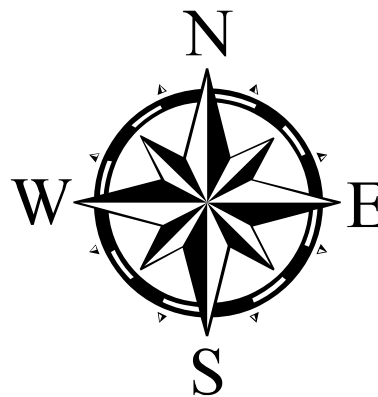
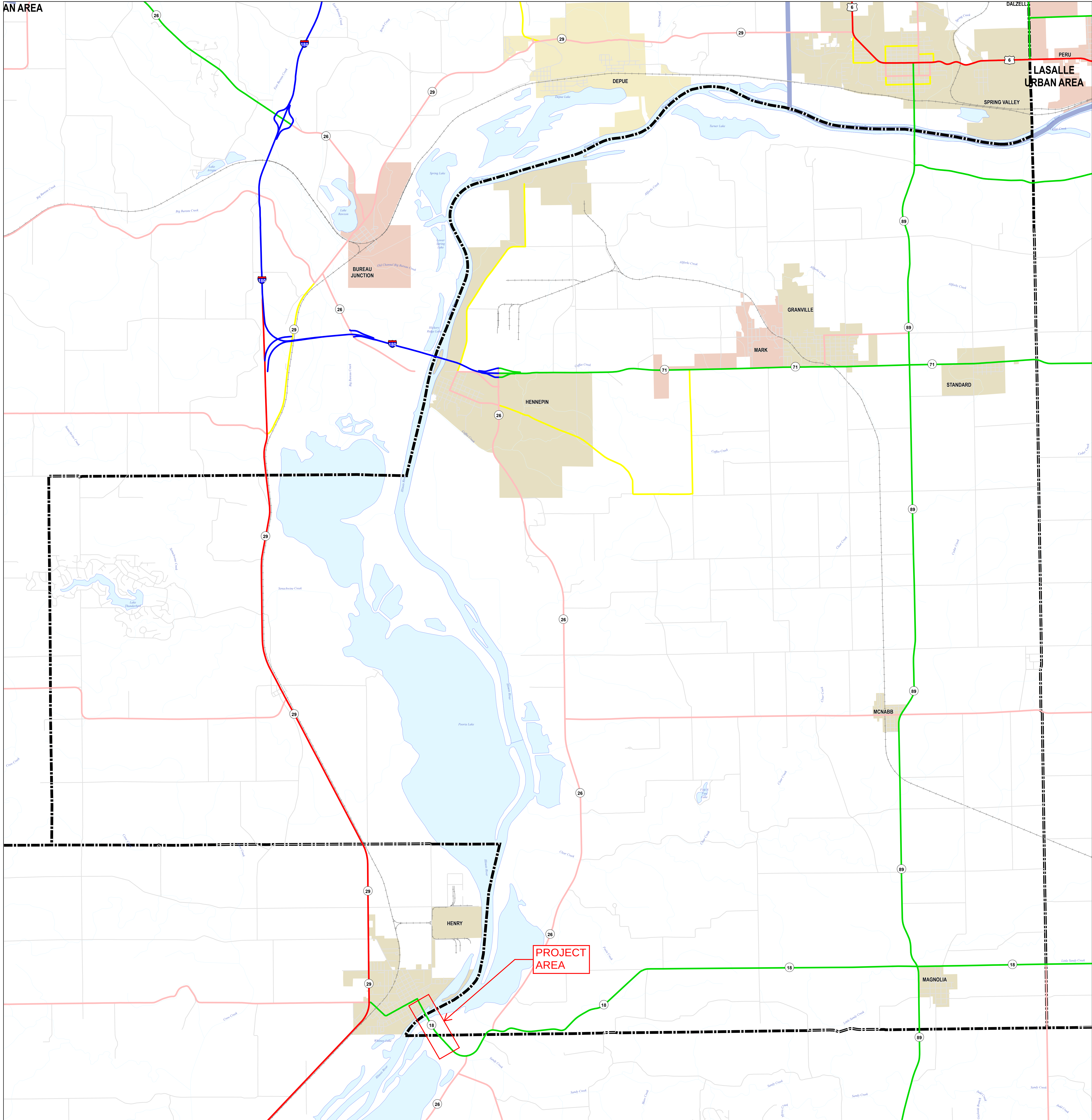


APPENDIX 1
IDOT's Putnam County 5-Year Classification Map

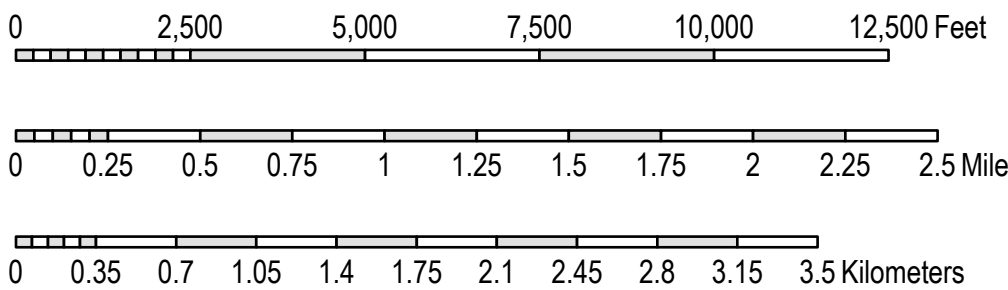
AN AREA



5-YEAR CLASSIFICATION MAP PUTNAM COUNTY ILLINOIS

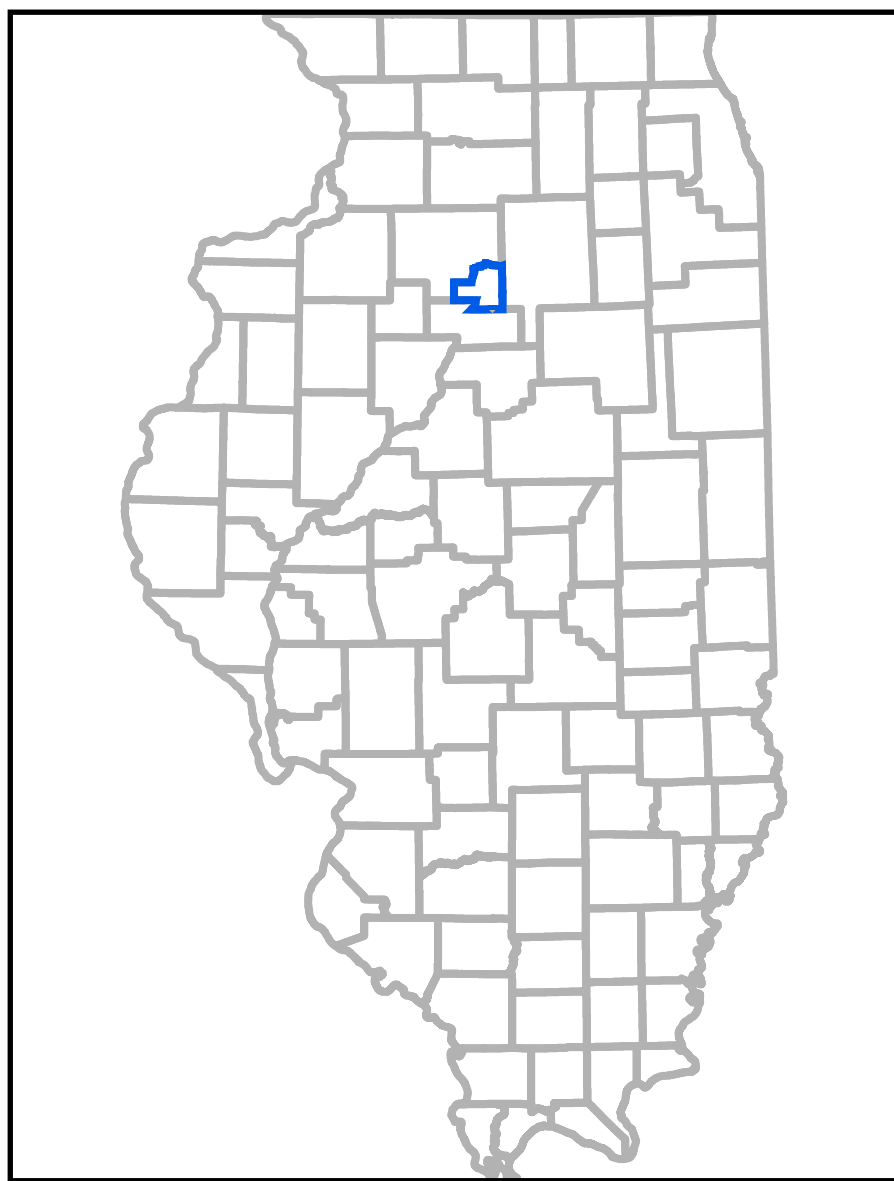
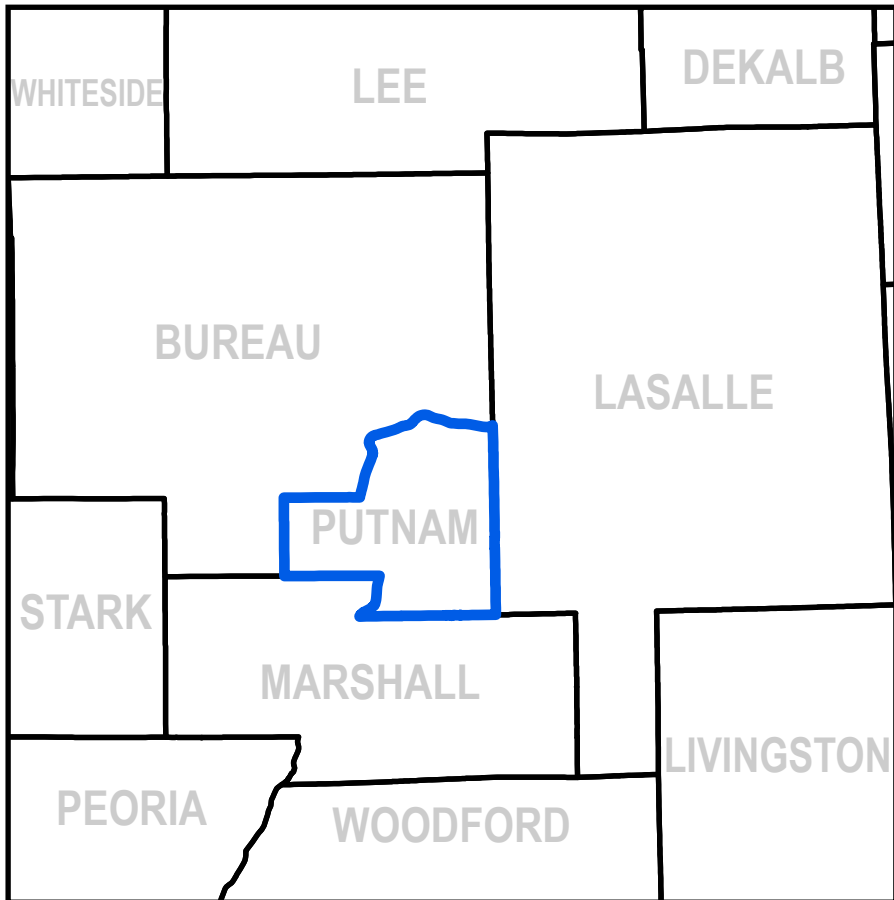
PREPARED BY THE
ILLINOIS DEPARTMENT OF TRANSPORTATION
OFFICE OF PLANNING AND PROGRAMMING
IN COOPERATION WITH
U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

SCALE



Legend

- Lakes
- Rivers, Streams
- Incorporated City/Town/Village
- 1 Interstate
- 2 Freeway or Expressway
- 3 Other Principal Arterial
- 4 Minor Arterial
- 5 Major Collector
- 6 Minor Collector
- 7 Local Road or Street
- Railroad
- County Boundaries
- Illinois State Boundary
- Urban Boundaries



THE ILLINOIS DEPARTMENT OF TRANSPORTATION'S MAPS USE DATA FROM EXTERNAL ELECTRONIC SOURCES THAT ARE NOT CONTROLLED BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION. THE DEPARTMENT TAKES NO RESPONSIBILITY FOR THE VIEWS, CONTENT, OR ACCURACY FOR ANY SUCH INFORMATION PROVIDED FROM SUCH EXTERNAL SOURCES. THIS PRODUCT IS FOR REFERENCE PURPOSES ONLY AND IS NOT TO BE CONSTRUED AS A LEGAL DOCUMENT OR SURVEY INSTRUMENT. THE MAPS AND DATA CONTAINED THEREIN ARE TO BE CONSTRUED "AS IS" WITHOUT WARRANTIES OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO WARRANTIES OF SUITABILITY TO A PARTICULAR PURPOSE OR USE. ANY RELIANCE ON THE INFORMATION CONTAINED HEREIN IS AT THE USER'S OWN RISK. THE ILLINOIS DEPARTMENT OF TRANSPORTATION CAN NOT BE HELD LIABLE FOR ANY SPECIAL, INDIRECT, OR CONSEQUENTIAL DAMAGES OR ANY DAMAGES WHATSOEVER RESULTING FROM LOSS OF USE, DATA, PROFITS, WHETHER IN AN ACTION OF CONTRACT, NEGLIGENCE, OR OTHER ACTION, ARISING OUT OF OR IN CONNECTION WITH THE USE OF THE INFORMATION HEREIN PROVIDED.

Data Sources:
Illinois Department of Transportation
Illinois State Tollway Authority
Illinois Commerce Commission
Illinois Department of Revenue
Illinois State Geological Survey
United States Department of Transportation
United States Geological Survey



APPENDIX 2

Crash Report

IL 18 Over Illinois River at Henry

CRASH REPORT

Introduction

This crash report presents the findings of an analysis of Illinois Route 18 (IL 18) at the IL 18 bridge over the Illinois River in Henry, IL to determine the probable cause of crashes, identify crash prone locations, and recommend countermeasures to enhance operational safety. The study was conducted utilizing 2016 through 2020 crash data provided by the Illinois Department of Transportation (IDOT).

According to the IDOT Database, IL 18 is classified as Rural Minor Arterial. Therefore, BDE Manual Chapter 47 Rural Two-Lane/Multilane State Highways (New Construction/Reconstruction) will provide the design guidance for the improvement of IL-18 through the study area.

Existing IL 18 is a two-way road traveling east-west over the Illinois River consisting of two travel lanes. The roadway west of the bridge, despite being outside of a designated urban area as defined by BDE Manual Chapter 43: Highway Systems, is in an urban setting with curb and gutter and sidewalk on both sides. The roadway on the bridge is 22'-8" wide with no shoulders. The roadway east of the bridge is in a rural setting with narrow paved shoulders varying between 2' and 6' and guardrail on both sides most of the way to the IL 18/IL 26 intersection. Within the study area, IL 18 is under the jurisdiction and maintenance of IDOT. The Posted Speed Limits are 30 mph west of the bridge, 35 mph on the bridge, and 55 mph east of the bridge. The 2021 ADT for IL 18 at the bridge over the Illinois River was 2,200 vehicles per day with 170 trucks per day according to the traffic volumes posted on the IDOT "Getting around Illinois" map and traffic study data provided by IDOT. The following Figures 1-3 show the project area and sections.

Figure 1 – Project Map

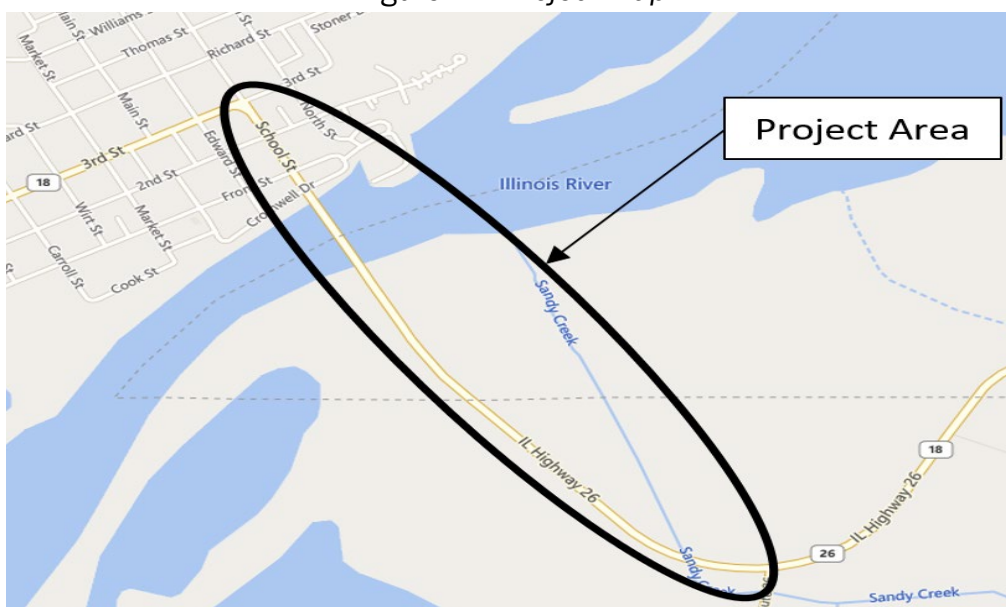
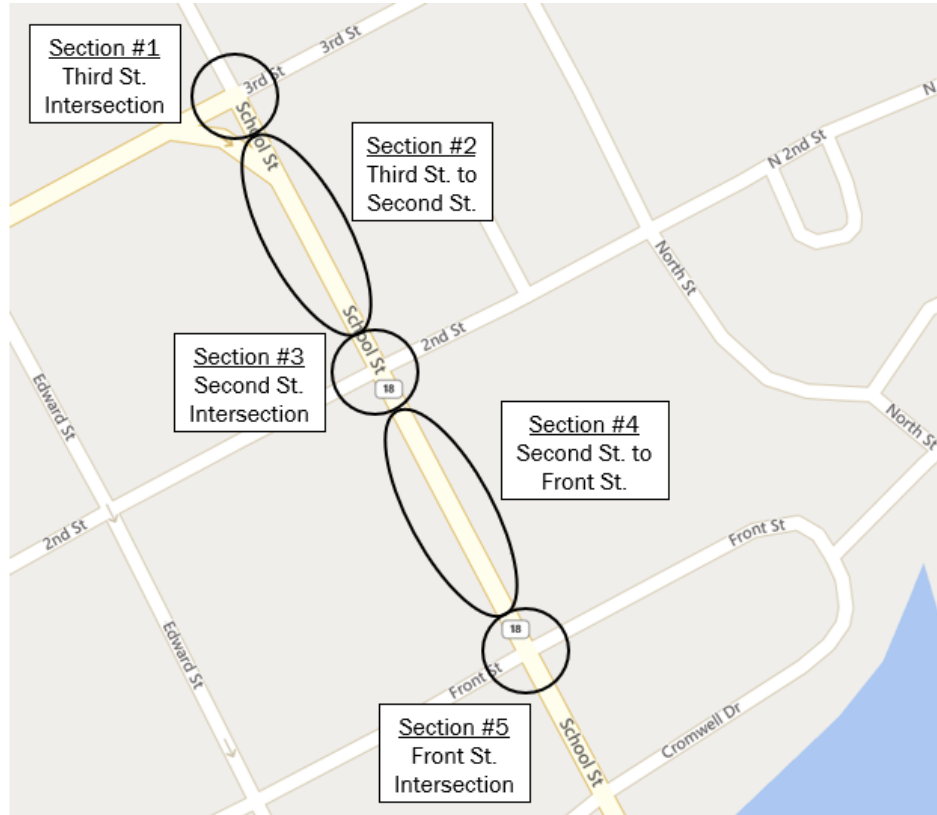
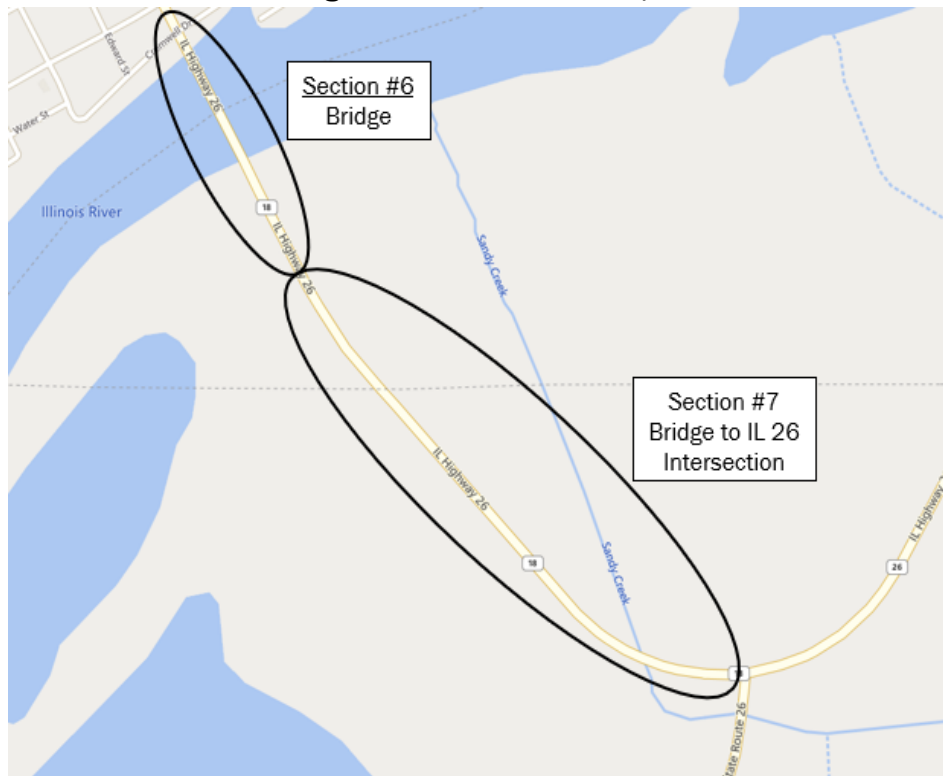


Figure 2 – Urban Area Map



Note: IL 18 is identified as School Street and IL Highway 26 on Figures 1-3.

Figure 3 – Rural Area Map



Crash Data

Five years (2016 through 2020) of crash data summaries were provided by IDOT and police reports were provided for all crashes involving injuries. The analyzed data includes date, time, driving direction, weather, roadway surface, crash severity based on the type of injuries/deaths, crash type, vehicle type, milepost, lighting condition, and maneuver codes for each crash. Maneuver codes describe the vehicle action just before the crash. The primary collision types are described in Table 1.

Table 1 - Collision Type Descriptions

Collision Type	Description
Rear End	Both vehicles are traveling in the same direction on same route. Lead vehicle may be going straight or turning. Lead vehicle is hit from behind by following vehicle.
Sideswipe, same direction	Vehicles traveling in the same direction on the same route, usually caused by a lane change or a swerving maneuver.
Sideswipe, opposite direction	Vehicles traveling in opposite direction on same route (approaching each other). Usually caused by a lane change or swerving maneuver, crossing the median, if applicable.
Fixed Object	Vehicle hits a fixed object such as a median barrier, bridge pier, light pole, or tree.
Other Object	Vehicle hits an object in roadway such as material that has fallen from a lead vehicle or from an overhead structure.
Head On	Vehicle traveling in opposite direction on same route (approaching each other) and collide head on.
Overtaken	Driver lost control of vehicle resulting in the vehicle overturning within or adjacent to the roadway, without hitting another vehicle or object first.
Parked Vehicle	Vehicle traveling in roadway hits a parked vehicle within or to the side of the roadway.
Animal	Vehicle traveling in roadway hits an animal crossing the roadway.
Angle	Vehicles traveling along crossing routes crash at right angle even if one vehicle was making a left or right turn.
Turning	Vehicles traveling in opposite directions on same route (approaching each other) with one vehicle turning left to the crossing route or driveway, or by a vehicle making a U-turn within a route segment.
Pedestrian	Any crash involving a vehicle traveling along the route and pedestrian.
Bicycle (Pedal Cyclist)	Any crash involving a vehicle traveling along the route and a bicyclist.
Other Non-Collision	Any crash resulting from conditions not described by other collision types, such as a vehicle running off the roadway into an embankment.

Crash severity is a key indicator in evaluating the current safety condition of the existing route. Understanding the severity of injuries allows the implementation of appropriate countermeasures to reduce the severity of crashes in the future. Table 2 below depicts the crash severity categories:

Table 2 - Crash Severity Descriptions

Severity	Description
Fatal	A crash in which at least one person dies within 30 days of the crash as a result of injuries sustained during the crash.
Type A (Incapacitating Injury)	Any injury, other than fatal, that prevents the injured person from walking, driving, or normally continuing the activities he/she could perform before the injury occurred. Inclusions: severe lacerations, broken/distorted limbs, skull injuries, chest injuries, and abdominal injuries.
Type B (Non-incapacitating injury)	Any injury, other than fatal or incapacitating injury, that is evident to observers at the scene of the crash. Inclusions: lumps on the head, abrasions, bruises, and minor lacerations.
Type C (Reported, injury not evident)	Any injury reported or claimed that is not listed above. Inclusions: momentary unconsciousness, claims of injuries not evident, limping, complaints of pain, nausea.
Property Damage	No injuries or fatalities, but damage is caused to either vehicle.

The crash data was also analyzed to identify whether the narrow roadway width on the bridge and narrow roadway east of the bridge were contributing factors to the crash and shed light on countermeasure recommendations.

Methodology

The crash analysis was conducted along IL 18 from Third Street in downtown Henry to the intersection with IL 26. The study area was conducted in seven sections: the Third Street intersection, between Third Street and Second Street, the Second Street intersection, between Second Street and Front Street, the Front Street intersection, the Bridge, and between the Bridge and the IL 26 intersection. The crash data was tabulated into analysis tables depicting crash types, injury severity, fatalities, road surface, weather, and lighting conditions.

Crash Analysis

A total of 22 crashes occurred within the project area in the five-year study period (2016-2020), with 3 crashes occurring at the Third Street intersection, no crashes at the Second Street intersection, 2 crashes at the Front Street intersection, 2 crashes between Third Street and Second Street, 1 crash between Second Street and Front Street, 2 crashes on the Bridge, and 12 crashes between the Bridge and the IL 26 intersection. These crashes are summarized in Table 3.1.

Table 3.1 – Total Crashes by Section and Type

Type of Collision	Third Street Intersection	Between Third Street and Second Street	Second Street Intersection	Between Second Street and Front Street	Front Street Intersection	Bridge	Between Bridge and IL 26 Intersection	Total
Rear End	0	0	0	0	0	0	0	0
Turning	1	0	0	0	1	0	0	2
Fixed Object	0	0	0	0	0	1	6	7
Other Object	0	0	0	0	0	0	0	0
Head on	0	0	0	0	0	0	0	0
Pedestrian	0	0	0	1	0	0	0	1
Bicycle	0	0	0	0	0	0	0	0
Parked Vehicle	0	1	0	0	0	0	1	2
Animal	0	0	0	0	0	0	3	3
Sideswiped - Same Direction	0	0	0	0	0	0	0	0
Sideswiped - Opposite Direction	0	0	0	0	0	1	1	2
Angle	2	1	0	0	1	0	1	5
Overturned	0	0	0	0	0	0	0	0
Other Non Collision	0	0	0	0	0	0	0	0
Total	3	2	0	1	2	2	12	22
% of Total Crashes	14%	9%	0%	5%	9%	9%	55%	100%
Fatalities	0	0	0	0	0	0	1	1
Fatal Crashes	0	0	0	0	0	0	1	1
Total Injured	2	0	0	1	0	0	4	7
Type A Injury Crashes	0	0	0	0	0	0	1	1
Type B Injury Crashes	1	0	0	0	0	0	3	4
Type C Injury Crashes	1	0	0	1	0	0	0	2
Total Injury Crashes	2	0	0	1	0	0	4	7

Section 1– IL 18 and Third Street Intersection

During the five-year analysis period, three crashes occurred at the Third Street intersection. Two were angle crashes where the vehicles were traveling along crossing routes and crashed at right angles in the intersection. These crashes resulted in one Type B injury. The third crash was a turning crash resulting in a Type C injury. Data provided by IDOT indicates these three crashes occurred during daylight in clear, dry conditions and each involved a vehicle travelling westbound on IL 18. The intersection is a three-way stop with westbound IL 18 traffic not required to stop. This may indicate drivers anticipated IL 18 westbound traffic stopping when there is no stop-control for this direction.

Section 2– IL 18 Between Third Street and Second Street

During the five-year analysis period, two crashes occurred between Third Street and Second Street. One was an angle crash involving a vehicle traveling on the roadway and a vehicle entering the roadway from a driveway in darkness with clear, dry conditions. The second was a parked motor vehicle crash in darkness with rainy, wet conditions. These crashes resulted in no injuries. Both crashes occurred during darkness and may indicate lighting conditions were a contributing factor.

Section 3– IL 18 and Second Street Intersection

During the five-year analysis period, no crashes occurred at the Second Street intersection.

Section 4– IL 18 Between Second Street and Front Street

During the five-year analysis period, one crash occurred between Second Street and Front Street. The crash involved a pedestrian and resulted in a Type C injury. This occurred during daylight with clear, dry conditions. The road has sidewalks on both sides and sidewalk ramps at the Second Street intersection for pedestrians to cross. There are no proper midblock crosswalks with ADA-compliant ramps, but each property appears to have a sidewalk through the parkway to the curb. Crossing at these locations would be unexpected for vehicles.

Section 5– IL 18 and Front Street Intersection

During the five-year analysis period, two crashes occurred at the Front Street intersection. The first was a turning crash in darkness with clear, dry conditions. The second was an angle crash during daylight in wet, rainy conditions. No injuries resulted from these crashes. Visibility related to intersection sight distance or stopping sight distance may have been contributing factors in these crashes. Westbound traffic is traveling on a 5% down grade which may also contribute to crashes.

Section 6– IL 18 Bridge over Illinois River

During the five-year analysis period, two crashes occurred on the IL 18 Bridge over the Illinois River. The first was a fixed object crash involving a pickup truck during daylight with dry conditions and blowing sand affecting visibility. The second crash was an opposite direction sideswipe involving a tractor-trailer and minivan in clear, dry conditions at night on the lighted bridge deck. No injuries resulted from these crashes. One of the crashes on the bridge involving a tractor-trailer, as well as the types of crashes, may indicate the lack of shoulders and narrow through lanes could have been a contributing factor.

Section 7– IL 18 Between Illinois River Bridge and IL 26 Intersection

During the five-year analysis period, twelve crashes occurred between the bridge and the IL 26 intersection. This section of the roadway accounted for 55% of the study area crashes, 57% of the injury crashes, 57% of the total injuries, and 100% of the fatal crashes. Table 3.2 summarizes the section crashes according to crash type, lighting, road and weather conditions, driver impairment, injury types, and fatal crashes.

Among all crashes in the section, 33% occurred in daylight versus 50% in darkness (one crash occurred with minimal lighting and one crash did not include lighting data), 66% occurred in clear, dry conditions versus 17% in rain or snow conditions, 50% involved impaired drivers, 8% resulted in a Fatal crash, 8% resulted in a Type A Injury crash, 25% resulted in a Type B Injury crash, and 0% resulted in a Type C Injury crash. The most prevalent crash type was fixed object, which accounted for 6 of 12 (50%) crashes in the section. The fatal crash in the section was a fixed object crash involving an impaired driver.

Table 3.2 Total Crashes for Section 7 – IL 18 Between Illinois River Bridge and IL 26 Intersection

Condition	Animal		Fixed Object		Parked Motor Vehicle		Sideswipe Opposite Direction		Angle		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Total Crashes	3	25%	6	50%	1	8%	1	8%	1	8%	12	100%
Daylight	1	33%	3	50%	0	0%	0	0%	1	100%	5	42%
Darkness	2	67%	3	50%	1	100%	1	100%	0	0%	7	58%
Clear/Dry	3	100%	5	83%	0	0%	1	100%	1	100%	10	83%
Rain/Snow	0	0%	1	17%	1	100%	0	0%	0	0%	2	17%
Impaired Driver	0	0%	4	67%	1	100%	1	100%	0	0%	6	50%
Fatal Crash	0	0%	1	17%	0	0%	0	0%	0	0%	1	8%
Type A Injury Crash	0	0%	0	0%	0	0%	1	100%	0	0%	1	8%
Type B Injury Crash	0	0%	1	17%	1	100%	0	0%	1	100%	3	25%
Type C Injury Crash	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%

Conclusion

Urban section crashes – The crashes from Third Street to Front Street were typical of urban roadways and intersections. They included angle, turning, parked vehicles, and pedestrian crashes, and resulted in no fatalities, no Type A injuries, one type B injury, and two type C injuries.

At the Third Street intersection, vehicles traveling westbound on IL 18 are not stop-controlled. This may contribute to the angle and turning crashes at the intersection as all crashes always involved a vehicle travelling westbound on IL 18 during daylight and clear, dry conditions. The lack of adverse weather, road, or lighting conditions in any of these crashes supports the conclusion that drivers are mistaking the intersection as a 4-way stop and expecting the westbound IL 18 traffic to stop. Only three crashes occurred in the study years of 2016-2020 at this intersection, but with one Type B injury and one Type C injury. By installing a stop sign on the east leg, westbound vehicles approaching the intersection will behave as expected and may reduce crashes without significantly altering the flow of IL-18.

Between Third Street and Second Street, the angle crash and parked motor vehicle crash both occurred during the night and indicate that lighting conditions could be a contributing factor to these occurrences.

The Front Street intersection had one angle and one turning crash. Both crashes involved a vehicle approaching the intersection from the northeast where reduced visibility may have been a contributing factor. One crash occurred during darkness and another during rain. When approaching the intersection from the northeast, visibility of westbound IL 18 traffic coming from the bridge may be poor. This is due to the partial obstruction of the sight angle by foliage, light poles, roadway signs, guardrail, and roadway elevation differences. The speed limit on IL 18 also reduces from 35 mph on the bridge to 30 mph in the urban area just before the Front Street intersection. When combined with the existing 5% roadway grade on IL 18, vehicles coming from the bridge may not adequately reduce speed prior to the intersection, and this may have been a contributing factor to crashes at this location.

Bridge section crashes – Both bridge crashes that occurred during the five-year study period involved a truck. A tractor-trailer crash involved a sideswipe with an oncoming vehicle. A pickup truck crash on the bridge approach involved striking the guardrail on the right side of the bridge. Both reported crashes on the bridge may indicate that the narrow bridge width was a contributing factor. The narrowing of the bridge approach also likely contributed to the fixed object crashes as the roadway shoulder is not carried across the bridge. Additionally, the narrow and deficient bridge width increases the likelihood of head on crashes as vehicles, especially large vehicles, could shy away from the bridge barrier and encroach on the opposing lane. As an operational note, farmers are required to notify the Henry Police Department when they intend to cross the bridge with their oversized farm implements that can easily occupy a lane and a half on the bridge.

Rural crashes – The roadway between the bridge and the IL 26 intersection had 12 crashes in the study period and these crashes tended to be more severe including a fatal crash. Many of the crashes in this section were fixed object crashes with the guardrail. All fixed object crashes occurred in clear, dry conditions and about half were during the daylight versus darkness. The speed limit for this section of road is 55 mph. The higher posted speed combined with the narrow shoulder, and roadway curvature, likely contributed to these fixed object crashes and the overall higher crash severity in the section compared to the urban and bridge sections.

In this section, 58% of all crashes occurred at night, 50% involved an impaired driver, and 17% occurred in wet or snow conditions. This indicates that lighting conditions and driver impairment contributed more to the likelihood of crashes than the weather and road conditions. These more dangerous crash types may be mitigated by increased shoulder widths by allowing additional space for errant vehicles to recover or pull off the road in an emergency.

Recommendations

Several countermeasures can be implemented to potentially reduce the predominant collision types. These range from low cost, easily implemented options to proposed roadway and bridge improvements.

The first recommendation is to install advance warning signs and/or additional signs at the approaches of the Third Street intersection warning drivers westbound IL18 traffic does not stop. These signs will help drivers be more aware of the intersection conditions and to be more alert of westbound traffic. This may reduce the angle and turning crashes in the intersection.

Another option to consider is adding a stop sign for westbound IL18 traffic at the Third Street intersection. This would likely prevent crashes in the intersection due to driver error with regards to westbound traffic being the only direction without stop control while the other three directions have stop signs. To implement a stop sign, further traffic analysis would be necessary as part of an intersection design study.

The installation of roadway lighting should be considered for IL 18 between Third Street and Second Street. This will improve visibility on the roadway at night and limit the potential for further darkness-related crashes.

We recommend advanced warning signs and/or additional signs on the bridge for the westbound traffic to slow down prior to Second Street. This should reduce traffic speeds, therefore reducing the likelihood and severity of intersection crashes.

Another recommendation to improve safety at the first intersection after the bridge at Second Street is to reduce the roadway grade in advance of the intersection. At lower grades braking distances are reduced. This in turn will reduce the likelihood and severity of intersection crashes.

The Front Street intersection will be eliminated with the new proposed bridge. Analysis of the Front Street intersection crashes provide useful information for the new first intersection after the bridge at Second Street.

The proposed bridge will be widened and include 8' wide shoulders. Widening the bridge will reduce larger truck encroachment on the centerline by reducing the need to shy away from the guardrail. A wider bridge also allows the accommodation of oversized loads and farm equipment while reducing the likelihood of fixed object (guardrail), head on, and sideswipe crashes on the bridge.

The rural section between the bridge and the IL 26 intersection will be improved and the proposed improvements are expected to reduce the likelihood and severity of crashes. The proposed roadway typical section includes 10' wide shoulder on each side of the roadway. In addition, a barn roof section will be used in the rural section to provide 6:1 foreslopes to the edge of the clear zone to allow a clear recovery area for errant vehicles. An added benefit of wider shoulders is that they provide additional space to pull over in an emergency. Rumble strips along the shoulder, to help alert inattentive drivers, are recommended as well.

APPENDIX 3

Critical Facility Determination

Critical Facility Determination As defined by Executive Order 12-06

IL 18 between IL River Bridge and IL 29 Marshall and Putnam Counties P-94-007-20

Background

IDOT is undergoing a study of a bridge replacement for the IL 18 Bridge over the Illinois River. The approach roadway on the west side of the bridge lies within the municipal boundary of Henry Illinois and is outside of the regulated floodplain. The approach roadway on the east side of the bridge is in rural Marshall and Putnam Counties, and approximately 4000 feet of the existing IL 18 pavement/embankment leading to the bridge lies within the regulated floodplain, and more specifically within the regulated floodway.

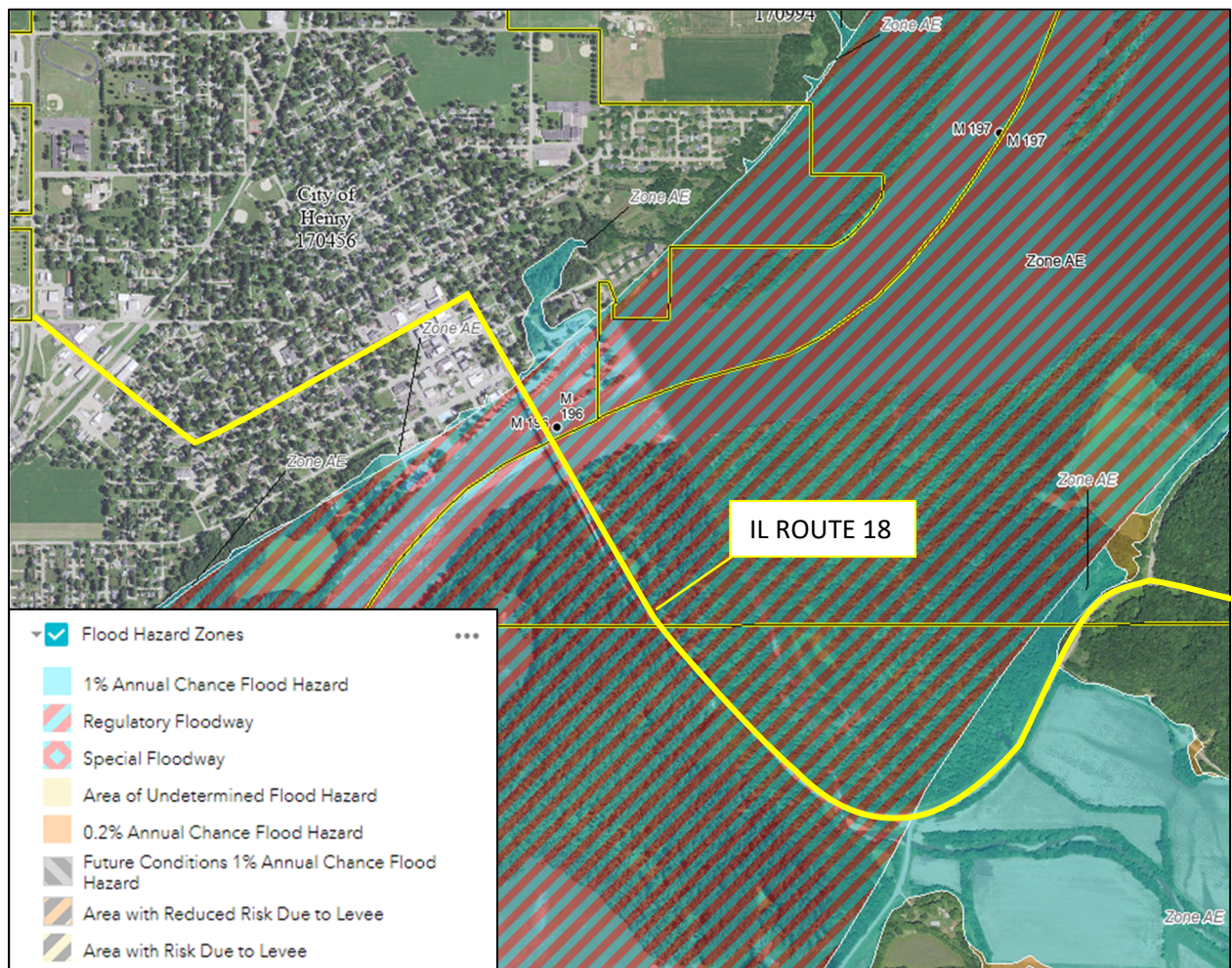


Figure 1. Illinois Route 18 – Flood Hazard Zones

Executive Order 12-06 requires that critical facilities be reconstructed above the 500-year flood elevation. The IL 18 replacement structure is not a concern since meeting USCG navigational requirements will keep the new bridge well above the 500-year flood elevation. However, an assessment is needed to determine if the IL 18 roadway east of the IL River Bridge meets the definition of a critical facility as defined by Executive Order 12-06 since a portion of it lies within the regulatory floodplain. The order defines that Major Highways and Bridges are critical facilities.

Context

- IL 18 is an east-west 2-lane rural highway in Central Illinois
- IL 18 is classified as a Minor Arterial
- IL 18 is designated as a Class II truck route
- Current Average Daily Traffic (ADT) is 2000 at the project location, with about 10.5% heavy trucks
- IL 18 is not part of the National Highway System (not an NHS Route)
- IL 18 is approximately 38 miles in length and begins on the west side of Henry, IL at IL 29 and ends about 9 miles east of Streator, Illinois, where it terminates at IL 17.
- IL 18 provides a connection to I-39 near its mid-point.
- IL 18 provides direct access to the following communities:
 - Henry, IL 2020 population of 2,187
 - Magnolia, IL 2020 population of 248
 - Streator, IL 2020 population of 13,031
- IL 18, at the project location, has a Criticality Index Score of “Low.” See Figure 3.

Assessment

Although IL 18 is an important transportation link in Marshall and Putnam Counties, it is not part of the NHS system. This Minor Arterial, with an average daily traffic of 2000, serves a limited population and limited industry. Should IL 18 between the bridge and IL 26 be closed due to flooding, the rural area local traffic to the bridge is served by the existing highway network. The north-south State Route IL 26 is on the east side of the river and the north-south State Route IL 29 is on the west side of the river. Alternate river crossings include IL 17 at Lacon, Illinois, which is approximately 7 miles downstream, and I-180 which is approximately 11 miles upstream.

Much of IL 18 between the existing Illinois River bridge and IL 26 is currently below the 50-year flood elevation. Based on data from the National Weather Service website, water begins flooding parts of Illinois Route 18 between Henry and Illinois Route 26 at gauge height of 32.0, and this elevation has

been reached or exceeded four time since 1943. A recent review of historic data and the roadway profile indicate the water elevation was sufficient to close IL 18 on 3 additional times since 2009. The Department has no records of major issues arising from the need to close the road leading up to the bridge (and therefore closing the bridge) during these flood events.

Historic Crests at Henry, Illinois

	Date	Gauge Height	Elevation (NGVD 29)
1	4/22/2013	32.94	458.82
2	3/22/1979	32.67	458.55
3	5/23/1943	32.2	458.08
4	3/7/1985	32.02	457.90
5	5/21/2020	31.62	457.50
6	3/13/2009	31.49	457.37
7	5/6/2019	31.35	457.23

For a roadway not considered a critical facility as defined by Executive Order 12-06, IDOT policy requires the minimum roadway elevation within a regulatory floodplain to be constructed to the 50-year elevation with three feet of freeboard. At this location, 50-year plus 3-feet of freeboard equals elevation 462.5. This proposed elevation would have eliminated all of the aforementioned road/bridge closures for the historic record flood events.

Flood Event	Elevation	Corresponding Gauge Height
Flooding begins on parts of IL 18 between IL River Bridge and IL 26 (per NWS website)	457.88	32
50-year flood	459.50	33.62
100-year flood	461.10	35.22
50-year flood plus 3-feet freeboard	462.50	36.62
500-year flood	463.90	38.02

Conclusion

IL 18 does not meet the definition of critical facility as defined by Executive Order 12-06, and therefore, the proposed roadway does not need to be reconstructed to the 500-year flood elevation.

Critical Facility Determination
IL 18 between IL River Bridge and IL 29
FAP 653 (IL 18)
Section (104B)BR
Marshall and Putnam Counties
P-94-007-20

Submitted

Kensil A. Garnett
Kensil Garnett, IDOT Region 3 Engineer

12-16-21
Date

Concurred

Jack Elston, Bureau Chief of Design & Environment

Date

Concurred

Director, IDNR - Office of Water Resources

Date

Critical Facility Determination
IL 18 between IL River Bridge and IL 29
FAP 653 (IL 18)
Section (104B)BR
Marshall and Putnam Counties
P-94-007-20

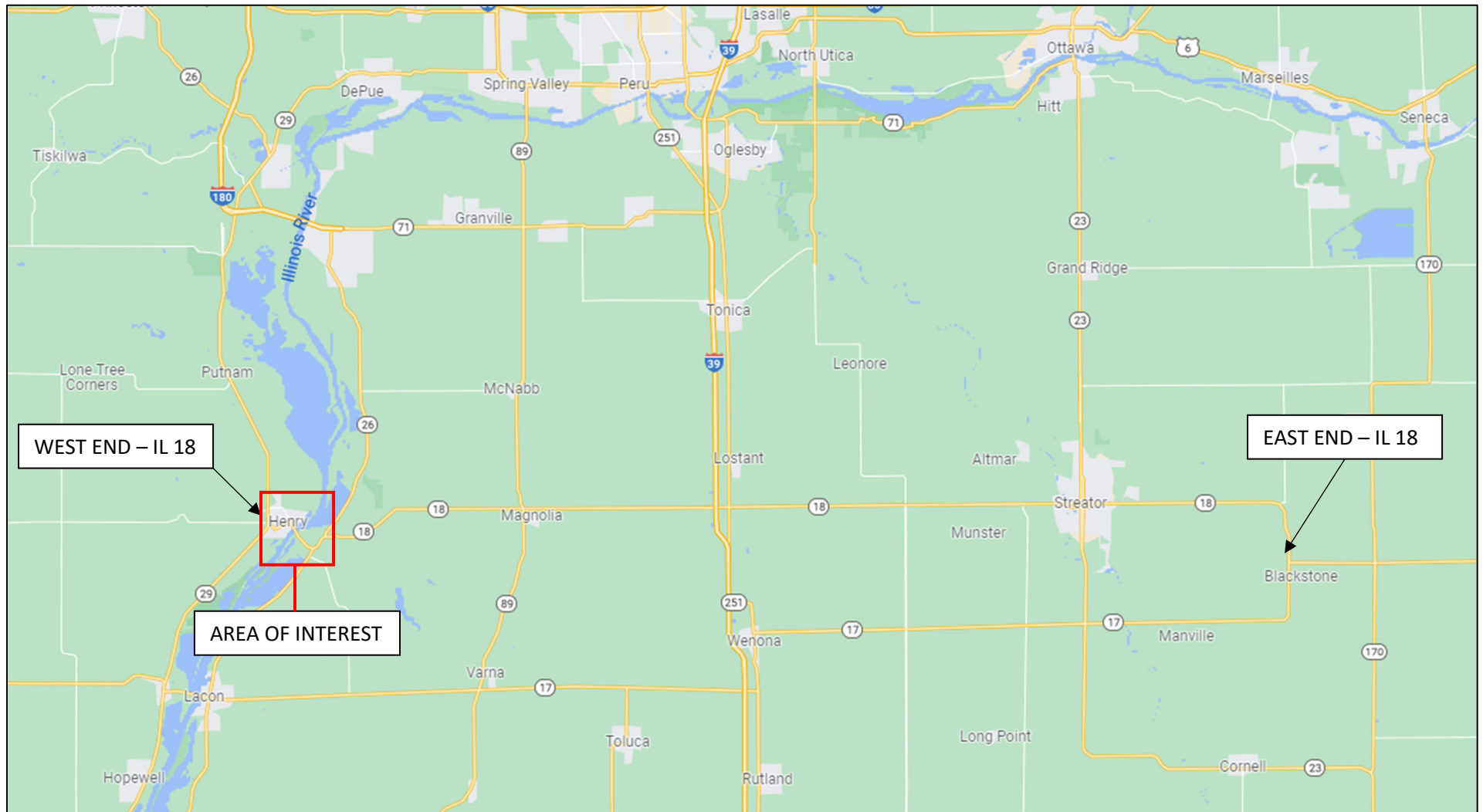


Figure 2. Illinois Route 18 – Location Map

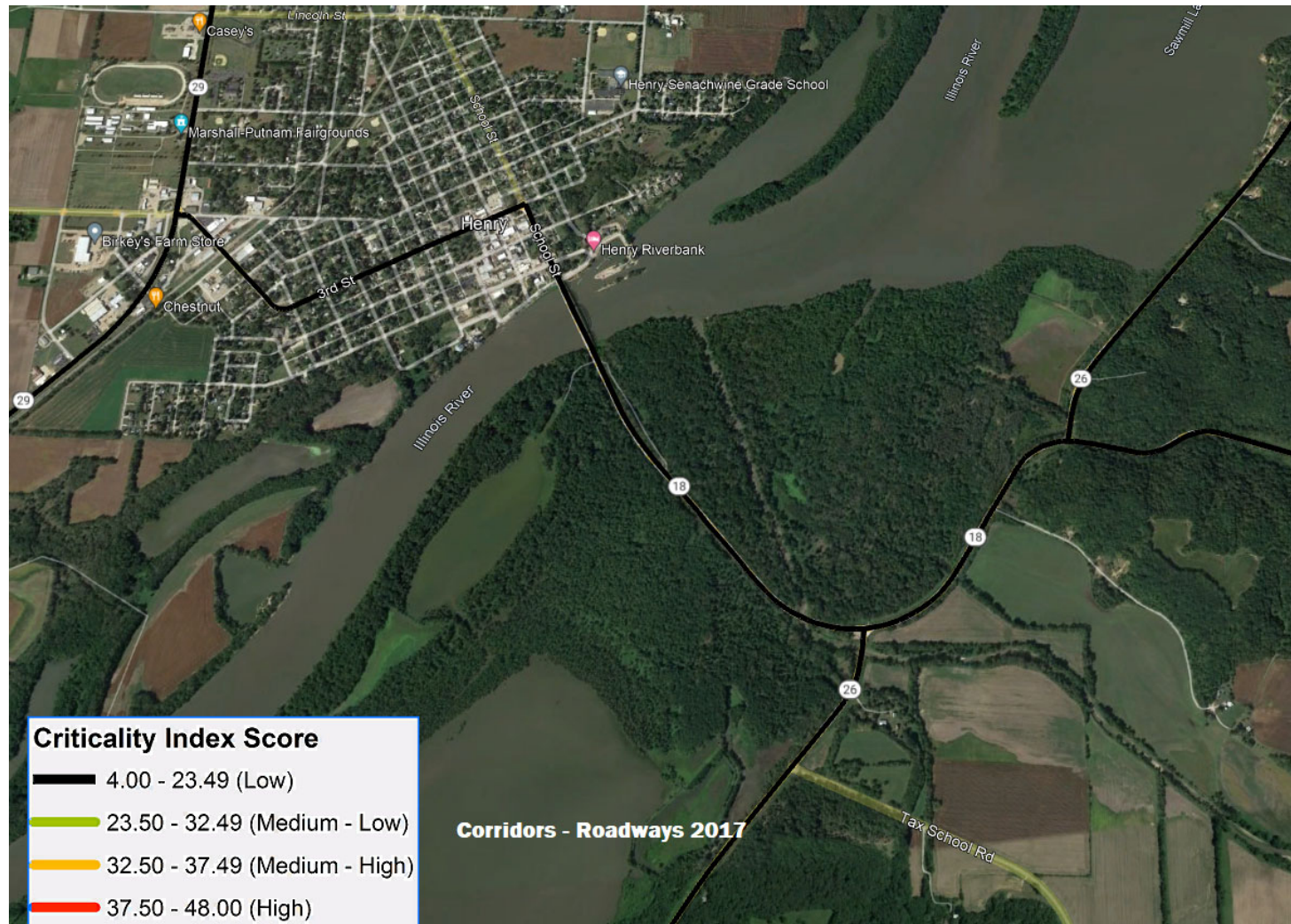


Figure 3. 2017 Criticality Index Score

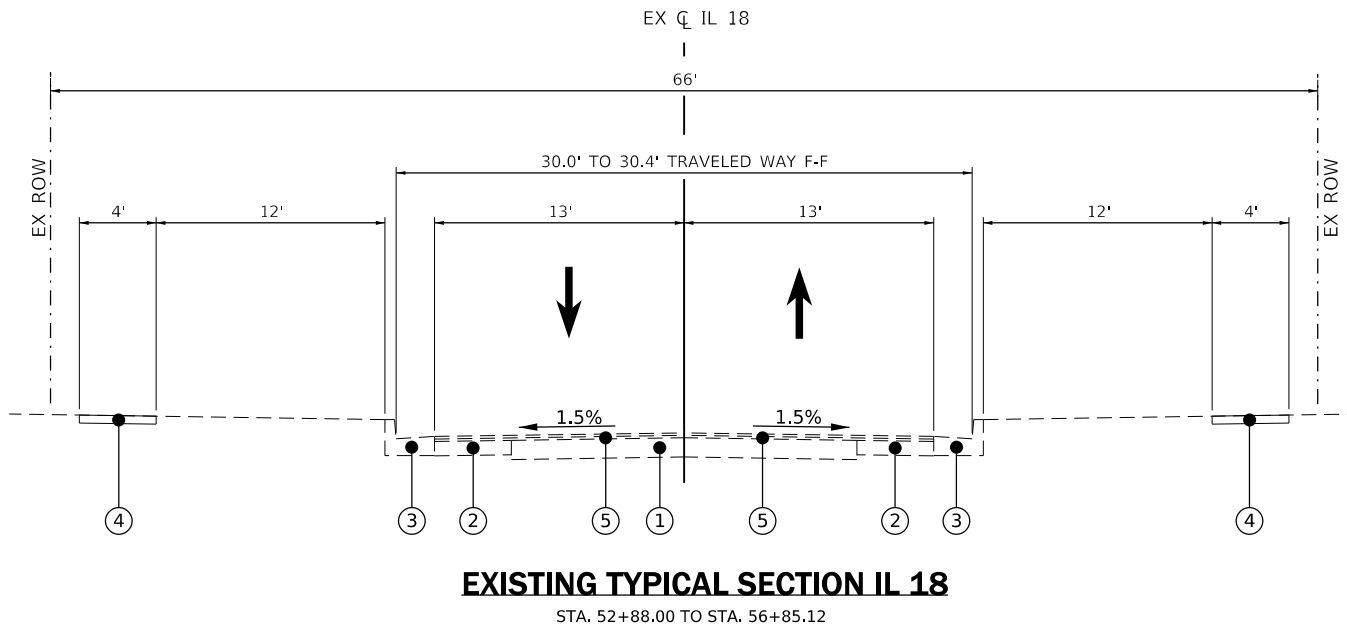
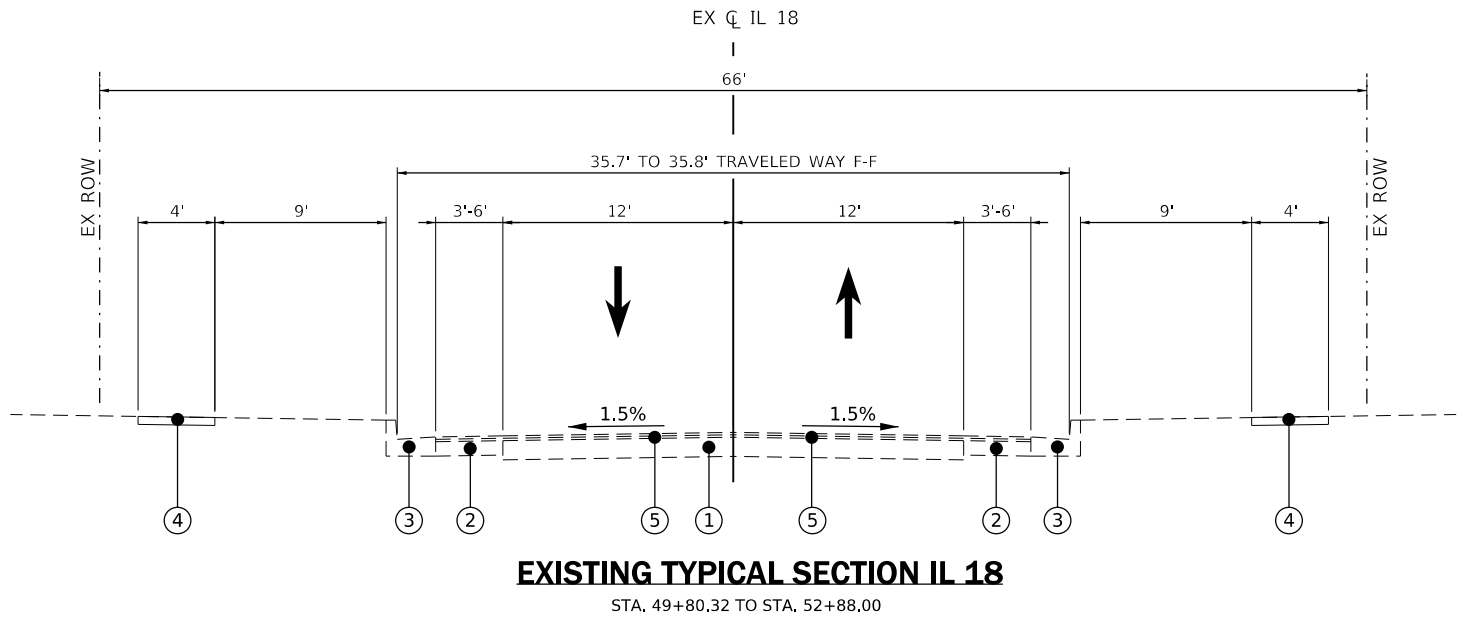
APPENDIX 4

Roadway Exhibits

APPENDIX 4-A

Existing Typical Sections

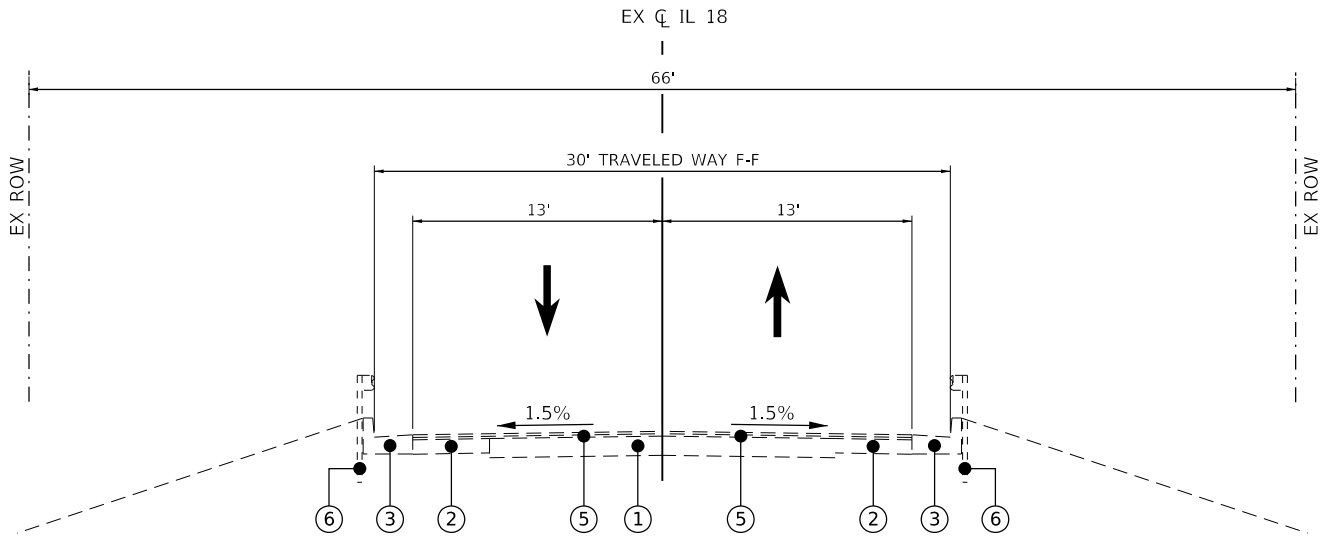
Default: FILE NAME: j:\ws\VAN\AQ1\PW\INTD1\Parsons.com\Illinois - State\Documents\IL18 Henry Bridge\40 - Design\CAD\Roadway\Sheets\Typical Sections Sheet 1



EXISTING LEGEND

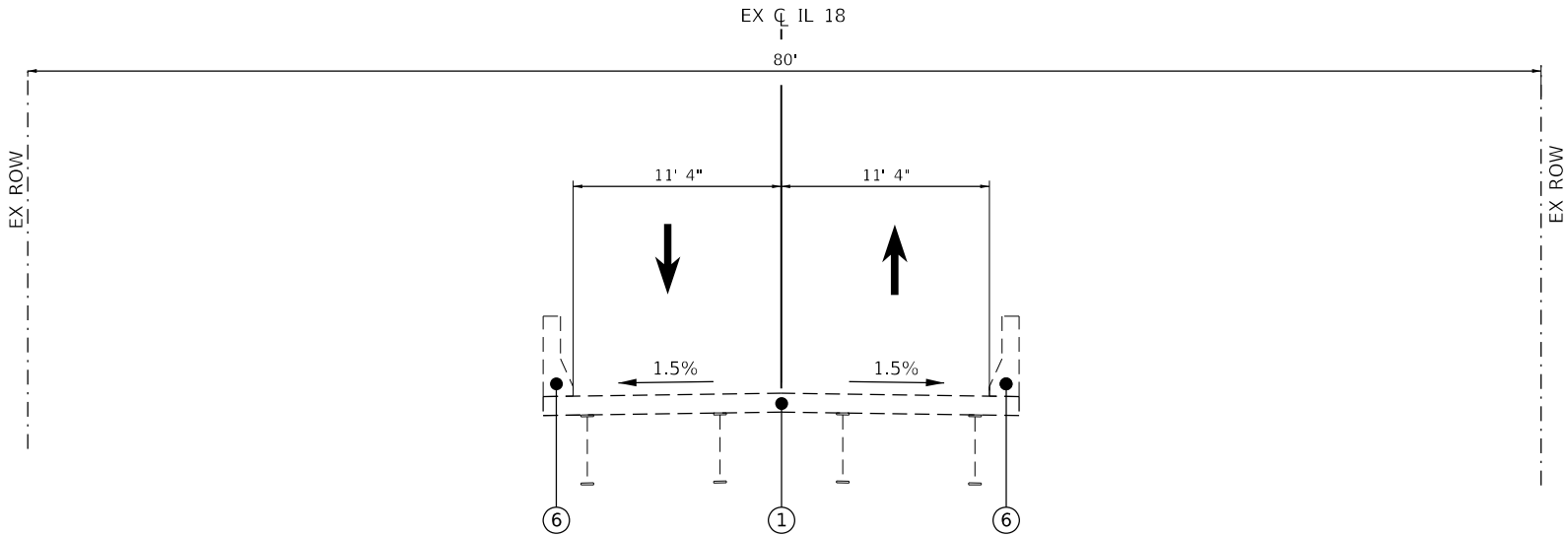
- ① EX PCC PAVEMENT, 12"
- ② EX BITUMINOUS BASE CSE, 9"
- ③ EX CC&G
- ④ EX PCC SIDEWALK
- ⑤ HMA PAVEMENT, 3.5"
- ⑥ EX GUARDRAIL
- ⑦ EX AGGREGATE SHOULDER

	USER NAME = p0035361	DESIGNED - AB	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	IL-18 EXISTING TYPICAL SECTIONS					F&P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN - AB	REVISED -							653	1048-D-BR	MARSHALL & PUTNAM	10	01
	PLOT SCALE = 10.0000" / in.	CHECKED - JAC	REVISED -		CONTRACT NO. 68F09									
	PLOT DATE = 3/3/2025	DATE - 12/13/24	REVISED -		SCALE:	SHEET	OF	SHEETS	STA.	TO STA.	ILLINOIS	FED. AID PROJECT		



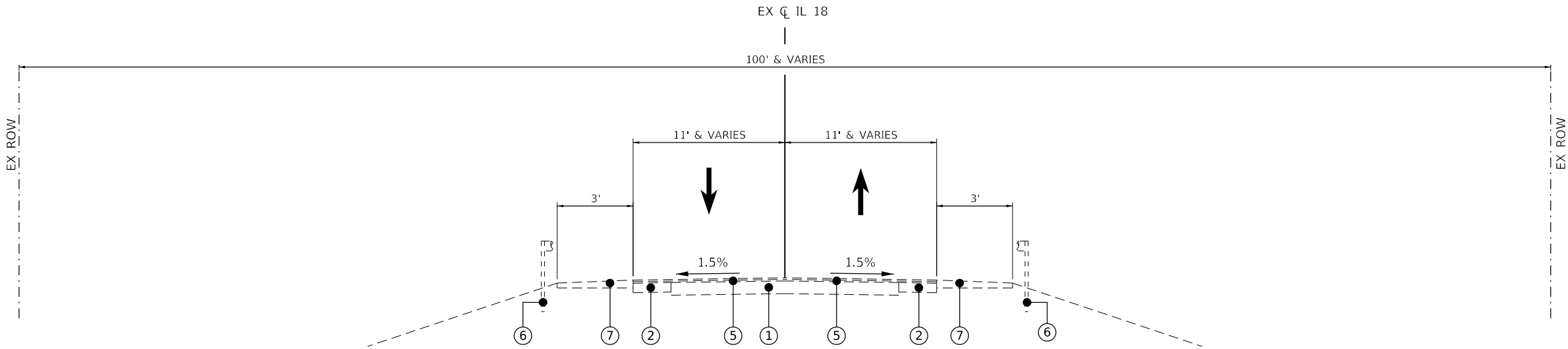
EXISTING TYPICAL SECTION IL 18

STA. 56+85.12 TO STA. 57+50.99



EXISTING BRIDGE TYPICAL SECTION IL 18

STA. 57+50.99 TO STA. 75+46.33



EXISTING TYPICAL SECTION IL 18

STA. 75+46.33 TO STA. 99+18.04

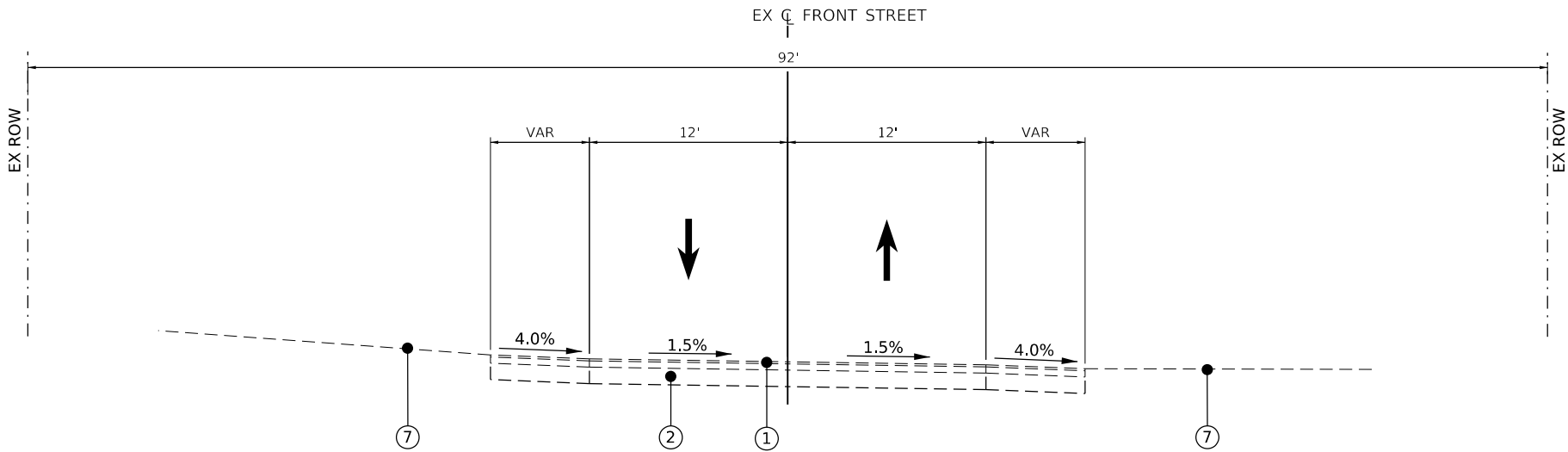
EXISTING LEGEND

- ① EX PCC PAVEMENT, 12"
- ② EX BITUMINOUS BASE CSE, 9"
- ③ EX CC&G
- ④ EX PCC SIDEWALK
- ⑤ HMA PAVEMENT, 3.5"
- ⑥ EX GUARDRAIL
- ⑦ EX AGGREGATE SHOULDER

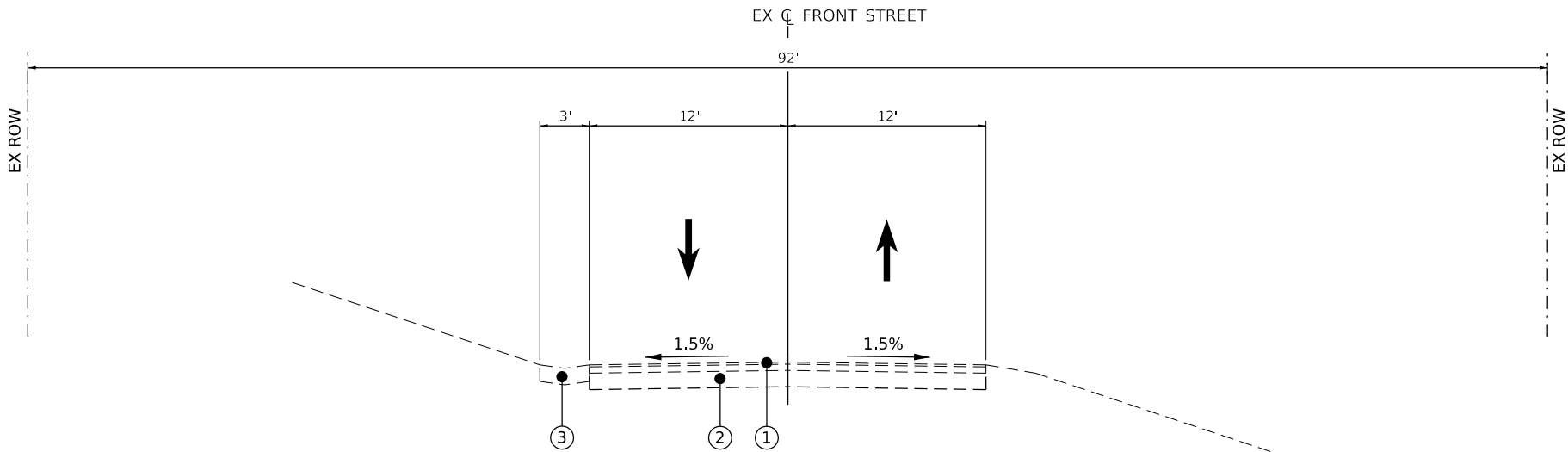
Default: FILE NAME: p:\w\VANVAD\1PW\101_Parsons.com\Illinois State\Documents\IL18 Henry Bridge\40 - Design\CAD\Roadway\Sheets\Typical Sections Sheet 2

	USER NAME = p0035361		DESIGNED - AB	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	IL-18 EXISTING TYPICAL SECTIONS			F&P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			DRAWN - AB	REVISED -					653	1048-D-BR	MARSHALL & PUTNAM	10	02
	PLOT SCALE = 10,000' / in.		CHECKED - JAC	REVISED -					CONTRACT NO. 68F09				
	PLOT DATE = 3/3/2025		DATE - 12/13/24	REVISED -		SCALE:	SHEET	OF	SHEETS	STA.	TO STA.	ILLINOIS	FED. AID PROJECT

Default: FILE NAME: p:\w\VAN\AD\1PW\101_Parsons.com\Illinois - State\Documents\1118_Henry_Bridge\40 - Design\CAD\Roadway\Sheets\Typical_Sections_Sheet_3



EXISTING TYPICAL SECTION FRONT STREET
STA. 8+44.27 TO STA. 10+00.00



EXISTING TYPICAL SECTION FRONT STREET
STA. 10+00.00 TO STA. 13+49.32

EXISTING LEGEND

- ① EX PCC PAVEMENT, 12"
- ② EX BITUMINOUS BASE CSE, 9"
- ③ EX CC&G
- ④ EX PCC SIDEWALK
- ⑤ HMA PAVEMENT, 3.5"
- ⑥ EX GUARDRAIL
- ⑦ EX AGGREGATE SHOULDER

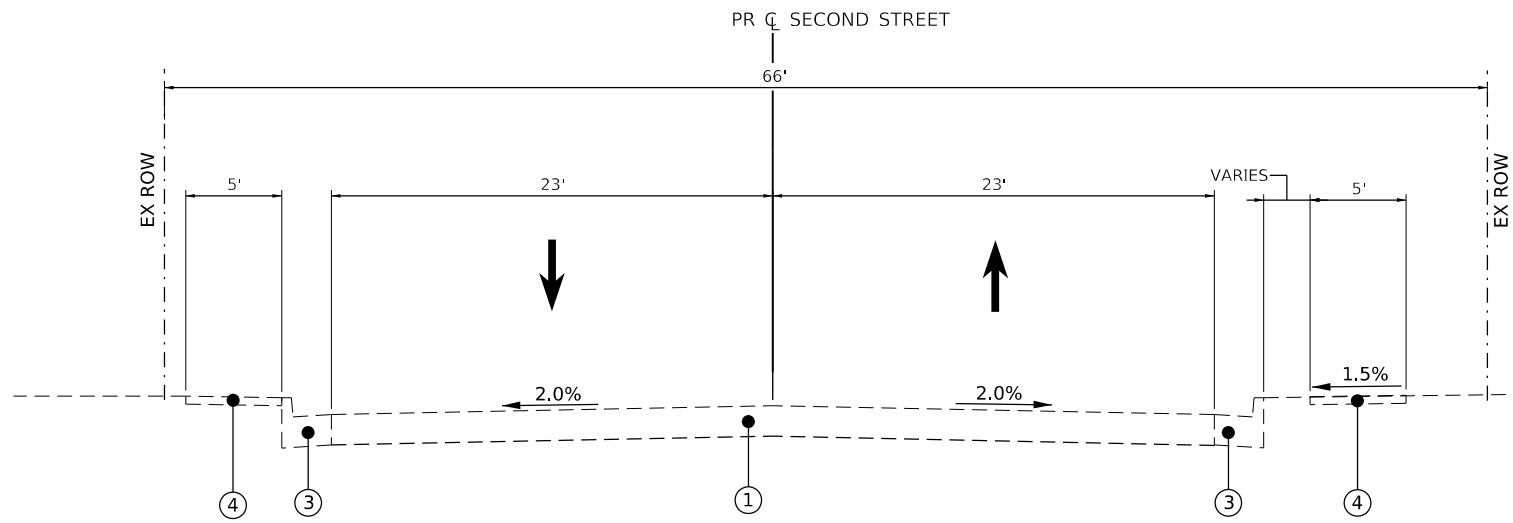
USER NAME	= p0035361	DESIGNED	- AB	REVISED	-
DRAWN	- AB	REVISION	-	REVISED	-
PLOT SCALE	= 10.0000" / ft.	CHECKED	- JAC	REVISED	-
PLOT DATE	= 3/3/2025	DATE	- 12/13/24	REVISED	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

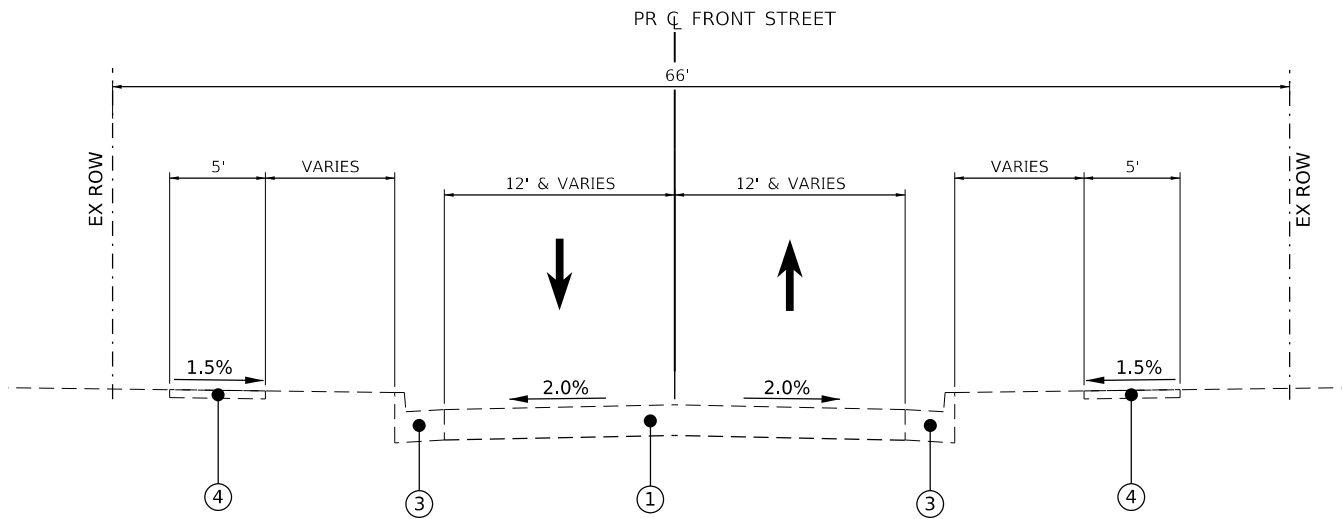
FRONT STREET EXISTING TYPICAL SECTION			
SCALE:	SHEET	OF	SHEETS
STA.	TO STA.		

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
653	1048-D-BR	MARSHALL & PUTNAM	10	03
CONTRACT NO. 68F09				
ILLINOIS FED. AID PROJECT				

Default: FILE NAME: j:\wv\VAN\AD1\PW\NTD1\Parsons.com\Illinois - State\Documents\ILL18 Henry Bridge\40 - Design\CAD\Roadway\Sheets\Typical Sections Sheet 4



EXISTING TYPICAL SECTION SECOND STREET
STA. 9+20.00 TO STA. 10+00.00



EXISTING TYPICAL SECTION SECOND STREET
STA. 10+00.00 TO STA 11+00.00

EXISTING LEGEND

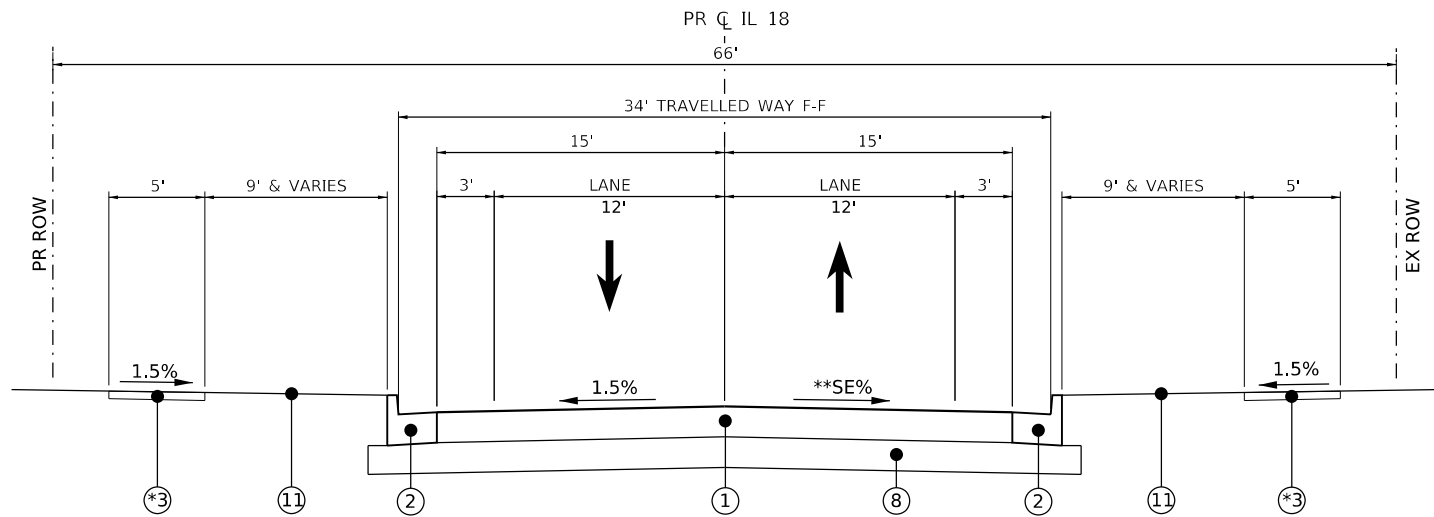
- ① EX PCC PAVEMENT, 12"
- ② EX BITUMINOUS BASE CSE, 9"
- ③ EX CC&G
- ④ EX PCC SIDEWALK
- ⑤ HMA PAVEMENT, 3.5"
- ⑥ EX GUARDRAIL
- ⑦ EX AGGREGATE SHOULDER

	USER NAME = j0035361	DESIGNED - AB	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SECOND STREET EXISTING TYPICAL SECTION			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN - AB	REVISED -					653	1048-D-BR	MARSHALL & PUTNAM	10	04
	PLOT SCALE = 10.0000" / ft.	CHECKED - JAC	REVISED -					CONTRACT NO. 68F09				
	PLOT DATE = 3/3/2025	DATE - 12/13/24	REVISED -		SCALE:	SHEET	OF	SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT	

APPENDIX 4-B

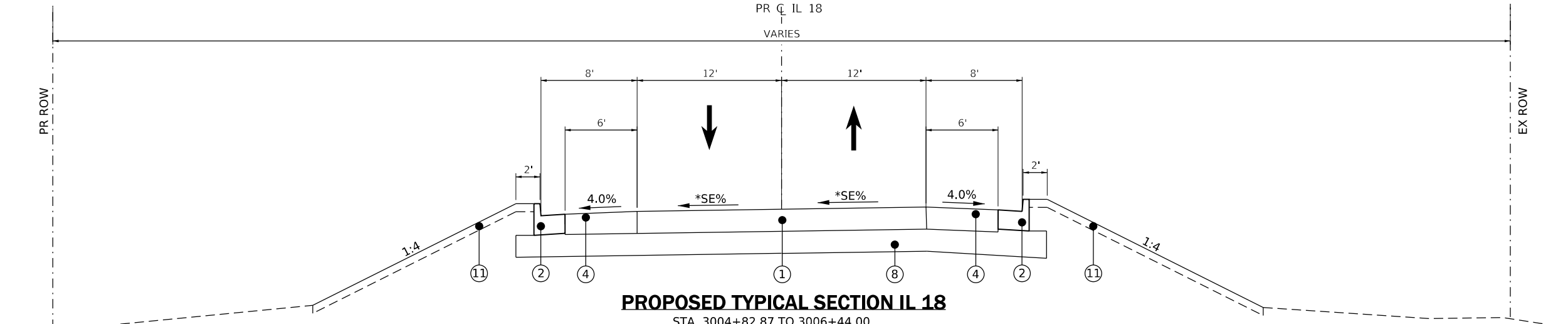
Proposed Typical Sections for the Preferred Alternative

Default
FILE NAME: pws\VANVAD\PW\INTD\J.Parsens.com\Illinois State\Documents\IL18 Henry Bridge\40 - Design\CAD\Roadway\Sheets\Typical Sections Sheet 5



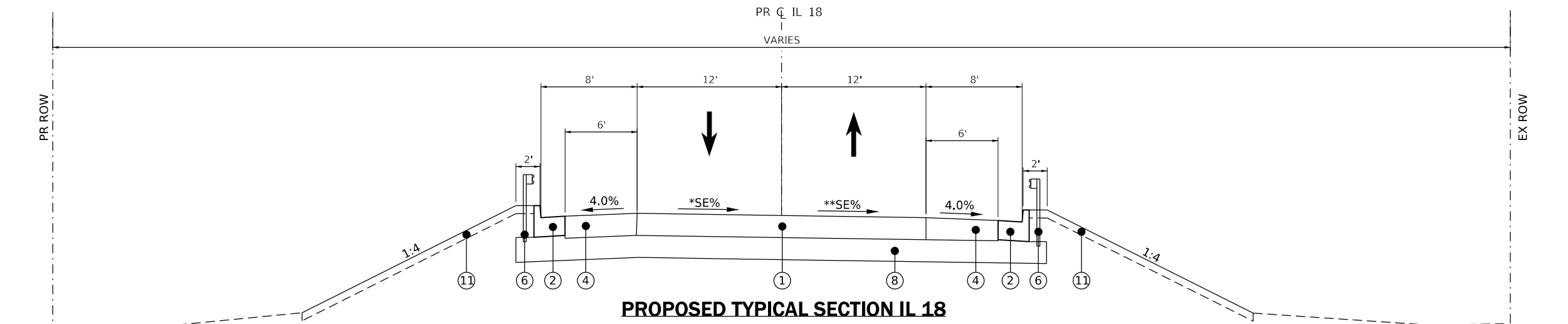
PROPOSED TYPICAL SECTION IL 18

STA. 3002+03.00 TO STA. 3004+82.87
*LT SIDEWALK BEGINS STA. 3001+12.24
*RT SIDEWALK BEGINS STA. 3001+82.32
**-1.5% TO 0% STA. 3002+71.00 TO STA. 3003+02.00
**0% TO 1.5% STA. 3003+02.00 TO STA. 3003+33.00



PROPOSED TYPICAL SECTION IL 18

STA. 3004+82.87 TO 3006+44.00
*-1.5% TO 0% STA. 3005+59.45 TO STA. 3006+44.00



PROPOSED TYPICAL SECTION IL 18

STA. 3006+44.00 TO 3008+15.99
*0% TO 4.0% STA. 3006+44.00 TO STA. 3007+33.00
*4.0% TO 0% STA. 3007+33.00 TO STA. 3008+51.00
**0% TO -4.0% STA. 3006+44.00 TO STA. 3007+33.00

PROPOSED LEGEND

- ① PR HMA PAVEMENT
- ② PR CC&G B-6.24
- ③ PR PCC SIDEWALK
- ④ PR HMA SHOULDER
- ⑤ PR AGG SHOULDER
- ⑥ PR GUARD RAIL
- ⑦ PR STABILIZED SUBBASE
- ⑧ PR AGG SUBBASE
- ⑨ PR STEEL BRIDGE STRUCTURE
- ⑩ PR CONCRETE BRIDGE PARAPET
- ⑪ PR TOPSOIL
- ⑫ PR GUTTER TYPE A
- ⑬ PR BRIDGE DECK

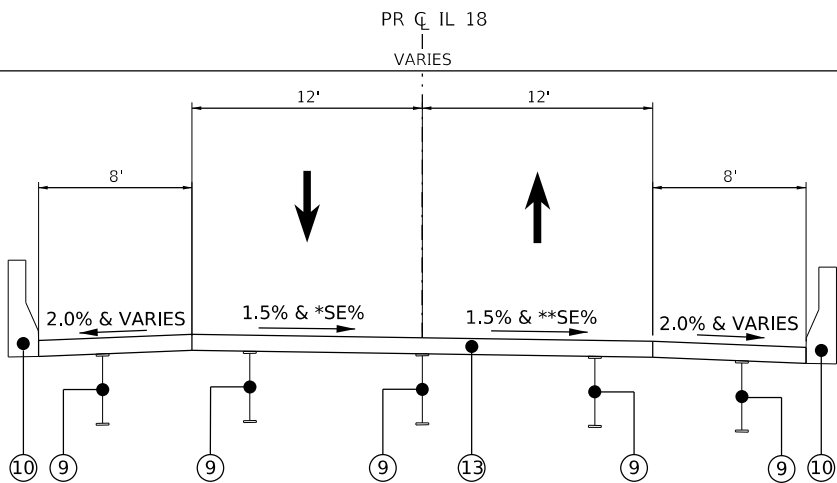
USER NAME	= p0035361	DESIGNED	- AB	REVISED	-
DRAWN	- AB	CHECKED	- JAC	REVISED	-
PLOT SCALE	= 10.0000" / in.	DATE	- 12/13/24	REVISED	-
PLOT DATE	= 3/3/2025				

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL-18 PROPOSED TYPICAL SECTION

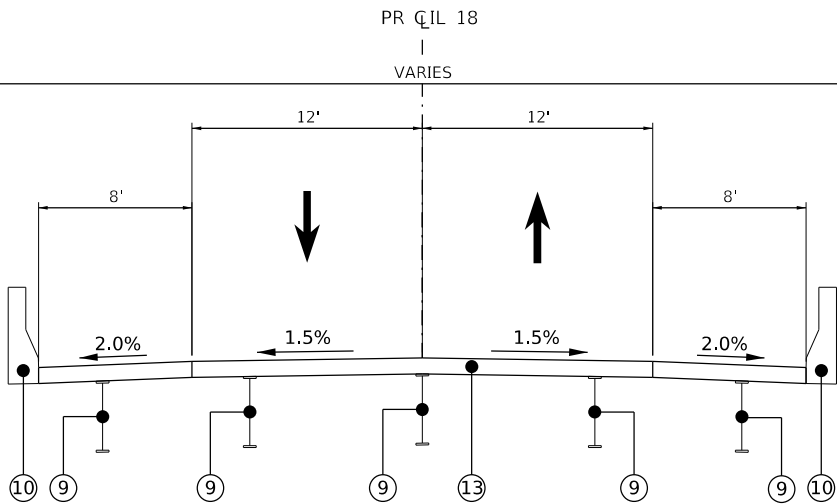
SCALE: SHEET OF SHEETS STA. TO STA.

F&P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
653	1048-D-BR	MARSHALL & PUTNAM	10	05
CONTRACT NO. 68F09				
ILLINOIS FED. AID PROJECT				



PROPOSED BRIDGE TYPICAL SECTION IL 18

STA. 3008+15.99 TO STA. 3009+65.00
APPROACH SLAB:
STA. 3008+15.99 TO STA. 3008+52.51
*0% TO -1.5% STA. 3008+51.00 TO STA. 3009+65.00
**-4.0% TO -1.5% STA. 3008+51.00 TO STA. 3009+65.00



PROPOSED BRIDGE TYPICAL SECTION IL 18

STA. 3009+65.00 TO STA. 3030+81.00
APPROACH SLAB:
STA. 3027+44.50 TO STA. 3030+81.00

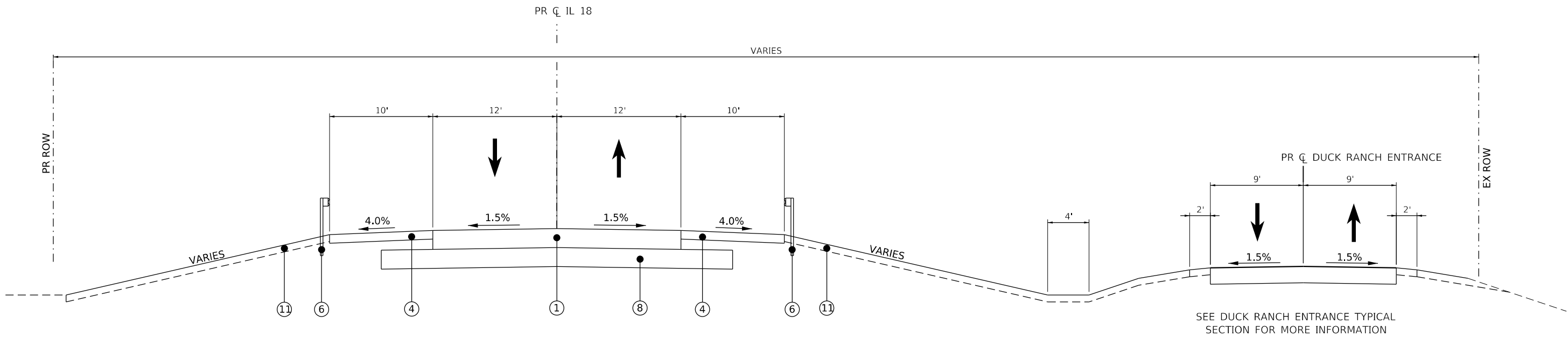
PROPOSED LEGEND

- ① PR HMA PAVEMENT
- ② PR CC&G B-6.24
- ③ PR PCC SIDEWALK
- ④ PR HMA SHOULDER
- ⑤ PR AGG SHOULDER
- ⑥ PR GUARD RAIL
- ⑦ PR STABLIZED SUBBASE
- ⑧ PR AGG SUBBASE
- ⑨ PR STEEL BRIDGE STRUCTURE
- ⑩ PR CONCRETE BRIDGE PARAPET
- ⑪ PR TOPSOIL
- ⑫ PR GUTTER TYPE A
- ⑬ PR BRIDGE DECK

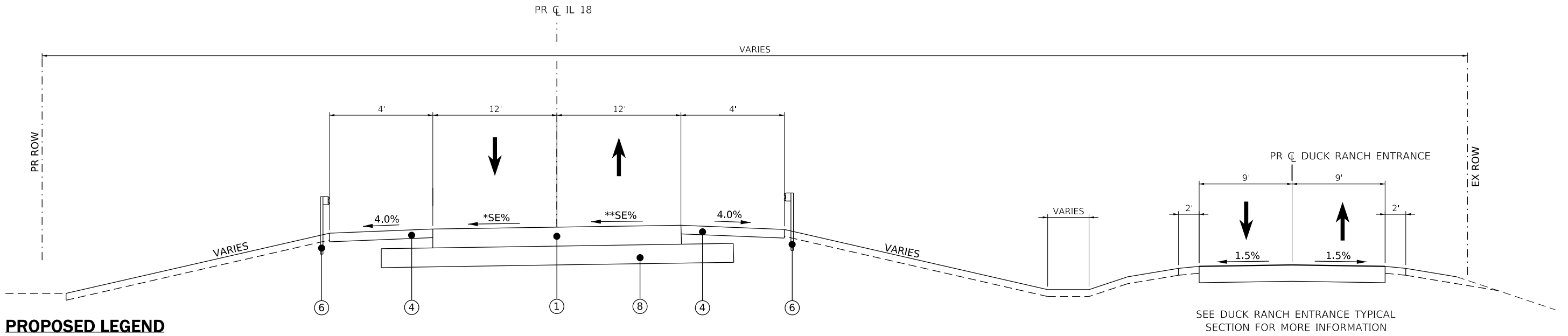
Default FILE NAME: p:\w\VANVAD\1PW\101_Parsons.com\Illinois - State\Documents\IL18 Henry Bridge\40 - Design\CAD\Roadway\Sheets\Typical Sections - Sheet 6

	USER NAME = p0035361	DESIGNED - AB	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	IL-18 PROPOSED TYPICAL SECTIONS			F&P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN - AB	REVISED -					653	1048-D-BR	MARSHALL & PUTNAM	10	06
	PLOT SCALE = 10.0000" / in.	CHECKED - JAC	REVISED -					CONTRACT NO. 68F09				
	PLOT DATE = 3/3/2025	DATE - 12/13/24	REVISED -		SCALE:	SHEET	OF	SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT	

Default: FILE NAME: pws\VAN\AQ1PW\INTD1.Parcens.com\Illinois State\Documents\IL18 Henry Bridge\40 - Design\CAD\Roadway\Sheets\Typical Sections Sheet 7



PROPOSED TYPICAL SECTION IL 18
STA. 3030+81.00 TO STA. 3031+12.00



PROPOSED TYPICAL SECTION IL 18
STA. 3031+12.00 TO STA. 3032+06.59
*-1.5% TO -3.0% STA. 3031+12.00 TO STA. 3032+52.00
**-1.5% TO 0% STA. 3031+12.00 TO STA. 3031+52.00
**0% TO 1.5% STA. 3031+52.00 TO STA. 3031+92.00
**1.5% TO 3.0% STA. 3031+92.00 TO STA. 3032+32.00

- PROPOSED LEGEND**
- ① PR HMA PAVEMENT
 - ② PR CC&G B-6.24
 - ③ PR PCC SIDEWALK
 - ④ PR HMA SHOULDER
 - ⑤ PR AGG SHOULDER
 - ⑥ PR GUARD RAIL
 - ⑦ PR STABLIZED SUBBASE
 - ⑧ PR AGG SUBBASE
 - ⑨ PR STEEL BRIDGE STRUCTURE
 - ⑩ PR CONCRETE BRIDGE PARAPET
 - ⑪ PR TOPSOIL
 - ⑫ PR GUTTER TYPE A
 - ⑬ PR BRIDGE DECK

USER NAME	= p0035361	DESIGNED	- AB	REVISED	-
DRAWN	- AB	DRAWN	- AB	REVISED	-
PLOT SCALE	= 10.0000" / in.	CHECKED	- JAC	REVISED	-
PLOT DATE	= 3/3/2025	DATE	- 12/13/24	REVISED	-

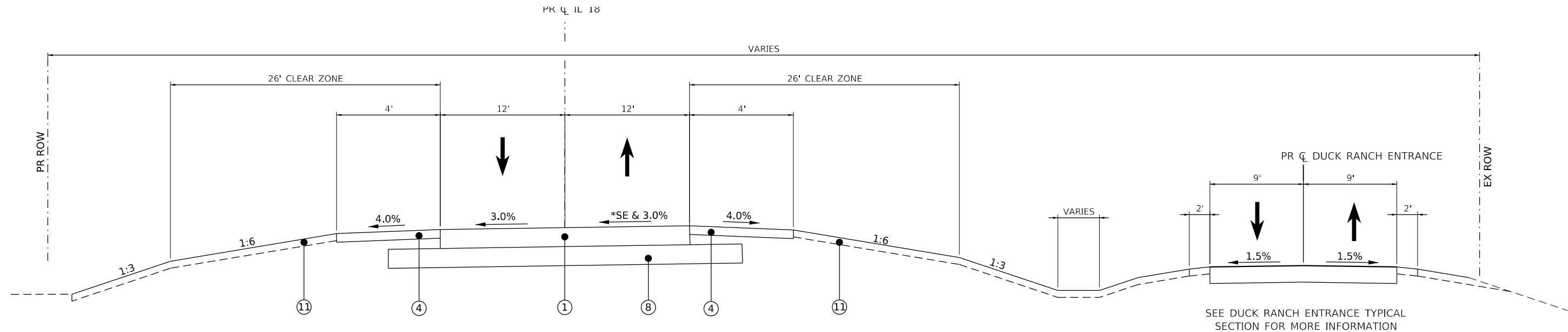
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL-18 PROPOSED TYPICAL SECTION

SCALE: SHEET OF SHEETS STA. TO STA.

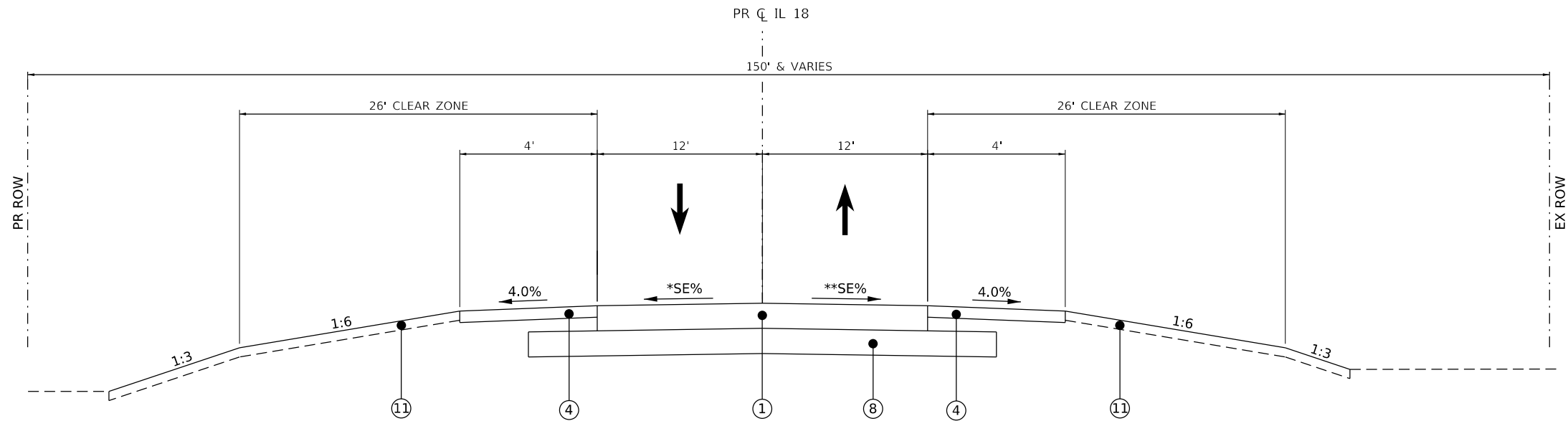
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
653	1048-D-BR	MARSHALL & PUTNAM	10	07
CONTRACT NO. 68F09				
ILLINOIS FED. AID PROJECT				

Default: FILE NAME: j:\w\1\VAN\AD\1\W\1\T\1\P\0035361\1\Parsons.com\Illinois - State\Documents\IL18 Henry Bridge\40 - Design\CAD\Roadway\Sheets\Typical Sections Sheet 8



PROPOSED TYPICAL SECTION IL 18

STA. 3032+06.59 TO STA. 3036+00.00
*1.5% TO 3.0% STA. 3031+92.00 TO STA. 3032+32.00



PROPOSED TYPICAL SECTION IL 18

STA. 3036+00.00 TO STA. 3045+10.88
*-3.0% TO 1.5% STA. 3043+11.00 TO STA. 3044+31.00
**-3.0% TO 0% STA. 3043+00.00 TO STA. 3043+91.00
**0% TO -1.5% STA. 3043+91.00 TO STA. 3044+31.00

PROPOSED LEGEND

- ① PR HMA PAVEMENT
- ② PR CC&G B-6.24
- ③ PR PCC SIDEWALK
- ④ PR HMA SHOULDER
- ⑤ PR AGG SHOULDER
- ⑥ PR GUARD RAIL
- ⑦ PR STABILIZED SUBBASE
- ⑧ PR AGG SUBBASE
- ⑨ PR STEEL BRIDGE STRUCTURE
- ⑩ PR CONCRETE BRIDGE PARAPET
- ⑪ PR TOPSOIL
- ⑫ PR GUTTER TYPE A
- ⑬ PR BRIDGE DECK

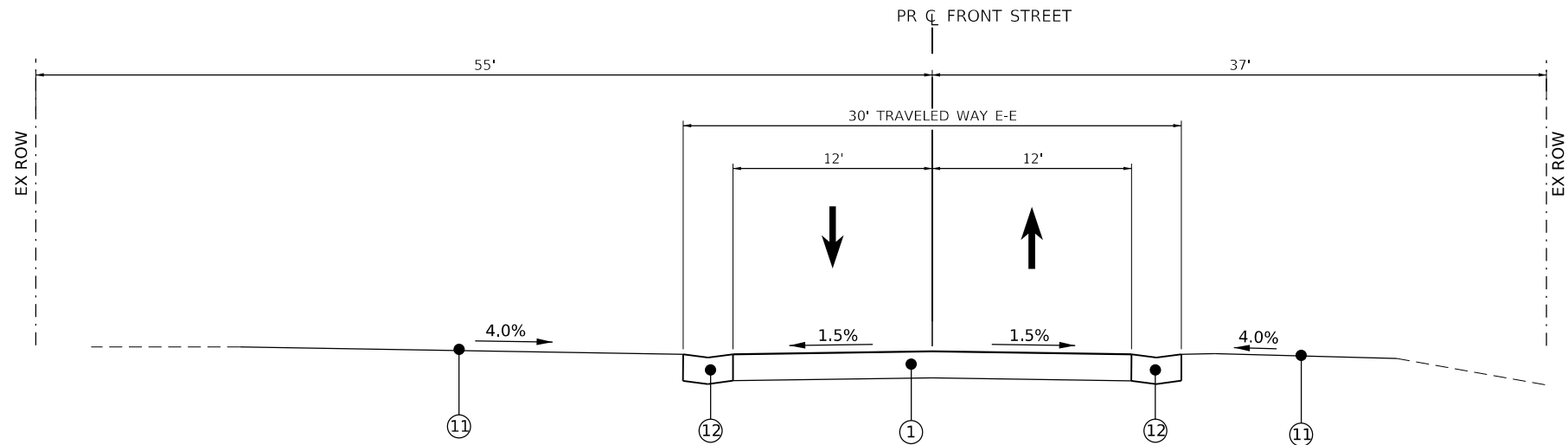
USER NAME	= p0035361	DESIGNED	- AB	REVISED	-
DRAWN	- AB	DRAWN	- AB	REVISED	-
PLOT SCALE	= 10.0000" / in.	CHECKED	- JAC	REVISED	-
PLOT DATE	= 3/3/2025	DATE	- 12/13/24	REVISED	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL-18 PROPOSED TYPICAL SECTION

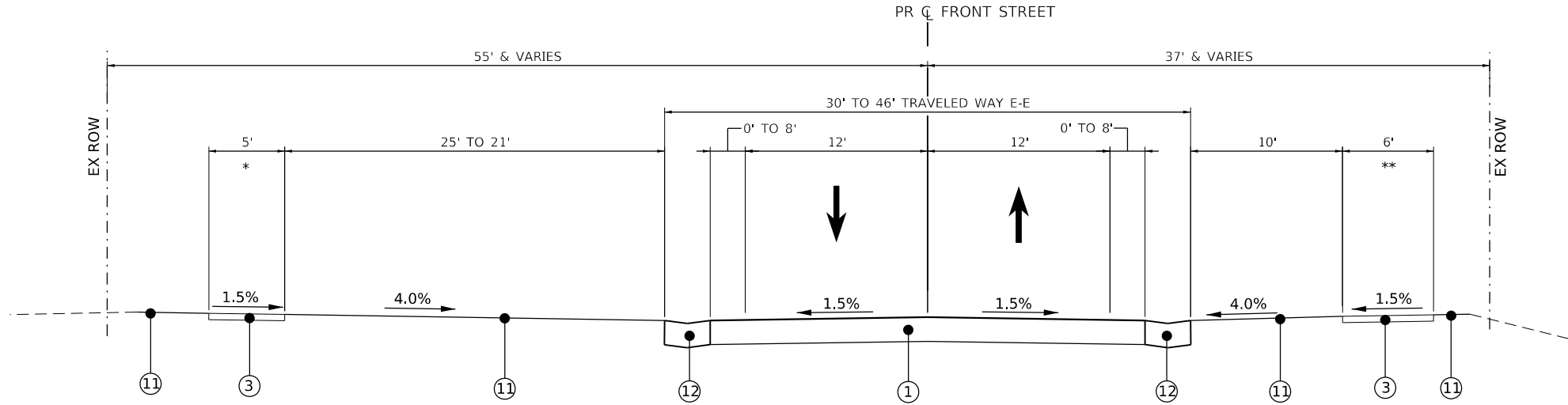
SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
653	1048-D-BR	MARSHALL & PUTNAM	10	08
CONTRACT NO. 68F09				
ILLINOIS FED. AID PROJECT				



PROPOSED TYPICAL SECTION FRONT STREET

STA. 1+90.00 TO STA. 2+10.00

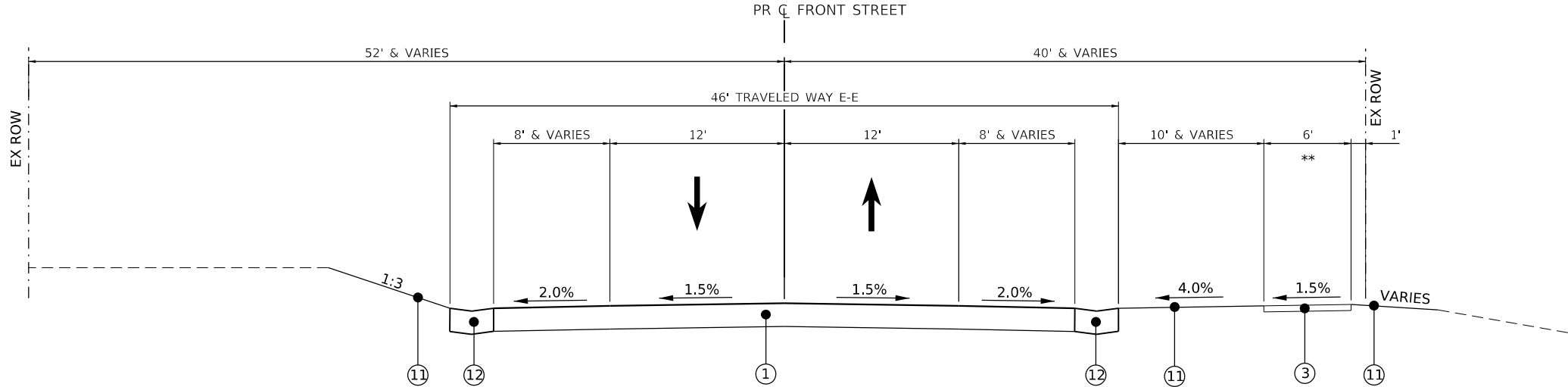


PROPOSED TYPICAL SECTION FRONT STREET

STA. 2+10.00 TO STA. 4+50.00

* STA. 2+50.26 TO STA. 3+36.01

** STA. 2+49.77 TO STA. 4+50.00



PROPOSED TYPICAL SECTION FRONT STREET

STA. 4+50.00 TO STA. 7+08.86

** STA. 4+50.00 TO STA. 5+81.09

PROPOSED LEGEND

- ① PR HMA PAVEMENT
- ② PR CC&G B-6.24
- ③ PR PCC SIDEWALK
- ④ PR HMA SHOULDER
- ⑤ PR AGG SHOULDER
- ⑥ PR GUARD RAIL
- ⑦ PR STABLIZED SUBBASE
- ⑧ PR AGG SUBBASE
- ⑨ PR STEEL BRIDGE STRUCTURE
- ⑩ PR CONCRETE BRIDGE PARAPET
- ⑪ PR TOPSOIL
- ⑫ PR GUTTER TYPE A
- ⑬ PR BRIDGE DECK

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

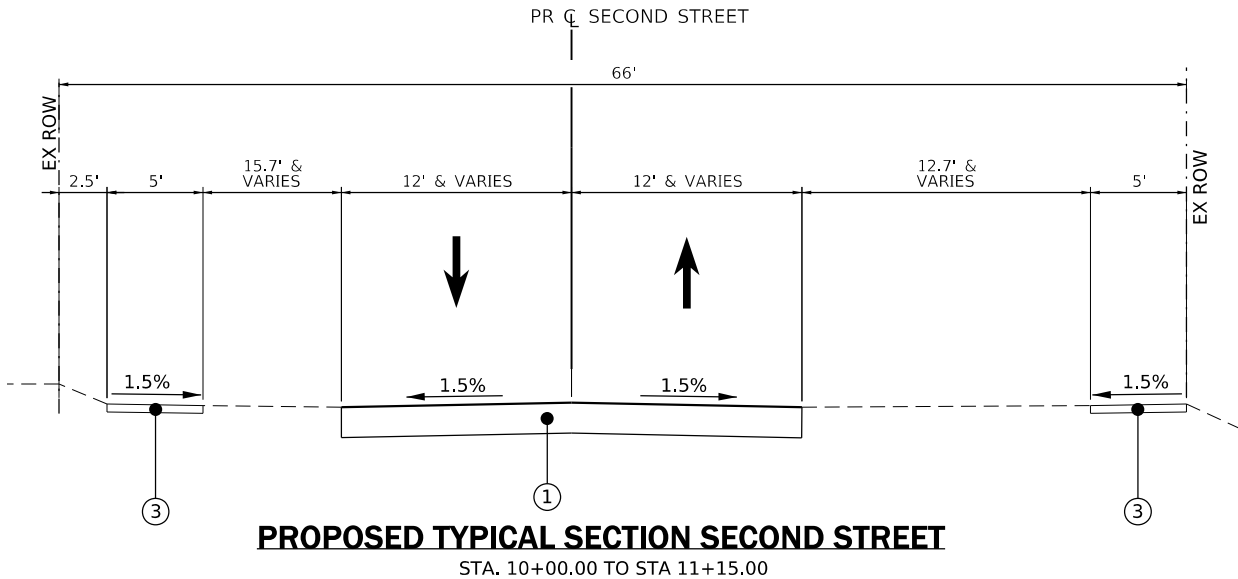
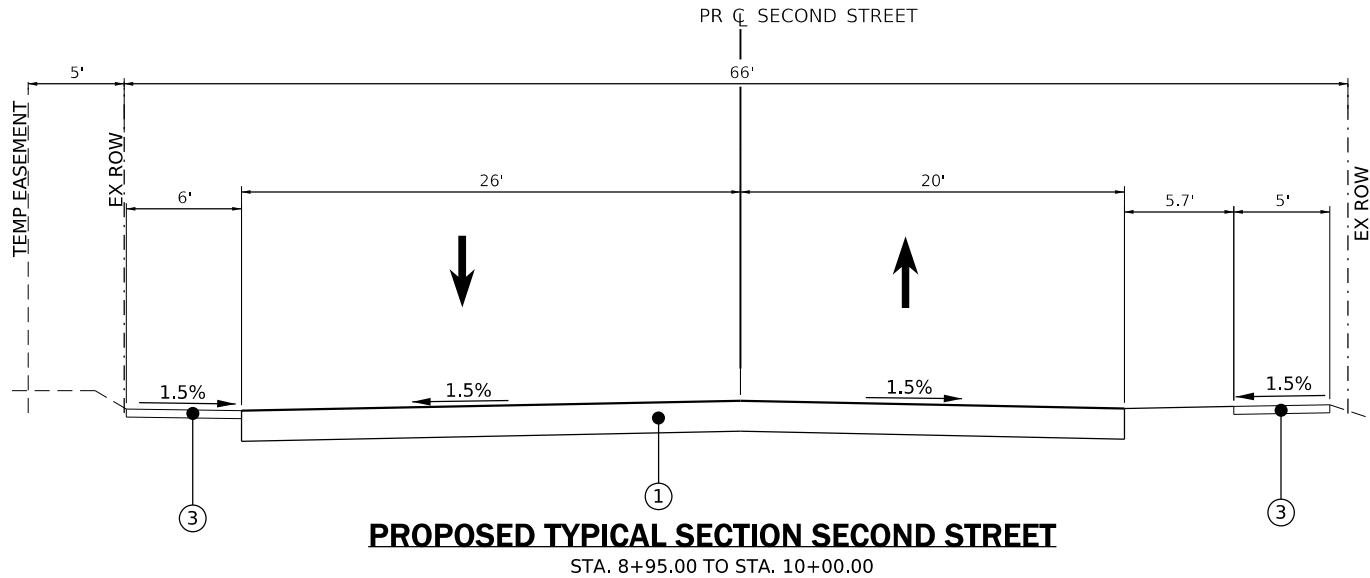
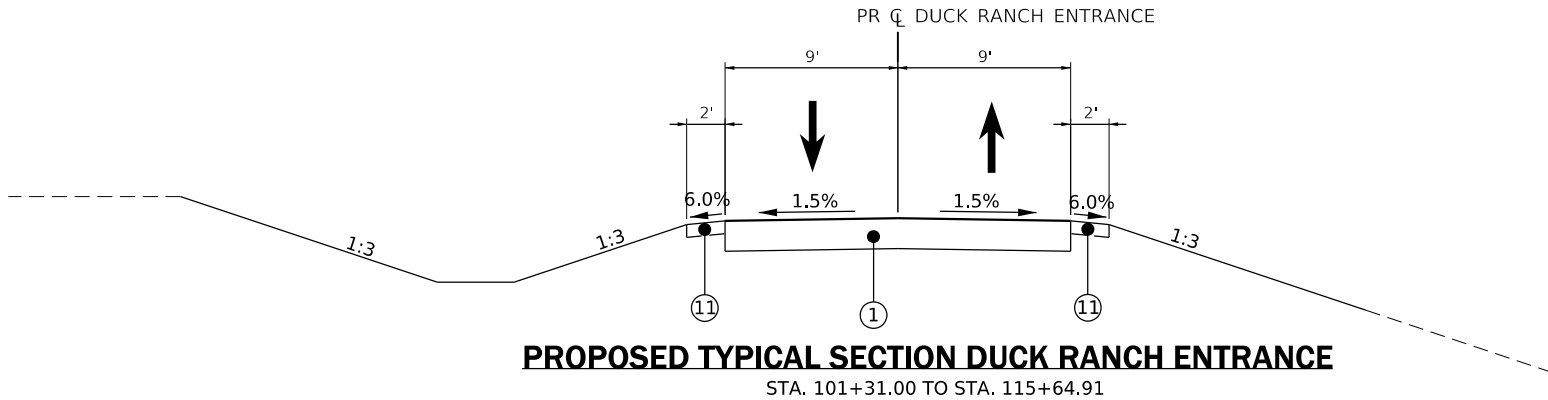
FRONT STREET
PROPOSED TYPICAL SECTION

F&P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
653	1048-D-BR	MARSHALL & PUTNAM	10	09
CONTRACT NO. 68F09				
ILLINOIS FED. AID PROJECT				

Default: FILE NAME: pws\VANVAD\1PW\1011_Parsons.com\Illinois - State\Documents\1118 Henry Bridge\40 - Design\CAD\Roadway\Sheets\Typical Sections Sheet 10

PROPOSED LEGEND

- ① PR HMA PAVEMENT
- ② PR CC&G B-6.24
- ③ PR PCC SIDEWALK
- ④ PR HMA SHOULDER
- ⑤ PR AGG SHOULDER
- ⑥ PR GUARD RAIL
- ⑦ PR STABILIZED SUBBASE
- ⑧ PR AGG SUBBASE
- ⑨ PR STEEL BRIDGE STRUCTURE
- ⑩ PR CONCRETE BRIDGE PARAPET
- ⑪ PR TOPSOIL
- ⑫ PR GUTTER TYPE A
- ⑬ PR BRIDGE DECK



USER NAME	= p0035361	DESIGNED	- AB	REVISED	-
DRAWN	- AB	CHECKED	- JAC	REVISED	-
PLOT SCALE	= 10.0000" / in.	DATE	- 12/13/24	REVISED	-
PLOT DATE	= 3/3/2025				

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DUCK RANCH AND SECOND STREET PROPOSED TYPICAL SECTION		SCALE:	SHEET	OF	SHEETS	STA.	TO STA.
--	--	--------	-------	----	--------	------	---------

F&P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
653	1048-D-BR	MARSHALL & PUTNAM	10	10
CONTRACT NO. 68F09				
ILLINOIS FED. AID PROJECT				

APPENDIX 4-C

Geometric Design Criteria for Rural Two-Lane Minor Arterial

Design Element		Manual Section	New Construction/Reconstruction Two-Way DHV: Under 1050 (2)	Elements to Remain-In-Place (1) Two-Way DHV: Under 975 (2)
Design Controls	Design Forecast Year	31-4.02	20 Years	20 Years
	*Design Speed	31-2	60 mph (3a)	60 mph (3b)
	Access Control	35-1	Controlled by Regulation (4)	Controlled by Regulation
	Level of Service	31-4.04	C	C
Cross Section Elements	*Traveled Way Width	34-2.01	24'	22'
	*Shoulder Width	34-2.02	10'	8'
			4'	4'
	Auxiliary Lanes	34-2.03	12'	11'
			4' (Paved)	4' (Paved)
	Flush/TWLT Widths	34-3.03	14'	12'
			3/16"/ft (5a)	3/16"/ft (5)
	Cross Slope	34-2.02	1/2"/ft (5b)	1/2"/ft to 3/4" ft (5b)
Roadway Slopes	Clear Zone	38-3	(6)	(6)
			1V:6H	1V:4H
	Side Slopes	34-4.03	4' (7)	2'-0" (7)
			1V:3H (8)	1V:3H (8)
			—	—
	Fill Section	34-4.05	1V:6H to Clear Zone; 1V:3H max. to Toe of Slope (9)	1V:4H to Clear Zone; 1V:3H max. to Toe of Slope (9)
			HS-20	N/A
	New and Reconstructed Bridges	N/A	HS-20	N/A
Bridges	Existing Bridges to Remain in Place	39-6	32'	N/A
			N/A	HS-20
	*Vertical Clearance (Arterial Under) (12a)	39-6	N/A	30' - 32'
			16'-6" (12b)	
			16'-0"	
	*Vertical Clearance (Arterial over Railroad)	33-5	New: 17'-3" (12b)	
			23'-0"	
		39-4.06		

* Controlling design criteria (see Section 31-8).

GEOMETRIC DESIGN CRITERIA FOR RURAL TWO-LANE MINOR ARTERIALS (New Construction/Reconstruction) (US Customary)

Figure 47-2.K

APPENDIX 4-D

Roadway Plan & Profile

Sheets

Right-of-Way Plans

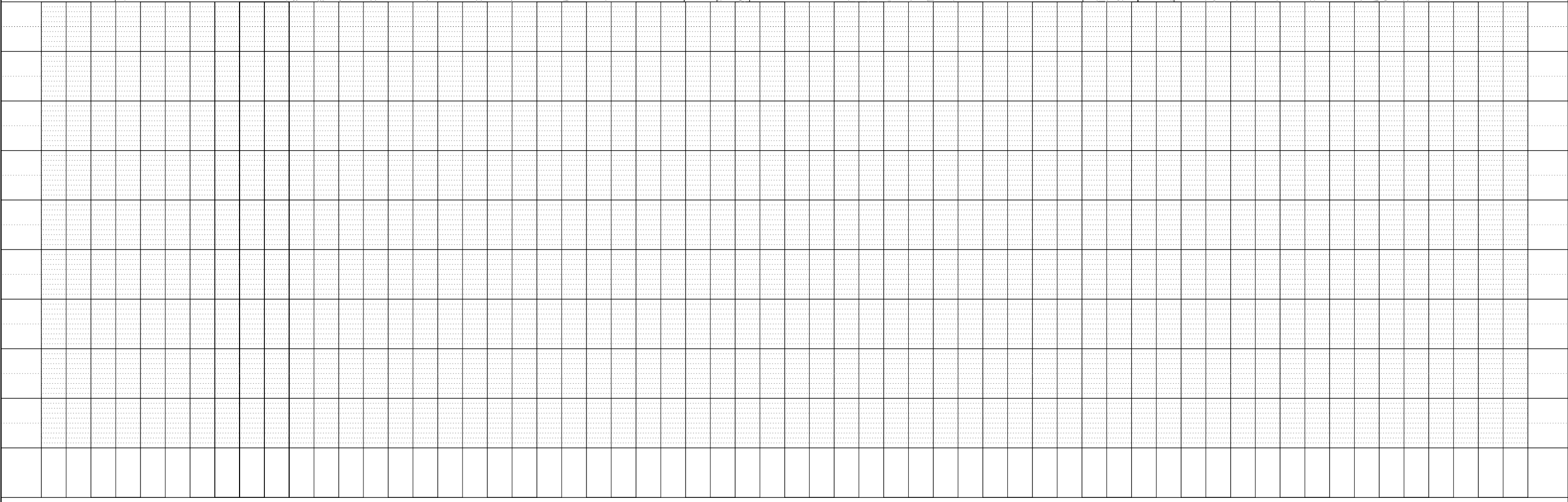
PLAN	SUBMITTED	PIOTTED	ALIGNMENT CHECKED	CADD FILE NAME	DATE

PROP. CURVE IL18_SKEW1
PI STA. = 3004+72.86
 Δ = 9° 08' 26" (LT)
D = 3° 58' 44"
R = 1,440.00'
T = 115.11'
L = 229.72'
E = 4.59'
e = 1.5%
T.R. = 31'
S.E. RUN = 31'
P.C. STA. = 3003+57.75
P.T. STA. = 3005+87.48

PROP. CURVE IL18_SKEW2
PI STA. = 3007+88.54
 Δ = 7° 08' 26" (RT)
D = 3° 58' 44"
R = 1,440.00'
T = 89.85'
L = 179.46'
E = 2.80'
e = 4.0%
T.R. = 31'
S.E. RUN = 83'
P.C. STA. = 3006+98.70
P.T. STA. = 3008+78.16

PROFILE	SUBMITTED	PIOTTED	GRADINGS CHECKED	STRUCTURE NOTATIONS CPWD	DATE

Default FILE NAME: twv\ANAS\1\PRINT\1_Persons\com\Illinois State\Documents\IL18 Henry Bridge\40 - Design\CAD\Roadway\Sheet\400720-Set\dlp_01.dgn



USER NAME	= p008932D	DESIGNED	JC	REVISED	
		DRAWN	SO	REVISED	
PLOT SCALE	= 100.0000' / in.	CHECKED	MP	REVISED	
PLOT DATE	= 6/18/2025	DATE	12/13/24	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCALE: 1" = 50'		SHEET	OF	SHEETS	STA.	TO STA.

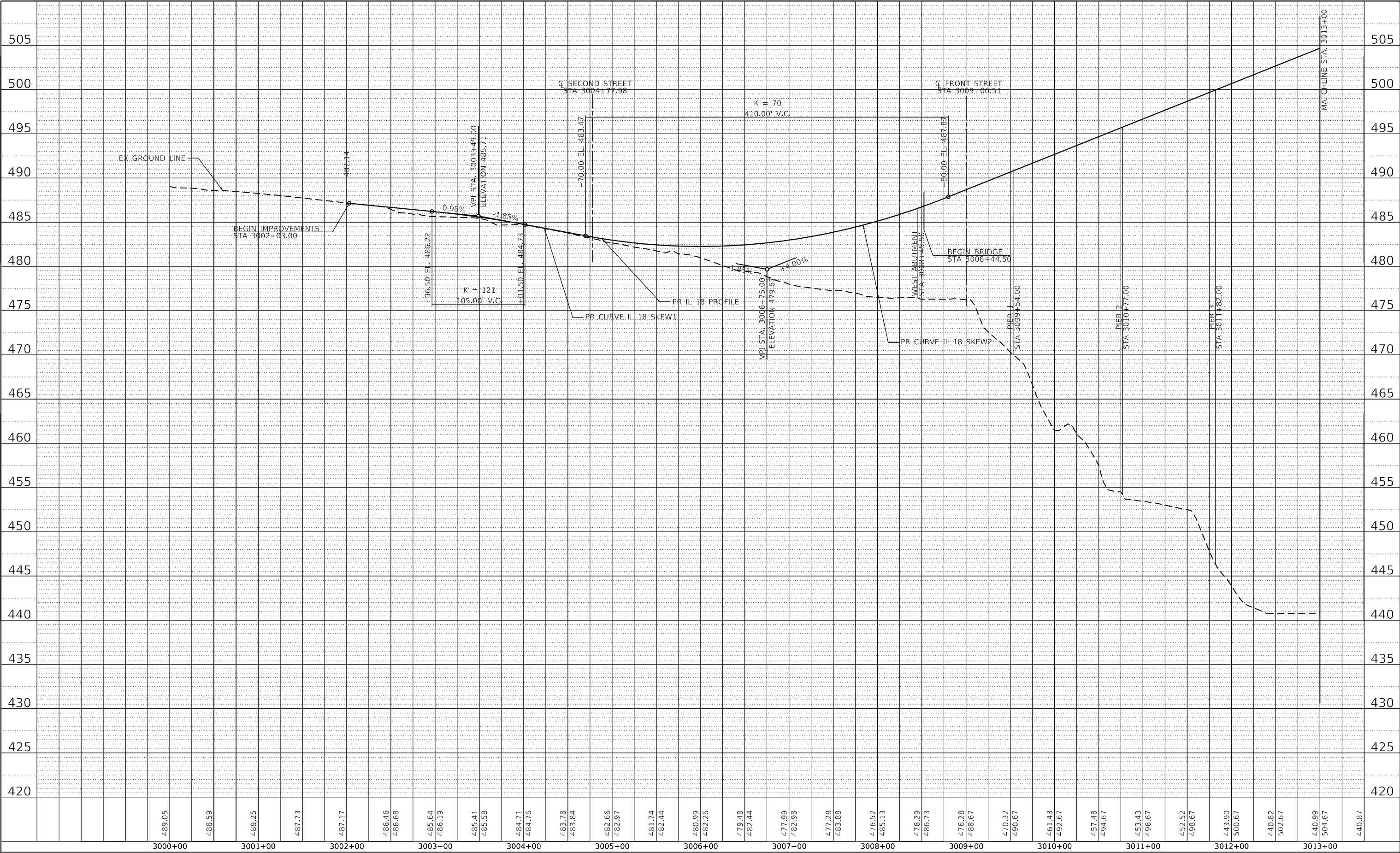
IL-18 PLAN AND PROFILE
BEGIN TO STA. 3013+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
653	1048-D-BR	MARSHALL & PUTNAM	09	01
CONTRACT NO. 68F09				
ILLINOIS FED. AID PROJECT				

PLAN	SURVEYED	BY	DATE
	PLOTTED		
	ALIGNMENT CHECKED		
	CADD FILE NAME		
NOTE BOOK NO.			

PROFILE	SURVEYED	BY	DATE
	PLOTTED		
	GRADES CHECKED		
	STRUCTURE NOTATIONS CHNG		
NOTE BOOK NO.			

MODEL: Default
FILE NAME: p:\civ\VAIN\401\VAIN101\Persons\com\illinois State\Documents\118 Henry Bridge\40 - Design\CA\18\roadway\Sheets\0400726-st-18-prof_1A.dgn



USER NAME	= p008932D	DESIGNED -	JC	REVISED -	
		DRAWN -	SO	REVISED -	
PLOT SCALE	= 100.0000 ' / in.	CHECKED -	MP	REVISED -	
PLOT DATE	= 3/3/2025	DATE	= 12/13/24	REVISED -	

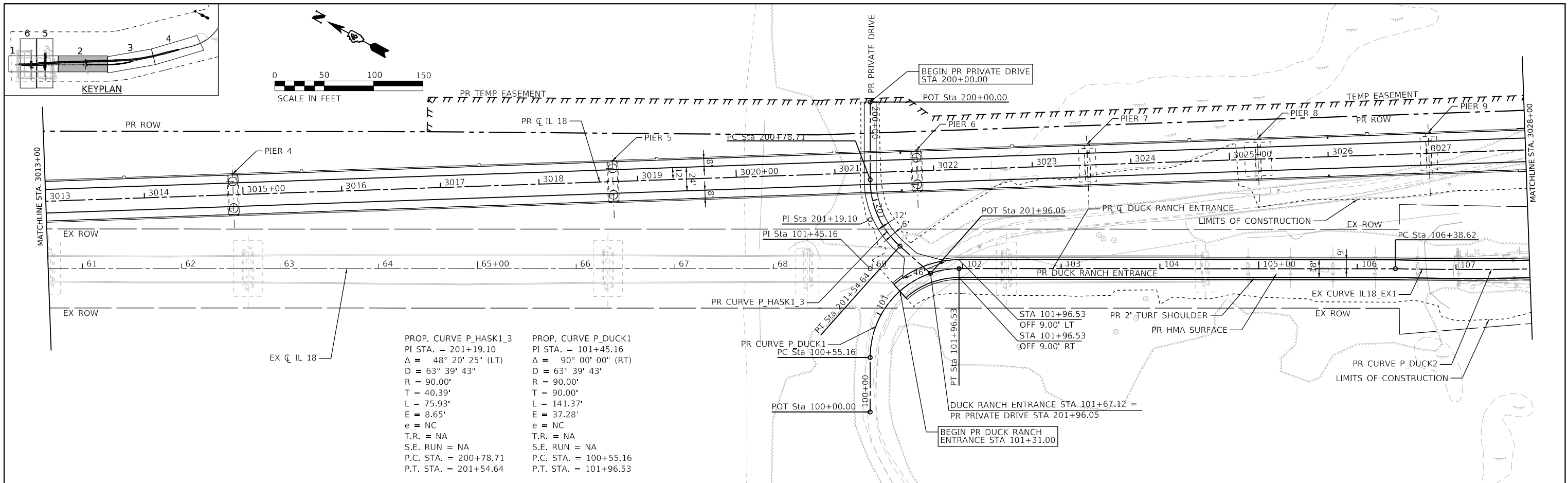
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCALE: 1" = 50' SHEET OF SHEETS STA. TO STA.

IL-18 PROFILE
BEGIN TO STA. 3013+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
653	1048-D-BR	MARSHALL & PUTNAM	09	02
CONTRACT NO. 68F09				
ILLINOIS FED. AID PROJECT				

PROFILE		BY	DATE
NOTE BOOK	SURVEYED		
	PLOTTED		
	GRADES CHECKED		
	R.M. NOTED		
	STRUCTURE NOTATIONS CHECKED		

[illegible]

USER NAME = p008932D	DESIGNED JC	REVISED
	DRAWN SQ	REVISED
PLOT SCALE = 100.0000 ' / in.	CHECKED MP	REVISED
PLOT DATE = 6/18/2025	DATE 12/13/24	REVISED

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**IL-18 PLAN AND PROFILE
STA. 3013+00 TO STA. 3028+00.00**

SCALE: 1" = 50'	SHEET	OF	SHEETS	STA.	TO STA.
-----------------	-------	----	--------	------	---------

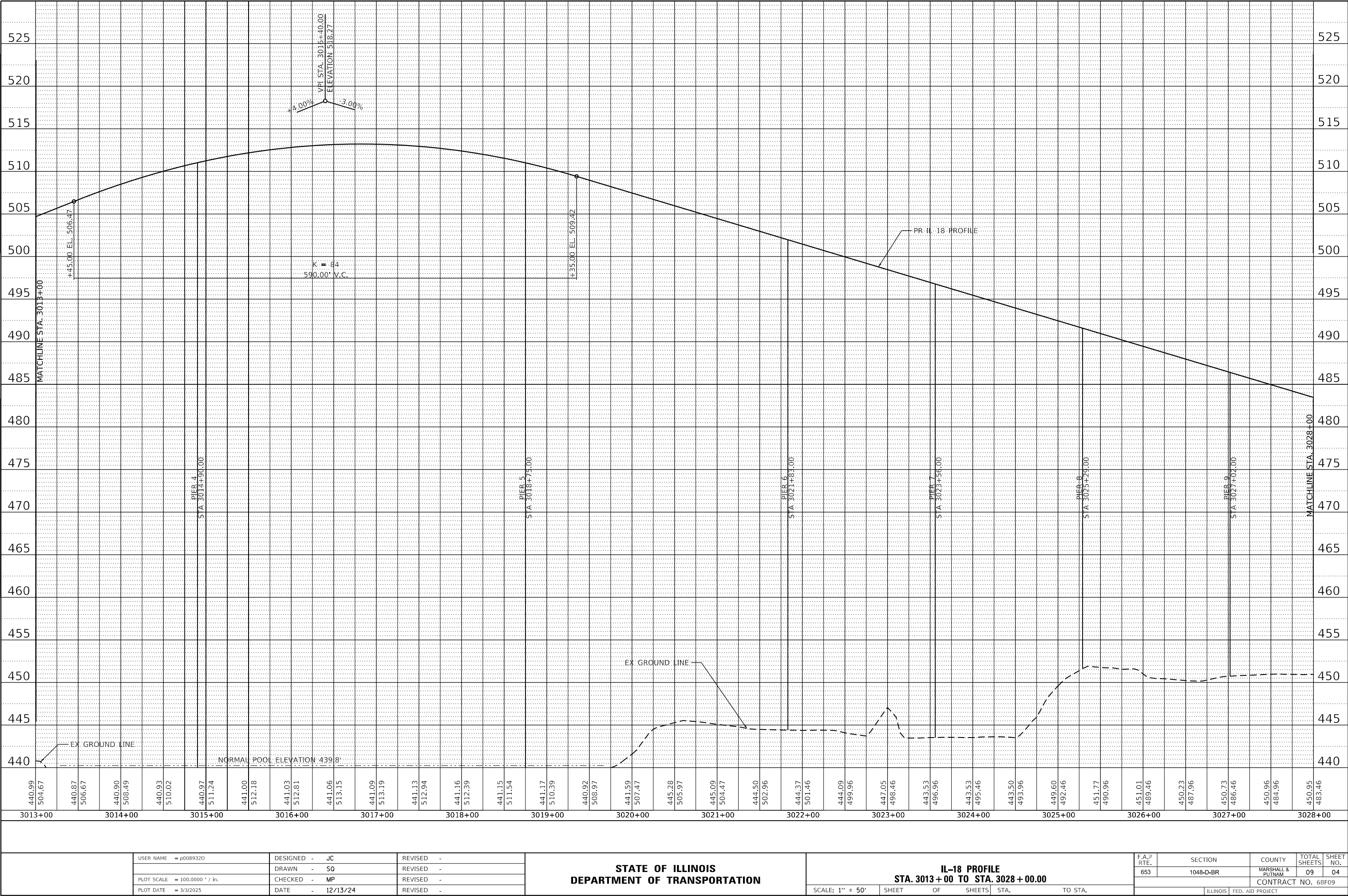
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
653	1048-D-BR	MARSHALL & PUTNAM	09	03
CONTRACT NO.			68F09	
ILLINOIS		FED. AID PROJECT		

Default
FILE NAME: pw:\\VANVA01\PW\INT01\Parsons.com\Illinois State\Documents\IL18 Henry Bridge\40 - Design\CAD\Roadway\Sheets\ID400726-sht-plnrfp 02.dgn
NO. _____
STRUCTURE NOTATIONS CHWD

PLAN	SURVEYED PLOTTED	BY	DATE
NOTE BOOK NO. _____	ALIGNMENT CHECKED _____ NO. _____	_____ CADD FILE NAME	_____ CADD FILE NAME

PROFILE	SURVEYED PLOTTED	BY	DATE
NOTE BOOK NO. _____	GRADES CHECKED _____ NO. _____	_____ STRUCTURE NOTATION CHNG	_____ STRUCTURE NOTATION CHNG

MODEL: Default
FILE NAME: p:\civ\VAIN\A01\PIVINT01_Persons\com\Illinois State\Documents\118 Henry Bridge\cadd - Design\Cadd\roadway\Sheets\0400726-sts-prof-2A.dgn



PLOT SCALE = 100,0000 ' / in. PLOT DATE = 3/3/2025	USER NAME = p008932D	DESIGNED - JC	REVISED -
		DRAWN - SQ	REVISED -
		CHECKED - MP	REVISED -
		DATE - 12/13/24	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

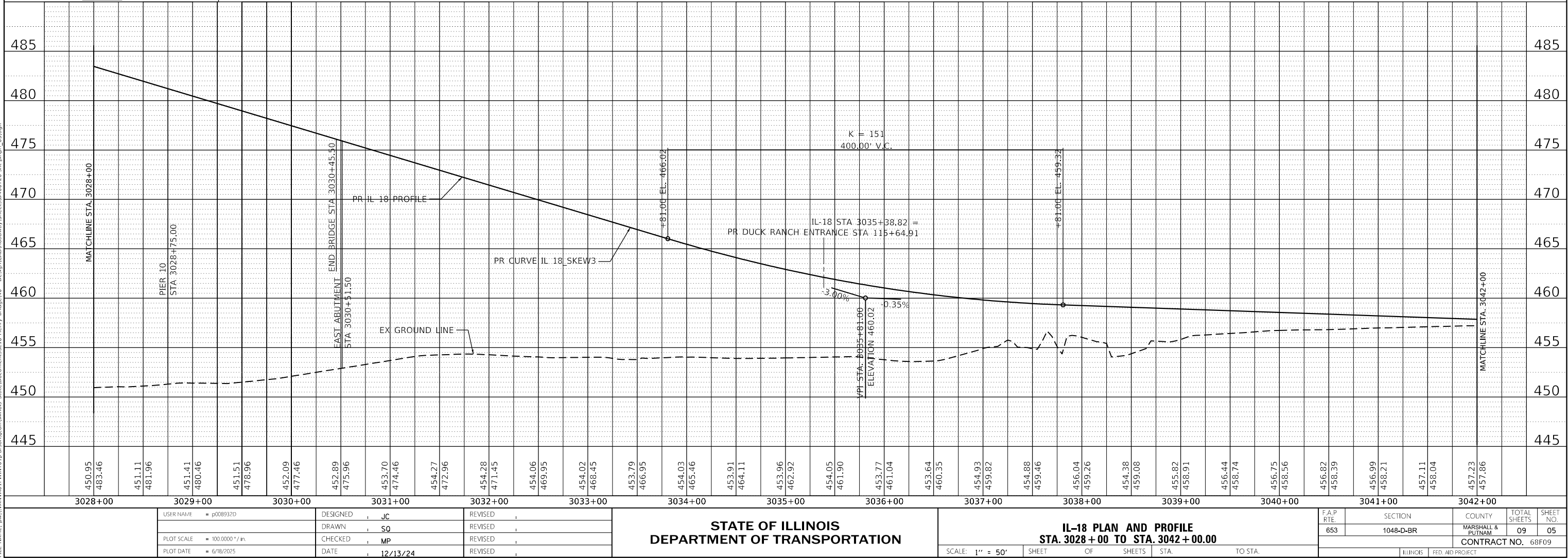
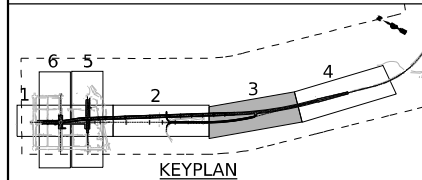
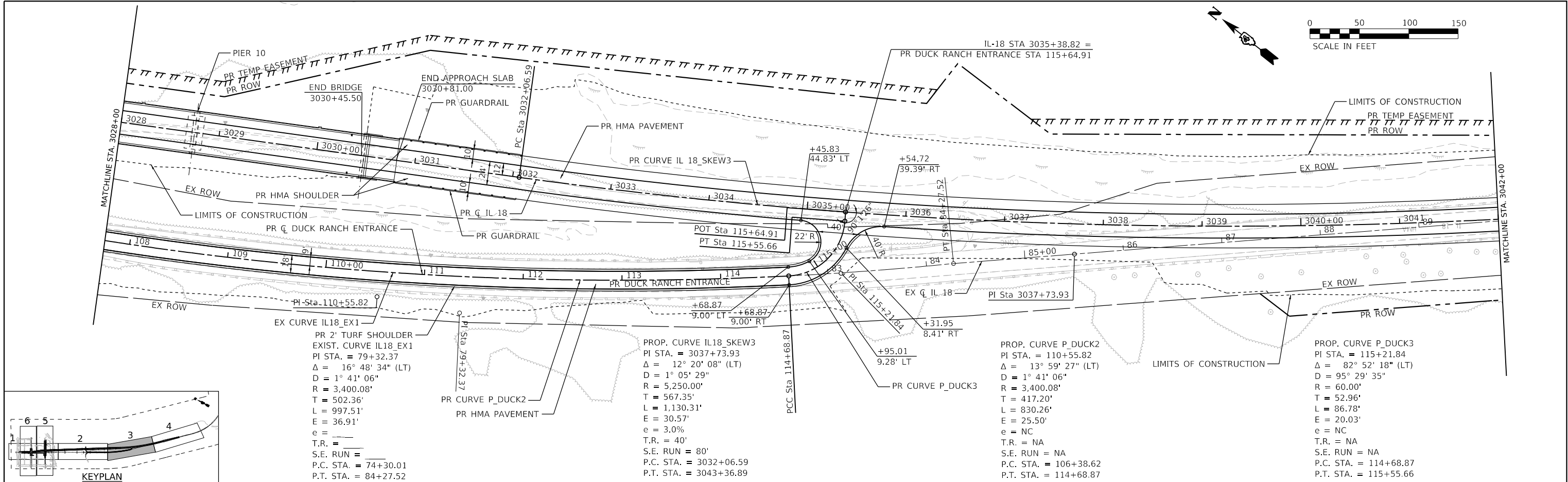
SCALE: 1" = 50'			
SHEET	OF	SHEETS	STA.
TO STA.			

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
653	1048-D-BR	MARSHALL & PUTNAM	09	04
CONTRACT NO. 68F09				
ILLINOIS		FED. AID PROJECT		

PLAN	SURVEYED	PLOTTED	ALIGNMENT CHECKED	STATIONED	CADD FILE NAME

PROFILE	SURVEYED	PLOTTED	GRADES CHECKED	STRUCTURE NOTATIONS CPWD	DATE

Default FILE NAME: tw:\VIA\AD\PROJECT\10_Persons\com\Illinois State\Documents\IL18 Henry Bridge\40 - Design\CADD\Roadway\Sheets\1040720-Sub\cadd\p\03.dgn



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

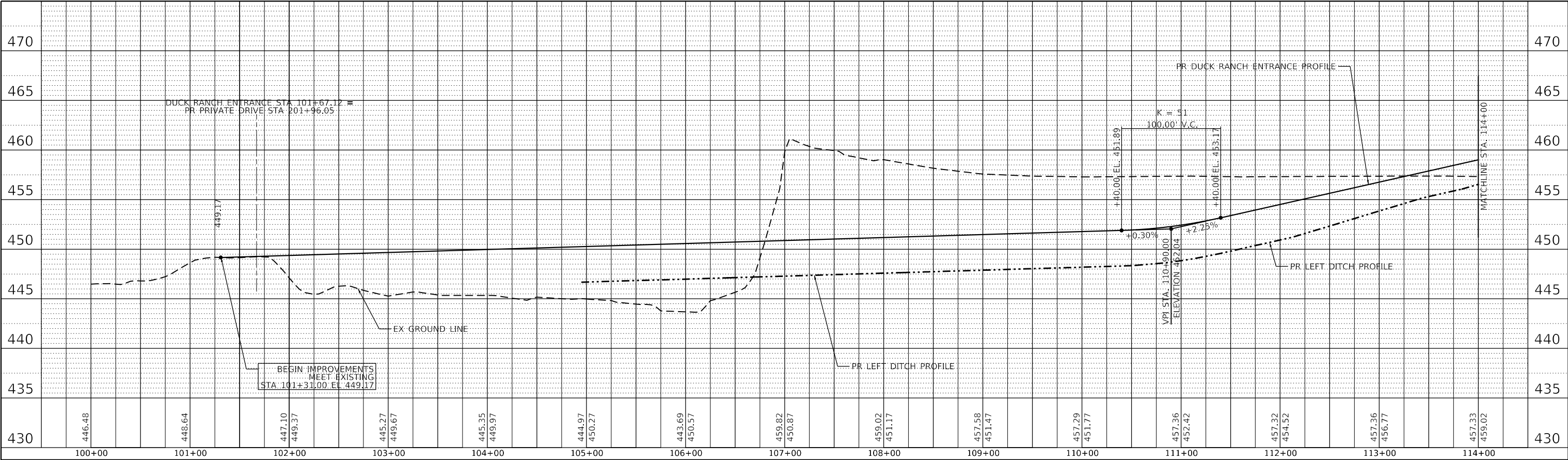
IL-18 PLAN AND PROFILE
STA. 3028+00 TO STA. 3042+00.00

USER NAME = p008932D	DESIGNED = JC	REVISED =
PLOT SCALE = 100.0000' / in.	DRAWN = SQ	REVISED =
PLOT DATE = 6/18/2025	CHECKED = MP	REVISED =
	DATE = 12/13/24	REVISED =

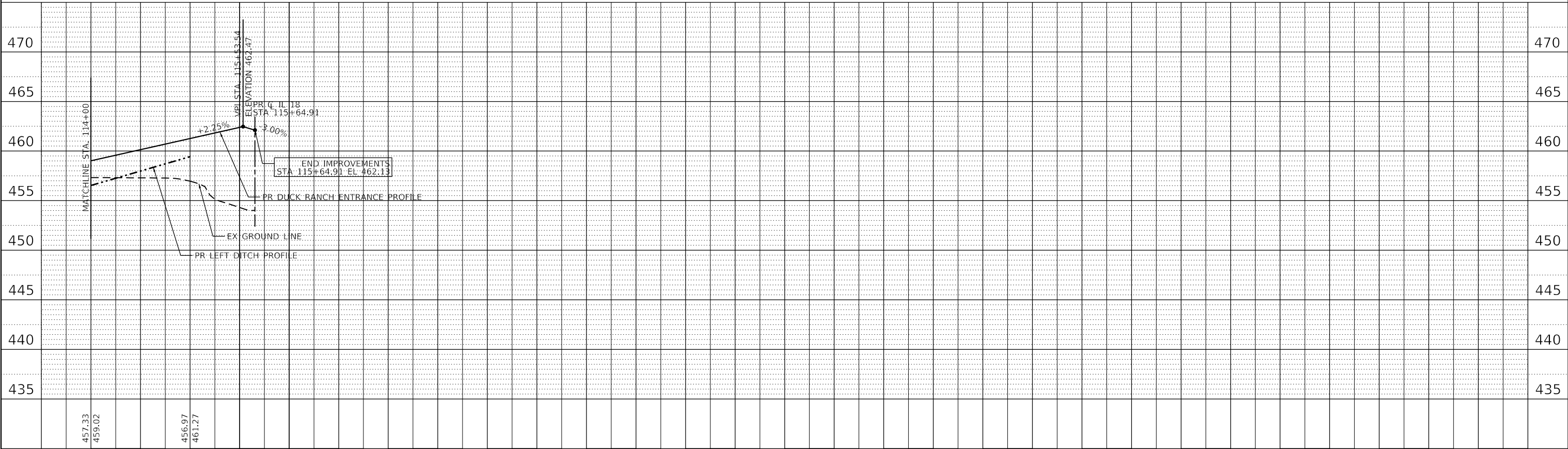
SCALE: 1" = 50' SHEET OF SHEETS STA. TO STA.

F&P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
653	1048-D-BR	MARSHALL & PUTNAM	09	05
CONTRACT NO. 68F09				

PLAN	SURVEYED	BY	DATE
	PLOTTED		
	ALIGNMENT CHECKED		
	CADD FILE NAME		
	NOTE BOOK NO.		



PROFILE	SURVEYED	BY	DATE
	PLOTTED		
	GRADES CHECKED		
	STRUCTURE NOTATIONS CHNG		
	NOTE BOOK NO.		



MODEL: Default
FILE NAME: p:\cadd\va\va01\pwin\01\Personnel\Illinois State\Documents\118 Henry Bridge\00 - Design\cadd\roadway\Sheets\0400726-stp-prof-3A.dgn

USER NAME = p008932D	DESIGNED - JC	REVISED -
	DRAWN - SQ	REVISED -
PLOT SCALE = 100.0000 ' / in.	CHECKED - MP	REVISED -
PLOT DATE = 3/3/2025	DATE - 12/13/24	REVISED -

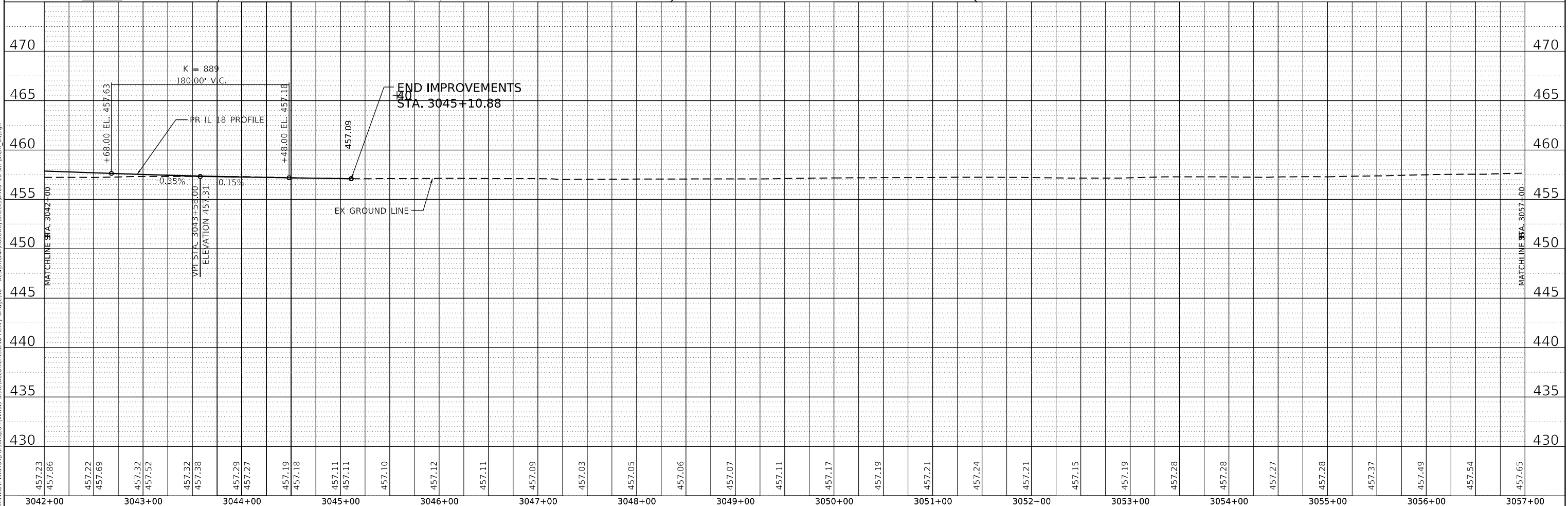
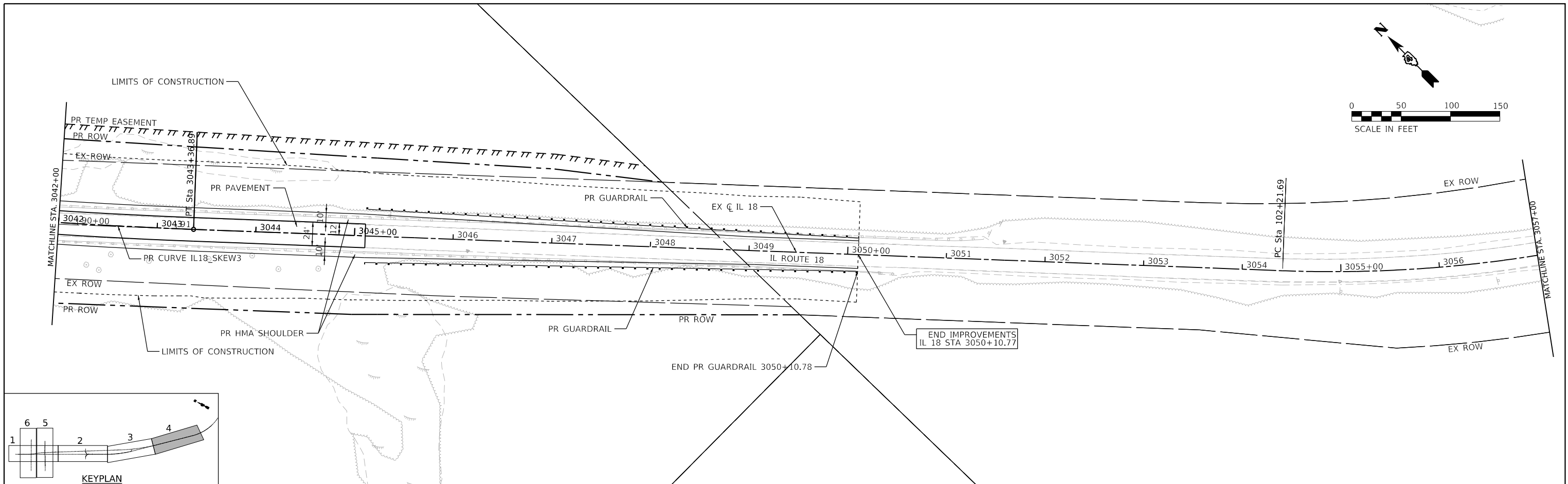
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCALE: 1" = 50'			
SHEET	OF	SHEETS	STA.
TO STA.			

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
653	1048-D-BR	MARSHALL & PUTNAM	09	06
CONTRACT NO. 68F09				
ILLINOIS FED. AID PROJECT				

PLAN	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
	ALIGNMENT CHECKED		
	RT. OF WAY CHECKED		
	CADD FILE NAME		
NO.			

PROFILE	SURVEIVED	BY	DATE
	PLOTTED		
NOTE BOOK	GRADES CHECKED		
NO. _____	R.M. NOTED		
	STRUCTURE NOTATIONS CHECKED		



USER NAME = p008932D	DESIGNED JC	REVISED
	DRAWN SQ	REVISED
PLOT SCALE = 100.0000 ' / in.	CHECKED MP	REVISED
PLOT DATE = 7/7/2025	DATE 12/13/24	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

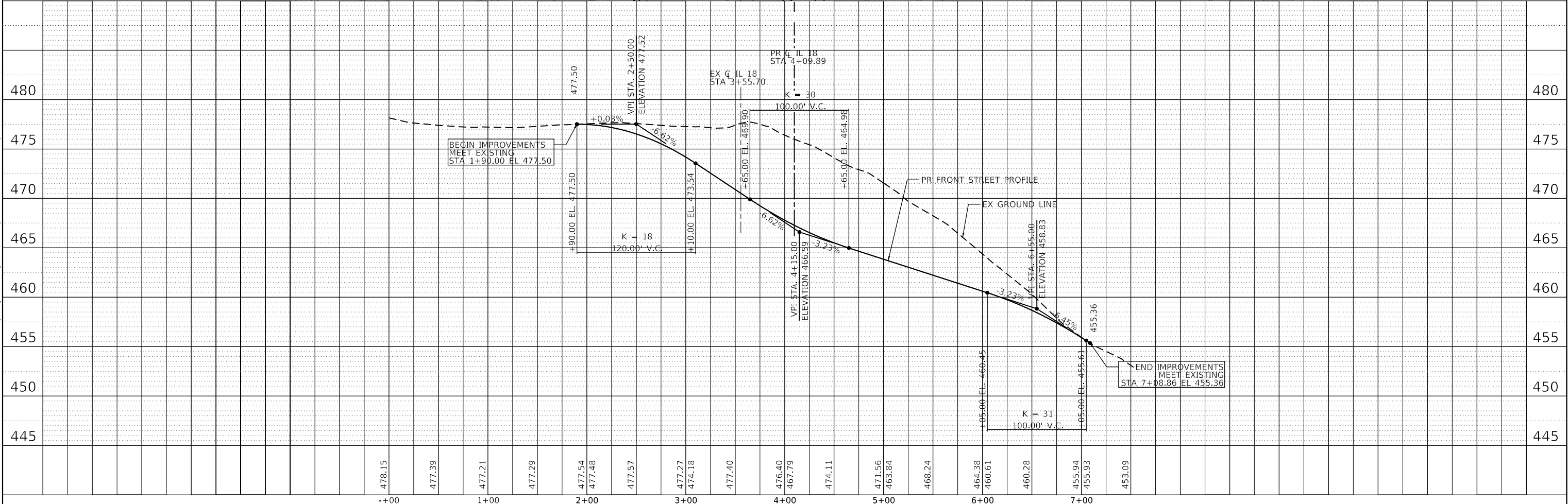
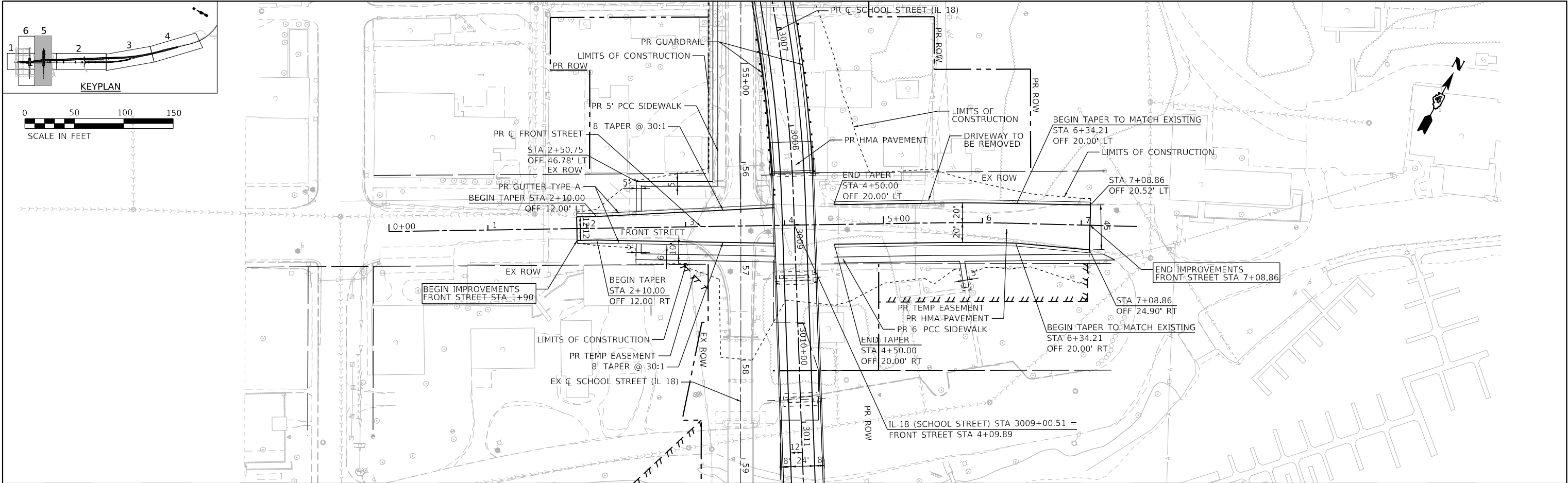
**IL-18 PLAN AND PROFILE
STA. 3042+00.00 TO STA. 3057+00.00**

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
653	1048-D-BR	MARSHALL & PUTNAM	09	07
CONTRACT NO. 236				
ILLINOIS		FED. AID PROJECT		

PLAN	NO.	NOTE BOOK	SURVEYED	PLOTTED	ALIGNMENT CHECKED	CADD FILE NAME	BY	DATE

PROFILE	NO.	NOTE BOOK	SURVEYED	PLOTTED	GRADES CHECKED	STRUCTURE NOTATIONS CPWD	BY	DATE

Default FILE NAME: p:\w\AN\AD\1\PRINT01_Persons.com\Illinois State Documents\IL18 Henry Bridge\40 - Design\CAD\Roadway\Sheets\Front Street Roadway Plan & Profile Sheet 15 of 9, 313-00 to Sta. 328+00.00



USER NAME	= p0035361	DESIGNED	JC	REVISED	
PLOT SCALE	= 100.0000' / in.	DRAWN	SO	REVISED	
PLOT DATE	= 3/3/2025	CHECKED	MP	REVISED	
		DATE	12/13/24	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

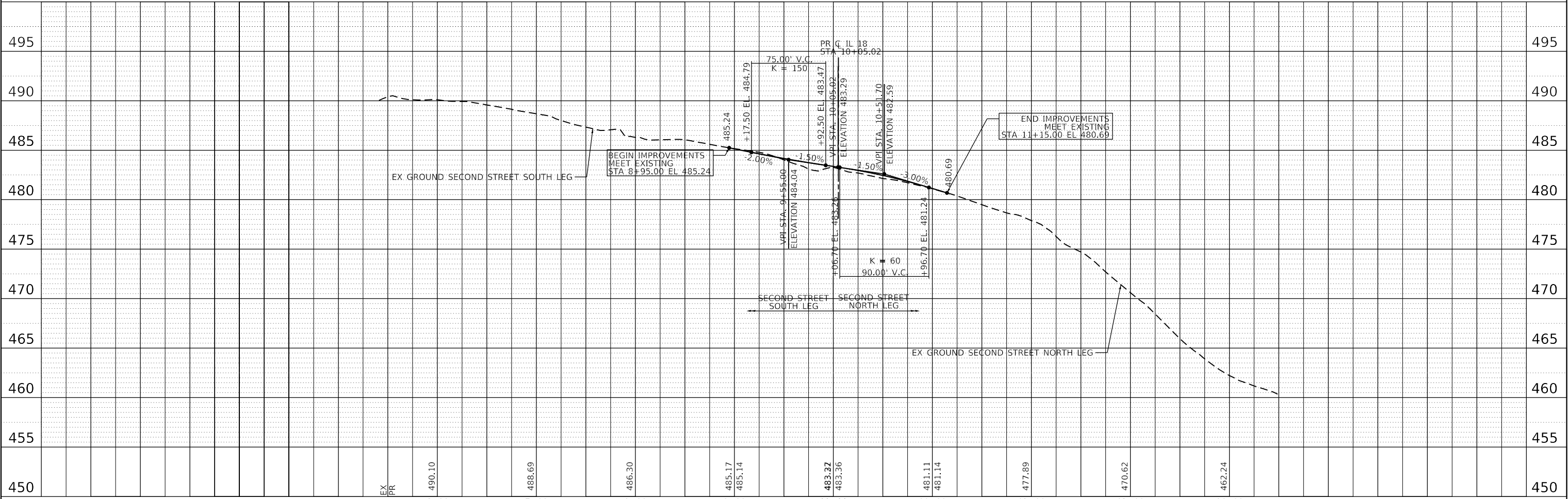
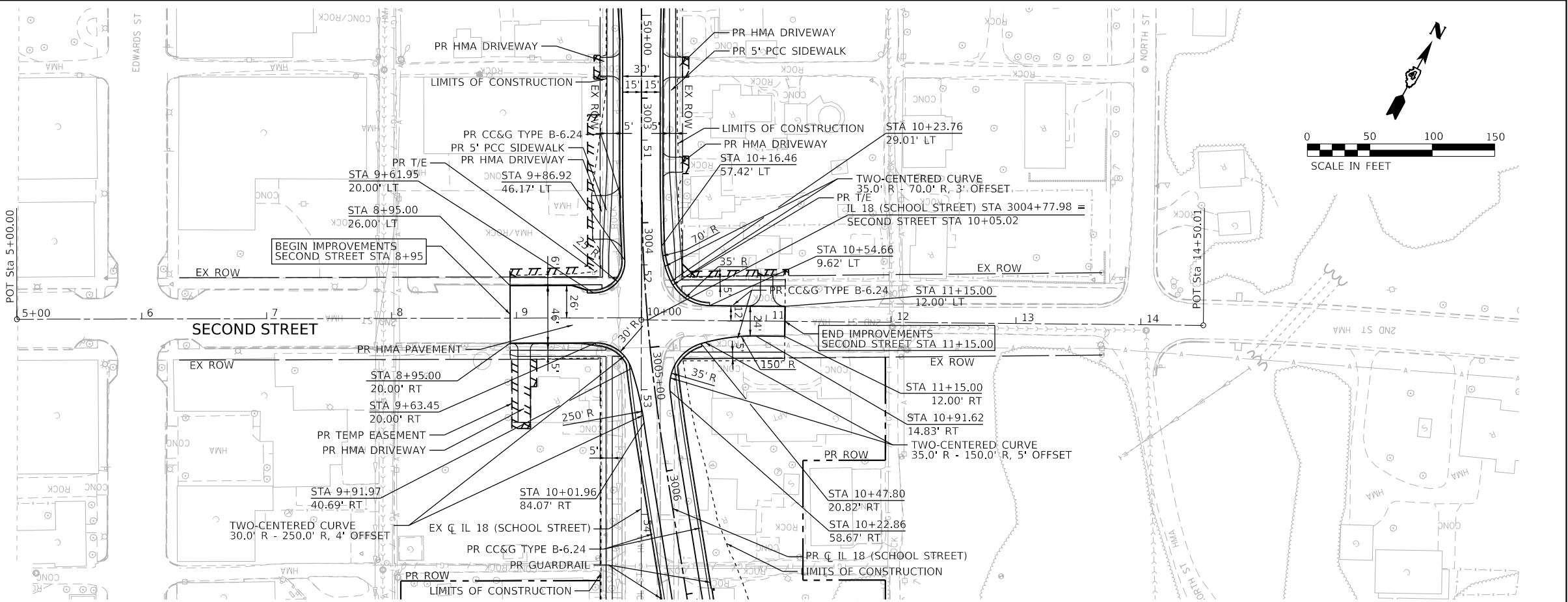
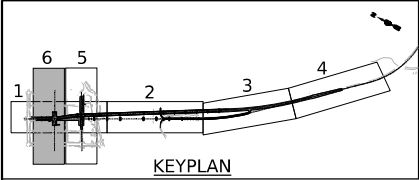
FRONT STREET – PLAN AND PROFILE			
STA. 1+90.00 TO STA. 7+08.86			
SCALE: 1" = 50'	SHEET	OF	SHEETS
	STA.		TO STA.

F&P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
653	1048-D-BR	MARSHALL & PUTNAM	09	08
CONTRACT NO. 68F09				
ILLINOIS FED. AID PROJECT				

PLAN	SURVEYED PLOTTED ALIGNMENT CHECKED BY CADD FILE NAME	BY	DATE
NOTE BOOK NO.			

PROFILE	SURVEYED PLOTTED GRADES CHECKED BY STRUCTURE NOTATIONS CPWD	BY	DATE
NOTE BOOK NO.			

Default FILE NAME: p:\w\VANAD\PRINT\01_Persons\com\Illinois State Documents\IL18 Henry Bridge\40 - Design\CAD\Roadway\Sheets\180720-Set\cadd\p_f_06.dgn



USER NAME = p008932D	DESIGNED , JC	REVISED ,
PLOT SCALE = 100.0000' / in.	DRAWN , SO	REVISED ,
PLOT DATE = 3/3/2025	CHECKED , MP	REVISED ,
	DATE , 12/13/24	REVISED ,

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SECOND STREET - PLAN AND PROFILE STA. 8 + 95.00 TO STA. 11 + 15.00			
SCALE: 1" = 50'	SHEET	OF	SHEETS
STA.	TO STA.		

F&P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
653	1048-D-BR	MARSHALL & PUTNAM	09	09
CONTRACT NO. 68F09				
ILLINOIS FED. AID PROJECT				

APPENDIX 4-F

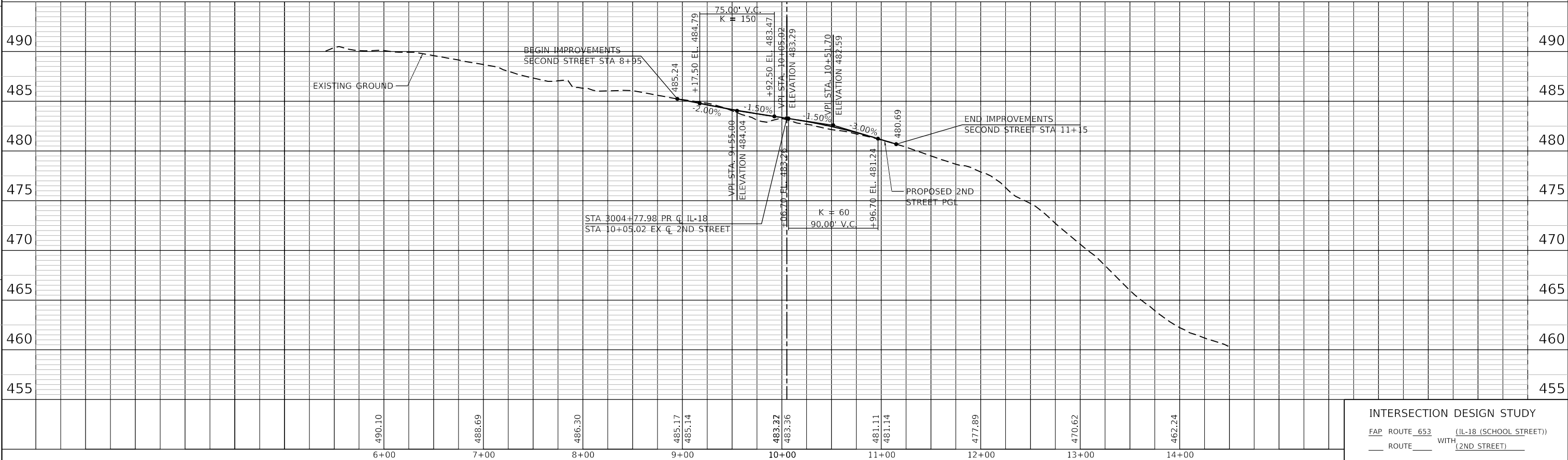
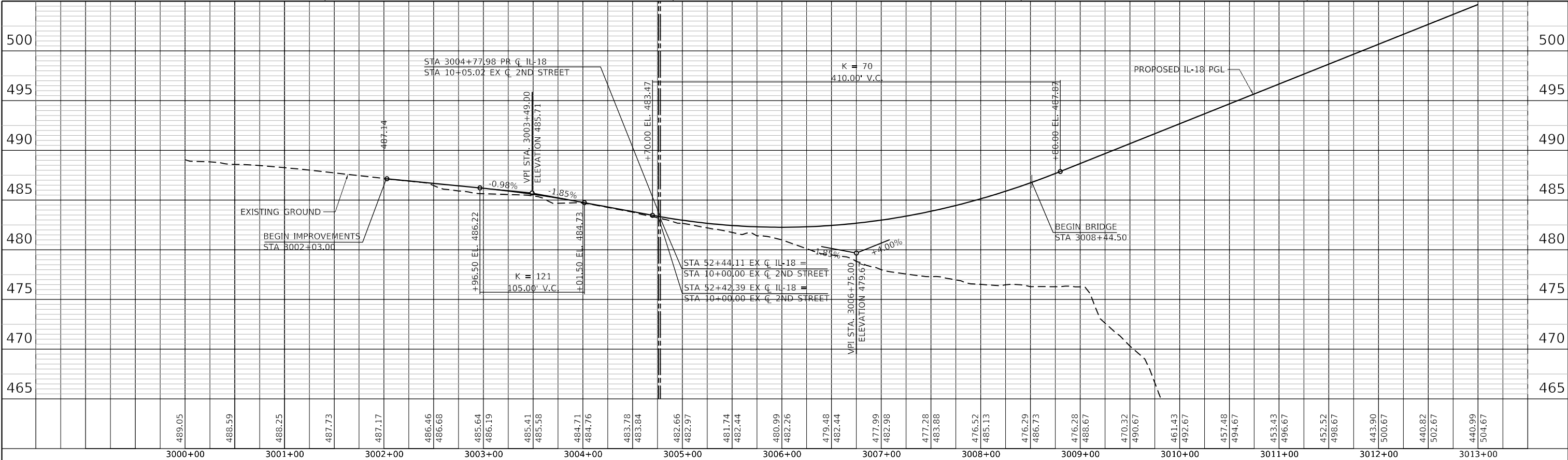
Intersection Design Studies

&

ADA Ramps



PLOT DATE = 2/7/2025
FILE NAME = p:\v\VAN\AO\PW\INT01\parsons.com\Illinois State\Documents\IL18 Henry Bridge\40 - Design\CAD\Roadway\IDS\0400720-sh-46511.dgn
PLOT SCALE = 100.0000' = 1" in.
USER NAME = RDabbakut



INTERSECTION DESIGN STUDY

FAP ROUTE 653 (IL-18 (SCHOOL STREET))

ROUTE WITH (2ND STREET)

SEC. NO. (1048-D)BR

SCALE 1"=50'H
1"=5'V

SIN :

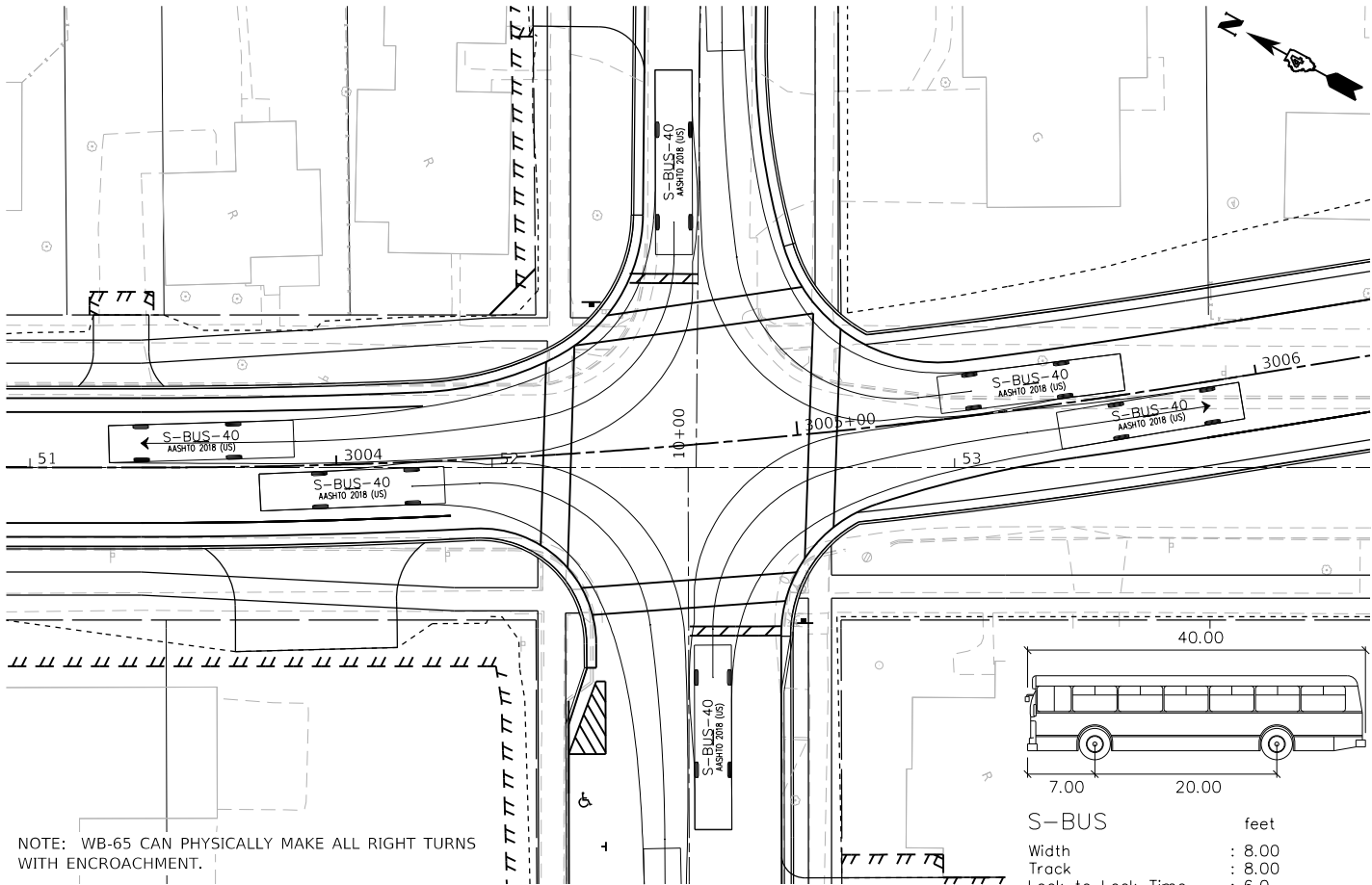
COUNTY MARSHALL

PROJ. NO. P94-007-20

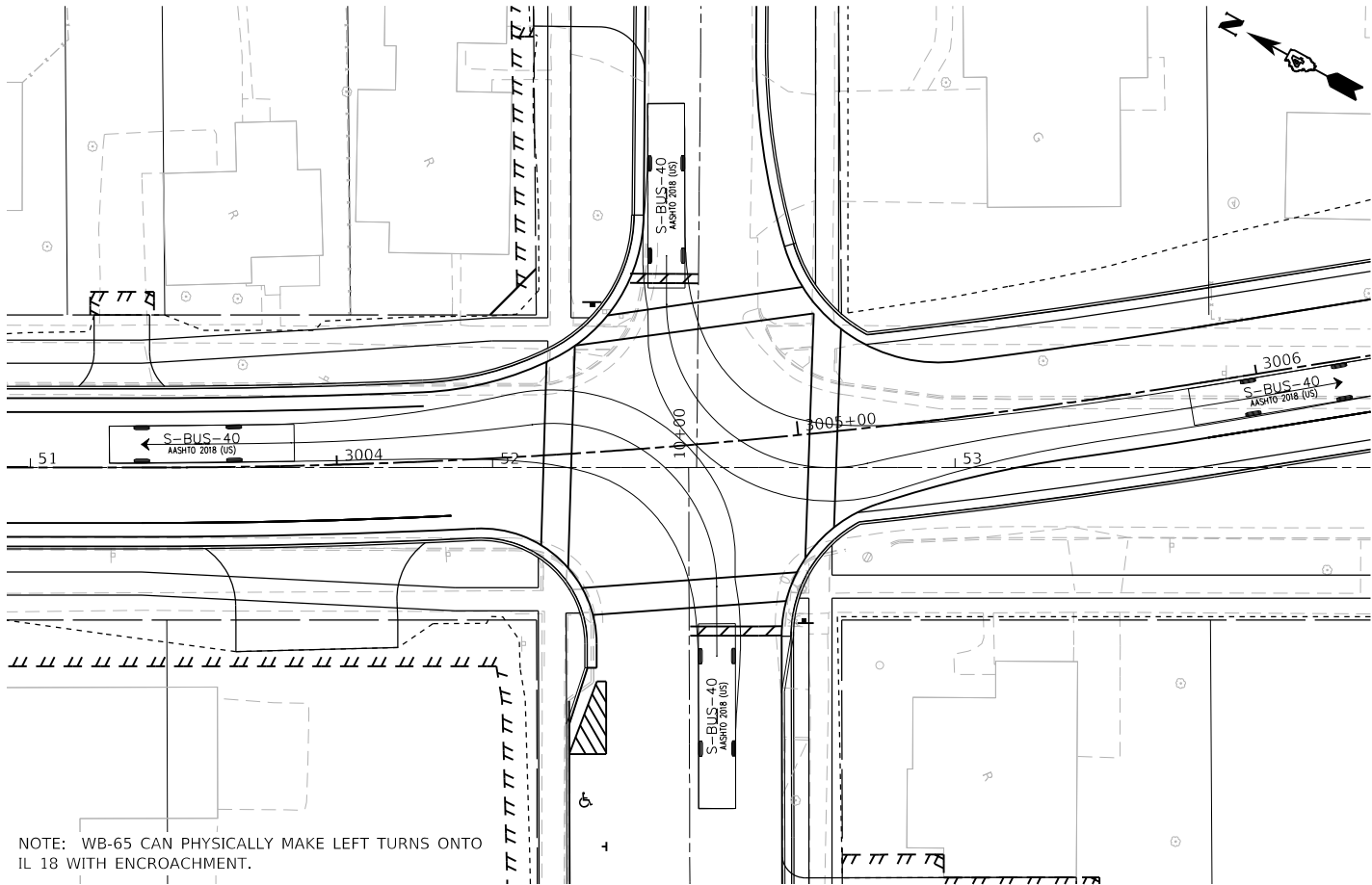
I.D.S. SHEET 2 OF 5

Default p:\v\VAN\AO\PW\INT01\parsons.com\Illinois State\Documents\IL18 Henry Bridge\40 - Design\CAD\Roadway\IDS\0400720-sh-46511.dgn

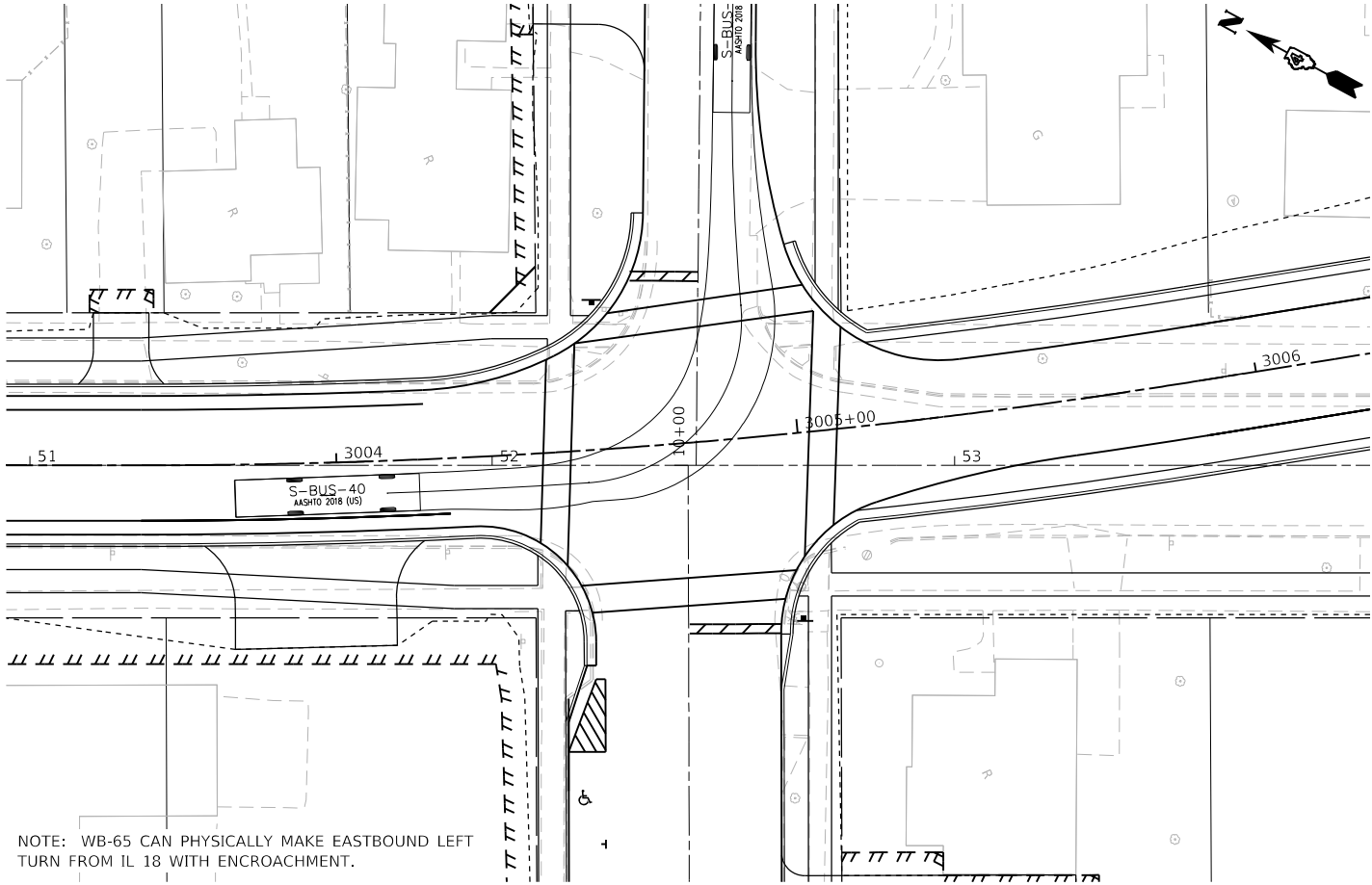
PLOT DATE = 2/7/2025
FILE NAME = P:\V\ANAD\PRINT\01.parsons.com\Illinois State\Documents\IL 18 Henry Bridge\40 - Design\CAD\Roadway\IDS\0400720-IL-18-4612.dgn
PLOT SCALE = 40.0000' / 1 in.
USER NAME = RDabbakut



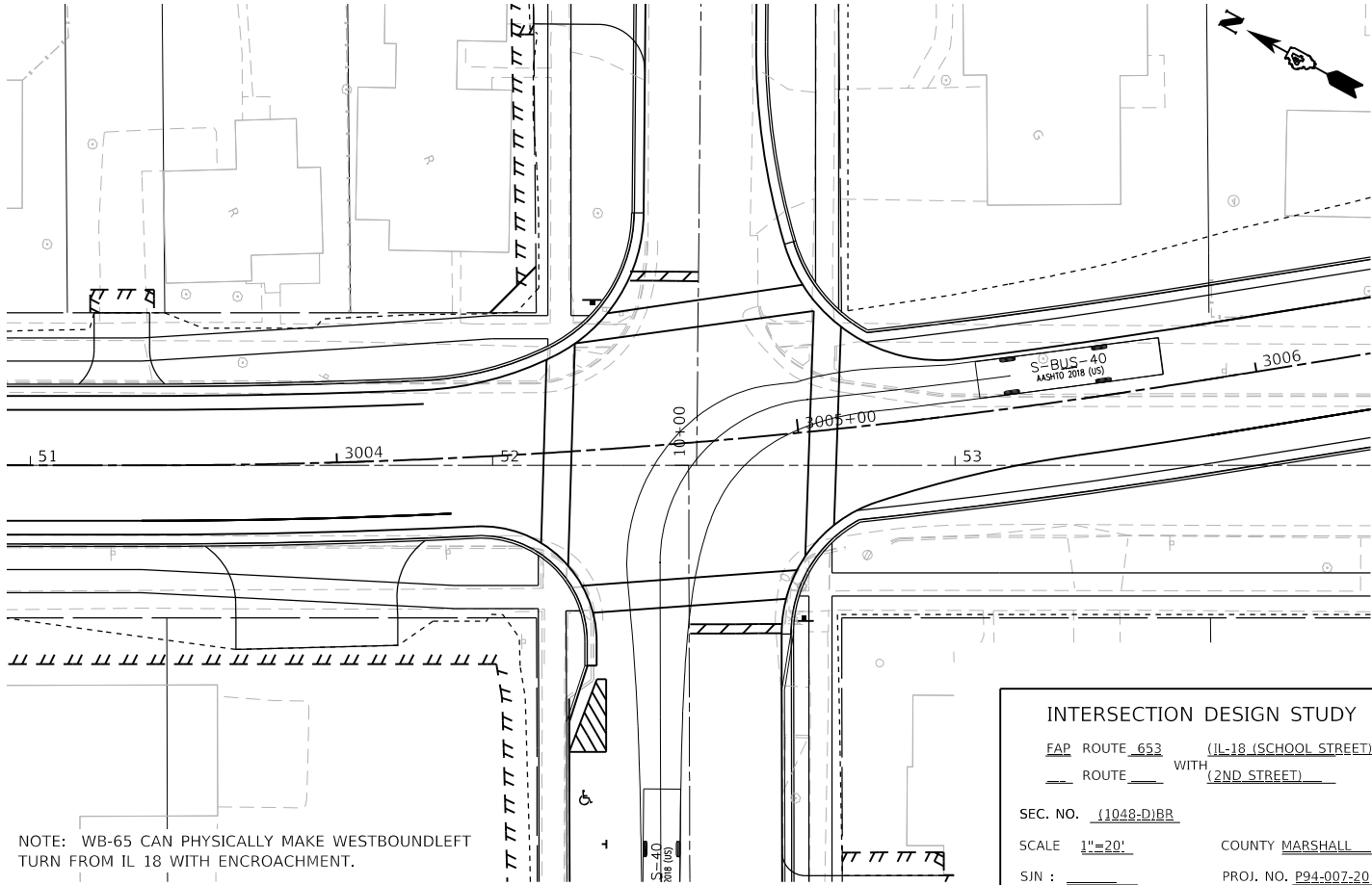
RIGHT TURNS



LEFT TURNS ONTO IL-18



EASTBOUND LEFT TURN FROM IL-18



WESTBOUND LEFT TURN FROM IL-18

INTERSECTION DESIGN STUDY

FAP ROUTE 653

(IL-18 (SCHOOL STREET))

ROUTE 51 WITH (2ND STREET)

SEC. NO. 1048-DIBB

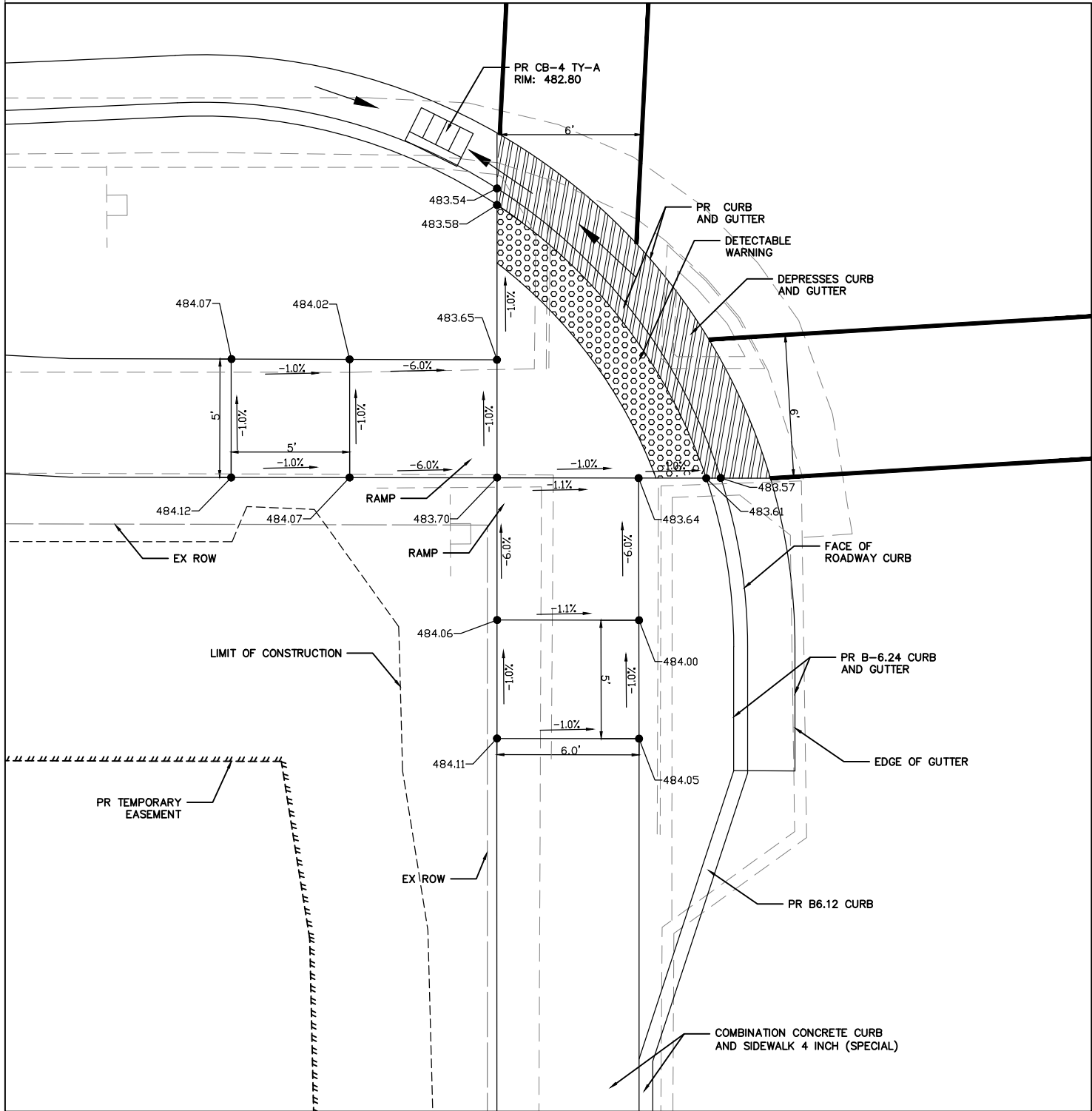
SCALE 1"=20'

SIN :

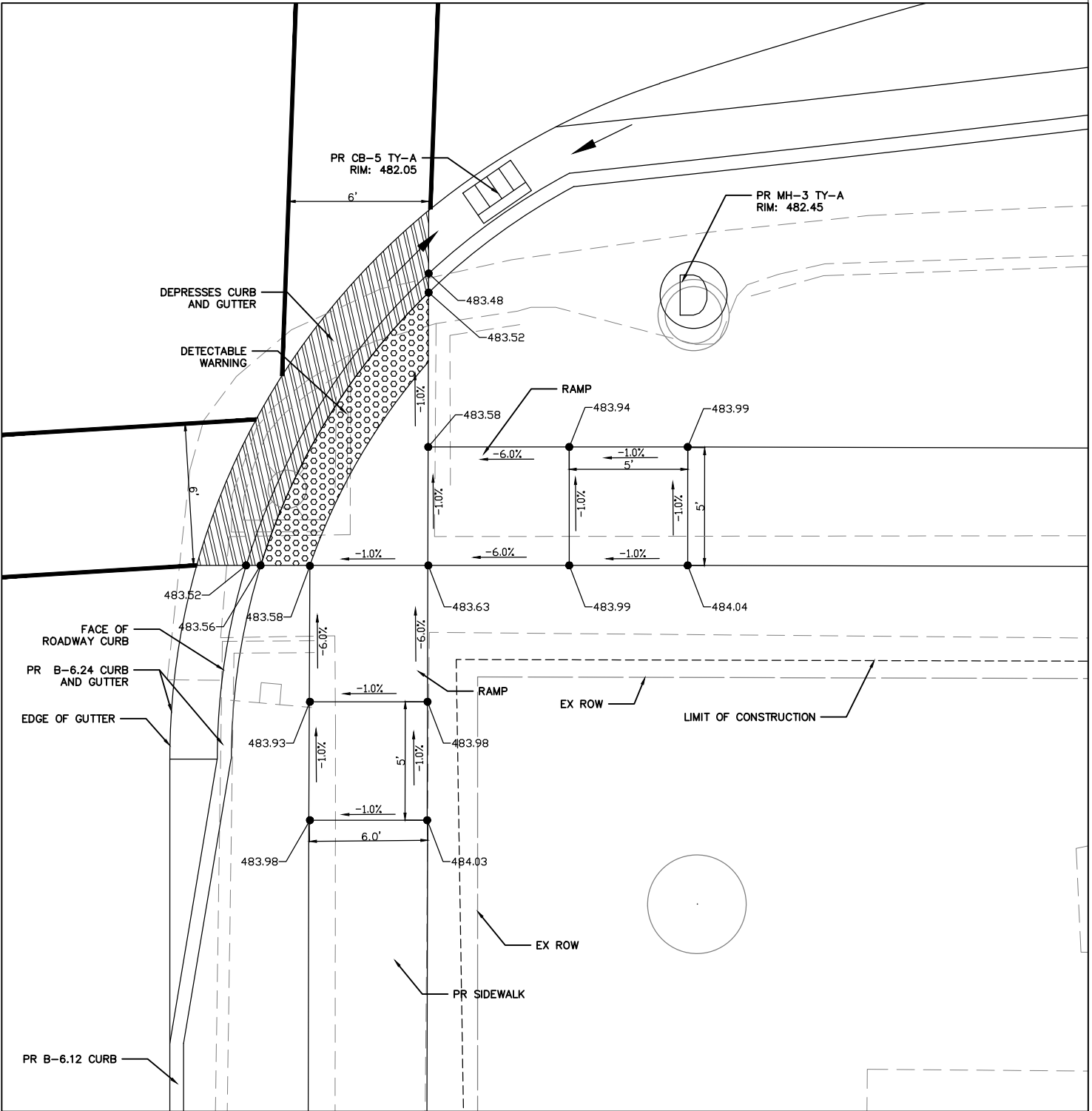
COUNTY MARSHALL

PROJ. NO. P94-007-20

I.D.S. SHEET 3 OF 5



ADA CURB RAMP -1
SCALE: 1"=3'
(WEST)



ADA CURB RAMP -2
SCALE: 1"=3'
(SOUTH)

FILE NAME
MODEL NAME



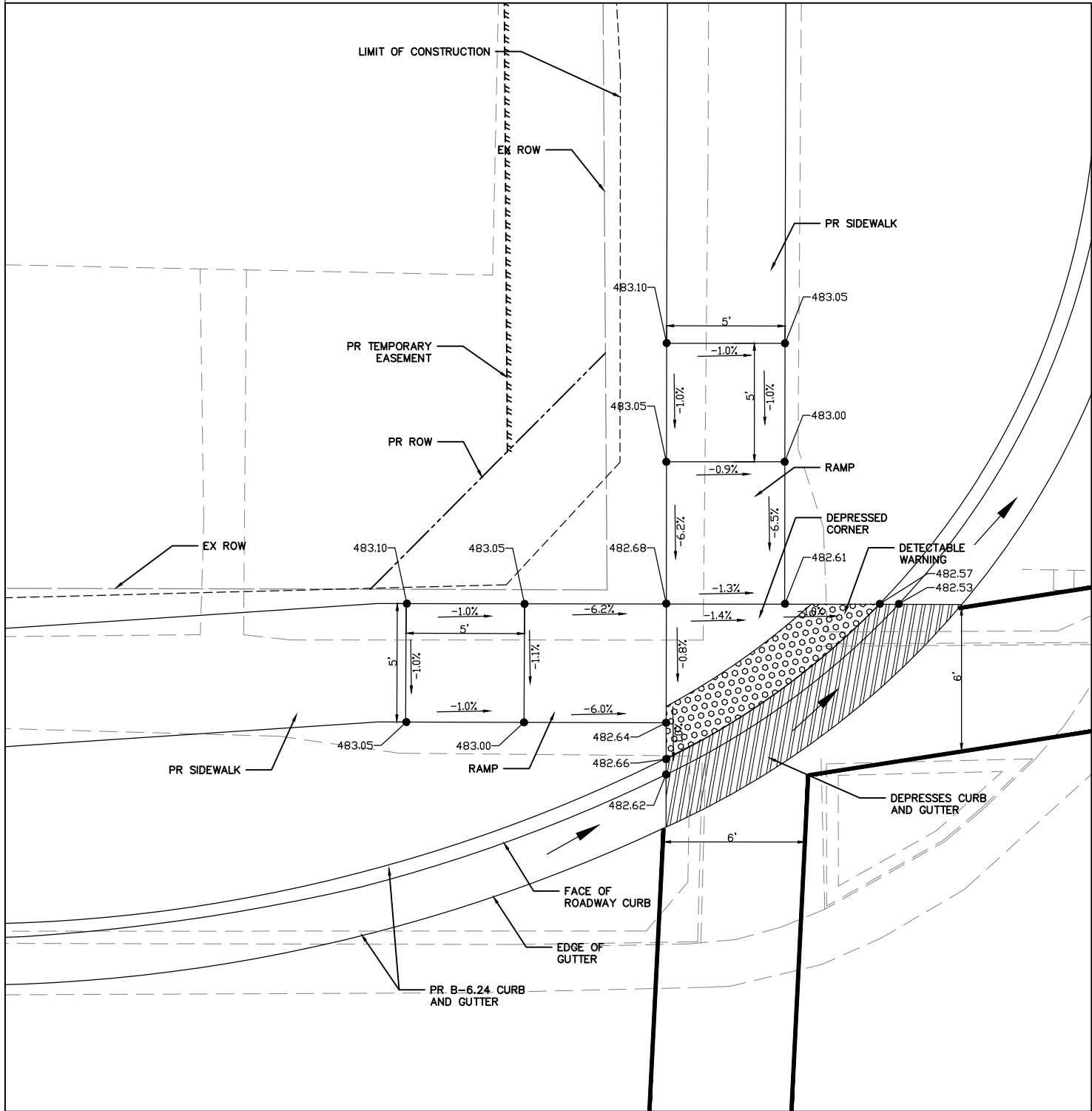
USER NAME = rdabbakuti	DESIGNED — RB	REVISED —
DRAWN — RD	REVISED —	
PLOT SCALE = AS SHOWN	CHECKED — RB	REVISED —
PLOT DATE = 12/13/2024	DATE — 12/13/2024	REVISED —

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

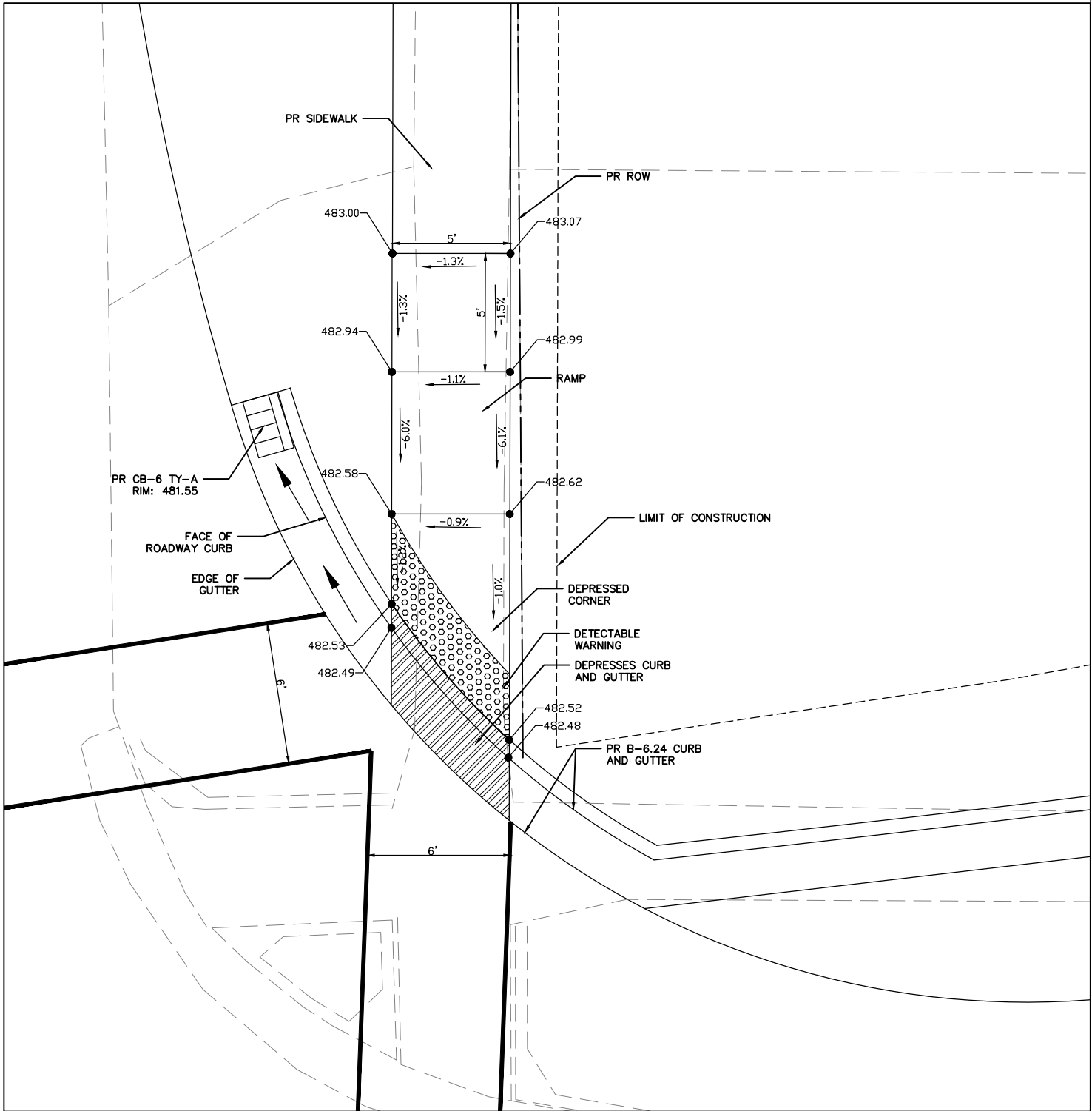
ADA CURB RAMPS

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
653	1048-D-BR	MARSHALL & PUTNAM	5	4
CONTRACT NO			68F09	
ILLINOIS FED. AID PROJECT			N/A	



ADA CURB RAMP -3
SCALE: 1"=3'
(NORTH)



ADA CURB RAMP -4
SCALE: 1"=3'
(EAST)

1/7/2025
p:\v\an\ad\p\w\nto\j.parsons.com\illinois\State\Documents\IL18 Henry Bridge\40 - Design\CAD\Roadway\IDS\0400720-IL18-46520.dgn
PLOT DATE
FILE NAME
PLOT SCALE
USER NAME

PROP. CURVE IL18_SKEW3
PI STA. = 3037+73.93
 $\Delta = 12^\circ 20' 08''$ (LT)
 $D = 1^\circ 05' 29''$
 $R = 5,250.00'$
 $T = 567.35'$
 $L = 1,130.31'$
 $E = 30.57'$
 $e = 3.0\%$
 $T.R. = 40'$
 $S.E. RUN = 80'$
 $P.C. STA. = 3032+06.59$
 $P.T. STA. = 3043+36.89$

PR CURVE P_DUCK-2
PI STA. = 115+21.84
 $\Delta = 13^\circ 59' 27.33''$ (LT)
 $D = 1^\circ 41' 06.48''$
 $R = 3,400.08'$
 $T = 417.20'$
 $L = 830.26'$
 $E = 25.50'$
 $e = NC$
 $T.R. = NA$
 $S.E. RUN = NA$
 $P.C. STA. = 106+38.62$
 $P.T. STA. = 114+68.87$

PR CURVE P_DUCK-3
PI STA. = 115+21.84
 $\Delta = 82^\circ 52' 18''$ (LT)
 $D = 95^\circ 29' 35''$
 $R = 60.00'$
 $T = 52.96'$
 $L = 86.78'$ (DE)
 $E = 20.03'$
 $e = NC$
 $T.R. = NA$
 $S.E. RUN = NA$
 $P.C. STA. = 114+68.87$
 $P.T. STA. = 115+55.66$

EXIST. CURVE IL18_EX1
PI STA. = 79+32.37
 $\Delta = 16^\circ 48' 34''$ (LT)
 $D = 1^\circ 41' 34''$
 $R = 3400.08'$
 $T = 502.36'$
 $L = 997.51'$
 $E = 36.91'$
 $e =$
 $T.R. =$
 $S.E. RUN =$
 $P.C. STA. = 74+30.01$
 $P.T. STA. = 84+27.52$

ELEMENTS CONTROLLING DESIGN

PREFERRED ROUTE:

F.A.P. ROUTE NUMBER: 653 . MARKED ROUTE NUMBER: IL-18
STREET NAME: IL-18. . SRA ROUTE? NO
FUNCTIONAL CLASSIFICATION: MINOR ARTERIAL . OSOW DESIGN? NO
EXISTING ADT: 2200 (2021) VPD. DESIGN YEAR ADT: 2492 (2046) VPD.
PROPOSED DESIGN SPEED: 60 MPH. PROPOSED POSTED SPEED: 55 MPH.

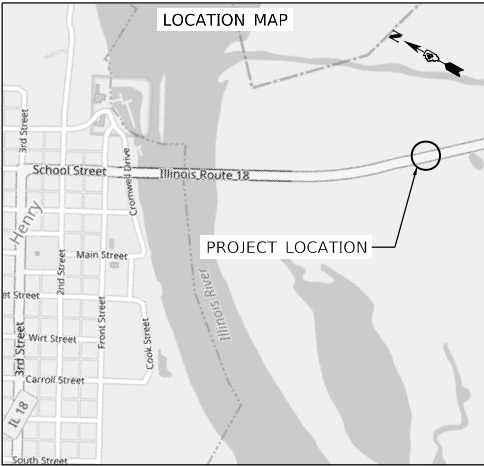
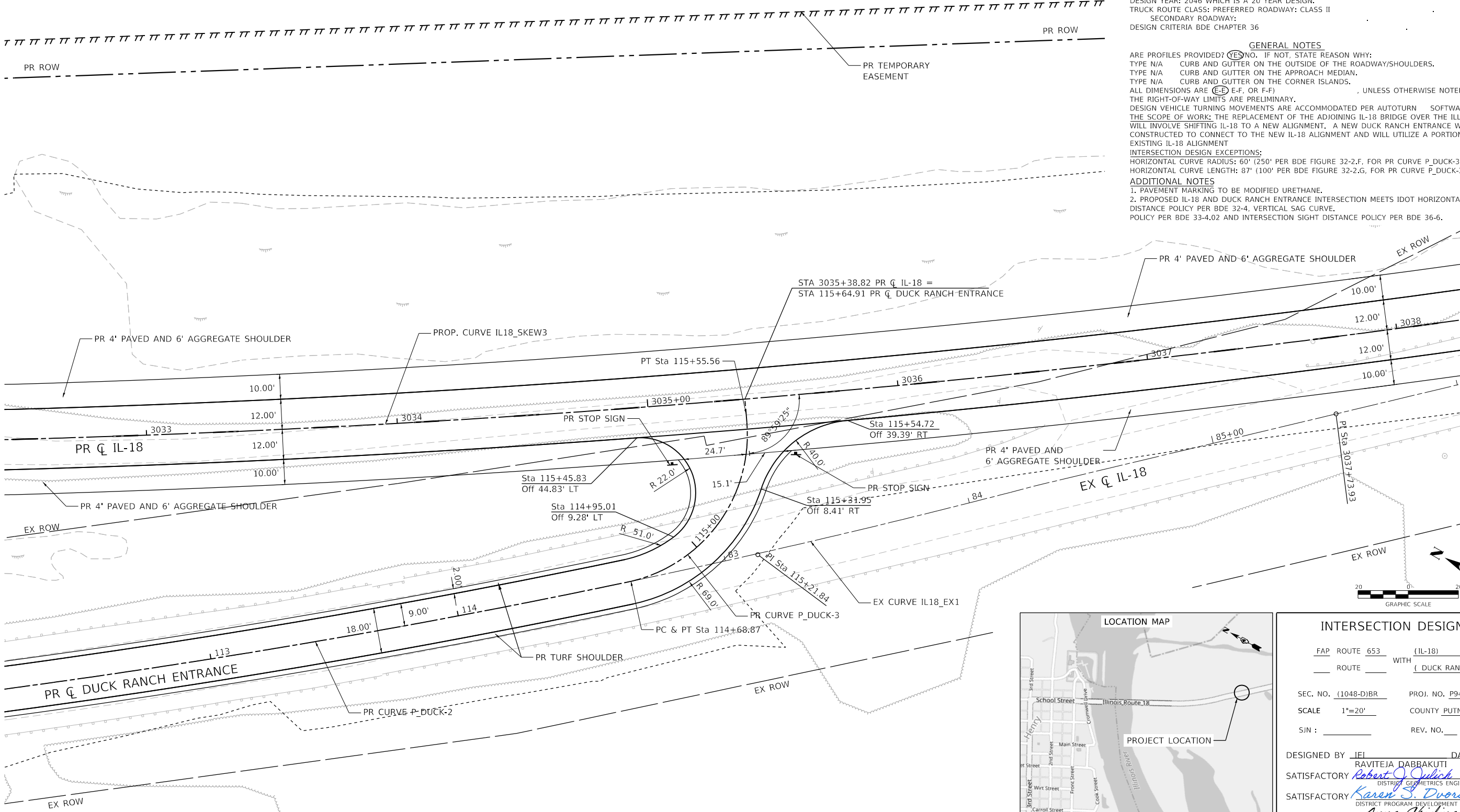
SECONDARY ROUTE:

F.A. ROUTE NUMBER: N/A . MARKED ROUTE NUMBER: N/A
STREET NAME: DUCK RANCH ENTRANCE . SRA ROUTE? NO
FUNCTIONAL CLASSIFICATION: COMMERCIAL ENTR. OSOW DESIGN? NO
EXISTING ADT: N/A VPD. DESIGN YEAR ADT: N/A VPD.
PROPOSED DESIGN SPEED: 30 MPH. PROPOSED POSTED SPEED: N/A MPH.

IMPROVEMENT TYPE: RECONSTRUCTION . ANTICIPATED YEAR OF CONSTRUCTION: 2026
EXISTING METHOD OF TRAFFIC CONTROL: UNCONTROLLED . PROPOSED METHOD: STOP CONTROLLED.
DESIGN VEHICLE: PASSENGER/TRAILER (P-T)
DESIGN YEAR: 2046 WHICH IS A 20 YEAR DESIGN.
TRUCK ROUTE CLASS: PREFERRED ROADWAY: CLASS II
SECONDARY ROADWAY:
DESIGN CRITERIA BDE CHAPTER 36

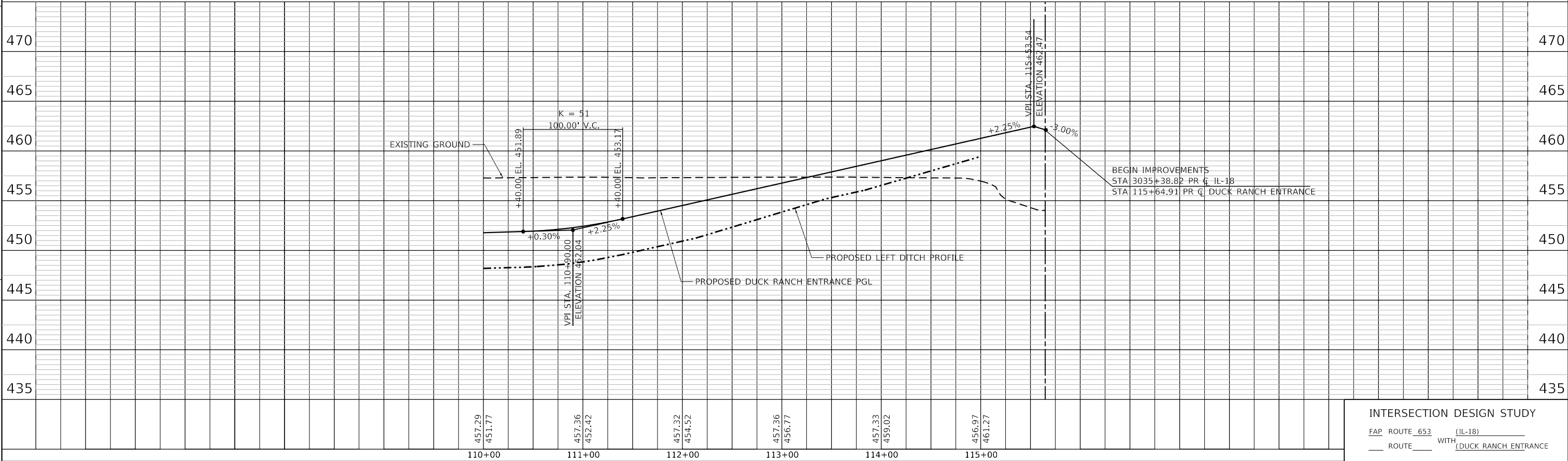
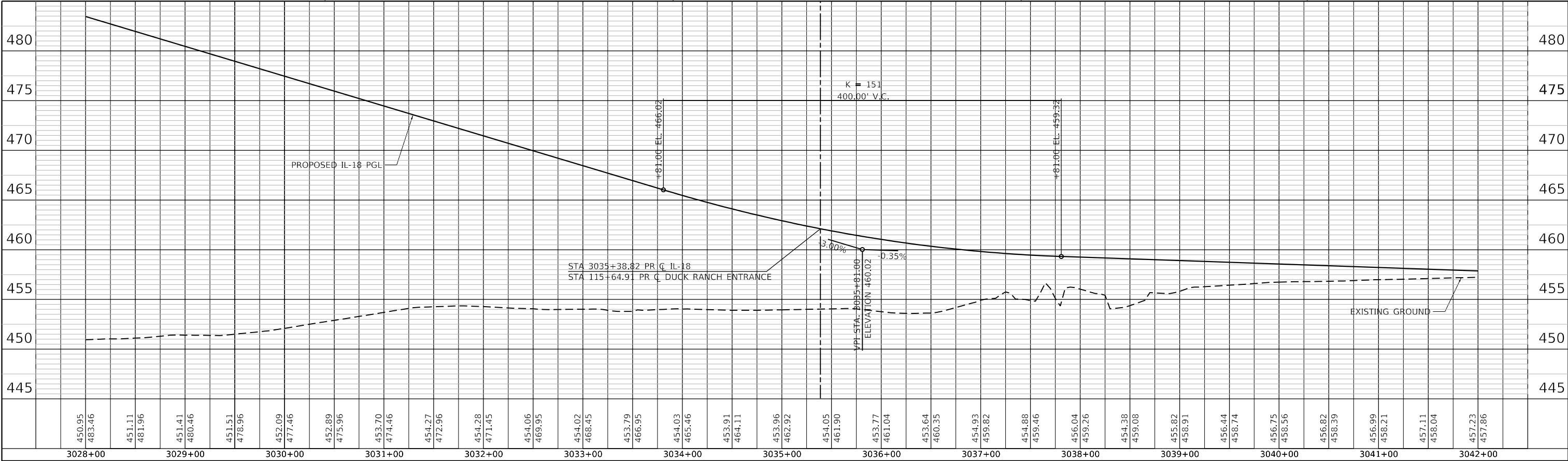
GENERAL NOTES

ARE PROFILES PROVIDED? **YES** NO. IF NOT, STATE REASON WHY:
TYPE N/A CURB AND GUTTER ON THE OUTSIDE OF THE ROADWAY/SHOULDERS.
TYPE N/A CURB AND GUTTER ON THE APPROACH MEDIAN.
TYPE N/A CURB AND GUTTER ON THE CORNER ISLANDS.
ALL DIMENSIONS ARE **(E-F)** E-F, OR F-F) . UNLESS OTHERWISE NOTED.
THE RIGHT-OF-WAY LIMITS ARE PRELIMINARY.
DESIGN VEHICLE TURNING MOVEMENTS ARE ACCOMMODATED PER AUTOTURN SOFTWARE, VERSION 11
THE SCOPE OF WORK: THE REPLACEMENT OF THE ADJOINING IL-18 BRIDGE OVER THE ILLINOIS RIVER
WILL INVOLVE SHIFTING IL-18 TO A NEW ALIGNMENT. A NEW DUCK RANCH ENTRANCE WILL BE
CONSTRUCTED TO CONNECT TO THE NEW IL-18 ALIGNMENT AND WILL UTILIZE A PORTION OF THE
EXISTING IL-18 ALIGNMENT
INTERSECTION DESIGN EXCEPTIONS:
HORIZONTAL CURVE RADIUS: 60' (250' PER BDE FIGURE 32-2.F, FOR PR CURVE P_DUCK-3)
HORIZONTAL CURVE LENGTH: 87' (100' PER BDE FIGURE 32-2.G, FOR PR CURVE P_DUCK-3)
ADDITIONAL NOTES
1. PAVEMENT MARKING TO BE MODIFIED URETHANE.
2. PROPOSED IL-18 AND DUCK RANCH ENTRANCE INTERSECTION MEETS IDOT HORIZONTAL SIGHT
DISTANCE POLICY PER BDE 32-4, VERTICAL SAG CURVE.
POLICY PER BDE 33-4.02 AND INTERSECTION SIGHT DISTANCE POLICY PER BDE 36-6.



INTERSECTION DESIGN STUDY			
FAP ROUTE	653	(IL-18)	
ROUTE		WITH	(DUCK RANCH ENTRANCE)
SEC. NO.	(1048-D)BR	PROJ. NO.	P94-007-20
SCALE	1"=20'	COUNTY	PUTNAM
SIN :		REV. NO.	
DESIGNED BY	JEL	DATE	01-07-25
SATISFACTORY	Raviteja Dabrakuti	DATE	5/21/2025
SATISFACTORY	Karen J. Dvorsky	DATE	05-21-25
SATISFACTORY	Anna Ghudina	DATE	5/21/25
APPROVED	Kensil A. Garrett	DATE	052125
CADD FILE NAME : []		I.D.S. SHEET 1 OF 3	

1/7/2025
p:\v\VAN\AO\PW\INT01.parsons.com\Illinois State\Documents\IL18 Henry Bridge\40 - Design\CAD\Roadway\IDS\0400720-shr-h4s21.dgn
100.0000' = 1" = Note



INTERSECTION DESIGN STUDY

FAP ROUTE 653 (IL-18)
ROUTE WITH (DUCK RANCH ENTRANCE)

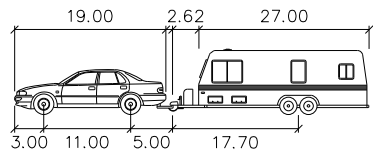
SEC. NO. (1048-D)BR

SCALE 1"=50'H
1"=5'V

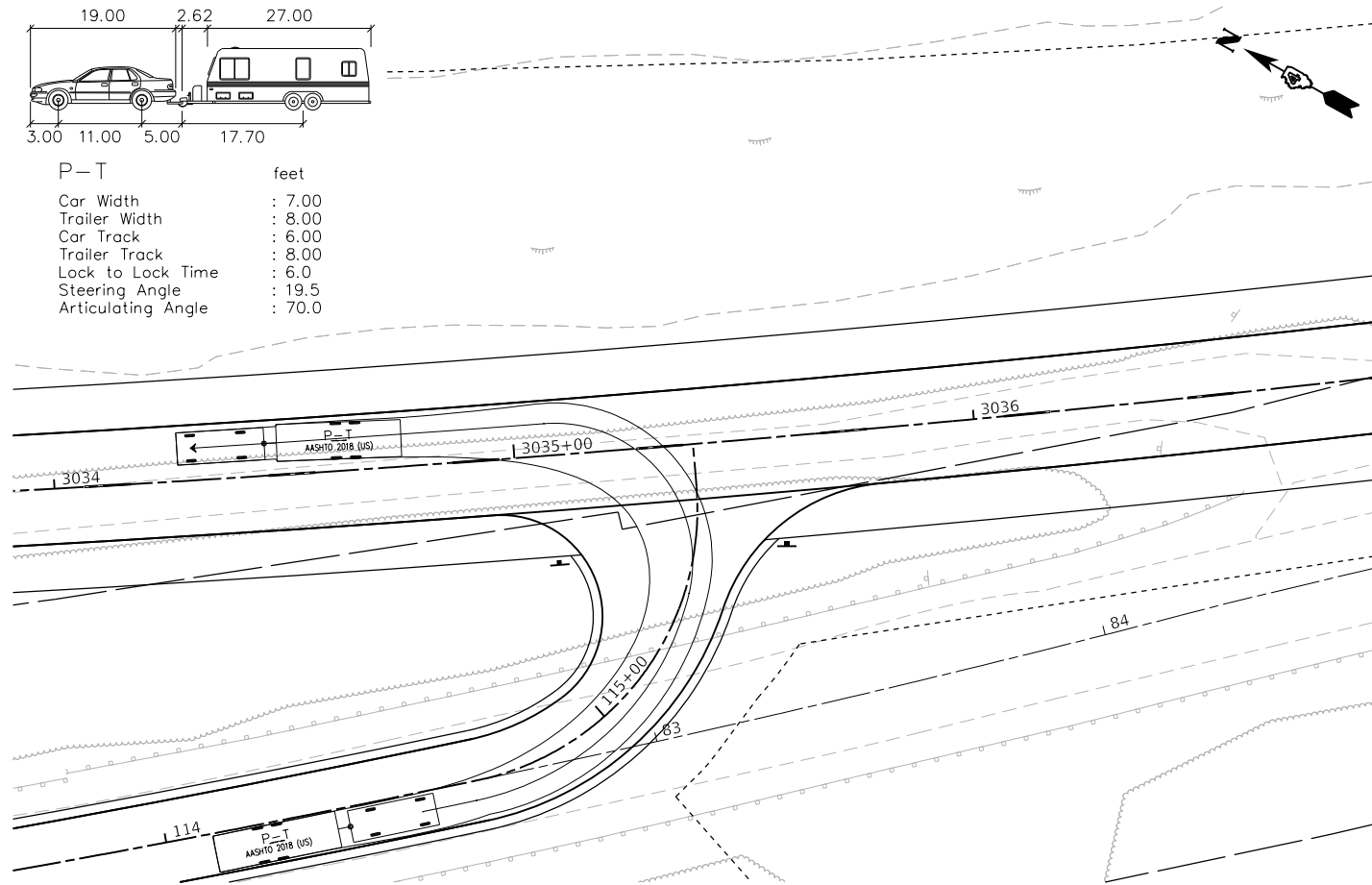
SIN : COUNTY PUTNAM
PROJ. NO. P94-007-20

I.D.S. SHEET 2 OF 3

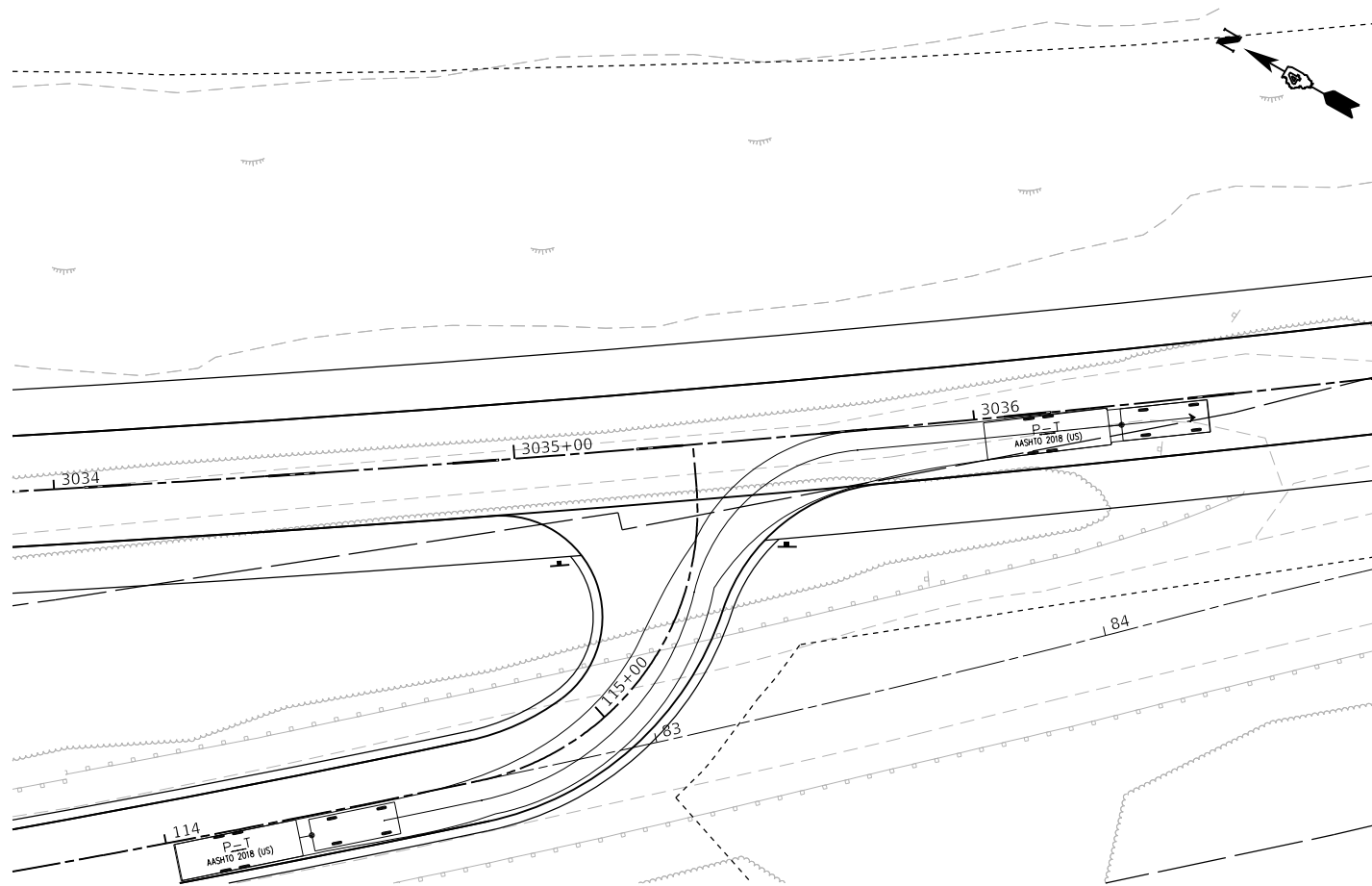
PLOT DATE 1/7/2025
FILE NAME p:\v\ANVA\DWG\INT01.parsons.com\Illinois State Documents\IL18 Henry Bridge\40 - Design\CAD\Roadway\IDS\0400720-IL-H-46522.dgn
PLOT SCALE 40.0000' / 1" = Note
USER NAME



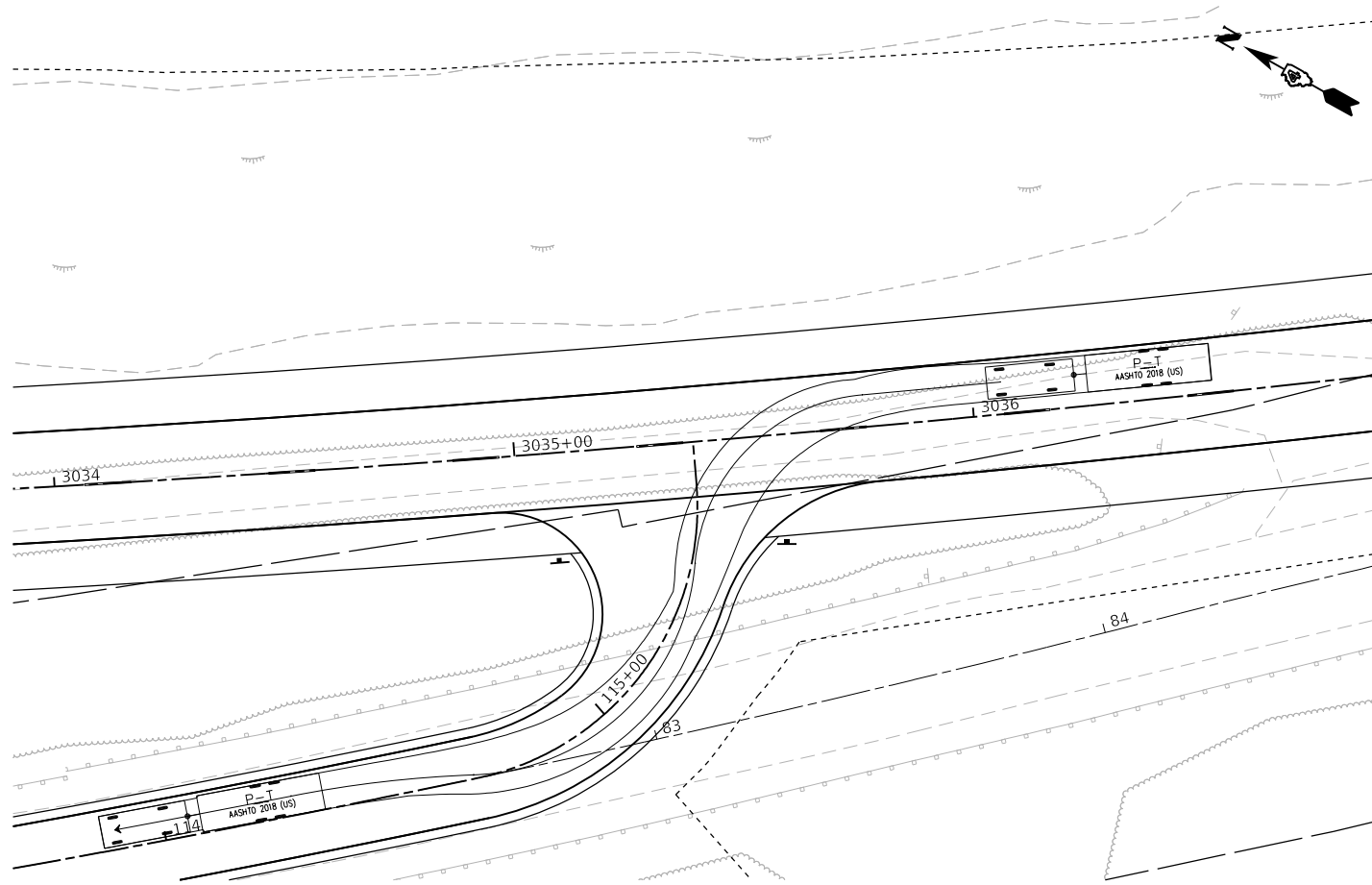
P-T feet
Car Width : 7.00
Trailer Width : 8.00
Car Track : 6.00
Trailer Track : 8.00
Lock to Lock Time : 6.0
Steering Angle : 19.5
Articulating Angle : 70.0



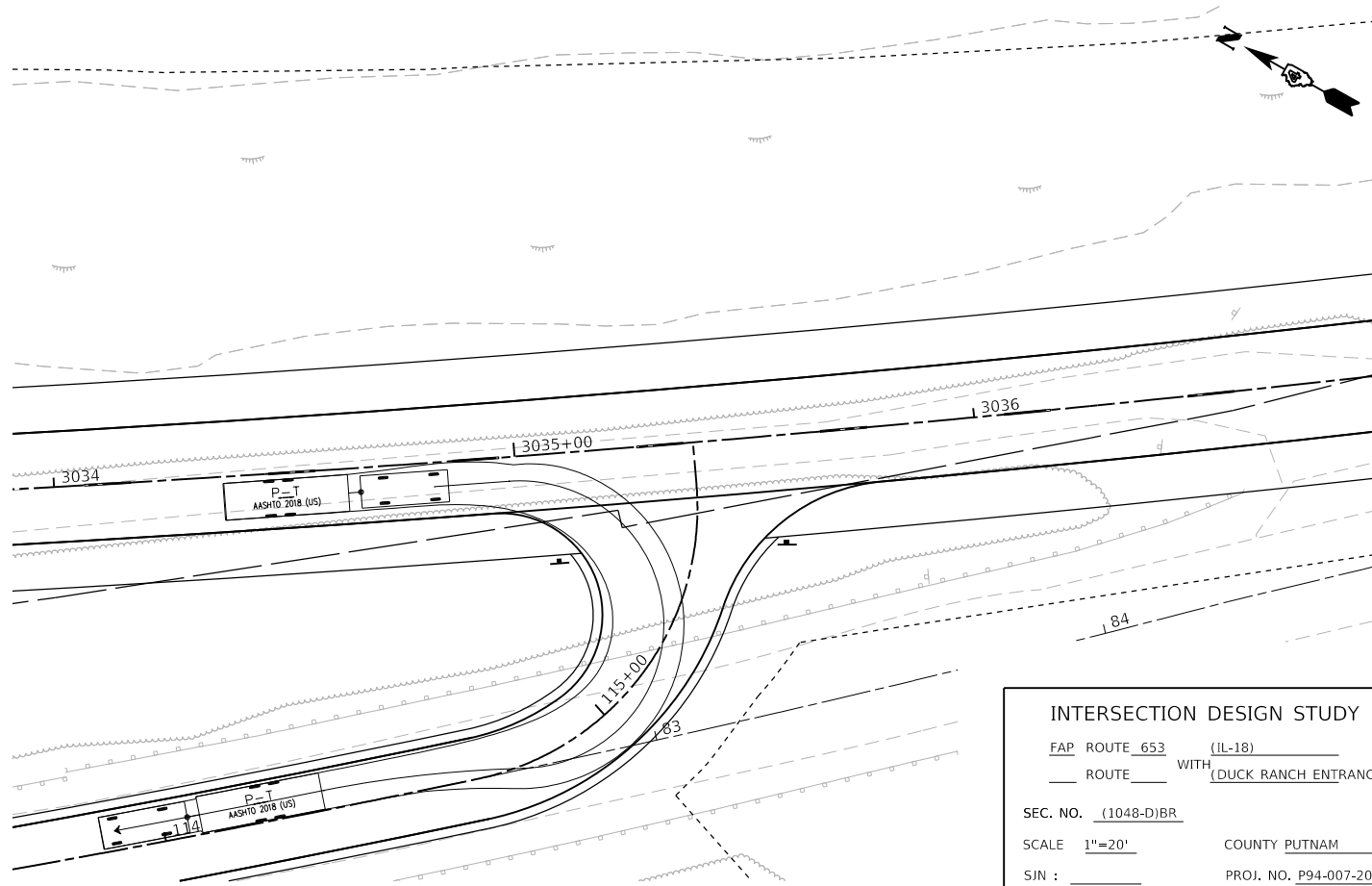
LEFT TURN ONTO IL-18



RIGHT TURN ONTO IL-18



LEFT TURN FROM IL-18



RIGHT TURN FROM IL-18

INTERSECTION DESIGN STUDY

FAP ROUTE 653 (IL-18)
ROUTE WITH (DUCK RANCH ENTRANCE)

SEC. NO. (1048-D)BR

SCALE 1"=20'

SIN :

COUNTY PUTNAM

PROJ. NO. P94-007-20

I.D.S. SHEET 3 OF 3