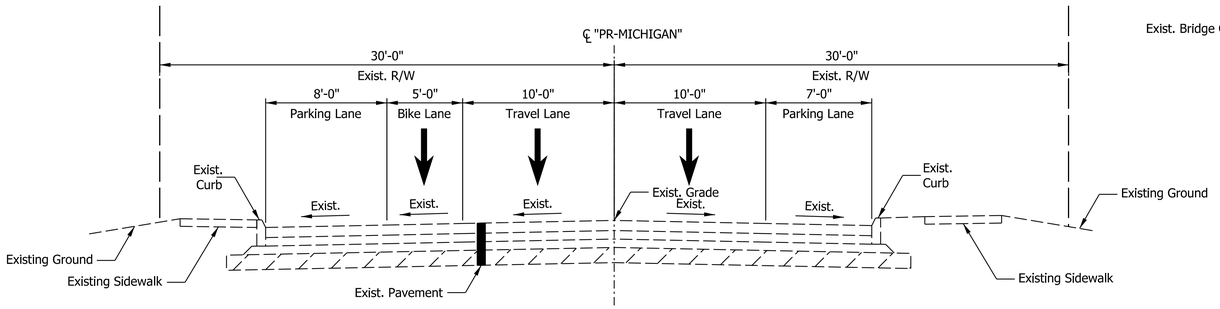
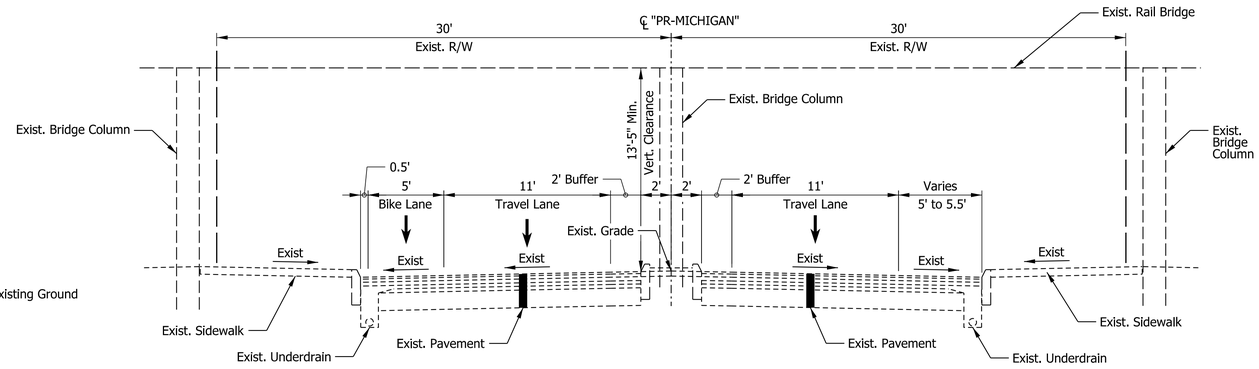


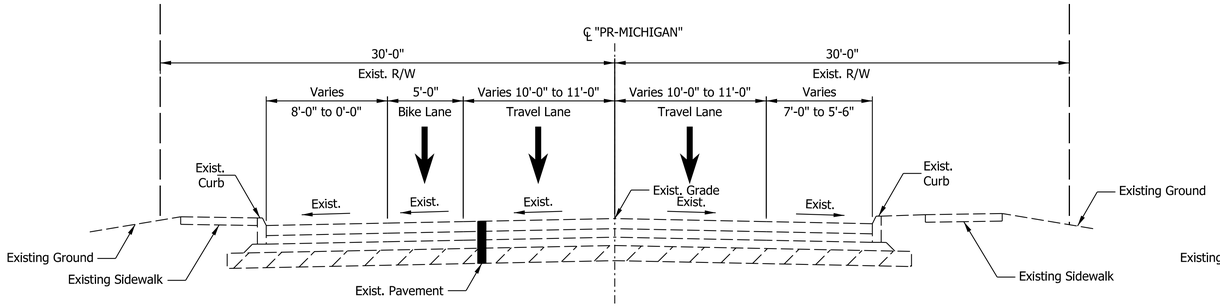
EXISTING SECTION ON TANGENT

STA. 103+45.00 TO STA. 107+50.00
STA. 112+00.00 TO STA. 113+00.00
STA. 114+28.00 TO STA. 125+00.00



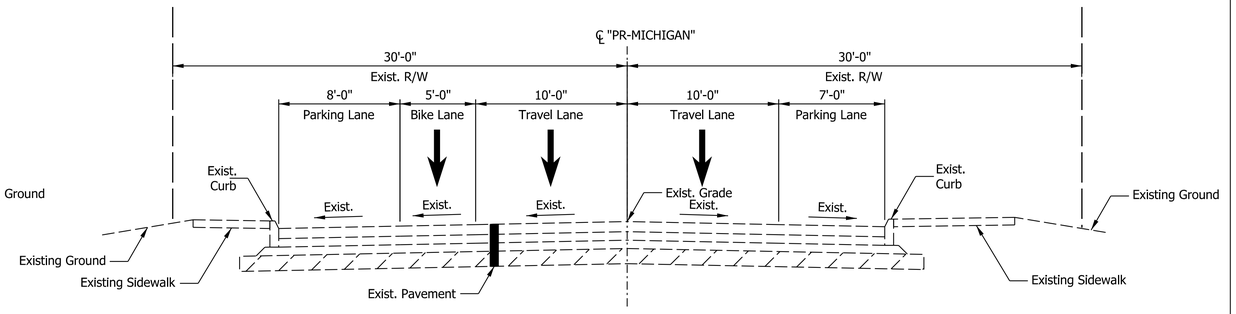
EXISTING SECTION ON TANGENT

STA. 109+37.78 TO 110+03.15



EXISTING SECTION ON TANGENT

STA. 107+50.00 TO STA. 109+37.78
STA. 110+03.15 TO STA. 112+00.00



EXISTING SECTION ON TANGENT

STA. 113+00.00 TO STA. 114+28.00

NOTE:
1. Coordinate Michigan Street improvements with Indy DPW project ST-26-054 Michigan Street One-Way to Two-Way Conversion
2. See Pavement Core sheets for existing pavement structure.
3. See Design Guidelines for additional information for features beyond the edge of pavement.

REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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CMT Engineers and Consultants
8790 PURDUE ROAD
INDIANAPOLIS, IN 46268-6128
PHONE: (317) 298-4500

Not For Construction

RECOMMENDED FOR APPROVAL: _____ DESIGN ENGINEER 6/30/2022 DATE

DESIGNED: LKJ | DRAWN: LKJ
CHECKED: CMR | CHECKED: CMR

THE CITY OF INDIANAPOLIS METROPOLITAN DEVELOPMENT

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

TYPICAL SECTIONS MICHIGAN STREET EXISTING

HORIZONTAL SCALE	1" = 5'
VERTICAL SCALE	1" = 5'
PROJECT NUMBER	TBD
SHEETS NUMBER	10 OF 159

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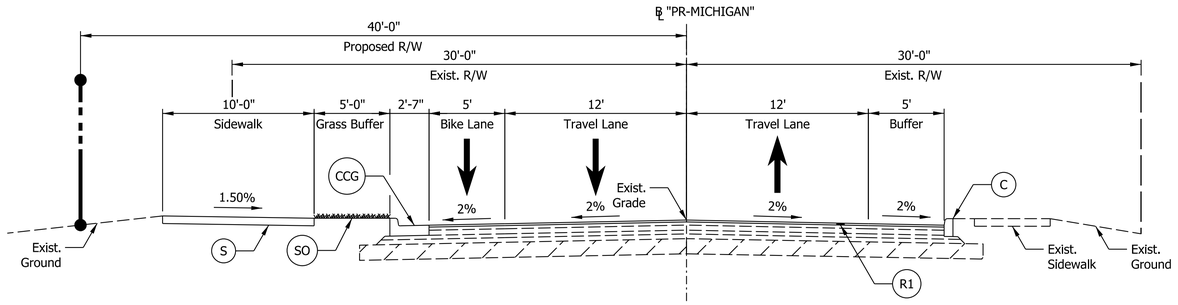
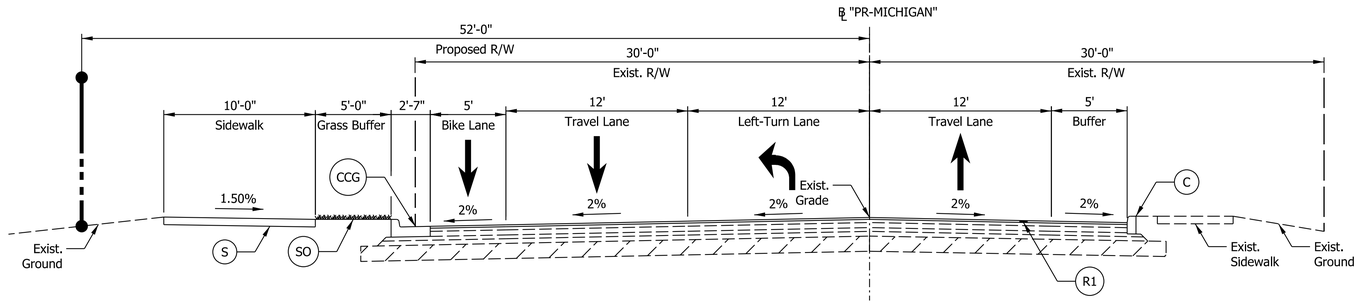


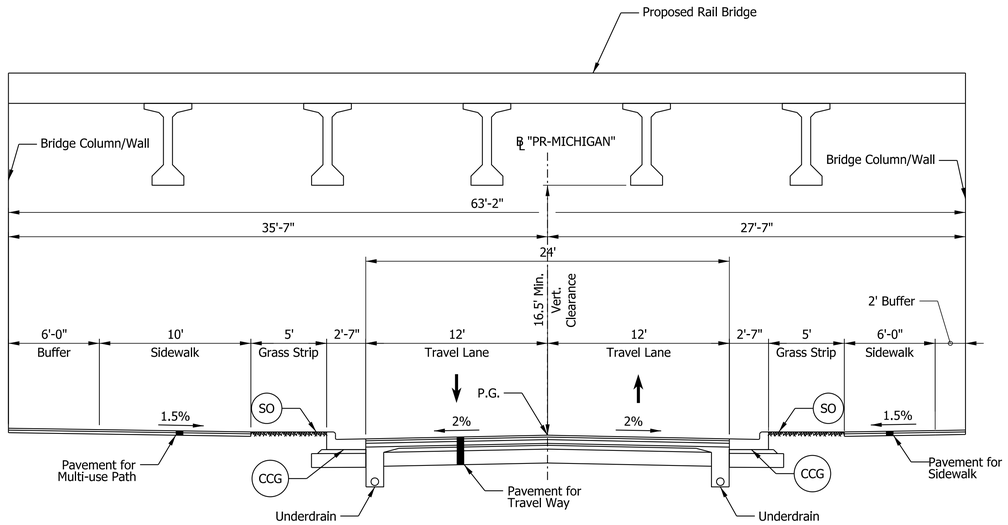
SECTION ON TANGENT

STA. 103+45.79 TO STA. 109+36.70
STA. 110+05.22 TO STA. 116+45.55



SECTION ON TANGENT

STA. 116+45.55 TO STA. 124+10.00



SECTION ON TANGENT

STA. 109+36.70 TO STA. 110+05.22

NOTE TO REVIEWER:
30% plans - Not For Construction
Subject to change as further development in the Sherman Park area happens. Coordination with other City street projects is ongoing.

NOTE:
1. Coordinate Michigan Street improvements with Indy DPW project ST-26-054 Michigan Street One-Way to Two-Way Conversion.
2. Additional coordination with CSX regarding new rail bridge over Michigan Street will be required.
3. See Pavement Core sheets for existing pavement structure.
4. See Design Guidelines for additional information for features beyond the edge of pavement.

REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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8790 PURDUE ROAD
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PHONE: (317) 298-4500

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CHECKED: CMR | CHECKED: CMR

THE CITY OF INDIANAPOLIS METROPOLITAN DEVELOPMENT

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

TYPICAL SECTIONS
MICHIGAN STREET
PROPOSED WITH RAIL BRIDGE

HORIZONTAL SCALE	1" = 5'
VERTICAL SCALE	1" = 5'
PROJECT NUMBER	TBD
SHEETS NUMBER	11 OF 159

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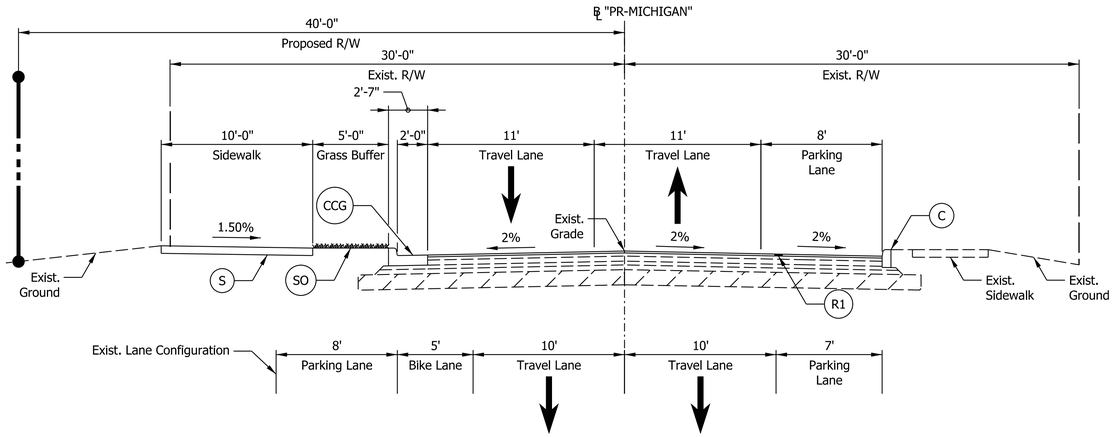
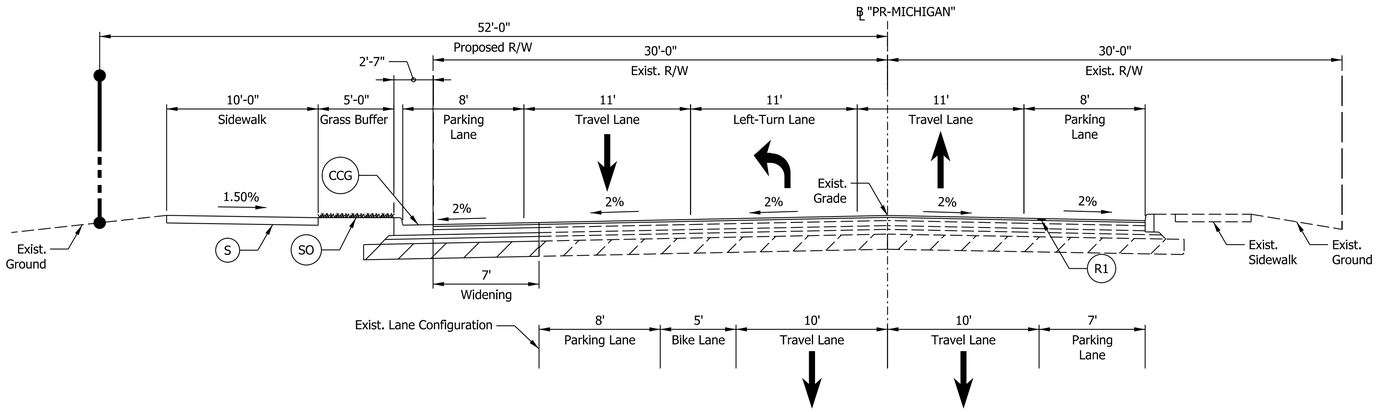


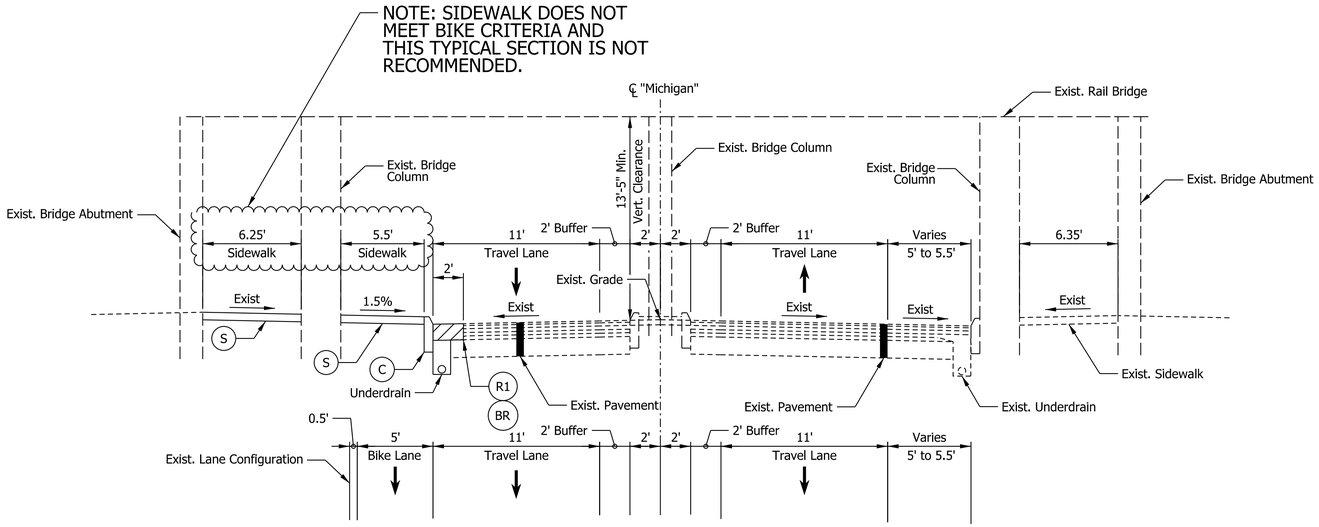
SECTION ON TANGENT

STA. 103+45.79 TO STA. 109+36.70
STA. 110+05.22 TO STA. 116+45.55



SECTION ON TANGENT

STA. 116+45.55 TO STA. 124+10.00



SECTION ON TANGENT

STA. 109+36.70 TO STA. 110+05.22

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3. See Design Guidelines for additional information for features beyond the edge of pavement.

REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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CMT Engineers and Consultants
8790 PURDUE ROAD
INDIANAPOLIS, IN 46268-6128
PHONE: (317) 298-4500

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RECOMMENDED FOR APPROVAL: _____ DESIGN ENGINEER 6/30/2022 DATE

DESIGNED: DDB | DRAWN: DDB
CHECKED: CMR | CHECKED: CMR

INDIANAPOLIS METROPOLITAN DEVELOPMENT

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

TYPICAL SECTIONS MICHIGAN STREET PROPOSED WITH RAIL BRIDGE

HORIZONTAL SCALE	1" = 5'
VERTICAL SCALE	1" = 5'
PROJECT NUMBER	TBD
SHEETS NUMBER	12 OF 159

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CORING LOCATIONS

PAVEMENT CORE LOG NO. PC-9

Page 1 of 1

PROJECT: Sherman Park Infrastructure Development	CLIENT: Crawford, Murphy & Tilly, Inc. Indianapolis, IN
SITE: Sherman Park Indianapolis, IN	

Latitude: 39.7747° Longitude: -86.1029°

Direction: Westbound Lane: Travel

DEPTH	Description
1.6	HMA, 9.5mm surface
3.9	HMA, 19mm base, voided
5.6	Granite/Stone, vertical fracture

Boring Terminated at 5.6 Inches

Downhole Photograph not Available

EARTH EXPLORATION, 7770 W New York St, Indianapolis, IN

Coring Started: 10/9/2020	Coring Completed: 10/9/2020
Drill Rig: Pavement Core Machine	Driller: TB
Project No.: CJ195626	

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. PAVEMENT_CORE_NO_COORDINATES CJ195626 PC.GPJ J6175238 CYPRESS CREEK - R_RECOVERED.GPJ 11/30/20

PAVEMENT CORE LOG NO. PC-10

Page 1 of 1

PROJECT: Sherman Park Infrastructure Development	CLIENT: Crawford, Murphy & Tilly, Inc. Indianapolis, IN
SITE: Sherman Park Indianapolis, IN	

Latitude: 39.7746° Longitude: -86.1043°

Direction: Westbound Lane: Travel

DEPTH	Description
1.1	HMA, 9.5mm surface, partially stripped, vertical fracture
2.0	HMA, 9.5mm surface, partially stripped, vertical fracture, delaminated
4.2	HMA, 12.5mm intermediate, partially stripped
7.2	Granular Subbase, crushed stone

Boring Terminated at 7.2 Inches

Downhole Photograph not Available

EARTH EXPLORATION, 7770 W New York St, Indianapolis, IN

Coring Started: 10/8/2020	Coring Completed: 10/8/2020
Drill Rig: Pavement Core Machine	Driller: TB
Project No.: CJ195626	

PAVEMENT CORE LOG NO. PC-11

Page 1 of 1

PROJECT: Sherman Park Infrastructure Development	CLIENT: Crawford, Murphy & Tilly, Inc. Indianapolis, IN
SITE: Sherman Park Indianapolis, IN	

Latitude: 39.7747° Longitude: -86.105°

Direction: Westbound Lane: Parking

DEPTH	Description
1.0	HMA, 9.5mm surface
2.5	HMA, 12.5mm intermediate, voided
5.8	HMA, 12.5mm intermediate, partially stripped
9.3	Granular Subbase, crushed stone

Boring Terminated at 9.3 Inches

EARTH EXPLORATION, 7770 W New York St, Indianapolis, IN

Coring Started: 10/8/2020	Coring Completed: 10/8/2020
Drill Rig: Pavement Core Machine	Driller: TB
Project No.: CJ195626	

PAVEMENT CORE LOG NO. PC-12

Page 1 of 1

PROJECT: Sherman Park Infrastructure Development	CLIENT: Crawford, Murphy & Tilly, Inc. Indianapolis, IN
SITE: Sherman Park Indianapolis, IN	

Latitude: 39.7746° Longitude: -86.1057°

Direction: Westbound Lane: Travel

DEPTH	Description
2.3	HMA, 9.5mm surface, partially stripped, delaminated
3.0	HMA, 9.5mm surface, partially stripped, delaminated
4.0	HMA, completely stripped, not recovered, granite/stone observed below the pavement

Boring Terminated at 4 Inches

EARTH EXPLORATION, 7770 W New York St, Indianapolis, IN

Coring Started: 10/8/2020	Coring Completed: 10/8/2020
Drill Rig: Pavement Core Machine	Driller: TB
Project No.: CJ195626	

PAVEMENT CORE LOG NO. PC-13

Page 1 of 1

PROJECT: Sherman Park Infrastructure Development	CLIENT: Crawford, Murphy & Tilly, Inc. Indianapolis, IN
SITE: Sherman Park Indianapolis, IN	

Latitude: 39.7746° Longitude: -86.1064°

Direction: Westbound Lane: Travel

DEPTH	Description
1.3	HMA, 9.5mm surface, voided
3.1	HMA, 12.5mm intermediate, voided
3.8	HMA, 9.5mm surface, partially stripped
7.7	Brick/Granite
10.1	PCCP, 0.5" max aggregate size
16.1	Granular Subbase, sand

Boring Terminated at 16.1 Inches

EARTH EXPLORATION, 7770 W New York St, Indianapolis, IN

Coring Started: 10/8/2020	Coring Completed: 10/8/2020
Drill Rig: Pavement Core Machine	Driller: TB
Project No.: CJ195626	

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REVISIONS		
XX/XX/XX	DESCRIPTION	XXX
XX/XX/XX	DESCRIPTION	XXX
XX/XX/XX	DESCRIPTION	XXX
XX/XX/XX	DESCRIPTION	XXX
XX/XX/XX	DESCRIPTION	XXX

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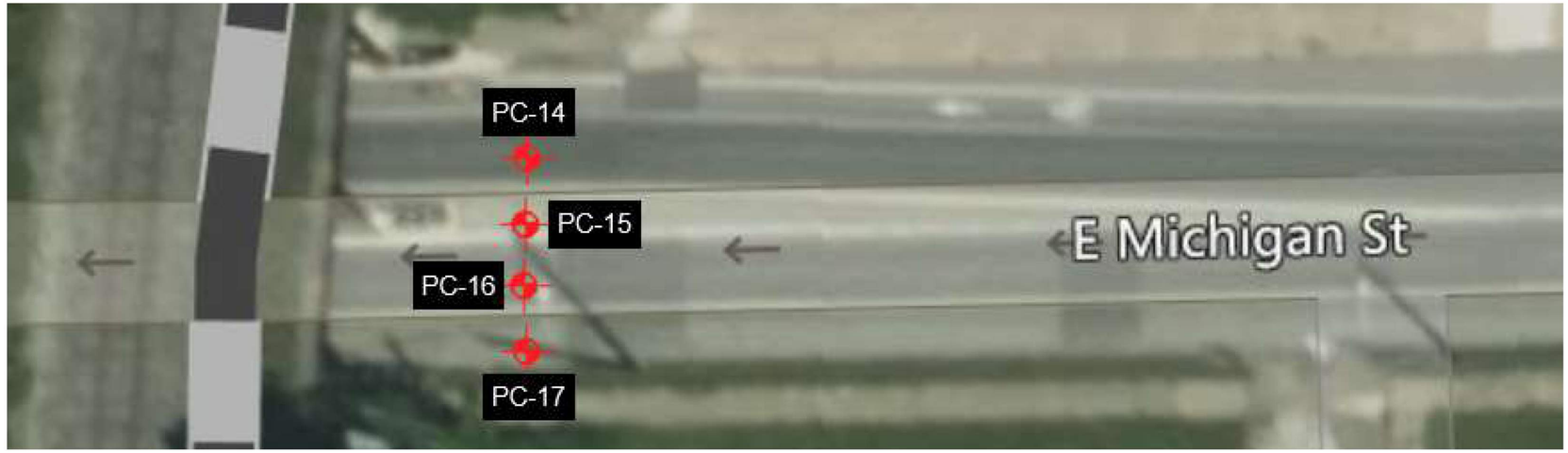
INDIANAPOLIS METROPOLITAN DEVELOPMENT

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

PAVEMENT CORES MICHIGAN STREET

HORIZONTAL SCALE	N/A
PROJECT NUMBER	TBD
SHEETS NUMBER	13 OF 159

CORING LOCATIONS



PAVEMENT CORE LOG NO. PC-14 Page 1 of 1

PROJECT: Sherman Park Infrastructure Development | CLIENT: Crawford, Murphy & Tilly, Inc. Indianapolis, IN

SITE: Sherman Park Indianapolis, IN

Latitude: 39.7746° Longitude: -86.1072°

Direction: Westbound Lane: Travel

DEPTH	
0.0	HMA, 9.5mm surface, voided
1.1	HMA, 9.5mm surface, partially stripped
1.8	HMA, 9.5mm surface, partially stripped
3.1	Brick
8.1	Granular Subbase, sand and gravel
9.6	*Boring Terminated at 9.6 Inches*

EARTH EXPLORATION 7770 W New York St Indianapolis, IN

Coring Started: 10/8/2020 | Coring Completed: 10/8/2020

Drill Rig: Pavement Core Machine | Driller: TB

Project No.: CJ195626

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT ... PAVEMENT_CORE_NO_COORDINATES_CJ195626.PC.GPJ ... JEFFERSON CYPRESS CREEK ... RECOVERED.GPJ 1/3/2020

PAVEMENT CORE LOG NO. PC-15 Page 1 of 1

PROJECT: Sherman Park Infrastructure Development | CLIENT: Crawford, Murphy & Tilly, Inc. Indianapolis, IN

SITE: Sherman Park Indianapolis, IN

Latitude: 39.7746° Longitude: -86.1072°

Lane: Gore

DEPTH	
0.0	HMA, 9.5mm surface, voided, partially stripped, delaminated
1.8	HMA, 12.5mm intermediate, partially stripped
4.6	Brick, horizontal fracture near 6.0"
8.6	*Boring Terminated at 8.6 Inches*

EARTH EXPLORATION 7770 W New York St Indianapolis, IN

Coring Started: 10/8/2020 | Coring Completed: 10/8/2020

Drill Rig: Pavement Core Machine | Driller: TB

Project No.: CJ195626

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT ... PAVEMENT_CORE_NO_COORDINATES_CJ195626.PC.GPJ ... JEFFERSON CYPRESS CREEK ... RECOVERED.GPJ 1/3/2020

PAVEMENT CORE LOG NO. PC-16 Page 1 of 1

PROJECT: Sherman Park Infrastructure Development | CLIENT: Crawford, Murphy & Tilly, Inc. Indianapolis, IN

SITE: Sherman Park Indianapolis, IN

Latitude: 39.7746° Longitude: -86.1072°

Direction: Westbound Lane: Travel

DEPTH	
0.0	HMA, 9.5mm surface, voided
1.7	HMA, 9.5mm surface, delaminated, partially stripped
2.7	HMA, 9.5mm surface, partially stripped
4.2	HMA, 19mm base, partially stripped
7.6	Granular Subbase, crushed stone
7.6	*Boring Terminated at 7.6 Inches*

EARTH EXPLORATION 7770 W New York St Indianapolis, IN

Coring Started: 10/8/2020 | Coring Completed: 10/8/2020

Drill Rig: Pavement Core Machine | Driller: TB

Project No.: CJ195626

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT ... PAVEMENT_CORE_NO_COORDINATES_CJ195626.PC.GPJ ... JEFFERSON CYPRESS CREEK ... RECOVERED.GPJ 1/3/2020

PAVEMENT CORE LOG NO. PC-17 Page 1 of 1

PROJECT: Sherman Park Infrastructure Development | CLIENT: Crawford, Murphy & Tilly, Inc. Indianapolis, IN

SITE: Sherman Park Indianapolis, IN

Latitude: 39.7746° Longitude: -86.1072°

Direction: Westbound Lane: Shoulder

DEPTH	
0.0	HMA, 9.5mm surface, voided
2.1	HMA, 12.5mm intermediate, partially stripped
4.7	Brick, fractured
8.5	Granular Subbase, crushed stone
10.5	*Boring Terminated at 10.5 Inches*

EARTH EXPLORATION 7770 W New York St Indianapolis, IN

Coring Started: 10/8/2020 | Coring Completed: 10/8/2020

Drill Rig: Pavement Core Machine | Driller: TB

Project No.: CJ195626

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT ... PAVEMENT_CORE_NO_COORDINATES_CJ195626.PC.GPJ ... JEFFERSON CYPRESS CREEK ... RECOVERED.GPJ 1/3/2020

REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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CHECKED: CMR | CHECKED: CMR

THE CITY OF INDIANAPOLIS METROPOLITAN DEVELOPMENT

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

PAVEMENT CORES
MICHIGAN STREET

HORIZONTAL SCALE
N/A

PROJECT NUMBER
TBD
SHEETS NUMBER
14 OF 159

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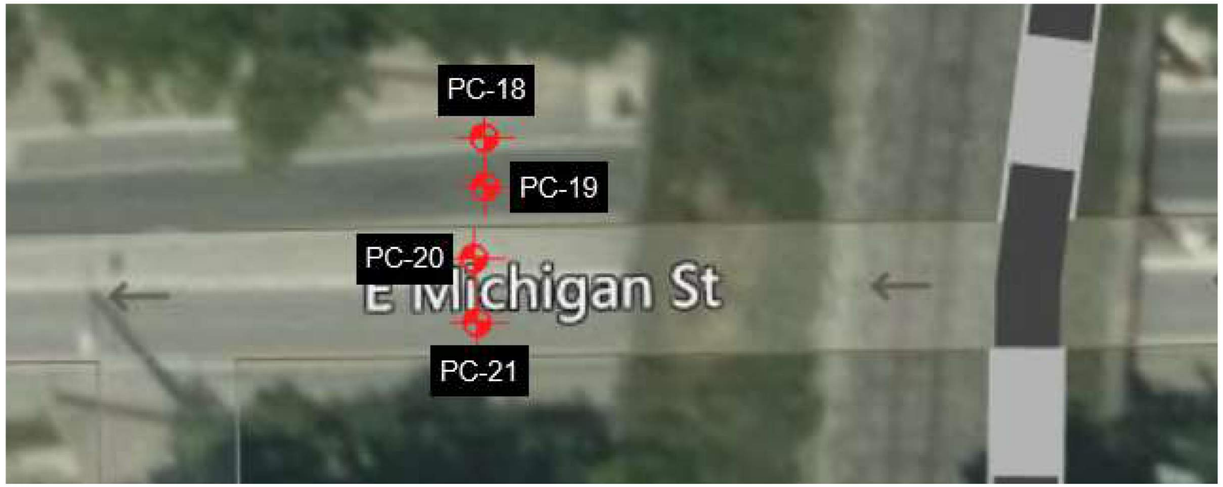
CORING LOCATIONS



PAVEMENT CORE LOG NO. PC-18

Page 1 of 1

PROJECT: Sherman Park Infrastructure Development
CLIENT: Crawford, Murphy & Tilly, Inc. Indianapolis, IN
SITE: Sherman Park Indianapolis, IN

Latitude: 39.7747° Longitude: -86.1076°
Direction: Westbound Lane: Bike Lane

DEPTH		DEPTH (in.)
0.0	**HMA**, 9.5mm surface, voided, delaminated	1
2.2	**HMA**, 9.5mm surface, voided, partially stripped	2 3 4 5
5.1	**Brick**	6 7 8
9.8	**PCCP**, 1.0" max aggregate size, fractured	9 10
10.6	**Granular Subbase**, sand and gravel	11
12.6	***Boring Terminated at 12.6 Inches***	12

EARTH EXPLORATION 7770 W New York St Indianapolis, IN | Coring Started: 10/6/2020 | Coring Completed: 10/6/2020 | Drill Rig: Pavement Core Machine | Driller: TB | Project No.: CJ195626

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. PAVEMENT_CORE_NO_COORDINATES_CJ195626 FC.GPJ JEFFERSON CYPRESS CREEK_A_RECOVERED.GPJ 11/20/20

PAVEMENT CORE LOG NO. PC-19

Page 1 of 1

PROJECT: Sherman Park Infrastructure Development
CLIENT: Crawford, Murphy & Tilly, Inc. Indianapolis, IN
SITE: Sherman Park Indianapolis, IN

Latitude: 39.7746° Longitude: -86.1076°
Direction: Westbound Lane: Travel

DEPTH		DEPTH (in.)
0.0	**HMA**, 9.5mm surface, voided, partially stripped, delaminated	1
2.2	**HMA**, 12.5mm intermediate, partially stripped, delaminated	2
2.4	**HMA**, completely stripped, not recovered	3
4.7	**HMA**, 4.75mm surface	4
5.0	**Brick**	5 6 7
9.0	**Granular Subbase**, sand and gravel	8 9 10
11.5	***Boring Terminated at 11.5 Inches***	11

EARTH EXPLORATION 7770 W New York St Indianapolis, IN | Coring Started: 10/6/2020 | Coring Completed: 10/6/2020 | Drill Rig: Pavement Core Machine | Driller: TB | Project No.: CJ195626

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PAVEMENT CORE LOG NO. PC-20

Page 1 of 1

PROJECT: Sherman Park Infrastructure Development
CLIENT: Crawford, Murphy & Tilly, Inc. Indianapolis, IN
SITE: Sherman Park Indianapolis, IN

Latitude: 39.7746° Longitude: -86.1076°
Lane: Gore

DEPTH		DEPTH (in.)
0.0	**HMA**, 9.5mm surface, voided	1
1.5	**HMA**, 19mm base, voided, partially stripped, delaminatec	2
2.8	**HMA**, 12.5mm intermediate, partially stripped	3 4
4.5	**Brick**, horizontal fracture near 7.3"	5 6 7
8.5	***Boring Terminated at 8.5 Inches***	8

EARTH EXPLORATION 7770 W New York St Indianapolis, IN | Coring Started: 10/6/2020 | Coring Completed: 10/6/2020 | Drill Rig: Pavement Core Machine | Driller: TB | Project No.: CJ195626

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PAVEMENT CORE LOG NO. PC-21

Page 1 of 1

PROJECT: Sherman Park Infrastructure Development
CLIENT: Crawford, Murphy & Tilly, Inc. Indianapolis, IN
SITE: Sherman Park Indianapolis, IN

Latitude: 39.7746° Longitude: -86.1076°
Direction: Westbound Lane: Travel

DEPTH		DEPTH (in.)
0.0	**HMA**, 9.5mm surface, voided, delaminated	1
1.6	**HMA**, 12.5mm intermediate, partially stripped	2
3.3	**HMA**, 19mm base	3 4
5.2	**Granular Subbase**, crushed stone	5 6 7 8
9.7	***Boring Terminated at 9.7 Inches***	9

EARTH EXPLORATION 7770 W New York St Indianapolis, IN | Coring Started: 10/6/2020 | Coring Completed: 10/6/2020 | Drill Rig: Pavement Core Machine | Driller: TB | Project No.: CJ195626

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. PAVEMENT_CORE_NO_COORDINATES_CJ195626 FC.GPJ JEFFERSON CYPRESS CREEK_A_RECOVERED.GPJ 11/20/20

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REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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CHECKED: CMR | CHECKED: CMR

THE CITY OF INDIANAPOLIS METROPOLITAN DEVELOPMENT

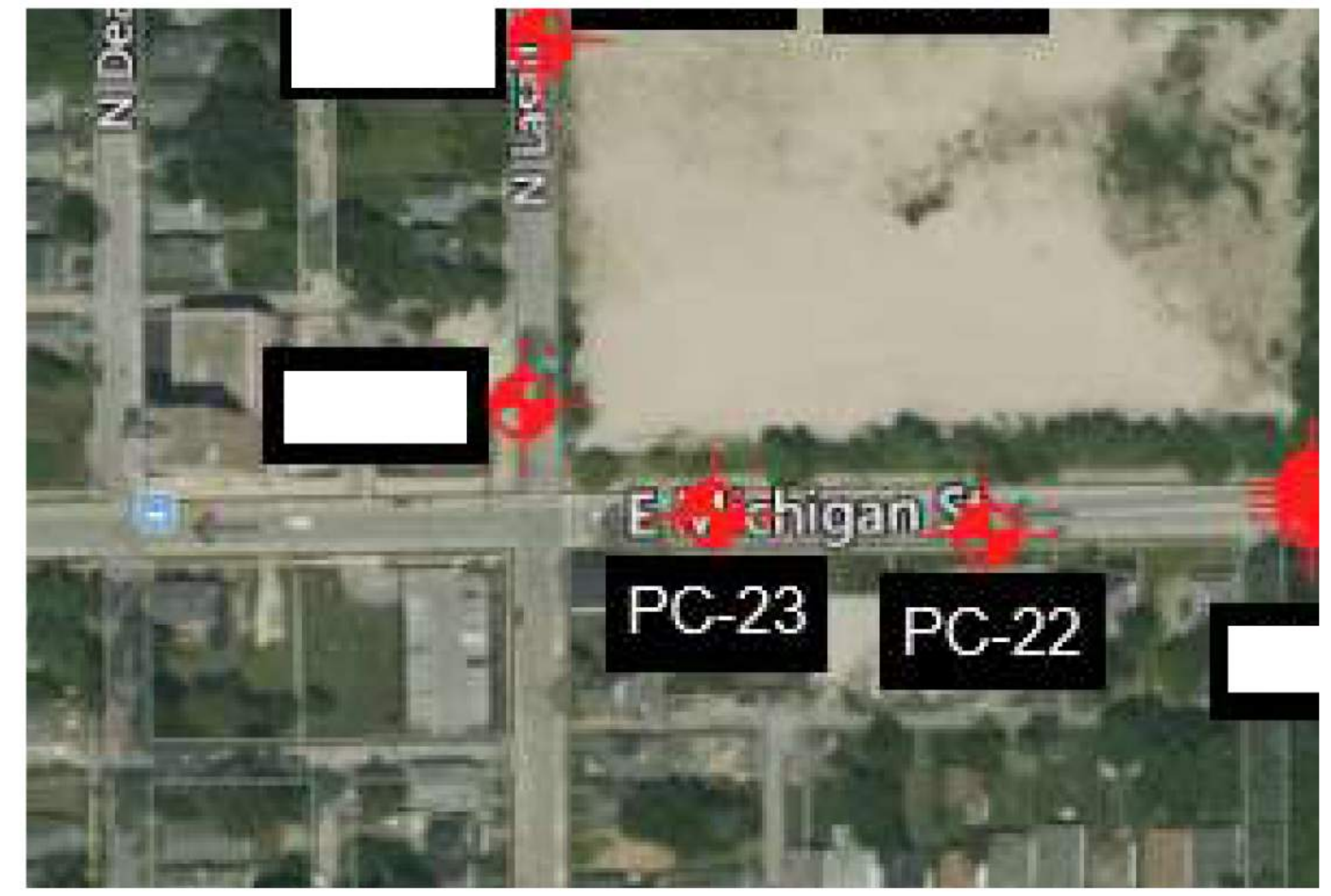
CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

PAVEMENT CORES MICHIGAN STREET

HORIZONTAL SCALE
N/A

PROJECT NUMBER
TBD
SHEETS NUMBER
15 OF 159

CORING LOCATIONS



PAVEMENT CORE LOG NO. PC-22

Page 1 of 1

PROJECT: Sherman Park Infrastructure Development	CLIENT: Crawford, Murphy & Tilly, Inc. Indianapolis, IN
SITE: Sherman Park Indianapolis, IN	

Latitude: 39.7746° Longitude: -86.1085°

Direction: Westbound | Lane: Shoulder

DEPTH	Description
1.8	**HMA**, 9.5mm surface, voided, partially stripped
3.7	**HMA**, 9.5mm surface, voided, partially stripped
5.2	**HMA**, 9.5mm surface, partially stripped, delaminated
6.0	**HMA**, 9.5mm surface, partially stripped
10.0	**Granular Subbase**, sand and gravel

Boring Terminated at 10 Inches

EARTH EXPLORATION — 7770 W New York St, Indianapolis, IN

Coring Started: 10/9/2020	Coring Completed: 10/9/2020
Drill Rig: Pavement Core Machine	Driller: TB
Project No.: CJ195626	

CORE_NO_COORDINATES CJ195626 PC.GPJ J6175238 CYPRESS CREEK - R_RECOVERED.GPJ 11/30/20

PAVEMENT CORE LOG NO. PC-23

Page 1 of 1

PROJECT: Sherman Park Infrastructure Development	CLIENT: Crawford, Murphy & Tilly, Inc. Indianapolis, IN
SITE: Sherman Park Indianapolis, IN	

Latitude: 39.7746° Longitude: -86.1092°

Direction: Westbound | Lane: Travel

DEPTH	Description
1.5	**HMA**, 9.5mm surface, voided
3.2	**HMA**, 12.5mm intermediate, voided, partially stripped, delaminated
3.9	**HMA**, 12.5mm intermediate
5.0	**HMA**, 9.5mm surface, partially stripped, delaminated
11.0	**Granite/Stone**
13.0	**Granular Subbase**, sand and gravel

Boring Terminated at 13 Inches

Downhole Photograph not Available

EARTH EXPLORATION — 7770 W New York St, Indianapolis, IN

Coring Started: 10/9/2020	Coring Completed: 10/9/2020
Drill Rig: Pavement Core Machine	Driller: TB
Project No.: CJ195626	

CORE_NO_COORDINATES CJ195626 PC.GPJ J6175238 CYPRESS CREEK - R_RECOVERED.GPJ 11/30/20

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REVISIONS			
XX/XX/XX	△	DESCRIPTION	XXX
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XX/XX/XX	△	DESCRIPTION	XXX
XX/XX/XX	△	DESCRIPTION	XXX
XX/XX/XX	△	DESCRIPTION	XXX

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CHECKED: CMR | CHECKED: CMR

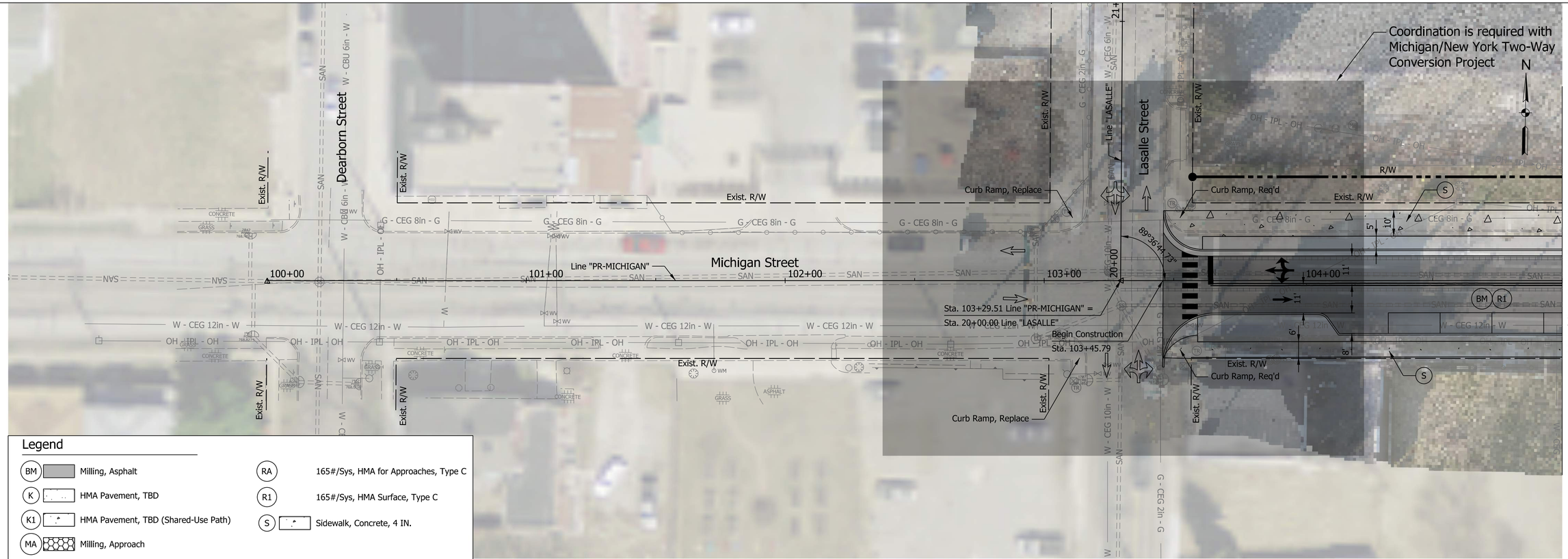
INDIANAPOLIS METROPOLITAN DEVELOPMENT

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

PAVEMENT CORES MICHIGAN STREET

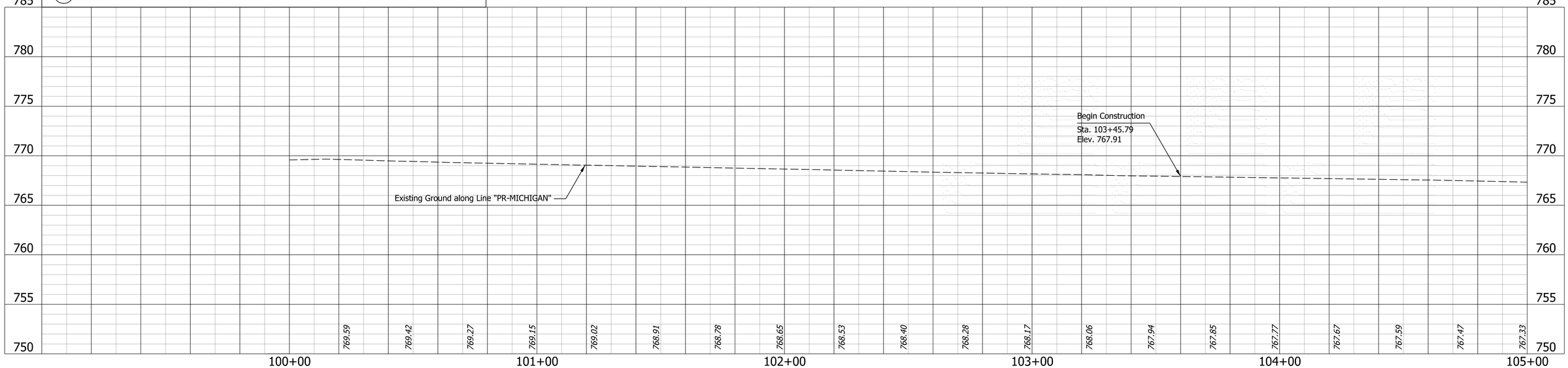
HORIZONTAL SCALE: N/A

PROJECT NUMBER: TBD



Legend

- BM — Milling, Asphalt
- K — HMA Pavement, TBD
- K1 — HMA Pavement, TBD (Shared-Use Path)
- MA — Milling, Approach
- PR — Pavement Removal
- CD — HMA Pavement, TBD
- RA — 165#/Sys, HMA for Approaches, Type C
- R1 — 165#/Sys, HMA Surface, Type C
- S — Sidewalk, Concrete, 4 IN.



REVISIONS			
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XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

0 20 40 80

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DESIGN ENGINEER DATE

DESIGNED: LKJ | DRAWN: LKJ
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THE CITY OF INDIANAPOLIS METROPOLITAN DEVELOPMENT

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

PLAN AND PROFILE SHEET TWO-WAY MICHIGAN STREET LINE "PR-MICHIGAN"

HORIZONTAL SCALE	1" = 20'
VERTICAL SCALE	1" = 10'
PROJECT NUMBER	TBD
SHEETS NUMBER	17 OF 159

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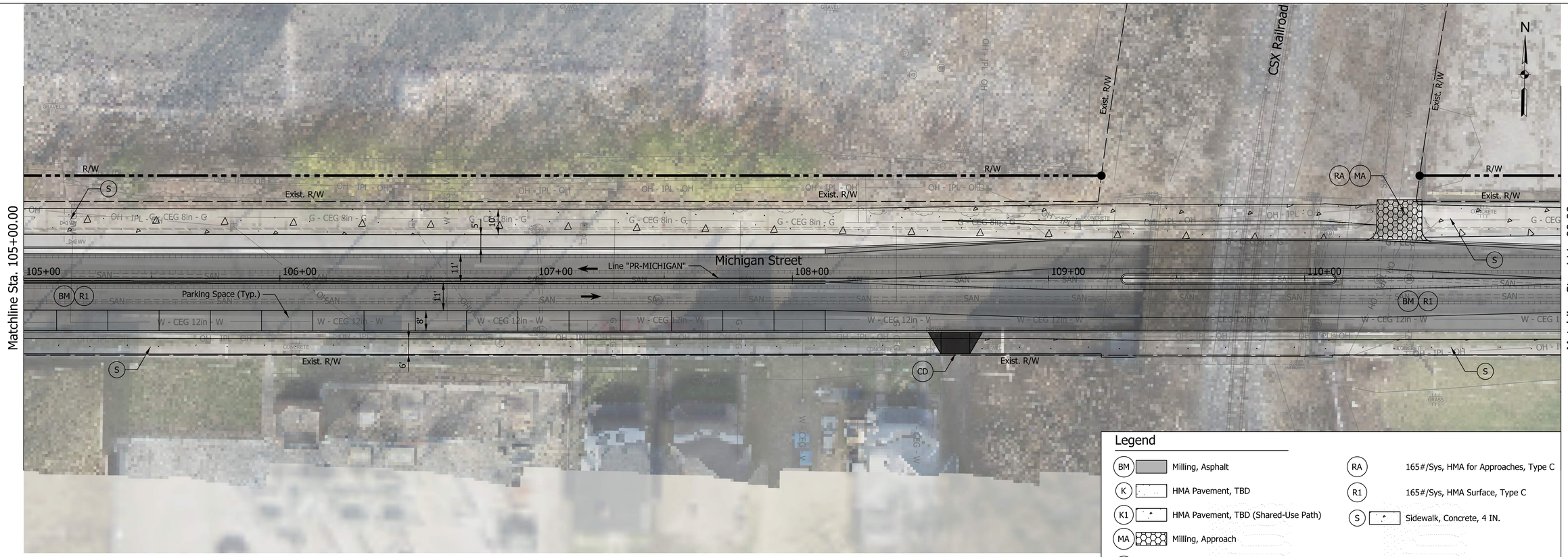

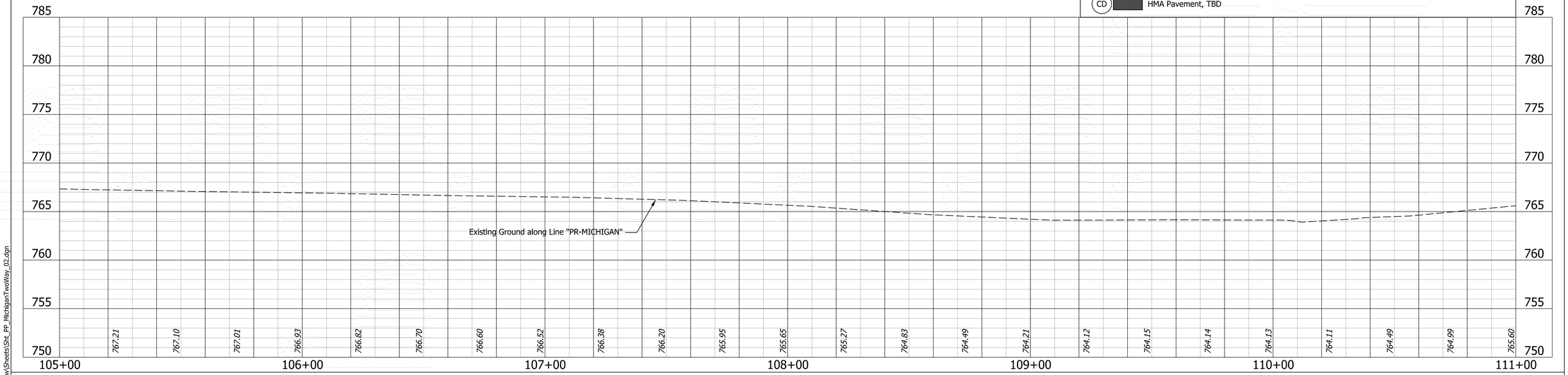

REVISIONS			
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XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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THE CITY OF INDIANAPOLIS METROPOLITAN DEVELOPMENT

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

PLAN AND PROFILE SHEET
TWO-WAY MICHIGAN STREET
LINE "PR-MICHIGAN"

HORIZONTAL SCALE	1" = 20'
VERTICAL SCALE	1" = 10'
PROJECT NUMBER	TBD
SHEETS NUMBER	18 OF 159

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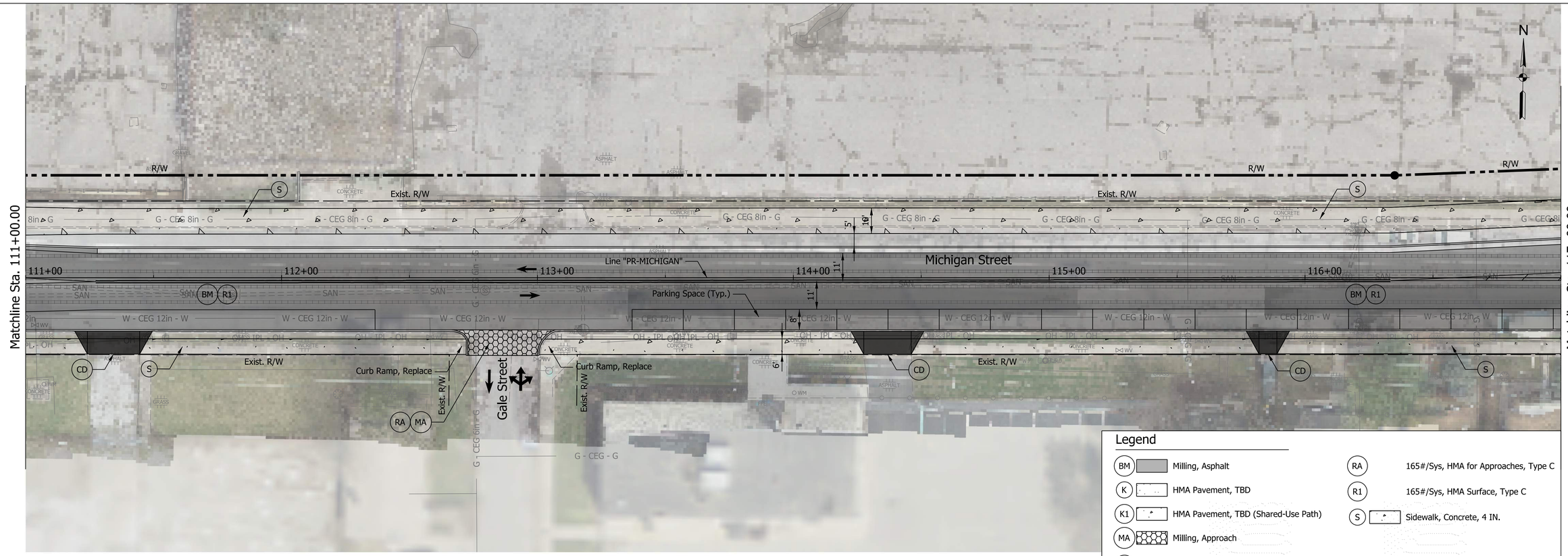

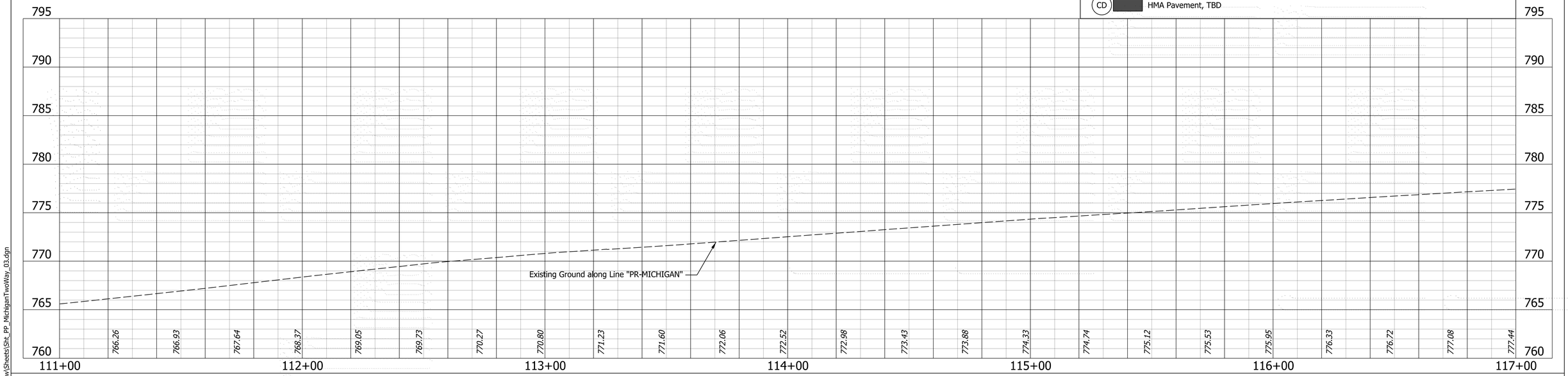

REVISIONS			
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XX/XX/XX	A	DESCRIPTION	XXX
XX/XX/XX	A	DESCRIPTION	XXX
XX/XX/XX	A	DESCRIPTION	XXX

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CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

PLAN AND PROFILE SHEET
TWO-WAY MICHIGAN STREET
LINE "PR-MICHIGAN"

HORIZONTAL SCALE	1" = 20'
VERTICAL SCALE	1" = 10'
PROJECT NUMBER	TBD
SHEETS NUMBER	19 OF 159

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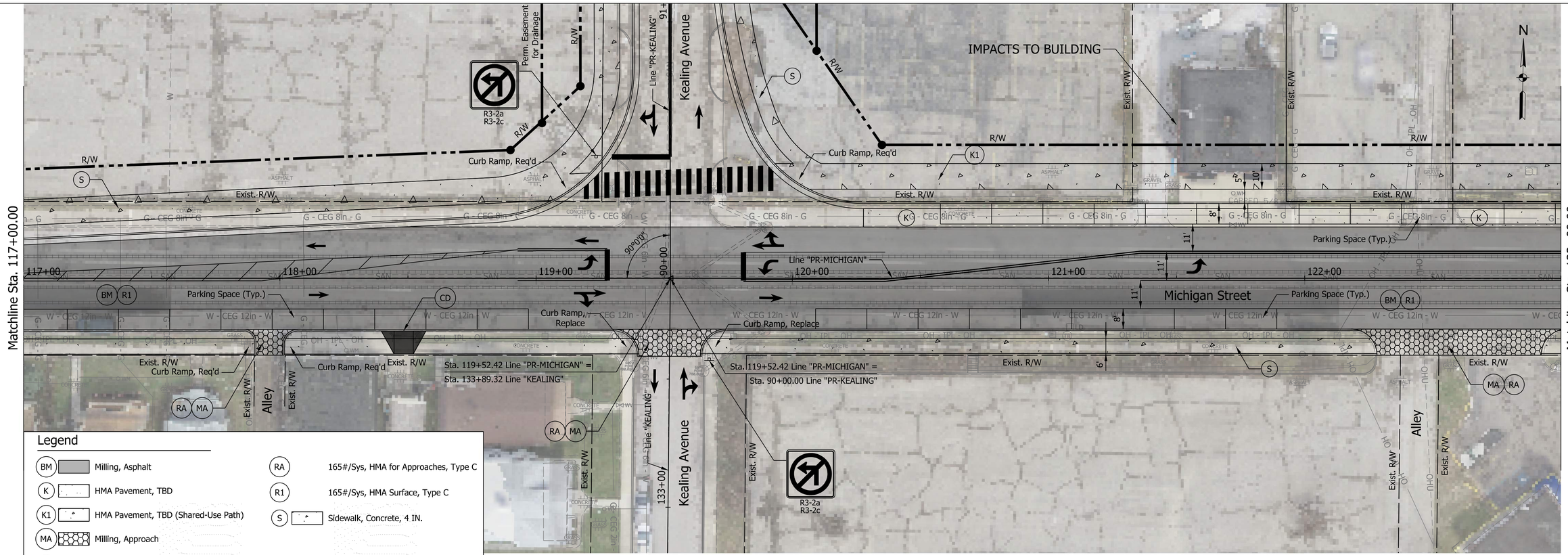
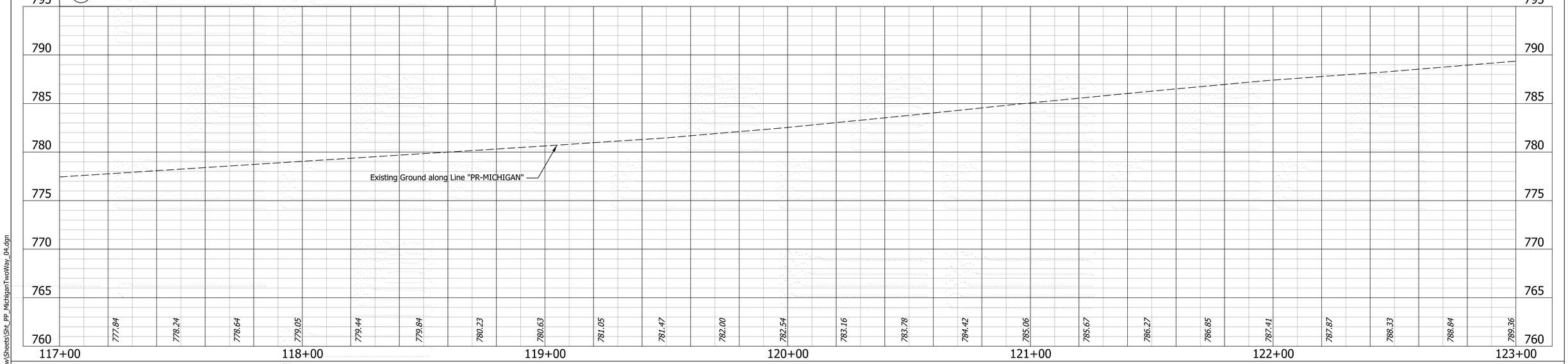


Legend

BM	Milling, Asphalt	
K	HMA Pavement, TBD	
K1	HMA Pavement, TBD (Shared-Use Path)	
MA	Milling, Approach	
PR	Pavement Removal	
CD	HMA Pavement, TBD	
RA	165#/Sys, HMA for Approaches, Type C	
R1	165#/Sys, HMA Surface, Type C	
S	Sidewalk, Concrete, 4 IN.	



REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

0 20 40 80

Know what's below. Call before you dig.

CMT Engineers and Consultants
8790 PURDUE ROAD
INDIANAPOLIS, IN 46268-6128
PHONE: (317) 298-4500

Not For Construction

RECOMMENDED FOR APPROVAL: _____ 6/30/2022
DESIGN ENGINEER DATE

DESIGNED: LKJ | DRAWN: LKJ
CHECKED: CMR | CHECKED: CMR

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

PLAN AND PROFILE SHEET
TWO-WAY MICHIGAN STREET
LINE "PR-MICHIGAN"

HORIZONTAL SCALE	1" = 20'
VERTICAL SCALE	1" = 10'
PROJECT NUMBER	TBD
SHEETS NUMBER	20 OF 159

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Coordination is required with Michigan/New York Two-Way Conversion Project

Matchline Sta. 123+00.00

Sherman Drive

Bradley Avenue

Michigan Street

Alley

Curb Ramp, Req'd

Curb Ramp, Replace

Parking Space (Typ.)

End Construction
Sta. 124+58.55

Line "PR-MICHIGAN"

Sta. 124+22.87 Line "PR-MICHIGAN" =
Sta. 13+05.80 Line "PR-SHERMAN"

Line "PR-SHERMAN"

Exist. R/W

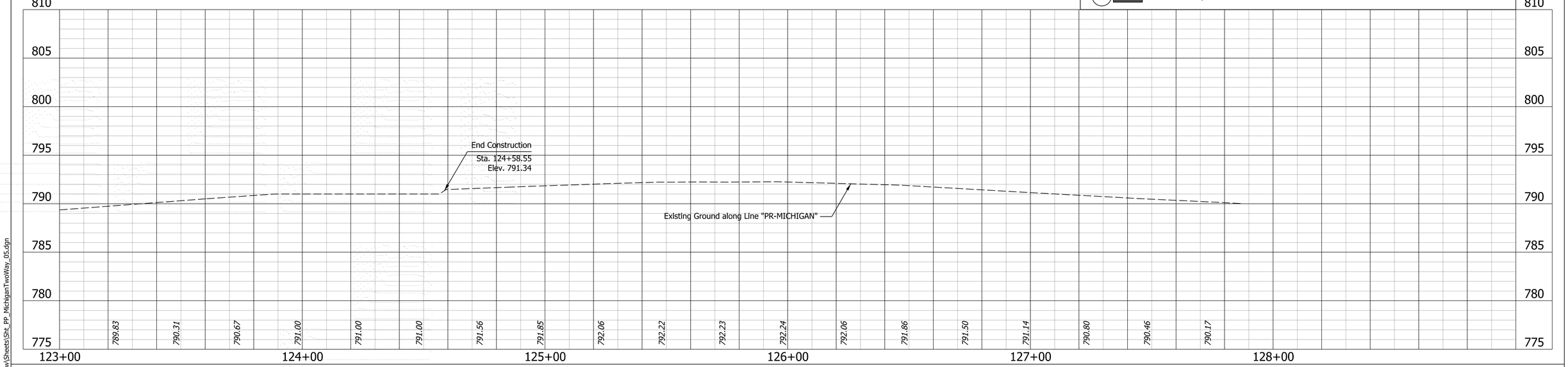
90°51.12"

123+00 124+00 125+00 126+00 127+00

N

Legend

BM	Milling, Asphalt	RA	165#/Sys, HMA for Approaches, Type C
K	HMA Pavement, TBD	R1	165#/Sys, HMA Surface, Type C
K1	HMA Pavement, TBD (Shared-Use Path)	S	Sidewalk, Concrete, 4 IN.
MA	Milling, Approach		
PR	Pavement Removal		
CD	HMA Pavement, TBD		



REVISIONS			
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XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

0 20 40 80

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CHECKED: CMR | CHECKED: CMR

THE CITY OF INDIANAPOLIS METROPOLITAN DEVELOPMENT

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

PLAN AND PROFILE SHEET
TWO-WAY MICHIGAN STREET
LINE "PR-MICHIGAN"

HORIZONTAL SCALE	1" = 20'
VERTICAL SCALE	1" = 10'
PROJECT NUMBER	TBD
SHEETS NUMBER	21 OF 159

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REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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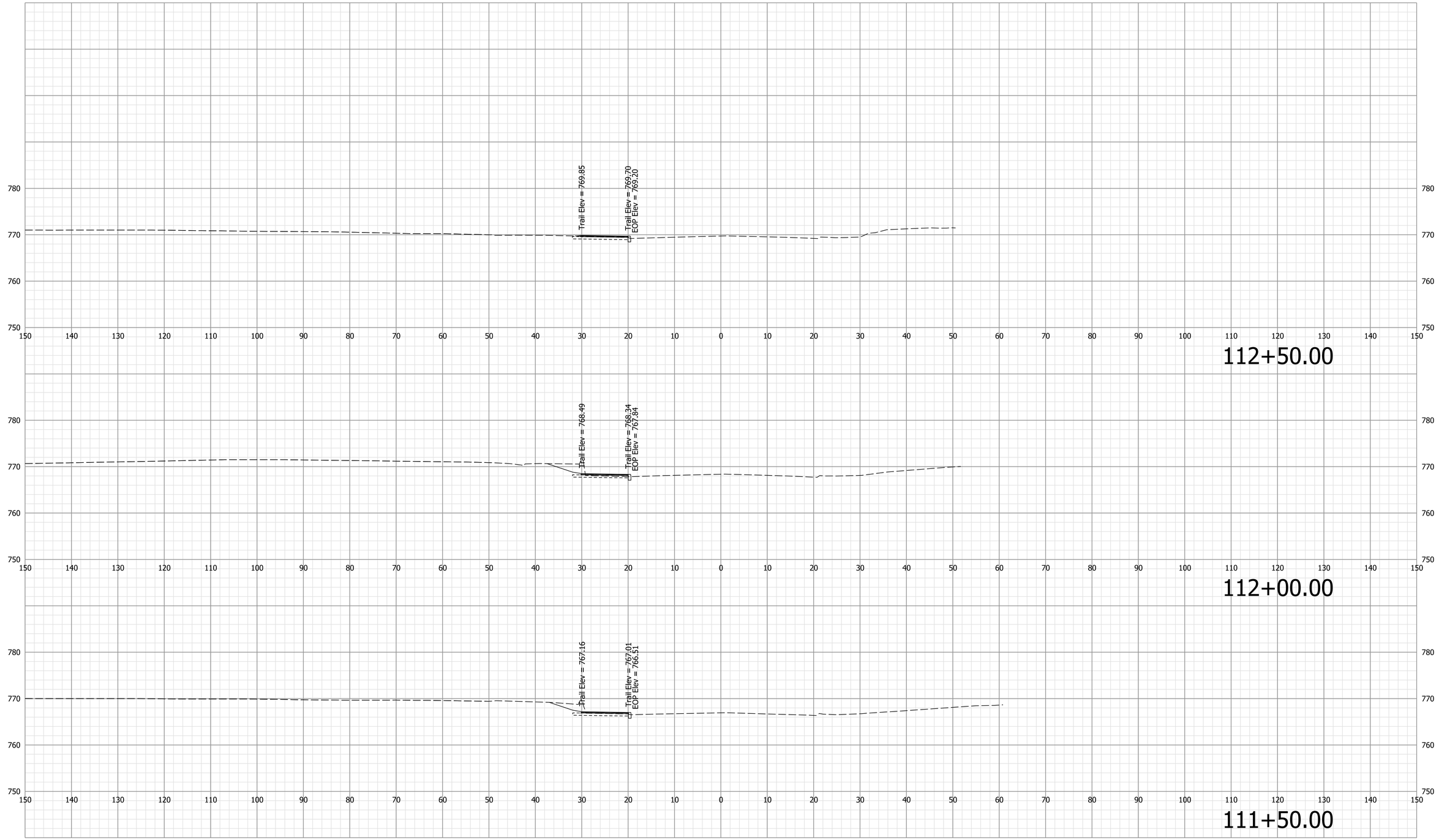
DESIGN ENGINEER DATE

DESIGNED: DDB | DRAWN: DDB
CHECKED: CMR | CHECKED: CMR

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

CROSS SECTIONS
LINE "PR-MICHIGAN"

HORIZONTAL SCALE	1" = 10'
VERTICAL SCALE	1" = 10'
PROJECT NUMBER	TBD
SHEETS NUMBER	22 OF 159



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REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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DESIGN ENGINEER DATE

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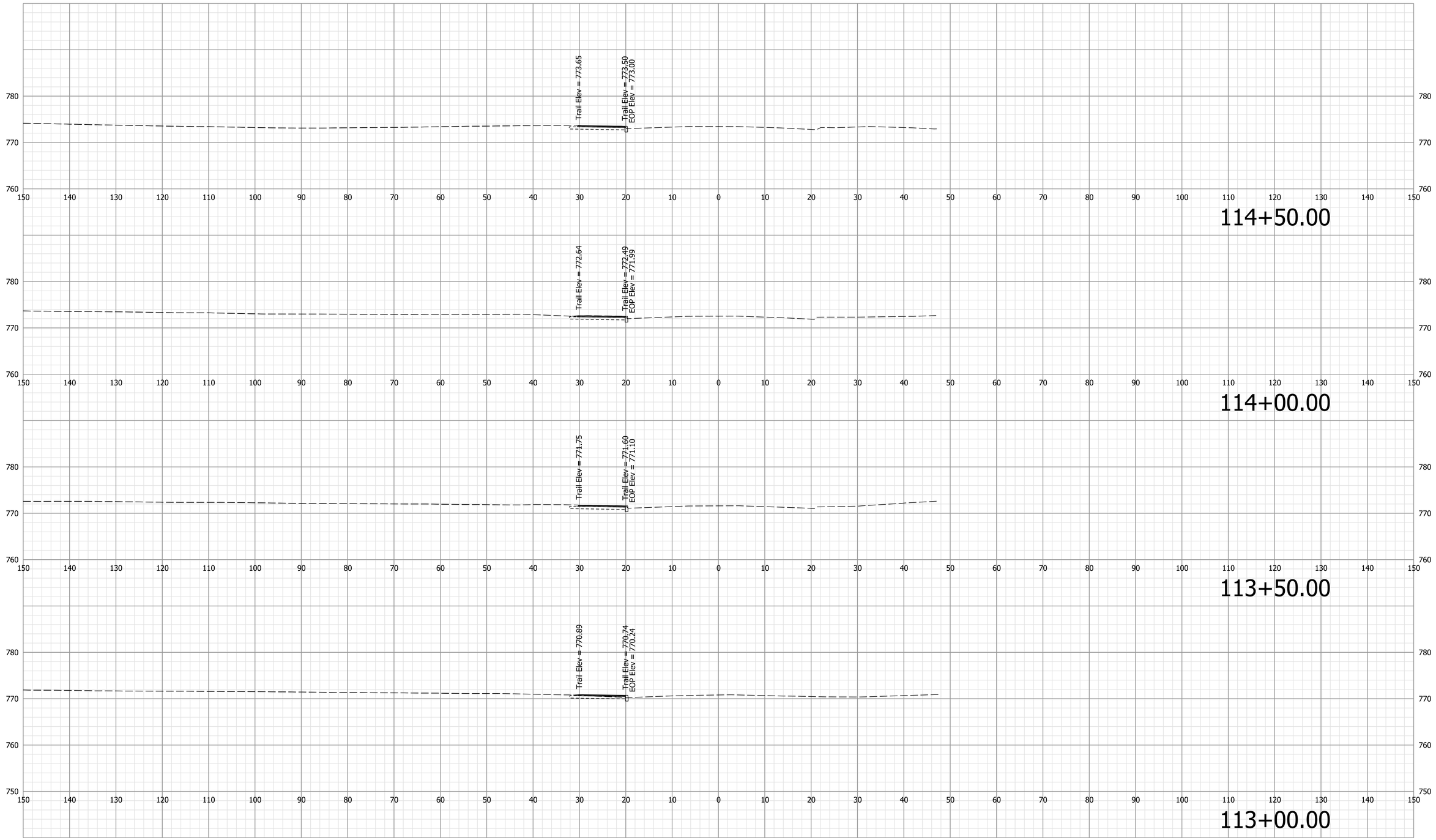
CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

CROSS SECTIONS
LINE "PR-MICHIGAN"

HORIZONTAL SCALE	1" = 10'
VERTICAL SCALE	1" = 10'
PROJECT NUMBER	TBD
SHEETS NUMBER	23 OF 159



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REVISIONS			
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XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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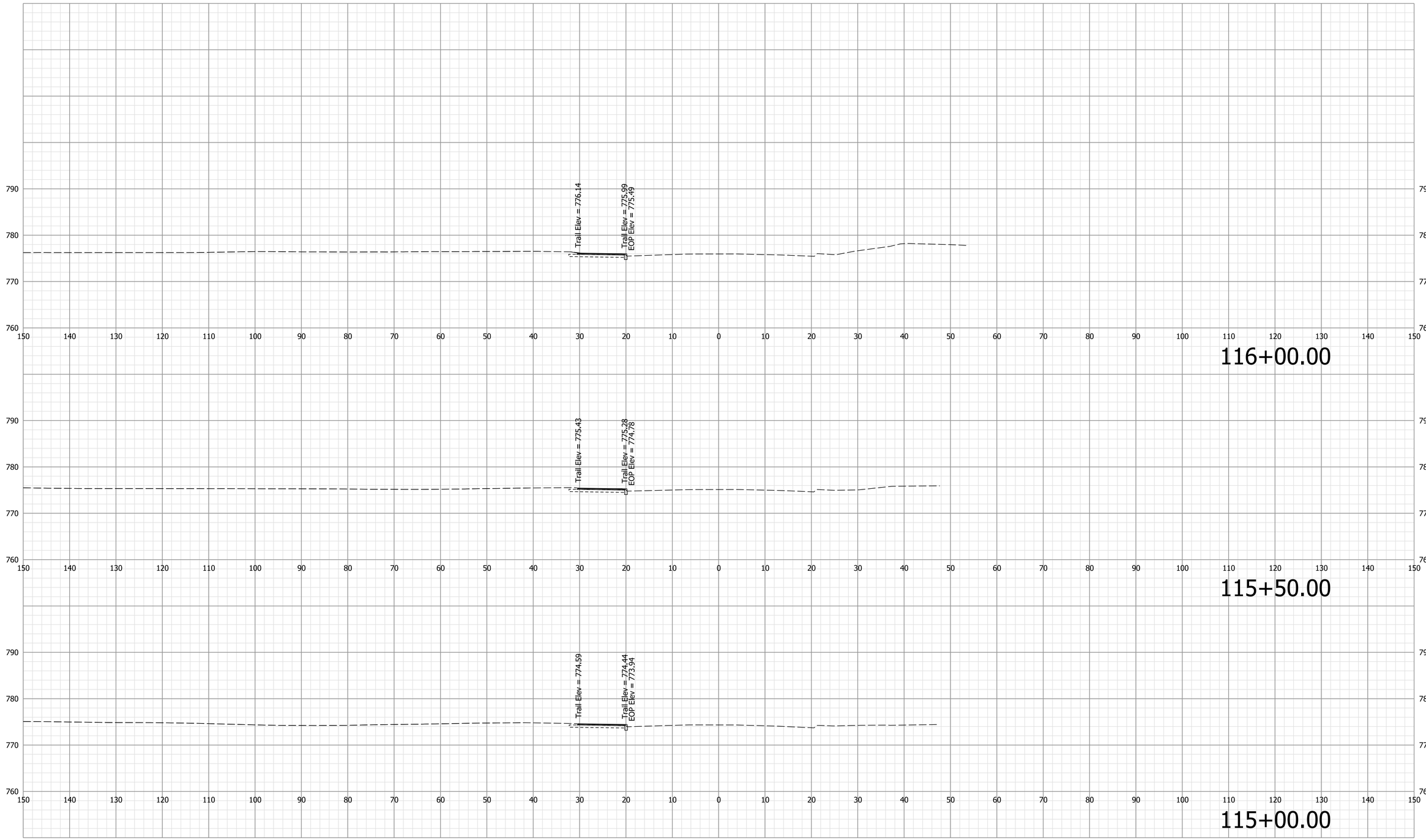
CHECKED: CMR | CHECKED: CMR

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

CROSS SECTIONS LINE "PR-MICHIGAN"

HORIZONTAL SCALE	1" = 10'
VERTICAL SCALE	1" = 10'
PROJECT NUMBER	TBD
SHEETS NUMBER	24 OF 159



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REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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DESIGN ENGINEER DATE

DESIGNED: DDB	DRAWN: DDB
CHECKED: CMR	CHECKED: CMR

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

CROSS SECTIONS
LINE "PR-MICHIGAN"

HORIZONTAL SCALE
1" = 10'
VERTICAL SCALE
1" = 10'
PROJECT NUMBER
TBD
SHEETS NUMBER
25 OF 159

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REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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DESIGN ENGINEER DATE

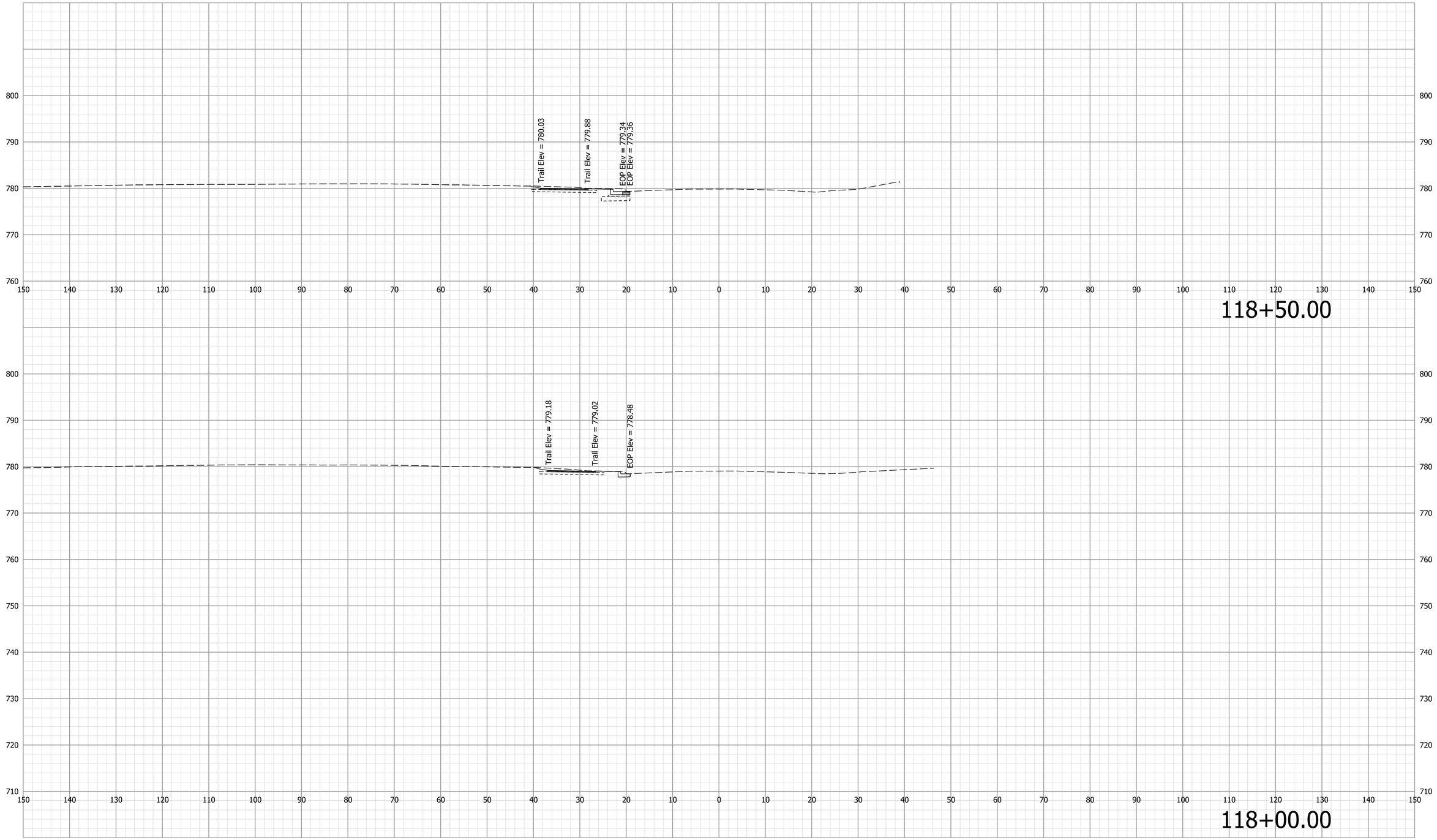
DESIGNED: DDB | DRAWN: DDB
CHECKED: CMR | CHECKED: CMR

THE CITY OF INDIANAPOLIS DEPARTMENT OF PUBLIC WORKS

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

CROSS SECTIONS LINE "PR-MICHIGAN"

HORIZONTAL SCALE
1" = 10'
VERTICAL SCALE
1" = 10'
PROJECT NUMBER
TBD
SHEETS NUMBER
26 OF 159



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REVISIONS			
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XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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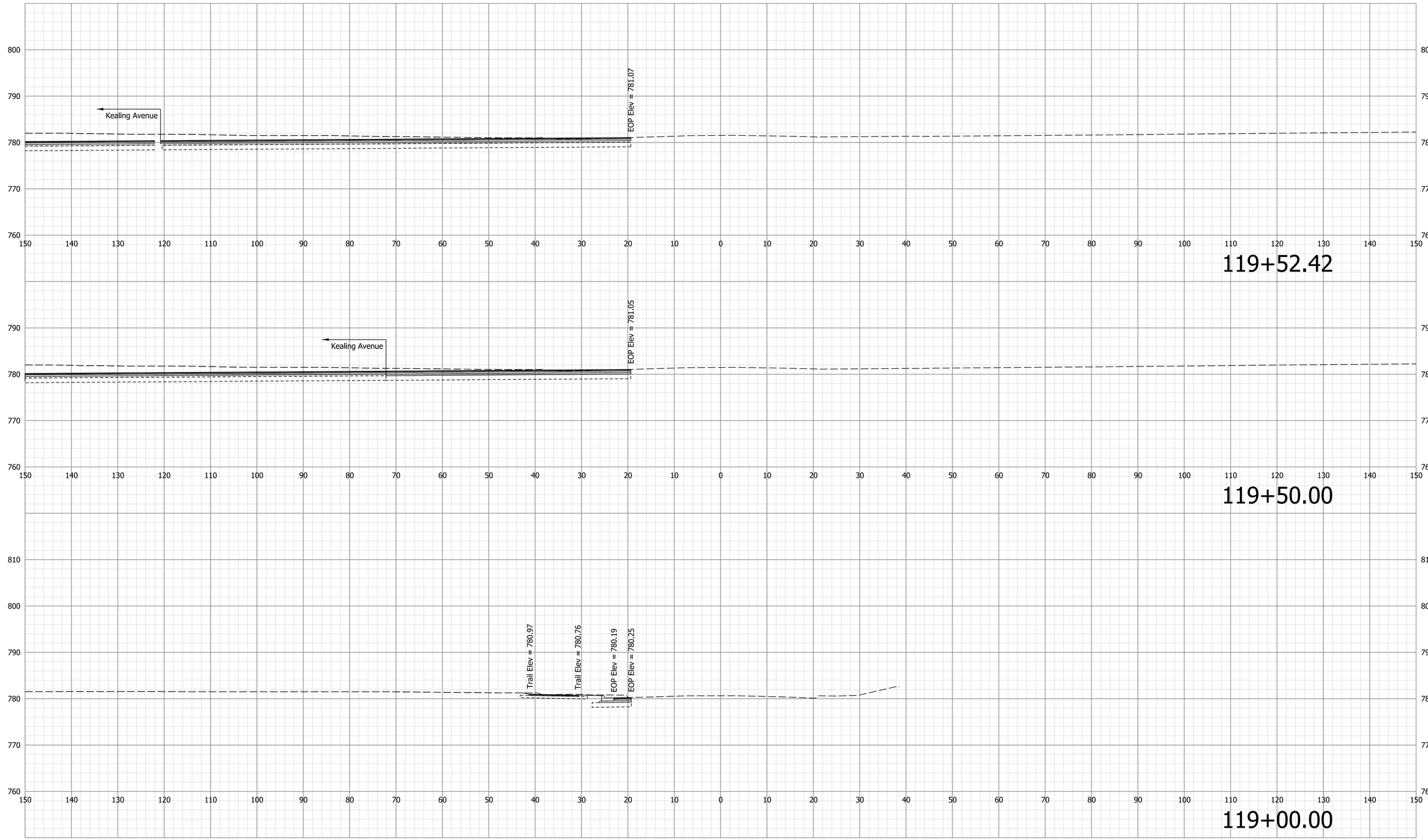
CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

CROSS SECTIONS
LINE "PR-MICHIGAN"

HORIZONTAL SCALE
1" = 10'
VERTICAL SCALE
1" = 10'
PROJECT NUMBER
TBD
SHEETS NUMBER
27 OF 159



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REVISIONS			
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XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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DESIGN ENGINEER DATE

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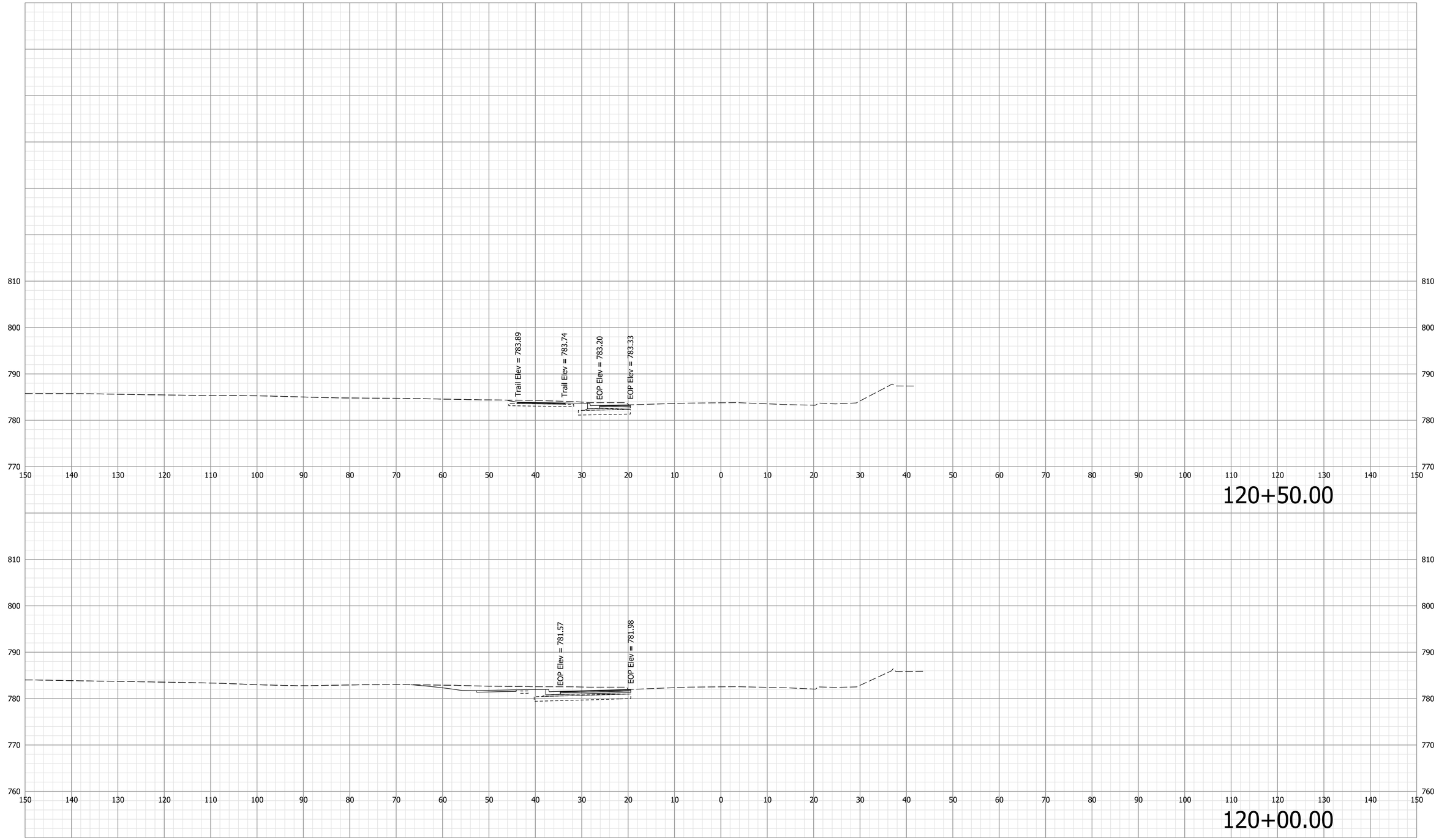
CHECKED: CMR | CHECKED: CMR

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

CROSS SECTIONS
LINE "PR-MICHIGAN"

HORIZONTAL SCALE	1" = 10'
VERTICAL SCALE	1" = 10'
PROJECT NUMBER	TBD
SHEETS NUMBER	28 OF 159



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XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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DESIGN ENGINEER DATE

DESIGNED: DDB	DRAWN: DDB
CHECKED: CMR	CHECKED: CMR

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

CROSS SECTIONS
LINE "PR-MICHIGAN"

HORIZONTAL SCALE
1" = 10'
VERTICAL SCALE
1" = 10'
PROJECT NUMBER
TBD
SHEETS NUMBER
29 OF 159

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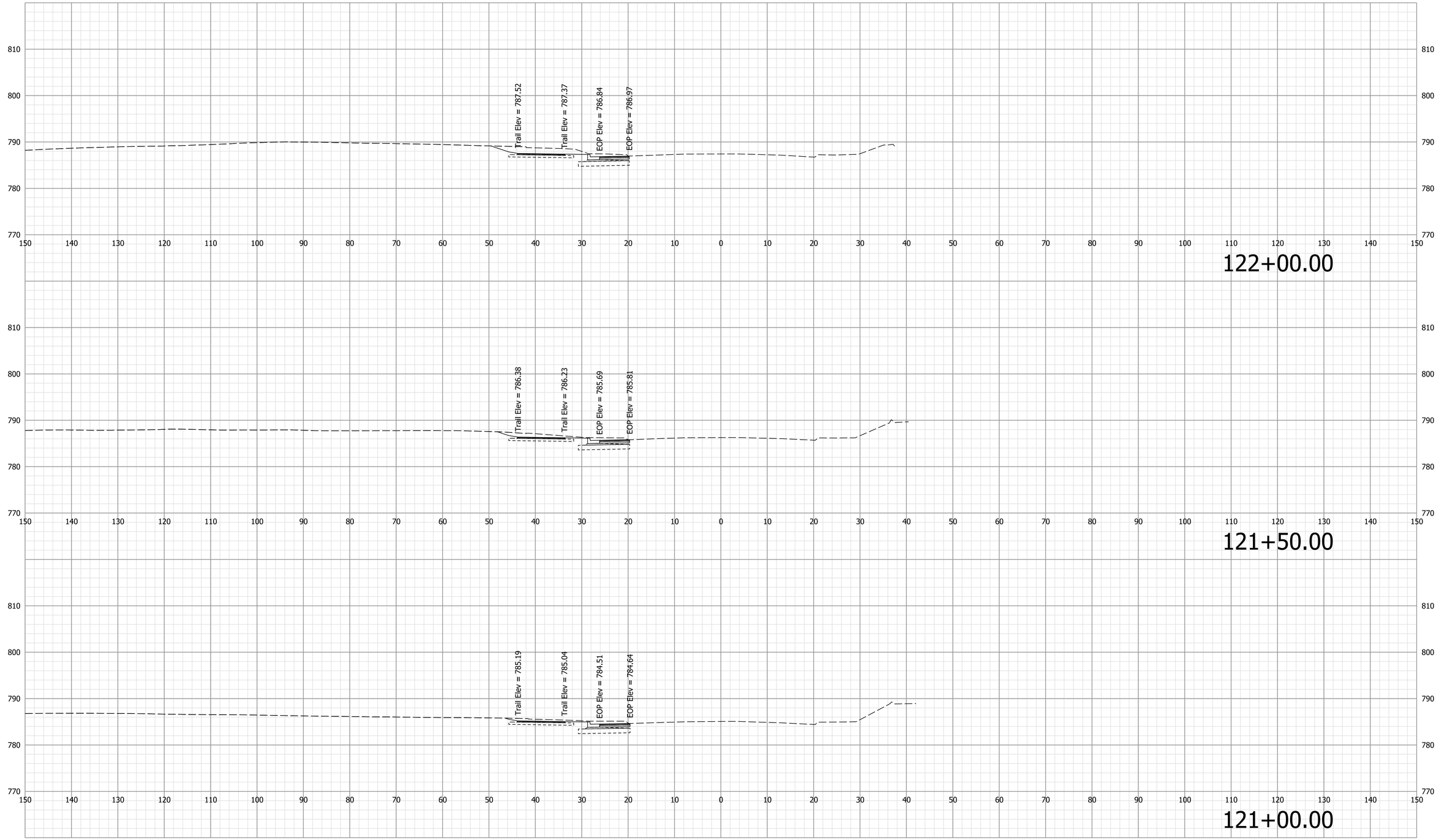

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REVISIONS			
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XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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INDIANAPOLIS, IN 46268-6128
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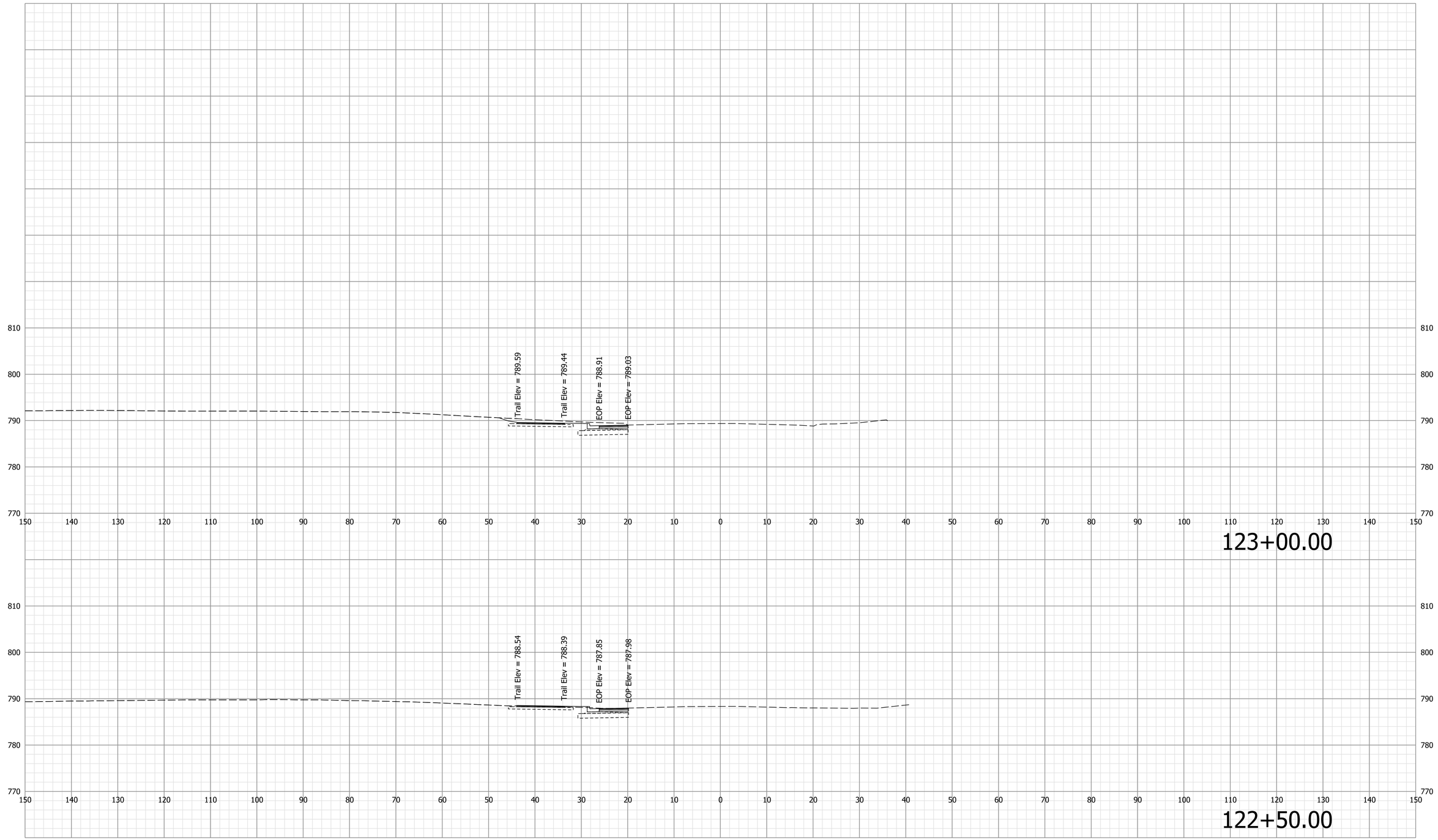
DESIGN ENGINEER DATE

DESIGNED: DDB	DRAWN: DDB
CHECKED: CMR	CHECKED: CMR

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

CROSS SECTIONS
LINE "PR-MICHIGAN"

HORIZONTAL SCALE	1" = 10'
VERTICAL SCALE	1" = 10'
PROJECT NUMBER	TBD
SHEETS NUMBER	30 OF 159



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REVISIONS			
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XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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Not For Construction

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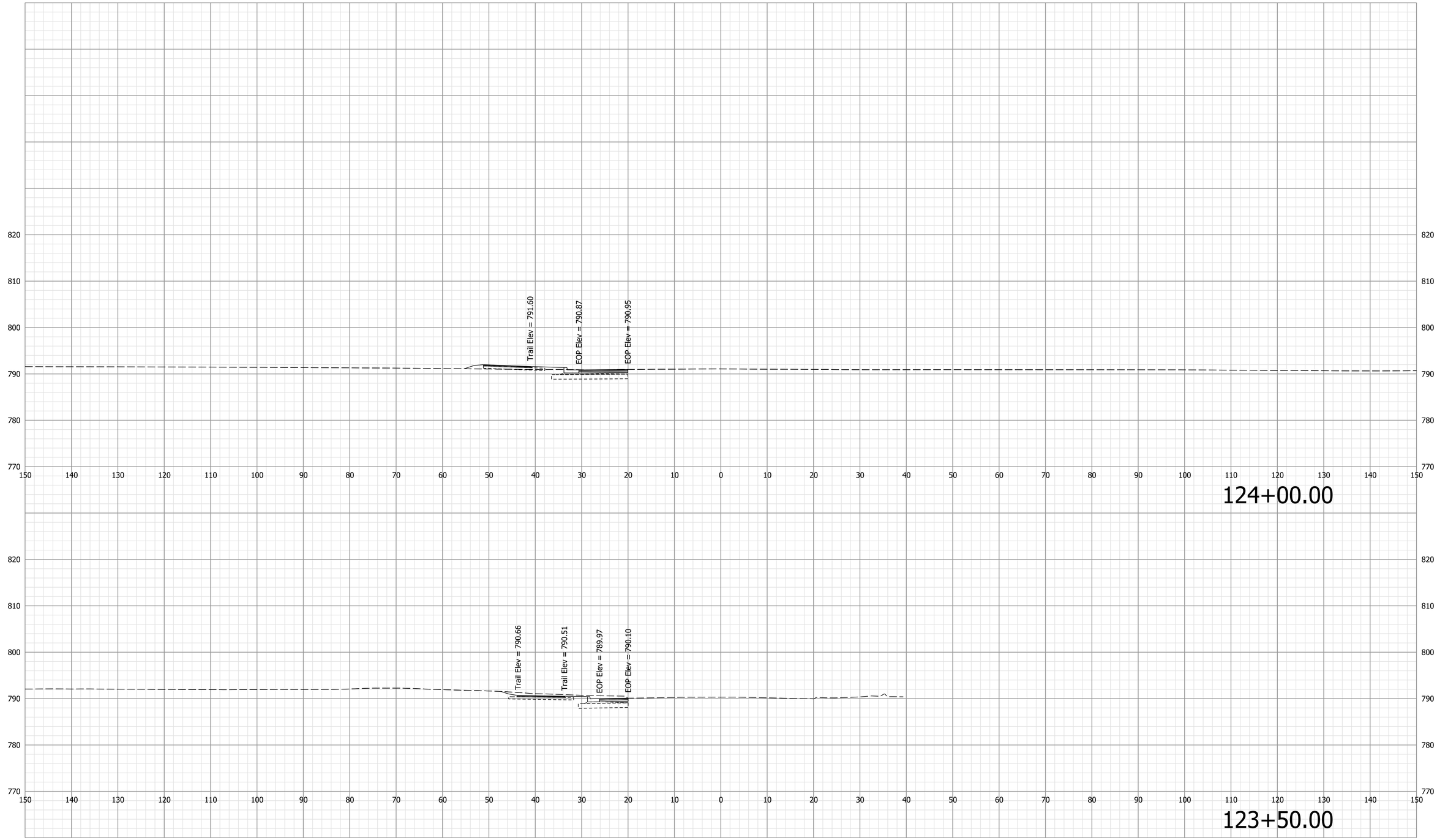
DESIGN ENGINEER DATE

DESIGNED: DDB	DRAWN: DDB
CHECKED: CMR	CHECKED: CMR

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

CROSS SECTIONS
LINE "PR-MICHIGAN"

HORIZONTAL SCALE
1" = 10'
VERTICAL SCALE
1" = 10'
PROJECT NUMBER
TBD
SHEETS NUMBER
31 OF 159



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REVISIONS			
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XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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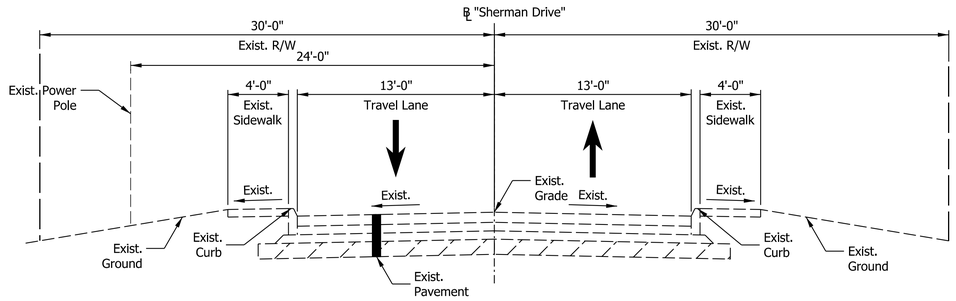
CHECKED: CMR	CHECKED: CMR

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

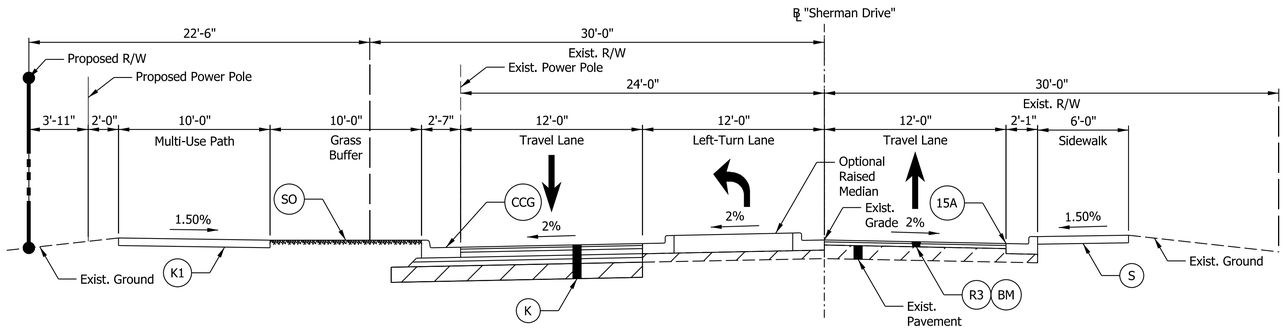
CROSS SECTIONS
LINE "PR-MICHIGAN"

HORIZONTAL SCALE	1" = 10'
VERTICAL SCALE	1" = 10'
PROJECT NUMBER	TBD
SHEETS NUMBER	32 OF 159



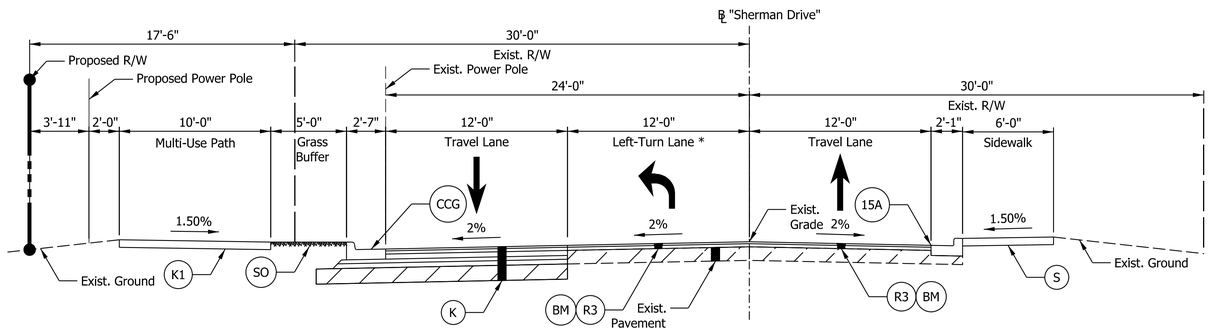
EXISTING SECTION ON TANGENT

E Michigan Street to E 10th Street



SECTION ON TANGENT

Michigan Street to E St. Clair
9th Street to 10th Street



* Optional Raised Median

SECTION ON TANGENT

E St. Clair to 9th Street

LEGEND:

- (BM) Milling, Asphalt
- (K) HMA Pavement, TBD
- (K1) HMA Pavement, TBD
- (R3) Asphalt Travel Lane Resurfacing, Consisting of: 165#/SYD, QC/QA-HMA, 3, 70, Surface, 9.5 mm, on 330#/SYD, QC/QA-HMA, 3, 70, Intermediate, 12.5 mm
- (S) Sidewalk, Concrete
- (CCG) Curb and Gutter, Concrete
- (15A) Combined Curb and Gutter, Concrete, Modified

NOTE:
1. See Pavement Core sheets for existing pavement structure.
2. See Design Guidelines for additional information for features beyond the edge of pavement.

REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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DESIGNED: DDB | DRAWN: DDB

CHECKED: CMR | CHECKED: CMR

THE CITY OF INDIANAPOLIS METROPOLITAN DEVELOPMENT

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

TYPICAL SECTIONS
SHERMAN DRIVE
MICHIGAN ST TO 10TH ST

HORIZONTAL SCALE	1" = 5'
VERTICAL SCALE	1" = 5'
PROJECT NUMBER	TBD
SHEETS NUMBER	33 OF 159

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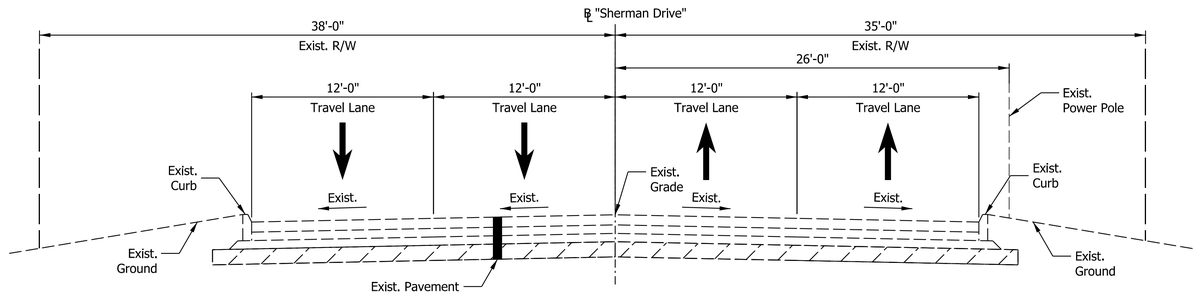

EXISTING SECTION ON TANGENT

E 10th Street to E 21st Street

NOTE:
1. See Pavement Core sheets for existing pavement structure.
2. See Design Guidelines for additional information for features beyond the edge of pavement.

REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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DESIGN ENGINEER DATE

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CHECKED: CMR | CHECKED: CMR

THE CITY OF INDIANAPOLIS METROPOLITAN DEVELOPMENT

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

TYPICAL SECTIONS
SHERMAN DRIVE
10TH ST TO 21ST ST

HORIZONTAL SCALE	1" = 5'
VERTICAL SCALE	1" = 5'
PROJECT NUMBER	TBD
SHEETS NUMBER	34 OF 159

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CORING LOCATIONS

PAVEMENT CORE LOG NO. PC-1

Page 1 of 1

PROJECT: Sherman Park Infrastructure Development
CLIENT: Crawford, Murphy & Tilly, Inc. Indianapolis, IN
SITE: Sherman Park Indianapolis, IN

Latitude: 39.7807° Longitude: -86.1024°
Direction: Southbound Lane: Travel

DEPTH	
1.2	**HMA**, 9.5mm surface, voided
2.5	**HMA**, 12.5mm intermediate
4.8	**HMA**, 9.5mm surface, delaminated
12.8	**PCCP**, 1.0" max aggregate size
14.8	**Granular Subbase**, sand and gravel

Boring Terminated at 14.8 Inches

EARTH EXPLORATION, Inc. 7770 W New York St Indianapolis, IN

Coring Started: 10/6/2020	Coring Completed: 10/6/2020
Drill Rig: Pavement Core Machine	Driller: TB
Project No.: CJ195626	

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. PAVEMENT_CORE_NO_COORDINATES_CJ195626.GPJ GPJ_ATTICUS CYPRESS CREEK_IN_RECOVERED.GPJ 1/3/2020

PAVEMENT CORE LOG NO. PC-2

Page 1 of 1

PROJECT: Sherman Park Infrastructure Development
CLIENT: Crawford, Murphy & Tilly, Inc. Indianapolis, IN
SITE: Sherman Park Indianapolis, IN

Latitude: 39.7798° Longitude: -86.1023°
Direction: Northbound Lane: Travel

DEPTH	
1.5	**HMA**, 9.5mm surface
3.2	**HMA**, 12.5mm intermediate
3.8	**HMA**, 9.5mm surface
5.6	**HMA**, 4.75mm surface
13.1	**PCCP**, fractured to near 11.0"

Boring Terminated at 13.1 Inches

EARTH EXPLORATION, Inc. 7770 W New York St Indianapolis, IN

Coring Started: 10/6/2020	Coring Completed: 10/6/2020
Drill Rig: Pavement Core Machine	Driller: TB
Project No.: CJ195626	

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. PAVEMENT_CORE_NO_COORDINATES_CJ195626.GPJ GPJ_ATTICUS CYPRESS CREEK_IN_RECOVERED.GPJ 1/3/2020

PAVEMENT CORE LOG NO. PC-3

Page 1 of 1

PROJECT: Sherman Park Infrastructure Development
CLIENT: Crawford, Murphy & Tilly, Inc. Indianapolis, IN
SITE: Sherman Park Indianapolis, IN

Latitude: 39.7791° Longitude: -86.1024°
Direction: Southbound Lane: Travel

DEPTH	
1.5	**HMA**, 9.5mm surface
3.2	**HMA**, 19mm base
4.7	**HMA**, 9.5mm surface, partially stripped, delaminated
7.8	**HMA**, 9.5mm surface, partially stripped, delaminated
12.2	**PCCP**, 1.0" max aggregate, fractured near 9.2"
14.2	**Granular Subbase**, sand and gravel

Boring Terminated at 14.2 Inches

EARTH EXPLORATION, Inc. 7770 W New York St Indianapolis, IN

Coring Started: 10/6/2020	Coring Completed: 10/6/2020
Drill Rig: Pavement Core Machine	Driller: TB
Project No.: CJ195626	

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. PAVEMENT_CORE_NO_COORDINATES_CJ195626.GPJ GPJ_ATTICUS CYPRESS CREEK_IN_RECOVERED.GPJ 1/3/2020

PAVEMENT CORE LOG NO. PC-4

Page 1 of 1

PROJECT: Sherman Park Infrastructure Development
CLIENT: Crawford, Murphy & Tilly, Inc. Indianapolis, IN
SITE: Sherman Park Indianapolis, IN

Latitude: 39.7782° Longitude: -86.1023°
Direction: Northbound Lane: Travel

DEPTH	
1.6	**HMA**, 9.5mm surface
3.8	**HMA**, 12.5mm intermediate, voided
5.8	**HMA**, 9.5mm surface, partially stripped, delaminated
12.8	**PCCP**, completely fractured

Boring Terminated at 12.8 Inches

EARTH EXPLORATION, Inc. 7770 W New York St Indianapolis, IN

Coring Started: 10/6/2020	Coring Completed: 10/6/2020
Drill Rig: Pavement Core Machine	Driller: TB
Project No.: CJ195626	

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REVISIONS			
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XX/XX/XX	XX	DESCRIPTION	XXX
XX/XX/XX	XX	DESCRIPTION	XXX
XX/XX/XX	XX	DESCRIPTION	XXX
XX/XX/XX	XX	DESCRIPTION	XXX

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THE CITY OF INDIANAPOLIS METROPOLITAN DEVELOPMENT

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

PAVEMENT CORES
SHERMAN DRIVE

HORIZONTAL SCALE
N/A

PROJECT NUMBER
TBD
SHEETS NUMBER
35 OF 159

CORING LOCATIONS

PAVEMENT CORE LOG NO. PC-5

Page 1 of 1

PROJECT: Sherman Park Infrastructure Development
CLIENT: Crawford, Murphy & Tilly, Inc. Indianapolis, IN
SITE: Sherman Park Indianapolis, IN

Latitude: 39.7774° Longitude: -86.1023°
Direction: Southbound Lane: Travel

DEPTH		DEPTH (in.)
1.6	HMA, 9.5mm surface, voided	1
3.7	HMA, 12.5mm intermediate, voided, delaminated	2
5.6	HMA, 12.5mm intermediate; voided	3
12.2	HMA, 19mm base, voided	4
	Boring Terminated at 12.2 inches	5

Downhole Photograph not Available

EARTH EXPLORATION 7770 W New York St Indianapolis, IN

Coring Started: 10/6/2020	Coring Completed: 10/6/2020
Drill Rig: Pavement Core Machine	Driller: TB
Project No.: CJ195826	

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PAVEMENT CORE LOG NO. PC-6

Page 1 of 1

PROJECT: Sherman Park Infrastructure Development
CLIENT: Crawford, Murphy & Tilly, Inc. Indianapolis, IN
SITE: Sherman Park Indianapolis, IN

Latitude: 39.7769° Longitude: -86.1022°
Direction: Northbound Lane: Travel

DEPTH		DEPTH (in.)
1.7	HMA, 9.5mm surface	1
5.2	HMA, 19mm base, voided, delaminated	2
13.0	HMA, 25mm base	3
14.0	Granular Subbase, sand and gravel	4
	Boring Terminated at 14 inches	5

EARTH EXPLORATION 7770 W New York St Indianapolis, IN

Coring Started: 10/6/2020	Coring Completed: 10/6/2020
Drill Rig: Pavement Core Machine	Driller: TB
Project No.: CJ195826	

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PAVEMENT CORE LOG NO. PC-7

Page 1 of 1

PROJECT: Sherman Park Infrastructure Development
CLIENT: Crawford, Murphy & Tilly, Inc. Indianapolis, IN
SITE: Sherman Park Indianapolis, IN

Latitude: 39.7763° Longitude: -86.1023°
Direction: Southbound Lane: Travel

DEPTH		DEPTH (in.)
0.8	HMA, 9.5mm surface	1
1.6	HMA, 9.5mm surface, voided	2
2.7	HMA, 9.5mm surface	3
3.8	HMA, 12.5mm intermediate, voided	4
4.7	HMA, 9.5mm surface, partially stripped, delaminated	5
5.6	HMA, 9.5mm surface, partially stripped, fractured, delaminated	6
7.5	PCCP, completely fractured	7
11.5		8
	Boring Terminated at 11.5 inches	9

EARTH EXPLORATION 7770 W New York St Indianapolis, IN

Coring Started: 10/6/2020	Coring Completed: 10/6/2020
Drill Rig: Pavement Core Machine	Driller: TB
Project No.: CJ195826	

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PAVEMENT CORE LOG NO. PC-8

Page 1 of 1

PROJECT: Sherman Park Infrastructure Development
CLIENT: Crawford, Murphy & Tilly, Inc. Indianapolis, IN
SITE: Sherman Park Indianapolis, IN

Latitude: 39.7757° Longitude: -86.1022°
Direction: Northbound Lane: Travel

DEPTH		DEPTH (in.)
1.4	HMA, 9.5mm surface, voided	1
3.8	HMA, 12.5mm intermediate, voided	2
5.7	HMA, 9.5mm surface, partially stripped, delaminated	3
9.5	PCCP, 1.0" max aggregate size, horizontal fracture near 6.5"	4
	Boring Terminated at 9.5 inches	5

EARTH EXPLORATION 7770 W New York St Indianapolis, IN

Coring Started: 10/6/2020	Coring Completed: 10/6/2020
Drill Rig: Pavement Core Machine	Driller: TB
Project No.: CJ195826	

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT PAVEMENT_CORE_AD_COORDINATES C:\USERS\PC-5\PC-6\PC-7\PC-8 FROM CYPRESS CREEK & ARTESIA CYPRESS CREEK & RECOVERED.GPX 1/1/2020

REVISIONS			
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XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
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CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

PAVEMENT CORES
SHERMAN DRIVE

HORIZONTAL SCALE
N/A

PROJECT NUMBER
TBD
SHEETS NUMBER
36 OF 159

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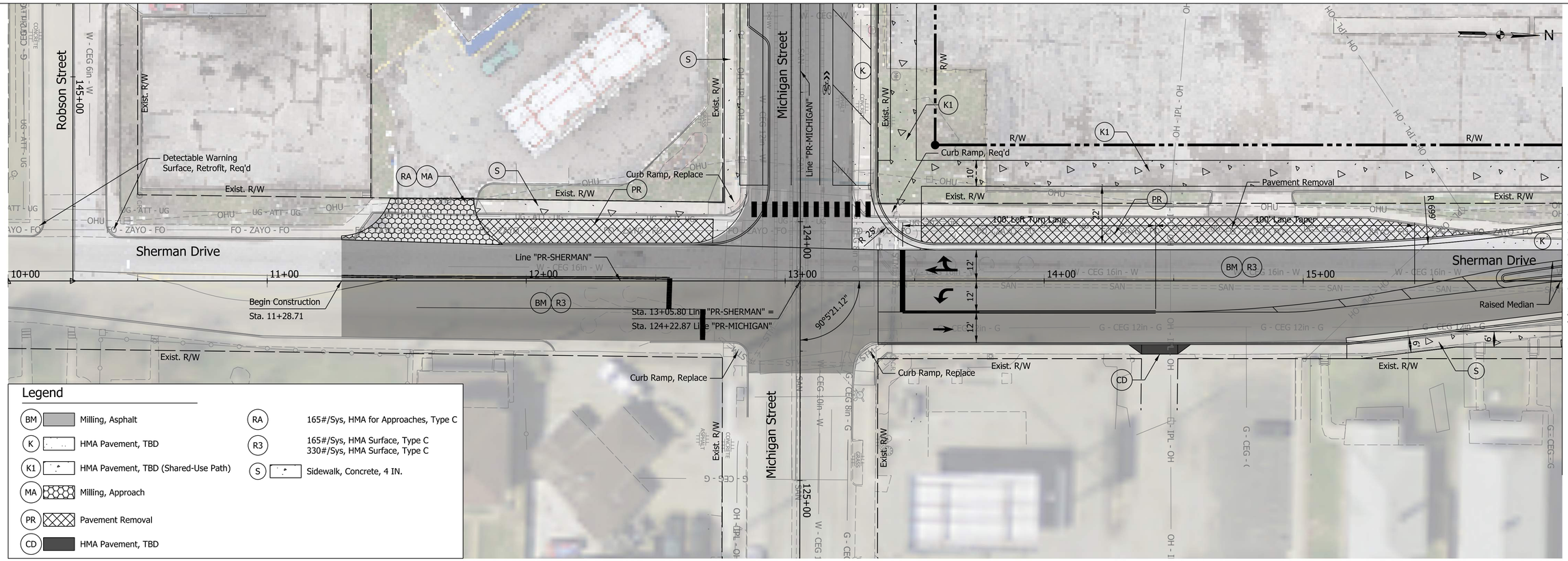

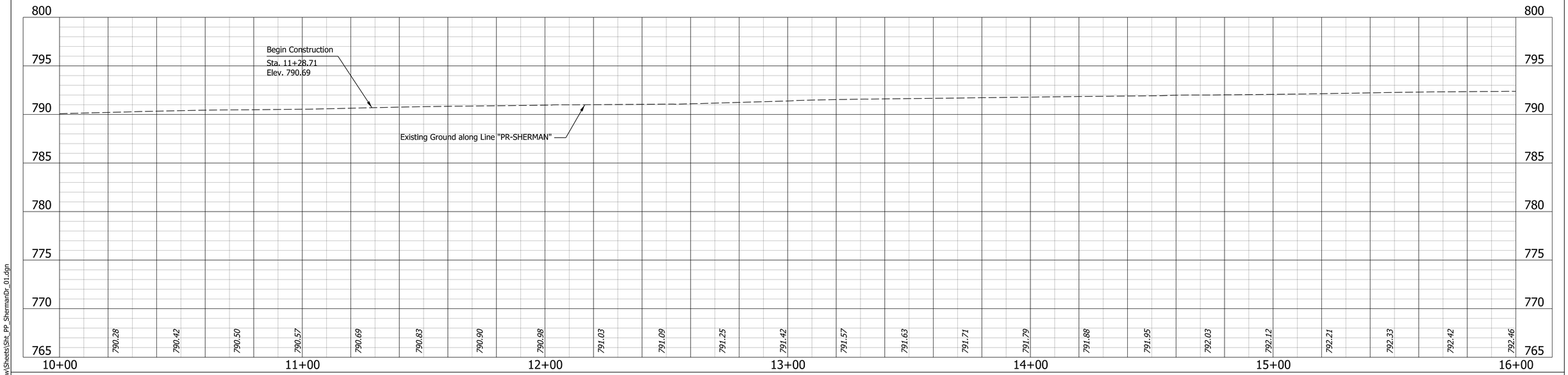

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XX/XX/XX	B	DESCRIPTION	XXX
XX/XX/XX	C	DESCRIPTION	XXX
XX/XX/XX	D	DESCRIPTION	XXX
XX/XX/XX	E	DESCRIPTION	XXX

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INDIANAPOLIS METROPOLITAN DEVELOPMENT

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

PLAN AND PROFILE SHEET
SHERMAN DRIVE
LINE "PR-SHERMAN"

HORIZONTAL SCALE
1" = 20'
VERTICAL SCALE
1" = 10'
PROJECT NUMBER
TBD
SHEETS NUMBER
37 OF 159

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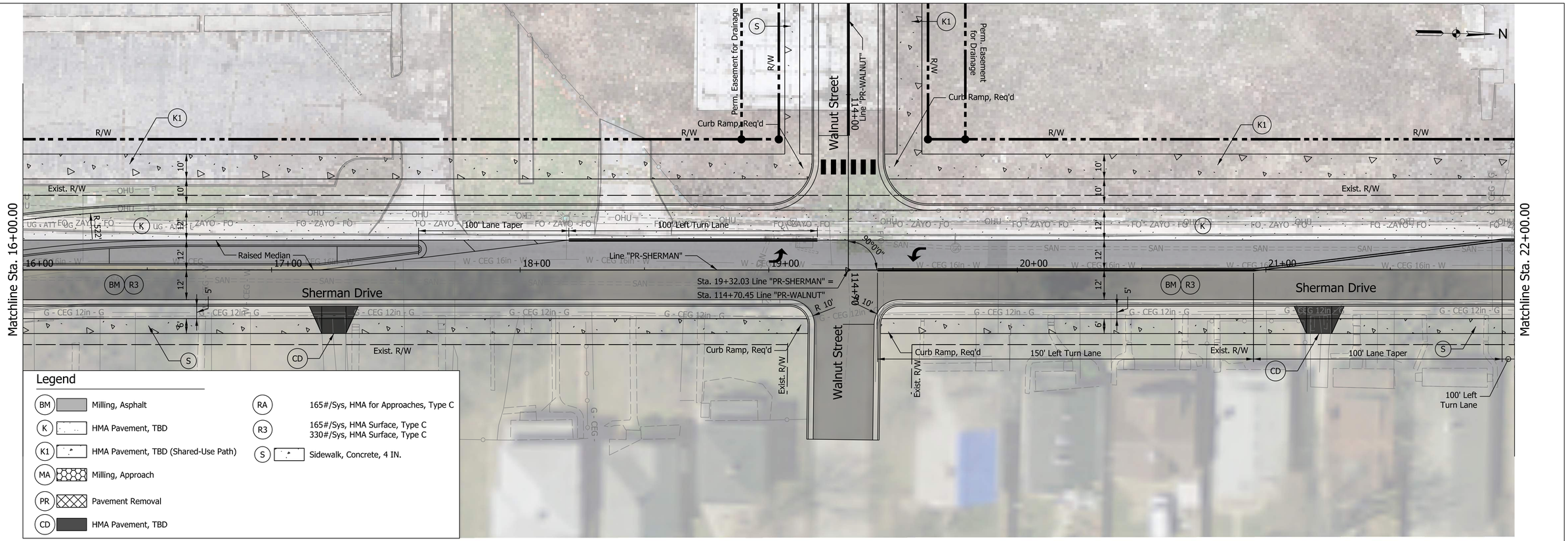

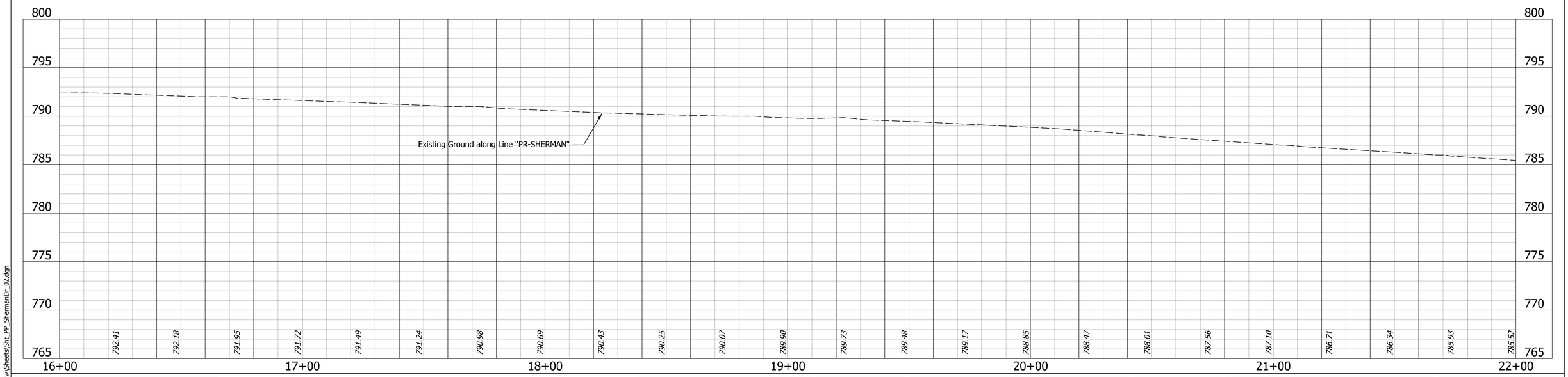

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XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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PLAN AND PROFILE SHEET
SHERMAN DRIVE
LINE "PR-SHERMAN"

HORIZONTAL SCALE
1" = 20'
VERTICAL SCALE
1" = 10'
PROJECT NUMBER
TBD
SHEETS NUMBER
38 OF 159

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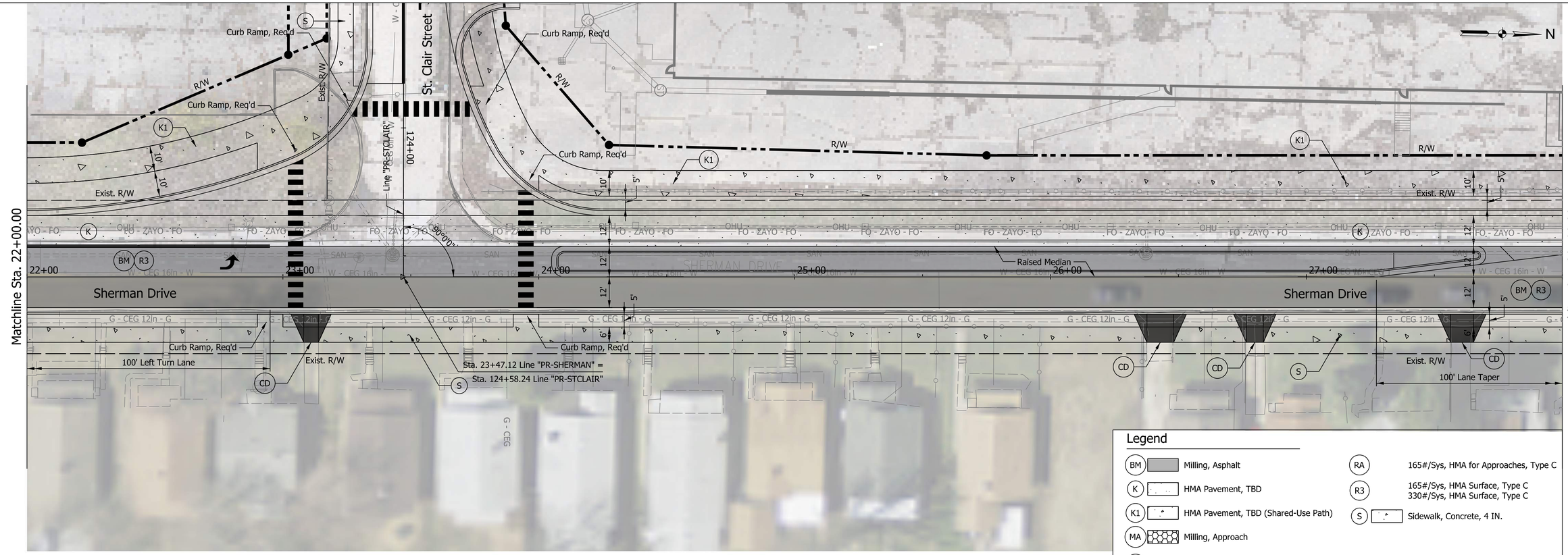

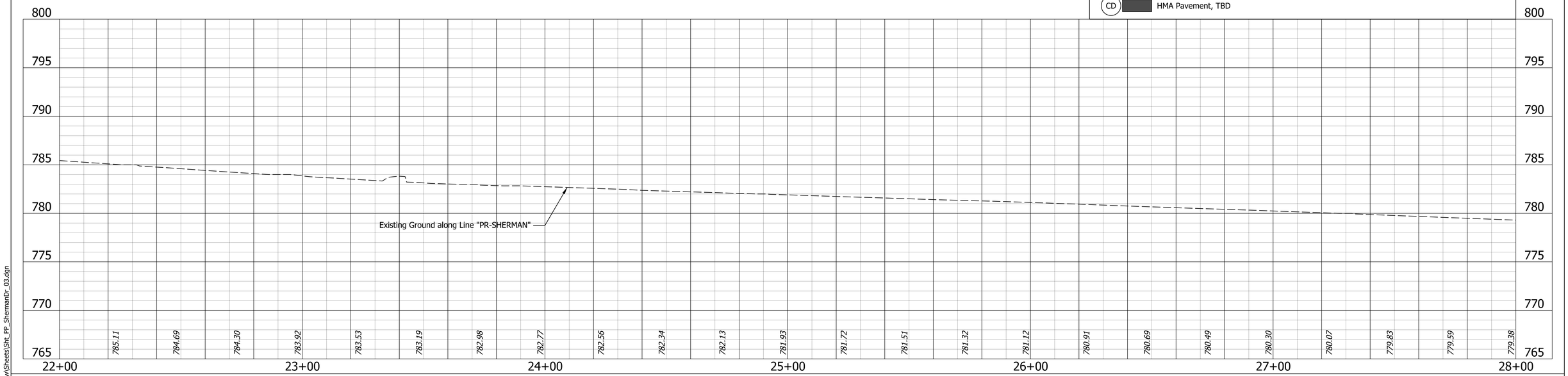

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XX/XX/XX	5	DESCRIPTION	XXX

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PLAN AND PROFILE SHEET
SHERMAN DRIVE
LINE "PR-SHERMAN"

HORIZONTAL SCALE
1" = 20'
VERTICAL SCALE
1" = 10'
PROJECT NUMBER
TBD
SHEETS NUMBER
39 OF 159

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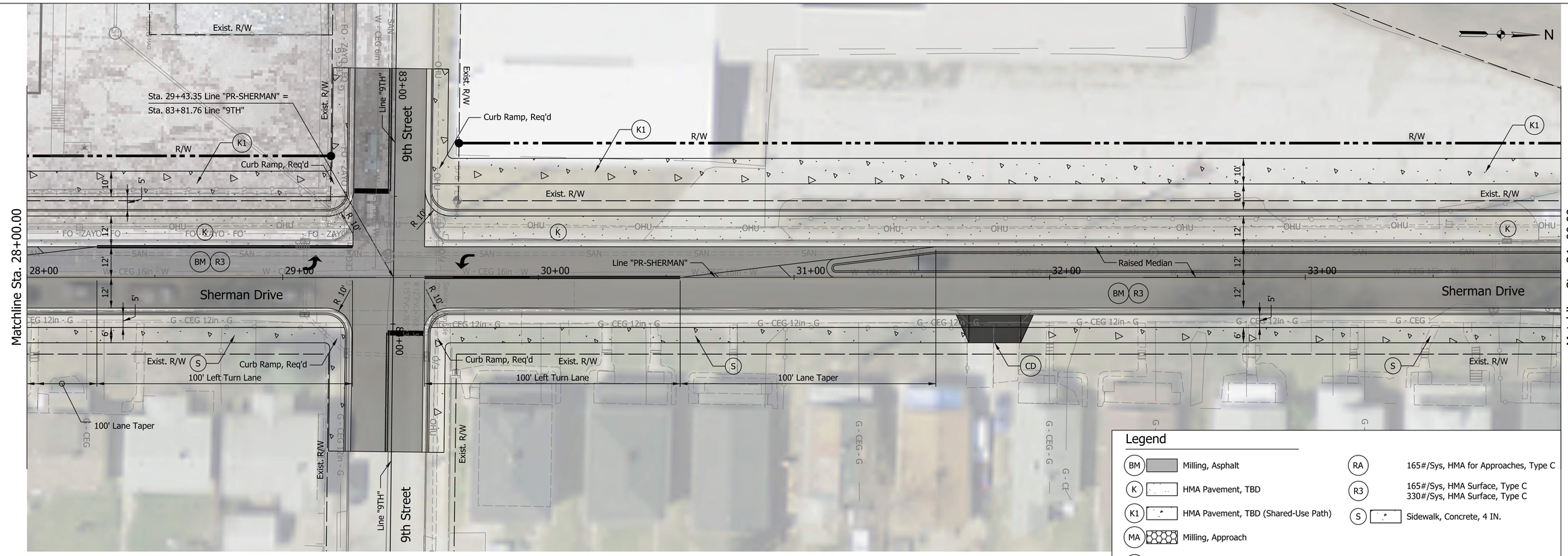

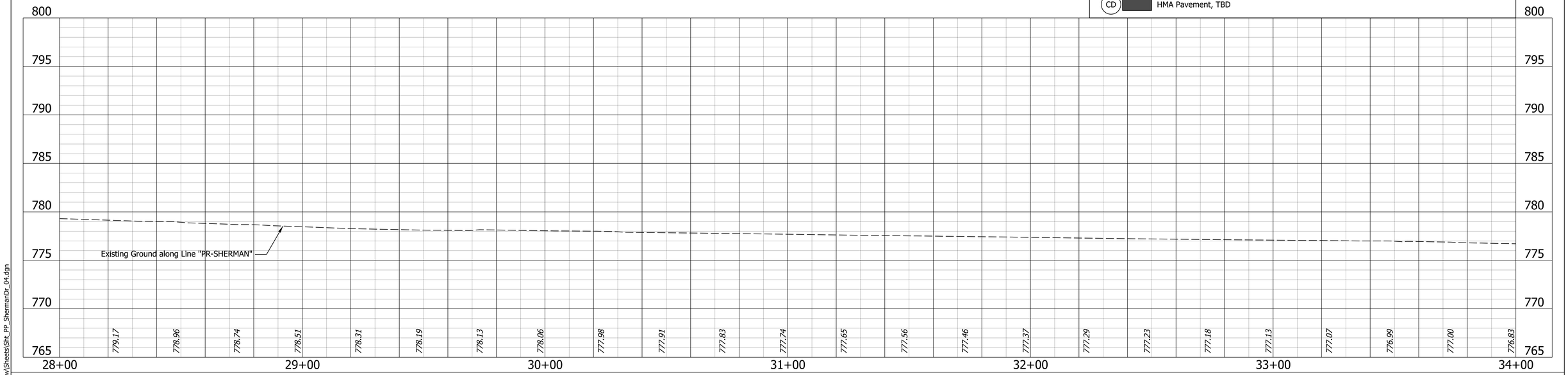

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XX/XX/XX	5	DESCRIPTION	XXX

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PLAN AND PROFILE SHEET
SHERMAN DRIVE
LINE "PR-SHERMAN"

HORIZONTAL SCALE	1" = 20'
VERTICAL SCALE	1" = 10'
PROJECT NUMBER	TBD
SHEETS NUMBER	40 OF 159

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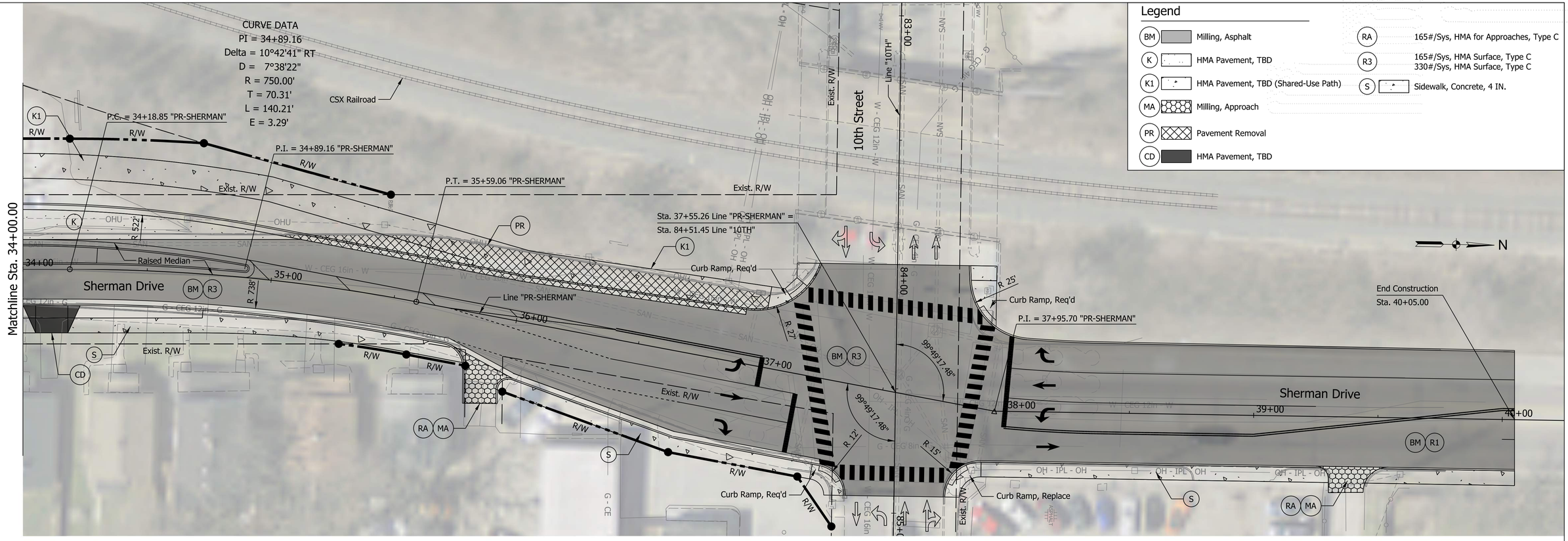

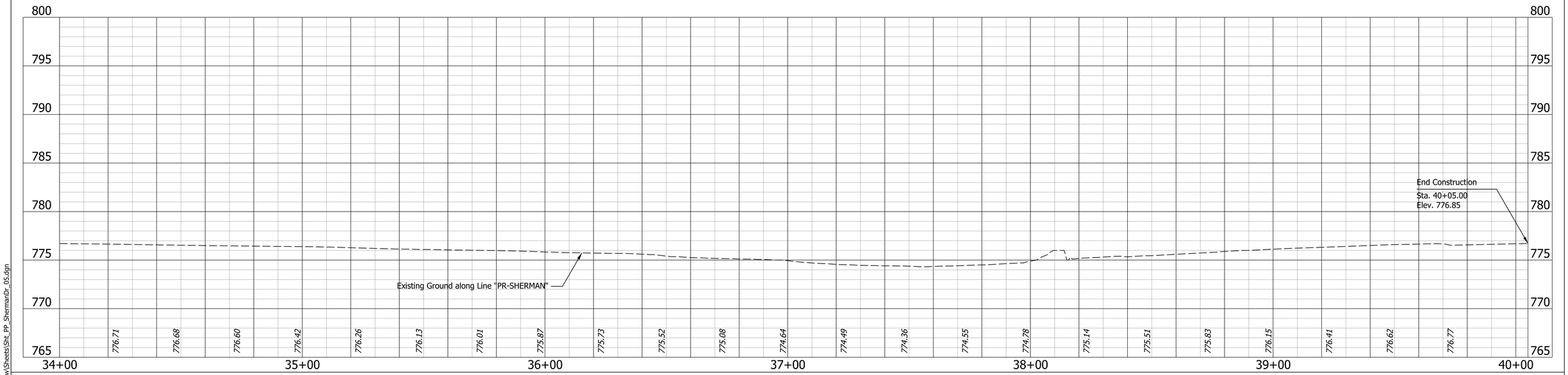

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XX/XX/XX	5	DESCRIPTION	XXX

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THE CITY OF INDIANAPOLIS METROPOLITAN DEVELOPMENT

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

PLAN AND PROFILE SHEET
SHERMAN DRIVE
LINE "PR-SHERMAN"

HORIZONTAL SCALE	1" = 20'
VERTICAL SCALE	1" = 10'
PROJECT NUMBER	TBD
SHEETS NUMBER	41 OF 159

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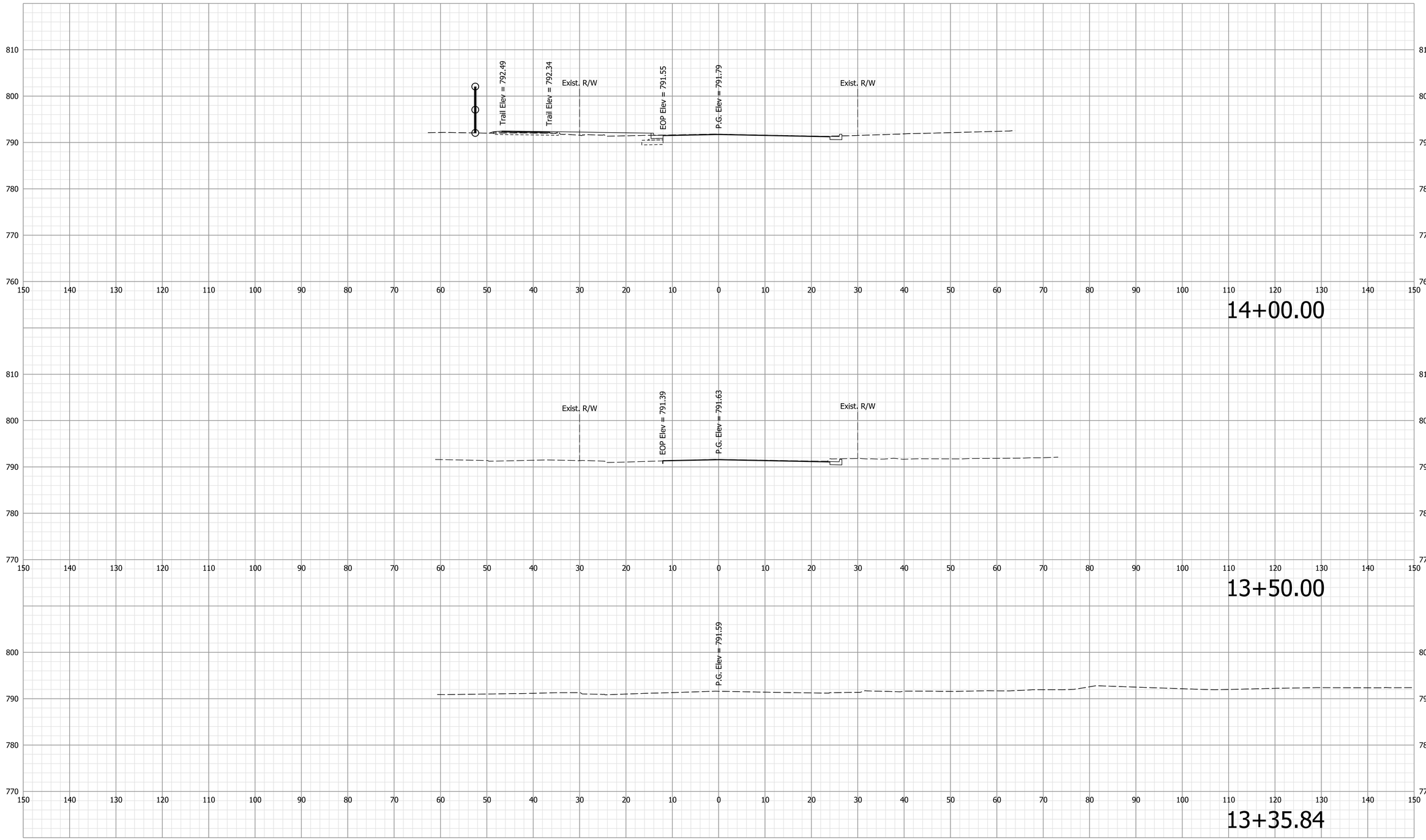

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XX/XX/XX	5	DESCRIPTION	XXX

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CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

CROSS SECTIONS
SHERMAN DRIVE

HORIZONTAL SCALE	1" = 10'
VERTICAL SCALE	1" = 10'
PROJECT NUMBER	TBD
SHEETS NUMBER	42 OF 159

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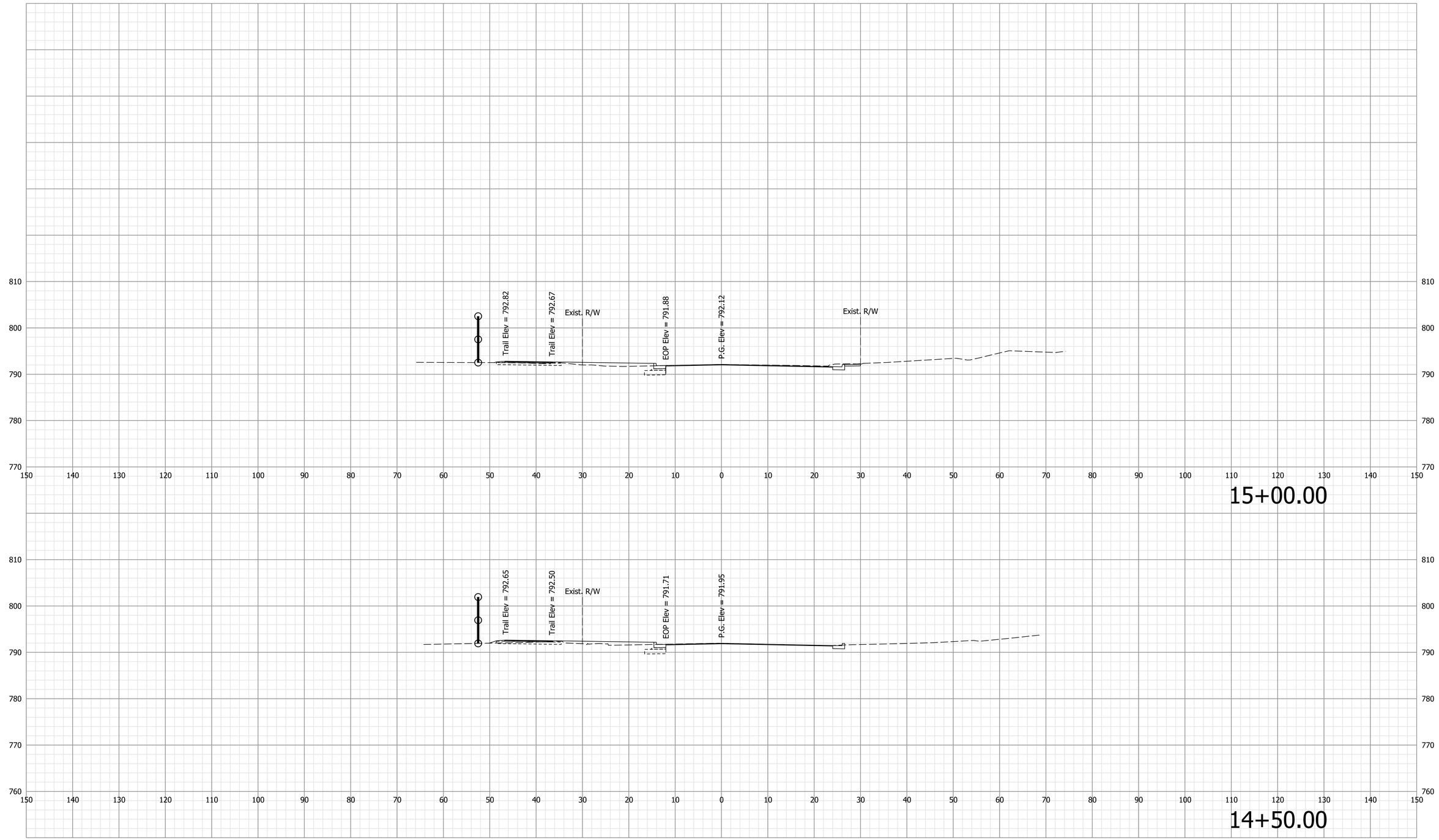

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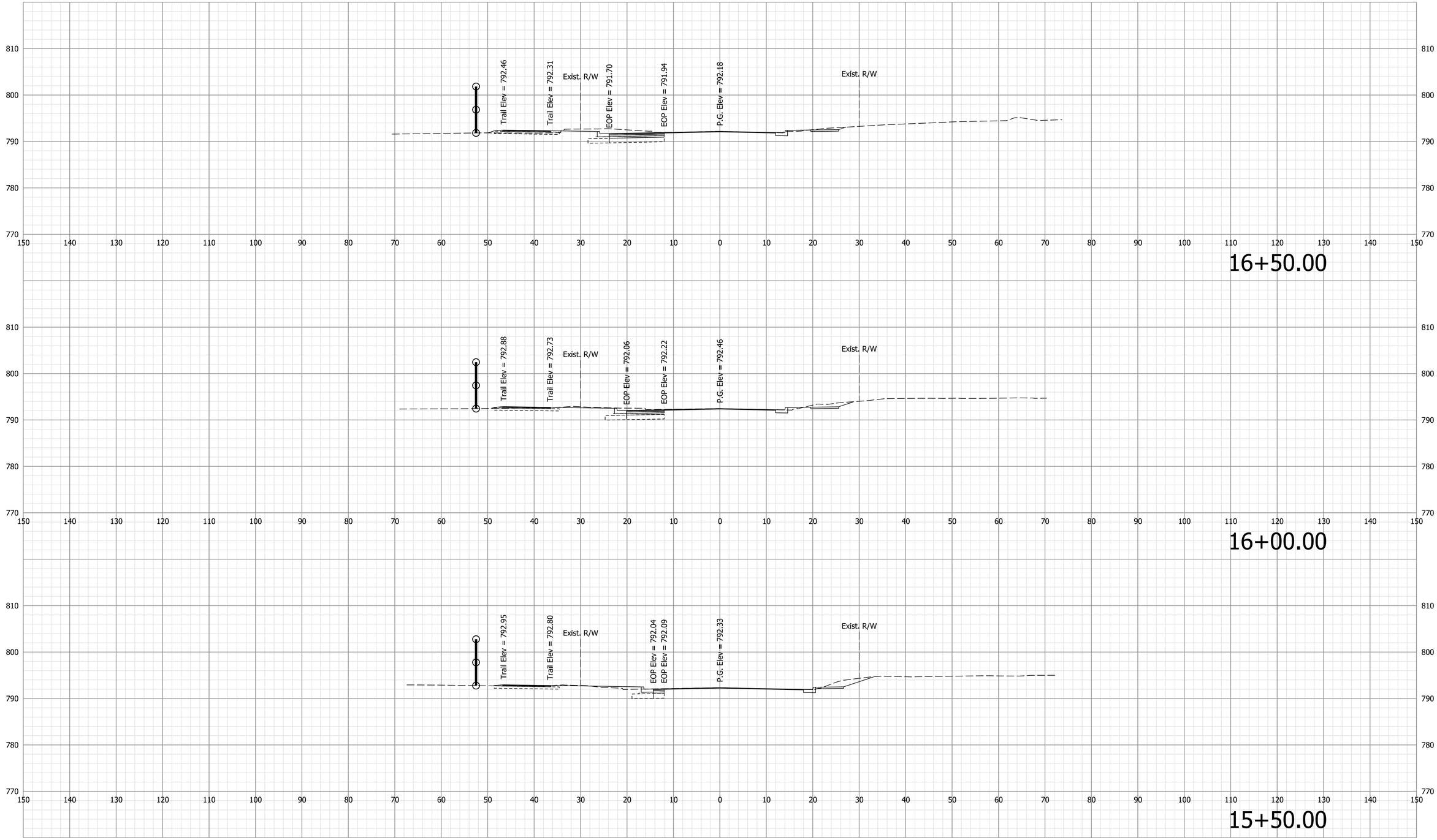
CROSS SECTIONS
SHERMAN DRIVE

HORIZONTAL SCALE	1" = 10'
VERTICAL SCALE	1" = 10'
PROJECT NUMBER	TBD
SHEETS NUMBER	43 OF 159



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REVISIONS			
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XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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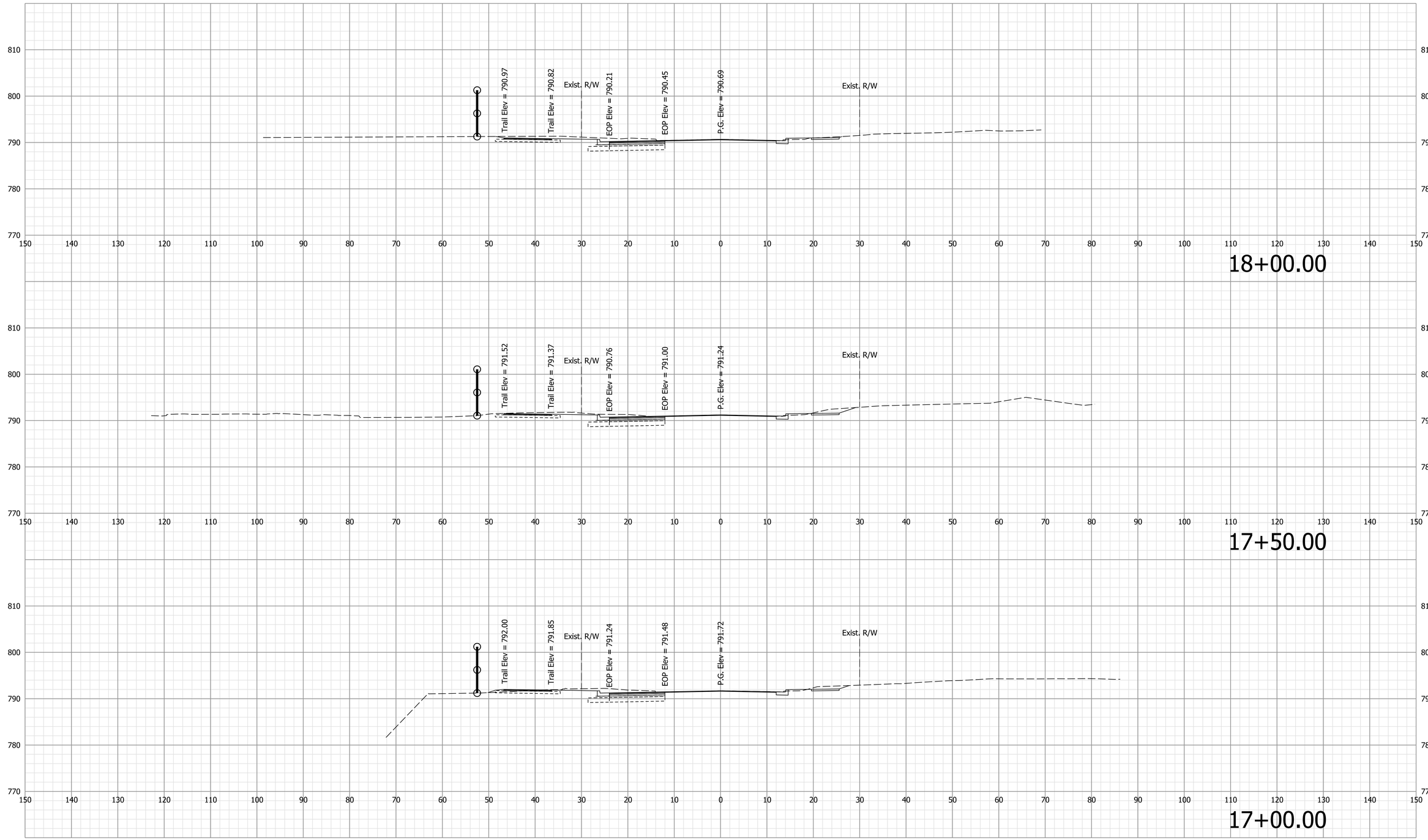
CROSS SECTIONS
SHERMAN DRIVE

HORIZONTAL SCALE	1" = 10'
VERTICAL SCALE	1" = 10'
PROJECT NUMBER	TBD
SHEETS NUMBER	44 OF 159



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REVISIONS			
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XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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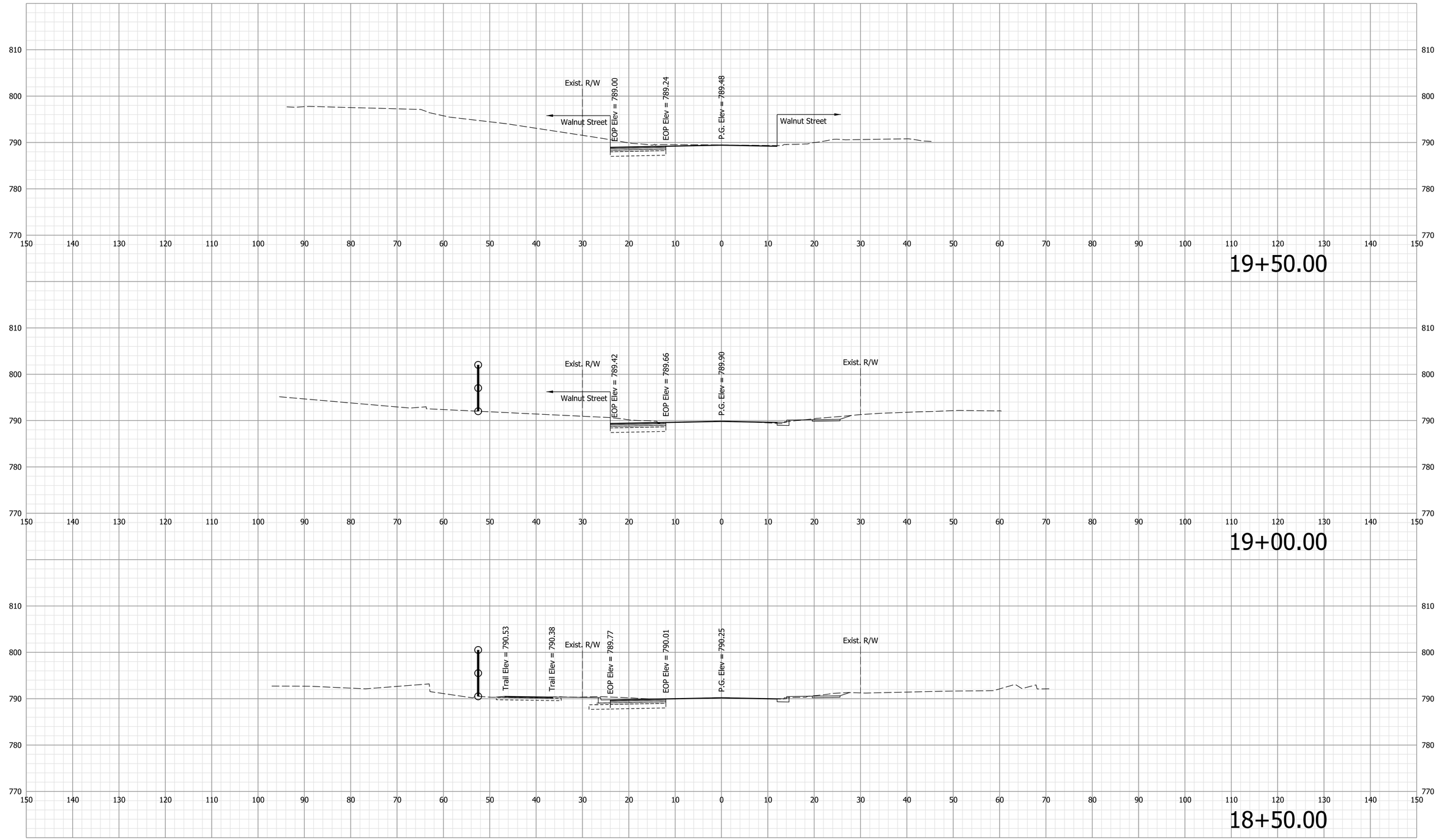
CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

CROSS SECTIONS
SHERMAN DRIVE

HORIZONTAL SCALE	1" = 10'
VERTICAL SCALE	1" = 10'
PROJECT NUMBER	TBD
SHEETS NUMBER	45 OF 159



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REVISIONS			
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XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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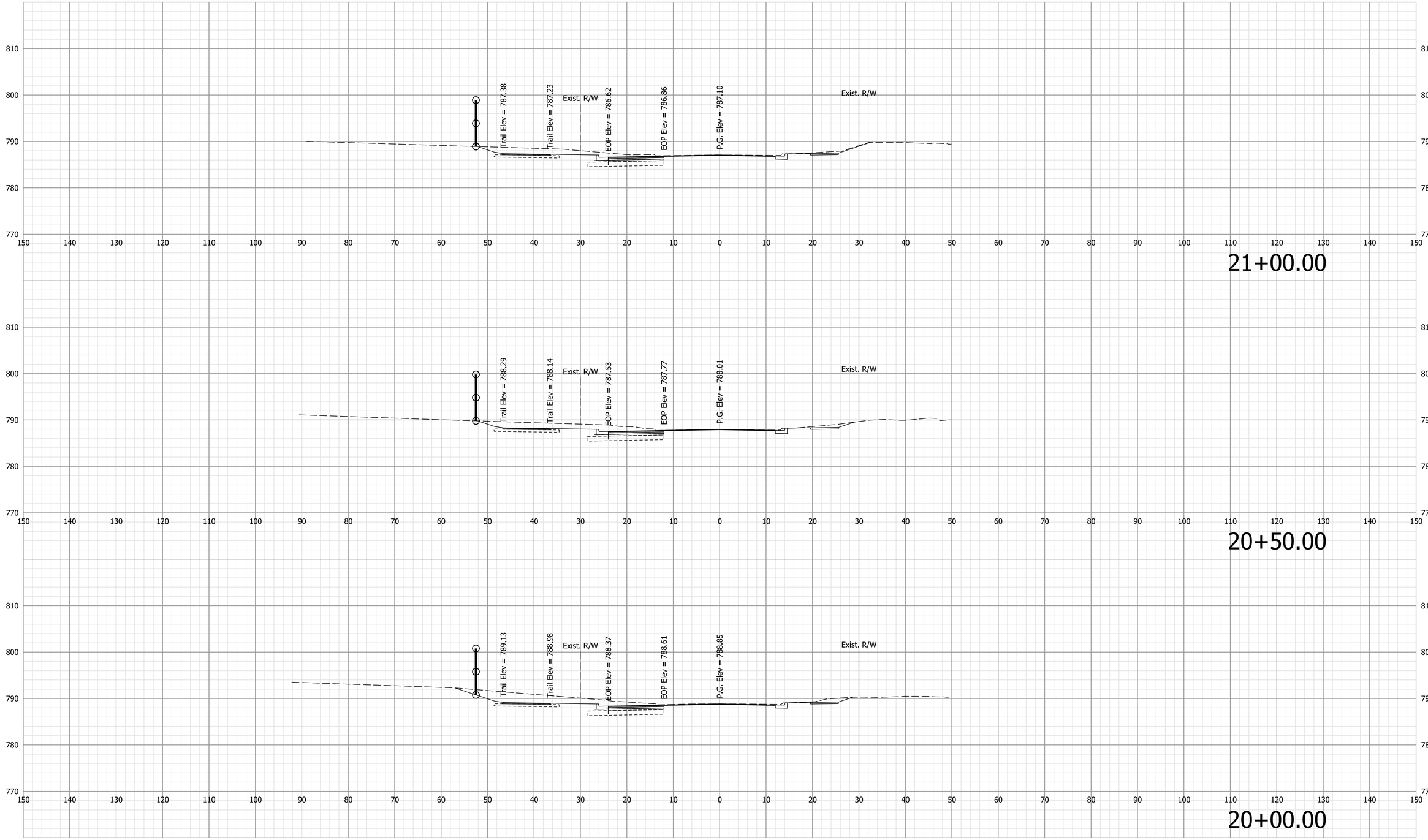
CROSS SECTIONS
SHERMAN DRIVE

HORIZONTAL SCALE	1" = 10'
VERTICAL SCALE	1" = 10'
PROJECT NUMBER	TBD
SHEETS NUMBER	46 OF 159



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REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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PHONE: (317) 298-4500

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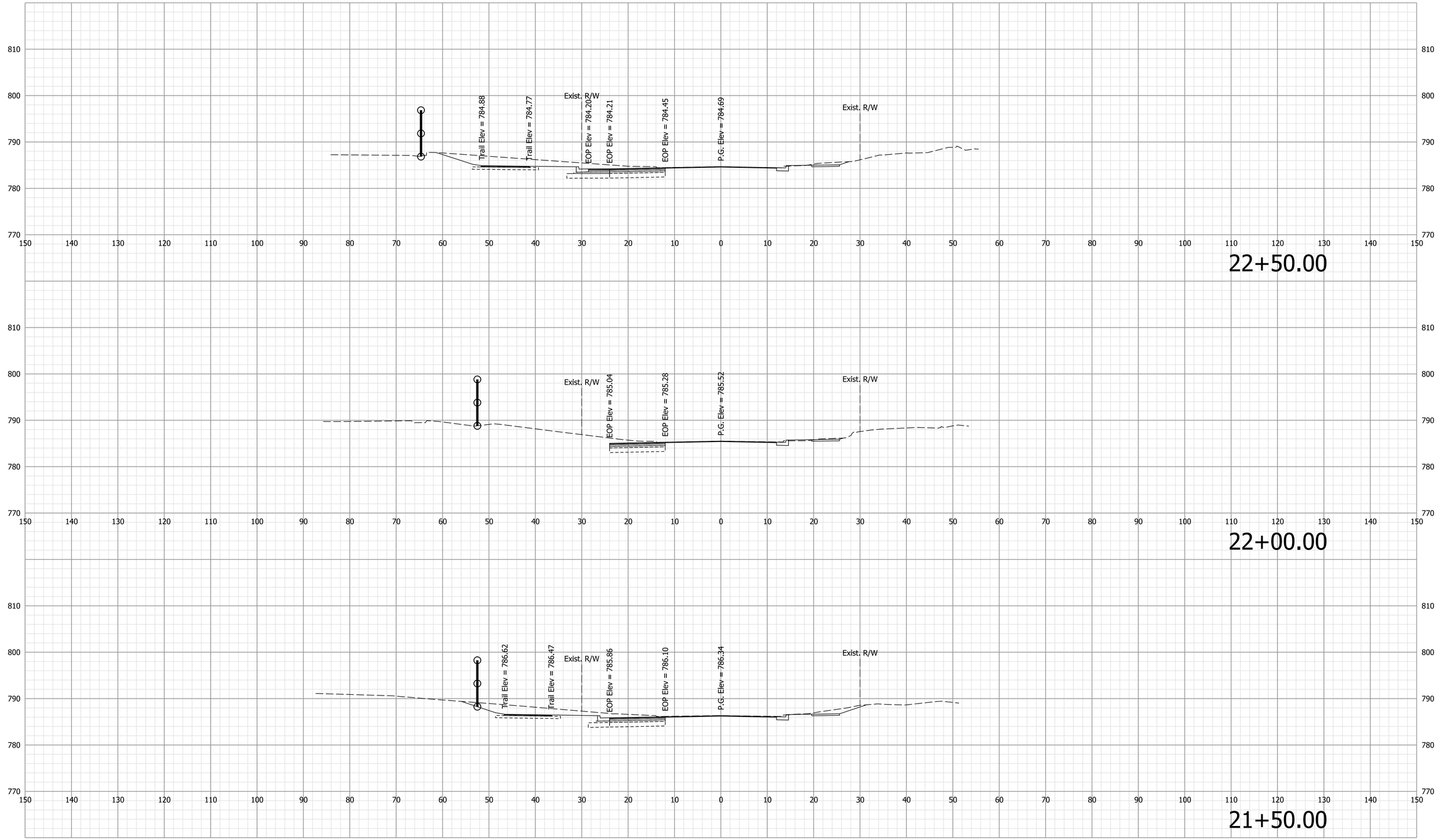
DESIGNED: DDB | DRAWN: DDB
CHECKED: CMR | CHECKED: CMR

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

CROSS SECTIONS
SHERMAN DRIVE

HORIZONTAL SCALE	1" = 10'
VERTICAL SCALE	1" = 10'
PROJECT NUMBER	TBD
SHEETS NUMBER	47 OF 159



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REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
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XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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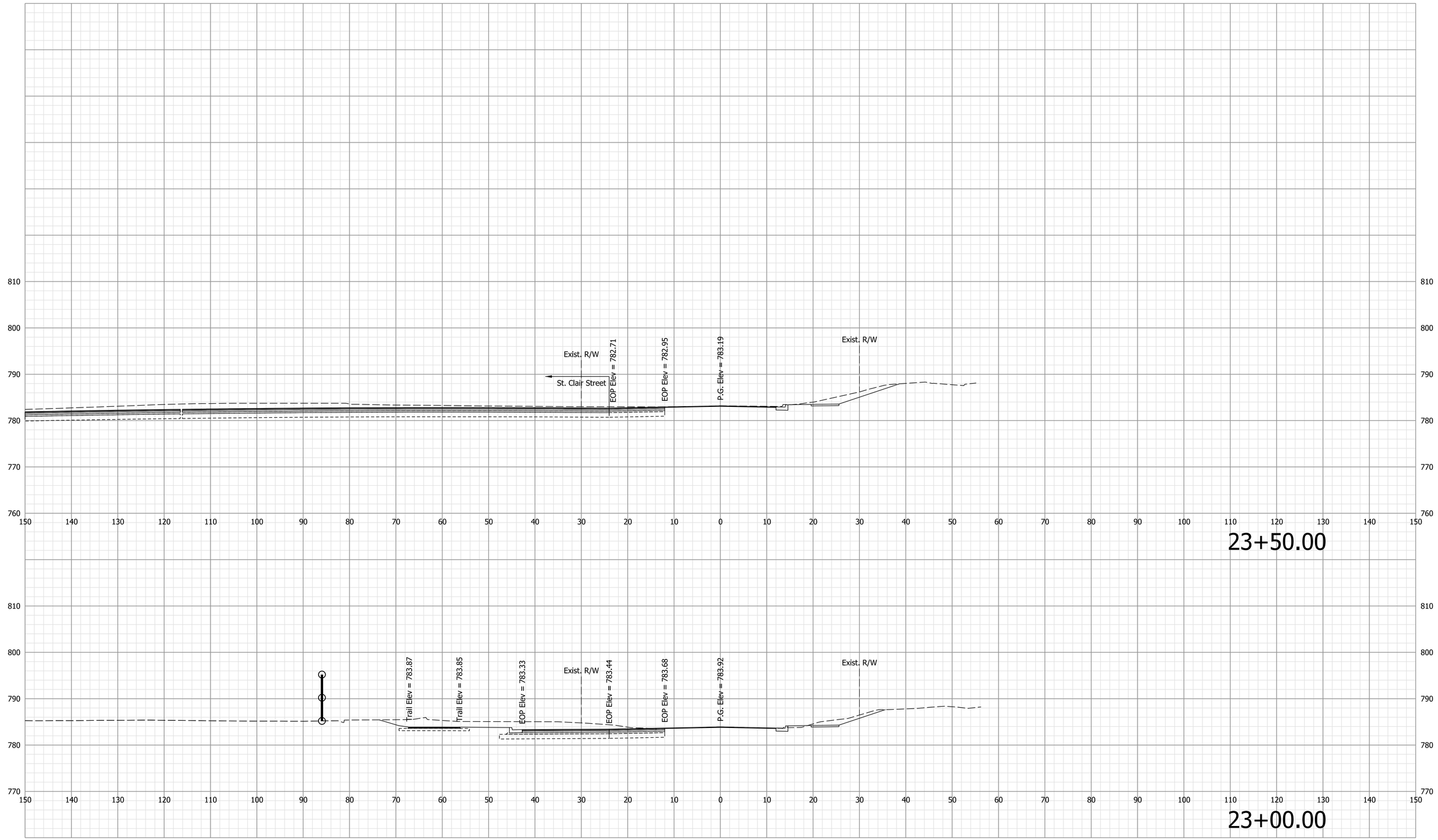
CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

CROSS SECTIONS
SHERMAN DRIVE

HORIZONTAL SCALE
1" = 10'
VERTICAL SCALE
1" = 10'
PROJECT NUMBER
TBD
SHEETS NUMBER
48 OF 159



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REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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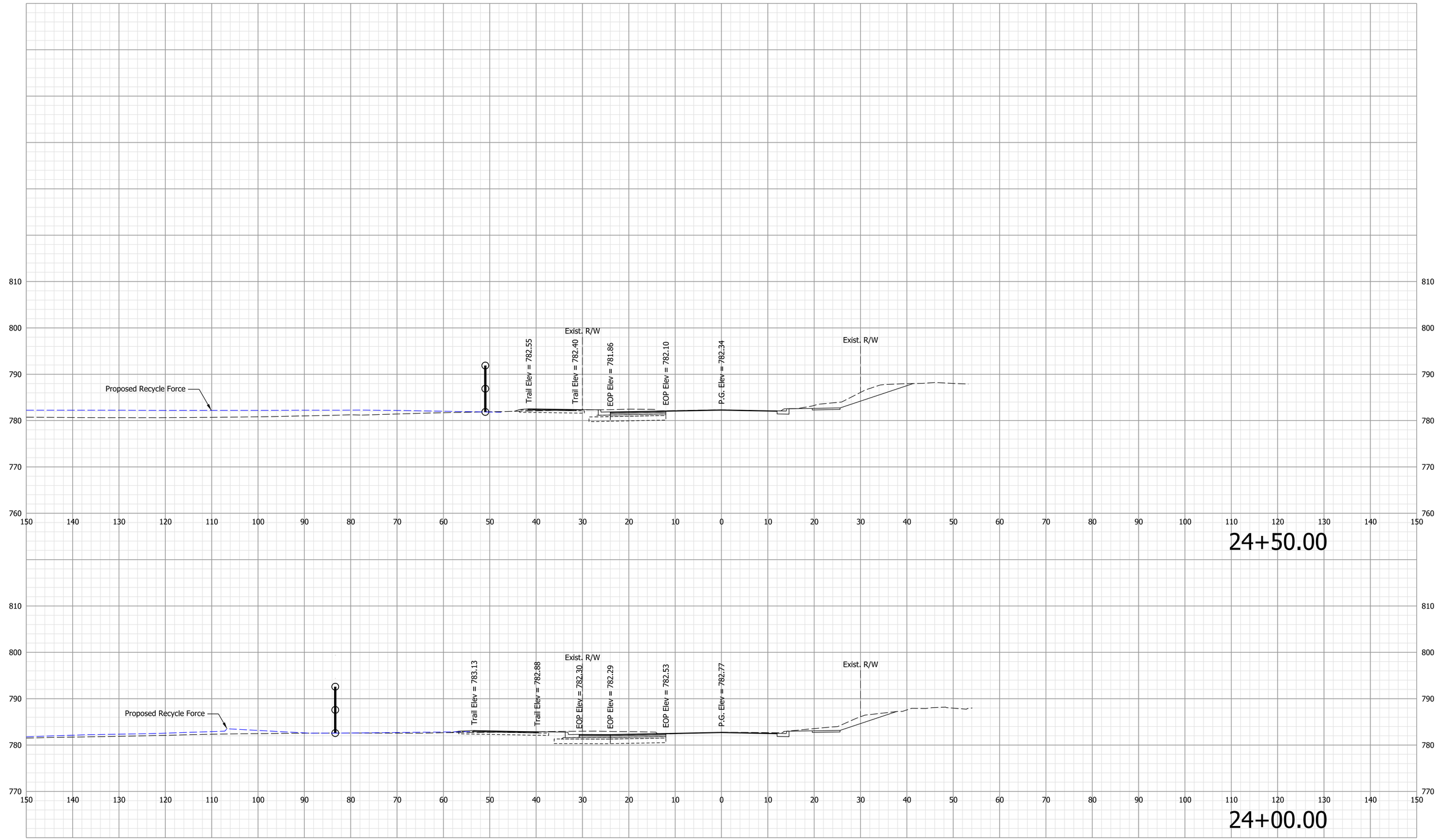
CROSS SECTIONS
SHERMAN DRIVE

HORIZONTAL SCALE	1" = 10'
VERTICAL SCALE	1" = 10'
PROJECT NUMBER	TBD
SHEETS NUMBER	49 OF 159



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REVISIONS			
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XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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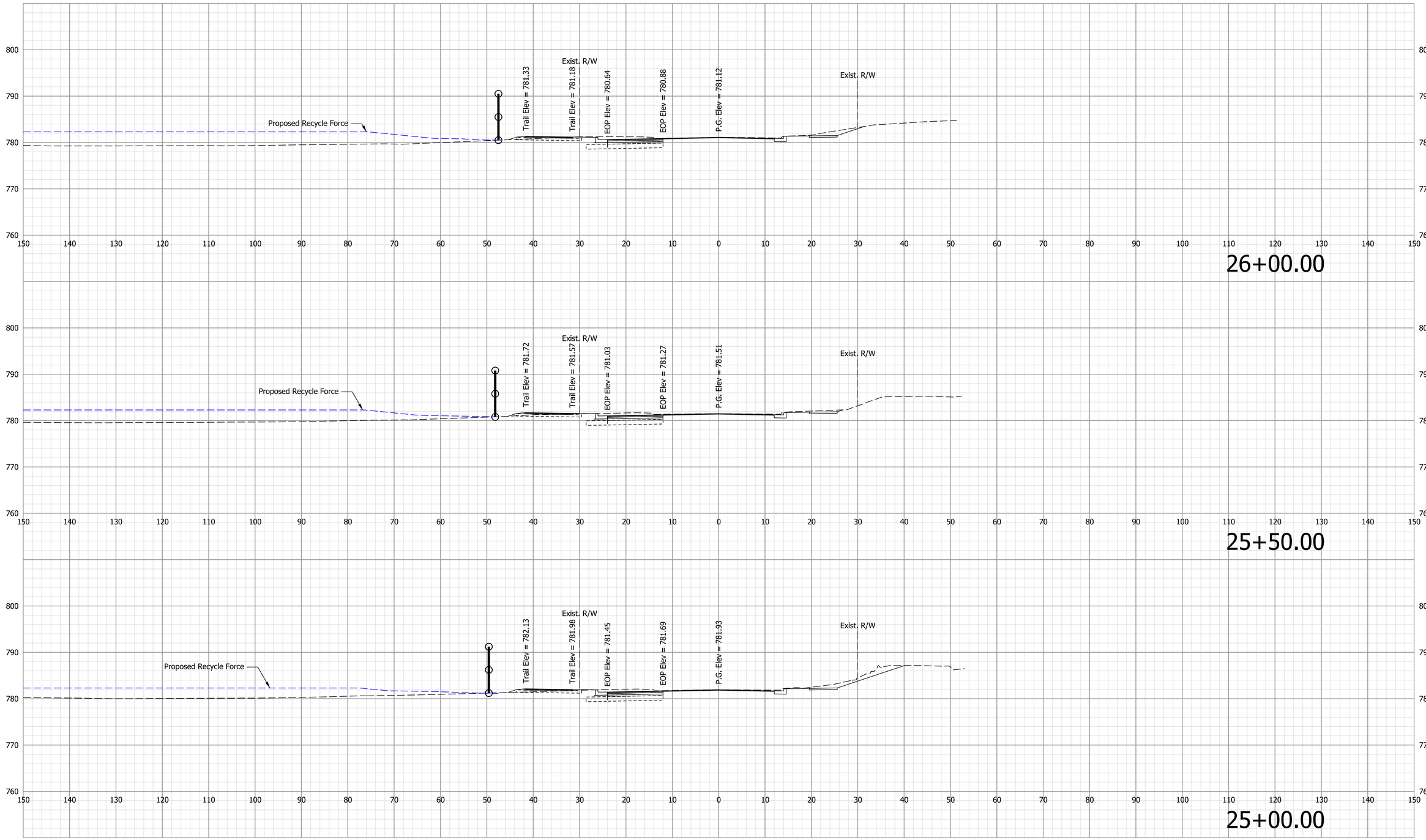
CROSS SECTIONS
SHERMAN DRIVE

HORIZONTAL SCALE	1" = 10'
VERTICAL SCALE	1" = 10'
PROJECT NUMBER	TBD
SHEETS NUMBER	50 OF 159



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REVISIONS			
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XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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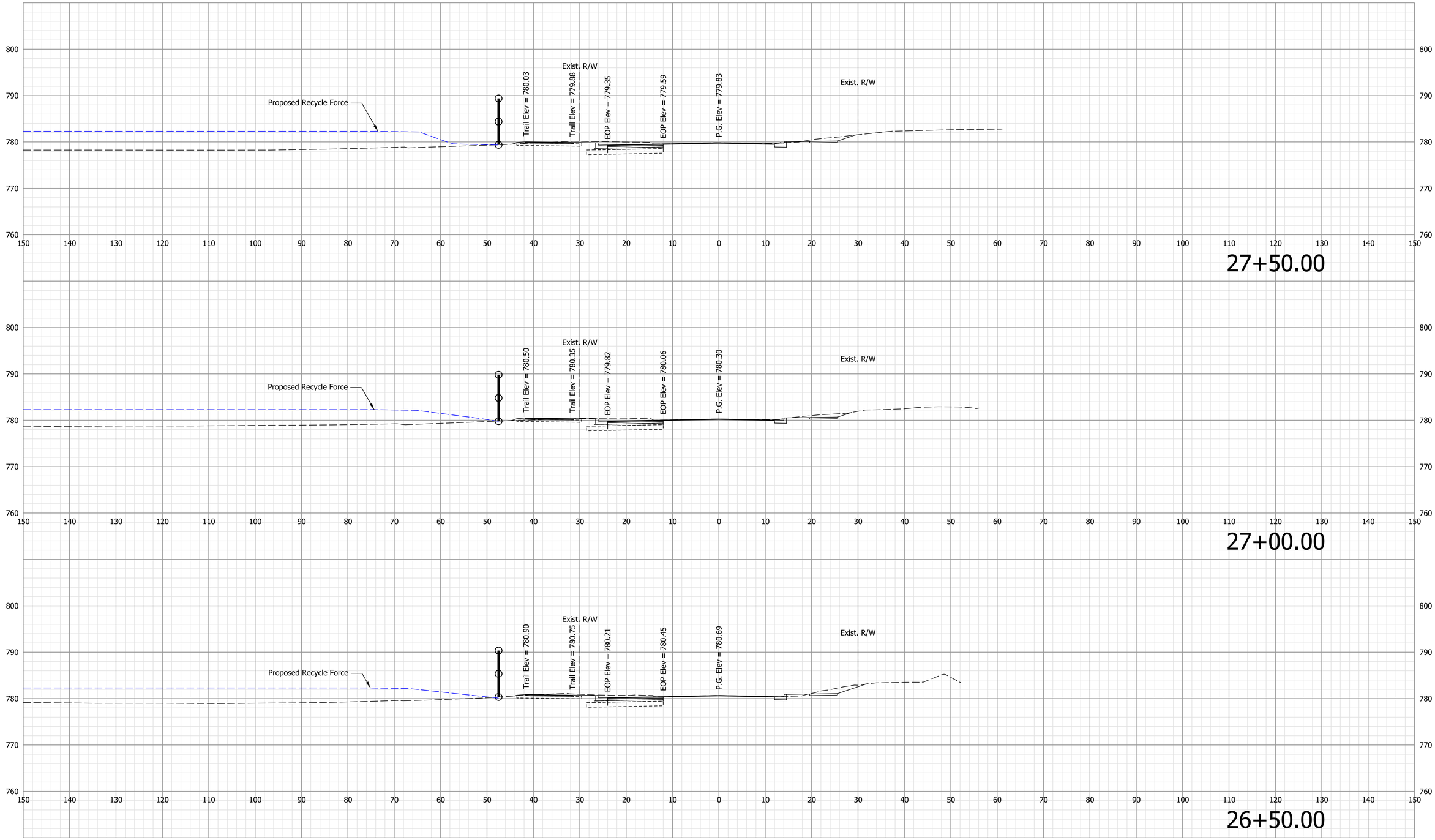
CROSS SECTIONS
SHERMAN DRIVE

HORIZONTAL SCALE	1" = 10'
VERTICAL SCALE	1" = 10'
PROJECT NUMBER	TBD
SHEETS NUMBER	51 OF 159



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REVISIONS			
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XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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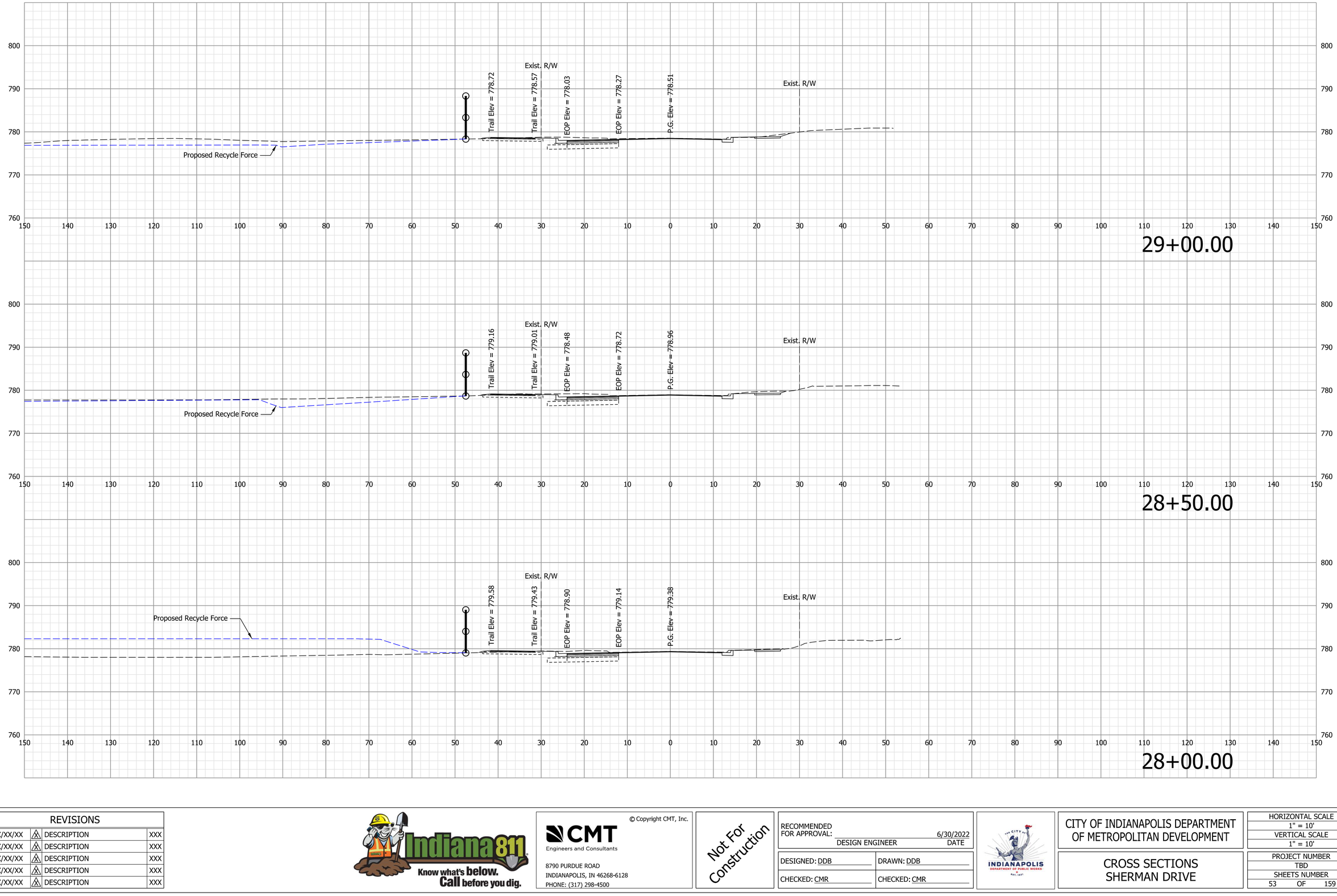
CROSS SECTIONS
SHERMAN DRIVE

HORIZONTAL SCALE	1" = 10'
VERTICAL SCALE	1" = 10'
PROJECT NUMBER	TBD
SHEETS NUMBER	52 OF 159



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REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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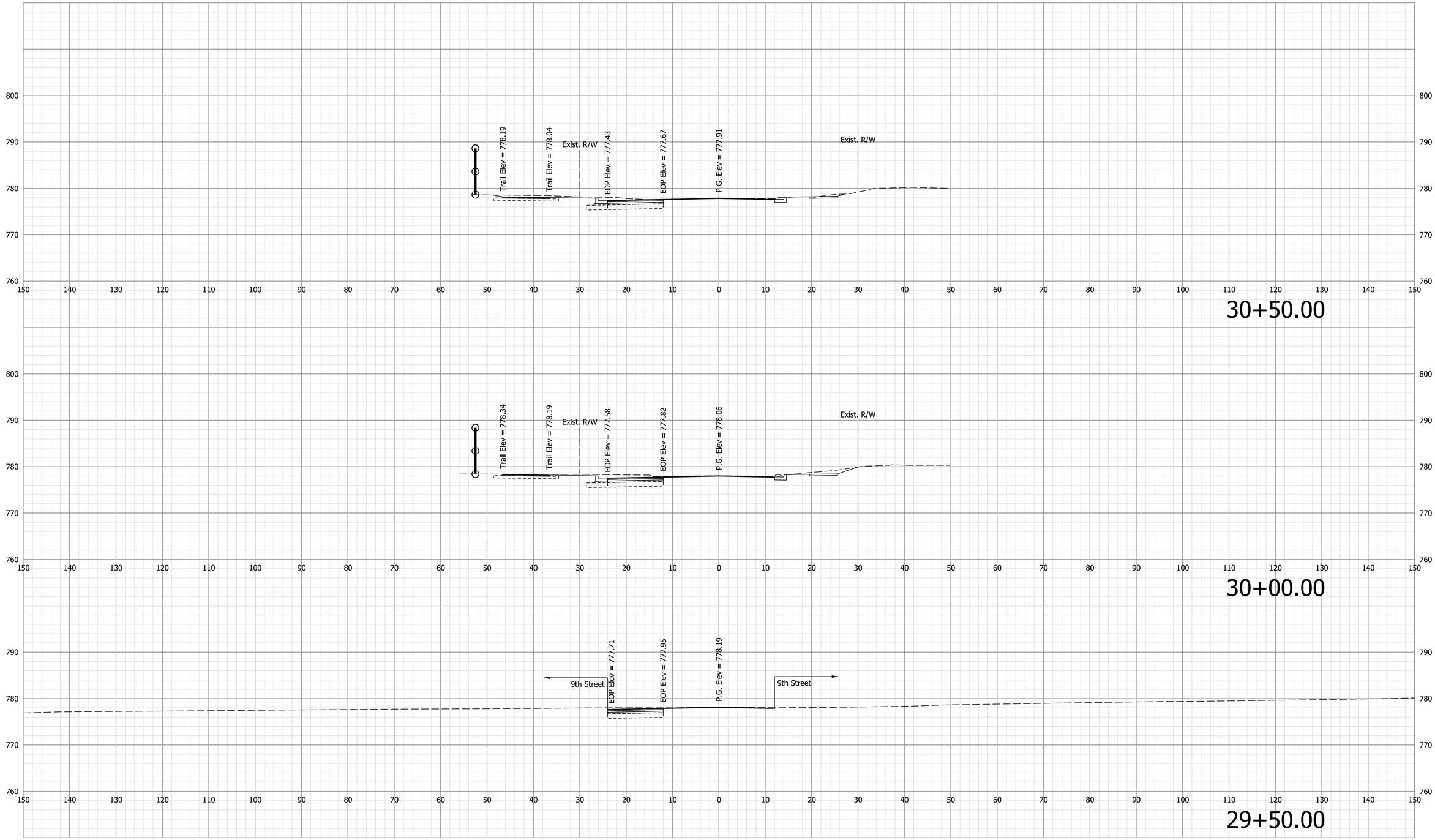
CROSS SECTIONS
SHERMAN DRIVE

HORIZONTAL SCALE	1" = 10'
VERTICAL SCALE	1" = 10'
PROJECT NUMBER	TBD
SHEETS NUMBER	53 OF 159



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REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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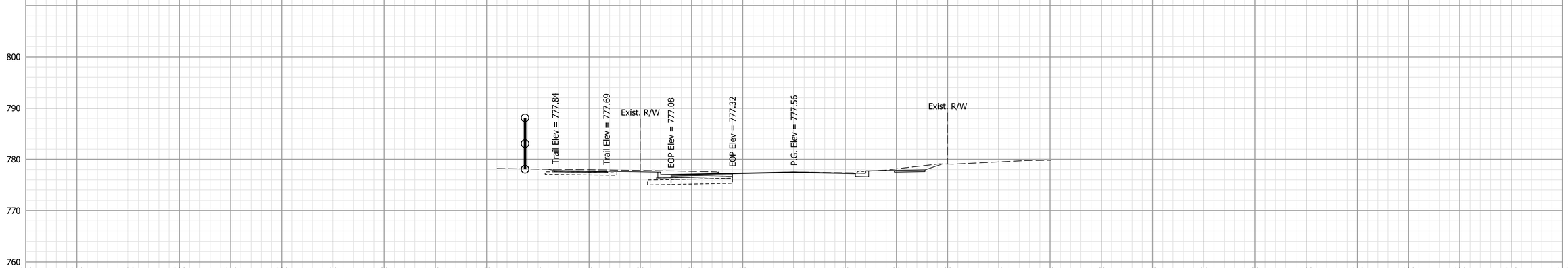
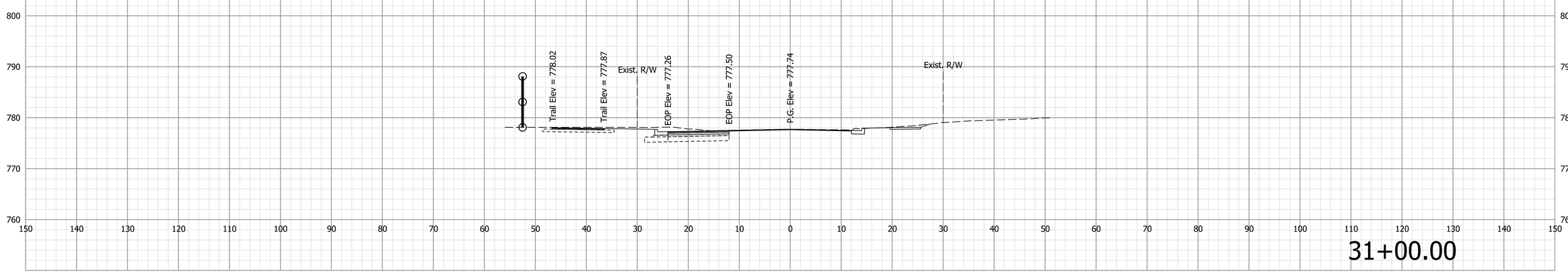
CROSS SECTIONS SHERMAN DRIVE

HORIZONTAL SCALE	1" = 10'
VERTICAL SCALE	1" = 10'
PROJECT NUMBER	TBD
SHEETS NUMBER	54 OF 159

32+00.00



31+50.00



31+00.00

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REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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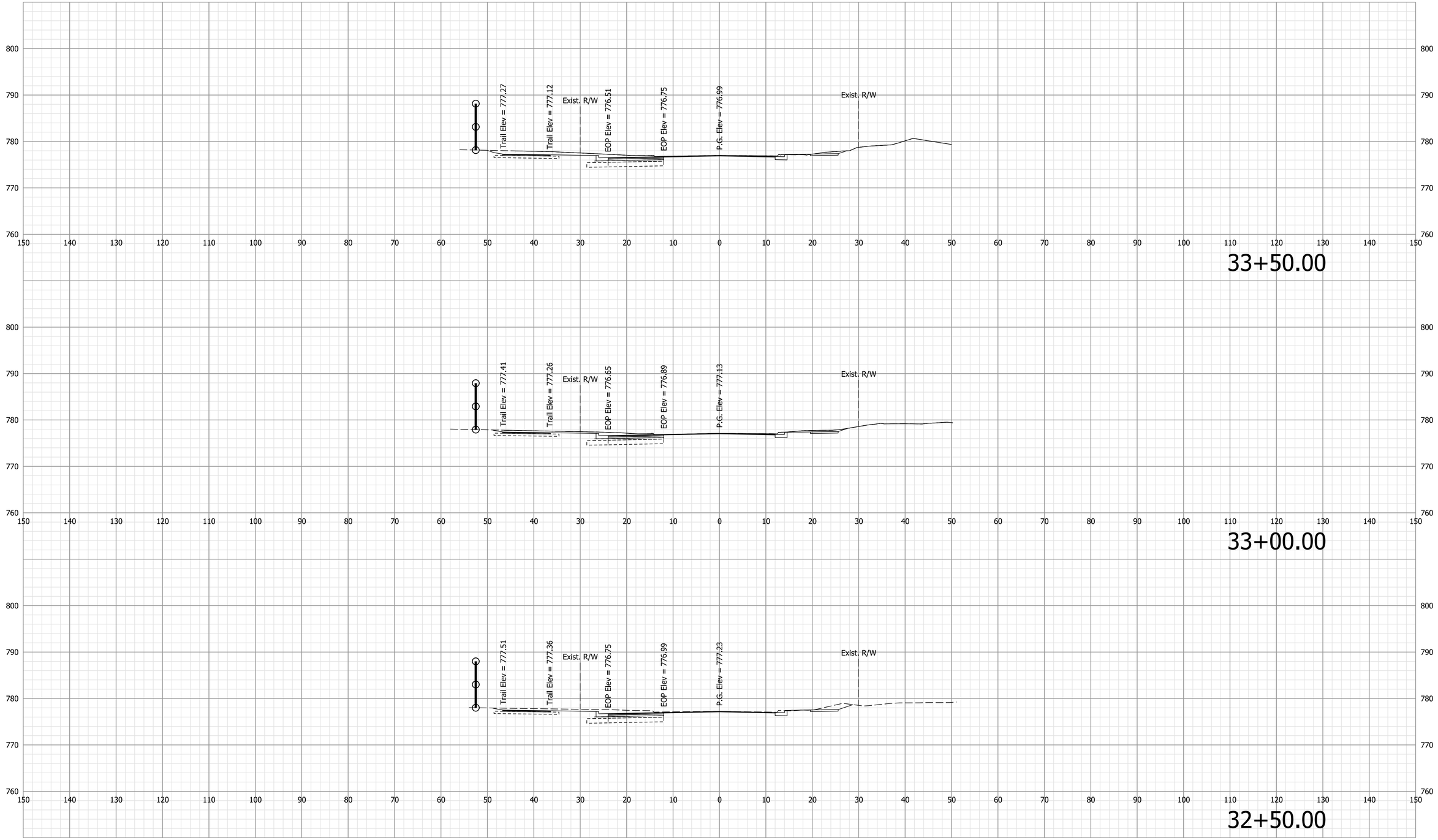
CROSS SECTIONS
SHERMAN DRIVE

HORIZONTAL SCALE	1" = 10'
VERTICAL SCALE	1" = 10'
PROJECT NUMBER	TBD
SHEETS NUMBER	55 OF 159



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REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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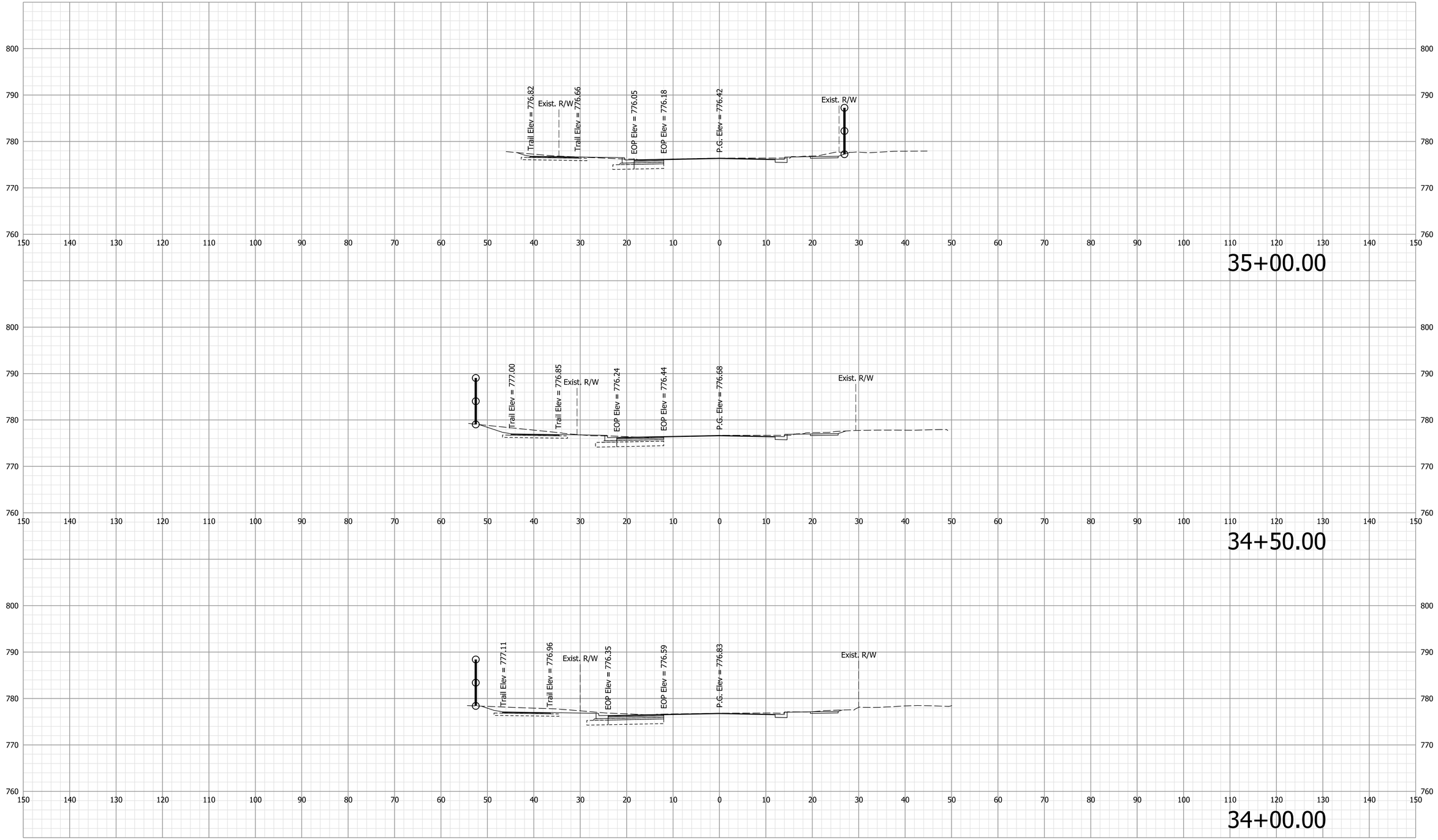
CROSS SECTIONS
SHERMAN DRIVE

HORIZONTAL SCALE	1" = 10'
VERTICAL SCALE	1" = 10'
PROJECT NUMBER	TBD
SHEETS NUMBER	56 OF 159



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REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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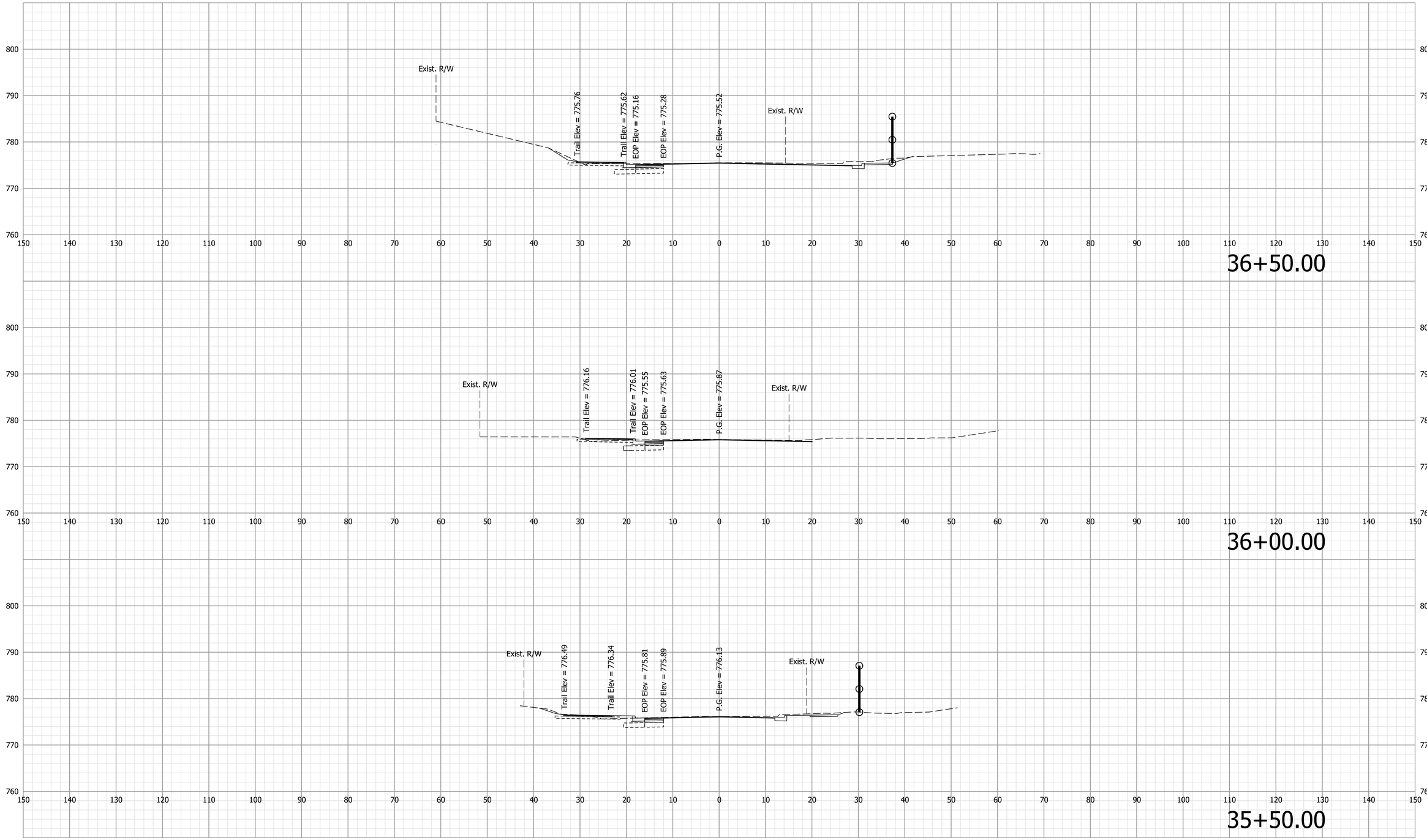
DESIGN ENGINEER DATE

DESIGNED: DDB | DRAWN: DDB
CHECKED: CMR | CHECKED: CMR

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

CROSS SECTIONS
SHERMAN DRIVE

HORIZONTAL SCALE	1" = 10'
VERTICAL SCALE	1" = 10'
PROJECT NUMBER	TBD
SHEETS NUMBER	57 OF 159



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REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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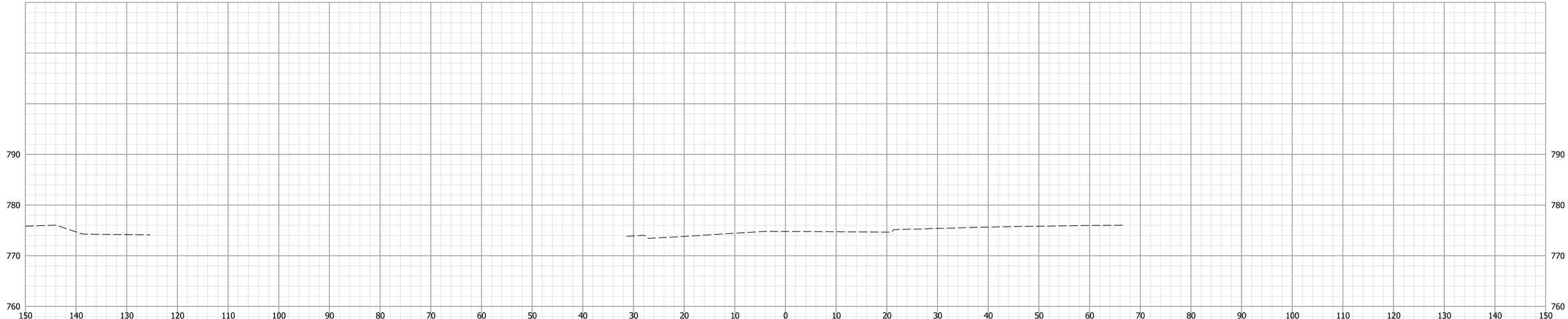
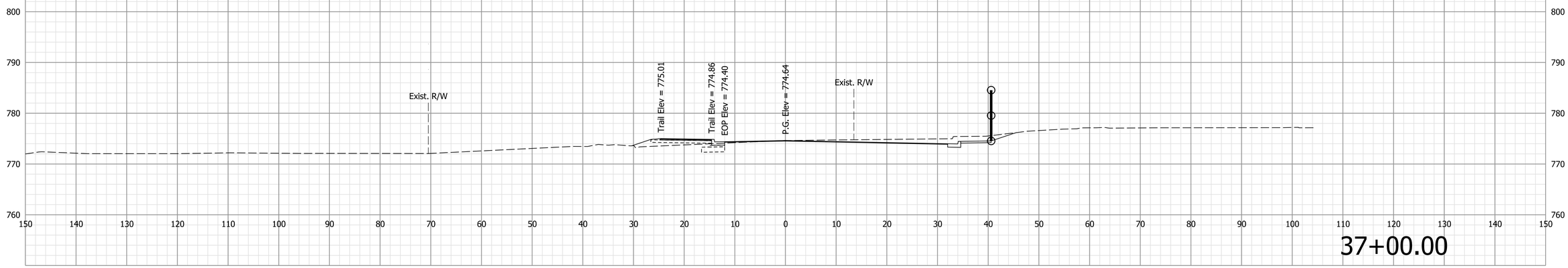
CROSS SECTIONS
SHERMAN DRIVE

HORIZONTAL SCALE	1" = 10'
VERTICAL SCALE	1" = 10'
PROJECT NUMBER	TBD
SHEETS NUMBER	58 OF 159





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XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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CROSS SECTIONS
SHERMAN DRIVE

HORIZONTAL SCALE
1" = 10'
VERTICAL SCALE
1" = 10'
PROJECT NUMBER
TBD
SHEETS NUMBER
59 OF 159

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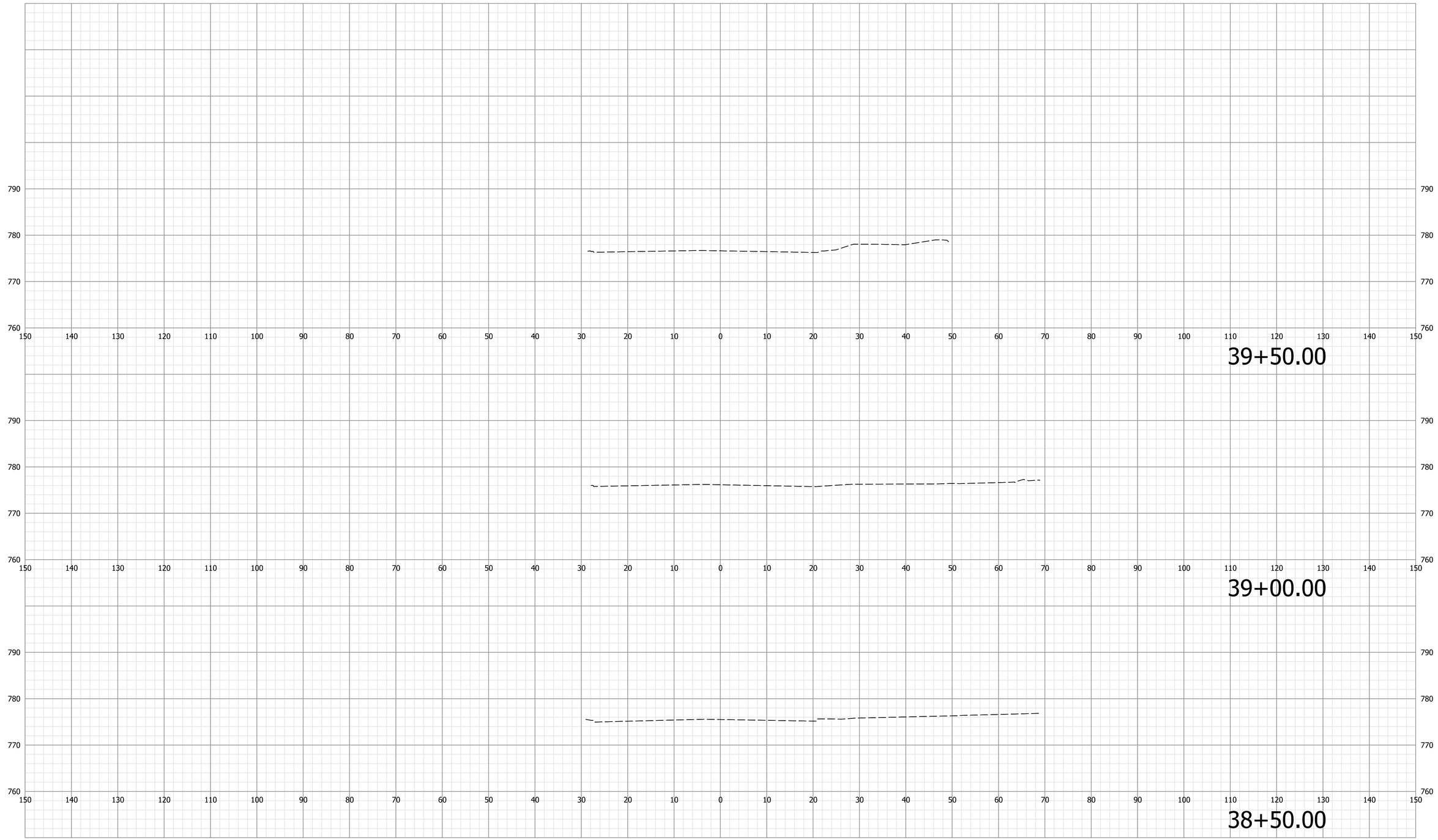

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XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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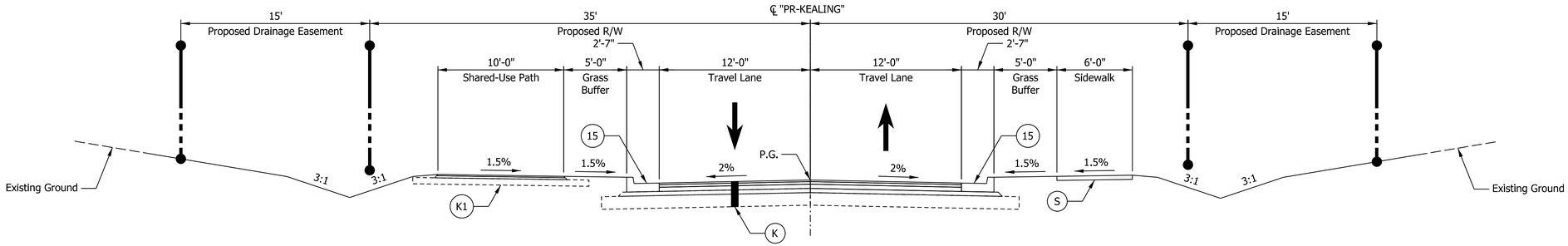
CROSS SECTIONS
SHERMAN DRIVE

HORIZONTAL SCALE
1" = 10'
VERTICAL SCALE
1" = 10'
PROJECT NUMBER
TBD
SHEETS NUMBER
60 OF 159



PROPOSED SECTION ON TANGENT

STA. 90+23.90 TO STA. 101+20.00 LINE "PR-KEALING"

NOTE TO REVIEWER:
Typical section subject to change, including the addition of parking spaces, per the ACS development and other future potential developments Coordination is ongoing.

NOTE:
1. See Design Guidelines for additional information for features beyond the edge of pavement.

LEGEND:

- (K) HMA Pavement, TBD
- (K1) HMA Pavement, TBD
- (S) Sidewalk, Concrete
- (15) Curb and Gutter, Concrete

REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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THE CITY OF INDIANAPOLIS METROPOLITAN DEVELOPMENT

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

TYPICAL SECTIONS
PROPOSED KEALING AVENUE

HORIZONTAL SCALE
1" = 5'
VERTICAL SCALE
1" = 5'
PROJECT NUMBER
TBD
SHEETS NUMBER
61 OF 159

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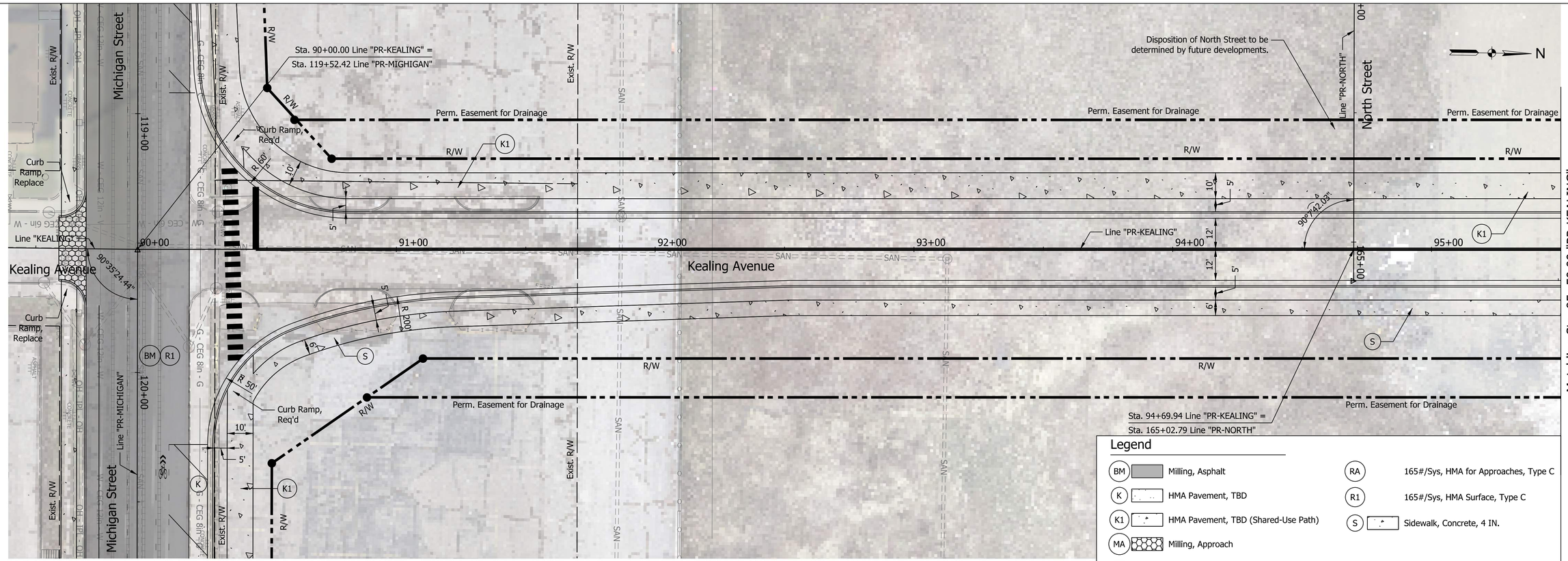
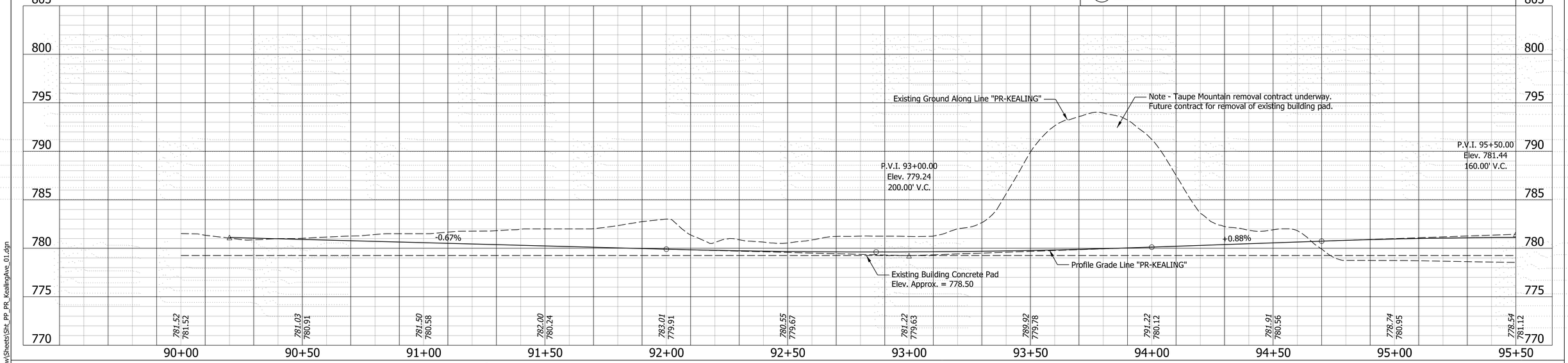


Legend

- BM — Milling, Asphalt
- K — HMA Pavement, TBD
- K1 — HMA Pavement, TBD (Shared-Use Path)
- MA — Milling, Approach
- PR — Pavement Removal
- CD — HMA Pavement, TBD
- RA — 165#/Sys, HMA for Approaches, Type C
- R1 — 165#/Sys, HMA Surface, Type C
- S — Sidewalk, Concrete, 4 IN.



REVISIONS			
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XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

0 20 40 80

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CHECKED: CMR | CHECKED: CMR

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PLAN AND PROFILE SHEET KEALING AVENUE LINE "PR-KEALING"

HORIZONTAL SCALE	1" = 20'
VERTICAL SCALE	1" = 10'
PROJECT NUMBER	TBD
SHEETS NUMBER	62 OF 159

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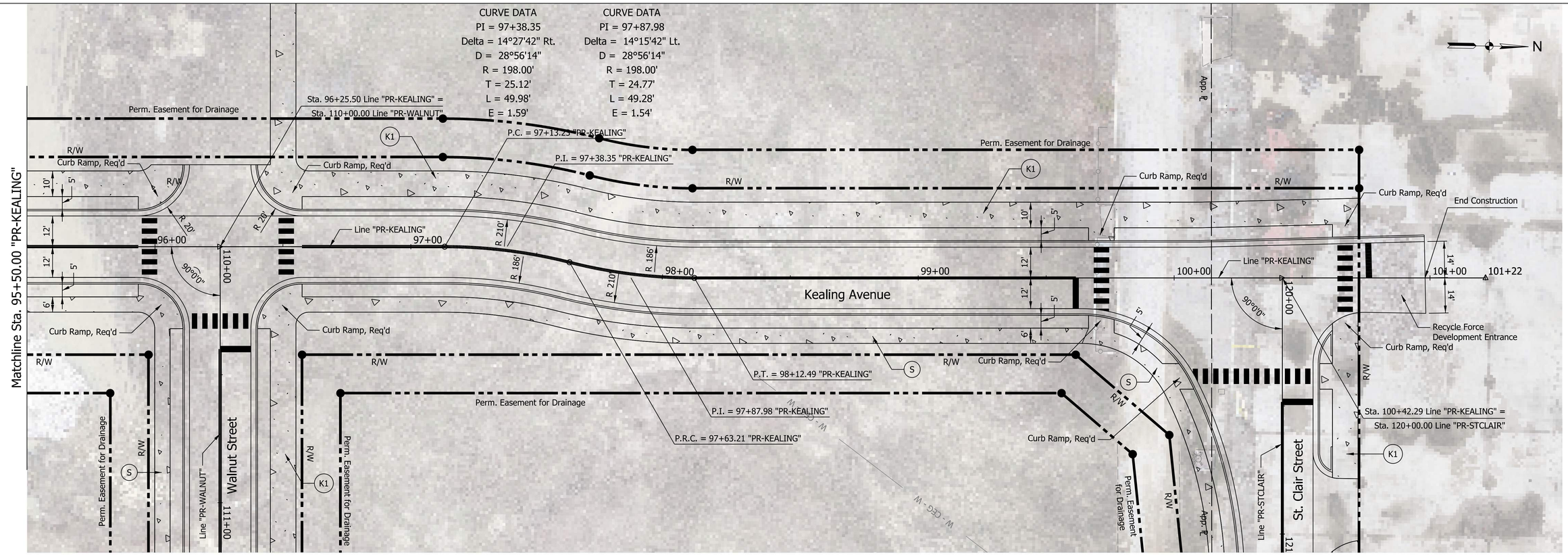

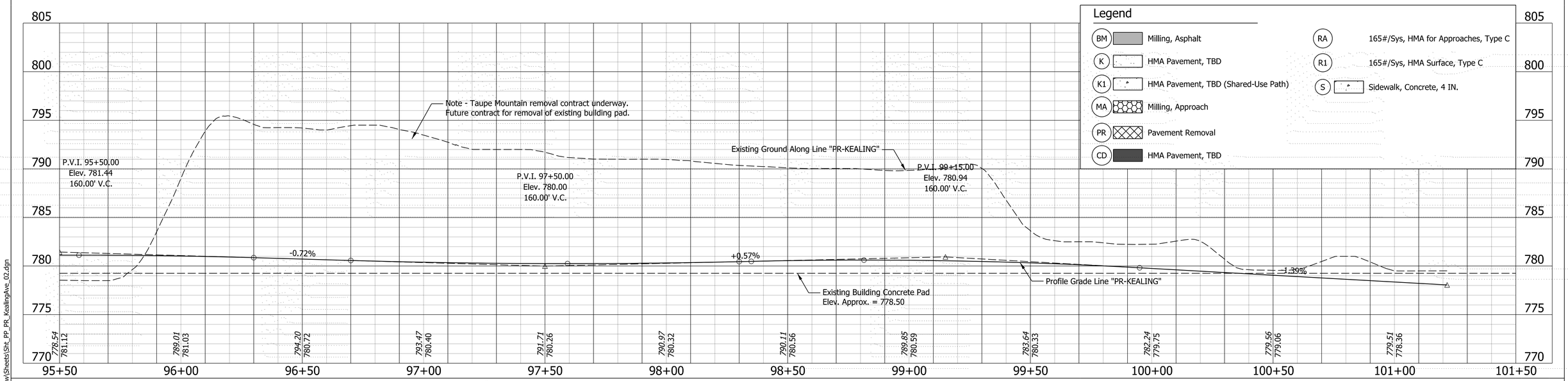

REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

0 20 40 80

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DESIGNED: LKJ | DRAWN: LKJ
CHECKED: CMR | CHECKED: CMR

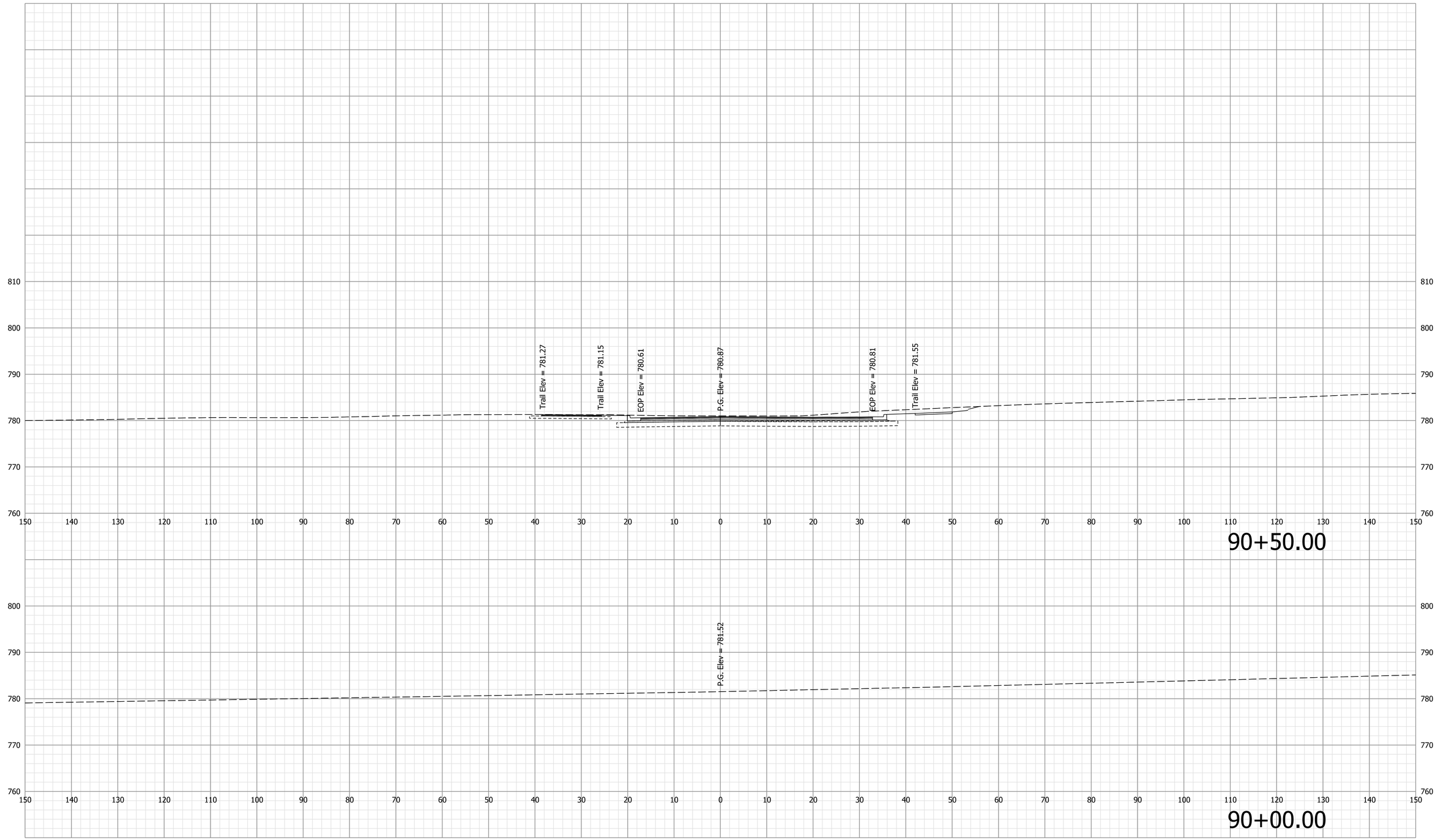
THE CITY OF INDIANAPOLIS METROPOLITAN DEVELOPMENT

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

PLAN AND PROFILE SHEET
KEALING AVENUE
LINE "PR-KEALING"

HORIZONTAL SCALE	1" = 20'
VERTICAL SCALE	1" = 10'
PROJECT NUMBER	TBD
SHEETS NUMBER	63 OF 159

L:\IndyDMD\190725\01-00\Draw\Sheets\Sht_PP_PR_KealingAve_02.dgn



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REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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8790 PURDUE ROAD
INDIANAPOLIS, IN 46268-6128
PHONE: (317) 298-4500

Not For Construction

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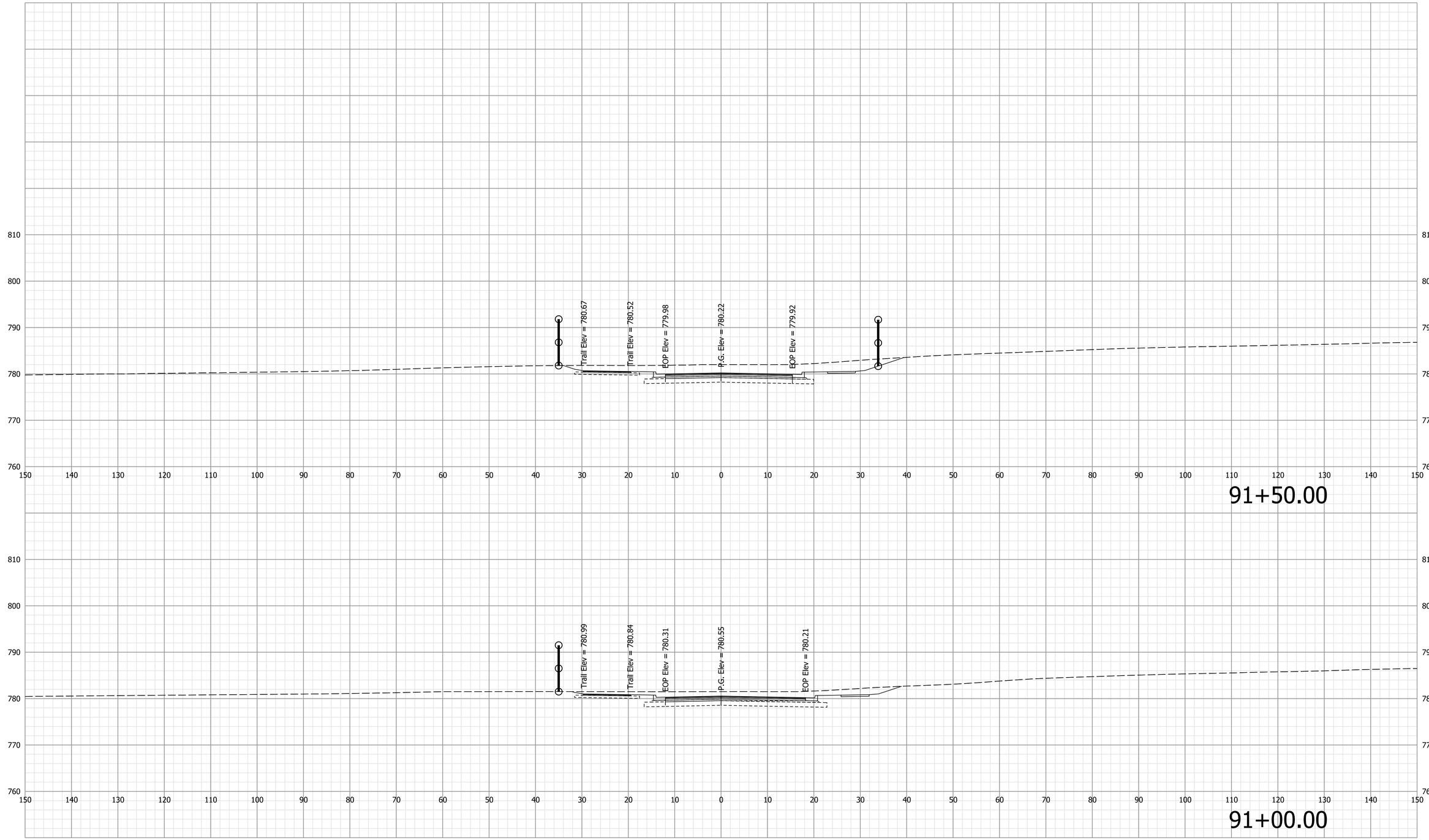
DESIGNED: DDB | DRAWN: DDB
CHECKED: CMR | CHECKED: CMR

THE CITY OF INDIANAPOLIS DEPARTMENT OF PUBLIC WORKS

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

CROSS SECTIONS
LINE "PR-KEALING"

HORIZONTAL SCALE
1" = 10'
VERTICAL SCALE
1" = 10'
PROJECT NUMBER
TBD
SHEETS NUMBER
64 OF 159



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REVISIONS			
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XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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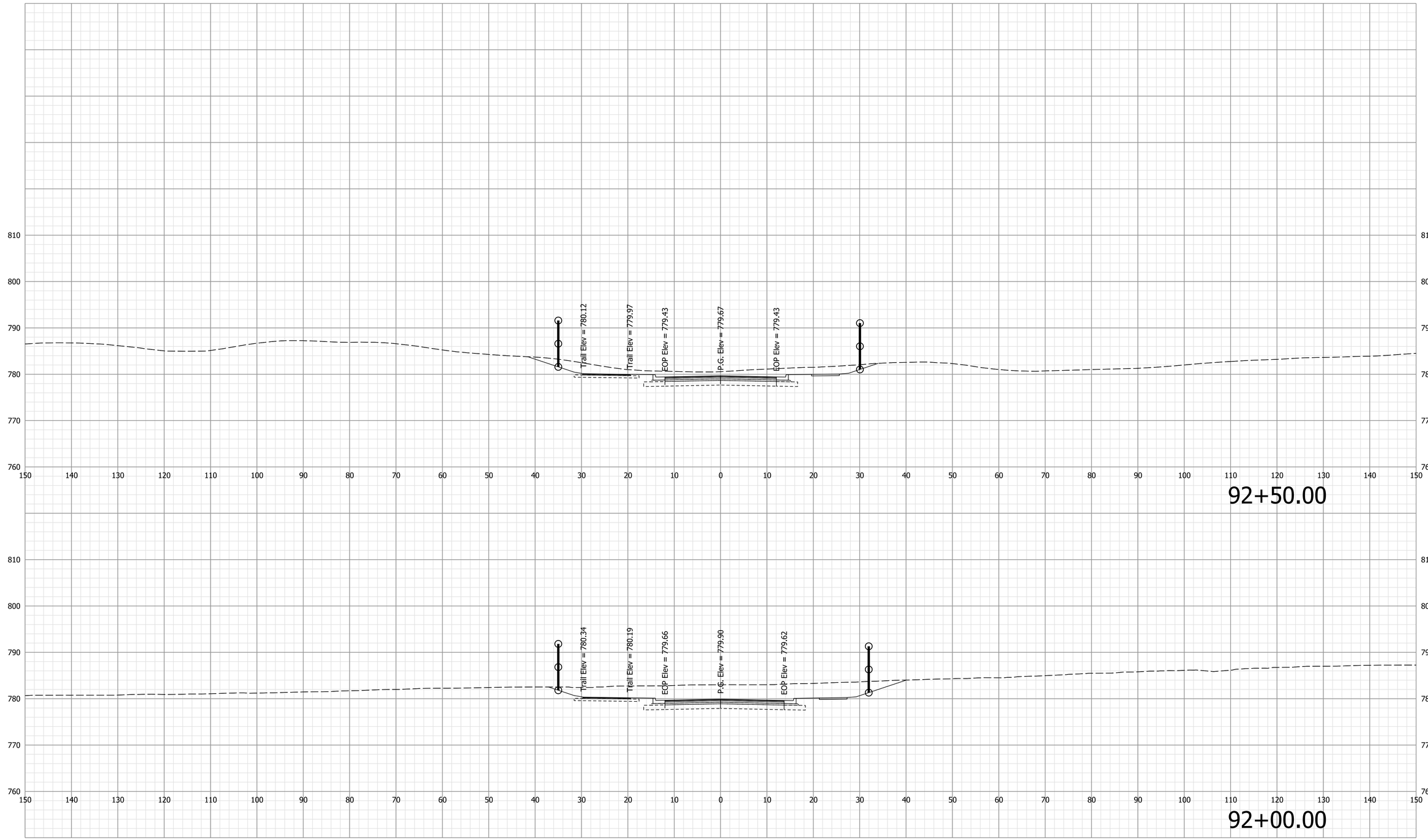
INDIANAPOLIS DEPARTMENT OF PUBLIC WORKS

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

CROSS SECTIONS LINE "PR-KEALING"

HORIZONTAL SCALE
1" = 10'
VERTICAL SCALE
1" = 10'
PROJECT NUMBER
TBD
SHEETS NUMBER
65 OF 159



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REVISIONS			
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XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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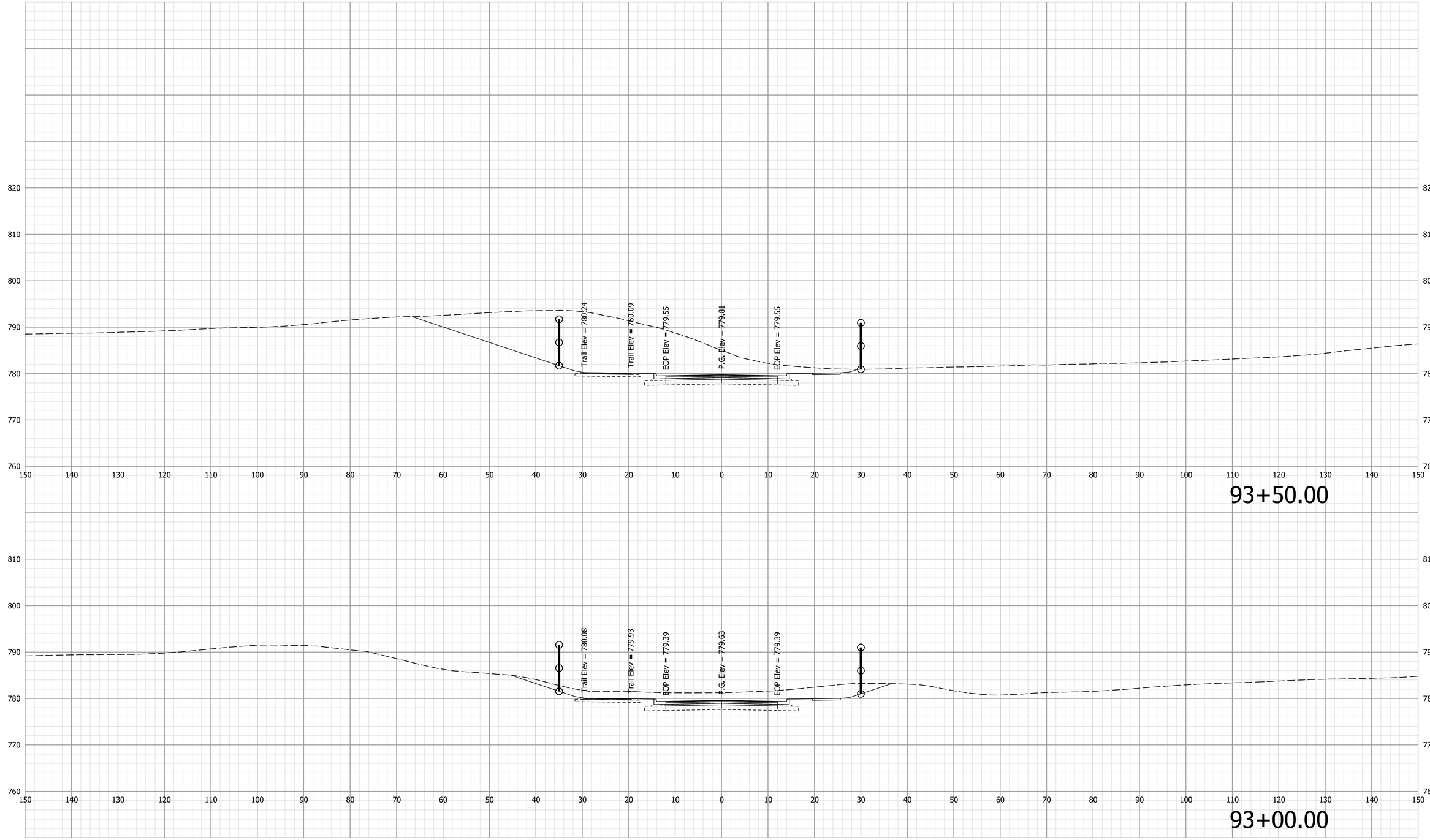
INDIANAPOLIS DEPARTMENT OF PUBLIC WORKS

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

CROSS SECTIONS
LINE "PR-KEALING"

HORIZONTAL SCALE
1" = 10'
VERTICAL SCALE
1" = 10'
PROJECT NUMBER
TBD
SHEETS NUMBER
66 OF 159



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REVISIONS			
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XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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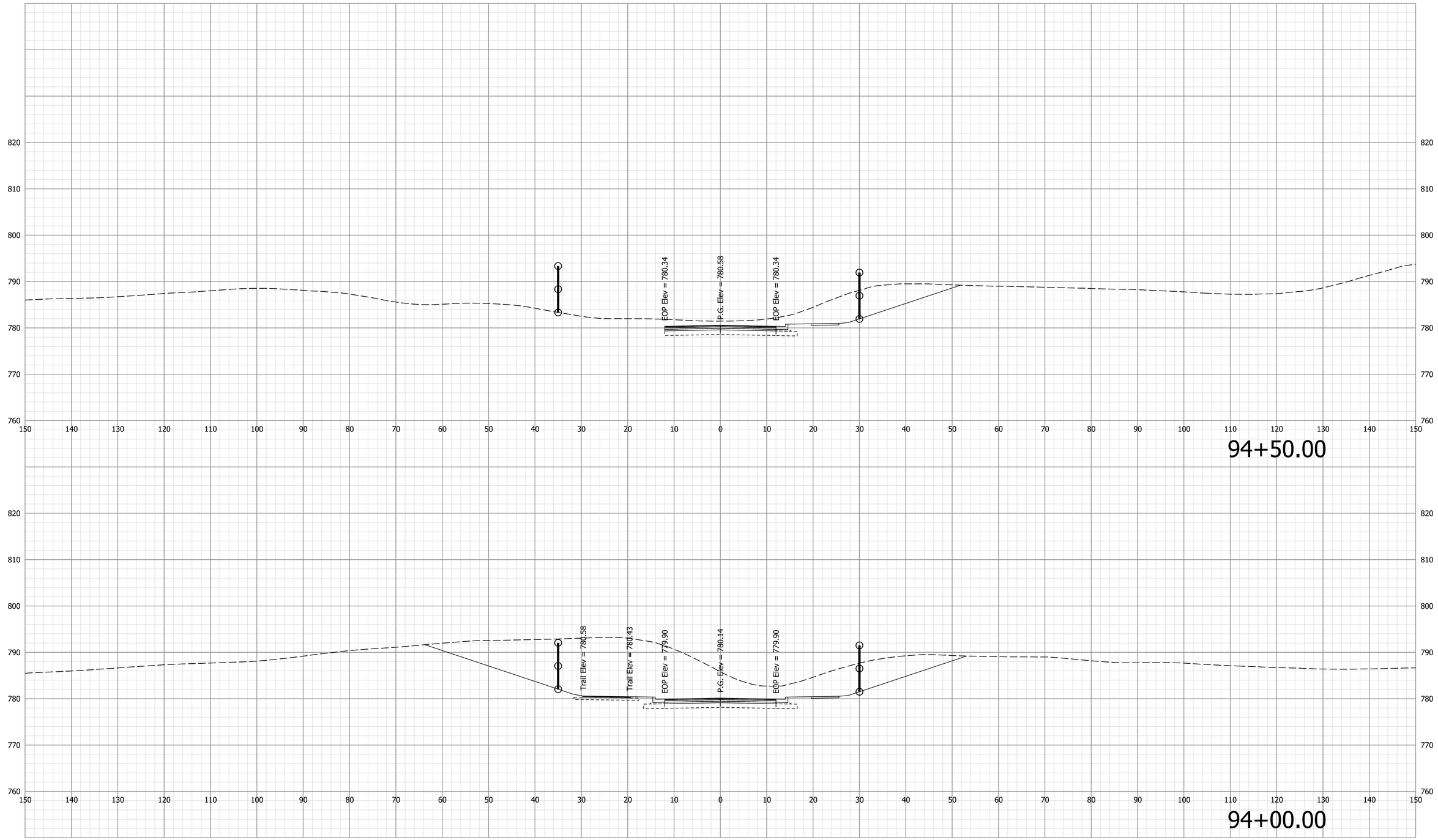
INDIANAPOLIS DEPARTMENT OF PUBLIC WORKS

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

CROSS SECTIONS
LINE "PR-KEALING"

HORIZONTAL SCALE
1" = 10'
VERTICAL SCALE
1" = 10'
PROJECT NUMBER
TBD
SHEETS NUMBER
67 OF 159



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XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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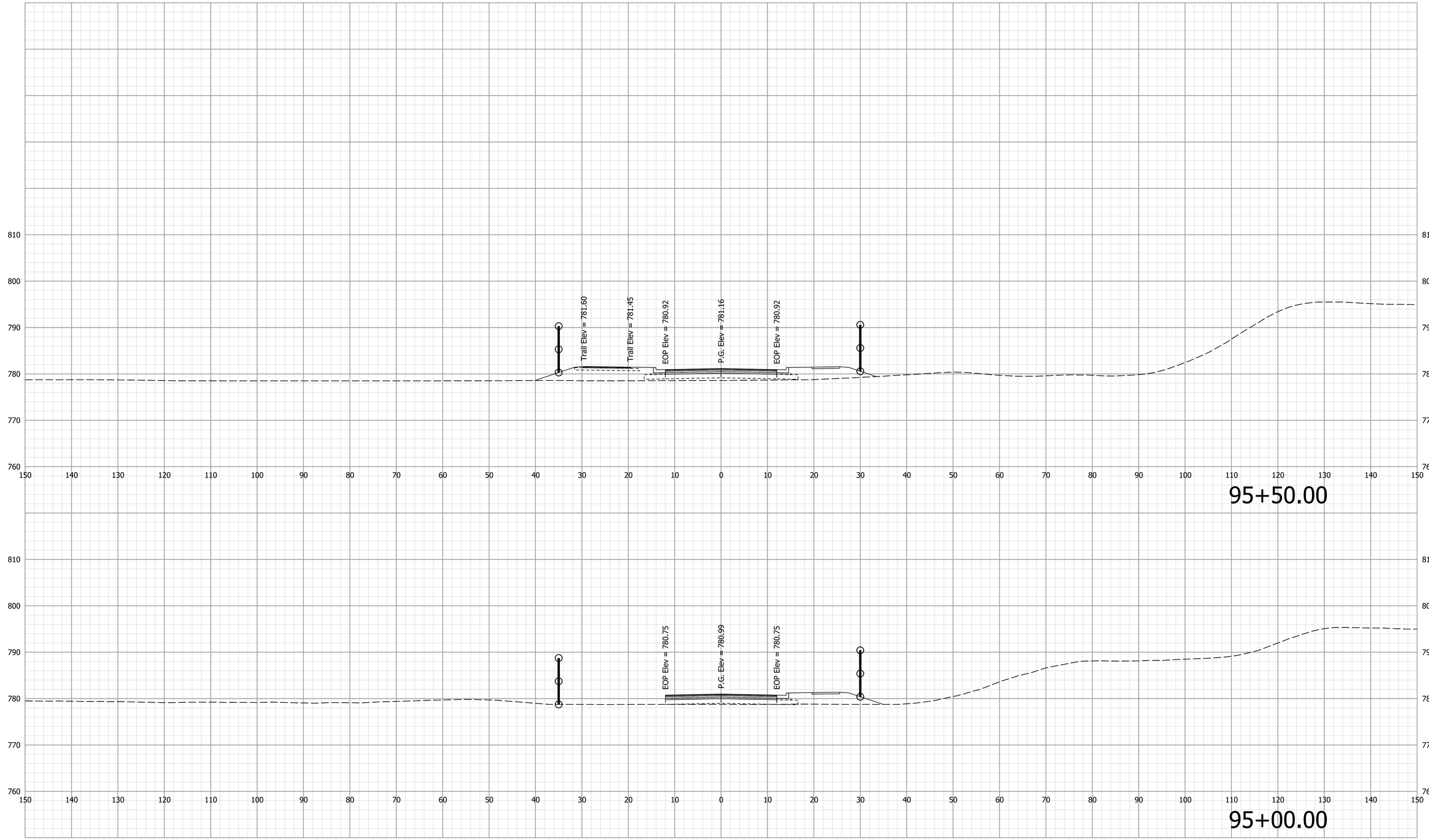
CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

CROSS SECTIONS
LINE "PR-KEALING"

HORIZONTAL SCALE
1" = 10'
VERTICAL SCALE
1" = 10'
PROJECT NUMBER
TBD
SHEETS NUMBER
68 OF 159



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XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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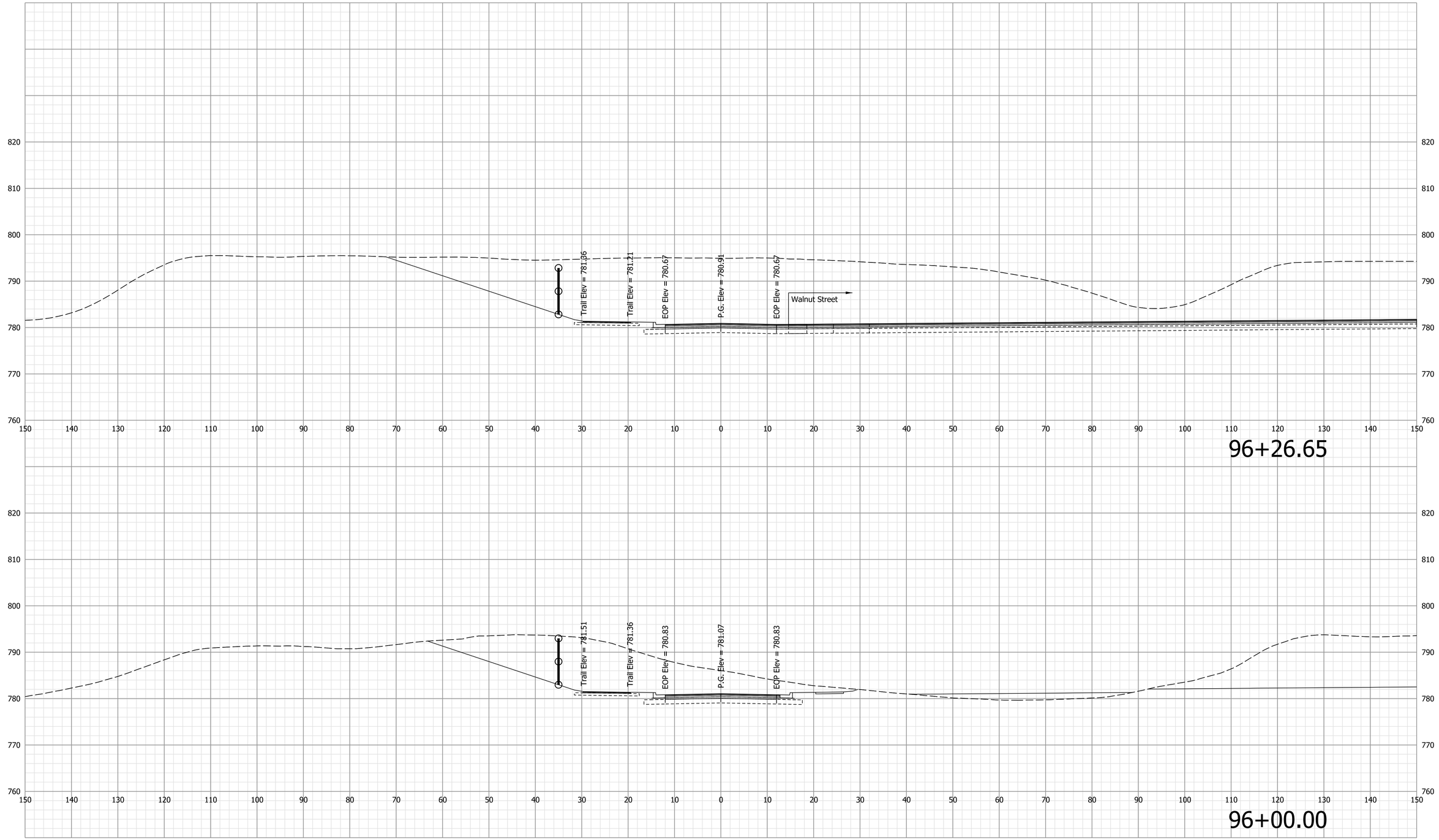
CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

CROSS SECTIONS
LINE "PR-KEALING"

HORIZONTAL SCALE	1" = 10'
VERTICAL SCALE	1" = 10'
PROJECT NUMBER	TBD
SHEETS NUMBER	69 OF 159



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REVISIONS			
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XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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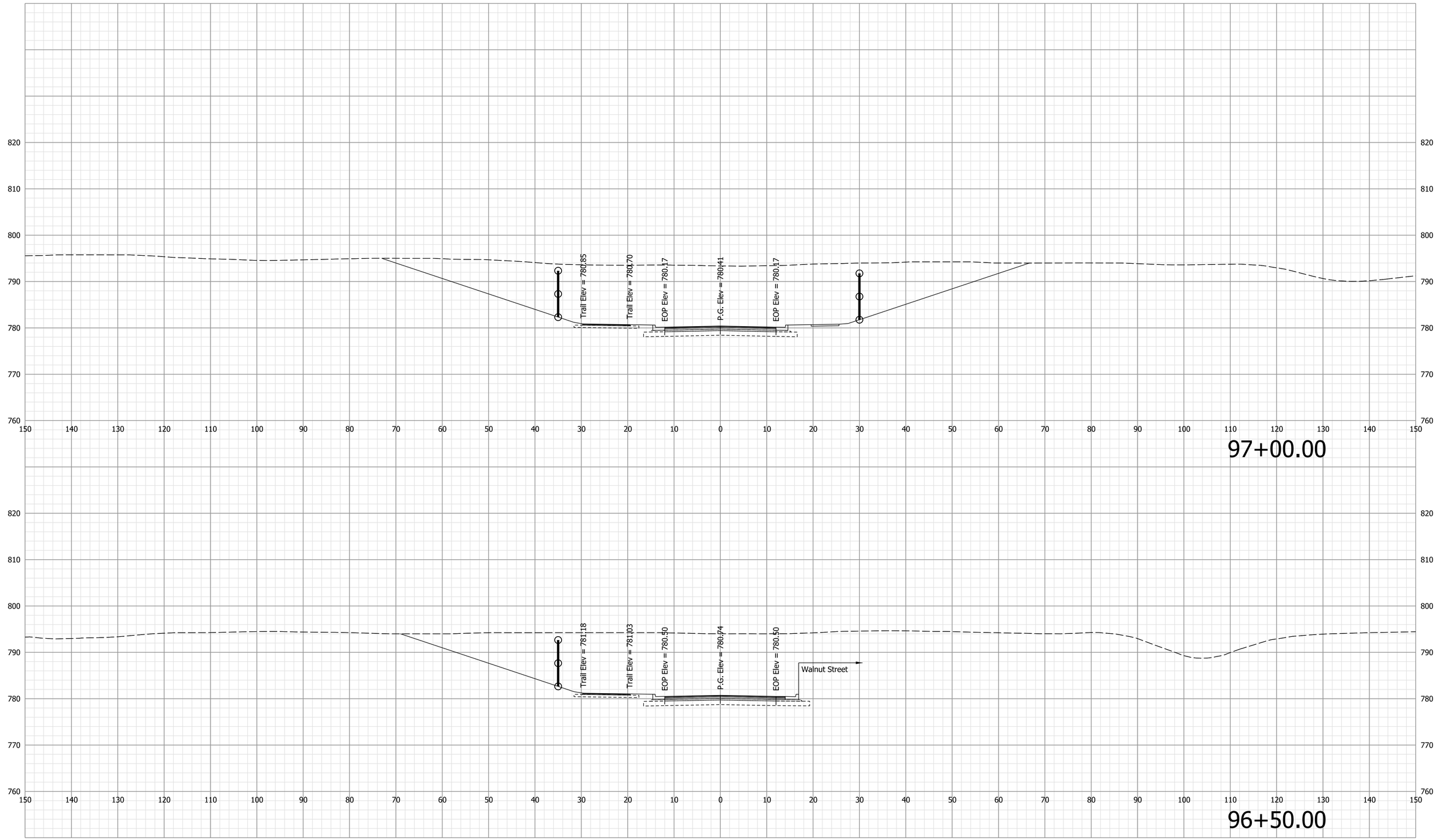
CROSS SECTIONS LINE "PR-KEALING"

HORIZONTAL SCALE	1" = 10'
VERTICAL SCALE	1" = 10'
PROJECT NUMBER	TBD
SHEETS NUMBER	70 OF 159



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XX/XX/XX	2	DESCRIPTION	XXX
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XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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CHECKED: CMR | CHECKED: CMR

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

CROSS SECTIONS
LINE "PR-KEALING"

HORIZONTAL SCALE	1" = 10'
VERTICAL SCALE	1" = 10'
PROJECT NUMBER	TBD
SHEETS NUMBER	71 OF 159

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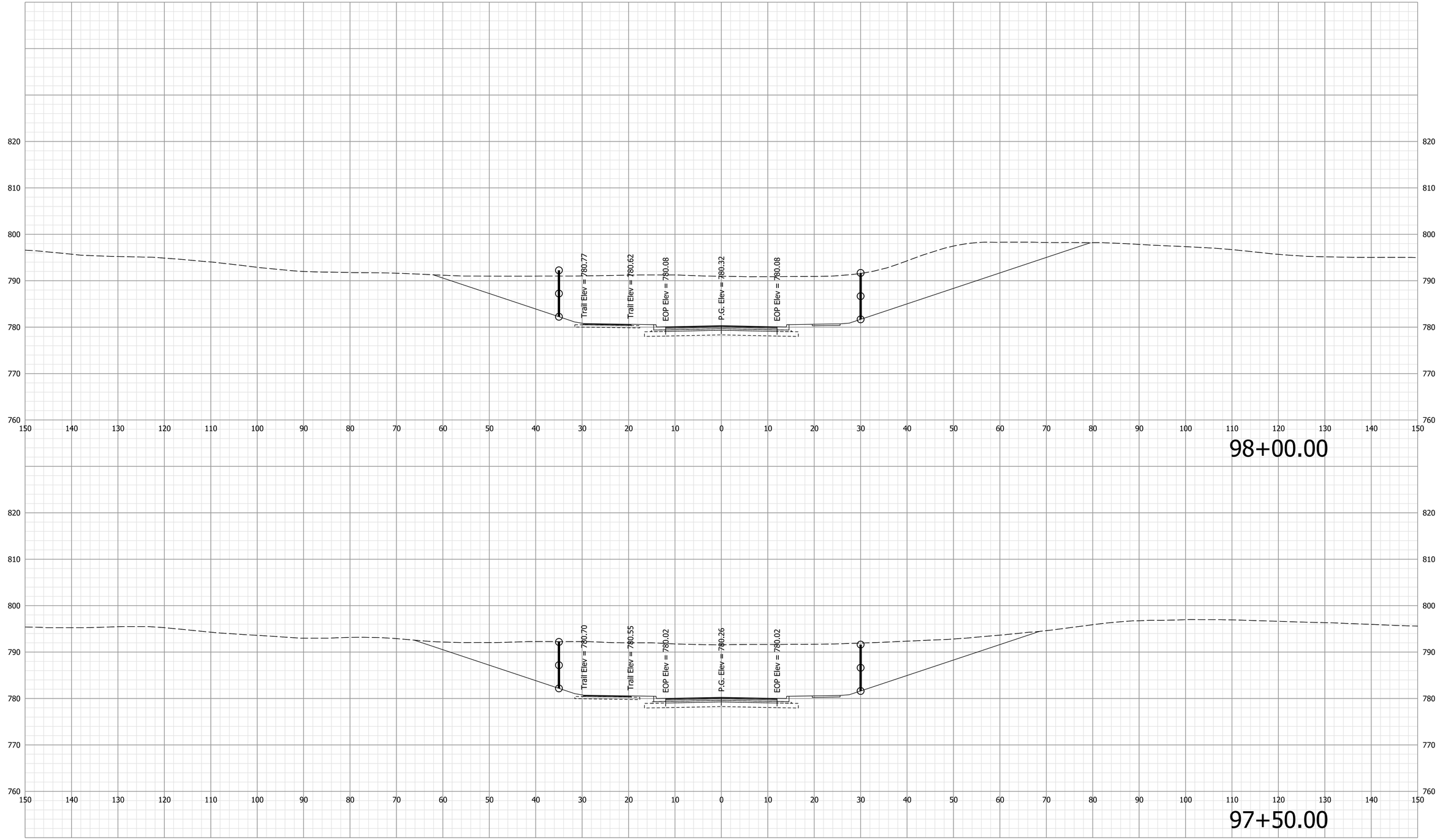

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REVISIONS			
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XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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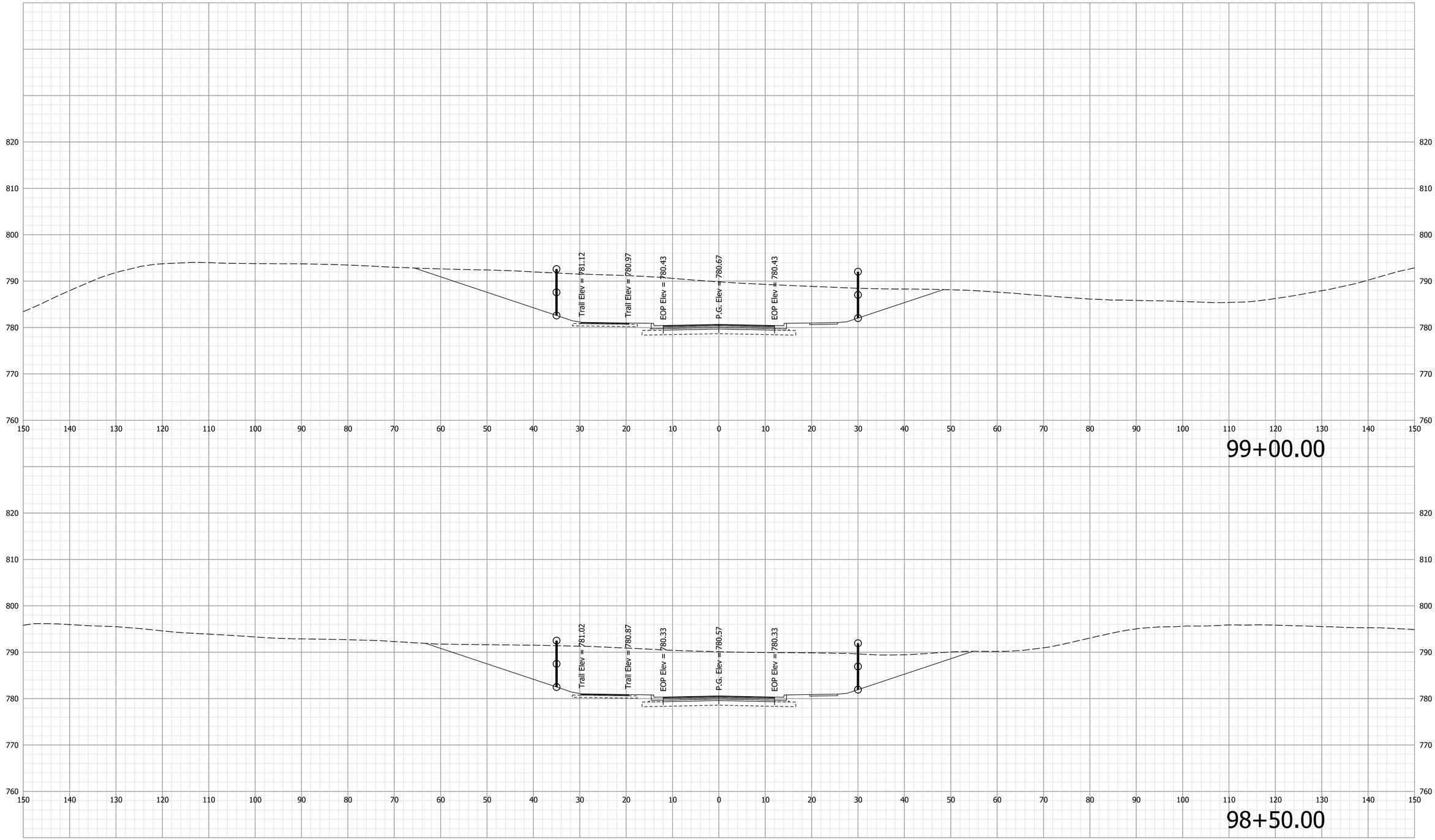
CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

CROSS SECTIONS
LINE "PR-KEALING"

HORIZONTAL SCALE
1" = 10'
VERTICAL SCALE
1" = 10'
PROJECT NUMBER
TBD
SHEETS NUMBER
72 OF 159



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REVISIONS			
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XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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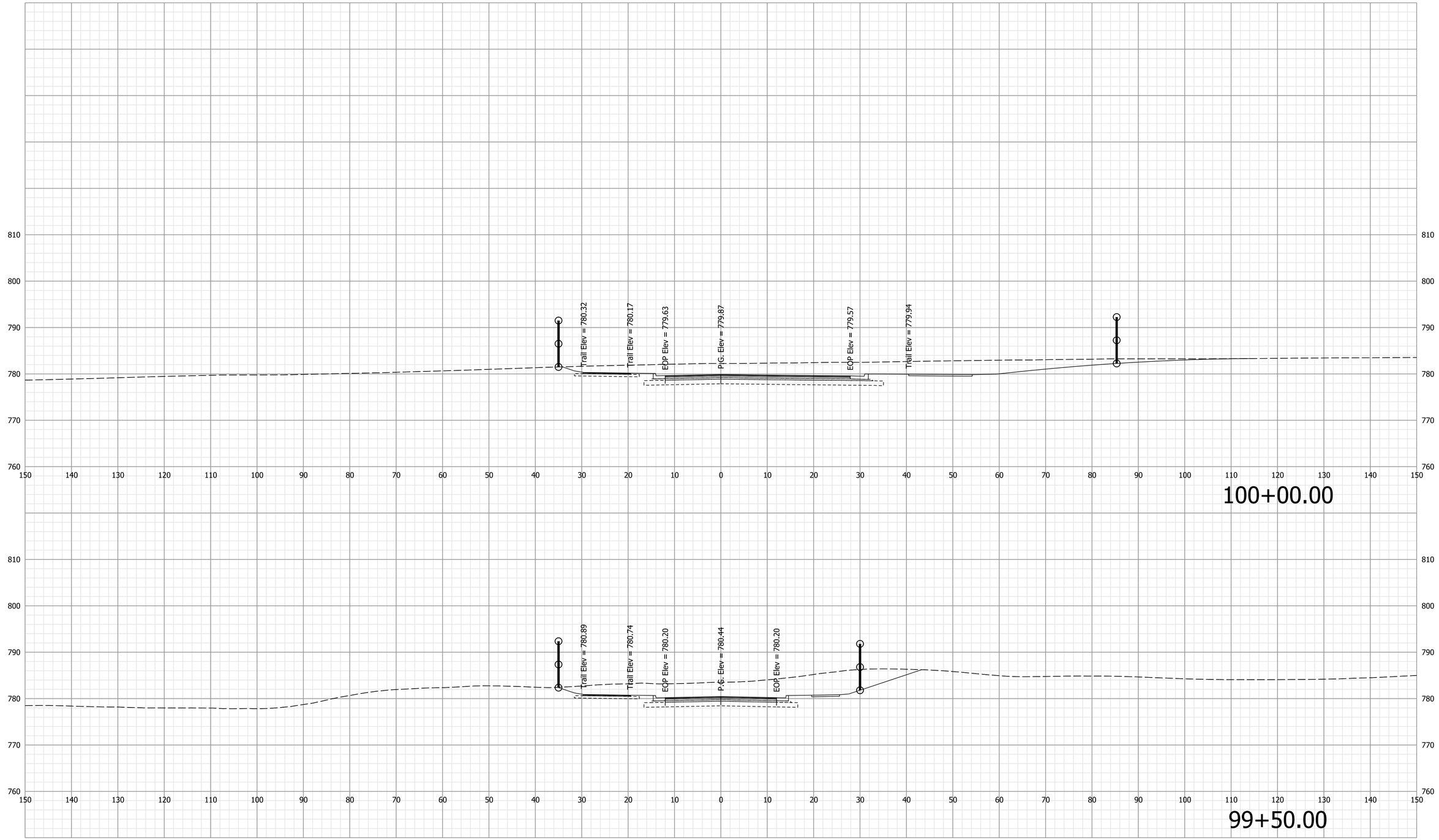
CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

CROSS SECTIONS
LINE "PR-KEALING"

HORIZONTAL SCALE	1" = 10'
VERTICAL SCALE	1" = 10'
PROJECT NUMBER	TBD
SHEETS NUMBER	73 OF 159



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REVISIONS			
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XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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DESIGN ENGINEER DATE

DESIGNED: DDB | DRAWN: DDB
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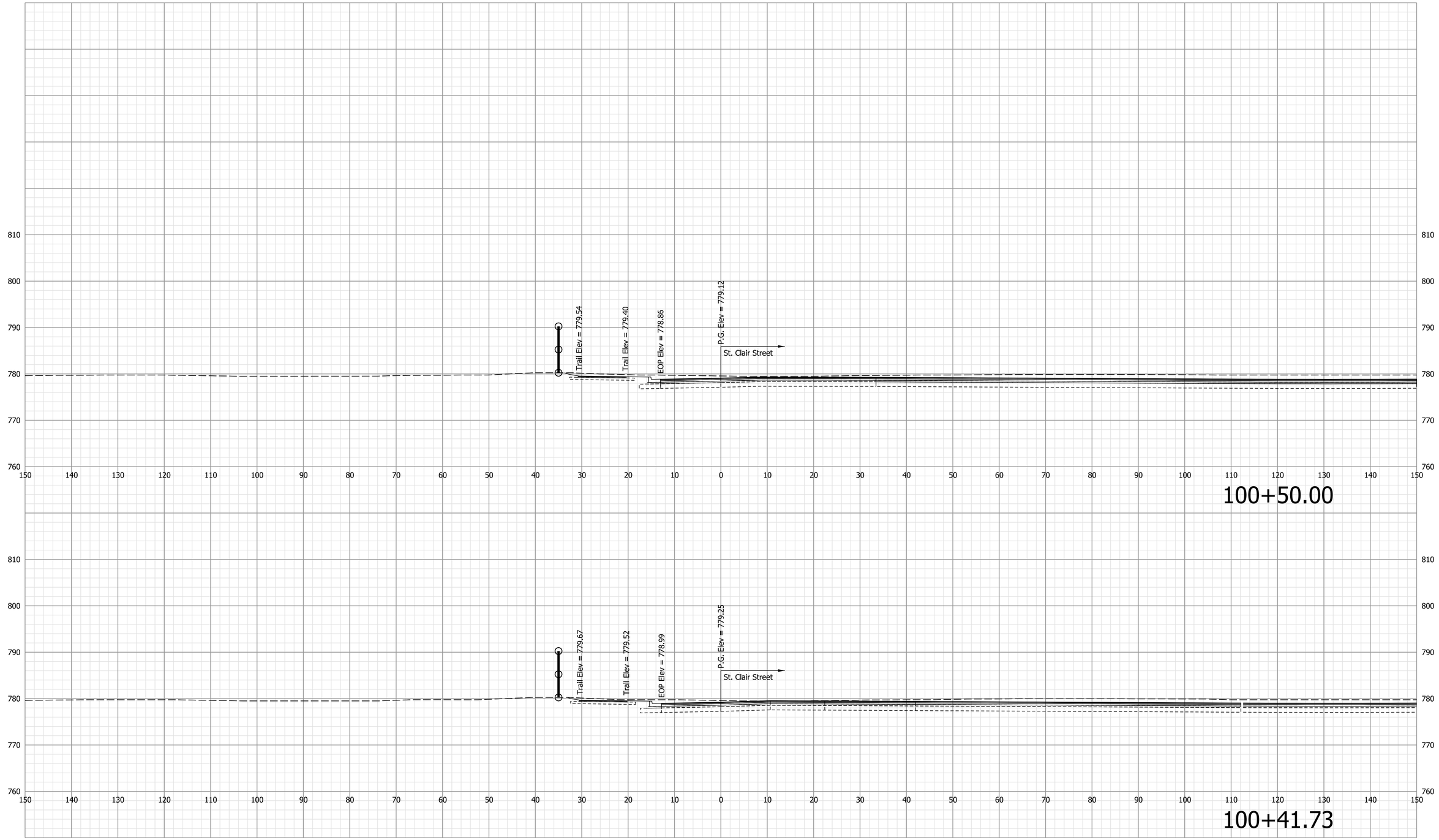
INDIANAPOLIS DEPARTMENT OF PUBLIC WORKS

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

CROSS SECTIONS LINE "PR-KEALING"

HORIZONTAL SCALE
1" = 10'
VERTICAL SCALE
1" = 10'
PROJECT NUMBER
TBD
SHEETS NUMBER
74 OF 159



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XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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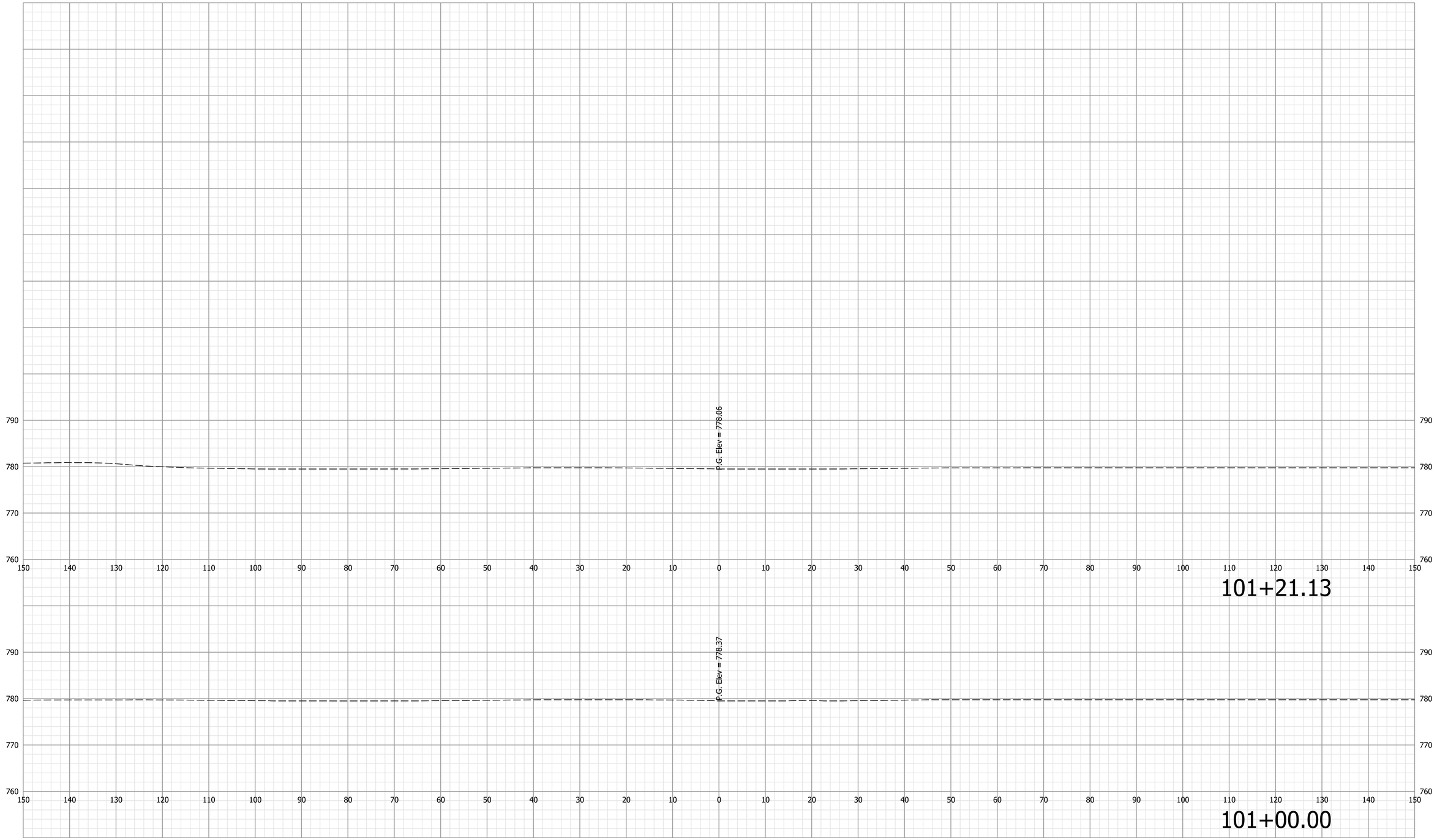
INDIANAPOLIS DEPARTMENT OF PUBLIC WORKS

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

CROSS SECTIONS LINE "PR-KEALING"

HORIZONTAL SCALE
1" = 10'
VERTICAL SCALE
1" = 10'
PROJECT NUMBER
TBD
SHEETS NUMBER
75 OF 159



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XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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DESIGN ENGINEER DATE

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THE CITY OF INDIANAPOLIS DEPARTMENT OF PUBLIC WORKS EST. 1821

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

CROSS SECTIONS LINE "PR-KEALING"

HORIZONTAL SCALE
1" = 10'
VERTICAL SCALE
1" = 10'
PROJECT NUMBER
TBD
SHEETS NUMBER
76 OF 159

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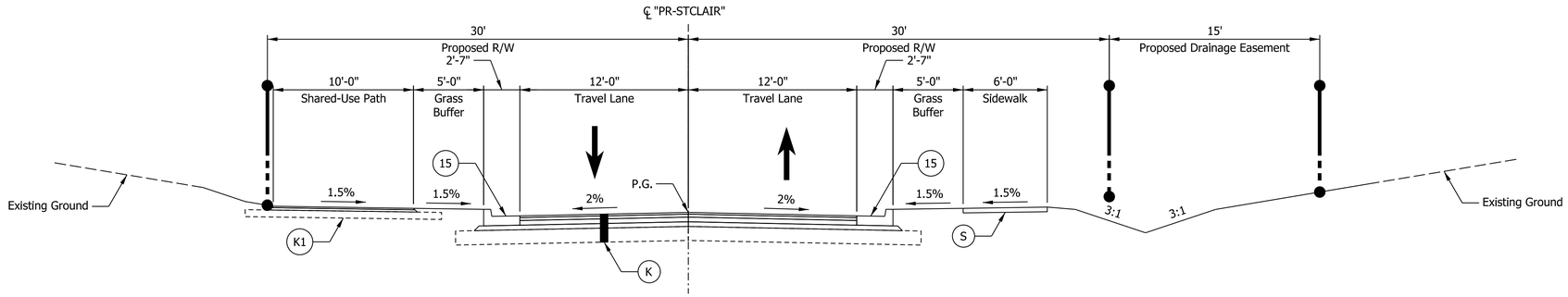

PROPOSED SECTION ON TANGENT

STA. 120+00.00 TO STA. 124+60.00 LINE "PR-STCLAIR"

LEGEND:

- (K) HMA Pavement, TBD
- (K1) HMA Pavement, TBD
- (S) Sidewalk, Concrete
- (15) Curb and Gutter, Concrete

NOTE:
1. See Design Guidelines for additional information for features beyond the edge of pavement.

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REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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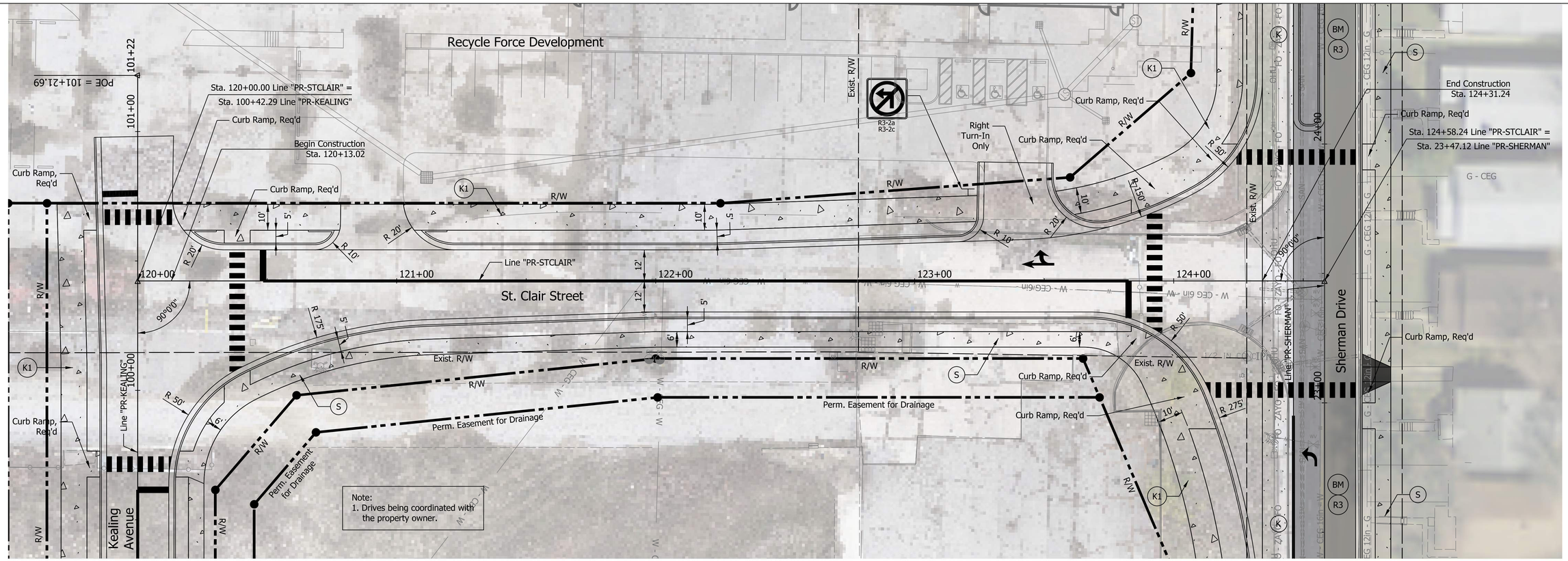
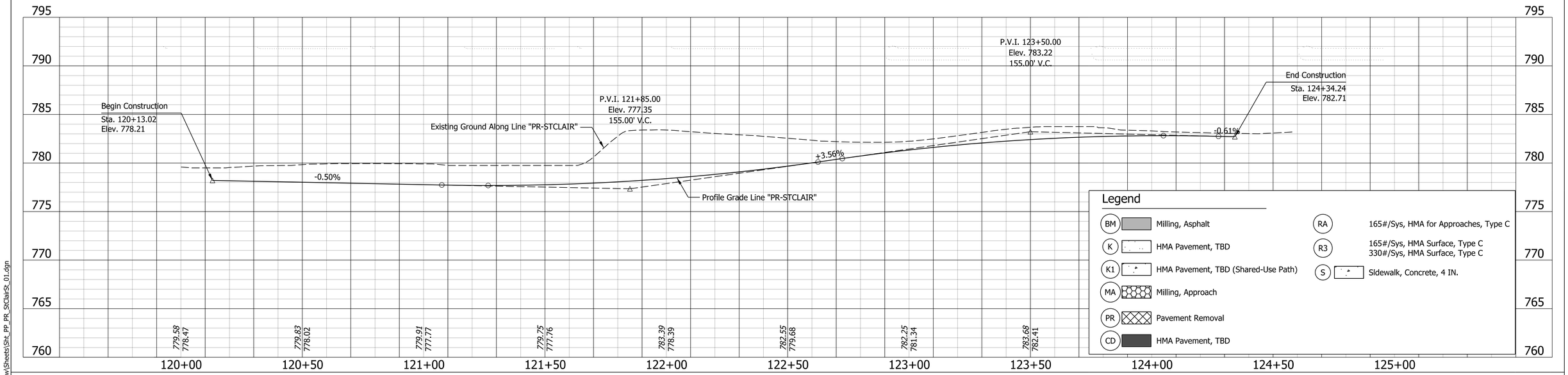
THE CITY OF INDIANAPOLIS METROPOLITAN DEVELOPMENT

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

TYPICAL SECTIONS
PROPOSED ST. CLAIR STREET

HORIZONTAL SCALE	1" = 5'
VERTICAL SCALE	1" = 5'
PROJECT NUMBER	TBD
SHEETS NUMBER	77 OF 159





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XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

0 20 40 80

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CHECKED: CMR | CHECKED: CMR

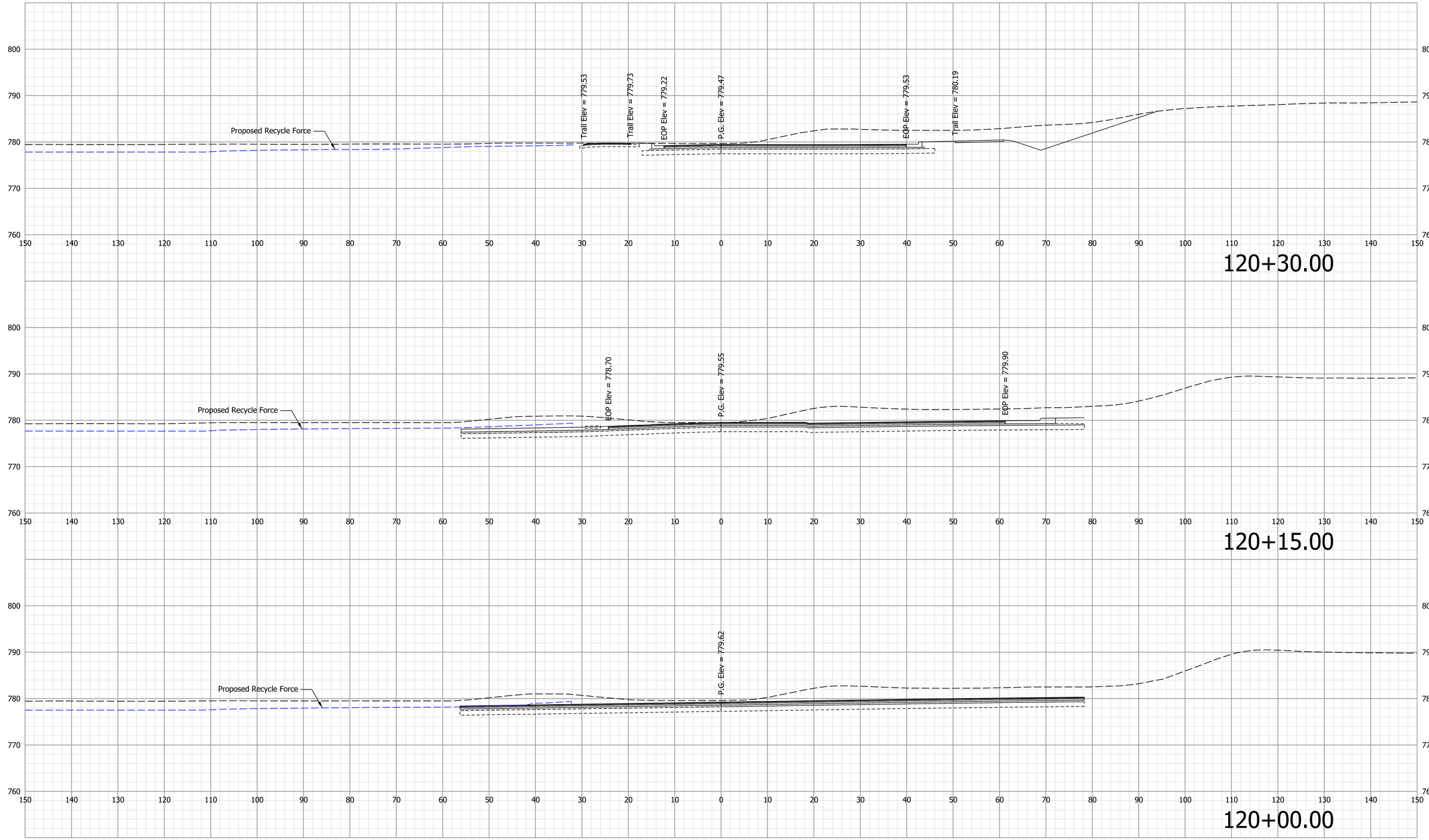
THE CITY OF INDIANAPOLIS METROPOLITAN DEVELOPMENT

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

PLAN AND PROFILE SHEET
ST. CLAIR STREET
LINE "PR-STCLAIR"

HORIZONTAL SCALE
1" = 20'
VERTICAL SCALE
1" = 10'
PROJECT NUMBER
TBD
SHEETS NUMBER
78 OF 159

L:\IndyDMD\190725\01-00\Draw\Sheets\Sht_PP_PR_StClairSt_01.dgn



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REVISIONS			
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XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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CHECKED: CMR	CHECKED: CMR

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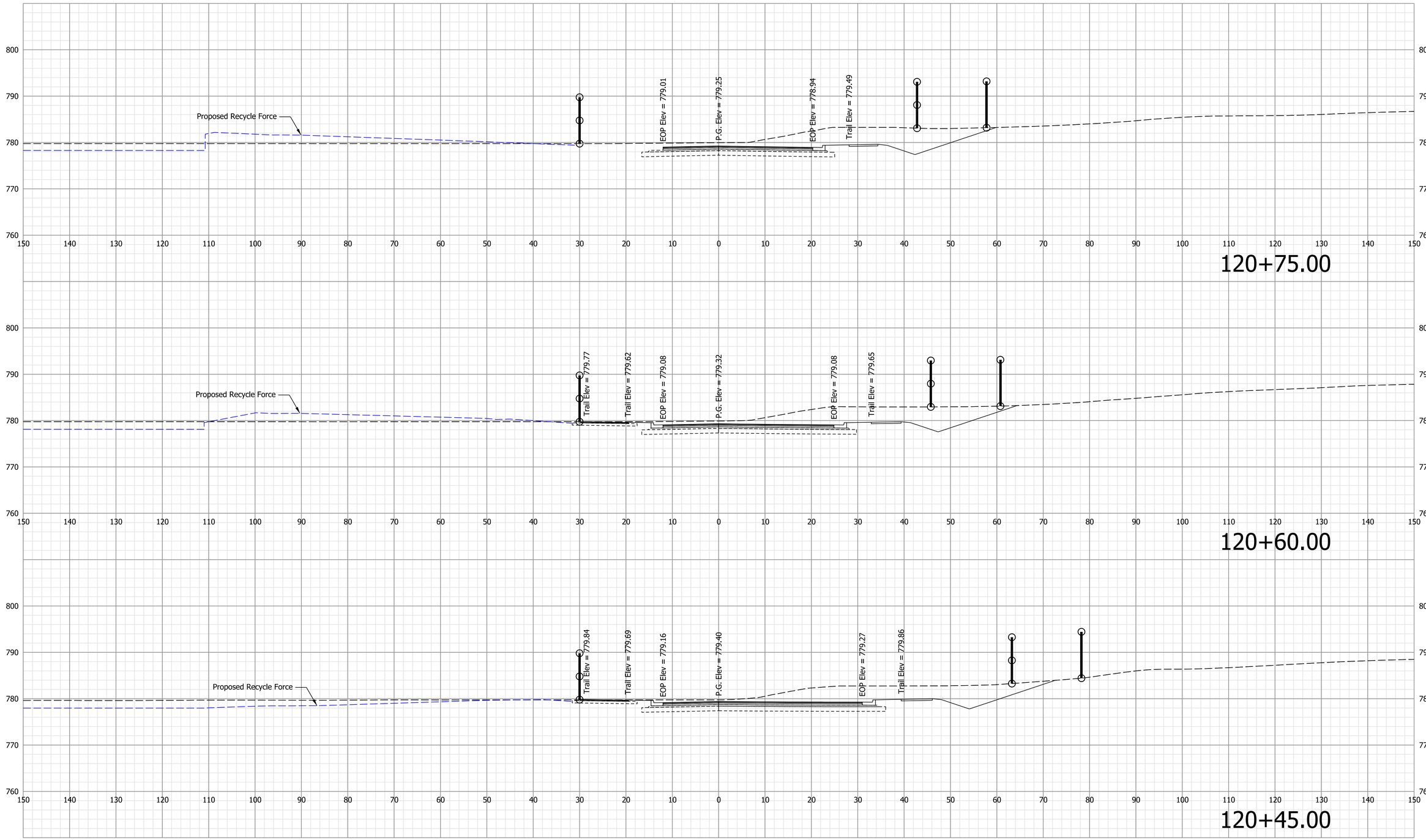
CROSS SECTIONS
LINE "PR-STCLAIR"

HORIZONTAL SCALE
1" = 10'
VERTICAL SCALE
1" = 10'
PROJECT NUMBER
TBD
SHEETS NUMBER
79 OF 159



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XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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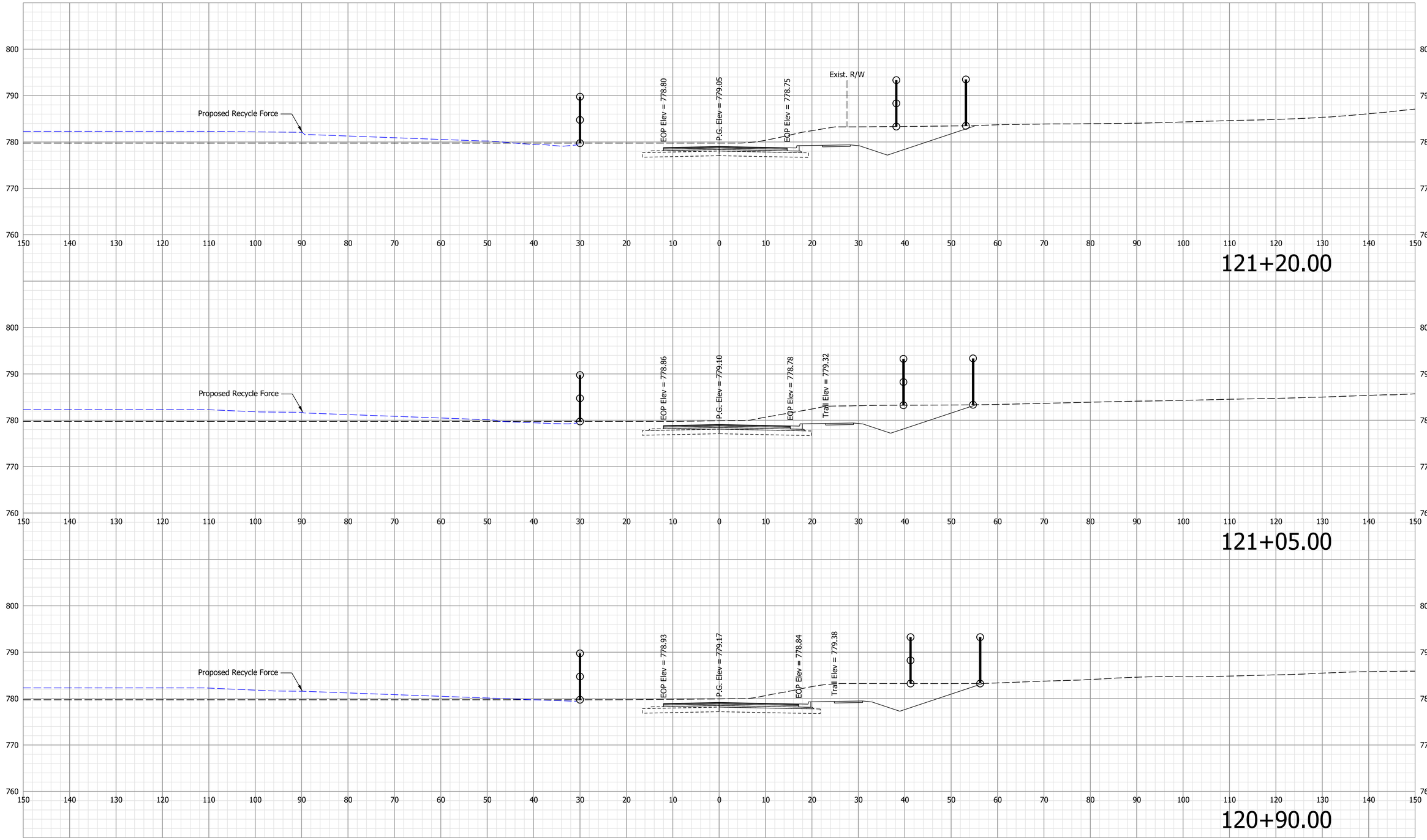
DESIGNED: DDB	DRAWN: DDB
CHECKED: CMR	CHECKED: CMR

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

CROSS SECTIONS
LINE "PR-STCLAIR"

HORIZONTAL SCALE
1" = 10'
VERTICAL SCALE
1" = 10'
PROJECT NUMBER
TBD
SHEETS NUMBER
80 OF 159

L:\Indy\DMD\19072501-00\Draw\Models\Roadway Modeling\XS\XS_St.ClairStreet.dgn



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XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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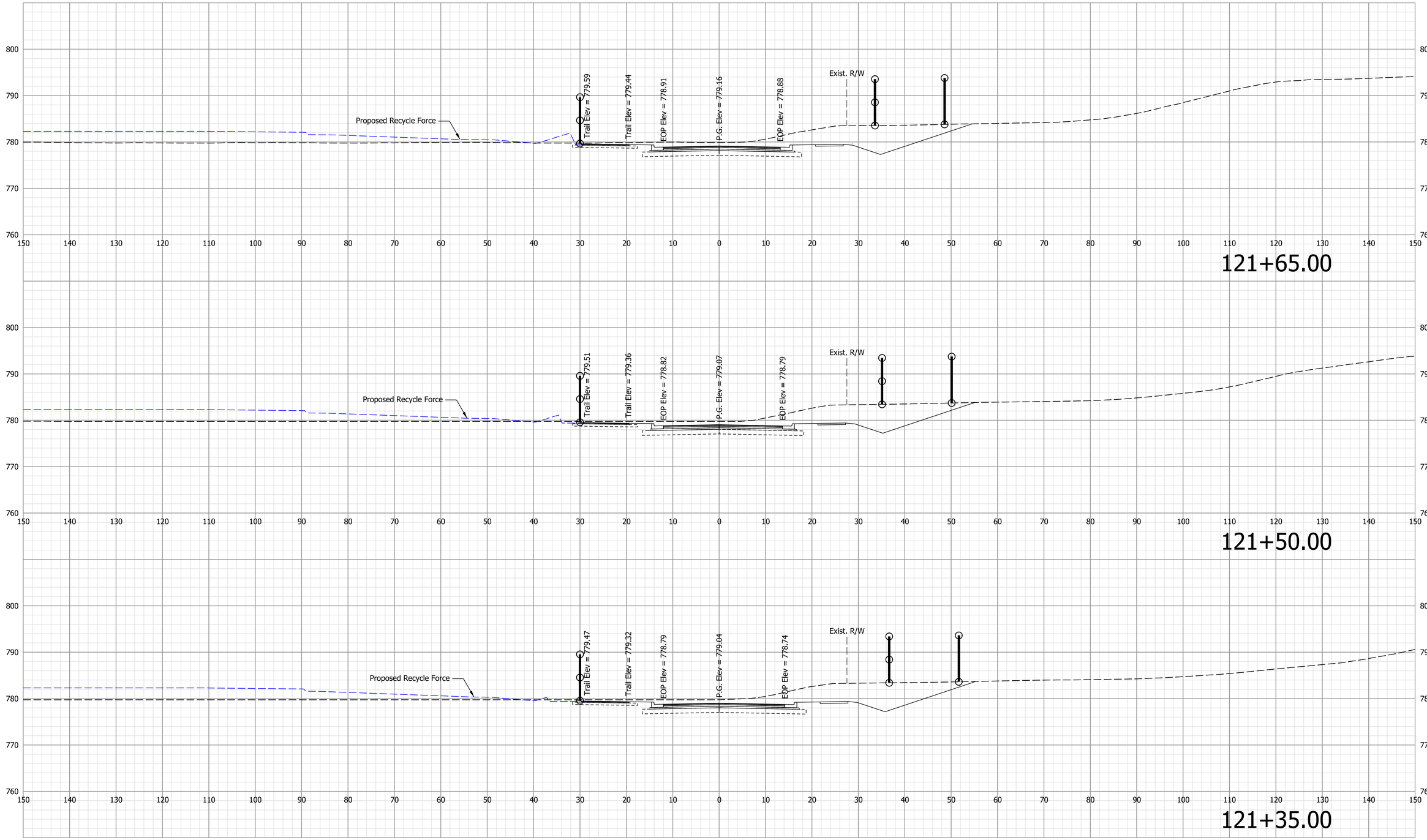
CHECKED: CMR | CHECKED: CMR

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

CROSS SECTIONS
LINE "PR-STCLAIR"

HORIZONTAL SCALE	1" = 10'
VERTICAL SCALE	1" = 10'
PROJECT NUMBER	TBD
SHEETS NUMBER	81 OF 159

L:\Indy\DMD\19072501-00\Draw\Models\Roadway Modeling\XS\XS_St.ClairStreet.dgn



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XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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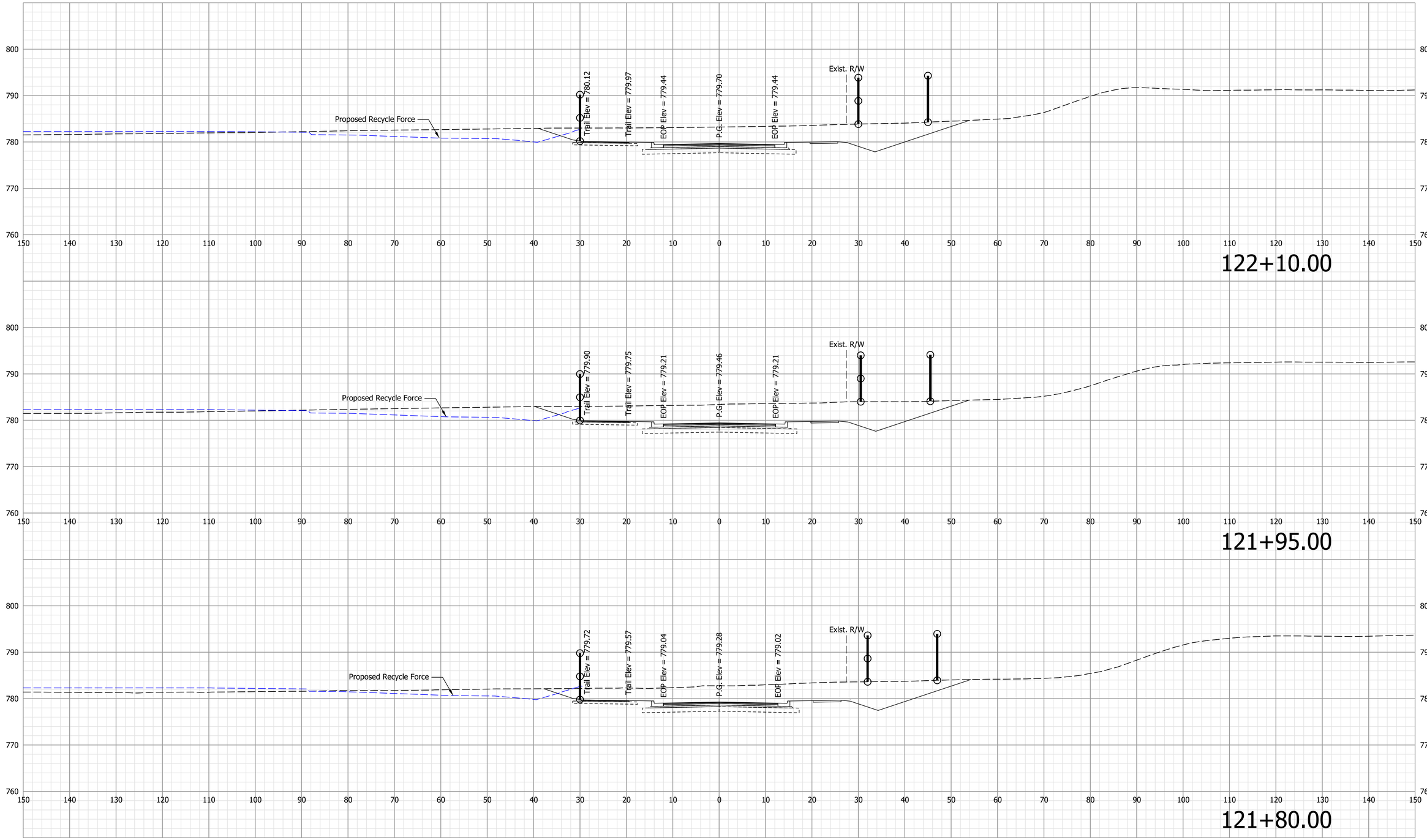
CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

CROSS SECTIONS
LINE "PR-STCLAIR"

HORIZONTAL SCALE	1" = 10'
VERTICAL SCALE	1" = 10'
PROJECT NUMBER	TBD
SHEETS NUMBER	82 OF 159

L:\Indy\DMD\19072501-00\Draw\Models\Roadway Modeling\XS\XS_St.ClairStreet.dgn



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XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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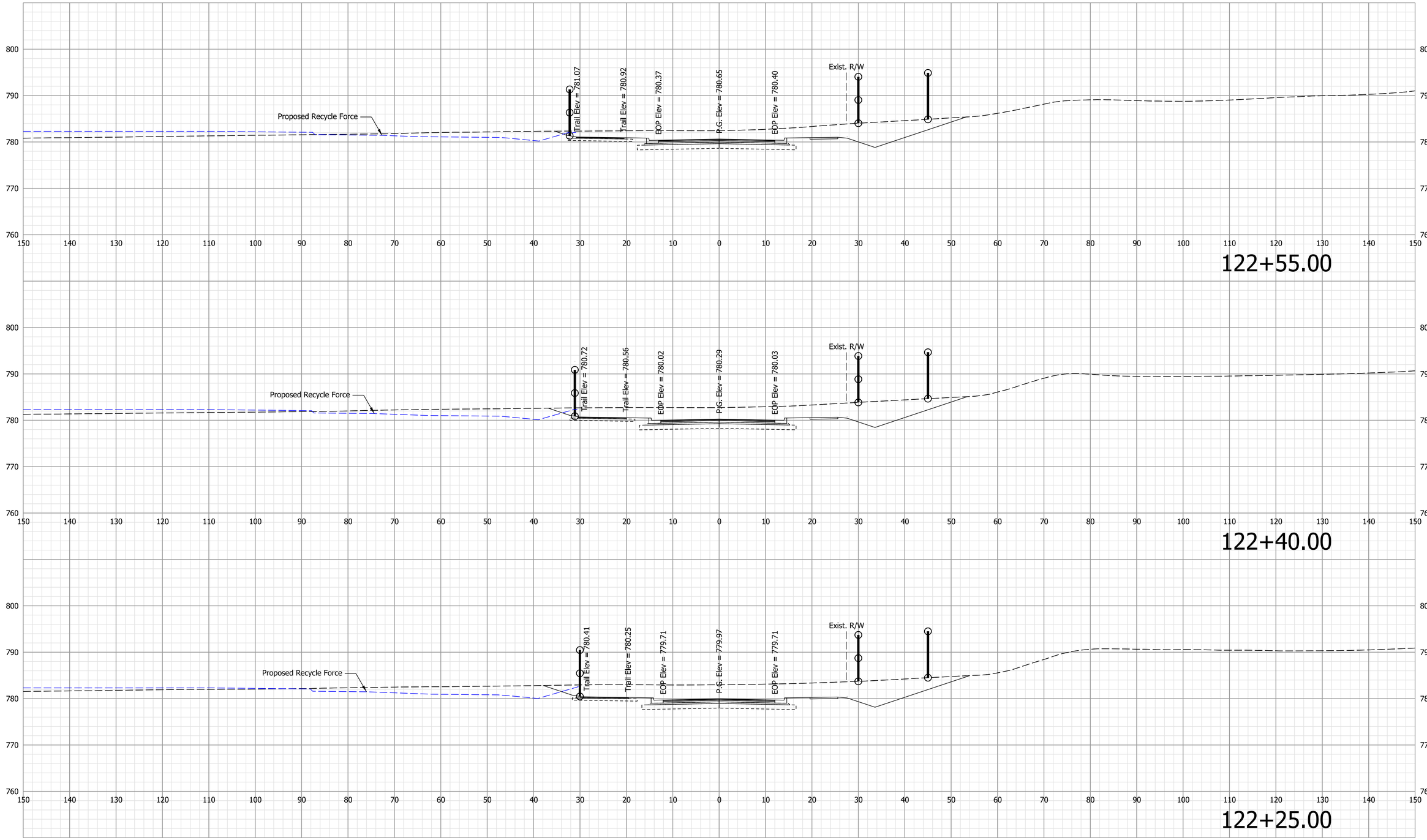
CHECKED: CMR | CHECKED: CMR

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

CROSS SECTIONS
LINE "PR-STCLAIR"

HORIZONTAL SCALE	1" = 10'
VERTICAL SCALE	1" = 10'
PROJECT NUMBER	TBD
SHEETS NUMBER	83 OF 159

L:\Indy\DMD\19072501-00\Draw\Models\Roadway Modeling\XS\XS_St.ClairStreet.dgn



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REVISIONS			
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XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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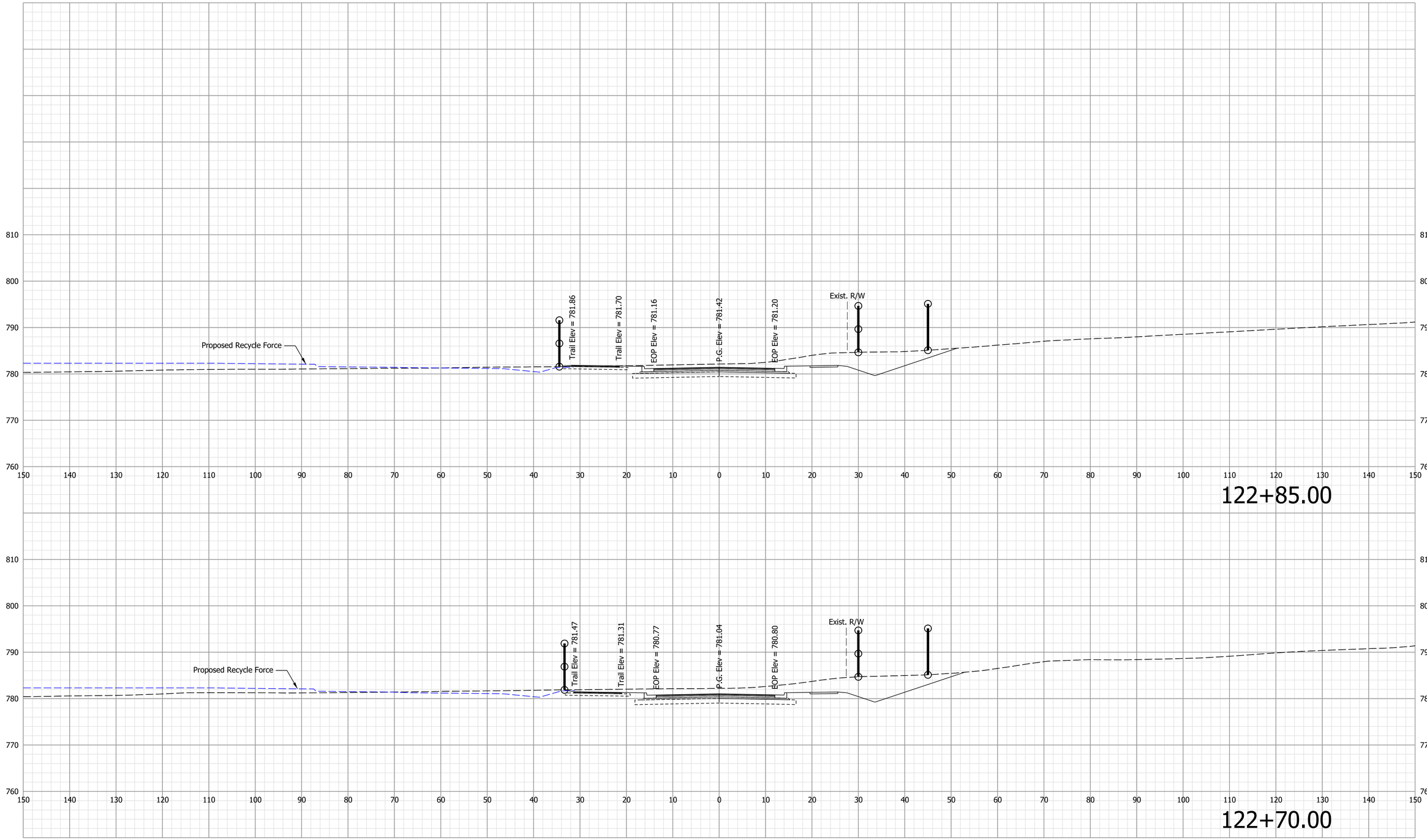
CHECKED: CMR | CHECKED: CMR

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

CROSS SECTIONS
LINE "PR-STCLAIR"

HORIZONTAL SCALE	1" = 10'
VERTICAL SCALE	1" = 10'
PROJECT NUMBER	TBD
SHEETS NUMBER	84 OF 159



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REVISIONS			
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XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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CHECKED: CMR | CHECKED: CMR

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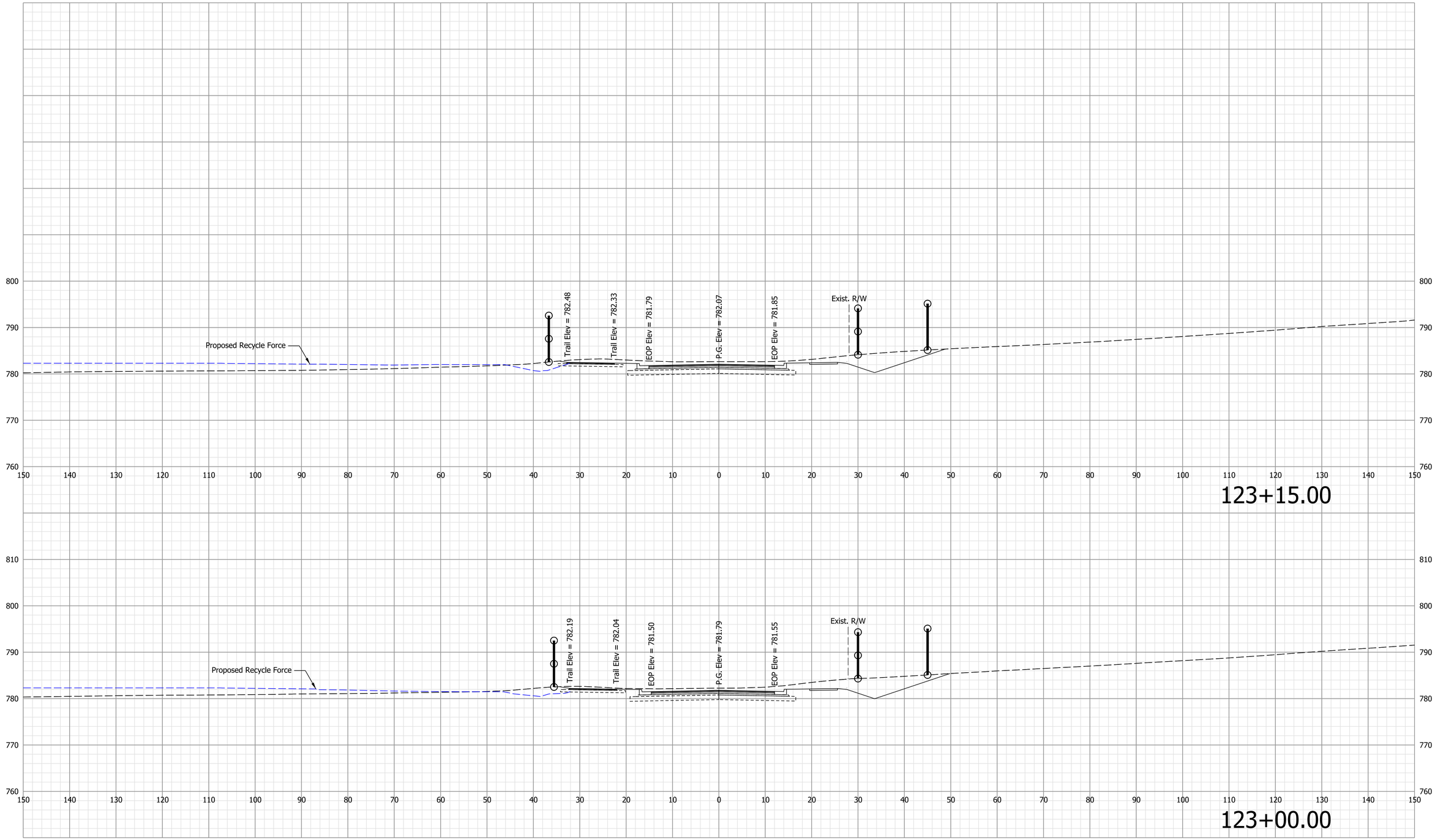
CROSS SECTIONS
LINE "PR-STCLAIR"

HORIZONTAL SCALE	1" = 10'
VERTICAL SCALE	1" = 10'
PROJECT NUMBER	TBD
SHEETS NUMBER	85 OF 159



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REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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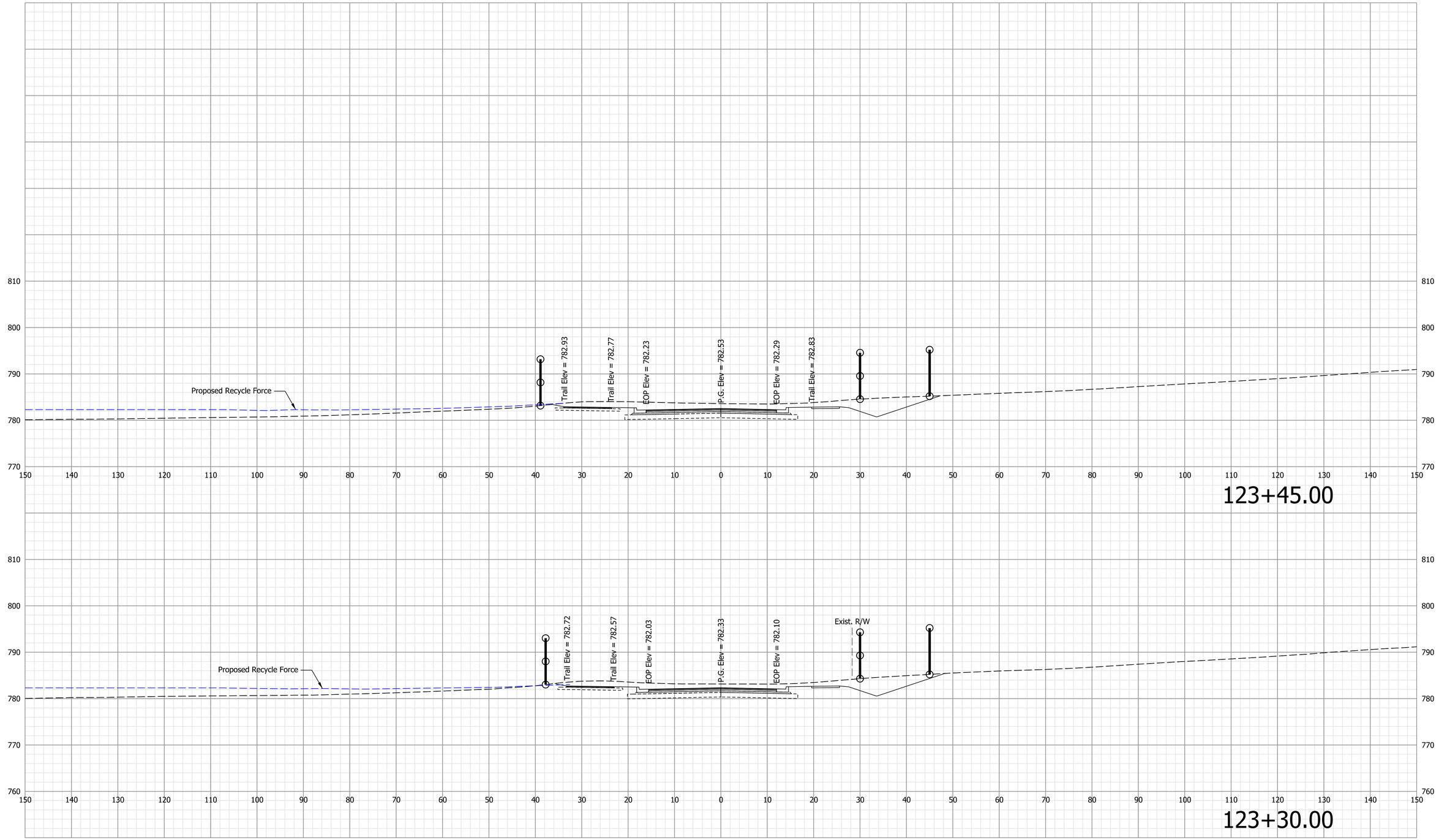
CROSS SECTIONS
LINE "PR-STCLAIR"

HORIZONTAL SCALE	1" = 10'
VERTICAL SCALE	1" = 10'
PROJECT NUMBER	TBD
SHEETS NUMBER	86 OF 159



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REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

CROSS SECTIONS
LINE "PR-STCLAIR"

HORIZONTAL SCALE	1" = 10'
VERTICAL SCALE	1" = 10'
PROJECT NUMBER	TBD
SHEETS NUMBER	87 OF 159

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REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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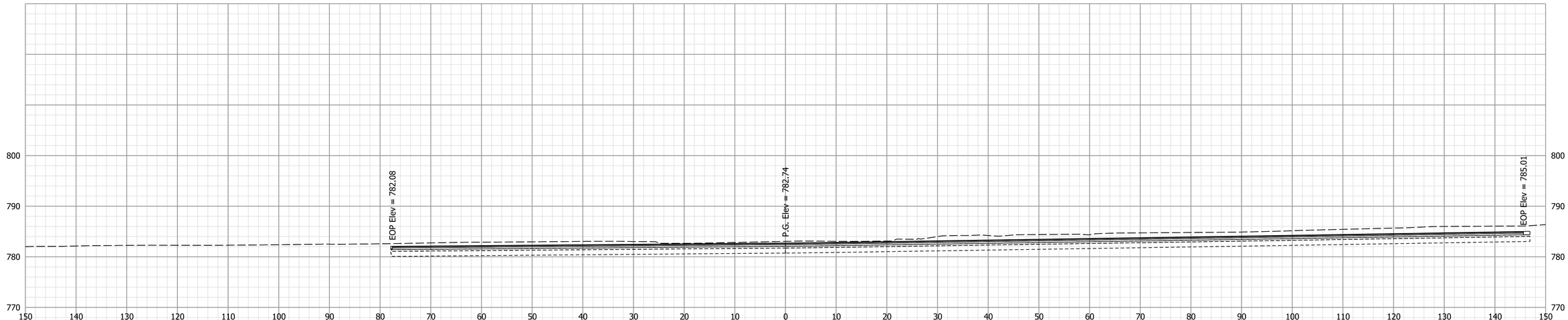
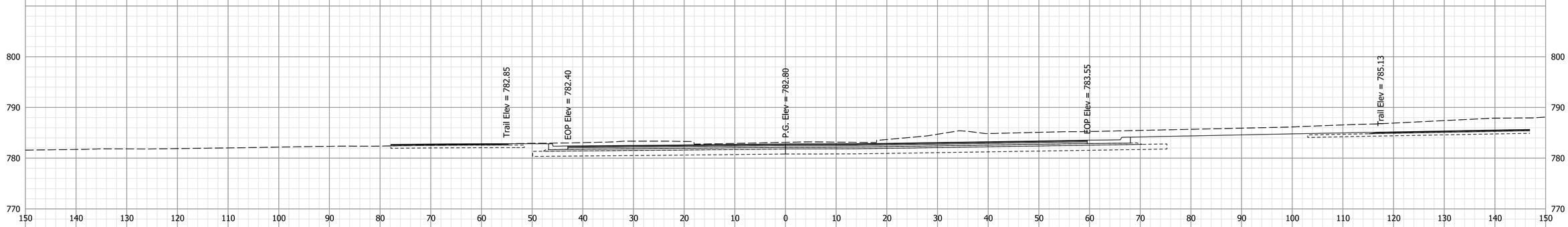
INDIANAPOLIS DEPARTMENT OF PUBLIC WORKS

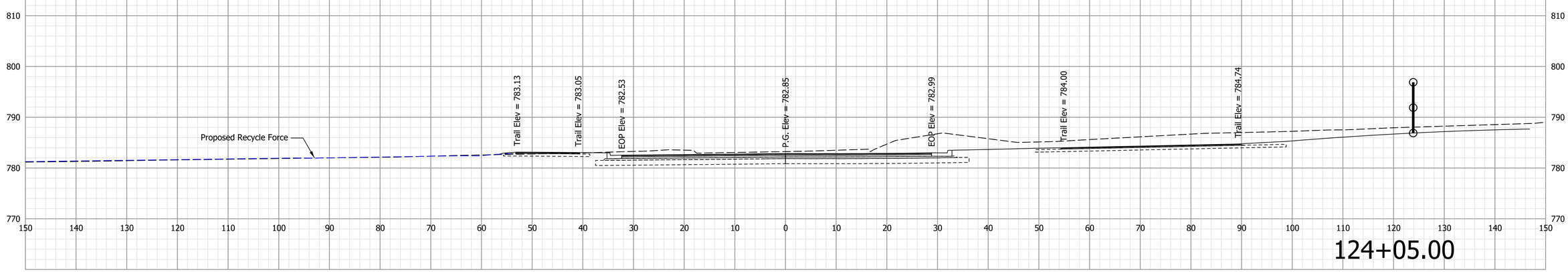
CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

CROSS SECTIONS
LINE "PR-STCLAIR"

HORIZONTAL SCALE
1" = 10'
VERTICAL SCALE
1" = 10'
PROJECT NUMBER
TBD
SHEETS NUMBER
88 OF 159







REVISIONS			
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XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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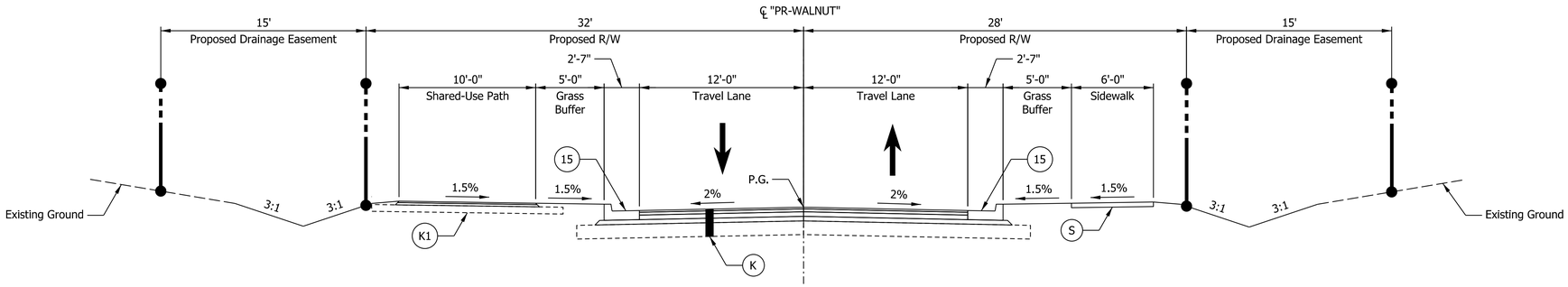
INDIANAPOLIS DEPARTMENT OF PUBLIC WORKS

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

CROSS SECTIONS LINE "PR-STCLAIR"

HORIZONTAL SCALE
1" = 10'
VERTICAL SCALE
1" = 10'
PROJECT NUMBER
TBD
SHEETS NUMBER
89 OF 159

L:\Indy\DMD\19072501-00\Draw\Models\Roadway Modeling\XS\XS_St.ClairStreet.dgn



PROPOSED SECTION ON TANGENT

STA. 110+12.00 TO STA. 114+34.24 LINE "PR-WALNUT"

LEGEND:

- (K) HMA Pavement, TBD
- (K1) HMA Pavement, TBD
- (S) Sidewalk, Concrete
- (15) Curb and Gutter, Concrete

NOTE:
1. See Design Guidelines for additional information for features beyond the edge of pavement.

REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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THE CITY OF INDIANAPOLIS METROPOLITAN DEVELOPMENT

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

TYPICAL SECTIONS
PROPOSED WALNUT STREET

HORIZONTAL SCALE
1" = 5'
VERTICAL SCALE
1" = 5'
PROJECT NUMBER
TBD
SHEETS NUMBER
90 OF 159

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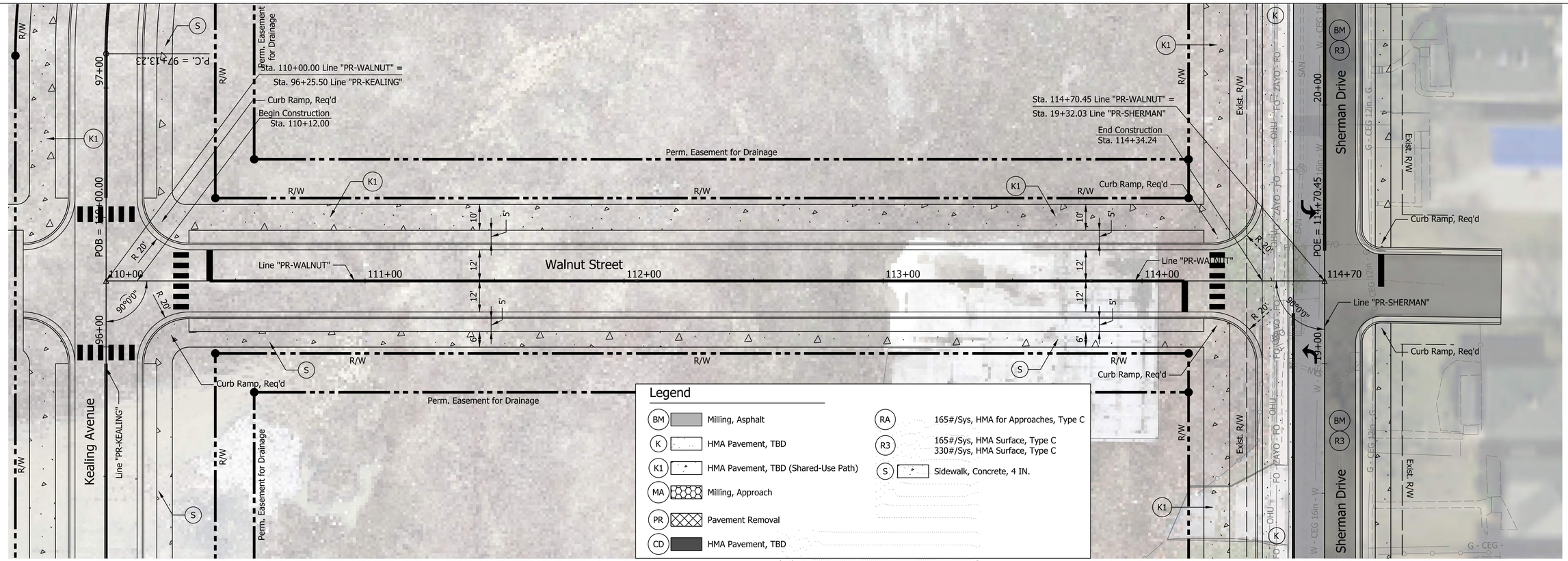

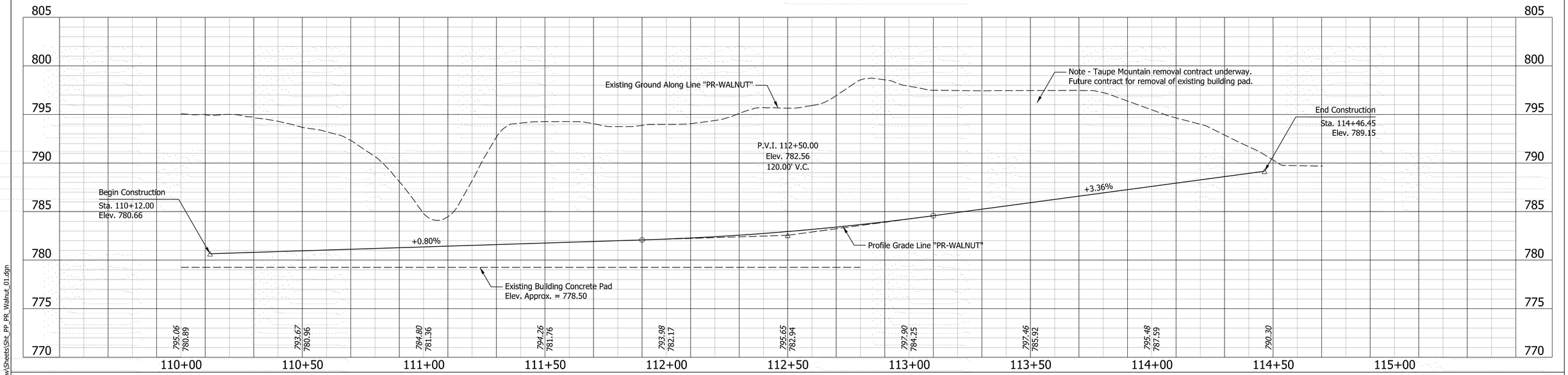

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XX/XX/XX	5	DESCRIPTION	XXX

0 20 40 80

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THE CITY OF INDIANAPOLIS METROPOLITAN DEVELOPMENT

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

PLAN AND PROFILE SHEET
WALNUT STREET
LINE "PR-WALNUT"

HORIZONTAL SCALE	1" = 20'
VERTICAL SCALE	1" = 10'
PROJECT NUMBER	TBD
SHEETS NUMBER	91 OF 159

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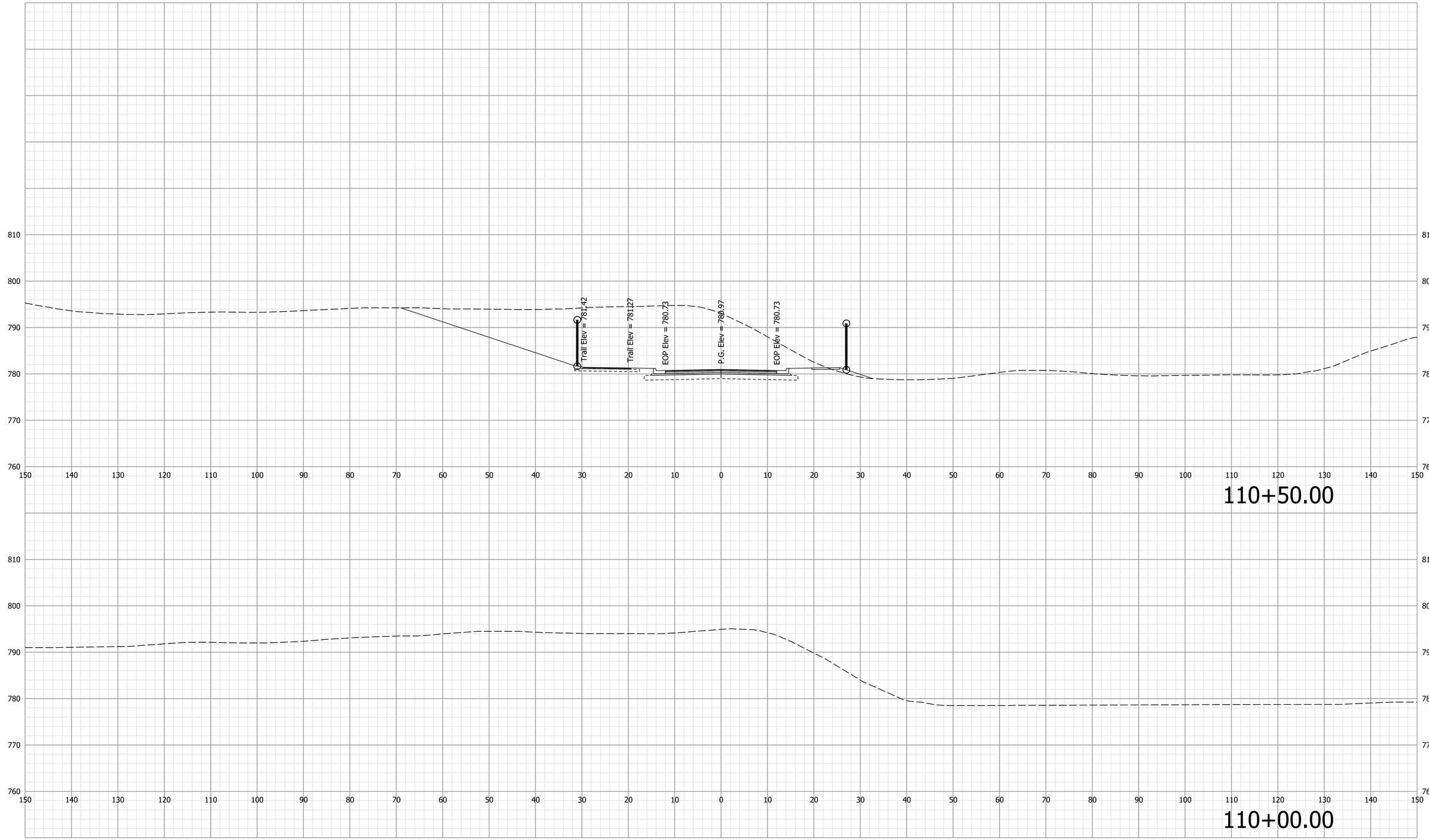

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XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

CROSS SECTIONS
LINE "PR-WALNUT"

HORIZONTAL SCALE
1" = 10'
VERTICAL SCALE
1" = 10'
PROJECT NUMBER
TBD
SHEETS NUMBER
92 OF 159

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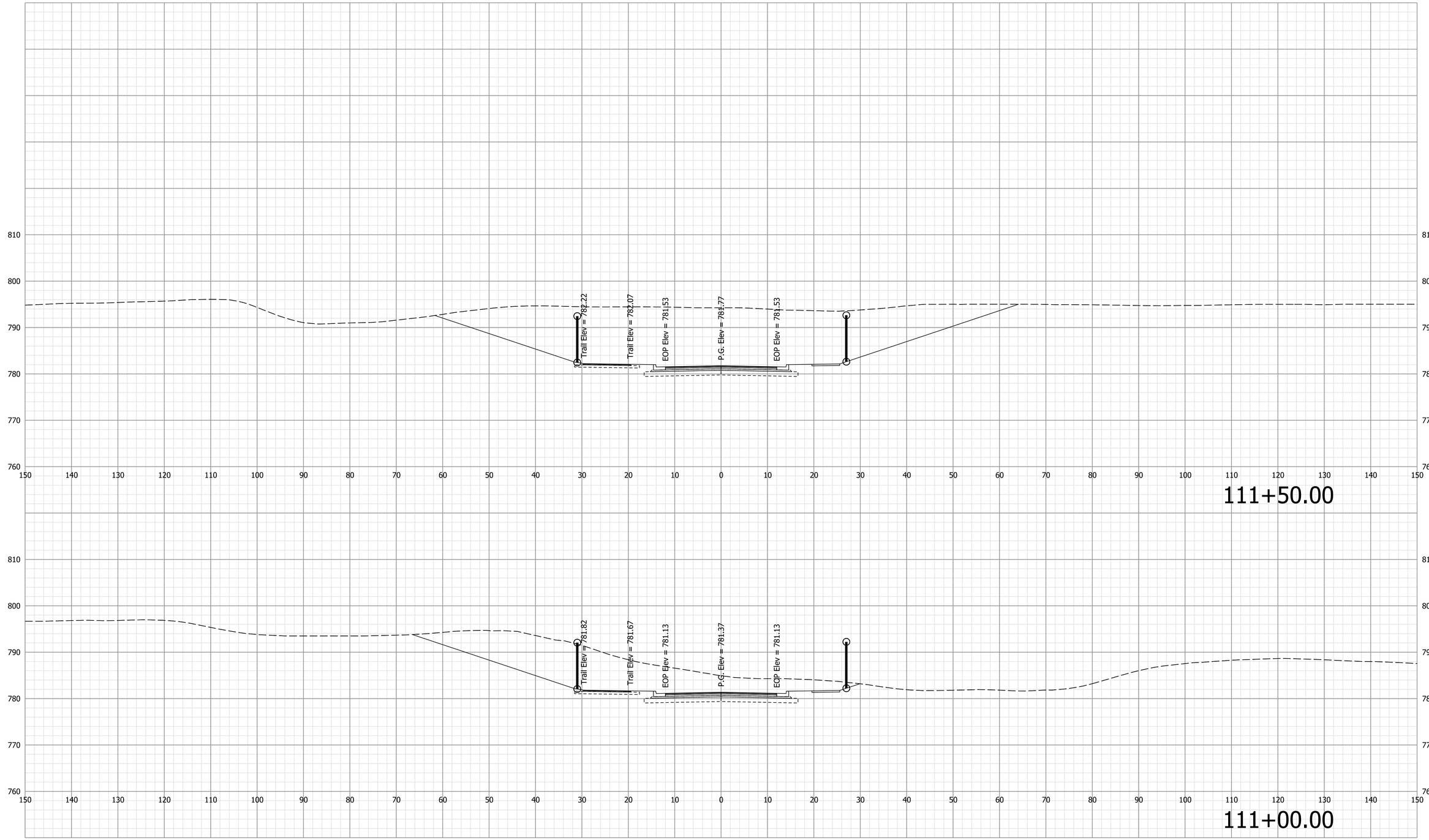

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XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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CHECKED: CMR | CHECKED: CMR

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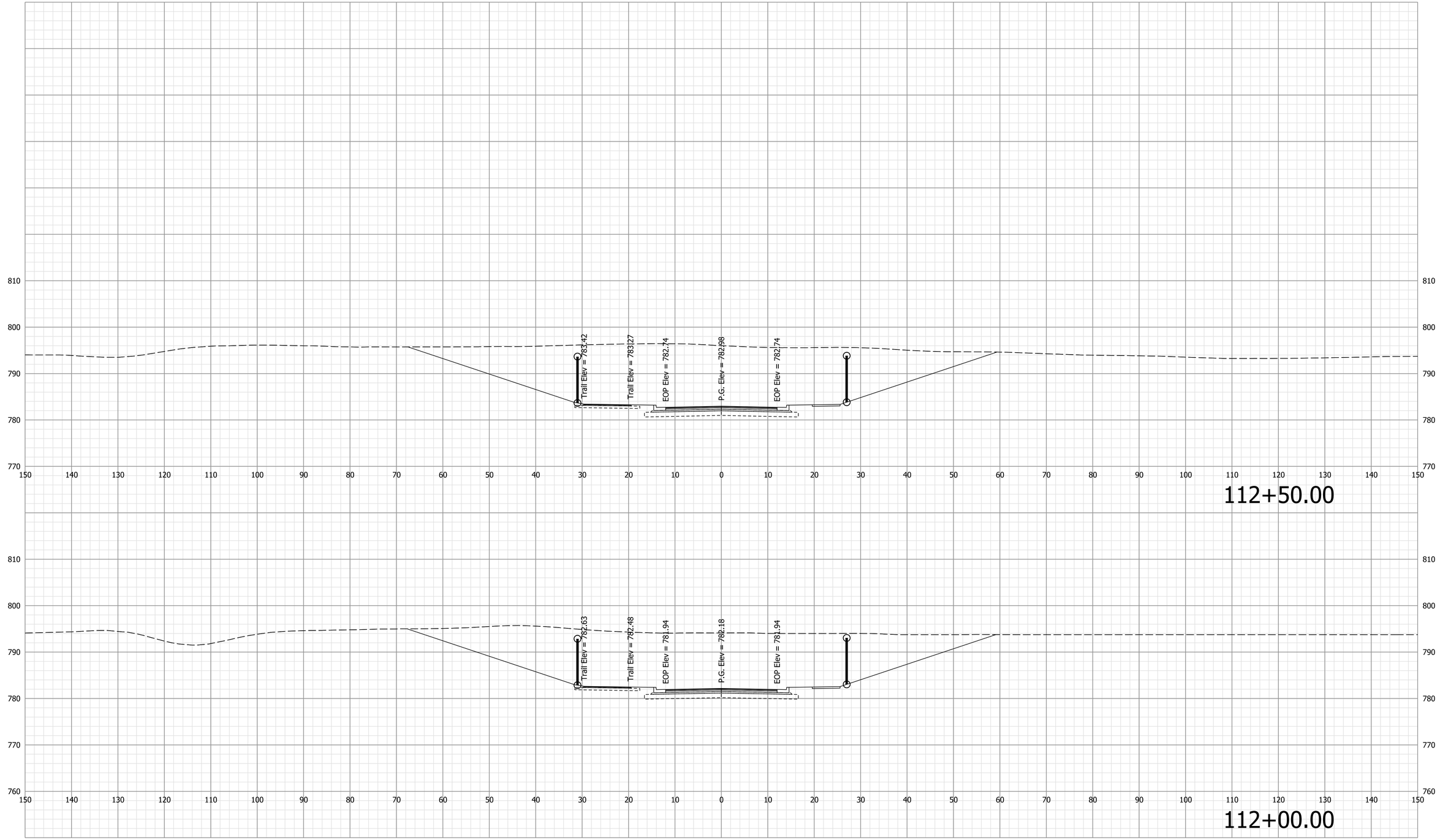
CROSS SECTIONS
LINE "PR-WALNUT"

HORIZONTAL SCALE
1" = 10'
VERTICAL SCALE
1" = 10'
PROJECT NUMBER
TBD
SHEETS NUMBER
93 OF 159



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REVISIONS			
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XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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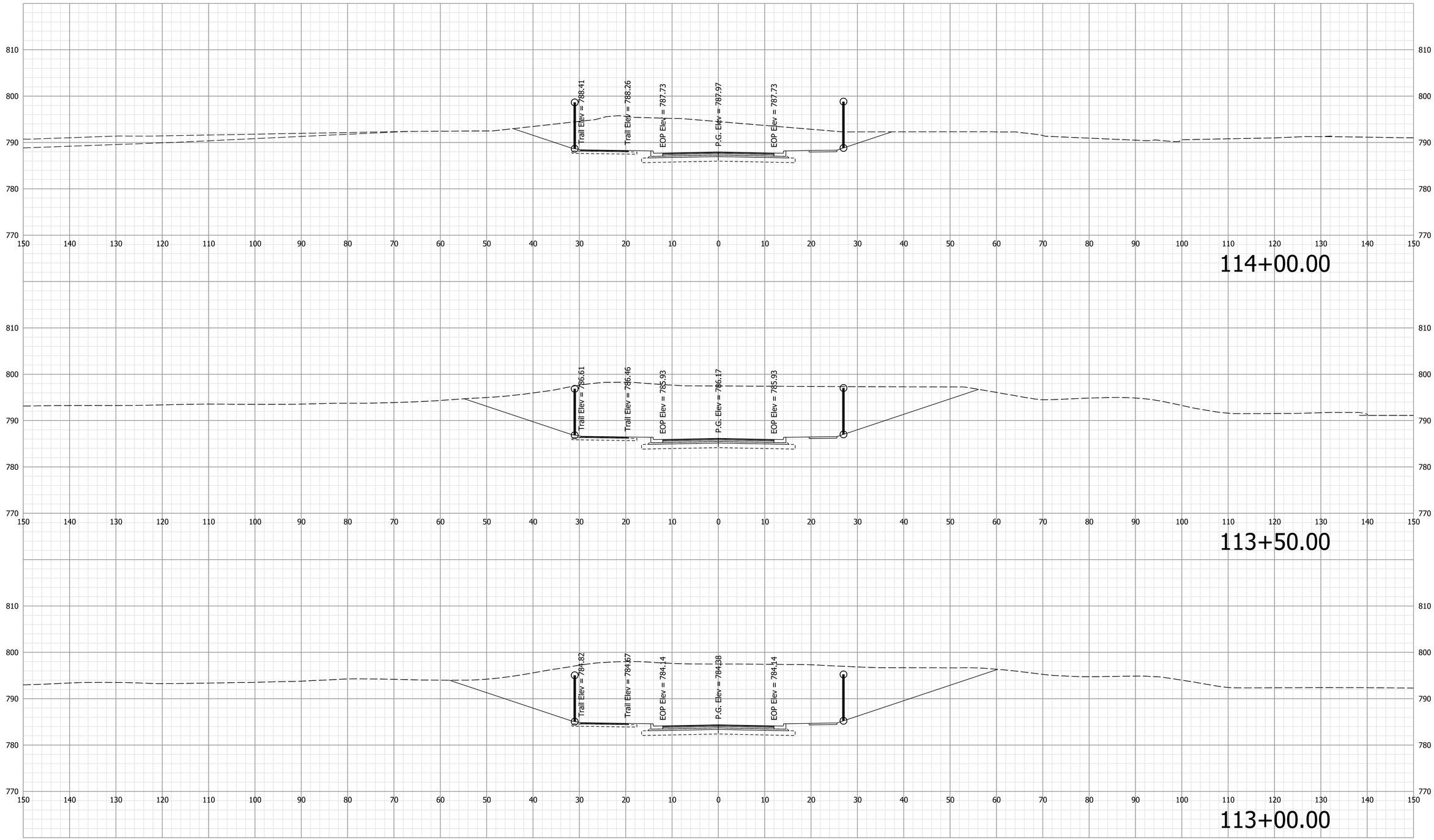
CROSS SECTIONS
LINE "PR-WALNUT"

HORIZONTAL SCALE	1" = 10'
VERTICAL SCALE	1" = 10'
PROJECT NUMBER	TBD
SHEETS NUMBER	94 OF 159



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XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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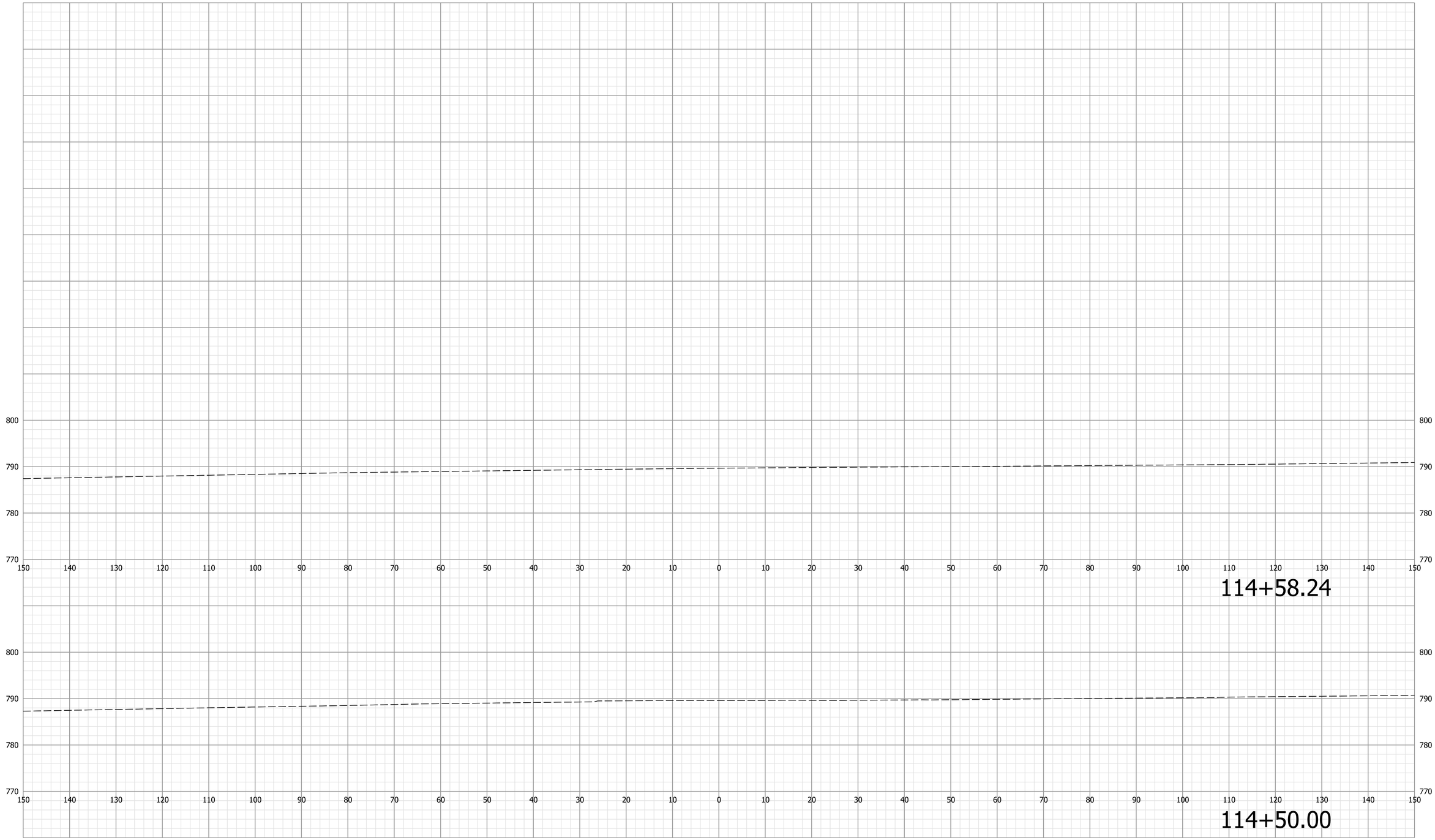
CROSS SECTIONS
LINE "PR-WALNUT"

HORIZONTAL SCALE
1" = 10'
VERTICAL SCALE
1" = 10'
PROJECT NUMBER
TBD
SHEETS NUMBER
95 OF 159

L:\Indy\DMD\19072501-00\Draw\Models\Roadway Modeling\XS\XS_WalnutStreet.dgn



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REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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DESIGN ENGINEER DATE

DESIGNED: DDB	DRAWN: DDB
CHECKED: CMR	CHECKED: CMR

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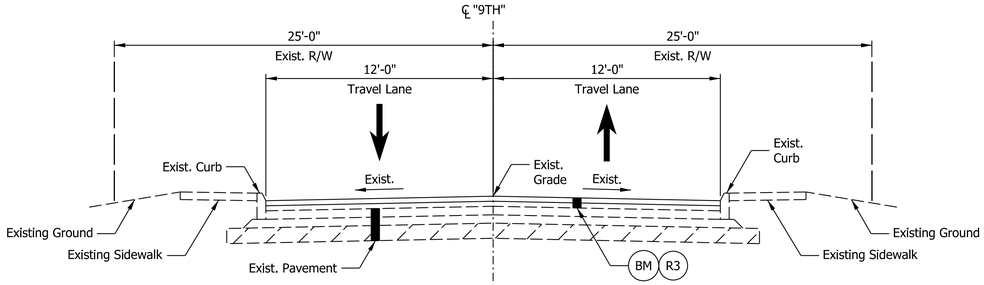
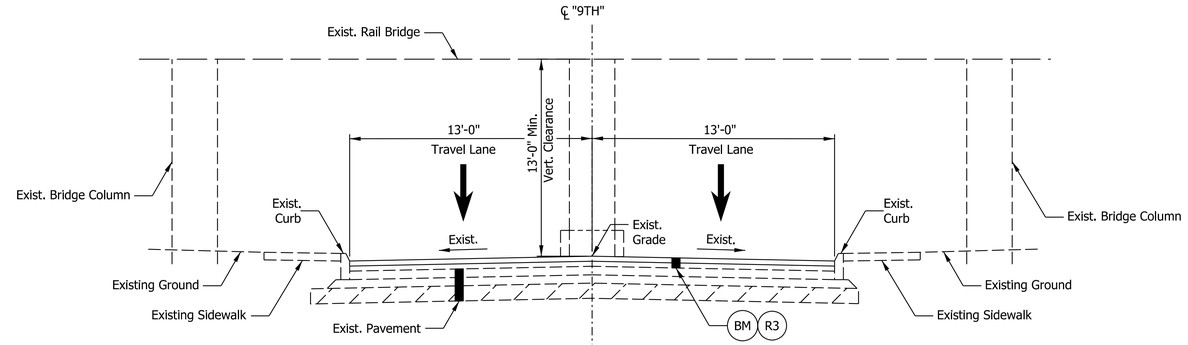
CROSS SECTIONS LINE "PR-WALNUT"

HORIZONTAL SCALE	1" = 10'
VERTICAL SCALE	1" = 10'
PROJECT NUMBER	TBD
SHEETS NUMBER	96 OF 159



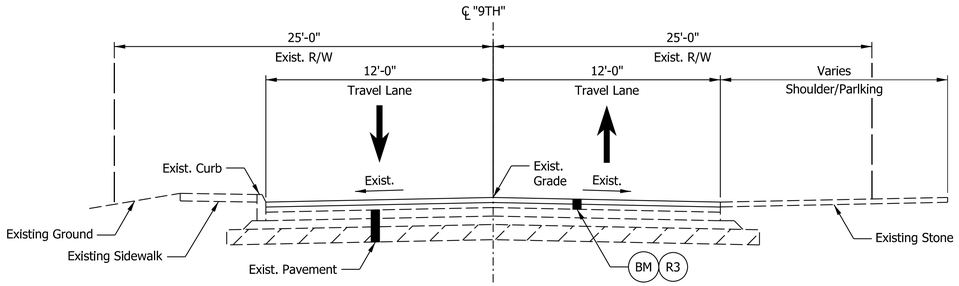
EXISTING SECTION ON TANGENT

STA. 70+00.00 TO STA. 71+50.00



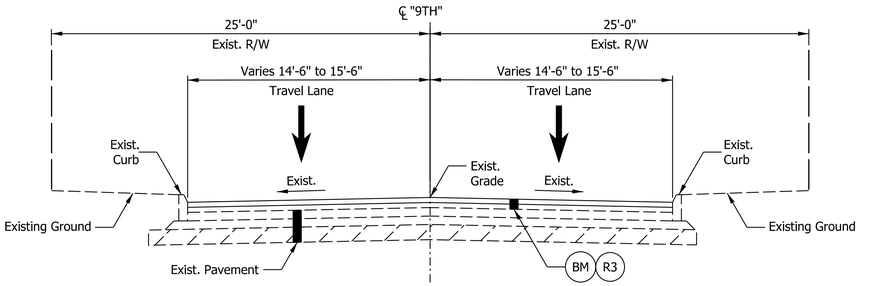
EXISTING SECTION ON TANGENT

STA. 79+12.08 TO STA. 80+56.74



EXISTING SECTION ON TANGENT

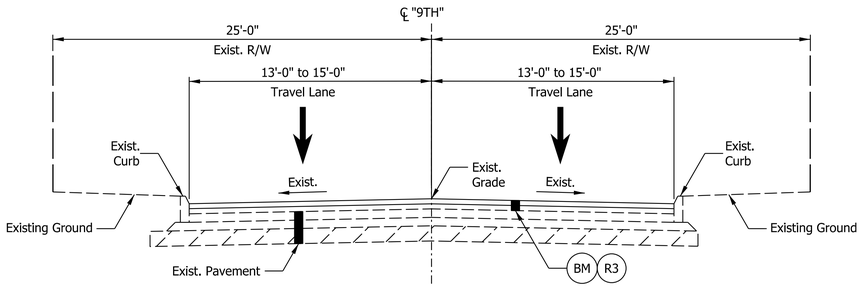
STA. 71+50.00 TO STA. 78+25.00



EXISTING SECTION ON TANGENT

STA. 80+56.74 TO STA. 83+75.00

NOTE:
1. See Design Guidelines for additional information for features beyond the edge of pavement.



EXISTING SECTION ON TANGENT

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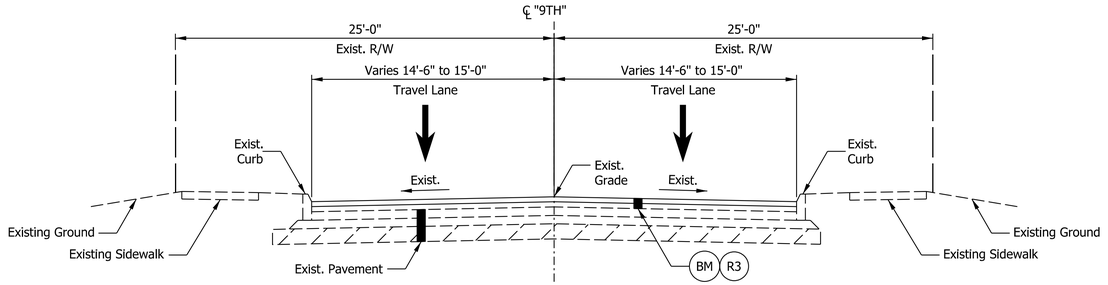

EXISTING SECTION ON TANGENT

STA. 83+75.00 TO STA. 87+05.93

LEGEND:

BM — Milling, Asphalt

R3 — Asphalt Travel Lane Resurfacing, Consisting of:
165#/SYD, QC/QA-HMA, 3, 70, Surface, 9.5 mm, on
330#/SYD, QC/QA-HMA, 3, 70, Intermediate, 12.5 mm

REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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INDIANAPOLIS, IN 46268-6128
PHONE: (317) 298-4500

Not For Construction

RECOMMENDED FOR APPROVAL: _____ DESIGN ENGINEER — 6/30/2022 DATE

DESIGNED: DDB | DRAWN: DDB

CHECKED: CMR | CHECKED: CMR

INDIANAPOLIS METROPOLITAN DEVELOPMENT

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

TYPICAL SECTIONS
9TH STREET

HORIZONTAL SCALE
1" = 5'
VERTICAL SCALE
1" = 5'
PROJECT NUMBER
TBD
SHEETS NUMBER
97 OF 159

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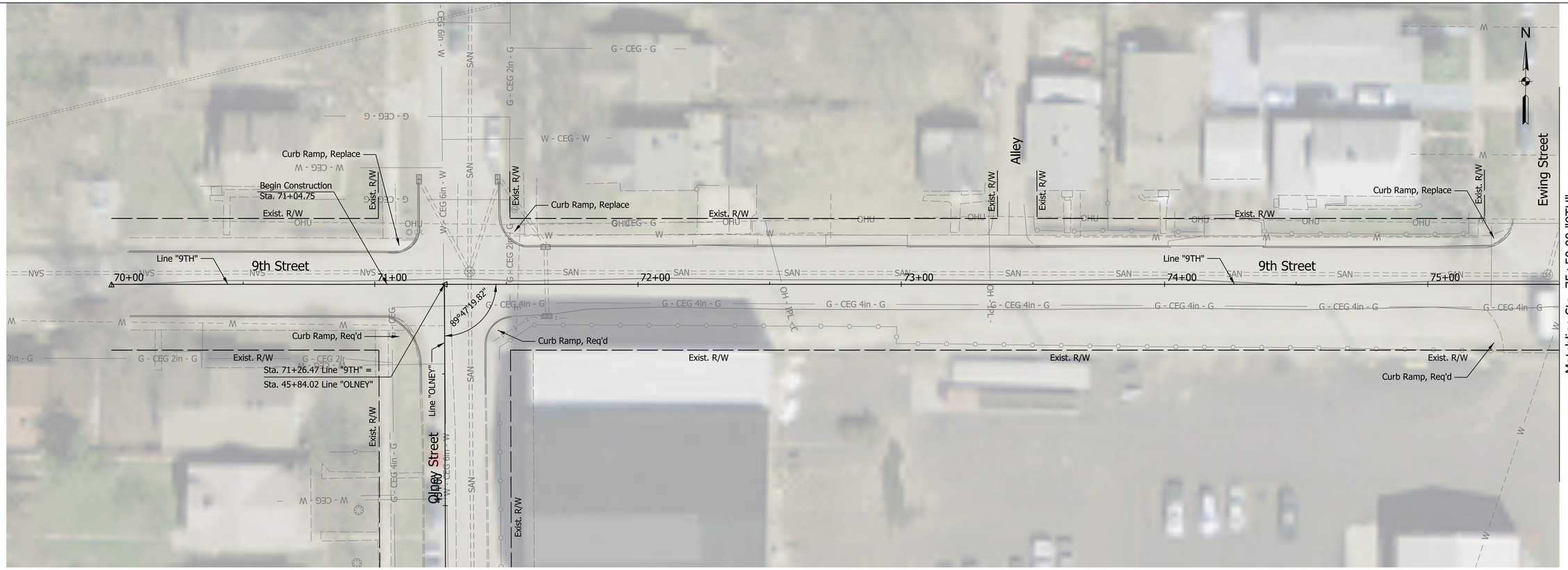

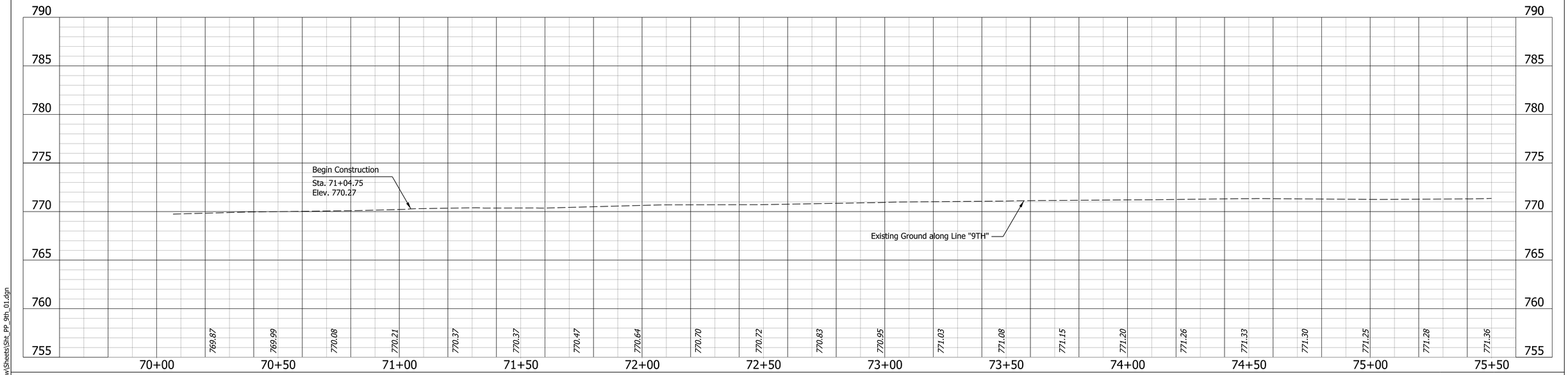

REVISIONS			
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XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

0 20 40 80

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DESIGN ENGINEER DATE

DESIGNED: LKJ	DRAWN: LKJ
CHECKED: CMR	CHECKED: CMR

INDIANAPOLIS METROPOLITAN DEVELOPMENT

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

PLAN AND PROFILE SHEET
9TH STREET
LINE "9TH"

HORIZONTAL SCALE
1" = 20'
VERTICAL SCALE
1" = 10'

PROJECT NUMBER
TBD
SHEETS NUMBER
98 OF 159

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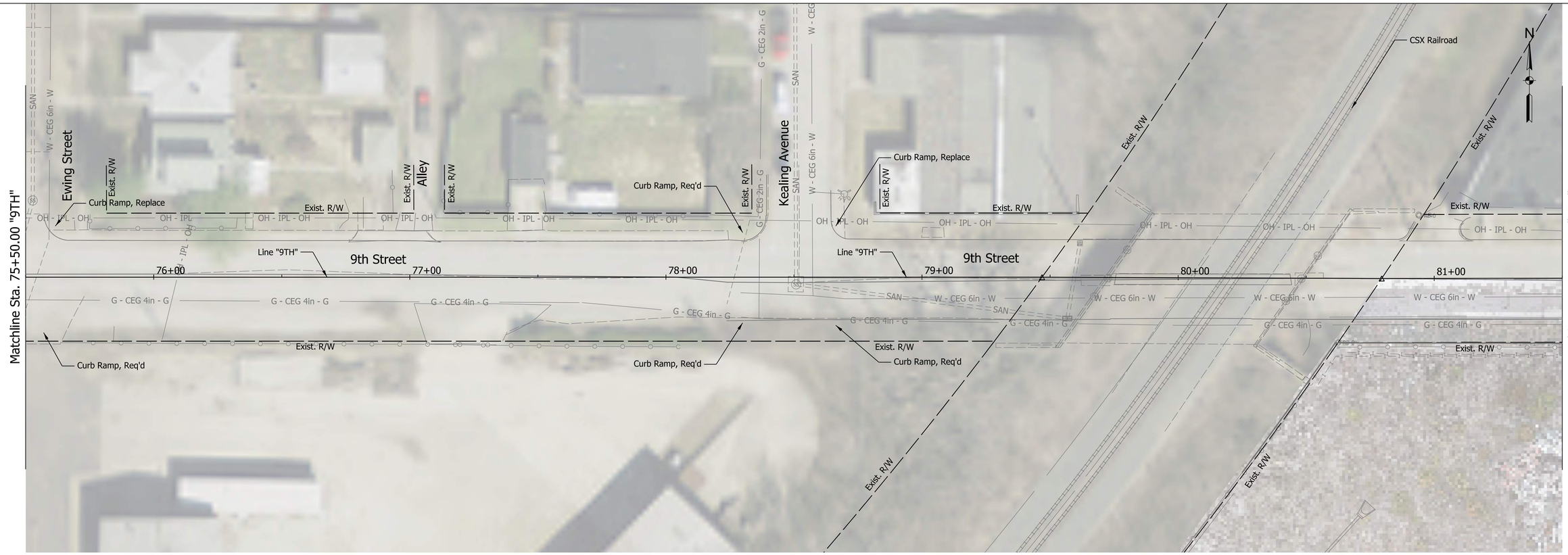

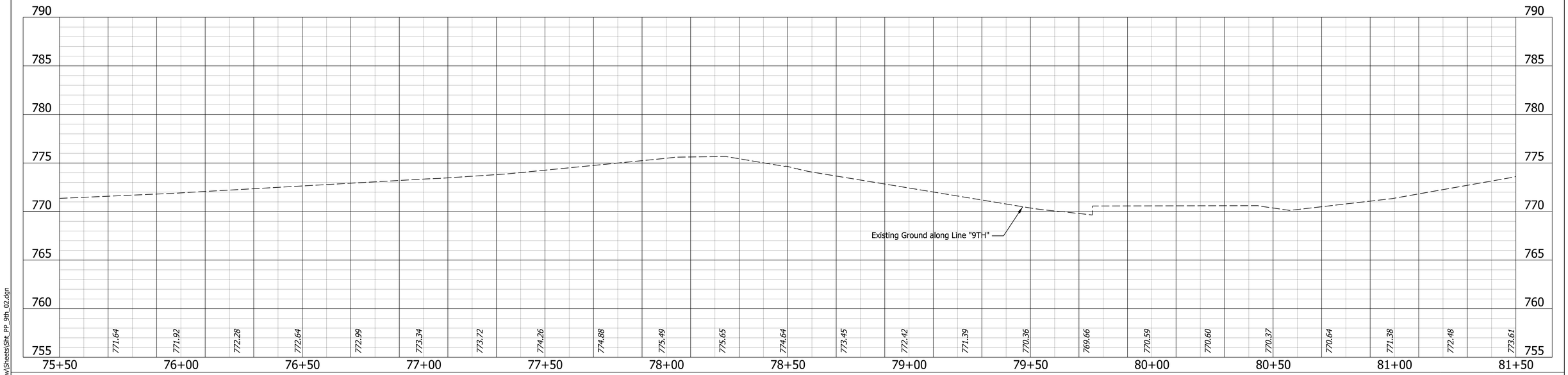

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XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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DESIGN ENGINEER DATE

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CHECKED: CMR | CHECKED: CMR

THE CITY OF INDIANAPOLIS METROPOLITAN DEVELOPMENT

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

PLAN AND PROFILE SHEET
9TH STREET
LINE "9TH"

HORIZONTAL SCALE	1" = 20'
VERTICAL SCALE	1" = 10'
PROJECT NUMBER	TBD
SHEETS NUMBER	99 OF 159

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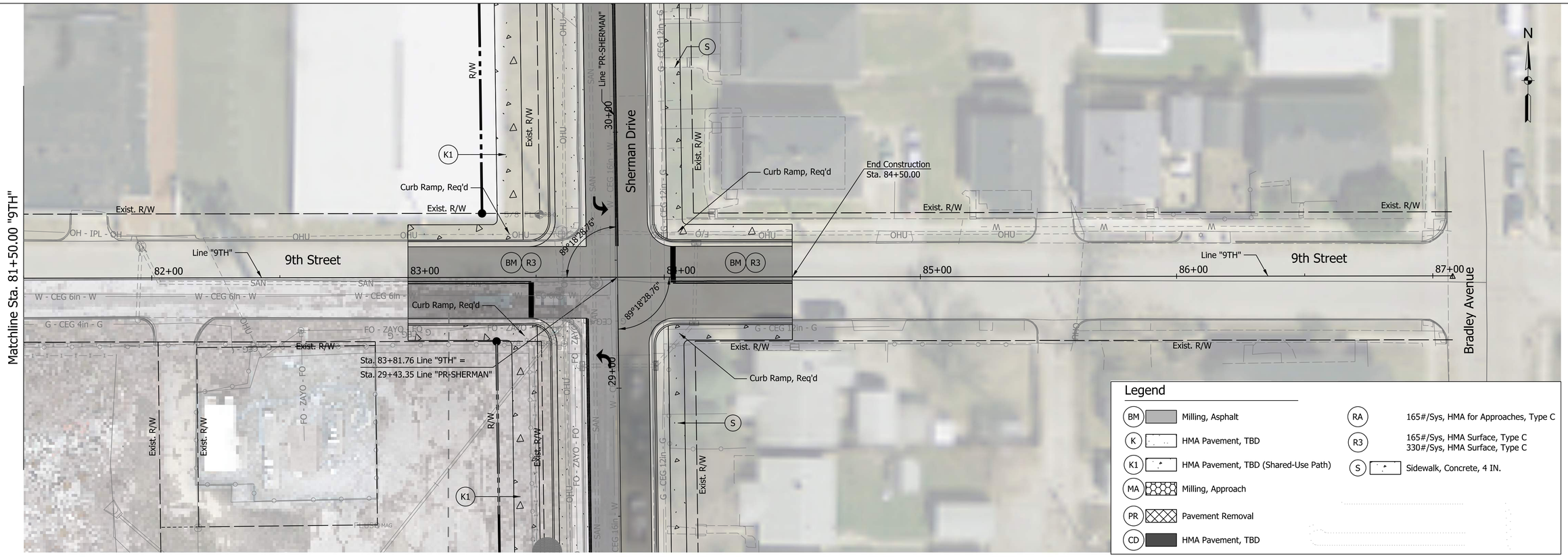

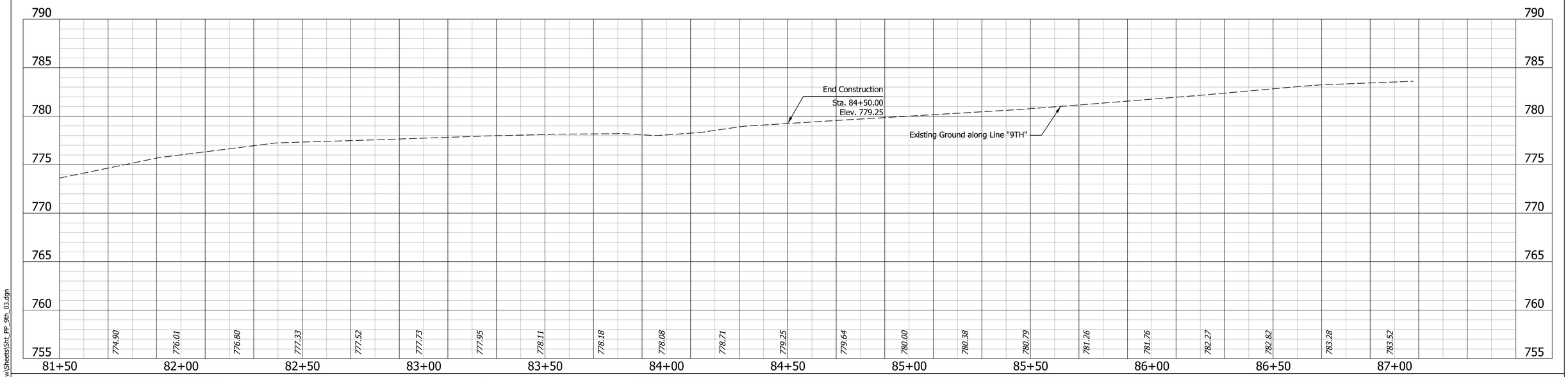

REVISIONS			
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XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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DESIGN ENGINEER DATE

DESIGNED: LKJ | DRAWN: LKJ
CHECKED: CMR | CHECKED: CMR

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

PLAN AND PROFILE SHEET
9TH STREET
LINE "9TH"

HORIZONTAL SCALE	1" = 20'
VERTICAL SCALE	1" = 10'
PROJECT NUMBER	TBD
SHEETS NUMBER	100 OF 159

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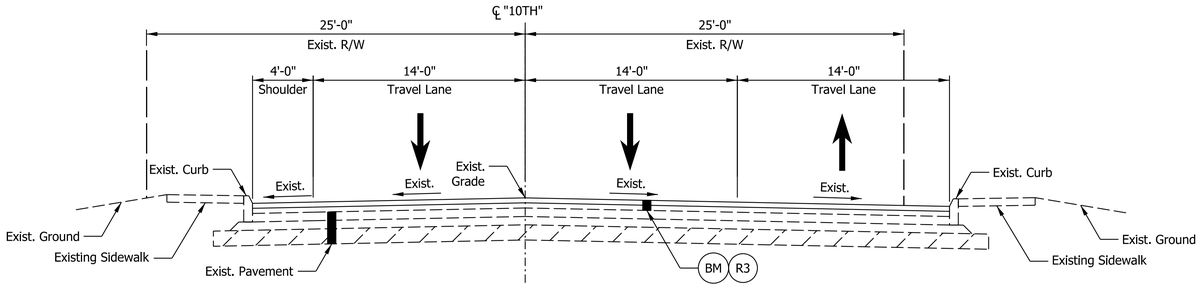
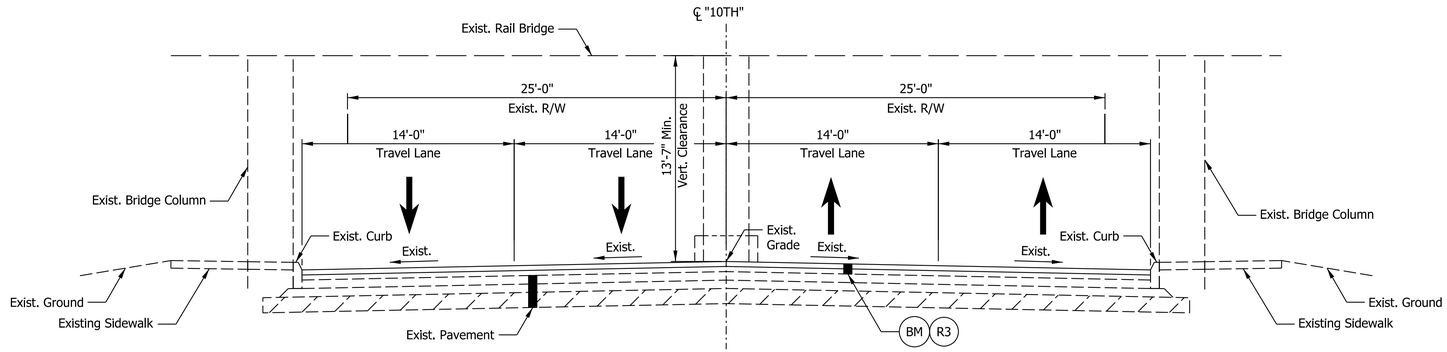


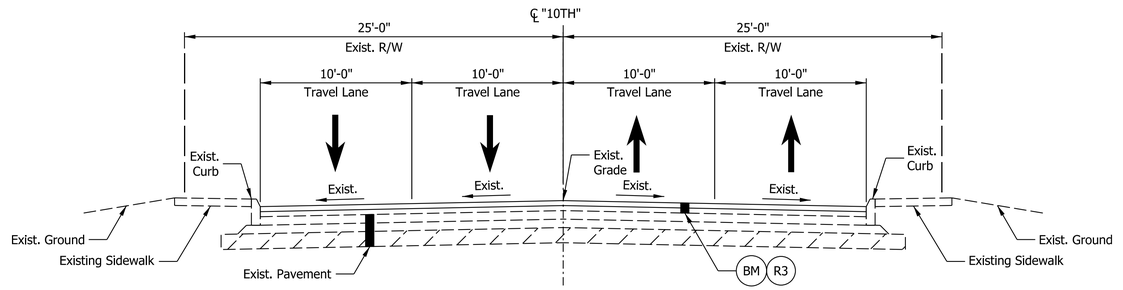
EXISTING SECTION ON TANGENT

STA. 80+00.00 TO STA. 83+24.64
STA. 83+85.31 TO STA. 84+50.00



EXISTING SECTION ON TANGENT

STA. 83+24.64 TO STA. 83+85.31



EXISTING SECTION ON TANGENT

STA. 84+50.00 TO STA. 87+94.08

LEGEND:

(BM) Milling, Asphalt

(R3) Asphalt Travel Lane Resurfacing, Consisting of:
165#/SYD, QC/QA-HMA, 3, 70, Surface, 9.5 mm, on
330#/SYD, QC/QA-HMA, 3, 70, Intermediate, 12.5 mm

NOTE:
1. See Pavement Core sheets for existing pavement structure.
2. See Design Guidelines for additional information for features beyond the edge of pavement.

REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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DESIGN ENGINEER DATE

DESIGNED: DDB | DRAWN: DDB
CHECKED: CMR | CHECKED: CMR

THE CITY OF INDIANAPOLIS METROPOLITAN DEVELOPMENT

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

TYPICAL SECTIONS
10TH STREET

HORIZONTAL SCALE
1" = 5'
VERTICAL SCALE
1" = 5'
PROJECT NUMBER
TBD
SHEETS NUMBER
101 OF 159

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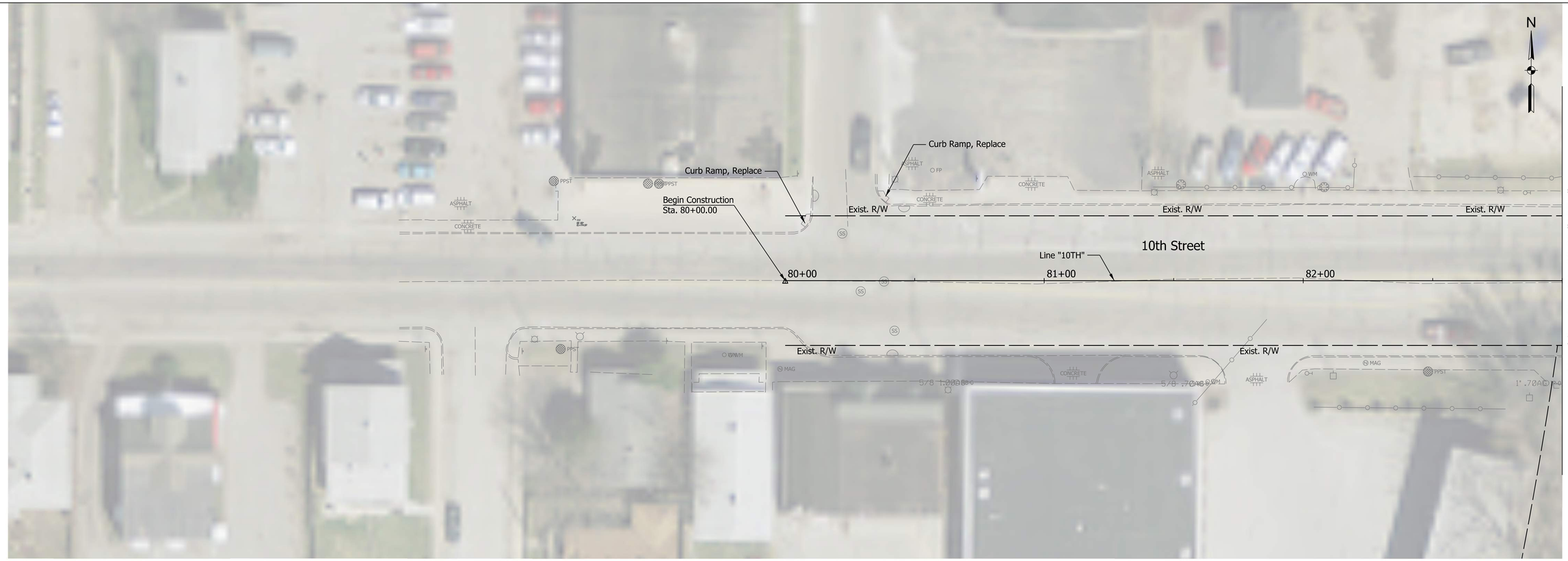

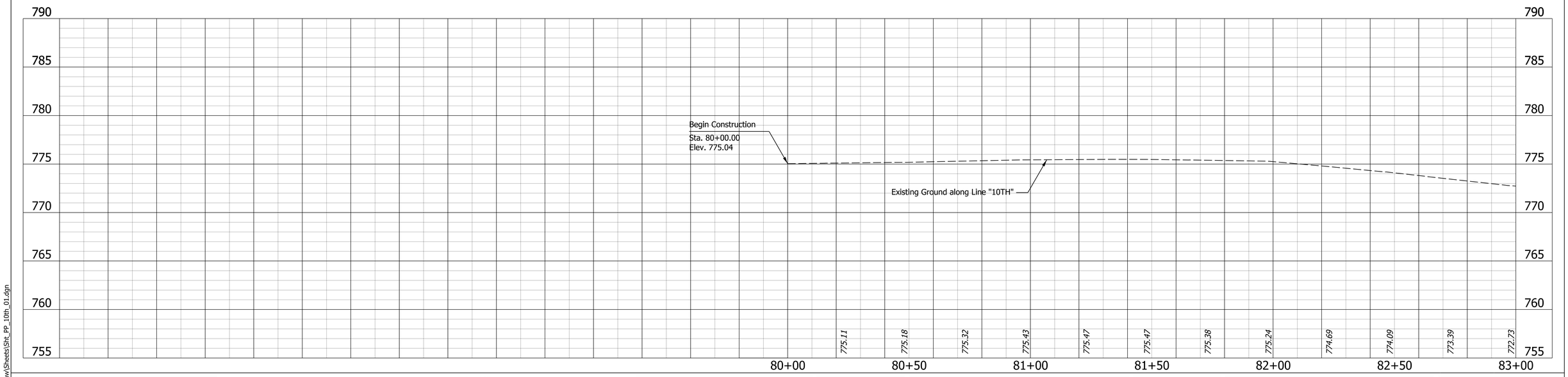

REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

0 20 40 80

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CHECKED: CMR | CHECKED: CMR

THE CITY OF INDIANAPOLIS METROPOLITAN DEVELOPMENT

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

PLAN AND PROFILE SHEET
10TH STREET
LINE "10TH"

HORIZONTAL SCALE	1" = 20'
VERTICAL SCALE	1" = 10'
PROJECT NUMBER	TBD
SHEETS NUMBER	102 OF 159

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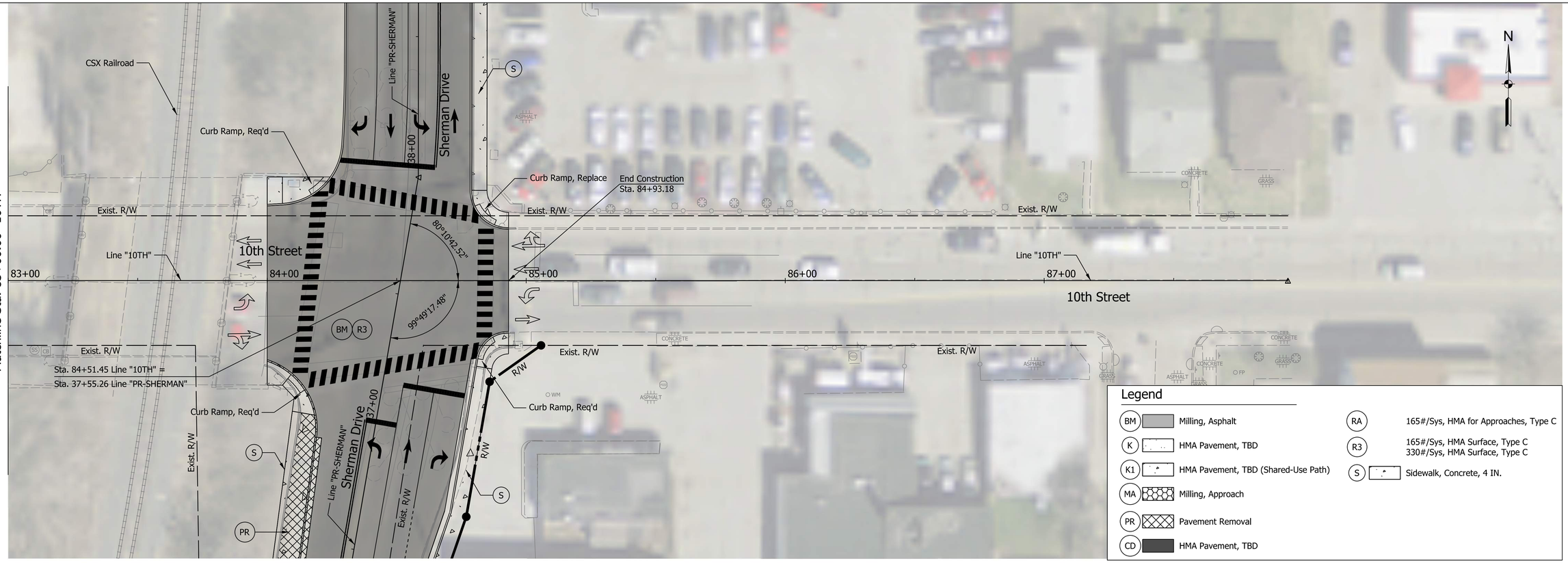
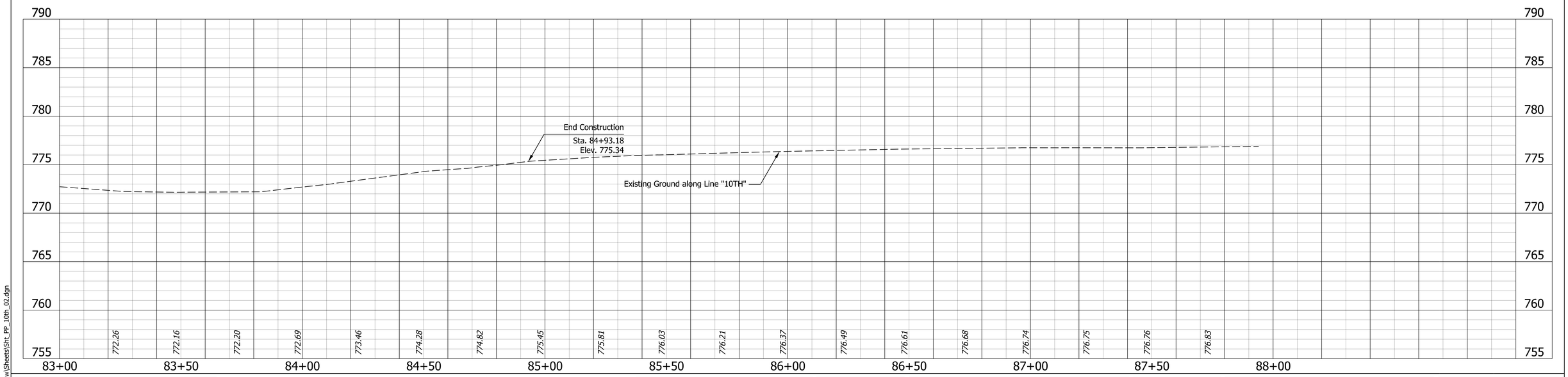
Matchline Sta. 83+00.00 "10TH"





REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

0 20 40 80

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DESIGN ENGINEER DATE

DESIGNED: LKJ | DRAWN: LKJ
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CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

PLAN AND PROFILE SHEET
10TH STREET
LINE "10TH"

HORIZONTAL SCALE
1" = 20'
VERTICAL SCALE
1" = 10'
PROJECT NUMBER
TBD
SHEETS NUMBER
103 OF 159

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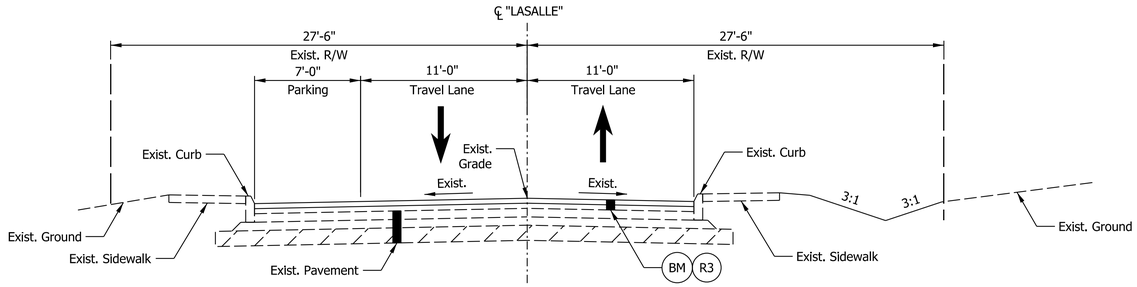
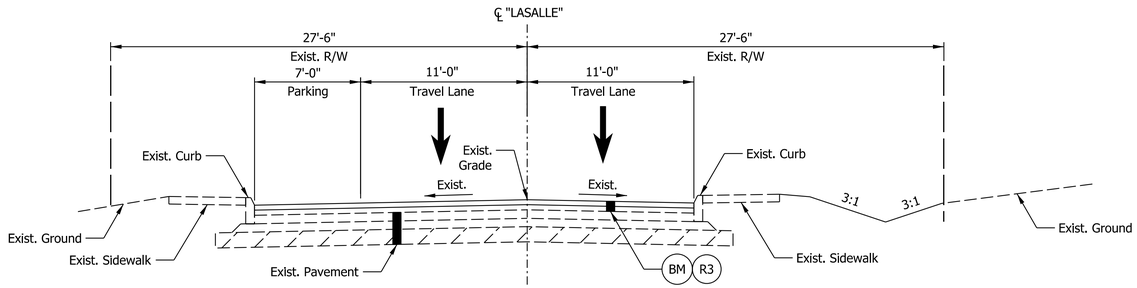


SECTION ON TANGENT

STA. 20+18.61 TO STA. 24+70.36



SECTION ON TANGENT

STA. 24+70.36 TO STA. 30+56.24

LEGEND:

(BM) Milling, Asphalt

(R3) Asphalt Travel Lane Resurfacing, Consisting of:
165#/SYD, QC/QA-HMA, 3, 70, Surface, 9.5 mm, on
330#/SYD, QC/QA-HMA, 3, 70, Intermediate, 12.5 mm

NOTE:
1. See Pavement Core sheets for existing pavement structure.
2. See Design Guidelines for additional information for features beyond the edge of pavement.

REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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RECOMMENDED FOR APPROVAL: _____ DESIGN ENGINEER 6/30/2022 DATE

DESIGNED: DDB | DRAWN: DDB

CHECKED: CMR | CHECKED: CMR

THE CITY OF INDIANAPOLIS METROPOLITAN DEVELOPMENT

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

TYPICAL SECTIONS
LASALLE STREET

HORIZONTAL SCALE
1" = 5'
VERTICAL SCALE
1" = 5'
PROJECT NUMBER
TBD
SHEETS NUMBER
104 OF 159

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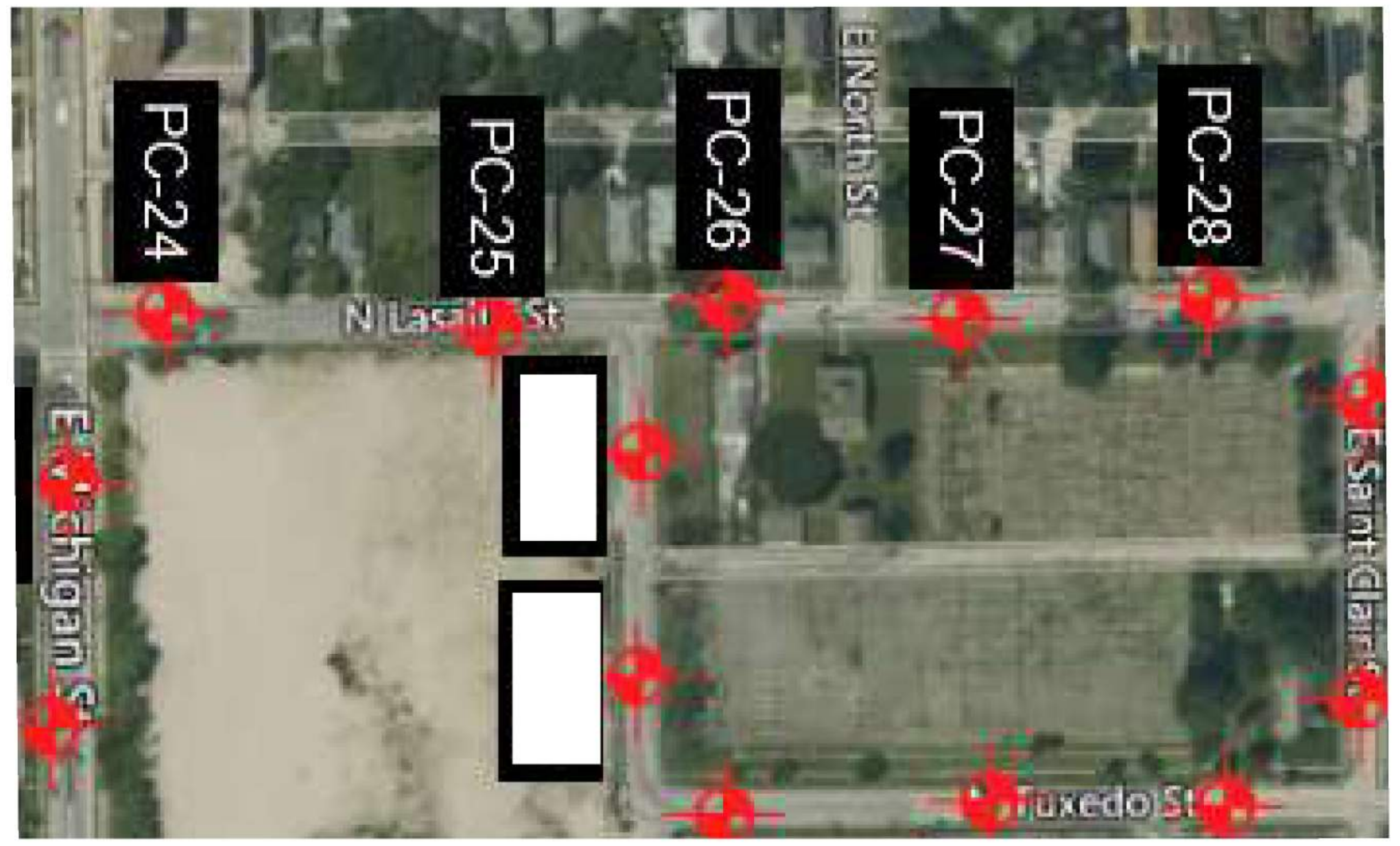
CORING LOCATIONS



PAVEMENT CORE LOG NO. PC-24

Page 1 of 1

PROJECT: Sherman Park Infrastructure Development | CLIENT: Crawford, Murphy & Tilly, Inc. Indianapolis, IN

SITE: Sherman Park, Indianapolis, IN

Latitude: 39.7748° Longitude: -86.1097° | Direction: Southbound | Lane: Travel

DEPTH	Description
1.2	**HMA**, 9.5mm surface, partially stripped
2.8	**HMA**, 12.5mm intermediate
4.1	**HMA**, 9.5mm surface
6.4	**HMA**, 12.5mm intermediate, delaminated
11.7	**PCCP**, 1.5" max aggregate size, partially recovered

Boring Terminated at 11.7 Inches

EARTH EXPLORATION, 7770 W New York St, Indianapolis, IN | Coring Started: 10/9/2020 | Coring Completed: 10/9/2020 | Drill Rig: Pavement Core Machine | Driller: TB | Project No.: CJ195626

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. PAVEMENT_CORE_NO_COORDINATES CJ195626 PC.GPJ J6175238 CYPRESS CREEK - R_RECOVERED.GPJ 11/30/20

PAVEMENT CORE LOG NO. PC-25

Page 1 of 1

PROJECT: Sherman Park Infrastructure Development | CLIENT: Crawford, Murphy & Tilly, Inc. Indianapolis, IN

SITE: Sherman Park, Indianapolis, IN

Latitude: 39.7756° Longitude: -86.1096° | Direction: Northbound | Lane: Travel

DEPTH	Description
1.2	**HMA**, 9.5mm surface
4.0	**HMA**, 12.5mm intermediate, voided, partially stripped
9.9	**PCCP**, 1.0" max aggregate size
11.9	**Granular Subbase**, sand

Boring Terminated at 11.9 Inches

EARTH EXPLORATION, 7770 W New York St, Indianapolis, IN | Coring Started: 10/9/2020 | Coring Completed: 10/9/2020 | Drill Rig: Pavement Core Machine | Driller: TB | Project No.: CJ195626

PAVEMENT CORE LOG NO. PC-26

Page 1 of 1

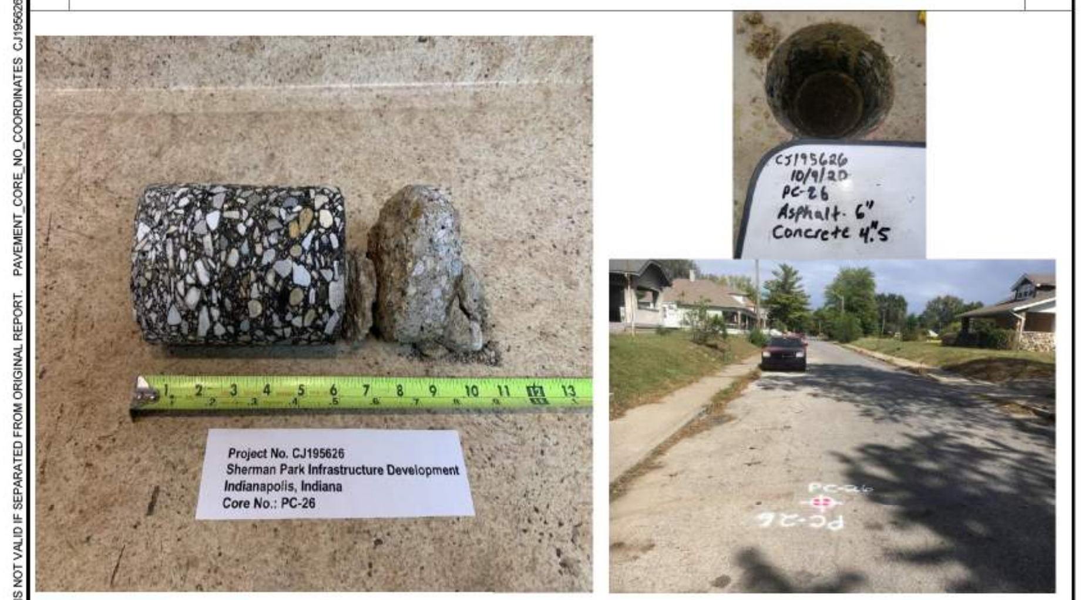
PROJECT: Sherman Park Infrastructure Development | CLIENT: Crawford, Murphy & Tilly, Inc. Indianapolis, IN

SITE: Sherman Park, Indianapolis, IN

Latitude: 39.7761° Longitude: -86.1097° | Direction: Southbound | Lane: Travel

DEPTH	Description
1.0	**HMA**, 9.5mm surface, voided
2.5	**HMA**, 12.5mm intermediate
5.8	**HMA**, 12.5mm intermediate
10.3	**PCCP**, 0.5" max aggregate size, fractured

Boring Terminated at 10.3 Inches



EARTH EXPLORATION, 7770 W New York St, Indianapolis, IN | Coring Started: 10/9/2020 | Coring Completed: 10/9/2020 | Drill Rig: Pavement Core Machine | Driller: TB | Project No.: CJ195626

PAVEMENT CORE LOG NO. PC-27

Page 1 of 1

PROJECT: Sherman Park Infrastructure Development | CLIENT: Crawford, Murphy & Tilly, Inc. Indianapolis, IN

SITE: Sherman Park, Indianapolis, IN

Latitude: 39.7766° Longitude: -86.1097° | Direction: Northbound | Lane: Travel

DEPTH	Description
0.6	**HMA**, 9.5mm surface
2.2	**HMA**, 12.5mm intermediate
3.7	**HMA**, 9.5mm surface, partially stripped, delaminated
7.7	**HMA**, 12.5mm intermediate, partially stripped
11.7	**PCCP**, 1.0" max aggregate size

Boring Terminated at 11.7 Inches

EARTH EXPLORATION, 7770 W New York St, Indianapolis, IN | Coring Started: 10/9/2020 | Coring Completed: 10/9/2020 | Drill Rig: Pavement Core Machine | Driller: TB | Project No.: CJ195626

PAVEMENT CORE LOG NO. PC-28

Page 1 of 1

PROJECT: Sherman Park Infrastructure Development | CLIENT: Crawford, Murphy & Tilly, Inc. Indianapolis, IN

SITE: Sherman Park, Indianapolis, IN

Latitude: 39.7772° Longitude: -86.1097° | Direction: Southbound | Lane: Travel

DEPTH	Description
1.0	**HMA**, 9.5mm surface
3.2	**HMA**, 12.5mm intermediate, delaminated
4.6	**HMA**, 9.5mm surface
6.0	**HMA**, 12.5mm intermediate, partially stripped, delaminated
10.5	**PCCP**, completely fractured, partially recovered

Boring Terminated at 10.5 Inches

EARTH EXPLORATION, 7770 W New York St, Indianapolis, IN | Coring Started: 10/9/2020 | Coring Completed: 10/9/2020 | Drill Rig: Pavement Core Machine | Driller: TB | Project No.: CJ195626

REVISIONS			
XX/XX/XX	△	DESCRIPTION	XXX
XX/XX/XX	△	DESCRIPTION	XXX
XX/XX/XX	△	DESCRIPTION	XXX
XX/XX/XX	△	DESCRIPTION	XXX
XX/XX/XX	△	DESCRIPTION	XXX

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CHECKED: CMR | CHECKED: CMR

THE CITY OF INDIANAPOLIS METROPOLITAN DEVELOPMENT

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

PAVEMENT CORES
LASALLE STREET

HORIZONTAL SCALE: N/A
PROJECT NUMBER: TBD
SHEETS NUMBER: 105 OF 159

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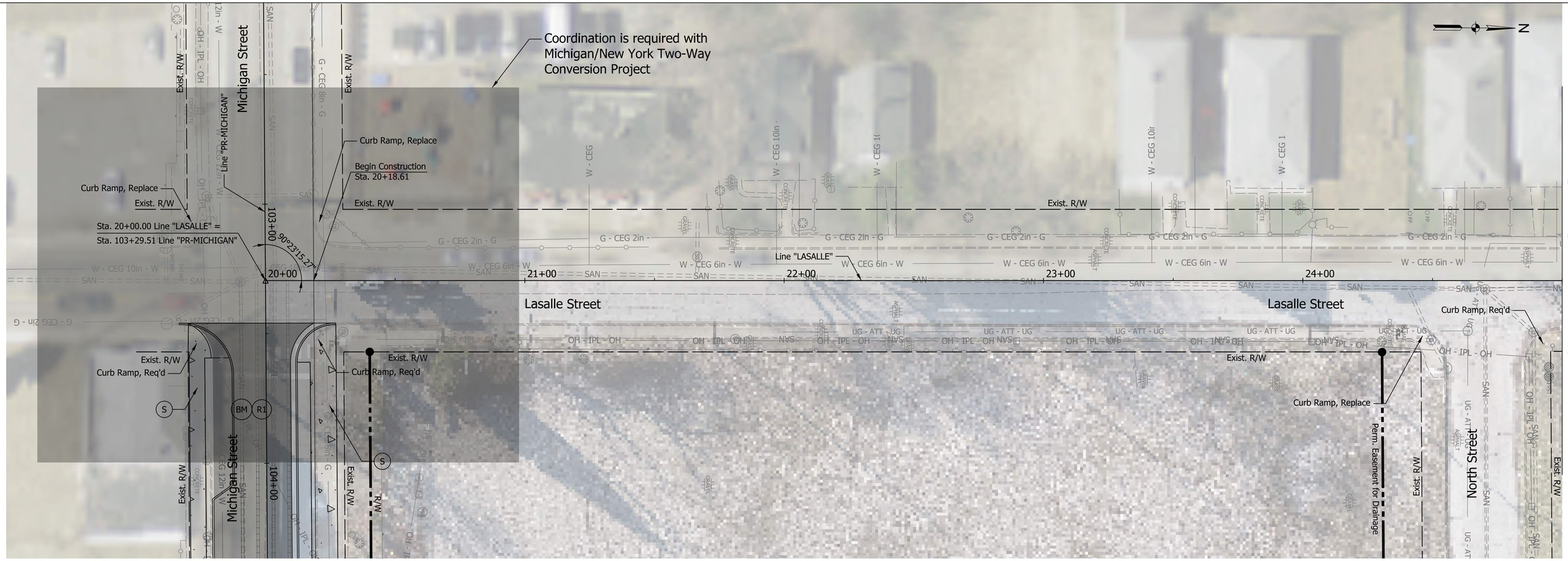

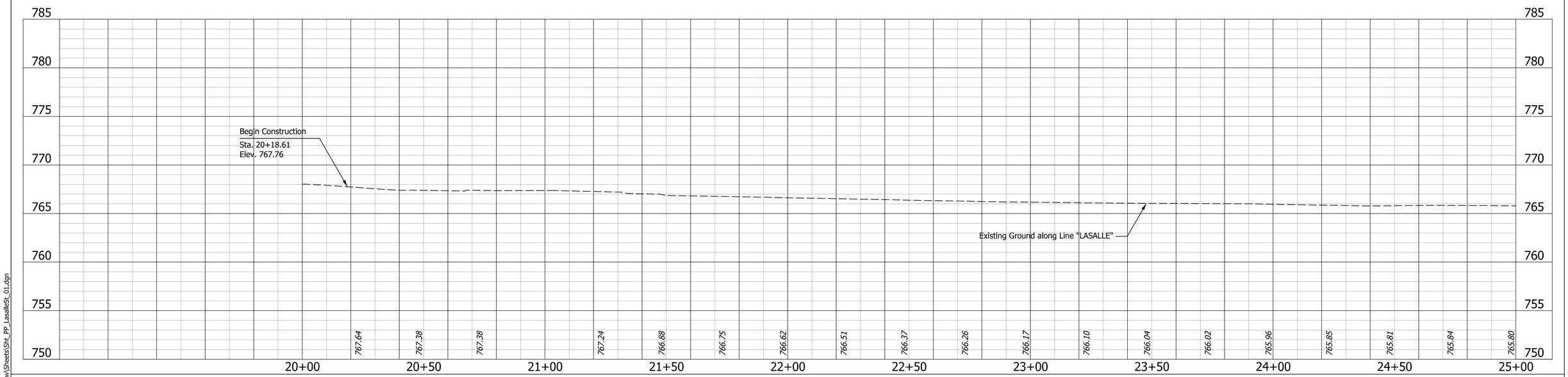

REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

0 20 40 80

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CMT
Engineers and Consultants
8790 PURDUE ROAD
INDIANAPOLIS, IN 46268-6128
PHONE: (317) 298-4500

Not For Construction

RECOMMENDED FOR APPROVAL: _____ 6/30/2022
DESIGN ENGINEER DATE

DESIGNED: LKJ | DRAWN: LKJ
CHECKED: CMR | CHECKED: CMR

INDIANAPOLIS METROPOLITAN DEVELOPMENT

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

PLAN AND PROFILE SHEET
LASALLE STREET
LINE "LASALLE"

HORIZONTAL SCALE	1" = 20'
VERTICAL SCALE	1" = 10'
PROJECT NUMBER	TBD
SHEETS NUMBER	106 OF 159

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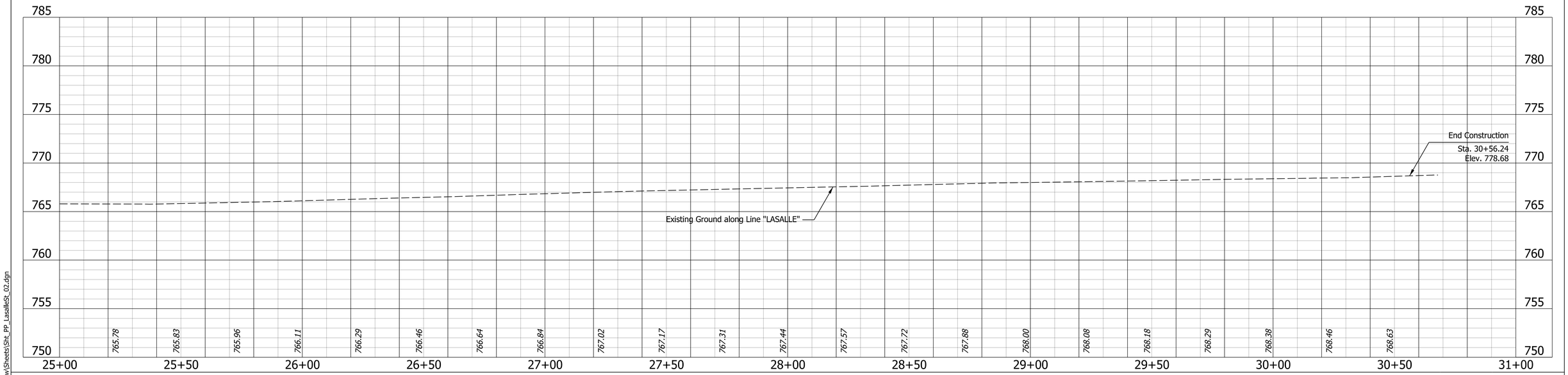
Matchline Sta. 25+00.00 "LASALLE"



REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

0 20 40 80

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CHECKED: CMR | CHECKED: CMR

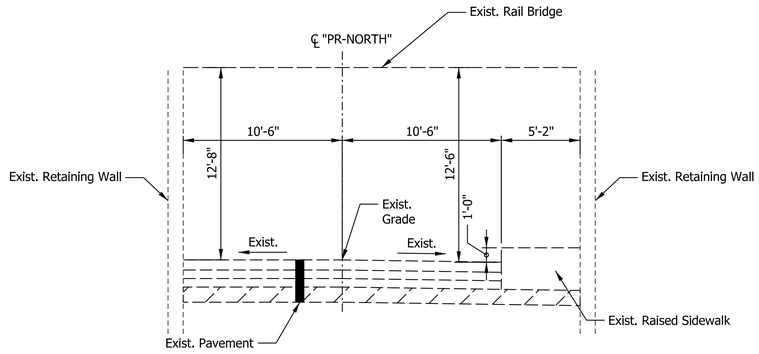
THE CITY OF INDIANAPOLIS METROPOLITAN DEVELOPMENT

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

PLAN AND PROFILE SHEET
LASALLE STREET
LINE "LASALLE"

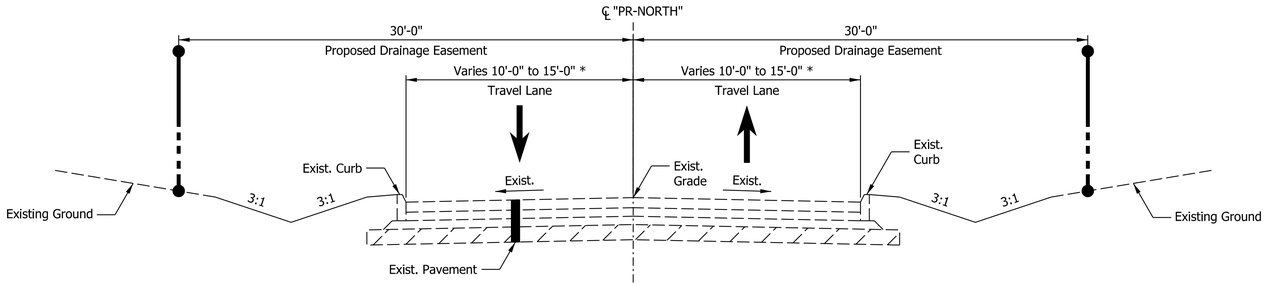
HORIZONTAL SCALE	1" = 20'
VERTICAL SCALE	1" = 10'
PROJECT NUMBER	TBD
SHEETS NUMBER	107 OF 159

L:\IndyDMD\190725\01-00\Draw\Sheets\Sht_PP_LasalleSt_02.dgn



SECTION ON TANGENT

STA. 155+65.00.00 TO STA. 156+75.00



SECTION ON TANGENT

STA. 150+00.00 TO STA. 155+65.00
STA. 156+75.00 TO STA. 165+03.00

* Travel Lane Width Varies: 15'-0" from Sta. 150+50.00 to Sta. 154+25.00
10'-0" from Sta. 154+65.00 to Sta. 159+73.56

NOTE TO REVIEWER:
The usage of North Street is still to be determined. It may not be for future vehicular use, and could be for pedestrian/cyclist use only. Determination of use and improvements to North Street will be determined as ACS and other future developments happen.

NOTE:
1. Proposed use of North Street is still being evaluated. Proposed typical sections to be provided at a future submittal.
2. See Design Guidelines for additional information for features beyond the edge of pavement.

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REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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PHONE: (317) 298-4500

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RECOMMENDED FOR APPROVAL: _____ 6/30/2022
DESIGN ENGINEER DATE

DESIGNED: DDB | DRAWN: DDB
CHECKED: CMR | CHECKED: CMR

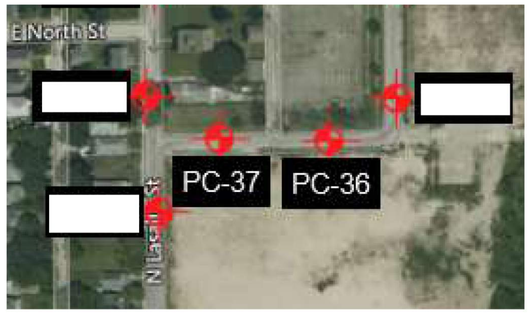
THE CITY OF INDIANAPOLIS METROPOLITAN DEVELOPMENT

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

TYPICAL SECTIONS NORTH STREET

HORIZONTAL SCALE
1" = 5'
VERTICAL SCALE
1" = 5'
PROJECT NUMBER
TBD
SHEETS NUMBER
108 OF 159

CORING LOCATIONS



PAVEMENT CORE LOG NO. PC-36

Page 1 of 1

PROJECT: Sherman Park Infrastructure Development
CLIENT: Crawford, Murphy & Tilly, Inc. Indianapolis, IN
SITE: Sherman Park Indianapolis, IN

Latitude: 39.7759° Longitude: -86.1086°
Direction: Eastbound Lane: Travel

GRAPHIC LOG | DEPTH | DEPTH (in.)

DEPTH		DEPTH (in.)
0.2	Chip Seal	
0.3	HMA, 9.5mm surface	1
0.6	HMA, 12.5mm intermediate	2
	PCCP, 1.0" max aggregate size	3
		4
		5
		6
		7
8.7		8
	Granular Subbase, sand and gravel	9
10.7		10
	Boring Terminated at 10.7 Inches	

EARTH EXPLORATION, Member Lucas | 7770 W New York St Indianapolis, IN

Coring Started: 10/9/2020 | Coring Completed: 10/9/2020
Drill Rig: Pavement Core Machine | Driller: TB
Project No.: CJ195626

PAVEMENT CORE LOG NO. PC-37

Page 1 of 1

PROJECT: Sherman Park Infrastructure Development
CLIENT: Crawford, Murphy & Tilly, Inc. Indianapolis, IN
SITE: Sherman Park Indianapolis, IN

Latitude: 39.7759° Longitude: -86.1093°
Direction: Westbound Lane: Travel

GRAPHIC LOG | DEPTH | DEPTH (in.)

DEPTH		DEPTH (in.)
	HMA, 9.5mm surface, partially stripped, delaminated	
1.2	PCCP, 1.0" max aggregate size, fractured	1
		2
		3
		4
		5
		6
7.2		7
	Boring Terminated at 7.2 Inches	

EARTH EXPLORATION, Member Lucas | 7770 W New York St Indianapolis, IN

Coring Started: 10/9/2020 | Coring Completed: 10/9/2020
Drill Rig: Pavement Core Machine | Driller: TB
Project No.: CJ195626

REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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8790 PURDUE ROAD
INDIANAPOLIS, IN 46268-6128
PHONE: (317) 298-4500

Not For Construction

RECOMMENDED FOR APPROVAL: _____ 6/30/2022
DESIGN ENGINEER DATE

DESIGNED: DDB	DRAWN: DDB
CHECKED: CMR	CHECKED: CMR

THE CITY OF INDIANAPOLIS METROPOLITAN DEVELOPMENT

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

PAVEMENT CORES
NORTH STREET

HORIZONTAL SCALE
N/A

PROJECT NUMBER
TBD
SHEETS NUMBER
109 OF 159

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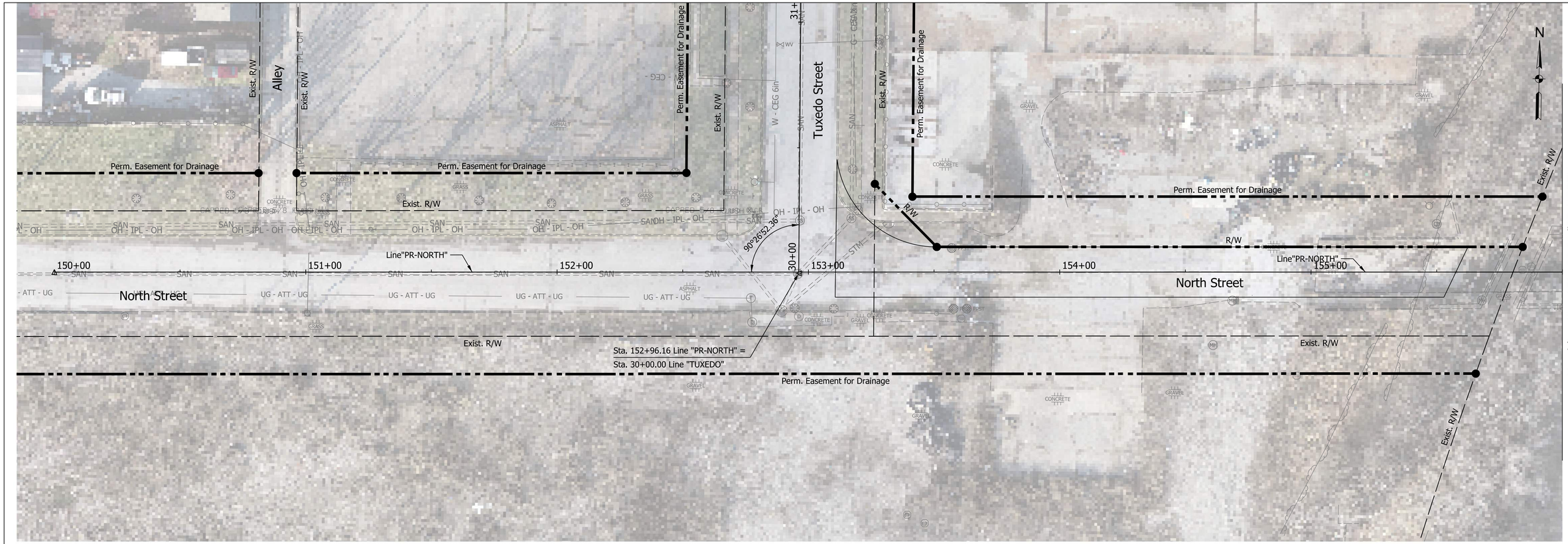

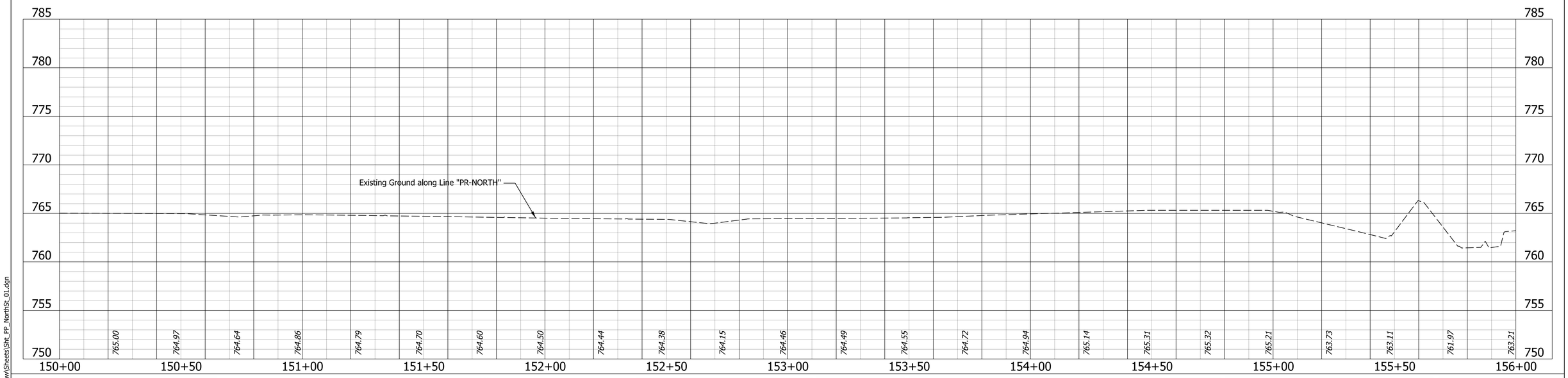

REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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CHECKED: CMR | CHECKED: CMR

INDIANAPOLIS METROPOLITAN DEVELOPMENT

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

PLAN AND PROFILE SHEET NORTH STREET LINE "PR-NORTH"

HORIZONTAL SCALE
1" = 20'
VERTICAL SCALE
1" = 10'

PROJECT NUMBER
TBD
SHEETS NUMBER
110 OF 159

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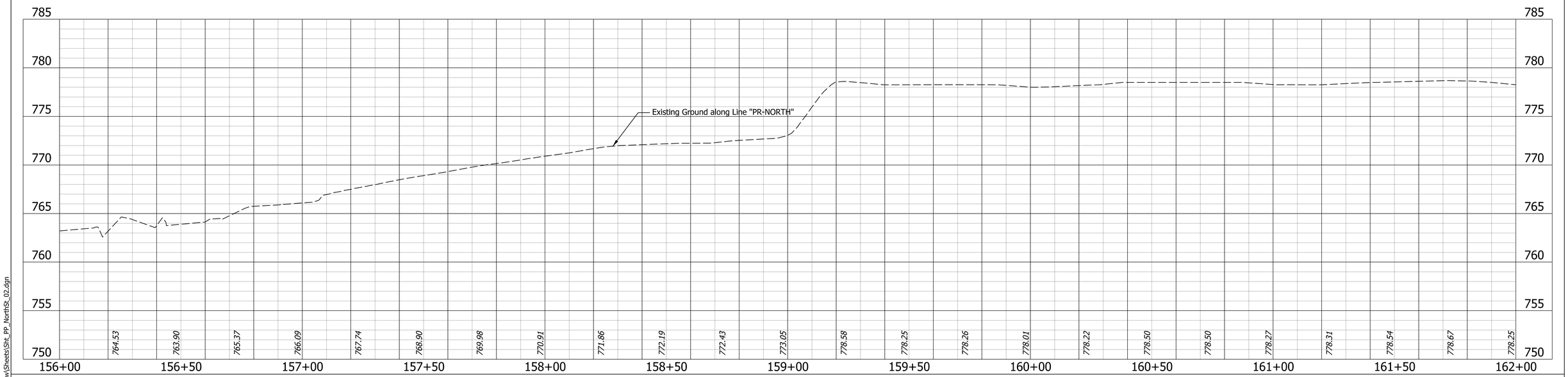

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REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

0 20 40 80

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Not For Construction

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DESIGN ENGINEER DATE

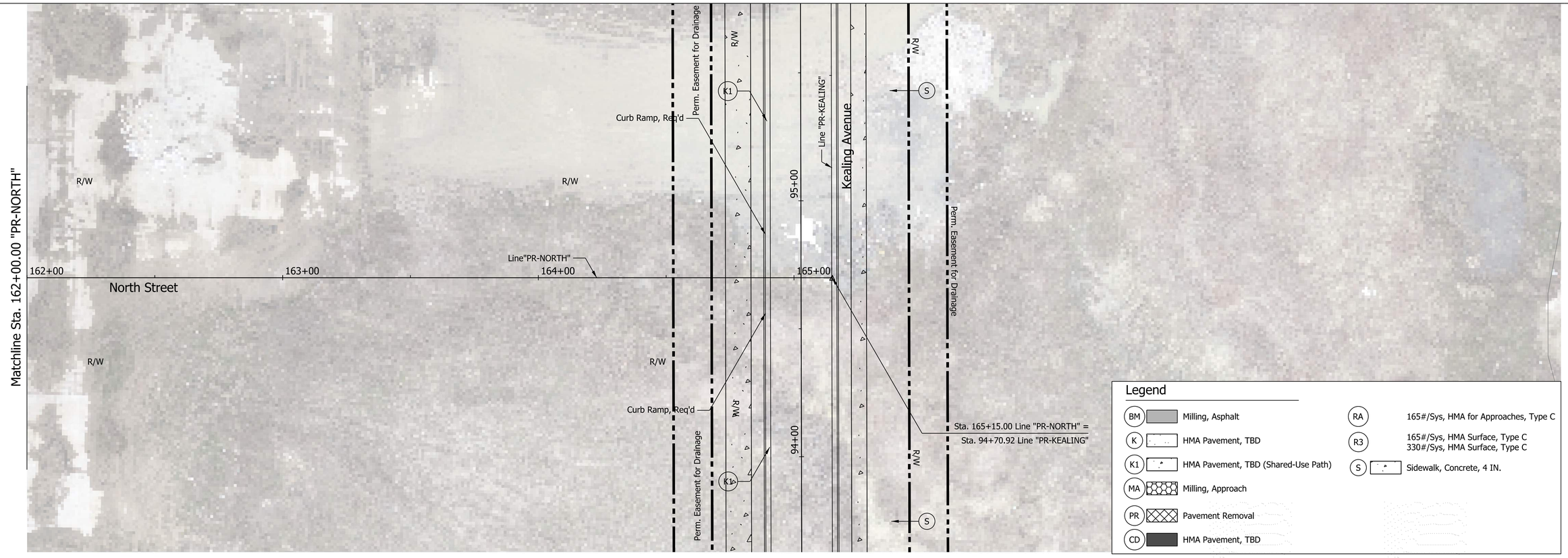
DESIGNED: LKJ | DRAWN: LKJ
CHECKED: CMR | CHECKED: CMR

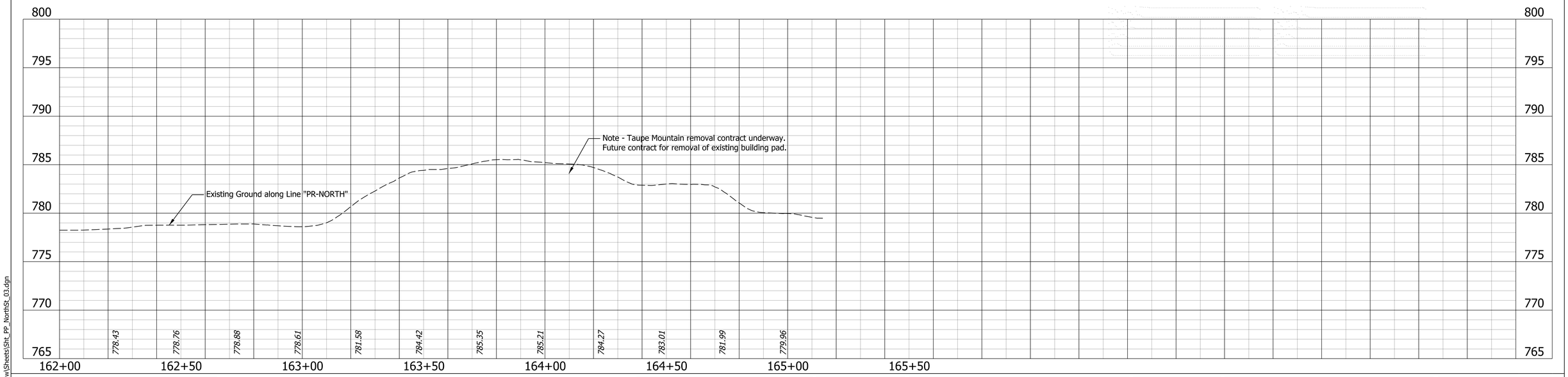
THE CITY OF INDIANAPOLIS METROPOLITAN DEVELOPMENT

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

PLAN AND PROFILE SHEET NORTH STREET LINE "PR-NORTH"

HORIZONTAL SCALE	1" = 20'
VERTICAL SCALE	1" = 10'
PROJECT NUMBER	TBD
SHEETS NUMBER	111 OF 159





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REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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Not For Construction

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DESIGN ENGINEER DATE

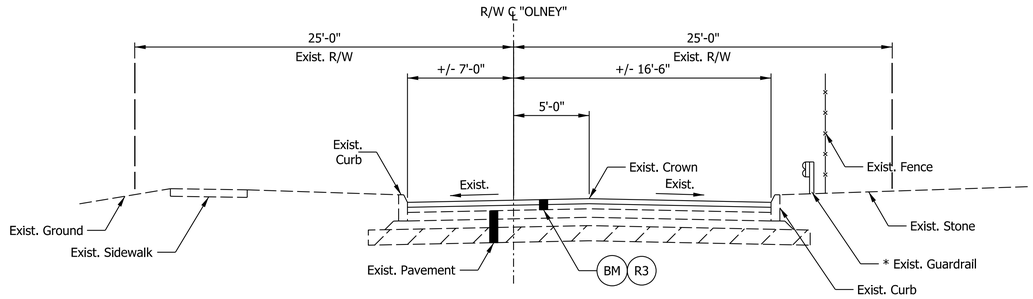
DESIGNED: LKJ DRAWN: LKJ
CHECKED: CMR CHECKED: CMR

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

PLAN AND PROFILE SHEET
NORTH STREET
LINE "PR-NORTH"

HORIZONTAL SCALE
1" = 20'
VERTICAL SCALE
1" = 10'

PROJECT NUMBER
TBD
SHEETS NUMBER
112 OF 159



EXISTING SECTION ON TANGENT

STA. 40+00.00 TO STA. 45+71.99
* STA. 40+00.00 TO STA. 41+14.00

LEGEND:

(BM) Milling, Asphalt

(R3) Asphalt Travel Lane Resurfacing, Consisting of:
165#/SYD, QC/QA-HMA, 3, 70, Surface, 9.5 mm, on
330#/SYD, QC/QA-HMA, 3, 70, Intermediate, 12.5 mm

NOTE:
1. See Design Guidelines for additional information for features beyond the edge of pavement.

REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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PHONE: (317) 298-4500

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DESIGN ENGINEER DATE

DESIGNED: DDB | DRAWN: DDB
CHECKED: CMR | CHECKED: CMR

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

TYPICAL SECTIONS
OLNEY STREET

HORIZONTAL SCALE	1" = 5'
VERTICAL SCALE	1" = 5'
PROJECT NUMBER	TBD
SHEETS NUMBER	113 OF 159

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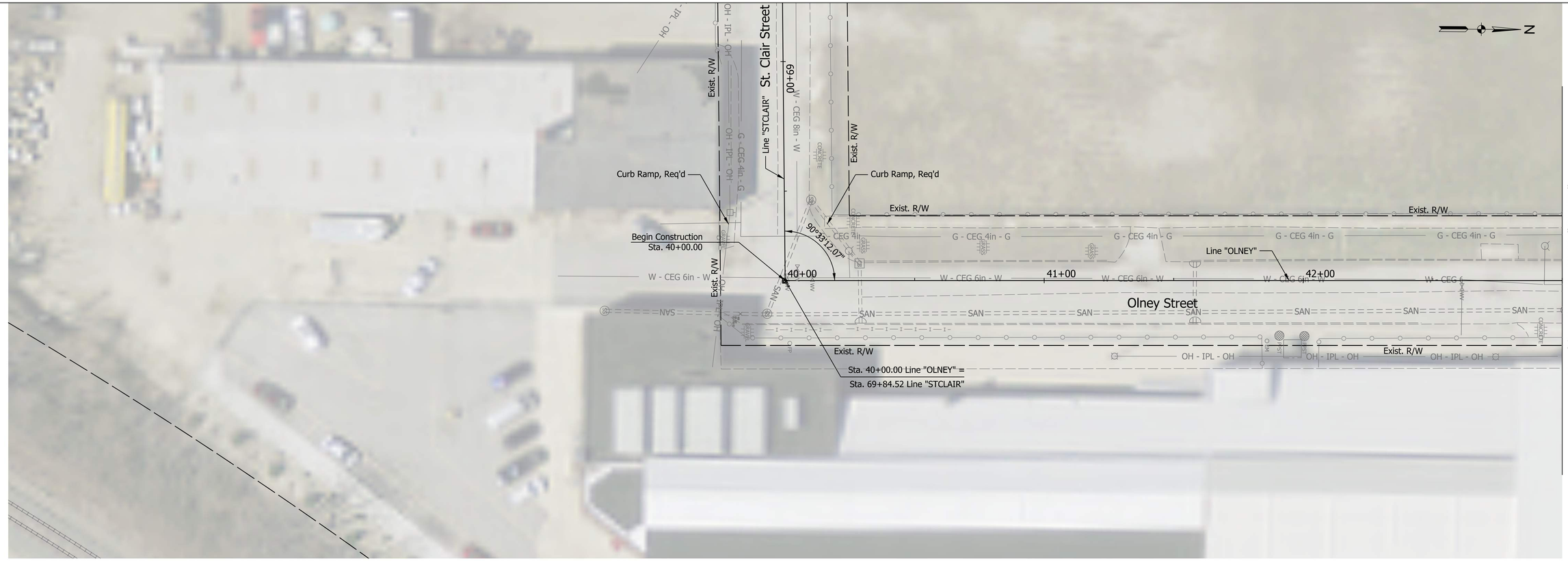

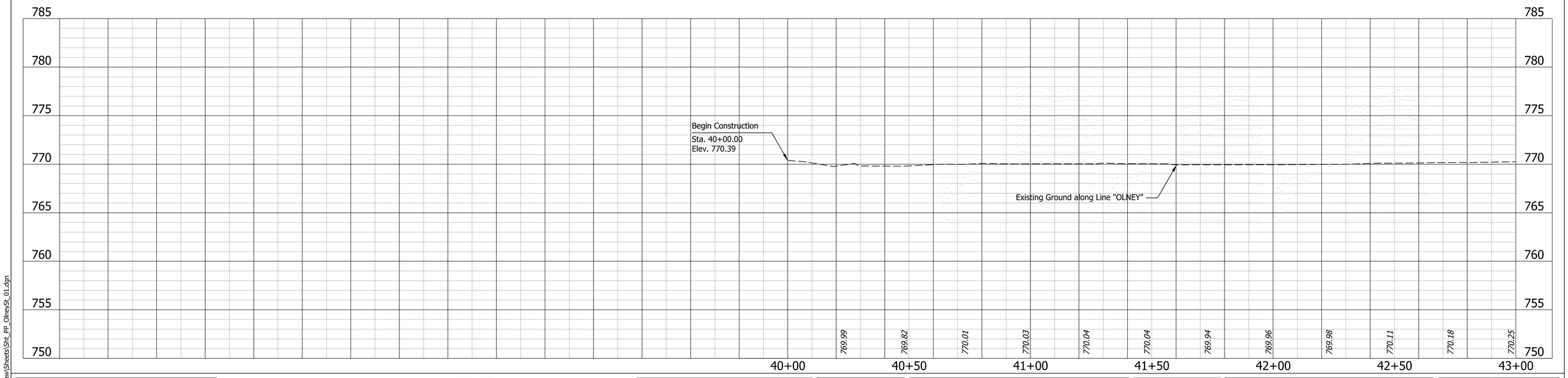

REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

0 20 40 80

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CHECKED: CMR CHECKED: CMR

THE CITY OF INDIANAPOLIS METROPOLITAN DEVELOPMENT

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

PLAN AND PROFILE SHEET OLNEY STREET LINE "OLNEY"

HORIZONTAL SCALE	1" = 20'
VERTICAL SCALE	1" = 10'
PROJECT NUMBER	TBD
SHEETS NUMBER	114 OF 159

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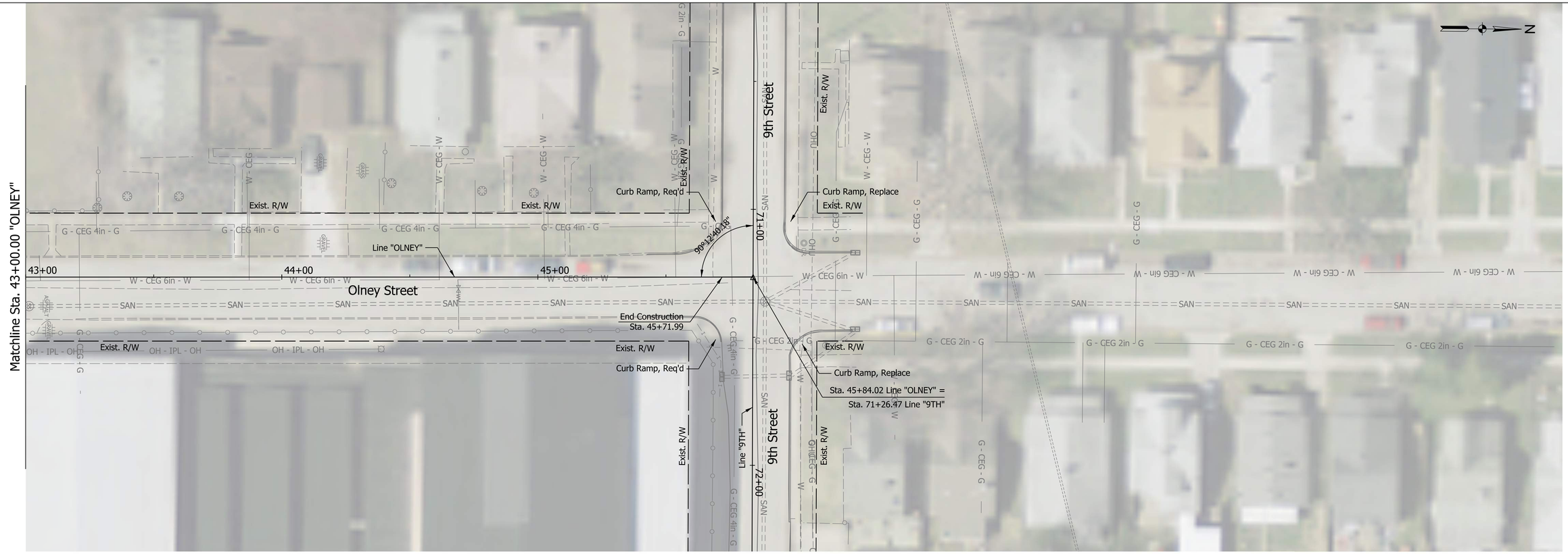

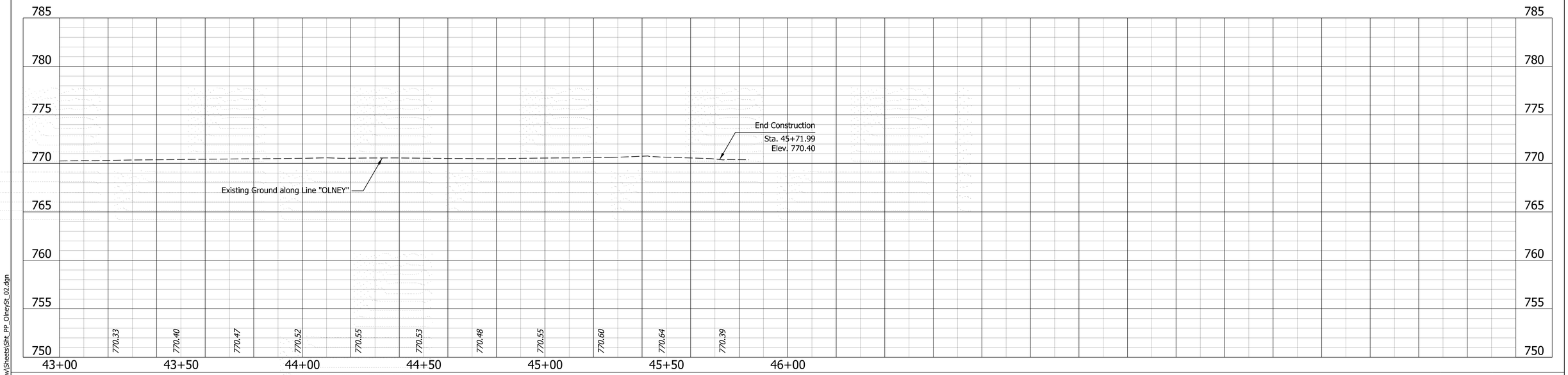

REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

0 20 40 80

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DESIGN ENGINEER DATE

DESIGNED: LKJ | DRAWN: LKJ
CHECKED: CMR | CHECKED: CMR

THE CITY OF INDIANAPOLIS METROPOLITAN DEVELOPMENT

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

PLAN AND PROFILE SHEET
OLNEY STREET
LINE "OLNEY"

HORIZONTAL SCALE
1" = 20'
VERTICAL SCALE
1" = 10'
PROJECT NUMBER
TBD
SHEETS NUMBER
115 OF 159

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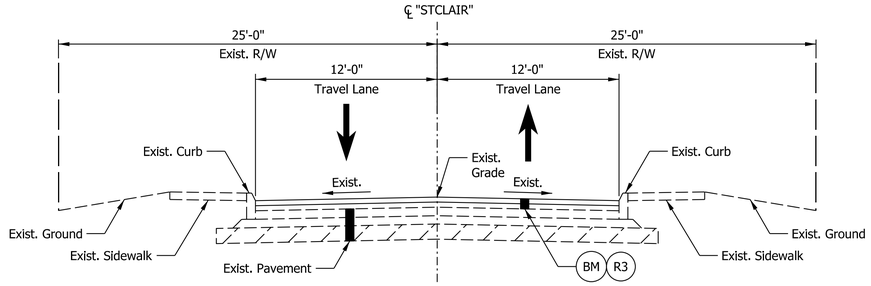
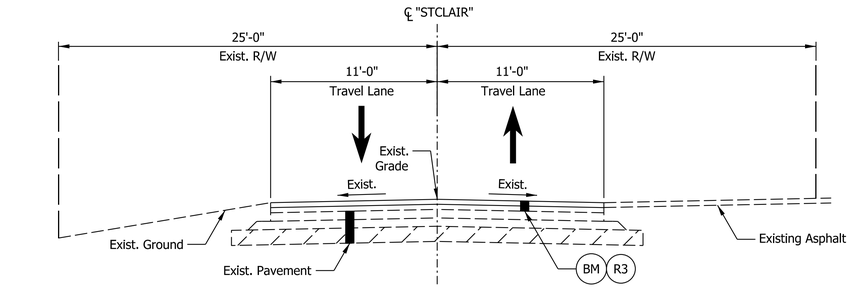


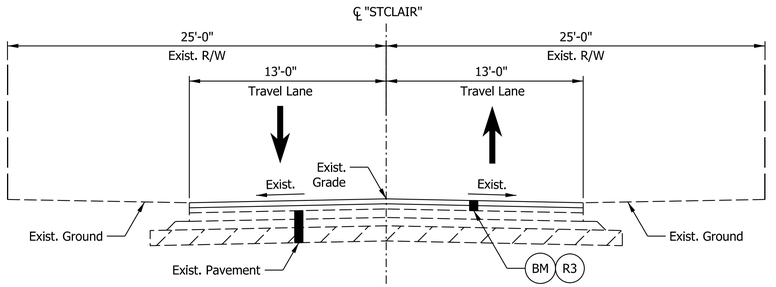
EXISTING SECTION ON TANGENT

STA. 60+00.00 TO STA. 66+00.00



EXISTING SECTION ON TANGENT

STA. 66+00.00 TO STA. 68+00.00



EXISTING SECTION ON TANGENT

STA. 68+00.00 TO STA. 69+76.88

LEGEND:

(BM) Milling, Asphalt

(R3) Asphalt Travel Lane Resurfacing, Consisting of:
165#/SYD, QC/QA-HMA, 3, 70, Surface, 9.5 mm, on
330#/SYD, QC/QA-HMA, 3, 70, Intermediate, 12.5 mm

NOTE:
1. See Pavement Core sheets for existing pavement structure.
2. See Design Guidelines for additional information for features beyond the edge of pavement.

REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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INDIANAPOLIS, IN 46268-6128
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Not For Construction

RECOMMENDED FOR APPROVAL: _____ DESIGN ENGINEER — 6/30/2022 DATE

DESIGNED: DDB | DRAWN: DDB

CHECKED: CMR | CHECKED: CMR

THE CITY OF INDIANAPOLIS METROPOLITAN DEVELOPMENT

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

TYPICAL SECTIONS ST. CLAIR STREET

HORIZONTAL SCALE	1" = 5'
VERTICAL SCALE	1" = 5'
PROJECT NUMBER	TBD
SHEETS NUMBER	116 OF 159

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CORING LOCATIONS

PAVEMENT CORE LOG NO. PC-29

Page 1 of 1

PROJECT: Sherman Park Infrastructure Development
CLIENT: Crawford, Murphy & Tilly, Inc. Indianapolis, IN
SITE: Sherman Park Indianapolis, IN

Latitude: 39.7775° Longitude: -86.1094°

Direction: Westbound Lane: Travel

GRAPHIC LOG	DEPTH		DEPTH (in.)
	0.0	**HMA**, 9.5mm surface	
	1.3	**HMA**, 12.5mm intermediate	1
	2.5	**HMA**, 9.5mm surface	2
	3.7	**HMA**, 9.5mm surface, fuel odor	3
	4.7	**HMA**, 9.5mm surface, fuel odor	4
	5.2	**Granular Subbase**, gravel	5
	7.5	***Boring Terminated at 7.5 Inches***	6
			7

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. PAVEMENT_CORE_NO_COORDINATES_CJ195626 PC-29_JETTSON CYPRESS CREEK_R_RECOVERED.GPJ 1/30/20

EARTH EXPLORATION, Inc. 7770 W New York St Indianapolis, IN

Coring Started: 10/9/2020	Coring Completed: 10/9/2020
Drill Rig: Pavement Core Machine	Driller: TB
Project No.: CJ195626	

PAVEMENT CORE LOG NO. PC-30

Page 1 of 1

PROJECT: Sherman Park Infrastructure Development
CLIENT: Crawford, Murphy & Tilly, Inc. Indianapolis, IN
SITE: Sherman Park Indianapolis, IN

Latitude: 39.7775° Longitude: -86.1085°

Direction: Eastbound Lane: Travel

GRAPHIC LOG	DEPTH		DEPTH (in.)
	0.0	**HMA**, 9.5mm surface	
	1.5	**HMA**, 12.5mm intermediate	1
	2.5	**HMA**, 9.5mm surface, voided	2
	3.2	**HMA**, 12.5mm intermediate	3
	4.3	**HMA**, 12.5mm intermediate, voided	4
	8.5	**Granular Subbase**, sand and gravel	5
	10.5	***Boring Terminated at 10.5 Inches***	6
			7
			8
			9
			10

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. PAVEMENT_CORE_NO_COORDINATES_CJ195626 PC-30_JETTSON CYPRESS CREEK_R_RECOVERED.GPJ 1/30/20

EARTH EXPLORATION, Inc. 7770 W New York St Indianapolis, IN

Coring Started: 10/8/2020	Coring Completed: 10/8/2020
Drill Rig: Pavement Core Machine	Driller: TB
Project No.: CJ195626	

PAVEMENT CORE LOG NO. PC-31

Page 1 of 1

PROJECT: Sherman Park Infrastructure Development
CLIENT: Crawford, Murphy & Tilly, Inc. Indianapolis, IN
SITE: Sherman Park Indianapolis, IN

Latitude: 39.7776° Longitude: -86.1077°

Direction: Westbound Lane: Travel

GRAPHIC LOG	DEPTH		DEPTH (in.)
	0.0	**HMA**, 9.5mm surface, voided	
	1.7	**HMA**, 9.5mm surface	1
	2.8	**HMA**, 9.5mm surface, voided, delaminated	2
	3.7	**HMA**, 9.5mm surface, fractured, partially stripped, delaminated	3
	4.5	**HMA**, completely stripped, not recovered	4
	7.5	**Granular Subbase**, sand and gravel	5
		Boring Terminated at 7.5 Inches	6
			7

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. PAVEMENT_CORE_NO_COORDINATES_CJ195626 PC-31_JETTSON CYPRESS CREEK_R_RECOVERED.GPJ 1/30/20

EARTH EXPLORATION, Inc. 7770 W New York St Indianapolis, IN

Coring Started: 10/8/2020	Coring Completed: 10/8/2020
Drill Rig: Pavement Core Machine	Driller: TB
Project No.: CJ195626	

PAVEMENT CORE LOG NO. PC-32

Page 1 of 1

PROJECT: Sherman Park Infrastructure Development
CLIENT: Crawford, Murphy & Tilly, Inc. Indianapolis, IN
SITE: Sherman Park Indianapolis, IN

Latitude: 39.7775° Longitude: -86.107°

Direction: Eastbound Lane: Travel

GRAPHIC LOG	DEPTH		DEPTH (in.)
	0.0	**HMA**, 9.5mm surface	
	0.8	**HMA**, 12.5mm intermediate, delaminated, partially stripped	1
	2.5	**HMA**, 4.75mm surface, partially stripped	2
	3.9	**Granular Subbase**, sand and gravel	3
	7.9	***Boring Terminated at 7.9 Inches***	4
			5
			6
			7

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. PAVEMENT_CORE_NO_COORDINATES_CJ195626 PC-32_JETTSON CYPRESS CREEK_R_RECOVERED.GPJ 1/30/20

EARTH EXPLORATION, Inc. 7770 W New York St Indianapolis, IN

Coring Started: 10/8/2020	Coring Completed: 10/8/2020
Drill Rig: Pavement Core Machine	Driller: TB
Project No.: CJ195626	

REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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CMT Engineers and Consultants
8790 PURDUE ROAD
INDIANAPOLIS, IN 46268-6128
PHONE: (317) 298-4500

Not For Construction

RECOMMENDED FOR APPROVAL: _____ 6/30/2022
DESIGN ENGINEER DATE

DESIGNED: DDB	DRAWN: DDB
CHECKED: CMR	CHECKED: CMR

THE CITY OF INDIANAPOLIS METROPOLITAN DEVELOPMENT

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

PAVEMENT CORES
ST. CLAIR STREET

HORIZONTAL SCALE	N/A
PROJECT NUMBER	TBD
SHEETS NUMBER	117 OF 159

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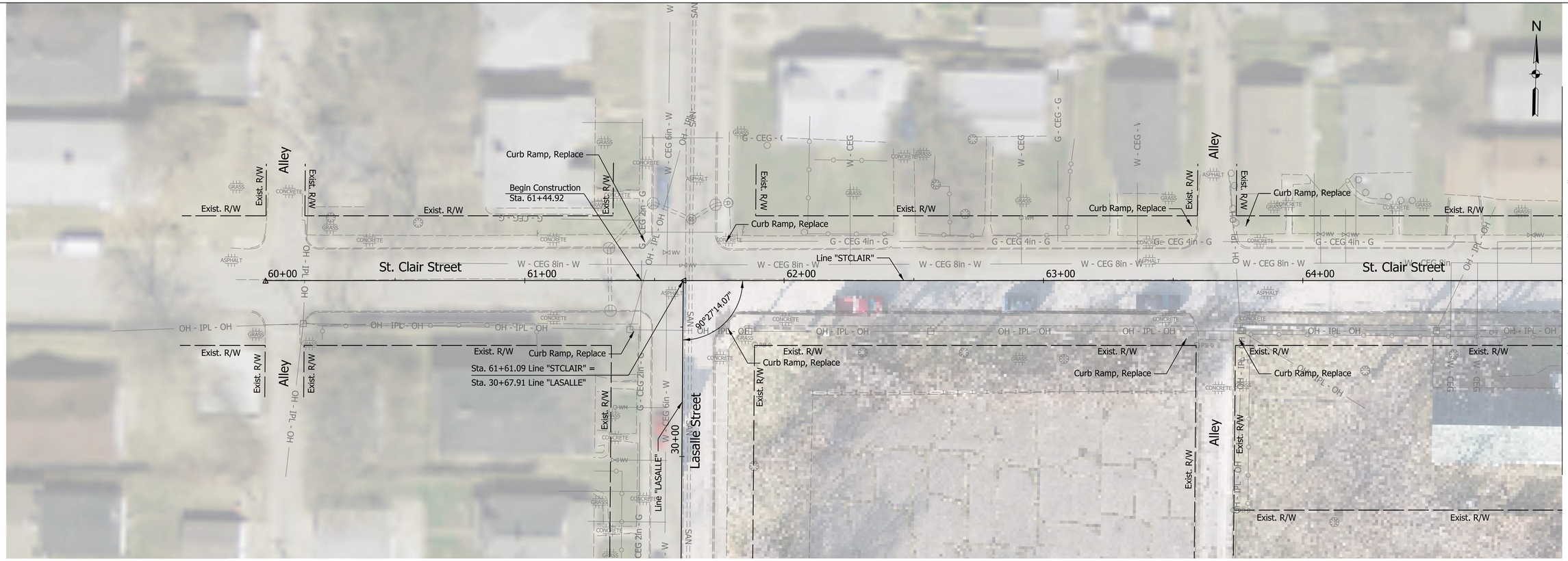

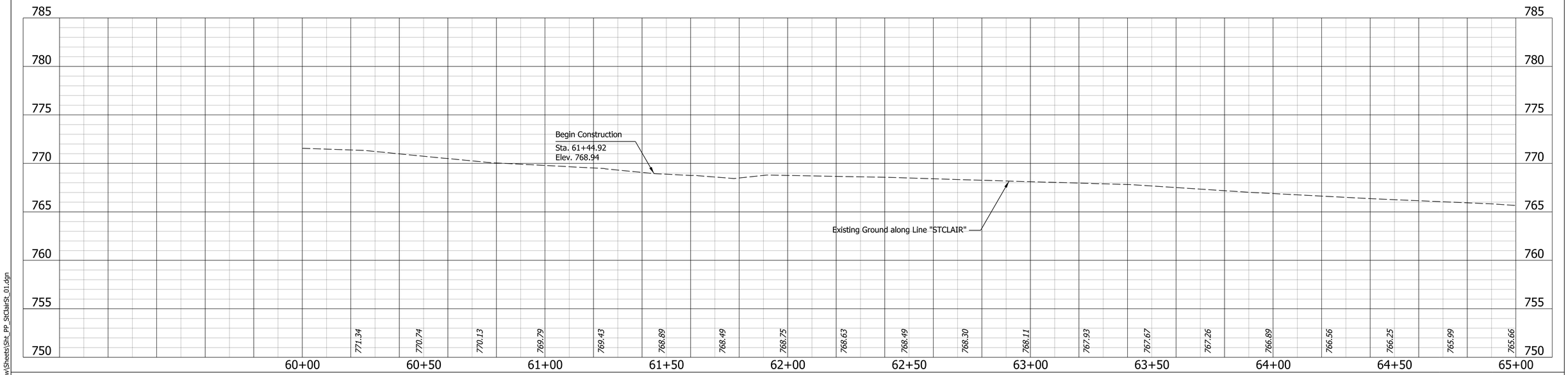

REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

0 20 40 80

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DESIGN ENGINEER DATE

DESIGNED: LKJ | DRAWN: LKJ
CHECKED: CMR | CHECKED: CMR

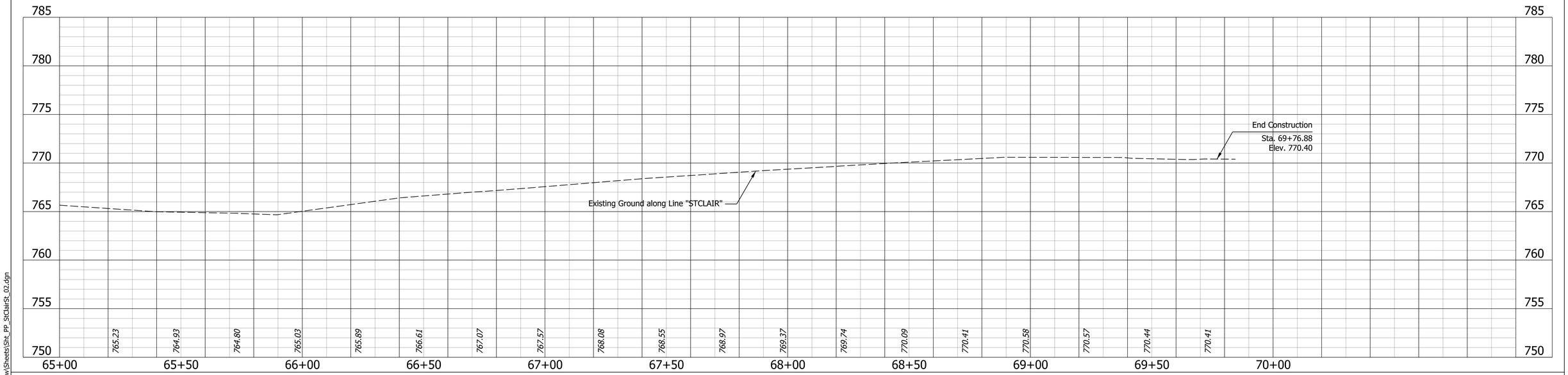
THE CITY OF INDIANAPOLIS METROPOLITAN DEVELOPMENT

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

PLAN AND PROFILE SHEET ST. CLAIR STREET LINE "STCLAIR"

HORIZONTAL SCALE	1" = 20'
VERTICAL SCALE	1" = 10'
PROJECT NUMBER	TBD
SHEETS NUMBER	118 OF 159

L:\IndyDMD\19072501-00\Draw\Sheets\Sht_PP_StClairSt_01.dgn



REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

0 20 40 80

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DESIGNED: LKJ | DRAWN: LKJ
CHECKED: CMR | CHECKED: CMR

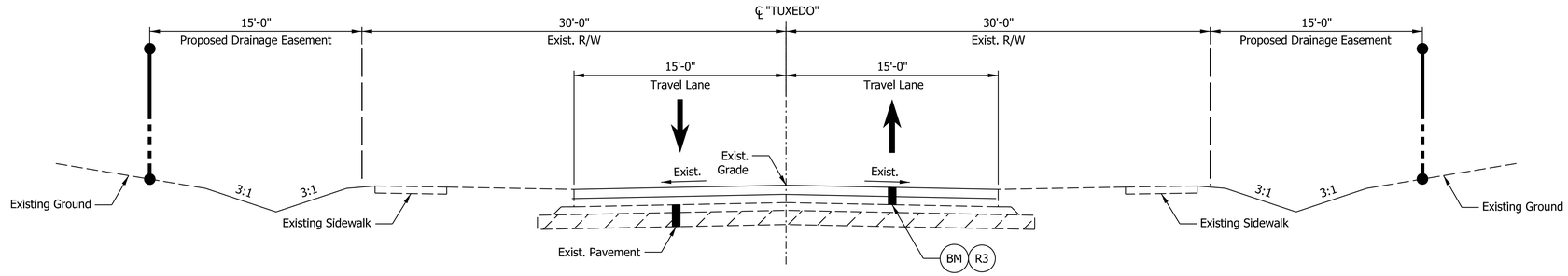
THE CITY OF INDIANAPOLIS METROPOLITAN DEVELOPMENT

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

PLAN AND PROFILE SHEET
ST. CLAIR STREET
LINE "STCLAIR"

HORIZONTAL SCALE
1" = 20'
VERTICAL SCALE
1" = 10'
PROJECT NUMBER
TBD
SHEETS NUMBER
119 OF 159

L:\IndyDMD\190725\01-00\Draw\Sheets\Sht_PP_StClairSt_02.dgn



SECTION ON TANGENT

STA. 30+15.02 TO STA. 35+86.67

LEGEND:

(BM) Milling, Asphalt

(R3) Asphalt Travel Lane Resurfacing, Consisting of:
165#/SYD, QC/QA-HMA, 3, 70, Surface, 9.5 mm, on
330#/SYD, QC/QA-HMA, 3, 70, Intermediate, 12.5 mm

NOTE:
1. See Design Guidelines for additional information for features beyond the edge of pavement.

REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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DESIGNED: DDB | DRAWN: DDB
CHECKED: CMR | CHECKED: CMR

THE CITY OF INDIANAPOLIS METROPOLITAN DEVELOPMENT

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

TYPICAL SECTIONS
TUXEDO STREET

HORIZONTAL SCALE	1" = 5'
VERTICAL SCALE	1" = 5'
PROJECT NUMBER	TBD
SHEETS NUMBER	120 OF 159

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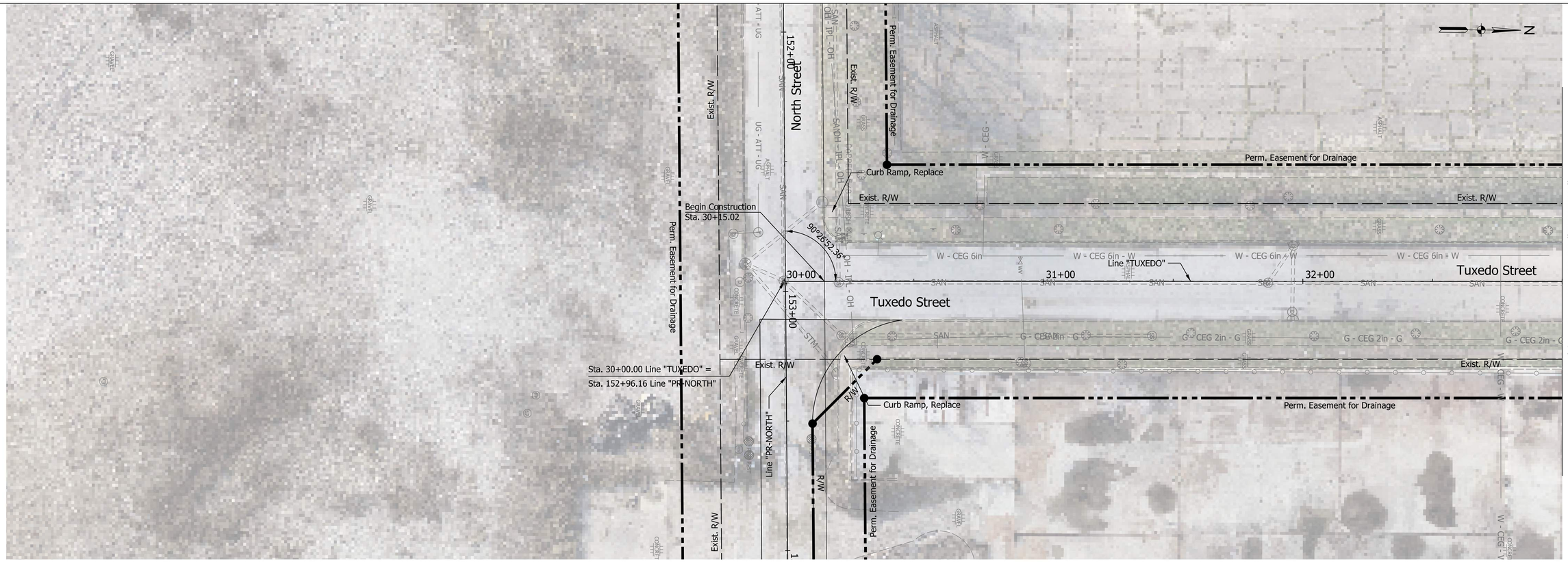

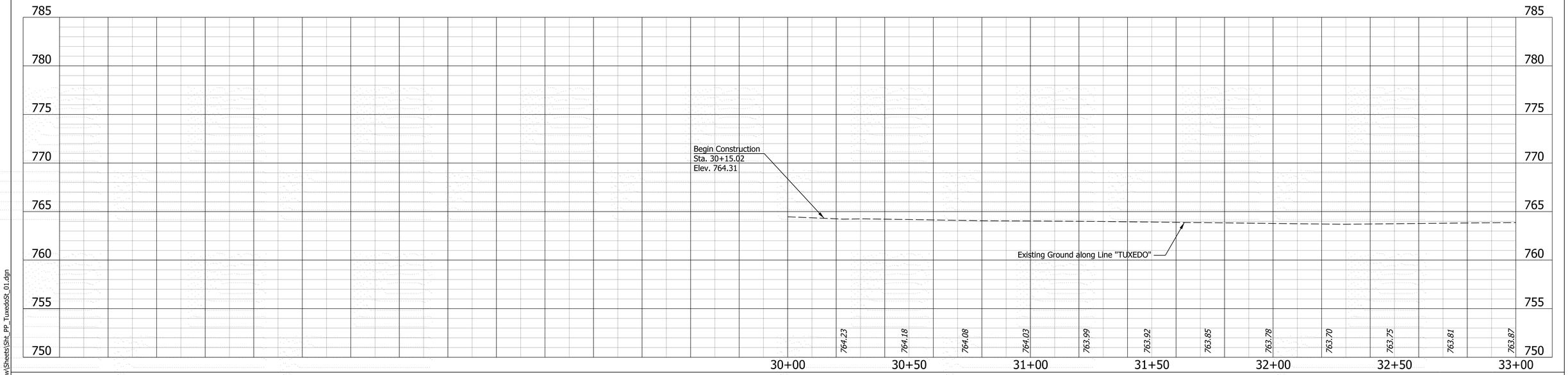

REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

0 20 40 80

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DESIGN ENGINEER DATE

DESIGNED: LKJ | DRAWN: LKJ
CHECKED: CMR | CHECKED: CMR

THE CITY OF INDIANAPOLIS METROPOLITAN DEVELOPMENT

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

PLAN AND PROFILE SHEET
TUXEDO STREET
LINE "TUXEDO"

HORIZONTAL SCALE
1" = 20'
VERTICAL SCALE
1" = 10'
PROJECT NUMBER
TBD
SHEETS NUMBER
121 OF 159

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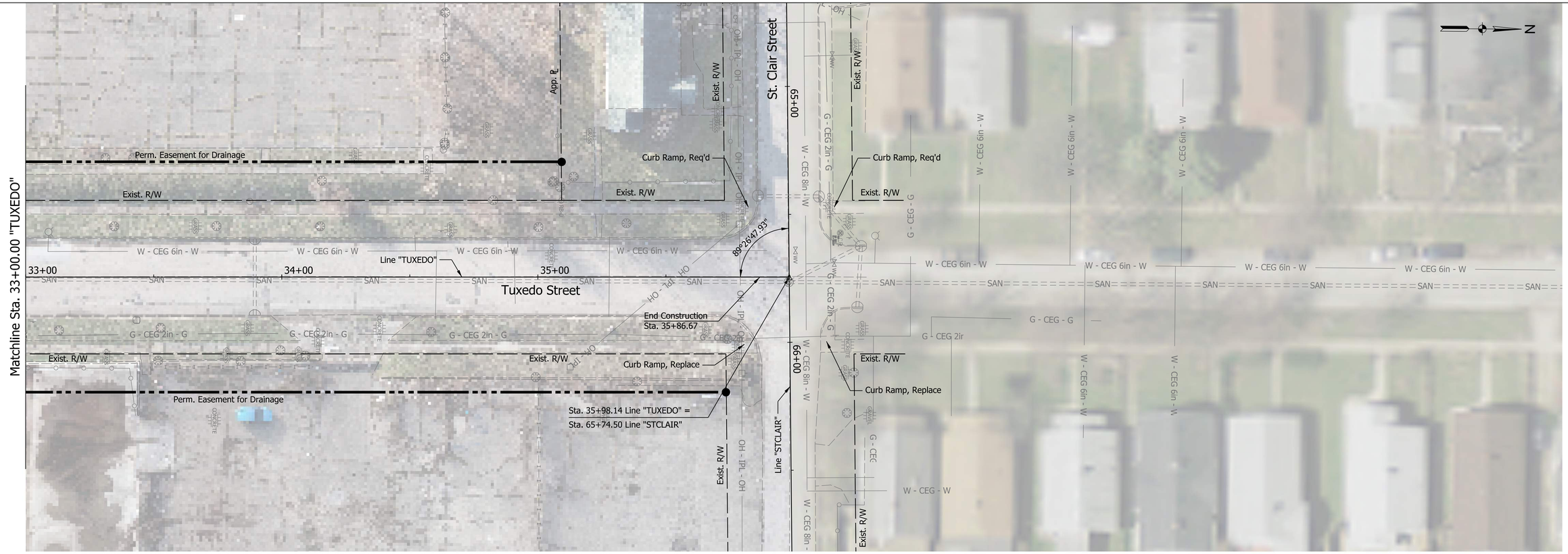

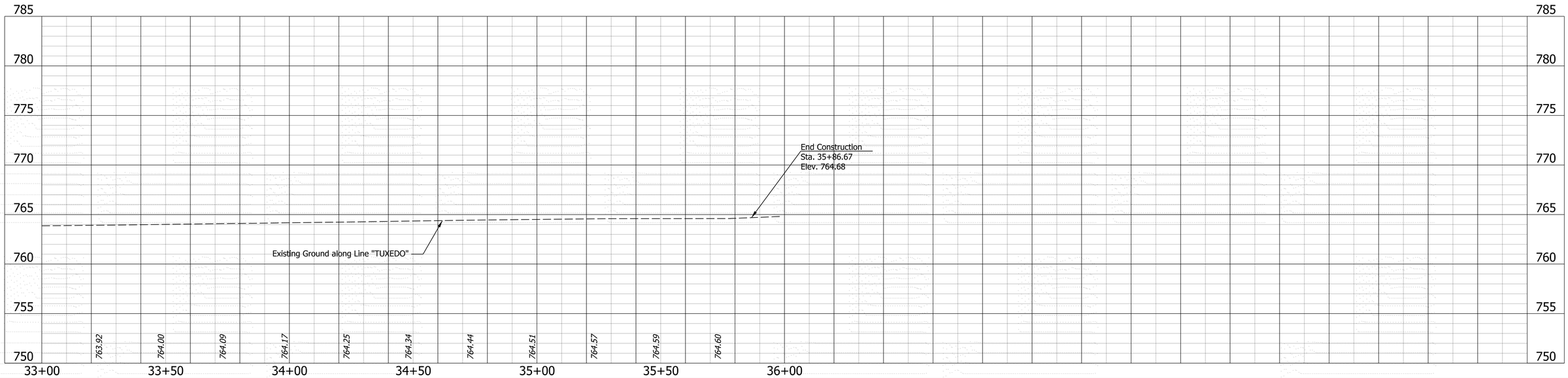

REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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THE CITY OF INDIANAPOLIS METROPOLITAN DEVELOPMENT

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

PLAN AND PROFILE SHEET
TUXEDO STREET
LINE "TUXEDO"

HORIZONTAL SCALE	1" = 20'
VERTICAL SCALE	1" = 10'
PROJECT NUMBER	TBD
SHEETS NUMBER	122 OF 159

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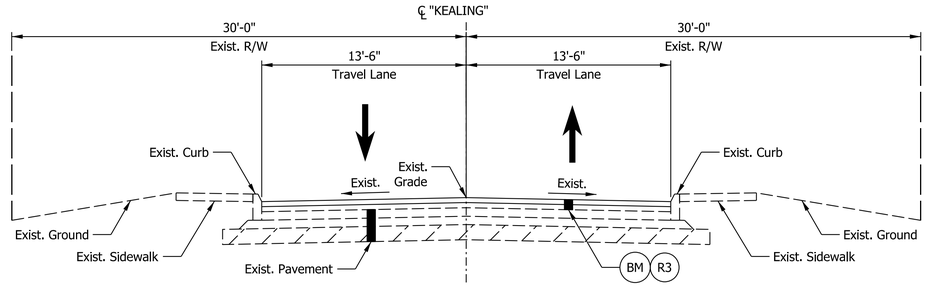

EXISTING SECTION ON TANGENT

STA. 130+96.20 TO STA. 133+69.45

LEGEND:

(BM) Milling, Asphalt

(R3) Asphalt Travel Lane Resurfacing, Consisting of:
165#/SYD, QC/QA-HMA, 3, 70, Surface, 9.5 mm, on
330#/SYD, QC/QA-HMA, 3, 70, Intermediate, 12.5 mm

NOTE:
1. See Design Guidelines for additional information for features beyond the edge of pavement.

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REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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DESIGN ENGINEER DATE

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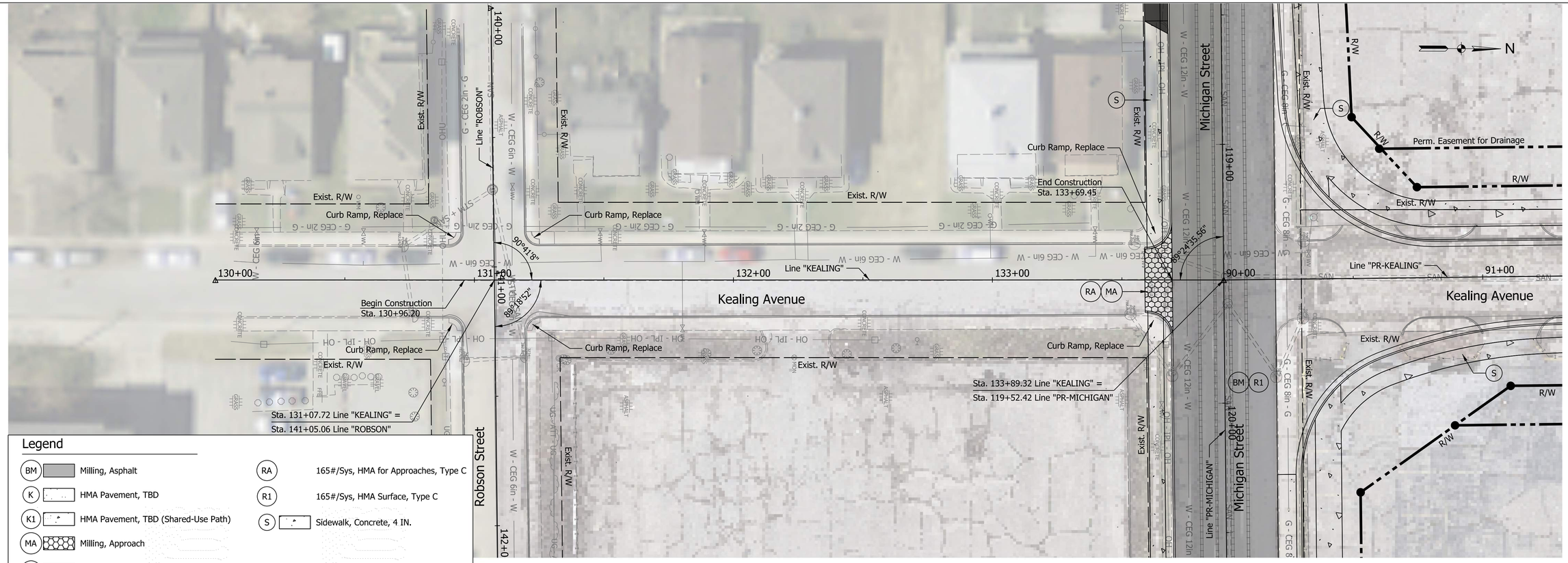
CHECKED: CMR | CHECKED: CMR

THE CITY OF INDIANAPOLIS METROPOLITAN DEVELOPMENT

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

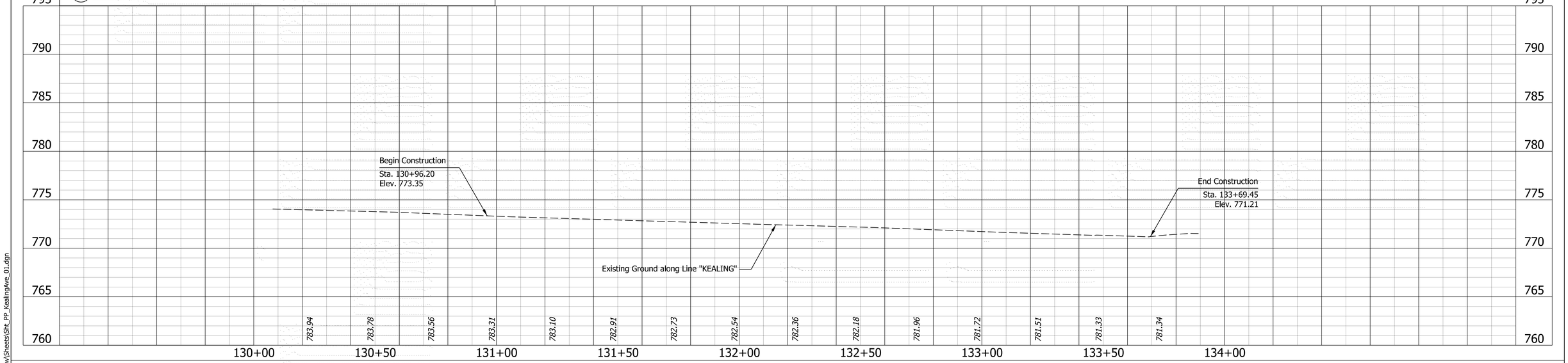
TYPICALS SECTIONS KEALING AVENUE

HORIZONTAL SCALE	1" = 5'
VERTICAL SCALE	1" = 5'
PROJECT NUMBER	TBD
SHEETS NUMBER	123 OF 159



Legend

BM	Milling, Asphalt	
K	HMA Pavement, TBD	
K1	HMA Pavement, TBD (Shared-Use Path)	
MA	Milling, Approach	
PR	Pavement Removal	
CD	HMA Pavement, TBD	
RA	165#/Sys, HMA for Approaches, Type C	
R1	165#/Sys, HMA Surface, Type C	
S	Sidewalk, Concrete, 4 IN.	



REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

0 20 40 80

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DESIGN ENGINEER DATE

DESIGNED: LKJ | DRAWN: LKJ
CHECKED: CMR | CHECKED: CMR

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

PLAN AND PROFILE SHEET
KEALING AVENUE
LINE "KEALING"

HORIZONTAL SCALE	1" = 20'
VERTICAL SCALE	1" = 10'
PROJECT NUMBER	TBD
SHEETS NUMBER	124 OF 159

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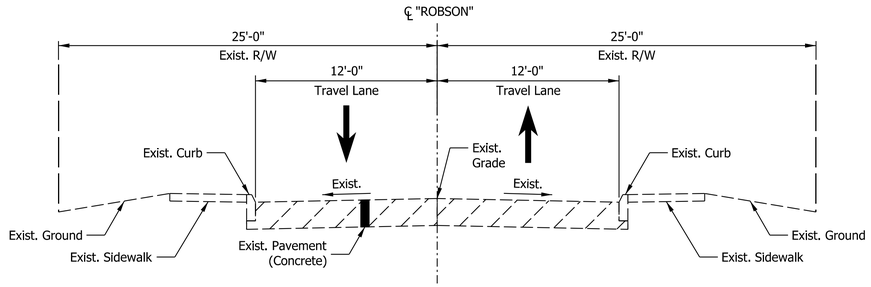

EXISTING SECTION ON TANGENT

STA. 141+19.10 TO STA. 145+62.00

NOTE:
1. See Design Guidelines for additional information for features beyond the edge of pavement.

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REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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RECOMMENDED FOR APPROVAL: _____ 6/30/2022
DESIGN ENGINEER DATE

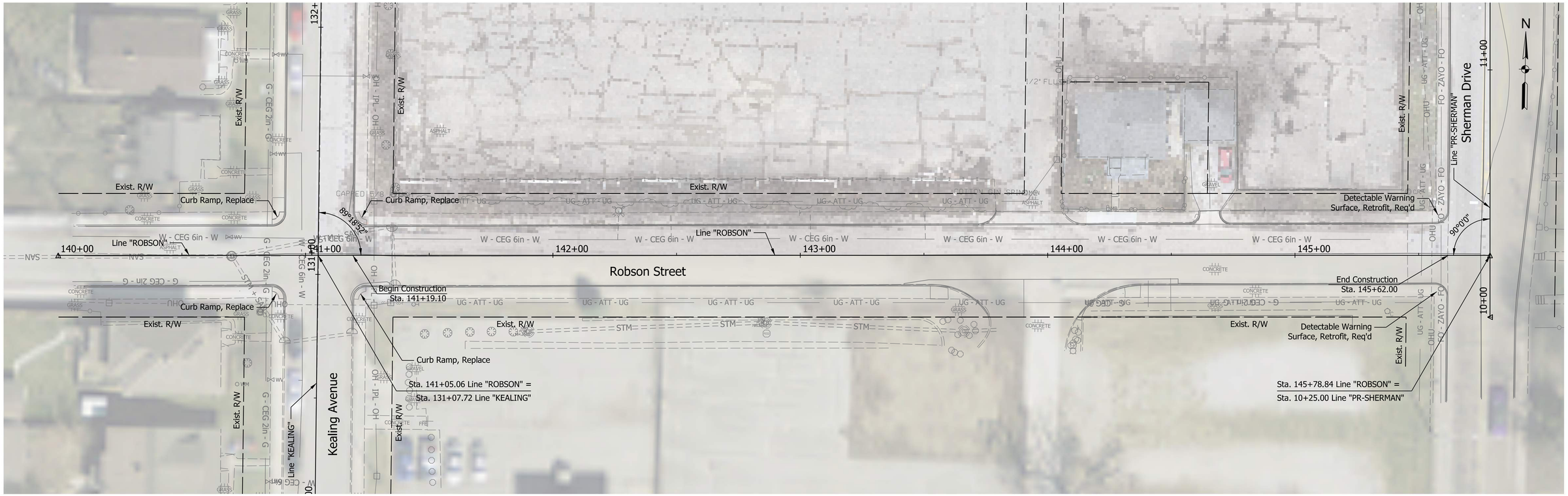
DESIGNED: DDB | DRAWN: DDB
CHECKED: CMR | CHECKED: CMR

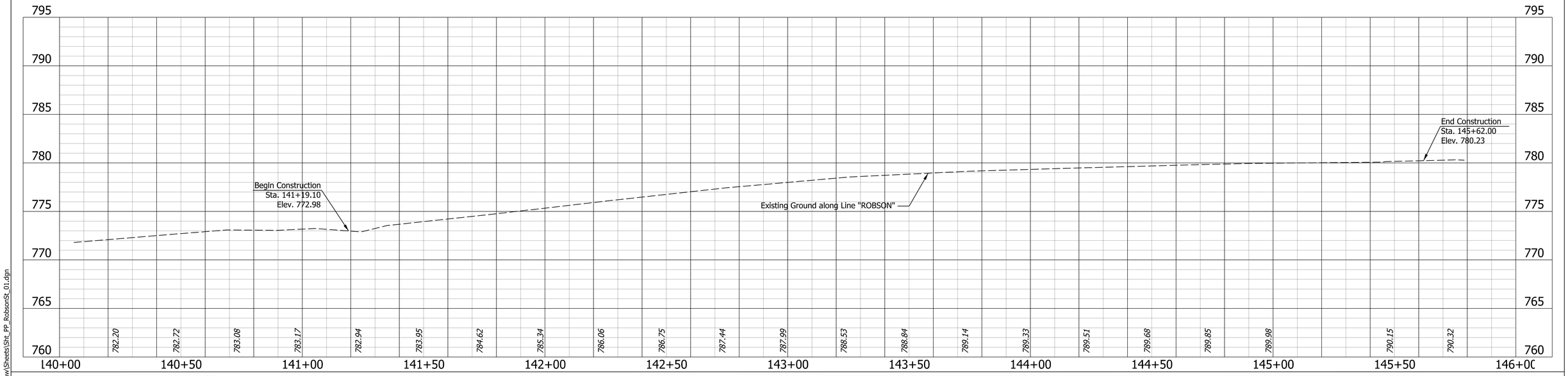
THE CITY OF INDIANAPOLIS METROPOLITAN DEVELOPMENT

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

TYPICAL SECTIONS
ROBSON STREET

HORIZONTAL SCALE	1" = 5'
VERTICAL SCALE	1" = 5'
PROJECT NUMBER	TBD
SHEETS NUMBER	125 OF 159





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REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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CHECKED: CMR | CHECKED: CMR

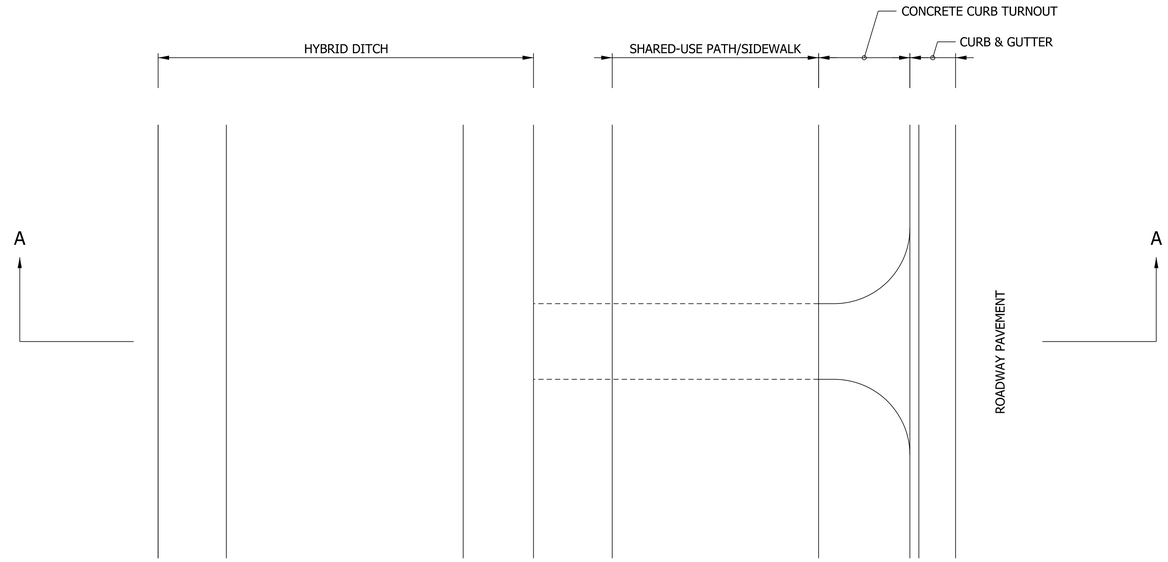
THE CITY OF INDIANAPOLIS METROPOLITAN DEVELOPMENT

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

PLAN AND PROFILE SHEET
ROBSON STREET
LINE "ROBSON"

HORIZONTAL SCALE
1" = 20'
VERTICAL SCALE
1" = 10'

PROJECT NUMBER
TBD
SHEETS NUMBER
126 OF 159



CURB TURNOUT TO HYBRID DITCH DETAIL

SECTION A-A

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REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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Not For Construction

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DESIGN ENGINEER DATE

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CHECKED: CMR | CHECKED: CMR

THE CITY OF INDIANAPOLIS METROPOLITAN DEVELOPMENT

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

CURB TURNOUT TO HYBRID DITCH DETAIL

HORIZONTAL SCALE	N.T.S.
VERTICAL SCALE	N.T.S.
PROJECT NUMBER	TBD
SHEETS NUMBER	127 OF 159

LEGEND

Overhead Electrical IPL Utility	OH - IPL - OH
Overhead Utility	OHU
Underground CEG Gas	G - CEG 8in - G
Underground CEG Water	W - CEG 12in - W
Underground Fiber Optic	F/O
Existing Sanitary Sewer	SAN
Existing Storm Sewer	STM

10TH STREET
9TH STREET
ST. CLAIR STREET
NORTH STREET
MICHIGAN STREET
WALNUT STREET
ROBSON STREET
TOLNEY STREET
LASALLE STREET
TUXEDO STREET
BRADLEY AVENUE
STERLING DRIVE
GALE STREET
KEATING AVENUE

CITY OF INDIANAPOLIS
DEPT. OF METROPOLITAN DEV.

W - CEG 12in - W
W - CEG 6in - W
W - CEG 8in - W
W - CEG 10in - W
W - CEG 16in - W
W - CEG 12in - W
SAN
NVS
STM
OH - IPL - OH
IPL - IPL -

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REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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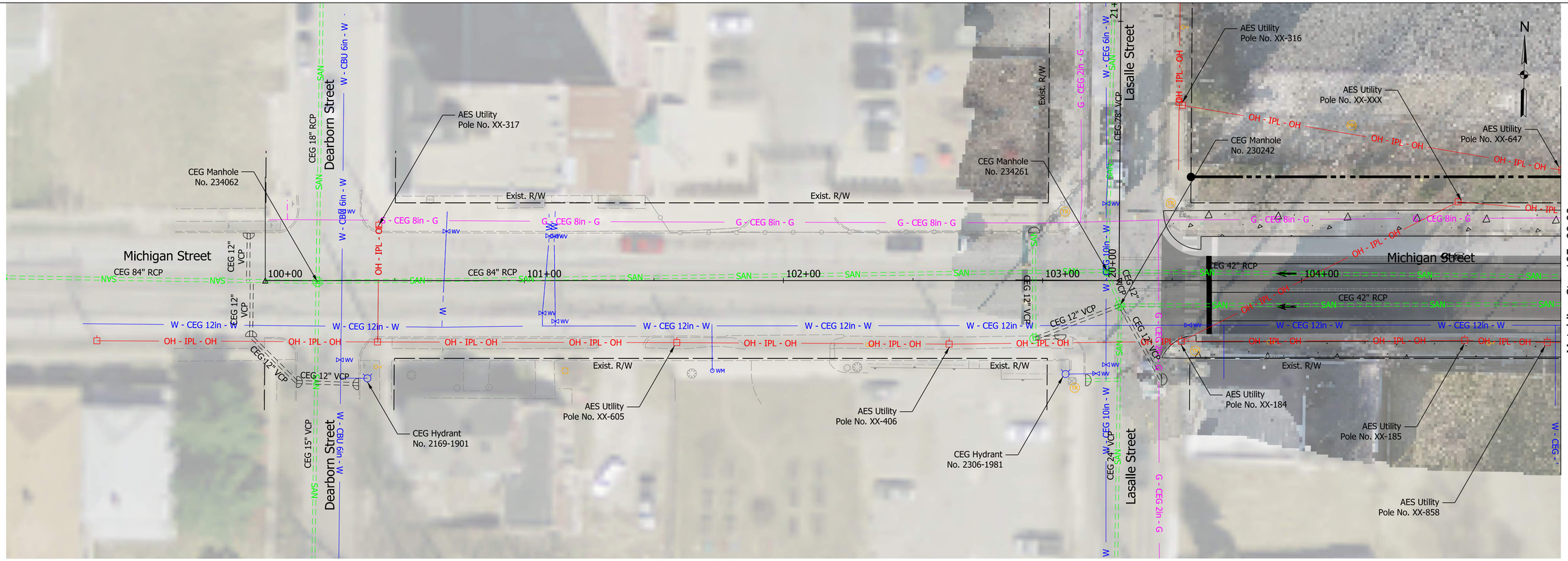
INDIANAPOLIS METROPOLITAN DEVELOPMENT

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

UTILITY DETAILS OVERALL SITE PLAN

HORIZONTAL SCALE	1" = 150'
VERTICAL SCALE	N/A
PROJECT NUMBER	TBD
SHEETS NUMBER	128 OF 159



Overhead Electrical AES Utility	OH - IPL - OH
Overhead Utility	OHU
Underground CEG Gas	G - CEG 8in - G
Underground CEG Water	W - CEG 12in - W
Underground Fiber Optic	F/O
Existing Sanitary Sewer	SAN
Existing Storm Sewer	STM

REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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RECOMMENDED FOR APPROVAL: _____ 6/30/2022
DESIGN ENGINEER DATE

DESIGNED: RCC | DRAWN: RCC
CHECKED: CMR | CHECKED: MRR

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

UTILITY DETAILS MICHIGAN STREET

HORIZONTAL SCALE	1" = 20'
VERTICAL SCALE	N/A
PROJECT NUMBER	TBD
SHEETS NUMBER	129 OF 159

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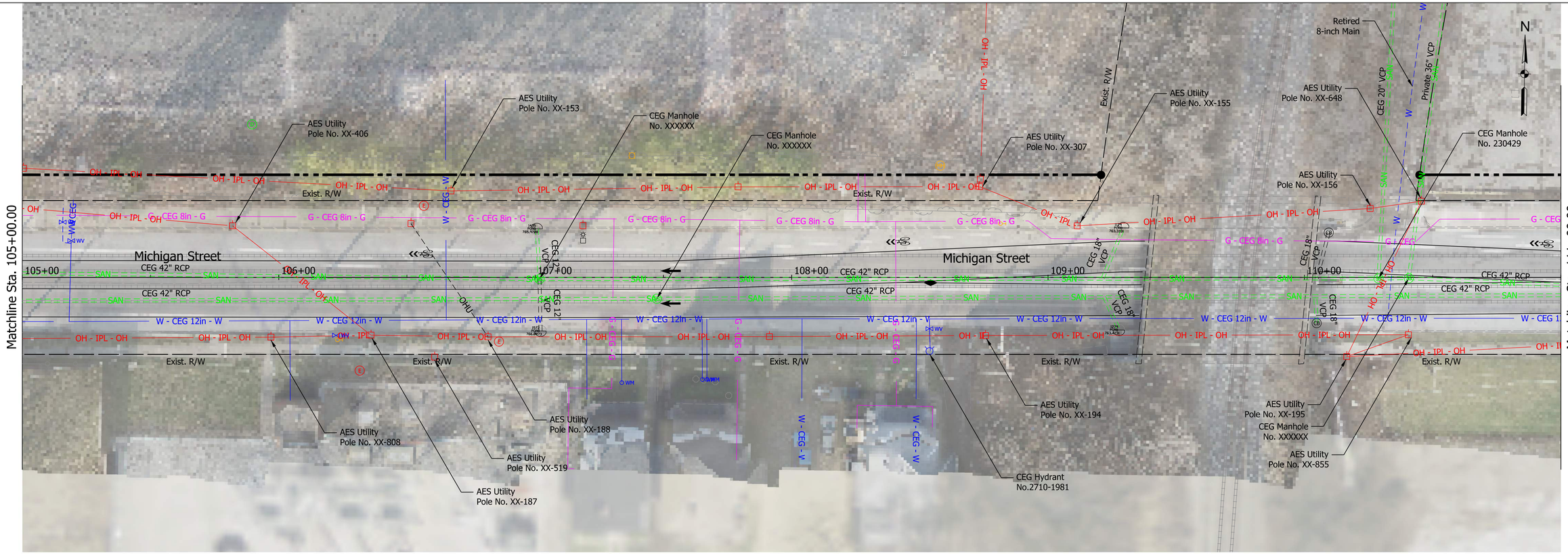

REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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RECOMMENDED FOR APPROVAL: _____ 6/30/2022
DESIGN ENGINEER DATE

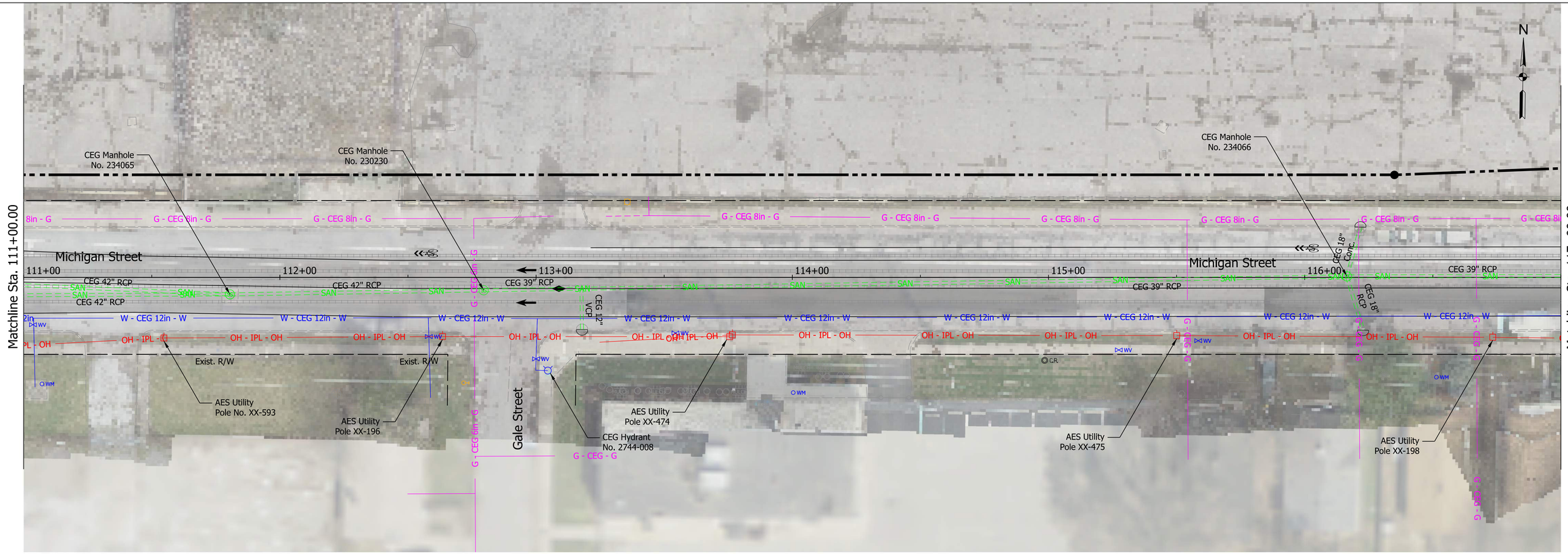
DESIGNED: RCC | DRAWN: RCC
CHECKED: CMR | CHECKED: MRR

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

UTILITY DETAILS
MICHIGAN STREET

HORIZONTAL SCALE	1" = 20'
VERTICAL SCALE	N/A
PROJECT NUMBER	TBD
SHEETS NUMBER	130 OF 159

L:\Indy\DMD\19072501-00\Draw\Sheets\Sht_UtilityDetails_Michigan_02.dgn



Overhead Electrical AES Utility — OH - IPL - OH
Overhead Utility — OHU
Underground CEG Gas — G - CEG 8in - G
Underground CEG Water — W - CEG 12in - W
Underground Fiber Optic — F/O
Existing Sanitary Sewer — SAN
Existing Storm Sewer — STM

REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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INDIANAPOLIS, IN 46268-6128
PHONE: (317) 298-4500

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DESIGN ENGINEER DATE

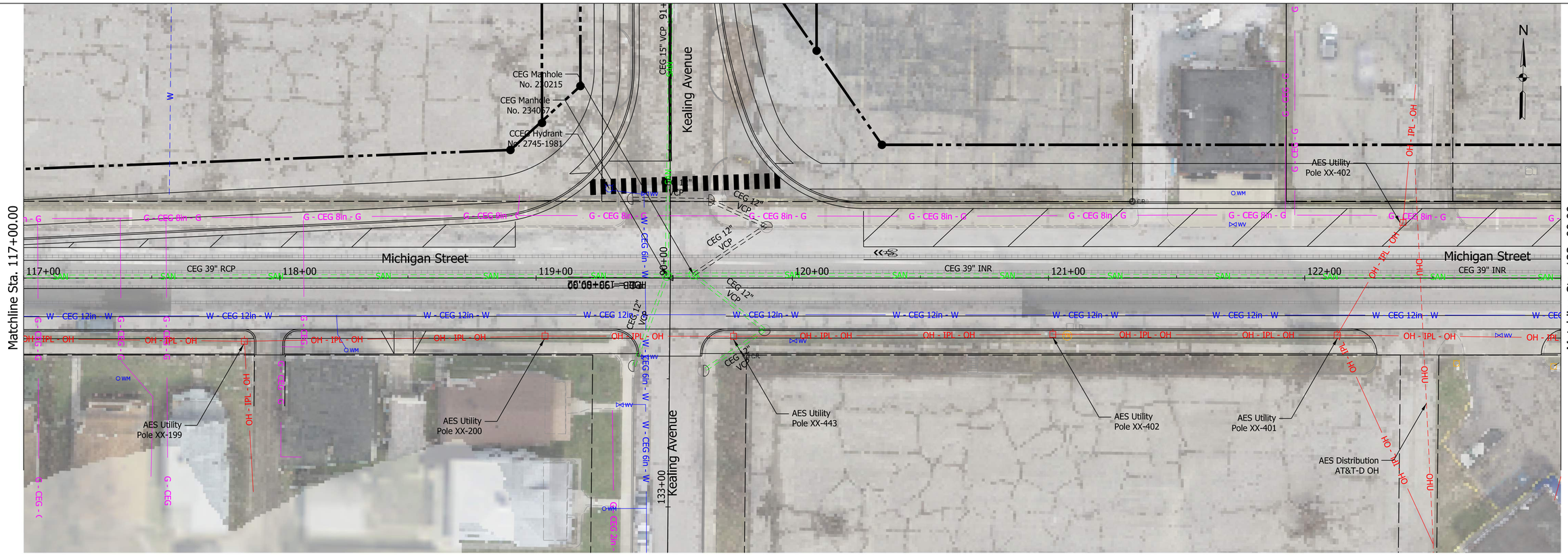
DESIGNED: RCC | DRAWN: RCC
CHECKED: CMR | CHECKED: MRR

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

UTILITY DETAILS MICHIGAN STREET

HORIZONTAL SCALE	1" = 20'
VERTICAL SCALE	N/A
PROJECT NUMBER	TBD
SHEETS NUMBER	131 OF 159

L:\IndyDMD\19072501-00\Draw\Sheets\Sht_UtilityDetails_Michigan_03.dgn



Overhead Electrical AES Utility	OH - IPL - OH
Overhead Utility	OHU
Underground CEG Gas	G - CEG 8in - G
Underground CEG Water	W - CEG 12in - W
Underground Fiber Optic	F/O
Existing Sanitary Sewer	SAN
Existing Storm Sewer	STM

REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

UTILITY DETAILS MICHIGAN STREET

HORIZONTAL SCALE	1" = 20'
VERTICAL SCALE	N/A
PROJECT NUMBER	TBD
SHEETS NUMBER	132 OF 159

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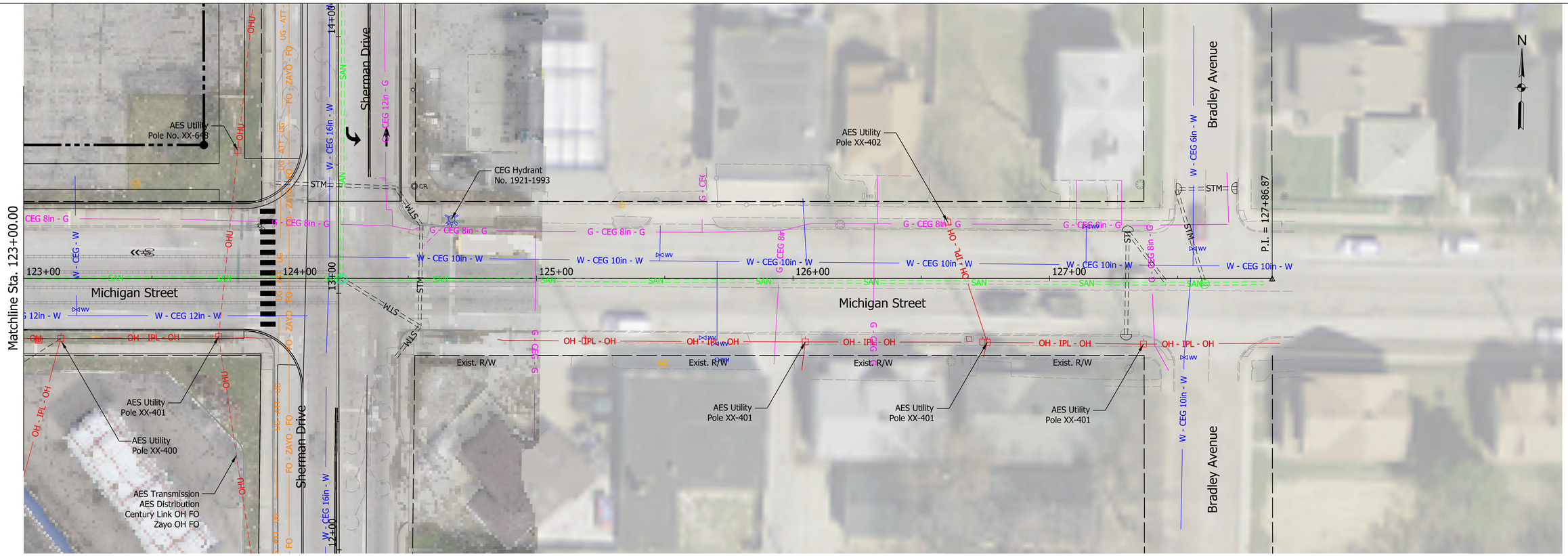

Overhead Electrical AES Utility — OH - IPL - OH
Overhead Utility — OHU
Underground CEG Gas — G - CEG 8in - G
Underground CEG Water — W - CEG 12in - W
Underground Fiber Optic — F/O
Existing Sanitary Sewer — SAN
Existing Storm Sewer — STM

REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

UTILITY DETAILS MICHIGAN STREET

HORIZONTAL SCALE	1" = 20'
VERTICAL SCALE	N/A
PROJECT NUMBER	TBD
SHEETS NUMBER	133 OF 159

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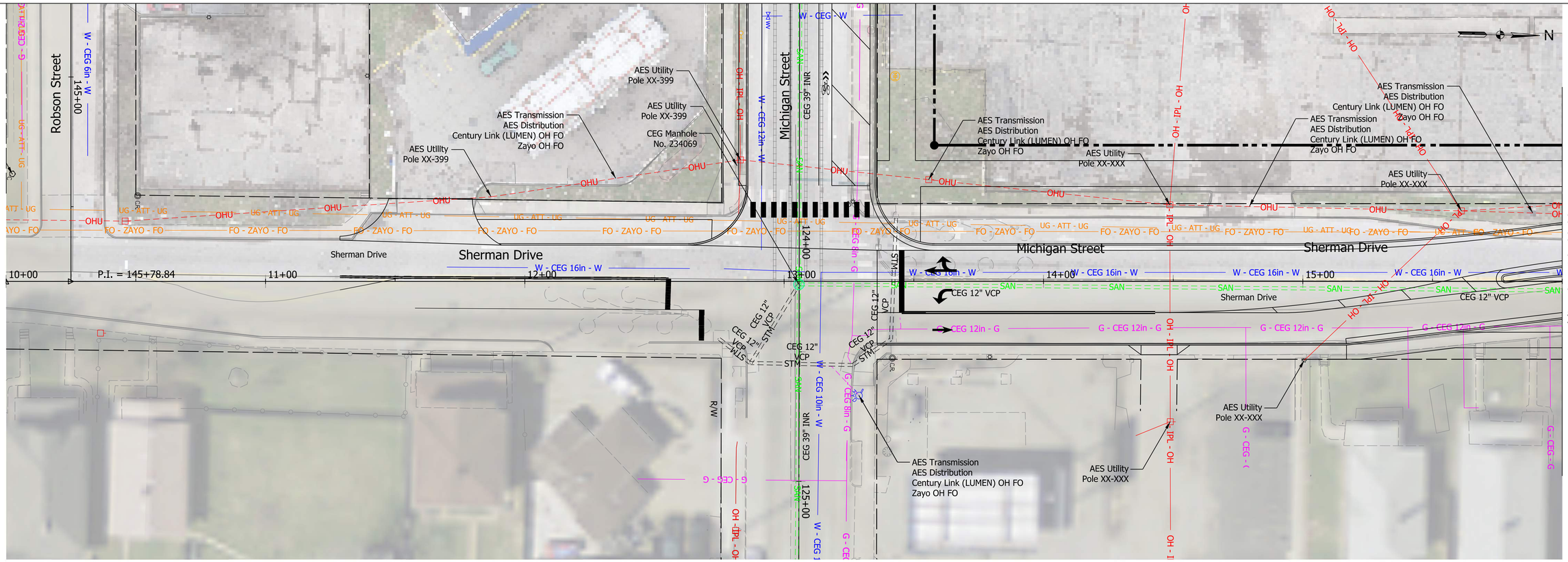

Overhead Electrical AES Utility — OH - IPL - OH
Overhead Utility — OHU
Underground CEG Gas — G - CEG 8in - G
Underground CEG Water — W - CEG 12in - W
Underground Fiber Optic — F/O
Existing Sanitary Sewer — SAN
Existing Storm Sewer — STM

REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

UTILITY DETAILS SHERMAN DRIVE

HORIZONTAL SCALE	1" = 20'
VERTICAL SCALE	N/A
PROJECT NUMBER	TBD
SHEETS NUMBER	134 OF 159

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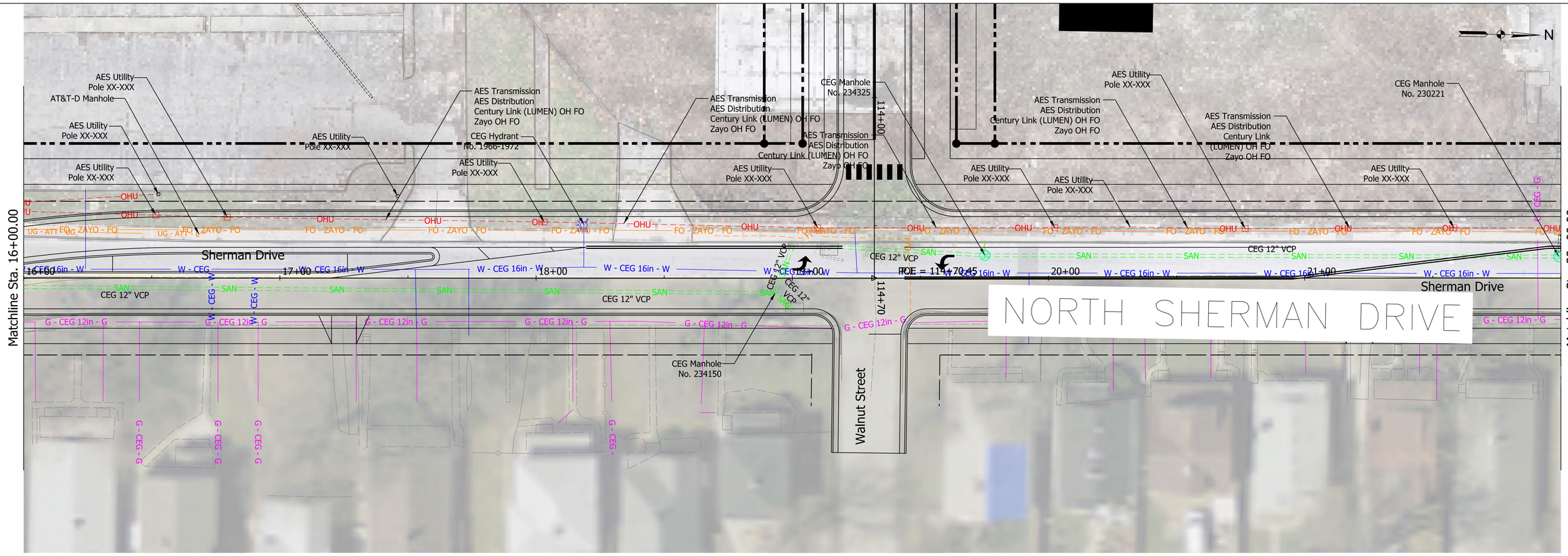

Overhead Electrical AES Utility — OH - IPL - OH
Overhead Utility — OHU
Underground CEG Gas — G - CEG 8in - G
Underground CEG Water — W - CEG 12in - W
Underground Fiber Optic — F/O
Existing Sanitary Sewer — SAN
Existing Storm Sewer — STM

REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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UTILITY DETAILS
SHERMAN DRIVE

HORIZONTAL SCALE	1" = 20'
VERTICAL SCALE	N/A
PROJECT NUMBER	TBD
SHEETS NUMBER	135 OF 159

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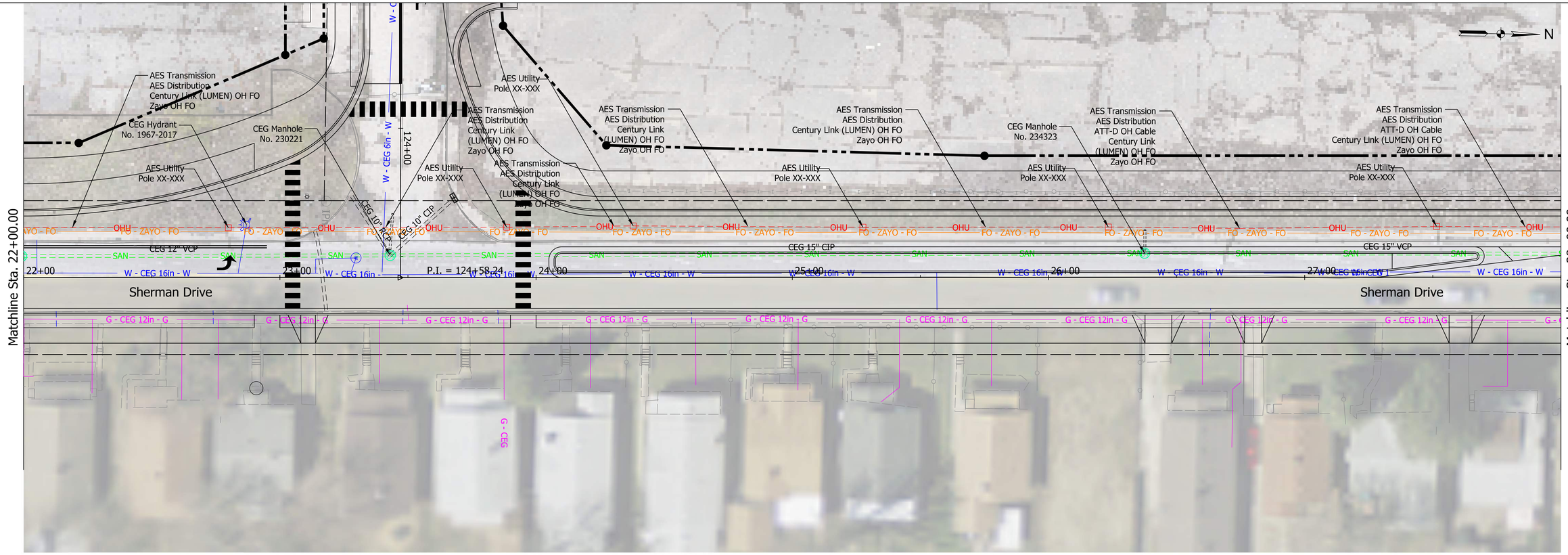

Overhead Electrical AES Utility — OH - IPL - OH
Overhead Utility — OHU
Underground CEG Gas — G - CEG 8in - G
Underground CEG Water — W - CEG 12in - W
Underground Fiber Optic — F/O
Existing Sanitary Sewer — SAN
Existing Storm Sewer — STM

REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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CHECKED: CMR | CHECKED: MRR

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UTILITY DETAILS
SHERMAN DRIVE

HORIZONTAL SCALE	1" = 20'
VERTICAL SCALE	N/A
PROJECT NUMBER	TBD
SHEETS NUMBER	136 OF 159

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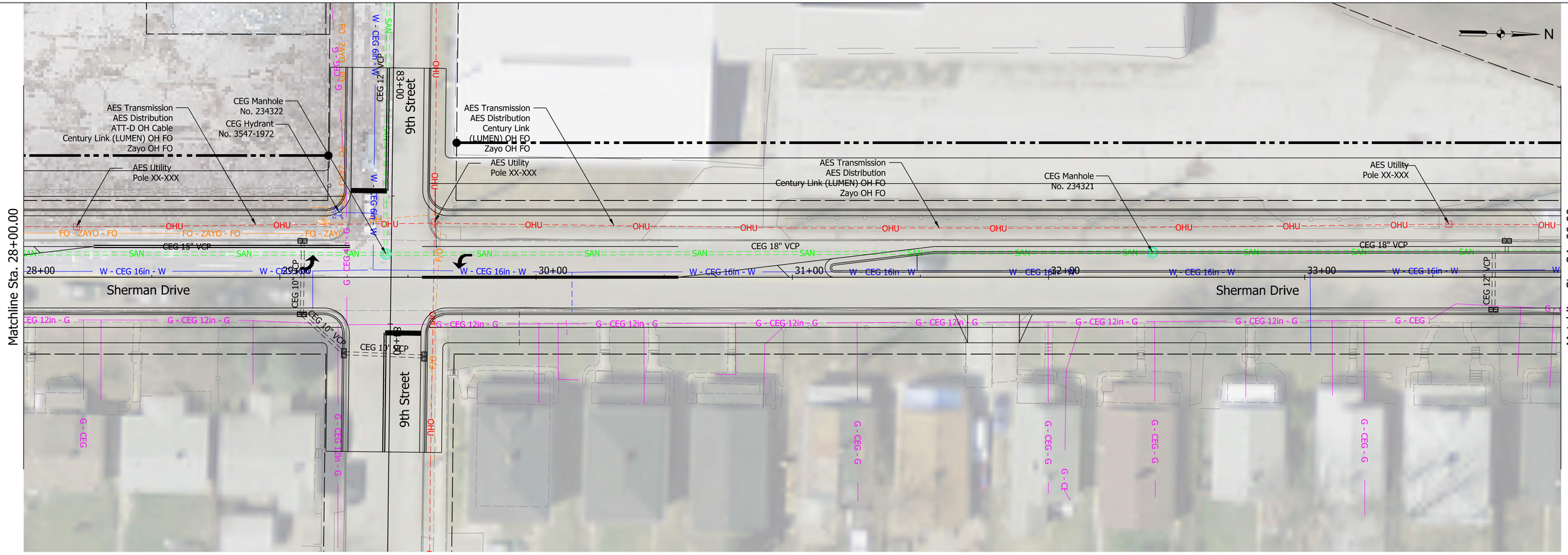

Overhead Electrical AES Utility — OH - IPL - OH
Overhead Utility — OHU
Underground CEG Gas — G - CEG 8in - G
Underground CEG Water — W - CEG 12in - W
Underground Fiber Optic — F/O
Existing Sanitary Sewer — SAN
Existing Storm Sewer — STM

REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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DESIGN ENGINEER DATE

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CHECKED: CMR | CHECKED: MRR

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UTILITY DETAILS SHERMAN DRIVE

HORIZONTAL SCALE	1" = 20'
VERTICAL SCALE	N/A
PROJECT NUMBER	TBD
SHEETS NUMBER	137 OF 159

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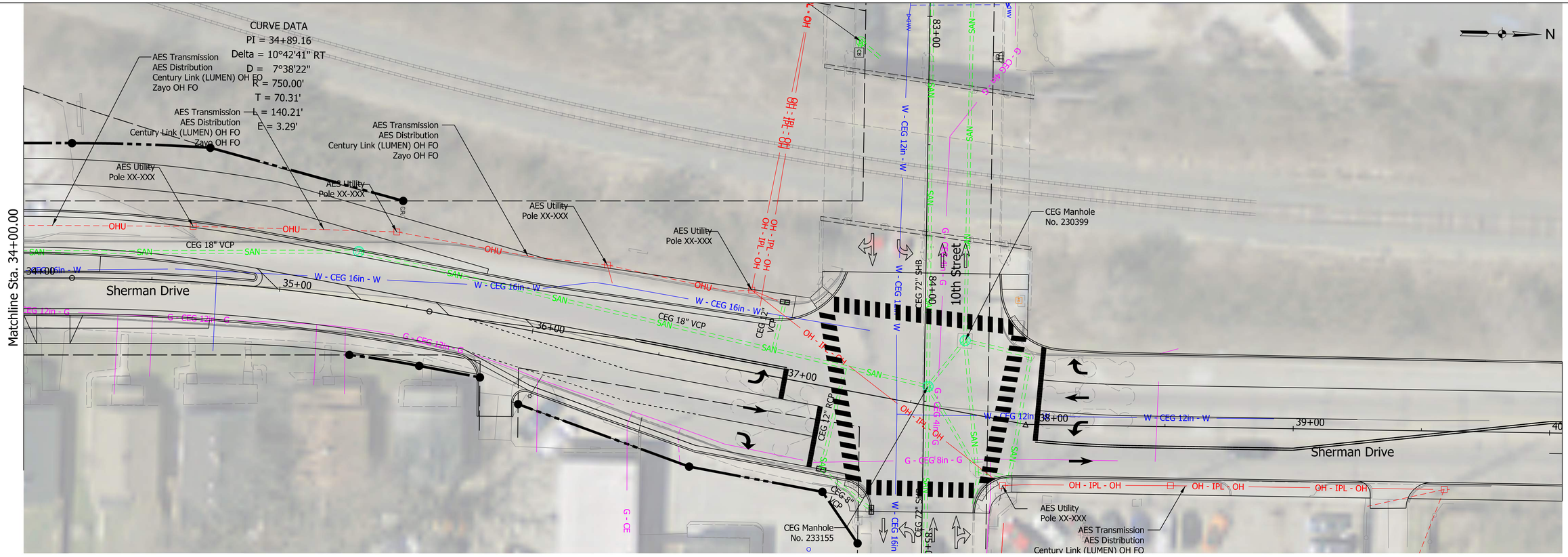

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REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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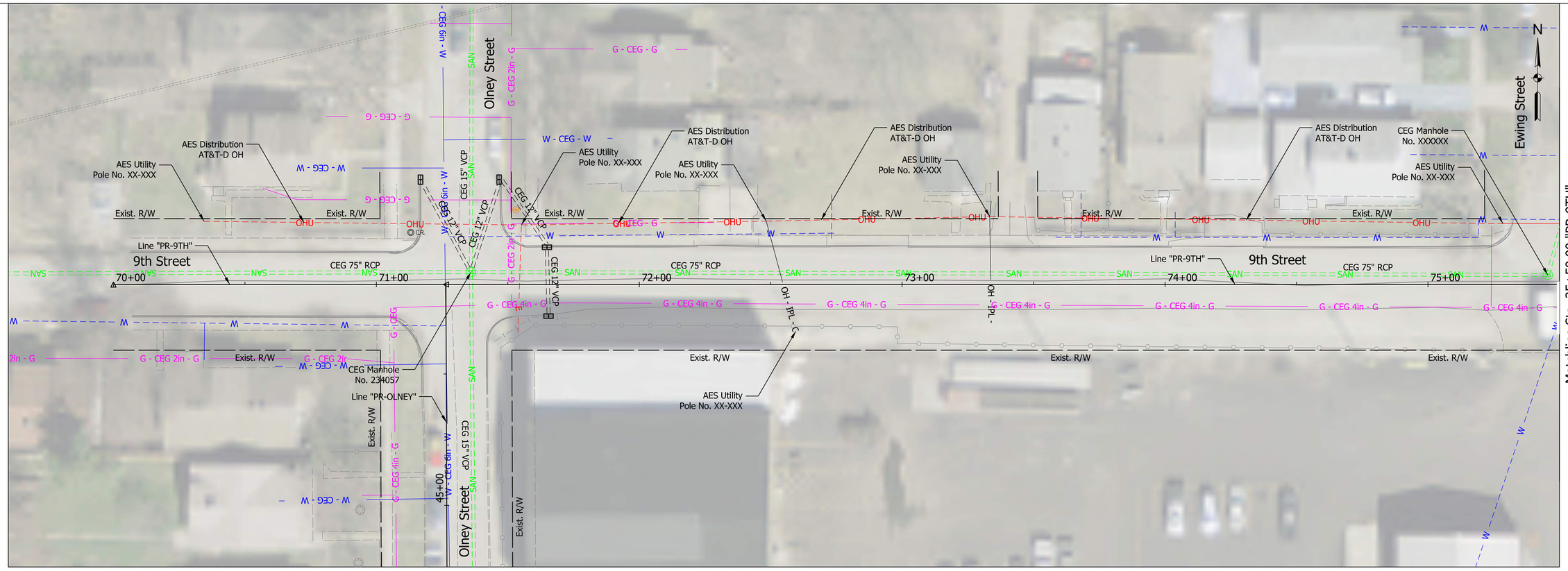
CHECKED: CMR | CHECKED: MRR

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

UTILITY DETAILS
SHERMAN DRIVE

HORIZONTAL SCALE	1" = 20'
VERTICAL SCALE	N/A
PROJECT NUMBER	TBD
SHEETS NUMBER	138 OF 159



Overhead Electrical AES Utility — OH - IPL - OH
Overhead Utility — OHU
Underground CEG Gas — G - CEG 8in - G
Underground CEG Water — W - CEG 12in - W
Underground Fiber Optic — F/O
Existing Sanitary Sewer — SAN
Existing Storm Sewer — STM

REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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DESIGN ENGINEER DATE

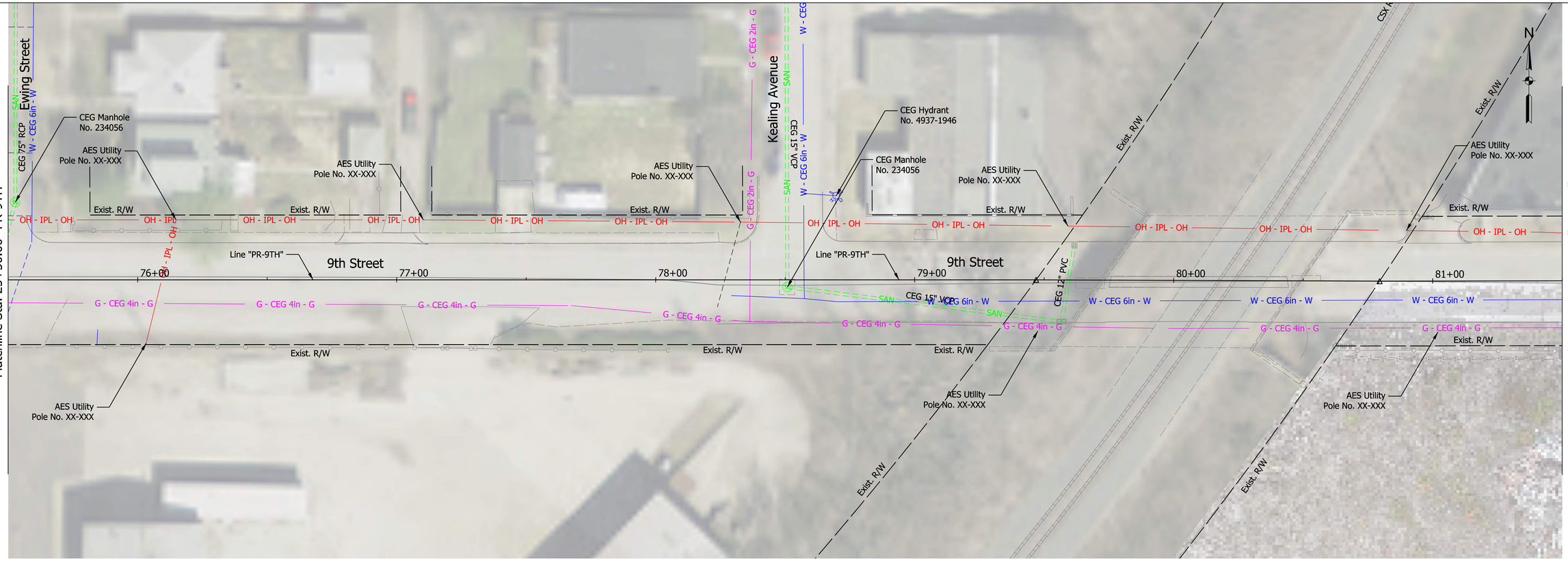
DESIGNED: RCC | DRAWN: RCC
CHECKED: CMR | CHECKED: MRR

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

UTILITY DETAILS
9TH STREET

HORIZONTAL SCALE	1" = 20'
VERTICAL SCALE	N/A
PROJECT NUMBER	TBD
SHEETS NUMBER	139 OF 159

L:\IndyDMD\19072501-00\Draw\Sheets\Sht_UtilityDetails_9th_01.dgn



Overhead Electrical AES Utility	OH - IPL - OH
Overhead Utility	OHU
Underground CEG Gas	G - CEG 8in - G
Underground CEG Water	W - CEG 12in - W
Underground Fiber Optic	F/O
Existing Sanitary Sewer	SAN
Existing Storm Sewer	STM

REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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DESIGN ENGINEER DATE

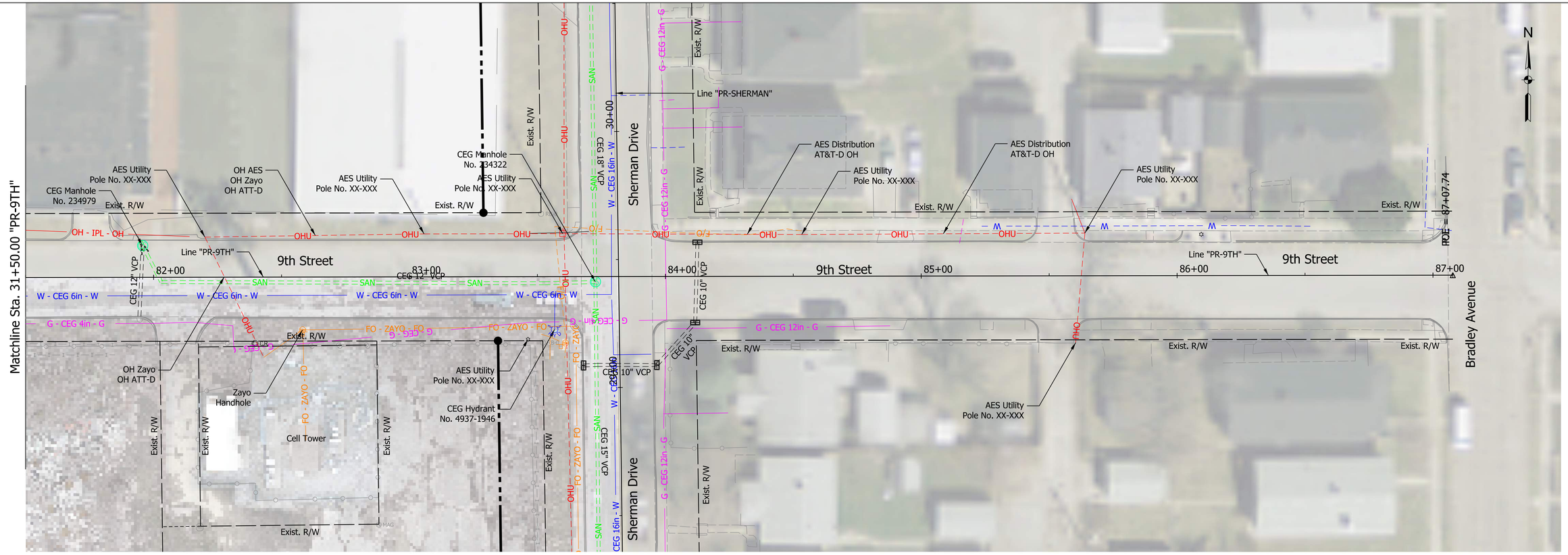
DESIGNED: RCC | DRAWN: RCC
CHECKED: CMR | CHECKED: MRR

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

UTILITY DETAILS
9TH STREET

HORIZONTAL SCALE	1" = 20'
VERTICAL SCALE	N/A
PROJECT NUMBER	TBD
SHEETS NUMBER	140 OF 159

L:\Indy\DMD\19072501-00\Draw\Sheets\Sht_UtilityDetails_9th_02.dgn



Overhead Electrical AES Utility — OH - IPL - OH
Overhead Utility — OHU
Underground CEG Gas — G - CEG 8in - G
Underground CEG Water — W - CEG 12in - W
Underground Fiber Optic — F/O
Existing Sanitary Sewer — SAN
Existing Storm Sewer — STM

REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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RECOMMENDED FOR APPROVAL: _____ 6/30/2022
DESIGN ENGINEER DATE

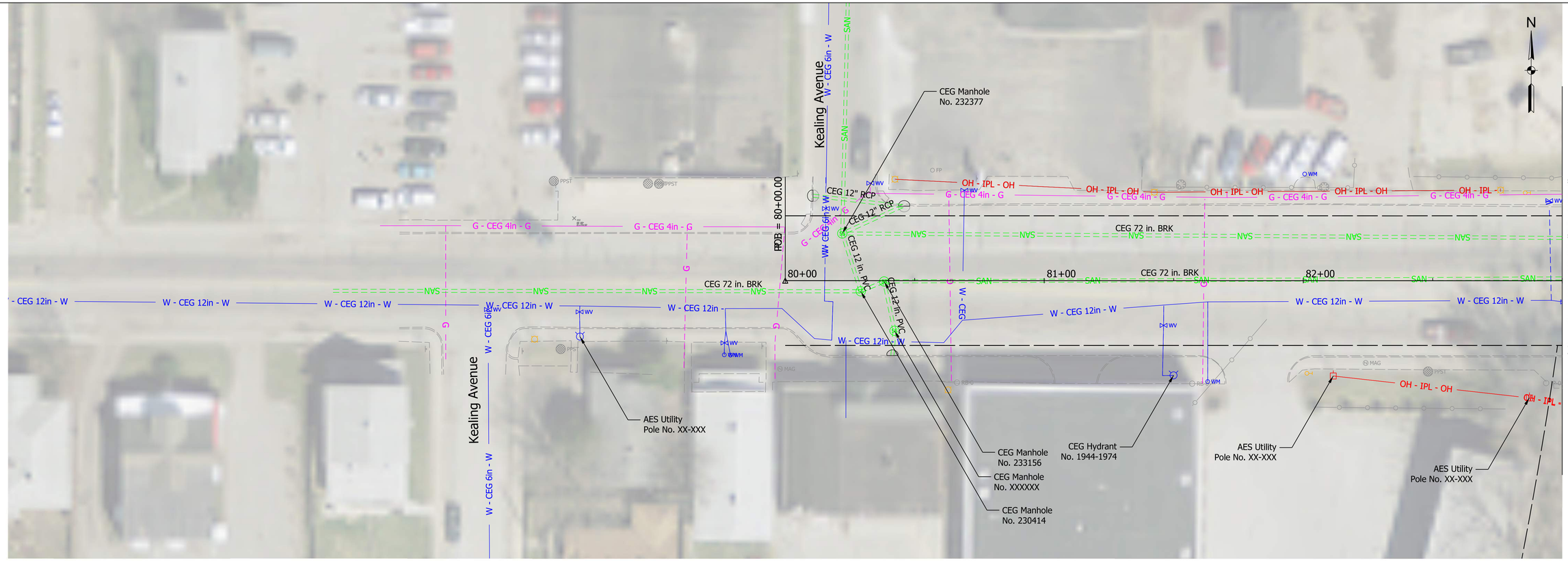
DESIGNED: RCC | DRAWN: RCC
CHECKED: CMR | CHECKED: MRR

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

UTILITY DETAILS
9TH STREET

HORIZONTAL SCALE	1" = 20'
VERTICAL SCALE	N/A
PROJECT NUMBER	TBD
SHEETS NUMBER	141 OF 159

L:\IndyDMD\19072501-00\Draw\Sheets\Sht_UtilityDetails_9th_03.dgn



Overhead Electrical AES Utility — OH - IPL - OH
Overhead Utility — OHU
Underground CEG Gas — G - CEG 8in - G
Underground CEG Water — W - CEG 12in - W
Underground Fiber Optic — F/O
Existing Sanitary Sewer — SAN
Existing Storm Sewer — STM

REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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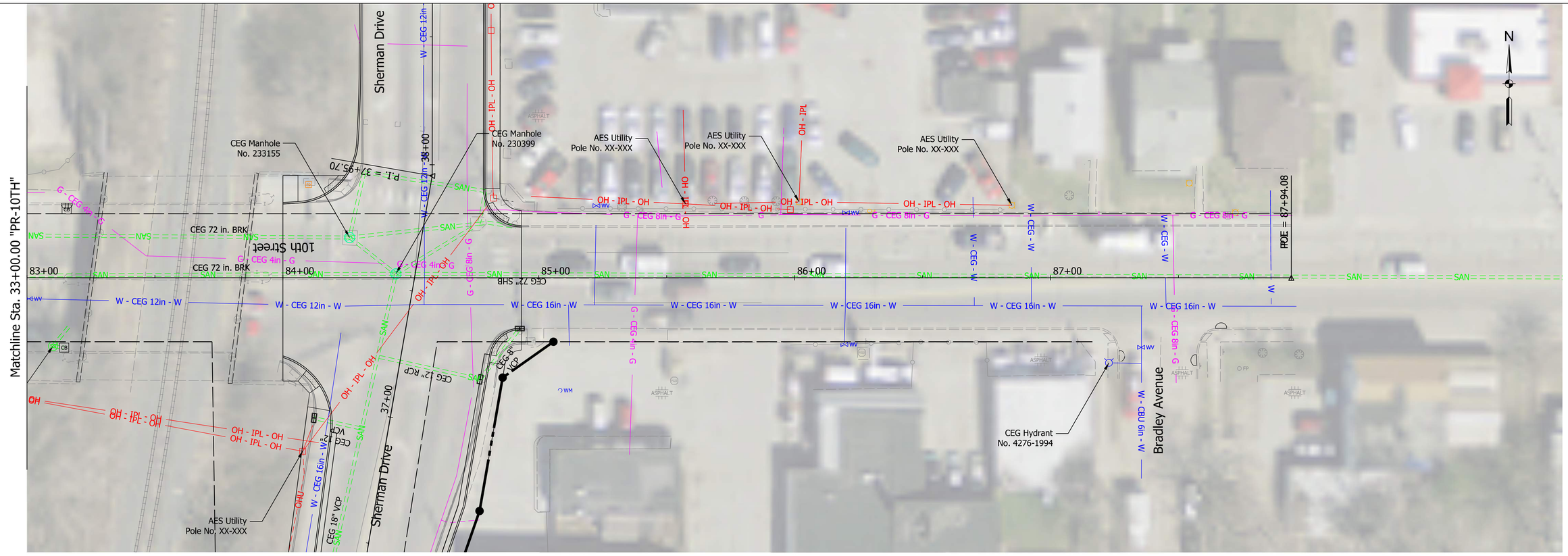
UTILITY DETAILS 10TH STREET

HORIZONTAL SCALE	1" = 20'
VERTICAL SCALE	N/A
PROJECT NUMBER	TBD
SHEETS NUMBER	142 OF 159

L:\IndyDMD\19072501-00\Draw\Sheets\Sht_UtilityDetails_10th_01.dgn



Overhead Electrical AES Utility — OH - IPL - OH
Overhead Utility — OHU
Underground CEG Gas — G - CEG 8in - G
Underground CEG Water — W - CEG 12in - W
Underground Fiber Optic — F/O
Existing Sanitary Sewer — SAN
Existing Storm Sewer — STM

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REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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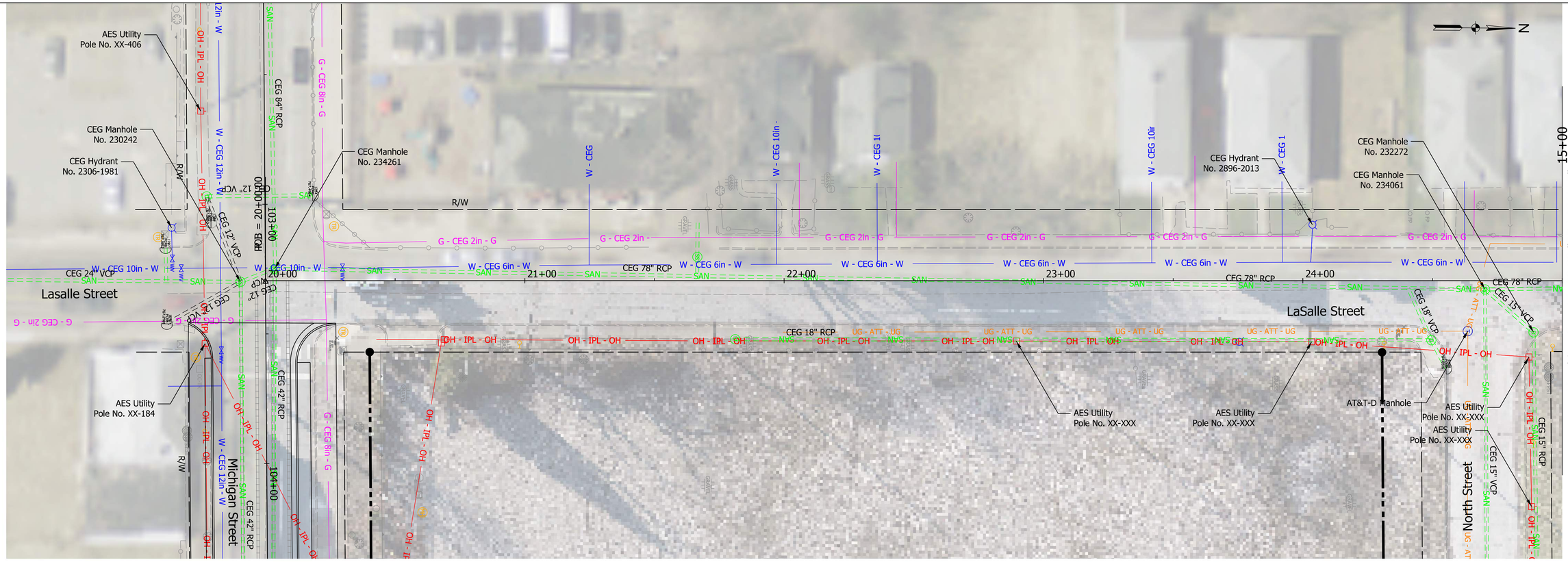
CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

UTILITY DETAILS 10TH STREET

HORIZONTAL SCALE	1" = 20'
VERTICAL SCALE	N/A
PROJECT NUMBER	TBD
SHEETS NUMBER	143 OF 159



Overhead Electrical AES Utility	OH - IPL - OH
Overhead Utility	OHU
Underground CEG Gas	G - CEG 8in - G
Underground CEG Water	W - CEG 12in - W
Underground Fiber Optic	F/O
Existing Sanitary Sewer	SAN
Existing Storm Sewer	STM

REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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DESIGN ENGINEER DATE

DESIGNED: RCC | DRAWN: RCC
CHECKED: CMR | CHECKED: MRR

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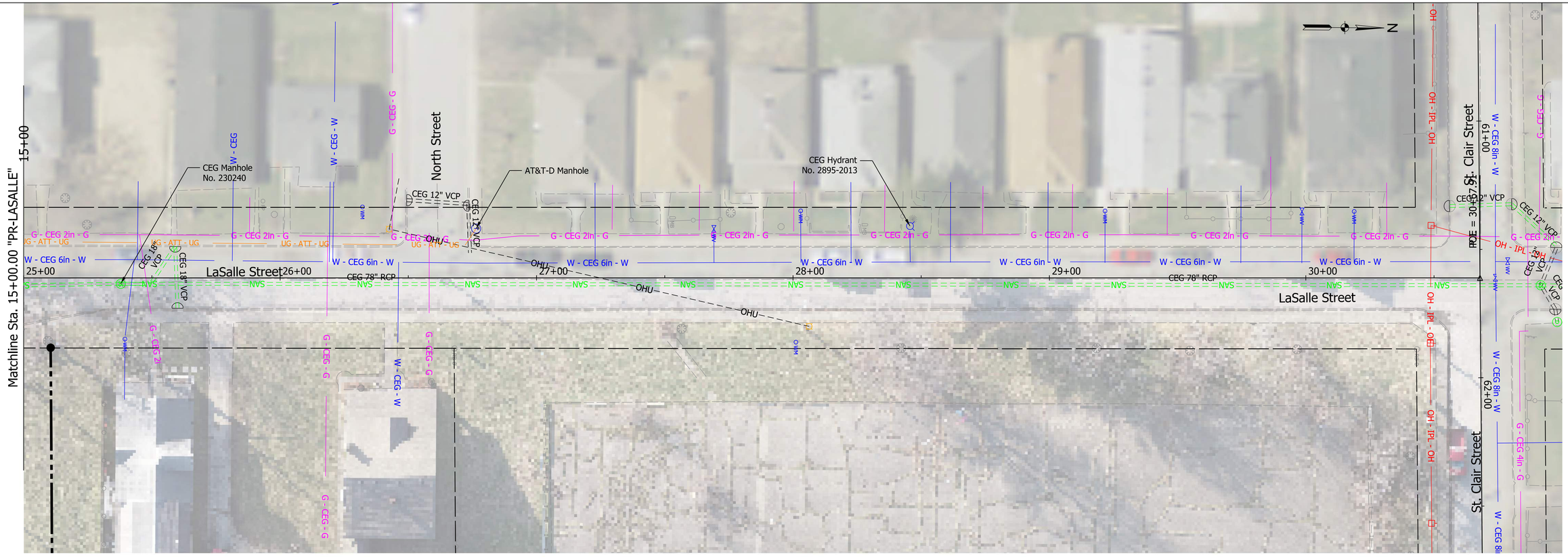
UTILITY DETAILS
LASALLE STREET

HORIZONTAL SCALE	1" = 20'
VERTICAL SCALE	N/A
PROJECT NUMBER	TBD
SHEETS NUMBER	144 OF 159

L:\IndyDMD\19072501-00\Draw\Sheets\Sht_UtilityDetails_LasalleSt_01.dgn



Overhead Electrical AES Utility	OH - IPL - OH
Overhead Utility	OHU
Underground CEG Gas	G - CEG 8in - G
Underground CEG Water	W - CEG 12in - W
Underground Fiber Optic	F/O
Existing Sanitary Sewer	SAN
Existing Storm Sewer	STM

REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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DESIGN ENGINEER DATE

DESIGNED: RCC | DRAWN: RCC
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UTILITY DETAILS
LASALLE STREET

HORIZONTAL SCALE	1" = 20'
VERTICAL SCALE	N/A
PROJECT NUMBER	TBD
SHEETS NUMBER	145 OF 159

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Overhead Electrical IPL Utility	OH - IPL - OH
Overhead Utility	OHU
Underground CEG Gas	G - CEG 8in - G
Underground CEG Water	W - CEG 12in - W
Underground Fiber Optic	F/O
Existing Sanitary Sewer	SAN
Existing Storm Sewer	STM

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REVISIONS			
XX/XX/XX	X	DESCRIPTION	XXX
XX/XX/XX	X	DESCRIPTION	XXX
XX/XX/XX	X	DESCRIPTION	XXX
XX/XX/XX	X	DESCRIPTION	XXX
XX/XX/XX	X	DESCRIPTION	XXX

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Engineers and Consultants
8790 PURDUE ROAD
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PHONE: (317) 298-4500

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RECOMMENDED FOR APPROVAL: DESIGN ENGINEER 6/30/2022 DATE

DESIGNED: RCC
DRAWN: RCC
CHECKED: CMR
CHECKED: MRR

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

UTILITY DETAILS NORTH STREET

HORIZONTAL SCALE
1" = 20'
VERTICAL SCALE
N/A
PROJECT NUMBER
TBD
SHEETS NUMBER
146 OF 159

Overhead Electrical IPL Utility — OH - IPL - OH
Overhead Utility — OHU
Underground CEG Gas — G - CEG 8in - G
Underground CEG Water — W - CEG 12in - W
Underground Fiber Optic — F/O
Existing Sanitary Sewer — SAN
Existing Storm Sewer — STM

16+00

REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

0 20 40 80

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DESIGN ENGINEER DATE

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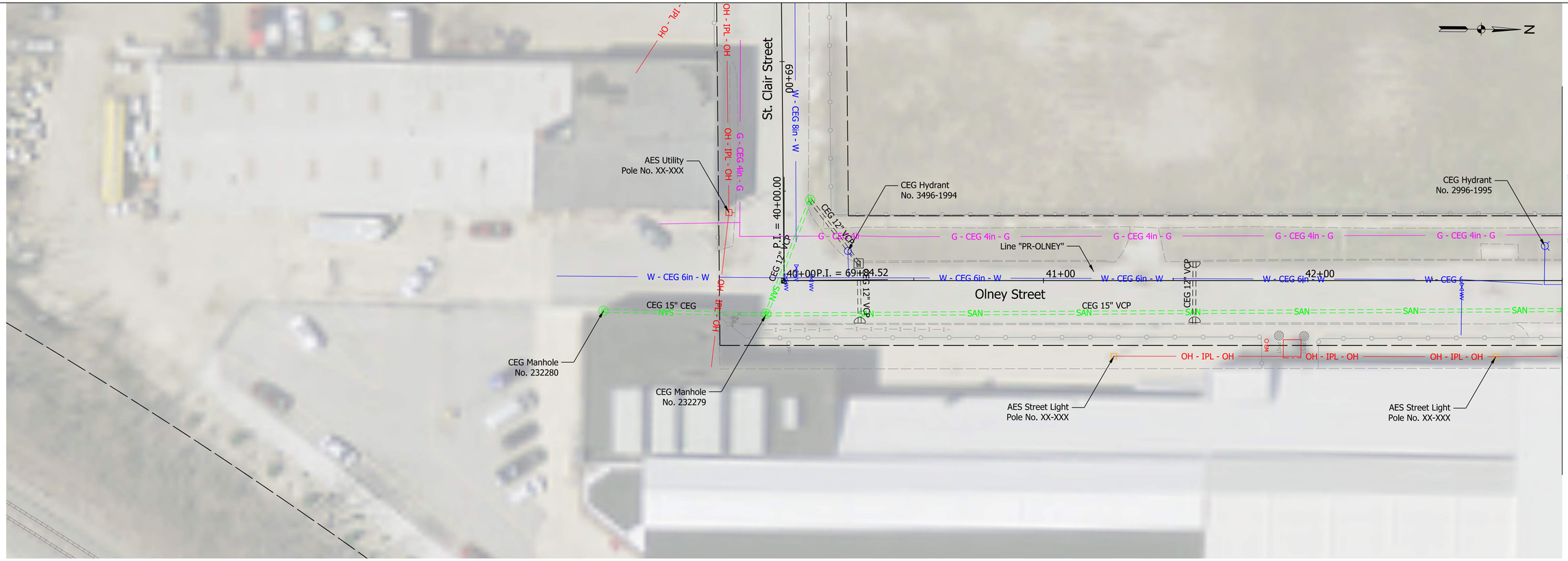
CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

UTILITY DETAILS
NORTH STREET

HORIZONTAL SCALE	1" = 20'
VERTICAL SCALE	N/A
PROJECT NUMBER	TBD
SHEETS NUMBER	147 OF 159

L:\IndyDMD\19072501-00\Draw\Sheets\Sht_UtilityDetails_NorthSt_02.dgn



Overhead Electrical AES Utility — OH - IPL - OH
Overhead Utility — OHU
Underground CEG Gas — G - CEG 8in - G
Underground CEG Water — W - CEG 12in - W
Underground Fiber Optic — F/O
Existing Sanitary Sewer — SAN
Existing Storm Sewer — STM

REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

0 20 40 80

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CHECKED: CMR | CHECKED: MRR

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

UTILITY DETAILS
OLNEY STREET

HORIZONTAL SCALE	1" = 20'
VERTICAL SCALE	N/A
PROJECT NUMBER	TBD
SHEETS NUMBER	148 OF 159

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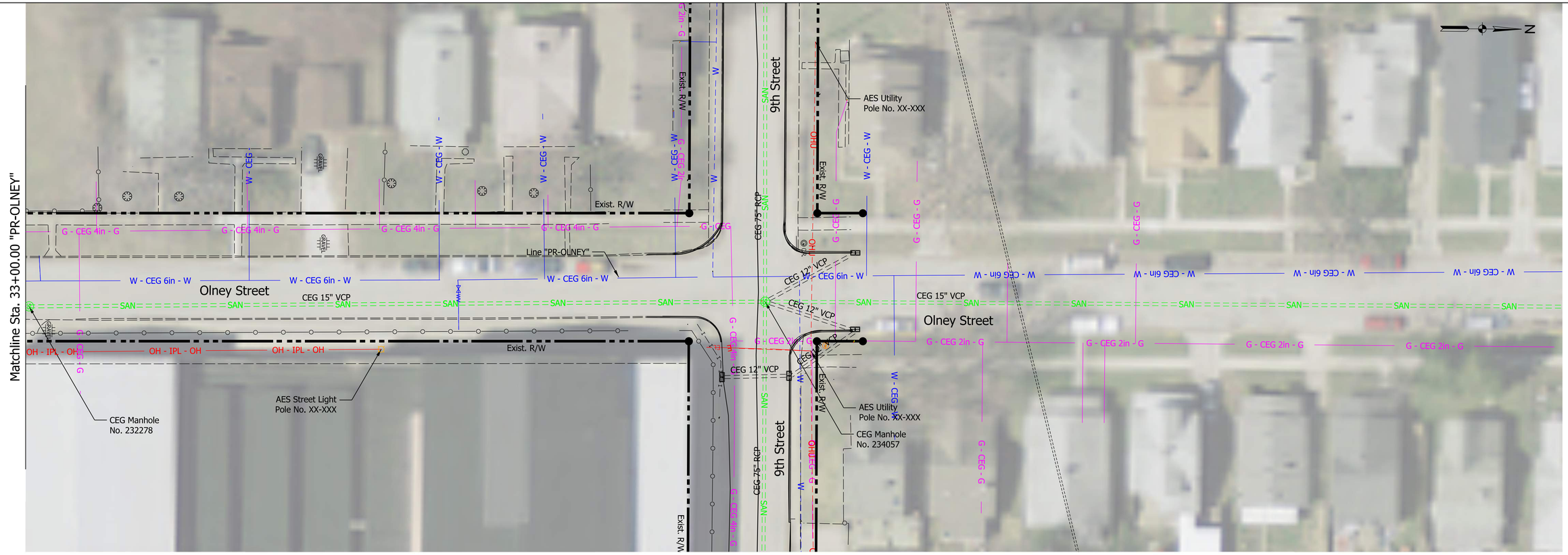

Overhead Electrical AES Utility — OH - IPL - OH
Overhead Utility — OHU
Underground CEG Gas — G - CEG 8in - G
Underground CEG Water — W - CEG 12in - W
Underground Fiber Optic — F/O
Existing Sanitary Sewer — SAN
Existing Storm Sewer — STM

REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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DESIGNED: RCC | DRAWN: RCC
CHECKED: CMR | CHECKED: MRR

INDIANAPOLIS DEPARTMENT OF PUBLIC WORKS

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

UTILITY DETAILS OLNEY STREET

HORIZONTAL SCALE	1" = 20'
VERTICAL SCALE	N/A
PROJECT NUMBER	TBD
SHEETS NUMBER	149 OF 159

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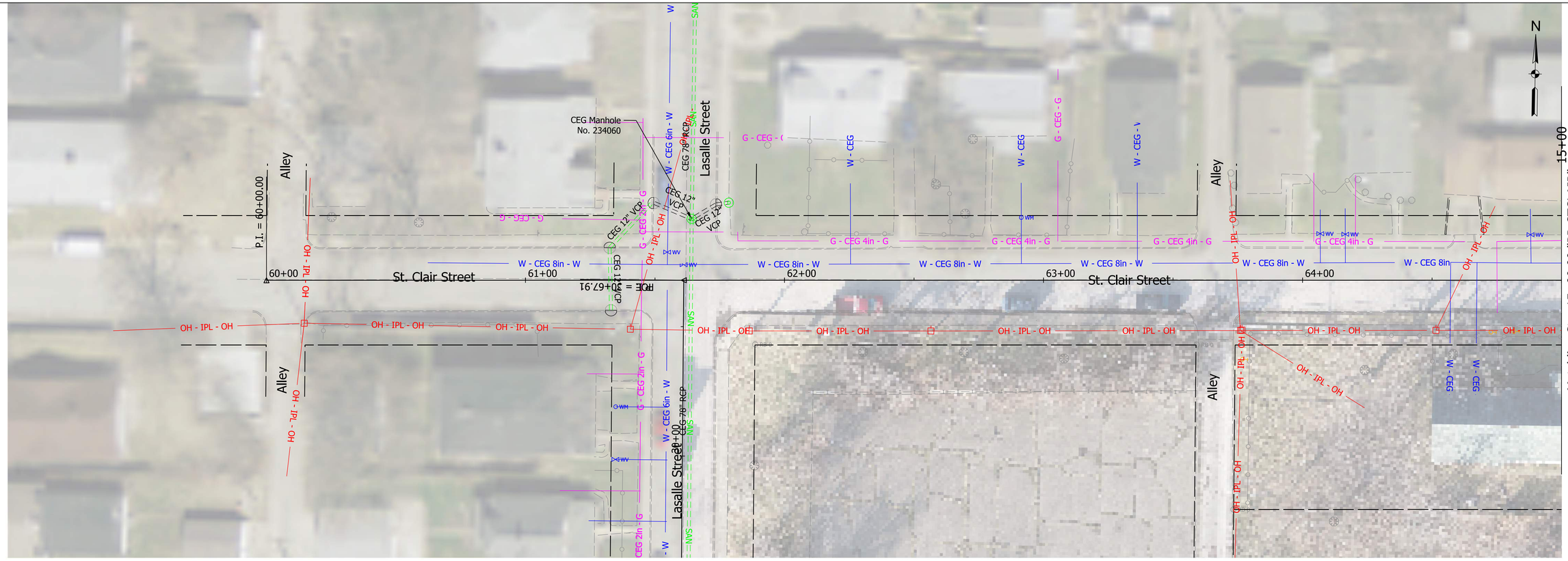

Overhead Electrical AES Utility — OH - IPL - OH
Overhead Utility — OHU
Underground CEG Gas — G - CEG 8in - G
Underground CEG Water — W - CEG 12in - W
Underground Fiber Optic — F/O
Existing Sanitary Sewer — SAN
Existing Storm Sewer — STM

REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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DESIGN ENGINEER DATE

DESIGNED: RCC | DRAWN: RCC
CHECKED: CMR | CHECKED: MRR

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

UTILITY DETAILS
ST. CLAIR STREET

HORIZONTAL SCALE	1" = 20'
VERTICAL SCALE	N/A
PROJECT NUMBER	TBD
SHEETS NUMBER	150 OF 159

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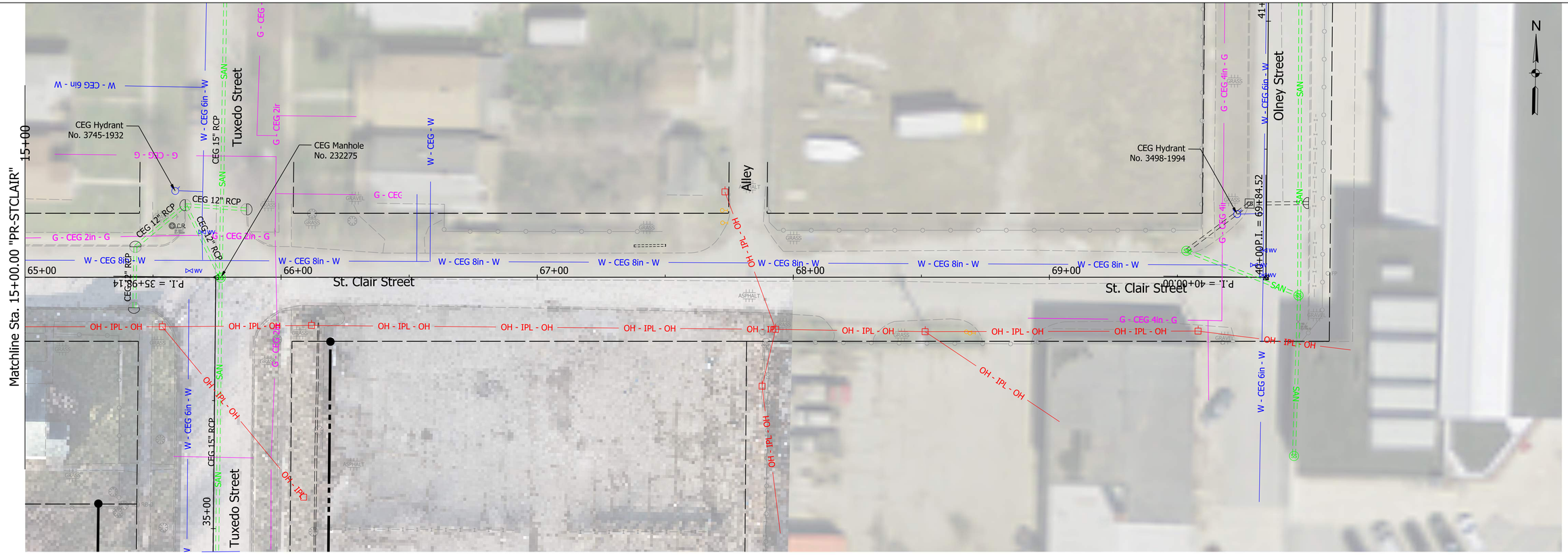

Overhead Electrical AES Utility — OH - IPL - OH
Overhead Utility — OHU
Underground CEG Gas — G - CEG 8in - G
Underground CEG Water — W - CEG 12in - W
Underground Fiber Optic — F/O
Existing Sanitary Sewer — SAN
Existing Storm Sewer — STM

REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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DESIGN ENGINEER DATE

DESIGNED: RCC | DRAWN: RCC
CHECKED: CMR | CHECKED: MRR

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

UTILITY DETAILS
ST. CLAIR STREET

HORIZONTAL SCALE	1" = 20'
VERTICAL SCALE	N/A
PROJECT NUMBER	TBD
SHEETS NUMBER	151 OF 159

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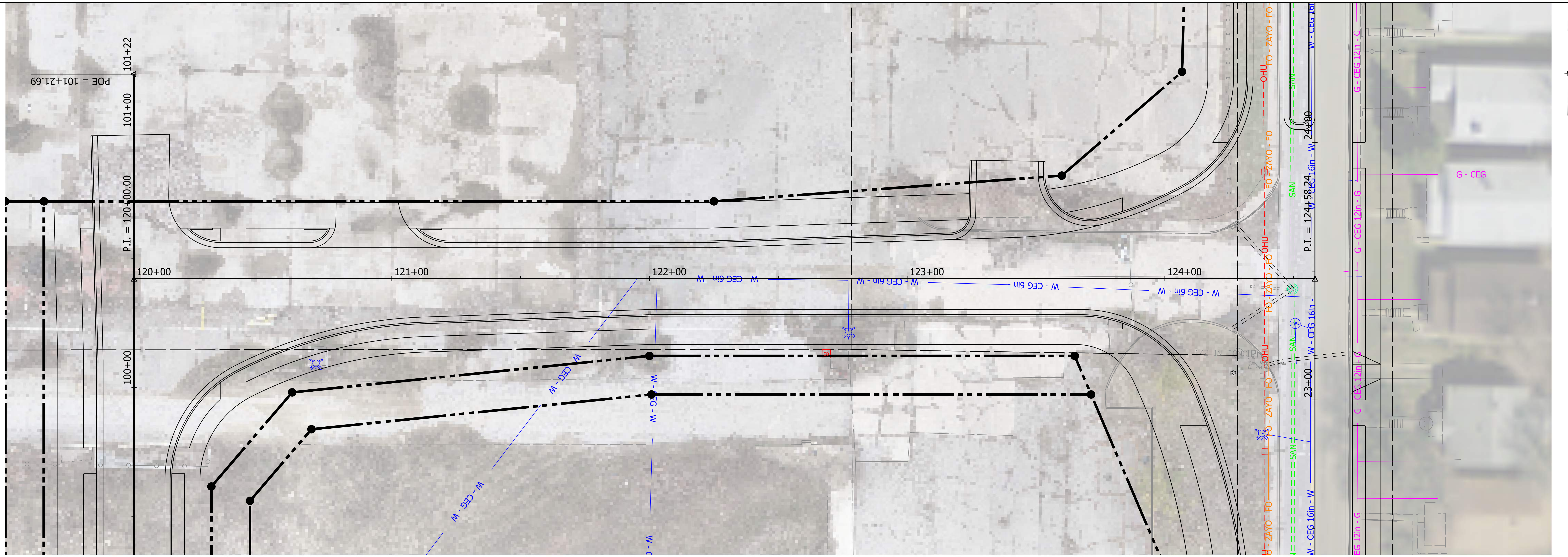

Overhead Electrical AES Utility — OH - IPL - OH
Overhead Utility — OHU
Underground CEG Gas — G - CEG 8in - G
Underground CEG Water — W - CEG 12in - W
Underground Fiber Optic — F/O
Existing Sanitary Sewer — SAN
Existing Storm Sewer — STM

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REVISIONS			
XX/XX/XX	△	DESCRIPTION	XXX
XX/XX/XX	△	DESCRIPTION	XXX
XX/XX/XX	△	DESCRIPTION	XXX
XX/XX/XX	△	DESCRIPTION	XXX
XX/XX/XX	△	DESCRIPTION	XXX

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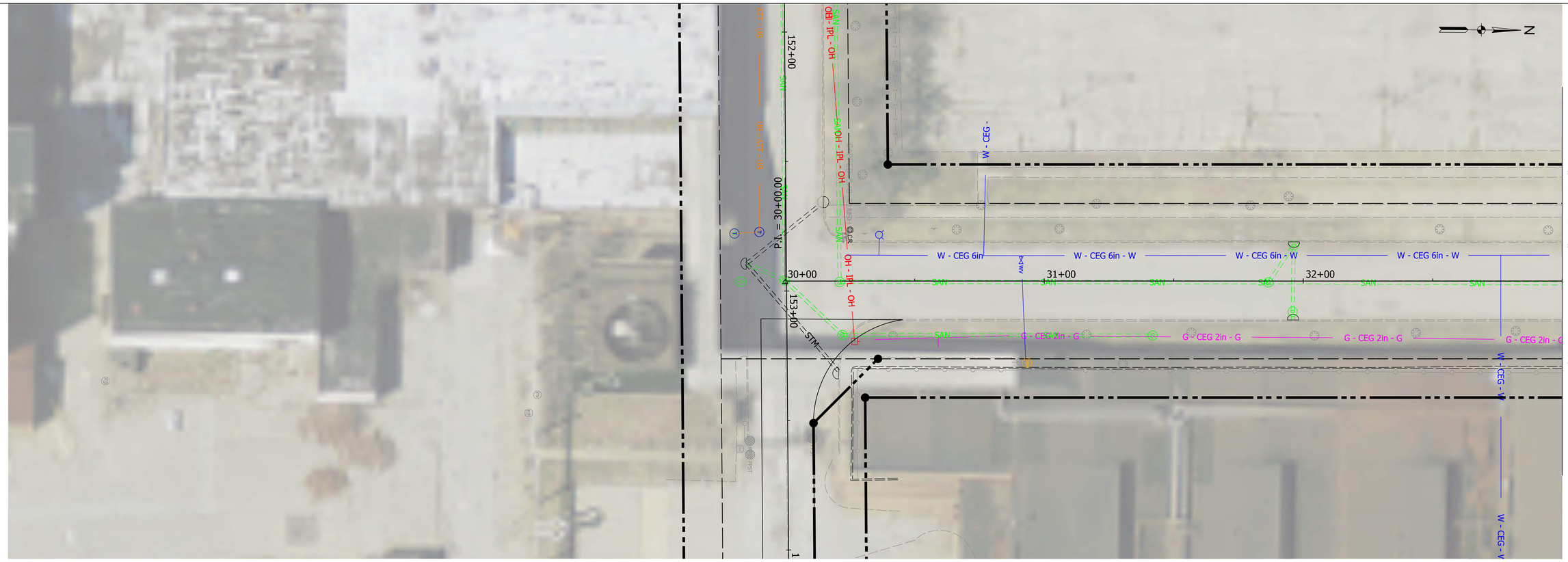
DESIGNED: RCC DRAWN: RCC
CHECKED: CMR CHECKED: MRR

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

UTILITY DETAILS ST. CLAIR STREET

HORIZONTAL SCALE
1" = 20'
VERTICAL SCALE
N/A
PROJECT NUMBER
TBD
SHEETS NUMBER
152 OF 159



Overhead Electrical IPL Utility — OH - IPL - OH
Overhead Utility — OHU
Underground CEG Gas — G - CEG 8in - G
Underground CEG Water — W - CEG 12in - W
Underground Fiber Optic — F/O
Existing Sanitary Sewer — SAN
Existing Storm Sewer — STM

REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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DESIGN ENGINEER DATE

DESIGNED: RCC | DRAWN: RCC
CHECKED: CMR | CHECKED: MRR

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CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

UTILITY DETAILS TUXEDO STREET

HORIZONTAL SCALE	1" = 20'
VERTICAL SCALE	N/A
PROJECT NUMBER	TBD
SHEETS NUMBER	153 OF 159

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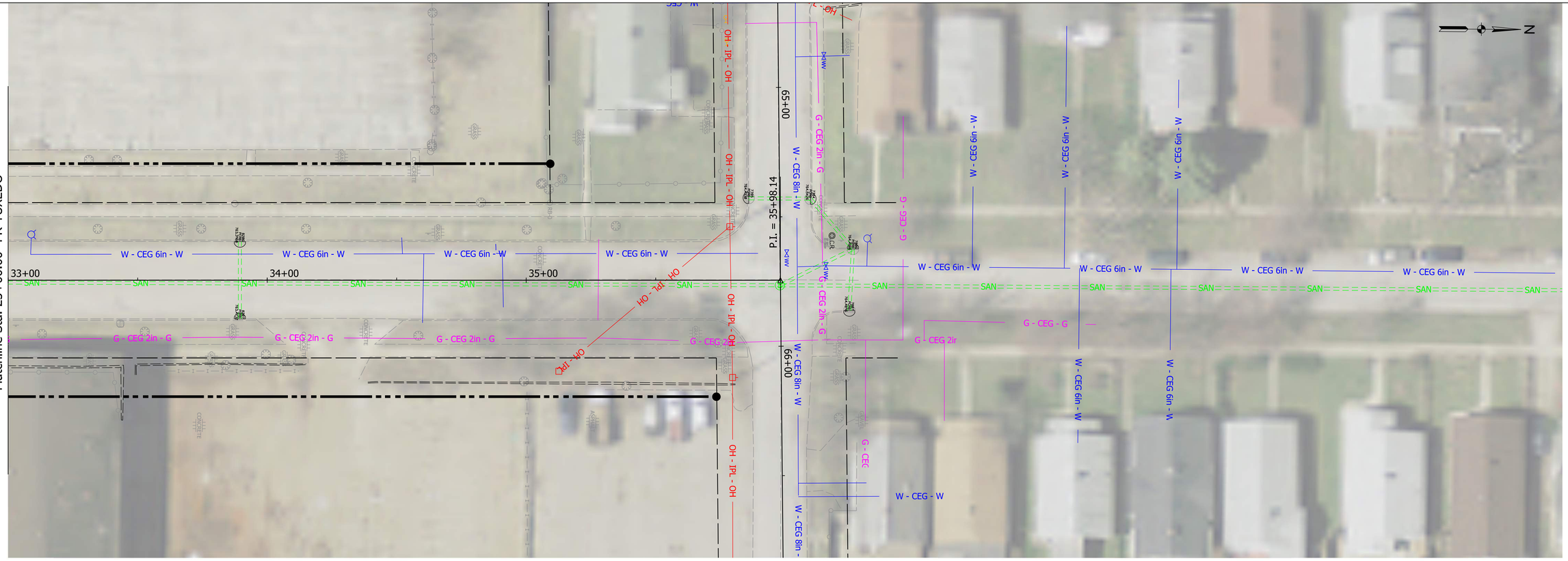
Matchline Sta. 23+00.00 "PR-TUXEDO"



Overhead Electrical IPL Utility — OH - IPL - OH
Overhead Utility — OHU
Underground CEG Gas — G - CEG 8in - G
Underground CEG Water — W - CEG 12in - W
Underground Fiber Optic — F/O
Existing Sanitary Sewer — SAN
Existing Storm Sewer — STM

REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

0 20 40 80

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RECOMMENDED FOR APPROVAL: _____ 6/30/2022
DESIGN ENGINEER DATE

DESIGNED: RCC | DRAWN: RCC
CHECKED: CMR | CHECKED: MRR

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

UTILITY DETAILS TUXEDO STREET

HORIZONTAL SCALE	1" = 20'
VERTICAL SCALE	N/A
PROJECT NUMBER	TBD
SHEETS NUMBER	154 OF 159

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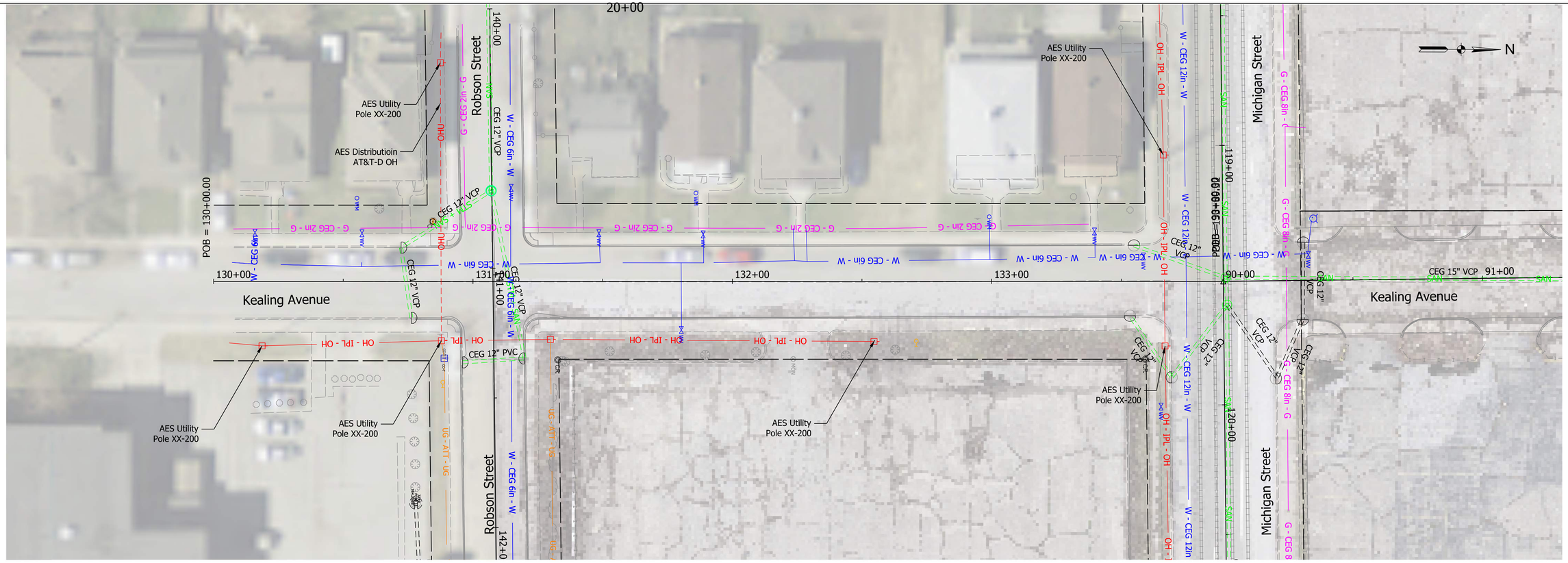

Overhead Electrical AES Utility — OH - IPL - OH
Overhead Utility — OHU
Underground CEG Gas — G - CEG 8in - G
Underground CEG Water — W - CEG 12in - W
Underground Fiber Optic — F/O
Existing Sanitary Sewer — SAN
Existing Storm Sewer — STM

REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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RECOMMENDED FOR APPROVAL: _____ 6/30/2022
DESIGN ENGINEER DATE

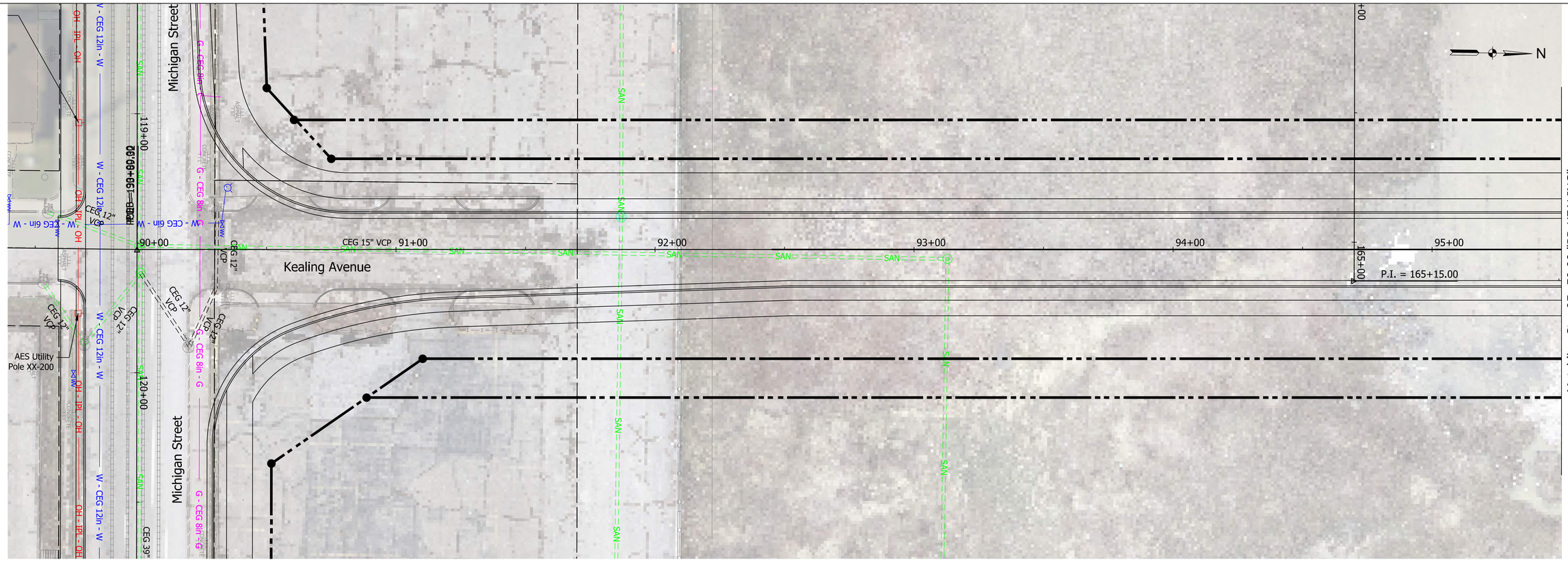
DESIGNED: RCC | DRAWN: RCC
CHECKED: CMR | CHECKED: MRR

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

UTILITY DETAILS
KEALING AVENUE

HORIZONTAL SCALE	1" = 20'
VERTICAL SCALE	N/A
PROJECT NUMBER	TBD
SHEETS NUMBER	155 OF 159

L:\IndyDMD\19072501-00\Draw\Sheets\Sht_UtilityDetails_KealingAve_01.dgn



Overhead Electrical AES Utility — OH - IPL - OH
Overhead Utility — OHU
Underground CEG Gas — G - CEG 8in - G
Underground CEG Water — W - CEG 12in - W
Underground Fiber Optic — F/O
Existing Sanitary Sewer — SAN
Existing Storm Sewer — STM

REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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RECOMMENDED FOR APPROVAL: _____ 6/30/2022
DESIGN ENGINEER DATE

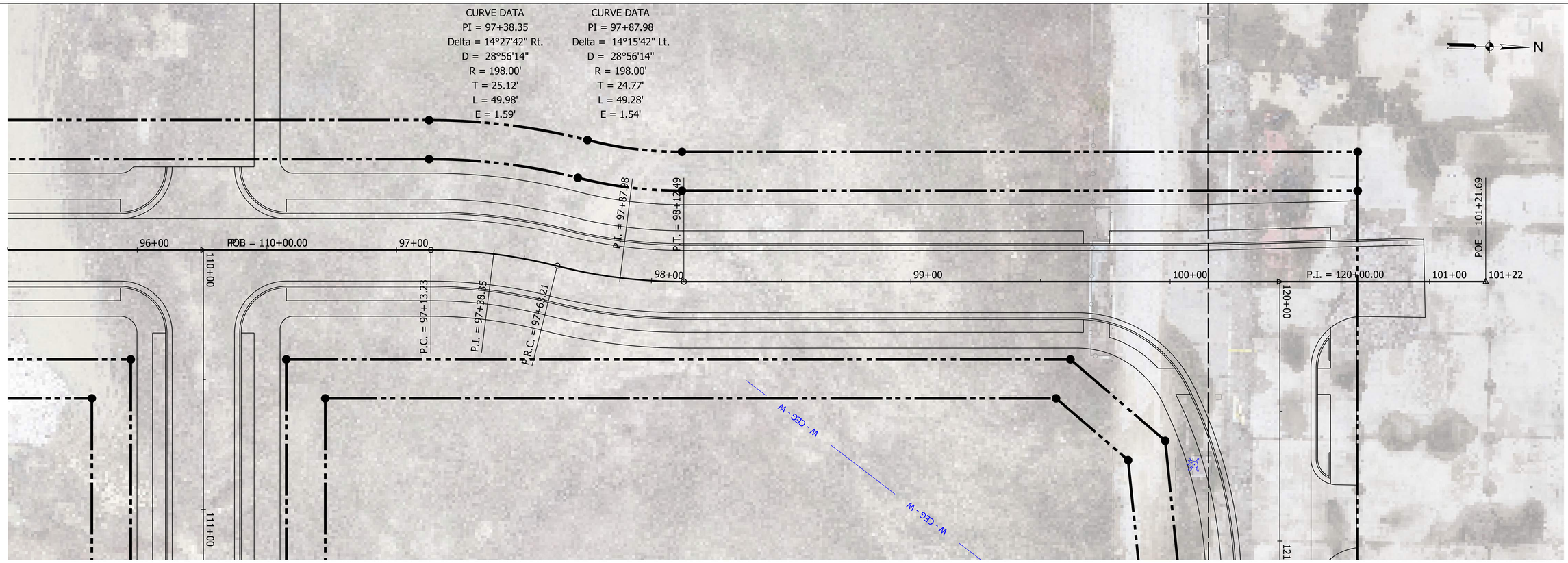
DESIGNED: RCC | DRAWN: RCC
CHECKED: CMR | CHECKED: MRR

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

UTILITY DETAILS KEALING AVENUE

HORIZONTAL SCALE	1" = 20'
VERTICAL SCALE	N/A
PROJECT NUMBER	TBD
SHEETS NUMBER	156 OF 159

L:\IndyDMD\19072501-00\Draw\Sheets\Sht_UtilityDetails_KealingAve_02.dgn



Overhead Electrical AES Utility — OH - IPL - OH
Overhead Utility — OHU
Underground CEG Gas — G - CEG 8in - G
Underground CEG Water — W - CEG 12in - W
Underground Fiber Optic — F/O
Existing Sanitary Sewer — SAN
Existing Storm Sewer — STM

REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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DESIGN ENGINEER DATE

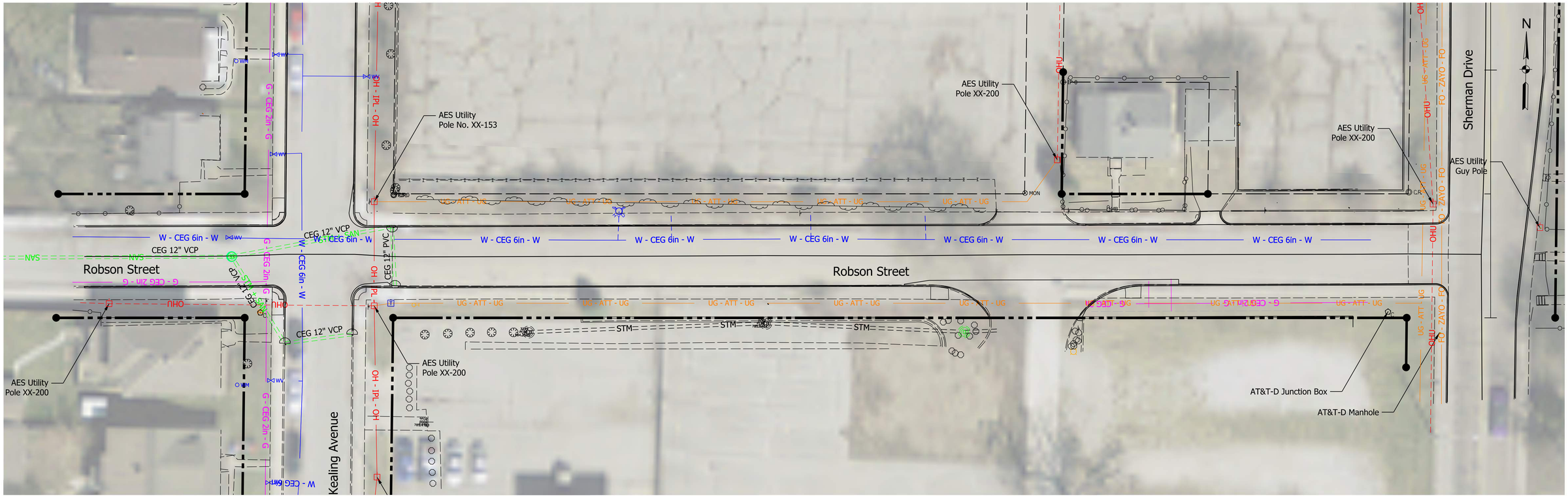
DESIGNED: RCC | DRAWN: RCC
CHECKED: CMR | CHECKED: MRR

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

UTILITY DETAILS KEALING AVENUE

HORIZONTAL SCALE	1" = 20'
VERTICAL SCALE	N/A
PROJECT NUMBER	TBD
SHEETS NUMBER	157 OF 159

L:\IndyDMD\190725\01-00\Draw\Sheets\Sht_UtilityDetails_KealingAve_03.dgn



Overhead Electrical IPL Utility — OH - IPL - OH
Overhead Utility — OHU
Underground CEG Gas — G - CEG 8in - G
Underground CEG Water — W - CEG 12in - W
Underground Fiber Optic — F/O
Existing Sanitary Sewer — SAN
Existing Storm Sewer — STM

REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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DESIGN ENGINEER DATE

DESIGNED: RCC | DRAWN: RCC
CHECKED: CMR | CHECKED: MRR

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

UTILITY DETAILS ROBSON STREET

HORIZONTAL SCALE	1" = 20'
VERTICAL SCALE	N/A
PROJECT NUMBER	TBD
SHEETS NUMBER	158 OF 159

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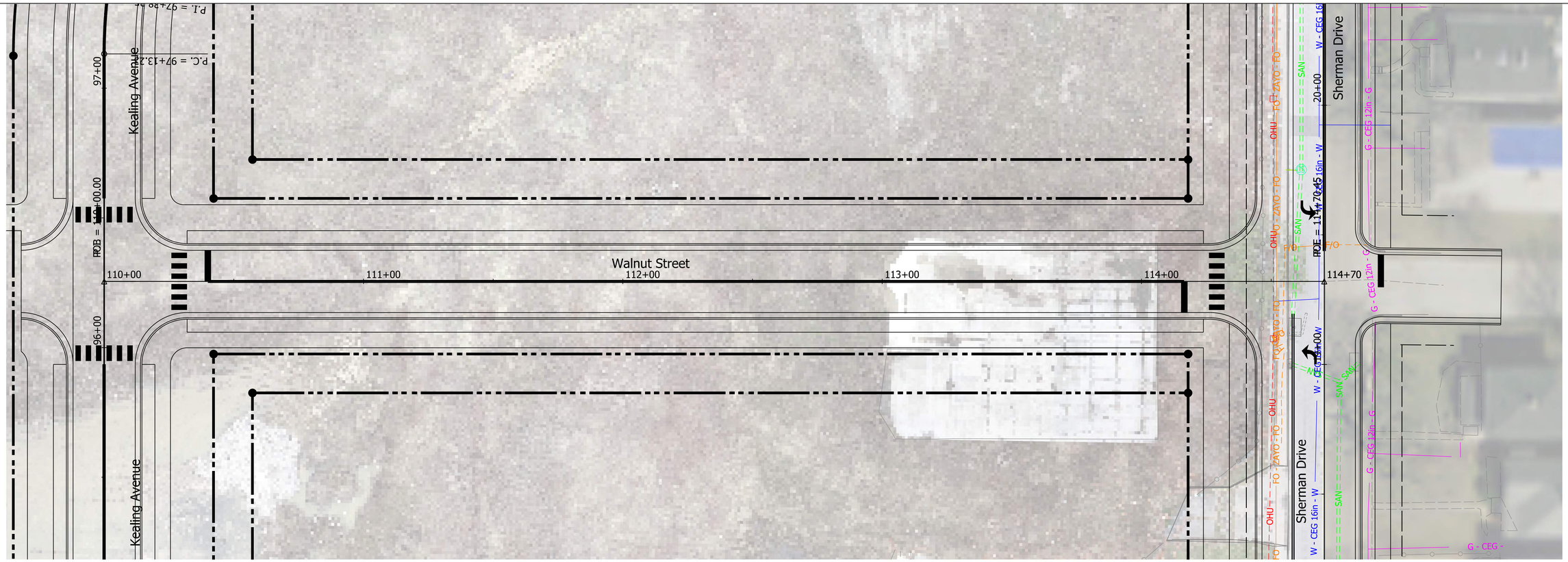

Overhead Electrical AES Utility — OH - IPL - OH
Overhead Utility — OHU
Underground CEG Gas — G - CEG 8in - G
Underground CEG Water — W - CEG 12in - W
Underground Fiber Optic — F/O
Existing Sanitary Sewer — SAN
Existing Storm Sewer — STM

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REVISIONS			
XX/XX/XX	1	DESCRIPTION	XXX
XX/XX/XX	2	DESCRIPTION	XXX
XX/XX/XX	3	DESCRIPTION	XXX
XX/XX/XX	4	DESCRIPTION	XXX
XX/XX/XX	5	DESCRIPTION	XXX

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DESIGN ENGINEER DATE

DESIGNED: RCC | DRAWN: RCC
CHECKED: CMR | CHECKED: MRR

CITY OF INDIANAPOLIS DEPARTMENT OF METROPOLITAN DEVELOPMENT

UTILITY DETAILS WALNUT STREET

HORIZONTAL SCALE	1" = 20'
VERTICAL SCALE	N/A
PROJECT NUMBER	TBD
SHEETS NUMBER	159 OF 159

Sherman Park Development Statement

General Purpose:

This development statement is intended to regulate the redevelopment of a portion of Sherman Park on Indianapolis' near East Side, formerly the location of an RCA and GE manufacturing plant, within the Rivoli neighborhood.

The C-S District has been selected in order to permit the development of a multi-use campus within a single district, with common oversight to ensure compatible uses and design. This district requires approval by the Metropolitan Development Commission of this development statement and overall site plan, with the intent of providing superior design, land planning and community participation. Subsequent improvements in alignment with this development statement, including site layout, building elevations and signage shall be subject to Administrator's Approval. The Administrator shall use Appendix I: Placemaking Element Guides, on file with this petition, as an administrative guide in review. Any denial of such Administrator's Approval may only be remedied with the filing of an Administrative Appeal and decision by the Metropolitan Development Commission.

Permitted Uses:

This portion of Sherman Park has been divided into four primary "Areas" with a fifth Area, known as the "Flex Frontage" intended to provide the opportunity for additional mixed-use development in addition to those uses permitted within "Area D". These Areas are depicted on Exhibit A, attached to this development statement. All uses are as classified and/or defined in Indy Rezone.

Areas A and D: These areas are located at the northeast and southwest quadrants of the site, along Sherman Drive.

> These areas shall permit, unless otherwise addressed by this development statement, all: I-2 Uses; Club or Lodge; Community Center; Museum, Library, or Art Gallery; Religious Uses; Hospitals; Medical or Dental Laboratories; Artisan Food & Beverage; Financial and Insurance Services; Hair and Body Care Salon or Service; Laundromats; Mortuary, Funeral Home; Eating Establishment or Food Preparation; Indoor Recreation and Entertainment; Office: Business, Professional or Government; Grocery Store; Retail, Light General; Retail, Heavy General; Manufacturing, Light; Government Services; and all uses within the Utilities land use category.

> These areas shall only permit the following uses by special exception: Business, art, or other post-secondary proprietary school; Day Care Center or Nursery School; Schools: Elementary, Middle or High Schools; Vocational, Technical or Industrial School or Training Facility (with the exception of Commercial Driving License Training or Truck Driving Instruction); Methadone Clinic or Treatment Facility; Substance Abuse Treatment Facility; Dry Cleaning Plant or Industrial Laundry; Tattoo Parlor; Bar or Tavern; Indoor Spectator Venue; and Manufacturing, Medium.

The following uses, traditionally permitted by the I-2 District, shall be prohibited: Agricultural Uses, Buildings and Structures; Processing and Packaging of Food and Beverages; Auctioneering and Liquidating Services; Marina; Automobile and Vehicle Storage or Auction; Automobile Fueling Station; Heliport or Helistop; Motorsports Industry; Truck Stop; Recycling Station; Mini-Warehouses (Self-Storage Facility); Warehousing, Wholesaling and Distribution; and the accessory use of Outdoor Storage and Operations.

Area B: This area is located within the northwest portion of the site, abutting the railroad.

This area shall permit, unless otherwise addressed by this development statement: Medical or Dental Laboratories; Artisan Food and Beverage; Processing and Packaging of Food and Beverages; Dry Cleaning Plant or Industrial Laundry; Printing Services; Artisan Manufacturing; Manufacturing, Light; all uses within the Research and Development land use category; Power Generating Facility, Local; Substations and Utility Distribution; Wireless Communications; Recycling Station; Waste or Recycling Transfer Facility; Waste or Recycling Transfer Facility; Bulk Storage of Commercial or Industrial Liquids; Warehousing, Wholesaling and Distribution; and all I-2 accessory uses, including Outdoor Storage and Operations.

This area shall only permit the following uses by special exception: Bar or Tavern; Eating Establishment or Food Preparation; Indoor Recreation and Entertainment; Indoor Spectator Venue; and Manufacturing, Medium.

Area C: This is located at the southeast quadrant of the site, at the intersection of Sherman Drive and Michigan Street.

This area shall permit, unless otherwise addressed by this development statement: Single-Family Attached; Multifamily; Community Center; Day Care Center or Nursey School; Greenway; Medical or Dental Offices, Centers, or Clinics; Medical or Dental Laboratories; Animal Care, Boarding, Veterinarian Services; Artisan Food and Beverage; Consumer Services or Repair of Consumer Goods; Financial and Insurance Services; Hair and Body Care Salon or Service; Laundromat; Printing Services; Bar or Tavern; Eating Establishment or Food Preparation; Indoor Recreation and Entertainment; Indoor Spectator Venue; Night Club or Cabaret; Artisan Manufacturing; Office: Business, Professional or Government; Outdoor Recreation and Entertainment, General; all uses within the Research and Development land use category; Grocery Store; Retail, Light General; Wireless Communications; Home Occupations as an accessory use; and all accessory uses permitted within the MU-2 District with the exception of Drive-Through

Flex Frontage: The Flex Frontage is located along the southern portion of Area D, abutting Michigan Street, and begins 50 feet parallel from the railroad right-of-way along the western boundary of the property.

This area is intended to permit all uses permitted within Area D and Area C, with the intent of providing use flexibility and goal of promoting a vibrant, activated streetscape.

The Area's on Exhibit A are bound by a red separation line intended to easily identify each individual area. This red separation area aligns with Kealing Avenue to the south and Walnut Street to the East. This separation area is not intended to depict access drives. Uses permitted within an Area that immediately abut any portion of this red separation area may be permitted.

SHERMAN PARK

DESIGN GUIDELINES

APPENDIX I: Placemaking Element Guidelines

Final, 8/10/2022

THE CITY OF INDIANAPOLIS
MAYOR JOE HOGSETT

MKSK

WHAT ARE DESIGN GUIDELINES?

Project Overview

These design guidelines were developed as part of an overall Sherman Park Infrastructure Plan published separately.

Purpose

These design guidelines illustrate the level of design expected by the City of Indianapolis for new development and significant redevelopment or changes in use. The intent is that property owners, businesses, developers, and design professionals can use the guidelines as a reference when site and architectural plans are being developed. The City of Indianapolis may publish an amendment to the Zoning Ordinance to reference these guidelines or modify them into regulatory language.

These guidelines may be adapted to the particular circumstances for a site or type of development, depending on existing site conditions and the degree of development or change proposed for a property.

Objectives

These guidelines will help clearly communicate design expectations to developers, property, and business owners for residential, mixed-use, commercial, and light industrial properties in Sherman Park. The objectives of the Sherman Park design guidelines are to:

1. Provide for functional, but attractive new development and redevelopment of site.
2. Encourage reinvestment in vacant and underutilized properties, while establishing a pride in ownership.
3. Enhance the public realm and pedestrian experience through aesthetic improvements.
4. Provide a transparent and consistent framework for decision-making.

Application of Design Guidelines

These guidelines will apply to all new developments in Sherman Park. The City of Indianapolis Department of Metropolitan Development will oversee the implementation of these guidelines. Other city departments which are typically involved in the site plan review process (i.e. Business and Neighborhood Services) will also be responsible for ensuring that the design guidelines are incorporated into proposed site plans.

Development Plan District

Sec.742-108 of City of Indianapolis Code contemplates the potential creation of Development Plan Districts that Sherman Park would be designated, much like that of Central State on the City's near west side. However, a different codification mechanism may be pursued. The Department of Metropolitan Development and the Office of Corporation Counsel Legal Team will lead these efforts through appropriate approvals.

Disclaimer

Sherman Park design guidelines were written with a parallel review of City of Indianapolis regulatory documents. There may be instances where City of Indianapolis standards differ from the recommendations within the guidelines. When conflicts occur, regulatory documents should apply first, and guidelines should be additive to minimum standards required by the city.

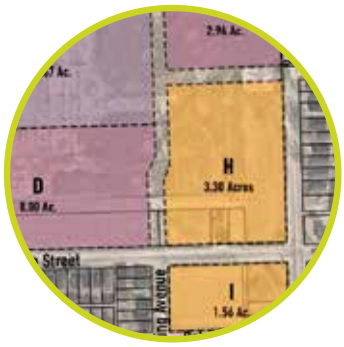
WHAT ARE DESIGN GUIDELINES? CONTINUED

For applications that cannot meet the design guidelines outlined in this document, the petitioner should justify why they could not meet particular standards. The applicant should also state how the site plan still meets the general intent of the Marion County Land Use Plan, Land Use Pattern Book, and Zoning Ordinance.

Site Design Elements

Several elements of the guidelines will collectively provide a framework to guide development design and planning in Sherman Park. These elements include:

- Land Use Plan and Descriptions
- Street Types and Circulation
- Building Scale/Placement and Parking Placement
- Building Design and Materials
- Frontage and Interior Landscaping
- Rear Screening and Buffers
- Gateway Signage
- Lighting



Land Use Plan and Descriptions

Guidance for land use typologies and general characteristics

Frontage, Interior, and Stormwater Landscaping

Guidance for landscape elements along corridor frontages and within sites

Street Types and Circulation

Guidance for entrances, new street locations, and street realignments

Building Scale/ Placement and Parking Placement

Guidance for building size and where new buildings and parking are located on a site

Building Design and Materials

Guidance for building designs and materials

Rear Screening and Buffers

Guidance for landscape elements including buffer walls and screening for rear of sites

Gateway Signage

Guidance for signage sizes, styles, and locations

Lighting

Guidance for lighting types, scales, and locations

ILLUSTRATIVE TABLE OF CONTENTS

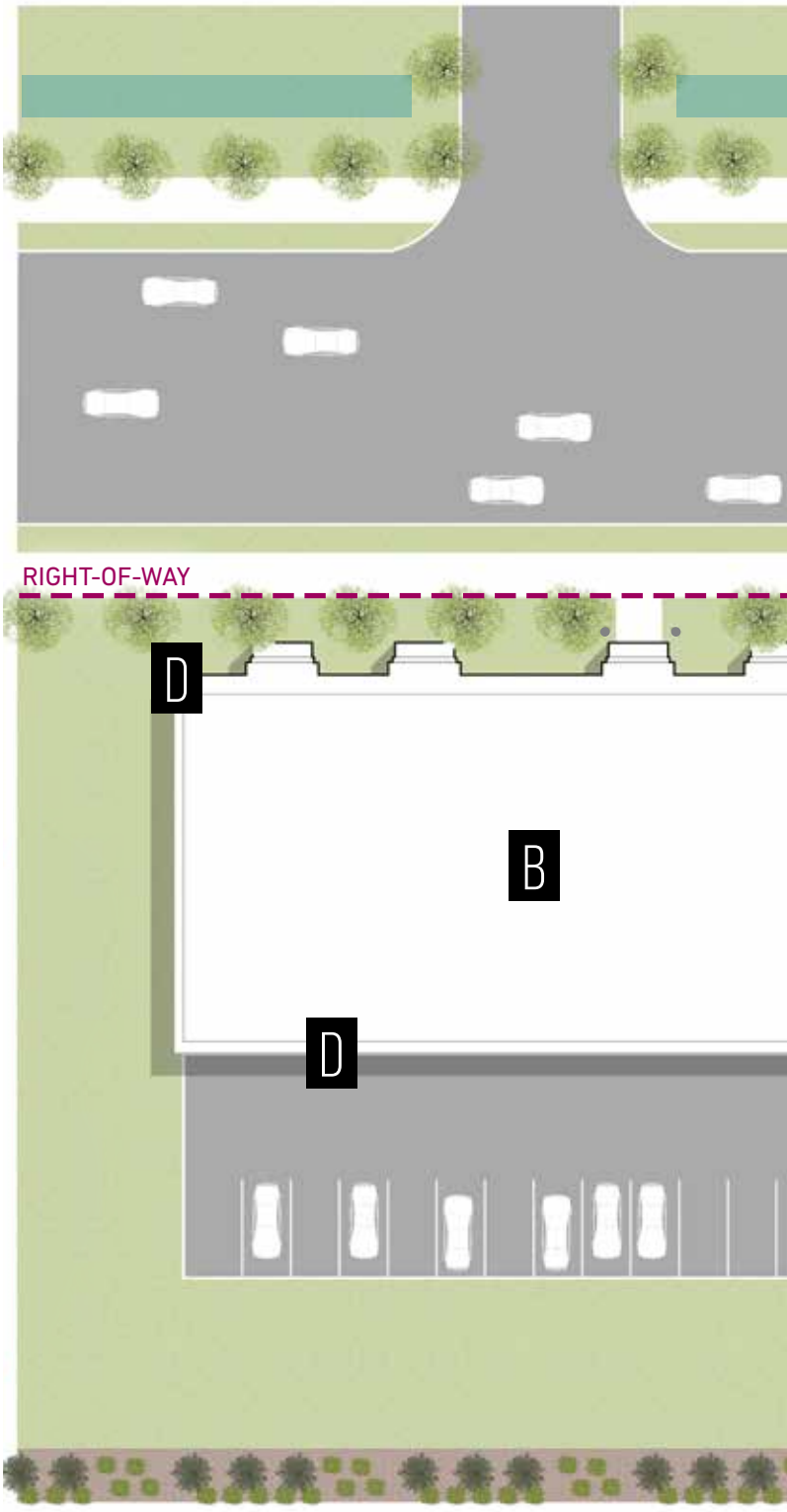
This graphic illustrates the various site design elements addressed in the design guidelines. Detailed guidelines for each are described on the following pages.

A Street Types and Circulation
See Page 8

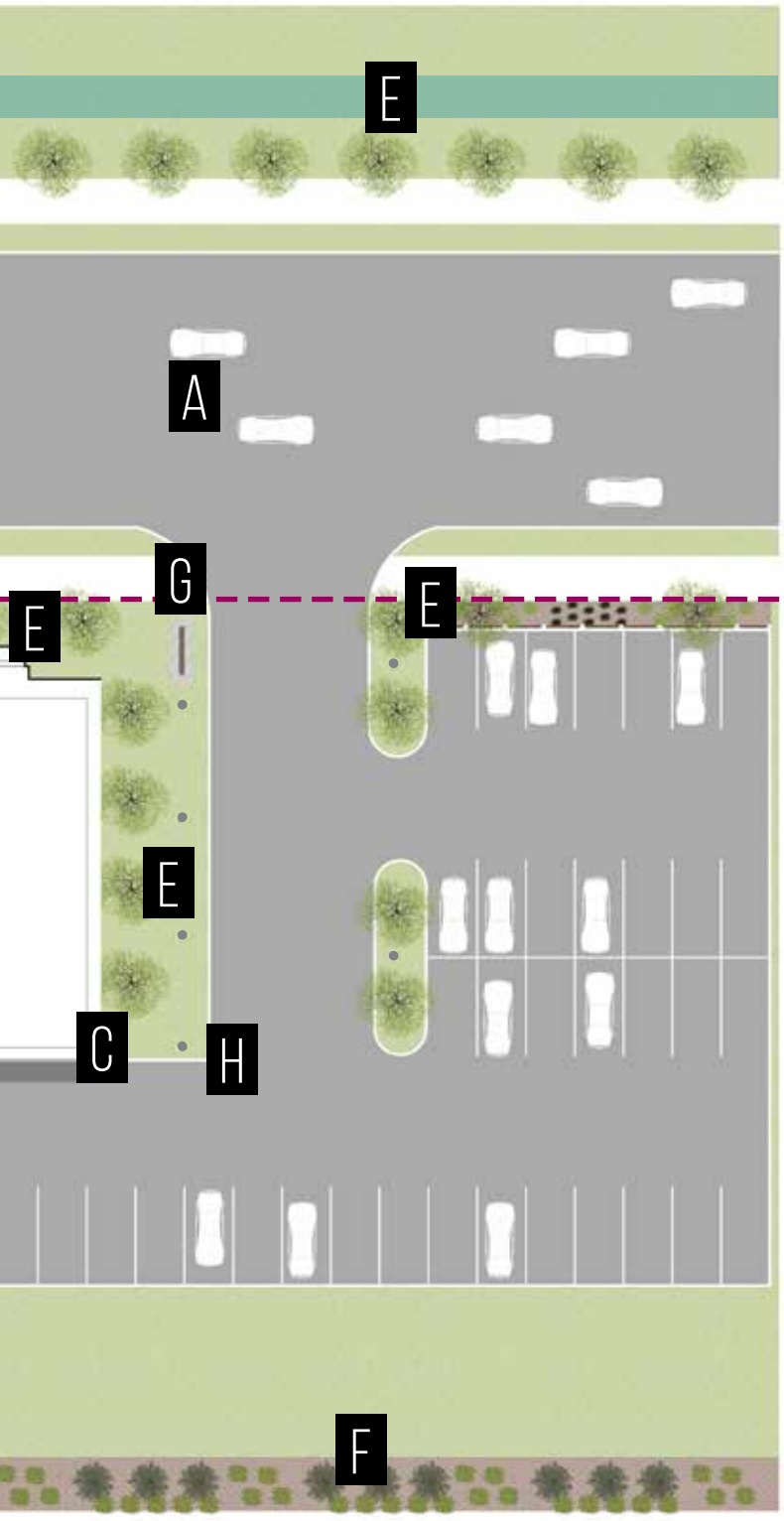
B Land Use Plan and Descriptions
See Page 10

C Building Scale & Placement / Parking Placement
See Page 12

D Building Design and Materials
See Page 14



Typical graphic: not representative of an actual location within Sherman Park.



Frontage, Interior, and Stormwater Landscaping E
See Page 18

Rear Screening and Buffers F
See Page 34

Gateway Signage G
See Page 40

Lighting H
See Page 41

STREET TYPES AND CIRCULATION

STREET TYPES AND CIRCULATION

Street Types

The Sherman Park Infrastructure Development Report identifies several street types within the Sherman Park development area. More detail and street sections are included within this report. Design guidelines refer to street types in order to regulate the site and design recommendations by frontage types, uses, and conditions.

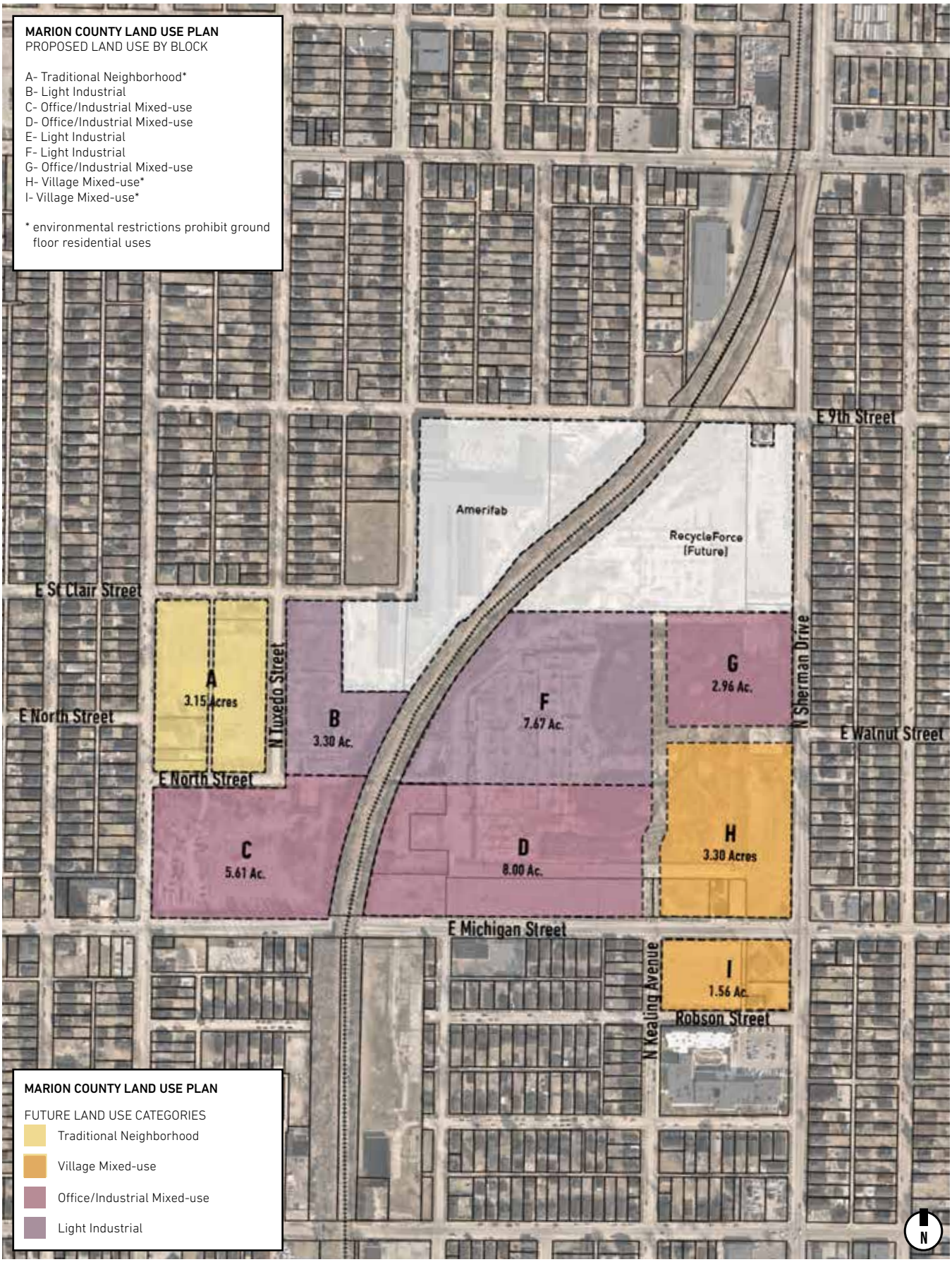
Those street types are classified below:

- Primary Streets include North Sherman Drive and East Michigan Street (primary arterial roads)
- Internal Streets include future streets, North Street, Tuxedo Street, North Kealing Avenue, and East Walnut Street (all local streets)
- Minor Streets include roads to be developed as part of future site improvements (all local streets)

Access Management

Access management within Sherman Park is necessary to ensure safe and efficient travel for all users of the roadway. Proper access management can minimize traffic conflicts and provide clear accessibility to properties for vehicles, pedestrians, and bicycles. Pedestrians in particular need safe passageway between the right-of-way and the building entrance. A properly designed circulation system is a key component to encouraging a walkable environment.

LAND USE PLAN AND DESCRIPTIONS



Anticipated Mix

The redevelopment of the Sherman Park site will create additional traffic on the surrounding roadway network. This traffic will be generated by the site itself or by attracting trips to the site. Much of the site is assumed to develop as the following land use categories defined in the Marion County Land Use Plan:

Traditional Neighborhood

The Traditional Neighborhood typology includes a full spectrum of housing types, ranging from single-family homes (ground floor residential uses prohibited in Sherman Park due to environmental restrictions) to large-scale multifamily housing. The development pattern of this typology should be compact and well-connected, with access to individual parcels by way of an alley when practical. Building form should promote the social connectivity of the neighborhood, with clearly defined public, semi-public, and private spaces. Infill development should continue the existing visual pattern, rhythm, or orientation of surrounding buildings when possible. A wide range of neighborhood serving businesses, institutions, and amenities should be present. Ideally, most daily needs should be within walking distance. This typology usually has a residential density of five (5) to 15 dwelling units per acre, but a higher density is recommended if the development is within a quarter-mile of a frequent transit line, greenway, or park.

Village Mixed-Use

The Village Mixed-Use typology creates neighborhood gathering places with a wide range of small businesses, housing types, and public facilities. This typology is intended to strengthen existing, historically small town centers as well as to promote new neighborhood centers. Businesses found in this typology serve adjacent neighborhoods rather than the wider community. This typology is compact and walkable, with parking at the rear of buildings. Buildings are one to four stories in height and have entrances and large windows facing the street. Pedestrian-scale amenities such as lighting, landscaping, and sidewalk furniture also contribute to this typology's walkable environment. Uses may be mixed vertically in the same building or horizontally along a corridor. Public spaces in this typology are small and intimate, such as pocket parks and sidewalk cafes. This typology has a residential density of six (6) to 25 dwelling units per acre.

Office/Industrial Mixed-Use

The Office/Industrial Mixed-Use (Business Park) typology is intended to provide for light industrial, distribution, and office uses conducted within enclosed structures and is unlikely to create emissions of light, odor, noise, or vibrations. The typology is characterized by groups of buildings within office/warehouse parks. Examples of typical uses include warehousing, wholesaling, research and development facilities, testing and evaluation facilities, offices, education resource centers, assembly of high technology products, and conference centers. Industrial or truck traffic should be separated from local/residential traffic in this typology.

Light Industrial

The Light Industrial typology provides for industrial, production, distribution, and repair uses conducted within enclosed structures and is unlikely to create emissions of light, odor, noise, or vibrations. This typology is characterized by freestanding buildings or groups of buildings, often within industrial parks. Typical uses include warehousing, self-storage, assembly of parts, laboratories, wholesaling, and printing. Industrial or truck traffic should be separated from local/residential traffic.

Reference: Marion County Land Use Plan Pattern Book, 2019

Environmental Concerns

The ongoing remediation efforts have an end goal of reducing concentrations of Contaminants of Concern to levels at or below the Indiana Department of Environmental Management (IDEM) commercial default standards; therefore, future development of the site will be limited to commercial or industrial land use unless a variance is obtained from IDEM.

Although the restrictions detailed above preclude the use of much of Sherman Park for residential use, it may be possible to construct residential units as long as the residential units are not on surface grade or below. If such a development is considered, approval from IDEM may be required.

Reference: Sherman Park Infrastructure Plan, 2021

BUILDING PLACEMENT FOR INDUSTRIAL AND COMMERCIAL OFFICE USE

Purpose

Building scale and placement can affect the look and feel of a corridor significantly. Buildings should typically be oriented to face the street, and setbacks within Sherman Park should be consistent with providing a more cohesive street wall and pedestrian-oriented environment. Similarly, parking placement is crucial to site design; side and rear parking areas are highly encouraged for aesthetic reasons and encourage walkability and decrease the potential for vehicle and pedestrian/bicycle conflicts.

Design Standards

1. For industrial buildings, the minimum setback from the right-of-way should accommodate pedestrian amenities, open space, and landscaped buffers. The minimum setback for industrial buildings should be:
    - 20 feet along primary streets if entire corridor includes hybrid ditch option
    - 10 feet along primary streets if no hybrid ditch is needed along corridor
    - 20 feet along internal streets
    - 15 feet along minor streets
    - 50 feet along CSX Rail ROW per CSX requirement
2. Office and employment commercial buildings should be setback from the right-of-way through the following standards, not to exceed 30 feet from any fronting street:
    - 20 feet minimum along primary streets if entire corridor includes hybrid ditch option
    - 10 feet along primary streets if no hybrid ditch is needed along corridor
    - 20 feet minimum along internal streets to match existing street wall pattern
    - 10 feet minimum along minor streets
    - If retail or restaurant use, variable setback to allow for outdoor dining, amenity areas, etc should be considered
3. Buildings should be oriented so that at least one (1) main entrance faces the road. The main entrances of a building should be ADA compliant.
4. For larger buildings with multiple tenants, multiple entries along the street frontage should be incorporated into the site plan.
5. Parking should be located along the side and rear yard and is not allowed along primary street frontages. Where buildings face a front yard located along an internal street, a limit of two (2) rows of parking is recommended in the front yard. If front yard parking is implemented, additional landscaping is recommended to screen the parking area properly.
6. Shared parking is encouraged between adjacent sites or mixed-use developments on the same site.
7. Parking per use should not exceed 110% of the minimum parking spaces required as stated in the Zoning Ordinance.
8. For corner lots, buildings or landscaping should be located nearest the intersection. Parking areas are discouraged at this location.
9. Outdoor storage areas should not be visible from the roadway. Ideally, storage areas and loading facilities are located to the rear of the building. Proper screening and landscaping should be implemented where these storage and/or loading areas abut residential properties.

BUILDING PLACEMENT FOR RESIDENTIAL AND MIXED-USE

Design Standards

1. Attached single-family, multi-family residential and mixed-use buildings should be setback from the right-of-way at a minimum of:
    - Primary streets do not require a minimum setback for mixed-use and multi-family buildings (hybrid ditches not recommended for residential frontage)
    - If retail or restaurant use as part of mixed use, variable setback to allow for outdoor dining, amenity areas, etc should be considered
    - 20 feet along internal streets, unless adjacent single-family exists (to match existing street wall pattern)
    - 10 feet along minor streets
2. Environmental restrictions prohibit ground-floor residential development in Sherman Park. Appropriate ground floor uses include parking, storage, and other non-residential uses.
3. Any development with multiple buildings should allow a minimum of 30 feet spacing between buildings.
4. Developments with multiple residential buildings should include an open space for residents that is central to and accessible from all buildings.
5. Pathways and driveways should be paved. Pathways for pedestrians should connect to sidewalks along the roadway and lead directly to building or individual unit entrances, whichever applies to the residential building.
6. Parking may consist of surface parking, garages (attached or detached) or carports and should be adjacent or close to the primary structure. Parking for multi-family residential units may be front, side, or rear entry in relation to each unit. It is encouraged that parking is not visible from the roadway. If a residential building is facing primary streets, it is encouraged that parking is located behind the building. If a mixed-use or multi-family building is facing internal streets or minor streets, parking should be screened from view.
7. Access to mixed-use and multi-family residential parking areas should be consolidated on internal streets whenever possible.
8. Where a parking lot is adjacent to a single family-zoning district, a screening wall or landscape buffer should be provided.
9. Where possible, hybrid ditches should be located along internal streets or underground storage should be explored in the event of additional stormwater requirements.
10. When hybrid ditch conditions occur, landscape buffers should be nearest the street with ditch located behind.

BUILDING DESIGN FOR COMMERCIAL RETAIL USES

Purpose

Building massing and façade treatments, especially along sides visible from the roadway and adjacent to residential uses, should have a consistent architectural quality along the corridor. While architectural variation is encouraged, buildings should be thoughtfully designed to complement each other and create visual cohesion.

Design Standards

1. If a building is more than one story, a different architectural treatment may be used on the ground floor façade than on the upper floors.
2. Climbing vegetation and green walls are encouraged as a method to provide visual interest to building façades.
3. The following building materials and designs are discouraged as their features can negatively affect the overall look and feel of the development:
    a. Aluminum siding
    b. Asphalt shingles
    c. Larger and blank wall façades
    d. Brightly-colored roofs
    e. Pre-fabricated metal walls
    f. Highly reflective surfaces

Commercial Retail Buildings

1. 65% of the total front façade of a building is recommended to be brick or similar material (excluding window and doorway openings, as well as decorative trim). Side and rear façades should be at least 50% each of brick or similar material, in coordination with the front façade treatment.
2. For building front and side façades that are 100 feet or greater in length, these should be designed with a vertical edge or recess with minimum surface change of two (2) inches and at intervals of every 50 feet or less.
3. Building sides visible from primary streets or internal parking lots or adjacent residential uses should also be at least 50% brick, with the same exclusions. The City of Indianapolis may allow some flexibility for the side and rear standards in consideration of the size of the building, views, internal operations, and alternative designs that meet the intent for aesthetically pleasing building design.
4. Modulation of roofs and roof lines is encouraged to eliminate the look of box-shaped buildings.

BUILDING DESIGN FOR INDUSTRIAL USES

Industrial Buildings

1. Exterior façade materials should consist of high quality and durable materials on the building frontage and corner articulations. If a façade faces residential, mixed use, office, or retail then that façade should also consist of similar materials, including brick, concrete block, and pre-cast concrete.

2. Blank walls are discouraged. Building articulation can be met by providing transparency and varying building materials and finishes to create a more welcoming feel to the overall building.

3. For buildings that are 100 feet in length or longer, a material change and shift in the wall façade should be applied to the front façade for every 40 feet. If side and rear façades face either another roadway or residential use, then the same standard applies.

BUILDING DESIGN FOR MIXED-USE, MULTI-FAMILY, AND SINGLE-FAMILY ATTACHED USES

Design Standards

Mixed-use, multi-family, and single-family attached residential buildings should use a style compatible with surrounding residential styles while enhancing the community character. Building entrances, windows, awnings, and other features should provide unity in scale and pattern among new developments and the existing neighborhood character. When multiple buildings are proposed on one site, buildings should be consistent in appearance. Architectural features on street-facing façades, including but not limited to decorative details, archways, porches, and varied rooflines, are encouraged to add visual interest to buildings.

1. Architectural features and façade variation are especially important for buildings with a length greater than 100 feet to break up expansive façades.
2. For street-facing exterior elevations, 25% of the total area for each façade should be brick, face brick, stucco, or stone (excluding windows, doorways, and decorative trim.) Recommended materials for the remaining 75% of the building include wood, engineered wood, or fiber cement siding.
3. Side and rear façades that do not face a street may be brick, brick veneer, stone, wood, engineered wood, or fiber cement siding, but using the same materials and treatment as street-facing façades is encouraged.
4. Recommended materials for foundation walls include concrete block, score block, precast concrete, and cast-in-place concrete.
5. Detached garages, carports, or accessory building exteriors should use a similar treatment and materials coordinated with the primary residential structure.
6. All exterior utility equipment, such as air conditioning units and utility boxes, should be screened from view from the roadway.

FRONTAGE LANDSCAPING

Purpose

Site landscaping can improve the overall aesthetics of the corridor by adding texture and interest along the street and by providing a natural drainage system for larger properties. Landscaping along corridors should be cohesive and easy to maintain for property owners. In addition to aesthetics, street trees installed along the roadway may encourage slower speeds on primary and internal streets.

Landscaped Areas

The Frontage and Interior Landscaping section is divided into four categories to address the different conditions of landscaping within a property along existing and proposed streets.

Frontage Landscaping Along Primary and Internal Streets focus on the front yard and landscaped spaces adjacent to East Michigan Street, North Sherman Drive, and planned internal streets.

Site Design and Amenities include areas within a property including: foundation plantings, interior open spaces, interior site landscaping, screening of waste receptacles, pedestrian access and design, and outdoor dining areas.

Buffers apply to the screening techniques used along property edges.

Plant Materials and Sizes describe plant species, spacing, sizing and number of plants recommended in planting areas.

Design Standards for Frontage Landscaping Along Primary and Internal Streets

Proper landscaping in front yard areas visible from the corridor should be implemented to maintain consistency along the street frontage on East Michigan Street, North Sherman Drive, and planned internal streets. Landscaped areas are located at the back of the right-of-way or on easement or private property.

Landscaped Front yards

For areas not within front buffer yards, landscaped gateway areas, or foundation planting areas, a landscape plan should be developed which specifies trees, perenniel, and shrub plantings as well as hardscaping.

Landscaped Gateway Treatment

Enhanced landscaping should be applied as gateway treatments at entry points of the property.

Landscaped Front Buffer Yards

Landscape buffers should be located at the back of the right-of-way or on easement or private property. When hybrid ditch conditions occur, landscape buffers should be nearest the street with the ditch located behind. Further design guidlines for the hybrid ditch condition are found on page 23.

Front Buffer Yards for Non-residential Properties

When parking or loading areas to the side or front of buildings are visible from the roadway, those areas should be properly screened from view. Screening options may include plantings, decorative fences/walls, or a combination of plantings and fences/walls.

Decorative but simple fencing as well as building walls create a welcoming and appealing environment – especially when adjacent to residential uses. Longer walls and fences can be broken up with landscaping and offsets to add visual interest.

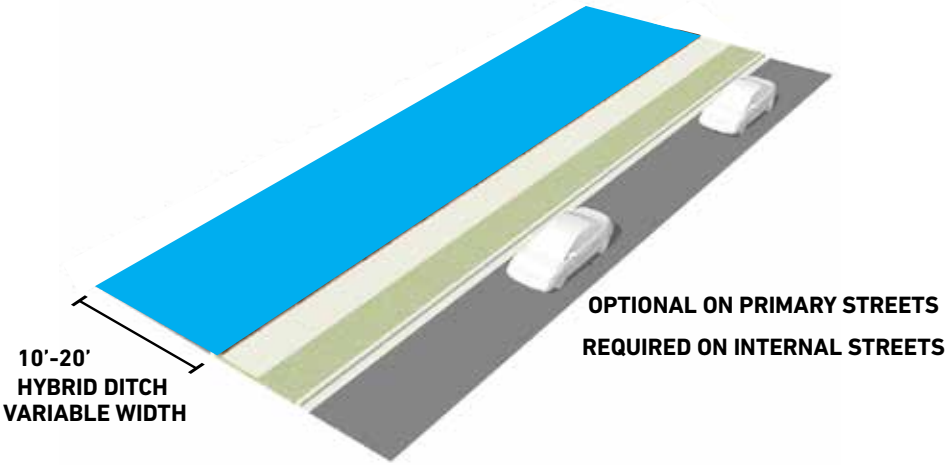
Front yards should be landscaped and screened using one of the following options. Option A or B is required for properties that contain more than two (2) rows of front yard parking or loading areas. For any other remaining non-residential uses, the property owner may choose any of the following options (illustrated and detailed on the following pages):

- Option A: Minimum 10' foot wide landscape area with a continuous hedge, no more than four (4) feet in height. One (1) tree should be planted every 40 linear feet.
- Option B: Minimum five (5) foot wide landscaped area with low shrubs, perennials, and/or ornamental grasses. One (1) tree should be planted every 40 linear feet. This option also includes a three (3) foot tall ornamental metal/masonry wall.
- Option C: One (1) tree should be planted every 35 linear feet or a three (3) foot tall ornamental metal/masonry wall.
- For options A, B, and C the remaining area within the frontage can be lawn, or other landscaped area, or hybrid ditch as applicable.

FRONTAGE LANDSCAPING, CONTINUED

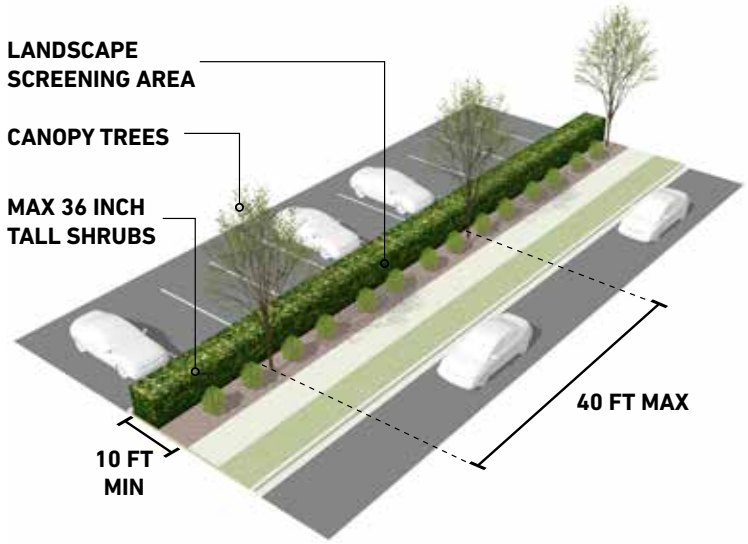
Hybrid Ditch

The landscaped area may be reduced to match the dimension of any required hybrid ditch up to 20' in width, if it is built along the frontage. In this instance, appropriate screening of parking lots or loading areas incorporating landscape options A, B, and C are recommended depending on the width of the ditch.



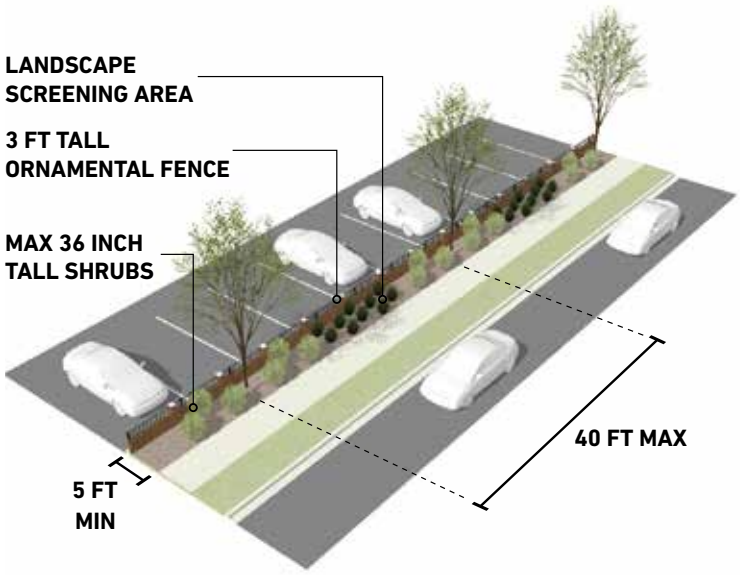
Option A

Minimum ten (10) foot wide landscape area with a continuous hedge, no more than four (4) feet in height. One (1) tree should be planted every 40 linear feet. More information on species and perenniel plants can be found under Plant Materials and Sizing on pages 30-33.



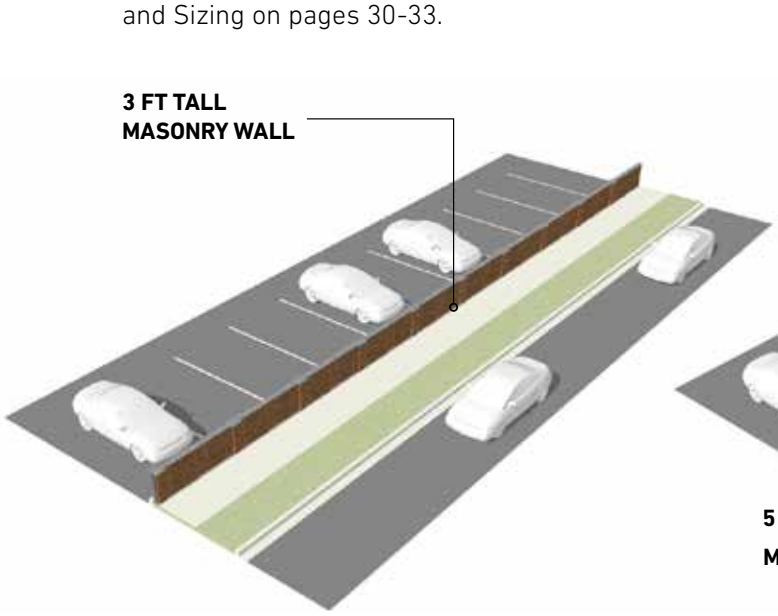
Option B

Minimum five (5) foot wide landscaped area with low shrubs, perennials, and/or ornamental grasses. One (1) tree should be planted every 40 linear feet. This option should also include a three (3) foot tall ornamental metal/ masonry wall. More information on species and perenniel plants can be found under Plant Materials and Sizing on pages 30-33.



Option C

One (1) tree should be planted every 35 linear feet or a three (3) foot tall ornamental metal screen fence/masonry wall should be installed. More information on species and perenniel plants can be found under Plant Materials and Sizing on pages 30-33.



Ornamental metal screen fence/masonry wall version.

Canopy tree version.

SITE DESIGN AND AMENITIES

Design Standards for Site Design and Amenities

The following design standards apply to landscaped elements within commercial and industrial sites. These elements will create better pedestrian conditions, establish enhanced open spaces and sustainable design features, and provide a more appealing overall appearance of each site. Each element may not be applicable but will depend on unique existing site conditions and specific design plans for development.

Foundation Plantings

Foundation plantings should be installed along building edges to screen the appearance of building foundations from public view. This application is recommended from all areas visible from public right-of-way

1. Foundation planting areas adjacent to the building edges should be at least five (5) feet wide.
2. Plantings should be low-maintenance species and may include a combination of small canopy or ornamental trees, evergreen trees, shrubs, and ornamental grasses.
3. Foundation plantings should not block the buildings' windows, doors, or entryways.
4. Planting areas should be mulched and edged to create a clean and well-kept appearance.

Hybrid Ditches

Hybrid ditches temporarily store stormwater runoff to reduce the flow of runoff to combined sewers. This function of hybrid ditches helps prevent localized flooding and can improve water quality and reduce erosion from runoff. Plantings around hybrid ditches should include low-lying (two feet or lower) native grasses and perennials/forbs. Hybrid ditches in Sherman Park will have a clay liner due to environmental mitigation requirements on site:

1. Hybrid ditches should follow the City of Indianapolis Department of Public Works (DPW) standards and may vary between 10-20' in width.

2. Side slopes should not exceed one (1) vertical foot for every three (3) horizontal feet.

3. Maintain a three (3) feet wide mowed lawn (TTF lawn mix) strip on all exterior edges of hybrid ditch, including adjacent to curbs or sidewalks (for maintenance purposes).

4. Bioswale Seed Mix to be placed in hybrid ditches with the exception of three (3) feet wide mown lawn edge described above. Bioswale Seed Mix will contain grasses, sedges and forbs suitable for storm water conveying swales. This mix will do well in areas that are wet during and soon after storms, but dry down between rain events. This defined set of plants are the recommended mix for installation under erosion control blanket in swales. Temporary cover should be utilized with this mix.

5. BIOSWALE SEED MIX to contain a mix of the following plants only, and be mixed to the ratio of 75% sedge / 25% forbs: Carex vulpinoidea (Fox Sedge); Carex frankii (Frank's Sedge) and Hibiscus moshuettos (Swamp Rose Mallow), Penstemon digitalis (Foxglove Beardtongue), Symphyotrichum novae-angliae (New England Aster)

SITE DESIGN AND AMENITIES, CONTINUED

Parking Areas

Landscaping within parking lots not only adds visual interest but also creates stormwater management opportunities and helps organize traffic patterns within parking areas. Therefore, parking lots greater than 25 spaces are recommended to incorporate landscaping into the parking area per the following:

1. For commercial and multi-family properties, a minimum of 1 tree per 15 spaces is required.
2. For industrial properties, one (1) tree per 20 spaces is required.
3. Up to one-half of required trees may be installed on the edge of the parking lot. This does not replace any side lot line buffer or front screening requirements if the parking lot is near the property line. The remaining half of required trees should be incorporated into the parking lot layout as planted parking islands.
4. Parking islands should be located and designed to help direct traffic and calm traffic speeds through parking areas in order to improve safety for pedestrians and vehicles. A minimum width of three (3) feet is preferred for parking islands.
5. Where parking lots are located in the rear yard, parking lot landscaping may be reduced by 50%.

Screening and Enclosures of Waste Receptacles

Services areas for businesses such as trash/waste receptacles or dumpsters, mechanical systems and utilities, and service areas should be completely screened from public view. Screening and enclosures should be designed so that they complement or match adjacent buildings or site materials, are not visually distracting, and do not detract from the overall aesthetics of the site.

1. These service areas should be completely enclosed by opaque screening on three sides and by operable opaque doors for access on one side.
2. Service and mechanical areas should be located in the rear or on the side of buildings so that that their appearance is minimized/eliminated from the roadway and from public areas.
3. Opaque fencing or a combination of opaque fencing and masonry should be used. Materials for screening or enclosures should be high quality and durable, yet visually appealing and may include the following:
    a. Corrugated or ribbed metal (more appropriate for industrial contexts)
    b. Powder-coated extruded aluminum slats
    c. Treated hardwood
    d. Brick
    e. Stone
    f. Metal screen
4. Prohibited types of fencing include chain link with slats and barbed wire.
5. Screening should be at least six (6) feet tall.
6. Landscaping and planting around screening and enclosures for these areas is highly encouraged, especially if the area is visible from public parking areas or from the street.

SITE DESIGN AND AMENITIES, CONTINUED

Outdoor Gathering Spaces

Design standards for outdoor gathering spaces ensure quality seating areas, appropriate use of public sidewalks or walkways (when applicable), and incorporation of site landscaping for visual consistency.

1. Barriers are intended to clearly define seating areas, which is especially important when dining areas occupy a portion of or abut public sidewalks. Barriers may include a variety of styles, but should remain consistent and complementary to the building with which the outdoor space is associated.

   Barrier styles may include one or a combination of the following:

   a. Freestanding decorative fences or railings
   b. Low masonry walls
   c. Planters
   d. Planting areas inclusive of ornamental grass, hedges, shrubs, and/or ornamental trees

   Fences or walls as barriers should be a maximum height of 36" above the outdoor patio surface.

2. Screening of outdoor gathering areas adjacent to parking areas should include an opaque area of at least four (4) feet in height to protect the space from headlights of cars maneuvering and parking.

3. Shade should be provided on part of outdoor spaces via shade trees, awnings or trellises, tensile shade structures, or table umbrellas.

4. Outdoor spaces areas should provide at least one exterior exit/entrance point that is connected to the sidewalk and/or parking areas.

5. When located on public sidewalks, a minimum sidewalk clearance of six (6) feet should be retained for unrestricted pedestrian access.

Pedestrian Access

In order to create a more walkable environment in Sherman Park, sidewalks should connect to primary and interior roadways and should be incorporated into redevelopment or new development projects. Increased accessibility for pedestrians will encourage pedestrians and users of the district to walk between destinations, thus reducing the potential for vehicle trips between adjacent or nearby businesses.

1. Sidewalks should be wide enough to accommodate pedestrians comfortably and be buffered from the roadway with landscaping, such as a grassy lawn including shrubs and street trees, wherever possible.
2. Businesses located along corridors should provide walkways that connect their building entrances to sidewalks to increase accessibility for pedestrians walking on the sidewalks. These walkways should lead to primary entrances facing Sherman Drive and Michigan Avenue. In the case that a primary entrance does not face primary streets, pedestrian connections should be provided through the site via pathways and/or crosswalks through parking areas. This applies to all uses.

SITE DESIGN AND AMENITIES, CONTINUED

Open Space / Green Space

Open space can serve the immediate property and users of that property but can also be an amenity for the surrounding community and encourage social interaction. Designated open space can help establish and/or protect the presence of the natural environment while also contributing green space that will beautify the corridor. In the case of larger mixed-use and multi-family developments, buildings on a site should be oriented around common open spaces in order to encourage use.

1. For industrial sites two (2) acres or larger in size, a minimum of ten (10) percent of the site should contain usable open space. Usable open space should be designed to include amenities like picnic areas, pocket parks, courtyards, patios, pathways, benches, and water features.

   This is internal space and does not include required "buffer and landscaped" ditch areas, though some flexibility to include non-required amenities in those areas, such as seating, could meet the intent. At least five (5) percent of any new commercial development should contain useable open space, with exceptions allowed for very small lots (less than ½ acre) or where existing buildings and parking will not easily accommodate that much open space. In those cases, some amenities should be provided in other locations on the site. Open space and associated amenities are to be maintained by the property owner.

2. Where multiple open spaces occur on the property, pedestrian connections (i.e. a pathway), should be made to connect them.

Design Standards for Buffers

Landscaped buffer zones are required where properties share a common side lot line. These buffers are intended to create a visual separation between uses and properties, especially between those with different uses (such as commercial adjacent to industrial). More robust buffers are recommended when non-residential uses are adjacent to residential uses. Buffers should use an arrangement of canopy trees, evergreen trees, and shrubs along landscaped buffers, and will vary based on adjacencies and intensity of uses.

The following options for buffers along side lot lines are contingent upon adjacent uses.

3. Any Use Other Than Industrial Adjacent to Any Use Other Than Industrial; AND Industrial Use Adjacent to Any Non-Residential Use:
    a. Minimum 20-foot-wide planting area
    b. Minimum plantings should include one (1) canopy tree, one (1) evergreen tree and six (6) shrubs per 30 linear feet.
    c. These buffers apply unless parking is shared between the two (2) uses.
    d. These buffers do not apply to the CSX Rail on site.
4. Any Use Other Than Industrial or Residential Adjacent to Any Use Other Than Industrial or Residential;
    a. Minimum 10-foot-wide planting area
    b. Minimum plantings should include one (1) tree (either canopy or evergreen) or six (6) shrubs per 30 linear feet.
    c. These buffers apply unless parking is shared between the two (2) uses.
5. Industrial Use Adjacent to Residential Uses
    a. Minimum 40-foot-wide buffer with a 20-foot-wide planting area
    b. Minimum plantings should include one (1) canopy tree, one (1) evergreen tree and six (6) shrubs per 30 linear feet.
    c. In addition to plantings, a wall or fence of at least six (6) feet in height or a four (4) foot earthen berm may be used.
    d. If a parking lot or loading area is adjacent to a residential use, a six (6) foot wall or hedge is recommended.
6. Any Use Adjacent to CSX Rail Right-of-way
    a. Minimum 50 foot wide buffer with minimum 20-foot-wide planting area
    b. Minimum plantings should include two (2) evergreen tree and six (6) shrubs per 30 linear feet.

PLANT MATERIALS AND SIZES

Design Standards for Plant Materials and Sizes

Species

The following plant species recommendations are provided for landscaping along the corridor and within the site. The use of these street trees (deciduous or canopy trees), evergreen trees, and perennials should enhance the streetscape and be easy for property owners to maintain. The plant list highlights species which are well-adapted for the area and for urban conditions. Other plant species may be used if they follow the intent and character of the guidelines.

Street Trees

Street trees should meet the following:

- Trees should never be spaced more than 50 feet apart
- At maturity, the tree should reach a height above 35 feet
- Lowest branches should be kept at a minimum of eight (8) feet above the ground
- No one tree species should make up more than 50% of all trees

TREE PLANTING ROOTING VOLUME SOIL CAPACITY

Minimum 1,200 cubic feet of soil per tree planting

TREE SIZES

Minimum 2.5 inch caliper

(unless where noted otherwise in this section)

Two (2) trees at least 1.5 inch caliper may be substituted for one (1) tree at 2.5 inch caliper

EXISTING TREES

Existing trees may be counted if undisturbed

A tree greater than 12 inch caliper may be counted as two (2) new trees if no soil within 10 feet of the tree is disturbed.

A tree greater than 18 inch caliper may be counted as three (3) new trees if no soil within 10 feet of the tree is disturbed.

Tree Examples


Basswood


Pin Oak


Ironwood


Swamp White Oak


Thornless Honey Locust


Homestead Hybrid Elm


Red Maple


Glenleven Littleleaf Linden

PLANT MATERIALS AND SIZES, CONTINUED

Low Shrubs, Perennials, and Ornamental Grasses

Low shrubs, perennials, and ornamental grasses should meet the following:

- Kept below three (3) feet in height for natural surveillance
- Landscape areas may include a combination of low shrubs, perennials and/or ornamental grasses with one (1) low shrub being equivalent to two (2) perennials or ornamental grasses.

PLANTING SIZES	
Low shrubs	**1.5 ft tall** **Three (3) gallon container size**
Perennials / ornamental grasses	**One (1) foot tall** **One (1) gallon container size**
NUMBER OF PLANTS RECOMMENDED	
Street frontage landscape area without wall	**Four (4) low shrubs or Eight (8) perennials/ornamental grasses** **per 10 linear feet**
Street frontage landscape area with wall	**Four (4) low shrubs or Eight (8) perennials/ornamental grasses** **per 20 linear feet**
Interior landscape area	**Four (4) low shrubs or Eight (8) perennials/ornamental grasses** **per 100 square feet**

Low Shrubs Examples


Dappled Willow


Dwarf Ninebark


Spirea


Hydrangea


Fragrant Sumac Gro-Low


New Jersey Tea


Chokecherry


St. John's Wort

Perennials Examples


Coneflower


Salvia


Amsonia


Daylily


Black Eyed Susan


Blue Eyed Grass


Hosta

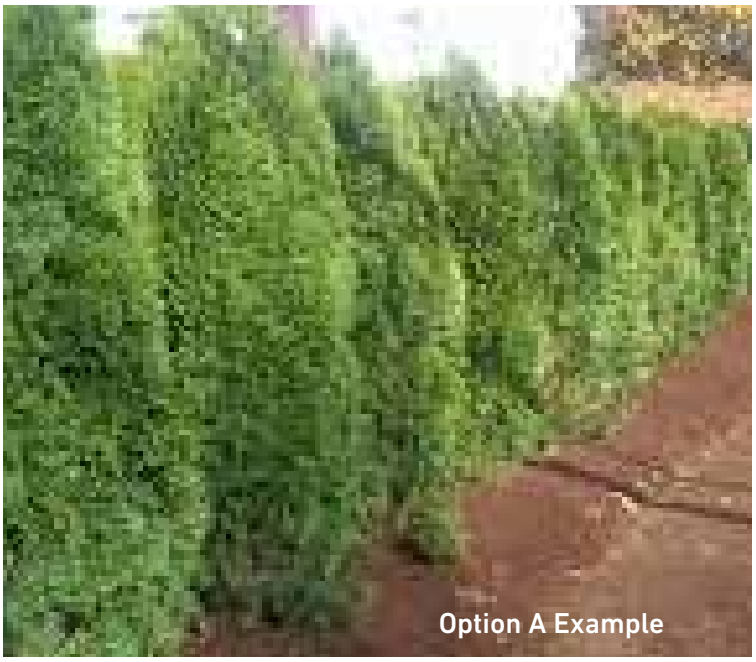

Catmint

Ornamental Grasses Examples


Little Bluestem


Sedge

REAR SCREENING AND BUFFERS FOR INDUSTRIAL USES


Option A Example


Option B Example


Option C Example

Design Standards for Light Industrial Uses

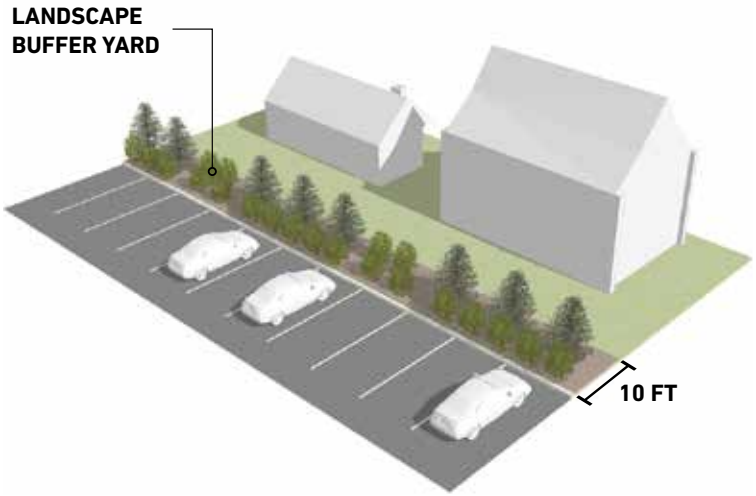
Landscaped Rear Buffer Yards

Rear yards should be landscaped and screened using one of the following options. Option A is recommended for properties that contain overnight trucking storage and/or industrial properties directly adjacent to residential uses.

1. For any industrial uses other than overnight trucking storage and are not adjacent to residential uses, the property owner may choose any of the following options for rear yards.
    - Option A: A minimum 10 foot wide landscape buffer yard with evergreen trees and/or tall shrubs
    - Option B: A minimum five (5) foot wide landscaped area with evergreen trees and/or tall shrubs with four (4) foot tall solid fence.
    - Option C: A minimum six (6) foot high solid wall.
2. Screen wall materials should match or complement the building materials. Fencing made of chain link with slats or barbed wire is discouraged. A fence may be allowed for a low intensity use. For example, a use that is only open during regular business hours and where the fence would abut parking or activity zones with truck maneuvering, outdoor storage or other activity that could damage the fence.

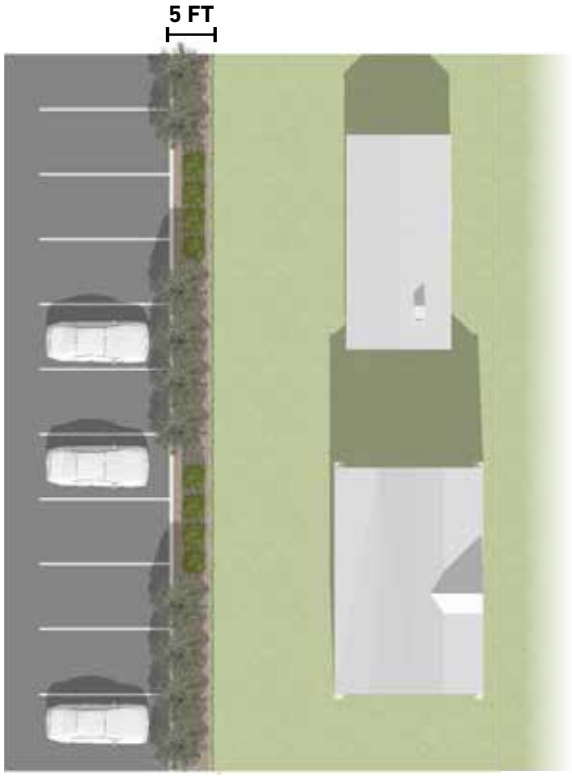
Option A

Minimum 10 foot wide landscape buffer yard with evergreen trees and/or tall shrubs



Option B

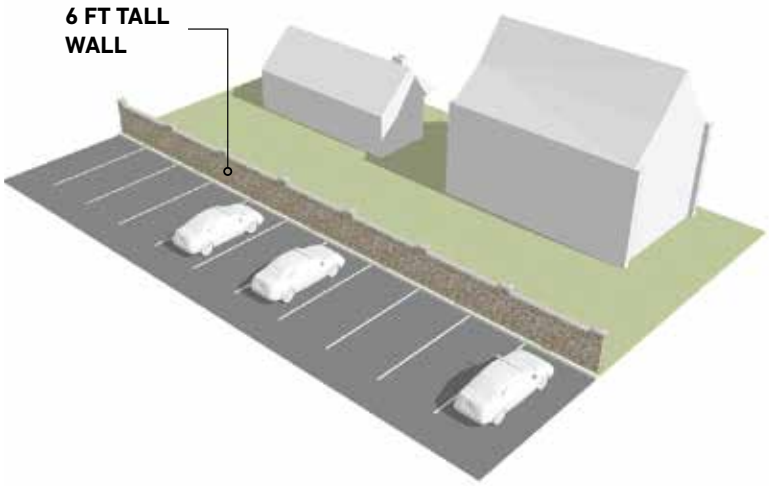
Minimum 5 foot wide landscaped area with evergreen trees and/or tall shrubs with 4 foot tall solid fence.

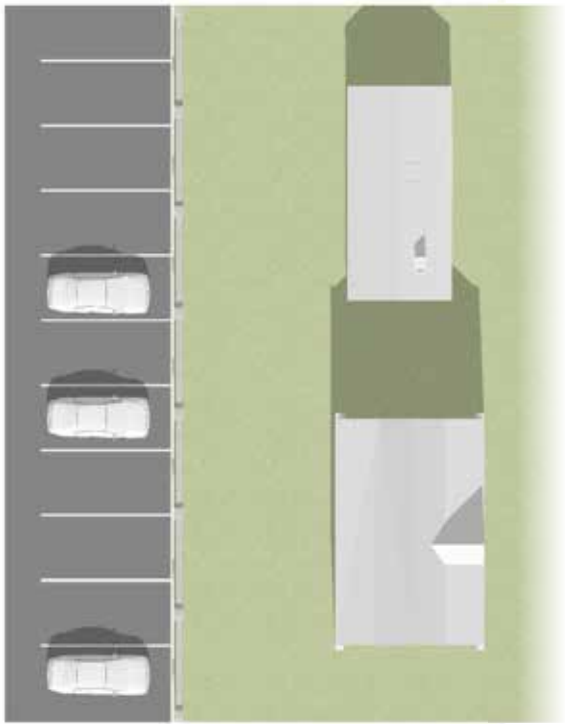


REAR SCREENING AND BUFFERS FOR INDUSTRIAL USES

Option C

Minimum 6 foot high solid wall.





PLANT MATERIALS AND SIZES

Evergreen Tree and Screen Plantings

Parking lots and industrial properties should have sufficient screening where adjacent to residential properties. The plantings should meet the following standards:

- Plants are to be closely placed, in staggered rows
- Tall screens should reach a height of six (6) feet or more (except on street frontages or residential front yards)
- Landscaped areas along common property lines may include a combination of both evergreen trees and tall shrubs with one evergreen tree being equivalent to two (2) foot tall shrubs.

PLANTING SIZES	
Evergreen trees	**5 ft tall**
Tall shrubs	**4 ft tall** **3 gallon container size**
NUMBER OF PLANTS REQUIRED	
Landscaped area along a residential property without a wall or fence	**1 upright evergreen or 1 ft tall shrubs per 5 linear feet**
Landscaped area along a residential property with a wall or fence	**1 upright evergreen or 2 ft tall shrubs per 10 linear feet**

Evergreen Tree Examples


Eastern Red Cedar


Juniper 'Blue Spartan'


White spruce


Eastern Arborvitae

Note: Species not recommended for 5-foot spacing.

PLANT MATERIALS AND SIZES, CONTINUED

Tall Shrub Examples


Dogwood


American Filbert


Witch Hazel


Red or Yellow Twig Dogwood


Viburnum


Lilac

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SIGN PLACEMENT, SIZE, AND DESIGN

Purpose

Signage can hold a significant influence upon the general aesthetics and safety of the roadway. The placement, type, and number of signs permitted on a site, if executed properly, can keep signs from distracting and interfering with traffic and other users of the road.

Design Standards

1. Locate signage on the site so as to not obstruct the sightlines of vehicles entering and exiting the property. Signs should also be placed so that they do not dominate the architectural features of the building.
2. Signage should be sized to be visible to pedestrians and makes access to the entrance of the building obvious.
3. For multi-tenant signs, similar color schemes should be utilized to avoid signage clutter. Varying fonts can be used to differentiate between business logos.
4. Signs can be illuminated, but only to the minimum required for readability at night.

LIGHTING PLACEMENT, SIZE, AND DESIGN

Purpose

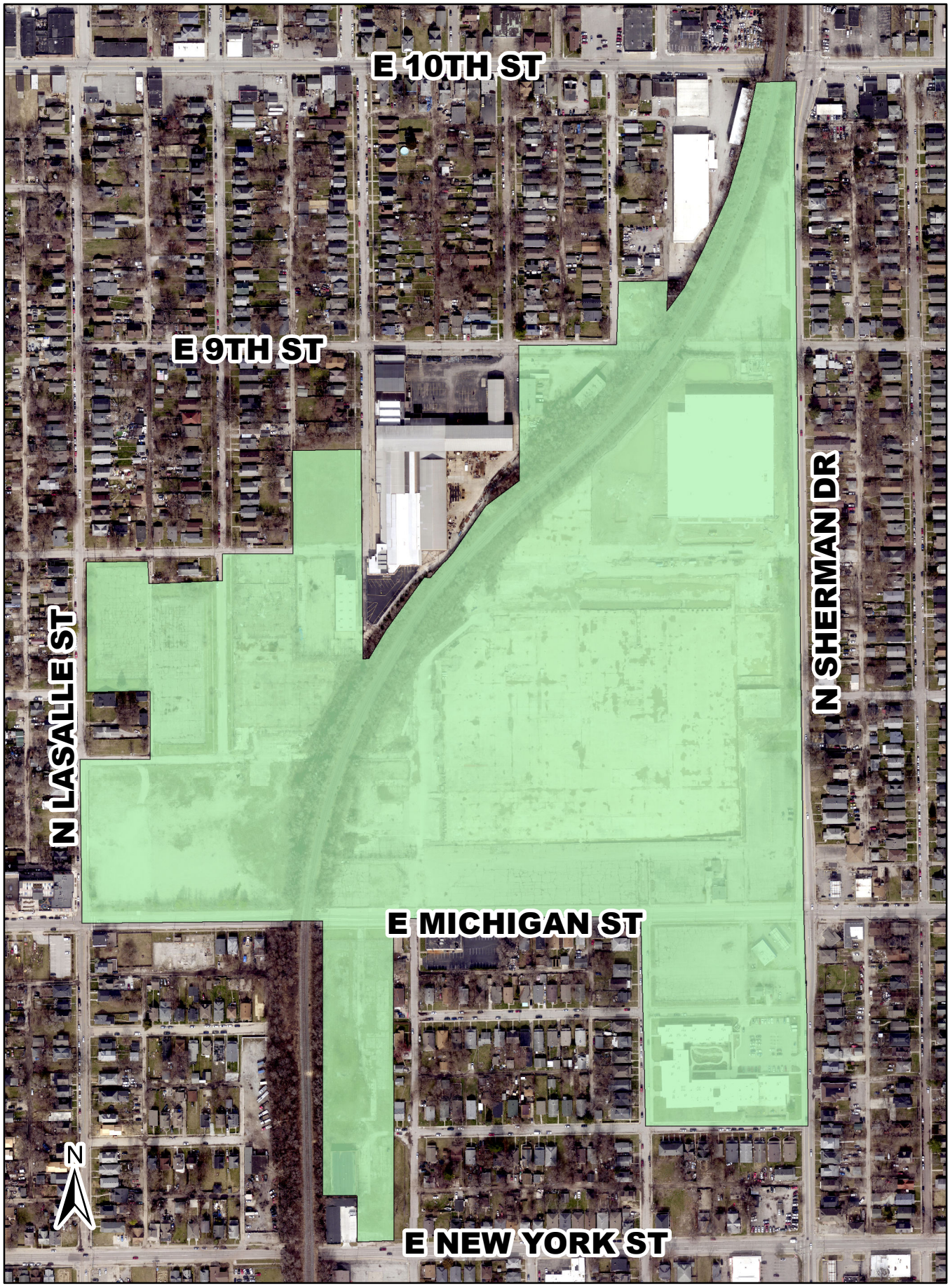
Proper lighting on a site should prevent light pollution from affecting adjacent properties (particularly residential properties) as well as provide a safe and secure environment for site users and visitors. Well-designed lighting will also not contribute to light pollution, helping to preserve the natural quality of the nighttime sky. All lighting proposed on site should be Dark Sky Compliant in accordancy with City standards.

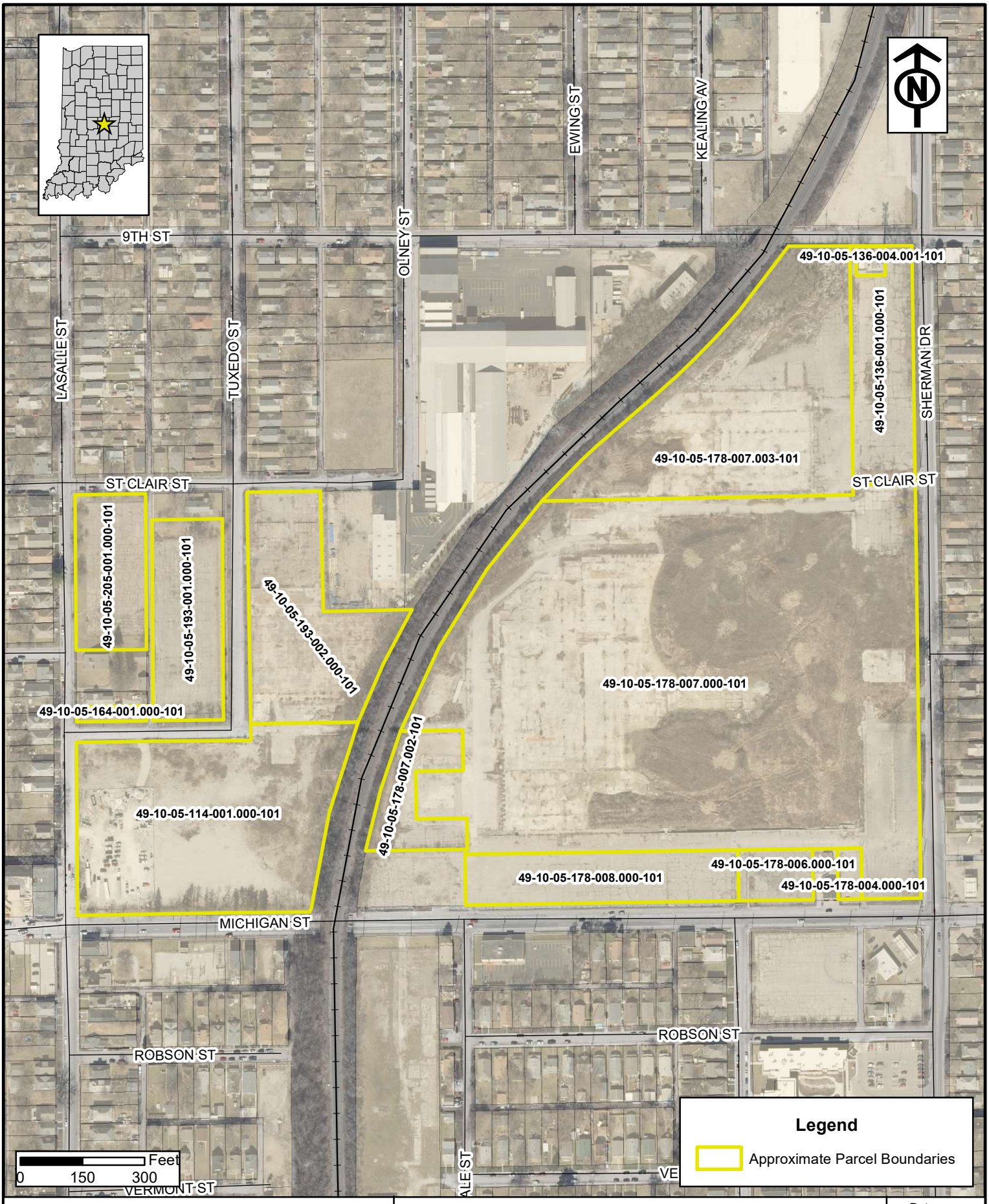
Design Standards

1. The height and direction of lighting on a site should light the property its intended for, but avoid light pollution spilling onto adjacent properties. Lighting should not exceed 25 feet in height from the parking lot grade and should be particularly sensitive to adjacent residential properties.
2. Ornamental lighting should be used along pedestrian walkways (both within the site and along the street side of the property) and adjacent to building entrances to provide for a safe and pedestrian-scaled environment.
3. Exterior lighting should complement the architectural style of the building and contribute to the overall design of the site. Wall mounted and pole mounted lights should direct light downward. Where uplighting is desired on a building façade to highlight architectural features, it should be angled or shielded to avoid unnecessary light pollution.


MKSK

SHERMAN PARK TIF AREA





HEA
HEARTLAND ENVIRONMENTAL ASSOCIATES INC.

Heartland Environmental Associates, Inc.
3410 Mishawaka Avenue, South Bend, Indiana 46615
1324 East 16th Street, Indianapolis, Indiana 46202

SITE LOCATION MAP W/PARCEL BOUNDARIES

FORMER THOMPSON ELECTRONICS / FORMER GE
SHERMAN PARK FACILITY
600-604 NORTH SHERMAN DRIVE
INDIANAPOLIS, INDIANA

Date: 2/23/2022

Scale: 1"=300'

Drawn By: NV

RFP Score Sheet
Sherman Park Master Developer RFP

Firm: Score:

Initials:

Compliance with Submittal Instructions & Minimum Content Requirements						
	Deadline Compliance	Electronic Copy	Representative Signature	Firm History	Project Organization Chart	Site Visit Participation	

Scoring Criteria			Points Available	Score
1. Stability & Capability of Firm			25	
	Staff & Financial Stability			
	Capability to meet staffing and schedule needs			
	Project Experience relevant to Scope of Services			
	Project Experience & Summaries			
2. Structure, Capability, and Qualificiations of Project Team			35	
	Team Organizational Structure			
	Qualifications and Experience of Project Staff			
	Experience working w/ State & Local Governments			
3. Understanding of Scope of Services, Task Implementation			30	
	Demonstrated knowledge of real estate market & devlopment			
	Understanding of technical requirements & approaches			
	Quality assurance and health/safety requirements			
	Applicable policies, laws, regulations			
5. MBE, DOBE, WBE, VBE Utilization			10	
		Total	100	