Bicycle Pedestrian Safety Commission
AGENDA
December 9, 2024, 5:30 P.M.
In-person and virtual hybrid meeting
McCloskey Room, #135
Online link:
https://bloomington.zoom.us/j/6359441221?pwd=bXRYTnNJV2xMbTRLeE00QW9XWnRjQT09
Meeting ID: 635 944 1221
Passcode: COBPT
Dial in: +1 301 715 8592

Meeting Agenda:

1. Attendance
2. Approval of Minutes – November 12, 2024
3. New Business
    a. Infrastructure Project Updates – Engineering Department
        i. Hopewell West Street Improvements
        ii. E 3rd St. Protected Bike Lane Ph. 2
    b. 2025 Resident-Led Traffic Calming Rubric
        i. *Item to be voted on
    c. Local-Motion Grant Program
        i. Applicant Presentations
            - Monroe County Public Library
            - Indiana University Student Government
            - Boys and Girls Club of Bloomington
            - My Sister's Closet of Monroe County
        ii. *Item to be voted on
4. Old Business
5. Reports from Commissioners
6. Public Comment
7. Adjourn

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Bicycle Pedestrian Safety Commission
MINUTES
November 12, 5:30 P.M.
In-person and virtual hybrid meeting
Hooker Room, #245

1. Attendance
City Staff: Hank Duncan, Neil Kopper, Ryan Robling
Commissioners: Jaclyn Ray, Drew Yeager, Ann Edmonds, Rob Danzman absent: Stephanie Hatton
Public who spoke: only recorded names of the public who made comments, see below

2. Approval of Minutes - September 9, 2024 **Drew** moves **Rob** seconds All in favor: aye Opposed: 0

3. New Business
a. S Washington St. Resident-Led Traffic Calming **Hank** resident-led to create slower traffic, not staff-led, 1st to Grimes has no stop-signs, is a one-way southbound and has a striped bike lane, has parking, 25 ppl turned out to public meeting, then online open comment, 4 out of 5 car drivers are speeding, past 7 yrs there were 8 crashes caused by speed, last year's project on Miller Dr. Is a close comparison 83% speeding reduced to 16% speeding **Ann** drop in avg daily traffic of 13% **Hank** margin of error and some ppl take other streets; resident feedback concerns were: speed, visibility, bike lane use **Neil** 7 speed humps, full width of road, small drainage at side, no gaps in middle **Ann** into bike lane and parking lanes? **Neil** correct, because it's one-way we place them 100' in advance of the intersections, so side street drivers can tell what drivers are doing, this is where most of the conflicts occur, regular spacing, also visibility of ppl pulling out of side streets where crashes were so we will restrict 2 parking spaces and also adding 2 parking spaces **Drew** bike lane will have the speed hump over it? **Neil** looked at if there should be a gap in bike lane but cars may drive into bike lane in that case to get two wheels off the hump, newer profile so they are not that jarring on a bicycle **Ann** looks like the edge of the hump is in the middle of the bike lane **Neil** talked about that some bike lanes are completely in the hump, the northern few blocks without parking beside bike lane the edge of the speed hump is tapered then goes flat in the bicycle lane **Ann** it is weird that the parking flips side to side is there a reason? **Neil** the few blocks where cars are parked on east side was to improve bike lane, further south curb bump-outs made it so we couldn't shift parking to other side **Rob** any alternatives? **Hank** the protected bike lanes currently on Lincoln in terms of traffic calming and speed control when compared both streets are the same so that is not doing much to effect actual speeds **Ann** there are bus stops in this section, cross walk markings at bus stops? **Neil** we didn't evaluate additional cross walks, worth looking at more broadly **Jaclyn** neg feedback? **Hank** very close to unanimous consensus landing on this option for the in-person meeting, online feedback saying 'I don't want speed humps' no other options offered, some about adding stop signs, emergency vehicle responses were: fire ok, police not the happiest but understand the needs of the residents on this street **Ann** transit? **Hank** slightly more inconvenient but understand the shared goals of safety
Public Comment: **Eric Ost:** resident-led, how many applications submitted in 2024? also ranking of applications? when traffic count data was collected? and what it showed? could you release data? were the residents north of 1st notified? **Hank** yes **Eric** Elm Heights NA was not contacted, did you consider other alternatives like two-way to four-way stops? where were the crashes? and release crash data? has ambulance been consulted? **Hank** yes, with all projects fire, police, ambulance, no response from ambulance **Eric** fire and police today? For this project? **Hank** yes today and previous discussions, they have no concerns **Eric** 7 speed humps how much does it slow emergency services? 100' in front of intersection to slow drivers but after the speed hump cars accelerate as they approach intersection **Ann** where data from? **Eric** visual **Ann** anecdotal **Rob** sometimes limited due to driveways **Neil** it is a factor sometimes, not in this case **Eric** could do a raised cross walk? Public transit, how many trips they take? Publish that? Finally what is estimated cost? I would want to ask these questions if I was on this commission **Rob** cost? **Neil** $50k **Ann** how many crashes and where? **Hank** 8 speed related crashes in past 7 years, more crashes due to visibility **Ann** cost/benefit we really want to reduce crashes **Hank** fatal and severe injury crashes but not specific to resident-led rubric, we look at speed related for these projects **Ann** sounds like the residents really want it, 8 crashes seems significant, this is a place that has problems **Colleen (zoom)** I am a resident and requested this traffic-calming

measure, questions about adding additional signage on side-streets saying ‘cross traffic does not stop’ **Neil** did talk about that, we try to use them in a reserved manner, don’t want drivers to learn to pay attn to the sign and not the intersection, you should look for an all-way plaque under the stop sign, sometimes with a crash pattern we can put those in in unique situations **Ann** any further public comment? **Hank** should I answer public questions? **Ann** seems like some data should be posted online **Hank** yes, within 300’ of project includes north of 1st **Rob** most of the data related answers are appropriate online, is there a cluster of crashes? **Hank** originally these folks reached out to engineering about the Dodds intersection, engineering forwarded it to me, so Dodds is highlighted, when they reached out to neighbors the concern spanned from 1st to Grimes for residents; 7 total applicants, they were at the top, there are other valid sites but Washington did stick out
Drew motion to approve **Rob** seconds **Ann** all in favor aye; any opposed? None **(**passes unanimously)

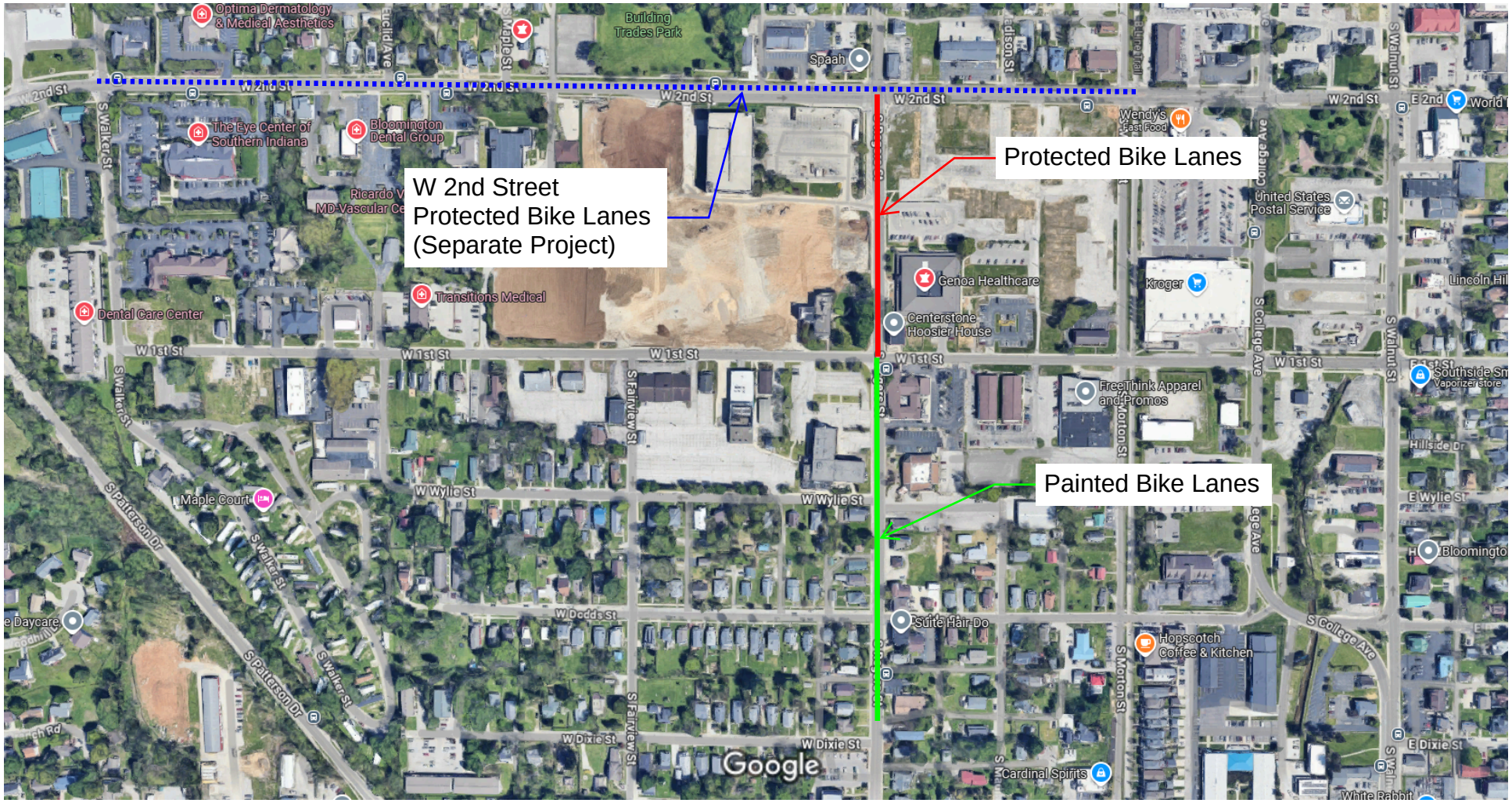
4. Old Business none

5. Reports from Commissioners
Ann at RCA Park, MCPL wanted money to put up story boards, did suggest Olcott Park, they did it in RCA park, less affluent area, the boards are up without the stories in them, have we heard from all the other groups? **Hank** yes
Drew IU formed a transportation group, make this easier hopefully
Ann tomorrow’s meeting? **Rob** not much notice **Ryan** request from council, don’t know what the activity is **Drew** when would new commission start? **Ryan** we are asking for Jan. 1st, council will have to talk about it one more time, Nov. and Dec **Ann** we can write to council members **Rob** it seems like we could just talk about it, all the commissions and council members together, we need something more formal from our commission to hand to council **Drew** is anyone interested in writing a resolution from BPSC to council? **Hank** earlier this year Ryan and I drafted a letter, you reviewed it, Ann signed it **Ann** we concluded ‘we do not support doing this’ **Rob** it fell silent afterwards, maybe we are just waiting, seems like we could be more involved in the process **Ann** can merge parking and traffic but not bike-ped **Ryan** Parking wants to merge Traffic and BPSC **Drew** do members of the public attend all three meetings? **Eric** yes, I go to all three sometimes **Ryan** genesis is b/c we had been working on our own proposal, administration released the Novak report and we wanted to get ahead of it **Ann** so we did write a letter, no need for a resolution **Rob** I’m interested in a response and follow-up, I assumed there’d be more communication between council and commissions **Ryan** 6:30 council chambers, another meeting Nov. 20th council meeting SS4A safety action plan to be approved by council, final draft online now **Jaclyn** does it need support? **Ryan** no but attend if you are interested or have comments

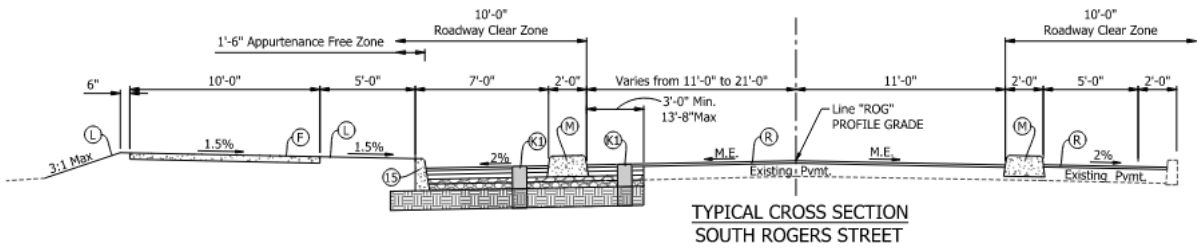
6. Public Comment none

7. Adjourn 6:43

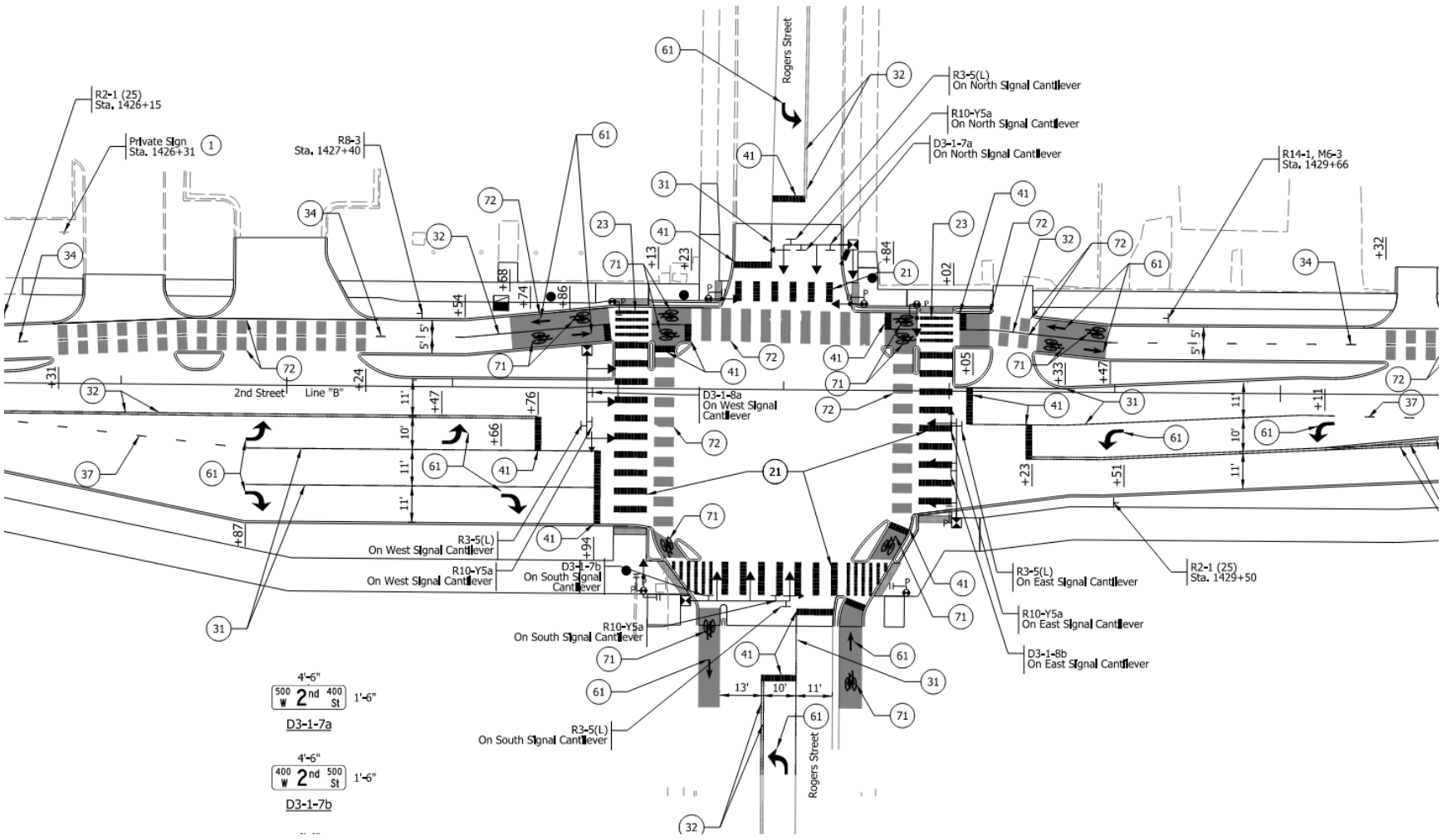
Google Maps



Imagery ©2024 Google, Imagery ©2024 Airbus, Maxar Technologies, Map data ©2024 200 ft

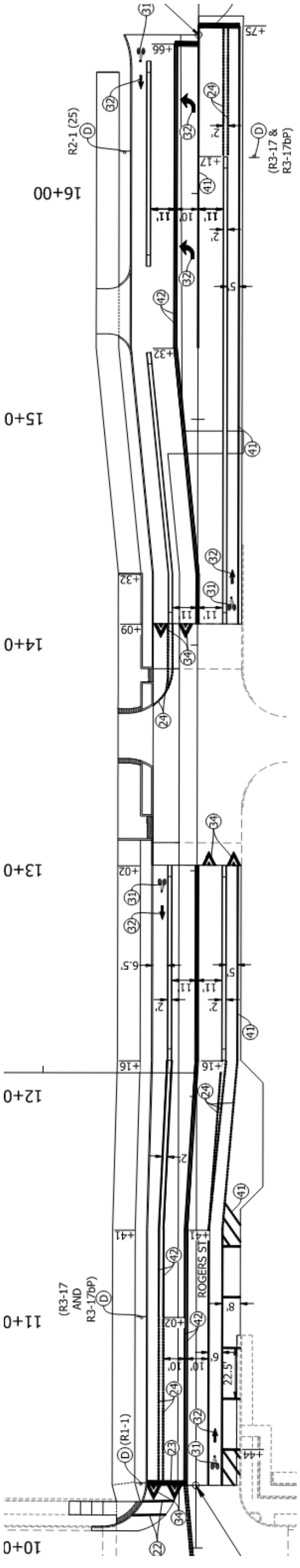


SOUTH ROGERS STREET CROSS SECTION BETWEEN WEST 2ND STREET AND WEST 1ST STREET



S ROGERS STREET / W 2ND STREET INTERSECTION (NOT PART OF THIS PROEJCT – FOR REFERENCE ONLY)

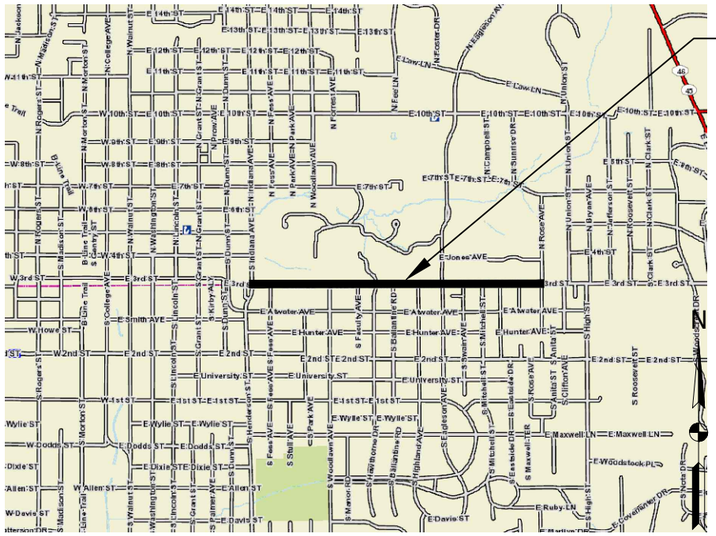
PLAN VIEW OF S ROGERS STREET BETWEEN W 2ND STREET AND W 1ST STREET



CITY OF BLOOMINGTON

EAST THIRD STREET BICYCLE LANE IMPROVEMENTS PHASE 2

SOUTH INDIANA AVENUE TO SOUTH ROSE AVENUE
TRAFFIC SEPARATION BARRIER AND DELINEATOR INSTALLATION



N.T.S.

CITY OF BLOOMINGTON, MONROE COUNTY, INDIANA
SECTION 33 TOWNSHIP 9N RANGE 1W, SECTION 34 TOWNSHIP 9N RANGE 1W,
SECTION 04 TOWNSHIP 8N RANGE 1W, SECTION 03 TOWNSHIP 8N RANGE 1W
LATITUDE: 39° 9' 51.3432" N LONGITUDE: 86° 31' 18.1668" W

INDIANA DEPARTMENT OF TRANSPORTATION 2024 STANDARD SPECIFICATIONS TO BE USED WITH THIS PLAN SET

KENDALL CHARLES KNOKE
REGISTERED
PE12000253
STATE OF INDIANA
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL

11/26/2024

ENGINEER DATE

CITY OF BLOOMINGTON
ENGINEERING

HORIZONTAL SCALE	BRIDGE FILE
N.T.S.	N/A
VERTICAL SCALE	DESIGNATION
N.T.S.	N/A

DESIGNED: KCK	DRAWN: KCK
CHECKED: NHK	CHECKED: NHK

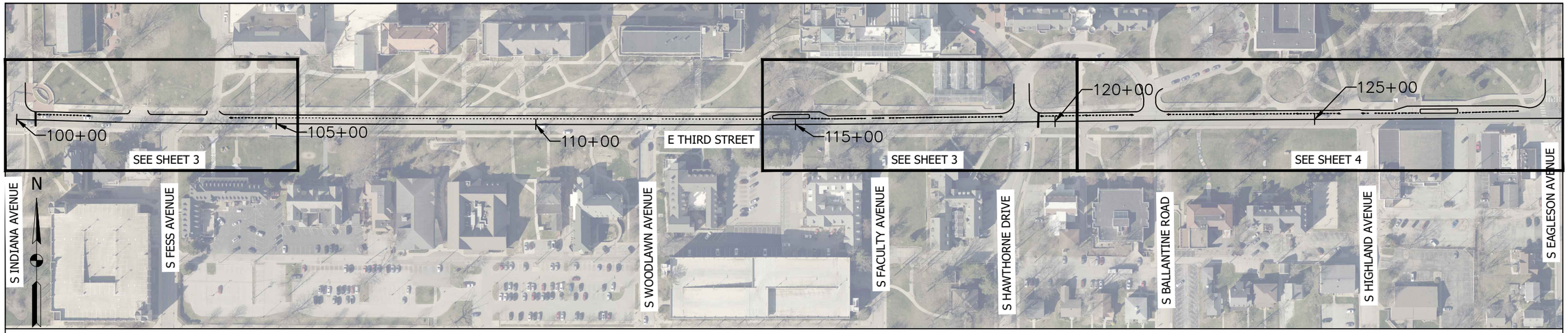
PROJECT NAME:

EAST THIRD STREET BICYCLE LANE IMPROVEMENTS - PH. 2

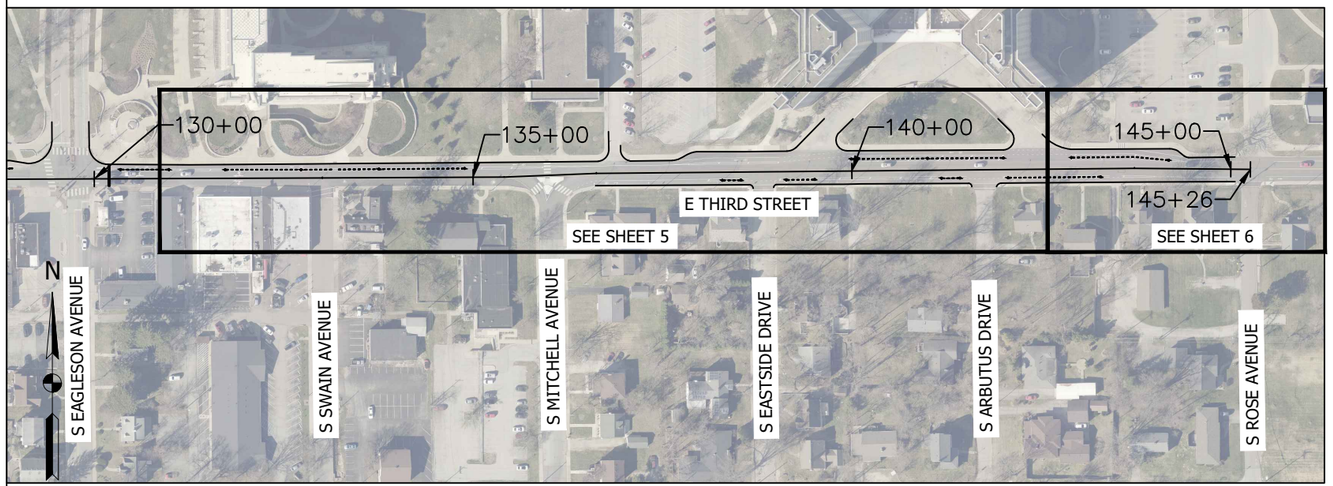
SURVEY BOOK	SHEETS
N/A	1 of 11
CONTRACT	PROJECT #
N/A	N/A

PLOTTED: Tuesday, November 26, 2024 7:08:47 PM

FILE: PROTECTED BIKE LANE PLANS.DWG



OVERALL PLAN



OVERALL PLAN

NOTES

1. BASEMAP HAS BEEN PREPARED FROM GIS INFORMATION AND HAS NOT BEEN SURVEYED. CONTRACTOR TO INFORM ENGINEER IF FIELD CONDITIONS REQUIRE MODIFICATIONS TO THE DESIGN. ALL DIMENSIONS GIVEN ON THIS SHEET ARE APPROXIMATE. STATIONING IS FOR REFERENCE PURPOSES ONLY.
2. CONTRACTOR TO CALL 811 TO VERIFY THE LOCATIONS OF UNDERGROUND UTILITIES PRIOR TO BEGINNING CONSTRUCTION WORK. NOTIFY ENGINEER IF THE PRESENCE OF UNDERGROUND UTILITIES REQUIRES DESIGN MODIFICATIONS.

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CITY OF BLOOMINGTON
ENGINEERING

HORIZONTAL SCALE	BRIDGE FILE
1'=200'	N/A
VERTICAL SCALE	DESIGNATION
1"=200'	N/A

DESIGNED: KCK	DRAWN: KCK
CHECKED: NHK	CHECKED: NHK

PROJECT NAME:

EAST THIRD STREET BICYCLE LANE IMPROVEMENTS - PH. 2

SURVEY BOOK	SHEETS
N/A	2 of 11
CONTRACT	PROJECT #
N/A	N/A

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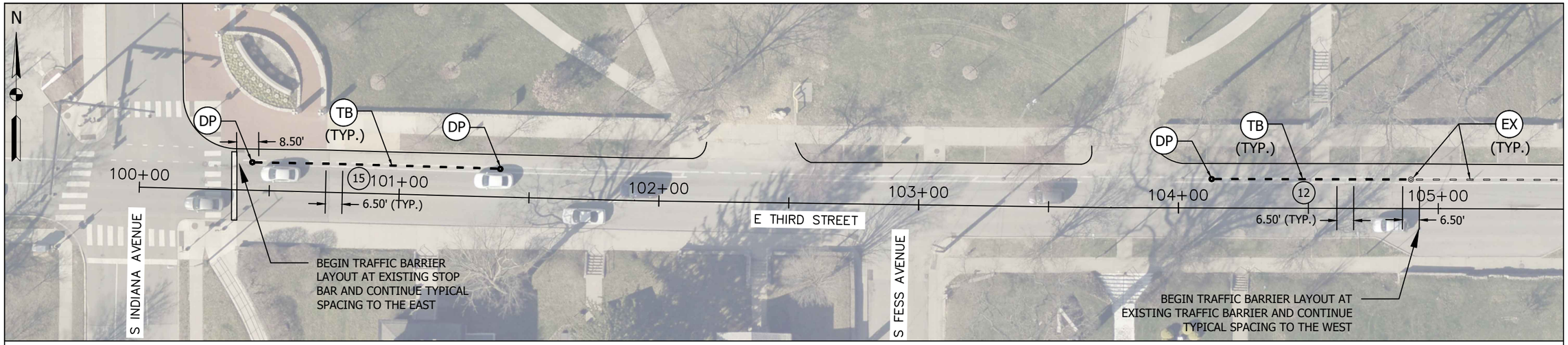

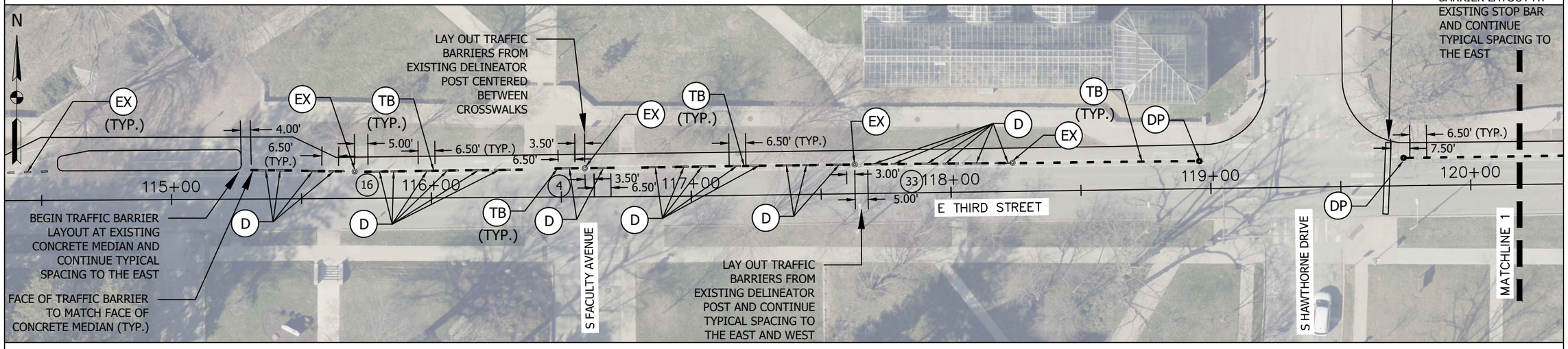

LEGEND

- DP — DELINEATOR POST (SEE TYPICAL DETAILS AND SUMMARY TABLE)
- TB — TRAFFIC BARRIER (SEE TYPICAL DETAILS AND SUMMARY TABLE)
- EX — EXISTING TRAFFIC BARRIER / DELINEATOR POST (DO NOT DISTURB)
- (10) — NUMBER OF TRAFFIC BARRIERS IN A SECTION
- D — REMOVE EXISTING RUBBER TRAFFIC BARRIER AND ALL HARDWARE

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CHECKED: NHK	CHECKED: NHK

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EAST THIRD STREET BICYCLE LANE IMPROVEMENTS - PH. 2

HORIZONTAL SCALE	BRIDGE FILE
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VERTICAL SCALE	DESIGNATION
1"=40'	N/A

SURVEY BOOK	SHEETS		
N/A	3	of	11
CONTRACT	PROJECT #		
N/A	N/A		

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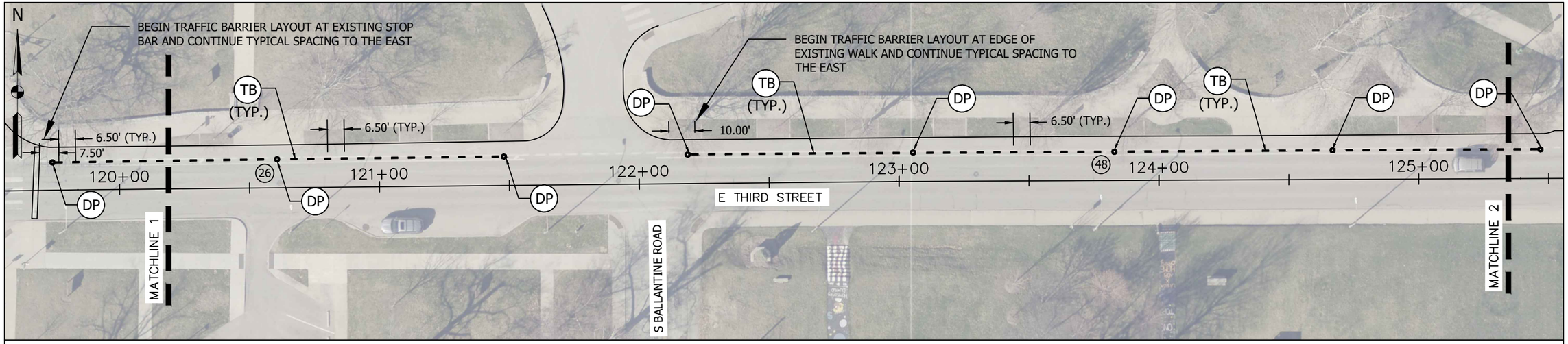

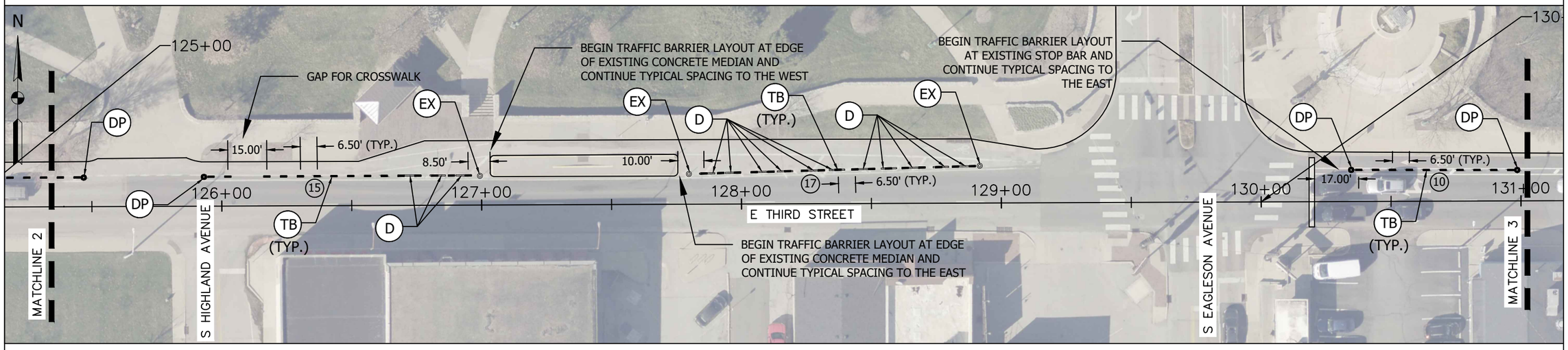

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EAST THIRD STREET BICYCLE LANE IMPROVEMENTS - PH. 2

HORIZONTAL SCALE	BRIDGE FILE
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SURVEY BOOK	SHEETS
N/A	4 of 11
CONTRACT	PROJECT #
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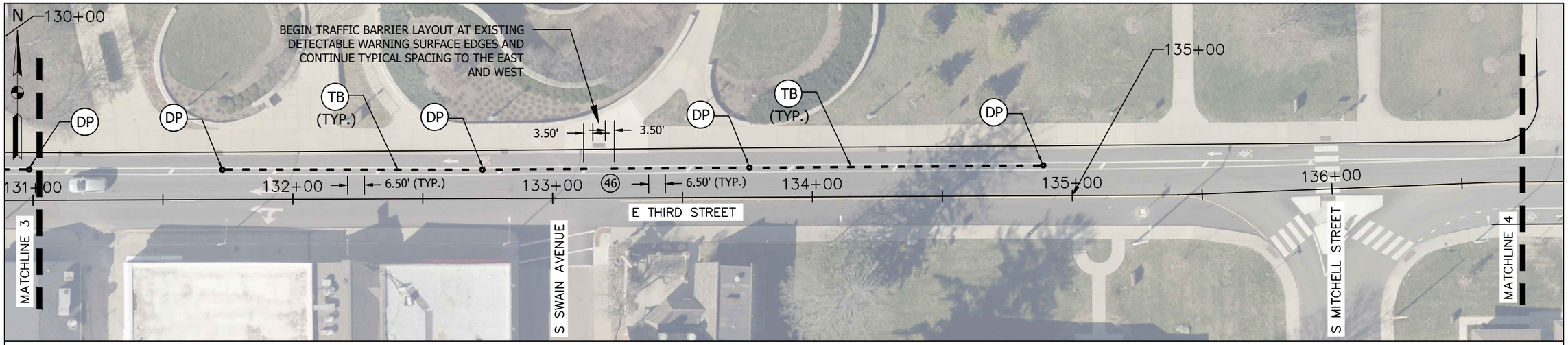

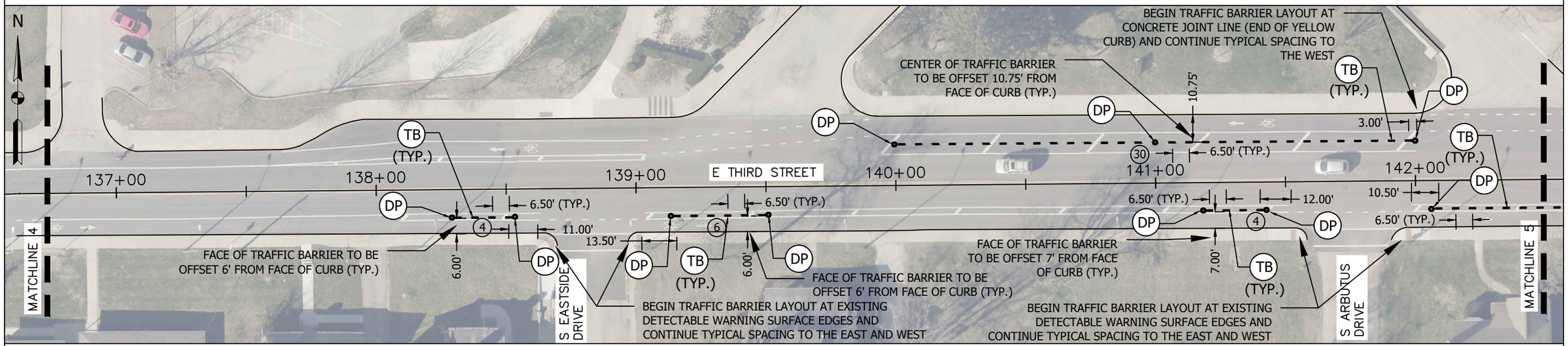

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CITY OF BLOOMINGTON
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VERTICAL SCALE	DESIGNATION
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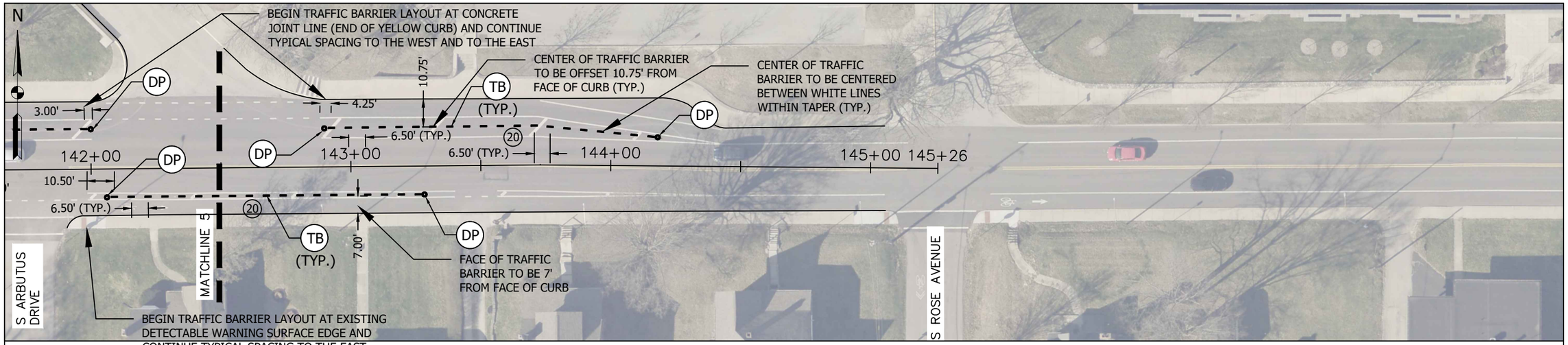
PROJECT NAME:

EAST THIRD STREET BICYCLE LANE IMPROVEMENTS - PH. 2

SURVEY BOOK	SHEETS
N/A	5 of 11
CONTRACT	PROJECT #
N/A	N/A

PLOTTED: Tuesday, November 26, 2024 7:09:11 PM

FILE: PROTECTED BIKE LANE PLANS.DWG



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STATE OF INDIANA
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RECOMMENDED FOR APPROVAL

ENGINEER — 11/26/2024 DATE

CITY OF BLOOMINGTON ENGINEERING

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CHECKED: NHK	CHECKED: NHK

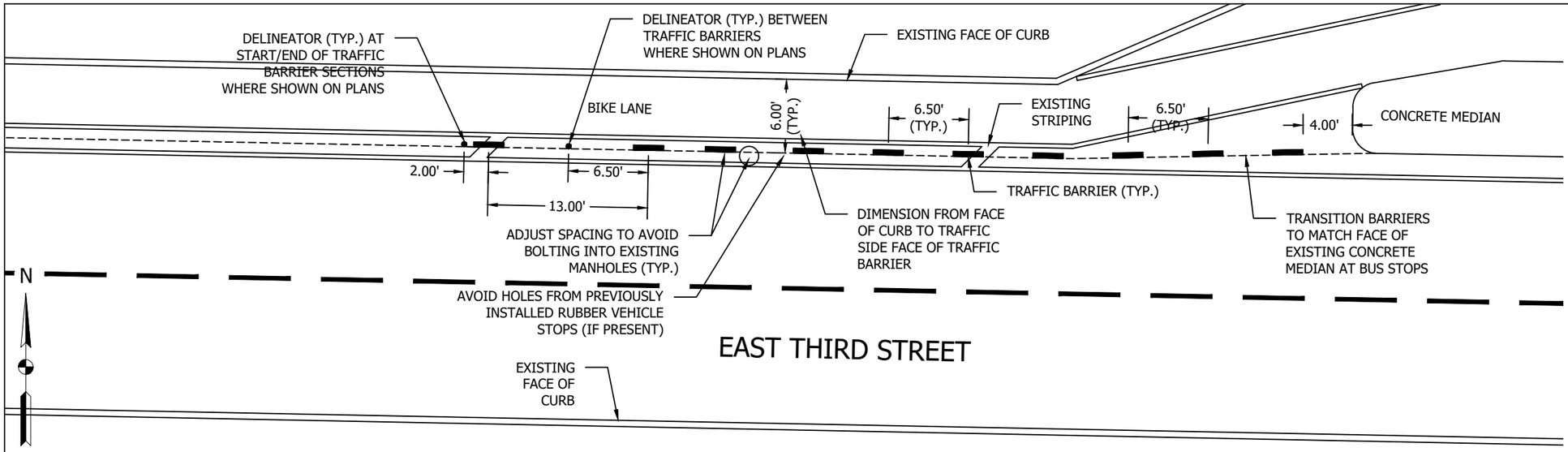
PROJECT NAME:

EAST THIRD STREET BICYCLE LANE IMPROVEMENTS - PH. 2

HORIZONTAL SCALE	BRIDGE FILE
1'=40'	N/A
VERTICAL SCALE	DESIGNATION
1"=40'	N/A
SURVEY BOOK	SHEETS
N/A	6 of 11
CONTRACT	PROJECT #
N/A	N/A

PLOTTED: Tuesday, November 26, 2024 7:08:57 PM

FILE: PROTECTED BIKE LANE PLANS.DWG



TRAFFIC BARRIER TYPICAL PLACEMENT DETAIL
(EXCEPT AS OTHERWISE INDICATED ON PLANS)

NOTES

1. CONTRACTOR TO LAY OUT TRAFFIC BARRIERS WITH PAINT AND THEN CONTACT CITY OF BLOOMINGTON ENGINEERING 812-349-3913 FOR INSPECTION PRIOR TO INSTALLATION.

KENDALL CHARLES KNOKE
REGISTERED
PE12000253
STATE OF INDIANA
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL

11/26/2024

ENGINEER DATE

CITY OF BLOOMINGTON
ENGINEERING

HORIZONTAL SCALE	BRIDGE FILE
1'=10'	N/A
VERTICAL SCALE	DESIGNATION
1"=10'	N/A

DESIGNED: KCK	DRAWN: KCK
CHECKED: NHK	CHECKED: NHK

PROJECT NAME:

EAST THIRD STREET BICYCLE LANE IMPROVEMENTS - PH. 2

SURVEY BOOK	SHEETS		
N/A	7	of	11
CONTRACT	PROJECT #		
N/A	N/A		

PLOTTED: Tuesday, November 26, 2024 7:08:59 PM

FILE: PROTECTED BIKE LANE PLANS.DWG

PRODUCT INFORMATION						
Product	Size	Color	Weight	Installation Orientation	Required Parts	Provided by Contractor
TrafficLogix "Cycle Lane" Traffic Barriers or Approved Equal	29.5" L x 4.75" W x 4" H	Black with White Stripe	10 lbs	Rounded side facing bike lane, vertical side facing vehicle traffic (bolt holes on bike lane side)	THREE (3) 3/8" x 7" lag bolts, THREE (3) 3/8" washers, and THREE (3) plastic polypropylene shields per traffic barrier	Lag Bolts, Washers, plastic shields, Hammer Drill, Drill Bits, Installation Tool for plastic shields, any other equipment or parts required for product installation per manufacturer's recommendations
Product	Size	Color	Weight	Installation Orientation	Required Parts	Provided by Contractor
Impact Recovery Systems "MP2 Post" Black Cap Top with Surface Mount Quick Release Base Or Approved Equal	36" L x 2.375" Diameter	White with Two 3" White Bands	N/A	N/A	FOUR (4) 16mm x 3" plastic sleeves, FOUR (4) 1/2" x 4" lag screws, FOUR (4) 1-1/4" metal washers	Delineator product, parts, any other equipment required for product installation

KENDALL CHARLES KNOKE
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PE12000253
STATE OF INDIANA
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL

11/26/2024

ENGINEER DATE

CITY OF BLOOMINGTON
ENGINEERING

HORIZONTAL SCALE	BRIDGE FILE
N.T.S.	N/A
VERTICAL SCALE	DESIGNATION
N.T.S.	N/A

DESIGNED: KCK	DRAWN: KCK
CHECKED: NHK	CHECKED: NHK

PROJECT NAME:

EAST THIRD STREET BICYCLE LANE IMPROVEMENTS - PH. 2

SURVEY BOOK	SHEETS
N/A	8 of 11
CONTRACT	PROJECT #
N/A	N/A

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Notes for Figure 6H-33—Typical Application 33
Stationary Lane Closure on a Divided Highway

Standard:

1. **This information also shall be used when work is being performed in the lane adjacent to the median on a divided highway. In this case, the LEFT LANE CLOSED signs and the corresponding Lane Ends signs shall be substituted.**
2. **When a side road intersects the highway within the TTC zone, additional TTC devices shall be placed as needed.**

Guidance:

3. *When paved shoulders having a width of 8 feet or more are closed, channelizing devices should be used to close the shoulder in advance of the merging taper to direct vehicular traffic to remain within the traveled way.*

Option:

4. A truck-mounted attenuator may be used on the work vehicle and/or shadow vehicle.

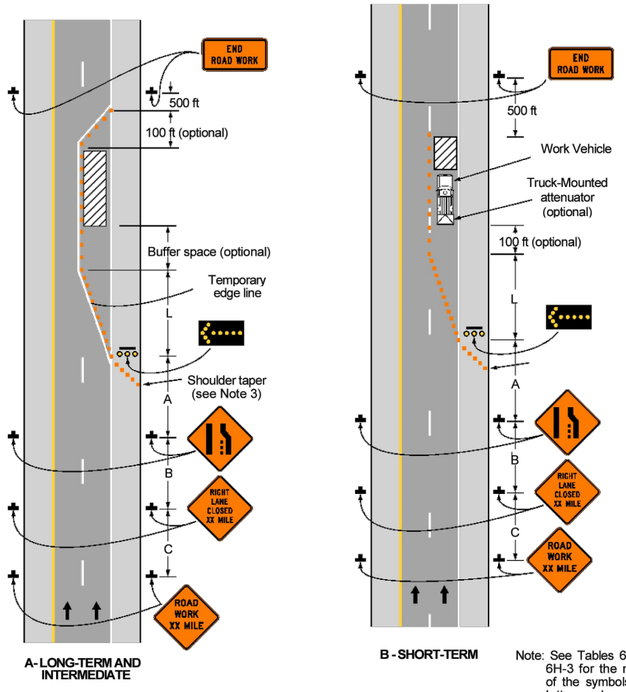
Support:

5. Where conditions permit, restricting all vehicles, equipment, workers, and their activities to one side of the roadway might be advantageous.

Standard:

6. **An arrow board shall be used when a freeway lane is closed. When more than one freeway lane is closed, a separate arrow board shall be used for each closed lane.**

Figure 6H-33. Stationary Lane Closure on a Divided Highway (TA-33)



Note: See Tables 6H-2 and 6H-3 for the meaning of the symbols and/or letter codes used in this figure.

Typical Application 33

Table 6H-2. Meaning of Symbols on Typical Application Diagrams

Arrow board	Shadow vehicle
Arrow board support or trailer (shown facing down)	Sign (shown facing left)
Changeable message sign or support trailer	Surveyor
Channelizing device	Temporary barrier
Crash cushion	Temporary barrier with warning light
Direction of temporary traffic detour	Traffic or pedestrian signal
Direction of traffic	Truck-mounted attenuator
Flagger	Type 3 barricade
High-level warning device (Flag tree)	Warning light
Longitudinal channelizing device	Work space
Luminaire	Work vehicle
Pavement markings that should be removed for a long-term project	

Table 6H-3. Meaning of Letter Codes on Typical Application Diagrams

Road Type	Distance Between Signs**		
	A	B	C
Urban (low speed)*	100 feet	100 feet	100 feet
Urban (high speed)*	350 feet	350 feet	350 feet
Rural	500 feet	500 feet	500 feet
Expressway / Freeway	1,000 feet	1,500 feet	2,640 feet

* Speed category to be determined by highway agency

** The column headings A, B, and C are the dimensions shown in Figures 6H-1 through 6H-46. The A dimension is the distance from the transition or point of restriction to the first sign. The B dimension is the distance between the first and second signs. The C dimension is the distance between the second and third signs. (The "first sign" is the sign in a three-sign series that is closest to the TTC zone. The "third sign" is the sign that is furthest upstream from the TTC zone.)

Table 6H-4. Formulas for Determining Taper Length

Speed (S)	Taper Length (L) in feet
40 mph or less	$L = \frac{WS^2}{60}$
45 mph or more	$L = WS$

Where: L = taper length in feet
W = width of offset in feet
S = posted speed limit, or off-peak 85th-percentile speed prior to work starting, or the anticipated operating speed in mph

NOTES

1. EAST THIRD STREET IS AN URBAN LOW SPEED ROAD WITH A POSTED SPEED LIMIT OF 25 MPH.
2. AN ARROW BOARD IS REQUIRED FOR LANE CLOSURE.
3. CHANNELIZING DEVICES SHALL BE USED TO CLOSE THE BIKE LANE (TYPICAL WIDTH 5' PLUS 2' BUFFER). SIGNS R3-17 "BIKE LANE" WITH R3-17bP "ENDS" and R4-11 "MAY USE FULL LANE" SHALL BE POSTED 100FT IN ADVANCE OF THE BIKE LANE CLOSURE.

KENDALL CHARLES KNOKE REGISTERED PE12000253 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL

ENGINEER 11/26/2024 DATE

CITY OF BLOOMINGTON ENGINEERING

DESIGNED: KCK	DRAWN: KCK
CHECKED: NHK	CHECKED: NHK

PROJECT NAME:

EAST THIRD STREET BICYCLE LANE IMPROVEMENTS - PH. 2

HORIZONTAL SCALE	BRIDGE FILE
N.T.S.	N/A
VERTICAL SCALE	DESIGNATION
N.T.S.	N/A
SURVEY BOOK	SHEETS
N/A	9 of 11
CONTRACT	PROJECT #
N/A	N/A

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Notes for Figure 6H-6 Typical Application 6
Shoulder Work with Minor Encroachment

Guidance:

1. *All lanes should be a minimum of 10 feet in width as measured to the near face of the channelizing devices.*
2. *The treatment shown should be used on a minor road having low speeds. For higher-speed traffic conditions, a lane closure should be used.*

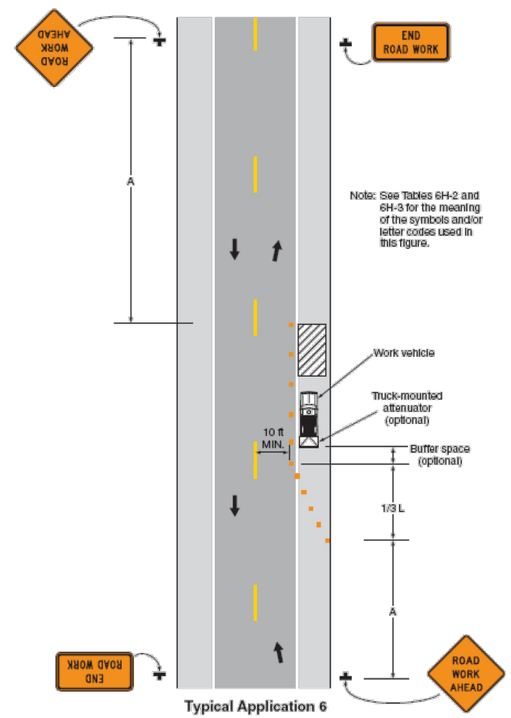
Option:

3. For short-term use on low-volume, low-speed roadways with vehicular traffic that does not include longer and wider heavy commercial vehicles, a minimum lane width of 9 feet may be used.
4. Where the opposite shoulder is suitable for carrying vehicular traffic and of adequate width, lanes may be shifted by use of closely-spaced channelizing devices, provided that the minimum lane width of 10 feet is maintained.
5. Additional advance warning may be appropriate, such as a ROAD NARROWS sign.
6. Temporary traffic barriers may be used along the work space.
7. The shadow vehicle may be omitted if a taper and channelizing devices are used.
8. A truck-mounted attenuator may be used on the shadow vehicle.
9. For short-duration work, the taper and channelizing devices may be omitted if a shadow vehicle with activated high-intensity rotating, flashing, oscillating, or strobe lights is used.
10. Vehicle hazard warning signals may be used to supplement high-intensity rotating, flashing, oscillating, or strobe lights.

Standard:

11. Vehicle-mounted signs shall be mounted in a manner such that they are not obscured by equipment or supplies. Sign legends on vehicle-mounted signs shall be covered or turned from view when work is not in progress.
12. Shadow and work vehicles shall display high-intensity rotating, flashing, oscillating, or strobe lights.
13. Vehicle hazard warning signals shall not be used instead of the vehicle's high-intensity rotating, flashing, oscillating, or strobe lights.

Figure 6H-6. Shoulder Work with Minor Encroachment (TA-6)



Typical Application 6

NOTES

1. EAST THIRD STREET IS AN URBAN LOW SPEED ROAD WITH A POSTED SPEED LIMIT OF 25 MPH.
2. CHANNELIZING DEVICES SHALL BE USED TO CLOSE THE BIKE LANE (TYPICAL WIDTH 5' PLUS 2' BUFFER). SIGNS R3-17 "BIKE LANE" WITH R3-17bP "ENDS" and R4-11 "MAY USE FULL LANE" SHALL BE POSTED 100FT IN ADVANCE OF THE BIKE LANE CLOSURE.

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RECOMMENDED FOR APPROVAL

ENGINEER 11/26/2024 DATE

CITY OF BLOOMINGTON ENGINEERING

HORIZONTAL SCALE	BRIDGE FILE
N.T.S.	N/A
VERTICAL SCALE	DESIGNATION
N.T.S.	N/A

DESIGNED: KCK	DRAWN: KCK
CHECKED: NHK	CHECKED: NHK

PROJECT NAME:

EAST THIRD STREET BICYCLE LANE IMPROVEMENTS - PH. 2

SURVEY BOOK	SHEETS
N/A	10 of 11
CONTRACT	PROJECT #
N/A	N/A

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FILE: PROTECTED BIKE LANE PLANS.DWG

Notes for Figure 6H-10 Typical Application 10
Lane Closure on a Two-Lane Road Using Flaggers

Option:

1. For low-volume situations with short work zones on straight roadways where the flagger is visible to road users approaching from both directions, a single flagger, positioned to be visible to road users approaching from both directions, may be used (see Chapter 6E).
2. The ROAD WORK AHEAD and the END ROAD WORK signs may be omitted for short-duration operations.
3. Flashing warning lights and/or flags may be used to call attention to the advance warning signs. A BE PREPARED TO STOP sign may be added to the sign series.

Guidance:

4. *The buffer space should be extended so that the two-way traffic taper is placed before a horizontal (or crest vertical) curve to provide adequate sight distance for the flagger and a queue of stopped vehicles.*

Standard:

5. **At night, flagger stations shall be illuminated, except in emergencies.**

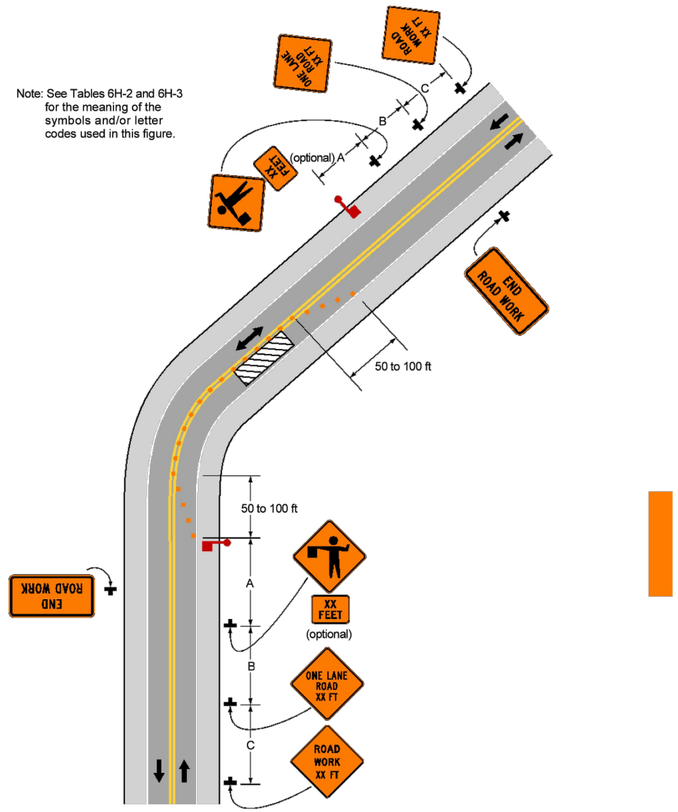
Guidance:

6. *When used, the BE PREPARED TO STOP sign should be located between the Flagger sign and the ONE LANE ROAD sign.*
7. *When a grade crossing exists within or upstream of the transition area and it is anticipated that queues resulting from the lane closure might extend through the grade crossing, the TTC zone should be extended so that the transition area precedes the grade crossing.*
8. *When a grade crossing equipped with active warning devices exists within the activity area, provisions should be made for keeping flaggers informed as to the activation status of these warning devices.*
9. *When a grade crossing exists within the activity area, drivers operating on the left-hand side of the normal center line should be provided with comparable warning devices as for drivers operating on the right-hand side of the normal center line.*
10. *Early coordination with the railroad company or light rail transit agency should occur before work starts.*

Option:

11. A flagger or a uniformed law enforcement officer may be used at the grade crossing to minimize the probability that vehicles are stopped within 15 feet of the grade crossing, measured from both sides of the outside rails.

Figure 6H-10. Lane Closure on a Two-Lane Road Using Flaggers (TA-10)



Typical Application 10

NOTES

1. EAST THIRD STREET IS AN URBAN LOW SPEED ROAD WITH A POSTED SPEED LIMIT OF 25 MPH.
2. CHANNELIZING DEVICES SHALL BE USED TO CLOSE THE BIKE LANE (TYPICAL WIDTH 5' PLUS 2' BUFFER). SIGNS R3-17 "BIKE LANE" WITH R3-17bP "ENDS" and R4-11 "MAY USE FULL LANE" SHALL BE POSTED 100FT IN ADVANCE OF THE BIKE LANE CLOSURE.

KENDALL CHARLES KNOKE REGISTERED PE12000253 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL

ENGINEER 11/26/2024 DATE

CITY OF BLOOMINGTON ENGINEERING

DESIGNED: KCK	DRAWN: KCK
CHECKED: NHK	CHECKED: NHK

PROJECT NAME:

EAST THIRD STREET BICYCLE LANE IMPROVEMENTS - PH. 2

HORIZONTAL SCALE	BRIDGE FILE
N.T.S.	N/A
VERTICAL SCALE	DESIGNATION
N.T.S.	N/A

SURVEY BOOK	SHEETS
N/A	11 of 11
CONTRACT	PROJECT #
N/A	N/A

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Application Criteria:

Project Scope: Project length is subject to staff approval. Generally, proposals should be more than one block and up to about 6 blocks; this can range from about 330 feet to 2,200 feet. Staff will work with applicants during pre-application meetings and determine a logical project length based on intersections, topography, and other factors. Projects generally can be only one street; staff may allow a proposal for two or more streets.

Road Typology: The Resident-Led Traffic Calming Process is best suited for streets designated as Neighborhood Residential in the Transportation Plan. Neighborhood Connectors require additional approval of EMS Providers to be eligible for the Resident-Led Traffic Calming program. Staff will work with applicants during the pre-application meeting to determine the road typology, and staff will coordinate with EMS providers to determine the feasibility of traffic calming on Neighborhood Connector streets.

Performance Objective 1.1 (Equity): Census Block Groups* that have an increased prevalence of vulnerable users. Demographic data is scored relative to all other census block groups within the City.

1.1.1	% of households w/ children under the age of 17 + % of households w/ adults over the age of 65+	Aggregate z values for all listed performance objectives	.01 x rank of observed z-values [(1-91) 1, being the lowest performing census block group, 91 being the highest] *20 = # of points
1.1.2	% of households w/ people with disabilities		
1.1.3	Difference of the highest reported median income – observed median income		
1.1.4	% of households w/o access to a car		

Performance Objective 1.2 (Demand): Areas that have an increased prevalence of users

1.2.1	Highest Walk Potential Score for all hexagons which fall at least 25% within the boundary of the proposed project area of the Bloomington 10- Minute Walk Score Rubric	1-14 points
1.2.2	Does at least 50% of the proposed project area fall on a street that is recommended as a Neighborhood Greenway in the Transportation Plan? Is it a Greenway that is part of the Priority Network?	No- 0 points Yes, Neighborhood Greenway that is part of the Priority Network- 1 point Yes, Neighborhood Greenway that is NOT listed as part of the Priority Network – 2 points

* Census Block Groups: If a census block group includes more than a single Census Block Group (CBG), the equity scoring shall reflect the percentages in proportion to the area which falls within each zone for an aggregate total to represent the entire project.

*Census Block Groups (cont.): If a proposed project, in whole or part, outlines a border between multiple Census Block Groups (CBGs), the percentage of the project which serves as the border will be weighed with equal measure between the respective CBGs. Any remaining

portion of the proposed project (which falls does not serve as the border) will earn points in proportion to the number of feet of the proposed project which is entirely contained within the associated CBG.		
Performance Objective 2 (Safety): Areas with an increased incidence of crashes and behaviors which are causal in injury. Speed data and crash data is scored relative to the other projects in the applicant pool.		
2.1 Speed Data		
2.1	% of performance based on Speed/Volume Score* based on data collected within the past two years	# of vehicles 1-5mph > speed limit (1 point)+ # of vehicles 5-6mph > speed limit (2 points)+ # of vehicles 6-10mph > speed limit (3 points)+ # of vehicles 11-15mph > speed limit (4 points)+ …. = Total Speed/Volume Score Percentile of observed data * 38 points *(example, an observed value at the 40th percentile would equate to 15.2 points)*
2.2 Crash Data		
2.2.1	# of crashes/foot within the proposed traffic calming boundary (not including intersections) within the past 7 years where speed was **possibly** a contributing factor	0 crashes = 0 points Percentile of observed data * 8 points *(example, an observed value at the 30th percentile would equate to 2.4 points [.30 x 8=2.4])*
2.2.2	# of crashes/foot within the proposed traffic calming boundary (not including intersections) within the past 7 years where speed was **likely** a contributing factor	0 crashes = 0 points Percentile of observed data *20 points *(example, an observed value at the 60th percentile would equate to 12 points [.60 x 20=12])*

Scoring Mechanism/ Weight (Points Possible):

1. Equity (18%)
2. Demand (16%)
3. Safety- Speed (38%)
4. Safety- Crashes (28%)

Total 100%

Timeline/ Process and Schedule:

Process Step and Description	2025 Timeline
BPSC releases Resident-Led Traffic Calming Evaluation Methodology	December, 2024
City releases Requests for 2022 Projects	January
Residents submit Letter of Intent + Previous 1 Year Applications	January - March
Pre- Application Meetings	March - April
Application Deadline	April 25
Preliminary Review of Applications	May - June
Send Notifications `	July
Project Initial Public Meeting	August
Project Final Public Meeting	September