

CATEGORICAL EXCLUSION LEVEL 1 FORM

GENERAL PROJECT INFORMATION

Road No./County:	US 41, Vigo County
Designation Number(s):	1500146
Project Description/Termini:	<p>The project includes bridge removal of North Clinton Street (Old US 41) over US 41 (041-84-04322-ANBL / NBI#015050), construction of a new at-grade intersection at North Clinton Street and US 41 northbound lane (NBL), and roadway modifications between Budd Road/Quinn Avenue and Evans Avenue/Northwood Street along US 41. The project is located approximately 6.13 miles north of the Middle Junction of State Road (SR) 63.</p> <p>Project length is approximately 0.28 mile along North Clinton Street. Construction on North Clinton Street would begin approximately 160 feet south of Budd Road and continue north to Evans Avenue/Northwood Street.</p> <p>Additional construction would occur along US 41 for approximately 0.58 mile. Construction along US 41 would begin approximately 800 feet south of Budd Road/Quinn Avenue and continue north along US 41 to Evans Avenue/Northwood Street.</p>

CE Level 1 documentation for exempted projects

Additional Information to CE Level 1

Approval:

INDOT DE/ESD Signature and Date

Release for Public Involvement:

On Behalf of Zane Kurtz

BNE

June 13, 2022

INDOT DE/ESD Initials and Date

Certification of Public involvement:

INDOT Consultant Services Signature and Date

Brian M. Shaw

June 13, 2022

INDOT DE/ESD Reviewer:

Signature and Date

CE Preparer:

Brian Shaw, Beam: Longest and Neff, LLC

Name and Organization

Indiana Department of Transportation

County Vigo Route Old US 41 over US 41 Des. No. 1500146

GENERAL PROJECT INFORMATION, DESCRIPTION, AND DESIGN INFORMATION	
Purpose and Need:	<p>Need: There are two needs for this project. The primary need is the existing North Clinton Street (Old US 41) bridge over the US 41 NBL is nearing the end of its design life and needs significant improvement. The secondary need is for the improvement of driver safety at the intersection of US 41 and Evans Avenue which is immediately north of the existing bridge where crashes are occurring at a high frequency and severity.</p> <p>According to the September 9, 2021, Indiana Department of Transportation (INDOT) Bridge Inspection Report, the existing wearing surface, concrete deck, and substructure are rated in fair condition (five out of nine) and the superstructure is rated in satisfactory condition (six out of nine). The inspection also indicated both bridge approach slabs have cracking and spalling, both curb lines have spalling, the crash walls have cracking and spalling, multiple bearings are rusted, and at least one bearing is loose. The bridge deck has open joints and/or cracks which is causing leaching to occur. Leaching is visible on the underside of the bridge deck and is the likely cause for the rusting of the bearings; indicating that beam corrosion is most likely occurring. The condition of the concrete deck and substructure units indicates that the entire bridge is nearing the end of its design life; therefore, there is a need for improvements to correct the existing deterioration and deficiencies of the bridge.</p> <p>In 2019, an analysis of the US 41 and Evans Avenue intersection was completed by INDOT to evaluate intersection safety. Between 2016 and 2018, a total of 18 accidents at the intersection occurred. Of those, 16 were right-angle collisions. These types of collisions are often considered the most severe. The analysis assessed the Index of Crash Frequency (ICF) and the Index of Crash Cost (ICC) at the intersection. ICF measures the difference between the expected and documented number of crashes to determine if the frequency of crashes is reasonable or excessive compared to other similar locations. ICC measures the difference between expected and reported crash costs, which reflects the severity of the crashes compared to other similar locations. ICF and ICC are both measured in standard deviations. Values less than or equal to 0 indicate that the facility is operating as expected or better compared to similar facilities. ICF or ICC values near 2 or higher are typically considered excessive. Based on the 2019 analysis, the US 41 and Evans Avenue intersection produced an ICF = 3.33 and an ICC = 1.88; indicating that crash frequency and severity are greater than expected.</p> <p>The INDOT crash analysis attributed the causes of the high crash frequency and severity at the intersection to two primary factors: road configuration and impaired sight distances. The configuration of the US 41 and Evans Avenue divided highway crossing is inconsistent with driver expectations. Vehicles on Evans Avenue crossing US 41 must currently cross US 41 SBL and northbound Clinton Ave on the west side of the median, and then they must cross US 41 NBL on the east side of the median. The analysis indicates that drivers are not anticipating northbound travel lanes on both side of the median, elevating the risk of collisions. Vehicles traveling along US 41 are also traveling at high speeds and there is limited sight distance between the</p>

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	<p>US 41 bridge over Clinton Street and the Evans Avenue intersection, which reduces the time for drivers to perceive potential conflicts and perform the actions needed to navigate the intersection safely.</p> <p>To improve driver awareness and reduce speeds along US 41 NB near the Evans Avenue intersection, INDOT installed an Intersection Conflict Warning System (ICWS) in 2021, which uses flashing lights to alert drivers of approaching traffic. ICWS infrastructure has proved to be an effective measure of improving driver awareness at other intersections in the State of Indiana and within the United States. Given the high ICF and ICC values, however, effectiveness of the improvement at this location is still being evaluated and additional improvements are believed necessary.</p> <p>Purpose: This project has been programmed for two purposes. The first purpose is to address the existing bridge deficiencies at Clinton Street over US 41 NBL and ensure that no bridge elements receive a condition rating of less than eight (very good condition). The second purpose of the project is to improve the safety of the intersection at US 41 and Evans Avenue by reducing the frequency of crashes and achieving an ICF of 1 or less.</p>
<p>Project Description (Preferred Alternative):</p>	<p>Location The project is located along US 41 and North Clinton Street/Old US 41, Otter Creek Township, Vigo County, Section 13 and 14, Township 13 North, Range 8 West and 9 West (Appendix B, Page 2-3).</p> <p>The project is approximately 6.13 miles north of the middle junction of State Road (SR) 63, within the northern city boundary of Terre Haute, Indiana. This project is anticipated to impact portions of Clinton Street, US 41, Budd Road, Quinn Avenue, and Evans Avenue. The intersection with Clinton Street and Evans Avenue is north of the existing bridge. The Clinton Street and Budd Avenue intersection is south of the existing bridge.</p> <p>Existing Conditions The existing 222.4-foot long four-span steel beam bridge (041-84-04322-ANBL) was constructed in 1960 and rehabilitated in 1982, with deck patching and a new concrete overlay. The bridge consists of four spans, measuring 38 feet three inches, 71 feet seven inches, 38 feet three inches, and 33 feet with a 26.59-degree skew left. Out-to-out coping width is approximately 36 feet, six inches and clear roadway width is 29 feet 11 inches. The substructure consists of concrete end bents founded on concrete piles and piers founded on treated timber piles. The bridge deck, wearing surface and substructure rating are all in fair condition (five out of nine). The superstructure rating is in satisfactory condition (six out of nine) based on the most recent INDOT routine bridge inspection from September 9, 2021. The existing bridge deck has spalling in the outer bays in all four spans, some locations have patching visible. The wearing surface has transverse and longitudinal cracking. The superstructure has locations of rusting on the end bearing and around splice plates. Beams 1, 3, and 5 have cracking and spalling on the columns and cracking in the crash walls. The north bent cap is spalled at Beam 2. All components of the bridge were rated in fair condition (five out of nine) except</p>

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<p>for the superstructure which was rated in satisfactory (six out of nine) condition.</p> <p>Clinton Street and US 41 are classified as Urban Other Principal Arterials, with the portion of US 41 being classified as an Urban Minor Arterial north of Clinton Street. Budd Road and Quinn Avenue are considered local roads with no designation on the functional classification map. Evans Avenue is classified as a Major Collector. The section of US 41 within the project limits is not included in the National Highway System. The existing facility is part of the 3R roadway network.</p> <p>The paved width on US 41 is approximately 32 feet but tapers from two 12-foot lanes to one 18-foot lane under the existing Clinton Street bridge. Shoulder widths were identified as maximum five-foot width aggregate shoulders in the existing plans within the project limits. The existing bridge provides a minimum of 13.5 feet vertical clearance over US 41 NBL. No shoulder corrugations were present on either facility. Road embankment side slopes at the bridge are at a maximum of 2:1 or flatter slope. Both Budd Road and Evans Avenue consist of two 11-foot lanes, one in each direction, with earthen shoulders. Under the existing bridge, the horizontal alignment of US 41 NBL is curved. There are existing Intersection Conflict Warning System (ICWS) flashing lights present along US 41 NB at the intersection with Evans Avenue. The lights were installed in 2021 and are not anticipated to be impacted by the project. Clinton Street intersects Budd Road approximately 500 feet south of the existing bridge and Evans Avenue approximately 1000 feet north of the existing bridge.</p> <p><u>Preferred Alternative</u></p> <p>Overview: The preferred alternative will reconfigure the road design and access between US 41, Clinton Street, and Evans Avenue. It will remove the existing four-span bridge over US 41 NBL, eliminate the segment of Clinton Street between the northbound and southbound lanes of US 41, and construct a new at-grade intersection at Clinton Street and US 41 NBL. The fill sections for the Clinton Street bridge approaches will be reduced or removed, and the embankments will be regraded. This will improve sight distance from the Evans Avenue intersection and for vehicles approaching Evans Avenue along US 41 NBL. This configuration will remove the conflict point created by northbound Clinton Street at the Evans Avenue intersection, and sight distances will be improved, increasing driver response times. These changes will address both purposes of this project by eliminating the Clinton Street bridge, and the associated deficiencies, and by improving driver safety at the Evans Avenue Intersection. See Appendix I page 50 for a schematic of the preferred alternative.</p> <p>Removing the bridge, constructing the intersection, and eliminating the segment of Clinton Street north of US 41 NBL will alter the access points between these roads. Clinton Street traffic will access US 41 NBL at the new intersection. Clinton Street traffic will access US 41 SBL by using US 41 NBL</p>
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	<p>and Evans Avenue. US 41 NBL traffic will access Clinton Street at the new intersection. US 41 SBL traffic will access Clinton Street by first being redirected onto US 41 NBL, and then to Clinton Street via the new intersection. Rerouting of the US 41 from southbound to northbound involves the construction of a new Reduced Conflict Intersection (RCI), specifically a J-turn intersection, which will be constructed at the existing US 41 intersection with Budd Road/Quinn Avenue (see Appendix I page 50). Constructing the RCI will eliminate the access between Budd Road and US 41, which will instead use the new Clinton Street intersection. The new configuration and turning movements between US 41, Clinton Street, and Evans Avenue ensure that all previously existing road access is maintained.</p> <p>Construction Details: Clinton Street will be reconstructed from approximately 160 feet south of Budd Road to US 41 NBL. Removing the fill sections of the bridge approaches will lower the road elevation for Clinton Street south of the intersection. The new at-grade intersection will consist of uninterrupted flow along US 41 NBL and be stop-controlled on northbound Clinton Street. Access will be limited to right-in and right-out only. Clinton Street north of the intersection will be eliminated. See Appendix B, pages 65 and 73.</p> <p>The Budd Road approach at Clinton Street will be reconstructed to match the lowering of the roadway required for the proposed bridge removal and construction of the at-grade intersection at US 41 NBL. Budd Road access at US 41 will be eliminated and a cul-de-sac will be constructed adjacent to US 41. See Appendix B, page 67 and 75.</p> <p>SB US 41 traffic intending to travel south on Clinton Street will no longer cross over US 41 NBL via the existing bridge. Instead, it will be directed to a new Reduced Conflict Intersection (RCI), also known as a J-turn, located south of the proposed at-grade intersection at the existing Budd Road/Quinn Avenue and US 41 intersection (See Appendix B, page 66 and 74). As described in Alternative 3, changing the north segment of Clinton Street to a one-way southbound road was considered as a way of providing access from US 41 SBL to Clinton Street. However, this will create an additional intersection within the curve along NB US 41 and the intersection will still present similar conflict points that exist within the existing condition and in a less desirable location; therefore, the RCI was proposed to eliminate the conflict points and improve driver safety. SB US 41 traffic intending to travel south on Clinton Street will be required to merge into the auxiliary left turn lane, complete a U-turn, travel north along NB US 41, and make a right turn at the new at-grade intersection onto Clinton Street. Additional pavement, also known as a loon, will be constructed along the outside shoulder of NB US 41 at the RCI to accommodate vehicles with a larger turning radius to complete the U-turn. The intent of the RCI intersection is to allow drivers to only be concerned with one direction of traffic on the highway or major roadway at a time by separating the thru traffic and left turning movements. Rerouting traffic in this manner reduces conflict points that are most likely to result in right angle crashes; therefore, providing increased driver safety along both the major and minor roadways.</p>
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	<p>At an RCI, motorists approaching divided highways from a minor roadway are not permitted to make a left turn or cross traffic. Instead of attempting to cross fast-moving lanes of traffic to get to opposing lanes, drivers are required to turn right onto the highway and then make a U-turn at a designated median opening in the direction in which they intend to travel. The Quinn Avenue approach at US 41 will be modified to allow NB US 41 left turns to enter Quinn Avenue, but to only allow right-in and right-out access along SB US 41. See Appendix B, page 67 and 75. The NB US 41 to westbound Quinn Avenue auxiliary left turn lane and median crossover will be maintained, but the left-turn movement from NB US 41 to Quinn Avenue will be separated from the U-turn movement for SB US 41 that ultimately facilitates southbound Clinton Street traffic. A new U-turn to facilitate the Quinn Avenue to NB US 41 movement will be constructed south of proposed RCI. The new RCI in this location maintains access to Quinn Avenue and facilitates access to Clinton Street from SB US 41, while also attributing to the elimination of the conflict points at Evans Avenue.</p> <p>The existing Intersection Conflict Warning System (ICWS) along US 41 NBL and at the intersection of Evans Avenue and US 41 will not be impacted and will remain operational following the completion of the project.</p> <p>Pavement markings and signing within the project limits will be replaced as necessary for the new roadway configuration.</p> <p>Drainage patterns will be perpetuated in the proposed alternative. Drainage structures will be modified as needed to accommodate the new roadway configuration and to meet the current INDOT hydraulic requirements.</p> <p>This alternative will meet the purpose and need for addressing deficiencies and deterioration of the existing Clinton Street (Old US 41) bridge over US 41 NBL by removing it and eliminating the need for long-term maintenance costs and future repairs. It will also improve the functionality and safety of the US 41 and Evans Avenue intersection, by reducing conflict points that exhibit frequent and severe crashes by eliminating one of the NB US 41 travel lanes, and by improving sight distance at Evans Avenue and when traveling along the NB US 41. In combination with the recently installed Intersection Conflict Warning System (ICWS), this alternative is believed to be capable of reducing the Index of Crash Frequency (ICF) of the US 41 and Evans Avenue intersection to be less than a value of 1.00. In addition, this alternative improves upon the overall safety of the corridor by also reducing conflict points at the Budd Road/Quinn Avenue intersection.</p> <p>The southern project terminus along US 41 is approximately 800 feet south of the Budd Road and US 41 intersection. The northern terminus along US 41 is the intersection of Evans Avenue/Northwood Street. The southern terminus along Clinton Street is approximately 160 feet south of the Budd Road and Clinton Street intersection. The Clinton Street northern terminus is at the intersection of Evans Avenue/Northwood Street. Efforts to avoid, minimize, or mitigate project impacts will be made, including minimizing the amount of tree</p>
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clearing required. Further avoidance, minimization, and mitigation efforts are described in the commitments section of this document.

These termini are logical in that they include enough area to safely complete the project with the least amount of disruption to the surrounding community and motoring public. This project demonstrates independent utility because it will address the deficiencies of the Clinton Street (Old US 41) bridge and improve the functionality and safety of the existing system without the need for additional improvements and/or projects.

Maintenance of Traffic
 Traffic will be maintained on US 41 utilizing lane shifts and sequencing to construct all proposed US 41 improvements. Short duration (i.e., 10 to 15 minute) closures at night are anticipated for NB US 41 for a one-to-two-night period to drop each beam from the existing bridge. Advanced signage, portable changeable message boards, and other appropriate measures will be implemented to notify the traveling public.

Clinton Street from Budd Road to US 41 NB will be closed until the lowered roadway and at-grade intersection with the US 41 NBL is constructed. Access for local traffic to Clinton Street will be provided by Budd Road and/or adjacent roadways via a local detour consisting of Clinton Street and Hasselburger Avenue. Upon completion, Budd Road will be permanently closed at the Budd Road and US 41 intersection, and access will be provided from Clinton Street only. Access to Quinn Avenue will be maintained through phased construction. Access to and from Evans Avenue/Northwood Drive will be maintained throughout the project duration. See Appendix I page 8 for an MOT sequence of construction.

Other Alternatives Considered:	There were eleven alternatives considered for the project. Information for each alternative is presented below.		
	Table 1 Summary of Design Alternatives		
	Number	Description	Graphic Depiction
	1	No Nothing	NA
	2	Remove Existing Bridge. Remove North Segment of Clinton Street. Reroute All US 41/Clinton Street Traffic Along Budd Road.	App. I-Page 44
3	Replace Existing Bridge with At-Grade, 4-Leg Intersection. Convert North Segment of Clinton Street to One-Way Southbound.	App. I-Page 45	
4	Replace Existing Bridge with At-Grade, 3-Leg Intersection. Remove North Segment of Clinton Street. Reroute US 41 SBL to Clinton Street Along Budd Road.	App. I-Page 46	

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5	Remove Existing Bridge. Realign US 41 Southbound Lanes Toward the East. Construct At-Grade Intersection at Clinton Street. Reconstruct Evans Avenue Intersection.	App. I-Page 47
6	Bridge Deck Replacement	App. I-Page 48
7	Bridge Deck Replacement, Raise Superstructure to Provide 16 Feet of Vertical Clearance.	App. I-Page 49
8	Preferred Alternative Replace Existing Bridge with At-Grade, 3-Leg Intersection. Remove North Segment of Clinton Street. Construct J-Turn for US 41 SBL Access To Clinton Street.	See Project Description
9	Replace Existing Bridge with At-Grade, 4-Leg Intersection. Replace North Segment of Clinton Street with a One-Way Exit Ramp from US 41 SBL. Construct Ramp from NB Clinton Street onto US 41 NBL.	App. I-Page 51
10	Replace Existing Bridge with At-Grade, 3-Leg Intersection. Reroute US 41 NBL onto NB Clinton Street and Remove US 41 NBL Curve. Construct Signalized Intersection at US 41 and Evans Avenue.	App. I-Page 52
11	Replace Existing Bridge with At-Grade, 4-Leg, Signalized Intersection. Reroute US 41 NBL onto NB Clinton Street. Reroute Evans Avenue Southward to Signalized Intersection at Clinton Street.	App. I-Page 53

Table 2: Summary of Alternatives Analysis

Number	Preliminary Construction Cost *	Meets Purpose & Need	Rationale for Eliminated
1	NA	No	Does not meet Purpose & Need
2	\$517,000	Yes	Does meet Purpose and Need. Neither the Crawfordsville District nor Vigo County preferred to reroute traffic onto Budd Road, as it would shift the traffic and maintenance burden from the state highway department to the local transportation department. Additionally,

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			while this alternative does appear to have a lower construction cost estimate, the construction cost estimate did not account for the costs for the necessary roadway improvements along Budd Road to facilitate the additional traffic. The additional costs were not formally estimated in the Engineer's Report but are believed to be costly enough to exceed that of the preferred alternative.
3	\$3,342,000	Yes	Does meet Purpose and Need. The preliminary construction cost estimate for this alternative was twice the cost (\$3,342,000) of the preferred alternative.
4	\$1,185,000	Yes	Neither the Crawfordsville District nor Vigo County preferred to reroute traffic onto Budd Road, as it would shift the traffic and maintenance burden from the state highway department to the local transportation department.
5	\$2,765,000	Yes	The preliminary construction cost estimate was \$2,765,000, approximately \$1.1 million above the preliminary estimate of the preferred alternative and it would require the removal of the recently installed ICWS.
6	\$915,000	No	Does not meet purpose & need
7	\$1,625,000	No	Does not meet purpose & need
8	\$ 1,606,000 ** \$1,490,000	Yes	Preferred Alternative
9	\$2,491,000	Yes	The preliminary construction cost estimated was \$2,491,000, approximately \$900,000 more than the preliminary construction cost estimate of the preferred

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			alternative. It would require the removal of the recently installed ICWS, which may not reduce the ICF to a value of 1.0 or less.
10	\$4,261,000	Yes	The preliminary construction cost estimated was more than the preliminary construction cost estimate of the preferred alternative.
11	\$4,317,000	Yes	The preliminary construction cost estimated was more than the preliminary construction cost estimate of the preferred alternative.

***Cost information is provided from the approved Engineering Assessment Report in Appendix I.**

**** Current Construction Cost**

Alternative 1: Do Nothing.

This alternative would allow the existing roadway and bridge to remain in place with no improvements. This neither addresses the need of the deteriorating structure nor the purpose of improving the functionality and safety of the area.

Alternative 2: Remove the Existing Bridge Remove North Segment of Clinton Street. Reroute All US 41/Clinton Street Traffic Along Budd Road.

This alternative would remove the existing four-span bridge and portions of Clinton Street and reroute traffic onto Budd Road to access US 41 (See Appendix I, page 44). The pavement north of the intersection with Budd Road and Clinton Street would be removed along with portions of pavement north of the existing bridge up to US 41 SBL. Stop signs would be installed on Clinton Street for the turn onto Budd Road to the south and just north of the existing bridge to reroute traffic. Based on the current condition of Budd Road, the existing pavement would be milled and resurfaced. The US 41 and Clinton Street intersections with Budd Road would need to be upgraded for trucks to make right turn movements onto US 41 NBL and also onto Clinton Street. The left turn lane from US 41 SBL onto Budd Road may need to be extended to accommodate the Clinton Street traffic now routed onto Budd Road. No improvements are anticipated at Evans Avenue for this alternate. No additional right-of-way (ROW) is anticipated for this alternate.

This alternative was not selected because neither the Crawfordsville District nor Vigo County wanted to reroute traffic onto Budd Road, which would shift the traffic and maintenance burden from the state transportation department

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	<p>to the local highway department. Budd Road would require significant upgrades to accommodate traffic. Additionally, while this alternative had a much lower preliminary construction cost estimate (\$517,000), however, the construction cost estimate did not account for the costs for the necessary roadway improvements along Budd Road to facilitate the additional traffic. The additional costs were not formally estimated in the Engineer's Report but are believed to be costly enough to exceed that of the preferred alternative.</p> <p>Alternative 3: Replace Existing Bridge with At-Grade, 4-Leg Intersection. Convert North Segment of Clinton Street to One-Way Southbound.</p> <p>This alternative would remove the existing four-span bridge and lower Clinton Street to the same elevation as the existing US 41 NBL and construct a new intersection at Clinton Street and US 41 NB (See Appendix I, page 45). Approximately 1500 feet of Clinton Street would be reconstructed to meet current roadway geometric standards. Stop signs would be installed for Clinton Street at US 41 and the US 41 northbound lane would remain unchanged. Due to the lowering of Clinton Street, the southbound portion of US 41 would also need to be lowered. Approximately 900 feet of the US 41 southbound ramp lane would need to be lowered and reconstructed to facilitate SB US 41 access to Clinton Street. The proposed work would include converting the north segment of Clinton Street to one-way southbound only.</p> <p>This work would also include lowering the intersection at Budd Road and Clinton Street by approximately two feet. Budd Road would be reconstructed for approximately 375 feet to accommodate the intersection lowering. An additional 100 feet of Budd Road would be milled and resurfaced. No improvements at Evans Avenue are anticipated for this alternate.</p> <p>This alternative would meet the project purpose and need; however, it would create an additional conflict point within a high speed curve along NB US 41 which is undesirable. Therefore the RCI was proposed to eliminate the conflict points and improve driver safety and expectations. The preliminary construction cost estimate for this alternative was twice the cost (\$3,342,000) of the preferred alternative.</p> <p>Alternative 4: Replace Existing Bridge with At-Grade, 3-Leg Intersection. Remove North Segment of Clinton Street. Reroute US 41 SBL to Clinton Street Along Budd Road.</p> <p>This alternate would remove the existing four span bridge and lower Clinton Street to the same elevation as the existing US 41 NBL and construct a new intersection for northbound Clinton Street at US 41 NB (See Appendix I, page 46). Approximately 700 feet of Clinton Street would be reconstructed. The reconstructed intersection with US 41 NBL would include a right turn lane for US 41 NBL onto southbound Clinton Street and a right turn onto US 41 NBL for northbound Clinton Street traffic. Traffic utilizing southbound US 41 would be directed to Budd Road to continue to Clinton Street. A majority of the</p>
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	<p>embankment for Clinton Street between Budd Road and US 41 NBL would be removed to reduce the Clinton Street elevation to US 41 NBL. The section of Clinton Street north of US 41 NBL would be removed; however, some of the embankment may remain and approximately 700 feet of pavement removal would be required. Clinton Street would be reconstructed to meet current roadway geometric standards. Stop signs would be installed at Clinton Street as US 41 and the northbound lane of US 41 would remain unchanged. This work would also include lowering the intersection at Budd Road and Clinton Street by approximately two feet. Budd Road would be reconstructed for approximately 375 feet to accommodate the lowering of the intersection at Clinton Street. An additional 100 feet of Budd Road would be milled and resurfaced. No improvements or additional right-of-way (ROW) are anticipated at Evans Avenue for this alternative.</p> <p>This alternative would meet the purpose and need but was not selected because neither the Crawfordsville District nor Vigo County wanted to reroute traffic onto Budd Road, because it would shift the traffic and maintenance burden from the state highway department to the local transportation department. Budd Road would require significant upgrades to accommodate traffic. The preliminary construction cost estimate for this alternative (\$1,185,000) was slightly less than the preferred alternative.</p> <p>Alternative 5: Remove Existing Bridge. Realign US 41 Southbound Lanes Toward the East. Construct At-Grade Intersection at Clinton Street. Reconstruct Evans Avenue Intersection.</p> <p>This alternate would remove the existing four-span bridge and lower Clinton Street to the same elevation as the existing US 41 NBL and construct a new intersection at Clinton Street at US 41 NB (See Appendix I, page 47). Approximately 700 feet of Clinton Street is anticipated to be reconstructed and another 600 feet for construction of a ramp for NB Clinton Street to NB US 41. The intersection would include a right turn for US 41 NBL onto Clinton Street and a slip ramp onto US 41 for northbound Clinton Street traffic. The reconstruction length of Clinton Street is anticipated to be approximately 2230 feet. A median crossing and a left-turn lane would be constructed for US 41 SBL to turn left onto southbound Clinton Street. The reconstructed lane will match the existing northbound lane which meets the design speed of 45 miles per hour (mph). A majority of the embankment for Clinton Street between Budd Road and US 41 NBL would be removed to reduce the elevation of Clinton Street down to US 41. The section of Clinton Street north of US 41 NBL would be removed, however, some of the embankment may remain, only pavement removal is required. Approximately, 1100 feet of pavement is anticipated to be removed. Clinton Street would be reconstructed to meet current roadway geometric standards The northbound Clinton Street ramp onto US 41 NBL would not be stop-controlled and include a merging 18-foot-wide lane.</p> <p>This work would relocate SB US 41 closer to the US 41 NB lanes, which would require removing the existing US 41 SB curve and part of Clinton Street. This work will also include lowering the intersection at Budd Road and</p>
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	<p>Clinton Street by approximately two feet. An additional 100 feet of Budd Road would be milled and resurfaced. The intersection at Evans Avenue would also be reconstructed between the north and southbound US 41 lanes. The new southbound ramp lane would provide improvements at the Evans Avenue intersection by eliminating one of the existing northbound US 41 conflict points. It is anticipated that this alternative would require ROW purchase for the new slip ramp from Clinton Street to US 41 NBL.</p> <p>This alternative does meet the purpose and need, but the alternative was not selected because the preliminary construction cost estimate was \$2,765,000, approximately \$1.1 million above the preliminary estimate of the preferred alternative and it would require the removal of the recently installed ICWS.</p> <p>Alternative 6: Bridge Deck Replacement.</p> <p>This alternative would remove the existing concrete bridge deck and replace it with a new concrete composite bridge deck (See Appendix I, page 48). The existing end bents would be converted to a semi-integral to eliminate the bridge joints. The existing approach slabs would also be removed and replaced. Current standard FC bridge railing would be installed to replace existing aluminum bridge railing. The existing approach guardrail would be removed and replaced. Approximately 50 feet of pavement resurfacing is anticipated at each end of the bridge. No painting of the existing steel beams would be included in this alternative. No additional ROW is required with this alternative, and no improvements would be made to Evans Avenue.</p> <p>The preliminary construction cost estimate is \$915,000 and would be lower than the preliminary cost estimate of the preferred alternative. This alternative was not selected because it would not meet the purpose or need of reducing the frequency and severity of crashes at the Evans Avenue intersection.</p> <p>Alternative 7: Bridge Deck Replacement. Raise Superstructure to Provide 16 Feet of Vertical Clearance.</p> <p>This alternative would remove the existing concrete bridge deck and replace it with a new concrete composite bridge deck (See Appendix I, page 49). The bridge superstructure would be raised by approximately 2.5 feet to provide 16 feet of vertical clearance over US 41 NBL. End bents would be converted to semi-integral to eliminate the existing joints. Pedestals would be constructed on each pier cap to raise the bridge. The existing approach slabs would also be removed and replaced. Current standard FC bridge railing would be installed to replace the existing aluminum bridge railing. The existing out-to-out coping would be maintained at 36.5 feet which provides a 33.5-foot clear roadway. A Level One Design Exception would be required for shoulder width. The existing approach guardrail would be removed and replaced. Approximately 290 feet of pavement reconstruction is anticipated at each end of the bridge, resulting in a total project length of 800 feet.</p>
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	<p>It is anticipated that this alternative would require ROW purchase due to the Clinton Street grade raise. No improvements would be made to Evans Avenue.</p> <p>This alternative was not selected because the preliminary construction cost estimate is \$1, 625,000 and would be higher than the preliminary cost estimate of the preferred alternative. Also, it would not meet the purpose or need of the project to reduce the frequency and severity of crashes at the Evans Avenue intersection.</p> <p>Alternative 8: Preferred Alternative: Replace Existing Bridge with At-Grade, 3-Leg Intersection. Remove North Segment of Clinton Street. Construct J-Turn for US 41 SBL Access To Clinton Street.</p> <p>This is the preferred alternative selected for the project (See Appendix I, page 50). Refer to the Preferred Alternative section of this document for a complete description.</p> <p>Alternative 9: Replace Existing Bridge with At-Grade, 4-Leg Intersection. Replace North Segment of Clinton Street with a One-Way Exit Ramp from US 41 SBL. Construct Ramp from NB Clinton Street onto US 41 NBL.</p> <p>This alternative would remove the existing four-span bridge, lower Clinton Street to the same elevation as US 41 NBL and construct a new intersection at Clinton Street at US 41 NBL (See Appendix I, page 51). Approximately, 1400 feet of Clinton Street would be reconstructed, and an additional 100 feet milled and resurfaced at the north end of the project.</p> <p>The new intersection would include a right turn lane for US 41 onto south Clinton Street and a slip ramp lane onto US 41 NBL for northbound Clinton Street. Clinton Street north of US 41 NBL would be removed and reconstructed for the Southbound Clinton Street exit from SB US 41. A majority of the embankment would be removed to accommodate lowering the southbound Clinton Street exit ramp from SB US 41. The southbound Clinton Street exit ramp from southbound US 41 would be stop controlled by a red flashing light with stop signs at US 41 NBL.</p> <p>Lowering the intersection at Budd Road and Clinton Street by two feet is also included in this alternative to meet geometric requirements for constructing the at grade intersection at Clinton Street and US 41 NB. Three hundred and seventy-five feet of Budd Road would be reconstructed to accommodate lowering the Clinton Street intersection. An additional one hundred feet of Budd Road would be milled and resurfaced. It is anticipated that new ROW will be required for the new ramp lane from Clinton Street to US 41 NBL and for the right turn from US 41 NBL to Clinton Street.</p> <p>This alternative would meet the purpose and need for the bridge deficiencies and is believed to reduce the crash frequency and severity. This alternative was not selected because it would require the removal of the recently</p>
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	<p>installed ICWS, which may not reduce the ICF to a value of 1.0 or less and would also create an additional conflict point within a high-speed curve along NB US, 41 which is undesirable. Therefore the RCI was proposed to eliminate the conflict points and improve driver safety and expectations. The preliminary construction costs were estimated at \$2,491,000, approximately \$900,000 more than the preferred alternative's estimate.</p> <p>Alternate 10: Replace with At-Grade, 3-Leg Intersection. Reroute US 41 NBL onto NB Clinton Street and Remove US 41 NBL Curve. Construct Signalized Intersection at US 41 and Evans Avenue.</p> <p>This alternate would remove the existing four-span bridge and lower Clinton Street approximately eight feet at the bridge while raising US 41 NBL approximately 10 feet to create a new signalized intersection at Clinton Street and US 41 NBL (See Appendix I, page 52). Approximately 1350 feet of Clinton Street would be reconstructed, and an additional 400 feet would be milled and resurfaced. The new intersection would include a right and left turn for US 41 NBL onto Clinton Street/US 41 NBL as US 41 NB is being rerouted onto Clinton Street, and the NB curve beyond the existing bridge would be eliminated. The Clinton Street alignment would remain the same as the existing. Embankment removal would be required for Clinton Street between Budd Road and Evans Avenue to reduce the elevation of Clinton Street at the existing bridge location. Approximately half the embankment would be removed and the area under the existing bridge would be filled in with new material to raise the intersection. A short section of MSE wall would be anticipated along the south side of the intersection of US 41 and Clinton Street.</p> <p>Approximately 600 feet of the US 41 southbound exit ramp from US 41 SB would be reconstructed due to the lowering of Clinton Street north of the new intersection. Along US 41 approximately 600 feet of the US 41 NB and SB pavement would be anticipated to be reconstructed and an additional 100 feet of pavement would be resurfaced to the south. A new signal would be installed at the intersection of Clinton Street of US 41 NBL.</p> <p>This work would also include lowering the Budd Road and Clinton Street intersection by approximately two feet. Budd Road would be reconstructed for approximately 375 feet to accommodate the lower intersection at Clinton Street. An additional 100 feet of Budd Road would be milled and resurfaced. Four hundred feet of Evans Avenue would be reconstructed, and a new signal would be installed at Evans Avenue and US 41. It is anticipated that this alternative would require purchasing ROW in order to raise US 41 and also for reconstruction of Evans Avenue.</p> <p>This alternative would meet the purpose and need for the project. This alternative was not selected because the preliminary construction cost for this improvement exceeded the preliminary construction cost estimate for the preferred alternative. In addition, it would require the removal of the recently installed ICWS.</p>
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	<p>Alternative 11: Replace Existing Bridge with At-Grade, 4-Leg, Signalized Intersection. Reroute US 41 NBL onto NB Clinton Street. Reroute Evans Avenue Southward to Signalized Intersection at Clinton Street.</p> <p>This alternative would remove the existing four-span bridge and lower Clinton Street approximately eight feet at the bridge while raising US 41 NBL approximately 10 feet to create a new signalized intersection at Clinton Street, US 41 NBL, and Evans Avenue (See Appendix I, page 53). Approximately 1300 feet of Clinton Street would be reconstructed, and an additional 150 feet milled and resurfaced. US 41 NB would be rerouted onto Clinton Street, that the existing Evans Avenue intersection would be eliminated, and Evans Avenue would be rerouted south along the previous US 41 NB alignment. The new intersection would include a right and left turn for US 41 NBL onto Clinton Street/US 41 NBL and a through movement to Evans Avenue. The Clinton Street alignment would remain the same. Embankment removal would be required for Clinton Street between Budd Road and Evans Avenue to reduce the elevation of Clinton Street at the existing bridge location. Approximately half of the embankment would be removed and the area under the existing bridge would be filled in with new material to raise the intersection. Clinton Street would be reconstructed to meet current roadway geometric standards. A short section of MSE wall is anticipated along the south side of US 41 at the intersection with Clinton Street.</p> <p>Approximately 600 feet of US 41 southbound ramp would also be reconstructed due to lowering Clinton Street north of the new intersection. Remaining portions of the ramp would be milled and resurfaced. Approximately 600 feet of US 41 NBL would be anticipated to be reconstructed and an additional 100 feet resurfaced to the south. The 600 feet of reconstruction pavement would include a new southbound lane to connect Clinton Street to US 41 southbound from the intersection. A new signal would be installed at the intersection of Clinton Street and US 41 NBL.</p> <p>This work would also include lowering the Budd Road and Clinton Street intersection by approximately two feet. Budd Road would be reconstructed for approximately 375 feet to accommodate the lowering of the intersection at Clinton Street. An additional 100 feet of Budd Road would be milled and resurfaced. Evans Avenue would be reconstructed for approximately 1300 feet. Evans Avenue would carry both east and westbound traffic. The new section of Evans Avenue would need to be signed for 30 mph as the northern-most curve will need to be minimized to avoid impacting the church located on the south side of the roadway. Evans Avenue may be reposted for 40 mph past the end of the project.</p> <p>This alternative would meet the purpose and need for the project. This alternative was not selected because the preliminary construction cost for this improvement exceeded the preliminary construction cost estimate for the preferred alternative. In addition, it would require the removal of the recently installed ICWS.</p>
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Funding Source(s):	<input checked="" type="checkbox"/> Federal	<input checked="" type="checkbox"/> State	<input type="checkbox"/> Local	<input type="checkbox"/> Other
Project Sponsor:	Indiana Department of Transportation- Crawfordsville District			
Estimated Cost:	\$2.89 million FY 2022	Project Length:	US 41: 0.59 mile; Clinton Street: 0.29 mile	
Public Involvement:			No:	Yes: X
<p>Notice of Entry Letters were mailed to potentially affected property owners near the project area on March 15, 2021, notifying them about the project and that individuals responsible for land surveying and field activities may be seen in the area. A sample copy of the Notice of entry letter is included in Appendix G, Page 1.</p> <p><u>Project Does Meet</u> The project does meet the minimum requirements described in the current <i>Indiana Department of Transportation (INDOT) Project Development Public Involvement Procedures Manual</i> which requires the project sponsor to offer the public an opportunity to submit comments and /or request a public hearing. The project will substantially change the layout or functions of connecting roadways and the facility being improved. Therefore, a legal notice will appear in a local publication contingent upon the release of this document for public involvement. This document will be revised after the public involvement requirements are fulfilled.</p>				
Right-of-Way:			No: X	Yes:
<p>The existing right-of-way (ROW) limits along Clinton Street and US 41 vary in width in the project area. US 41 NBL ROW limits vary from 38 feet to 87 feet along the south and east side of US 41 NBL and were measured from the alignment of the US 41 NBL, Line "NBR", which is approximately the inside edge of pavement. Clinton Street ROW limits vary from 38 feet to 67 feet along the east side and from 45 feet to 55 feet along the west side of the Clinton Street centerline. A display presenting ROW limits for the project can be found in Appendix I, Page 9. Also see Appendix B, pages 46 to 52 for ROW references.</p> <p><u>No right-of-way (ROW) required</u> This project will occur within the existing ROW. No permanent or temporary ROW will be required for this project.</p> <p>If the scope of work or permanent or temporary ROW amounts change, the INDOT Environmental Services Division (ESD) and the INDOT District Environmental Section will be contacted immediately.</p>				
Maintenance of Traffic (MOT) During Construction:			No:	Yes: X
<p>Traffic will be maintained on US 41 utilizing lane shifts and sequencing to construct all proposed US 41 improvements. Short duration (i.e., 10 to 15 minute) closures at night are anticipated for NB US 41 for a one-to-two-night period, to drop each beam from the existing bridge. Advanced signage, portable changeable message boards, and other appropriate measures will be implemented to notify the traveling public.</p> <p>Clinton Street from Budd Road to US 41 NB will be closed until the lowered roadway and at-grade intersection with the US 41 NBL is constructed. Access for local traffic to Clinton Street will be provided by Budd Road and/or adjacent roadways via a local detour consisting of Clinton Street and</p>				

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Hasselburger Avenue. Upon completion, Budd Road will be permanently closed at the Budd Road and US 41 intersection and access will be provided from Clinton Street only. Access to Quinn Avenue will be maintained through phased construction. Access to and from Evans Avenue/Northwood Drive will be maintained throughout the project duration. A display presenting MOT sequencing for the project can be found in Appendix I, Page 8).

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 and delays will cease upon project completion.

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

Presence

Bridge 041-84-04322-ABL (NBI#015050) is currently in need of improvements due to deteriorating conditions and will be removed. The existing superstructure was constructed in 1960 and rehabilitated with a bridge deck overlay in 1982. It is not eligible for inclusion in the National Register of Historic Places because it represents a common example of its type and is therefore not in the Indiana Historic Bridge Inventory. Currently, the existing wearing surface, concrete deck, and substructure are rated in fair condition (five out of nine) and the superstructure is rated in satisfactory condition (six out of nine) according to the September 9, 2021, INDOT Bridge Inspection Report. This bridge is being removed as part of this project.

Structure Number 63 is a 27-inch by 18-inch culvert that conveys drainage from the southwest side of North Clinton Street under US 41 NBL into the median infield. This culvert does not meet roadway serviceability requirements and will be filled and abandoned in place. The existing culvert would be replaced by Structure No. 18, a 60-inch by 18-inch, approximately 100-foot-long, concrete elliptical pipe with two grated box ends that passes under Clinton Street at the proposed intersection (Appendix, B, Page 65).

Structure Number 19 will be a new 60-inch by 38-inch, approximately 207-foot long, concrete elliptical pipe with two grated box end sections located along the outside shoulder of US 41 NB, east of Clinton Street (Appendix B, Page 65). It is not a replacement but is a new structure that will help convey drainage from Structure Number 18.

IDENTIFICATION AND EVALUATION OF IMPACTS

Early Coordination:

Early coordination letters were sent on June 25, 2021, Appendix C, Page 1.

<u>Agency</u>	<u>Date Sent</u>	<u>Date Response Received</u>	<u>Appendix</u>
Indiana Geological Water Service	June 25, 2021	June 25, 2021	Appendix C, Page 5
United States Fish and Wildlife Service	June 25, 2021	July 13, 2021	Appendix C, Page 8
Natural Resources Conservation Service	June 25, 2021	July 15, 2021	Appendix C, Page 10

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Indiana Department of Natural Resources Division of Fish and Wildlife	June 25, 2021	July 23, 2021	Appendix C, Page 11
INDOT Environmental Service Division (ESD)	February 16, 2022	February 16, 2022	Appendix C, Page 13
United States Fish and Wildlife Service (USFWS-IPaC)	August 27, 2021	August 27, 2021	Appendix C, Page 15 Appendix C, Page 28
Indiana Department of Environmental Management Wellhead Proximity (Automatic)	June 25, 2021	June 25, 2021	N/A
United States Department of Urban Housing & Urban Development	June 25, 2021	No response	N/A
National Park Service	June 25, 2021	No response	N/A
INDOT Crawfordsville Environmental Section Manager	June 25, 2021	No response	N/A
INDOT Crawfordsville Project Manager	June 25, 2021	No response	N/A
INDOT Office of Aviation	June 25, 2021	No response	N/A
Vigo County Emergency Management Agency	June 25, 2021	No response	N/A
IDEM Office of Water Quality, Storm Water Program	June 25, 2021	No response	N/A
US Army Corps of Engineers, Louisville District	June 25, 2021	No response	N/A
Thrive West Central	June 25, 2021	No response	N/A
Christus Victor Lutheran Church	June 25, 2021	No response	N/A
Federal Highway Administration	June 25, 2021	No response	N/A

In his response on February 16, 2022, Ron Bales from INDOT ESD stated that the traffic alterations for this project do not constitute enough of a traffic pattern change to warrant a CE document higher than a CE 1. The project scope of work would include a change in facility, so public involvement is required, per the INDOT Project Development Public Involvement Procedures Manual. At a minimum, the opportunity to request a public hearing or submit comments is necessary as part of the project. Appendix C, page 13.

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

Streams, Rivers, and Other Jurisdictional Features Impacted:	No: X	Yes:
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No presence, no impact

Based on the desktop review, the aerial map of the project area (Appendix B, Page 4), and the RFI report (Appendix E, Page 3) there are no streams, rivers, watercourses, or other jurisdictional features within the 0.5 mile search radius. There are no streams, rivers, watercourses, or other jurisdictional features within or adjacent to the project area, which was confirmed by site visits on May 5, 2021, and August 12, 2021, by BLN. Therefore, no impacts are expected.

A Waters of the US Determination / Wetland Delineation Report was approved by INDOT Ecology and Waterway Permitting Office on March 10, 2022. Please refer to Appendix F, page 1 for the Waters of

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the US Determination / Wetland Delineation Report. It was determined that no likely jurisdictional waterways were present within the project area. The U.S. Army Corps of Engineers (USACE) makes all final determinations regarding jurisdiction.

Open Water Feature(s):	No :X	Yes:
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No presence, no impact
 Based on the desktop review, the aerial map of the project area (Appendix B, Page 4), and the RFI report (Appendix E, Page 3) there are no open water features within the 0.5 mile search radius. There are no open water features within or adjacent to the project area, which was confirmed by site visits on May 5, 2021, and August 12, 2021, by BLN. Therefore, no impacts are expected.

A Waters of the US Determination / Wetland Delineation Report was approved by INDOT Ecology and Waterway Permitting Office on March 10, 2022. Please refer to Appendix F, page 1 for the Waters of the US Determination / Wetland Delineation Report. It was determined that no likely jurisdictional open water features were present within the project area. The U.S. Army Corps of Engineers (USACE) makes all final determinations regarding jurisdiction.

Wetlands:	No: X	Yes:
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No presence, no impact
 Based on the desktop review, the aerial map of the project area (Appendix B, Page 4), and the RFI report (Appendix E, Page 3) there are no wetlands within the 0.5 mile search radius. There are no wetlands within or adjacent to the project area. This was confirmed by the site visits on May 5, 2021, and August 12, 2021, by BLN. Therefore, no impacts are expected.

A Waters of the US Determination / Wetland Delineation Report was approved by INDOT Ecology and Waterway Permitting Office on March 10, 2022. Please refer to Appendix F, page 1 for the Waters of the US Determination / Wetland Delineation Report. It was determined that no likely jurisdictional wetlands were present within the project area. The U.S. Army Corps of Engineers (USACE) makes all final determinations regarding jurisdiction.

Terrestrial Habitat:	No:	Yes: X
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Presence, with impacts
 Based on a desktop review, site visits on May 5, 2021, and August 12, 2021, by BLN and the aerial map of the project area (Appendix B, Page 4). The primary terrestrial habitat in the project area consists of residential lawns with wooded areas containing groupings of trees and shrubs. The dominant tree species in the tree groups in the median is Red Mulberry (*Morus rubra*). The dominant tree species along the east side of US 41 NBL is the American Elm (*Ulmus americana*).

Terrestrial impacts include 2.19 acres of pavement impacts, 2.849 acres of impacts to the grass, and 0.331 acre of tree clearing for a total of 5.37 acres of terrestrial disturbance.

Early Coordination
 Indiana Department of Natural Resources-Division of Fish and Wildlife (IDNR-DFW) responded on July 23, 2021, with a recommendation to mitigate any non-wetland forest removal of less than 1 acre, in a rural setting, at a 1:1 ratio (Appendix C, Page 11). The IDNR-DFW also recommended consideration of wildlife crossings at culvert replacement locations if appropriate. Given the location, configuration, and length of the two culverts, it does not appear to be conducive for a wildlife crossing under Clinton Street,

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nor does the area appear to warrant a wildlife crossing. All applicable recommendations are included in the Environmental Commitments section of this CE document.

Protected Species:	No: X	Yes:
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Based on a desktop review and the RFI report (Appendix E, page 4), completed by BLN on February 21, 2021, the IDNR Vigo County Endangered, Threatened and Rare (ETR) Species List has been checked. According to the IDNR-DFW early coordination response letter dated July 23, 2021 (Appendix C, Page 11), the Natural Heritage Program's Database has been checked. To date, no plant or animal species listed as state or federally threatened, endangered, or rare have been reported to occur in the project vicinity. An INDOT 0.5 mile bat review occurred on May 11, 2021. It was determined that there were no documented sites within a half a mile of the project area. No critical habitats were identified within the project area.

Indiana Bat and Northern Long Eared Bat

Bats, Programmatic Informal Consultation (i.e. IPaC)- Not likely to Adversely Affect

Project information was submitted through the USFWS's Information for Planning and Consultation (IPaC) portal, and an official species list was generated (Appendix C, Page 29). The project is within range of the federally endangered Indiana bat (*Myotis sodalis*) and the federally threatened northern-long-eared bat (NLEB) (*Myotis septentrionalis*). The Monarch Butterfly (*Danaus plexippus*) a candidate species, was identified within the project area. There is no critical habitat identified for this species. 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 bridge inspection was conducted by BLN on August 12, 2021, and no bats or signs of bats were found (Appendix I, Page 2). An effect determination key was completed on May 16, 2022, and based on the responses provided, the project was found to "may affect, but it is not likely to adversely affect (NLAA)" the Indiana bat and/or the NLEB (Appendix C, Page 15). INDOT reviewed and verified the effect finding on May 16, 2022 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. Avoidance and Minimization Measures (AMMS) and/or commitments are included as firm commitments in the *Environmental Commitments* section of this document.

The Tree Removal AMMs require that all practicable efforts are made to avoid removing trees, at any time of the year, within or around the project area and that all employees, including contractors, working in the project area be made aware of the environmental commitments, especially as they pertain to protected bat species. The Tree Removal AMM 2 (and IDNR's Early Coordination response letter) states that INDOT should apply time of year restrictions for tree removal when bats are not likely to be present (October 1 through March 31). The Lighting AAM 1 states to direct temporary lighting away from suitable habitat during the active season.

Migratory Birds: The existing bridge on US 41 over Old 41 (041-84-04322-ANBL) and the project's surrounding habitat is conducive for use (i.e., nests) by a bird species protected under the Migratory Bird Treaty Act (MBTA). Prior to the start of nesting season (May 1) the structure must be inspected for birds or signs of birds. If birds or signs of birds are found during the inspection avoidance and minimization measures must be implemented prior to the start of and during the nesting season. Nests without eggs or young should be removed prior to construction during the non-nesting season (September 8 - April 30) and during the nesting season if no eggs or young are present. Nests with eggs or young cannot be removed or disturbed during the nesting season (May 1 - September 7). Nests

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with eggs or young should be screened or buffered from active construction. Details of the required procedures are outlined in the "Migratory Bird Protection" RSP.

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 the project plans are changed, USFWS will be contacted for consultation.

Geological and Mineral Resources:	No: X	Yes:
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Inside karst area; no presence
 Based on a desktop review and the Indiana Karst Region map, the project is located inside the designated Indiana Karst Region as outlined in the most current *Protection of Karst Features during Project Development and Construction*. According to the topo map of the project area (Appendix B, Pages 2-3) and the RFI report (Appendix E, Page 3), there are no karst features identified within or adjacent to the project area. In the early coordination response on June 25, 2021, the Indiana Geological and Water Survey (IGWS) did not indicate that karst features exist in the project area (Appendix C, page 5). The response from IGWS has been communicated to the designer on June 25, 2021. No impacts are expected.

Drinking Water Resources:	No:	Yes: X
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Outside of Sole Source Aquifer (SSA)
 The project is located in Vigo 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) is not applicable to this project, a detailed groundwater assessment is not needed, and no impacts are expected.

Located in a Wellhead Protection Area or Source Water Area
 The Indiana Department of Environmental Management's Wellhead Proximity Determinator website (<http://www.in.gov/idem/cleanwater/pages/wellhead>) was accessed by BLN on August 27, 2021, by BLN. This project is located within a wellhead protection area. This project is not located in a Source Water Area. Coordination is ongoing with Indiana American Water Company and the City of Terre Haute to get additional information and identify requirements of the Wellhead Protection Plan. This document would be updated when the coordination is completed.

Wells present, no impacts
 The Indiana Department of Natural Resources Water Well Record Database website (<https://www.in.gov/dnr/water>) was accessed on August 27, by BLN. A well is within approximately 20 feet of the construction limits and close to the existing right-of-way. The features would not be affected by the project construction and would not be impacted because temporary silt fencing would be placed along the outside edge of the construction limits to provide screening from construction activity (Appendix B, page 68). Therefore, no impacts are expected. Should it be determined during the right-of-way phase that this well would be affected, a cost to cure would likely be included in the appraisal to restore the well.

In an Urban Area Boundary
 Based on a desktop review of the MS4s Boundaries Map for Indiana (<https://www.in.gov/idem/cleanwater/ms4s-boundaries-map-for-indiana>) accessed by BLN on June 24, 2021; this project is located in an Urban Area Boundary (UAB). Coordination was conducted on May 11,

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2022 with Alicia Barnard the MS4 coordinator at the Terre Haute Wastewater Utility. They responded on May 26, 2022 indicating they had not commented on the project. See Appendix I, page 69.

In a Public Water System Location

This project is located where there is a public water system. Etica Group is the consulting firm responsible for utility coordination. A utility coordination letter was sent to Indiana American Water (INAW) on March 19, 2021(Appendix I, Page 3). On April 19, 2021, INAW responded, informing Etica Group of existing assets in the area. The public water system has assets in the project area (Appendix I, Page 5). The public water system will not be affected. No relocations of existing water utility lines or disruption of service are anticipated. Therefore, no impacts are expected.

Floodplains:	No: X	Yes:
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Not in floodplain

The Indiana Department of Natural Resources Indiana Floodway Information Portal website ([Indiana Floodplain Information Portal 2.0 \(arcgis.com\)](http://Indiana Floodplain Information Portal 2.0 (arcgis.com))) was accessed on February 21, 2022, by BLN. This project is not located in a regulatory floodplain as determined from approved IDNR floodplain maps (Appendix B, Page 6). Therefore, it does not fall within the guidelines for the implementation of 23 CFR 650, 23 CFR 771, 44 CFR. No impacts are expected. According to the IDNR-DFW early coordination response letter dated July 23, 2021 (Appendix C, Page 11) that formal approval by the Department of Natural Resources under the regulatory programs administered by the Division of Water is not required for this project. An IDNR Construction in a Floodway (CIF) permit would not be required for the project.

Farmland:	No: X	Yes:
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No presence, no impact

Based on a desktop review, site visits on May 5, 2021, and August 12, 2021, by BLN, and the aerial map of the project area (Appendix B, page 4) there is no land that meets the definition of farmland under the Farmland Protection Policy Act (FPPA) within or adjacent to the project area. The requirements of the FPPA do not apply to this project; therefore, no impacts are expected. An early coordination letter was sent on June 21, 2021, to the Natural Resources Conservation Service (NRCS). On July 15, 2021, the NRCS concurred that there would be no conversion of prime farmland during this project (Appendix C, Page 10). No impacts are expected.

Cultural Resources:	No: X	Yes:
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Full Section 106

Area of Potential Effect (APE)

Given the nature of the project, the APE was determined to include the project area and portions of the adjacent properties based on viewsheds from the project area and parcel boundaries. The APE takes into account the potential direct and indirect effects of the proposed project within the immediate contextual setting. Detailed maps of the APE can be found in Appendix D, page 13.

Coordination with Consulting Parties

The following parties/agencies were invited to become consulting parties to the project and were sent an early coordination letter on April 16, 2021 (Appendix D, Page 1).

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Agency	Date Letter Sent	Date Response Received	Appendix
Automatic Section 106 Consulting Party: Indiana Department of Natural Resources, Division of Historic Preservation & Archaeology, Indiana State Historic Preservation Office (SHPO)	April 16, 2021	May 3, 2021	Appendix D, Page 1
Indiana Landmarks Western Regional Office	April 16, 2021	No response	N/A
Terre Haute Metropolitan Planning Organization	April 16, 2021	No response	N/A
Terre Haute Landmarks Inc.	April 16, 2021	No response	N/A
Vigo County Commissioner, Brad Anderson	April 16, 2021	No response	N/A
Vigo County Commissioner, Judith A. Anderson	April 16, 2021	No response	N/A
Vigo County Commissioner, Brendon Kearns	April 16, 2021	No response	N/A
Vigo County Council	April 16, 2021	No response	N/A
Vigo County Engineer	April 16, 2021	No response	N/A
Vigo County Highway Superintendent, Daniel Bennett	April 16, 2021	No response	N/A
Vigo County Historian, Timothy Crumrin	April 16, 2021	No response	N/A
Vigo County Historical Society	April 16, 2021	No response	N/A
Vigo County Surveyor, Bruce Allen, Jr.	April 16, 2021	No response	N/A
Wabash Valley Genealogical Society	April 16, 2021	No response	N/A
West Central Indiana Economic Development District, Inc.	April 16, 2021	No response	N/A
Kickapoo Tribe of Indiana of the Kickapoo Reservation in Kansas	April 16, 2021	No response	N/A
Miami Tribe of Oklahoma	April 16, 2021	No response	N/A
Peoria Tribe of Indians of Oklahoma	April 16, 2021	No response	N/A
Seneca Cayuga Nation	April 16, 2021	No response	N/A
Eastern Shawnee Tribe	April 16, 2021	November 5, 2021	Appendix D, Page 14

FHWA is the federal agency associated with this undertaking. INDOT Cultural Resources Office (INDOT CRO) is acting on behalf of the FHWA. The IDNR, SHPO is automatically considered a consulting party for federally funded transportation projects.

Archaeology

Between April 28, 2021, and May 3, 2021, Cultural Resources Analysts, Inc. (CRA) personnel, who met the Secretary of the Interior's Professional Qualification Standards, conducted a Phase Ia archaeological reconnaissance survey for this project (Appendix D, Page 15). The survey area encompassed approximately 12.5 hectares (30.9 acres) (Appendix D, Page 16). Survey methods consisted of screened shovel testing as well as visual inspection of areas with obvious disturbance.

Prior to conducting this survey, an archaeological records review was completed using the Indiana Division of Historic Preservation and Archaeology's State Historic Architectural and Archaeological

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Research Database. The records review revealed that there were no previously recorded archaeological sites within the survey area. Two previous archeological surveys were conducted directly adjacent to the current study area.

One previously unrecorded archaeological site (12Vi1857) was documented during the survey. This was a low-density historic artifact scatter associated with a mid-nineteenth-century residence. This site likely extends outside the survey area, and its NRHP eligibility could not be fully assessed. The portion of this site investigated lacked the potential to provide important information and no further archaeological work is recommended at the site within the survey area. Project clearance was recommended.

Historic Properties

Above-ground resources located within the APE were identified and evaluated in accordance with Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended, and the regulations implementing Section 106 (36 CFR Part 800).

Before entering the field, available surveys, reports, studies, maps, and other data pertinent to the APE were identified and reviewed. This research included a review of the National Register of Historic Places (NRHP) database, the Indiana Register of Historic Places (State Register), Indiana Historic Sites and Structures Inventory (IHSSI), State Historic Architecture and Archeology Database (SHAARD), and other publications of local concern. The fieldwork was completed April 19, 2021, by CRA. Field documentation included architectural analysis, digital photography, and mapping of all architectural resources in the APE.

A Historic Properties Report was prepared by CRA on May 11, 2021 and contained the results of this survey and literature review. (Appendix D, Page 18). The APE contained no properties listed in the NRHP; however, one previously inventoried resource (IHSSI No. 167-551-05016), listed as “notable” for its mid-century Colonial Revival architectural significance was identified during the survey but was not considered NRHP eligible. The 1960 steel beam bridge carrying Old US 41 over US 41 is not eligible for inclusion in the National Register of Historic Places because it represents a common example of its type and is therefore not in the Indiana Historic Bridge Inventory. As a result of identification in the evaluation efforts for this project, no properties are recommended eligible for inclusion in the NRHP.

Documentation Finding

On January 27, 2022, INDOT CRO, on behalf of FHWA, approved the “No Historic Properties Affected” determination (Appendix D, Page 20). Following this finding, the effect documentation was provided to IDNR SHPO and participating consulting parties for a 30-day review period. In a letter dated February 7, 2022, IDNR SHPO concurred with the “No Historic Properties Affected” determination (Appendix D, Page 23). No additional comments were received. Thus, the Section 106 process has been completed and the responsibilities of the FHWA under Section 106 have been fulfilled.

Public Involvement

The “No Historic Properties Affected” determination was advertised in the *Terre Haute Tribune Star* newspaper on January 31, 2022, for a 30-day comment period (Appendix D, Page 25). Public comments were required by March 1, 2022, with no comments received. This completes the Section 106 process and the responsibilities of the FHWA under Section 106 have been fulfilled.

If any prehistoric or historic archaeological artifacts or human remains are uncovered during construction, demolition, or earthmoving activities, state law (Indiana Code 14-21-1-27 and -29) requires that the discovery be reported to the Indiana SHPO within two (2) business days. In that event, please call (317) 232-1646. See SHPO letter dated February 7, 2022, in Appendix D, page 23.

This is page 25 of 29 Project name: Old 41 over US 41 Date: June 10, 2022

Indiana Department of Transportation

County Vigo Route Old US 41 over US 41 Des. No. 1500146

Section 4(f) and Section 6(f) Resources:	No: X	Yes:
<p>Section 4(f)</p> <p><u>No Presence, no impact</u> Section 4(f) of the U.S. 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.</p> <p>Based on a desktop review, the aerial map of the project area (Appendix B, Page 4), and the RFI (Appendix E, page 2) there are no potential 4(f) resources located within the 0.5 mile search radius. According to the site visits on May 5, 2021, and August 12, 2021, by BLN, there are no Section 4(f) resources within or adjacent to the project area. Therefore, no use is expected.</p>		
<p>Section 6(f)</p> <p><u>No presence, no impact</u> The U.S. 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 conversion of lands purchased with LWCF monies to a non-recreation use. A review of 6(f) properties on the INDOT ESD website revealed a total of seven (7) properties in Vigo County (Appendix I, Page 1). None of these properties are located within or adjacent to the project area. Therefore, there would be no impacts to 6(f) resources.</p>		
Air Quality:	No: X	Yes:
<p><u>Standalone Project</u> This project is included in the Fiscal Year (FY) 2020-2024 West Central Indiana Economic Development District, Inc (WCIEDD) Metropolitan Planning Organization Transportation Improvement Program (MPO TIP) and the FY 2020-2024 Statewide Transportation Improvement Program (STIP) (Appendix H, Pages 1-2). The project scope has been revised to a bridge removal project in the INDOT SPMS system. Amendments for the MPO- TIP and STIP are in development.</p> <p><u>Nonattainment/maintenance area, exempt project</u> This project is located in Vigo County which is currently a maintenance area for 8-Hour Ozone and sulfur dioxide according to the EPA Greenbook Current Nonattainment Counties (https://www3.epa.gov/airquality/greenbook/anayo_in.html). This project type is not specifically listed in Table 2 of 40 CFR 93.126 but could be included as a safety improvement. BLN coordinated with Jeremy Weir at WCIEDD with regard to air quality. BLN requested confirmation about the project's impact to air quality and conformity and to determine that the project is not of air quality concern, per 40 CFR 93.123. The coordination is ongoing, and Mr. Weir will evaluate the project and determine if there is an impact on air quality. He will also provide information to determine if there is conformity and that it is not a project of air quality concern. To date the review is still in process. This document will be updated accordingly, based on the results of the evaluation. The environmental document will not be approved until a determination is made or there is an approved amendment.</p>		

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County Vigo Route Old US 41 over US 41 Des. No. 1500146

<u>MSAT Level 1a Analysis</u>		
This project is of a type qualifying as a categorical exclusion (Group 1) under 23 CFR 771.117(c) or exempt under the Clean Air Act conformity rule under 40 CFR 93.126, as such, Mobile Source Air Toxics analysis is not required.		
Community Impacts:	No: X	Yes:
<u>No EJ analysis required</u>		
Under FHWA Order 6640.23A, FHWA and the project sponsor, as a recipient of funding from FHWA, are responsible to ensure that their programs, policies, and activities do not have a disproportionately high and adverse effect on minority or low-income populations. This project would have no relocations and would require less than 0.5 acre of additional permanent ROW; therefore, an EJ analysis is not required per the current INDOT Categorical Exclusion Manual. The Terre Haute Bible Center Church is located at 3219 East Evans Avenue approximately 0.07 mile east of NB US 41. There would be no impact to the facility and access to and from Evans Avenue would be maintained throughout the project duration.		
Public Facilities and Services (e.g. schools, emergency services):	No: X	Yes:
<u>No presence, no impact</u>		
Based on a desktop review, the aerial map of the project area (Appendix B, Page 4), and the RFI report (Appendix E, Page 2) there are no public facilities within the 0.5 mile search radius. There are no public facilities within or adjacent to the project area, which was confirmed by the site visits on May 5, 2021, and August 12, 2021, by BLN. Therefore, no impacts are expected. Access to all properties will be maintained during construction.		
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.		
Hazardous Materials and Regulated Substances:	No: X	Yes:
<u>Presence, no impact</u>		
Based on a review of GIS and available public records, the RFI was completed by BLN and INDOT SAM provided their concurrence on February 21, 2022 (Appendix E, Page 5). One (1) underground storage site is located within 0.5 mile of the project area. One (1) NPDES facility is located within 0.5 mile of the project area. The NPDES permit was associated with the Storm Water Prevention Plan for construction of the Raintree self-storage facility in the northeast quadrant of Evans Avenue and US 41. There would be no impact to the storage facility as a result of the project. Coordination was conducted by BLN on May 12, 2022 with Mr. Jacob Hellman P. E. LEED AP of Keymark Construction in Terre Haute, Indiana. It was confirmed that the local inspector would be signing off on the site within the week of May 16, 2022 and would provide a Notice of Termination of the permit, See Appendix I, page 7.		
There is one pipeline segment located within 0.5 mile of the project area. The pipelng is a 4 inch steel natural gas line with CenterPoint Energy. Utility coordinatiomn has been ongoing during project development. Initial notices were sent to Centerpoint Energy for distributioin and transmission of natural gas on March 19, 2021. On March18, 2022 (distribution) and March 23, 2022 (transmission) Centerpoint Energy confirmed the the existing gas pipeline will not be in conflict with the project. The existing gas pipeline will remain in place and there will be no relocation required or disruption of service during construction. The utility coordinatiomn information was provided to the INDOT Project Manager on June 6, 2022.		
None of the hazmat sites identified would impact or be impacted by the project. Further investigation for hazardous material concerns is not required at this time.		

Indiana Department of Transportation

County Vigo Route Old US 41 over US 41 Des. No. 1500146

Permits:	No:	Yes: <input checked="" type="checkbox"/>
<p>It is anticipated that a Rule 5 Permit would be needed due to a total land disturbance of 5.37 acres.</p> <p>Applicable recommendations provided by resource agencies are included in the Environmental Commitments section of this document. If permits are found necessary, the conditions of the permit will be requirements of the project and would supersede these recommendations.</p> <p>It is the responsibility of the project sponsor to identify and obtain all required permits.</p>		

ENVIRONMENTAL COMMITMENTS:
<p>Firm:</p> <ol style="list-style-type: none">1) 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 (INDOT ESD).2) If the scope of work or permanent or temporary ROW amounts change, INDOT Environmental Services Division (ESD) and the INDOT District Environmental Section would be contacted immediately (INDOT ESD and INDOT District).3) Lighting AMM 1: Direct temporary lighting away from suitable habitat during the active season (USFWS).4) Tree Removal AMM 1: Modify all phases/aspects of the project (e.g., temporary work areas, alignments) to avoid tree removal (USFWS).5) Tree Removal AMM 2: Apply time of year restrictions for tree removal when bats are not likely to be present (October 1 through March 31) or limit tree removal to 10 or fewer trees per project at any time of year within 100 feet of existing road/rail surface and outside of documented roosting/foraging habitat or travel corridors; visual emergence must be conducted with no bats observed (USFWS and IDNR DFW).6) Tree Removal AMM 3: Ensure tree removal is limited to that specified in project plans and ensure that contractors understand clearing limits and how they are marked in the field (e.g., install bright colored flagging/fencing prior to any tree clearing to ensure contractors stay within clearing limits) (USFWS).7) Tree Removal AMM 4: Do not remove documented Indiana bat or NLEB roosts that are still suitable for roosting, or trees within 0.25 miles of roosts, or documented foraging habitat any time of year (USFWS).8) General AMM 1: Ensure all operators, employers, 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 AMMs (USFWS).9) The existing bridge on US 41 over Old 41 (041-84-04322-ANBL) and the project's surrounding habitat is conducive for use (i.e. nests) by a bird species protected under the Migratory Bird Treaty Act (MBTA). Prior to the start of nesting season (May 1) the structure must be inspected

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County Vigo Route Old US 41 over US 41 Des. No. 1500146

for birds or signs of birds. If birds or signs of birds are found during the inspection avoidance and minimization measures must be implemented prior to the start of and during the nesting season. Nests without eggs or young should be removed prior to construction during the non-nesting season (September 8 - April 30) and during the nesting season if no eggs or young are present. Nests with eggs or young cannot be removed or disturbed during the nesting season (May 1 - September 7). Nests with eggs or young should be screened or buffered from active construction. Details of the required procedures are outlined in the "Migratory Bird Protection" RSP (INDOT ESD).

- 10) USFWS Bridge/Structure Assessment shall take place no earlier than two (2) years prior to the start of construction. If construction will begin after August 12, 2023, an inspection of the structure by a qualified individual, must be performed. Inspection of the structure should check for presence of bats/bat indicators and/or presence of birds. The results of the inspection must indicate no signs of bats or birds. If signs of bats or birds are documented during this inspection, the INDOT District Environmental Manager must be contacted immediately (INDOT).

For Consideration:

- 1) Impacts to non-wetland forest under one (1) acre in a rural setting, replacement should be at a 1:1 ratio based on area. Mitigation at a ratio of 1:1 would be needed for a permanent impact to early successional riparian habitat. A native herbaceous riparian seed mixture is planted with at least 10 species of native grasses, sedges, and wildflowers selected from the Herbaceous Riparian Vegetation List. If the area contains scattered shrubs or tree saplings, mitigation includes woody species native to the region (IDNR DFW).

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Appendix A:

**INDOT Supporting
Documentation**

Categorical Exclusion Level Thresholds Des. No. 1500146

	PCE	Level 1	Level 2	Level 3	Level 4¹
Section 106	Falls within guidelines of Minor Projects PA	“No Historic Properties Affected”	“No Adverse Effect”	-	“Adverse Effect” Or Historic Bridge involvement ²
Stream Impacts³	No construction in waterways or water bodies	< 300 linear feet of stream impacts	≥ 300 linear feet of stream impacts	-	USACE Individual 404 Permit ⁴
Wetland Impacts³	No adverse impacts to wetlands	< 0.1 acre	-	< 1.0 acre	≥ 1.0 acre
Right-of-way⁵	Property acquisition for preservation only or none	< 0.5 acre	≥ 0.5 acre	-	-
Relocations	None	-	-	< 5	≥ 5
Threatened/Endangered Species (Species Specific Programmatic for Indiana bat & northern long eared bat)*	“No Effect”, “Not likely to Adversely Affect” (With select AMMs ⁶)	“Not likely to Adversely Affect” (With any AMMs or commitments)	-	“Likely to Adversely Affect”	Project does not fall under Species Specific Programmatic ⁷
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 ⁸
Sole Source Aquifer	No Detailed Groundwater Assessment	-	-	-	Detailed Groundwater Assessment
Floodplain	No Substantial Impacts	-	-	-	Substantial Impacts
Section 4(f) Impacts	None	-	-	-	Any ⁹
Section 6(f) Impacts	None	-	-	-	Any
Permanent Traffic Alteration	None	-	-	-	Any
Noise Analysis Required	No	-	-	-	Yes
Air Quality Analysis Required	No	-	-	-	Yes ¹⁰
Approval Level	Concurrence by				
<ul style="list-style-type: none"> • District Env. (DE) • Env. Serv. Div. (ESD) • FHWA 	DE or ESD	DE or ESD	DE or ESD	DE and/or ESD	DE and/or ESD; and FHWA

¹ Coordinate with INDOT Environmental Services Division. INDOT will then coordinate with the appropriate FHWA Environmental Specialist.

² Any involvement with a bridge processed under the Historic Bridge Programmatic Agreement.

³ Total permanent impacts to streams (linear feet) and wetlands (acres).

⁴ US Army Corps of Engineers Individual 404 Permit

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

⁶ Avoidance and Mitigation Measures (AMMs) determined by the IPAC determination key to be required that are not tree AMMs, bridge AMMs, or structure AMMs.

⁷ 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.

⁸ Potential for causing a disproportionately high and adverse impact.

⁹ 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.

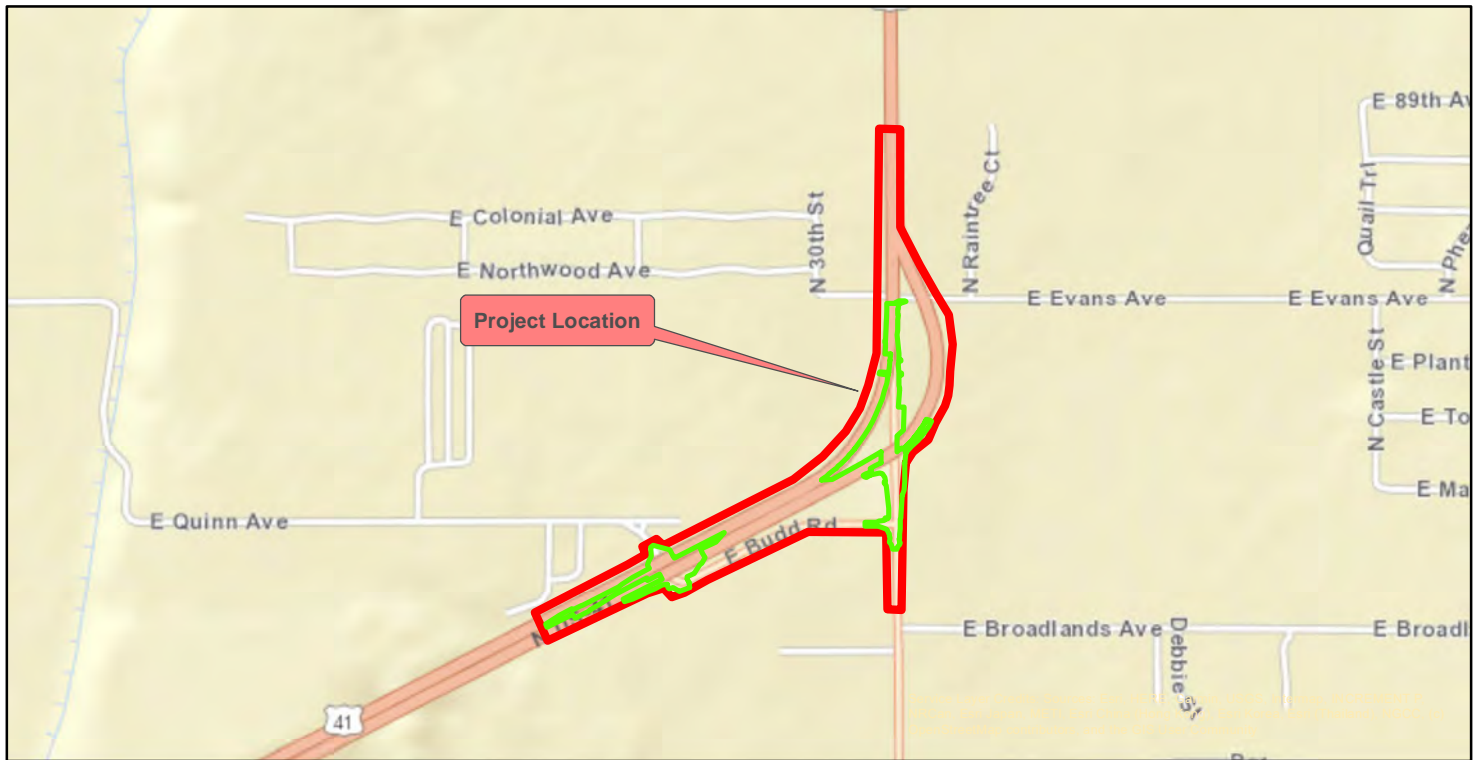
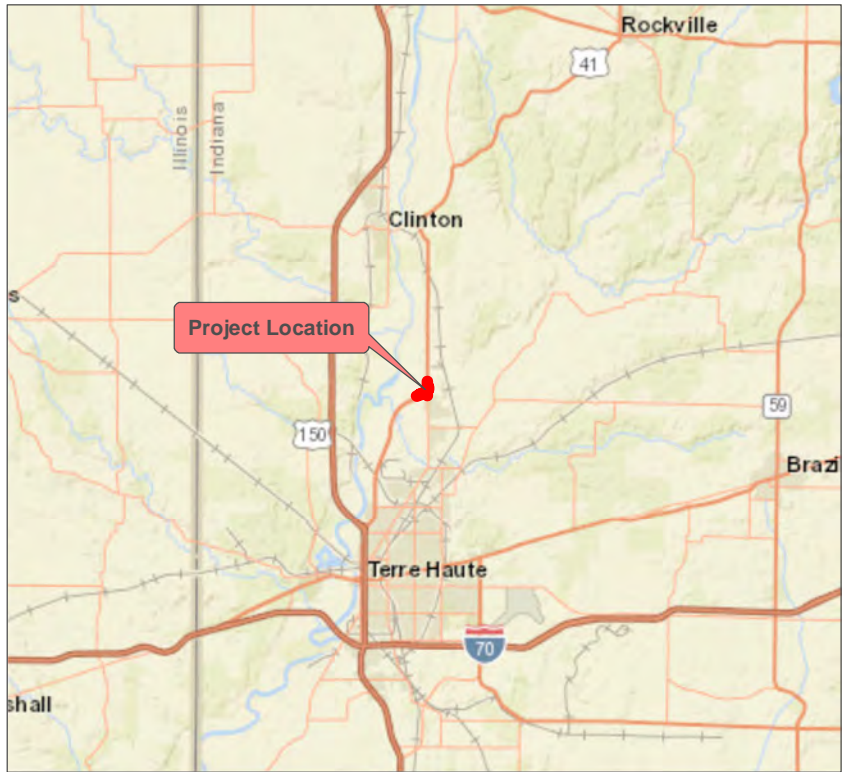
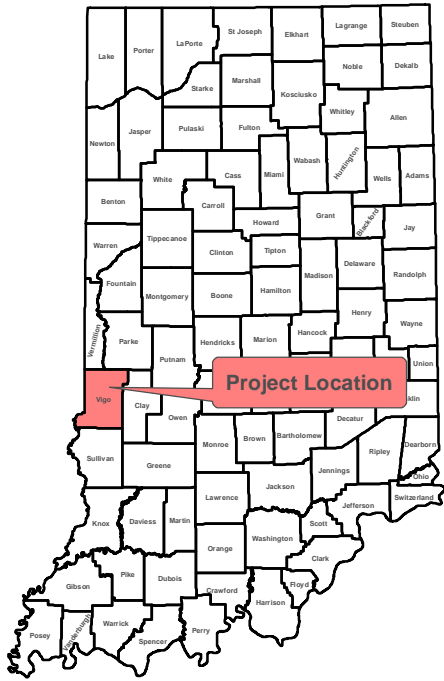
¹⁰ Hot Spot Analysis and/or MSAT Quantitative Emission Analysis.

* Includes the threatened/endangered species critical habitat

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

Appendix B:

Graphics



Source: Indiana MAP
 1:18,000
 1 inch = 1,500 feet

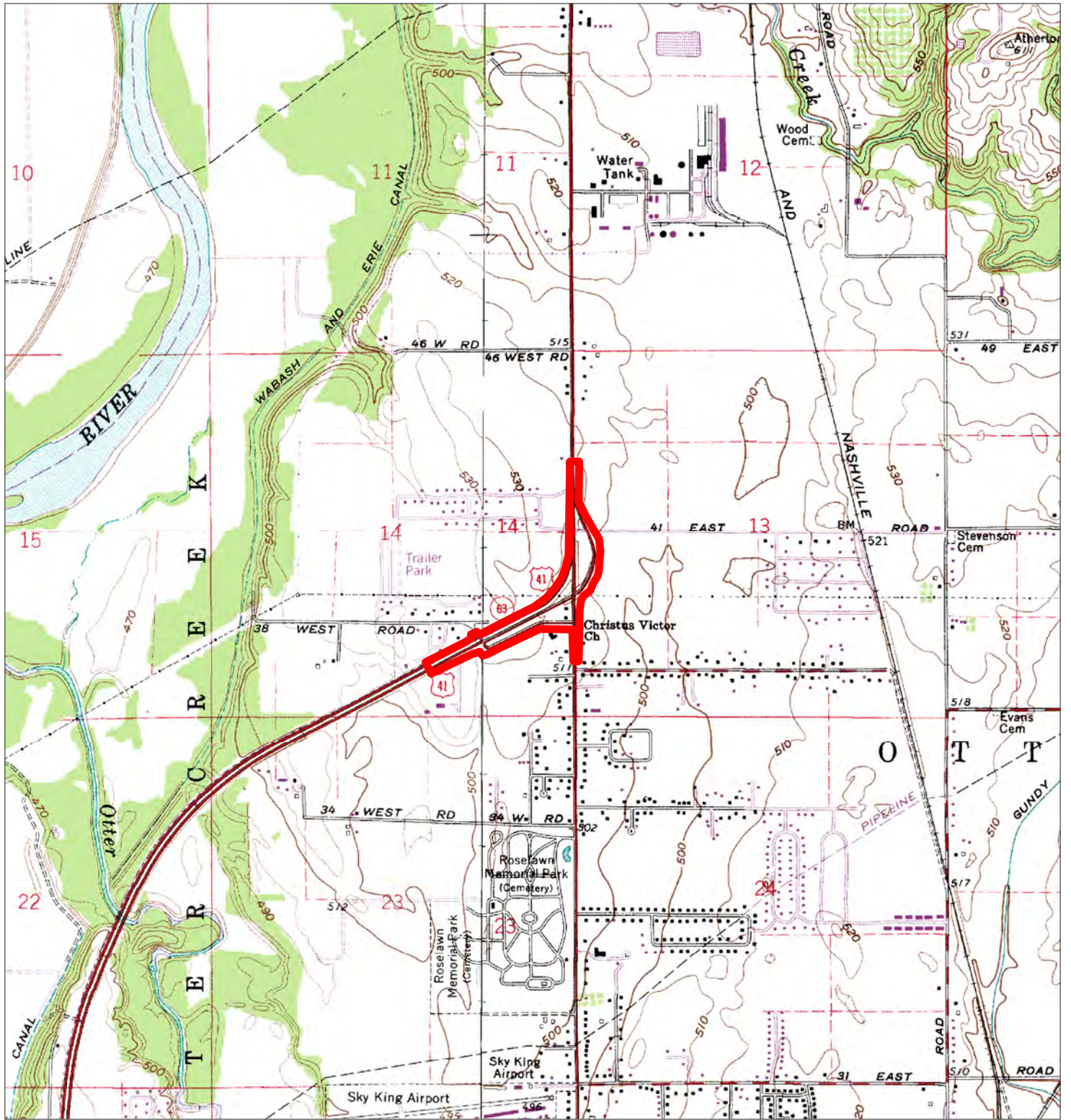


Legend

- Project County
- Investigated Area
- Construction Limits

Project Location Map
 Intersection Improvement, Roadway Modifications and Bridge Removal
 Bridge Removal of North Clinton St (Old US 41) over US 41
 6.13 miles North of the Middle Junction of SR 62
 Vigo County, Indiana
 Des. No. 1500146
 Author: Hillary Shaffer

May 13, 2022




Source: U.S. Geological Survey
 1:24,000
 1 in = 2,000 ft

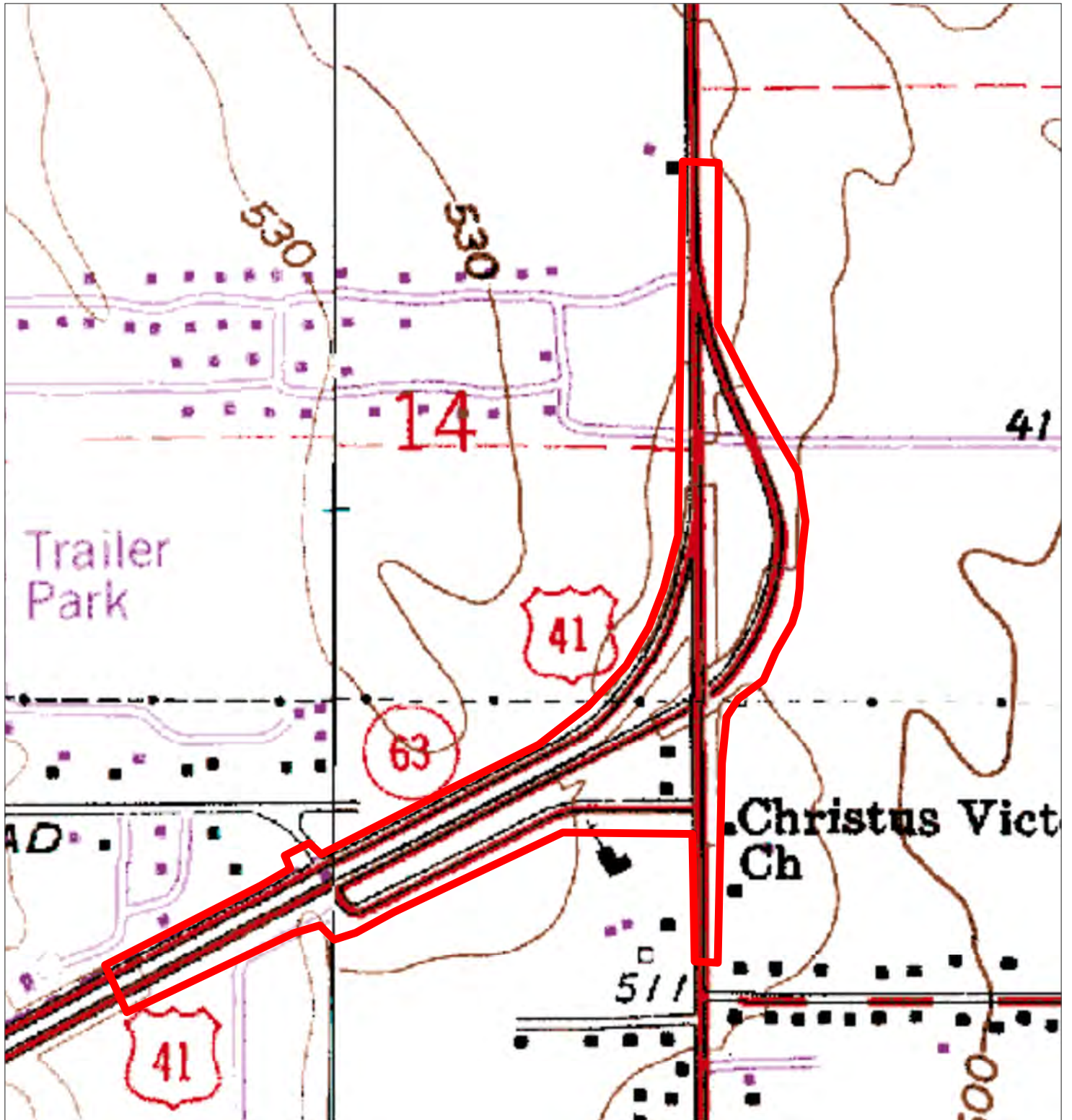


USGS Topographic Map
 Rosedale Quadrangle - 7.5 Minute Series
 Intersection Improvement, Roadway Modifications and Bridge Removal
 Bridge Removal of North Clinton St (Old US 41) over US 41
 6.13 miles North of the Middle Junction of SR 62
 Vigo County, Indiana
 Des. No. 1500146
 Author: April Arroyo-Monroe

Legend

 Project Area

May 13, 2022




Source: U.S. Geological Survey
 1:6,000
 1 in = 500 ft

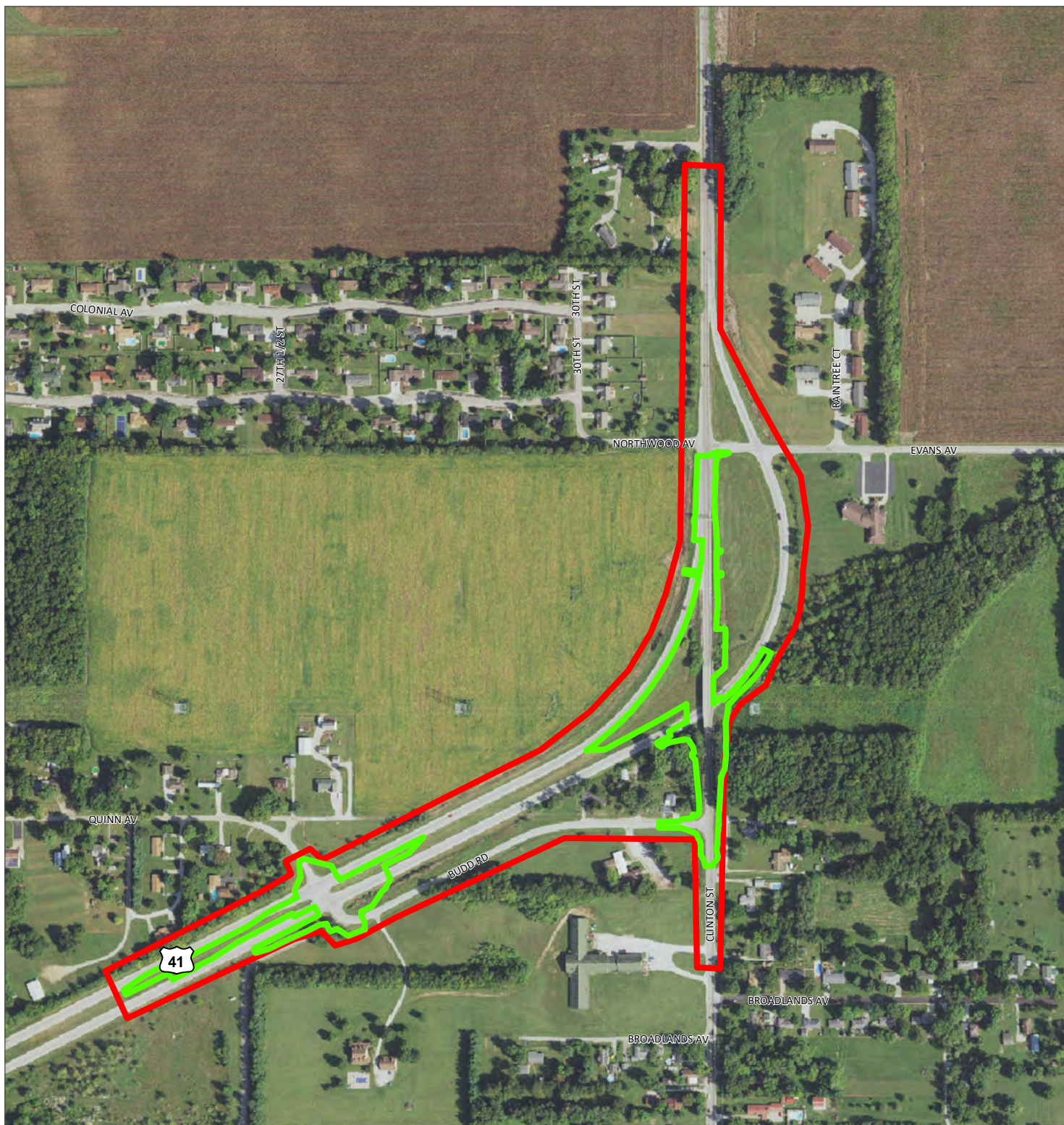


USGS Topographic Map
 Rosedale Quadrangle - 7.5 Minute Series
 Intersection Improvement, Roadway Modifications and Bridge Removal
 Bridge Removal of North Clinton St (Old US 41) over US 41
 6.13 miles North of the Middle Junction of SR 62
 Vigo County, Indiana
 Des. No. 1500146
 Author: April Arroyo-Monroe

Legend

 Investigated Area

May 13, 2022



Source: Indiana MAP

1:6,000

1 in = 500 ft

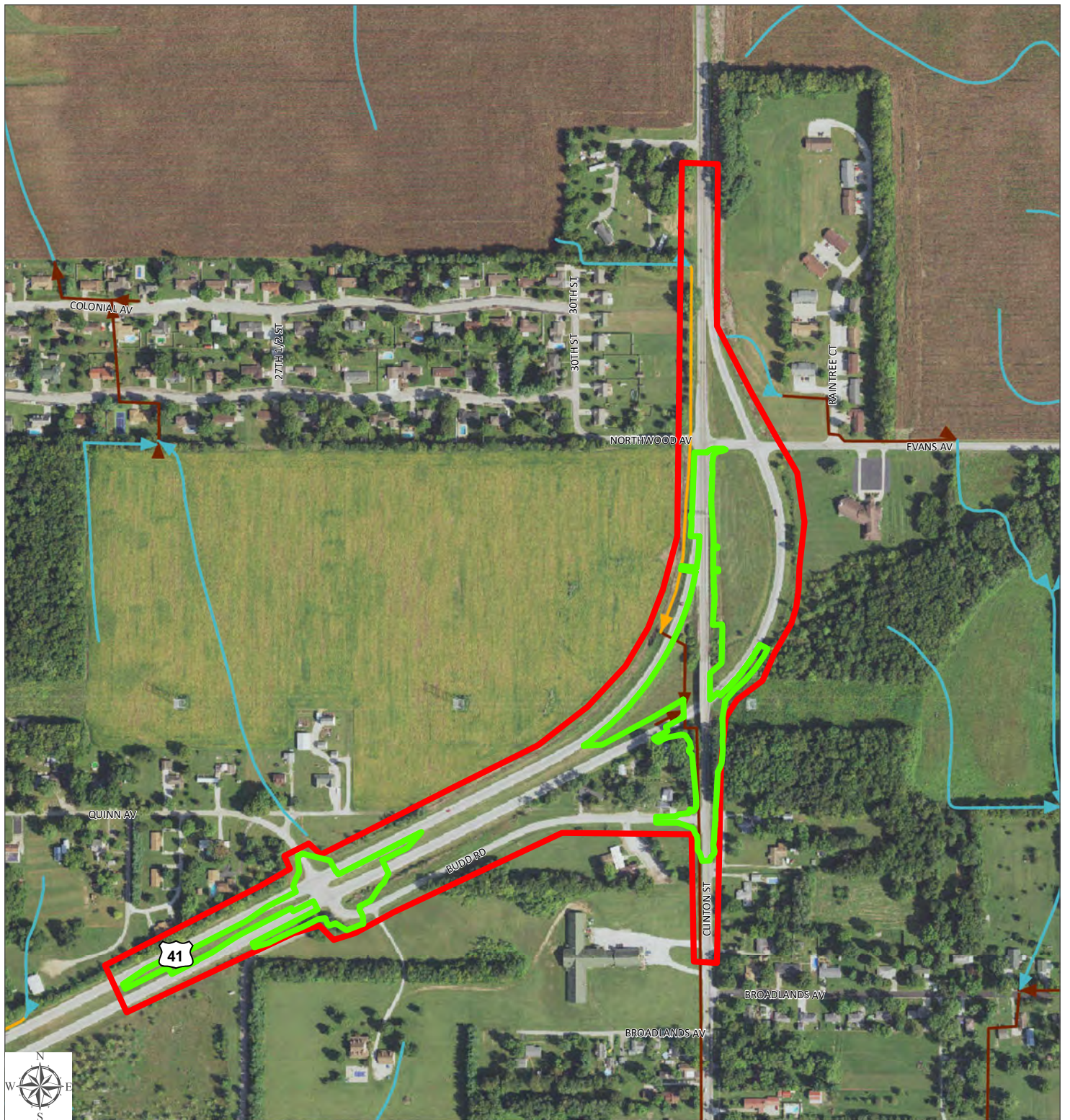


Legend

- ▭ Investigated Area
- ▬ Construction Limits

Aerial Photography
 Intersection Improvement, Roadway Modifications and Bridge Removal
 Bridge Removal of North Clinton St (Old US 41) over US 41
 6.13 miles North of the Middle Junction of SR 62
 Vigo County, Indiana
 Des. No. 1500146
 Author: Hillary Shaffer

May 13, 2022



Source: U.S. Fish & Wildlife Service

1:6,000

1 in = 500 ft



- | | | |
|-----------------------------------|-----------------|---------------------|
| Investigated Area | Perennial | Coastline |
| Construction | Intermittent | Connector |
| Freshwater Pond | Ephemeral | Pipeline |
| Freshwater Forested/Shrub Wetland | Artificial Path | Underground Conduit |
| Freshwater Emergent Wetland | Canal Ditch | |
| Riverine | | |
| Lake | | |
| Other | | |

**National Wetlands Inventory and
National Hydrography Dataset Map**
Intersection Improvement, Roadway Modifications
and Bridge Removal
Bridge Removal of North Clinton St (Old US 41) over US 41,
6.13 miles North of the Middle Junction of SR 62
Vigo County, Indiana
Des. No. 1500146
Author: April Arroyo-Monroe

May 15, 2022



Source: Federal Emergency Management Agency Flood Insurance Rate Map

1:24,000

1 in = 2,000 ft

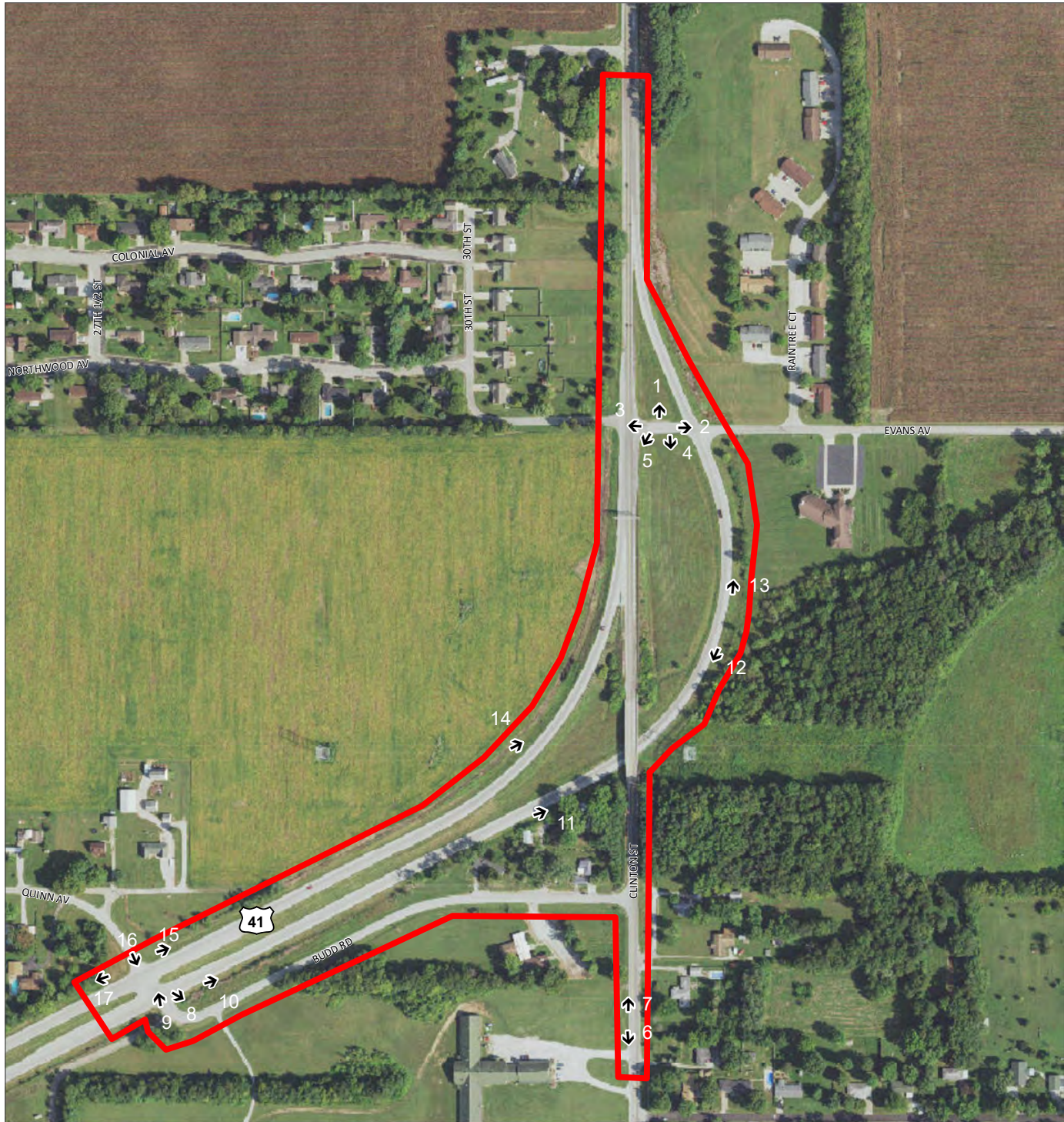


Legend

- Investigated Area
- Floodway
- 1 % Annual Chance Flood Hazard
- 0.2 % Annual Chance Flood Hazard
- 0.2 % Annual Chance, Protected by Levee

Floodplain Map
 Intersection Improvement, Roadway Modifications and Bridge Removal
 Bridge Removal of North Clinton St (Old US 41) over US 41
 6.13 miles North of the Middle Junction of SR 62
 Vigo County, Indiana
 Des. No. 1500146
 Author: Hillary Shaffer

May 13, 2022



Source: BLN Field Investigation
 1:4,800
 1 in = 400 ft



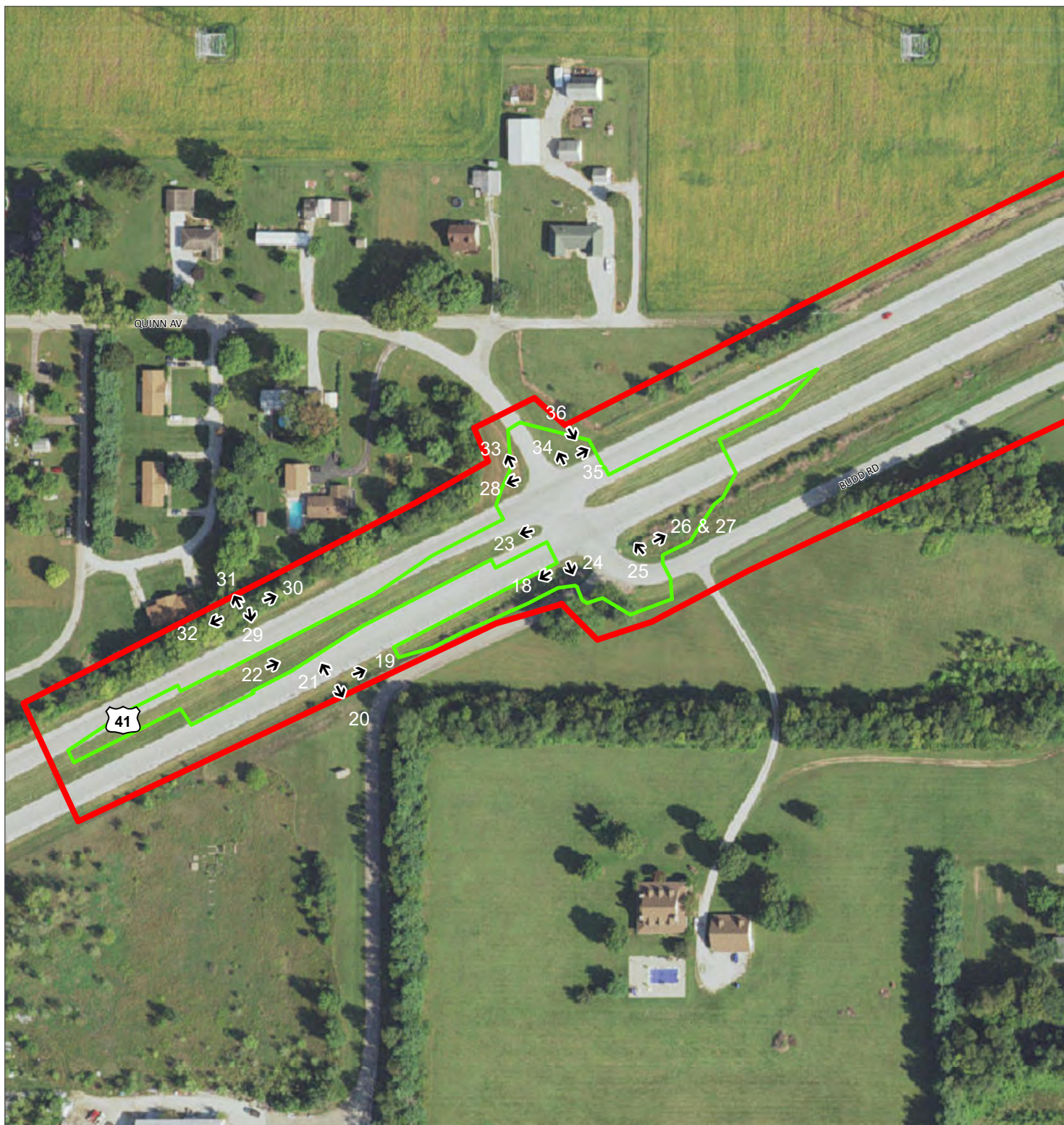
Legend

- Investigated Area
- ➔ Photos

Photo Location and Orientation Map
 Intersection Improvement, Roadway Modifications and Bridge Removal
 Bridge Removal of North Clinton St (Old US 41) over US 41
 6.13 miles North of the Middle Junction of SR 62
 Vigo County, Indiana
 Des. No. 1500146
 Author: April Arroyo-Monroe

February 22, 2022

P:\180061 - Old US 41 over US 41\07 Environmental\GIS\WOU\SR\11 Photo Orientation Map.mxd | Tuesday, February 22, 2022 | 12:33:54 PM



Source: BLN Field Investigation

1:2,400

1 in = 200 ft



Legend




-  Construction Limits
-  Investigated Area
-  Photos

Photo Location and Orientation Map Addendum
 Intersection Improvement, Roadway Modifications and Bridge Removal
 Bridge Removal of North Clinton St (Old US 41) over US 41
 6.13 miles North of the Middle Junction of SR 62
 Vigo County, Indiana
 Des. No. 1500146
 Author: April Arroyo-Monroe

May 16, 2022



Photo 1: Looking north from the center intersection of Evans Ave and US 41 (5-5-21).



Photo 2: Looking east from the center intersection of Evans Ave and US 41 (5-5-21).



Photo 3: Looking west from the center intersection of Evans Ave and US 41 (5-5-21).



Photo 4: Looking south from the center intersection of Evans Ave and US 41 (5-5-21).



Photo 5: Looking southwest at the exit from the center intersection of Evans Ave and US 41 (5-5-21).



Photo 6: Looking south on Clinton St (5-5-21)



Photo 7: Looking north on Clinton St (5-5-21).



Photo 8: Looking northeast along Budd St from the intersection of US 41 and Budd St (5-5-21).



Photo 9: Looking west from the intersection of Budd Rd and US 41 (5-5-21).



Photo 10: Looking north towards the bridge from the intersection of Budd and US 41 (5-5-21).



Photo 11: Looking north at the old US 41 bridge from the north bound lane of US 41 (5-5-21).



Photo 12: Looking south along north bound US 41 toward the Old US 41 bridge (5-5-21).



Photo 13: Looking north towards the Evans Ave and US 41 north bound lane intersection (5-5-21).



Photo 14: US 41 southbound looking toward the Old US 41 bridge (5-5-21).



Photo 15: Looking north from the Quinn Rd and US 41 intersection (5-5-21).



Photo 16: Looking northeast from the Quinn Rd and US 41 intersection (5-5-21).



Photo 17: Looking south from the Quinn Rd and US 41 intersection (5-5-21).



Photo 18: Looking south, at the grassy swale, from the intersection of Budd Rd. and US 41 Northbound lane (NBL) (3-8-22)



Photo 19: Looking north, along the grassy swale, towards the intersection of Budd Road and US 41 NBL (3-8-22)



Photo 20: Looking east from the south end of the new investigated area area on the NBL of US 41 (3-8-22).



Photo 21: Looking west from the south end of the new investigated area area on the NBL of US 41 (3-8-22)



Photo 22: Looking north from the south end of the new investigated area in the median between US 41 NBL and US 41 southbound lane (SBL) (3-8-22).



Photo 23: Looking south from the median at the Budd Street/Quinn Avenue and US 41 intersection (3-8-22)



Photo 24: Overflow structures at Budd Street and US 41 NBL on the south side of Budd Street (3-8-22).



Photo 25: Overflow structures on the northside of Budd Street and US 41 NBL. (3-8-22)



Photo 26: Looking north, along a grassy swale, on US 41 NBL from the intersection of Budd Street and US 41 NBL 3-8-2022)



Photo 27: Looking at, what at first appeared to be an Ordinary Highwater Mark (OHWM) but was determined to be a slump or where someone had run off the road in the past. This is not an OHWM in the grassy swale on the north side of US 41 NBL from the Budd Street intersection (3-8-22).



Photo 28: Looking south from US 41 SBL and Quinn Avenue intersection (3-8-22).

Photo Log, Waters of the US (WOUS) Addendum
Old 41 (Clinton St) over US 41
Cass County, Indiana
Des. No. 1500146



Photo 29: Looking east from the south end of the US 41 SBL side of the new investigation area (3-8-22)



Photo 30: : Looking north from the south end of the US 41 SBL side of the new investigation area (3-8-22).



Photo 31: : Looking west from the south end of the US 41 SBL side of the new investigation area (3-8-22).



Photo 32: : Looking south from the south end of the US 41 SBL side of the new investigation area (3-8-22)



Photo 33: Looking at the southwest side of the intersection of Quinn Avenue and US 41 SBL (3-8-22).



Photo 34: Looking at the northwest side of the intersection of Quinn Avenue and US 41 SBL 3-8-22).



Photo 35: : Looking at the north from the intersection of Quinn Avenue and US 41 SBL (3-8-22).

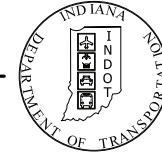


Photo 36: The overflow structure on the north side of the intersection of Quinn Avenue and US 41 SBL (3-8-22).

PROJECT	DESIGNATION
1500146	1500146
CONTRACT	BRIDGE FILE
B-42975	041-84-04322-ANBL

STRUCTURE	TYPE	SPAN AND SKEW	OVER	STATION
041-84-04322-ANBL	Continuous Steel Beam Bridge	4 Spans: 38'-3", 71'-7", 71'-7", 38'-3" Skew: 26° 35' 50" Lt.	US 41 (NBR)	☐ Structure Sta. 26+00 "S-1-C"

INDIANA DEPARTMENT OF TRANSPORTATION



BRIDGE PLANS

OLD US 41 OVER US 41: R.P.119+0.80 TO 120+0.42

PROJECT NO. 1500146 P.E.

R/W

1500146 CONST.

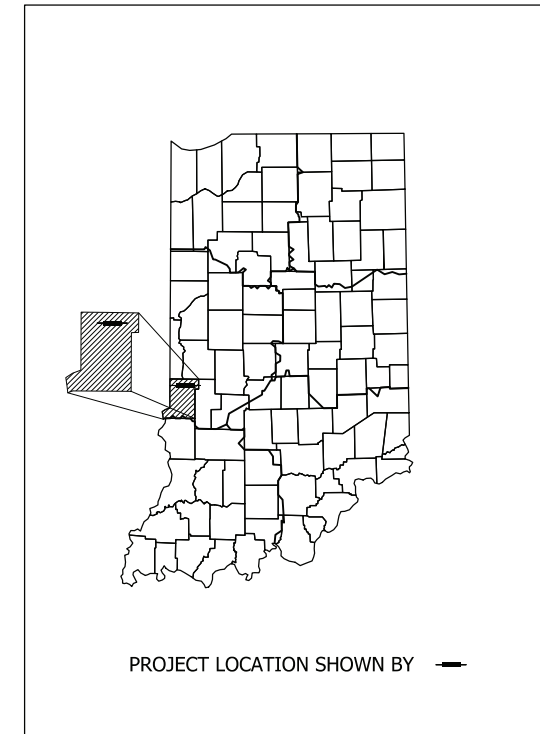
No Additional Right-of-Way Required

STAGE 2 SUBMITTAL
FEBRUARY 22, 2022

Bridge Removal of North Clinton Street (Old US 41) over US 41.
Intersection Improvement and Roadway Modifications between Budd Road and Evans Avenue.
in Section 13, & 14, T-13-N, R-8-W & R-9-W, Vigo County, Indiana.

	CLINTON STREET	US 41	EVANS AVENUE	BUDD ROAD	QUINN AVENUE
A.A.D.T. (2023)	5,400 V.P.D.	8,837 V.P.D.	1,903 V.P.D.	783 V.P.D.	204 V.P.D.
A.A.D.T. (2043)	6,086 V.P.D.	9,960 V.P.D.	2,145 V.P.D.	882 V.P.D.	230 V.P.D.
D.H.V (2043)	609 V.P.H.	996 V.P.H.	215 V.P.H.	89 V.P.H.	23 V.P.H.
DIRECTIONAL DISTRIBUTION	52/48 %	50/50 %	49/51 %	50/50 %	50/50 %
TRUCKS	1.02 % A.A.D.T.	2.58 % A.A.D.T.	2.30 % A.A.D.T.	0.91 % A.A.D.T.	5.78 % A.A.D.T.
	1.30 % D.H.V.	1.71 % D.H.V.	1.00 % D.H.V.	1.00 % D.H.V.	25.0 % D.H.V.

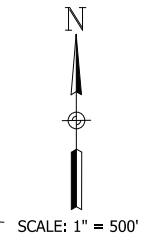
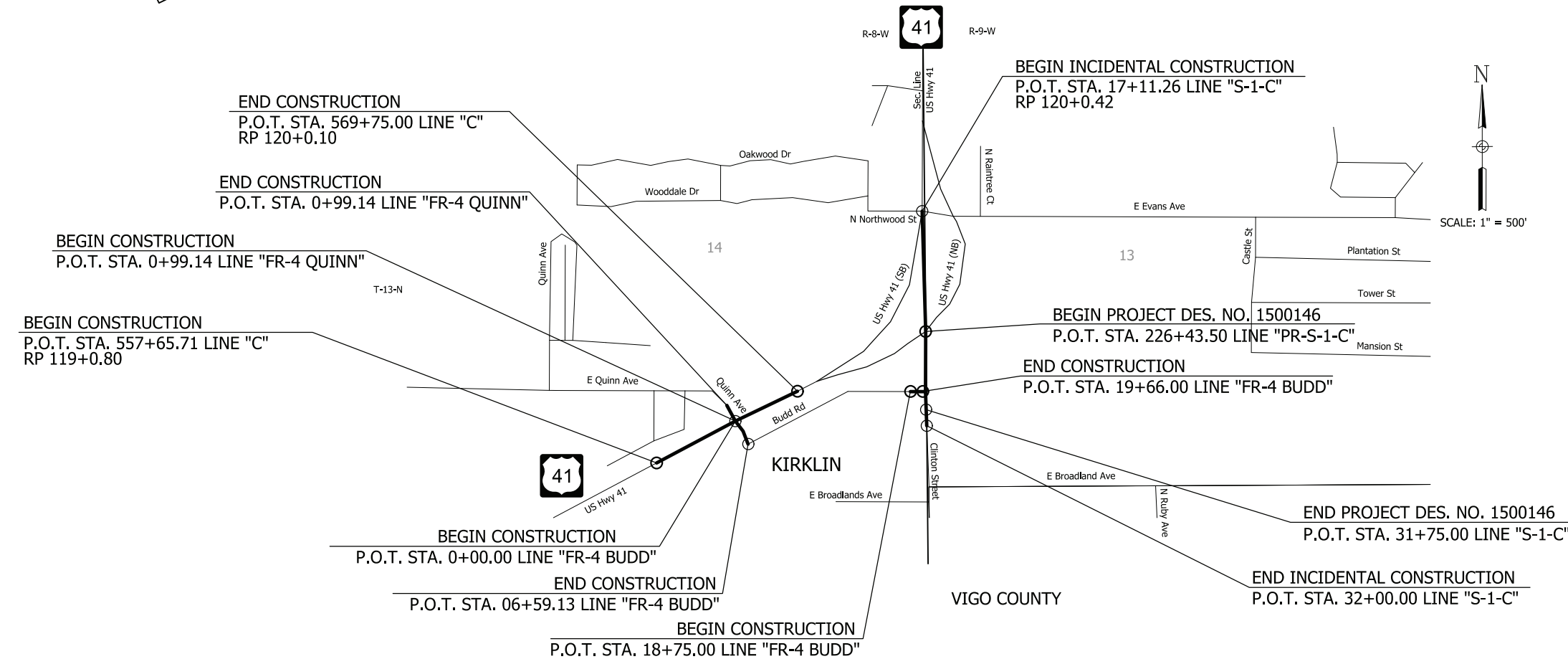
	40 M.P.H.	55 M.P.H.	55 M.P.H.	30 M.P.H.	30 M.P.H.
DESIGN SPEED	40 M.P.H.	55 M.P.H.	55 M.P.H.	30 M.P.H.	30 M.P.H.
PROJECT DESIGN CRITERIA	3R (NON-FREEWAY)	3R (NON-FREEWAY)	3R (NON-FREEWAY)	3R (NON-FREEWAY)	3R (NON-FREEWAY)
FUNCTIONAL CLASSIFICATION	MINOR ARTERIAL	PRINCIPAL ARTERIAL	LOCAL AGENCY COLLECTOR	LOCAL ROAD	LOCAL ROAD
RURAL/URBAN	URBAN	RURAL	URBAN	URBAN	URBAN
TERRAIN	LEVEL	LEVEL	LEVEL	LEVEL	LEVEL
ACCESS CONTROL	PARTIAL	PARTIAL	NONE	NONE	NONE



LATITUDE: 39° 34' 09" N LONGITUDE: 87° 22' 13" W

HUC 14: 05120111030080
HUC 12: 051201110406

GROSS LENGTH:	0.35 MILES
NET LENGTH:	0.35 MILES
MAX GRADE:	4.44 %



INDIANA DEPARTMENT OF TRANSPORTATION
STANDARD SPECIFICATIONS DATED 2022
TO BE USED WITH THESE PLANS

I:\15\13\2022\6:36:35 PM | P:\160061 - Old US 41 over US 41\09Road\04 Design files\02 DGN\Plans\160061_01_Sht_The.dgn



PLANS PREPARED BY:	Beam, Longest & Neff, L.L.C.	(317) 849-5832 PHONE NUMBER
CERTIFIED BY:		DATE
APPROVED FOR LETTING:	INDIANA DEPARTMENT OF TRANSPORTATION	DATE

BRIDGE FILE	041-84-04322-ANBL
DESIGNATION	1500146
SURVEY BOOK	SHEETS
ELECTRONIC	1 of 102
CONTRACT	PROJECT
B-42975	1500146

UTILITIES

Center Point Energy Distribution Mostafa Khallad 1800 W 26th St Muncie, IN 47302 765-287-2150 mostafa.khallad@centerpointenergy.com	IN American Water Richard Miller 153 N Emerson Ave Greenwood, IN 46143 317-885-2439 (o) 317-694-2116 © richard.miller@amwater.com	City of Terre Haute Sanitary & Storm Jack Hayes 1700 Harding Ave, Room 200 Terre Haute, IN 47807 812-244-4977 jack.hayes@terrehaute.in.gov
Center Point Energy Transmission Jeff Donnelly 1 N Main St Evansville, IN 47711 812-491-5558 jeff.donnelly@centerpointenergy.com	Joink, LLC Timothy Combs 834 S 10th St Terre Haute, IN 47807 812-264-2568 timothy.mcombs@joinkllc.com	Vigo County Municipal Govt Larry Robbins 121 Oak St Terre Haute, IN 47807 812-462-3419 larry.robbs@vigocounty.in.gov
Duke Energy Distribution Jared Dickey 2727 Central Ave Columbus, IN 47201 812-375-2111 (o) 812-375-2111 © jared.dickey@duke-energy.com	Sparklight (fka New Wave Comm) George McCormack 105 N 5th St Vincennes, IN 47591 812-890-4285 George.McCormack@sparklight.biz	
Duke Energy Transmission Zach Boston 1000 E Main St Plainfield, IN 46168 317-838-1053 del-tline-coord@duke-energy.com	Time Warner Cable (Spectrum) Telecommunications Kenneth Holderfield 3030 Roosevelt Ave Indianapolis, IN 46218 317-910-3323 kenneth.holderfield@charter.com	
Frontier Telecommunications Alexandra Grabill 8001 W Jefferson Blvd Fort Wayne, IN 46804 812-462-9255 alexandra.grabill@ftr.com		

GENERAL NOTES

**	All earth shoulders, median areas, and cut and fill slopes shall be plain or mulch seeded except where sodding is specified.
**	All limited access right-of-way (L.A. R/W) is to be fenced with chain link type fence (CLTF) or farm field type fence (FFTF) where specified in the plans.
**	Contractor shall verify existing flowline elevations to set the appropriate sump depth.

** REPRESENTS GENERAL NOTES REQUIRED

INDEX

SHEET NO.	DRAWING INDEX
1	TITLE
2	INDEX AND GENERAL NOTES
3 - 5	TYPICAL CROSS SECTIONS
6	CONTROL POINTS
7 - 8	GEOMETRIC TIE-IN SHEET
9 - 10	DEMOLITION SHEETS
11 - 19	MAINTENANCE OF TRAFFIC
20 - 26	PLAN AND PROFILE SHEETS
27 - 31	CONSTRUCTION DETAIL SHEETS
32 - 37	SPOT ELEVATION SHEETS
38 - 39	DRAINAGE SHEETS
40 - 43	TEMPORARY EROSION CONTROL SHEETS
44 - 47	EXISTING SIGNING
48 - 53	PROPOSED SIGNING
54 - 57	PAVEMENT MARKING SHEETS
58	TEMPORARY EROSION CONTROL TABLE
59	MISCELLANEOUS TABLE
60 - 62	EXISTING SHEET SIGN AND POST SUMMARY TABLES
63 - 65	PROPOSED SHEET SIGN AND POST SUMMARY TABLES
66	PAVEMENT MARKING TABLE
67	APPROACH TABLE
68	STRUCTURE DATA TABLE
69 - 102	CROSS SECTION SHEETS

NOTE TO REVIEWER:
Final Pavement Design approval is pending.
Typical Pavement Section shown is Preliminary.

LEGEND

- (K) 165 #/Sys QC/QA HMA 3, 70, Surface, 9.5 mm on 275 #/Sys QC/QA HMA 3, 70, Intermediate, 19.0 mm on 440#/Sys QC/QA HMA 3, 70, Base, 25.0 mm on, Subgrade Treatment, Type IC
- (K1) 165 #/Sys QC/QA HMA 3, 70, Surface, 9.5 mm on 275 #/Sys QC/QA HMA 3, 70, Intermediate, 19.0 mm on 440#/Sys QC/QA HMA 3, 70, Base, 25.0 mm on, 6" Compacted Aggregate, No. 53 on, Subgrade Treatment, Type IC
- (R) 165 #/Sys QC/QA HMA 3, 70, Surface, 9.5 mm on Milling Asphalt, 1.5"
- (TA) Truck Apron Consisting of:
PCCP, 7", with
D-1 Joints spaced at 18ft (Max.)
(Measured at the back of the Mountable Curb and Gutter) with 1.0" Dia. Dowel Bars.
11" Compacted Aggregate, No. 53 Base, on Subgrade Treatment, Type IC
- (W) 165 #/Sys QC/QA HMA 3, 70, Surface, 9.5 mm on HMA Widening, Type C Consisting of 275 #/Sys HMA Intermediate, Type C on 440 #/Sys HMA Base, Type C on, Subgrade Treatment, Type IC
- (W1) 165 #/Sys QC/QA HMA 3, 70, Surface, 9.5 mm on HMA Wedge & Level, Type C (Variable Depth) on Profile Milling

LEGEND

- (O) Compacted Aggregate, No. 53
- (S) Saw Cut
- (D1) HMA for Approaches:
165 #/Sys HMA Surface, Type B on 275 #/Sys HMA Intermediate, Type B on 6" Compacted Aggregate, No. 53, on Subgrade Treatment Type II
- (13) Combined Curb and Gutter, Concrete, Type B
- (22) Center Curb, Concrete, Type B
- (23) Raised Corrugated Concrete Median
- (26) Seed Mixture, U
- (34) Line, Thermoplastic, Dotted, White, 6 in.
- (36) Pavement Message Marking, Thermoplastic, "ONLY"
- (37) Pavement Message Marking, Thermoplastic, Lane Indication Arrow
- (38) Transverse Marking, Thermoplastic, Crosshatch Line, Yellow, 12 in.
- (39) Transverse Marking, Thermoplastic, Crosshatch Line, White, 12 in.
- (44) Transverse Marking, Thermoplastic, Yield Line, White, 18 in.
- (45) Transverse Markings, Thermoplastic, Stop Line, White, 24 in.
- (46) Line, Thermoplastic, Solid, White, 6 in.
- (47) Line, Thermoplastic, Solid, Yellow, 6 in.
- (48) Line, Thermoplastic, Broken, White, 6 in.
- (49) Line, Thermoplastic, Solid, White, 10 in.
- (X) Demolition Area

REVISIONS

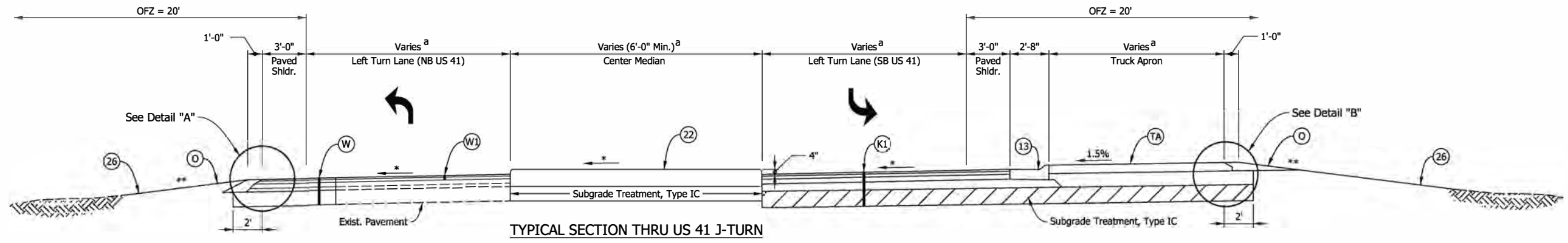
DATE	SHEET NO.	REVISED

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE _____	DESIGNED: <u>RAP</u> DRAWN: <u>JJP</u>
CHECKED: <u>DJG</u> CHECKED: <u>RAP</u>	

INDIANA DEPARTMENT OF TRANSPORTATION

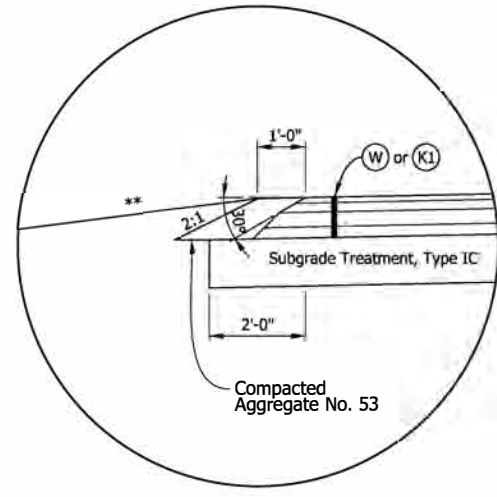
INDEX AND GENERAL NOTES

HORIZONTAL SCALE	BRIDGE FILE
N.A.	041-84-04322-ANBL
VERTICAL SCALE	DESIGNATION
N.A.	1500146
SURVEY BOOK	SHEETS
ELECTRONIC	2 of 102
CONTRACT	PROJECT
B-42975	1500146

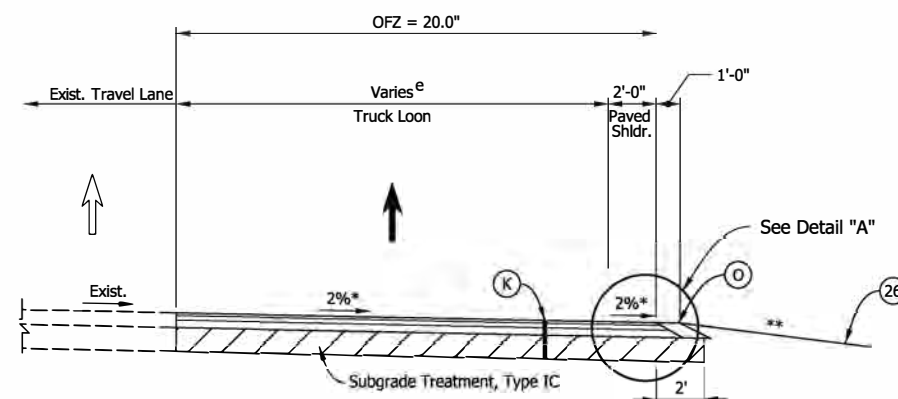


a - Varies; See Construction Details, Spot Elevations and Pavement Marking Sheets.

* Cross Slope Varies See Spot Elevation Sheets.
** Foreslope Varies, See Cross Section Sheets.



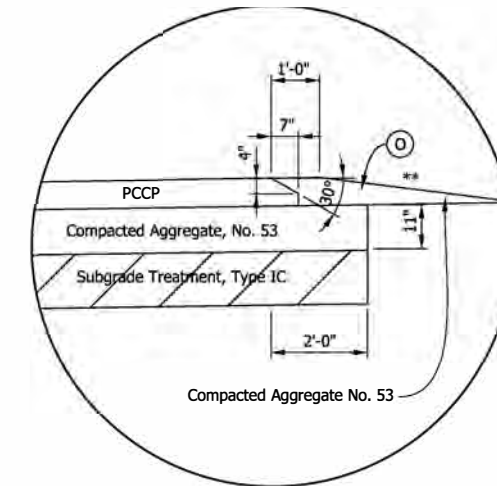
DETAIL "A"
N.T.S.



TYPICAL SECTION NORTHBOUND US 41 TRUCK LOON

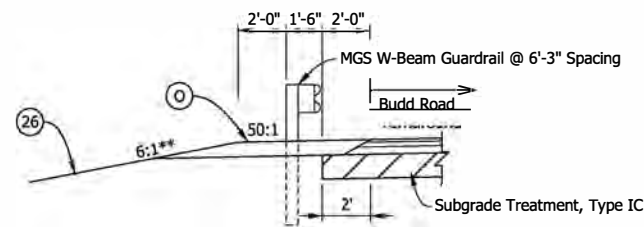
Sta. 565+15.00 To Sta. 567+95.00 "C"

* Cross Slope Varies See Spot Elevation Sheets.
** Foreslope Varies, See Cross Section Sheets.



DETAIL "B"
N.T.S.

e - Varies from 5.7' @ Sta. 565+15.00 to 16' @ Sta. 565+67.54
Equals 16' from Sta. 565+67.54 to Sta. 566+42.54
Varies from 16' @ Sta. 566+42.54 to 6.7' @ Sta. 567+95
See Construction Details and Spot Elevations



TYPICAL w/ GUARDRAIL

Sta. 565+65.00 To Sta. 566+45.25 "C"

** Foreslope Varies, See Cross Section Sheets.

Note:
The pavement safety edge is not required in the location of guardrail installation. The Contractor has the option to construct the pavement safety edge within these limits if they choose or as determined by the Engineer.

LEGEND

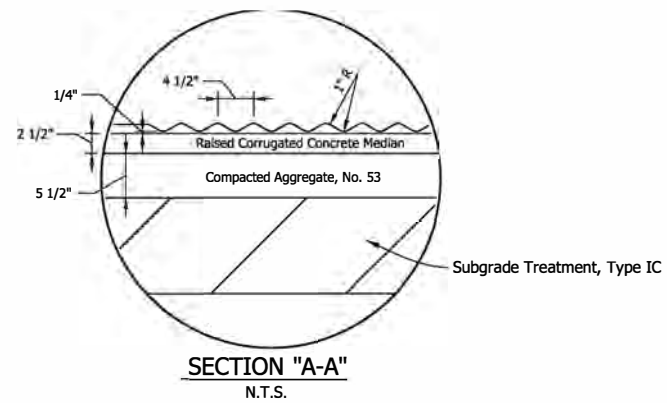
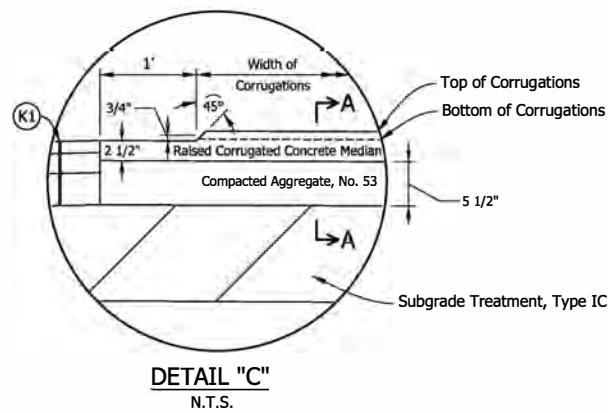
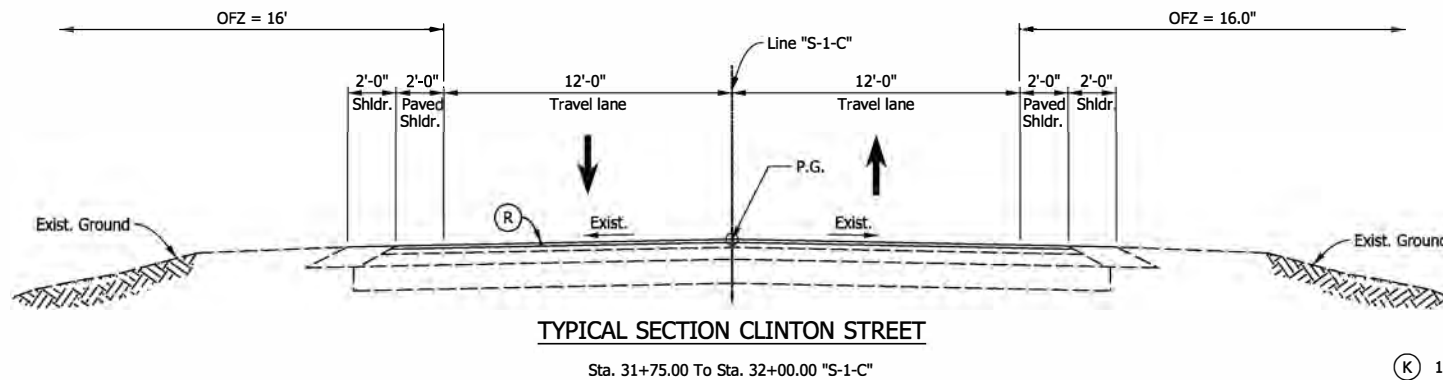
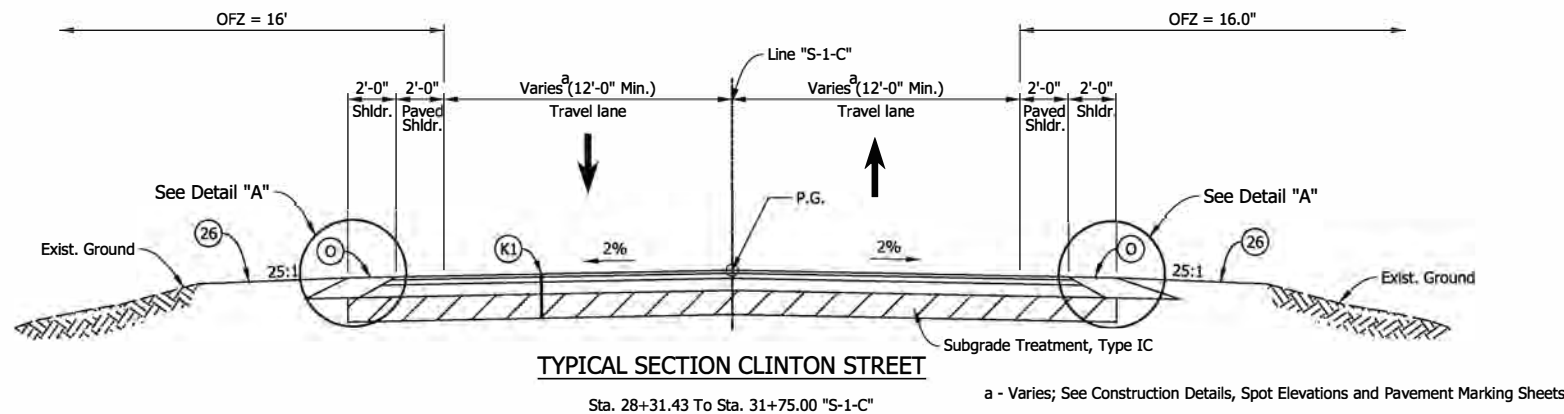
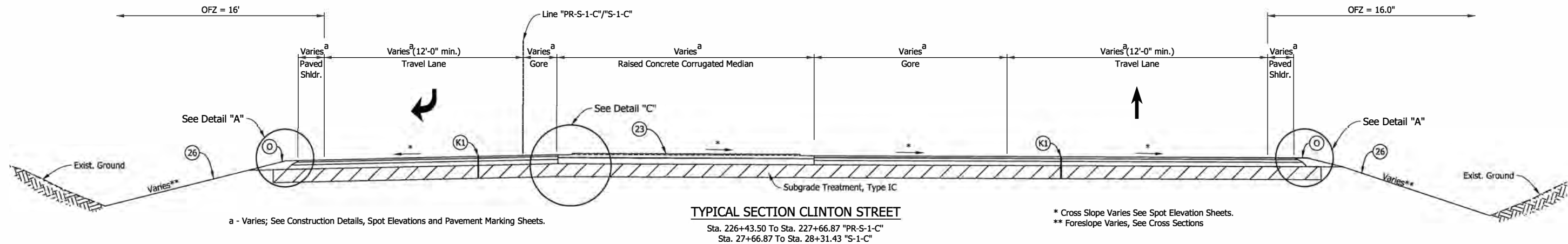
- (K) 165 #/Sys QC/QA HMA 3, 70, Surface, 9.5 mm on 275 #/Sys QC/QA HMA 3, 70, Intermediate, 19.0 mm on 440 #/Sys QC/QA HMA 3, 70, Base, 25.0 mm on, Subgrade Treatment, Type IC
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PCCP, 7", with
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(Measured at the back of the Mountable Curb and Gutter)
with 1.0" Dia. Dowel Bars.
11" Compacted Aggregate, No. 53 Base, on Subgrade Treatment, Type IC
- (W) 165 #/Sys QC/QA HMA 3, 70, Surface, 9.5 mm on HMA Widening, Type C Consisting of 275 #/Sys HMA Intermediate, Type C on 440 #/Sys HMA Base, Type C on, Subgrade Treatment, Type IC
- (W1) 165 #/Sys QC/QA HMA 3, 70, Surface, 9.5 mm on Profile Milling
- (O) Compacted Aggregate, No. 53
- (S) Saw Cut
- (13) Combined Curb and Gutter, Concrete, Type B
- (22) Center Curb, Concrete, Type B
- (23) Raised Corrugated Concrete Median
- (26) Seed Mixture, U

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: RAP	DRAWN: JJP	
CHECKED: DJG	CHECKED: RAP	

INDIANA
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

HORIZONTAL SCALE	BRIDGE FILE
1"=4'	041-84-04322-ANBL
VERTICAL SCALE	DESIGNATION
N.A.	1500146
SURVEY BOOK	SHEETS
ELECTRONIC	3 of 102
CONTRACT	PROJECT
B-42975	1500146

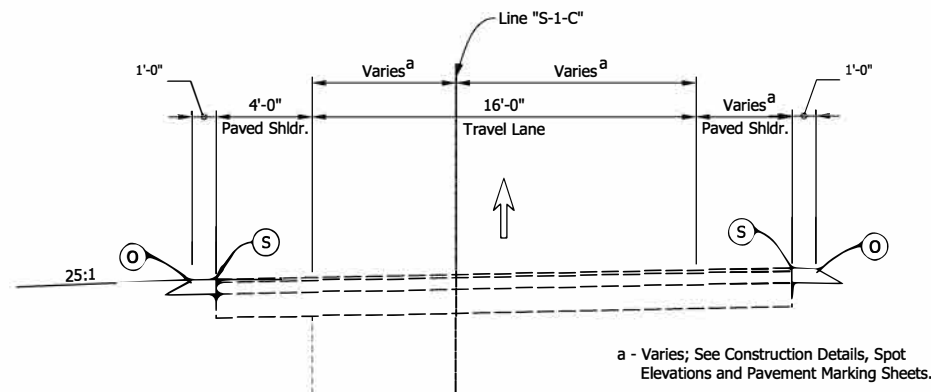


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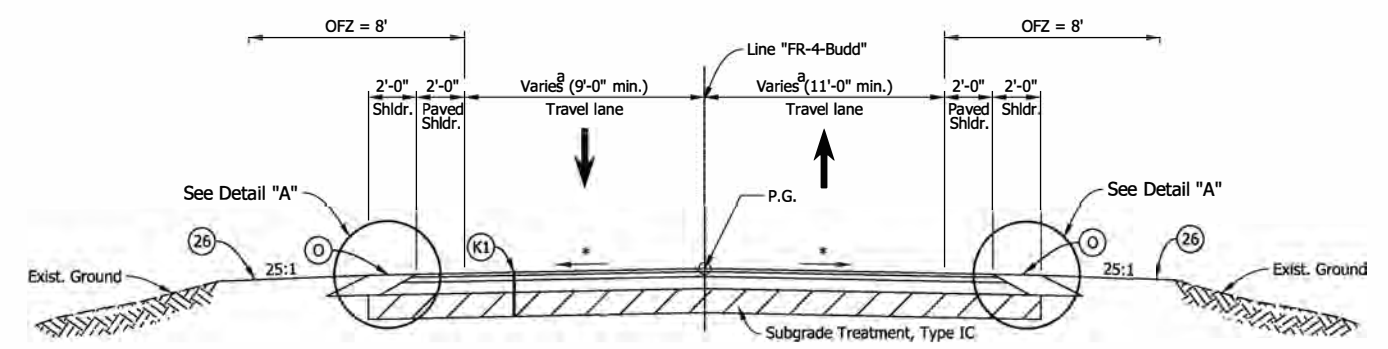
- (K) 165 #/Sys QC/QA HMA 3, 70, Surface, 9.5 mm on 275 #/Sys QC/QA HMA 3, 70, Intermediate, 19.0 mm on 440 #/Sys QC/QA HMA 3, 70, Base, 25.0 mm on, Subgrade Treatment, Type IC
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- (R) 165 #/Sys QC/QA HMA 3, 70, Surface, 9.5 mm on Milling Asphalt, 1.5"
- (W) 165 #/Sys QC/QA HMA 3, 70, Surface, 9.5 mm on HMA Widening, Type C Consisting of 275 #/Sys HMA Intermediate, Type C on 440 #/Sys HMA Base, Type C on, Subgrade Treatment, Type IC
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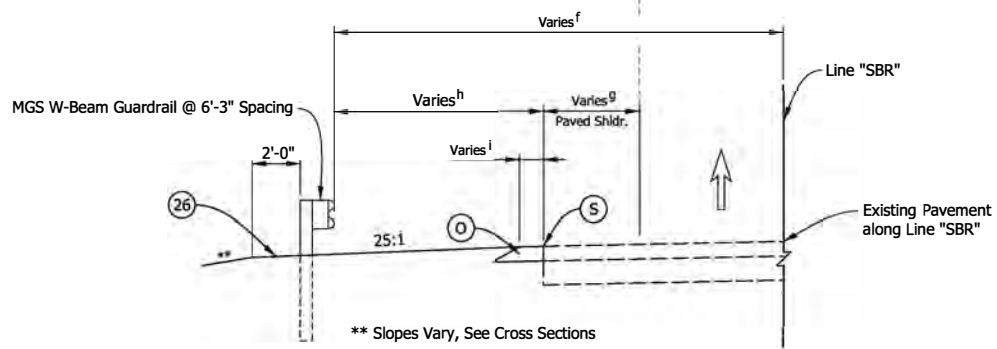
RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE	BRIDGE FILE
		1"=4'	041-84-04322-ANBL
DESIGNED: RAP DRAWN: JJP	TYPICAL SECTIONS	VERTICAL SCALE	DESIGNATION
		N.A.	1500146
CHECKED: DJG CHECKED: RAP		SURVEY BOOK	SHEETS
		ELECTRONIC	4 of 102
		CONTRACT	PROJECT
		B-42975	1500146



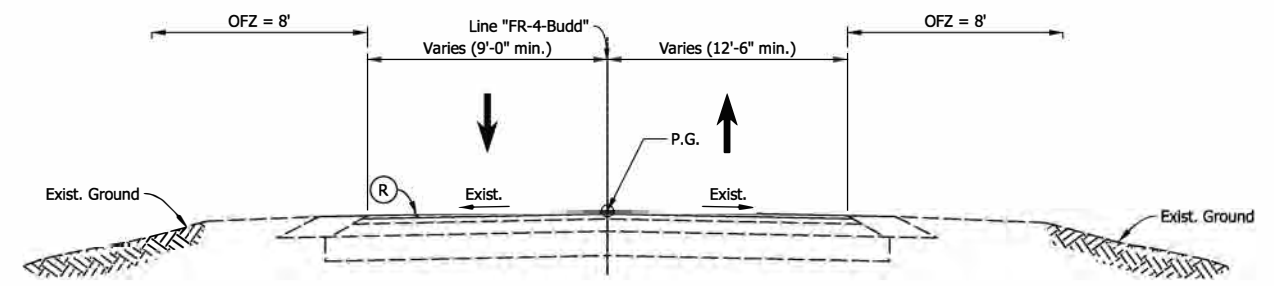
TYPICAL SECTION SB US 41
Sta. 17+11.26 To Sta. 19+00.00 "S-1-C"
Sta. 0+00.00 To Sta. 1+23.93 "SBR"



TYPICAL SECTION BUDD ROAD
Sta. 18+75.00 To Sta. 19+65.93 "FR-4 Budd"

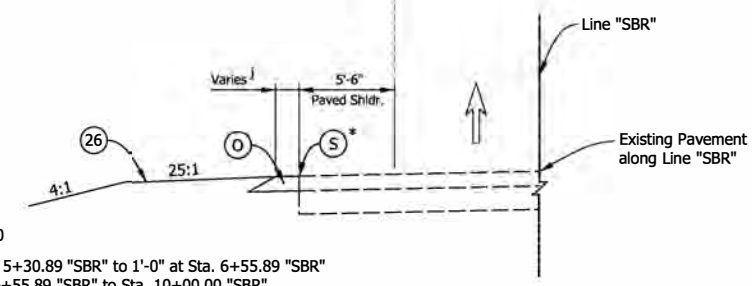


TYPICAL w/ GUARDRAIL ADJACENT TO EXIST. PAVEMENT
Sta. 1+44.16 To Sta. 5+30.09 "SBR" Lt.



TYPICAL SECTION BUDD ROAD
Sta. 18+00.00 To Sta. 18+75.00 "FR-4 Budd"

- f - Varies from 48'-4" at Sta. 1+44.16 "SBR" to 20'-6" at Sta. 3+70.47 "SBR" Equals 20'-6" from Sta. 3+70.47 "SBR" to Sta. 5+30.89 "SBR"
- g - Varies from 4'-0" at Sta. 1+44.16 "SBR" to 5'-6" at Sta. 2+53.08 "SBR" Equals 5'-6" from Sta. 2+53.08 "SBR" to Sta. 5+30.89 "SBR"
- h - Varies from 29'-4" at Sta. 1+44.16 "SBR" to 0'-0" at Sta. 3+70.47 "SBR" Equals 0'-0" from Sta. 3+70.47 "SBR" to Sta. 5+30.89 "SBR"
- i - Equals 1'-0" at Sta. 1+23.93 "SBR" to Sta. 2+50.00 "SBR" Varies from 1'-0" at Sta. 2+50.00 "SBR" to 3'-6" at Sta. 3+00.00 "SBR" Equals 3'-6" from Sta. 3+00.00 "SBR" to Sta. 5+30.89 "SBR"



TYPICAL ADJACENT TO EXIST. PAVEMENT
Sta. 5+30.09 To Sta. 10+00.00 "SBR" Lt.

- * - Sawcut End Sta. 7+13.40
- j - Varies from 3'-6" at Sta. 5+30.89 "SBR" to 1'-0" at Sta. 6+55.89 "SBR" Equals 1'-0" from Sta. 6+55.89 "SBR" to Sta. 10+00.00 "SBR"

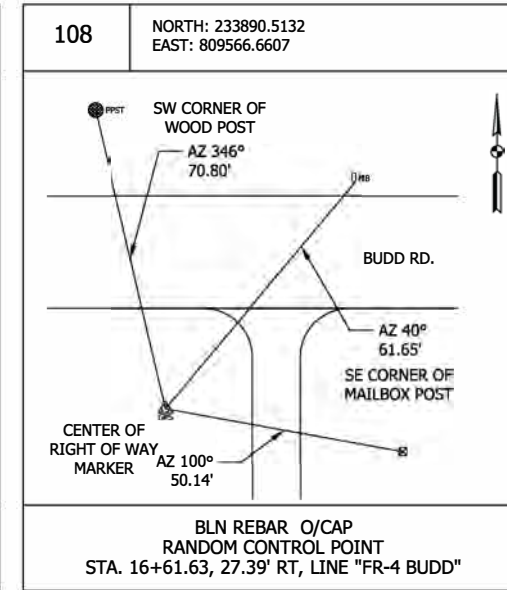
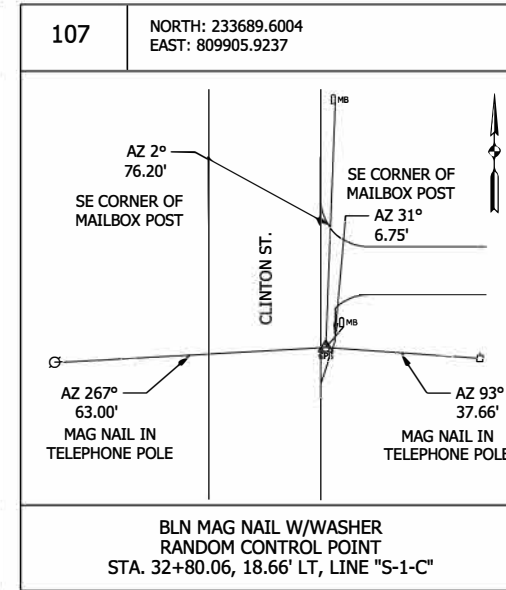
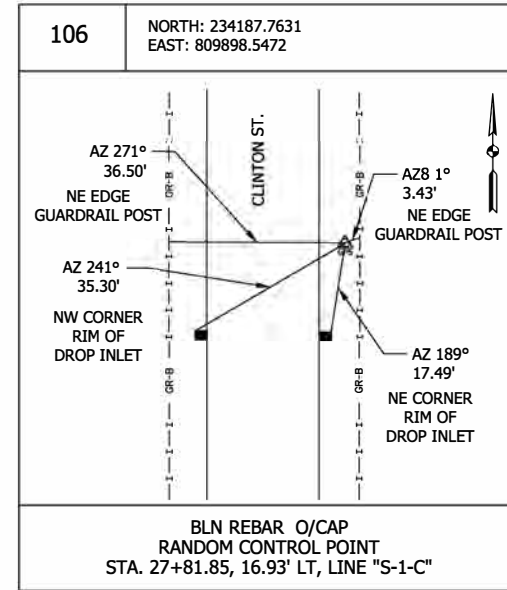
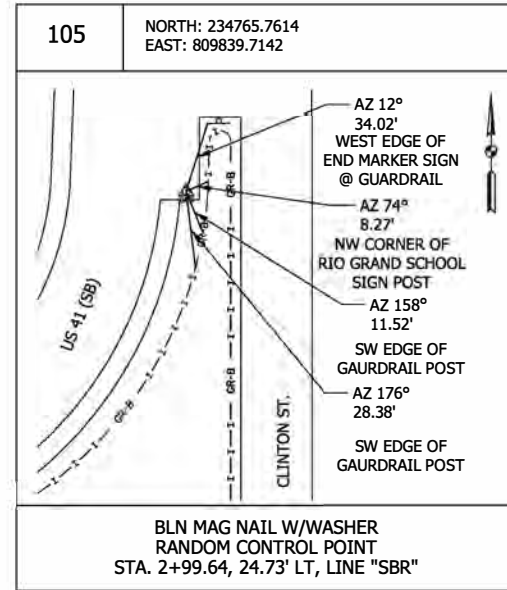
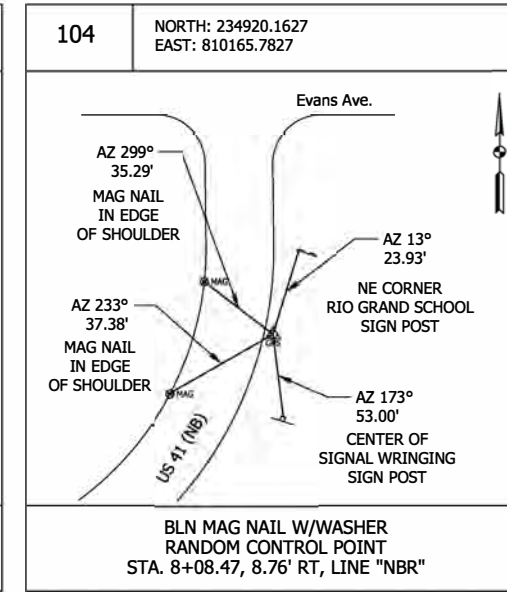
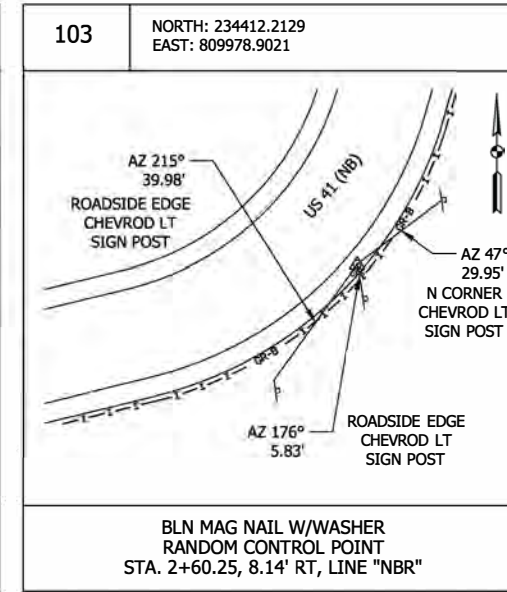
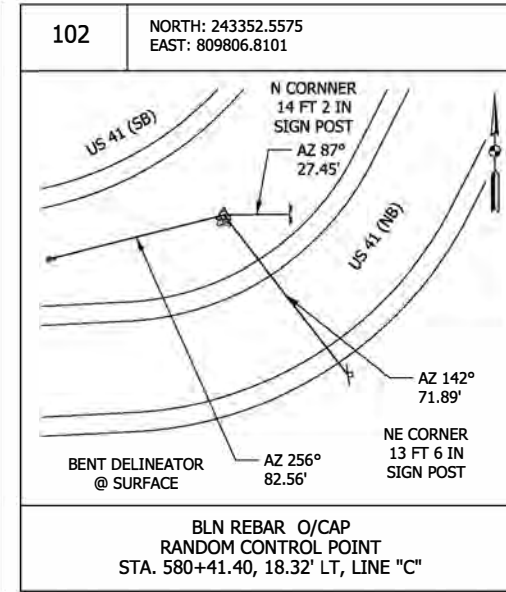
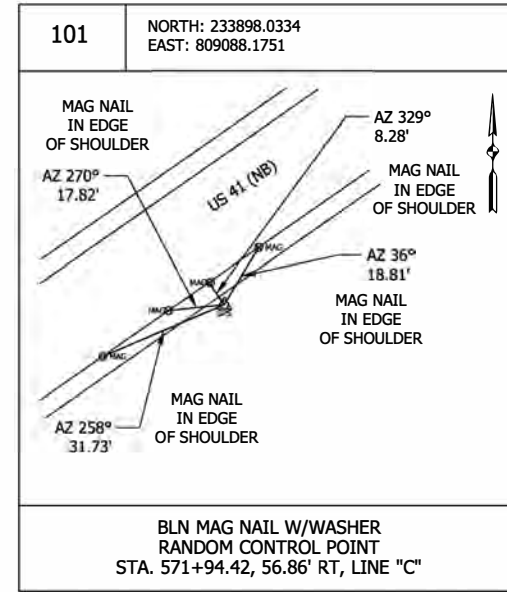
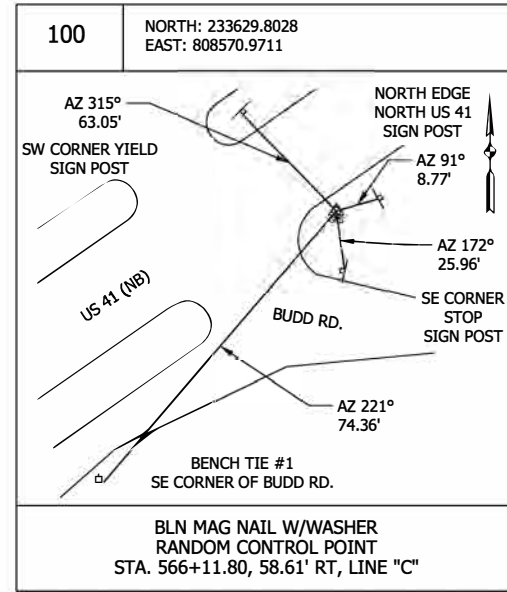
LEGEND

- (K) 165 #/Sys QC/QA HMA 3, 70, Surface, 9.5 mm on 275 #/Sys QC/QA HMA 3, 70, Intermediate, 19.0 mm on 440 #/Sys QC/QA HMA 3, 70, Base, 25.0 mm on, Subgrade Treatment, Type IC
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- (R) 165 #/Sys QC/QA HMA 3, 70, Surface, 9.5 mm on Milling Asphalt, 1.5"
- (W) 165 #/Sys QC/QA HMA 3, 70, Surface, 9.5 mm on HMA Widening, Type C Consisting of 275 #/Sys HMA Intermediate, Type C on 440 #/Sys HMA Base, Type C on, Subgrade Treatment, Type IC
- (TA) Truck Apron Consisting of: PCCP, 7", with D-1 Joints spaced at 18ft (Max.) (Measured at the back of the Mountable Curb and Gutter) with 1.0" Dia. Dowel Bars. 11" Compacted Aggregate, No. 53 Base, on Subgrade Treatment, Type IC
- (W1) 165 #/Sys QC/QA HMA 3, 70, Surface, 9.5 mm on HMA Wedge & Level, Type C (Variable Depth) on Profile Milling
- (O) Compacted Aggregate, No. 53
- (S) Saw Cut
- (13) Combined Curb and Gutter, Concrete, Type B
- (22) Center Curb, Concrete, Type B
- (23) Raised Corrugated Concrete Median
- (26) Seed Mixture, U

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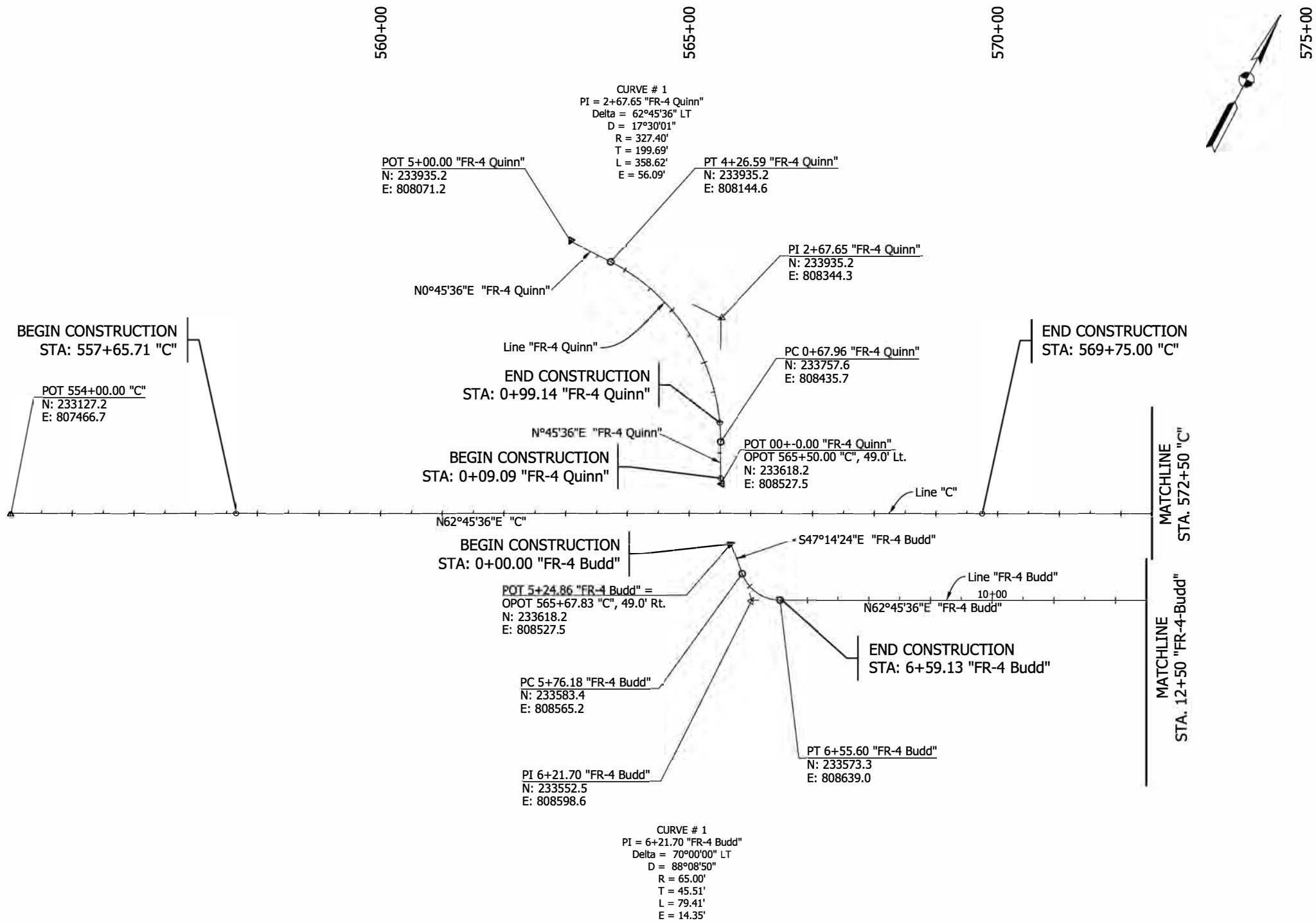
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DESIGNED: RAP _____		DRAWN: JJP _____				1"=4'		041-84-04322-ANBL	
CHECKED: DJG _____		CHECKED: RAP _____		TYPICAL SECTIONS		VERTICAL SCALE		DESIGNATION	
						N.A.		1500146	
						SURVEY BOOK		SHEETS	
						ELECTRONIC		5 of 102	
				CONTRACT		PROJECT			
				B-42975		1500146			

CONTROL POINT TIES



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RECOMMENDED FOR APPROVAL _____		DESIGN ENGINEER _____ DATE _____		INDIANA DEPARTMENT OF TRANSPORTATION		HORIZONTAL SCALE		BRIDGE FILE	
DESIGNED: RAP		DRAWN: JJP				N.A.		041-84-04322-ANBL	
CHECKED: DJG		CHECKED: RAP		CONTROL POINTS		VERTICAL SCALE		DESIGNATION	
						N.A.		1500146	
						SURVEY BOOK		SHEETS	
				ELECTRONIC		6 of 102			
				CONTRACT		PROJECT			
				B-42975		1500146			



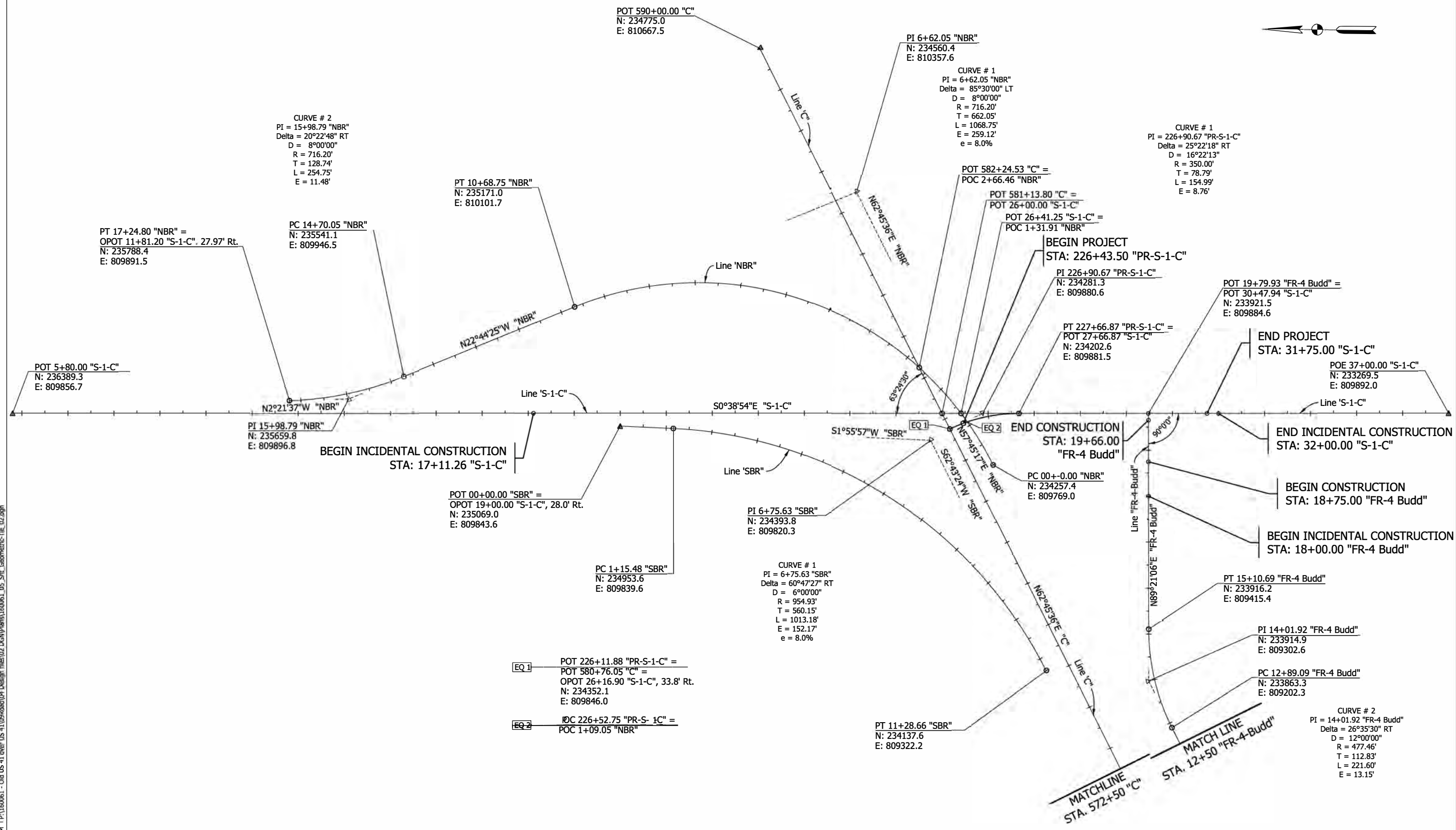
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RECOMMENDED FOR APPROVAL _____	DESIGN ENGINEER _____	DATE _____
DESIGNED: RAP _____	DRAWN: JJP _____	
CHECKED: DJG _____	CHECKED: RAP _____	

INDIANA DEPARTMENT OF TRANSPORTATION	
GEOMETRIC TIE-IN	

HORIZONTAL SCALE	BRIDGE FILE
1"=100'	041-84-04322-ANBL
VERTICAL SCALE	DESIGNATION
N.A.	1500146
SURVEY BOOK	SHEETS
ELECTRONIC	7 of 102
CONTRACT	PROJECT
B-42975	1500146

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RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: RAP	DRAWN: JJP	
CHECKED: DJG	CHECKED: RAP	

INDIANA DEPARTMENT OF TRANSPORTATION	
GEOMETRIC TIE-IN	

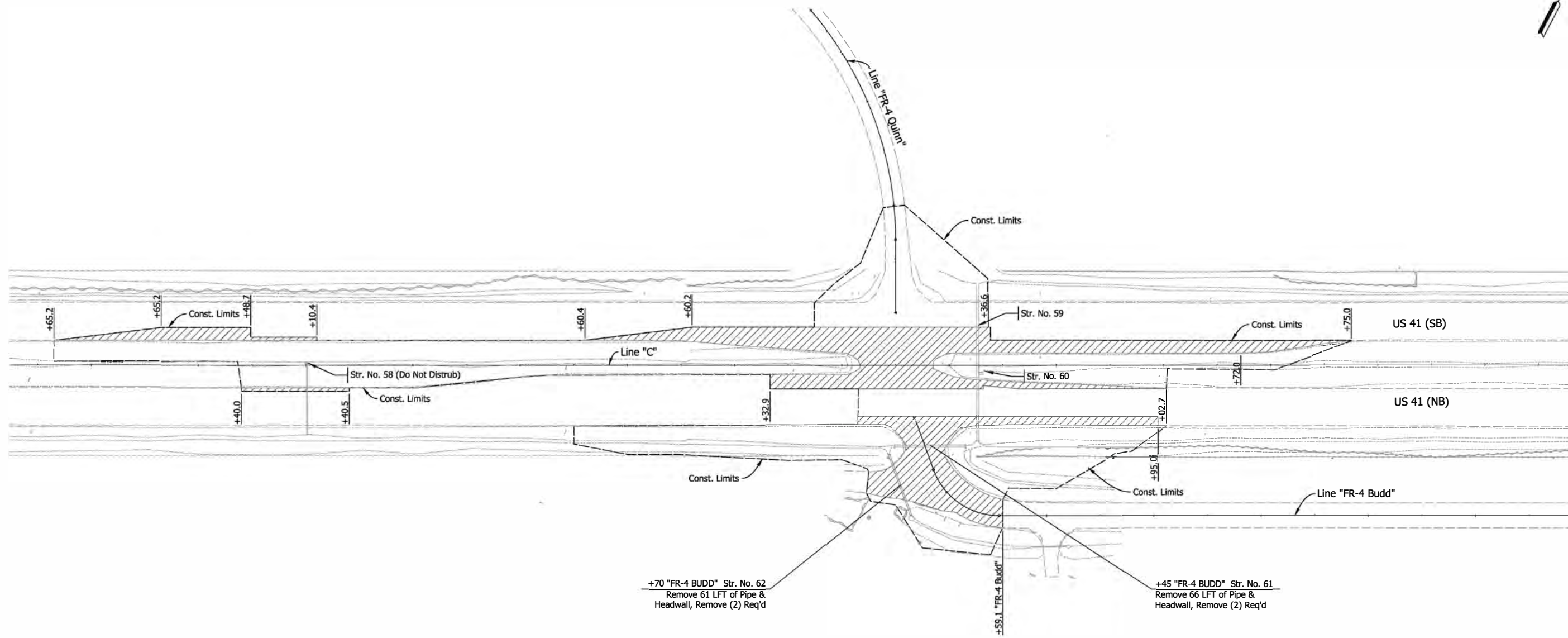
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1"=100'	041-84-04322-ANBL
VERTICAL SCALE	DESIGNATION
N.A.	1500146
SURVEY BOOK	SHEETS
ELECTRONIC	8 of 102
CONTRACT	PROJECT
B-42975	1500146



560+00

565+00

570+00

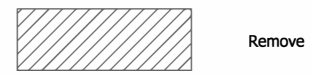


+70 "FR-4 BUDD" Str. No. 62
Remove 61 LFT of Pipe & Headwall, Remove (2) Req'd

+59.1 "FR-4 Budd"

+45 "FR-4 BUDD" Str. No. 61
Remove 66 LFT of Pipe & Headwall, Remove (2) Req'd

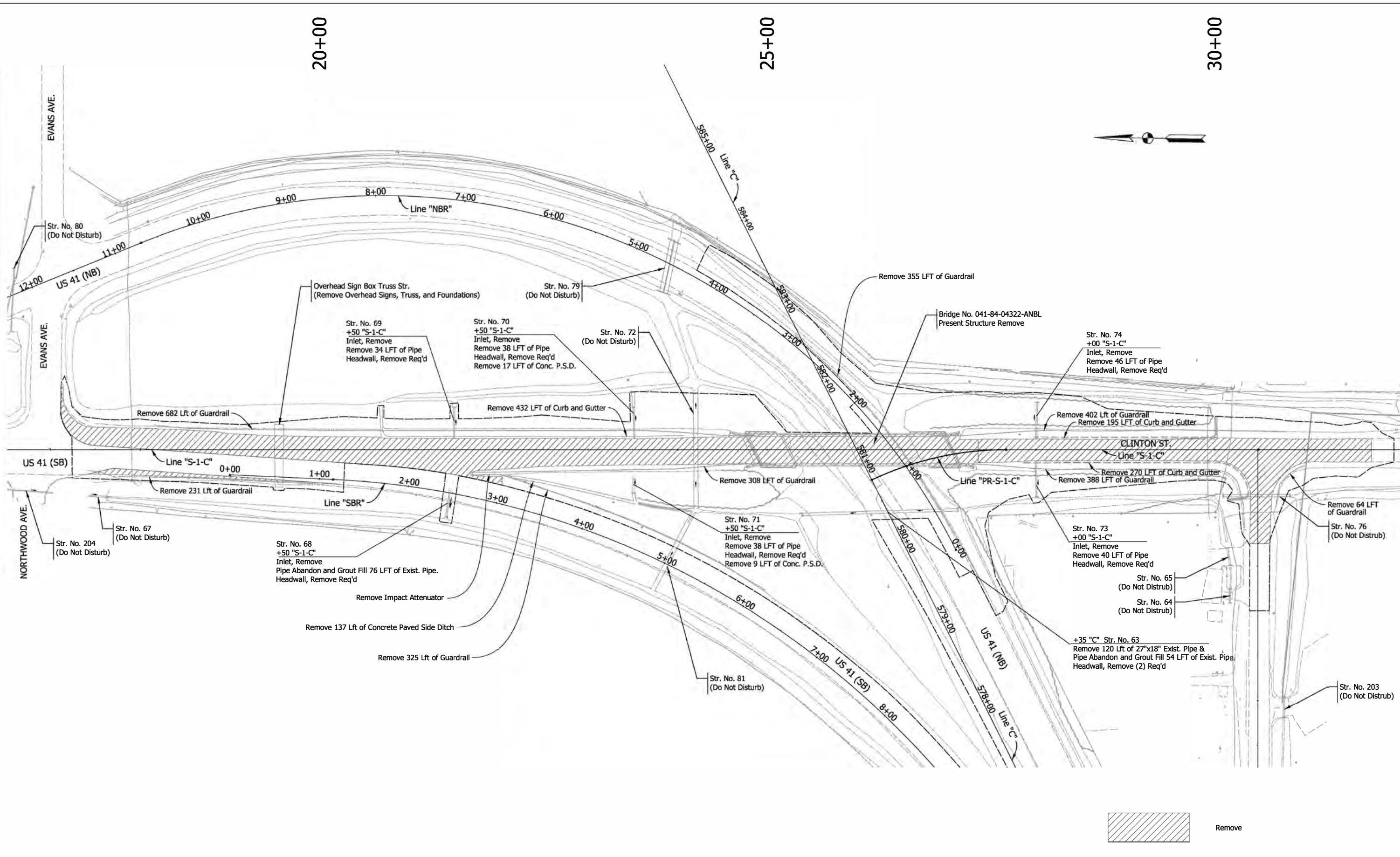
Note: See Construction Detail Sheets for Station and Offset for Sawcut and Limits of Removals.



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RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION		HORIZONTAL SCALE	BRIDGE FILE
			1"=50'	041-84-04322-ANBL
DESIGNED: RAP	DRAWN: JJP	DEMOLITION PLAN	VERTICAL SCALE	DESIGNATION
CHECKED: DJG	CHECKED: RAP		N.A.	1500146
			SURVEY BOOK	SHEETS
			ELECTRONIC	9 of 102
			CONTRACT	PROJECT
			B-42975	1500146

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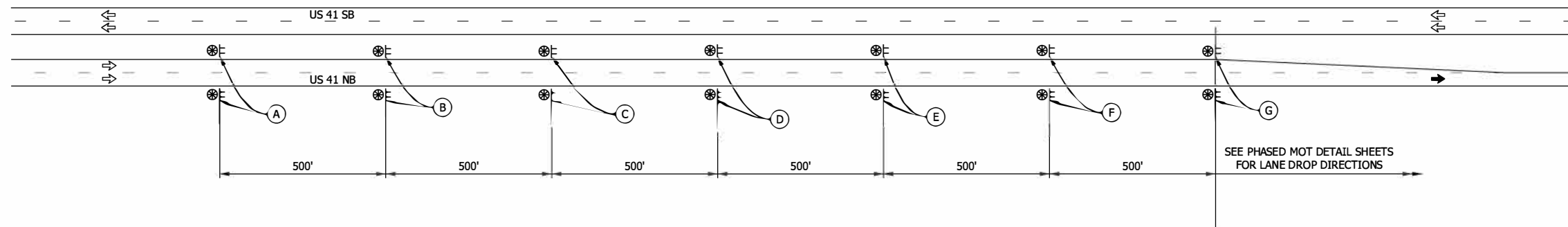


Remove

RECOMMENDED FOR APPROVAL _____	DESIGN ENGINEER _____	DATE _____
DESIGNED: RAP _____	DRAWN: JJP _____	
CHECKED: DJG _____	CHECKED: RAP _____	

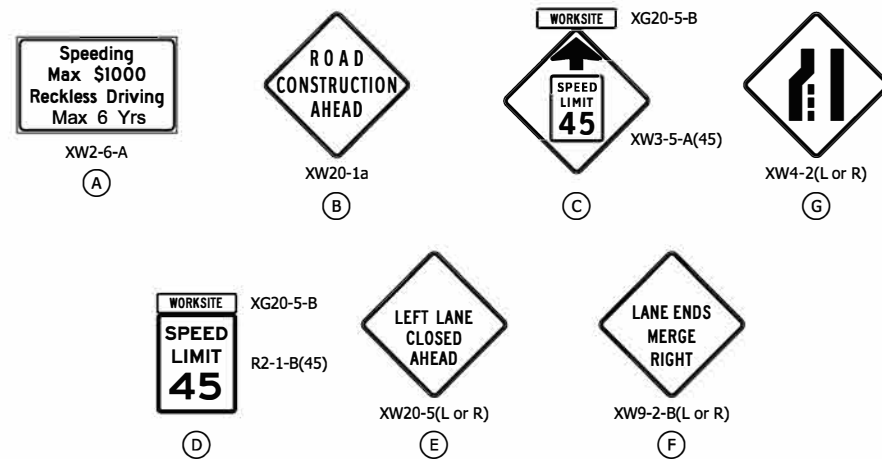
INDIANA DEPARTMENT OF TRANSPORTATION
DEMOLITION PLAN

HORIZONTAL SCALE 1"=50'	BRIDGE FILE 041-84-04322-ANBL
VERTICAL SCALE N.A.	DESIGNATION 1500146
SURVEY BOOK ELECTRONIC	SHEETS 10 of 102
CONTRACT B-42975	PROJECT 1500146



ADVANCE SIGNING DETAIL - US 41
N.T.S.

SIGN LEGEND - US 41



MAINTENANCE OF TRAFFIC SUMMARY TABLE					
	Unit	Phase I	Phase II	Phase III	Total
Detour Route Marker Assembly	Each	0	0	37	37
Road Closure Sign Assembly	Each	0	1	4	4
Construction Sign, A	Each	45	24	32	57
Construction Sign, B	Each	13	11	11	16
Barricade, III-A	LFT	0	0	84	84
Barricade, III-B	LFT	0	48	204	204
Flashing Arrow Sign	DAY	0	0	60	60
Temporary Pavement Marking, 4in (White)	LFT	3092	3864	1755	8711
Temporary Pavement Marking, 4in (Yellow)	LFT	3246	4162	2055	9463
Temporary Transverse Markings White Stop Line 24 in	LFT	0	0	14	14
Temporary Traffic Barrier, Type 2	LFT	0	2201	641	2201
Energy Absorption Terminal, CZ TL-2	Each	0	3	1	3

Note To Reviewer:
This project is not considered a Significant project. See Design Computations, No TMP report req'd.

Construction Zone Design Speed = 45 MPH (Line "C")
Construction Clear Zone = 16 ft (Line "C")

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RECOMMENDED FOR APPROVAL _____	DESIGN ENGINEER _____	DATE _____
DESIGNED: RAP _____	DRAWN: JJP _____	
CHECKED: DJG _____	CHECKED: RAP _____	

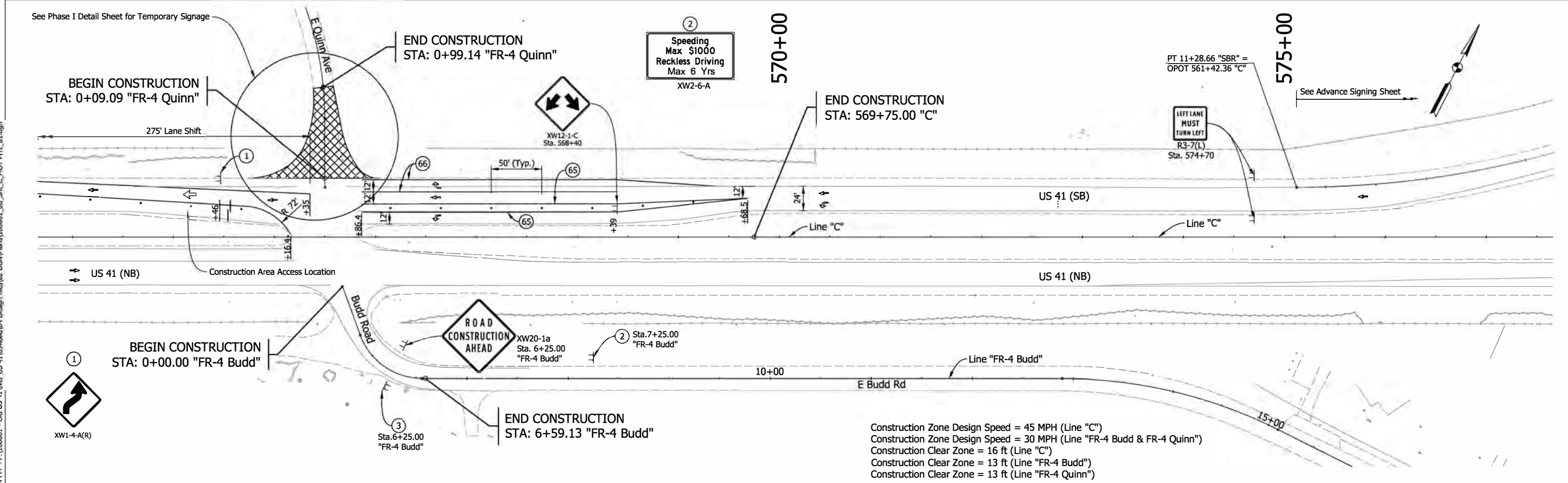
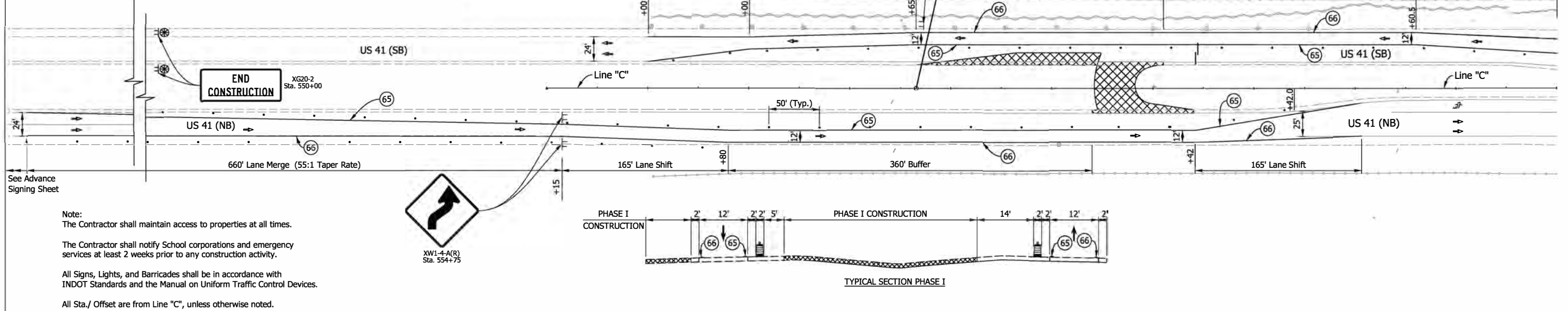
**INDIANA
DEPARTMENT OF TRANSPORTATION**

**MAINTENANCE OF TRAFFIC
ADVANCED SIGNING**

HORIZONTAL SCALE	BRIDGE FILE
N/A	041-84-04322-ANBL
VERTICAL SCALE	DESIGNATION
N.A.	1500146
SURVEY BOOK	SHEETS
ELECTRONIC	11 of 102
CONTRACT	PROJECT
B-42975	1500146

MOT SEQUENCE OF OPERATIONS PHASE I

1. Install Advance Warning Signs. (See Advance Sign Sheet)
2. Remove conflicting existing Pavement Markings. Cover Conflicting Existing Signage. Install Temporary Pavement Markings and Channelizing devices.
3. Construct Quinn Avenue using Phased Construction. The Contractor shall maintain access at all times.
4. Construct Median U-Turn at approx. Sta. 560+00 and remove existing pavement as shown to construct dedicated Left Turn Lane along US 41 (SB). The Contractor shall maintain access at all times. Install Proposed signage as necessary.
5. Reduce US 41 traffic to one travel lane in each direction. Maintain existing traffic patterns along Line "S-1-C"



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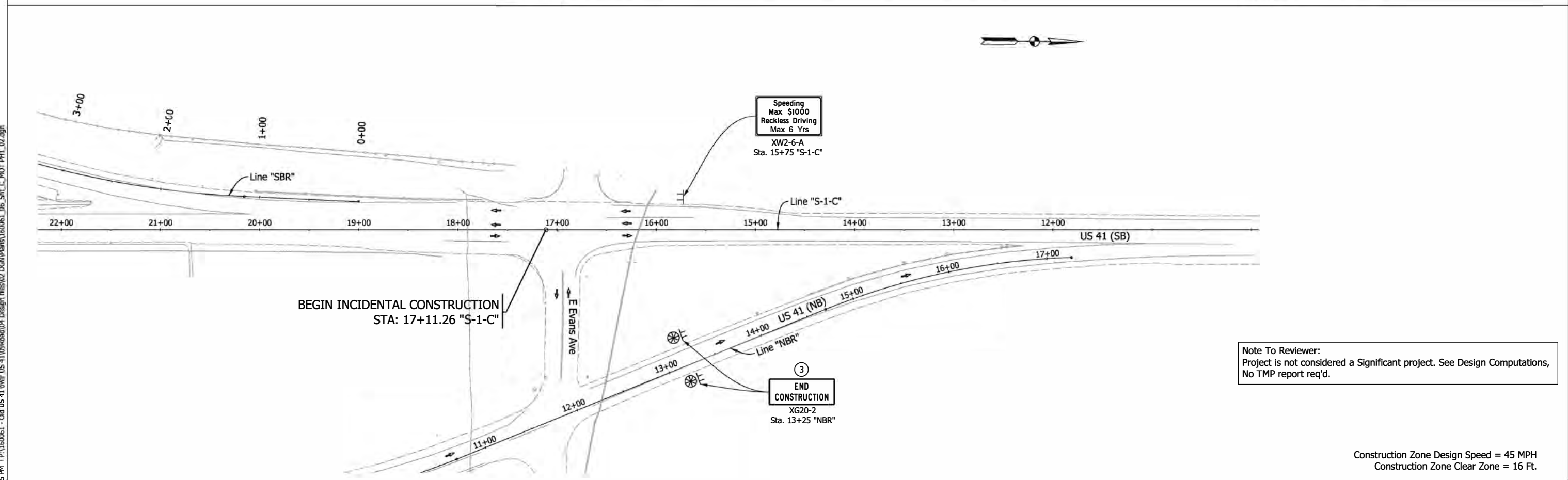
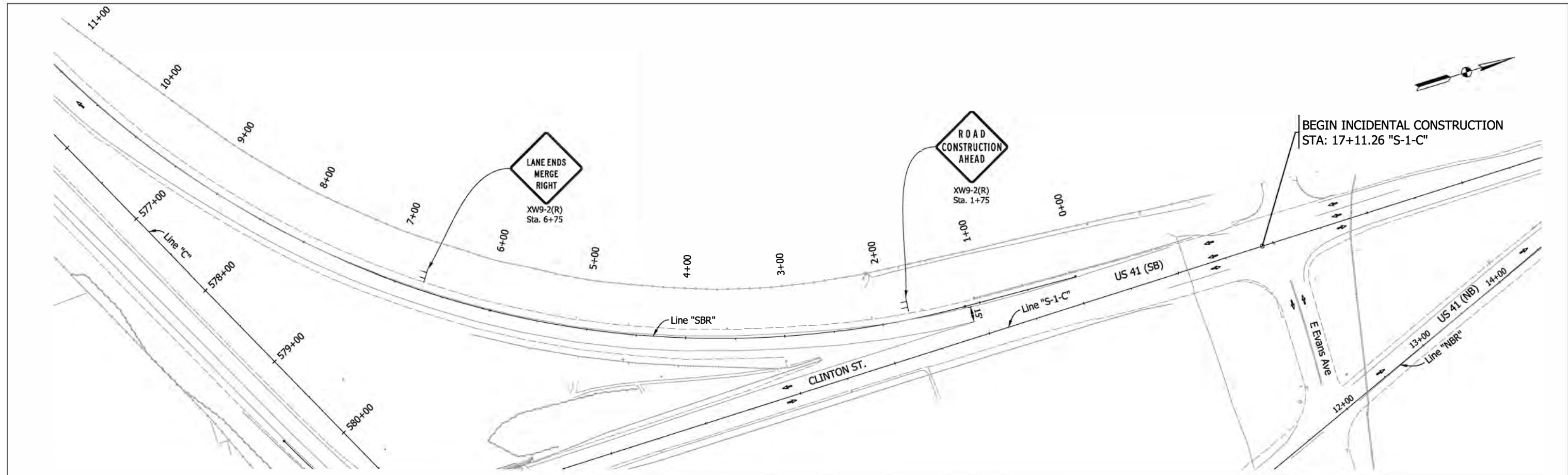
(65) Temporary Pavement Marking, Removable, Yellow, Solid, 4"	Energy Absorbing Terminal, CZ TL-2	Area Under Construction
(66) Temporary Pavement Marking, Removable, White, Solid, 4"	Construction Sign with Warning Light	Barricade, Type III-B
(TB) Temporary Traffic Barrier, Type 2	Construction Sign	
● Drum, Channelizing Devise (@ Spacing 50' tangent & 25' tapered)	Travel Lane	

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: RAP	DRAWN: JJP	
CHECKED: DJG	CHECKED: RAP	

INDIANA DEPARTMENT OF TRANSPORTATION	
MANTENANCE OF TRAFFIC PHASE I	

HORIZONTAL SCALE	BRIDGE FILE
1"=50'	041-84-04322-ANBL
VERTICAL SCALE	DESIGNATION
N.A.	1500146
SURVEY BOOK	SHEETS
ELECTRONIC	12 of 102
CONTRACT	PROJECT
B-42975	1500146

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Note To Reviewer:
Project is not considered a Significant project. See Design Computations,
No TMP report req'd.

Construction Zone Design Speed = 45 MPH
Construction Zone Clear Zone = 16 Ft.

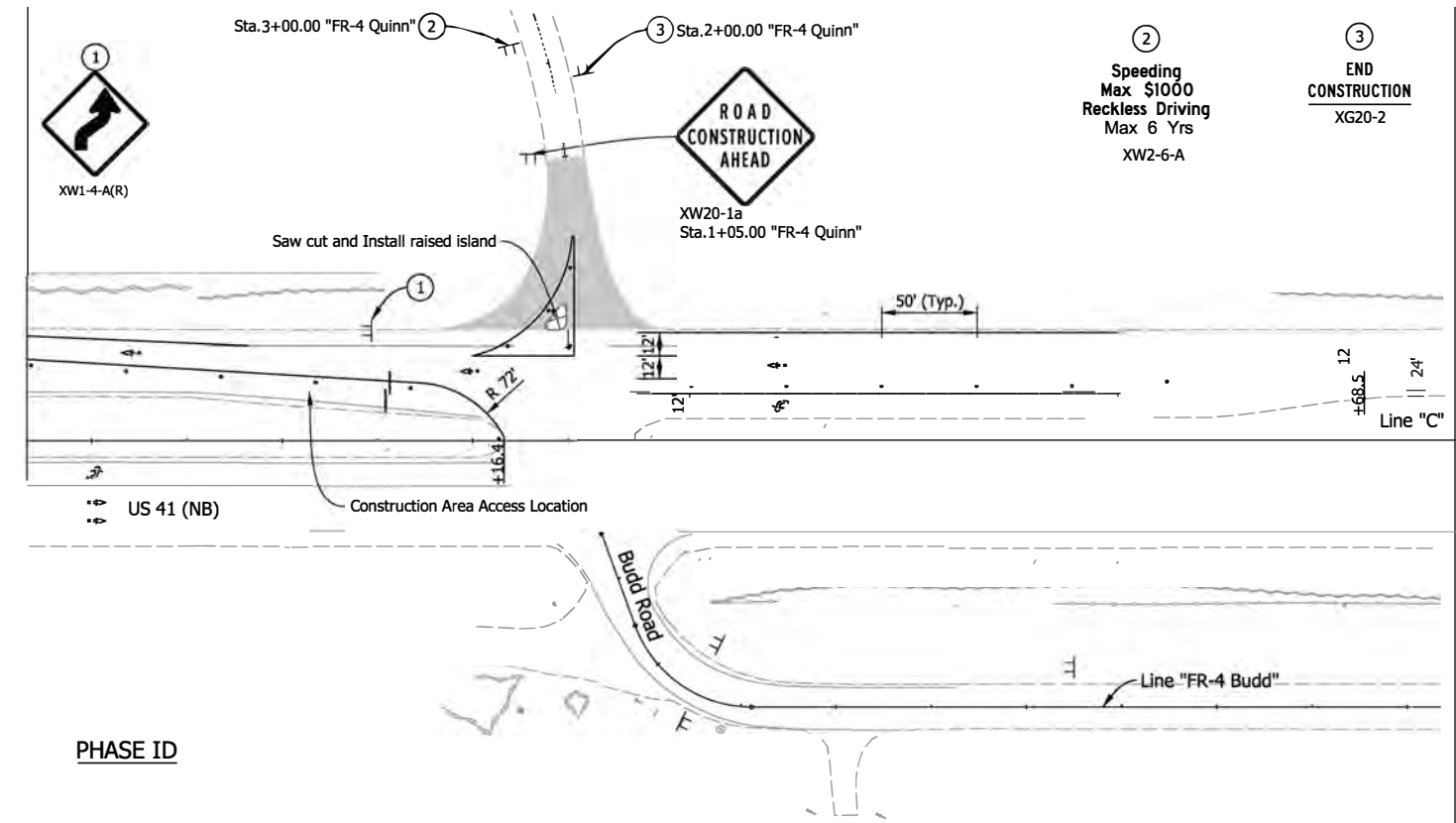
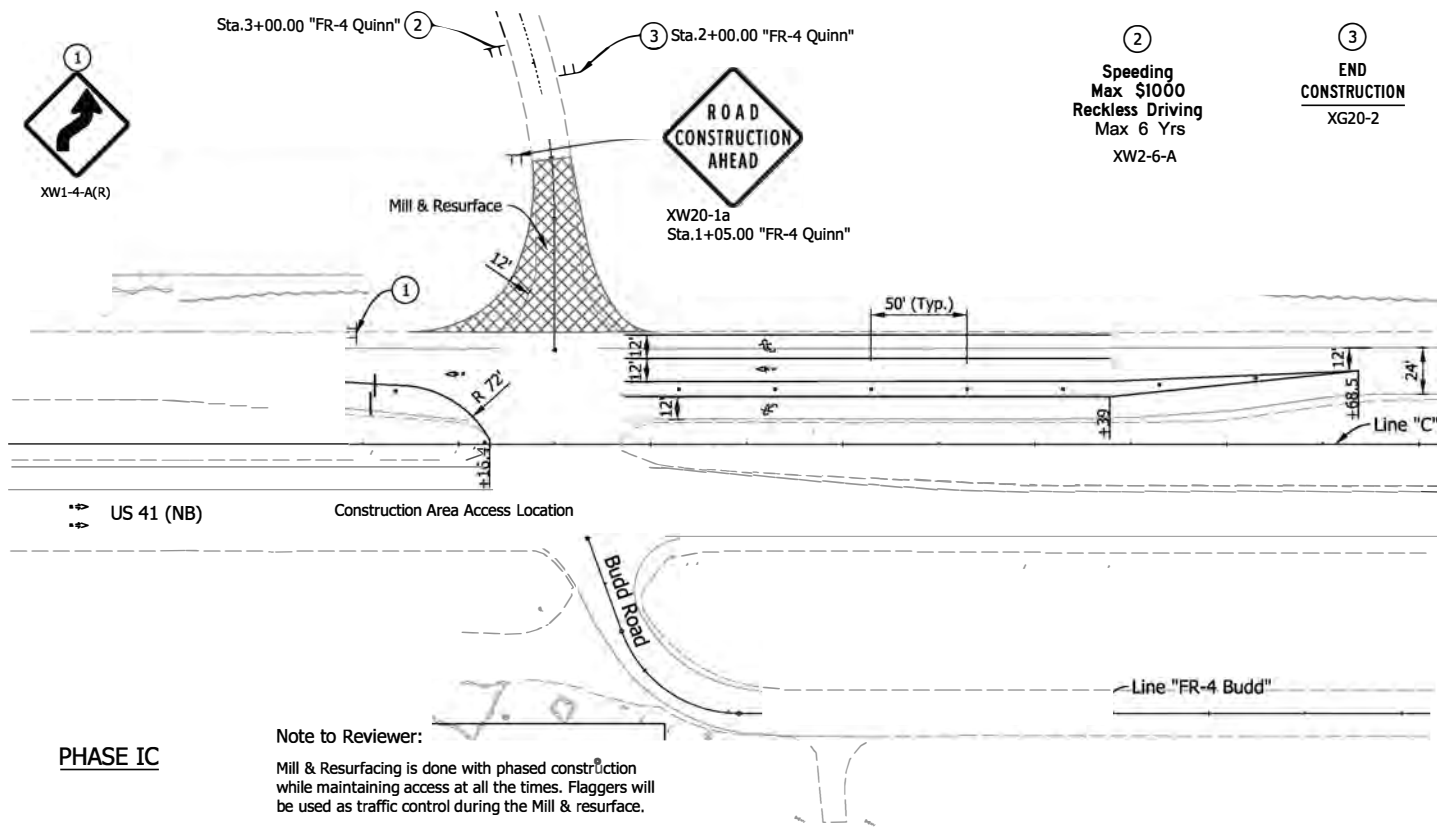
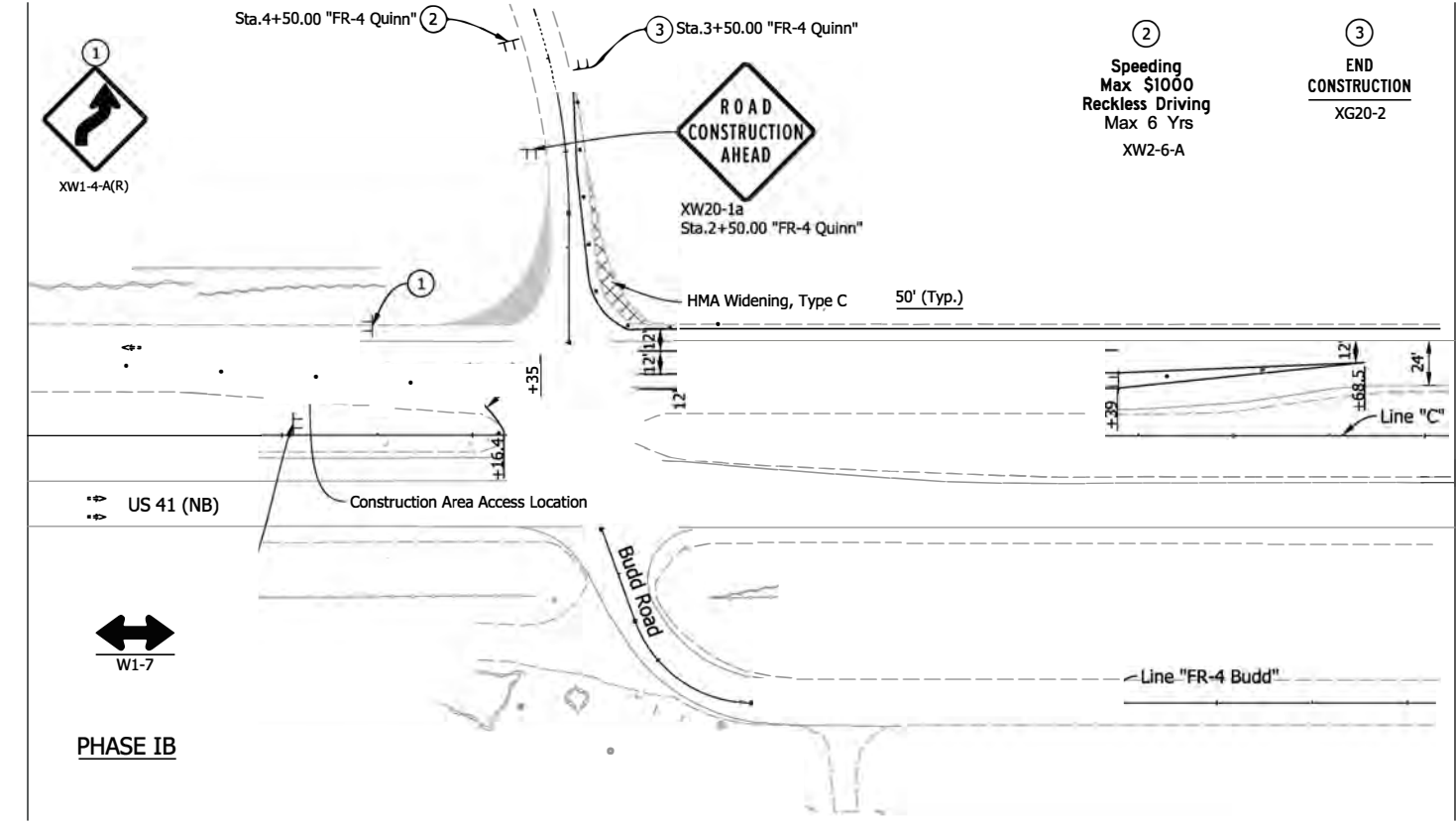
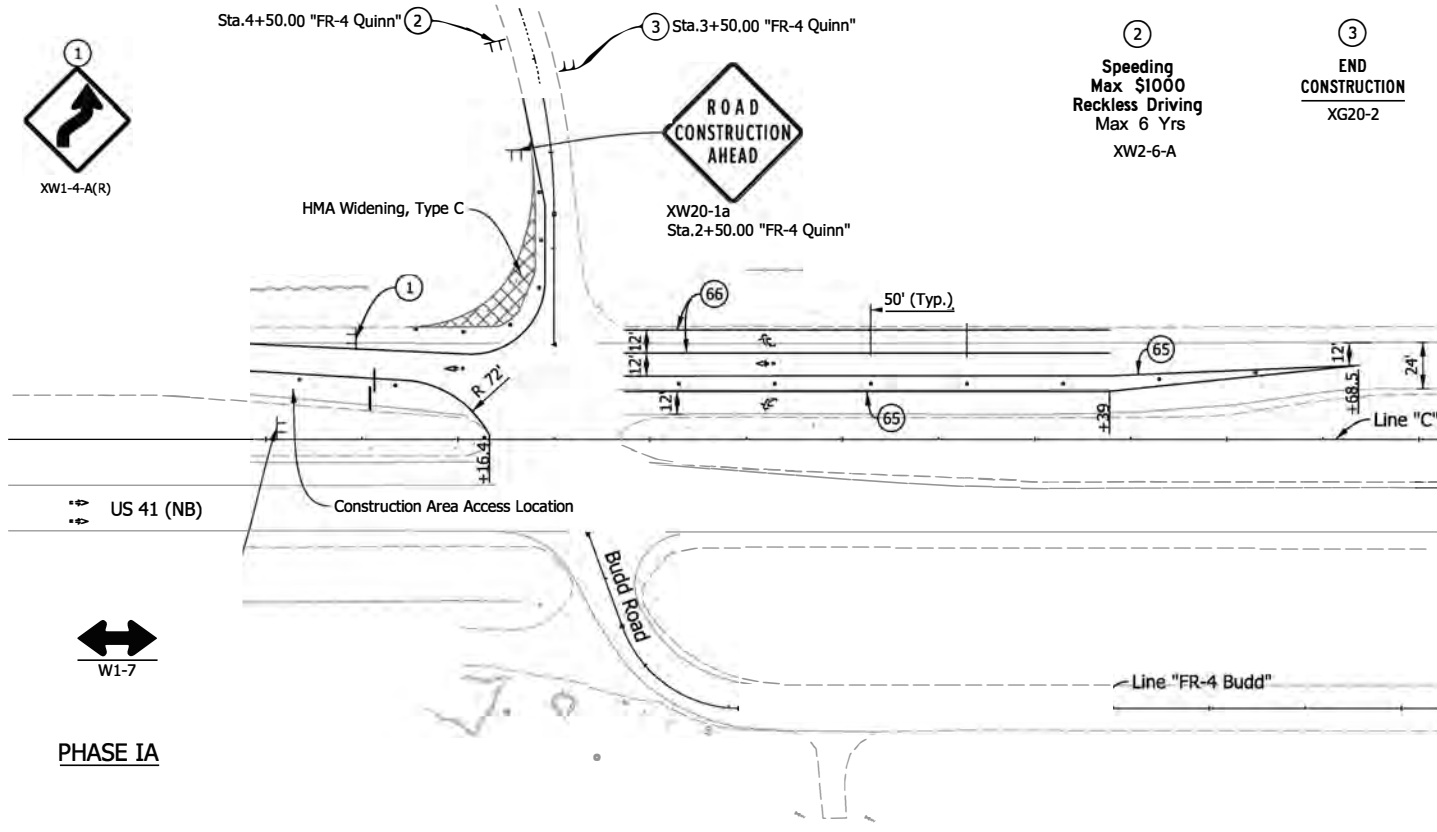
- (65) Temporary Pavement Marking, Removable, Yellow, Solid, 4" ● Drum, Channelizing Device → Travel Lane
- (66) Temporary Pavement Marking, Removable, White, Solid, 4" ☒ Area Under Construction ⊕ Construction Sign with Warning Light
- (TB) Temporary Traffic Barrier, Type 2 ⊥ Construction Sign

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: RAP	DRAWN: JJP	
CHECKED: DJG	CHECKED: RAP	

**INDIANA
DEPARTMENT OF TRANSPORTATION**

**MANTENANCE OF TRAFFIC
PHASE I**

HORIZONTAL SCALE	BRIDGE FILE
1"=50'	041-84-04322-ANBL
VERTICAL SCALE	DESIGNATION
N.A.	1500146
SURVEY BOOK	SHEETS
ELECTRONIC	13 of 102
CONTRACT	PROJECT
B-42975	1500146



Note to Reviewer:
Mill & Resurfacing is done with phased construction while maintaining access at all the times. Flaggers will be used as traffic control during the Mill & resurface.

- (65) Temporary Pavement Marking, Removable, Yellow, Solid, 4" Energy Absorbing Terminal, CZ TL-2 Area Under Construction
- (66) Temporary Pavement Marking, Removable, White, Solid, 4" Construction Sign with Warning Light Barricade, Type III-B
- (TB) Temporary Traffic Barrier, Type 2 Construction Sign Completed Area
- Drum, Channelizing Devise (@ Spacing 50' tangent & 25' tapered) Travel Lane

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE _____

DESIGNED: RAP _____ DRAWN: JJP _____

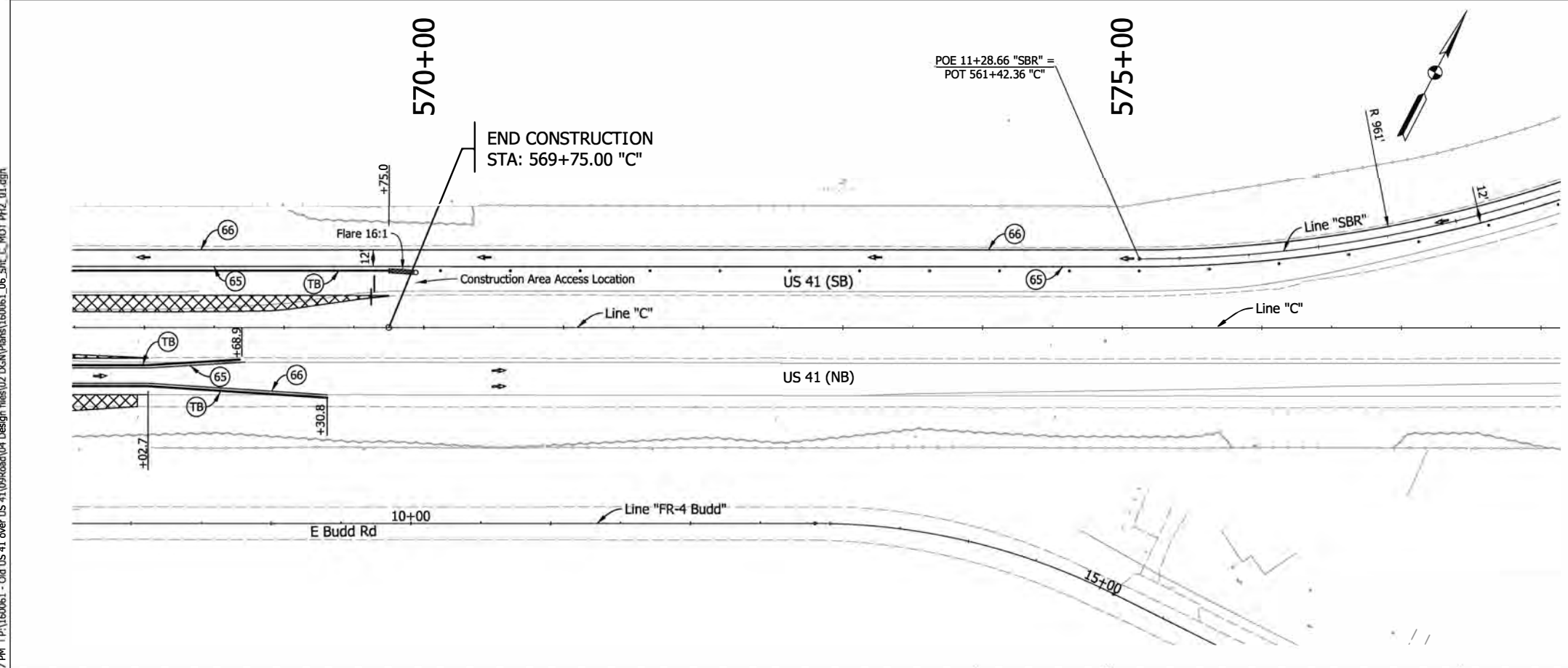
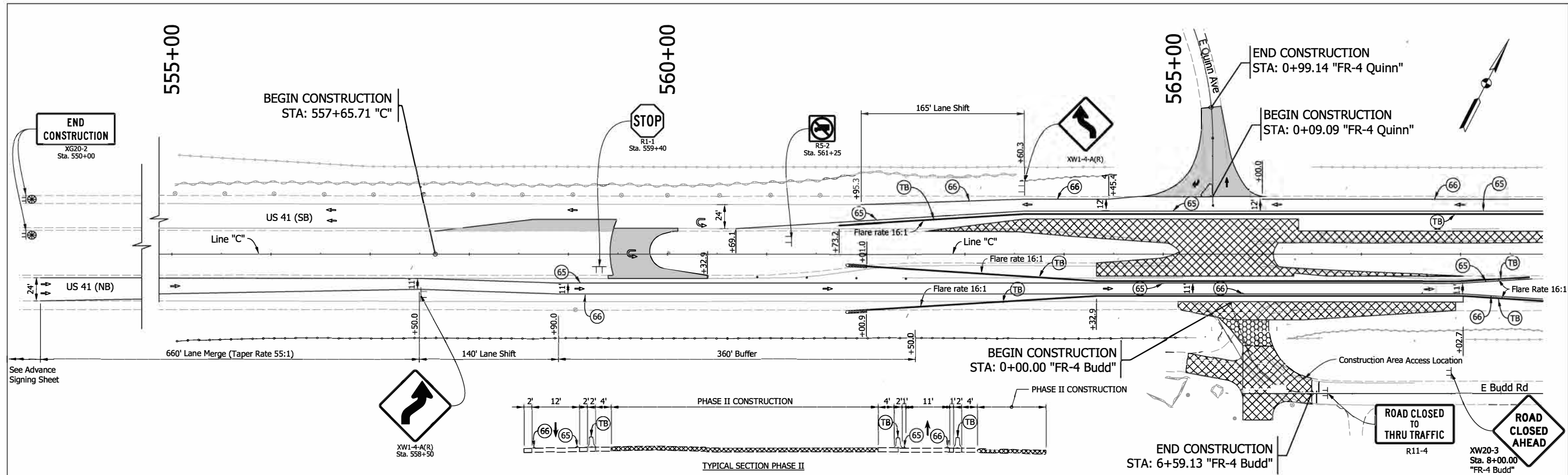
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**INDIANA
DEPARTMENT OF TRANSPORTATION**

**MAINTENANCE OF TRAFFIC
PHASE I DETAILS**

HORIZONTAL SCALE 1"=50' VERTICAL SCALE N.A. SURVEY BOOK ELECTRONIC CONTRACT B-42975	BRIDGE FILE 041-84-04322-ANBL DESIGNATION 1500146 SHEETS 14 of 102 PROJECT 1500146
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US 41 over US 41109road\04 Design\102.DGN\Plans\160061_06_Sht_C_MOT_PHL_03.dgn 46 PM 02/21/17 5/



- MOT SEQUENCE OF OPERATIONS PHASE II**
1. Remove conflicting existing Pavement Markings and Temporary Signage.
 2. Cover Conflicting Existing Signage.
 3. Shift Advance Signage as needed. Install Temporary Pavement Markings, Channelizing Devices, and temporary signing as shown.
 4. Construct Median J-Turn, Truck Loon and Budd Road Hammerhead Turnaround. Complete Drainage Structure Installation and Ditch Grading. Install Proposed signage as necessary.
 5. Following the completion of all other Phase II construction, the Contractor shall construct a temporary connection between US 41 (NB) and Budd Road using compacted aggregate, No. 53 temporary for driveways to be utilized in Phase III to maintain local access. Cross Sections will be provided at subsequent phases detailing the temporary connection.

Note:
The Contractor shall maintain access to properties at all times.

The Contractor shall notify School corporations and emergency services at least 2 weeks prior to any construction activity.

All Signs, Lights, and Barricades shall be in accordance with INDOT Standards and the Manual on Uniform Traffic Control Devices.

All Sta./ Offset are from Line "C", unless otherwise noted.

Construction Zone Design Speed = 45 MPH (Line "C")
 Construction Zone Design Speed = 30 MPH (Line "FR-4 Budd & FR-4 Quinn")
 Construction Zone Clear Zone = 16 ft (Line "C")
 Construction Zone Clear Zone = 13 ft (Line "FR-4 Budd")
 Construction Zone Clear Zone = 13 ft (Line "FR-4 Quinn")

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(65) Temporary Pavement Marking, Removable, Yellow, Solid, 4"	Area Under Construction	Compacted Aggregate, No. 53 Temporary for Driveways
(66) Temporary Pavement Marking, Removable, White, Solid, 4"	Energy Absorbing Terminal, CZ TL-2	Construction Sign with Warning Light
(TB) Temporary Traffic Barrier, Type 2	Barricade, Type III-B	Construction Sign
● Drum, Channelizing device	Previous Phase Construction	Travel Lane

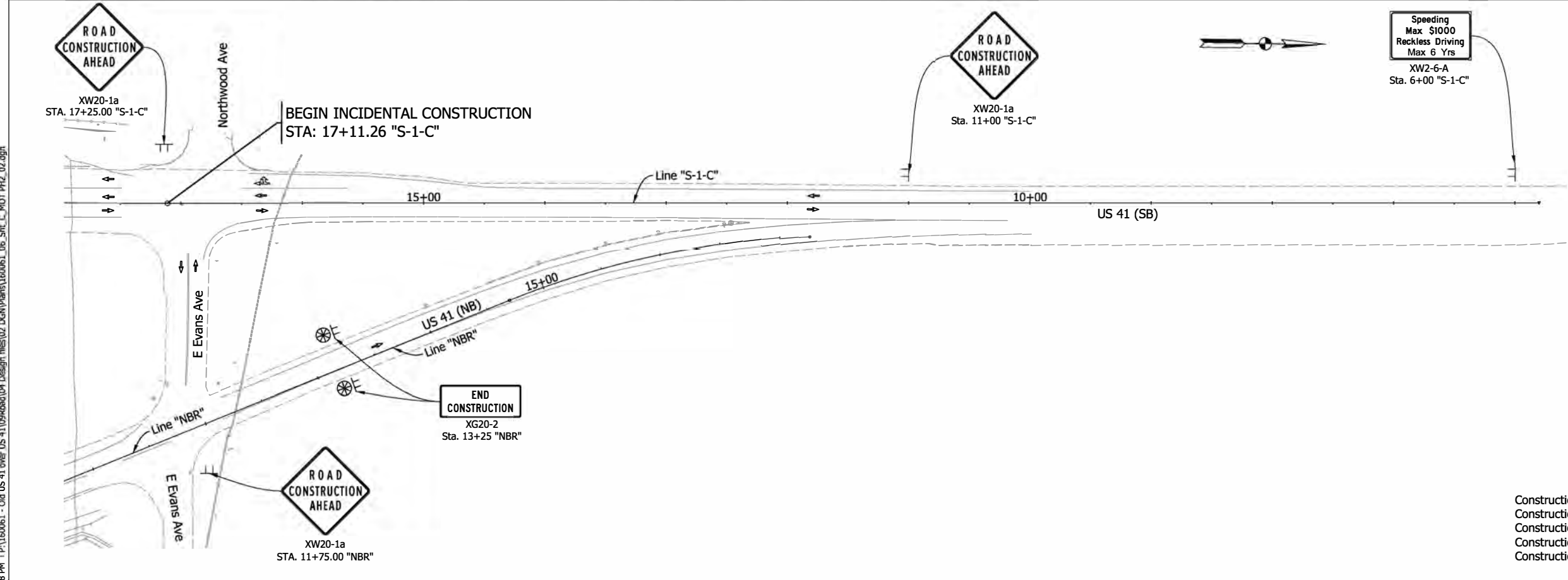
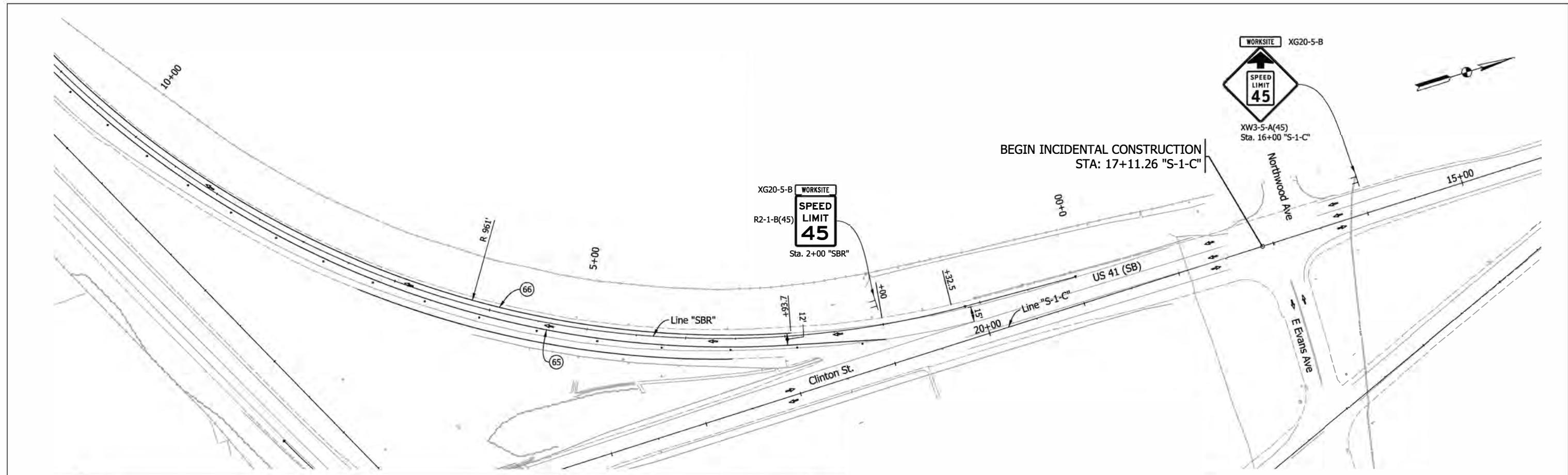
RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: RAP	DRAWN: JJP	
CHECKED: DJG	CHECKED: RAP	

INDIANA DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC PHASE II

HORIZONTAL SCALE	BRIDGE FILE
1"=50'	041-84-04322-ANBL
VERTICAL SCALE	DESIGNATION
N.A.	1500146
SURVEY BOOK	SHEETS
ELECTRONIC	15 of 102
CONTRACT	PROJECT
B-42975	1500146

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Note:
 The Contractor shall maintain access to properties at all times.
 The Contractor shall notify School corporations and emergency services at least 2 weeks prior to any construction activity.
 All Signs, Lights, and Barricades shall be in accordance with INDOT Standards and the Manual on Uniform Traffic Control Devices.
 All Sta./ Offset are from Line "SBR", unless otherwise noted.
 Construction Sign locations are approximate and may be adjusted upon approval by the Engineer.

Construction Zone Design Speed = 45 MPH (Line "C")
 Construction Zone Design Speed = 30 MPH (Line "FR-4 Budd & FR-4 Quinn")
 Construction Zone Clear Zone = 16 ft (Line "C")
 Construction Zone Clear Zone = 13 ft (Line "FR-4 Budd")
 Construction Zone Clear Zone = 13 ft (Line "FR-4 Quinn")

- (65) Temporary Pavement Marking, Removable, Yellow, Solid, 4" ● Drum, Channelizing device ➔ Travel Lane
- (66) Temporary Pavement Marking, Removable, White, Solid, 4" ☒ Area Under Construction
- (TB) Temporary Traffic Barrier, Type 2 🚧 Construction Sign

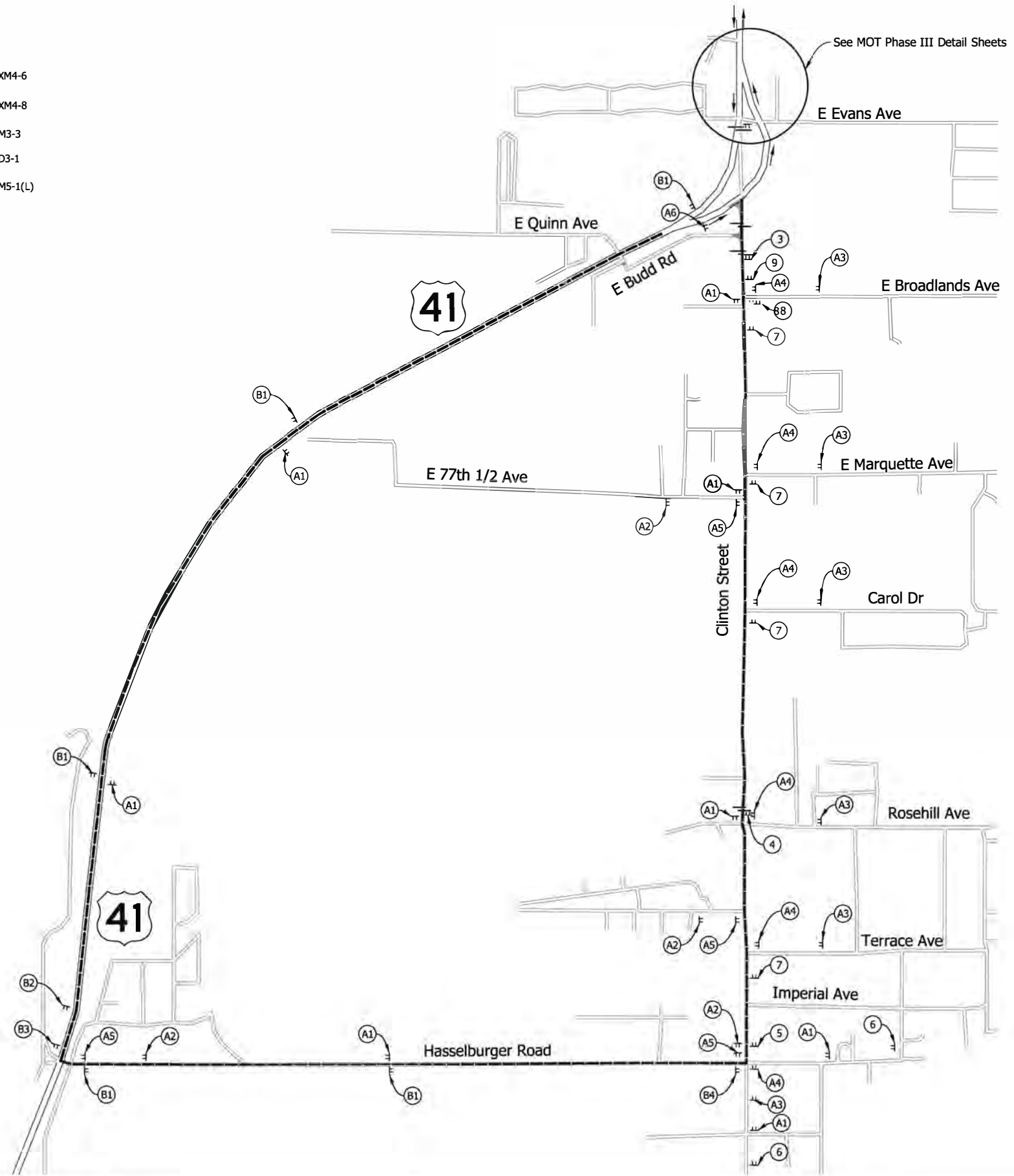
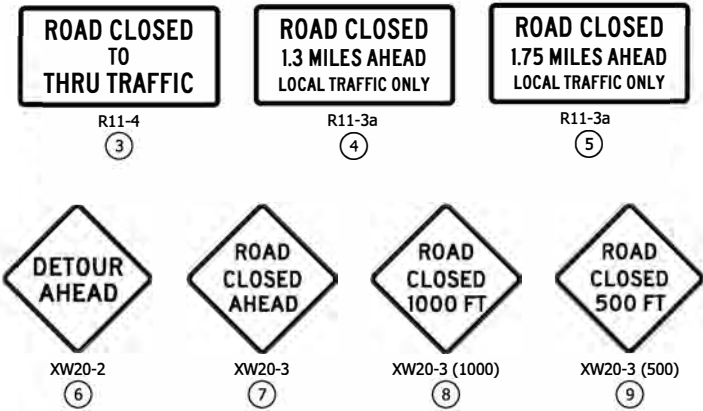
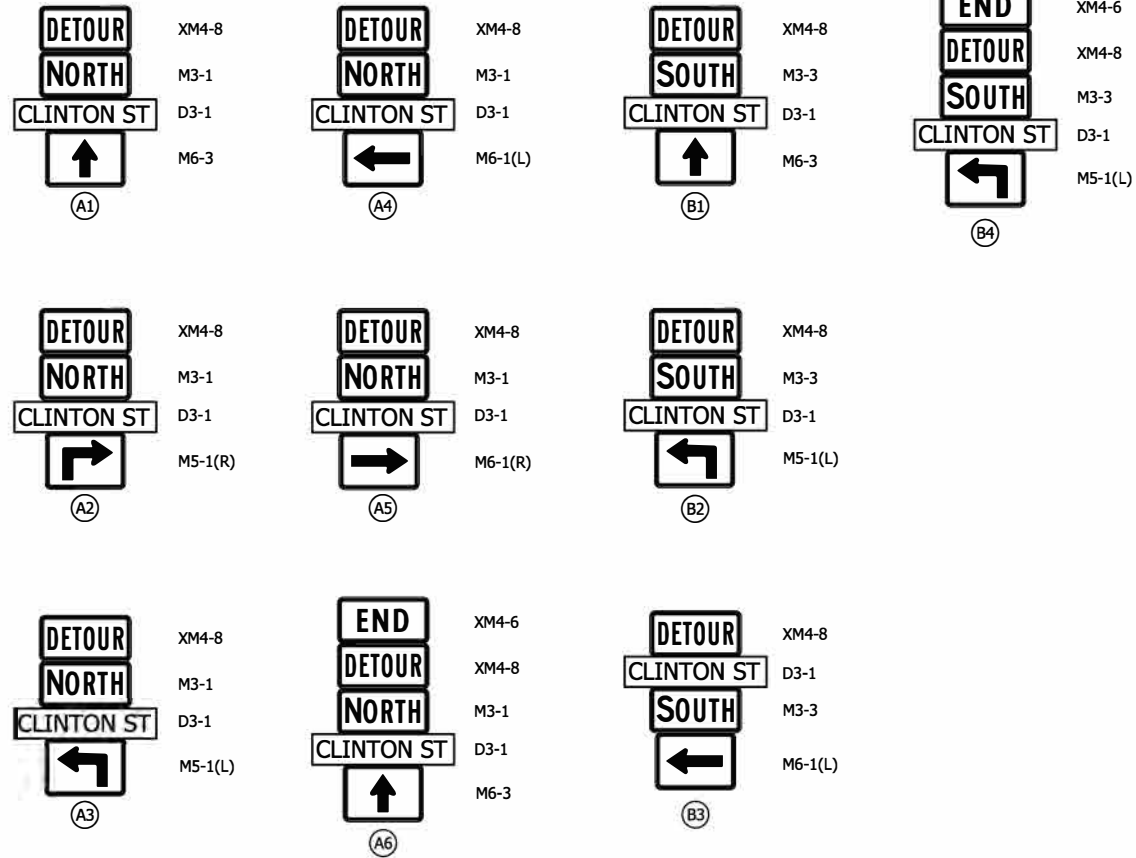
RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: RAP	DRAWN: JJP	
CHECKED: DJG	CHECKED: RAP	

**INDIANA
DEPARTMENT OF TRANSPORTATION**

**MAINTENANCE OF TRAFFIC
PHASE II**

HORIZONTAL SCALE	BRIDGE FILE
1"=50'	041-84-04322-ANBL
VERTICAL SCALE	DESIGNATION
N.A.	1500146
SURVEY BOOK	SHEETS
ELECTRONIC	16 of 102
CONTRACT	PROJECT
B-42975	1500146

DETOUR ROUTE MARKER ASSEMBLIES



5/13/2022 5:13:22 PM 6:36:49 PM I:\160061 - Old US 41 over US 41\090Road\04 Design files\02 DGN\Plans\150061_06_Sht_MDT_Detour_01.dgn

LEGEND:

- Detour Route
- Construction Sign and Supports
- Barricade, Type III-B

RECOMMENDED FOR APPROVAL _____	DESIGN ENGINEER _____	DATE _____
DESIGNED: RAP _____	DRAWN: JJP _____	
CHECKED: DJG _____	CHECKED: RAP _____	

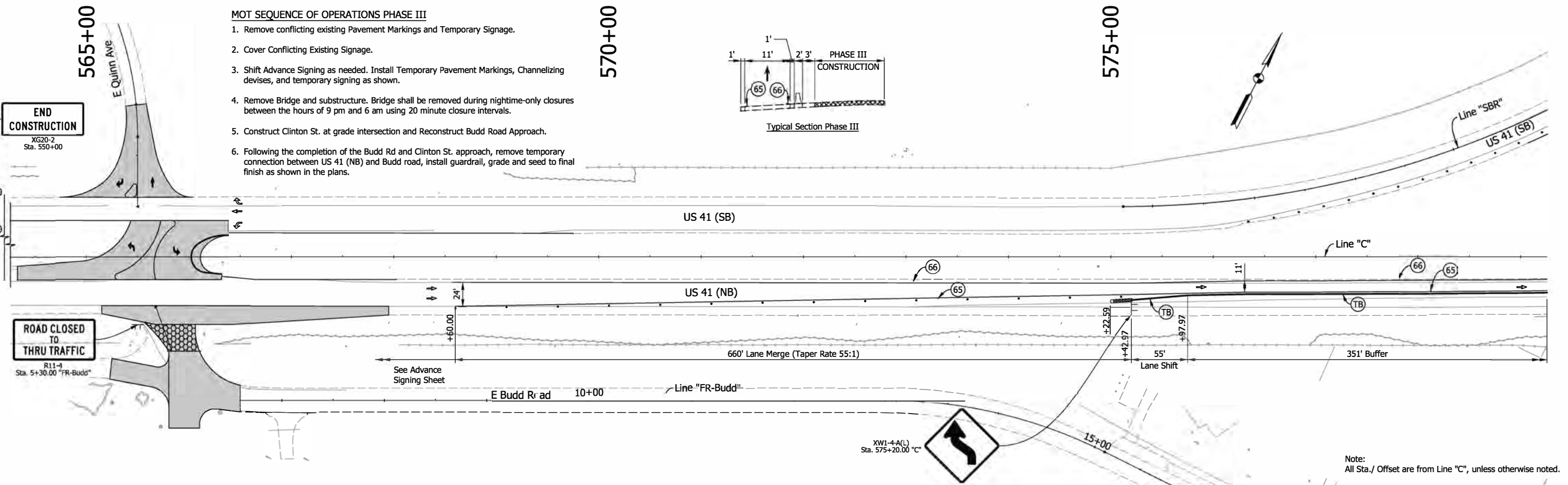
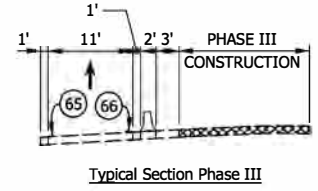
INDIANA
DEPARTMENT OF TRANSPORTATION

LOCAL DETOUR PLAN
PHASE III
CLINTON STREET CLOSURE

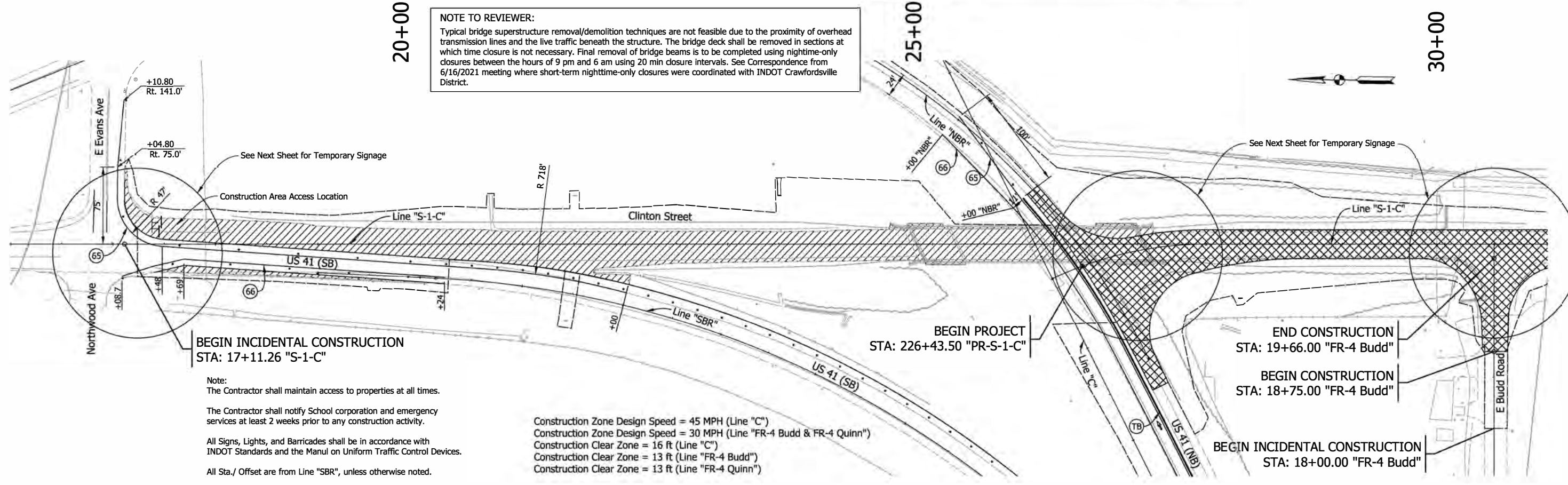
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VERTICAL SCALE N.A.	DESIGNATION 1500146
SURVEY BOOK ELECTRONIC	SHEETS 17 of 102
CONTRACT B-42975	PROJECT 1500146

MOT SEQUENCE OF OPERATIONS PHASE III

1. Remove conflicting existing Pavement Markings and Temporary Signage.
2. Cover Conflicting Existing Signage.
3. Shift Advance Signing as needed. Install Temporary Pavement Markings, Channelizing devices, and temporary signing as shown.
4. Remove Bridge and substructure. Bridge shall be removed during nighttime-only closures between the hours of 9 pm and 6 am using 20 minute closure intervals.
5. Construct Clinton St. at grade intersection and Reconstruct Budd Road Approach.
6. Following the completion of the Budd Rd and Clinton St. approach, remove temporary connection between US 41 (NB) and Budd road, install guardrail, grade and seed to final finish as shown in the plans.



NOTE TO REVIEWER:
 Typical bridge superstructure removal/demolition techniques are not feasible due to the proximity of overhead transmission lines and the live traffic beneath the structure. The bridge deck shall be removed in sections at which time closure is not necessary. Final removal of bridge beams is to be completed using nighttime-only closures between the hours of 9 pm and 6 am using 20 min closure intervals. See Correspondence from 6/16/2021 meeting where short-term nighttime-only closures were coordinated with INDOT Crawfordsville District.



(65) Temporary Pavement Marking, Removable, Yellow, Solid, 4"	[Cross-hatch] Area Under Construction	[Grey] Previous Phase Construction
(66) Temporary Pavement Marking, Removable, White, Solid, 4"	[Diagonal lines] Demolition Area	[Triangle] Construction Sign
(TB) Temporary Traffic Barrier, Type 2	[Stippled] Compacted Aggregate, No. 53 Temporary for Driveways	[Arrow] Travel Lane
● Drum, Channelizing device	[X-pattern] Energy Absorption Terminal, CZ TL-2	[Barricade] Barricade, Type III-B

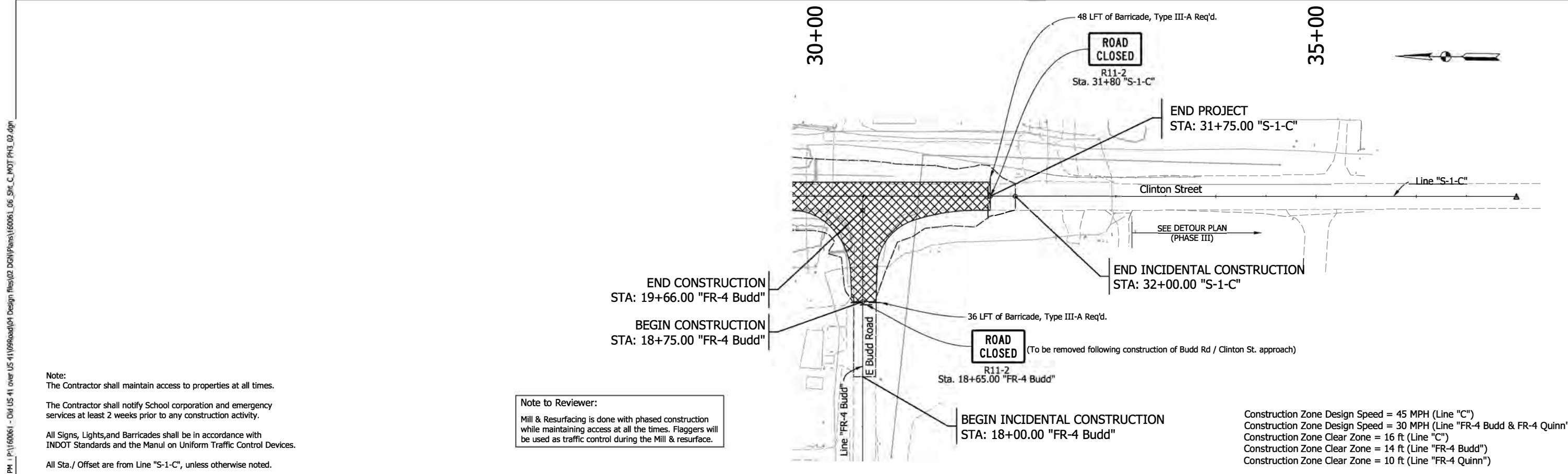
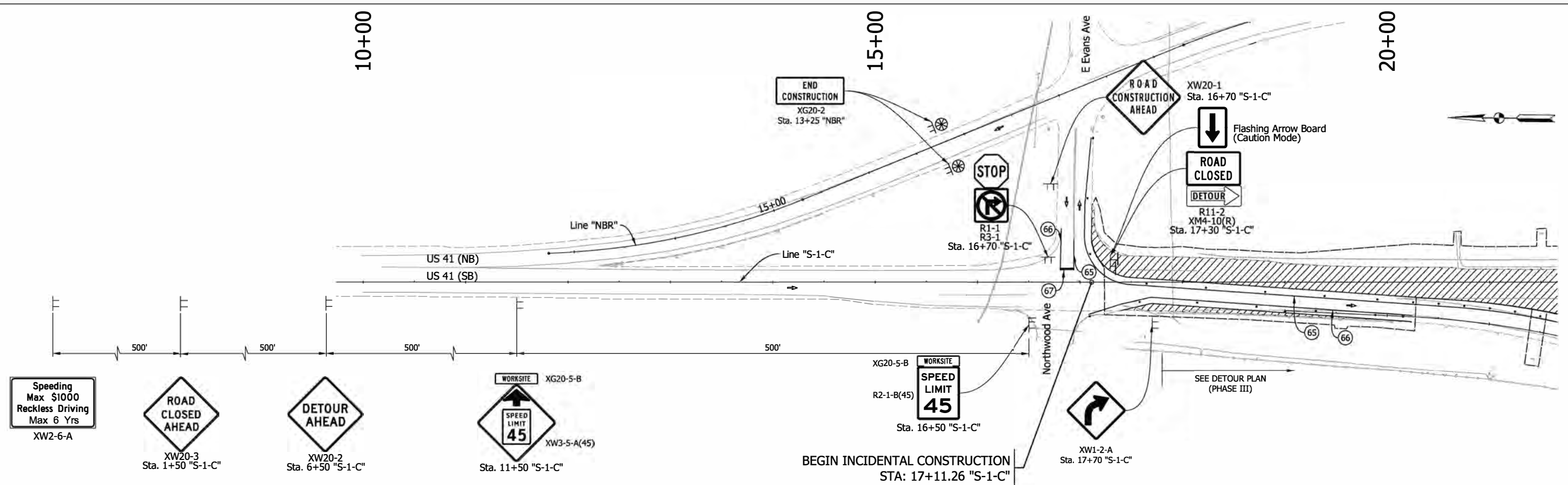
RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: RAP	DRAWN: JJP	
CHECKED: DJG	CHECKED: RAP	

INDIANA DEPARTMENT OF TRANSPORTATION	
MAINTENANCE OF TRAFFIC PHASE III	

HORIZONTAL SCALE 1"=50'	BRIDGE FILE 041-84-04322-ANBL
VERTICAL SCALE N.A.	DESIGNATION 1500146
SURVEY BOOK ELECTRONIC	SHEETS 18 of 102
CONTRACT B-42975	PROJECT 1500146

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(65) Temporary Pavement Marking, Removable, Yellow, Solid, 4"	● Drum, Channelizing device	— Barricade, Type III-B
(66) Temporary Pavement Marking, Removable, White, Solid, 4"	▨ Area Under Construction	⊕ Construction Sign with Warning Light
(67) Temporary Transverse Markings, White, Stop Line, 24"	▨ Demolition Area	⊥ Construction Sign
(TB) Temporary Traffic Barrier, Type 2	▨ Energy Absorption Terminal, CZ TL-2	➡ Existing Travel Lane

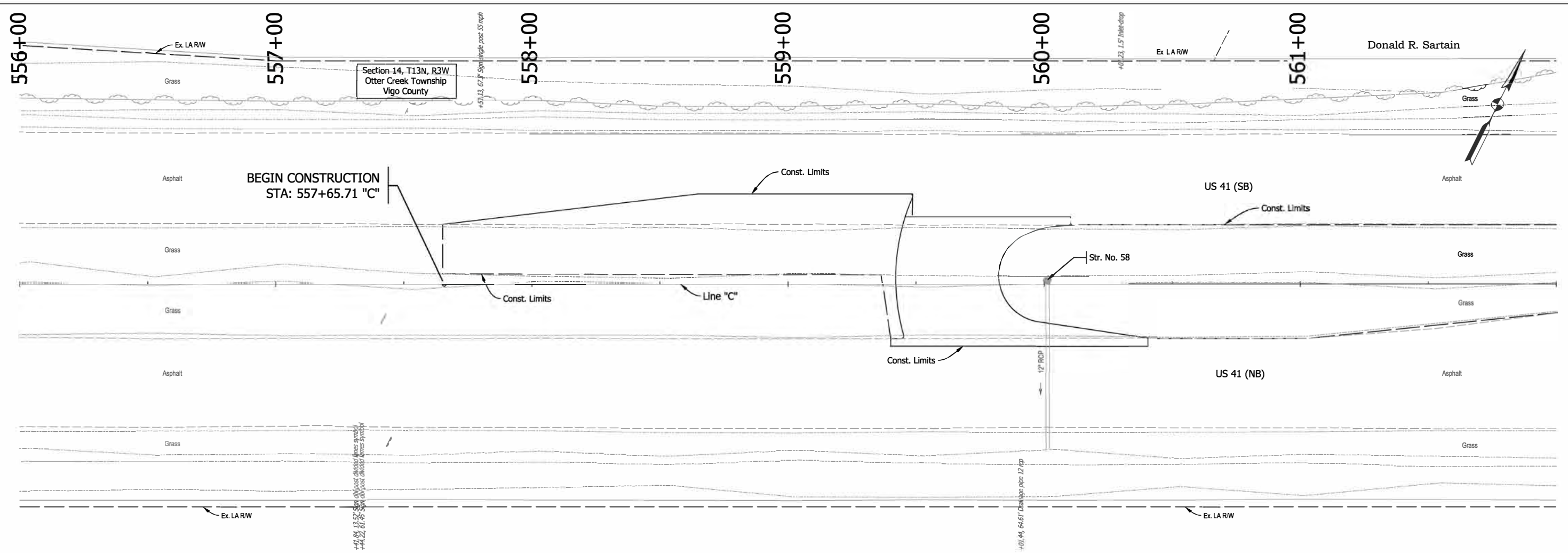
RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: RAP	DRAWN: JJP	
CHECKED: DJG	CHECKED: RAP	

**INDIANA
DEPARTMENT OF TRANSPORTATION**

**MAINTENANCE OF TRAFFIC
PHASE III DETAILS**

HORIZONTAL SCALE 1"=50'	BRIDGE FILE 041-84-04322-ANBL
VERTICAL SCALE N.A.	DESIGNATION 1500146
SURVEY BOOK ELECTRONIC	SHEETS 19 of 102
CONTRACT B-42975	PROJECT 1500146

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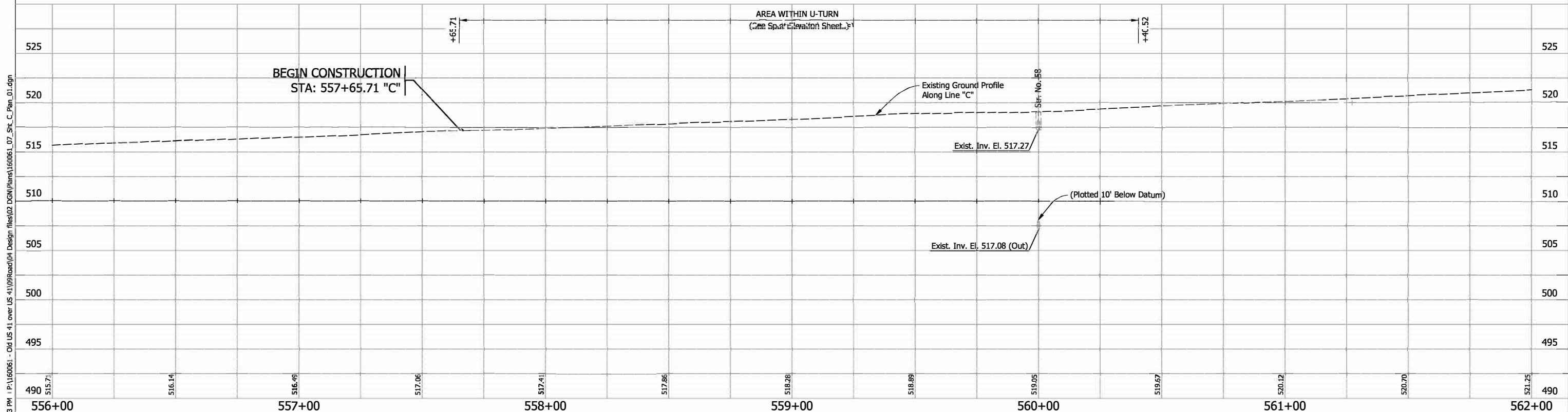


Donald R. Sartain

Section 14, T13N, R3W
Otter Creek Township
Vigo County

BEGIN CONSTRUCTION
STA: 557+65.71 "C"

BEGIN CONSTRUCTION
STA: 557+65.71 "C"



Note:
All Topo Notes are called out from Line "C".
See Control Point Plan Sheet for Control Point Details.
See Construction Detail Sheet for all callouts.

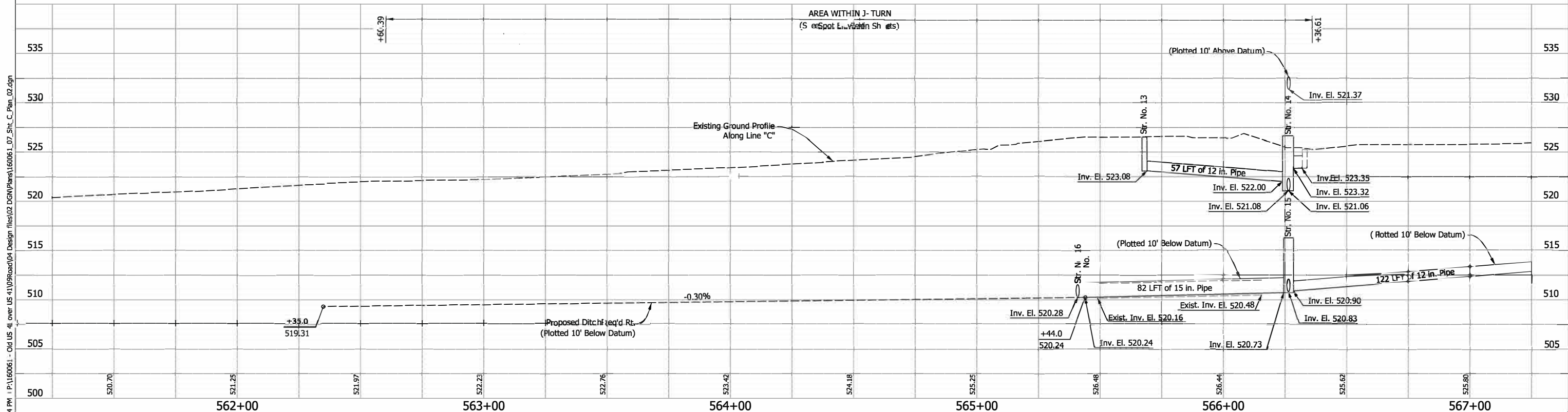
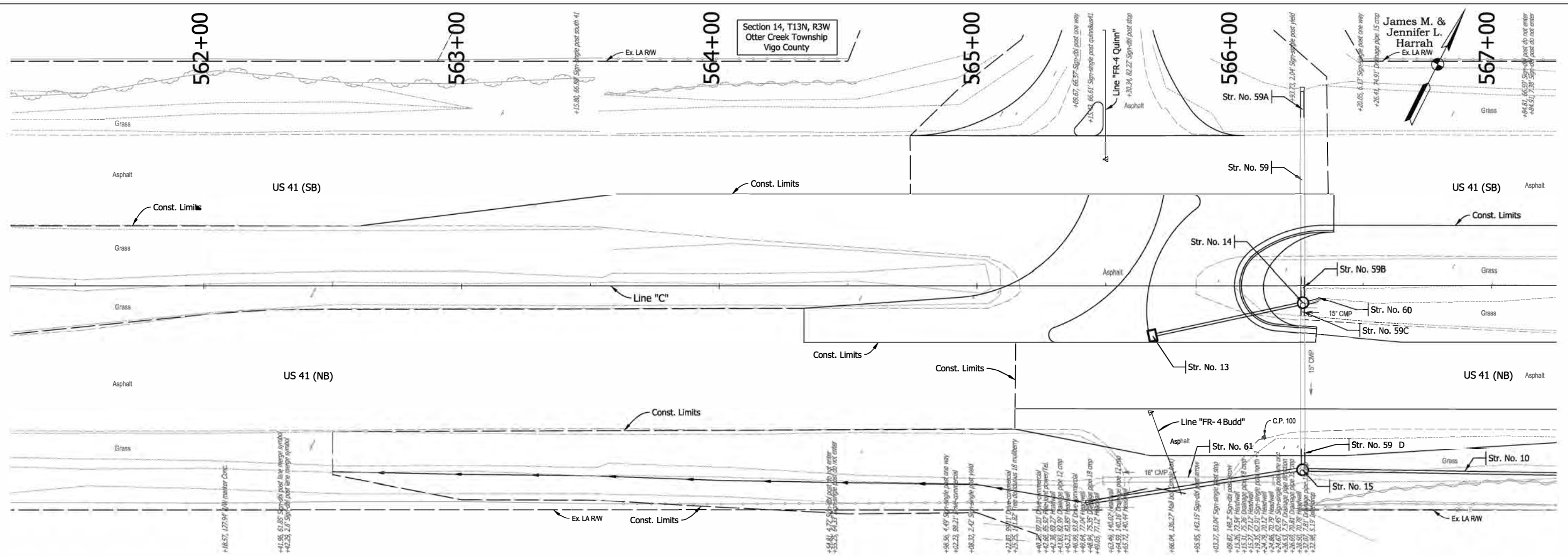
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DESIGNED: RAP	DRAWN: JJP		
CHECKED: DJG	CHECKED: RAP		

INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE
STA. 556+00 TO 561+50 LINE "C"

HORIZONTAL SCALE 1"=20'	BUDGET FILE 041-84-04322-ANB L
VERTICAL SCALE 1"=5'	DESIGNATION 1500146
SURVEY BOOK ELECTRONIC	SHEETS 20 of 102
CONTRACT B-42975	PROJECT 15001

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Note:
 All Topo Notes are called out from Line "C".
 See Control Point Plan Sheet for Control Point Details.
 See Construction Detail Sheet for all callouts.

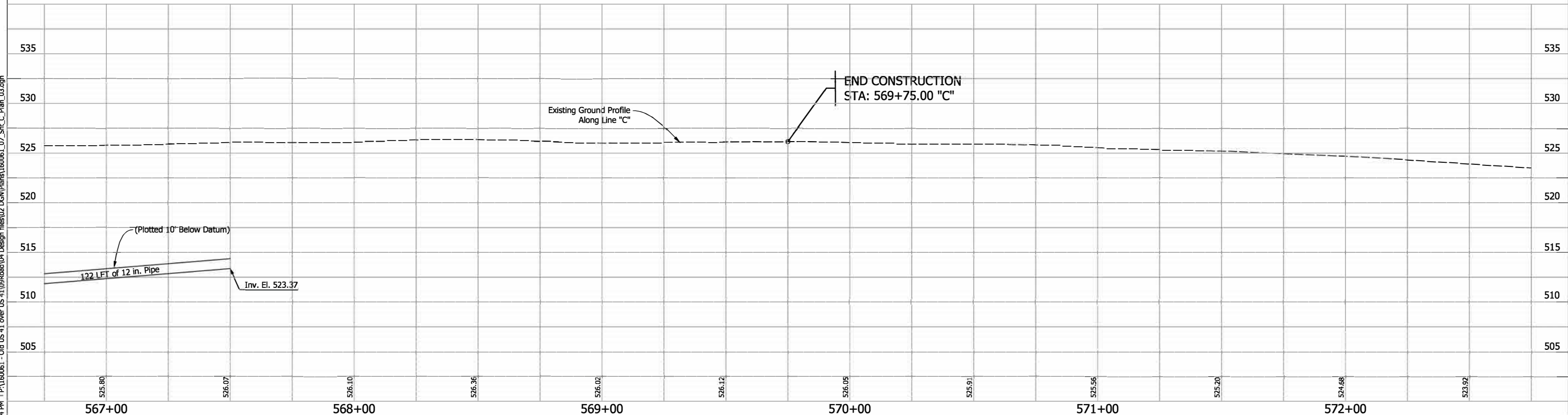
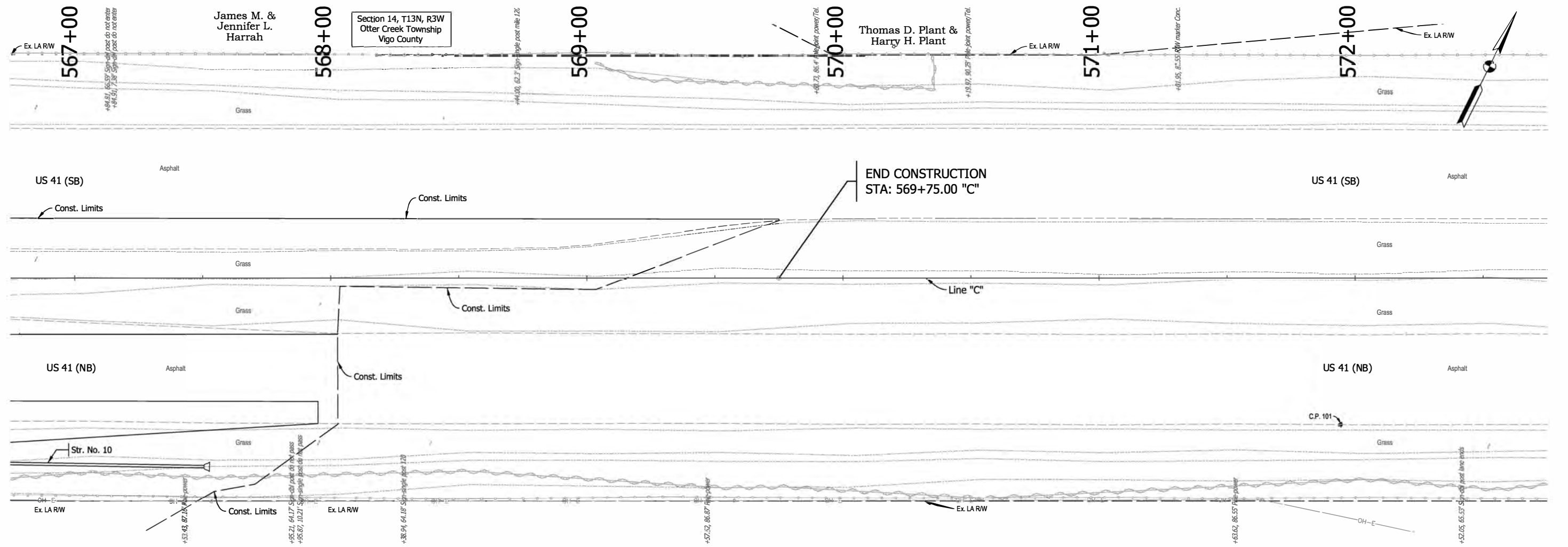
RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: RAP	DRAWN: JJP	
CHECKED: DJG	HECDED: RAP	

INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE
STA. 561+50 TO 567+00 LINE "C"

HORIZONTAL SCALE	BRIDGE FILE
1"=20'	041-84-04322-ANBL
VERTICAL SCALE	DESIGNATION
1"=5'	1500146
SURVEY BOOK	SHEETS
ELECTRONIC	21 of 102
CONTRACT	PROJECT
B-42 97 5	150 Q4 6

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Note:
 All Topo Notes are called out from Line "C".
 See Control Point Plan Sheet for Control Point Details.
 See Construction Detail Sheet for all callouts.

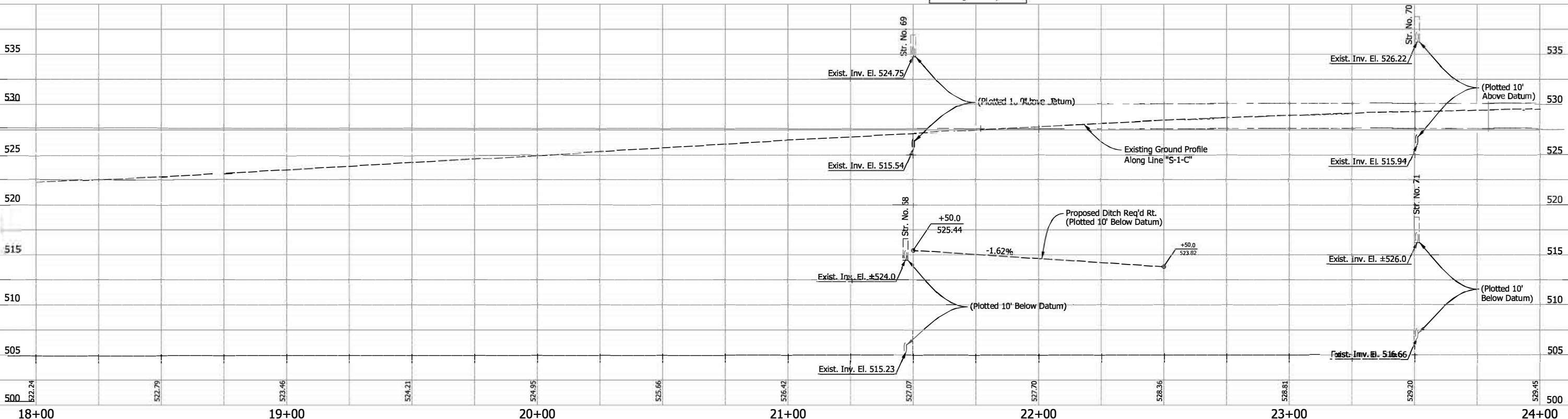
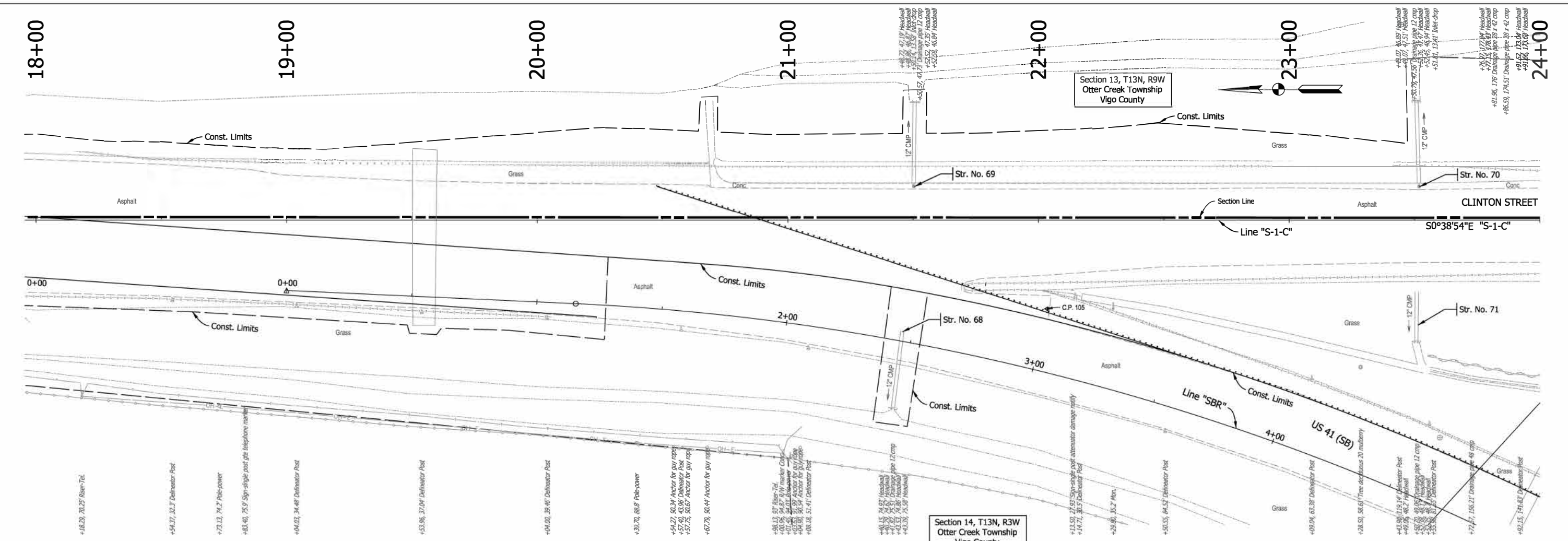
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DESIGNED: RAP	DRAWN: JJP	
CHECKED: DJG	CHECKED: RAP	

INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE
STA. 561+50 TO 567+00 LINE "C"

HORIZONTAL SCALE 1"=20'	BRIDGE FILE 041-84-04322-ANBL
VERTICAL SCALE 1"=5'	DESIGNATION 1500146
SURVEY BOOK ELECTRONIC	SHEETS 22 of 102
CONTRACT B-42975	PROJECT 1500146

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Note:
 All Topo Notes are called out from Line "S-1-C".
 See Control Point Plan Sheet for Control Point Details.
 See Construction Detail Sheet for all callouts.
 See Construction Details for proposed Guardrail Lengths & Layout along Line "SBR".

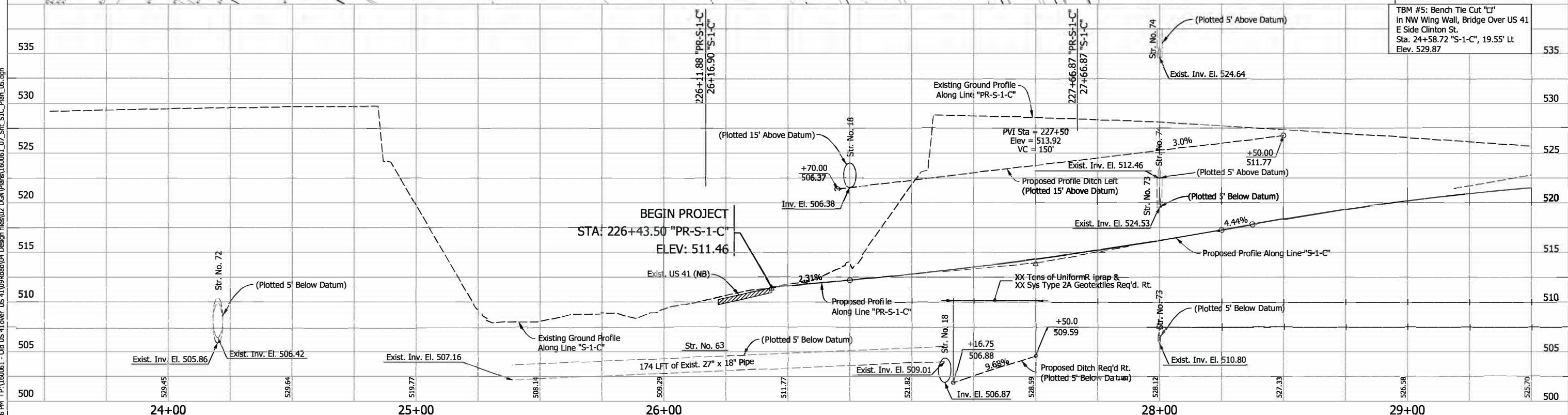
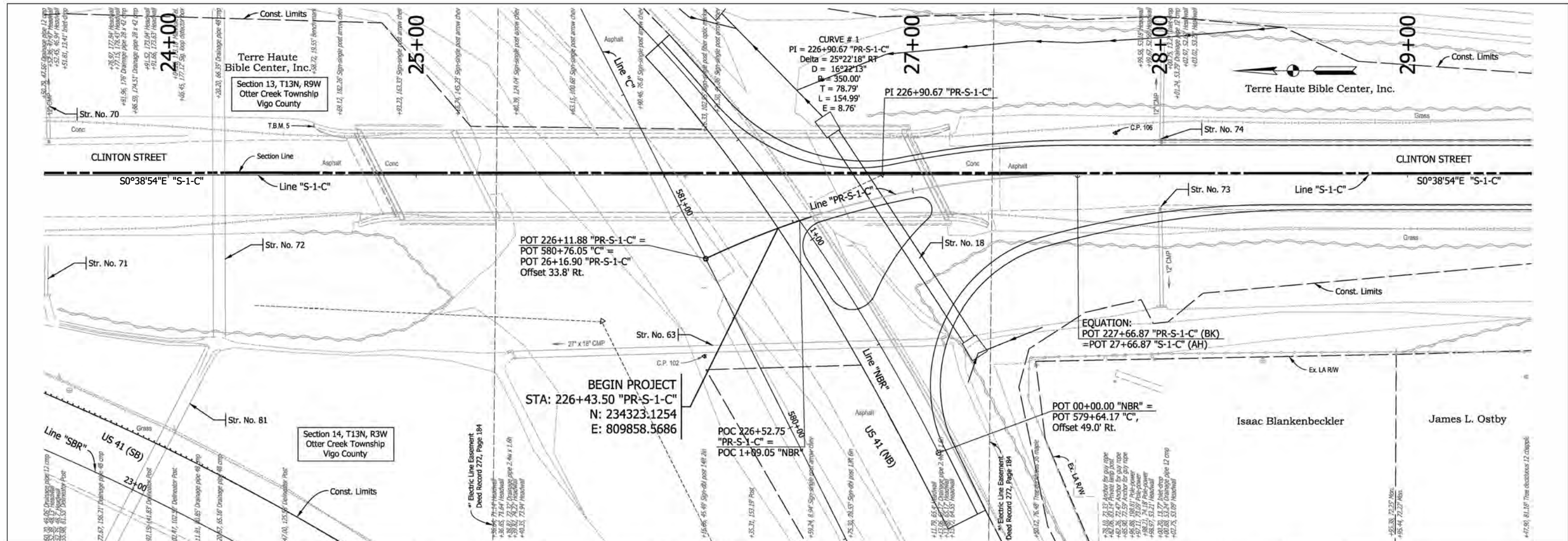
RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: RAP	DRAWN: JJP	
CHECKED: D &	CHECKED: RAP	

INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE
STA. 18+00 TO 24+00 LINE "S-1-C"

HORIZONTAL SCALE	BRIDGE FILE
1"=20'	041-84-04322-ANBL
VERTICAL SCALE	DESIGNATION
1"=5'	1500146
SURVEY BOOK	SHEETS
ELECTRONIC	23 of 102
CONTRACT	PROJECT
B-42975	1500146

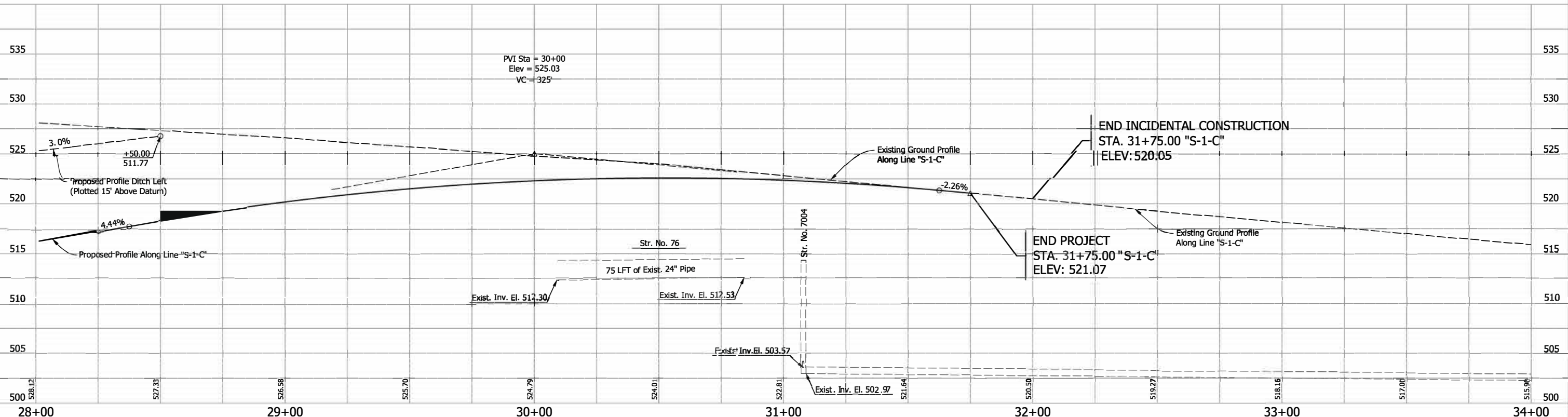
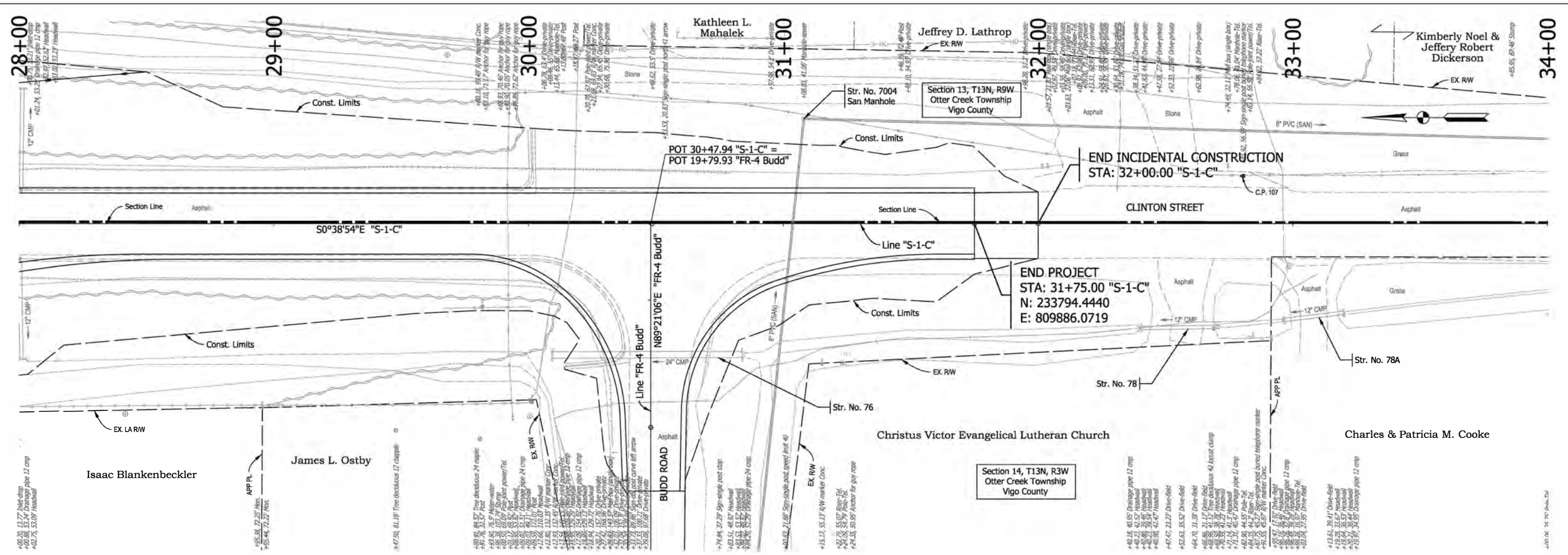
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Note:
 All Topo Notes are called out from Line "S-1-C".
 See Control Point Plan Sheet for Control Point Details.
 See Construction Detail Sheet for all callouts.
 See Drainage Sheets for Proposed Drainage Structure, Riprap and Geotextile Quantities.

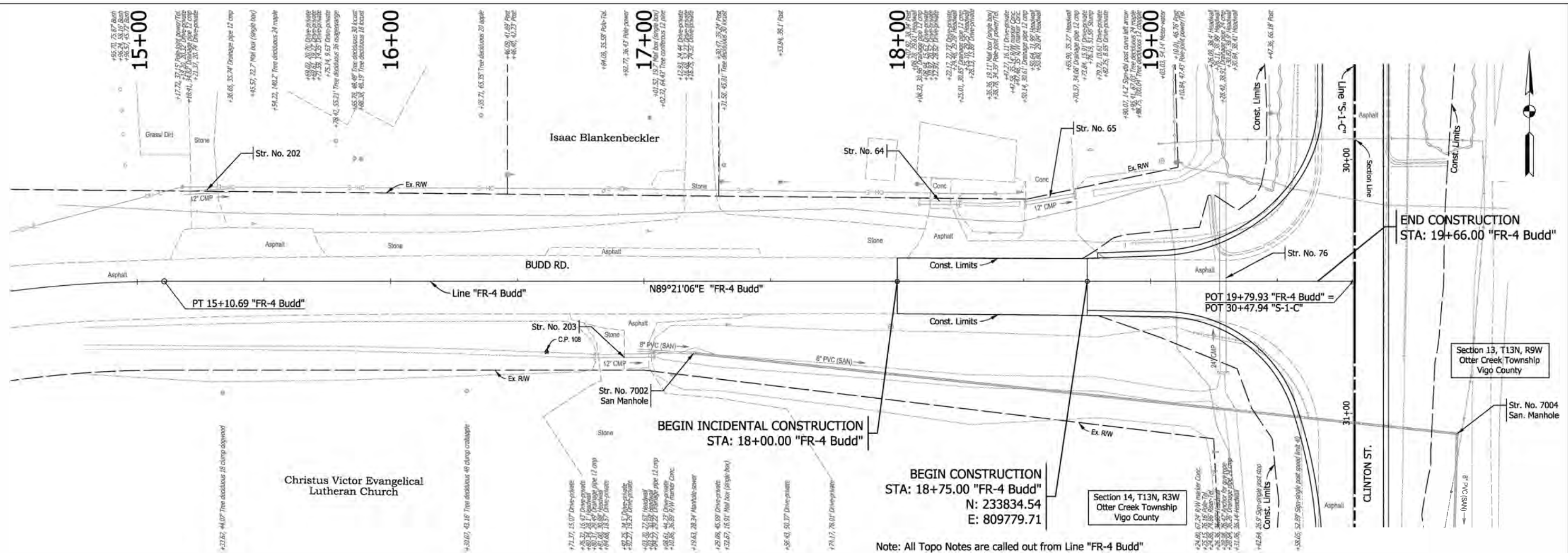
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CHECKED: DJG		CHECKED: RAP			STA. 24+50 TO 29+50 LINE "S-1-C"		DESIGNATION	
					STA. 226+11.88 TO 227+66.87 LINE "PR-S-1-C"		1500146	
							SHEETS	
							24 of 102	
							PROJECT	
							1500146	

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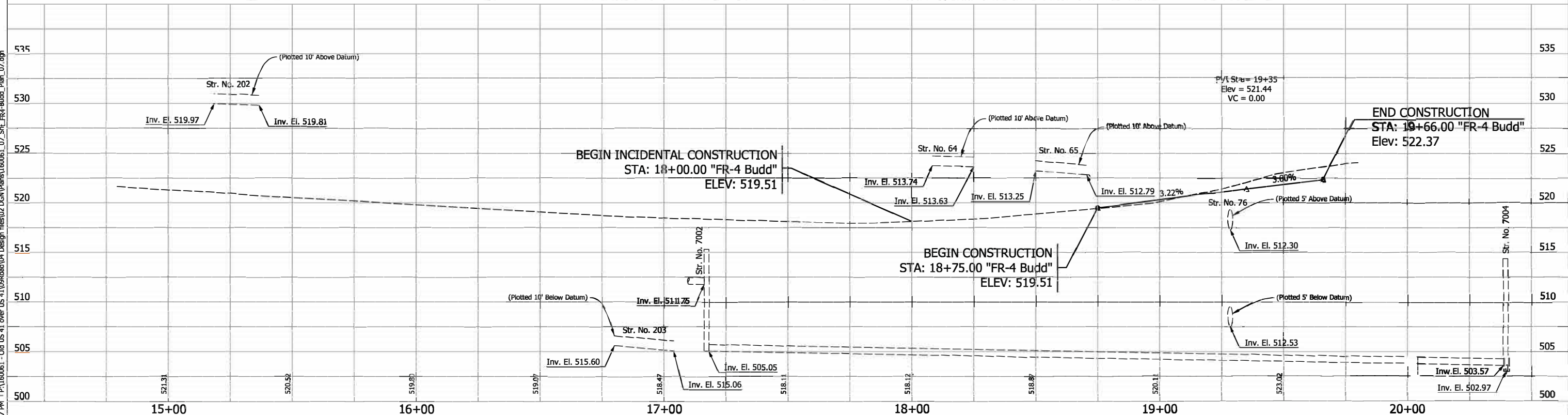


<p>Note: All Too Notes are called out from Line "S-1-C". See Control Point Plan Sheet for Control Point Details.</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">RECOMMENDED FOR APPROVAL _____</td> <td style="width: 50%;">DESIGN ENGINEER _____ DATE _____</td> </tr> <tr> <td>DESIGNED: RAP</td> <td>DRAWN: JJP</td> </tr> <tr> <td>CHECKED: DJG</td> <td>CHECKED: RAP</td> </tr> </table>	RECOMMENDED FOR APPROVAL _____	DESIGN ENGINEER _____ DATE _____	DESIGNED: RAP	DRAWN: JJP	CHECKED: DJG	CHECKED: RAP	<p>INDIANA DEPARTMENT OF TRANSPORTATION</p> <p>PLAN AND PROFILE STA. 28+00 TO 34+00 LINE S-1-C</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">HORIZONTAL SCALE 1"=20'</td> <td style="width: 50%;">BRIDGE FILE 041-84-04322-ANBL</td> </tr> <tr> <td>VERTICAL SCALE 1"=5'</td> <td>DESIGNATION 1500146</td> </tr> <tr> <td>SURVEY BOOK ELECTRONIC</td> <td>SHEETS 25 of 102</td> </tr> <tr> <td>CONTRACT B-42975</td> <td>PROJECT 1500146</td> </tr> </table>	HORIZONTAL SCALE 1"=20'	BRIDGE FILE 041-84-04322-ANBL	VERTICAL SCALE 1"=5'	DESIGNATION 1500146	SURVEY BOOK ELECTRONIC	SHEETS 25 of 102	CONTRACT B-42975	PROJECT 1500146
RECOMMENDED FOR APPROVAL _____	DESIGN ENGINEER _____ DATE _____																
DESIGNED: RAP	DRAWN: JJP																
CHECKED: DJG	CHECKED: RAP																
HORIZONTAL SCALE 1"=20'	BRIDGE FILE 041-84-04322-ANBL																
VERTICAL SCALE 1"=5'	DESIGNATION 1500146																
SURVEY BOOK ELECTRONIC	SHEETS 25 of 102																
CONTRACT B-42975	PROJECT 1500146																

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Note: All Topo Notes are called out from Line "FR-4 Budd"



Note:
All Topo Notes are called out from Line "FR-4 Budd".
See Control Point Plan Sheet for Control Point Details.
See Construction Detail Sheet for all callouts.

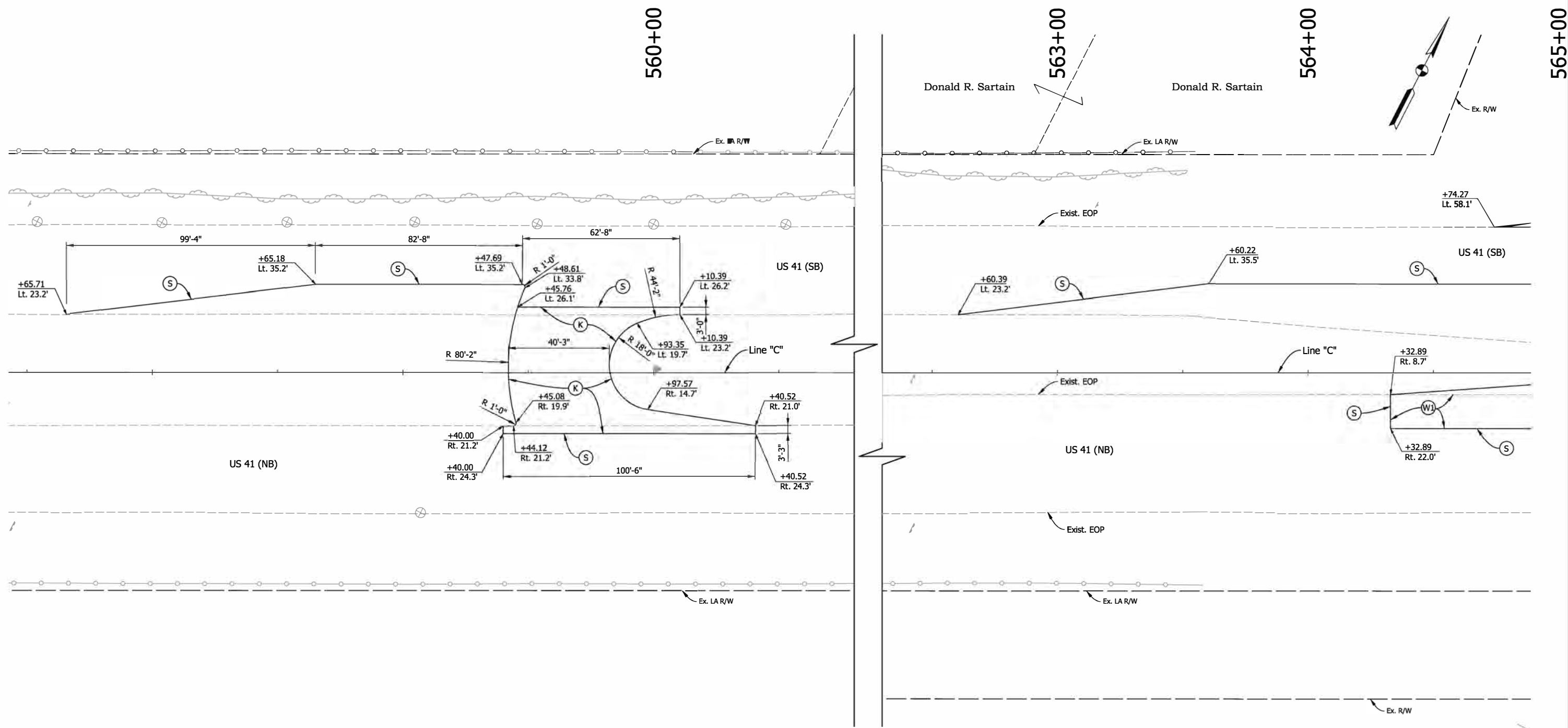
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DESIGNED: RAP	DRAWN: JJP	
CHECKED: DJG	CHECKED: RAP	

INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE
STA. 17+00 TO 20+00 LINE "FR-4 Budd"

HORI SCALE	1"=20'	BRIDGE FILE	041-84-04322-ANBL
VER SCALE	1"=5'	DESIGNATION	1500146
SURVEY BOOK		SHEETS	
ELECTRONIC	26	of	102
CONTRACT		PROJECT	
B-42975			1500146

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Charles & Patricia M. Cooke

For Legend See Sheet No. 2

Note: All Sta./Offset called out from Line "C", unless otherwise noted.

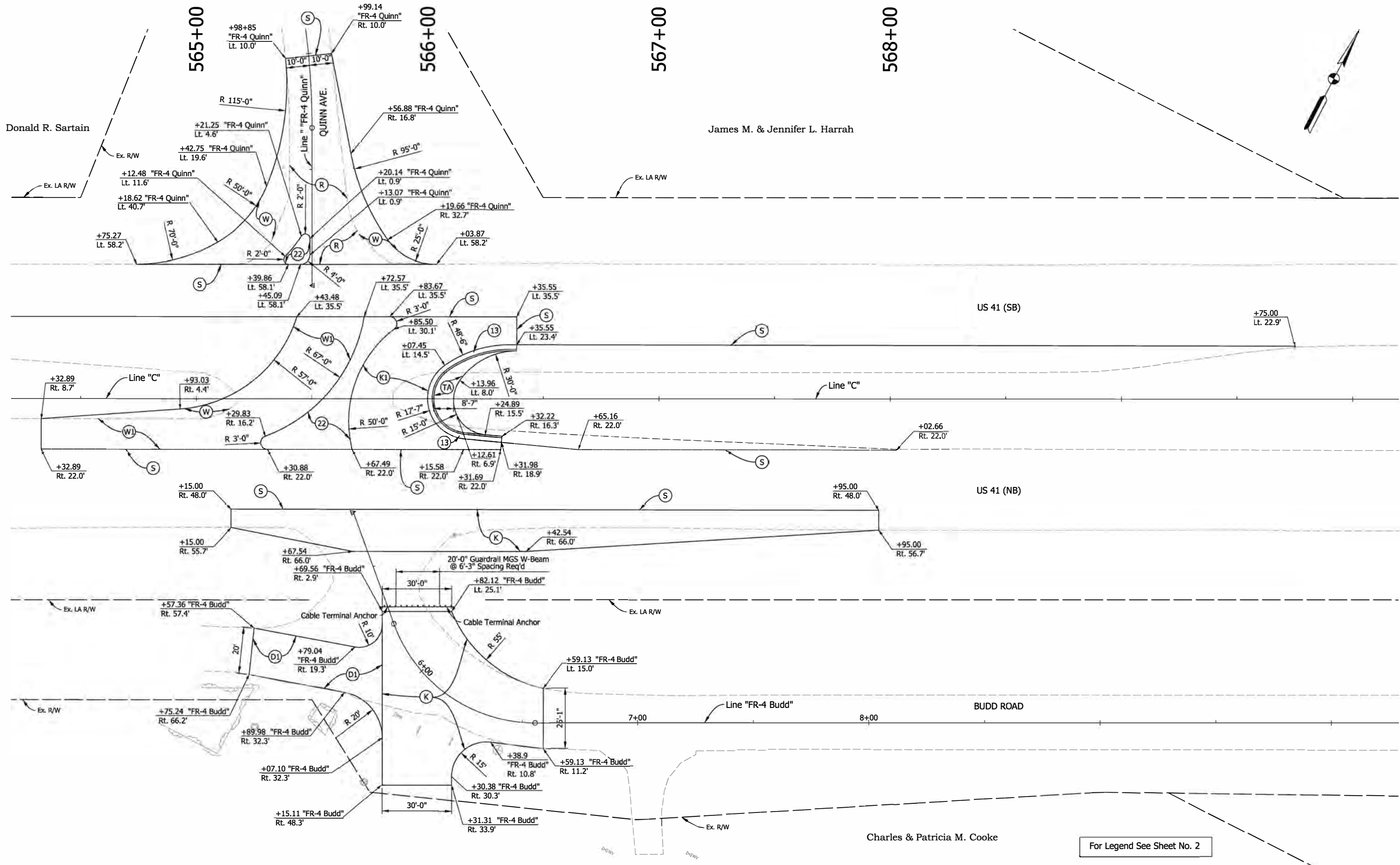
RECOMMENDED FOR APPROVAL _____	DESIGN ENGINEER _____	DATE _____
DESIGNED: RAP _____	DRAWN: JJP _____	
CHECKED: DJG _____	CHECKED: RAP _____	

**INDIANA
DEPARTMENT OF TRANSPORTATION**

**CONSTRUCTION DETAIL
LINE "C"**

HORIZONTAL SCALE 1"=20'	BRIDGE FILE 041-84-04322-ANBL
VERTICAL SCALE N.A.	DESIGNATION 1500146
SURVEY BOOK ELECTRONIC	SHEETS 27 of 102
CONTRACT B-42975	PROJECT 1500146

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Note: All Sta./Offset called out from Line "C", unless otherwise noted.

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
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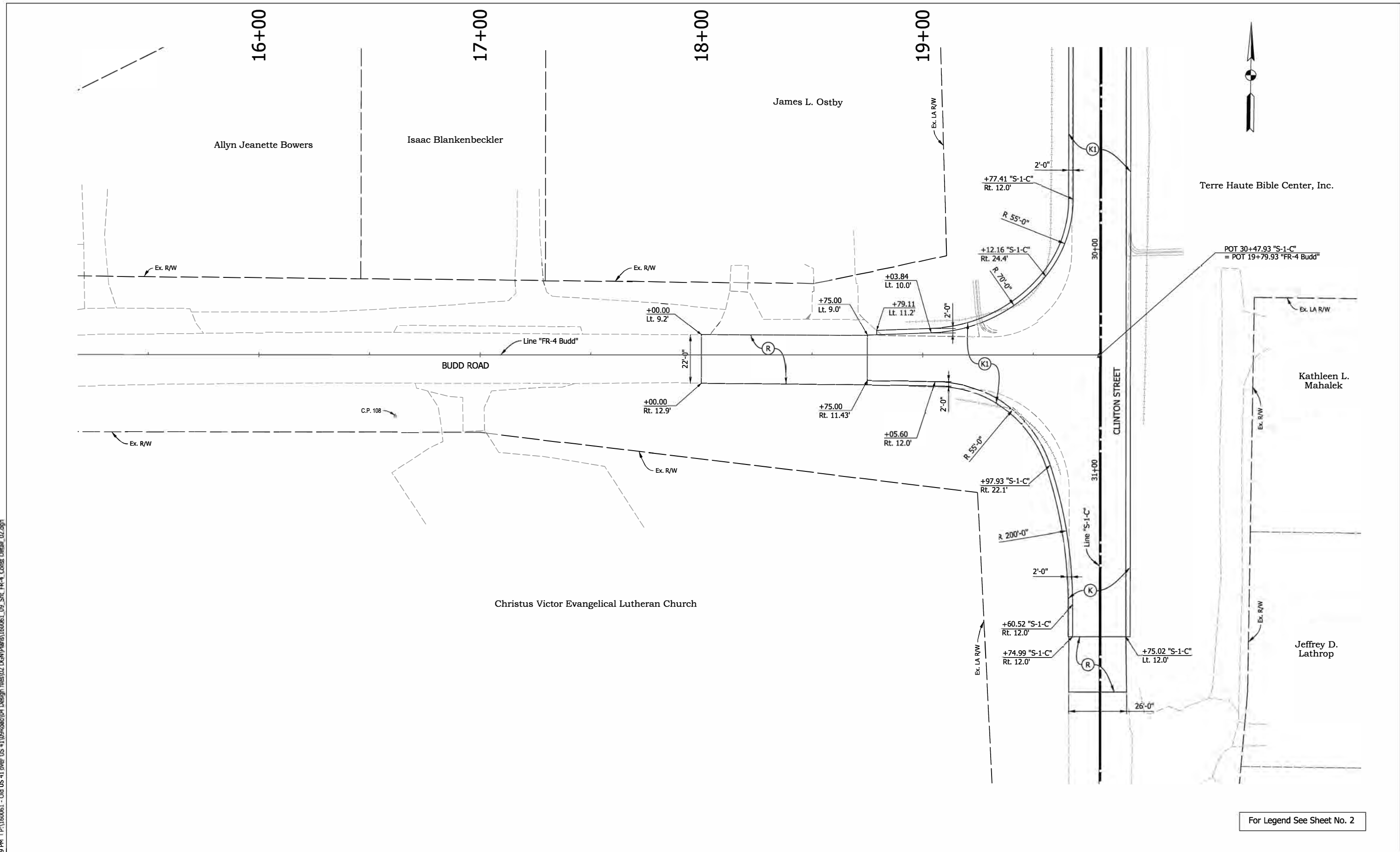
INDIANA
DEPARTMENT OF TRANSPORTATION

CONSTRUCTION DETAIL
LINE "C"

HORIZONTAL SCALE	BRIDGE FILE
1"=20'	041-84-04322-ANBL
VERTICAL SCALE	DESIGNATION
N.A.	1500146
SURVEY BOOK	SHEETS
ELECTRONIC	28 of 102
CONTRACT	PROJECT
B-42975	1500146

For Legend See Sheet No. 2

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For Legend See Sheet No. 2

Note: All Sta./Offset called out from Line "FR-4 Budd", unless otherwise noted.

RECOMMENDED FOR APPROVAL _____	DESIGN ENGINEER _____	DATE _____
DESIGNED: <u>RAP</u>	DRAWN: <u>JJP</u>	
CHECKED: <u>DJG</u>	CHECKED: <u>RAP</u>	

**INDIANA
DEPARTMENT OF TRANSPORTATION**

**CONSTRUCTION DETAIL
LINE "FR-4 Budd"**

HORIZONTAL SCALE 1"=20'	BRIDGE FILE 041-84-04322-ANBL
VERTICAL SCALE N.A.	DESIGNATION 1500146
SURVEY BOOK ELECTRONIC	SHEETS 29 of 102
CONTRACT B-42975	PROJECT 1500146

24+00

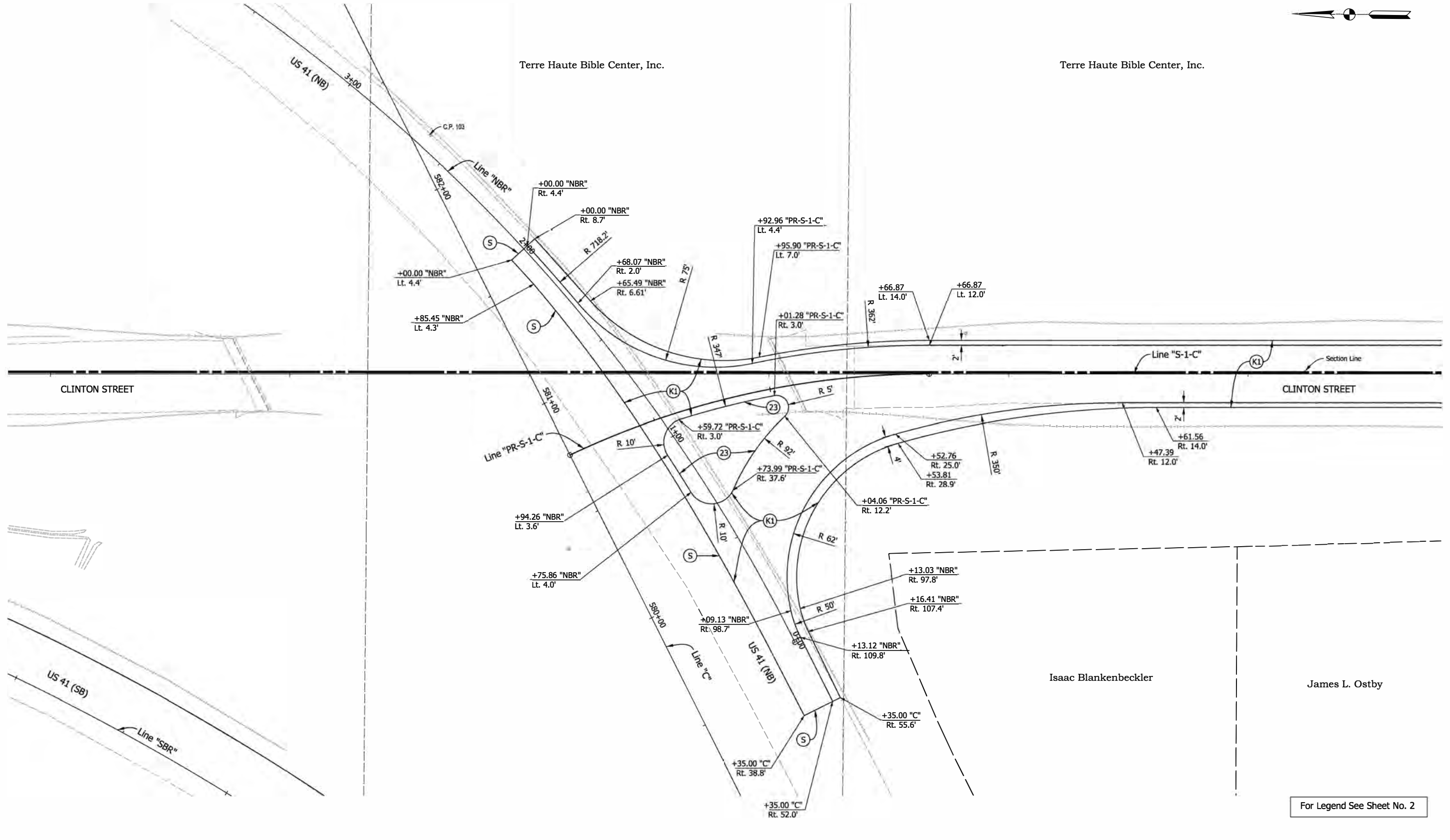
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26+00

27+00

28+00

29+00



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Note: All Sta./Offset called out from Line "S-1-C", unless otherwise noted.

For Legend See Sheet No. 2

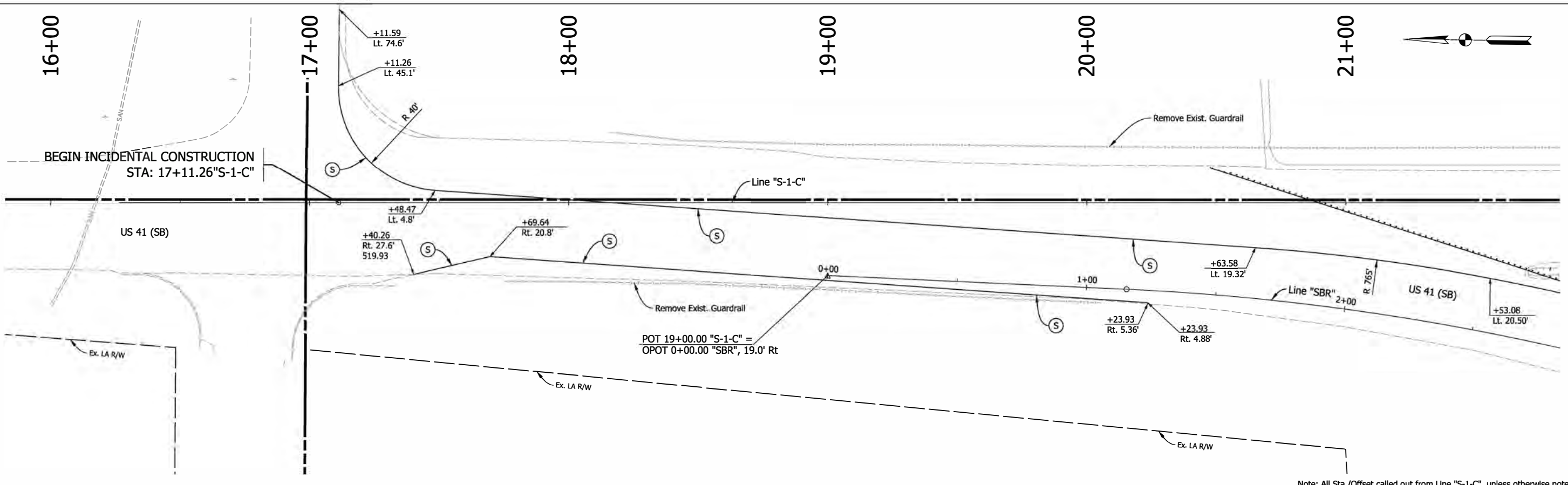
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INDIANA
DEPARTMENT OF TRANSPORTATION

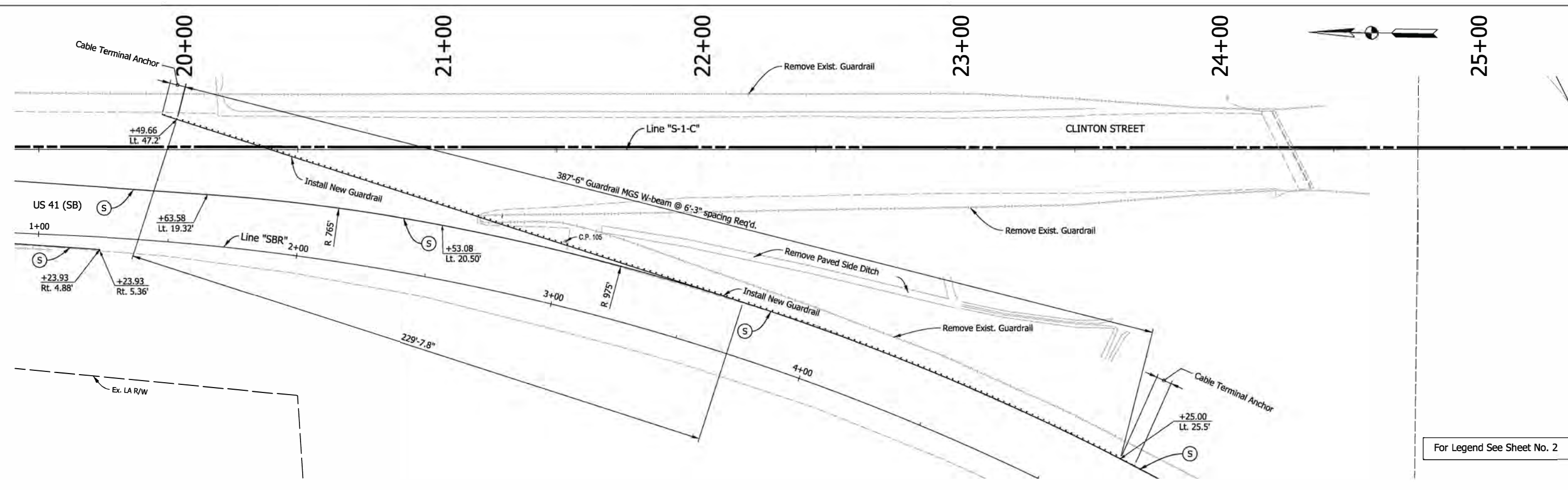
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LINE "S-1-C"

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VERTICAL SCALE	DESIGNATION
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SURVEY BOOK	SHEETS
ELECTRONIC	30 of 102
CONTRACT	PROJECT
B-42975	1500146

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Note: All Sta./Offset called out from Line "S-1-C", unless otherwise noted.



For Legend See Sheet No. 2

Note: All Sta./Offset Called out from Line "SBR".
See Demolition Sheet for Removal

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: RAP	DRAWN: JJP	
CHECKED: DJG	CHECKED: RAP	

**INDIANA
DEPARTMENT OF TRANSPORTATION**

**CONSTRUCTION DETAIL
LINE "S-1-C" & "SBR"**

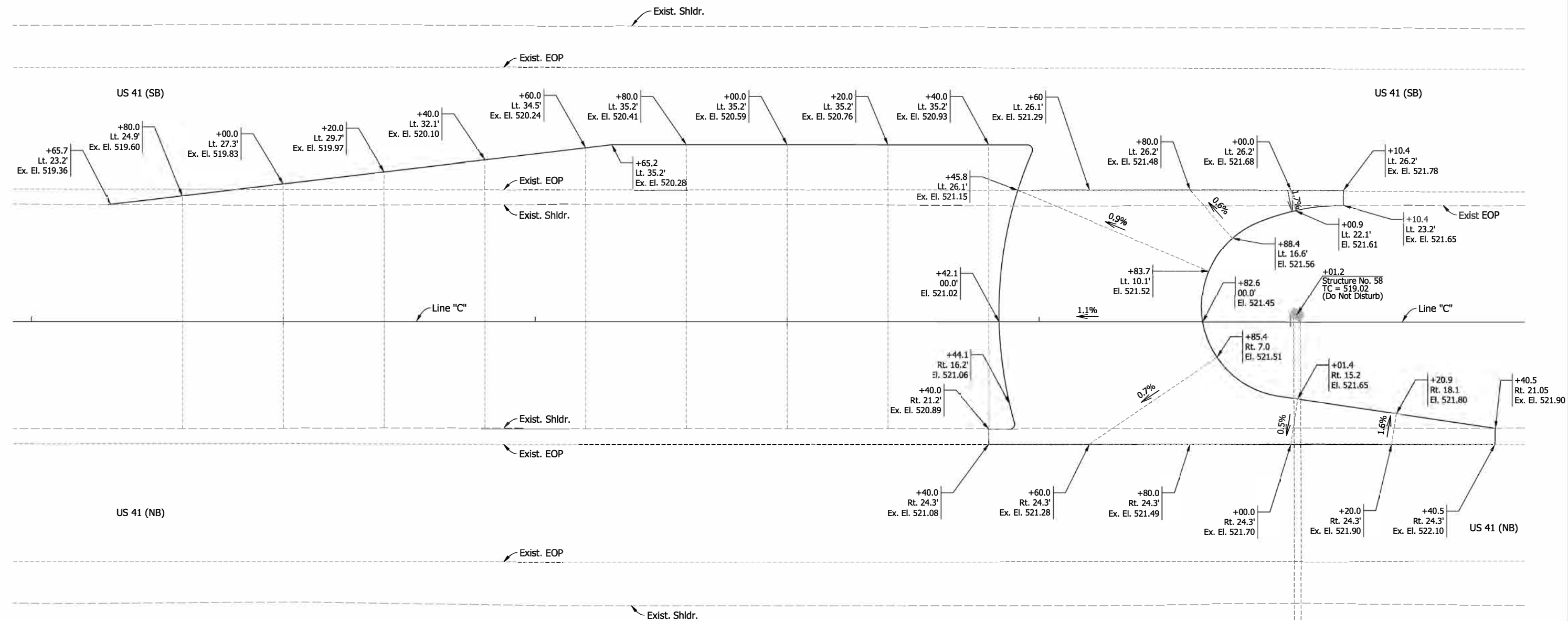
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1"=20'	041-84-04322-ANBL
VERTICAL SCALE	DESIGNATION
N.A.	1500146
SURVEY BOOK	SHEETS
ELECTRONIC	31 of 102
CONTRACT	PROJECT
B-42975	1500146



558+00

559+00

560+00



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Note: All Sta./Offset called out from Line "C", Unless otherwise noted.
See Construction Detail Sheet for all callouts.

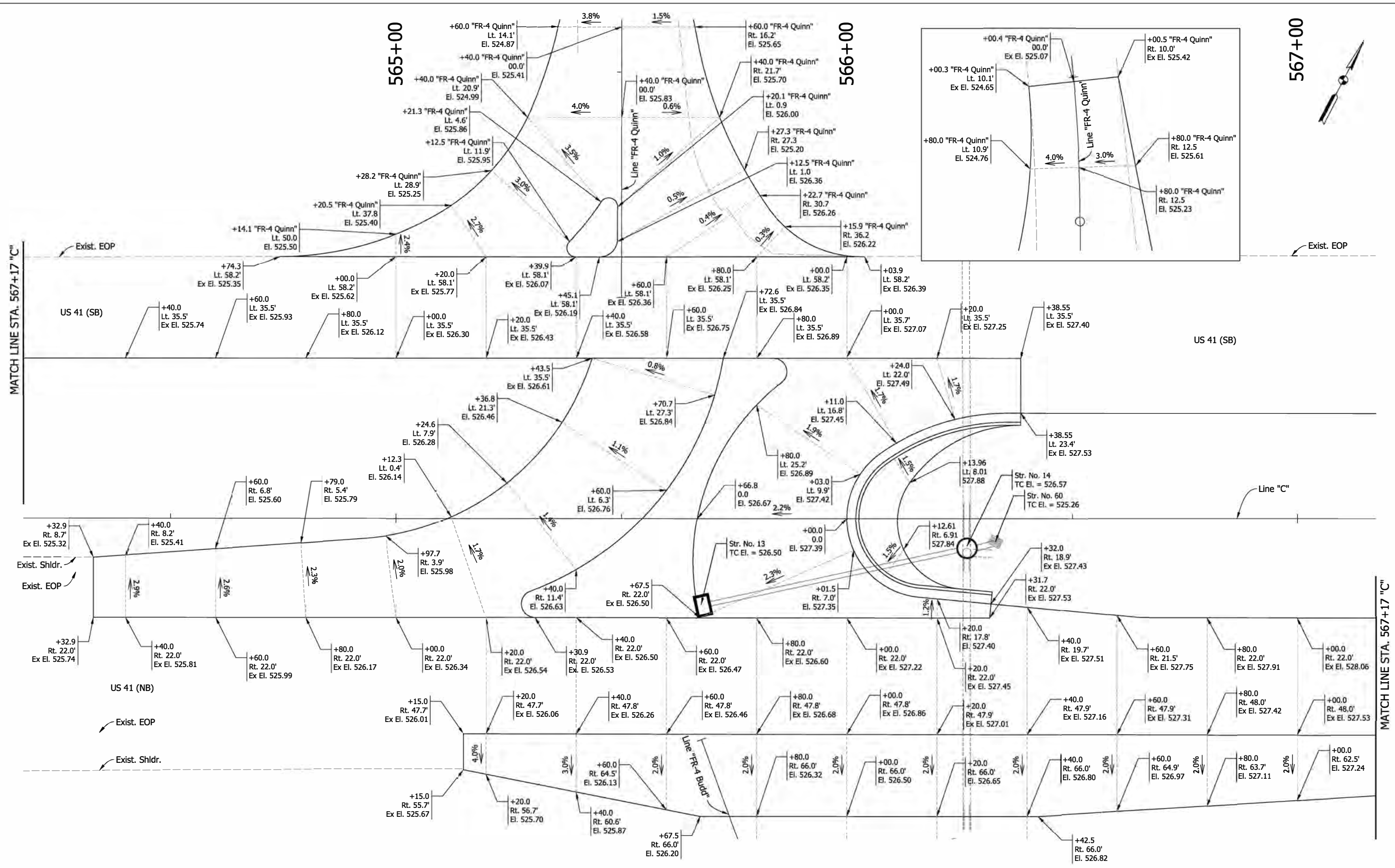
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DESIGNED: RAP _____	DRAWN: JJP _____	
CHECKED: DJG _____	CHECKED: RAP _____	

**INDIANA
DEPARTMENT OF TRANSPORTATION**

**SPOT ELEVATION
LINE "C"**

HORIZONTAL SCALE 1"=10'	BRIDGE FILE 041-84-04322-ANBL
VERTICAL SCALE N.A.	DESIGNATION 1500146
SURVEY BOOK ELECTRONIC	SHEETS 32 of 102
CONTRACT B-42975	PROJECT 1500146

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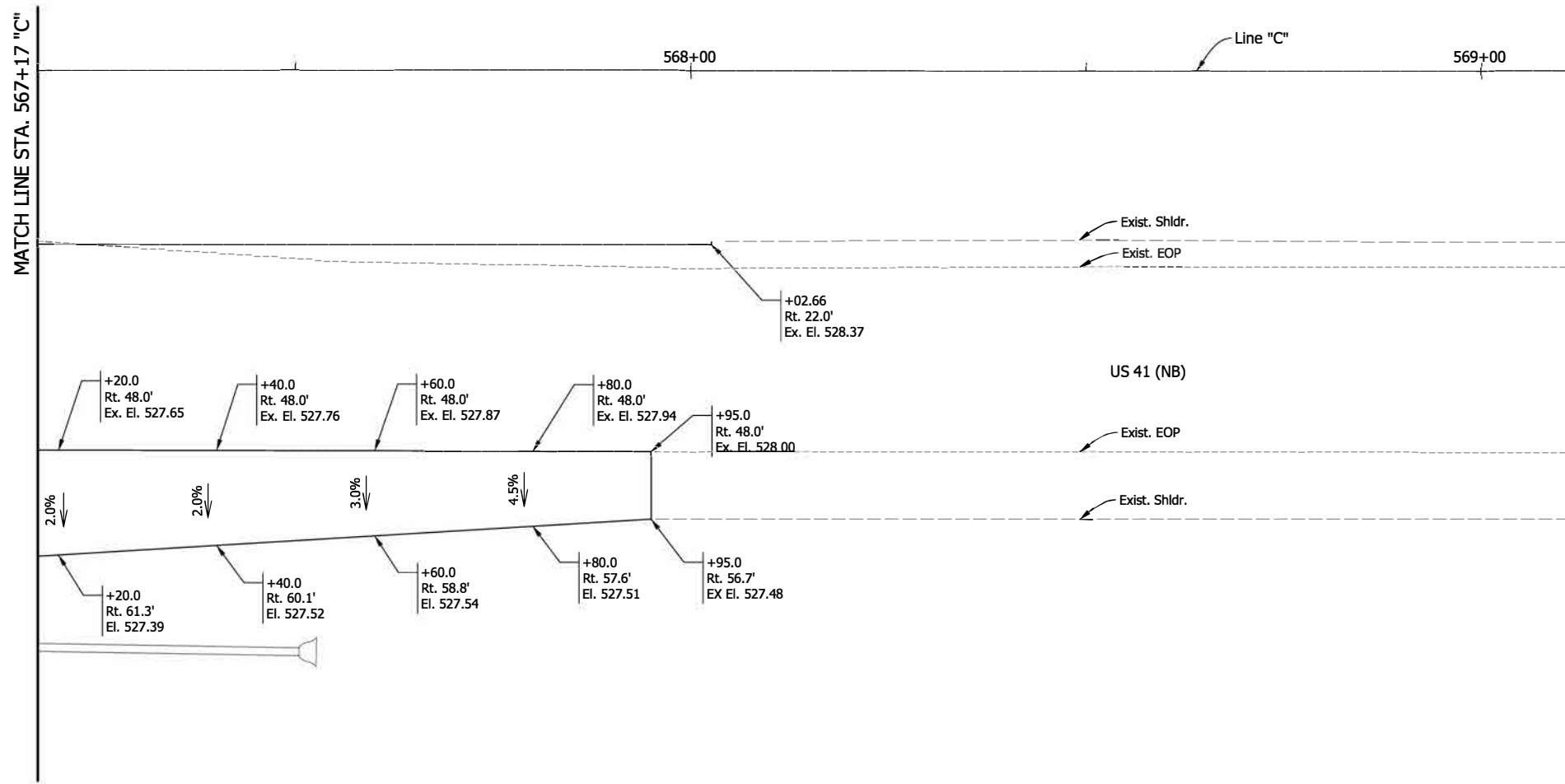
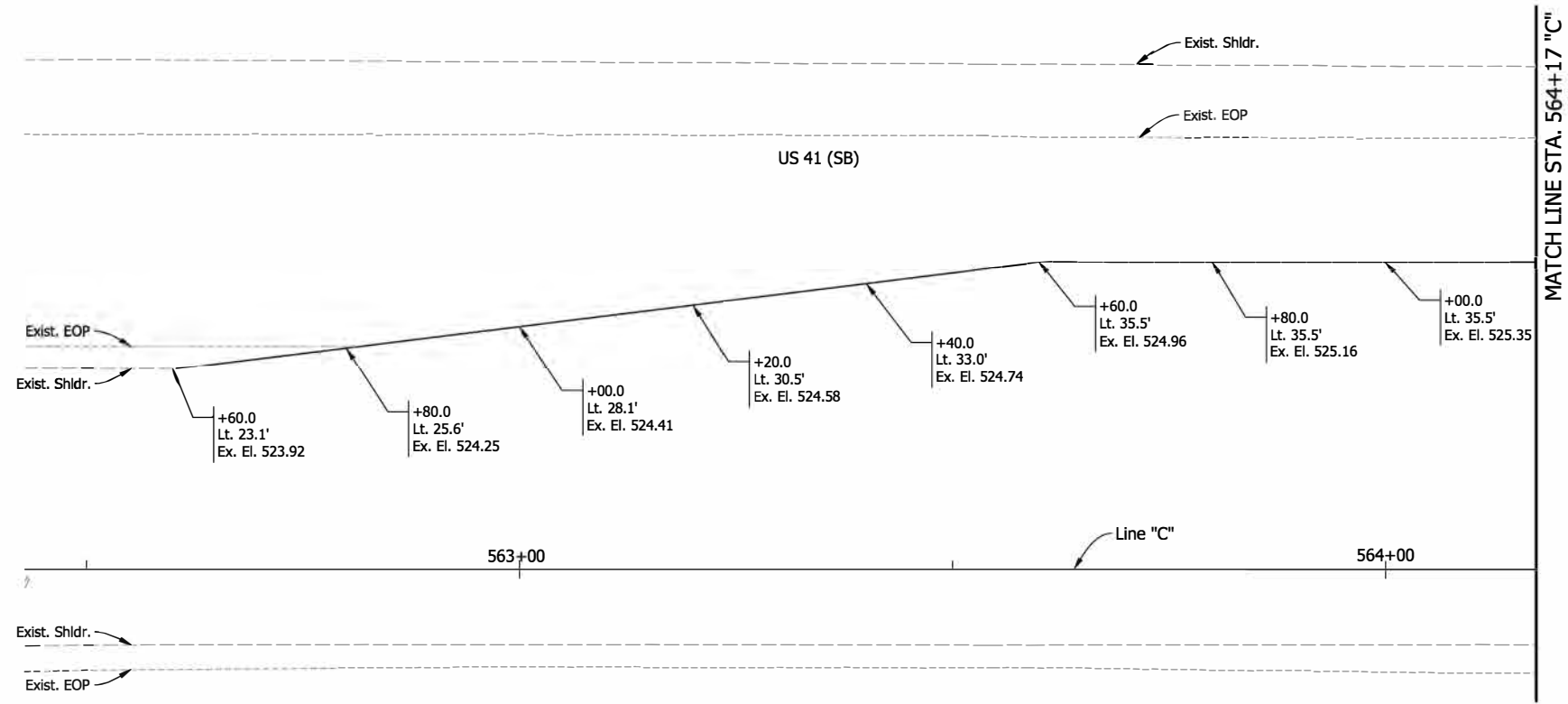
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See Construction Detail Sheet for all callouts.

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: RAP	DRAWN: JJP	
CHECKED: DJG	CHECKED: RAP	

INDIANA
DEPARTMENT OF TRANSPORTATION

SPOT ELEVATION
LINE "C"

HORIZONTAL SCALE	BRIDGE FILE
1"=10'	041-84-04322-ANBL
VERTICAL SCALE	DESIGNATION
N.A.	1500146
SURVEY BOOK	SHEETS
ELECTRONIC	33 of 102
CONTRACT	PROJECT
B-42975	1500146



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Note: All Sta./Offset called out from Line "C", Unless otherwise noted.
See Construction Detail Sheet for all callouts.

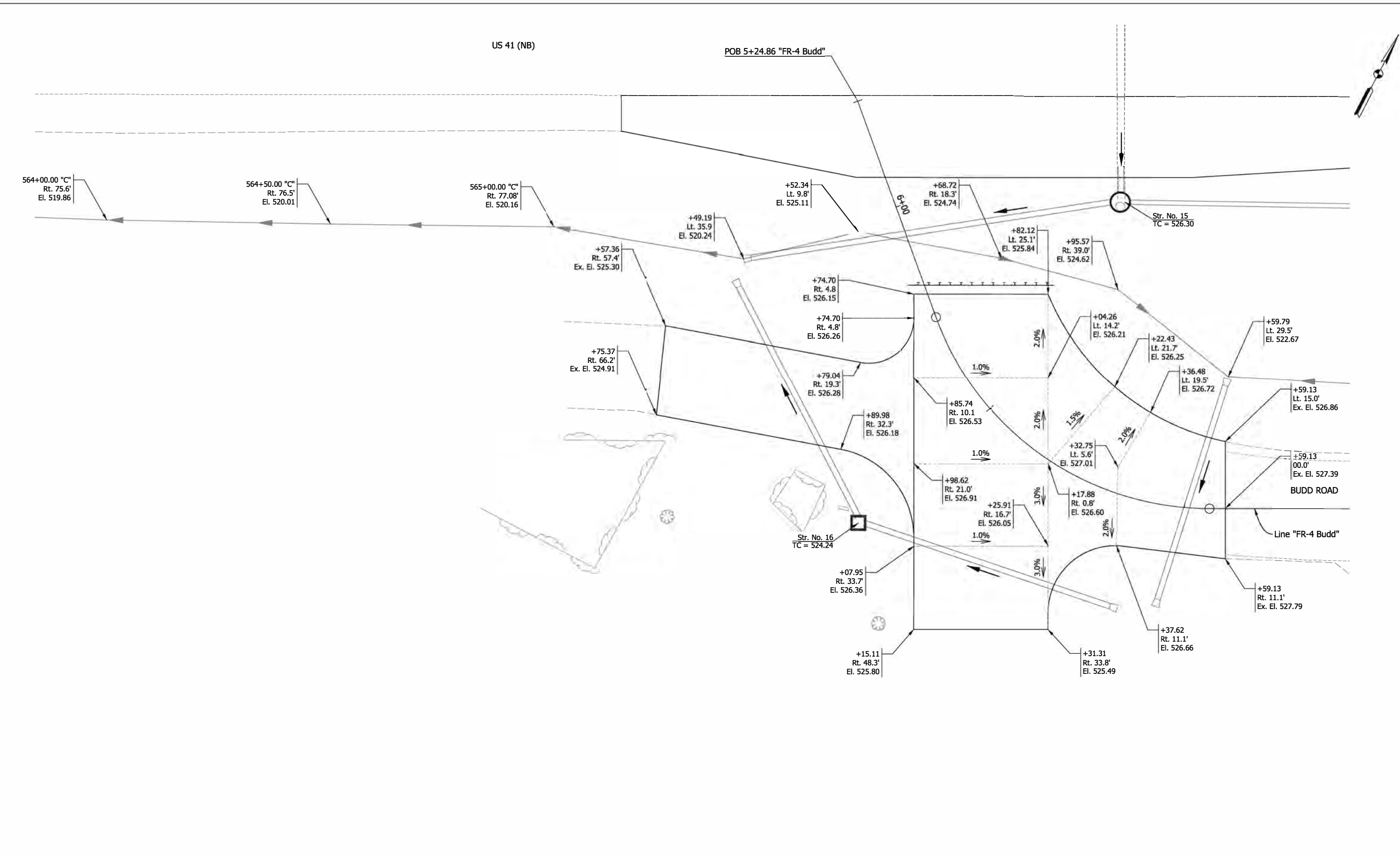
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DESIGNED: RAP	DRAWN: JJP	
CHECKED: DJG	CHECKED: RAP	

**INDIANA
DEPARTMENT OF TRANSPORTATION**

**SPOT ELEVATION
LINE "C"**

HORIZONTAL SCALE	BRIDGE FILE
1"=10'	041-84-04322-ANBL
VERTICAL SCALE	DESIGNATION
N.A.	1500146
SURVEY BOOK	SHEETS
ELECTRONIC	34 of 102
CONTRACT	PROJECT
B-42975	1500146

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Note: All Sta./Offset called out from Line "FR-4 Budd", Unless otherwise noted.

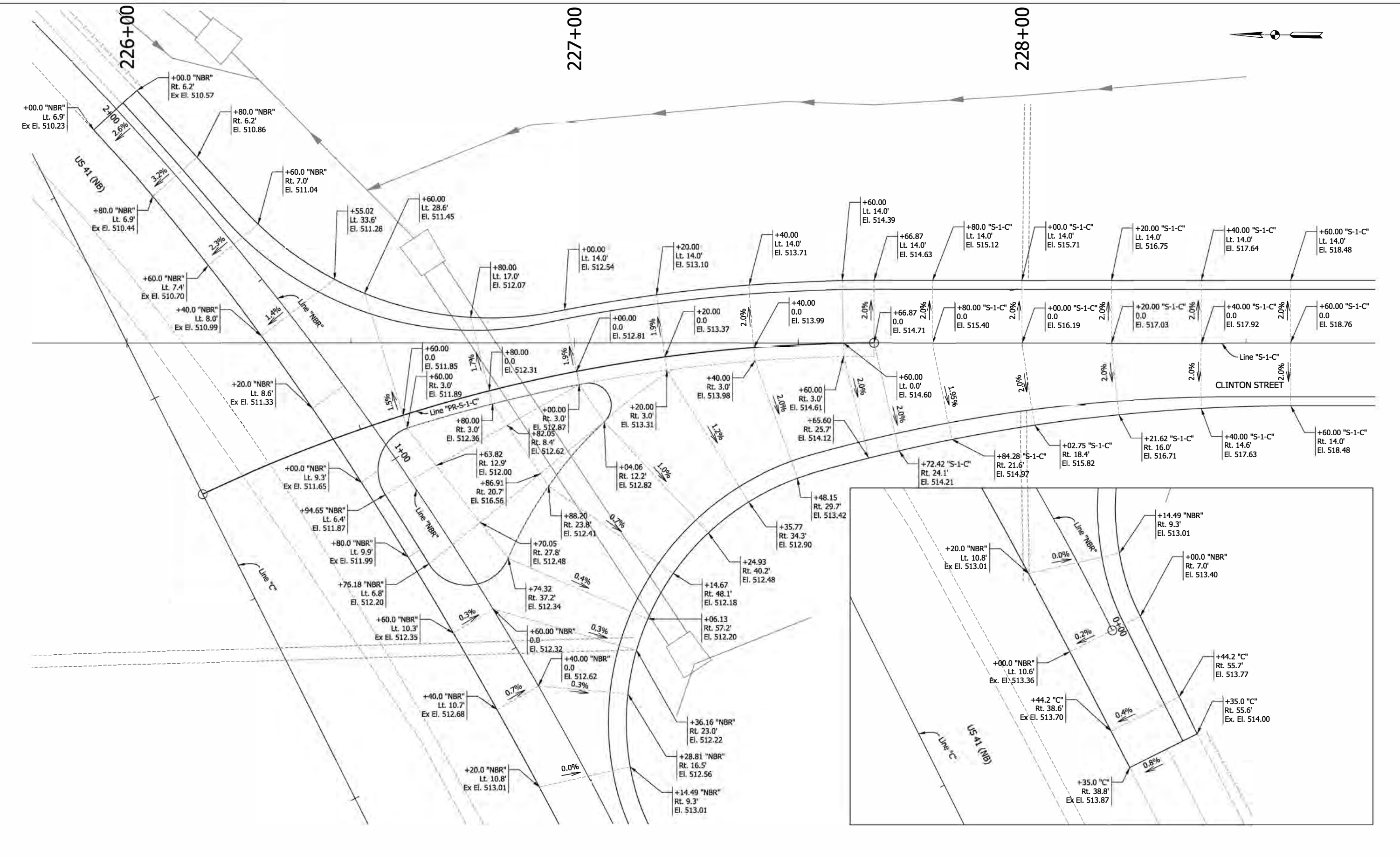
RECOMMENDED FOR APPROVAL _____	DESIGN ENGINEER _____	DATE _____
DESIGNED: RAP _____	DRAWN: JJP _____	
CHECKED: DJG _____	CHECKED: RAP _____	

**INDIANA
DEPARTMENT OF TRANSPORTATION**

**SPOT ELEVATION
LINE "FR-4 Budd"**

HORIZONTAL SCALE 1"=10'	BRIDGE FILE 041-84-04322-ANBL
VERTICAL SCALE N.A.	DESIGNATION 1500146
SURVEY BOOK ELECTRONIC	SHEETS 35 of 102
CONTRACT B-42975	PROJECT 1500146

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Note: All Sta./Offset called out from Line "PR-S-1-C", Unless otherwise noted.

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: <u>CIN</u>	DRAWN: <u>JJP</u>	
CHECKED: <u>DJG</u>	CHECKED: <u>RAP</u>	

INDIANA DEPARTMENT OF TRANSPORTATION

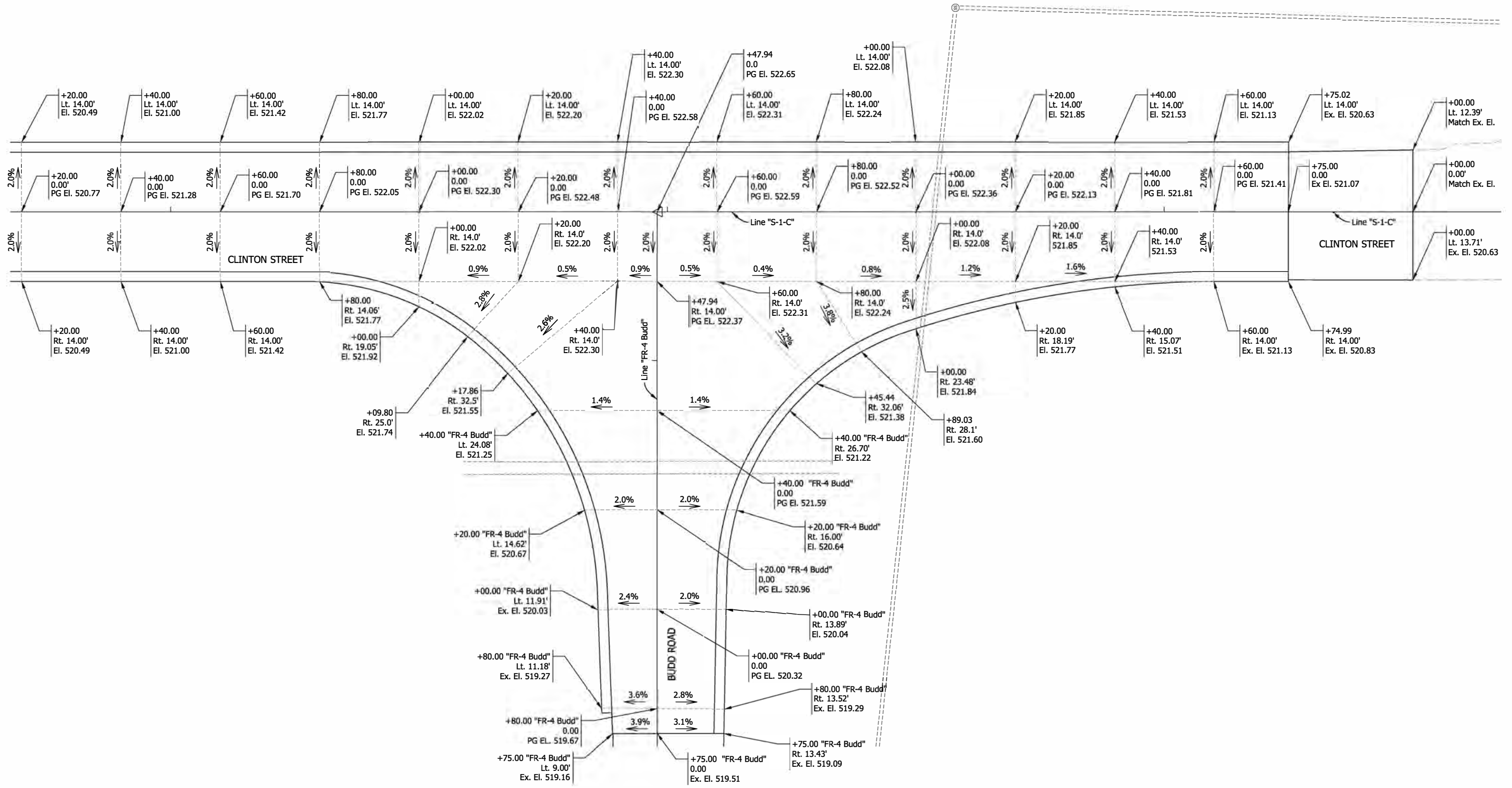
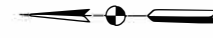
SPOT ELEVATION LINE "PR-S-1-C"

HORIZONTAL SCALE	BRIDGE FILE
1"=10'	041-84-04322-ANBL
VERTICAL SCALE	DESIGNATION
N.A.	1500146
SURVEY BOOK	SHEETS
ELECTRONIC	36 of 102
CONTRACT	PROJECT
B-42975	1500146

230+00

231+00

232+00



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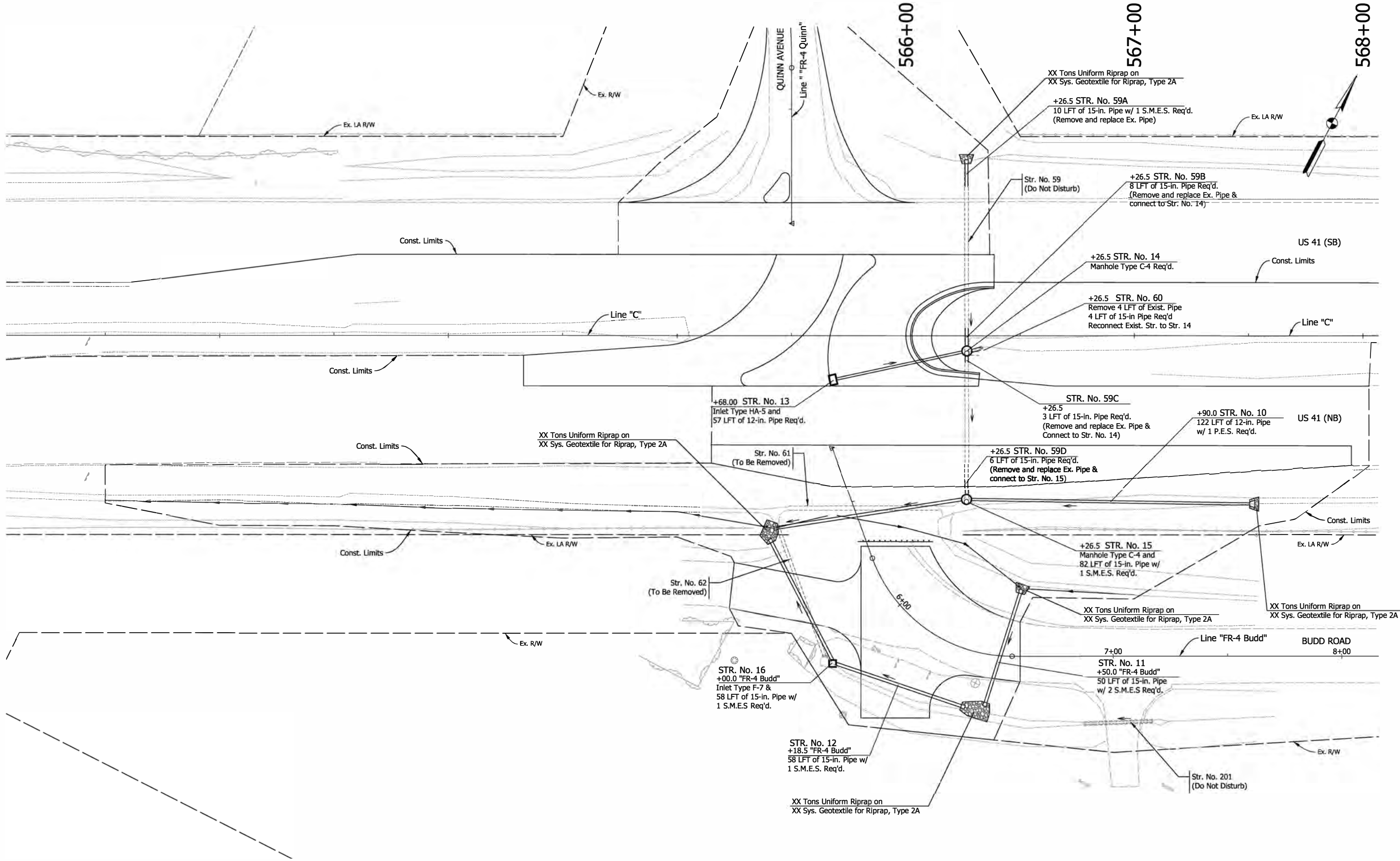
Note: All Sta./Offset called out from Line "S-1-C", Unless otherwise noted.

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: RAP	DRAWN: JJP	
CHECKED: DJG	CHECKED: RAP	

INDIANA DEPARTMENT OF TRANSPORTATION	
SPOT ELEVATION LINE "S-1-C"	

HORIZONTAL SCALE	BRIDGE FILE
1"=10'	041-84-04322-ANBL
VERTICAL SCALE	DESIGNATION
N.A.	1500146
SURVEY BOOK	SHEETS
ELECTRONIC	37 of 102
CONTRACT	PROJECT
B-42975	1500146

5/13/2022 5:13:22 PM 6:37:04 PM P:\160061 - Old US 41 Over US 41\09road\04 Design Files\02 DGN\Plans\160061_15_Sht_C_DRNG_01.dgn



Note: All Sta./Offset called out from Line "C", unless otherwise noted.

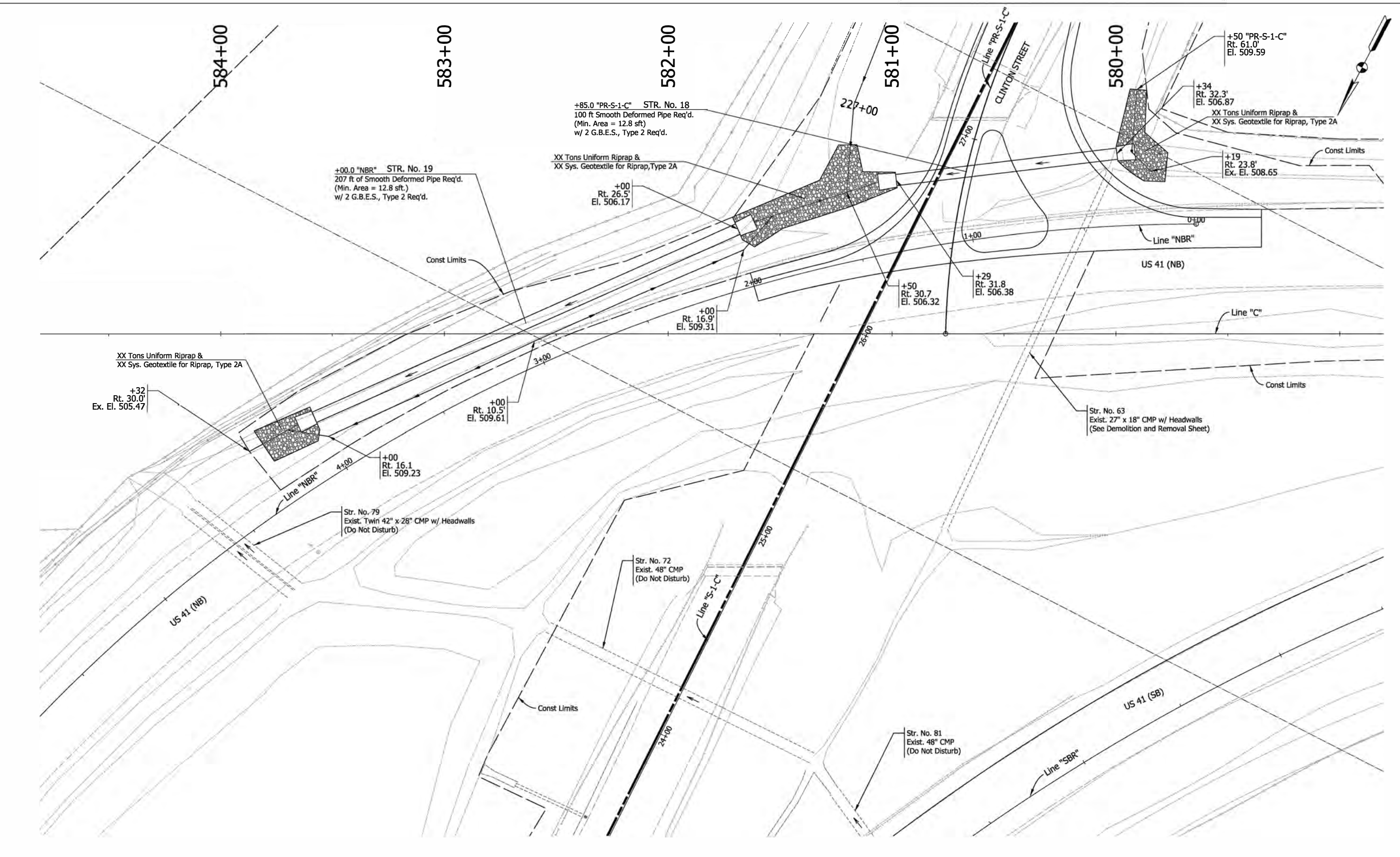
RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: RAP	DRAWN: JJP	
CHECKED: DJG	CHECKED: RAP	

**INDIANA
DEPARTMENT OF TRANSPORTATION**

**DRAINAGE DETAIL
LINE "C"**

HORIZONTAL SCALE	BRIDGE FILE
1"=20'	041-84-04322-ANBL
VERTICAL SCALE	DESIGNATION
N.A.	1500146
SURVEY BOOK	SHEETS
ELECTRONIC	38 of 102
CONTRACT	PROJECT
B-42975	1500146

5/13/2022 5:13:22 PM 6:37:04 PM P:\160061 - Old US 41\over US 41\096\road\04 Design files\02 DGN\Plans\160061_15_Sht_NBR_Dwg_01.dgn



Note: All Stations from Line "NBR", unless otherwise noted.

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: RAP	DRAWN: JJP	
CHECKED: DJG	CHECKED: RAP	

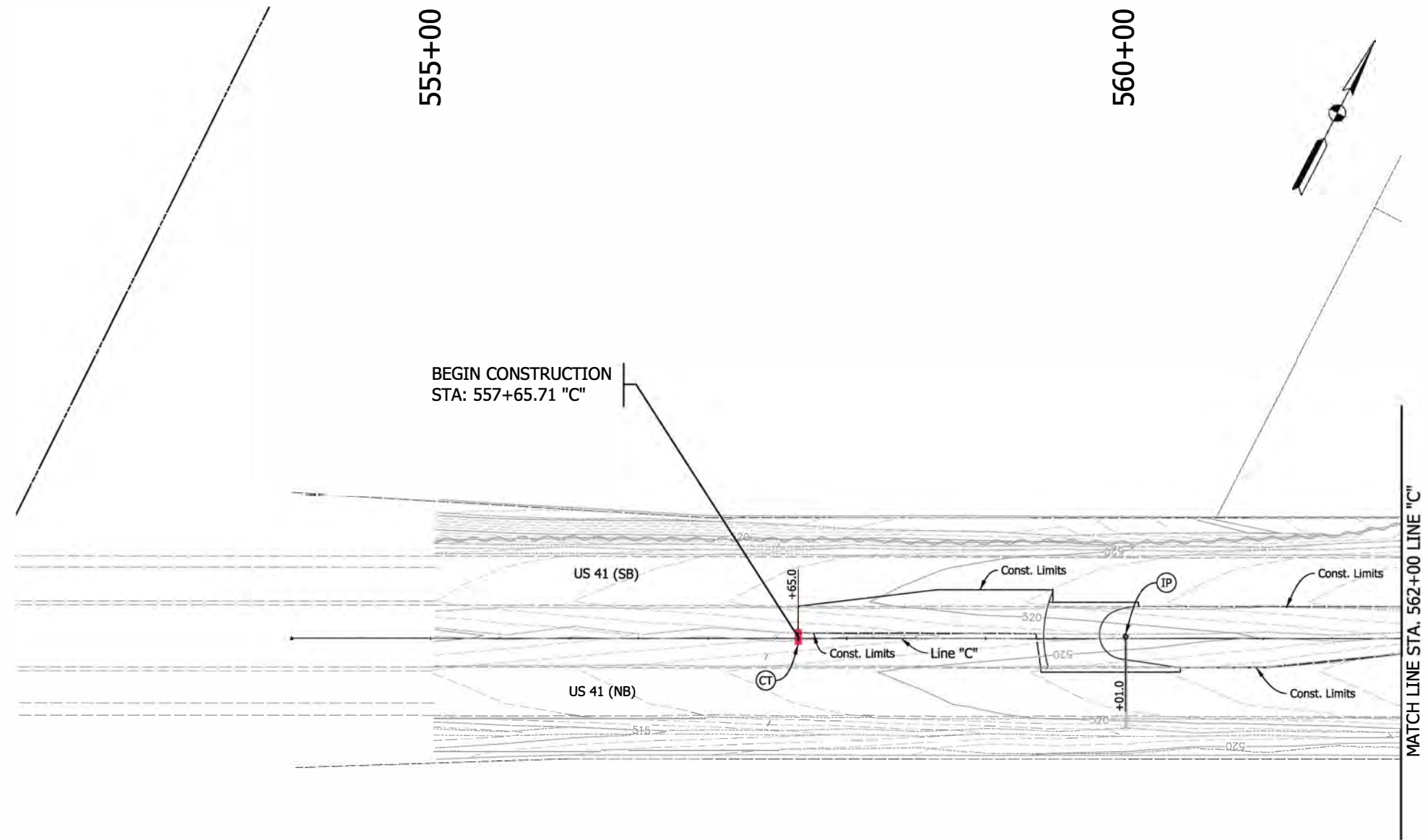
**INDIANA
DEPARTMENT OF TRANSPORTATION**

**DRAINAGE DETAIL
LINE "NBR"**

HORIZONTAL SCALE	BRIDGE FILE
1"=20'	041-84-04322-ANBL
VERTICAL SCALE	DESIGNATION
N.A.	1500146
SURVEY BOOK	SHEETS
ELECTRONIC	39 of 102
CONTRACT	PROJECT
B-42975	1500146

EROSION CONTROL SEQUENCE

1. Confirm project permitting status with the Indiana Department of Environmental Management (IDEM) and Vigo County.
2. At pre-construction meeting, provide details for construction access including locations for construction materials stockpiles and the locations of construction entrances.
3. Installation of construction entrances.
4. Clearing and grubbing only as necessary for installation of perimeter controls or as directed by the Engineer.
5. Installation of perimeter erosion control measures.
6. Complete clearing and grubbing activities. Rough grade for profile grades and roadside ditches.
7. Install temporary traversable check dams. Temporary check dams are to be moved as necessary to complete final ditch grading, but once complete the temporary check dams shall remain in place and be monitored and maintained, until permanent measures are fully established.
8. Install permanent erosion control measures at outlets of proposed culverts and pipes prior to installation of the pipe.
9. Final ditch grading along roadside ditches shall not commence until proposed structures, rough grading, temporary check dams, and temporary inlet protection are in place.
10. Grade embankments and construct proposed roadway. Stabilize as required with temporary seeding, specified slope protection, and/or other suitable approved measures.
11. Proposed ditches are to be protected with temporary seeding in the ditch flowline within 7 calendar days of commencing ditch construction; if this is not practical, they are to receive temporary seeding within the flowline, or other suitable stabilization measures as directed. All permanent ditch erosion control measures (riprap, sodding, permanent seed) are to be completely installed immediately and/or as soon as practically possible to reduce runoff from the construction site. Provide all required monitoring and maintenance of temporary and permanent erosion control measures.
12. Monitoring and maintenance of all temporary erosion control devices shall be required until permanent vegetation has been established and as directed by the Engineer.
13. Remove all temporary erosion and sediment control measures after permanent measures are fully established and as directed by the Engineer.
14. Submit Notice of Termination to Indiana Department of Environmental Management (IDEM) and Vigo County as appropriate.



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TEMPORARY EROSION CONTROL LEGEND

- CT Temporary Check Dam, Traversable
- IP Temporary Inlet Protection
- SF Silt Fence

Note:
All callouts from Line "C", unless otherwise noted.

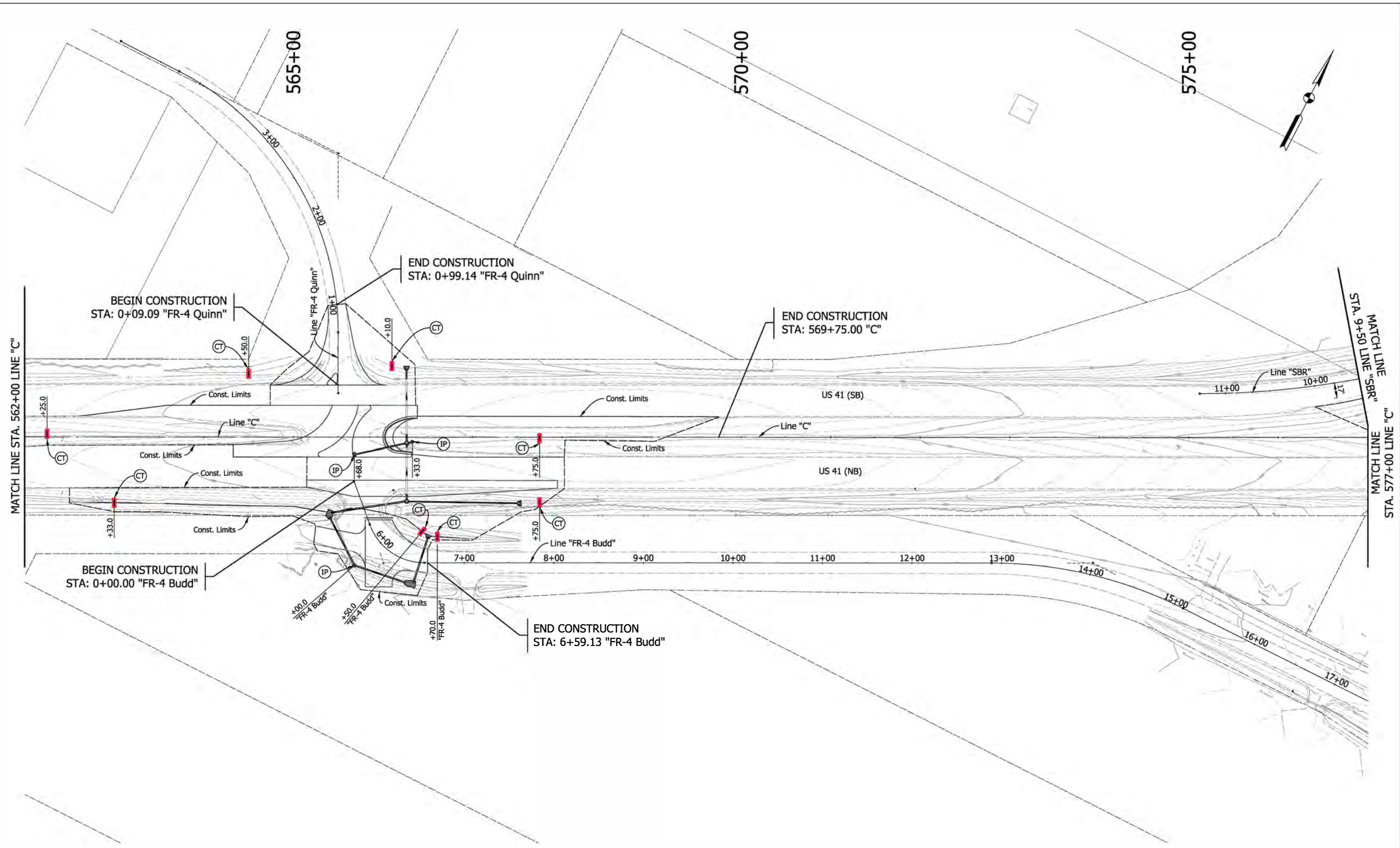
RECOMMENDED FOR APPROVAL _____		DESIGN ENGINEER _____ DATE _____	
DESIGNED: VK _____	DRAWN: JJP _____		
CHECKED: DJG _____	HE: KEDC, RAP _____		

INDIANA DEPARTMENT OF TRANSPORTATION

TEMPORARY EROSION CONTROL

HORIZONTAL SCALE 1"=50'	BRIDGE FILE 041-84-04322-ANBL
VERTICAL SCALE N.A.	DESIGNATION 1500146
SURVEY BOOK ELECTRONIC	SHEETS 40 of 102
CONTRACT B-42975	PROJECT 1500146

5/13/2022 5:13:22 PM 6:37:06 PM P:\160061 - Old US 41\09road\04 Design Files\02 DGM\Plans\160061_13A_Sht_C_TEC_02.dgn



TEMPORARY EROSION CONTROL LEGEND

- █ CT Temporary Check Dam, Traversable
- IP Temporary Inlet Protection
- SF Silt Fence

Note:
All callouts from Line "C", unless otherwise noted.

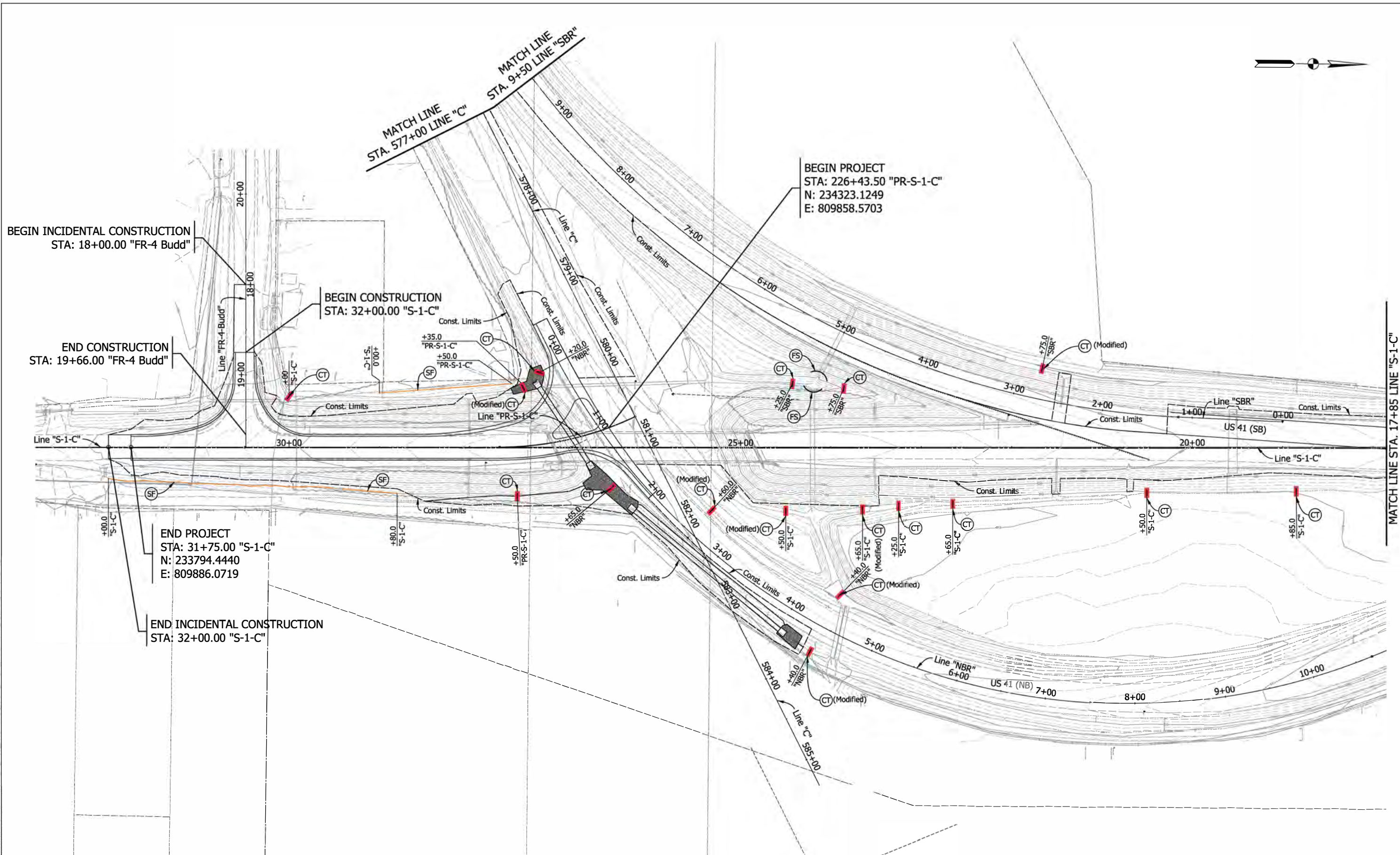
RECOMMENDED FOR APPROVAL _____	
DESIGN ENGINEER	DATE
DESIGNED: <u>VK</u>	DRAWN: <u>JJP</u>
CHECKED: <u>DJG</u>	CHECKED: <u>RAP</u>

**INDIANA
DEPARTMENT OF TRANSPORTATION**

TEMPORARY EROSION CONTROL

HORIZONTAL SCALE	BRIDGE FILE
1"=50'	041-84-04322-ANBL
VERTICAL SCALE	DESIGNATION
N.A.	1500146
SURVEY BOOK	SHEETS
ELECTRONIC	41 of 102
CONTRACT	PROJECT
B-42975	1500146

5/17/2022 5:17:22 AM P:\160061 - Old US 41 over US 41\09road\04 Design files\02 DGM\Plans\160061_13A_Sht. C_TEC_03.dgn



TEMPORARY EROSION CONTROL LEGEND

		Temporary Check Dam, Traversable		Filter Sock
		Temporary Inlet Protection		
		Silt Fence		

Note:
All callouts from Line "C", unless otherwise noted.

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: VK	DRAWN: JJP	
CHECKED: DJG	CHECKED: RAP	

INDIANA
DEPARTMENT OF TRANSPORTATION

TEMPORARY EROSION CONTROL

HORIZONTAL SCALE	BRIDGE FILE
1"=50'	041-94-04322-ANBL
VERTICAL SCALE	DESIGNATION
N.A.	1500146
SURVEY BOOK	SHEETS
ELECTRONIC	42 of 102
CONTRACT	PROJECT
B-42975	1500146



MATCH LINE STA. 17+85 LINE "S-1-C"

N. Northwood St.

BEGIN INCIDENTAL CONSTRUCTION
STA: 17+11.26 "S-1-C"

+37.4

15+00

Line "S-1-C"

10+00

US 41 (SB)

5+80

US 41 (NB)

Const. Limits

Evans Ave.

Line "NBR"

15+00

5/13/2022 5:13:20 PM I:\160061 - Old US 41 over US 41\09roads\04 Design files\02 DGM\Plans\160061_13A_Sht. C_TEC_04.dgn

TEMPORARY EROSION CONTROL LEGEND

- (CT) Temporary Check Dam, Traversable
- (IP) Temporary Inlet Protection
- (SF) Silt Fence

Note:
All call out from Line "C" unless otherwise noted.

RECOMMENDED FOR APPROVAL _____		DESIGN ENGINEER _____		DATE _____	
DESIGNED: VK _____	DRAWN: JJP _____				
CHECKED: DJG _____	CHECKED: RAP _____				

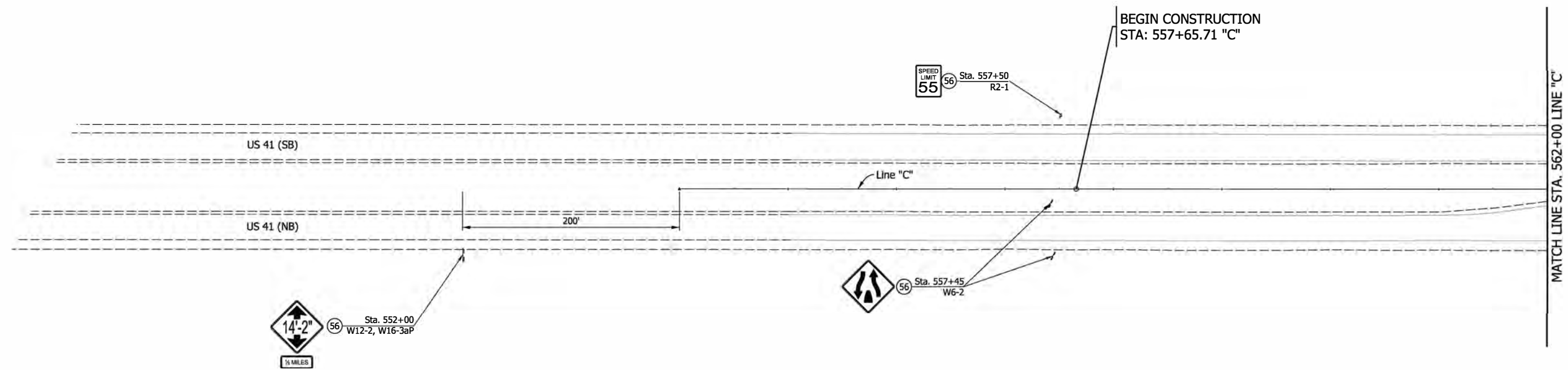
INDIANA
DEPARTMENT OF TRANSPORTATION

TEMPORARY EROSION CONTROL

HORIZONTAL SCALE		BRIDGE FILE	
1"=50'		041-84-04322-ANBL	
VERTICAL SCALE		DESIGNATION	
N.A.		1500146	
SURVEY BOOK		SHEETS	
ELECTRONIC		43	of 102
CONTRACT		PROJECT	
B-42975		1500146	

550+00

560+00



Note:
 All Sta./Offset called out from Line "C", Unless otherwise noted.
 Stations are Approximate and to be field verified.

5/13/2022 5:13:20 PM P:\160061 - Old US 41\0960ad\04 Design files\02 DGM Plans\160061_16_S_Sht_C_Ext_Signs_01.dgn

LEGEND

- (56) Remove, Existing Sign and Support
- (57) Remain In Place, Existing Sign and Support

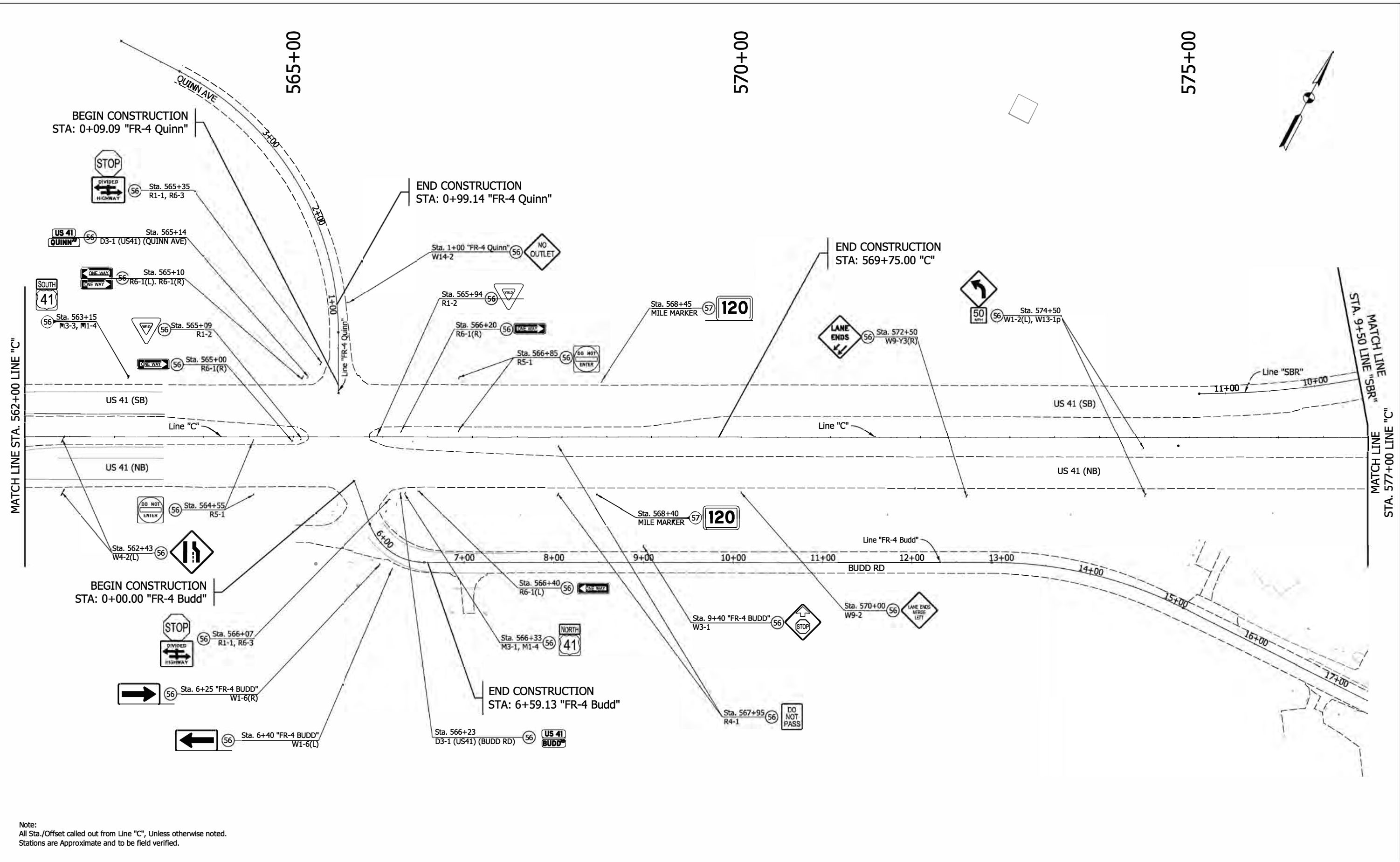
RECOMMENDED FOR APPROVAL _____		DESIGN ENGINEER _____ DATE _____	
DESIGNED: <u>CJN</u>	DRAWN: <u>JJP</u>		
CHECKED: <u>DJG</u>	CHECKED: <u>RAP</u>		

INDIANA
DEPARTMENT OF TRANSPORTATION

EXISTING SIGNING PLAN
LINE "C"

HORIZONTAL SCALE 1"=50'	BRIDGE FILE 041-84-04322-ANBL
VERTICAL SCALE N.A.	DESIGNATION 1500146
SURVEY BOOK ELECTRONIC	SHEETS 44 of 102
CONTRACT B-42975	PROJECT 1500146

5/13/2022 5:13:20 PM P:\160061 - Old US 41\over US 41\0960ad\01 Design files\02 DGM Plans\160061_16_Sht. C_Ex_Signs_02.dgn



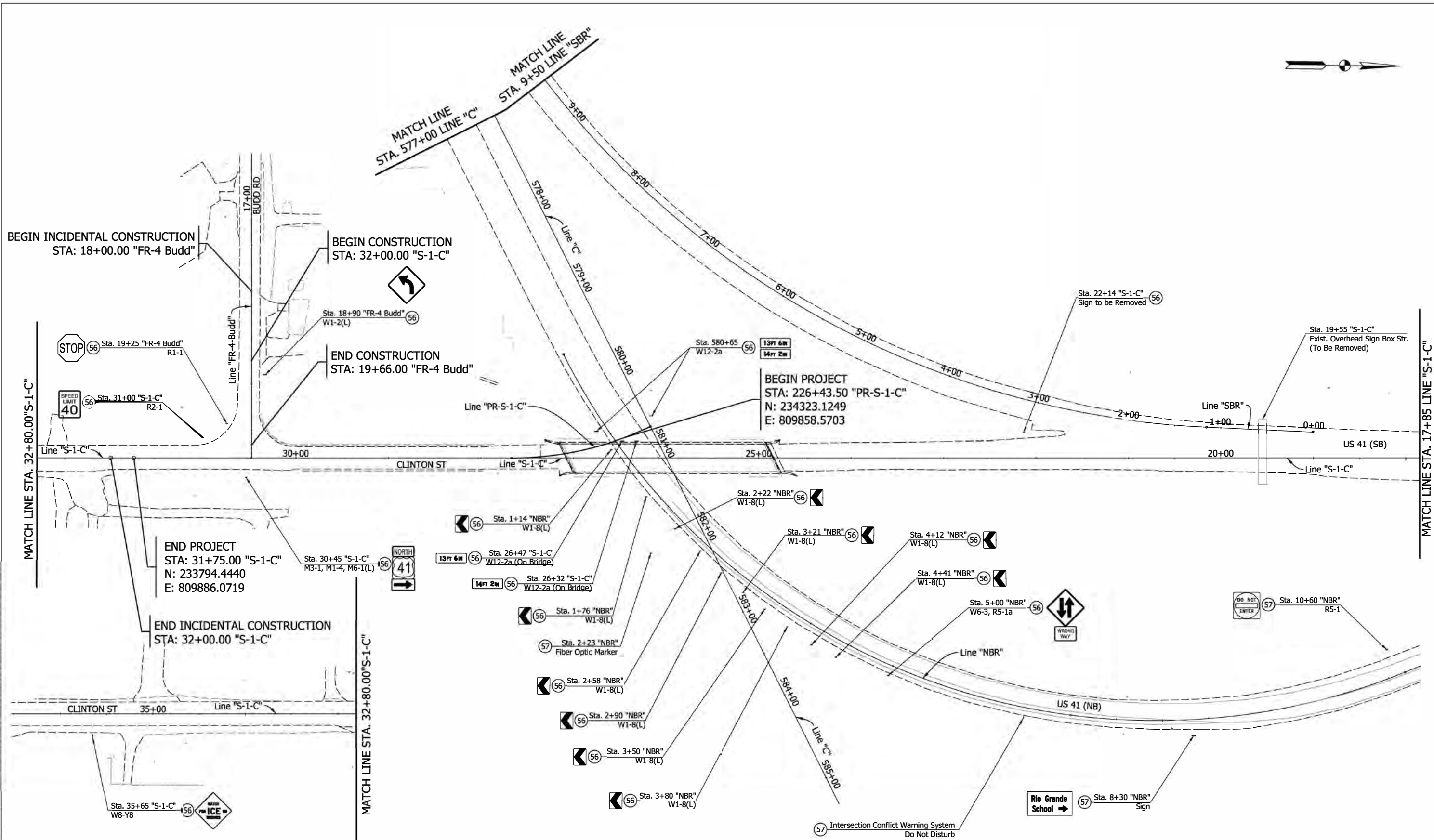
Note:
 All Sta./Offset called out from Line "C", Unless otherwise noted.
 Stations are Approximate and to be field verified.

LEGEND	
(56)	Remove, Existing Sign and Support
(57)	Remain In Place, Existing Sign and Support

RECOMMENDED FOR APPROVAL _____	DESIGN ENGINEER _____	DATE _____
DESIGNED: CJN	DRAWN: JJP	
CHECKED: DJG	CHECKED: RAP	

INDIANA DEPARTMENT OF TRANSPORTATION	
EXISTING SIGNING PLAN LINE "C", "FR-4 Budd", "FR-4 Quinn"	

HORIZONTAL SCALE 1"=50'	BRIDGE FILE 041-84-04322-ANBL
VERTICAL SCALE N.A.	DESIGNATION 1500146
SURVEY BOOK ELECTRONIC	SHEETS 45 of 102
CONTRACT #-42975	PROJECT 1500146



5/13/2022 5:13:22 PM 6:37:10 PM P:\160061 - Old US 41 over US 41\05Road\04 Design files\02 DGN\Plans\160061_16_Sht_C_Ext_Signs_03.dgn

Note:
All Sta./Offset called out from Line "C", Unless otherwise noted.
Stations are Approximate and to be field verified.

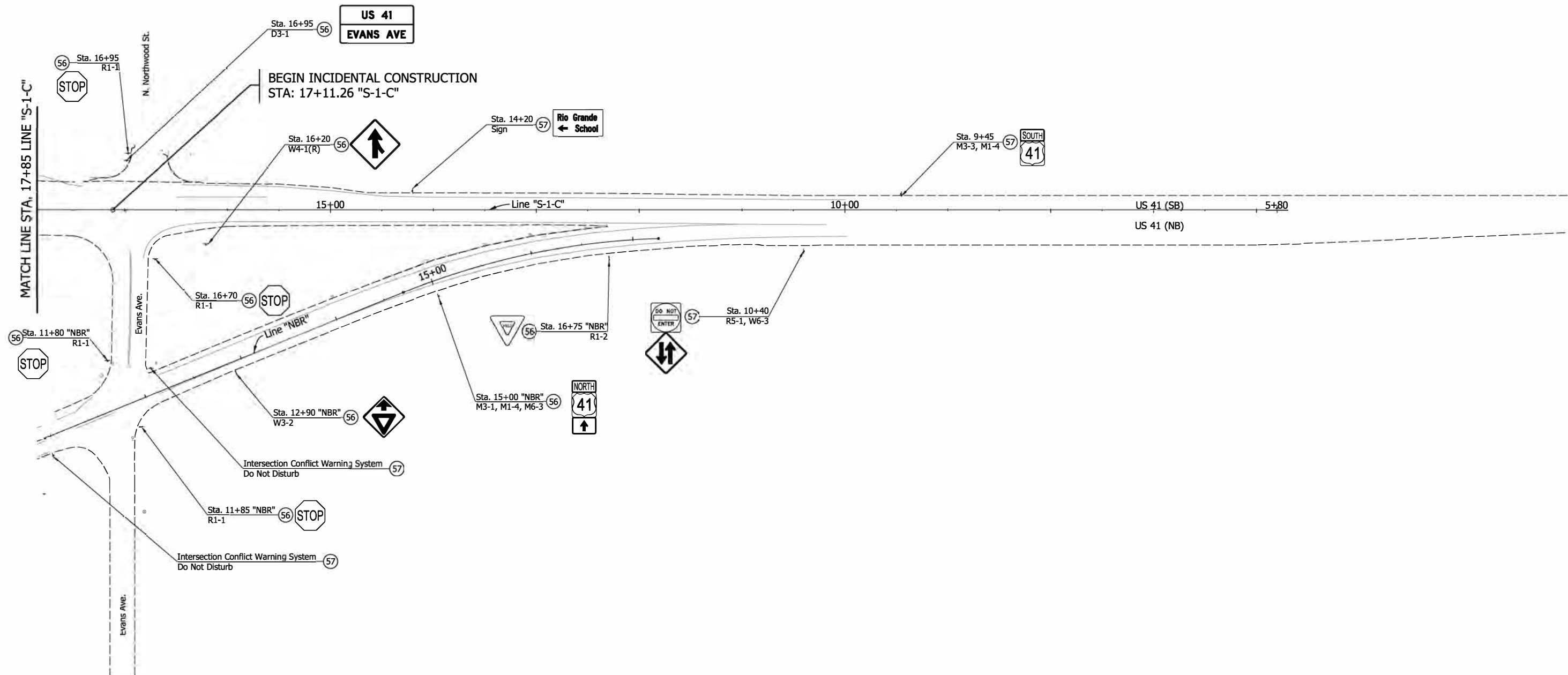
- LEGEND**
- (56) Remove, Existing Sign and Support
 - (57) Remain In Place, Existing Sign and Support

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: CJN	DRAWN: JJP	
CHECKED: DJG	CHECKED: RAP	

INDIANA
DEPARTMENT OF TRANSPORTATION

EXISTING SIGNING PLAN
LINE "C", "FR-4 Budd", "S-1-C" & "NBR"

HORIZONTAL SCALE	BRIDGE FILE
1"=50'	041-84-04322-ANBL
VERTICAL SCALE	DESIGNATION
N.A.	1500146
SURVEY BOOK	SHEETS
ELECTRONIC	46 of 102
CONTRACT	PROJECT
B-42975	1500146



Note:
All Sta./Offset called out from Line "S-1-C", Unless otherwise noted.
Stations are Approximate and to be field verified.

5/13/2022 5:13:22 PM P:\160061 - Old US 41\0960ad\04 Design files\02 DGM Plans\160061_16_Sht. C_ Ex. Signs_ 04.dgn

- LEGEND**
- (56) Remove, Existing Sign and Support
 - (57) Remain In Place, Existing Sign and Support

RECOMMENDED FOR APPROVAL _____	DESIGN ENGINEER _____	DATE _____
DESIGNED: CJN _____	DRAWN: JJP _____	
CHECKED: DJG _____	CHECKED: RAP _____	

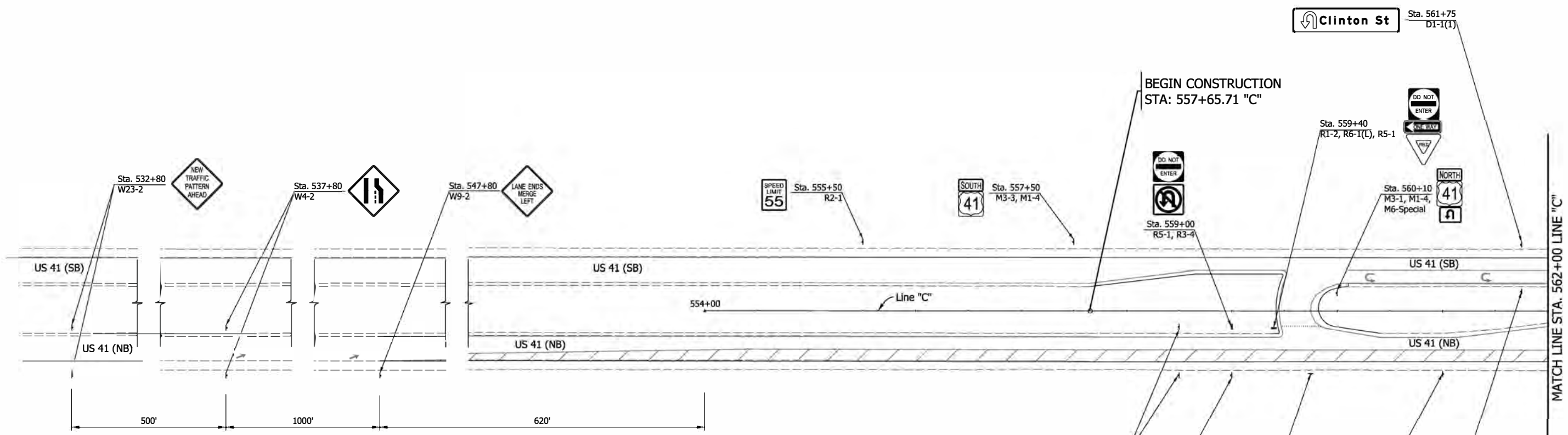
INDIANA
DEPARTMENT OF TRANSPORTATION

EXISTING SIGNING PLAN
LINE "S-1-C" & "NBR"

HORIZONTAL SCALE	BRIDGE FILE
1"=50'	041-84-04322-ANBL
VERTICAL SCALE	DESIGNATION
N.A.	1500146
SURVEY BOOK	SHEETS
ELECTRONIC	47 of 102
CONTRACT	PROJECT
B-42975	1500146

555+00

560+00



Note to Reviewer:
 Proposed Pavement Markings, Signing, and RPM'S to be coordinated with Crawfordsville District and will be finalized at Stage 3.

Note:
 All Sta./Offset called out from Line "C", Unless otherwise noted.

5/13/2022 5:13:22 PM I:\160061 - Old US 41\99Road\04 Design files\02 DGM\Plans\160061_IS_SIT_C_Prop_Signs_01.dgn

LEGEND

- 4 Proposed Sign
- 57 Remain In Place, Existing Sign and Support

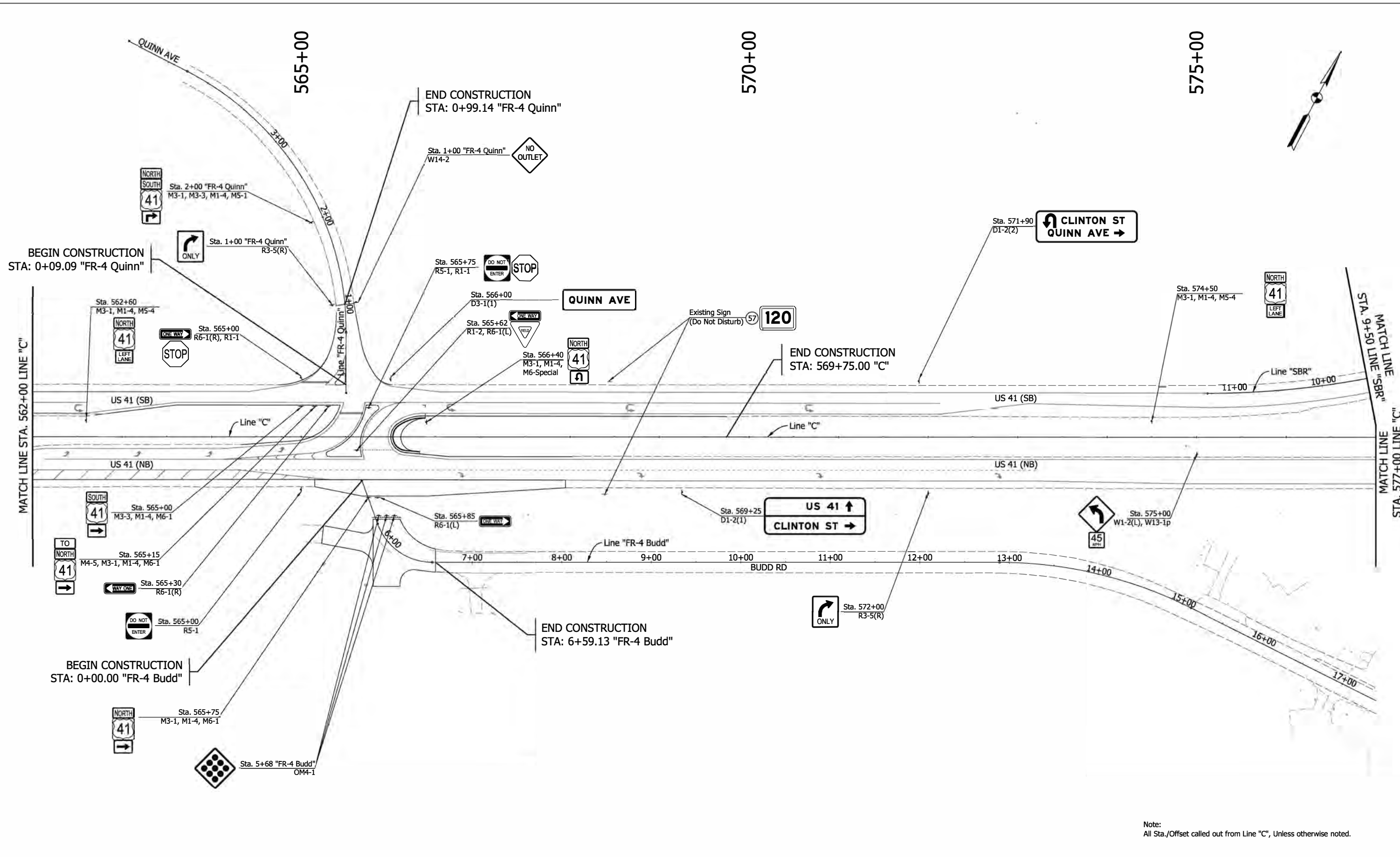
RECOMMENDED FOR APPROVAL _____	DESIGN ENGINEER _____	DATE _____
DESIGNED: CJN	DRAWN: JJP	
CHECKED: DJG	CHECKED: RAP	

INDIANA
DEPARTMENT OF TRANSPORTATION

PROPOSED SIGNING PLAN
LINE "C"

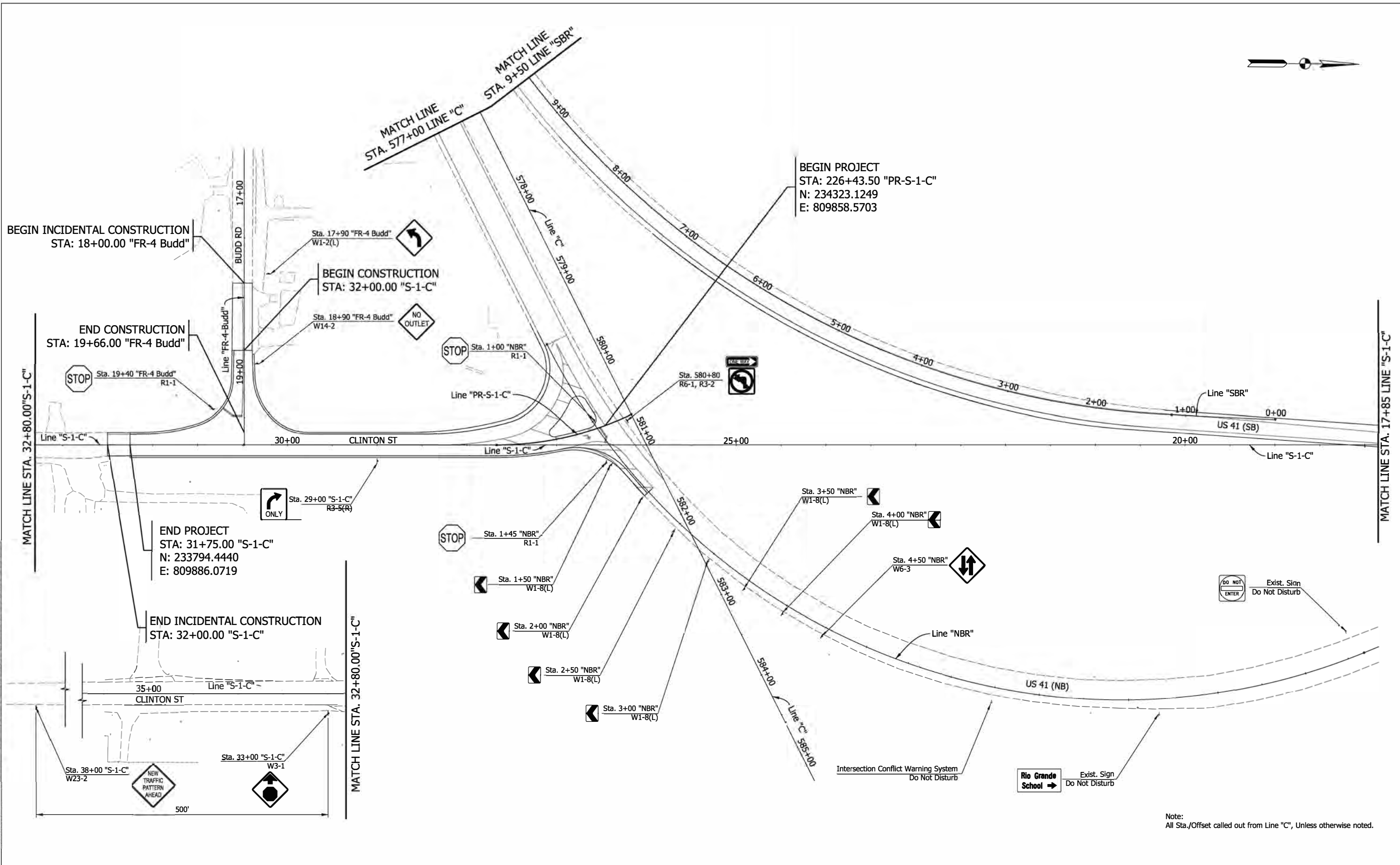
HORIZONTAL SCALE	BRIDGE FILE
1"=50'	041-84-04322-ANBL
VERTICAL SCALE	DESIGNATION
N.A.	1500146
SURVEY BOOK	SHEETS
ELECTRONIC	48 of 102
CONTRACT	PROJECT
B-42975	1500146

5/13/2022 5:13:22 PM I:\P\160061 - Old US 41\990\04 Design files\02 DGM\Plans\160061_IS_SIN_C_Prop_Signs_02.dgn



Note:
All Sta./Offset called out from Line "C", Unless otherwise noted.

LEGEND 4 Proposed Sign 57 Remain In Place, Existing Sign and Support	RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION PROPOSED SIGNING PLAN LINE "C", "FR-4 Budd", "FR-4 Quinn"	HORIZONTAL SCALE 1"=50' VERTICAL SCALE N.A.	BRIDGE FILE 041-84-04322-ANBL DESIGNATION 1500146
	DESIGNED: CJN DRAWN: JJP CHECKED: DJG CHECKED: RAP		SURVEY BOOK ELECTRONIC 49 of 102 CONTRACT PROJECT B-42975 1500146	



Note:
All Sta./Offset called out from Line "C", Unless otherwise noted.

5/13/2022 5:13:22 PM I:\160061 - Old US 41 over US 41\05Road\04 Design files\02 DGN\Plans\160061_16_Sht_C_Prop_Signs_03.dgn

LEGEND

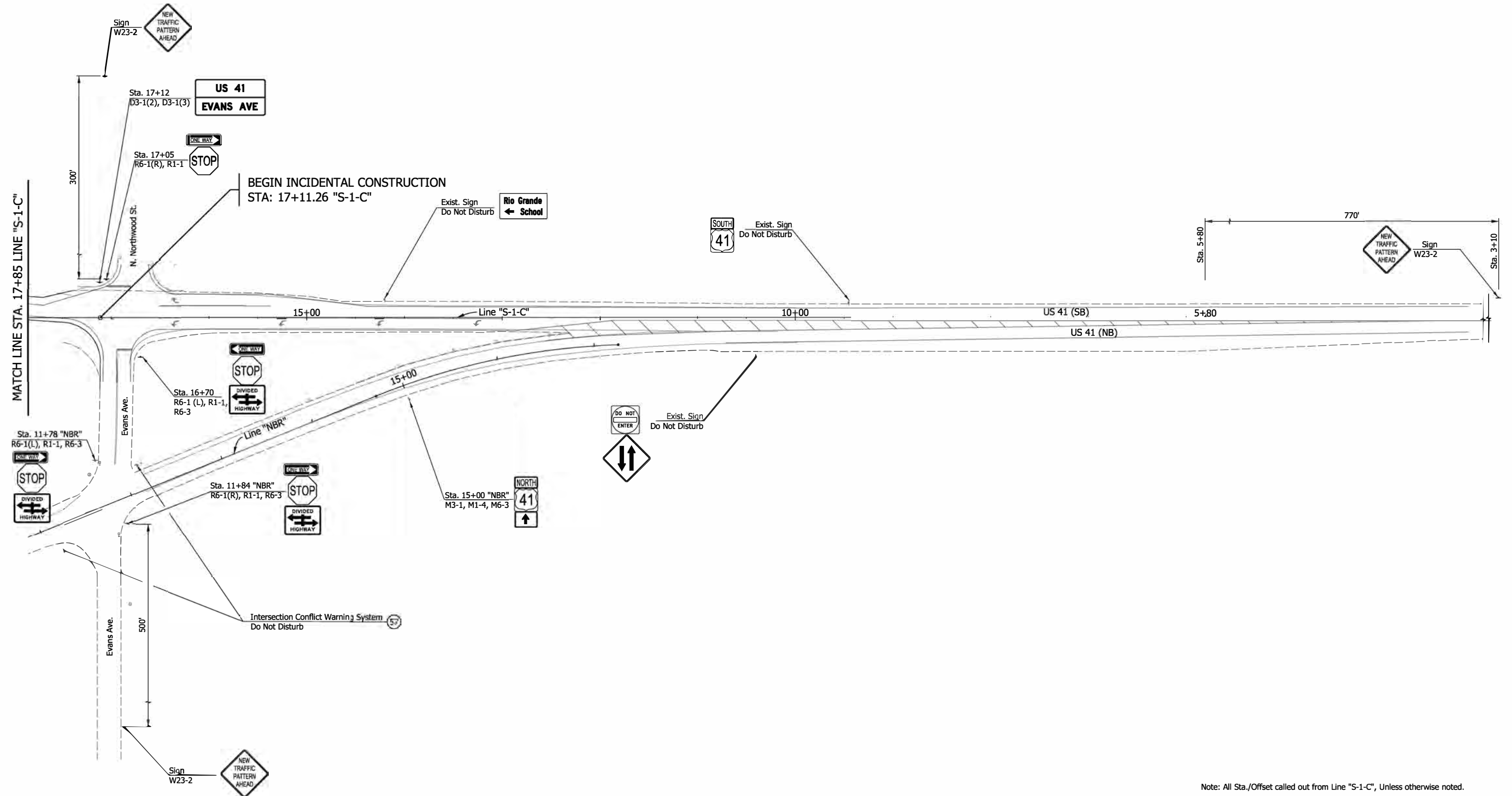
- Proposed Sign
- Remain In Place, Existing Sign and Support

RECOMMENDED FOR APPROVAL _____	DESIGN ENGINEER _____	DATE _____
DESIGNED: <u>CJN</u>	DRAWN: <u>JJP</u>	
CHECKED: <u>DJG</u>	CHECKED: <u>RAP</u>	

INDIANA
DEPARTMENT OF TRANSPORTATION

PROPOSED SIGNING PLAN
LINE "C", "FR-4 Budd", "S-1-C" & "NBR"

HORIZONTAL SCALE 1"=50'	BRIDGE FILE 041-84-04322-ANBL
VERTICAL SCALE N.A.	DESIGNATION 1500146
SURVEY BOOK ELECTRONIC	SHEETS 50 of 102
CONTRACT B-42975	PROJECT 1500146



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LEGEND	
+	Proposed Sign
(57)	Remain In Place, Existing Sign and Support

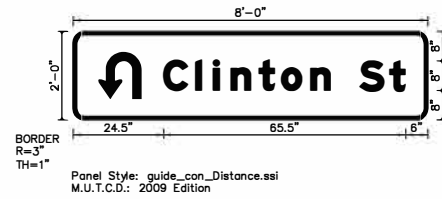
RECOMMENDED FOR APPROVAL _____	DESIGN ENGINEER _____	DATE _____
DESIGNED: CJN _____	DRAWN: JJP _____	
CHECKED: DJG _____	CHECKED: RAP _____	

INDIANA
DEPARTMENT OF TRANSPORTATION

PROPOSED SIGNING PLAN
LINE "S-1-C" & "NBR"

HORIZONTAL SCALE	BRIDGE FILE
1"=50'	041-84-04322-ANBL
VERTICAL SCALE	DESIGNATION
N.A.	1500146
SURVEY BOOK	SHEETS
ELECTRONIC	51 of 102
CONTRACT	PROJECT
B-42975	1500146

SIGN DETAIL
1:40



SIGN NUMBER	D1-1(1)
WIDTH x HGHT.	8'-0" x 2'-0"
BORDER WIDTH	1"
CORNER RADIUS	3"
MOUNTING	Ground
BACKGROUND	TYPE: Reflective COLOR: Green
LEGEND/BORDER	TYPE: Reflective COLOR: YellowWhite

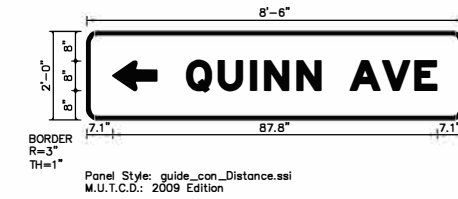
SYMBOL	ROT	X	Y	WID	HT

Panel Style: guide_con_Distance.ssi
Dimensions are in inches.tenths

Letter locations are panel edge to lower left corner

LETTER POSITIONS (X)											LENGTH	SERIESIZE
C	l	i	n	t	o	n		S	t			EM 2000
24.5	33.2	38	42.8	50.5	56.5	64.4	69.7	77.7	85.8		65.5	8/6

SIGN DETAIL
1:40



SIGN NUMBER	D1-1(2)
WIDTH x HGHT.	8'-6" x 2'-0"
BORDER WIDTH	1"
CORNER RADIUS	3"
MOUNTING	Ground
BACKGROUND	TYPE: Reflective COLOR: Green
LEGEND/BORDER	TYPE: Reflective COLOR: YellowWhite

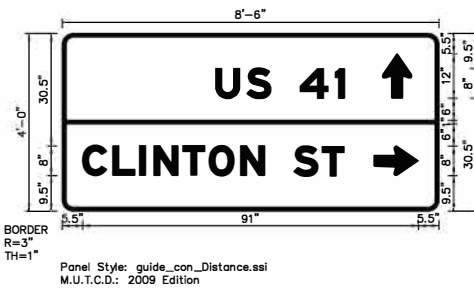
SYMBOL	ROT	X	Y	WID	HT
AR_Type D	90	7.1	8	8	12

Panel Style: guide_con_Distance.ssi
Dimensions are in inches.tenths

Letter locations are panel edge to lower left corner

LETTER POSITIONS (X)											LENGTH	SERIESIZE
Q	U	I	N	N		A	V	E			EM 2000	
27.1	35.7	44.4	48.3	57	63.5	71.5	80.2	89		67.8	8	

SIGN DETAIL
1:40



SIGN NUMBER	D1-2(1)
WIDTH x HGHT.	8'-6" x 4'-0"
BORDER WIDTH	1"
CORNER RADIUS	3"
MOUNTING	Ground
BACKGROUND	TYPE: Reflective COLOR: Green
LEGEND/BORDER	TYPE: Reflective COLOR: YellowWhite

SYMBOL	ROT	X	Y	WID	HT
AR_Type D	0	86.7	30.5	8	12
AR_Type D	270	84.5	9.5	8	12

Panel Style: guide_con_Distance.ssi
Dimensions are in inches.tenths

Letter locations are panel edge to lower left corner

LETTER POSITIONS (X)											LENGTH	SERIESIZE
U	S		4	1							EM 2000	
41.6	50.1	56.6	64.6	74.1						34.9	8	
C	L	I	N	T	O	N		S	T		EM 2000	
5.5	13.8	21	24.8	32.7	39.8	48.4	54.9	62.9	70.6	71	8	

SIGN DETAIL
1:40



SIGN NUMBER	D1-2(2)
WIDTH x HGHT.	9'-0" x 3'-6"
BORDER WIDTH	1"
CORNER RADIUS	3"
MOUNTING	Ground
BACKGROUND	TYPE: Reflective COLOR: Green
LEGEND/BORDER	TYPE: Reflective COLOR: YellowWhite

SYMBOL	ROT	X	Y	WID	HT
AR_Type D	270	85.9	10	8	12

Panel Style: guide_con_Distance.ssi
Dimensions are in inches.tenths

Letter locations are panel edge to lower left corner

LETTER POSITIONS (X)											LENGTH	SERIESIZE
C	L	I	N	T	O	N		S	T		EM 2000	
27	35.2	42.4	46.2	54.2	61.2	69.8	76.3	84.3	92	71	8	
Q	U	I	N	N		A	V	E		EM 2000		
10.1	18.7	27.4	31.3	40	46.5	54.5	63.2	72	67.8	8		

5/13/2022 5:13:33 PM I:\16006 - Old US 41 over US 41\0906ad\04 Design Files\02 DGM\Plans\160061_16_Sht_Prop_Guide_Signs_01.dgn

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: VK	DRAWN: VK	
CHECKED: DJG	CHECKED: RAP	

INDIANA DEPARTMENT OF TRANSPORTATION	
PROPOSED SIGNING	

HORIZONTAL SCALE	BRIDGE FILE
N.A.	041-84-04322-ANBL
VERTICAL SCALE	DESIGNATION
N.A.	1500146
SURVEY BOOK	SHEETS
ELECTRONIC	52 of 102
CONTRACT	PROJECT
B-42975	1500146

SIGN DETAIL
1:20



SIGN NUMBER	D3-1(1)
WIDTH x HGHT.	5'-0" x 1'-6"
BORDER WIDTH	1"
CORNER RADIUS	2"
MOUNTING	Ground
BACKGROUND	TYPE: Reflective COLOR: Green
LEGEND/BORDER	TYPE: Reflective COLOR: White/White

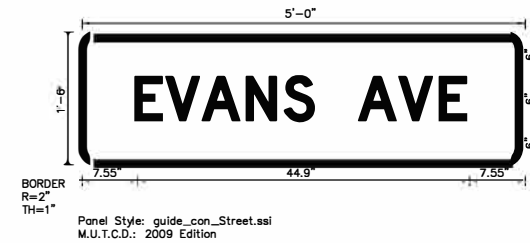
SYMBOL	ROT	X	Y	WID	HT

Panel Style: guide_con_Street.ssi
Dimensions are in inches.tenths

Letter locations are panel edge to lower left corner

LETTER POSITIONS (X)											LENGTH	SERIESIZE	
Q	U	I	N	N	A	V	E					D 2000	
8.1	13.7	19.2	21.6	27.2	31.2	37.2	42.7	48.2				43.7	6

SIGN DETAIL
1:20



SIGN NUMBER	D3.1(3)
WIDTH x HGHT.	5'-0" x 1'-6"
BORDER WIDTH	1"
CORNER RADIUS	2"
MOUNTING	Ground
BACKGROUND	TYPE: Reflective COLOR: Green
LEGEND/BORDER	TYPE: Reflective COLOR: White/White

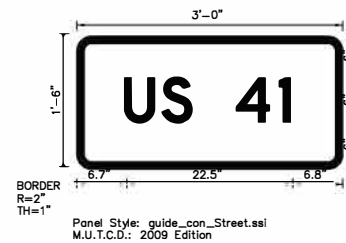
SYMBOL	ROT	X	Y	WID	HT

Panel Style: guide_con_Street.ssi
Dimensions are in inches.tenths

Letter locations are panel edge to lower left corner

LETTER POSITIONS (X)											LENGTH	SERIESIZE	
E	V	A	N	S	A	V	E					D 2000	
7.5	11.7	16.7	22.7	27.8	31.8	37.8	43.3	48.8				44.9	6

SIGN DETAIL
1:20



SIGN NUMBER	D3-1(2)
WIDTH x HGHT.	3'-0" x 1'-6"
BORDER WIDTH	1"
CORNER RADIUS	2"
MOUNTING	Ground
BACKGROUND	TYPE: Reflective COLOR: Green
LEGEND/BORDER	TYPE: Reflective COLOR: White/White

SYMBOL	ROT	X	Y	WID	HT

Panel Style: guide_con_Street.ssi
Dimensions are in inches.tenths

Letter locations are panel edge to lower left corner

LETTER POSITIONS (X)					LENGTH	SERIESIZE	
U	S	4	1			D 2000	
6.7	11.8	15.9	21.9	27.7		22.5	6

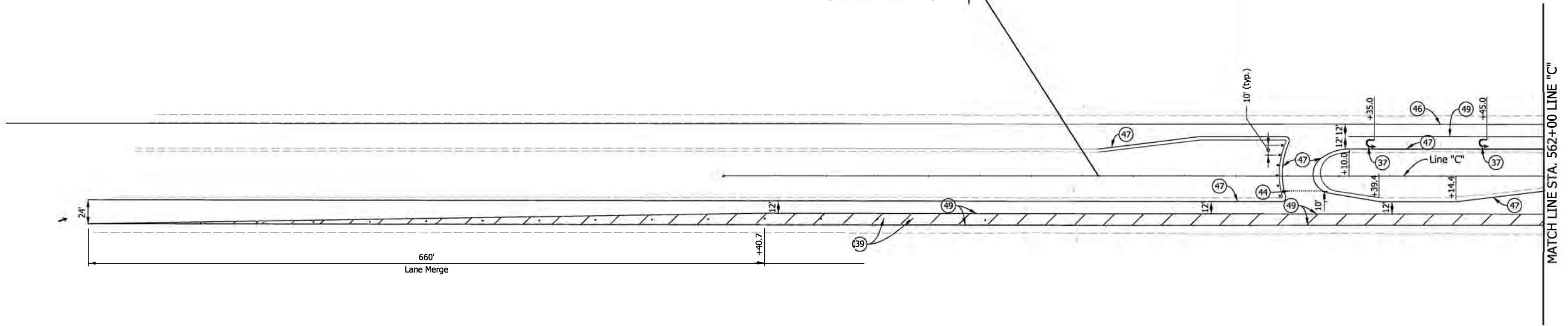
RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE	BRIDGE FILE
		N.A.	041-84-04322-ANBL
DESIGNED: VK DRAWN: VK	PROPOSED SIGNING	VERTICAL SCALE	DESIGNATION
		N.A.	1500146
CHECKED: DJG CHECKED: RAP		SURVEY BOOK	SHEETS
		ELECTRONIC	53 of 102
		CONTRACT	PROJECT
		B-42975	1500146

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560+00

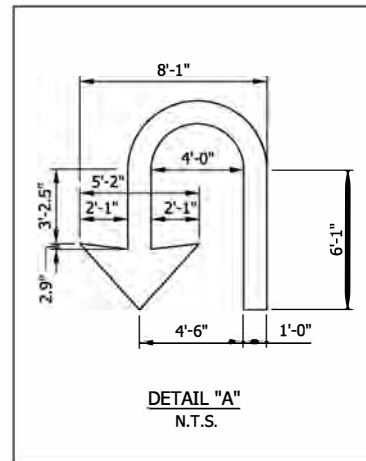


BEGIN CONSTRUCTION
STA: 557+65.71 "C"



LEGEND

- ③④ Line, Thermoplastic, Dotted, White, 6 in.
- ③⑥ Pavement Message Marking, Thermoplastic, "ONLY"
- ③⑦ Pavement Message Marking, Thermoplastic, Lane Indication Arrow
- ③⑧ Transverse Marking, Thermoplastic, Crosshatch Line, Yellow, 12 in. (@ 20' spacing)
- ③⑨ Transverse Marking, Thermoplastic, Crosshatch Line, White, 12 in. (@ 20' spacing)
- ④④ Transverse Marking, Thermoplastic, Yield Line, White, 18 in.
- ④⑤ Transverse Markings, Thermoplastic, Stop Line, White, 24 in.
- ④⑥ Line, Thermoplastic, Solid, White, 6 in.
- ④⑦ Line, Thermoplastic, Solid, Yellow, 6 in.
- ④⑧ Line, Thermoplastic, Broken, White, 6 in.
- ④⑨ Line, Thermoplastic, Solid, White, 10 in.
- Delineator Post, Flexible, Type I (@ 10' spacing)
- ◆ Delineator Post, Flexible, Type II



Note: All Sta./Offset called out from Line "C", Unless otherwise noted.

RECOMMENDED FOR APPROVAL _____	DESIGN ENGINEER _____	DATE _____
DESIGNED: VK _____	DRAWN: JJP _____	
CHECKED: DJG _____	CHECKED: RAP _____	

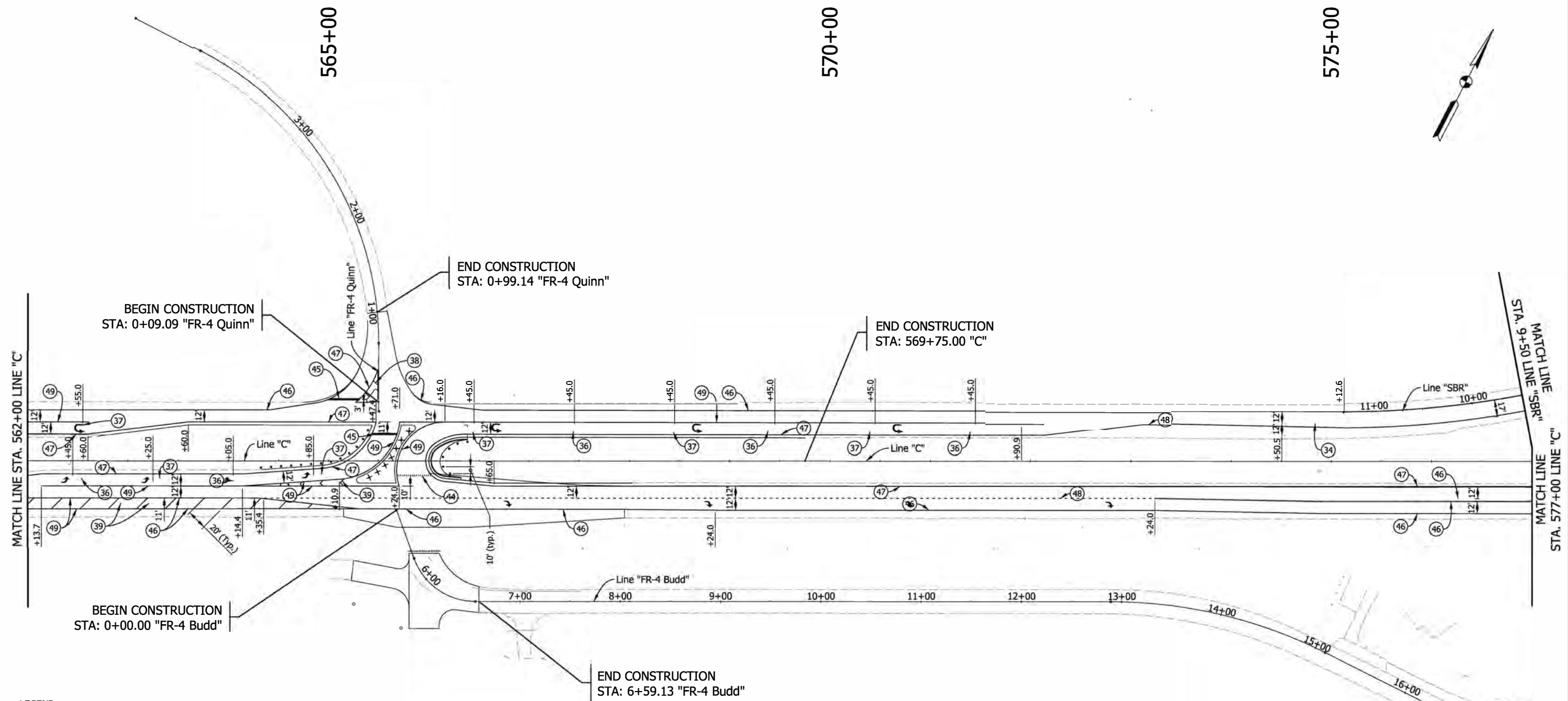
INDIANA
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKINGS

HORIZONTAL SCALE 1"=50'	BRIDGE FILE 041-84-04322-ANBL
VERTICAL SCALE N.A.	DESIGNATION 1500146
SURVEY BOOK ELECTRONIC	SHEETS 54 of 102
CONTRACT B-42975	PROJECT 1500146

5/13/2022 5:13:20 PM 6:37:15 PM P:\160061 - Old US 41 over US 41\09road\04 Design files\02 DGM\Plans\160061_19_Sht_C_Pvmt_Markings_01.dgn

5/13/2022 5:13:22 PM 6:37:15 PM P:\160061 - Old US 41 over US 41\Road\04 Design\160061_19_Sht_C_Pymt_Markings_02.dgn



LEGEND

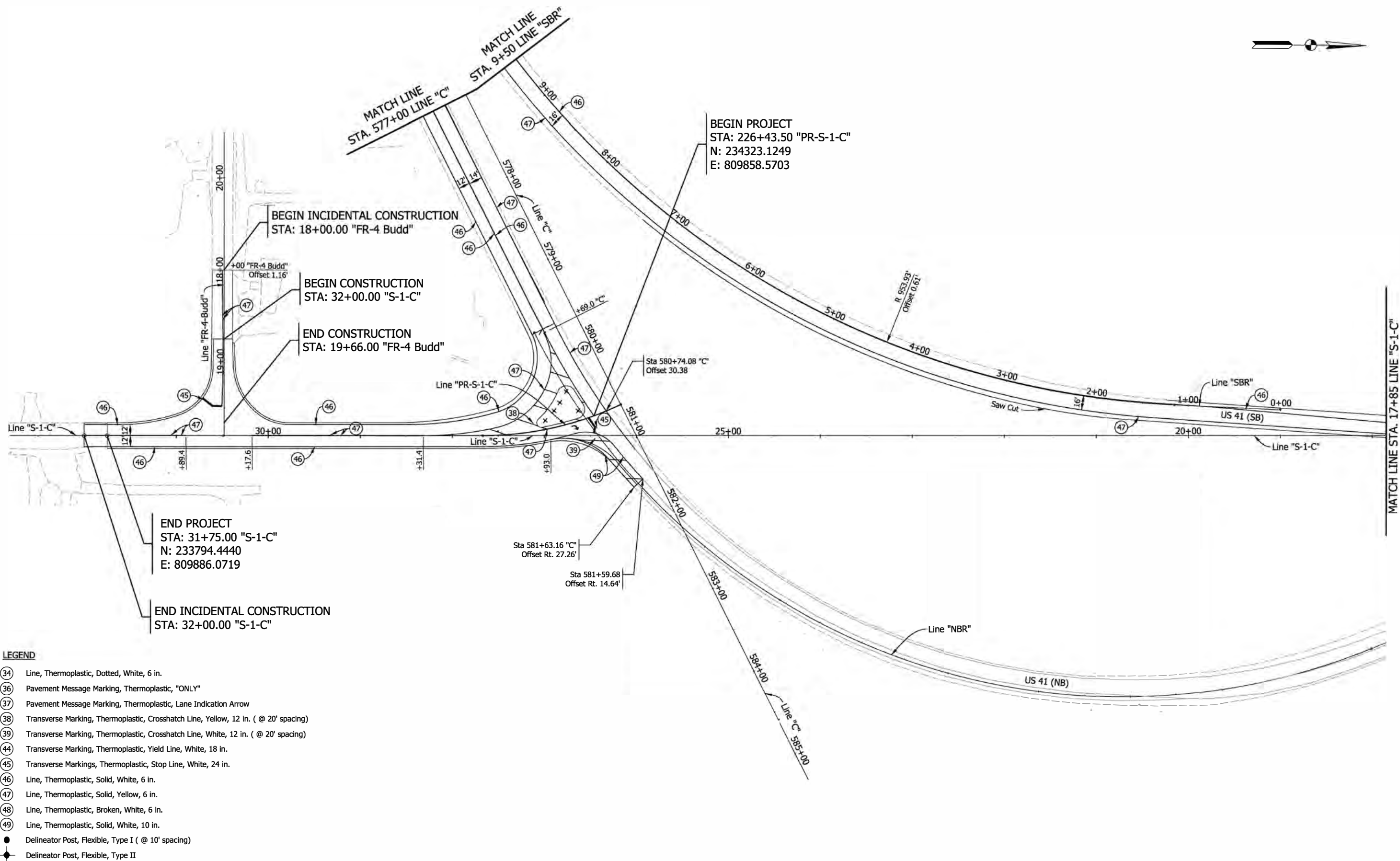
- (34) Line, Thermoplastic, Dotted, White, 6 in.
- (36) Pavement Message Marking, Thermoplastic, "ONLY"
- (37) Pavement Message Marking, Thermoplastic, Lane Indication Arrow
- (38) Transverse Marking, Thermoplastic, Crosshatch Line, Yellow, 12 in. (@ 20' spacing)
- (39) Transverse Marking, Thermoplastic, Crosshatch Line, White, 12 in. (@ 20' spacing)
- (44) Transverse Marking, Thermoplastic, Yield Line, White, 18 in.
- (45) Transverse Markings, Thermoplastic, Stop Line, White, 24 in.
- (46) Line, Thermoplastic, Solid, White, 6 in.
- (47) Line, Thermoplastic, Solid, Yellow, 6 in.
- (48) Line, Thermoplastic, Broken, White, 6 in.
- (49) Line, Thermoplastic, Solid, White, 10 in.
- Delineator Post, Flexible, Type I (@ 10' spacing)
- ◆ Delineator Post, Flexible, Type II

Note: All Sta./Offset called out from Line "C", Unless otherwise noted.

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE _____	DESIGNED: VK _____ DRAWN: JJP _____ CHECKED: DJG _____ CHECKED: RAP _____
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INDIANA DEPARTMENT OF TRANSPORTATION	
PAVEMENT MARKINGS	

HORIZONTAL SCALE 1"=50'	BRIDGE FILE 041-84-04322-ANBL
VERTICAL SCALE N.A.	DESIGNATION 1500146
SURVEY BOOK ELECTRONIC	SHEETS 55 of 102
CONTRACT B-42975	PROJECT 1500146



- LEGEND**
- 34 Line, Thermoplastic, Dotted, White, 6 in.
 - 36 Pavement Message Marking, Thermoplastic, "ONLY"
 - 37 Pavement Message Marking, Thermoplastic, Lane Indication Arrow
 - 38 Transverse Marking, Thermoplastic, Crosshatch Line, Yellow, 12 in. (@ 20' spacing)
 - 39 Transverse Marking, Thermoplastic, Crosshatch Line, White, 12 in. (@ 20' spacing)
 - 44 Transverse Marking, Thermoplastic, Yield Line, White, 18 in.
 - 45 Transverse Markings, Thermoplastic, Stop Line, White, 24 in.
 - 46 Line, Thermoplastic, Solid, White, 6 in.
 - 47 Line, Thermoplastic, Solid, Yellow, 6 in.
 - 48 Line, Thermoplastic, Broken, White, 6 in.
 - 49 Line, Thermoplastic, Solid, White, 10 in.
 - Delineator Post, Flexible, Type I (@ 10' spacing)
 - ◆ Delineator Post, Flexible, Type II

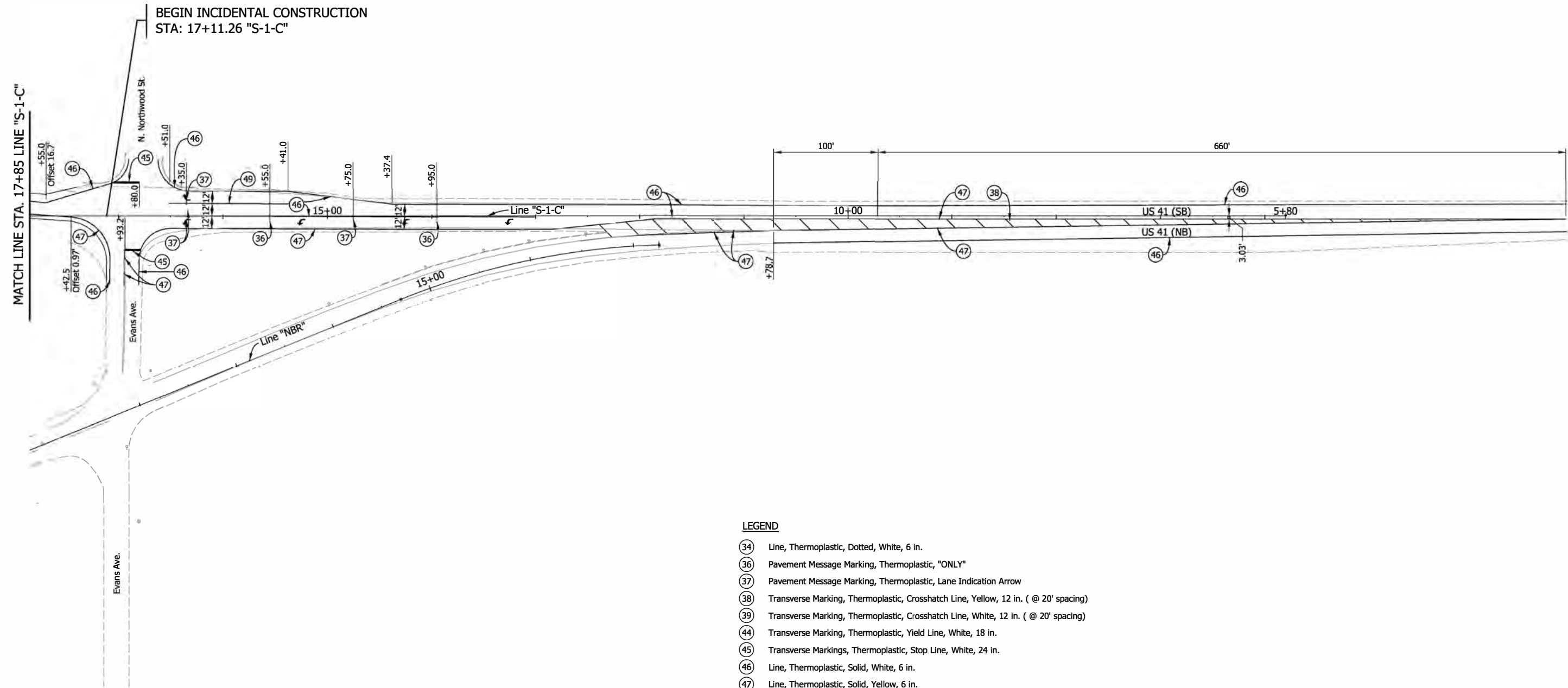
Note: All Sta./Offset called out from Line "S-1-C", Unless otherwise noted.

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: VK	DRAWN: JJP	
CHECKED: DJG	CHECKED: RAP	

INDIANA DEPARTMENT OF TRANSPORTATION	
PAVEMENT MARKINGS	

HORIZONTAL SCALE	BRIDGE FILE
1"=50'	041-84-04322-ANBL
VERTICAL SCALE	DESIGNATION
N.A.	1500146
SURVEY BOOK	SHEETS
ELECTRONIC	56 of 102
CONTRACT	PROJECT
B-42975	1500146

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LEGEND

- 34 Line, Thermoplastic, Dotted, White, 6 in.
- 36 Pavement Message Marking, Thermoplastic, "ONLY"
- 37 Pavement Message Marking, Thermoplastic, Lane Indication Arrow
- 38 Transverse Marking, Thermoplastic, Crosshatch Line, Yellow, 12 in. (@ 20' spacing)
- 39 Transverse Marking, Thermoplastic, Crosshatch Line, White, 12 in. (@ 20' spacing)
- 44 Transverse Marking, Thermoplastic, Yield Line, White, 18 in.
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- 46 Line, Thermoplastic, Solid, White, 6 in.
- 47 Line, Thermoplastic, Solid, Yellow, 6 in.
- 48 Line, Thermoplastic, Broken, White, 6 in.
- 49 Line, Thermoplastic, Solid, White, 10 in.

Note: All Sta./Offset called out from Line "S-1-C", Unless otherwise noted.

RECOMMENDED FOR APPROVAL _____	DESIGN ENGINEER _____	DATE _____
DESIGNED: VK _____	DRAWN: JJP _____	
CHECKED: DJG _____	CHECKED: RAP _____	

INDIANA
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKINGS

HORIZONTAL SCALE 1"=50'	BRIDGE FILE 041-84-04322-ANBL
VERTICAL SCALE N.A.	DESIGNATION 1500146
SURVEY BOOK ELECTRONIC	SHEETS 57 of 102
CONTRACT B-42975	PROJECT 1500146

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Appendix C:

Early Coordination



INDIANA DEPARTMENT OF TRANSPORTATION

100 North Senate Avenue PHONE: (317) 233-6795
Room N642
Indianapolis, Indiana 46204

Eric J. Holcomb, Governor
Joe McGuinness, Commissioner

June 24, 2021

Sample Early Coordination Letter

Early Coordination Agency

Re: Early Coordination Letter, Des. No. 1500146; Bridge Removal and Intersection Improvement on Old US 41 over US 41, Otter Creek Township, Vigo County, Indiana

Dear Early Coordination Agency:

The Indiana Department of Transportation (INDOT) and the Federal Highway Administration (FHWA) intend to proceed with a project involving the referenced bridge (#041-84-04322-ANBL) in Vigo County, Indiana. This letter is part of the early coordination phase of the environmental review process. As the agent for INDOT, Beam, Longest, and Neff (BLN), we are requesting you review the enclosed information and provide a comments from your area of expertise regarding any possible environmental effects associated with this project. **Please use the referenced designation numbers and description in your reply.** We will incorporate your comments into a study of the project's environmental impacts.

This project is located on along US 41 and Old US 41 (North Clinton Road) in Vigo County, Indiana. It is within the Otter Creek Township, as shown on the Rosedale, Indiana, USGS Topographic Quadrangle Map, Sections 13 and 14, Township 13 North, Ranges 8 and 9 West.

Existing US 41, as it approaches the project area from the south, is a four-lane divided highway, two lanes in each direction, with a grass median. As US 41 moves north of the project area the roadway transitions down to a two-lane highway with one lane in each direction. The existing horizontal alignment of US 41 is curved under the existing bridge. The current radius is approximately 716.20 feet for the northbound lanes (NBL) and 954.93 feet for the southbound lanes (SBL). Clinton Road/Old US 41 is in a tangent alignment over US 41. Evans Ave. and Budd Rd are in tangent sections and are perpendicular to Old US 41 (Clinton Rd.). Budd Rd. is tangent near the intersection with Clinton St. but does have a horizontal curve approximately 400 feet west of Clinton Rd. The existing curve radius is approximately 475 feet. US 41 is a Rural Arterial roadway within the National Highway System, while Clinton Rd/Old US 41 is an Urban Arterial that is not within the National Highway System.

The existing structure (Bridge #041-84-04322-ANBL) was constructed in 1960 and rehabilitated in 1982 with deck patching and concrete overlay. The bridge is four span steel beam (38 feet 3 inches, two-71 feet 7 inches, 38 feet 3 inches) structure 222.4 feet in length with a 26.59-degree skew left. The out-to-out coping width is approximately 36 feet 6 inches. The clear roadway width is approximately 30 feet. The substructure consists of concrete end bents founded on concrete piles and column bent piers founded on treated timber piles. The bridge overall structure rating was fair



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An Equal Opportunity Employer

condition based on the last routine INDOT inspection in 2019. The existing bridge deck has spalling in the outer bays in all four spans, some locations have visible patching. The wearing surface has transverse and longitudinal cracking. The superstructure has locations of rusting on the end bearing and around the splice plates. All components of the bridge were rated in fair condition except for the superstructure which was rated in satisfactory condition.

The proposed project will remove the existing four span bridge and lower Clinton St. down the same elevation as the existing US 41 NBL and construct a new intersection for northbound Clinton St. and US 41. Approximately 650 feet of Clinton St. will be reconstructed down to the new intersection. The intersection will include a right turn for US 41 NBL onto southbound Clinton St. and a right turn onto US 41 NBL for northbound Clinton St. traffic. Traffic utilizing southbound US 41 will be directed to a new U-turn located west of the new intersection. Approximately 500 feet of the US 41 SBL ramp shoulder will be reconstructed for the addition of the U-turn lane. New pavement will be required for the median crossing used for the U-turn. The right lane and shoulder for the US 41 NBL will be reconstructed. No work will be performed on the lane and median which will require a Level One Design Exception for shoulder width. Northbound US 41 approaching the reconstructed portions of US 41 will need restriped and signed for through traffic to use the left lane. The US 41 northbound right lane and shoulder are anticipated to be reconstructed for approximately 400 feet total and restriping is anticipated to begin 500 feet prior to the reconstructed section.

A majority of the embankment for Clinton St. between Budd Rd. and US 41 NBL will be removed to reduce the elevation of Clinton St. down to US 41 NBL. A short section of Clinton St. north of US 41 NBL will be removed, however some of the embankment may remain, only pavement removal is required. Approximately 500 feet of pavement will be removed. Clinton St. will be reconstructed to meet current roadway geometric standards. Stop signs are anticipated to be installed for Clinton St. at US 41 and the northbound lane of US 41 will remain unchanged.

This project will also include lowering the intersection at Budd Rd. and Clinton St. by approximately 2 feet. Budd Rd. will be reconstructed for approximately 375 feet to accommodate the lowering of the intersection at Clinton St. An additional 100 feet of Budd Rd will be milled and resurfaced. The change in traffic patterns for northbound traffic will provide improvements to the Evans Ave. intersection by merging all northbound traffic to a single lane in advance of the intersection.

It is anticipated that all traffic will remain on US 41 during construction and utilized lane shifts and phasing to maintain a single lane of traffic. Traffic will also be maintained for Northwood Dr. and Evans Ave. to access US 41. It is also anticipated that Clinton St. between Budd Rd. and US 41 will be closed. Budd Rd. will be closed to through traffic during construction. It is anticipated that local traffic would be detoured to Hasselburger Ave. and US 41. The detour is approximately 4.0 miles long. The final local detours will be prepared based upon coordination with Vigo County during the design phase. Short term overnight closures of US 41 NBL may be required during removal of the existing bridge. No new right-of-way is anticipated for this project but if any is required, it will be no more than 0.5 acre. Construction is anticipated to begin in the fall of 2023.

The land use within the project limits is mainly residential with the northwest quadrant being agricultural. The northeast quadrant consists of grass residential property with wooded areas beyond the grass limits. The southeast is wooded, with residential properties located south of Budd Rd. The southwest quadrant is all residential with a church located south of Budd Rd. There are no field entrances within the proposed limits, however, there are a couple of residential drives located along of Budd Rd.

In addition, BLN will have Qualified Professionals (QPs) investigate the project site for archaeological and historic resources for compliance with Section 106 of the National Historic Preservation Act (NHPA). The results of this investigation will be forwarded to the Indiana State Historic Preservation Officer (IN SHPO) for review and concurrence.

BLN will prepare a Waters of the US Report (WOUSR), if required, for the project area. This report will be reviewed by the INDOT Ecology and Waterway Permitting Office.

Should we not receive your response **within 30 calendar days** of the date of this letter, it will be assumed that your agency has no comment on potential effects as a result of the proposed project. However, if an extension to the response time is necessary, a reasonable amount may be granted upon request. If you have any questions, or if we can be of any further assistance, please contact either Richard Gilyeat, INDOT Project Manager at rgilyeat@indot.in.gov or telephone 765-361-5684 or April Arroyo-Monroe at aarroyomonroe@b-l-n.com or telephone 800-382-5206. Thank you for your cooperation.

Sincerely,



April Arroyo-Monroe
Senior Environmental Analyst
Beam, Longest, and Neff

Attachments:

Mailing List

Maps (Location, Topographic, Aerial, NWI, and Floodplain)

Ground-Level Photographs

<p>Federal Highway Administration Federal Office Building, Room 254 575 North Pennsylvania Street Indianapolis, Indiana 46204 k.carmanygeorge@dot.gov</p>	<p>Field Supervisor US Fish and Wildlife Service Bloomington Indiana Field Office 620 South Walker Street Bloomington, Indiana 47403-2121 robin_mcwilliams@fws.gov</p>
<p>State Conservationist Natural Resources Conservation Service 6013 Lakeside Boulevard Indianapolis, Indiana 46278 rick.neilson@in.usda.gov</p>	<p>Indiana Department of Natural Resources Division of Fish and Wildlife 402 West Washington Street, Rm. W273 Indianapolis, IN 46204 environmentalreview@dnr.in.gov</p>
<p>Regional Environmental Coordinator Midwest Regional Office National Park Service 601 Riverfront Drive Omaha, Nebraska 68102 Mwro_Compliance@nps.gov</p>	<p>Indiana Geological and Water Survey 611 North Walnut Grove Bloomington, IN 47405 https://igws.indiana.edu/eAssessment</p>
<p>Utilize the IDEM's Wellhead Proximity Determinator website Wellhead Proximity Determinator website https://www.in.gov/idem/cleanwater/pages/wellhead/</p>	<p>Field Environmental Officer Chicago Regional Office US Department of Housing & Urban Development Metcalf Fed. Bldg. 77 W. Jackson Blvd. Room 2401 Chicago, IL 60604 Melanie.H.Castillo@hud.gov</p>
<p>Indiana Department of Environmental Management Automatic website Early Coordination: For Roadway Projects https://www.in.gov/idem/5284.htm</p>	<p>Indiana Department of Transportation Crawfordsville Environmental Section Manager Asfahan Ullah Kahn 41 West 300 North Crawfordsville, IN 47933 akhan@indot.in.gov</p>
<p>Indiana Department of Transportation Crawfordsville District Project Manager, Richard Gilyeat 41 West 300 North Crawfordsville, IN 47933 rgilyeat@indot.in.gov</p>	<p>Indiana Department of Transportation Office of Aviation 100 N. Senate Ave, Rm 955 Indianapolis IN 46204 JCourtade@indot.in.gov</p>
<p>Vigo County Emergency Management Agency 915 S Petercheff St Terre Haute, IN 47803 Dorene Hojnicky, Do, Director vcema@vigosheriff.in.gov</p>	<p>Indiana Department of Environmental Management Office of Water Quality, Storm Water Program 100 North Senate Ave. Indianapolis, IN 46204 Stormwat@idem.in.gov , sgoodwin@idem.in.gov , erubin@idem.in.gov</p>
<p>Ms. Deborah Snyder US Army Corps of Engineers Louisville District, Indianapolis Regulatory Office, Indianapolis, IN 46216 RegulatoryApplicationsLRL@usace.army.mil</p>	<p>Thrive West Central Meadows Center 2800 Poplar Street, STE 9A Terre Haute, IN 47803 thrivewestcentral.com</p>
<p>Christus Victor Lutheran Church 8461 E. Budd Rd. Terre Haute, IN 47805</p>	

Graphics Removed



Organization and Project Information

Project ID: US 41 over Old 41
Des. ID: 1500146
Project Title: Des. No. 1500146; Bridge Removal and Intersection Improvement on Old US 41 over US 41, Ott
Name of Organization: Beam, Longest and Neff
Requested by: April Arroyo-Monroe

Environmental Assessment Report

1. Geological Hazards:
 - High liquefaction potential
2. Mineral Resources:
 - Bedrock Resource: High Potential
 - Sand and Gravel Resource: High Potential
3. Active or abandoned mineral resources extraction sites:
 - Abandoned Industrial Minerals Sand Gravel Pits

*All map layers from Indiana Map (maps.indiana.edu)

DISCLAIMER:

This document was compiled by Indiana University, Indiana Geological Survey, using data believed to be accurate; however, a degree of error is inherent in all data. This product is distributed "AS-IS" without warranties of any kind, either expressed or implied, including but not limited to warranties of suitability to a particular purpose or use. No attempt has been made in either the design or production of these data and document to define the limits or jurisdiction of any federal, state, or local government. The data used to assemble this document are intended for use only at the published scale of the source data or smaller (see the metadata links below) and are for reference purposes only. They are not to be construed as a legal document or survey instrument. A detailed on-the-ground survey and historical analysis of a single site may differ from these data and this document.

This information was furnished by Indiana Geological Survey

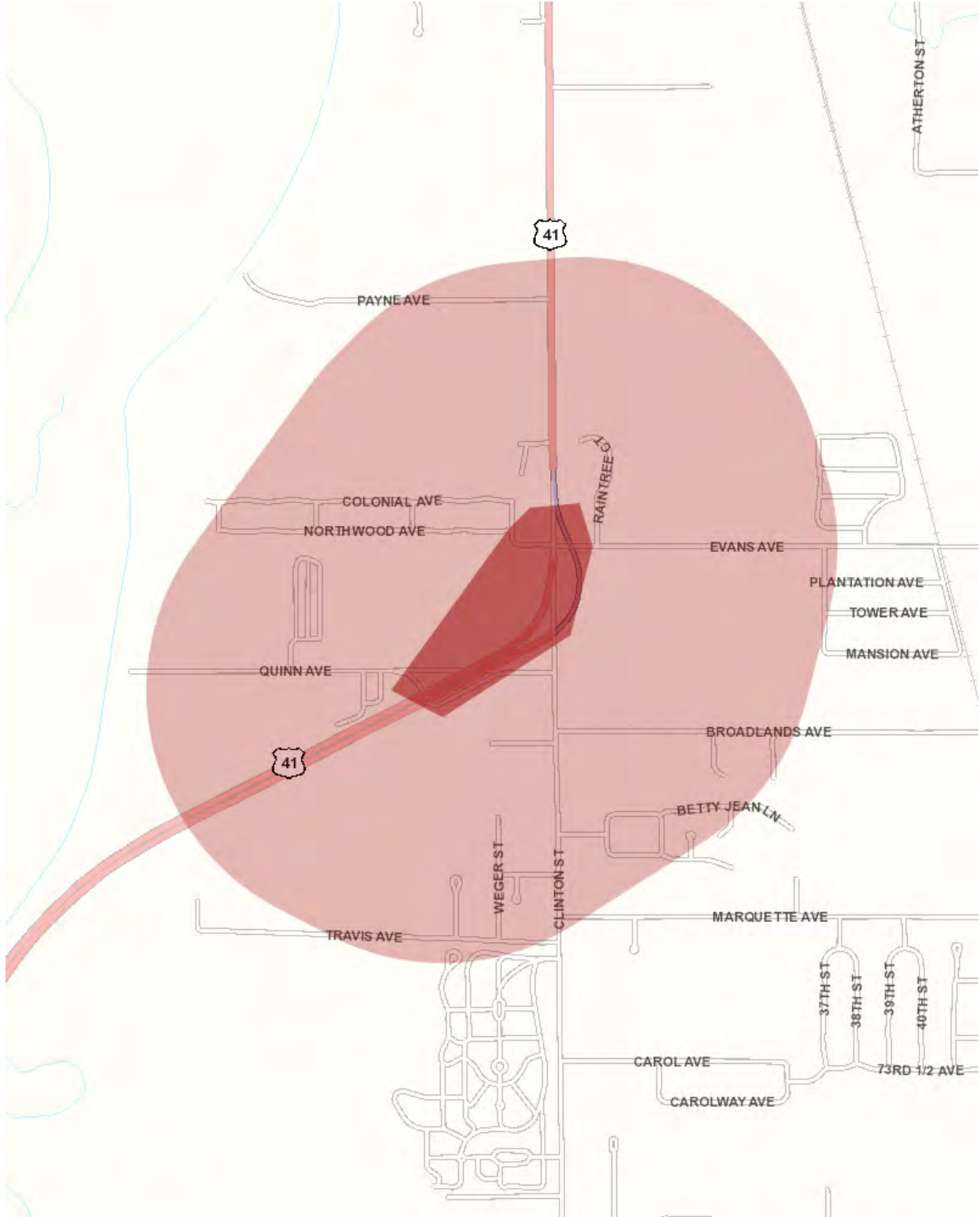
Address: 1001 E. 10th St., Bloomington, IN 47405

Email: IGSEnvir@indiana.edu

Phone: 812 855-7428

Date: June 25, 2021





Metadata:

- https://maps.indiana.edu/metadata/Geology/Industrial_Minerals_Sand_Gravel_Pits_Abandoned.html
- https://maps.indiana.edu/metadata/Geology/Seismic_Earthquake_Liquefaction_Potential.html
- https://maps.indiana.edu/metadata/Geology/Industrial_Minerals_Sand_Gravel_Resources.html
- https://maps.indiana.edu/metadata/Geology/Bedrock_Geology.html

From: [McWilliams, Robin](#)
To: [April Arroyo-Monroe](#)
Subject: Re: [EXTERNAL] INDOT Early Coordination Letter Des. No. 1500146
Date: Tuesday, July 13, 2021 3:32:49 PM

EXTERNAL EMAIL

Dear April,

This responds to your recent letter requesting our comments on the aforementioned project.

These comments have been prepared under the authority of the Fish and Wildlife Coordination Act (16 U.S.C. 661 et. seq.) and are consistent with the intent of the National Environmental Policy Act of 1969, the Endangered Species Act of 1973, and the U. S. Fish and Wildlife Service's Mitigation Policy.

The project is within the range of the Indiana bat (*Myotis sodalis*) and northern long-eared bat (*Myotis septentrionalis*) and should follow the new Indiana bat/northern long-eared bat programmatic consultation process, if applicable (*i.e.* a federal transportation nexus is established). The Service has 14 days after a "Not Likely to Adversely Affect" determination letter is generated to review the project and provide additional comments or request additional information; if you do not receive a response from us within 14 days, we have no additional comments.

Wetland and stream impacts may require permits from the U.S. Army Corps of Engineers, the Indiana Department of Environmental Management's Water Quality Certification program, and the Indiana Department of Natural Resources. Wetland impacts should be avoided, and any unavoidable impacts should be compensated for in accordance with agency mitigation guidelines.

Based on a review of the information you provided, the U.S. Fish and Wildlife Service has no other comments on the project as currently proposed. However, should new information arise pertaining to project plans or a revised species list be published, it will be necessary for the Federal agency to reinitiate consultation. Standard recommendations are provided below.

We appreciate the opportunity to comment at this early stage of project planning. If you have any questions about our recommendations, please contact me at robin_mcwilliams@fws.gov or you may call 812-334-4261 x. 207.

Sincerely,
Robin McWilliams Munson

Standard Recommendations:

1. Do not clear trees or understory vegetation outside the construction zone boundaries. **(This restriction is not related to the “tree clearing” restriction for potential Indiana Bat habitat.)**
2. Restrict below low-water work in streams to placement of culverts, piers, pilings and/or footings, shaping of the spill slopes around the bridge abutments, and placement of riprap. Culverts should span the active stream channel, should be either embedded or a 3-sided or open-arch culvert, and be installed where practicable on an essentially flat slope. When an open-bottom culvert or arch is used in a stream, which has a good natural bottom substrate, such as gravel, cobbles and boulders, the existing substrate should be left undisturbed beneath the culvert to provide natural habitat for the aquatic community.
3. Restrict channel work and vegetation clearing to the minimum necessary for installation of the stream crossing structure.
4. Minimize the extent of hard armor (riprap) in bank stabilization by using bioengineering techniques whenever possible. If riprap is utilized for bank stabilization, extend it below low-water elevation to provide aquatic habitat.
5. Implement temporary erosion and sediment control methods within areas of disturbed soil. All disturbed soil areas upon project completion will be vegetated following INDOT’s standard specifications.
6. Avoid all work within the inundated part of the stream channel (in perennial streams and larger intermittent streams) during the fish spawning season (April 1 through June 30), except for work within sealed structures such as caissons or cofferdams that were installed prior to the spawning season. No equipment shall be operated below Ordinary High-Water Mark during this time unless the machinery is within the caissons or on the cofferdams.
7. Evaluate wildlife crossings under bridge/culverts projects in appropriate situations. Suitable crossings include flat areas below bridge abutments with suitable ground cover, high water shelves in culverts, amphibian tunnels and diversion fencing

Robin McWilliams Munson
Fish and Wildlife Biologist
U.S. Fish and Wildlife Service
620 South Walker Street
Bloomington, IN 46142
812-334-4261

[Mon-Tues 8-3:30p](#)

[Wed-Thurs 8:30-3p Telework](#)

From: April Arroyo-Monroe <aarroyomonroe@b-l-n.com>

Sent: Friday, June 25, 2021 11:21 AM

To: McWilliams, Robin <robin_mcwilliams@fws.gov>

Subject: [EXTERNAL] INDOT Early Coordination Letter Des. No. 1500146



United States Department of Agriculture

July 15, 2021

April Arroyo-Monroe
Beam, Longest and Neff, L.L.C.
8320 Craig Street
Indianapolis, Indiana 46250

Dear Ms. Arroyo-Monroe:

The proposed project to remove the existing bridge and make intersection improvements along Old US 41 over US 41 in Vigo County, Indiana (Des. No. 1500146), as referred to in your letter received June 24, 2021, will not cause a conversion of prime farmland.

If you need additional information, please contact John Allen at 317-295-5859.

Sincerely,

RICK NEILSON
State Soil Scientist

THIS IS NOT A PERMIT

**State of Indiana
DEPARTMENT OF NATURAL RESOURCES
Division of Fish and Wildlife
Early Coordination/Environmental Assessment**

DNR #: ER-23831

Request Received: June 25, 2021

Requestor: Beam, Longest and Neff, LLC
April Arroyo-Monroe
8320 Craig Street
Indianapolis, IN 46250

Project: Old US 41/Clinton Street bridge (#041-84-04322-ANBL) removal over Northbound US 41 and reconstruction of the intersection; Des #1500146

County/Site info: Vigo

The Indiana Department of Natural Resources has reviewed the above referenced project per your request. Our agency offers the following comments for your information and in accordance with the National Environmental Policy Act of 1969.

If our agency has regulatory jurisdiction over the project, the recommendations contained in this letter may become requirements of any permit issued. If we do not have permitting authority, all recommendations are voluntary.

Regulatory Assessment: Formal approval by the Department of Natural Resources under the regulatory programs administered by the Division of Water is not required for this project.

Natural Heritage Database: The Natural Heritage Program's data have been checked. To date, no plant or animal species listed as state or federally threatened, endangered, or rare have been reported to occur in the project vicinity.

Fish & Wildlife Comments: We recommend a mitigation plan be developed for any unavoidable habitat impacts that will occur. The DNR's Habitat Mitigation Guidelines (and plant lists) can be found online at: <http://iac.iga.in.gov/iac/20200527-IR-312200284NRA.xml.pdf>.

Impacts to non-wetland forest of one (1) acre or more should be mitigated at a minimum 2:1 ratio. If less than one acre of non-wetland forest is removed in a rural setting, replacement should be at a 1:1 ratio based on area. Impacts to non-wetland forest under one (1) acre in an urban setting should be mitigated by planting five trees, at least 2 inches in diameter-at-breast height (dbh), for each tree which is removed that is 10" dbh or greater (5:1 mitigation based on the number of large trees) or by using the 1:1 replacement ratio based on area depending on the type of habitat impacted (individual canopy tree removal in an urban streetscape or park-like environment versus removal of habitat supporting a tree canopy, woody understory, and herbaceous layer). Impacts under 0.10 acre in an urban area may still involve the replacement of large diameter trees but typically do not require any additional mitigation or additional plantings beyond seeding and stabilizing disturbed areas. There are exceptions for high quality habitat sites however.

Mitigation at a ratio of 1:1 would be needed for a permanent impact to early successional riparian habitat. A native herbaceous riparian seed mixture is planted with at least 10 species of native grasses, sedges, and wildflowers selected from the Herbaceous Riparian Vegetation List in Appendix A. If the area contains scattered shrubs or tree saplings, mitigation includes woody species native to the region.

The additional measures listed below should be implemented to avoid, minimize, or compensate for impacts to fish, wildlife, and botanical resources:

1. Revegetate all bare and disturbed areas with a mixture of native grasses, sedges, wildflowers, and also native hardwood trees and shrubs if any woody plants are

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DEPARTMENT OF NATURAL RESOURCES
Division of Fish and Wildlife
Early Coordination/Environmental Assessment

disturbed during construction as soon as possible upon completion. Do not use any varieties of Tall Fescue or other non-native plants, including prohibited invasive species (see 312 IAC 18-3-25).

2. Minimize and contain within the project limits all tree and brush clearing.
3. Do not cut any trees suitable for Indiana bat or Northern Long-eared bat roosting (greater than 5 inches dbh, living or dead, with loose hanging bark, or with cracks, crevices, or cavities) from April 1 through September 30.
4. Appropriately designed measures for controlling erosion and sediment must be implemented to prevent sediment from entering the stream or leaving the construction site; maintain these measures until construction is complete and all disturbed areas are stabilized.
5. Seed and protect all disturbed streambanks and slopes not protected by other methods that are 3:1 or steeper with erosion control blankets that are heavy-duty, biodegradable, and net free or that use loose-woven / Leno-woven netting to minimize the entrapment and snaring of small-bodied wildlife such as snakes and turtles (follow manufacturer's recommendations for selection and installation); seed and apply mulch on all other disturbed areas.

Contact Staff:

Christie L. Stanifer, Environ. Coordinator, Fish & Wildlife
Our agency appreciates this opportunity to be of service. Please contact the above staff member at (317) 232-4080 if we can be of further assistance.

Christie L. Stanifer

Date: July 23, 2021

Christie L. Stanifer
Environ. Coordinator
Division of Fish and Wildlife

From: [Rick Perry](#)
To: [Bales, Ronald](#)
Cc: [Brian Shaw](#); [April Arroyo-Monroe](#); [Dan Gibson](#); [Gilyeat, Richard](#); [Kurtz, Randy](#)
Subject: RE: Des. No. 1500146 - Old US 41 over US 41 - CE Level
Date: Wednesday, February 16, 2022 1:54:43 PM

Thanks, Ron! Again, thanks for taking the call and for the response.

Have a good day!

Thanks,

RICK PERRY

Transportation Engineer

o: 317.849.5832 ext: 3027

c: 317.362.5413

B-L-N.com

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From: Bales, Ronald <rbales@indot.IN.gov>
Sent: Wednesday, February 16, 2022 1:42 PM
To: Rick Perry <rperry@b-l-n.com>
Cc: Brian Shaw <bshaw@b-l-n.com>; April Arroyo-Monroe <aarroyomonroe@b-l-n.com>; Dan Gibson <DGibson@b-l-n.com>; Gilyeat, Richard <RGilyeat@indot.IN.gov>; Kurtz, Randy <RKurtz@indot.IN.gov>
Subject: RE: Des. No. 1500146 - Old US 41 over US 41 - CE Level

EXTERNAL EMAIL

INDOT ESD would not consider the changes proposed as constituting a permanent traffic alteration. No movements are being prevented to ultimately access 41 Northbound and Southbound from the local streets and vice versa. Access will be maintained. This is a change in facility, so having some public engagement is needed per INDOT Project Development Public Involvement Procedures Manual i.e. at minimum opportunity to request a public hearing or submit comment. Thank you.

Ron Bales

INDOT-Environmental Services Division

Office: (317) 515-7908

Email: rbales@indot.in.gov

From: Rick Perry <rperry@b-l-n.com>
Sent: Wednesday, February 16, 2022 1:06 PM

To: Bales, Ronald <rbales@indot.IN.gov>

Cc: Brian Shaw <bshaw@b-l-n.com>; April Arroyo-Monroe <aarroyomonroe@b-l-n.com>; Dan Gibson <dgibson@b-l-n.com>; Gilyeat, Richard <RGilyeat@indot.IN.gov>

Subject: Des. No. 1500146 - Old US 41 over US 41 - CE Level

****** This is an EXTERNAL email. Exercise caution. DO NOT open attachments or click links from unknown senders or unexpected email. ******

Ron,

Thank you for taking my call regarding this project. Please see attached for KMZ of the design and concept of the project. Please let us know if you concur that this is not a significant alternation to traffic patterns and if the CE-1 is acceptable.

Please let us know if you have any questions or need any additional information.

Thanks,

RICK PERRY

Transportation Engineer

o: 317.849.5832 ext: 3027

c: 317.362.5413

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United States Department of the Interior



FISH AND WILDLIFE SERVICE

Indiana Ecological Services Field Office

620 South Walker Street

Bloomington, IN 47403-2121

Phone: (812) 334-4261 Fax: (812) 334-4273

<http://www.fws.gov/midwest/Endangered/section7/s7process/step1.html>

In Reply Refer To:

May 16, 2022

Project code: 2022-0039547

Project Name: Des. No. 1500146 Old US 41 over Northbound US 41, Otter Creek Township, Vigo County

Subject: Concurrence verification letter for the 'Des. No. 1500146 Old US 41 over Northbound US 41, Otter Creek Township, Vigo County' project under the revised February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat.

To whom it may concern:

The U.S. Fish and Wildlife Service (Service) has received your request dated May 16, 2022 to verify that the **Des. No. 1500146 Old US 41 over Northbound US 41, Otter Creek Township, Vigo County** (Proposed Action) may rely on the concurrence provided in the February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat (PBO) to satisfy requirements under Section 7(a)(2) of the Endangered Species Act of 1973 (ESA) (87 Stat. 884, as amended; 16 U.S.C 1531 *et seq.*).

Based on the information you provided (Project Description shown below), you have determined that the Proposed Action is within the scope and adheres to the criteria of the PBO, including the adoption of applicable avoidance and minimization measures, and may affect, but is not likely to adversely affect (NLAA) the endangered Indiana bat (*Myotis sodalis*) and/or the threatened Northern long-eared bat (*Myotis septentrionalis*). Consultation with the Service pursuant to Section 7(a)(2) of the Endangered Species Act of 1973 (ESA) (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*) is required.

The Service has 14 calendar days to notify the lead Federal action agency or designated non-federal representative if we determine that the Proposed Action does not meet the criteria for a NLAA determination under the PBO. If we do not notify the lead Federal action agency or designated non-federal representative within that timeframe, you may proceed with the Proposed Action under the terms of the NLAA concurrence provided in the PBO. This verification period allows Service Field Offices to apply local knowledge to implementation of the PBO, as we may

identify a small subset of actions having impacts that were unanticipated. In such instances, Service Field Offices may request additional information that is necessary to verify inclusion of the proposed action under the PBO.

For Proposed Actions that include bridge/culvert or structure removal, replacement, and/or maintenance activities: If your initial bridge/culvert or structure assessments failed to detect Indiana bats, but you later detect bats prior to, or during construction, please submit the Post Assessment Discovery of Bats at Bridge/Culvert or Structure Form (User Guide Appendix E) to this Service Office. In these instances, potential incidental take of Indiana bats may be exempted provided that the take is reported to the Service.

If the Proposed Action is modified, or new information reveals that it may affect the Indiana bat and/or Northern long-eared bat in a manner or to an extent not considered in the PBO, further review to conclude the requirements of ESA Section 7(a)(2) may be required. If the Proposed Action may affect any other federally-listed or proposed species, and/or any designated critical habitat, additional consultation between the lead Federal action agency and this Service Office is required. If the proposed action has the potential to take bald or golden eagles, additional coordination with the Service under the Bald and Golden Eagle Protection Act may also be required. In either of these circumstances, please contact this Service Office.

The following species may occur in your project area and **are not** covered by this determination:

- Monarch Butterfly *Danaus plexippus* Candidate

Project Description

The following project name and description was collected in IPaC as part of the endangered species review process.

Name

Des. No. 1500146 Old US 41 over Northbound US 41, Otter Creek Township, Vigo County

Description

The Indiana Department of Transportation (INDOT), with funding from Federal Highway Administration (FHWA), intends to proceed with a bridge removal and intersection improvement project on Old US 41 over US 41, located approximately 6.13 miles north of the middle junction of SR 63, within the northern boundary of Terre Haute, Indiana, Vigo County, Indiana (Des. No. 1500146). The project length is approximately 0.35 mile.

The proposed project is to remove the existing four-span bridge and lower Clinton Street (Old 41) down to the same elevation as the existing US 41 NBL and construct a new at grade intersection for Clinton Street and northbound US 41. Approximately 650 feet of Clinton Street will be reconstructed. The intersection will include a right turn for US 41 NBL onto southbound Clinton Street traffic.

Traffic utilizing southbound US 41 will be directed to a new J-turn located west of the new intersection of northbound US 41 and Clinton Street. New pavement will be required for the median crossing used for the J-turn. US 41 approaching the J-turn along US 41 will be striped and signed for through traffic.

A majority of the embankment for Clinton Street between Budd Road and US 41 NBL will be removed to reduce the elevation of Clinton Street down US 41 NBL. A short section of Clinton Street north of US NBL will be removed; however, some of the embankment may remain, only pavement removal is required. Approximately 500 feet of pavement will be removed.

The intersection at Budd Road will be reconstructed for approximately 75 feet. An additional 100 feet of Budd Road will be milled and resurfaced. The change in traffic patterns for northbound traffic will improve Evans Avenue by merging traffic to a single lane south of the Evans Avenue and US 41 intersection.

Maintenance of Traffic (MOT): It is anticipated that all traffic will remain on US 41 during construction and utilize lane shifts and phasing to maintain a single lane of traffic. Traffic will also be maintained for Northwood Dr and Evans Avenue to access US 41. It is also anticipated that Clinton Street between Budd Road and US 41 will be closed. Budd Road will be closed to through traffic during a portion of the construction. Traffic will then be diverted to other County Roads for the Clinton Street and Budd Road detours. Short-term night closures of US 41 NBL may be required during removal of the existing bridge.

There is suitable summer habitat located within the project area. There will be a total of 0.331 acre of tree removal within the project area- 0.0224 acre in the median and 0.3086 on the east side of the bridge. The dominant species of tree in the median is red mulberry (*Morus rubra*). The dominant species on the east side of the bridge is American elm (*Ulmus americana*).

BLN inspected the bridge on August 12, 2021. No evidence of bats was identified.

Based on consultation with INDOT Crawfordsville District, May 11, 2021, a review of the U.S. Fish and Wildlife Service (USFWS) database did not indicate the presence of endangered bat species in or within 0.5 mile of the project area.

Temporary lighting may be required during construction. No new permanent lighting will be required.

Construction on the project is to begin Fall 2023 and end by Spring/Summer 2024.

Determination Key Result

Based on your answers provided, this project(s) may affect, but is not likely to adversely affect the endangered Indiana bat and/or the threatened Northern long-eared bat, therefore, consultation with the U.S. Fish and Wildlife Service pursuant to Section 7(a)(2) of the Endangered Species Act of 1973 (ESA) (87 Stat. 884, as amended 16 U.S.C. 1531 *et seq.*) is required. However, also based on your answers provided, this project may rely on the concurrence provided in the revised February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat.

Qualification Interview

1. Is the project within the range of the Indiana bat^[1]?

[1] See [Indiana bat species profile](#)

Automatically answered

Yes

2. Is the project within the range of the Northern long-eared bat^[1]?

[1] See [Northern long-eared bat species profile](#)

Automatically answered

Yes

3. Which Federal Agency is the lead for the action?

A) *Federal Highway Administration (FHWA)*

4. Are *all* project activities limited to non-construction^[1] activities only? (examples of non-construction activities include: bridge/abandoned structure assessments, surveys, planning and technical studies, property inspections, and property sales)

[1] Construction refers to activities involving ground disturbance, percussive noise, and/or lighting.

No

5. Does the project include *any* activities that are **greater than** 300 feet from existing road/rail surfaces^[1]?

[1] Road surface is defined as the actively used [e.g. motorized vehicles] driving surface and shoulders [may be pavement, gravel, etc.] and rail surface is defined as the edge of the actively used rail ballast.

No

6. Does the project include *any* activities **within** 0.5 miles of a known Indiana bat and/or NLEB hibernaculum^[1]?

[1] For the purpose of this consultation, a hibernaculum is a site, most often a cave or mine, where bats hibernate during the winter (see suitable habitat), but could also include bridges and structures if bats are found to be hibernating there during the winter.

No

7. Is the project located **within** a karst area?

No

8. Is there *any* suitable^[1] summer habitat for Indiana Bat or NLEB **within** the project action area^[2]? (includes any trees suitable for maternity, roosting, foraging, or travelling habitat)

[1] See the Service's [summer survey guidance](#) for our current definitions of suitable habitat.

[2] The action area is defined as all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action (50 CFR Section 402.02). Further clarification is provided by the [User's Guide for the Range-wide Programmatic Consultation for Indiana Bat and Northern Long-eared Bat](#).

Yes

9. Will the project remove *any* suitable summer habitat^[1] and/or remove/trim any existing trees **within** suitable summer habitat?

[1] See the Service's [summer survey guidance](#) for our current definitions of suitable habitat.

Yes

10. Will the project clear more than 20 acres of suitable habitat per 5-mile section of road/rail?

No

11. Have presence/probable absence (P/A) summer surveys^{[1][2]} been conducted^{[3][4]} **within** the suitable habitat located within your project action area?

[1] See the Service's [summer survey guidance](#) for our current definitions of suitable habitat.

[2] Presence/probable absence summer surveys conducted within the fall swarming/spring emergence home range of a documented Indiana bat hibernaculum (contact local Service Field Office for appropriate distance from hibernacula) that result in a negative finding requires additional consultation with the local Service Field Office to determine if clearing of forested habitat is appropriate and/or if seasonal clearing restrictions are needed to avoid and minimize potential adverse effects on fall swarming and spring emerging Indiana bats.

[3] For projects within the range of either the Indiana bat or NLEB in which suitable habitat is present, and no bat surveys have been conducted, the transportation agency will assume presence of the appropriate species. This assumption of presence should be based upon the presence of suitable habitat and the capability of bats to occupy it because of their mobility.

[4] Negative presence/probable absence survey results obtained using the [summer survey guidance](#) are valid for a minimum of two years from the completion of the survey unless new information (e.g., other nearby surveys) suggest otherwise.

No

12. Does the project include activities **within documented Indiana bat habitat**^{[1][2]}?

[1] Documented roosting or foraging habitat – for the purposes of this consultation, we are considering documented habitat as that where Indiana bats and/or NLEB have actually been captured and tracked using (1) radio telemetry to roosts; (2) radio telemetry biangulation/triangulation to estimate foraging areas; or (3) foraging areas with repeated use documented using acoustics. Documented roosting habitat is also considered as suitable summer habitat within 0.25 miles of documented roosts.)

[2] For the purposes of this key, we are considering documented corridors as that where Indiana bats and/or NLEB have actually been captured and tracked to using (1) radio telemetry; or (2) treed corridors located directly between documented roosting and foraging habitat.

No

13. Will the removal or trimming of habitat or trees occur **within** suitable but **undocumented Indiana bat** roosting/foraging habitat or travel corridors?

Yes

14. What time of year will the removal or trimming of habitat or trees **within** suitable but **undocumented Indiana bat** roosting/foraging habitat or travel corridors occur^[1]?

[1] Coordinate with the local Service Field Office for appropriate dates.

B) During the inactive season

15. Does the project include activities **within documented NLEB habitat**^{[1][2]}?

[1] Documented roosting or foraging habitat – for the purposes of this consultation, we are considering documented habitat as that where Indiana bats and/or NLEB have actually been captured and tracked using (1) radio telemetry to roosts; (2) radio telemetry biangulation/triangulation to estimate foraging areas; or (3) foraging areas with repeated use documented using acoustics. Documented roosting habitat is also considered as suitable summer habitat within 0.25 miles of documented roosts.)

[2] For the purposes of this key, we are considering documented corridors as that where Indiana bats and/or NLEB have actually been captured and tracked to using (1) radio telemetry; or (2) treed corridors located directly between documented roosting and foraging habitat.

No

16. Will the removal or trimming of habitat or trees occur **within** suitable but **undocumented NLEB** roosting/foraging habitat or travel corridors?

Yes

17. What time of year will the removal or trimming of habitat or trees **within** suitable but **undocumented NLEB** roosting/foraging habitat or travel corridors occur?

B) During the inactive season

18. Will *any* tree trimming or removal occur **within** 100 feet of existing road/rail surfaces?

Yes

19. Will *any* tree trimming or removal occur **between** 100-300 feet of existing road/rail surfaces?

No

20. Are *all* trees that are being removed clearly demarcated?
Yes
21. Will the removal of habitat or the removal/trimming of trees include installing new or replacing existing **permanent** lighting?
No
22. Does the project include wetland or stream protection activities associated with compensatory wetland mitigation?
No
23. Does the project include slash pile burning?
No
24. Does the project include *any* bridge removal, replacement, and/or maintenance activities (e.g., any bridge repair, retrofit, maintenance, and/or rehabilitation work)?
Yes
25. Is there *any* suitable habitat^[1] for Indiana bat or NLEB **within** 1,000 feet of the bridge? (includes any trees suitable for maternity, roosting, foraging, or travelling habitat)

[1] See the Service's current [summer survey guidance](#) for our current definitions of suitable habitat.

Yes

26. Has a bridge assessment^[1] been conducted **within** the last 24 months^[2] to determine if the bridge is being used by bats?

[1] See [User Guide Appendix D](#) for bridge/structure assessment guidance

[2] Assessments must be completed no more than 2 years prior to conducting any work below the deck surface on all bridges that meet the physical characteristics described in the Programmatic Consultation, regardless of whether assessments have been conducted in the past. Due to the transitory nature of bat use, a negative result in one year does not guarantee that bats will not use that bridge/structure in subsequent years.

Yes

SUBMITTED DOCUMENTS

- *Bat Inspection Des. No. 1500146.pdf* <https://ipac.ecosphere.fws.gov/project/77G22BBA2ZBD7F5MZDZOICSFTM/projectDocuments/104922045>

27. Did the bridge assessment detect *any* signs of Indiana bats and/or NLEBs roosting in/under the bridge (bats, guano, etc.)^[1]?

[1] If bridge assessment detects signs of *any* species of bats, coordination with the local FWS office is needed to identify potential threatened or endangered bat species. Additional studies may be undertaken to try to identify which bat species may be utilizing the bridge prior to allowing *any* work to proceed.

Note: There is a small chance bridge assessments for bat occupancy do not detect bats. Should a small number of bats be observed roosting on a bridge just prior to or during construction, such that take is likely to occur or does occur in the form of harassment, injury or death, the PBO requires the action agency to report the take. Report all unanticipated take within 2 working days of the incident to the USFWS. Construction activities may continue without delay provided the take is reported to the USFWS and is limited to 5 bats per project.

No

28. Will the bridge removal, replacement, and/or maintenance activities include installing new or replacing existing **permanent** lighting?

No

29. Does the project include the removal, replacement, and/or maintenance of *any* structure other than a bridge? (e.g., rest areas, offices, sheds, outbuildings, barns, parking garages, etc.)

No

30. Will the project involve the use of **temporary** lighting *during* the active season?

Yes

31. Is there *any* suitable habitat **within** 1,000 feet of the location(s) where **temporary** lighting will be used?

Yes

32. Will the project install new or replace existing **permanent** lighting?

No

33. Does the project include percussives or other activities (**not including tree removal/trimming or bridge/structure work**) that will increase noise levels above existing traffic/background levels?

No

34. Are *all* project activities that are **not associated with** habitat removal, tree removal/trimming, bridge and/or structure activities, temporary or permanent lighting, or use of percussives, limited to actions that DO NOT cause any additional stressors to the bat species?

Examples: lining roadways, unlighted signage, rail road crossing signals, signal lighting, and minor road repair such as asphalt fill of potholes, etc.

Yes

35. Will the project raise the road profile **above the tree canopy**?

No

36. Are the project activities that are not associated with habitat removal, tree removal/trimming, bridge and/or structure activities, temporary or permanent lighting, or use of percussives consistent with a No Effect determination in this key?

Automatically answered

Yes, other project activities are limited to actions that DO NOT cause any additional stressors to the bat species as described in the BA/BO

37. Is the habitat removal portion of this project consistent with a Not Likely to Adversely Affect determination in this key?

Automatically answered

Yes, because the tree removal/trimming that occurs outside of the Indiana bat's active season occurs greater than 0.5 miles from the nearest hibernaculum, is less than 100 feet from the existing road/rail surface, includes clear demarcation of the trees that are to be removed, and does not alter documented roosts and/or surrounding summer habitat within 0.25 miles of a documented roost.

38. Is the habitat removal portion of this project consistent with a Not Likely to Adversely Affect determination in this key?

Automatically answered

Yes, because the tree removal/trimming that occurs outside of the NLEB's active season occurs greater than 0.5 miles from the nearest hibernaculum, is less than 100 feet from the existing road/rail surface, includes clear demarcation of the trees that are to be removed, and does not alter documented roosts and/or surrounding summer habitat within 0.25 miles of a documented roost.

39. Is the bridge removal, replacement, or maintenance activities portion of this project consistent with a No Effect determination in this key?

Automatically answered

Yes, because the bridge has been assessed using the criteria documented in the BA and no signs of bats were detected

40. **General AMM 1**

Will the project 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 Avoidance and Minimization Measures?

Yes

41. **Tree Removal AMM 1**

Can *all* phases/aspects of the project (e.g., temporary work areas, alignments) be modified, to the extent practicable, to avoid tree removal^[1] in excess of what is required to implement the project safely?

Note: Tree Removal AMM 1 is a minimization measure, the full implementation of which may not always be practicable. Projects may still be NLAA as long as Tree Removal AMMs 2, 3, and 4 are implemented and LAA as long as Tree Removal AMMs 3, 5, 6, and 7 are implemented.

[1] The word “trees” as used in the AMMs refers to trees that are suitable habitat for each species within their range. See the USFWS’ current summer survey guidance for our latest definitions of suitable habitat.

Yes

42. **Tree Removal AMM 3**

Can tree removal be limited to that specified in project plans and ensure that contractors understand clearing limits and how they are marked in the field (e.g., install bright colored flagging/fencing prior to any tree clearing to ensure contractors stay within clearing limits)?

Yes

43. **Tree Removal AMM 4**

Can the project avoid cutting down/removal of *all* (1) **documented**^[1] Indiana bat or NLEB roosts^[2] (that are still suitable for roosting), (2) trees **within** 0.25 miles of roosts, and (3) documented foraging habitat any time of year?

[1] The word documented means habitat where bats have actually been captured and/or tracked.

[2] Documented roosting or foraging habitat – for the purposes of this consultation, we are considering documented habitat as that where Indiana bats and/or NLEB have actually been captured and tracked using (1) radio telemetry to roosts; (2) radio telemetry biangulation/triangulation to estimate foraging areas; or (3) foraging areas with repeated use documented using acoustics. Documented roosting habitat is also considered as suitable summer habitat within 0.25 miles of documented roosts.)

Yes

44. **Lighting AMM 1**

Will *all* **temporary** lighting be directed away from suitable habitat during the active season?

Yes

Project Questionnaire

1. Have you made a No Effect determination for *all* other species indicated on the FWS IPaC generated species list?

Yes

2. Have you made a May Affect determination for *any* other species on the FWS IPaC generated species list?

No

3. How many acres^[1] of trees are proposed for removal between 0-100 feet of the existing road/rail surface?

[1] If described as number of trees, multiply by 0.09 to convert to acreage and enter that number.

0.331

4. Please describe the proposed bridge work:

The bridge is being removed.

5. Please state the timing of all proposed bridge work:

Fall 2023 to Spring/Summer 2024

6. Please enter the date of the bridge assessment:

August 12, 2021

Avoidance And Minimization Measures (AMMs)

This determination key result includes the commitment to implement the following Avoidance and Minimization Measures (AMMs):

TREE REMOVAL AMM 1

Modify all phases/aspects of the project (e.g., temporary work areas, alignments) to avoid tree removal.

LIGHTING AMM 1

Direct temporary lighting away from suitable habitat during the active season.

TREE REMOVAL AMM 2

Apply time of year restrictions for tree removal when bats are not likely to be present, or limit tree removal to 10 or fewer trees per project at any time of year within 100 feet of existing road/rail surface and **outside of documented** roosting/foraging habitat or travel corridors; visual emergence survey must be conducted with no bats observed.

TREE REMOVAL AMM 3

Ensure tree removal is limited to that specified in project plans and ensure that contractors understand clearing limits and how they are marked in the field (e.g., install bright colored flagging/fencing prior to any tree clearing to ensure contractors stay within clearing limits).

TREE REMOVAL AMM 4

Do not remove **documented** Indiana bat or NLEB roosts that are still suitable for roosting, or trees within 0.25 miles of roosts, or

documented foraging habitat any time of year.

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 AMMs.

Determination Key Description: FHWA, FRA, FTA Programmatic Consultation For Transportation Projects Affecting NLEB Or Indiana Bat

This key was last updated in IPaC on April 28, 2022. Keys are subject to periodic revision.

This decision key is intended for projects/activities funded or authorized by the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), and/or Federal Transit Administration (FTA), which may require consultation with the U.S. Fish and Wildlife Service (Service) under Section 7 of the Endangered Species Act (ESA) for the endangered **Indiana bat** (*Myotis sodalis*) and the threatened **Northern long-eared bat** (NLEB) (*Myotis septentrionalis*).

This decision key should only be used to verify project applicability with the Service's [February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion for Transportation Projects](#). The programmatic biological opinion covers limited transportation activities that may affect either bat species, and addresses situations that are both likely and not likely to adversely affect either bat species. This decision key will assist in identifying the effect of a specific project/activity and applicability of the programmatic consultation. The programmatic biological opinion is not intended to cover all types of transportation actions. Activities outside the scope of the programmatic biological opinion, or that may affect ESA-listed species other than the Indiana bat or NLEB, or any designated critical habitat, may require additional ESA Section 7 consultation.

IPaC User Contact Information

Agency: Indiana Department of Transportation
Name: Benjamin Neild
Address: 41 W. 300 N.
City: Crawfordsville
State: IN
Zip: 47933
Email: bneild@indot.in.gov
Phone: 7653615259



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Indiana Ecological Services Field Office
620 South Walker Street
Bloomington, IN 47403-2121
Phone: (812) 334-4261 Fax: (812) 334-4273

In Reply Refer To:

June 01, 2022

Project Code: 2022-0039547

Project Name: Des. No. 1500146 Old US 41 over Northbound US 41, Otter Creek Township, Vigo County

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

Please use the species list provided and visit the U.S. Fish and Wildlife Service's Region 3 Section 7 Technical Assistance website at - <http://www.fws.gov/midwest/endangered/section7/>

[s7process/index.html](#). This website contains step-by-step instructions which will help you determine if your project will have an adverse effect on listed species and will help lead you through the Section 7 process. For all **wind energy projects and projects that include installing towers that use guy wires or are over 200 feet in height**, please contact this field office directly for assistance, even if no federally listed plants, animals or critical habitat are present within your proposed project or may be affected by your proposed project.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see <https://www.fws.gov/birds/policies-and-regulations.php>.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see <https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds.php>.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of

Executive Order 13186, please visit <https://www.fws.gov/birds/policies-and-regulations/executive-orders/e0-13186.php>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. **Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.**

Attachment(s):

- Official Species List
- Migratory Birds
- Wetlands

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Indiana Ecological Services Field Office

620 South Walker Street
Bloomington, IN 47403-2121
(812) 334-4261

Project Summary

Project Code: 2022-0039547
Event Code: None
Project Name: Des. No. 1500146 Old US 41 over Northbound US 41, Otter Creek Township, Vigo County
Project Type: Bridge - Removal
Project Description: The Indiana Department of Transportation (INDOT), with funding from Federal Highway Administration (FHWA), intends to proceed with a bridge removal and intersection improvement project on Old US 41 over US 41, located approximately 6.13 miles north of the middle junction of SR 63, within the northern boundary of Terre Haute, Indiana, Vigo County, Indiana (Des. No. 1500146). The project length is approximately 0.35 mile.

The proposed project is to remove the existing four-span bridge and lower Clinton Street (Old 41) down to the same elevation as the existing US 41 NBL and construct a new at grade intersection for Clinton Street and northbound US 41. Approximately 650 feet of Clinton Street will be reconstructed. The intersection will include a right turn for US 41 NBL onto southbound Clinton Street traffic.

Traffic utilizing southbound US 41 will be directed to a new J-turn located west of the new intersection of northbound US 41 and Clinton Street. New pavement will be required for the median crossing used for the J-turn. US 41 approaching the J-turn along US 41 will be striped and signed for through traffic.

A majority of the embankment for Clinton Street between Budd Road and US 41 NBL will be removed to reduce the elevation of Clinton Street down US 41 NBL. A short section of Clinton Street north of US NBL will be removed; however, some of the embankment may remain, only pavement removal is required. Approximately 500 feet of pavement will be removed.

The intersection at Budd Road will be reconstructed for approximately 75 feet. An additional 100 feet of Budd Road will be milled and resurfaced. The change in traffic patterns for northbound traffic will improve Evans Avenue by merging traffic to a single lane south of the Evans Avenue and US 41 intersection.

Maintenance of Traffic (MOT): It is anticipated that all traffic will remain on US 41 during construction and utilize lane shifts and phasing to maintain a single lane of traffic. Traffic will also be maintained for Northwood Dr and Evans Avenue to access US 41. It is also anticipated

that Clinton Street between Budd Road and US 41 will be closed. Budd Road will be closed to through traffic during a portion of the construction. Traffic will then be diverted to other County Roads for the Clinton Street and Budd Road detours. Short-term night closures of US 41 NBL may be required during removal of the existing bridge.

There is suitable summer habitat located within the project area. There will be a total of 0.331 acre of tree removal within the project area- 0.0224 acre in the median and 0.3086 on the east side of the bridge. The dominant species of tree in the median is red mulberry (*Morus rubra*). The dominant species on the east side of the bridge is American elm (*Ulmus americana*).

BLN inspected the bridge on August 12, 2021. No evidence of bats was identified.

Based on consultation with INDOT Crawfordsville District, May 11, 2021, a review of the U.S. Fish and Wildlife Service (USFWS) database did not indicate the presence of endangered bat species in or within 0.5 mile of the project area.

Temporary lighting may be required during construction. No new permanent lighting will be required.

Construction on the project is to begin Fall 2023 and end by Spring/ Summer 2024.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@39.570450050000005,-87.36987529866293,14z>



Counties: Vigo County, Indiana

Endangered Species Act Species

There is a total of 3 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 1 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Indiana Bat <i>Myotis sodalis</i> There is final critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/5949	Endangered
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> ▪ Incidental take of the NLEB is not prohibited here. Federal agencies may consult using the 4(d) rule streamlined process. Transportation projects may consult using the programmatic process. See www.fws.gov/midwest/endangered/mammals/nleb/index.html Species profile: https://ecos.fws.gov/ecp/species/9045	Threatened

Insects

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

Migratory Birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

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1. The [Migratory Birds Treaty Act](#) of 1918.
 2. The [Bald and Golden Eagle Protection Act](#) of 1940.
 3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern \(BCC\) list](#) or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Sep 1 to Jul 31
Black-billed Cuckoo <i>Coccyzus erythrophthalmus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9399	Breeds May 15 to Oct 10

NAME	BREEDING SEASON
<p>Cerulean Warbler <i>Dendroica cerulea</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/2974</p>	Breeds Apr 23 to Jul 20
<p>Golden Eagle <i>Aquila chrysaetos</i></p> <p>This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.</p> <p>https://ecos.fws.gov/ecp/species/1680</p>	Breeds elsewhere
<p>Kentucky Warbler <i>Oporornis formosus</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds Apr 20 to Aug 20
<p>Lesser Yellowlegs <i>Tringa flavipes</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/9679</p>	Breeds elsewhere
<p>Prairie Warbler <i>Dendroica discolor</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds May 1 to Jul 31
<p>Prothonotary Warbler <i>Protonotaria citrea</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds Apr 1 to Jul 31
<p>Red-headed Woodpecker <i>Melanerpes erythrocephalus</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds May 10 to Sep 10
<p>Rusty Blackbird <i>Euphagus carolinus</i></p> <p>This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA</p>	Breeds elsewhere
<p>Wood Thrush <i>Hylocichla mustelina</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds May 10 to Aug 31

Probability Of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

No Data (—)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.

■ probability of presence ■ breeding season | survey effort — no data

SPECIES JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC



Additional information can be found using the following links:

- Birds of Conservation Concern <https://www.fws.gov/program/migratory-birds/species>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

Migratory Birds FAQ

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [AKN Phenology Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: [The Cornell Lab of Ornithology All About Birds Bird Guide](#), or (if you are unsuccessful in locating the bird of interest there), the [Cornell Lab of Ornithology Neotropical Birds guide](#). If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of

certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Wetlands

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

THERE ARE NO WETLANDS WITHIN YOUR PROJECT AREA.

IPaC User Contact Information

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