FHWA-Indiana Environmental Document

#### **CATEGORICAL EXCLUSION LEVEL 1 FORM**

**GENERAL PROJECT INFORMATION** 

Road No./County:	U.S. 6 & U.S. 421, LaPorte County
Designation Number(s):	1702989
Project Description/Termini:	Intersection Improvement Project, at the intersection of U.S. 6, U.S. 421, and County Road (C.R.) West 600 South; The project limits will extend approximately 975 ft. north, 595 ft. south, 715 ft. east, and 390 ft. west from the center of the U.S. 6 and U.S. 421 intersection.



**Additional Information** to C.E. Level 1

3/29/2023

Approval:

Stewart Michels 05/22/2023 INDOT DE/ESD Signature and Date

**Release for Public Involvement:** 

SFM 12/01/2022 INDOT DE/ESD Initials and Date

amber Thomas

**Certification of Public involvement:** 

INDOT Consultant Services Signature and Date

**INDOT DE/ESD Reviewer:** 

Cassie Wahl 5/ Signature and Date 5/22/2023

**C.E.** Preparer:

Kenneth B. McMullen, GAI Consultants, Inc. Name and Organization

County\_LaPorte\_\_\_\_\_

Route U.S. 6 & U.S. 421

Des. No. <u>1702989</u>

GENERAL PROJECT	INFORMATION, DESCRIPTION, AND DESIGN INFORMATION
Purpose and Need:	<b>Need:</b> The need for this project stems from the high number of crashes at the intersection of US 6 and US 421 resulting from westbound traffic running the stop sign or failing to yield once stopped. Crash data provided by the LaPorte District for the three-year analysis period from January 2014 to September 2016 documents 16 crashes involving 32 vehicles that occurred within the project limits. This data indicates that the Intersection Crash Rate is 1.715 crashes per million vehicles per year. This crash rate is at Indiana Department of Transportation's (INDOT) safety threshold. (Appendix I, Pages 110 to 111)
	<b>Purpose:</b> This project aims to provide safer travel for motorists at the US 6 and US 421 intersection by reducing the number of crashes associated with westbound vehicles running the stop sign or failing to yield once stopped.
Project Description (Preferred Alternative):	INDOT and the Federal Highway Administration (FHWA) propose an intersection improvement project.
	<b>Location</b> This project is located at the intersection of US 6, US 421, and CR West 600 South near Westville, in Laporte County, Indiana. Specifically, this project is located in Sections 32 & 33 of Township 36 North, Range 4 West, and Sections 4 & 5 of Township 35 North, Range 4 West in parts of Clinton & New Durham Townships, as shown on the Westville United States Geological Survey (USGS) 7.5 Minute Topographic Map (Appendix B, page B2).
	<b>Existing Conditions</b> US 6 and US 421 are classified as Rural-Other Principle Arterial roadways, and CR W. 600 S. is classified as a Local Minor Collector. US 421 is a two- way, three-lane roadway that travels north to south through the project area, consisting of three 12-foot (ft.) travel lanes with accompanying 6 ft. paved shoulders and 2 ft. aggregate shoulders. US 6 is a two-way, three-lane road that travels east from the project area and consists of three 12-foot (ft.) travel lanes with accompanying 6 ft. paved shoulders and 2 ft. aggregate shoulders. The average annual daily traffic (AADT) count for the north legs of both US 6 and US 421 was 5,820 vehicles per day (VPD) in 2019 and the AADT count for the south leg of US 421 was 3,829 VPD in 2019 (source: INDOT Traffic Count Database System). Crash analysis of the project area has shown that the Intersection Crash Rate is 1.715 crashes per million vehicles per year, which is at INDOT's safety threshold (Appendix I, pages 11to 140).
	CR W. 600 S. is a two-lane, two-way roadway with an auxiliary right turn lane that travels west from the project area and consists of 11 ft. travel lanes with accompanying 3 ft. stone shoulders. The AADT count for the west leg of C.R.600 S was 983 VPD in 2019. Many crashes occur at US 6 and US 421, resulting from westbound traffic running the stop sign or failing to yield once stopped. In 2017, a small triangular island was constructed on the westbound approach of US 6 for traffic utilizing the right turn lane, and an additional stop sign was added on the island. Since then, various combinations of yellow and red flashers have been used on the stop signs at

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County <u>LaPorte</u>	Route <u>U.S. 6 &amp; U.S. 421</u> Des. No. <u>1702989</u>
	this intersection. In addition, transverse rumble strips were also installed on the westbound lanes of US 6. The surrounding land use is primarily agricultural and commercial.
	<b>Preferred Alternative (Alternative 4)</b> This project would involve replacing the existing facility with a single-lane roundabout to reduce the number of crashes, as right-angle type crashes would be eliminated. The roundabout would have single-lane entries, exits, and a circulatory roadway. This project would include:
	<ul> <li>Installing splitter islands to extend with the center curb on all but the west</li> <li>Adding a chicane to the east approach alignment</li> <li>Installing new lighting and reusing or replacing existing lighting</li> <li>Installing stormwater retention facilities</li> <li>Adding curbing for speed control</li> <li>Increasing the lane widths</li> <li>Replace and install stormwater pipes beneath the roadway pavement (Appendix B, pages B16-B42).</li> </ul>
	The project limits will extend approximately 975 ft. north, 595 ft. south, 715 ft. east, and 390 ft. west from the center of the US 6 and US 421 intersection. Every effort will be made to avoid, minimize, or mitigate project impacts during this intersection improvement project. Additionally, this project demonstrates independent utility because it will improve the intersection as a stand-alone project and is not dependent on any other planned projects.
	Due to the scope of the work, disruptions to traffic will occur. Therefore, the Maintenance of Traffic (MOT) for this project will utilize a road closure with an official detour. Please refer to the Maintenance of Traffic section for more details.
	Based on the above information, the preferred alternative will meet the purpose and need of the project by improving the existing intersection by reducing the number of crashes that occur.
Other Alternatives Considered:	The "No Build" Alternative The "No-Build" alternative was considered for the proposed project. This alternative would eliminate any environmental impacts and no expenditure of funds for improvement. However, this alternative would not meet the purpose and need of the project and was eliminated from further consideration.
	Alternative 2: Conventional Intersection (signalized or un-signalized) This alternative includes the addition of a traffic signal, or a four-way stop at the intersection. This alternative meets the purpose and need of the project. In addition, it would have less environmental impacts and fewer costs than the preferred alternative. However, it was eliminated from consideration as IDM (Indiana Design Manual) 502-1.02(02) states that multiway stop control cannot be used unless the traffic volume at each approach leg of the

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County LaPorte	Route <u>U.S. 6 &amp; U.S. 421</u> Des. No. <u>1702989</u>
	intersection is approximately equal. The existing project area does not meet this volume requirement.
	Alternative 3: Median U-Turn Intersection This alternative includes allowing U-turn capabilities on multi-lane roadways with medians. However, this alternative was immediately eliminated from consideration as the existing roadway within the project area consists of two- lane roadways with no medians present. Therefore, this alternative could not meet the purpose and need of the project.
	Alternative 5: Displaced Left-Turn Intersection This alternative includes implementing unopposed left turns to improve traffic mobility at the intersection with high left-turning and through volumes. This alternative was immediately eliminated from consideration as it does not meet the purpose and need of the project, which is to improve safety, not mobility. In addition, the volume and geometric requirements for an intersection of this type are not satisfied in the project area.
	Alternative 6: Jug-Handle Intersection This alternative includes removing arterial left-turn capabilities to improve traffic mobility. This alternative was immediately eliminated from consideration as it does not meet the purpose and need of the project, which is to improve safety, not mobility. In addition, the volume, and geometric requirements for an intersection of this type are not satisfied in the project area.
	Alternative 7: Offset "T" Intersection This alternative includes splitting the existing four-leg intersection into two three-leg intersections that are offset. Though this alternative would meet the purpose and need of the project, it would have more significant environmental impacts and costs than the preferred alternative due to the likely need for additional right-of-way to reconfigure the roadways and additional land disturbance. Therefore, this alternative was immediately eliminated as this type of configuration is typically utilized in multi-lane intersections of major roads. In addition, the project area is not consistent with the typical application for this type of intersection.
	Alternative 8: Green "T" Intersection This alternative includes a signal at a three-leg intersection. However, this alternative was immediately eliminated from consideration as the project area is unsignalized and consists of a four-leg intersection; therefore, this alternative could not meet the purpose and need of the project.
	Alternative 9: Quadrant Roadway Intersection This alternative includes removing left-turn capabilities at the intersection to improve traffic mobility. This alternative would have similar environmental impacts and costs as the preferred alternative. However, this alternative was immediately eliminated from consideration as it does not meet the purpose and need of the project, which is to improve safety, not mobility.

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	result in moi ramps for ro	tive include ht-angle a e significa ute contine n this alter	es geomet nd left-turn int environi uity that wo native wou	ic imp accio menta ould re Id me	lents. Howe l impacts d equire a sig et the purp	ever ue t nific ose	, this alte o the cor ant amo and nee	section to ernative would nstruction of ount of right-of- od of the project,
Funding Source(s):	X Fe	ederal	X Sta	te	Lo	cal		Other
Project Sponsor:	INDOT							
Estimated Cost:	\$1,700,000(	FY 2024)		Proje	ect Length	:	0.30 mi	le
Public Involvement:							No:	Yes: X
To meet the public involve historic properties affecte offering the public an opp 800.6(a)(4). The public co public notice and the affice The project met the minin Public Involvement Proce opportunity to submit com was posted in the Northw 2023 and February 9, 202 an open house on Februar	d" was publis ortunity to su omment perio lavit of public num requirem dures Manua ments or req est Indiana T 23, (Appendix ary 15, 2023 s ation (Append	hed in the bmit comm d closed 3 ation appe nents desc il, which re uest a put imes and t G, pages starting at lix G, page	LaPorte C nent pursua 0 days late ar in Appe ribed in the equires the olic hearing the LaPorte G5-G18). 5 PM and the es G19-G4	ounty ant to er on S ndix E e curre projection . The e Cou The h the for 7), se	Herald Dis 36 CFR 80 September 0, page D5- ent INDOT ct sponsor refore, a leg nty Herald earing was mal hearin veral memb	pato 0.2( 26, 4. Proj to of gal r Disp hele bers	th on Au d), 800.3 2022. Th ect Deve fer the p notice of patch on d as adv ginning of the p	gust 27, 2022, 3(e), and ne text of the elopment public an public hearing February 2, vertised, with at 6 PM. ublic offered
Following a brief presenta comments at the hearing March 2, 2023. Comment additional commentors du roundabout over traffic lig dust control, and the una received (Appendix G, pa coordinate with local agen facilitate the turning move	is were receiv uring the publ hts, impedim pproved local ges G48-G63 ncies on the l	ved from so ic hearing. ents to ove detour. Al 3). In respo ocal detou	even intere The comr ersize over I comment onse to pul r routes ar	sted p nents weigh s were olic co	parties, fou were gene It traffic, co e addresse mment, de	r by rally mbir d in sign	email ar related he/farm e the man ers cont I the des	nd three to using a equipment, iner they were inue to sign to better
Following a brief presenta comments at the hearing March 2, 2023. Comment additional commentors du roundabout over traffic lig dust control, and the unap received (Appendix G, pa coordinate with local ager facilitate the turning move <b>Right-of-Way:</b> The existing right-of-way	is were receiv uring the public hts, impedimoproved local liges G48-G63 noties on the ligements for far	ved from so ic hearing. ents to ove detour. Al 3). In respo ocal detou m equipm	even intere The comr ersize over I comment onse to pul r routes ar ent.	ested p nents weigh s were blic co ld the	parties, fou were gene It traffic, co e addresse mment, de y have adju	r by rally mbir d in sign isteo	email ar related he/farm of the man ers cont the des <b>No:</b>	nd three to using a equipment, inner they were inue to sign to better Yes: X

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County	LaPorte	Route	US 6 & US 421	Des. No	o. <u>1702</u>	989	
Mai	intenance of Traffic (MC	OT) During	Construction:	N	0:	Yes: X	
					•••		_

The MOT for this project will require a road closure using an official detour. The detour route will utilize US 35, US 30, and SR 49. This detour would add approximately 10.8 miles and 0.25 hours of added travel for motorists. The detour is anticipated to be in place for approximately two construction seasons. Additionally, all adjacent properties will have access through the detoured route.

The closures/lane restrictions will pose a temporary inconvenience to traveling motorists (including school buses and emergency services); however, no significant delays are anticipated, and all inconveniences will cease upon project completion.

Bridge(s) and/or Small Structure(s) (include structure number(s)):	No:	Yes: X
Presence		

One drainage pipe (112 ft. of 18-inch pipe with end sections) will be replaced in kind under the existing intersection. Two new drainage pipes (104 ft. of 18-inch pipe with inlet and end section; 90 ft. of 18 inches each with end section) will be installed (Appendix B, pages B31 to B 32).

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County LaPorte

Route US 6 & US 421

Des. No. 1702989

arly Coordination: arly coordination letters were sent on May 27, 2020	), Appendix C, pa	ages C1 to C2.	
Agency	Date Sent	Response Received	Appendix Page(s)
U.S. Fish Wildlife Service	5/27/2020	5/29/2020	C5
Natural Resources Conservation Service	5/27/2020	6/18/2020	C6-C7
Department of the Army, Louisville District, Corps of Engineers	5/27/2020	No Response	-
National Park Service, Midwest Regional Office	5/27/2020	No Response	-
US Department of HoU.S.ing & Urban Development, Chicago Regional Office	5/27/2020	No Response	-
Indiana Geological and Water Survey	5/27/2020	5/27/2020	C8 to C10
IDNR, Division of Fish and Wildlife	5/27/2020	6/25/2020	C11 to C12
IDEM	5/27/2020	5/27/2020	
INDOT Aviation Section	5/27/2020	5/27/2020	C13 to C14
INDOT, Public Hearings	5/27/2020	No Response	-
LaPorte County Surveyor	5/27/2020	No Response	-
LaPorte County Highway Department	5/27/2020	No Response	-
Floodplain Administrator	5/27/2020	No Response	-
MS4 Coordinator	5/27/2020	No Response	-
Northwestern Indiana Regional Planning Commission Il applicable recommendations are included in the I	5/27/2020	No Response	-

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Streams, Rivers, and Other Jurisdictional	Features Impacted:	No: X	Yes:
No presence. no impact Based on the desktop review, of the aerial m (Red Flag Investigation) report (Appendix E, watercourses, or other jurisdictional features rivers, watercourses, or other jurisdictional fe confirmed by the site visit on May 20, 2020, expected.	pages E1 to E10), there a within the 0.5-mile search eatures within or adjacent t	re no streams, rive radius. There are o the project area,	rs, no streams, as
Waters Report A Waters of the US Determination / Wetland Waterway Permitting Office on May 28, 202 jurisdictional water bodies were identified. Pl of the US Determination / Wetland Delineation	1. The report confirmed that lease refer to Appendix F,	it no streams or oth	ier
Open Water Feature(s):		No: X	Yes:
	by GAI. Therefore, no impa	acis are expected.	
A Waters of the US Determination / Wetland Waterway Permitting Office on May 28, 202 jurisdictional water bodies were identified. P	Delineation Report was a 1. The report confirmed that lease refer to Appendix F,	oproved by INDOT t no streams or oth	ier
A Waters of the US Determination / Wetland Waterway Permitting Office on May 28, 202 jurisdictional water bodies were identified. P of the US Determination / Wetland Delineation Wetlands:	Delineation Report was a 1. The report confirmed tha lease refer to Appendix F, on Report.	oproved by INDOT t no streams or oth	ier
Waters Report         A Waters of the US Determination / Wetland         Waterway Permitting Office on May 28, 2027         jurisdictional water bodies were identified. Plot         of the US Determination / Wetland Delineation         Wetlands:         Presence. with impacts less than 0.1 acres         Based on the desktop review, the aerial map         E1 to E10), there are seven wetlands within         within the project area, which was confirmed         Waters Report         A Waters of the US Determination / Wetland         Permitting Office approved on May 28, 2021         Waters of the US Determination / Wetland         Class 1 State Regulated Wetland. The US A         determinations regarding jurisdiction.	Delineation Report was a 1. The report confirmed that lease refer to Appendix F, on Report. of the project area, and the the 0.5-mile search radius I by the site visit on May 20 Delineation Report was IN . Please refer to Appendix belineation Report. It was do area. This wetland would like	pproved by INDOT at no streams or oth pages F1 to F37 fo <b>No:</b> There is one wetla b, 2020, by GAI. NDOT Ecology and F, pages F1 to F37 etermined that one sely be considered	Yes: X Yes: X Andix E, pages and present Waterway Y for the wetland an Isolated

County LaPorte

Route <u>U.S. 6 & U.S. 421</u>

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pipe outfall in the wetland will permanently impact Wetland A. As impacts to Wetland A will be less than 0.10 acre, mitigation will not be required. However, permits for impacts to Wetland A will be required.

#### Early Coordination

The IDNR-DFW responded on June 25, 2020 (Appendix C, pages C11 to C12), stating that due to the potential presence of wetland habitat on the site, they recommended avoidance of or mitigating impacts to wetland habitat (i.e., controlling erosion, revegetating bare soils, etc.).

All applicable recommendations are included in the Environmental Commitments section of this CE document.

Terrestrial Habitat:	No:	Yes: X

#### Presence. with impacts

Based on a desktop review, a site visit on May 20, 2020, by GAI, and the aerial map of the project area (Appendix B, page B3), there is roadside habitat present within the project area. Roadside vegetation consists primarily of tall fescue (*Schedonorus arundinacea*) and Kentucky bluegrass (*Poa annua*) in all four quadrants along the roadways. In addition, the northwest quadrant of the project area had green foxtail (*Setaria viridis*), dandelion (*Taraxacum officinale*), Canada thistle (*Cirsium arvense*), and ragweed (*Ambrosia artemisiifolia*) next to the adjacent farm field that had remnants of corn (*Zea mays*). This habitat would not be considered prime or unique. Approximately 1.93 acres of impact on the roadside habitat and adjacent farm field will be necessary to construct the roundabout. Total soil disturbance will not exceed 4.5 acres. No tree removal will be required to complete this project. Impacts have been minimized to the greatest extent possible, and avoidance alternatives are not practical to meet the purpose and need of this project. Mitigation will not be required for impacts to this habitat.

#### Early Coordination

IDNR-DFW responded with recommendations to reseed using a mixture of grasses (excluding all varieties of tall fescue), sedges, and wildflowers native to Northern Indiana (Appendix C, pages C11 to C12).

All applicable recommendations are included in the Environmental Commitments section of this CE document.

Protected Species:	No:	Yes: X

Based on a desktop review and the RFI report (Appendix E, pages E1 to E10, completed by GAI and approved by INDOT Site Assessment and Management (SAM) on April 19, 2021, the IDNR Laporte County Endangered, Threatened and Rare (ETR) Species List has been checked. In addition, according to the IDNR-DFW early coordination response letter dated June 25, 2020 (Appendix C, pages C11 to C12), the Natural Heritage Program's Database has been checked. And no plant or animal species listed as state or federally threatened, endangered, or rare have been reported to occur in the project vicinity. The confidential bat database was checked on March 23, 2020, the presence of endangered bat species was not indicated.

#### Indiana Bat and Northern Long-Eared Bat

#### Bats. Programmatic Informal Consultation (i.e., IPaC) - No Effect

Project information was submitted through the United States Fish and Wildlife Service's (USFWS) Information for Planning and Consultation (IPaC) portal, and an official species list was generated (Appendix C, pages C15 to C20). The project is within range of the federally endangered Indiana bat (*Myotis sodalis*) and the federally threatened northern long-eared bat (NLEB) (*Myotis septentrionalis*).

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No additional species were generated in the IPaC species list other than the Indiana bat and northern long-eared. The confidential bat database was checked on March 23, 2020, the presence of endangered bat species was not indicated.

The project qualifies for the Range-wide Programmatic Informal Consultation for the Indiana bat and Northern Long-eared bat (NLEB), dated May 2016 (revised February 2018), between FHWA, Federal Railroad Administration (FRA), Federal Transit Administration (FTA), and USFWS. A pipe inspection occurred on July 6, 2022, and no evidence of bats was seen or heard (Appendix C, page C30). An effect determination key was completed on July 22, 2021, and based on the responses provided, the project was found to "May Affect, but is Not Likely to Adversely Affect" the Indiana bat and/or the NLEB (Appendix C, pages C21 to C29). INDOT reviewed and verified the effect finding on August 11, 2021 and requested USFWS's review of the finding. No response was received from USFWS within the 14-day review period; therefore, it was concluded they concur with the finding. USFWS requests that site workers be informed of all FHWA/FRA/FTA environmental commitments and the presence or presumed presence of any suitable habitat. Further, the agency instructs all light to be directed away from suitable habitat. Also, when installing new or replacing existing permanent lights, use downward-facing, full cut off lens lights Avoidance and Minimization Measures (AMMs) and commitments are included as firm commitments in the Environmental Commitments section of this document.

This precludes the need for further consultation on this project as required under Section 7 of the Endangered Species Act, as amended. If new information on endangered species at the site becomes available, or if project plans are changed, USFWS will be contacted for consultation.

Geological and Mineral Resources:	No:X	Yes:
<b>Outside the karst area:</b> Based on a desktop review and the Indiana Karst Region map, the project is lo designated Indiana Karst Region as outlined in the most current Protection of H Project Development and Construction. According to the topo map of the proje page B2) and the RFI report (Appendix E, pages E1-E10), there are no karst fe adjacent to the project area. In the early coordination response dated May 27, Geological and Water Survey (IGWS) did not indicate that karst features exist i (Appendix C, pages C8-C10). Their response also stated moderate liquefaction potential to encounter bedrock resources, a high potential to encounter sand a no active or abandoned mineral resource extraction sites are documented nea	cated outside (arst Feature ct area (Appe eatures identi 2020, the Inc n the project n potential, th nd gravel res r the project a	e the es during endix B, ified within or liana area ne moderate cources, and area.
Response from IGS has been communicated with the designer on July 6, 2020 expected.	. No impacts	are
Drinking Water Resources:	No:X	Yes:

#### Sole Source Aquifer

The project is located in LaPorte County, which is not located within the area of the St. Joseph Sole Source Aquifer, the only legally designated sole source aquifer in the state of Indiana. Therefore, the FHWA/EPA Sole Source Aquifer Memorandum of Understanding (MOU) does not apply to this project. Therefore, a detailed groundwater assessment is unnecessary, and no impacts are expected.

#### Wellhead Protection Area and Source Water

The Indiana Department of Environmental Management's Wellhead Proximity Determinator website (<u>http://www.in.gov/idem/cleanwater/pages/wellhead/</u>) was accessed on May 27, 2020 by GAI. This project is not located within a Wellhead Protection Area or Source Water Area. No impacts are expected.

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Water Wells			

#### Water Wells

The Indiana Department of Natural Resources Water Well Record Database website (https://www.in.gov/dnr/water/3595.htm) was accessed on July 6, 2020, by GAI. There is one significant withdrawal well northwest of the project area. This feature will not be affected due to the distance of the well from the construction limits of the project area. Therefore, no impacts are expected. Should it be determined during the right-of-way phase that this well is affected, a cost to cure will likely be included in the appraisal to restore the wells. **Urban Area Boundary** Based on a desktop review of the INDOT Municipal Separate Storm Sewer System (MS4) website (https://entapps.indot.in.gov/MS4/) by GAI on March 11, 2020, and the RFI report; this project is located in an Urban Area Boundary (UAB) location. An early coordination letter was sent on May 27, 2020, to The LaPorte County Government MS4 Coordinator. The MS4 coordinator did not respond within the 30day time frame. This project will comply with the storm water quality management plan by implementing and adhering to appropriate best management practices (BMP's). **Public Water System** Based on a desktop review, a site visit on May 20, 2020, by GAI, and the aerial map of the project area (Appendix B, page B3), no public water systems were identified. Therefore, no impacts are expected. Floodplains: No: X Yes: The Indiana Department of Natural Resources Indiana Floodway Information Portal website (http://dnrmaps.dnr.in.gov/appsphp/fdms/) was accessed on March 11, 2020, by GAI. This project is not located in a regulatory floodplain as determined from approved IDNR floodplain maps (Appendix F. page F38). Therefore, it does not fall within the guidelines for the implementation of 23 CFR 650, 23 CFR 771, and 44 CFR. No impacts are expected. Farmland: No: Yes: X Based on a desktop review, a site visit on May 20, 2020, by GAI, and the aerial map of the project area (Appendix B, page B3), the project will convert 0.053 acre of farmland as defined by the Farmland Protection Policy Act. An early coordination letter was sent on May 27, 2020, to the Natural Resources Conservation Service (NRCS). Coordination with NRCS on June 17, 2020, resulted in a score of 99 on the NRCS AD- 1006 Form (Appendix C, pages C6 to C7). NRCS's threshold score for significant impacts on farmland that result in consideration of alternatives is 160. Since this project score is less than the threshold, no significant loss of prime, unique, statewide, or local important farmland will result from this project. No alternatives other than those previously discussed in this document will be investigated without reevaluating impacts on prime farmland. **Cultural Resources:** No: Yes: X FHWA is required to comply with Section 106 of the National Historic Preservation Act of 1966 as amended (Section 106) and its implementing federal regulation, 36 CFR 800, when utilizing federal funds. The following information summarizes the steps to identify the cultural resources listed in or eligible for listing in the National Register of Historic Places (NRHP) and the expected impacts the project will have on those resources. The documentation produced during the Section 106 process is found in Appendix D. Area of Potential Effect (APE): The above-ground APE was drawn to encompass properties adjacent to the undertaking or with a potential view of the project. Similarly, the APE for archaeology includes all existing and proposed rightof-way; it is encompassed by the survey area, including the archaeology APE and any areas

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investigated beyond it (Appendix D, page D13 to D14). INDOT on behalf of FHWA approved the APE (Appendix D, page D7) on August 22, 2022.

#### **Coordination with Consulting Parties:**

INDOT, acting on behalf of FHWA, sent an invitation with instructions for accessing early coordination materials to potential consulting parties on July 13, 2021. Those invited to consult on this project included:

Northwestern Indiana Regional Planning Commission LaPorte County Historian LaPorte County Historical Society Westville Community Historical Society LaPorte County Genealogy Society LaPorte County Board of Commissioners LaPorte County Highway Engineer LaPorte County Plan Commission Indiana Landmarks - Central Regional Office Forest County Potawatomi Community Pokagon Band of Indians of Oklahoma Eastern Shawnee Tribe of Oklahoma Miami Tribe of Oklahoma Peoria Tribe of Indians of Oklahoma Shawnee Tribe Indiana State Historic Preservation Officer (SHPO)

SHPO and consulting parties were provided access to the Historic Property Short Report (HPSR) (Fivecoat, 2022) on April 06, 2022 (Appendix D, Pages D51 to D52).

#### Archaeology:

A qualified professional archaeologist for Weintraut & Associates performed a records check then completed a Phase Ia archaeological reconnaissance for the proposed US 6 and US 421 Intersection Improvement Project on November 15, 2021. An Archaeology Short Report (ASR) was produced by Arnold (April 01, 2022) (Appendix D, pages D49 to D50). The report noted that the Phase Ia reconnaissance conducted August 18 and 19, 2021, located two previously unidentified archaeological sites were encountered during the Phase Ia archaeological field reconnaissance. Both sites fail to meet the necessary eligibility criteria for listing in the NRHP, and no further archaeological work is recommended.

This ASR was provided to consulting parties on April 06, 2022 (Appendix D, Pages D29 to D31). The Indiana SHPO concurred with this assessment in correspondence dated May 5, 2022 (Appendix D, Pages D38 to D39).

#### Historic Properties:

As a result of Section 106 identification and evaluation efforts, a qualified professional historian for Weintraut & Associates evaluated properties within the APE for this project. Weintraut & Associates consulted the NRHP, the register of National Historic Landmarks (NHL), Indiana Register of Historic Sites and Structures (State Register), the Indiana Historic Sites and Structures Inventory (IHSSI), the State Historical Architectural and Archaeological Research Database (SHAARD), the Indiana Historic Buildings, Bridges, and Cemeteries (IHBBC) Map, the Indiana Statewide Historic Bridge Inventory, and the Hamilton County Interim Report (1992) for previously identified properties. Based on this evaluation,

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Route U.S. 6 & U.S. 421

Des. No. 1702989

no properties within this project's APE are listed on or eligible for listing on the NRHP. On August 16, 2021, Weintraut & Associates conducted a field survey of the APE, evaluating all above-ground resources that would be at least 50 years old at the time of the project letting in 2022. Weintraut & Associates prepared a HPSR (Fivecoat, January 2022) that recommended no resources in the APE as eligible for listing in the NRHP. The Indiana SHPO concurred with the recommendations of the HPSR on May 5, 2022 (Appendix D, Pages D38 to D39).

#### **Documentation. Findings:**

INDOT, on behalf of the FHWA, signed the "no historic properties affected" finding and approved the Section 106 800.11(e) documentation for the project on August 22, 2022 (Appendix D, pages D3 to D6). The project was determined to have "no effect" on historic resources. The documentation was sent to consulting parties, including the SHPO on August 24, 2022, and the SHPO concurred with the finding on August 29, 2022 (Appendix D page D1 to D2).

#### Public Involvement:

To meet the public involvement requirements of Section 106, a legal notice of FHWA finding of "No Historic Properties Affected" was published in the Laporte County Herald Dispatch on August 27, 2022, offering the public an opportunity to submit comments pursuant to 36 CFR 800.2(d), 800.3(e), and 800.6(a)(4). The public comment period closed 30 days later on September 26, 2022. The text of the public notice and the affidavit of publication appear in Appendix D, page D54. Other than a concurrence letter from the SHPO, no additional comments were received from the public.

Section 4(f) and Section 6(f) Resources:	No: X	Yes:

Section 4(f) of the US Department of Transportation Act of 1966 prohibits the use of certain public and historic lands for federally funded transportation facilities unless there is no feasible and prudent alternative. The law applies to significant publicly owned parks, recreation areas, wildlife/waterfowl refuges, and NRHP eligible or listed historic properties regardless of ownership. Lands subject to this law are considered Section 4(f) resources.

Based on a desktop review, the aerial map of the project area (Appendix B, page B3), and the RFI report (Appendix E, pages E1 to E10), there is one potential 4(f) resource located within the 0.5-mile search radius. According to additional research and by a site visit on May 20, 2020, by GAI, there are no 4(f) resource located within or adjacent to the project area. The RFI indicated one potential trail located 0.39 miles west of the existing intersection. It was determined that this trail was not within the project area and therefore would not be impacted permanently or temporarily by the construction of the project. The project will not use this resource by taking permanent right of way and will not indirectly use the resource in such a way that the protected activities, features, or attributes that qualify a resource for protection under Section 4(f) are substantially impaired. Therefore, no 4(f) use is expected.

Based on a desktop review, the aerial map of the project area (Appendix B, page B3), and the RFI report (Appendix E, pages E1 to E10), there are no potential 4(f) resources located within the 0.5-mile search radius. Therefore, no use is expected.

The US Land and Water Conservation Fund Act of 1965 established the Land and Water Conservation Fund (LWCF), which was created to preserve, develop, and assure accessibility to outdoor recreation resources. Section 6(f) of this Act prohibits the conversion of lands purchased with LWCF monies for non-recreation use.

This is page 13 of 15 Project name: US 6 and US 421 Intersection Improvement Date: April 24, 2023

A review of 6(f) properties on the INDOT ESD website revealed 11 properties (Appendix I, page I41). None of these properties are located within or adjacen Therefore, there will be no impact on 6(f) resources.		
Air Quality:	No: X	Yes:
This project is included in the Fiscal Year (FY) 2022-2026 Northwestern Indiar Commission (NIRPC) Transportation Improvement Plan (TIP) which has been the FY 2022-2026 STIP. (Appendix H, pages H1 to H5).	directly inc	orporated into
This project is located in LaPorte County, which is currently in attainment for a according to IDEM's website: <u>https://www.in.gov/idem/airquality/2339.htm</u> . Th procedures of 40 CFR Part 93 do not apply.		
This project is of a type qualifying as a categorical exclusion (Group 1) under 2 exempt under the Clean Air Act conformity rule under 40 CFR 93.126, and as Toxics analysis is not required.		
Community Impacts:	No: X	Yes:
	ll have no r	
require less than 0.5 acre of additional permanent right-of-way; therefore, an E Justice) analysis is not required per the current INDOT Categorical Exclusion I	ll have no r J (Environ Manual.	elocations and mental
require less than 0.5 acre of additional permanent right-of-way; therefore, an E Justice) analysis is not required per the current INDOT Categorical Exclusion I <b>Public Facilities and Services (e.g., schools, emergency services):</b> Based on a desktop review, the aerial map of the project area (Appendix B, pa report (Appendix E, pages E1 to E10), there are no public facilities within the 0 This information was confirmed by the site visit on May 20, 2020, by GAI. The within or adjacent to the project area. Therefore, no impacts are expected. Acc	Il have no r J (Environ Manual. No: X ge B3), an 5-mile sea re are no pi	elocations and mental Yes: d the RFI arch radius. ublic facilities
require less than 0.5 acre of additional permanent right-of-way; therefore, an E Justice) analysis is not required per the current INDOT Categorical Exclusion I <b>Public Facilities and Services (e.g., schools, emergency services):</b> Based on a desktop review, the aerial map of the project area (Appendix B, pa report (Appendix E, pages E1 to E10), there are no public facilities within the 0 This information was confirmed by the site visit on May 20, 2020, by GAI. The within or adjacent to the project area. Therefore, no impacts are expected. Acc be maintained during construction. It is the project sponsor's responsibility to notify school corporations and emergen	Il have no r J (Environ Manual. No: X Ige B3), an 5-mile sea re are no pu cess to all p	Ves: d the RFI arch radius. ublic facilities properties will
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high and adverse effect on minority or low-income populations. This project wi require less than 0.5 acre of additional permanent right-of-way; therefore, an E Justice) analysis is not required per the current INDOT Categorical Exclusion I <b>Public Facilities and Services (e.g., schools, emergency services):</b> Based on a desktop review, the aerial map of the project area (Appendix B, pa report (Appendix E, pages E1 to E10), there are no public facilities within the O This information was confirmed by the site visit on May 20, 2020, by GAI. The within or adjacent to the project area. Therefore, no impacts are expected. Acc be maintained during construction. It is the project sponsor's responsibility to notify school corporations and emerg two weeks before any construction that would block or limit access. <b>Hazardous Materials and Regulated Substances:</b> Based on a review of GIS (Geographic Information Systems) and available pu approved by INDOT SAM on April 19, 2021, by GAI (Appendix E, pages E1 to Conservation Recovery Act (RCRA) Generator/Treatment Storage and Dispos Leaking Underground Storage Tank (LUST) site are located within 0.5 mile of hazardous Material concern sites are located within the project area. No impact investigation into hazardous material concerns is not required at this time.	II have no r J (Environ Manual. No: X Ige B3), an 0.5-mile sea re are no pu cess to all p gency serve No: X blic records E10). One al (TSD) si the project	elocations and mental Yes: d the RFI arch radius. ublic facilities properties will ices at least Yes: s, an RFI was Resource te and one area. No
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This is page 14 of 15 Project name: US 6 and US 421 Intersection Improvement Date: April 24, 2023

County LaPorte

Route U.S. 6 & U.S. 421

Des. No. 1702989

Applicable recommendations provided by resource agencies are included in the Environmental Commitments section of this document. If permits are found to be necessary, the conditions of the permit will be requirements of the project and will supersede these recommendations.

#### **ENVIRONMENTAL COMMITMENTS:**

#### Firm:

1. If the scope of work or permanent or temporary right-of-way amounts change, the INDOT Environmental Services Division (ESD) and the INDOT District Environmental Section will be contacted immediately. (INDOT ESD and INDOT District)

2. It is the responsibility of the project sponsor to notify school corporations and emergency services at least two weeks prior to any construction that would block or limit access. (INDOTESD)

3. GENERAL AMM 1: Ensure all operators, employees, and contractors working in areas of known or presumed bat habitat are aware of all FHWA/FRA/FTA (Transportation Agencies) environmental commitments, including all applicable AMM's. (USFWS)

4. LIGHTING AMM 1: Direct temporary lighting away from suitable habitat during the active season. (USFWS)

5. Any work in a wetland area within the right-of-way or in borrow/waste areas is prohibited unless specifically allowed in the U.S. Army Corps of Engineers permit. (INDOT EWPO)

#### **Further Consideration:**

1. Impacts to wetland habitat should be mitigated at the appropriate ratio according to the 1991 INDOT/IDNR/USFWS Memorandum of Understanding. (IDNR-DFW)

2. Revegetate all bare and disturbed areas within the project area using a mixture of grasses (excluding all varieties of tall fescue), sedges, and wildflowers native to Northern Indiana and specifically for stream bank/floodway stabilization purposes as soon as possible upon completion. (IDNR-DFW)

# Table of Appendices

ppendix A: INDOT Supporting Documentation         Threshold Chart         ppendix B: Graphics         Maps of the Project Area         Photographs of the Project Area         Project Plans         ppendix C: Early Coordination         Early Coordination Example Letter         Early Coordination Distribution List         Response – USFWS         Response – IGWS         Response – IDNR         Response – INDOT, Office of Aviation         USFWS Consistency Letter         Bridge/Structure Assessment         ppendix D: Section 106 Consultation         Findings of Effect         ECL         Correspondence         ASR         HPSR.         Public Notice Affidavit         Public Notice Affidavit         ppendix E: Red Flag and Hazardous Materials         Red Flag Investigation.	B1 B8 B16 C1 C3 C3 C5 C6 C8 C8 C1 C1 C1 C1 C2 C3 C3 D1 D18 D35 D49 D51
Maps of the Project Area	
Maps of the Project Area         Photographs of the Project Area         Project Plans         Project Plans         pendix C: Early Coordination         Early Coordination Example Letter         Early Coordination Distribution List         Response – USFWS         Response – NRCS         Response – IGWS         Response – IDNR         Response – INDOT, Office of Aviation         USFWS Official Species List         USFWS Consistency Letter         Bridge/Structure Assessment         pendix D: Section 106 Consultation         Findings of Effect         ECL         Correspondence         ASR         HPSR         Public Notice Affidavit	
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Project Plans  ppendix C: Early Coordination Early Coordination Example Letter Early Coordination Distribution List Response – USFWS Response – NRCS Response – IGWS Response – IDNR Response – IDNR Response – INDOT, Office of Aviation USFWS Official Species List USFWS Consistency Letter Bridge/Structure Assessment ppendix D: Section 106 Consultation Findings of Effect. ECL Correspondence ASR HPSR HPSR Public Notice Affidavit	B16 C1 C3 C5 C6 C1 C1 C1 C1 C1 C1 C1 C1 C1 C1 C1 C1 C1 C1 C3 C4 
Project Plans ppendix C: Early Coordination Early Coordination Example Letter Early Coordination Distribution List Response – USFWS Response – NRCS Response – IGWS Response – IDNR Response – INDOT, Office of Aviation USFWS Official Species List USFWS Consistency Letter Bridge/Structure Assessment Dyendix D: Section 106 Consultation Findings of Effect ECL Correspondence ASR HPSR Public Notice Affidavit Dyendix E: Red Flag and Hazardous Materials Red Flag Investigation.	B16 C1 C3 C5 C6 C1 C1 C1 C1 C1 C1 C1 C1 C1 C1 C1 C1 C1 C1 C3 C4 
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Public Notice Affidavit endix E: Red Flag and Hazardous Materials Red Flag Investigation	
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DEDUIX F. AUDITORIZI NURREN	
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Engineers Report LWCF LaPorte County List	

## Appendix A

#### **INDOT** Supporting Documentation

Item	Appendix Page
Threshold Chart	A1



#### **Categorical Exclusion Level Thresholds**

	РСЕ	Level 1	Level 2	Level 3	Level 4 <sup>1</sup>
Section 106	Falls within guidelines of Minor Projects PA	No Historic Properties Affected"	"No Adverse Effect"	-	"Adverse Effect" Or Historic Bridge involvement <sup>2</sup>
Stream Impacts <sup>3</sup>	No construction in waterways or water bodies	< 300 linear feet of stream impacts	$\geq$ 300 linear feet of stream impacts	-	USACE Individual 404 Permit <sup>4</sup>
Wetland Impacts <sup>3</sup>	No adverse impacts to wetlands	< 0.1 acre	-	< 1.0 acre	$\geq 1.0$ acre
Right-of-way <sup>5</sup>	Property acquisition for preservation only or none	< 0.5 acre	$\geq$ 0.5 acre	-	-
Relocations <sup>6</sup>	None	-	-	< 5	$\geq 5$
Threatened/Endangered Species (Species Specific Programmatic for Indiana bat & northern long eared bat)*	"No Effect", "Not likely to Adversely Affect" (With select AMMs <sup>7</sup> )	Not likely to Adversely Affect" (With any AMMs or commitments)	-	"Likely to Adversely Affect"	Project does not fall under Species Specific Programmatic <sup>8</sup>
Threatened/Endangered Species (Any other species)*	Falls within guidelines of USFWS 2013 Interim Policy or "No Effect"	"Not likely to Adversely Affect"	-	-	"Likely to Adversely Affect"
Environmental Justice	No disproportionately high and adverse impacts	-	-	-	Potential <sup>9</sup>
Sole Source Aquifer	No Detailed Groundwater Assessment	-	-	-	Detailed Groundwater Assessment
Floodplain	No Substantial Impacts	-	-	-	Substantial Impacts
Section 4(f) Impacts	None	-	-	_	Any <sup>10</sup>
Section 6(f) Impacts	None	_	-	-	Any
Permanent Traffic Alteration	None	-	-	-	Any
Noise Analysis Required	No	-	-	-	Yes
Air Quality Analysis Required	No	-	-	-	Yes <sup>11</sup>
<ul> <li>Approval Level</li> <li>District Env. (DE)</li> <li>Env. Serv. Div. (ESD)</li> <li>FHWA</li> </ul>	Concurrence by DE or ESD	DE or ESD	DE or ESD	DE and/or ESD	DE and/or ESD; and FHWA

<sup>1</sup> Coordinate with INDOT Environmental Services Division. INDOT will then coordinate with the appropriate FHWA Environmental Specialist.

<sup>2</sup> Any involvement with a bridge processed under the Historic Bridge Programmatic Agreement.

<sup>3</sup> Total permanent impacts to streams (linear feet) and wetlands (acres).

<sup>4</sup>US Army Corps of Engineers Individual 404 Permit

<sup>5</sup> Total permanent and temporary right-of-way. This does not include reacquisition of existing apparent right-of-way.

<sup>6</sup> If any relocations are within an area with a known or suspected Environmental Justice (EJ) or disadvantaged population, or has greater than 5 relocations, a conversation with FHWA, through INDOT ESD, is needed to confirm NEPA classification and outreach plan for the project.

<sup>7</sup> Avoidance and Mitigation Measures (AMMs) determined by the IPAC determination key to be required that are not tree AMMs, bridge AMMs, or structure AMMs. <sup>8</sup> Projects that do not fall under a Species Specific Programmatic and results in a "Likely to Adversely Affect". Other findings can be processed as a lower-level CE.

<sup>9</sup> Potential for causing a disproportionately high and adverse impact.

<sup>10</sup> Section 4(f) use resulting in an Individual, Programmatic, or *de minimis* evaluation. The only exception is a *de minimis* evaluation for historic properties (Effective January 2, 2020). If a historic property *de minimis* and no other use, mark the *None* column.

<sup>11</sup> Hot Spot Analysis and/or MSAT Quantitative Emission Analysis.

\* Includes the threatened/endangered species critical habitat

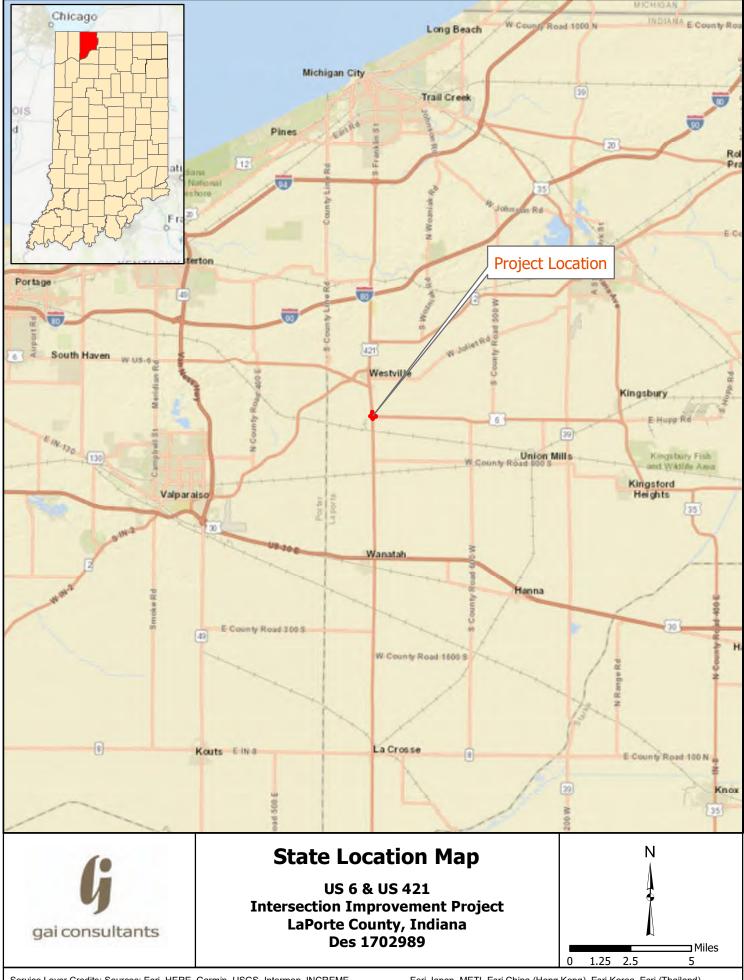
Note: Substantial public or agency controversy may require a higher-level NEPA document.

# Appendix B

# Graphics

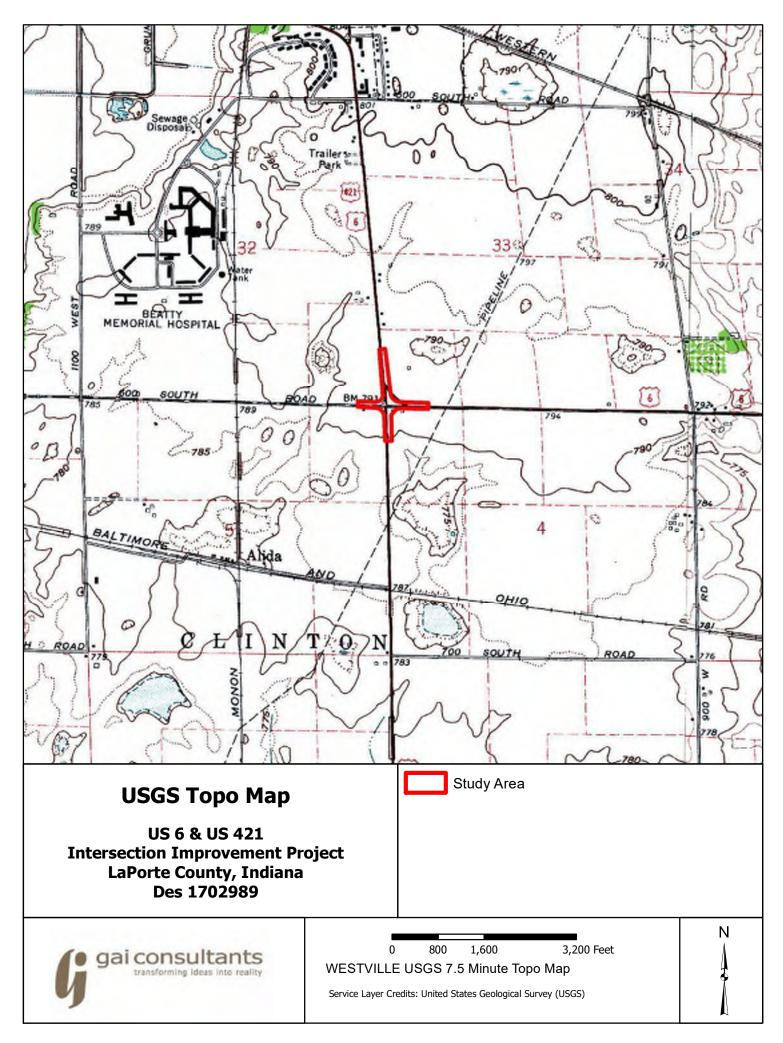
Item	Appendix Page
Maps of the Project Area	B1 to B7
Photographs of the Project Area	B8 to B15
Project Plans	B16 to B51



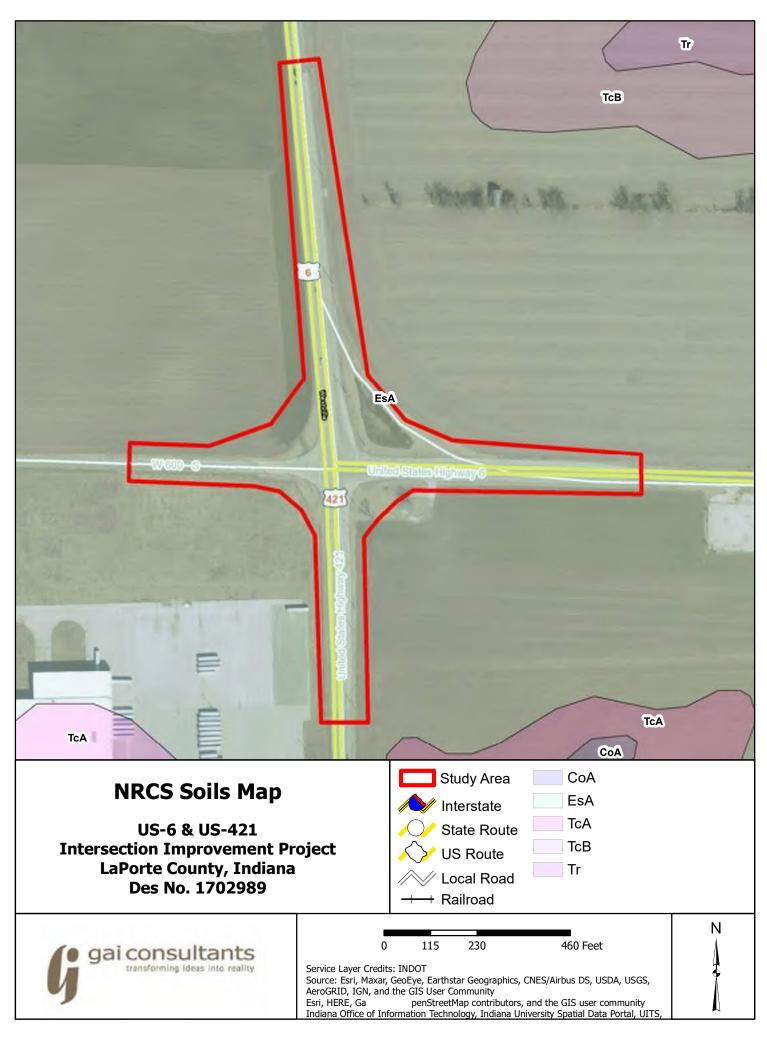


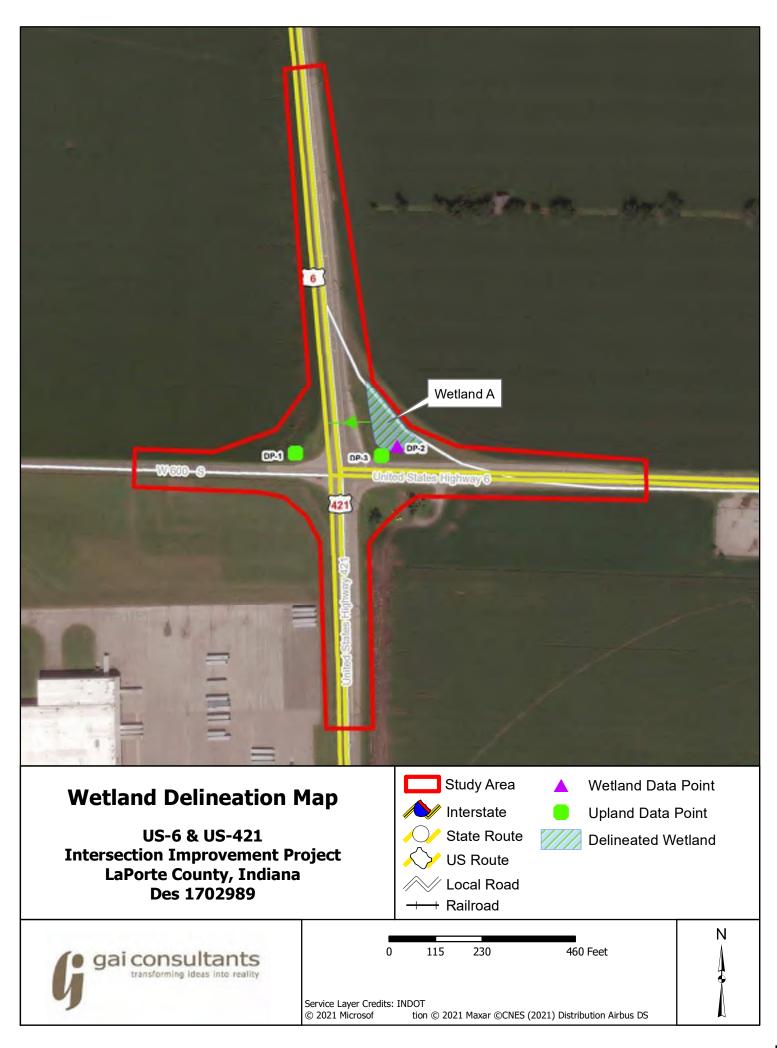
Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREME NGCC, (c) OpenStreetMap contributors, and the GIS User Community

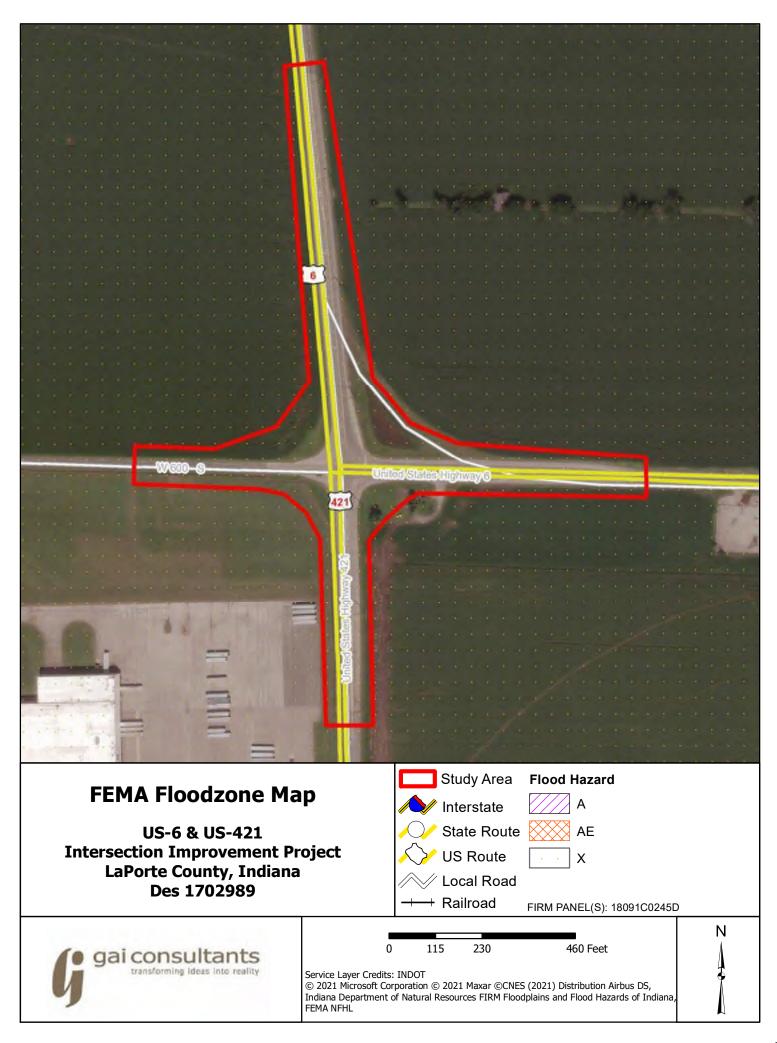
, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand),







































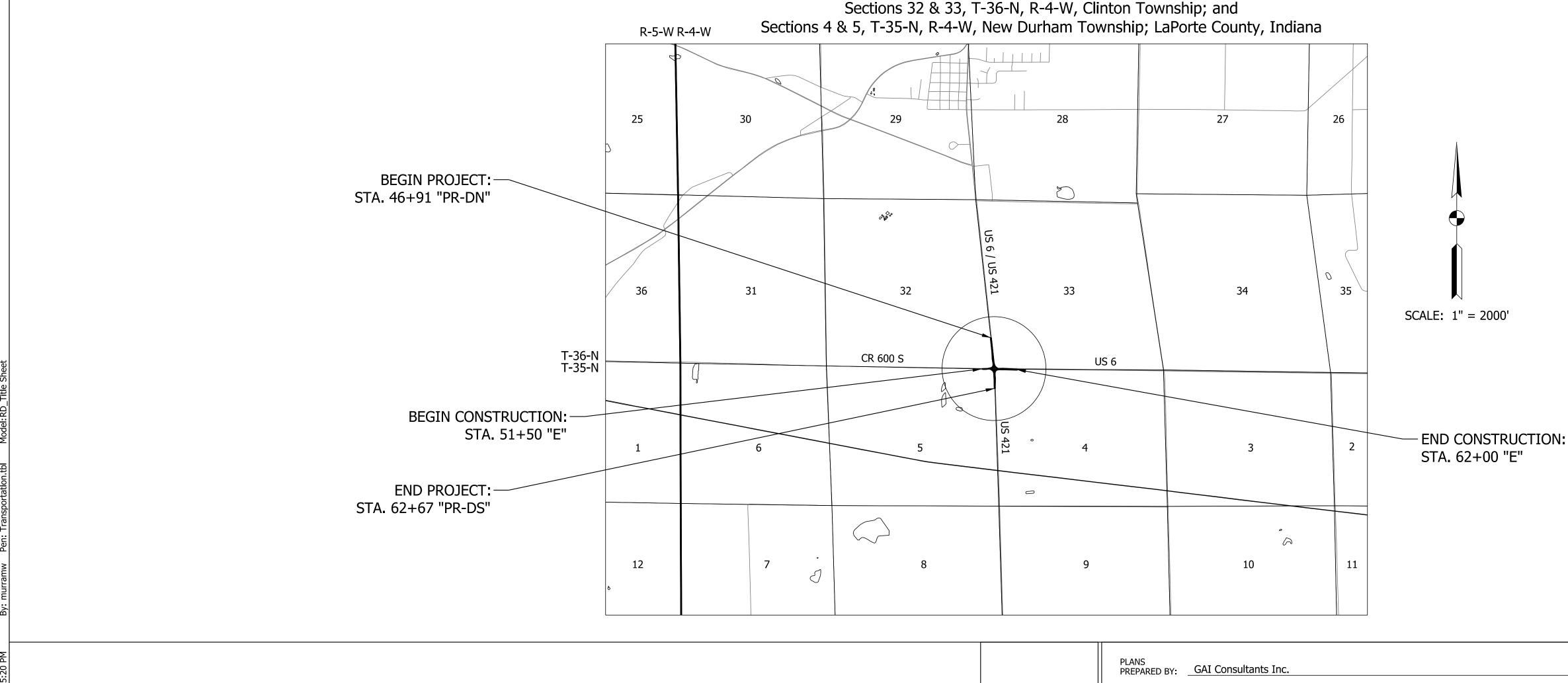




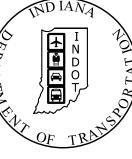


DESIGNATION
1702989

# FROM: RP 36+60 to RP 36+60 ROUTE: US 6 PROJECT NO. 1702989 P.E. 1702989 R/W 1702989 CONST.



# **INDIANA DEPARTMENT OF TRANSPORTATION**

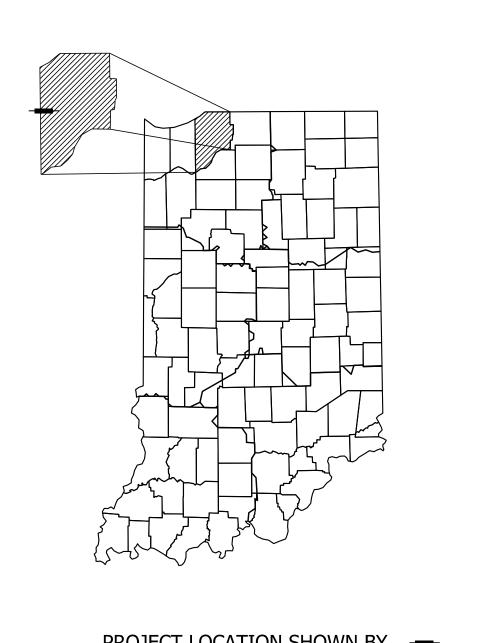


# **ROAD PLANS**

New Construction Roundabout at Intersection of US 6 and US 421, South Junction Sections 32 & 33, T-36-N, R-4-W, Clinton Township; and

PLANS PREPARED BY:	GAI Consultants Inc.	317-570-6800 PHONE NUMBER		DESIGNATION 1702989
CERTIFIED BY:		DATE	SURVEY BOOK	SHEETS
APPROVED		DATE		1 of 59
FOR LETTING:			CONTRACT	PROJECT
	INDIANA DEPARTMENT OF TRANSPORTATION	DATE	R-43059	1702989
				·

TRAFFIC	DATA	North Approach US 6 & US 421	South Approach US 421	East Approach US 6	West Approach CR 600 S		
A.A.D.T.	(2022)	5,910	3,890	3,460	1,000	V.P.D.	
A.A.D.T.	(2042)	6,490	4,270	3,800	1,100	V.P.D.	
D.H.V	(2042)	588	380	347	110	V.P.H.	
DIRECTIONAL DISTR	IBUTION	56%	56%	53%	58%	%	
TRUCKS		18.5%	15.0%	19.8%	2.5%	A.A.D.T.	
		13.5%	14.1%	13.2%	2.2%	D.H.V.	
DESIGN DATA							
DESIGN SPEED		45	45	55	40	M.P.H.	
PROJECT DESIGN CRITERIA Reconstruction (4R), Non-Freeway							
FUNCTIONAL CLASSI	-ICATION	US 6 & US 421: Principal Arterial-Other CR 600 S: Minor Collector					
RURAL/URBAN		RURAL					
TERRAIN		LEVEL					
ACCESS CONTROL						NONE	



PROJECT LOCATION SHOWN BY ----LAPORTE COUNTY

LATITUDE: 41° 31' 06" N LONGITUDE: 86° 53' 39" W

GROSS LENGTH:	0.30	MI.
NET LENGTH:	0.30	MI.
MAX. GRADE:	2.00	%

STAGE 2 PLANS

#### INDIANA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS DATED 2021 TO BE USED WITH THESE PLANS

## <u>Electric</u> Kankakee Valley REMC 8642 W. US Hwy 30 PO Box 157 Wanatah, IN 46390 Contact: Jacob Bailey Phone: (219)733-2511 Email: jbailey@kyremc.com

NIPSCO Electric (LaPorte) NIPSCO Electric (LaPorte) 801 East 86th Avenue Merrillville, IN 46410 Contact: Phone: (219)647-4912 Email: utilitycoordination@nisource.com

### <u>Sanitary</u>

Town of Westville 904 W Main Street Westville, IN 46391 Contact: Nathan Howell Phone: (219)785-2413 Email: westville.utility@westville.us

# UTILITIES

# <u>Gas</u> NIPSCO Gas (LaPorte) 801 East 86th Avenue Merrillville, IN 46410 Contact: Dean Garrett Phone: (219)647-4912 Email: utilitycoordination@nisource.com

<u>Water</u> Town of Westville 908 Stanley Drive Westville, IN 46391 Contact: Phone: (219)785-1880 Email: westville.utility@westville.us

# **Communication** Frontier 8001 West Jefferson Blvd Fort Wayne, IN 46804 Contact: Joe Sarll Phone: (260)461-3324 Email: utilitycordreq@ftr.com

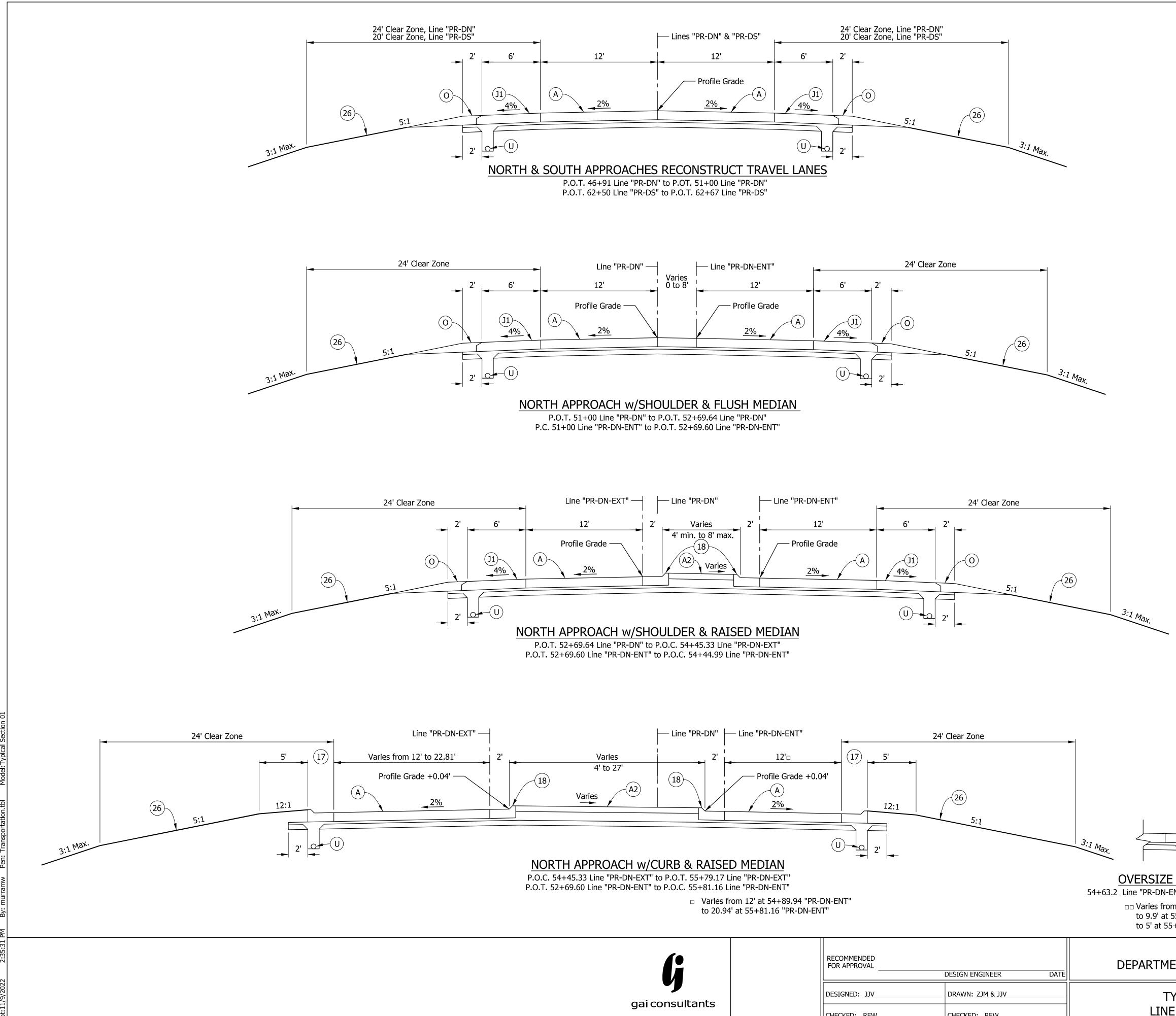
Mediacom, LLC (Auburn) 3900 26th Avenue Moline, IL 61265 Contact: Scott Roberts Phone: (217)345-553 Email: sroberts@mediacomcc.com

# **GENERAL NOTES**

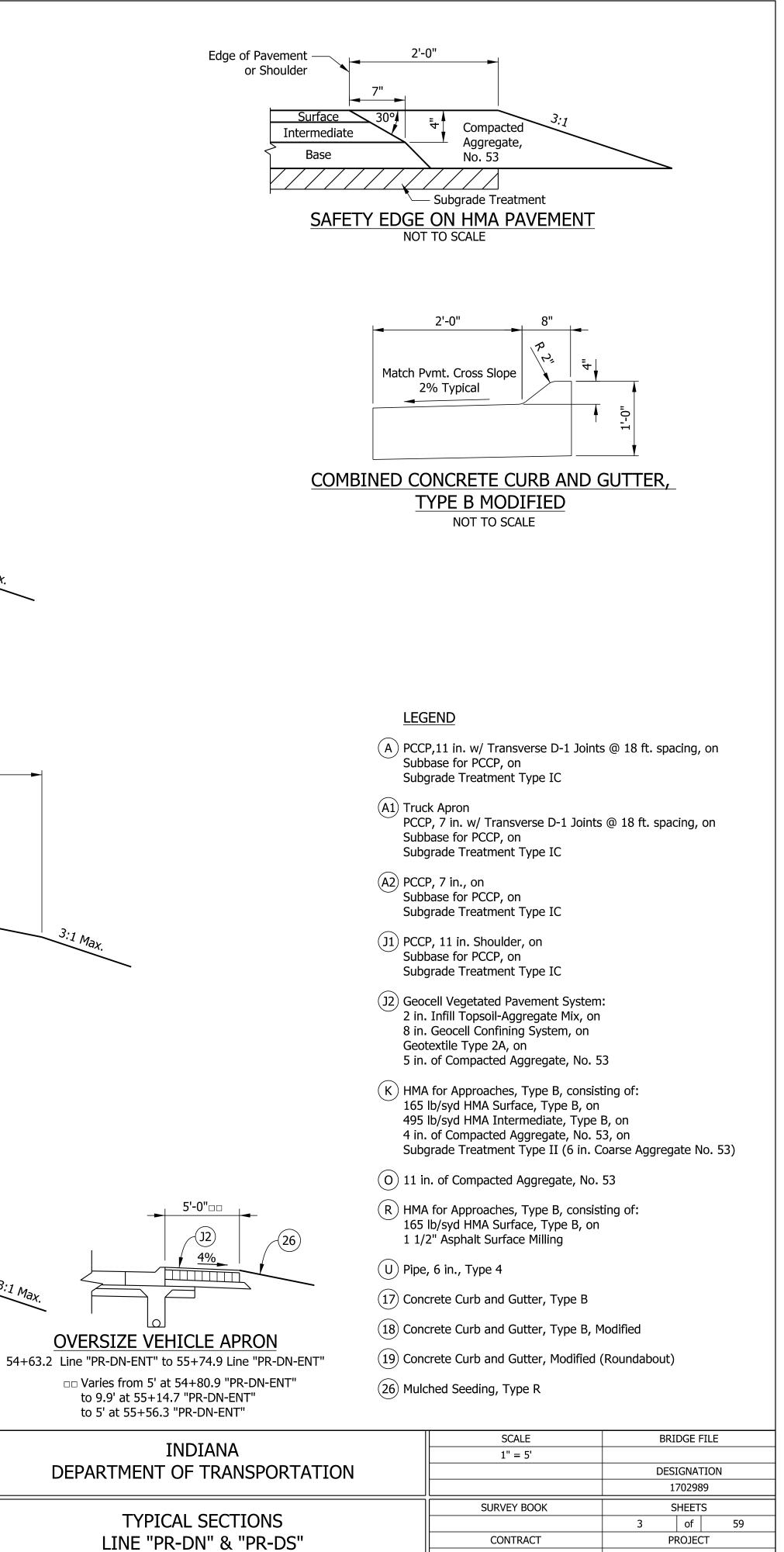
INDEX					
SHEET NO.	DRAWINGS INDEX				
1	TITLE				
2	INDEX AND GENERAL NOTES				
3 - 5	TYPICAL SECTIONS				
6 - 7	TEMPORARY TRAFFIC CONTROL				
8 - 10	LOCATION CONTROL ROUTE SURVEY				
11 - 13	GEOMETRIC TIE SHEETS				
14 - 20	PLAN AND PROFILES				
21 - 29	CONSTRUCTION DETAILS				
30 - 33	EROSION CONTROL DETAILS				
34 - 35	APPROACH TABLES				
36	MISCELLANEOUS TABLES				
37 - 59	CROSS SECTIONS				

<b>G</b> ai consultants	RECOMMENDED FOR APPROVAL	DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION	SCALE None	BRIDGE FILE DESIGNATION 1702989
	DESIGNED: _JJV	DRAWN: ZJM		SURVEY BOOK	SHEETS 2 of 59
	CHECKED: <u>REW</u>	CHECKED: <u>REW</u>	INDEX AND GENERAL NOTES	CONTRACT R-43059	PROJECT 1702989

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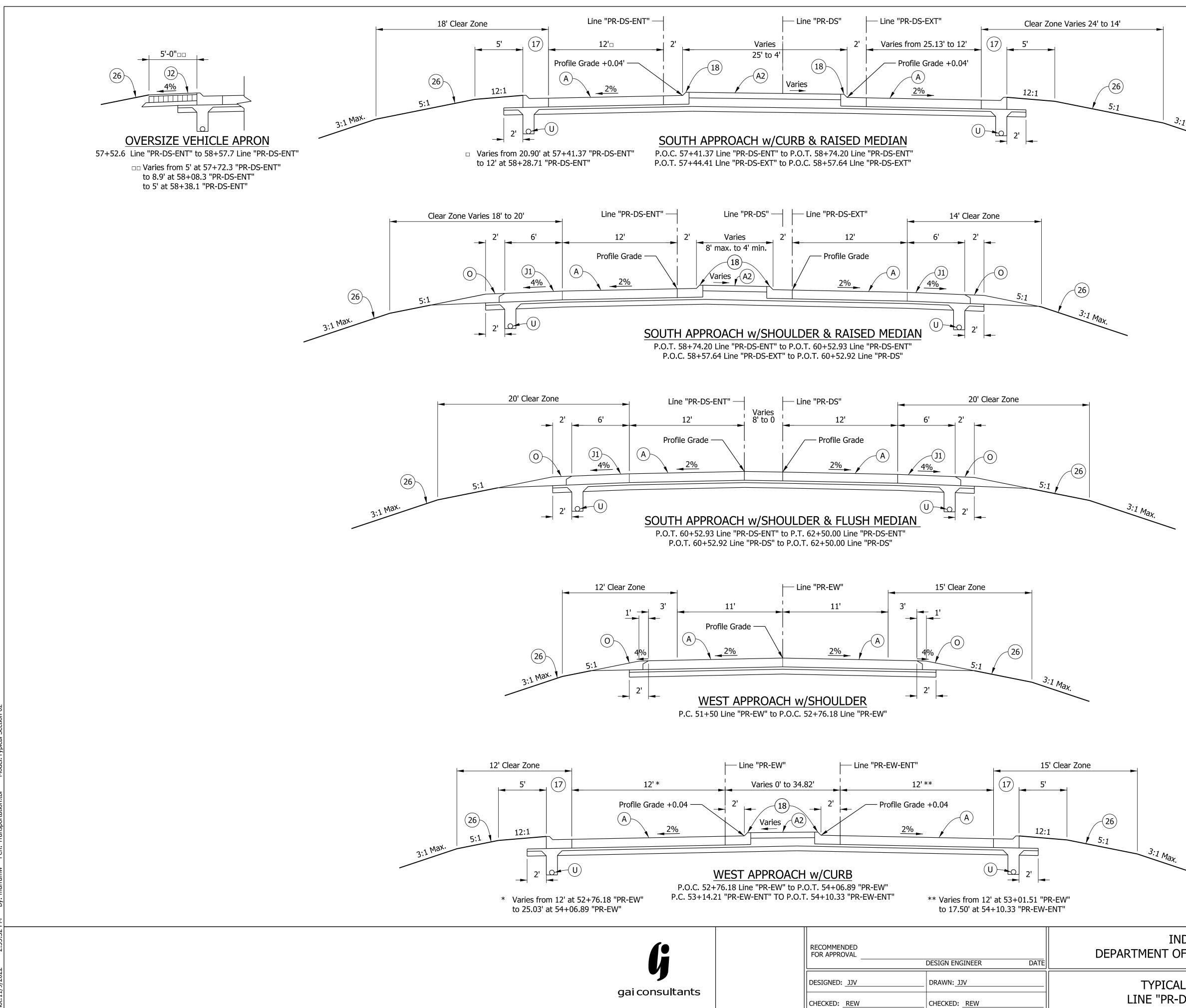


G	RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE	DEPARTMENT
gai consultants	DESIGNED: <u>JJV</u> CHECKED: <u>REW</u>	DRAWN: <u>ZJM &amp; JJV</u> CHECKED: <u>REW</u>		TYPIC LINE "PF



R-43059

1702989



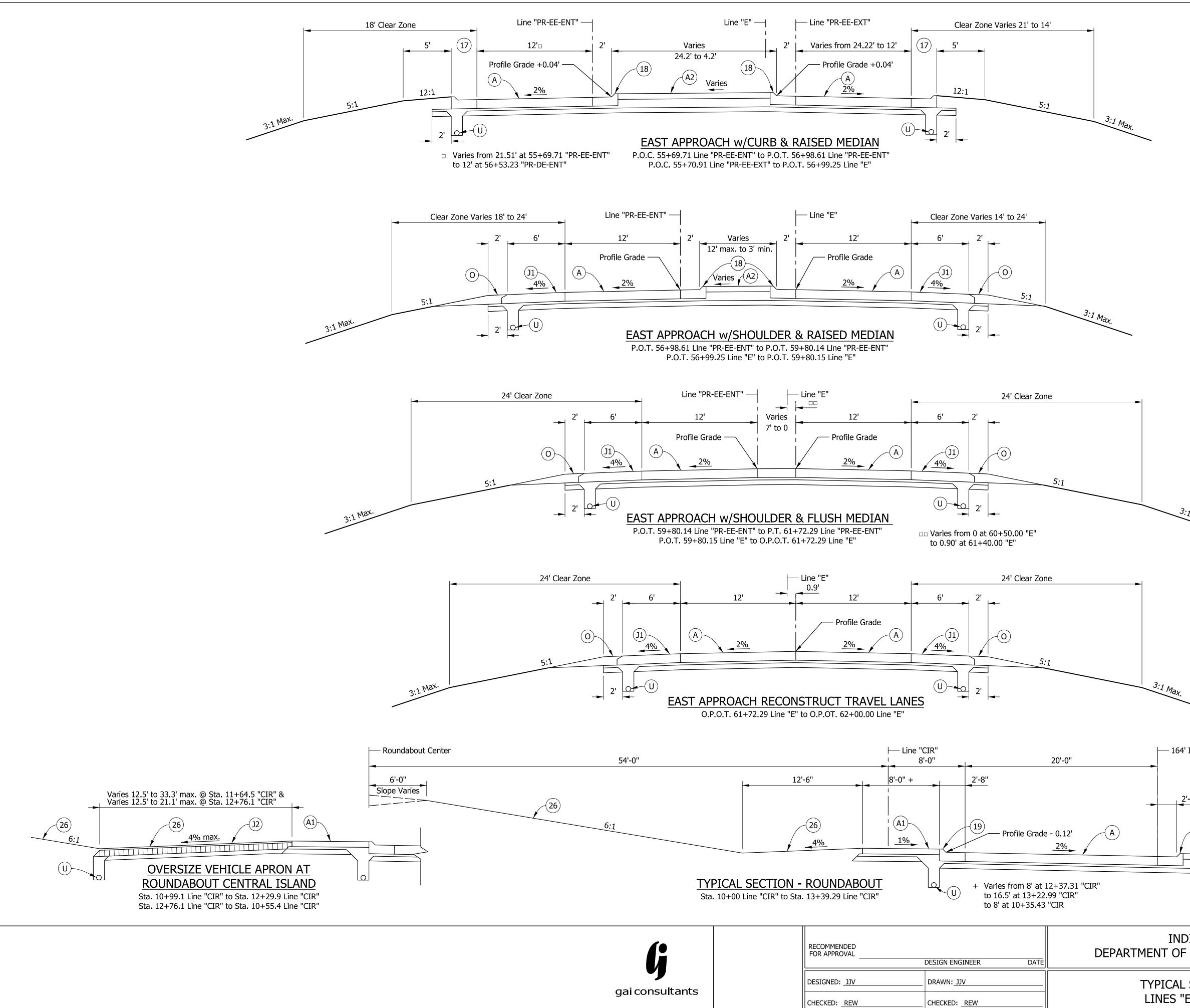
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## <u>LEGEND</u>

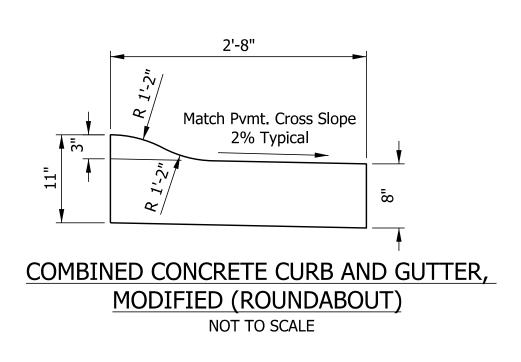
3:1 Max.

	1" = 5'	DESIGNATION
	SCALE	BRIDGE FILE
(26) Mulc	hed Seeding, Type R	
(19) Cond	crete Curb and Gutter, Modified (	(Roundabout)
	crete Curb and Gutter, Type B, $M$	lodified
(17) Cond	crete Curb and Gutter, Type B	
	, 6 in., Type 4	
<u> </u>	for Approaches, Type B, consist lb/syd HMA Surface, Type B, on 2" Asphalt Surface Milling	ing of:
$\bigcirc$	a. of Compacted Aggregate, No.	
165 495 4 in. Sub <u>c</u>	for Approaches, Type B, consist lb/syd HMA Surface, Type B, on lb/syd HMA Intermediate, Type I of Compacted Aggregate, No. 5 grade Treatment Type II (6 in. C	3, on 3, on oarse Aggregate No. 53
2 in. 8 in. Geot	cell Vegetated Pavement System Infill Topsoil-Aggregate Mix, on Geocell Confining System, on extile Type 2A, on of Compacted Aggregate, No. 5	
Subb	P, 11 in. Shoulder, on base for PCCP, on grade Treatment Type IC	
Subb	P, 7 in., on pase for PCCP, on grade Treatment Type IC	
PCCI Subt	k Apron P, 7 in. w/ Transverse D-1 Joints base for PCCP, on grade Treatment Type IC	@ 18 ft. spacing, on
Subt	P,11 in. w/ Transverse D-1 Joints base for PCCP, on grade Treatment Type IC	a @ 18 ft. spacing, on

	SCALE	BI	RIDGE FIL	E
INDIANA	1" = 5'			
NT OF TRANSPORTATION		DESIGNATION		
			1702989	
	SURVEY BOOK		SHEETS	
PICAL SECTIONS		4	of	59
"PR-DS" & "PR-EW"	CONTRACT	PROJECT		
	R-43059			



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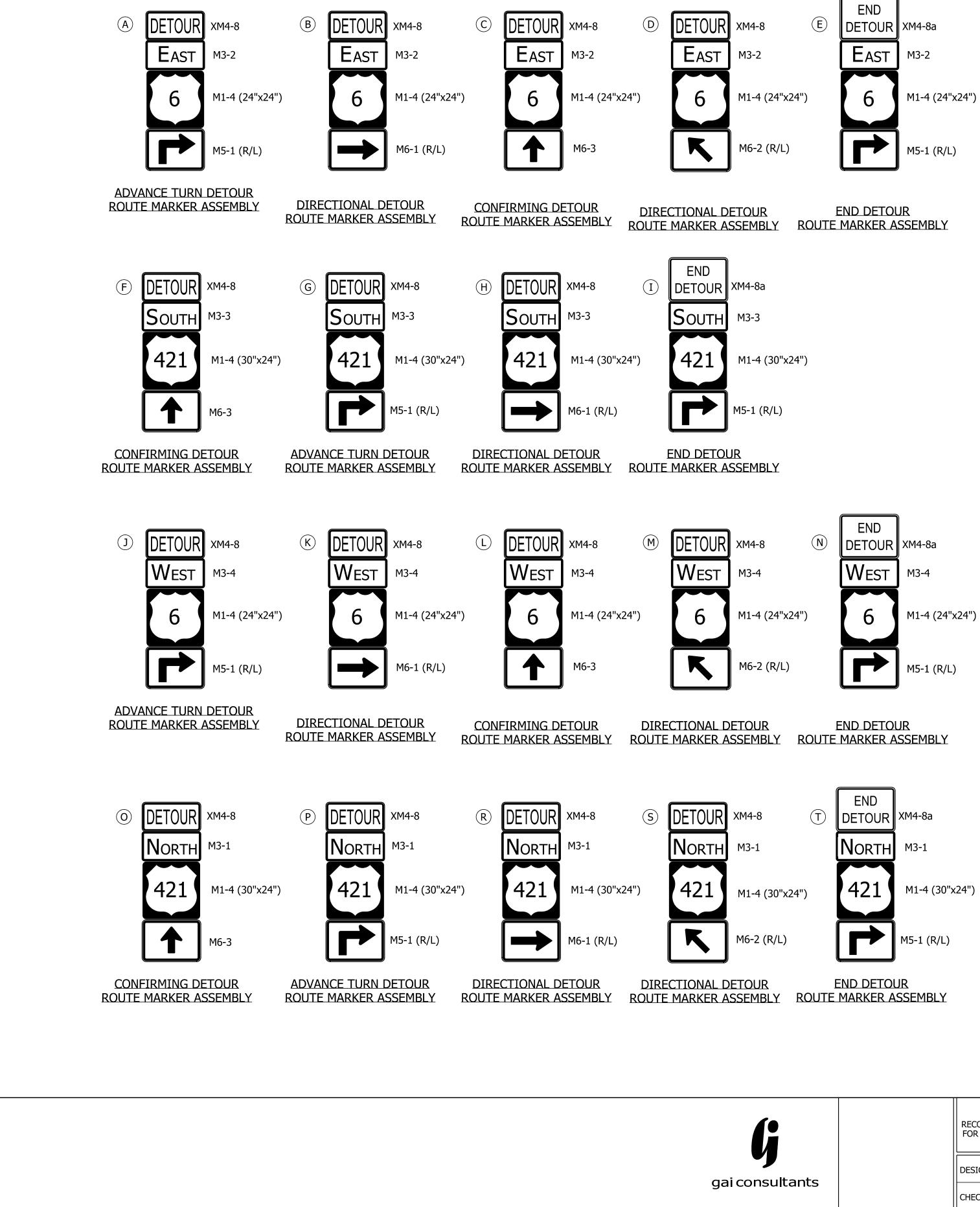
## <u>LEGEND</u>

→ <sup>3</sup> ·1 ·	A PCCP,11 in. w/ Transverse D-1 Joints @ 18 ft. spacing, on Subbase for PCCP, on Subgrade Treatment Type IC
3:1 Max.	(A1) Truck Apron PCCP, 7 in. w/ Transverse D-1 Joints @ 18 ft. spacing, on Subbase for PCCP, on Subgrade Treatment Type IC
	(A2) PCCP, 7 in., on Subbase for PCCP, on Subgrade Treatment Type IC
	(J1) PCCP, 11 in. Shoulder, on Subbase for PCCP, on Subgrade Treatment Type IC
1 Max.	<ul> <li>J2 Geocell Vegetated Pavement System:</li> <li>2 in. Infill Topsoil-Aggregate Mix, on</li> <li>8 in. Geocell Confining System, on</li> <li>Geotextile Type 2A, on</li> <li>5 in. of Compacted Aggregate, No. 53</li> </ul>
— 164' Inscribed Diameter	<ul> <li>K HMA for Approaches, Type B, consisting of: 165 lb/syd HMA Surface, Type B, on 495 lb/syd HMA Intermediate, Type B, on 4 in. of Compacted Aggregate, No. 53, on Subgrade Treatment Type II (6 in. Coarse Aggregate No. 53)</li> </ul>
	0 11 in. of Compacted Aggregate, No. 53
2'-0" Curb Offset	(R) HMA for Approaches, Type B, consisting of: 165 lb/syd HMA Surface, Type B, on 1 1/2" Asphalt Surface Milling
	U Pipe, 6 in., Type 4
	(17) Concrete Curb and Gutter, Type B
	(18) Concrete Curb and Gutter, Type B, Modified
	(19) Concrete Curb and Gutter, Modified (Roundabout)
•	(26) Mulched Seeding, Type R
	SCALE BRIDGE FILE

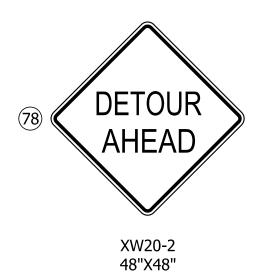
INDIANA 1" = 5' DEPARTMENT OF TRANSPORTATION DESIGNATION 1702989 SURVEY BOOK SHEETS TYPICAL SECTIONS of 59 5 LINES "E" & "CIR" CONTRACT PROJECT R-43059 1702989



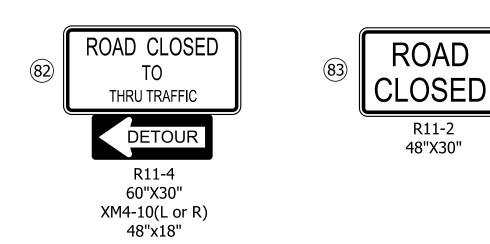
B20

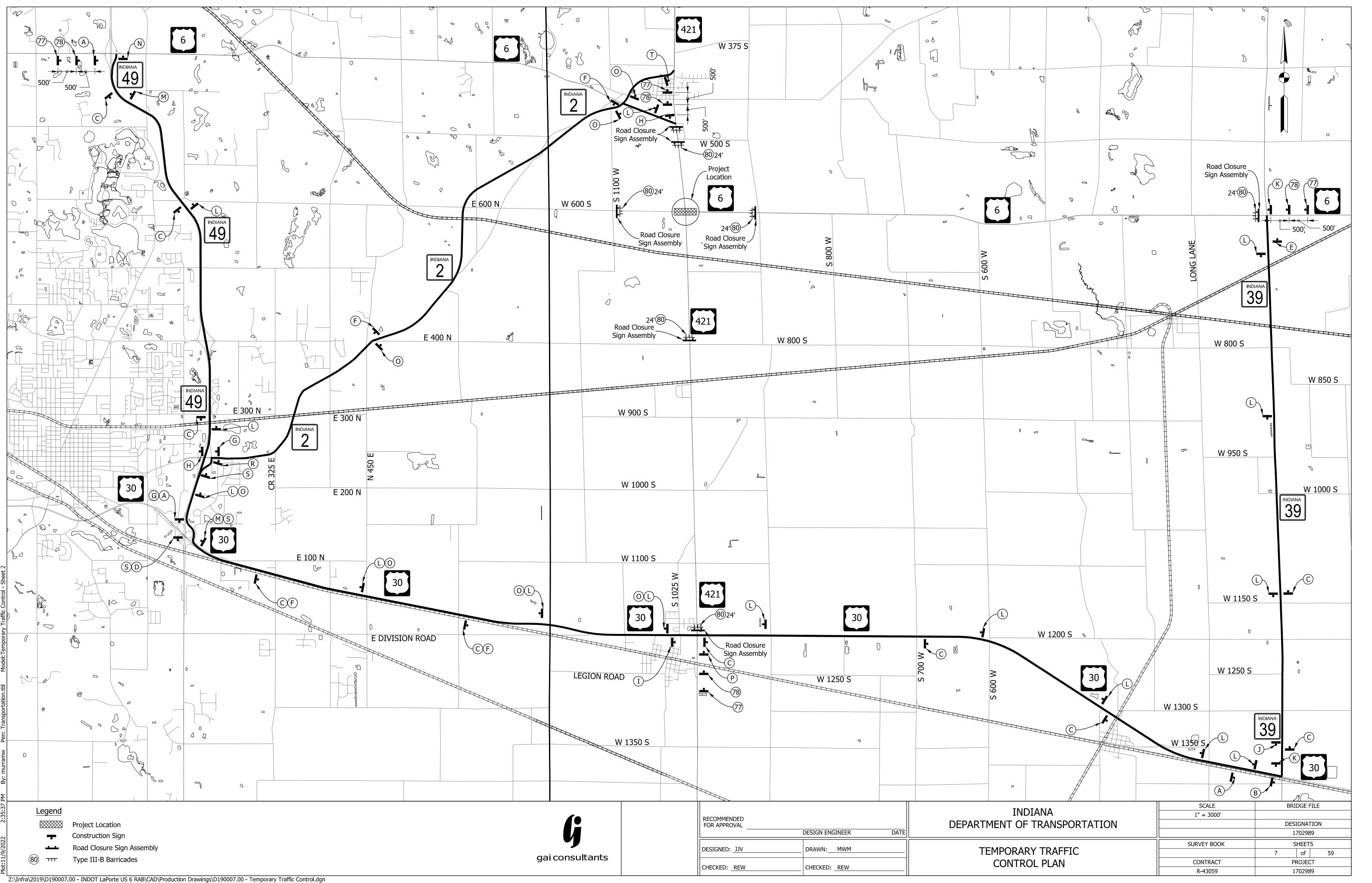






					1			]
					SCALE	BRI	DGE FILE	÷
	RECOMMENDED			INDIANA				
	RECOMMENDED       FOR APPROVAL			DEPARTMENT OF TRANSPORTATION		DES	IGNATIO	N
	C	ESIGN ENGINEER	DATE			1	702989	
					SURVEY BOOK	5	6HEETS	
	DESIGNED: <u>JJV</u>	DRAWN: <u>MWM</u>		TEMPORARY TRAFFIC		6	of	59
	CHECKED: REW	EW CHECKED: REW		CONTROL PLAN	CONTRACT	Р	ROJECT	
					R-43059	1	702989	





### SURVEYOR REPORT (ROUTE SURVEY)

The subject US Route 6/US Route 421 intersection improvement project is in the Town of Westville and is located in Sections 4 & 5, Township 35 North, Range 4 West and in Sections 32 & 33, Township 36 North, Range 4 West, in Clinton & New Durham Townships, LaPorte County, Indiana.

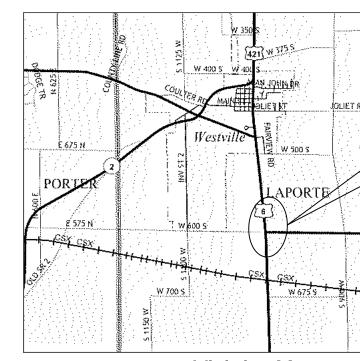
- 1. The purpose of this Location Control Route Survey is to collect pertinent survey data for the design of a round-a-bout project for the US-6/US-421 intersection and to serve as the basis for describing additional right-or-way parcels needed to complete this project. This is not a boundary retracement survey. All apparent property lines and corners found and shown on this plat are based on field observations and limited deed information. The property lines and corners are included on this plat for informational purposes only.
- 2. In accordance with Title 865, Article 1, Chapter 12, sections 20 through 25 of the Indiana Administrative Code ("Rule 12"), the following observations and opinions are submitted regarding the various uncertainties in the locations of the lines and corners established this route survey as a result of uncertainties in reference monuments, lines of occupation, inconsistencies in right-of-way grants, and random errors in measurement.
- Alignment Data:

Lines C, D and E from INDOT Project No ST-212-4(F) were reestablished by using existing monumentation, physical evidence of R/W (fences / concrete markers), and original plan geometry. No centerline monuments were found for said "Lines". Therefore, plan geometry from the 1999 Location Control Route Survey (LCRS) by Cole Associations Inc., (tangents, deltas & curve data) was held to reestablish said "Lines". The section corners depicted on said 1999 LCRS plat were recovered and located with this current survey and used to rotate/translate the plan geometry from said 1999 LCRS. The largest horizontal difference noted between section corner monuments found on said 1999 LCRS and the current survey was 0.05' and the largest angular difference was 0°00'14".

- 4. Plats, notes and witnesses utilized this survey:
- A. Road plans:
- a. Right-of-Way Plans Intersection Improvement U.S. 6 at RP 036+051, Project No. STP-212-4(F), Code 3947, by H. Stewart Kline & Assoc., dated December 12, 2000.
- B. Section Corner Witnesses:
- a. Section corner witnesses obtained online from the LaPorte County Surveyors Office web site.
- b. Based on the LaPorte County Surveyors naming convention, the following section corners were searched for in the field: (Twp 35 N., R.4W.: 0471, 0472, 0473, 0474, 0475, 0476, 0480, 0482, 0483, 0484), (Twp 36 N. R 4W.: 0851, 0852, 0853, 0854, 0855). All corners found were in agreement with the witnesses except the following which were not found, or the monument was different: (0472, 0484, 0853). Distances appear to be in substantial agreement with the LCRS plat listed in Item "4A" above and the survey listed in "4C" below.
- C. Surveys of Record:
- a. "Plat of Survey for Northern Indiana Public Service Company", by Metro Consulting Associates, dated January 25, 2018 and recorded March 12, 2018 as Document #2018R-02583-2. b. Location Control Route Survey Plat, by Cole Associates Inc. a DLZ Company, dated June 7, 1999 and
- recorded June 10, 1999 as Document #99-13067.

### 5. Monuments and Markers

- A. Section corner monuments found and used, as shown on this survey plat, appear to be in substantial agreement with the section corner monuments shown on the LaPorte County Section Corner witness sheets.
- 6. The field measurements for this survey were made in accordance with the specifications for an "Urban Survey" as described in 865 IAC-1-12-7 (acceptable "relative positional accuracy" (RPA) 0.07 feet + 50 parts per million) and furthermore do not exceed the maximum allowable RPA per 865 IAC 1-12-22(a) (0.5').
- 7. In accordance with 865 IAC 1-12-23, the following opinions are submitted regarding the various uncertainties in the locations of the lines and corners found or established on this survey:
- A. The uncertainties in the location of the lines and corners found or established on this survey, due to the availability and condition of reference monuments, (section corners / property corners) is estimated to be less than 5 feet. The cause of these uncertainties could relate to "lost" or "obliterated" section corners.
- The uncertainties in the location of the lines and corners found or established on this survey due to occupation B. or possession lines is estimated to be less than 10 feet. Cause of uncertainty in occupation could relate to property owners not having a correct understanding of their property lines prior to the placement of improvements (fences, plantings, driveways, etc.) or they may have intentionally kept their improvements away from their property lines. Agreements (either written or unwritten) between adjoining property owners
- may also be potential cause of discrepancies between apparent occupation and ownership lines. The points established (reference points #1 - #6) are considered original monuments for this survey and C. therefore have no error as related to this survey.
- 8. The monuments found and established for this survey were located by a combination of conventional traverse/radial measurement techniques and the use of GNSS equipment (RTK method), The correction source for RTK collection is a base station operated by GAI. Geoid12A (CONUS) geoid model was used. The distances shown on this plat are InGCS "grid" distances, however the grid to ground distances are negligible in the Indiana Geospatial Coordinate System.
- 9. The BASIS OF BEARINGS: bearings, distances and coordinates shown on this plat are based on the Indiana Geospatial Coordinate System (InGCS) "LaPorte" zone per NAD83 (2011) epoch 2010.00, unless noted otherwise. The reported distances and coordinates are U.S. Survey Feet and decimal parts thereof. The InGCS "LaPorte" zone has the following published parameters: Geometric Datum - NAD83(2011) epoch 2010.00, Projection Type - Transverse Mercator, Central Meridian - 86°45'00" West longitude, Central Meridian Scale factor 1.000027, Latitude of Grid Origin 40°54'00" North latitude, False Northing - 36,000.000m (118,110.00 US Ft), False Easting - 240,000.000m (787,400.00 US Ft).
- 10. The number of significant figures shown for the coordinates and station / offsets are for mathematical calculations only and are not intended to imply the precision of the original measurements.
- 11. This route survey is not intended in any way to be a property retracement survey and the property lines shown are for informational purposes only. The right-of-way shown (Existing R/W) is based on the deeds for parcels obtained by the State of Indiana. The right-of-way shown (App. R/W) is based on the "assumed" County right-of-way width and no documents transferring ownership to the State or County were found.



# Vicinity Map

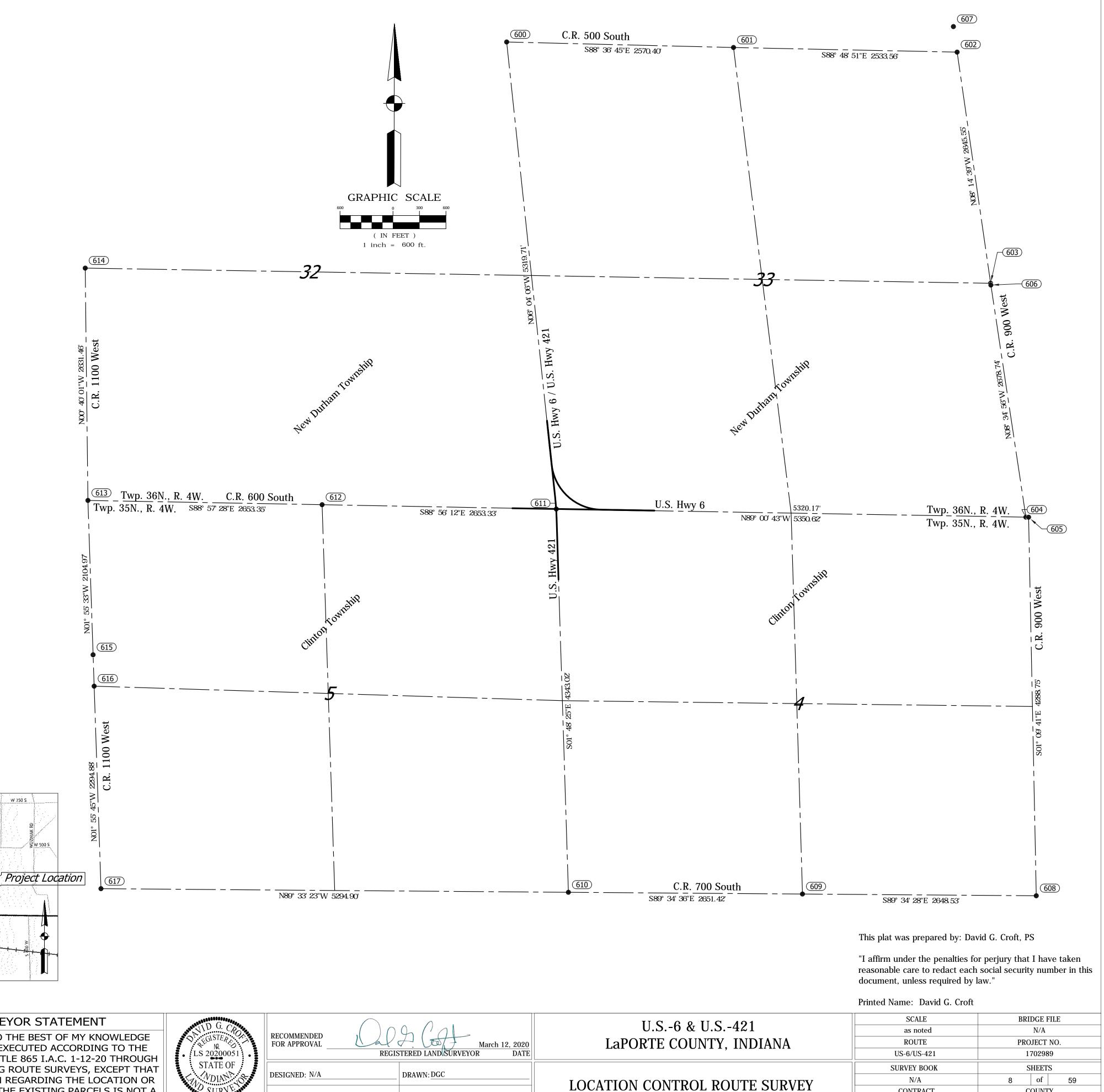
SURVE	Y ST/	ARTED							
10/29/2019									
SURVEY	СОМ	PLETED							
01/	08/2	020							
ROUTE F	ROUTE PLAT SHEETS								
1	OF	3							



9998 Crosspoint Blvd. Indianapolis, IN 46256 (317) 436-4823 WWW.GAICONSULTANTS.COM | PROVISIONS OF

SUR\ THIS SURVEY, T AND BELIEF, IS 1-12-25 REGARDI ANY DATA SHOW DESCRIPTION OF PAF

Project No. D190007.00



VEYOR STATEMENT	MARCHARD		$\bigcap$	
O THE BEST OF MY KNOWLEDGE	DA EGISTERE	RECOMMENDED FOR APPROVAL	Cal A Coff	> March 12, 2020
TITLE 865 I.A.C. 1-12-20 THROUGH	LS 20200051		REGISTERED LAND	YOR DATE
NG ROUTE SURVEYS, EXCEPT THAT /N REGARDING THE LOCATION OR	STATE OF	DESIGNED: N/A	DRAWN: DGC	
THE EXISTING PARCELS IS NOT A	SURVE SURVE	CHECKED N/A		
RT OF THIS SURVEY.		CHECKED: <u>N/A</u>	CHECKED: JDH	
		•	· · · · ·	

CONTRACT

N/A

COUNTY

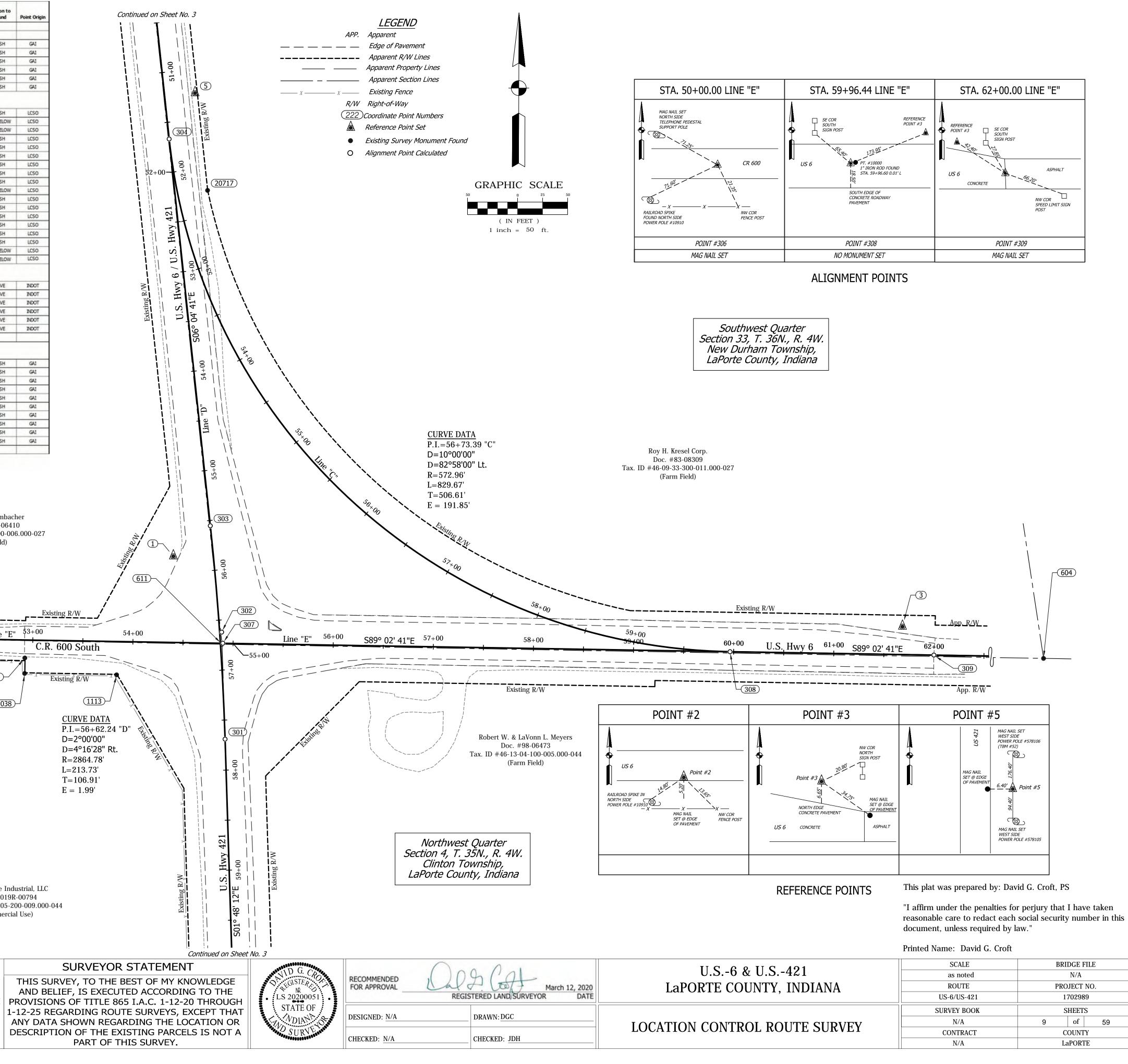
LaPORTE

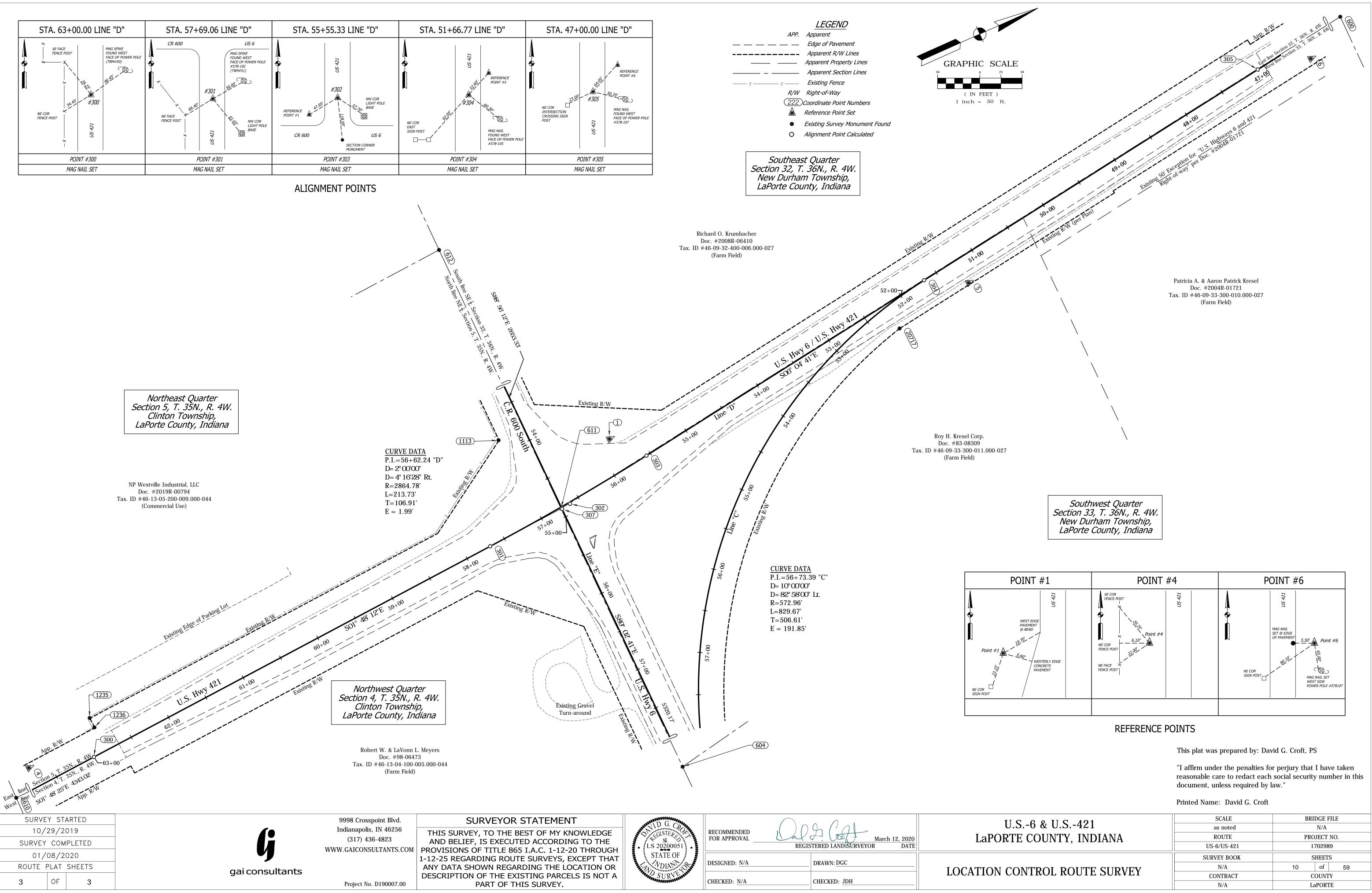
1		Offset	Baseline	InGCS "Han Northing	niton" Zone Easting	Latitude	Longitude	Description	Point Condition	Relation to Ground	Point Origin
1		rence Points									-
2	55+82.15 N/A	39.869' Rt.	"D" N/A	343564.868 343471.368	747881.485	41°31'07.22400"N 41°31'06.29208"N	86°53'39.53161'W 86°53'46.03896'W	5/8" REBAR SET W/GALTRAV, CAP	NEW	FLUSH	GAI
2	N/A 61+68.14	27.953 Lt	"E"	343494.644	748609.642	41°31'06.54214"N	86°53'29.95844'W	5/8" REBAR SET W/GAI-TRAV. CAP 5/8" REBAR SET W/GAI-TRAV. CAP	NEW	FLUSH	GAI
4	63+74.06	24.948' Rt	"O"	342776.737	747927.341	41"30"59.43852"N	86"53'38.91152'W	5/8" REBAR SET W/GAI-TRAV. CAP	NEW	FLUSH	GAI
5	51+23.95	30.580' Lt.	°0°	344027.596	747903.185	41°31'11.79585'N	86°53'39.25650'W	5/8" REBAR SET W/GAI-TRAV. CAP	NEW	FLUSH	GAI
6	N/A	N/A	N/A	344507.932	747843.933	41°31'16.54028'N	86°53'40.04588'W	5/8" REBAR SET W/GAI-TRAV. CAP	NEW	FLUSH	GAI
	Section & 1/4 Co					1				1	1
600 601	N/A N/A	N/A N/A	N/A N/A	348766.918 348704.678	747367.776 749937.421	41°31'58.60844'N 41°31'58.03507'N	86°53'46.40020'W 86°53'12.61306'W	MONUMENT FOUND (HARRISON) IRON AXLE ROD FOUND	G000 G000	FLUSH 0.50' BELOW	LCSO
602	N/A	N/A	N/A	348652.241	752470.439	41°31'57.55566"N	86°52'39.30810'W	MONUMENT FOUND (HARRISON)	GOOD	0.50' BELOW	LCSO
603	N/A	N/A	N/A	346034.027	752849.796	41°31'31.69477'N	86°52'34.27005'W	MONUMENT FOUND (HARRISON)	GOOD	FLUSH	LCSO
604	N/A	N/A	N/A	343385.285	753249.536	41°31'05.53233"N	86°52'28.96470'W	MONUMENT FOUND (HARRISON)	GOOD	FLUSH	LCSO
605	N/A	N/A	N/A	343384.667	753279.981	41°31'05.52666"N	86°52'28.56439'W	MONUMENT FOUND (HARRISON)	GOOD	FLUSH	LCSO
606 607	N/A N/A	N/A N/A	N/A N/A	346014.241 348941.302	752852.722 752428.499	41°31'31.49922'N 41°32'00.41072'N	86°52'34.23105'W 86°52'39.86514'W	MONUMENT FOUND (HARRISON) MONUMENT FOUND (HARRISON)	GOOD	FLUSH	LCSO
608	N/A	N/A	N/A	339096.888	752428.499	41°30'23.16698'N	86"52'27.34060'W	MONUMENT FOUND (HARRISON)	6000	FLUSH	LCSO
609	N/A	N/A	N/A	339116.561	750718.449	41°30'23.32219'N	86°53'02.14863'W	MONUMENT FOUND (HARRISON)	GOOD	0.65" BELOW	LCSO
610	N/A	N/A	N/A	339136.154	748067.102	41°30'23.47389'N	86°53'36.99506"W	MONUMENT FOUND (HARRISON)	GOOD	FLUSH	LCSO
611	N/A	N/A	N/A	343477.015	747930.153	41°31'06.35671'N	86°53'38.88981'W	MONUMENT FOUND (HARRISON)	GOOD	FLUSH	LCSO
612	N/A	N/A	N/A	343526.259	745277.282	41°31'06.79825'N	86°54'13.76320'W	MONUMENT FOUND (HARRISON)	6000	FLUSH	LCSO
613	N/A N/A	N/A N/A	N/A N/A	343574.526 346205.803	742624.375 742593.749	41°31'07.22696"N 41°31'33.22180"N	86°54'48.63692'W 86°54'49.10501'W	MONUMENT FOUND (HARRISON) MONUMENT FOUND (HARRISON)	GOOD	FLUSH	LCSO
615	N/A N/A	N/A	N/A N/A	346205.803 341826.079	742593.749 742683.049	41°30'49.95445'N	86°54'47.82189'W	MONUMENT FOUND (HARRISON)	GOOD	FLUSH	LCSO
616	N/A	N/A	N/A	341470.74	742695.112	41°30'46.44410'N	86°54'47.65491'W	1.5" IRON ROD FOUND	GOOD	0.35" BELOW	LCSO
617	N/A	N/A	N/A	339177.159	742772.364	41°30'23.78618'N	86°54'46.58292'W	MONUMENT FOUND (HARRISON)	GOOD	0.80' BELOW	LCSO
	Survey M	onuments For	nd								
1038	52+92.44	33.42' Rt.	E	343447.8820'	747733.0350	N/A	N/A	CONCRETE R/W MARKER	GOOD	ABOVE	INDOT
1039	52+92.36	17.96' Rt.	E	343463.3190'	747733.2150	N/A	N/A	CONCRETE R/W MARKER	LEANING	ABOVE	INDOT
1113	53+84.29	33.29' Rt.	E	343446.4770	747824.8720	N/A	N/A	CONCRETE R/W MARKER	LEANING	ABOVE	INDOT
1235	62+82.77 62+83.08	43.08' Rt. 30.65' Rt.	D	342867.4120' 342867.4980'	342867.4120' 747918.6800'	N/A N/A	N/A N/A	CONCRETE R/W MARKER CONCRETE R/W MARKER	GOOD	ABOVE	INDOT
20717	62+83.08	30.65 Kt. 30.00' Lt.	c	34,2867.4990 343930.4610'	747918.6800	N/A N/A	N/A N/A	CONCRETE R/W MARKER	POOR	ABOVE	INDOT
		and the				19/3					
	Align	ment Points									
300	63+00.00	0.000′	"O"	342851.5465	747949.8460'	N/A	N/A	MAG NAIL SET	NEW	FLUSH	GAI
301	P.T. 57+69.06	0.000′	"O"	343382.2259	747933.1373'	N/A	N/A	MAG NAIL SET	NEW	FLUSH	GAI
302	P.1. 56+62.24	1.994' Lt.	"D"	343489.0864	747929.7727	N/A	N/A	NO MONUMENT SET	NEW	FLUSH	GAI
303	P.C. 55455.33	0.000'	"D"	343595.3989	747918.4525	N/A	N/A	MAG NAL SET	NEW	FLUSH	GAI
304	P.C. 51+66.77 47+00.00	0.000'	°C"	343981.7702 344445.9208	747877.3117' 747827.8888'	N/A N/A	N/A N/A	MAG NAL SET MAG NAL SET	NEW	FLUSH	GAI
306	50+00.00	0.000'	"E"	343486.1703	747441.1941'	N/A	N/A	MAG NAIL SET	NEW	FLUSH	GAI
307	P.L 56+73.39	191.855 Rt	٣.	343478.0038	747930.9528'	N/A	N/A	NO MONUMENT SET	NEW	FLUSH	GAI
308	POT / PT 59+96.44	-	"E" & "C"	343469.5574	748437.4966'	N/A	N/A	NO MONUMENT SET	NEW	FLUSH	GAI
309	62+00.00	0.000'	T	343466.1636	748641.0259'	N/A	N/A	MAG NALL SET	NEW	FLUSH	GAI
				S88° 56'	12"E 2653.3 <sup>3</sup>	3'					
			-		12"E 2653.33	<b></b>		<u>App. R/W</u>			<sup>I</sup>
	• (61	2)		S88° 56'		3' 	=======================================			 Line "E'	╺╸┛ ╕╶╤╤╴═╴
	(61	2)				<b></b>				Line "E'	
	(61	2)		S88° 56'		<b></b>				 Line "E'	╺╸┛ ╕╶╤═╴═╕
	61	2)	{j			<b></b>				Line "E'	<u> </u>
	(61	2)	{j			<b></b>		<sup>00 </sup> S89° 02' 41"E <sup>52+00</sup>		Line "E'	<u> </u>
	61	2)			306	<b></b>		<sup>00 </sup> S89° 02' 41"E <sup>52+00</sup>			<u> </u>
		2)			306	<b></b>		<sup>00 </sup> S89° 02' 41"E <sup>52+00</sup>		(1039)	- 53+00 C.
		2)			306	<b></b>		<sup>00 </sup> S89° 02' 41"E <sup>52+00</sup>			- 53+00 C.
		2)	{j		306	<b></b>		<sup>00 </sup> S89° 02' 41"E <sup>52+00</sup>		(1039)	- 53+00 C.
		2)			306	<b></b>		<sup>00 </sup> S89° 02' 41"E <sup>52+00</sup>		(1039)	- 53+00 C.
		2)	{j		306	<b></b>		<sup>00 </sup> S89° 02' 41"E <sup>52+00</sup>		(1039)	- 53+00 C.
		2)			306	<b></b>		<sup>00 </sup> S89° 02' 41"E <sup>52+00</sup>		(1039)	- 53+00 C.
		2)	(;		306	<b></b>	51+ 	<sup>00 </sup> S89° 02' 41"E <sup>52+00</sup>		(1039)	- 53+00 C.
		2)	()		306	<b></b>		<sup>00 </sup> S89° 02' 41"E <sup>52+00</sup>		(1039)	- 53+00 C.
		2	(;		306	<b></b>		<sup>00 </sup> S89° 02' 41"E <sup>52+00</sup>		(1039)	- 53+00 C.
		2)			306	<b></b>		<sup>00 </sup> S89° 02' 41"E <sup>52+00</sup>		(1039)	- 53+00 C.
		2)			306	<b></b>	51+ 	<sup>00 </sup> S89° 02' 41"E <sup>52+00</sup>		(1039)	- 53+00 C.
		2)			306	<b></b>				(1039)	- 53+00 C.
		2)			306	<b></b>		00 <u>S89° 02' 41"E</u> <u>52+00</u> App. R/W		(1039)	- 53+00 C.
		2)			306	<b></b>		00       S89° 02' 41"E       52+00         App. R/W       App. R/W         App. R/W       App. R/W         Northeast Quarter       Section 5, T. 35N., R. 4W		(1039)	- 53+00 C.
		2	()		306	<b></b>		00       S89° 02' 41"E       52+00         App. R/W       App. R/W         App. R/W       App. R/W         Northeast Quarter       Section 5, T. 35N., R. 4W         Clinton Township,       Clinton Township,		(1039)	- 53+00 C.
		2)			306	<b></b>		00       S89° 02' 41"E       52+00         App. R/W       App. R/W         App. R/W       App. R/W         Northeast Quarter       Section 5, T. 35N., R. 4W		(1039)	- 53+00 C.
		2)			306	<b></b>		00       S89° 02' 41"E       52+00         App. R/W       App. R/W         App. R/W       App. R/W         Northeast Quarter       Section 5, T. 35N., R. 4W         Clinton Township,       Clinton Township,	,	(1039)	, 53+00 . C.
		2			306	<b></b>		00       S89° 02' 41"E       52+00         App. R/W       App. R/W         App. R/W       App. R/W         Northeast Quarter       Section 5, T. 35N., R. 4W         Clinton Township,       Clinton Township,	NP W D Tax. ID #	1039 (1038	ustrial, LL 2-00794 00-009.00
		2			306	<b></b>		00       S89° 02' 41"E       52+00         App. R/W       App. R/W         App. R/W       App. R/W         Northeast Quarter       Section 5, T. 35N., R. 4W         Clinton Township,       Clinton Township,	NP W D Tax. ID #	(1039) (1038) (1	ustrial, LL 2-00794 00-009.00
SL	JRVEY ST				306	<b></b>		App. R/W <sup>4</sup>	NP W D Tax. ID #	1039 (1038) (103	ustrial, LL 2-00794 00-009.00
		ARTED			306	<b></b>		00 S89° 02' 41"E 52+00 App. R/W App. R/W Northeast Quarter Section 5, T. 35N., R. 4W Clinton Township, LaPorte County, Indiana 9998 Cross Indianapo	NP W D Tax. ID # sspoint Blv lis, IN 4623	(1039) (1038) (1	ustrial, LL 2-00794 00-009.00 al Use)
	JRVEY ST	ARTED 019			306	<b></b>		00 S89° 02' 41"E 52+00 App. R/W App. R/W Northeast Quarter Section 5, T. 35N., R. 4W Clinton Township, LaPorte County, Indiana 9998 Cros Indianapo (317) 4	NP W D Tax. ID # sspoint Blv lis, IN 4623	(1039) (1038) (1	Ustrial, LL 00794 00-009.00 al Use)
SUF	JRVEY ST/ 10/29/20	ARTED 019 PLETED			306	<b></b>	S	00 S89° 02' 41"E 52+00 App. R/W App. R/W Northeast Quarter Section 5, T. 35N., R. 4W Clinton Township, LaPorte County, Indiana 9998 Cross Indianapo	NP W D Tax. ID # sspoint Blv lis, IN 4623	(1039) (1038) (1	ustrial, LL 2-00794 00-009.00 al Use)

ROUTE PLAT SHEETS OF 2 3

gai consultants

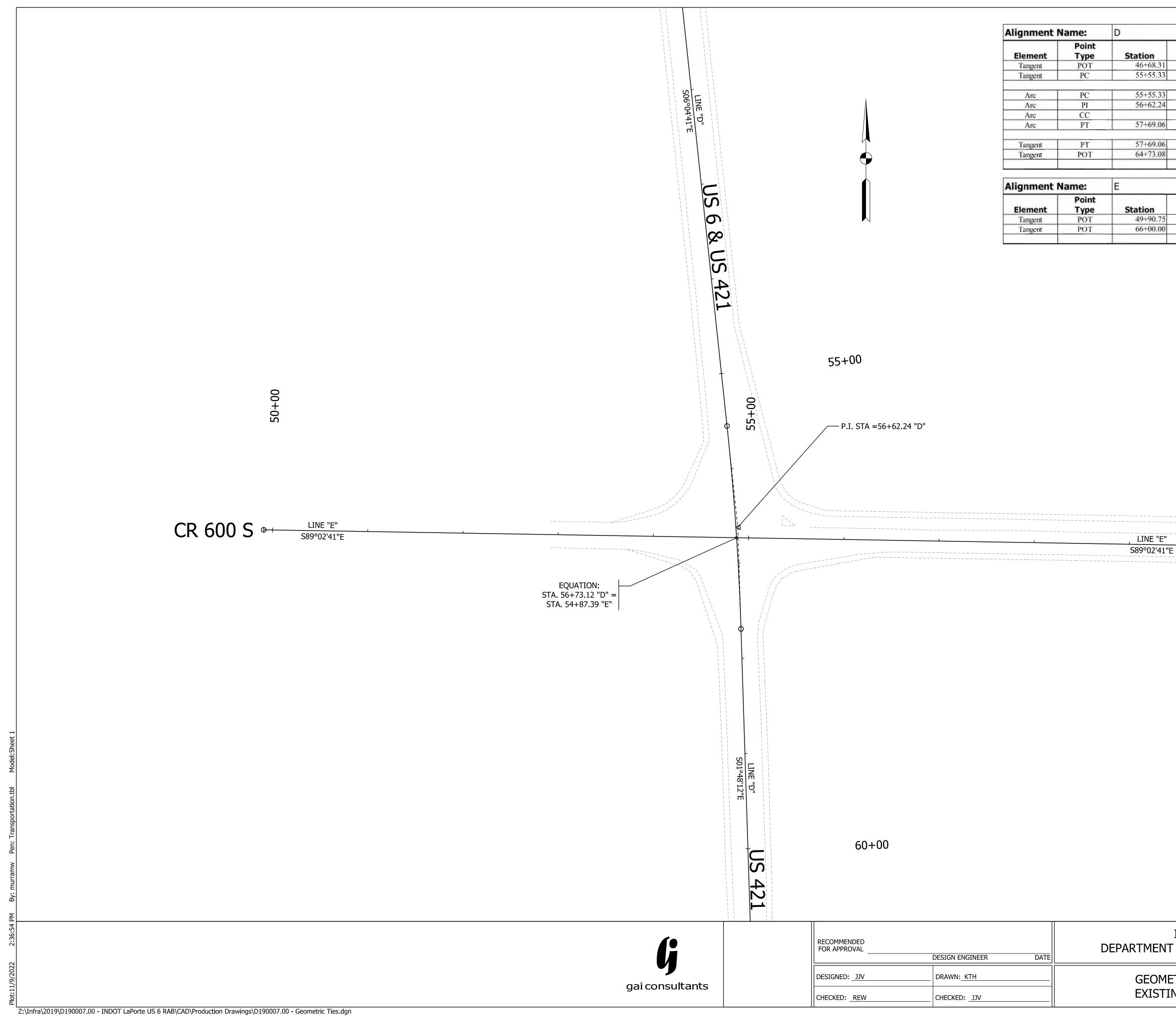
Project No. D190007.00





POINT #1	POINT	#4	POINT #6		
WEST EDGE PAVEMENT @ BEND 19.10 	SE COR FENCE POST Point #4 NE COR FENCE POST NE FACE FENCE POST	US 421	NE COR SIGN POST	MAG NAIL SET @ EDGE OF PAVEMENT • • • • • • • • • • • • • • • • • • •	

	SCALE	BRI	DGE FIL	E
J.S6 & U.S421	as noted		N/A	
TE COUNTY, INDIANA	ROUTE	PRC	DJECT NO	).
	US-6/US-421 1702989		702989	
	SURVEY BOOK	S	SHEETS	
CONTROL ROUTE SURVEY	N/A	10	of	59
JUNIKUL KUUIE SUKVEI	CONTRACT COUNTY		COUNTY	
	N/A	LaPORTE		



	Northing	Easting	Bearing (Forward)	Radius	Length	Delta	Rotation Direction
8.31	344477.432	747824.534	S06°04'41'E				
5.33	343595.399	747918.453					
5.33	343595.399	747918.453					
2.24	343489.086	747929.773	S06°04'41"E	2864.78	213.73	04°16'28"	Right
	343292.071	745069.772					
9.06	343382.226	747933.137					
9.06	343382.226	747933.137	S01°48'12"E				
3.08	342678.547	747955.293					

n	Northing	Easting	Bearing (Forward)	Radius	Length	Delta	Rotation Direction
0.75	343486.325	747431.945	S89°02'41"E	and the second			
00.00	343459.495	749040.97					

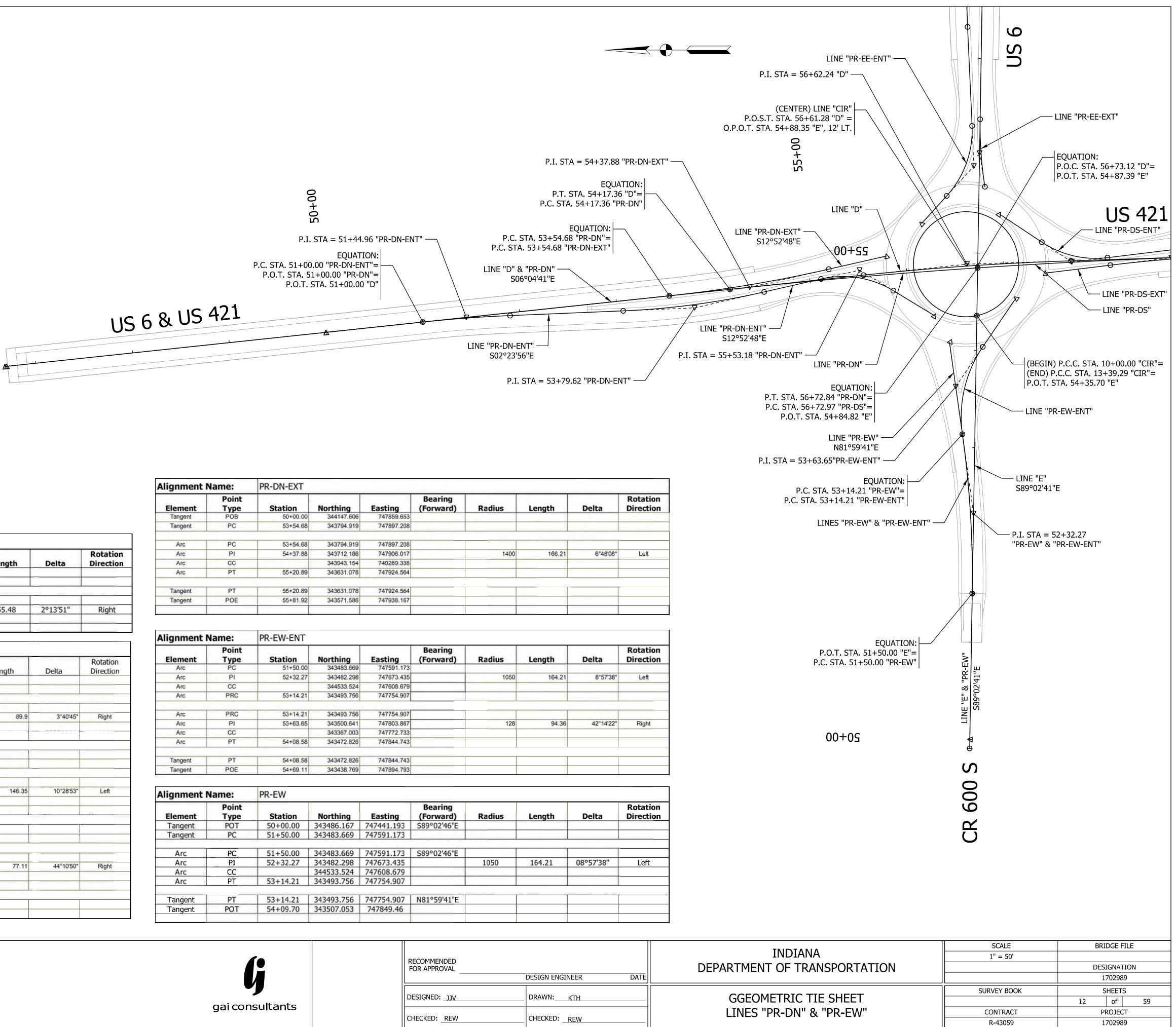
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US 6

SCALE BRIDGE FILE INDIANA 1" = 50' DEPARTMENT OF TRANSPORTATION DESIGNATION 1702989 SURVEY BOOK SHEETS GEOMETRIC TIE SHEET of 59 11 EXISTING ALIGNMENTS CONTRACT PROJECT R-43059 1702989

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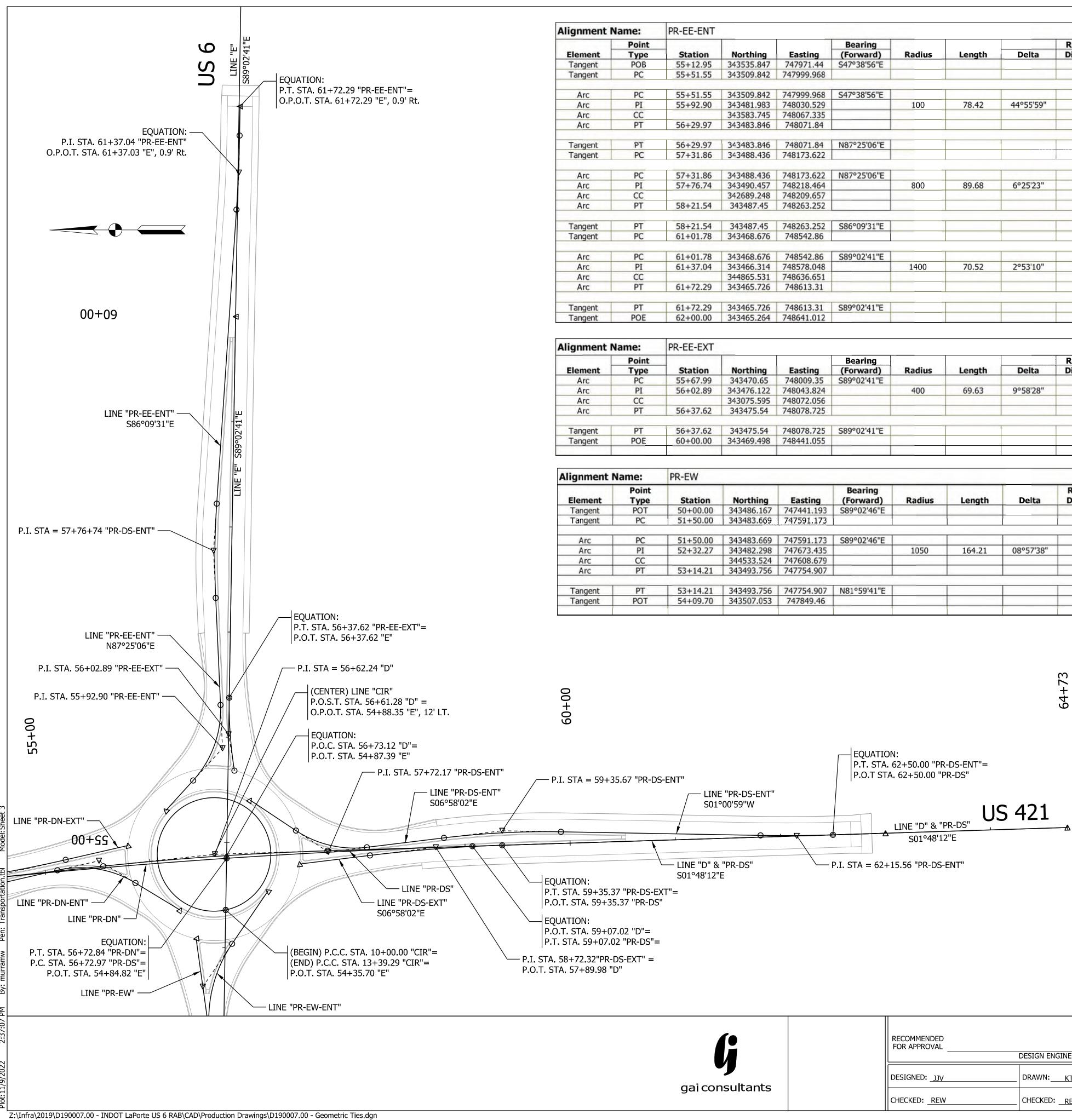
Alignment I	Alignment Name:		PR-DN										
Element	Point Type	Station	Northing	Easting	Bearing (Forward)	Radius	Length	Delta	Rotation Direction				
Tangent	POT	46+70.00	344475.751	747824.712	S06°04'41"E								
Tangent	PC	54+17.36	343732.591	747903.844									
Arc	PC	54+17.36	343732.591	747903.844		Land Charles							
Arc	PI	55+45.12	343605.554	747917.371		6561.68	255.48	2°13'51"	Right				
Arc	CC		343037.83	741379.049									
Arc	PT	56+72.84	343478.087	747925.943	S03°50'50"E								
Alignment No													
Alignment Na	me:	PR-DN-ENT											
Element	Point Type	Station	Northing	Easting	Bearing (Forward)	Radius	Length	Delta	Rotation Direction				
Tangent	POB	50+00.00	344147.606	747859.653		1.00							
Tangent	PC	51+00.00	344048.168	747870.242									
Arc	PC	51+00.00	344048.168	747870.242									

ignment Na	Point	PR-DN-ENT			Bearing				Rotation	Element	Point Type	Station	Northing	Easting	Bearing (Forward)	Radius	Length	Delta	Rotation
Flomont		Station	Northing	Easting		Radius	Longth	Delta	Direction	Arc	PC	51+50.00	343483.669	747591.173	(				
Element Tangent	Type POB	50+00.00	344147.606	Easting 747859.653	(Forward)	Radius	Length	Delid	Direction	Arc	PI	52+32.27	343482.298	747673.435		1050	164.21	8°57'38"	Left
Tangent	PC	51+00.00	344048.168	747870.242						Arc	CC		344533.524	747608.679					22.52
rangent	PU	51400.00	344040.100	14/0/0.242						Arc	PRC	53+14.21	343493.756	747754.907					
A	PC	51+00.00	344048.168	747870.242							2.039	1							
Arc	PL	51+44.96	344003.457	747875.002		1400	89.9	3*40*45*	Right	Arc	PRC	53+14.21	343493.756	747754.907					
Arc	CC	51744.90		746478.111		1400	09.9	3 40 45	Right	Arc	PI	53+63.65	343500.641	747803.867		128	94.36	42°14'22"	Right
Arc	PT	51+89.90	343899.934	746478.111						Arc	CC		343367.003	747772.733					
Arc	PI	51+69.90	343958.531	/4/8/0.884						Arc	PT	54+08.58	343472.826	747844.743					
T		54.00.00	040050 504	747070 004															
Tangent	PT	51+89.90	343958.531	747876.884						Tangent	PT	54+08.58	343472.826	747844.743					
Tangent	PC	53+06.25	343842.286	747881.754						Tangent	POE	54+69.11	343438.769	747894.793					
										langent		01.00.11	0101001100						
Arc	PC	53+06.25	343842.286	747881.754															
Arc	PI	53+79.62	343768.972	747884.825		800	146.35	10°28′53"	Left	Alignment N	Name:	PR-EW							
Arc Arc	CC		343875.77	748681.053		008	146.35	10-28 53	Lett	Alignment N		PR-EW			Rossing				Dotation
		53+79.62		Contraction of the second second		800	146.35	10.28.53	Lett		Point		Northing	Eacting	Bearing (Forward)	Padiuc	Longth	Dolta	Rotation
Arc	CC PT	54+52.59	343875.77 343697.441	748681.053 747901.182		008	146.35	10'28'53	Len	Element	Point Type	Station	Northing	Easting	(Forward)	Radius	Length	Delta	Rotation Direction
Arc	CC PT PT	54+52.59	343875.77 343697.441 343697.441	748681.053 747901.182 747901.182		008	146.35	10.28.53	Lett	Element Tangent	Point Type POT	Station 50+00.00	343486.167	747441.193		Radius	Length	Delta	
Arc Arc	CC PT	54+52.59	343875.77 343697.441	748681.053 747901.182		008	146.35	10'28'53	Len	Element	Point Type	Station	343486.167		(Forward)	Radius	Length	Delta	
Arc Arc Tangent	CC PT PT PC	54+52.59 54+52.59 55+12.59	343875.77 343697.441 343697.441 343638.95	748681.053 747901.182 747901.182 747901.182 747914.557		008	146.35	10'28'53		Element Tangent Tangent	Point Type POT PC	Station 50+00.00 51+50.00	343486.167 343483.669	747441.193 747591.173	(Forward) S89°02'46"E	Radius	Length	Delta	
Arc Arc Tangent	CC PT PT	54+52.59 54+52.59 55+12.59 55+12.59	343875.77 343697.441 343697.441 343638.95 343638.95	748681.053 747901.182 747901.182 747914.557 747914.557		008				Element Tangent Tangent Arc	Point Type POT PC PC	Station 50+00.00 51+50.00 51+50.00	343486.167 343483.669 343483.669	747441.193 747591.173 747591.173	(Forward)				Direction
Arc Arc Tangent Tangent	CC PT PT PC	54+52.59 54+52.59 55+12.59	343875.77 343697.441 343697.441 343638.95	748681.053 747901.182 747901.182 747914.557 747914.557 747914.557 747923.604		800	77.11	44°10′50″	Right	Element Tangent Tangent Arc Arc	Point Type POT PC PC PI	Station 50+00.00 51+50.00	343486.167 343483.669 343483.669 343482.298	747441.193 747591.173 747591.173 747673.435	(Forward) S89°02'46"E	Radius 1050	Length 164.21	<b>Delta</b> 08°57'38"	
Arc Arc Tangent Tangent Arc	PT PT PC PC	54+52.59 54+52.59 55+12.59 55+12.59	343875.77 343697.441 343697.441 343638.95 343638.95	748681.053 747901.182 747901.182 747914.557 747914.557						Element Tangent Tangent Arc Arc Arc	Point Type POT PC PC PI CC	Station 50+00.00 51+50.00 51+50.00 52+32.27	343486.167 343483.669 343483.669 343482.298 344533.524	747441.193 747591.173 747591.173 747673.435 747608.679	(Forward) S89°02'46"E				Direction
Arc Arc Tangent Tangent Arc Arc	PT PT PC PC PI	54+52.59 54+52.59 55+12.59 55+12.59	343875.77 343697.441 343697.441 343638.95 343638.95 343638.95 343599.386	748681.053 747901.182 747901.182 747914.557 747914.557 747914.557 747923.604						Element Tangent Tangent Arc Arc	Point Type POT PC PC PI	Station 50+00.00 51+50.00 51+50.00	343486.167 343483.669 343483.669 343482.298	747441.193 747591.173 747591.173 747673.435 747608.679	(Forward) S89°02'46"E				Direction
Arc Arc Tangent Tangent Arc Arc Arc Arc	PT PT PC PC PI CC	54+52.59 54+52.59 55+12.59 55+12.59 55+12.59 55+53.18	343875.77 343697.441 343697.441 343638.95 343638.95 343638.95 343599.386 343516.659	748681.053 747901.182 747901.182 747914.557 747914.557 747923.604 747817.073						Element Tangent Tangent Arc Arc Arc Arc Arc	Point Type POT PC PC PI CC PT	Station 50+00.00 51+50.00 51+50.00 52+32.27 53+14.21	343486.167 343483.669 343482.298 344533.524 343493.756	747441.193 747591.173 747591.173 747673.435 747608.679 747754.907	(Forward) \$89°02'46"E \$89°02'46"E				Direction
Arc Arc Tangent Tangent Arc Arc Arc Arc	PT PT PC PC PI CC	54+52.59 54+52.59 55+12.59 55+12.59 55+12.59 55+53.18	343875.77 343697.441 343697.441 343638.95 343638.95 343638.95 343599.386 343516.659	748681.053 747901.182 747901.182 747914.557 747914.557 747923.604 747817.073						Element Tangent Tangent Arc Arc Arc	Point Type POT PC PC PI CC	Station 50+00.00 51+50.00 51+50.00 52+32.27	343486.167 343483.669 343482.298 344533.524 343493.756	747441.193 747591.173 747591.173 747673.435 747608.679	(Forward) S89°02'46"E				Direction

lignment Name:		PR-DN-EXT	PR-DN-EXT										
Element	Point Type	Station	Northing	Easting	Bearing (Forward)	Radius	Length	Delta	Rotation Direction				
Tangent	POB	50+00.00	344147.606	747859.653									
Tangent	PC	53+54.68	343794.919	747897.208									
Arc	PC	53+54.68	343794.919	747897.208									
Arc	PI	54+37.88	343712.186	747906.017		1400	166.21	6°48'08"	Left				
Arc	CC		343943.154	749289.338									
Arc	PT	55+20.89	343631.078	747924.564									
Tangent	PT	55+20.89	343631.078	747924.564									
Tangent	POE	55+81.92	343571.586	747938.167									

Alignment I	Name:	PR-EW-ENT	PR-EW-ENT										
Element	Point Type	Station	Northing	Easting	Bearing (Forward)	Radius	Length	Delta	Rotation Direction				
Arc	PC	51+50.00	343483.669	747591.173									
Arc	PI	52+32.27	343482.298	747673.435		1050	164.21	8°57"38"	Left				
Arc	CC		344533.524	747608.679									
Arc	PRC	53+14.21	343493.756	747754.907									
Arc	PRC	53+14.21	343493.756	747754.907									
Arc	PI	53+63.65	343500.641	747803.867		128	94.36	42°14'22"	Right				
Arc	CC		343367.003	747772.733									
Arc	PT	54+08.58	343472.826	747844.743									
Tangent	PT	54+08.58	343472.826	747844.743									
Tangent	POE	54+69.11	343438.769	747894.793									

G		MMENDED APPROVAL	IGINEER DATE	DEPARTMEN
gai consultants	DESIG	NED: <u>JJV</u> DRAWN:_	КТН	GGEOM
garconsultants	CHECK	ED: <u>REW</u> CHECKED:	REW	LINES "



Name:	PR-EE-ENT							
Point				Bearing				Rotation
Туре	Station	Northing	Easting	(Forward)	Radius	Length	Delta	Direction
POB	55+12.95	343535.847	747971.44	S47°38'56"E				
PC	55+51.55	343509.842	747999.968					
PC	55+51.55	343509.842	747999.968	S47°38'56"E				
PI	55+92.90	343481.983	748030.529		100	78.42	44°55'59"	Left
CC		343583.745	748067.335					
PT	56+29.97	343483.846	748071.84					
PT	56+29.97	343483.846	748071.84	N87°25'06"E	_		1	
PC	57+31.86	343488.436	748173.622	107 2000 2				
00	57.21.00	242400 426	740172 (22	NOTODEICE				
PC	57+31.86	343488.436	748173.622	N87°25'06"E	200	00.00	600510011	Dista
PI	57+76.74	343490.457	748218.464		800	89.68	6°25'23"	Right
CC	50.04.54	342689.248	748209.657					
PT	58+21.54	343487.45	748263.252					
PT	58+21.54	343487.45	748263.252	S86°09'31"E				
PC	61+01.78	343468.676	748542.86					
PC	61+01.78	343468.676	748542.86	S89°02'41"E				
PI	61+37.04	343466.314	748578.048		1400	70.52	2°53'10"	Left
CC		344865.531	748636.651					
PT	61+72.29	343465.726	748613.31					
PT	61+72.29	343465.726	748613.31	S89°02'41"E				
POE	62+00.00	343465.264	748641.012	505 02 11 6				

lame:	PR-EE-EXT							
Point Type	Station	Northing	Easting	Bearing (Forward)	Radius	Length	Delta	Rotation
PC	55+67.99	343470.65	748009.35	S89°02'41"E	_			
PI	56+02.89	343476.122	748043.824		400	69.63	9°58'28"	Right
CC		343075.595	748072.056					
PT	56+37.62	343475.54	748078.725					
PT	56+37.62	343475.54	748078.725	S89°02'41"E				
POE	60+00.00	343469.498	748441.055					
	Type PC PI CC PT PT	Point         Station           Type         Station           PC         55+67.99           PI         56+02.89           CC         PT           PT         56+37.62	Point         Northing           Type         Station         Northing           PC         55+67.99         343470.65           PI         56+02.89         343476.122           CC         343075.595           PT         56+37.62         343475.54	Point         Northing         Easting           Type         Station         Northing         Easting           PC         55+67.99         343470.65         748009.35           PI         56+02.89         343476.122         748043.824           CC         343075.595         748072.056           PT         56+37.62         343475.54         748078.725	Point         Northing         Easting         Bearing           Type         Station         Northing         Easting         (Forward)           PC         55+67.99         343470.65         748009.35         S89°02'41"E           PI         56+02.89         343476.122         748043.824            CC         343075.595         748072.056            PT         56+37.62         343475.54         748078.725	Point         Northing         Easting         Bearing           Type         Station         Northing         Easting         (Forward)         Radius           PC         55+67.99         343470.65         748009.35         S89°02'41"E         400           PI         56+02.89         343476.122         748043.824         400         400           CC         343075.595         748072.056          400           PT         56+37.62         343475.54         748078.725             PT         56+37.62         343475.54         748078.725         S89°02'41"E	Point         Northing         Easting         Bearing         Length           PC         55+67.99         343470.65         748009.35         S89°02'41"E            PI         56+02.89         343476.122         748043.824         400         69.63           CC         343075.595         748072.056         400         69.63           PT         56+37.62         343475.54         748078.725	Point         Bearing         Length         Delta           Type         Station         Northing         Easting         (Forward)         Radius         Length         Delta           PC         55+67.99         343470.65         748009.35         S89°02'41"E             PI         56+02.89         343476.122         748043.824         400         69.63         9°58'28"           CC         343075.595         748072.056                PT         56+37.62         343475.54         748078.725                PT         56+37.62         343475.54         748078.725         S89°02'41"E

t١	Name:	PR-EW											
	Point Type	Station	Northing	Easting	Bearing (Forward)	Radius	Length	Delta	Rotation Direction				
	POT	50+00.00	343486.167	747441.193	S89°02'46"E								
	PC	51+50.00	343483.669	747591.173									
_													
	PC	51+50.00	343483.669	747591.173	S89°02'46"E								
	PI	52+32.27	343482.298	747673.435		1050	164.21	08°57'38"	Left				
	CC		344533.524	747608.679									
	PT	53+14.21	343493.756	747754.907									
					and the second second								
	PT	53+14.21	343493.756	747754.907	N81°59'41"E								
	POT	54+09.70	343507.053	747849.46		· · · · · · · · · · · · · · · · · · ·							

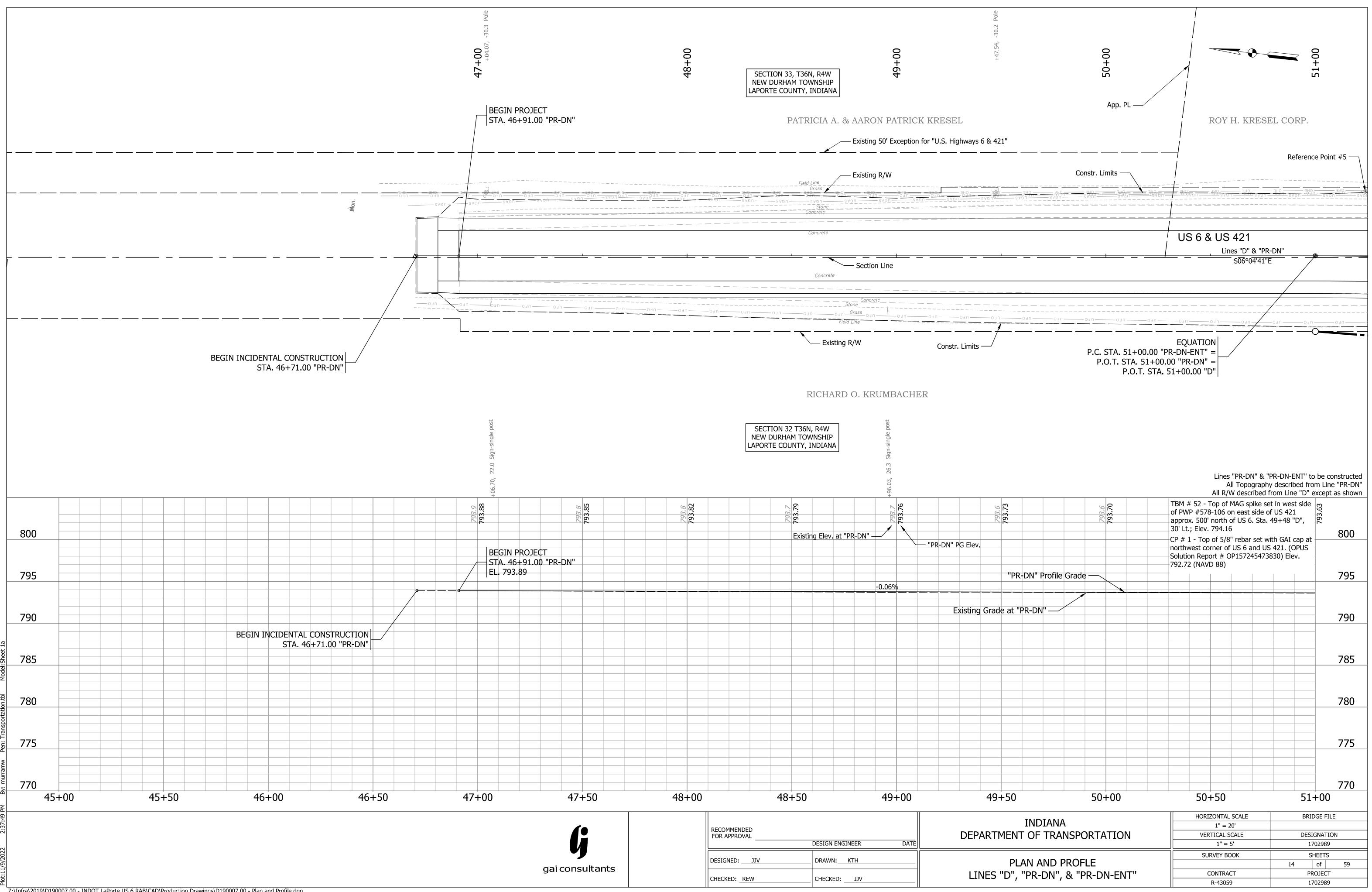
lignment M	lame:	PR-DS-ENT							
Element	Point Type	Station	Northing	Easting	Bearing (Forward)	Radius	Length	Delta	Rotation Direction
Tangent	POB	56+82.90	343455.734	747981.325	\$33°34'52"W				
Tangent	PC	57+35.23	343412.135	747952.379					
Arc	PC	57+35.23	343412.135	747952.379	\$33°34'52"W	-			
Arc	PI	57+72.17	343381.36	747931.947		100	70.77	40°32'54"	Left
Arc	CC		343356.823	748035.689					
Arc	PT	58+06.00	343344.693	747936.428					
Tangent	PT	58+06.00	343344.693	747936.428	C0605000005				1
Tangent	PC	58+79.84	343271.402	747945.384	S06°58'02"E		<u> </u>		
rangent	PL	364/9.04	5432/1.402	747945.304	L1				
Arc	PC	58+79.84	343271.402	747945.384	S06°58'02"E				
Arc	PI	59+35.67	343215.988	747952.156		800	111.47	7°59'01"	Right
Arc	CC		343174.361	747151.292		-	-		
Arc	PT	59+91.31	343160.171	747951.166					
Tangent	РТ	59+91.31	343160.171	747951.166	COLONGEDBU	_			1
Tangent	PC	61+81.10	342970.41	747947.799	S01°00'59"W				
rangent	FC	01+01.10	342370.41	777977.799					
Arc	PC	61+81.10	342970.41	747947.799	S01°00'59"W				
Arc	PI	62+15.56	342935.96	747947.188		1400	68.9	2°49'11"	Left
Arc	CC		342945.579	749347.579					1
Arc	PT	62+50.00	342901.521	747948.273					
Tangent	PT	62+50.00	342901.521	747948.273	S01°48'12"E				
Tangent	POE	63+00.00	342851.546	747949.846	301 40 12 E			_	
	-								
lignment M		PR-DS-EXT							
Element	Point Type	Station	Northing	Easting	Bearing (Forward)	Radius	Length	Delta	Rotation Direction
Tangent	POB	57+41.92	343408.534	747920.567	S06°58'02"E				
Tangent	PC	58+09.19	343341.76	747928.727					
		50.00.10	242244 76	747020 727	0000000000				
Arc	PC	58+09.19	343341.76	747928.727	S06°58'02"E	1 400	100.10	50001501	Disht
Arc	PI	58+72.32	343279.096	747936.384		1400	126.18	5°09'50"	Right
Arc	CC	50.25.27	343171.938	746539.065					1.
Arc	PT	59+35.37	343215.996	747938.371					
Tangent	PT	59+35.37	343215.996	747938.371	S01°48'12"E				
Tangent	POE	63+00.00	342851.546	747949.846					

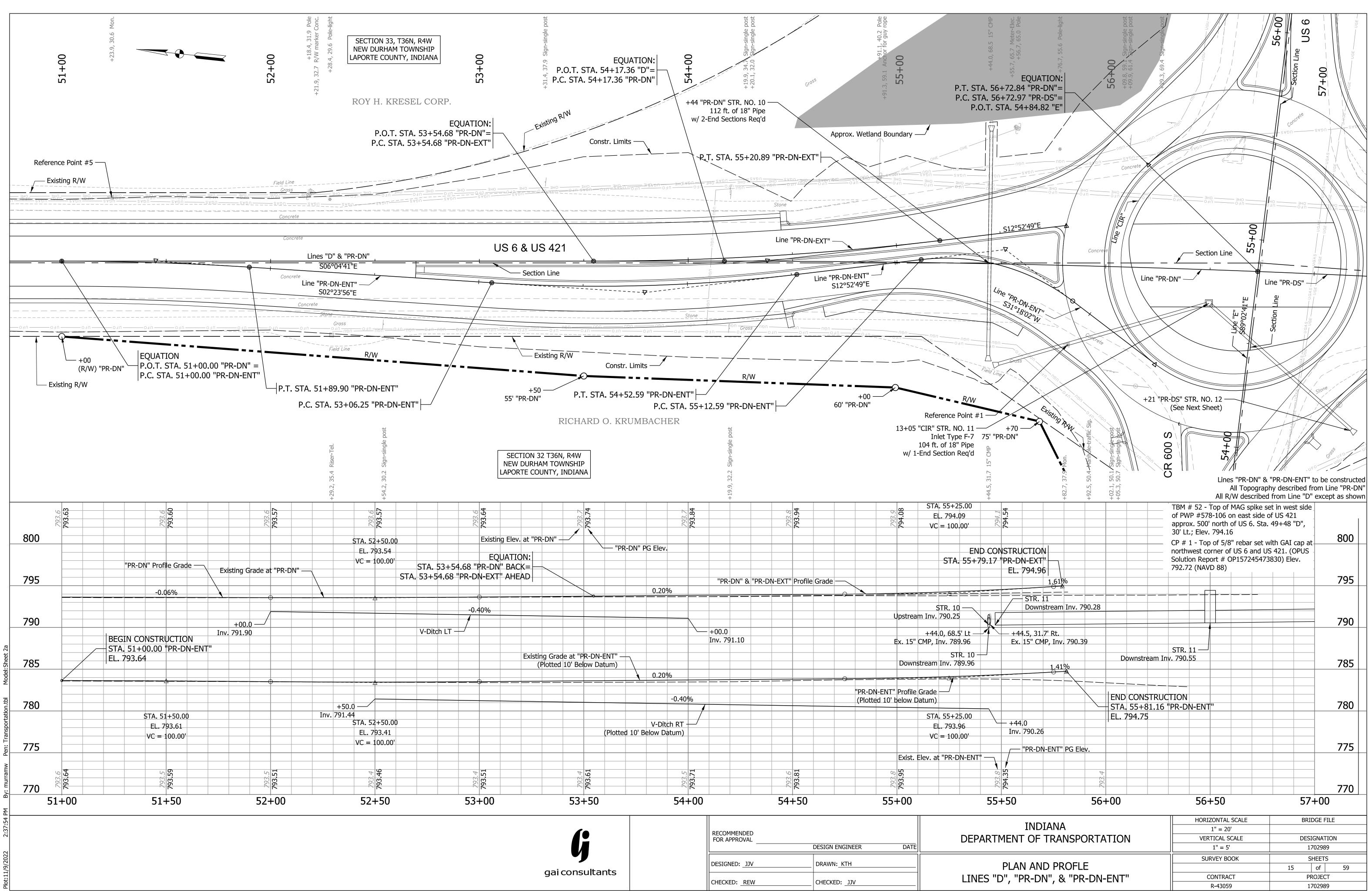
lignment M	lame:	PR-DS-ENT							
Element	Point Type	Station	Northing	Easting	Bearing (Forward)	Radius	Length	Delta	Rotation Direction
Tangent	POB	56+82.90	343455.734	747981.325	\$33°34'52"W				
Tangent	PC	57+35.23	343412.135	747952.379					
Arc	PC	57+35.23	343412.135	747952.379	\$33°34'52"W	-			
Arc	PI	57+72.17	343381.36	747931.947		100	70.77	40°32'54"	Left
Arc	CC		343356.823	748035.689					
Arc	PT	58+06.00	343344.693	747936.428					
Tangent	PT	58+06.00	343344.693	747936.428	C0605000005				1
Tangent	PC	58+79.84	343271.402	747945.384	S06°58'02"E		<u> </u>		
rangent	PC	364/9.04	3432/1.402	747945.304					-
Arc	PC	58+79.84	343271.402	747945.384	S06°58'02"E				
Arc	PI	59+35.67	343215.988	747952.156		800	111.47	7°59'01"	Right
Arc	CC		343174.361	747151.292		-			
Arc	PT	59+91.31	343160.171	747951.166					
Terrent	DT	59+91.31	343160.171	747951.166		_			1
Tangent	PT PC	61+81.10	343160.171 342970.41	747947.799	S01°00'59"W				
Tangent	PC	01+01.10	342970.41	/4/94/./99					
Arc	PC	61+81.10	342970.41	747947.799	S01°00'59"W				
Arc	PI	62+15.56	342935.96	747947.188		1400	68.9	2°49'11"	Left
Arc	CC		342945.579	749347.579					
Arc	PT	62+50.00	342901.521	747948.273					
Tangent	PT	62+50.00	342901.521	747948.273	S01°48'12"E	_			
Tangent	POE	63+00.00	342851.546	747949.846	301 40 12 E				
	_								
lignment N		PR-DS-EXT							
Element	Point Type	Station	Northing	Easting	Bearing (Forward)	Radius	Length	Delta	Rotation Direction
Tangent	POB	57+41.92	343408.534	747920.567	S06°58'02"E				
Tangent	PC	58+09.19	343341.76	747928.727					
Arc	PC	58+09.19	343341.76	747928.727	S06°58'02"E				
Arc	PI	58+72.32	343279.096	747936.384		1400	126.18	5°09'50"	Right
Arc	CC	E0.05.07	343171.938	746539.065					11 C 12 C
Arc	PT	59+35.37	343215.996	747938.371					
Tangent	PT	59+35.37	343215.996	747938.371	S01°48'12"E				
Tangent	POE	63+00.00	342851.546	747949.846					

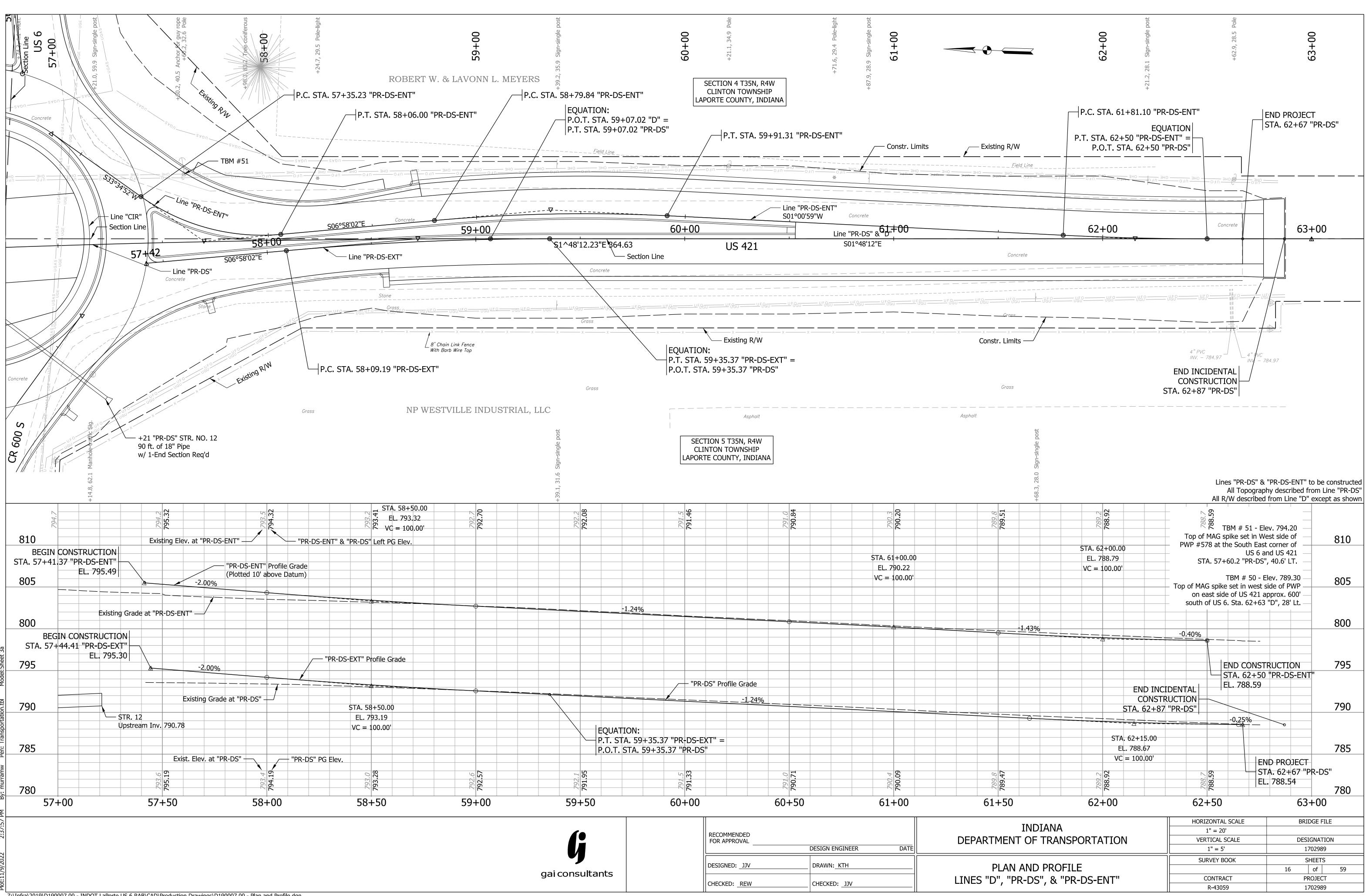
lignment Name:		PR-DS	PR-DS										
Element	Point Type	Station	Northing	Easting	Bearing (Forward)	Radius	Length	Delta	Rotation				
Arc	PC	56+72.97	343478.087	747925.943	S03°50'50"E								
Arc	PI	57+90.01	343361.31	747933.796		6561.68	234.06	2°02'38"	Right				
Arc	CC		343037.83	741379.049									
Arc	PT	59+07.02	343244.326	747937.479									
Tangent	PT	59+07.02	343244.326	747937.479	501°48'12"E								
Tangent	POT	64+73.08	342678.547	747955.293									

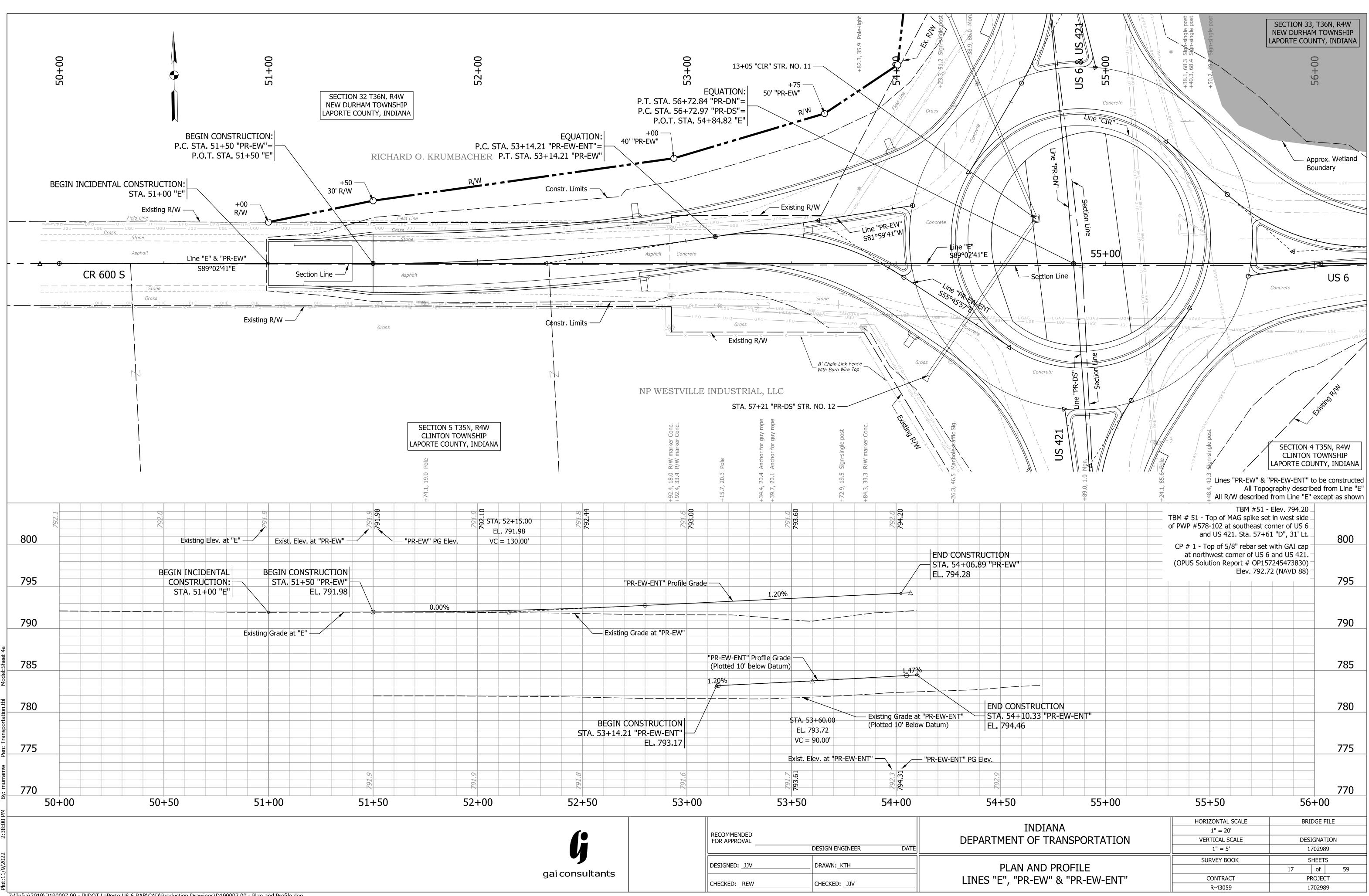
+73

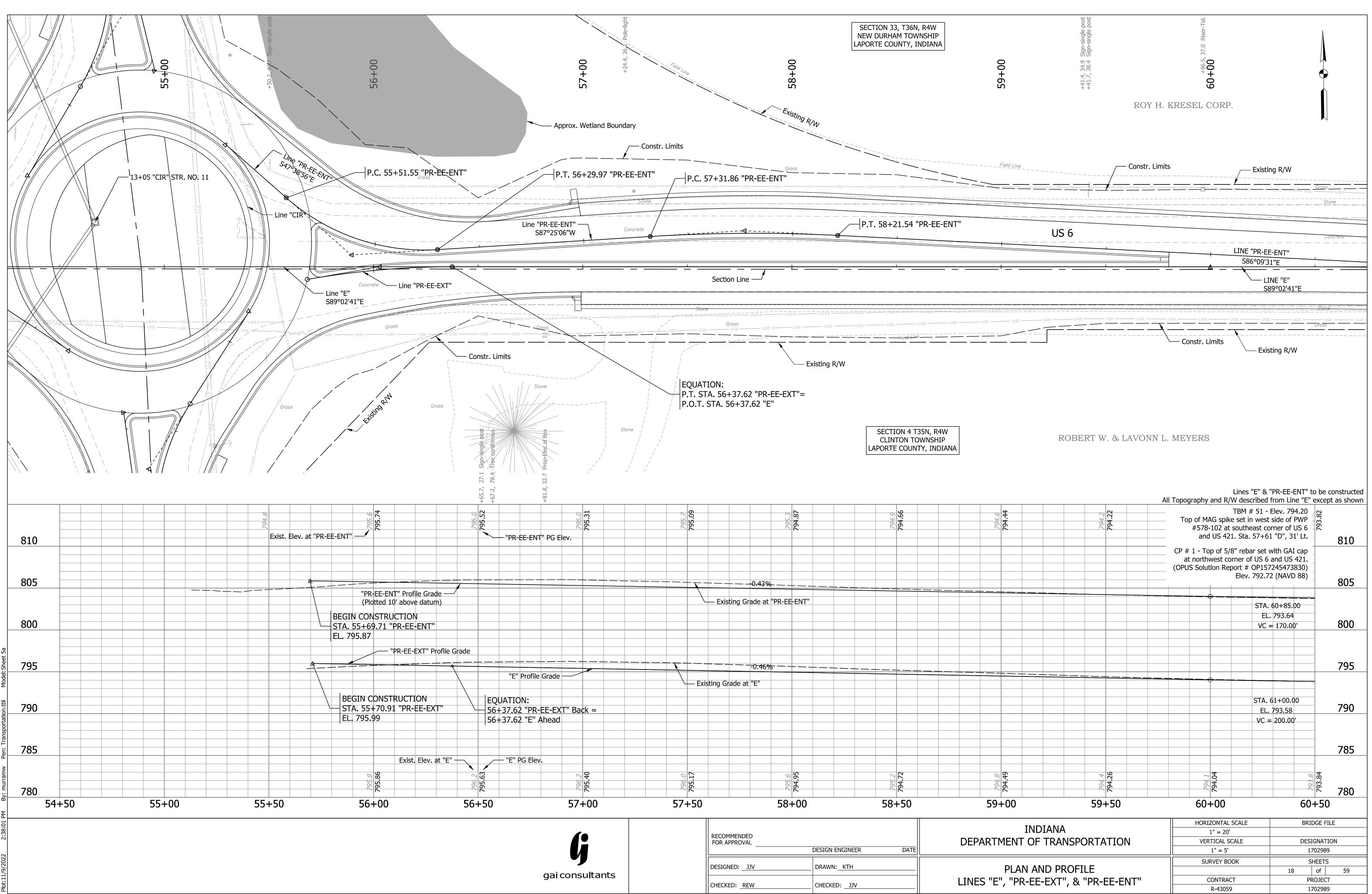
		RECOMMENDED		INDIANA	SCALE 1" = 50'	В	RIDGE FIL	E
		FOR APPROVAL		DEPARTMENT OF TRANSPORTATION		DE	ESIGNATIC	ON NC
			DESIGN ENGINEER DAT				1702989	
				SURVEY BOOK		SHEETS		
gai consultants		DESIGNED: <u>JJV</u>	_ DRAWN:	GGEOMETRIC TIE SHEET		13	of	59
		0.150/55	LINES "PR-DS" & "E"	CONTRACT		PROJECT		
		CHECKED: <u>REW</u> CHECKED: <u>REW</u>			R-43059	1702989		

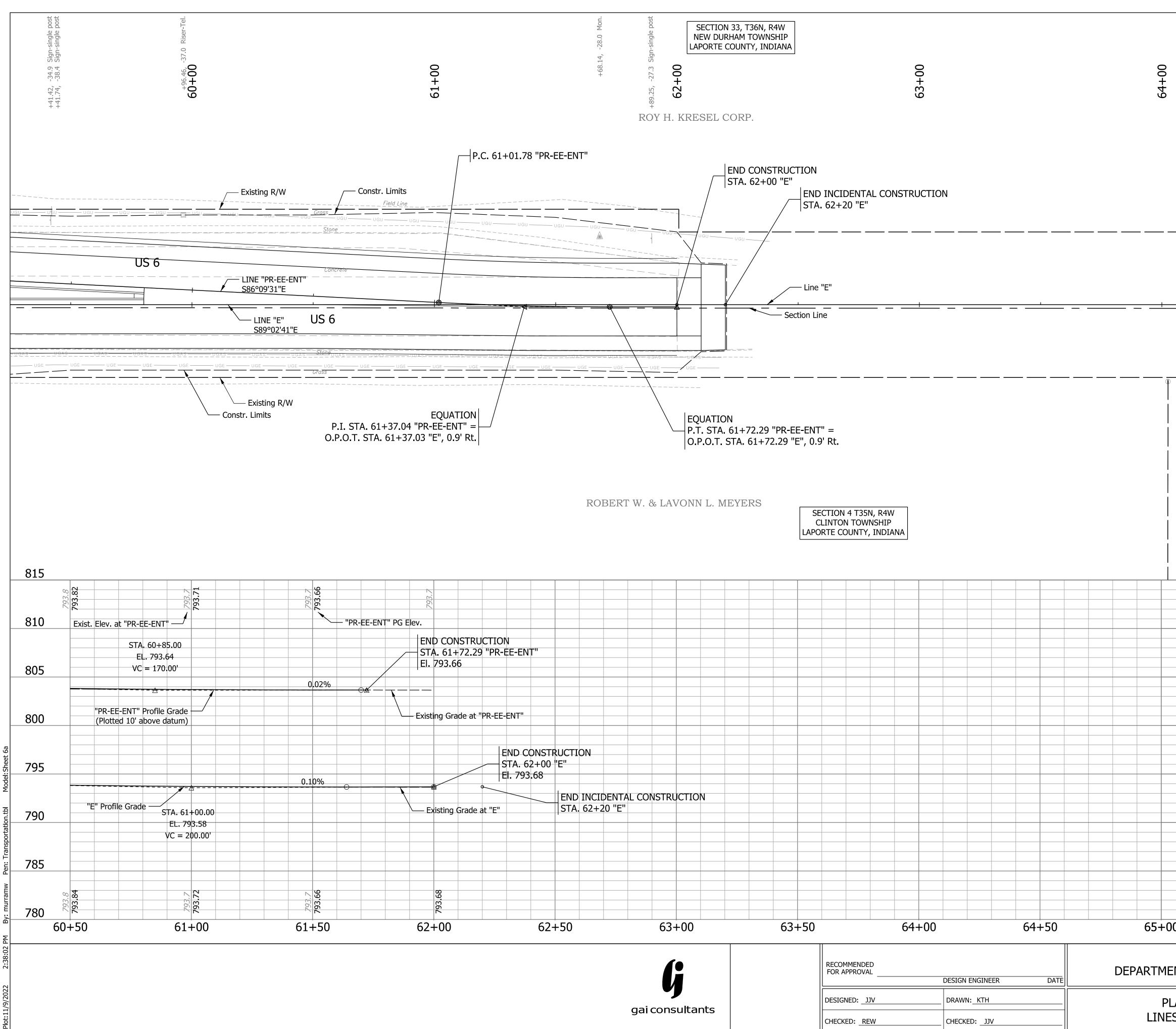




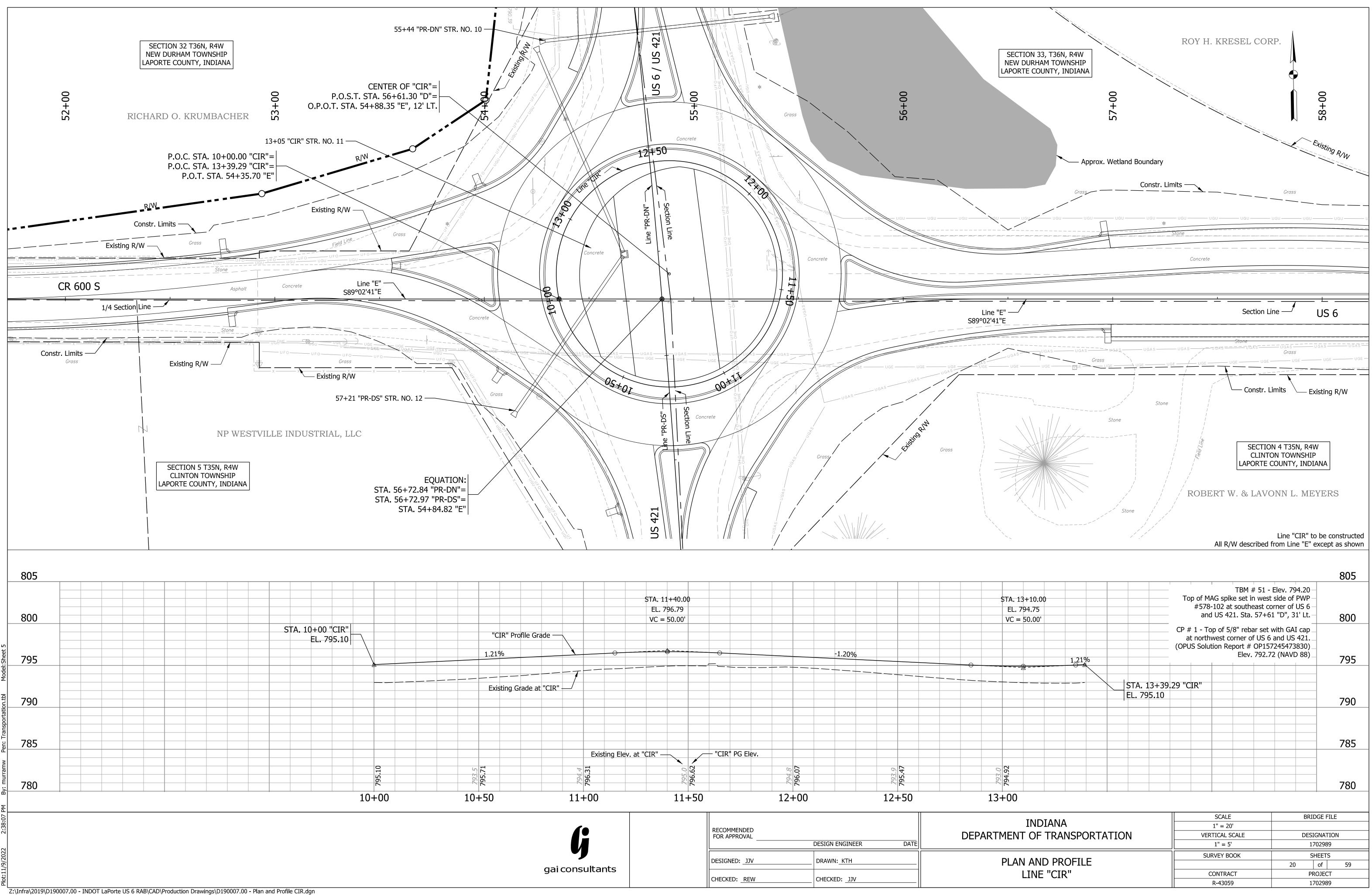




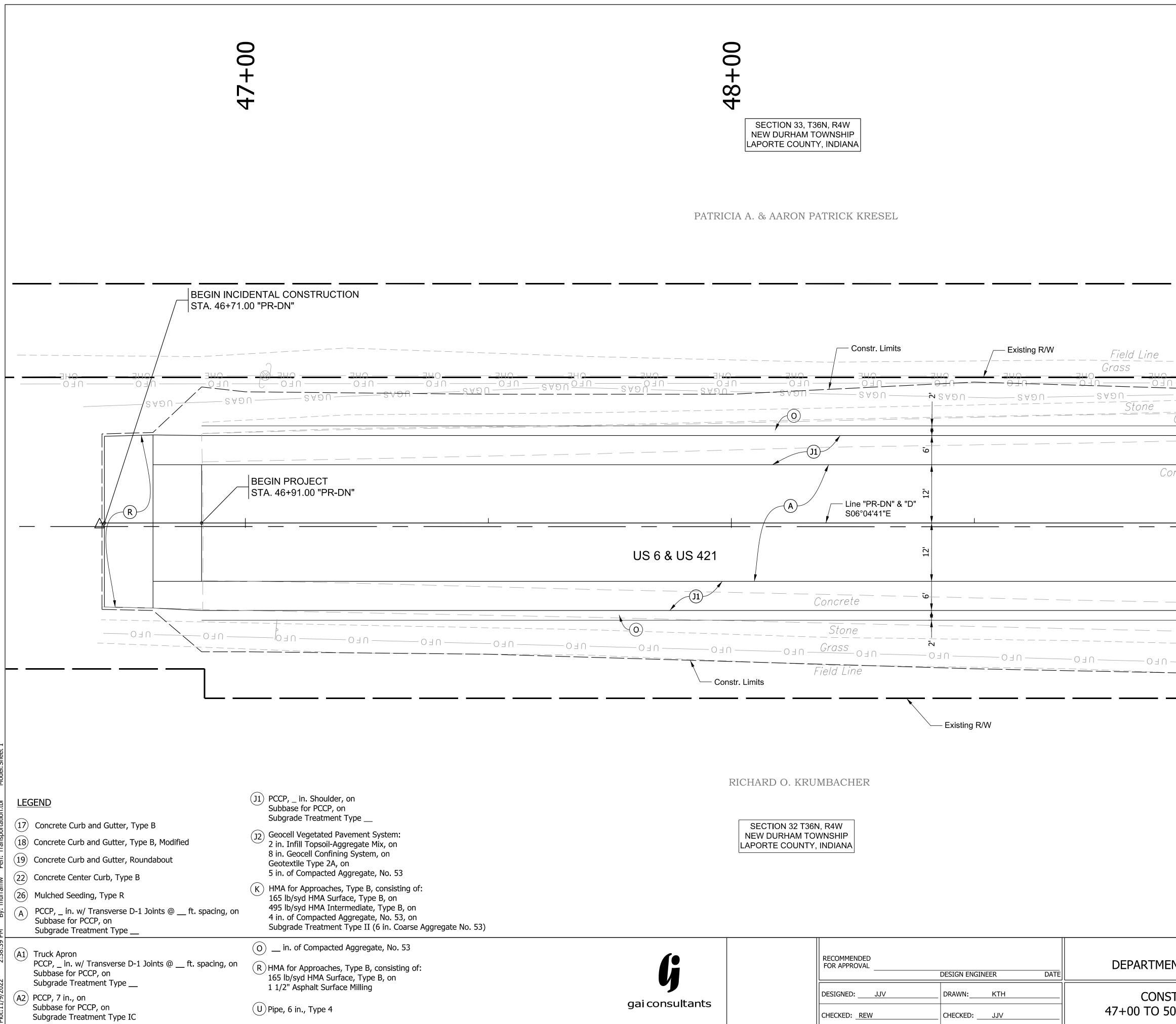


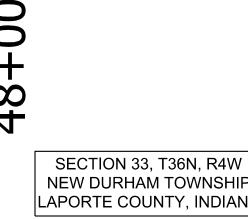


			65+00				
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 						·	<del>,</del>
			IANA PUBI MPANY LLO				
	SERV	ICES CO		D PR-EE-EN			815
	SERV	graphy and F	Lines "E" & " 2/W described f Top of MAG #578-10 and U	PR-EE-EN rom Line TBM spike set 2 at sout 5 421. Sta	"E" except # 51 - Ele in west sic heast corne a. 57+61 "	t as shown ev. 794.20 de of PWP er of US 6 D", 31' Lt.	
	SERV	graphy and F	Lines "E" & " Lines "E" & " /W described f Top of MAG #578-10	PR-EE-EN rom Line TBM spike set 2 at sout 5 421. Sta of 5/8" re st corner 1 Report a	"E" except # 51 - Ele in west sic heast corne a. 57+61 " bar set wit of US 6 an	t as shown ev. 794.20 de of PWP er of US 6 D", 31' Lt. h GAI cap d US 421. 5473830)	815 810 805
	SERV	graphy and F	Lines "E" & " Lines "E" & " W described f Top of MAG #578-10 and US CP # 1 - Top of at northwes	PR-EE-EN rom Line TBM spike set 2 at sout 5 421. Sta of 5/8" re st corner 1 Report a	"E" except in west sic heast corne a. 57+61 " bar set wit of US 6 an # OP15724	t as shown ev. 794.20 de of PWP er of US 6 D", 31' Lt. h GAI cap d US 421. 5473830)	810 805
	SERV	graphy and F	Lines "E" & " Lines "E" & " W described f Top of MAG #578-10 and US CP # 1 - Top of at northwes	PR-EE-EN rom Line TBM spike set 2 at sout 5 421. Sta of 5/8" re st corner 1 Report a	"E" except in west sic heast corne a. 57+61 " bar set wit of US 6 an # OP15724	t as shown ev. 794.20 de of PWP er of US 6 D", 31' Lt. h GAI cap d US 421. 5473830)	810 805 800
	SERV	graphy and F	Lines "E" & " Lines "E" & " W described f Top of MAG #578-10 and US CP # 1 - Top of at northwes	PR-EE-EN rom Line TBM spike set 2 at sout 5 421. Sta of 5/8" re st corner 1 Report a	"E" except in west sic heast corne a. 57+61 " bar set wit of US 6 an # OP15724	t as shown ev. 794.20 de of PWP er of US 6 D", 31' Lt. h GAI cap d US 421. 5473830)	810 805 800 795
	SERV	graphy and F	Lines "E" & " Lines "E" & " W described f Top of MAG #578-10 and US CP # 1 - Top of at northwes	PR-EE-EN rom Line TBM spike set 2 at sout 5 421. Sta of 5/8" re st corner 1 Report a	"E" except in west sic heast corne a. 57+61 " bar set wit of US 6 an # OP15724	t as shown ev. 794.20 de of PWP er of US 6 D", 31' Lt. h GAI cap d US 421. 5473830)	810
	All Topo         All Topo         Image: SERV         Image: SERV <tdimage: serv<="" td=""> <t< td=""><td>graphy and F</td><td>MPANY LLO</td><td>PR-EE-EN From Line TBM spike set 2 at south 5 421. Sta of 5/8" relevent 5 421. Sta 1 and 1 and</td><td>"E" except in west sic heast corne a. 57+61 " bar set wit of US 6 an # OP15724</td><td>t as shown ev. 794.20 de of PWP er of US 6 D", 31' Lt. h GAI cap d US 421. 5473830) NAVD 88) NAVD 88)</td><td>810 805 800 795 790 785 785</td></t<></tdimage:>	graphy and F	MPANY LLO	PR-EE-EN From Line TBM spike set 2 at south 5 421. Sta of 5/8" relevent 5 421. Sta 1 and 1 and	"E" except in west sic heast corne a. 57+61 " bar set wit of US 6 an # OP15724	t as shown ev. 794.20 de of PWP er of US 6 D", 31' Lt. h GAI cap d US 421. 5473830) NAVD 88) NAVD 88)	810 805 800 795 790 785 785
	SERV All Topo All Top	graphy and F	Lines "E" & " Lines "E" & " W described f Top of MAG #578-10 and US CP # 1 - Top of at northwes	PR-EE-EN from Line TBM spike set 2 at south 5 421. Sta of 5/8" relev 5 421. Sta D 5 5/8" relev 5 421. Sta 1 0 0 0 1 0 0 0 1 0 1	"E" except in west sic heast corne a. 57+61 " bar set wit of US 6 an # OP15724	t as shown ev. 794.20 de of PWP er of US 6 D", 31' Lt. h GAI cap d US 421. 5473830)	810 805 800 795 795 785 780 50 50



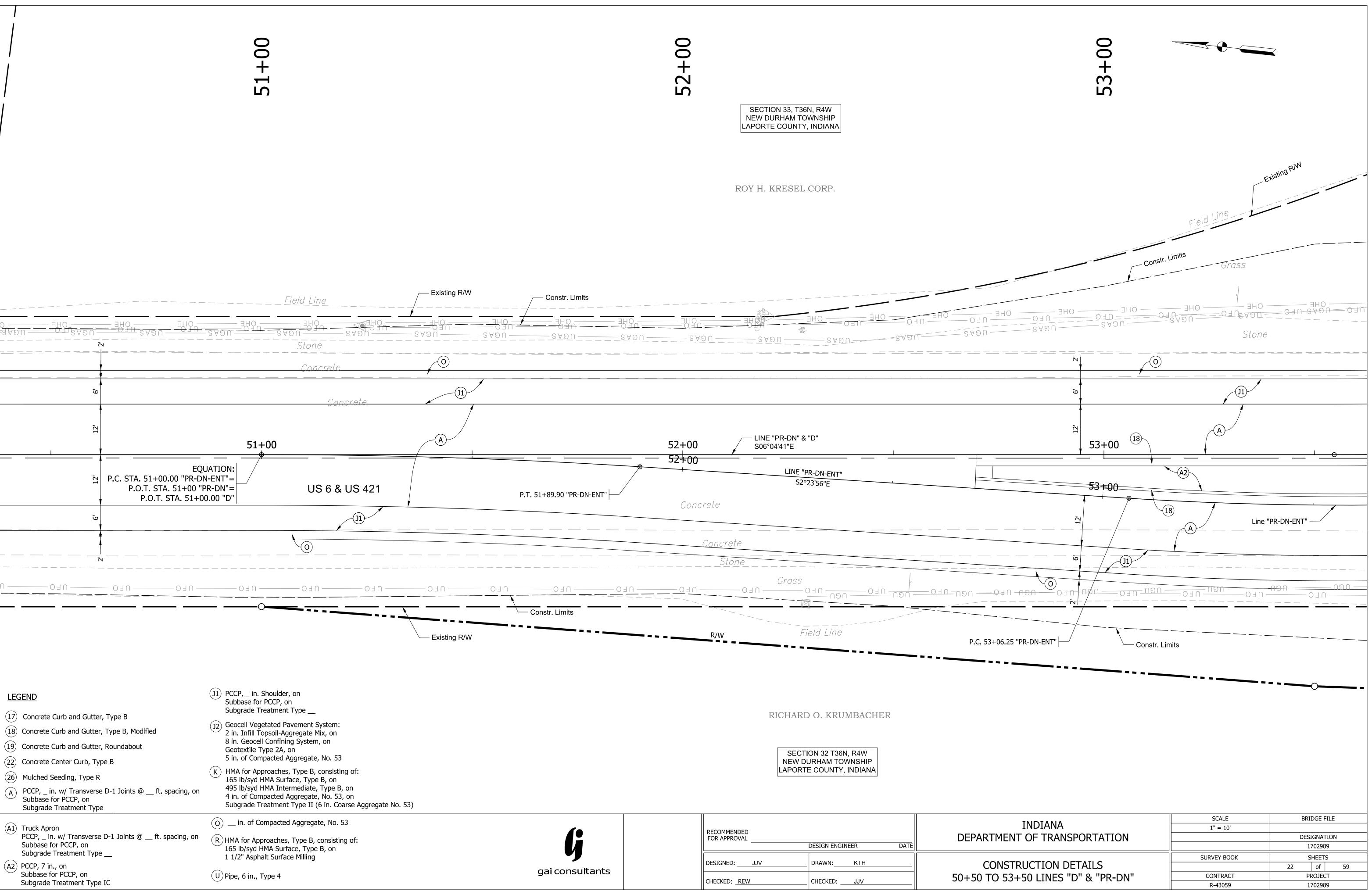
G	RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE	DEPARTMENT
	DESIGNED: JJV	DRAWN: KTH		PLAN
gai consultants	CHECKED: <u>REW</u>	CHECKED: _JJV		





G		RECOMMENDED FOR APPROVAL	DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION	SCALE 1" = 10'	DESIG	GE FILE NATION 2989
	DESIGNED: JJV	DRAWN:KTH	CONSTRUCTION DETAILS	SURVEY BOOK	21 C	EETS of 59	
gai consultants		CHECKED: <u>REW</u>	CHECKED:JJV	47+00 TO 50+50 LINES "D" & "PR-DN"	CONTRACT R-43059		DJECT 2989

49+00					
 	<u> </u>				S \/ S \/
oncrete					
	∩ E O	N E O	0 ⊥ ∩	NEO	(

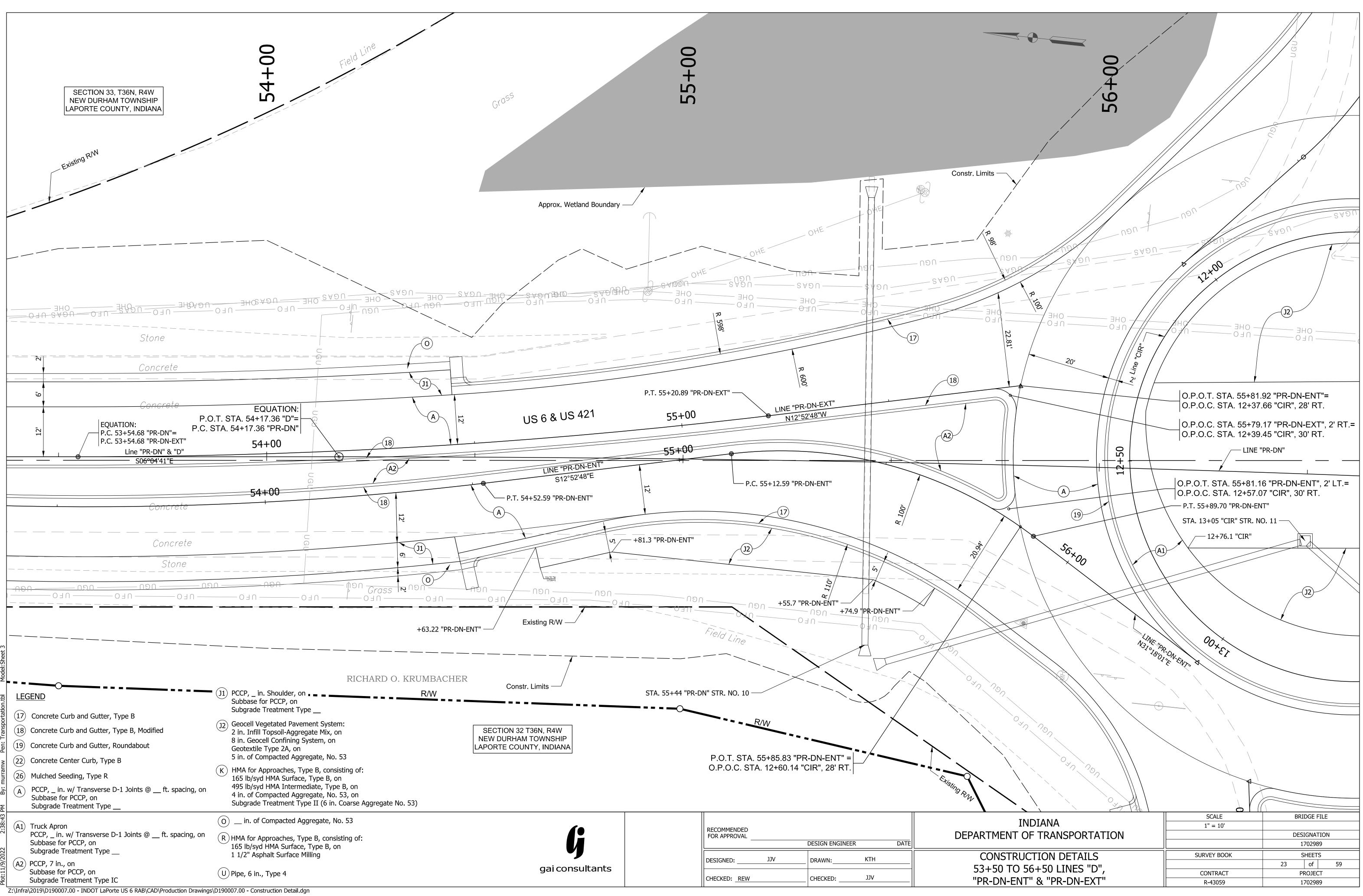


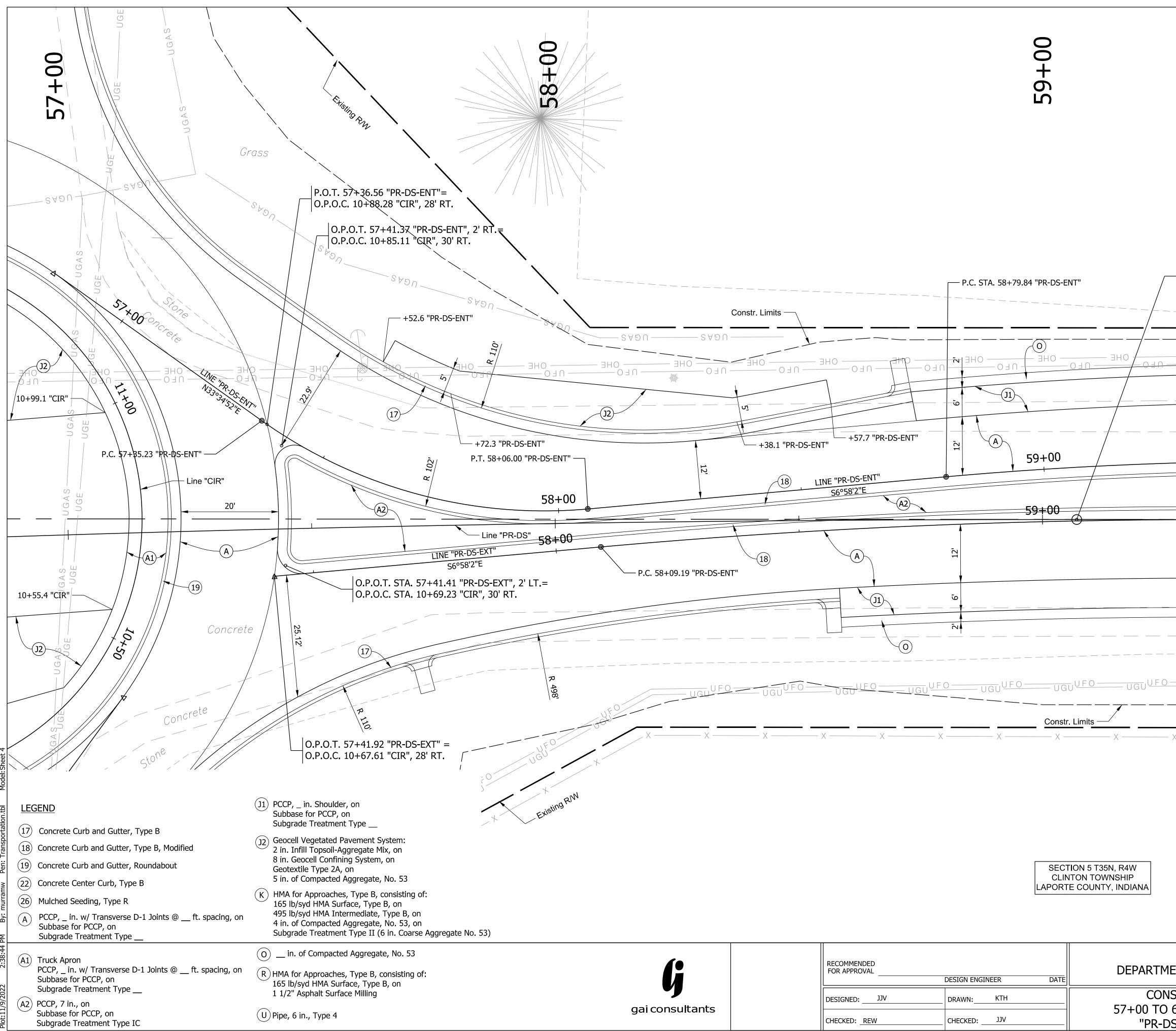
	Concrete Curb and Gutter, Roundabout
I (19)	Concrete Curb and Gutter, Roundabout

(26) Mulched Seeding, Type R

	r alerica becarig, rype r
A	PCCP, _ in. w/ Transverse D-1 Joints @ ft. spacing, or Subbase for PCCP, on Subgrade Treatment Type

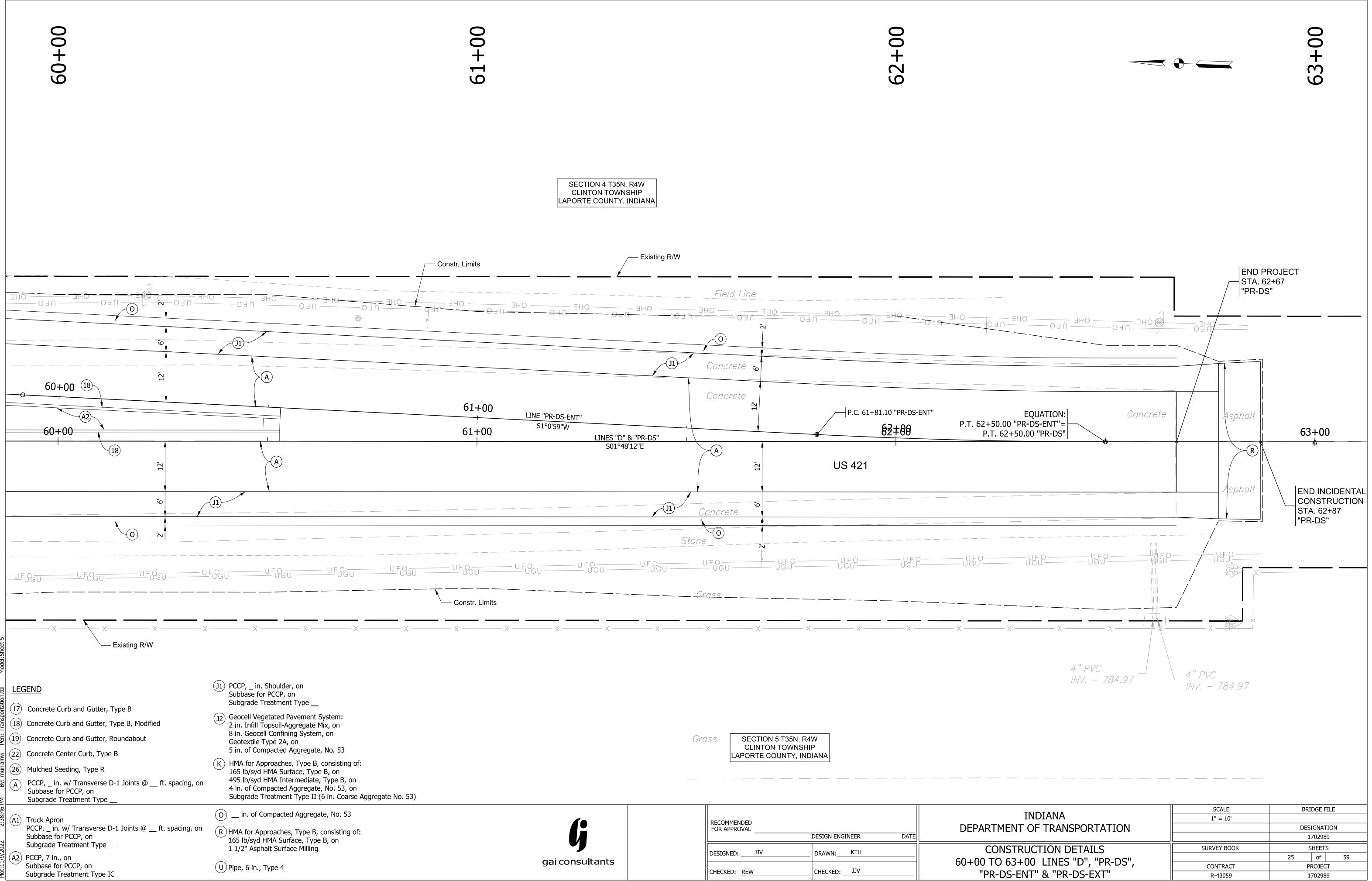
G	RECOMMENDED FOR APPROVAL	DESIGN ENGINEER E	DATE	DEPARTMEN
gai consultants	DESIGNED: JJV CHECKED: REW	DRAWN: KTH CHECKED: JJV		CONST 50+50 TO 53



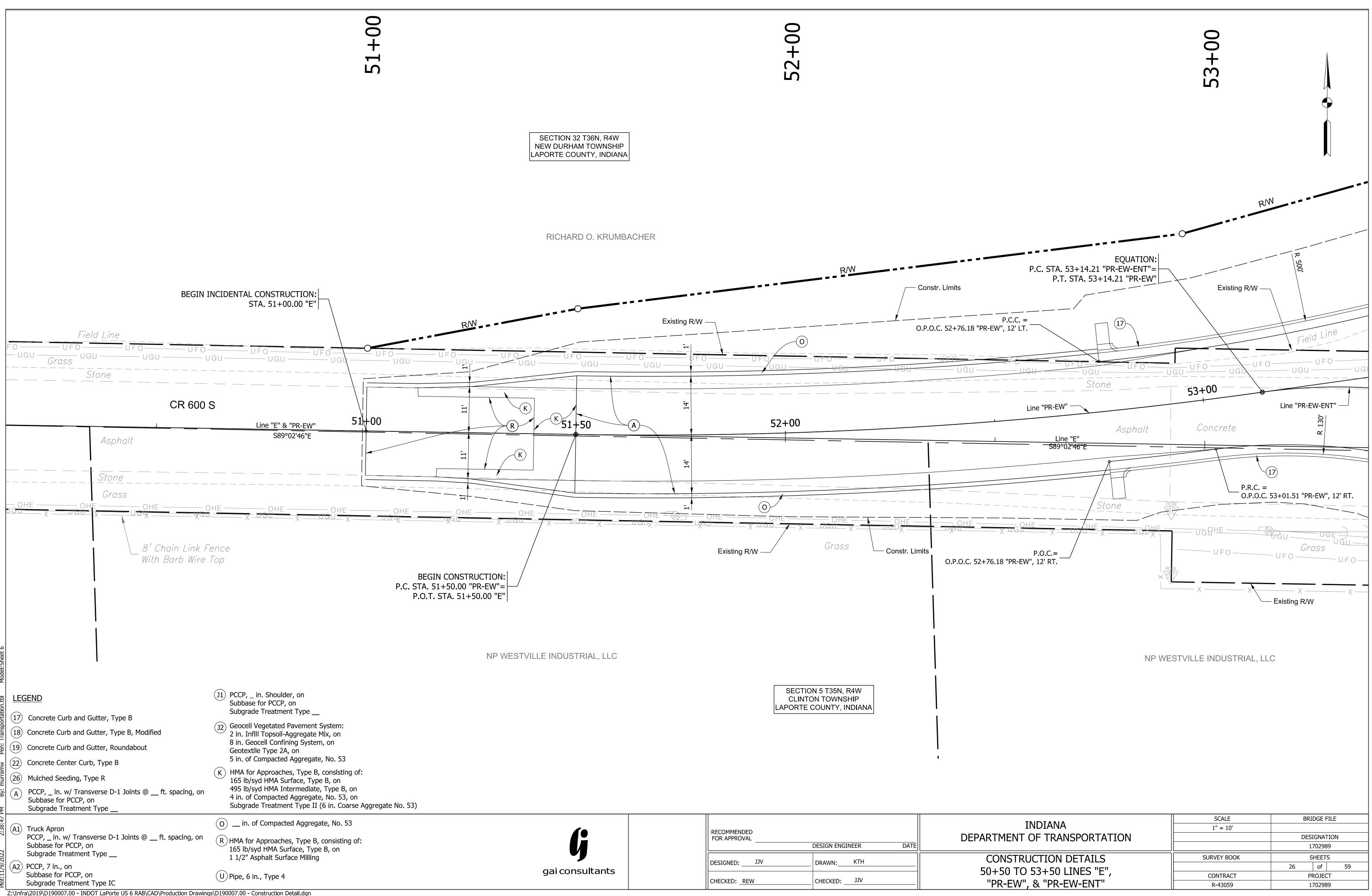


ſ	RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE	DEPARTMEN
	DESIGNED: JJV	DRAWN: KTH		
gai consultants	CHECKED: <u>REW</u>	CHECKED:JJV		57+00 TO 60 <sup>.</sup> "PR-DS-E

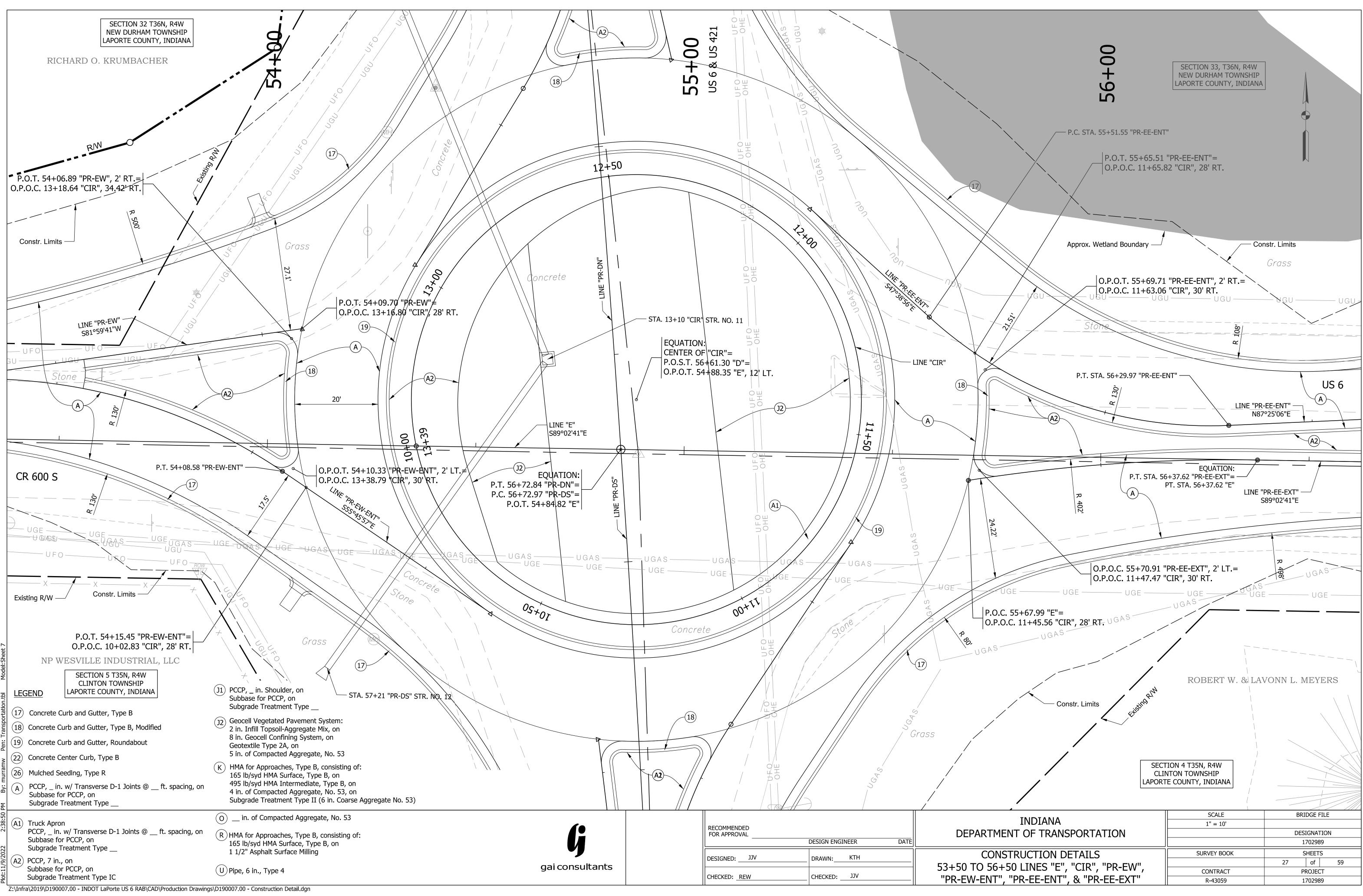
		60+00
	SECTION 4 T35N CLINTON TOWN LAPORTE COUNTY,	SHIP
Field Line		
ОНС ЭНО ЭНО ОНО ОНО ОНО ОНО Сопстеte	<u> </u>	= 0 — OHE0H = 0 NE 0
	US 421	60+00 60+00
EQUATION: P.T. STA. 59+35.37 "PR-DS P.O.T. STA. 59+35.37 "PR- <i>Concrete</i>	S-EXT" =	
Concrete Stone		
UGUUF9GUUF9GUUF9GU 	UFQGU	YGUYXX
		I
INDIANA ENT OF TRANSPORTATION	SCALE 1" = 10'	BRIDGE FILE DESIGNATION

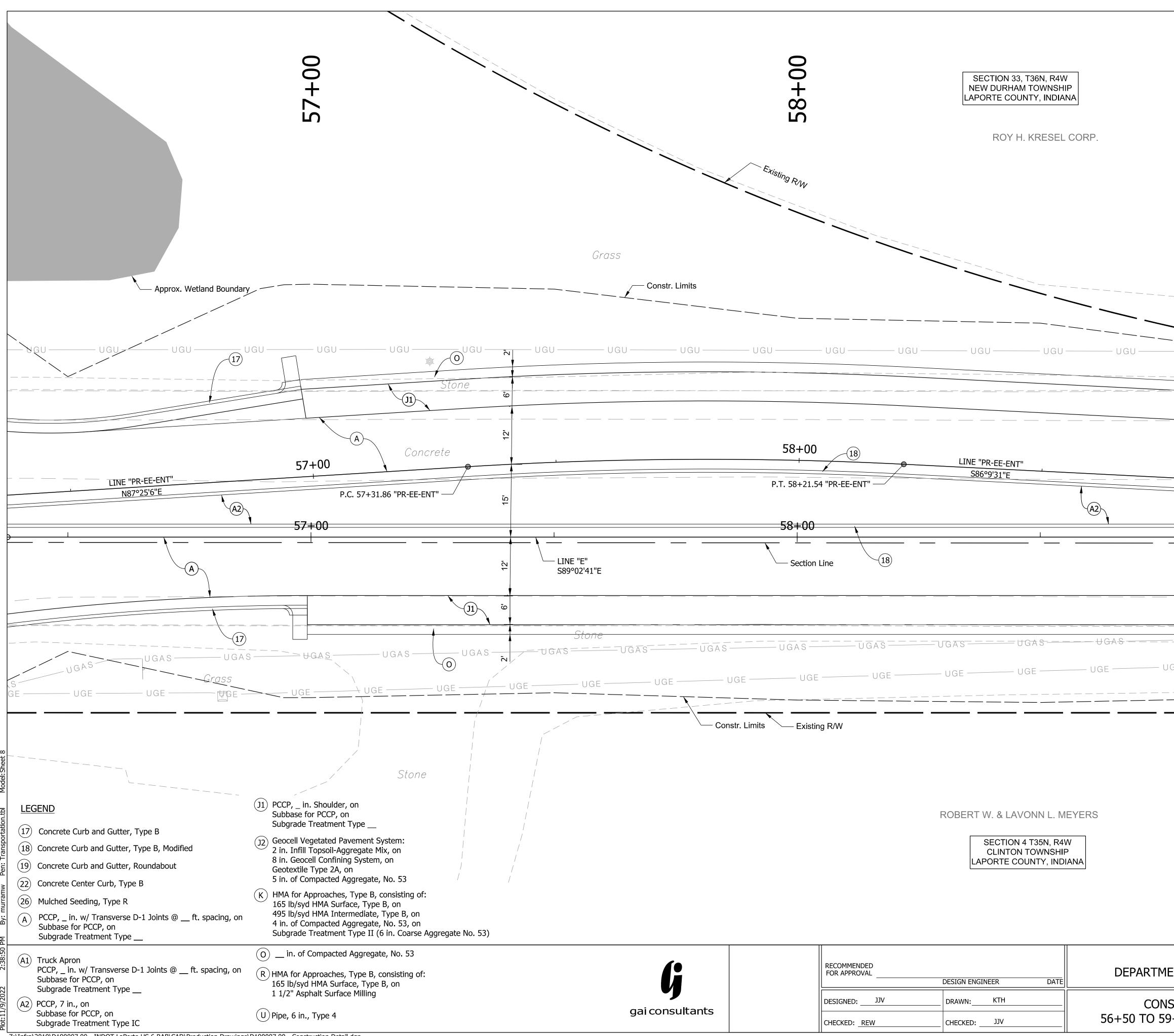


G	RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE	DEPARTMEN
	DESIGNED: JJV	DRAWN: KTH		
gai consultants	CHECKED: <u>REW</u>	CHECKED:JJV		60+00 TO 63- "PR-DS-E



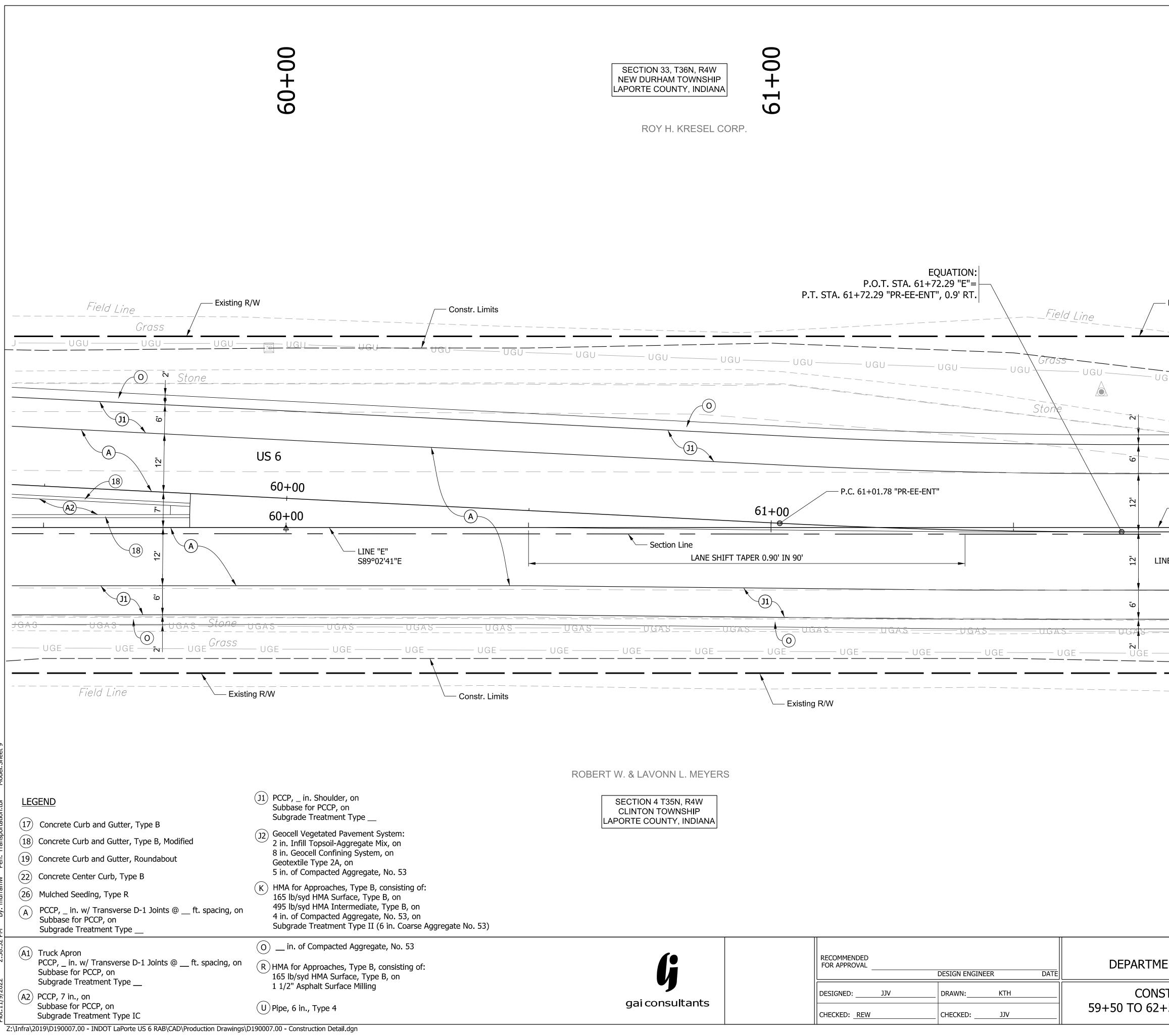
G		RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE	DEPARTMENT
<b>y</b>		DESIGNED:JJV	DRAWN: KTH		
gai consultants		CHECKED: <u>REW</u>	CHECKED:JJV		50+50 T0 "PR-EW

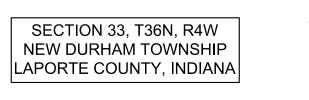




G	RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE	DEPARTMEN
gai consultants	DESIGNED: JJV	DRAWN: KTH		CONSTI
garconsalcands	CHECKED: <u>REW</u>	CHECKED: JJV		56+50 TO 59+5

Field Line Grass UGU UGU UGU Stone	UGU	- UGU UGU
59+00	US 6	
59+00		I
<i>Concrete</i>		
UGAS <u>Stone</u> UGAS UGAS Grass GE UGE UGE	UGAS UGE UGE Field Lin	
INDIANA NT OF TRANSPORTATION	SCALE 1" = 10' SURVEY BOOK	BRIDGE FILE DESIGNATION 1702989 SHEETS
TRUCTION DETAILS +50 LINE "E" & "PR-EE-ENT"	CONTRACT R-43059	28         of         59           PROJECT         1702989





G	RECOMMENDED FOR APPROVAL	DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION
gai consultants	DESIGNED:JJV	DRAWN: KTH	CONSTRUCTION DETAILS 59+50 TO 62+50 LINES "E" & "PR-EE-ENT"
	CHECKED: <u>REW</u>	CHECKED:JJV	$\int \frac{39+30}{000} \int \frac{1000}{02+30} \frac{1000}{1000} = 0 $

00+ 62 — Existing R/W UGU UGU END INCIDENTAL CONSTRUCTION - LINE "E" S89°02'41"E 62+00 STA. 62+20 "E" ~(R) LINE "PR-EE-ENT" S89°02'41"E Stone UGA-S-<u> Grass</u> - UGE -Field Line END CONSTRUCTION STA. 62+00 "E" SCALE BRIDGE FILE INDIANA 1" = 10' NT OF TRANSPORTATION DESIGNATION 1702989 SURVEY BOOK SHEETS TRUCTION DETAILS

of

PROJECT

1702989

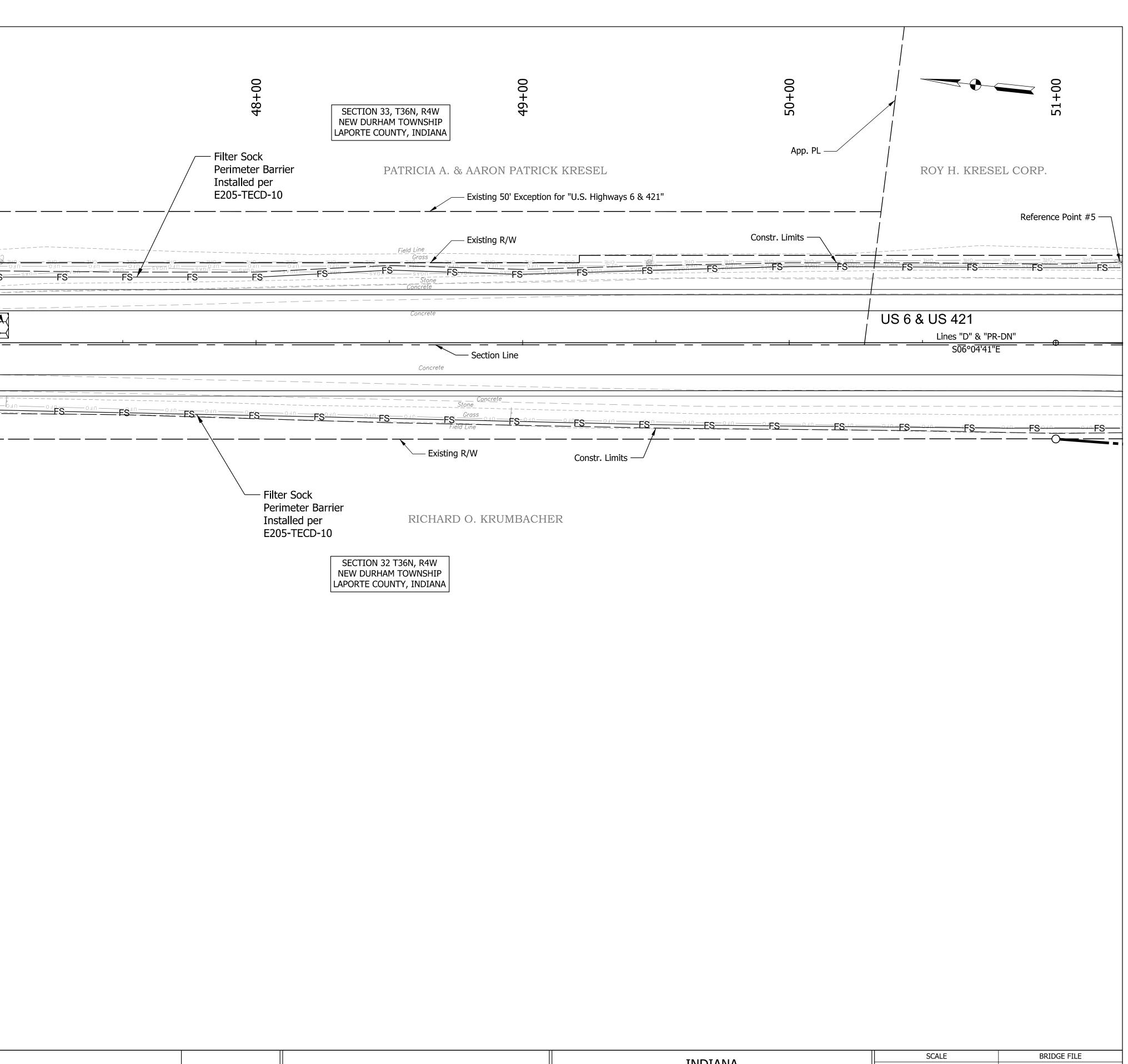
29

CONTRACT

R-43059

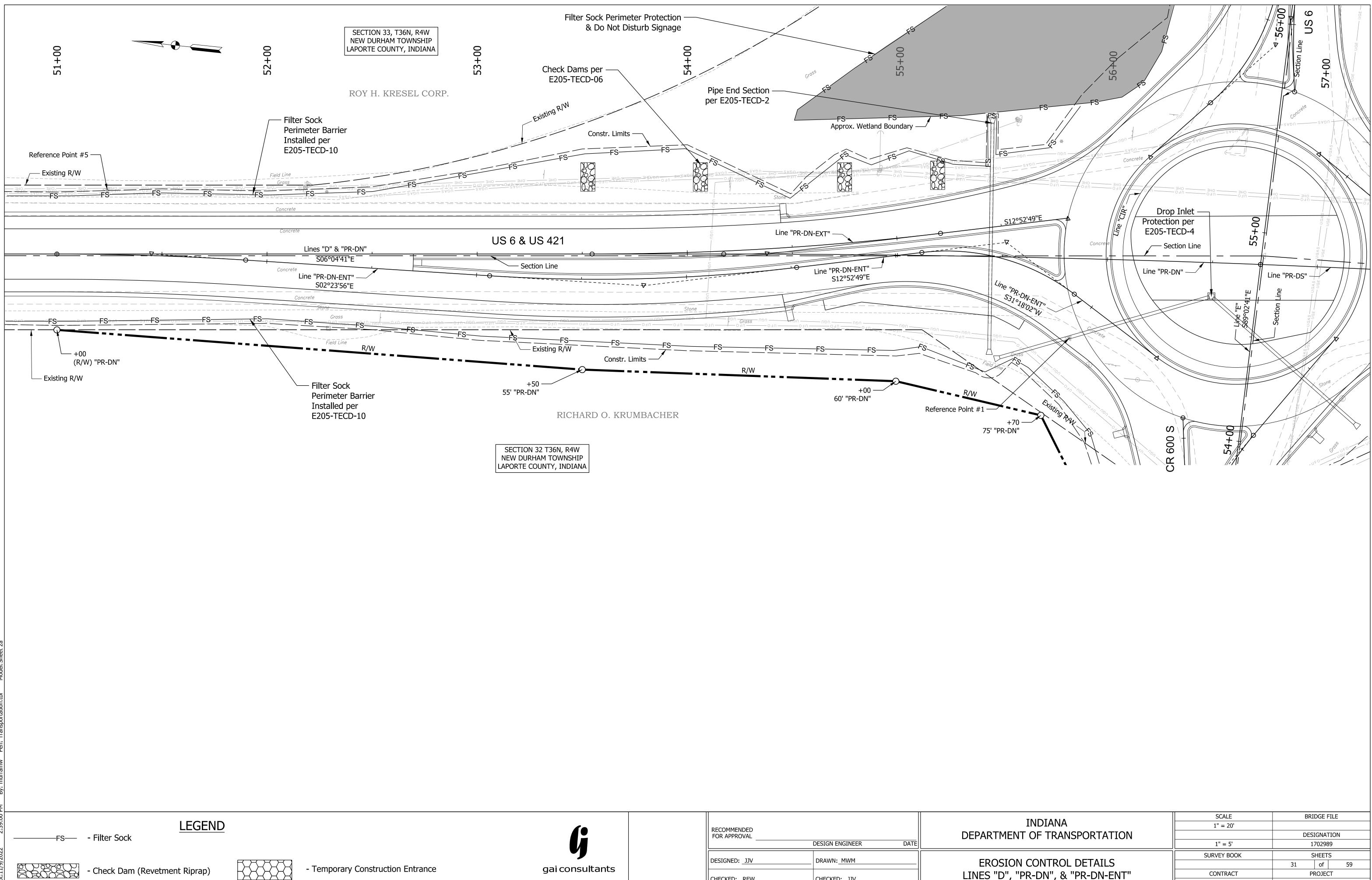
59

						47+00
					Construction Entrance as per E205-TECD-12, modify to meet Site Requirements, 50' length only	
						SADU CALLER SADU C
Model: Sheet 1a						
By: murramw Pen: Transportation.tbl						
2:38:57 PM	FS	- Filter Sock	LEGEND			
bt:11/9/2022		- Check Dam (Rev	etment Riprap)	BEE SE	- Temporary Construction Er	itrance

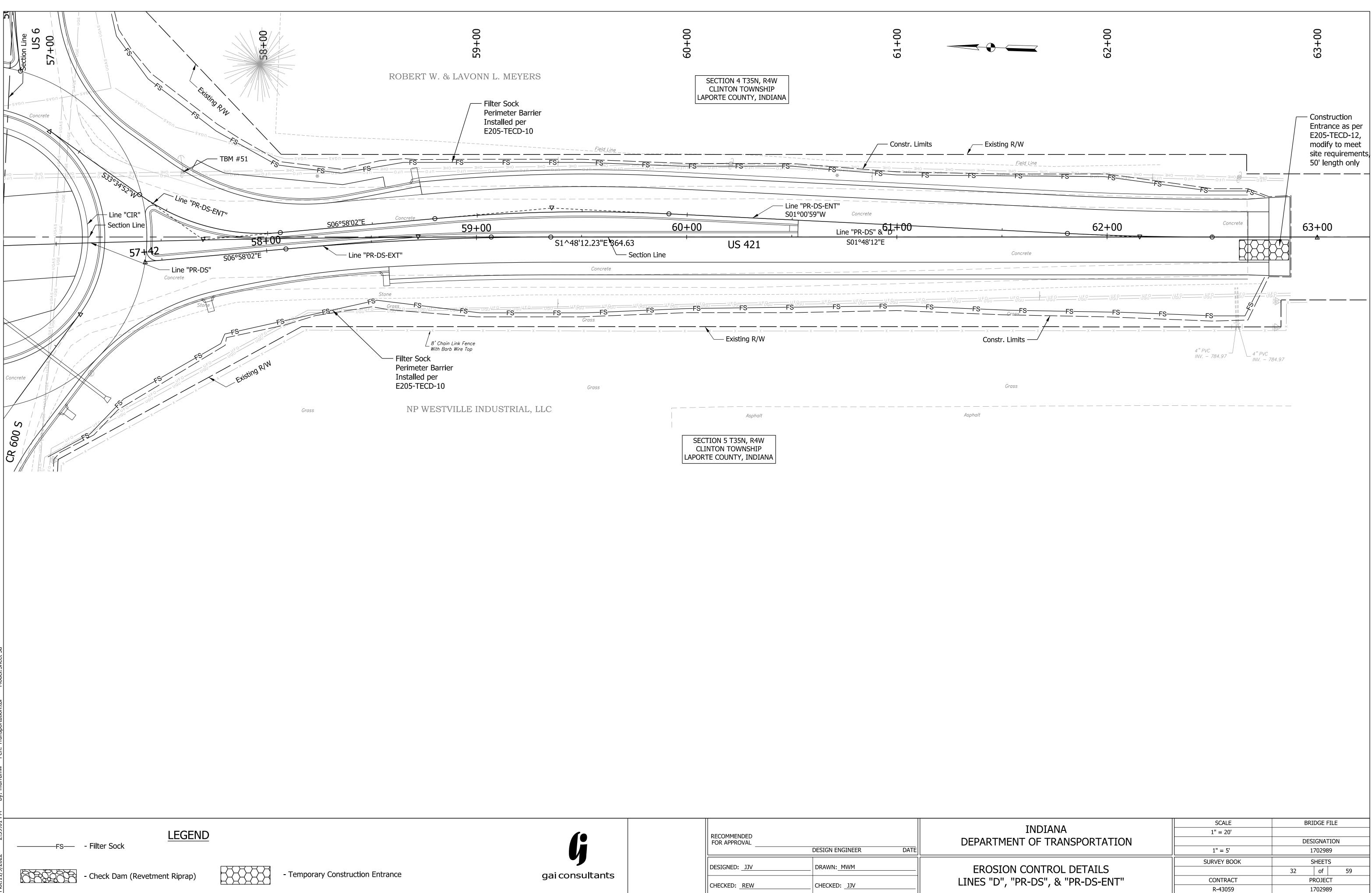


G	RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE	DEPARTMEN
gai consultants	DESIGNED: JJV CHECKED: <u>REW</u>	DRAWN: <u>MWM</u> CHECKED: <u>JJV</u>		EROSIC LINES "D",

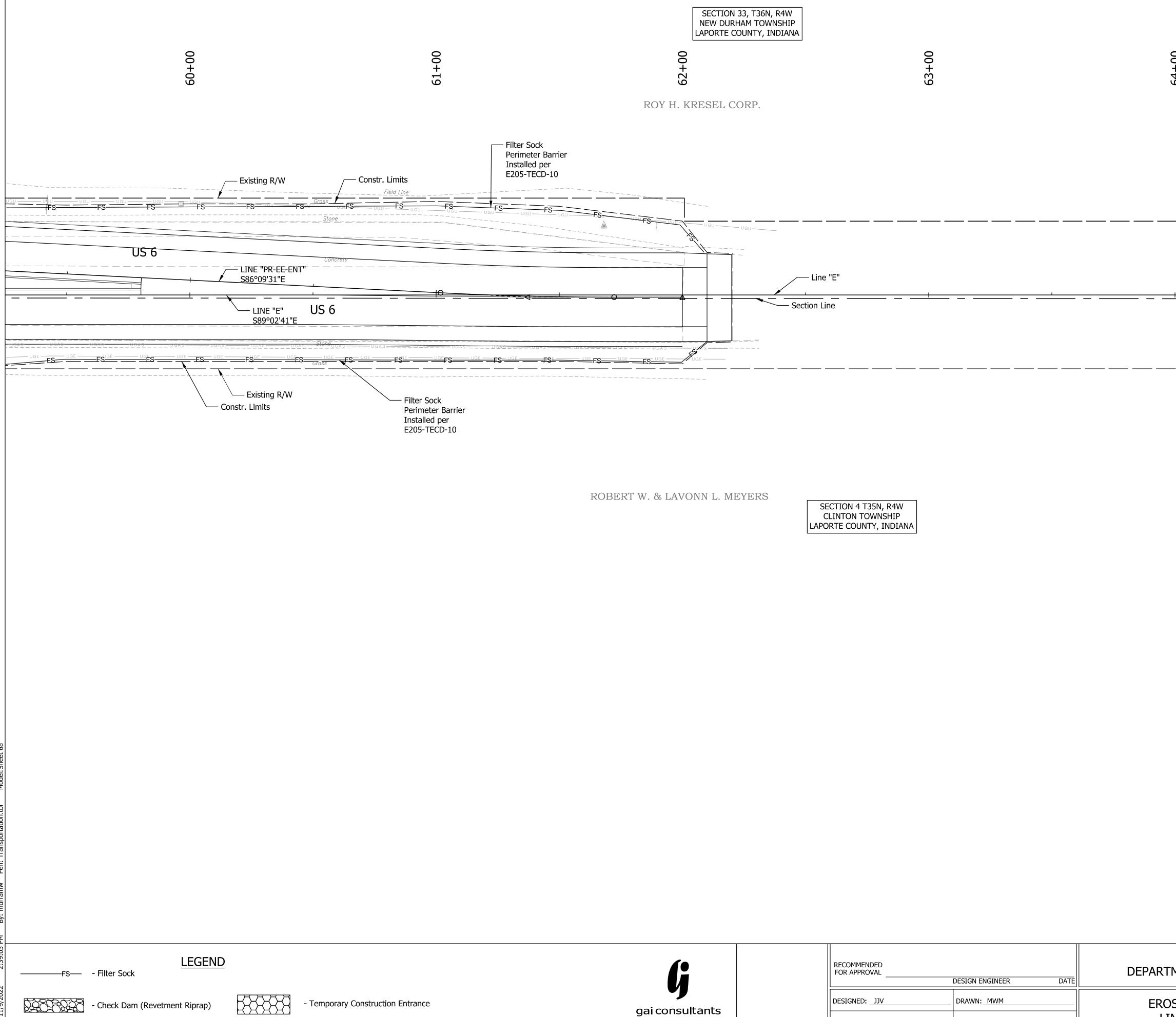
INDIANA	1" = 20'			
ENT OF TRANSPORTATION		DES	IGNAT	TON
	1" = 5'	1	70298	9
	SURVEY BOOK	S	HEET	6
SION CONTROL DETAILS		30	of	59
)", "PR-DN", & "PR-DN-ENT"	CONTRACT	PI	ROJEC	Т
,,,	R-43059	1	70298	9



	RECOMMENDED			SCALE 1" = 20'	BRIDGE FILE
	FOR APPROVAL	DESIGN ENGINEER DATE	DEPARTMENT OF TRANSPORTATION	1" = 5'	DESIGNATION 1702989
••	DESIGNED:JJV	DRAWN: <u>MWM</u>	EROSION CONTROL DETAILS	SURVEY BOOK	SHEETS           31         of         59
gai consultants	CHECKED: <u>REW</u>	CHECKED:	LINES "D", "PR-DN", & "PR-DN-ENT"	CONTRACT R-43059	PROJECT 1702989



G	RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE	DEPARTMEN
gai consultants		DRAWN: <u>MWM</u> CHECKED: <u>JJV</u>		EROSION LINES "D", "F



	_
SECTION 4 T35N, R4W	
CLINTON TOWNSHIP	
LAPORTE COUNTY, INDIANA	
CLINTON TOWNSHIP LAPORTE COUNTY, INDIANA	

SECTION 33, T36N, R4W NEW DURHAM TOWNSHIP LAPORTE COUNTY, INDIANA	63+00	4+00		65+00				
G ROY H. KRESEL CORP.	G	Q		G				
	ne "E"	 	1					
GAS	Line							
	SECTION 4 T35N, R4W CLINTON TOWNSHIP PORTE COUNTY, INDIANA			NDIANA PUBLIC COMPANY LLC				
G	RECOMMENDED FOR APPROVAL	INDIANA DEPARTMENT OF TRANS	SPORTATION	SCALE 1" = 20' 1" = 5' SURVEY BOOK	BRIDGE FILE DESIGNATION 1702989 SHEETS			
gai consultants	DESIGNED:JJV       DRAWN: _MWM         CHECKED:REW       CHECKED:JJV	 EROSION CONTROL LINES "E" & "PR-E		CONTRACT R-43059	33         of         59           PROJECT         1702989			

	PAVEMENT QUANTITIES AND APPROACH TABLE																																									
	R						INE		ACE BEYO	DND			N.					HMA MA	ATERIALS							CP	MENT	PEIC	YPE II	RETE,	KETE,	ETE,	OUT	A:								
	TION E/CLASS C TEM	EGIN)	ND)	Ξ		_	ND R/W L	EGATE			DE	EMOVAL	LT, 1-1/2	.N.	IN. ACE,	E E	EDIATE. .0 mm	o m D				5	COMPA AGGRE	GATE			ED PAVE	MENT, TY	MENT, T	R, CONCF	R, CONCF	R, CONCF	ETE	rer, typ								
LOCATION	SCRIP1 H TYPE GEND I	VIDTH (BI	WIDTH (E	LENGT	AREA	RADI	CE BEYO	ED AGGRI BASE	AMH	ICRETE	GRA	EMENTR	s, ASPHA	PCCP, 1	PCCP, 7 HMA SURF	PE B, 9.	PE B, 19	HMA BA: PE B, 19.				ACK COA	NO.	53		SUBBAS	/EGETAT SYSTE	E TREAT	E TREAT	TYPE	D GUTTER PE B, MO	D GUTTEI ED (ROU	D GUTTE CONCRE	ETE GUT							REMARKS	S
	DE APPROAC	>	IM				DISTANC	MPACTE		CO		PAVI	MILLING		Ŧ	F	HMH T T	Ĕ BS.PER	SYD					DEPTH			OCELLY	JBGRAD	UBGRAD	URB AN	URB ANI TY	MODIFI	CURB AN	CONCRE								
FROM TO LT/CT/ RT		FT	FT FT	FT	SFT	FT FT	FT	SYS	SYS S	SYS	12%	SYS	SYS	SYS			495 SYS	SYS		5 S	SYS S	SYS C	4 5 YS CY	11	9	17 CYS	SYS	้ SYS		LFT	LFT	0		LFT								
US 6 & 421, North Leg Lines PR-DN, PR-DN-EXT, & PR-DN-ENT 46+71.0 46+81.0 RT			17.5 17.4										19			19						9.0	_																			
46+71.0 46+81.0 LT 46+81.0 56+73.0	R removal	17.9	18.2 18.	1 10.0	181 53415							5935	20			20						20.0																			area measured in	CADD
46+81.0         51+00.0         RT           46+81.0         51+00.0         LT           46+81.0         46+91.0         RT	A A J1	12.0	12.0         12.0           12.0         12.0           6.0         5.8	0 419.0 10.0	5028 58									559 559 6											139.7 139.7 1.6	···{·		745 745 11														
46+91.0         51+00.0         RT           46+81.0         46+91.0         LT           46+91.0         51+00.0         LT	J1 J1 J1	6.2	6.0 6.0 6.0 6.1 6.0 6.0	10.0	2454 61 799									273 7 89											68.2 1.7 22.2			454 11 148														
51+00.0         52+69.6         RT           51+00.0         54+45.0         RT           51+00.0         54+45.3         LT	A A A		8.0         4.0           12.0         12.0           12.0         12.0	0 345.0	the second se									59 460 460											115.0 115.1			613 614													 vrea measured in	CADD
51+00.0         54+45.0         RT           51+00.0         54+45.3         LT           54+45.0         55+85.8         RT	J1 J1 A	6.0	6.0 6.0 6.0 6.0 21.0 16.1	345.3	3 2072									230 230 258											57.5 57.6 64.5	+ +		383 384 321														
54+45.3         55+79.2         LT           46+91.0         54+45.0         RT	A O	12.0 2.0	22.8         17.4           2.0         2.0           0.3         0.2	4 133.8 754.0	3 2329 1508									259										51.2 4.2				318														
46+91.0 54+45.3 LT 54+45.0 55+81.2 RT	0	2.0	2.0 2.0 0.3 0.2		3 1509 3 113																			51.2 3.8				40		137									:			
54+45.3         55+79.2         LT           54+63.2         55+74.9         RT           52+69.6         55+81.2         RT	17 J2 18		2.7	133.8	3 357 694							····											10.	7	9.9		77	40		134	312										vrea measured in	CADD
52+69.6         55+79.2         LT           52+69.6         55+79.7         CT           52+69.6         55+79.7         CT	18 18 A2			309.5	5 826 52							-			206										23.0			92 6 206			310 20										 ength measured in Area measured in	
RT LT	26 26			310.1	29215 18016	· · · · · · · · · · · · · · · · · · ·						-			200											51.5		200	·						······						 vrea measured in	
54+47.0 LT RT	·····																										-						5	5		· · · · · · · · · · · · · · · · · · ·						
US 421, South Leg Lines PR-DS-ENT, PR-DS-EXT, & PR-DS																												······································														
56+73.0         62+67.0           57+41.4         58+74.2         RT           57+44.4         58+57.6         LT	А	****	12.0 18.	5 113.2	2095							3563		244 233											60.9 58.2		**	303 283													Area measured in	CADD
57+41.4         58+74.2         RT           57+44.4         58+57.6         LT           57+41.4         60+52.9         RT	17 17 18			113.2 311.6	2 302 8 832																				9.9 8.4 23.1			39 34 92		133 114	312											
57+44.4         60+52.9         LT           57+45.8         CT           57+45.8         60+52.9         CT	18 18 A2		2.7		_			vin							190				·····						22.9 1.3	89.8		92 5 190			309 17								· · · · · · · · · · · · · · · · · · ·		 ength measured in Area measured in	
57+52.6         58+57.7         LT           60+52.9         62+66.7         CT           58+74.2         62+77.0         RT	J2 A A	8.0 12.0	0.0 4.0 12.0 12.0		855									95 537									9.4		134.3		68	716													Area measured in	
58+57.6         62+77.0         LT           58+74.2         62+67.0         RT           58+57.6         62+67.0         LT	A J1 J1	6.0	12.0         12.0           6.0         6.0           6.0         6.0	392.8	3 2357									559           262           273											139.8 65.5 68.2	-		746 436 455														
58+74.2 62+67.0 RT 58+57.6 62+67.0 LT	0 0	2.0 0.0	2.0         2.0           0.3         0.2           2.0         2.0	392.8 392.8	3 786 3 65																			26.7 2.2 27.8															:			
62+67.0 62+77.0 RT 62+67.0 62+77.0 LT	J1 J1		0.3 0.2 6.7 6.4	409.4	68 72									8										2.3	_			13														
62+77.0         62+87.0         RT           62+77.0         62+87.0         LT           LT         LT	R R 26	18:7	19.2 19.0 18.5 18.0	0 10.0	190								21 21			21						21.0 21.0																			Area measured in	CADD
57+70.0 RT 58+56.0 RT	26				13367																												7	5					· · · · · · · · · · · · · · · · · · ·		 Area measured in	
58+73.0 LT APPROACH 1		ALS										0400		5661	396 8	1	0	0			0	81 0	0 20	1 160	1500.9	187.2	145	8620	0	518	1280		5	5			0	0	0 1	0 0		
					1	1	1	4				1 0 400					<u> </u>	~			-	I V	20	. 100.4	1.000.0	1.01.0	<u>}</u> ,- <del>+</del> ∪		:_ <b>v</b>	010			<u> </u>	; (			· · ·				 BPIDGE E	

				SCALE	BRIDGE FILE
	RECOMMENDED		INDIANA	None	
	FOR APPROVAL		DEPARTMENT OF TRANSPORTATION		DESIGNATION
		DESIGN ENGINEER DATE			1702989
<b>y</b>				SURVEY BOOK	SHEETS
aniconcultante	DESIGNED: JJV	DRAWN: ZJM			34 of 59
gai consultants			APPROACH TABLE	CONTRACT	PROJECT
	CHECKED: <u>REW</u>	CHECKED: <u>REW</u>		R-43059	1702989

																			PA	VEM				AND A	APPRO	ACH	TABL	E															 			
LOCATION	DESCRIPTION PROACH TYPE/CLASS OR LEGEND ITEM	WIDTH (BEGIN)	WIDTH (END)	WIDTH (AVERAGE)		LENGIA	AREA	RADII	STANCE BEYOND R/W LINE	D AGGREGATE	RM	AMH	CONCRETE	GRADE	PAVEMENT REMOVAL	ILLING, ASPHALT, 1-1/2 IN.	PCCP, 11 IN.	PCCP, 7 IN.	HMA SURFACE, TYPE B. 9.5 mm	INTERM	, 19.0 mm	HMA BASE, TYPE B, 19.0 mm	ERIALS		TACK COAT		COMPAC AGGREC NO. 5	ATE		SUBBASE FOR PCCP	CELL VEGETATED PAVEMENT SYSTEM	GRADE TREATMENT, TYPE IC	GRADE TREATMENT, TYPE II	tB AND GUTTER, CONCRETE, TYPE B	R AND GUTTER, CONCRETE, TYPE B, MODIFIED	R AND GUTTER, CONCRETE, AODIFIED (ROUNDABOUT)	RB AND GUTTER, TURNOUT CONCRETE	ONCRETE GUTTER, TYPE A							REMAI	RKS
FROM TO LT/CT/ RT CR 600 S Lines E, PR-EW, & PR-EW-ENT		FT	FT	FT			_	FT F	T FT	S S S S S S S S S S S S S S S S S S S	YS S	SYS S	YS	1 2 %	SYS		SYS	SYS	165 SYS	_	95	SYS	rd. SYS	SYS	SYS	4 CYS	5	DEPTH II 11 CYS	9	17 CYS	SYS	SYS	SYS	LFT	LFT	LFT	LFT	LFT						********		
52+89.0         54+00.0           51+00.0         51+50.0         CT           51+00.0         51+50.0         CT           51+50.0         52+76.2         RT           51+50.0         52+76.2         LT           51+50.0         52+76.2         RT           51+50.0         52+76.2         RT           51+50.0         52+76.2         RT	removal R K A A O	14 14 1	21.6 14 14 1 0.33	14. 14. 1.0 0.2	4     5       0     12       0     12       0     12       12     12       12     12	6.2 6.2	1070 339 1767 1767 126 21								384	119	196 196		119 38	_	38				119.0 76.0	4.2		4.3	49.1			252 252	60												Area measure	
51+50.0         52+76.2         LT           52+76.2         54+10.3         RT           52+76.2         54+06.9         LT           52+76.2         54+10.3         RT           52+76.2         54+06.9         LT           52+76.2         54+06.9         LT           52+76.2         54+06.9         LT           52+76.2         54+02.9         CT           52+76.2         54+10.3         RT	A A 18 18 18 18 17		1 0.33 17.5 25	14. 18. 2.7	12         12           8         13           5         13           7         13           7         13           7         2	3.0	1985 2418										221 269											4.3 0.7	55.2 67.2 9.9 9.7 1.7 9.9			280 327 40 39 7 40			135 131 23										Length measur	ed in CADD
52+76.2         54+06.9         LT           53+14.2         53+56.8         CT           53+56.8         54+02.9         CT           LT         RT           52+78.0         LT           52+78.0         RT	17 A A2 26 26	0	7	2.7 3.5	7 13 5 4	0.7 2.6 6.1	349 149										17	69											9.7 4.1	32.7		39 36 69		131			555	5							Area measure Area measure Area measure	d in CADD
54+05.0         LT           54+28         RT           US 6, East Leg           Lines PR-EE-ENT, PR-EE-EXT, & E           55+50.0         62+00.0           55+69.7         59+80.1         LT           55+70.9         59+80.2         RT	removal 18			<del></del>	7 41	0.4									3498														30.4			122			411		7 7	5							Area measure	ed in CADD
55+70.9         59+80.2         RT           55+70.9         55+74.8         CT           55+69.7         56+98.6         LT           55+70.9         56+99.3         RT           55+69.7         56+98.6         LT           55+70.9         56+99.3         RT           55+70.9         56+99.3         RT           55+70.9         56+99.3         RT           55+74.8         59+80.2         CT           59+80.2         61+72.6         CT	18 18 A 17 17 17 A2 A	21.5 24.2 7		2.6 16. 18. 2.6 2.6 3.5	8 12 1 12 7 12 7 12 40 5 19	6.5 8.9 8.3 8.9 8.3 5.4 2.4	2323 344 343 2919 673										241 258 75	324											30.4 1.2 60.2 64.5 9.6 9.5 18.7	153.2		121 5 298 315 38 38 38 324 160		129 129	410 17										Area measure	
56+98.6         62+10.0         LT           56+99.3         62+10.0         RT           56+98.6         62+10.0         LT           56+99.3         62+10.0         RT           56+98.6         62+10.0         LT           56+98.6         62+10.0         RT           56+98.6         62+10.0         LT           56+98.6         62+10.0         RT           56+98.6         62+10.0         RT	A A J1 J1 0 0 0	12 12 6 6 2 0 2 2	12 6 2 0.3 2	12. 6.0 6.0 2.0 0.2 2.0	0 51 ) 51 ) 51 ) 51 ) 51 2 51 ) 51	0.8 1.4 0.8 1.4 1.4 0.8	3068 3065 1023 77 1022										682 681 341 341	-										34.7 2.6 34.7	170.5 170.3 85.2 85.1	-		909 908 568 568														
LT RT 56+97.0 LT 56+98.0 RT	0 26 26		0.3	0.2	2 51		77 27662 10037																					2.6									5 5	5							Area measure Area measure	
Roundabout           Line CIR           10+00.0         13+39.3           10+00.0         13+39.3           10+00.0         13+39.3           10+00.0         13+39.3           10+00.0         13+39.3           10+00.1         13+39.3           10+00.0         13+39.3           10+00.1         13+39.3           10+00.0         13+39.3           10+00.1         12+29.9           LT         12+76.1           10+55.4         LT	A1 19 A 26 J2 J2 J2			2.6	7 33 33 9		906 12033 8278 2322										1337	389									35.8 20.6		97.3 25.2 334.3		258 148	464				340									Area measure Area measure Area measure Area measure Area measure	ed in CADD ed in CADD ed in CADD
APPROACH APPROACH TA FULL PRO	BLE LAST T	OTALS													3882	81 119 200	4855	782	157 3 238	3	0 38 38 ONS 0	0 0 0 TONS	0	0	195	4.2 4.2	76.5	84.6	1458.0 2967.8	185.9	406		60	524	1127	340	34		0 0 0	0 0 0	_	0	 0	0 0 0 0 0 0	)	
																		ſ					RI	Ecommene Dr approv	DED VAL			ESIGN ENG			DATE		D	EPAF	RTME		NDIA DF TF		PORTA	TION			 SCALE None		DESIG	OGE FILE GNATION 202989
																		И													DATE												 URVEY BOO			HEETS

G	RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE	DEPARTMENT
gai consultants	DESIGNED:	DRAWN: ZJM		APP
garconsultants	CHECKED: <u>REW</u>	CHECKED: <u>REW</u>		AFF

SHEETS

35 of 59

PROJECT

1702989

CONTRACT

R-43059

													STRUCTU	JRE D	ATA										
	LOCATION							•				FLO	W LINE							d	R A				
STRUCTURE NUMBER	STATION	LEFT	RIGHT	CROSS	SIZE	PIPE TYPE	MANHOLE, INLET, CATCH BASIN, OR SPECIALTY STRUCTURE	STR. RIM ELEVATION	LENGTH	SKEW	COVER	UPSTREAM	DOWNSTREAM	SERVICE LIFE	SITE	Hď	BACKFILL METHOD	BACKFILL TYPE	STRUCTURE BACKFILL	CLASS 2 RIPRAP	GEOTEXTILE FOR RIPRAP TYPE 1A	PIPE END SECTION		ed Boy Section	
									ft		ft	ELEV.	ELEV.	YR.					CU. YD.	TON	SYS.	EA.	TYPE	SLOPE	EA.
																				_		-			
10	55+44 "PR-DN"			X	18	1		· · · · · · · · · · · · · · · · · · ·	112			790.25	789.96	75	NA	8	1	1				2			
11	13+05 "CIR"	30.6	'		18	2	INLET F-7		104			790.55	790.28	75	NA	8	1	1				1			
12	57+21 "PR-DS		74.3	,	18	2			90			790.78	790.55	75	NA	8	1	1				1			
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G	RECOMMENDED FOR APPROVAL	DESIGN ENGINEER D	DATE	DEPARTMEN
gai consultants	DESIGNED: _JJV	DRAWN: ZJM		MISCEL
garconoaicanto	CHECKED: <u>REW</u>	CHECKED: <u>REW</u>		

>	SAFETY I END SEC		RETE	ICT TO TURE BER	DEMARKO
			CONCRETE ANCHOR	CONNECT TO STRUCTURE NUMBER	REMARKS
	SLOPE	EA.	EA.		
					Remove Exist. 15" CMP
				OUTFALL	
				11	
	· · · · · · · · · · · · · · · · · · ·		· · · ·		

	SCALE	BR	IDGE F	ILE			
INDIANA	None						
ENT OF TRANSPORTATION		DE	SIGNAT	TON			
			170298	9			
	SURVEY BOOK		SHEET	S			
		36	of	59			
CELLANEOUS TABLES	CONTRACT	F	ROJEC	Т			
	R-43059	1702989					