



October 14, 2022

Mr. Brian Chomas  
Michigan Department of Transportation  
Innovative Contracting Unit  
425 W. Ottawa Street  
Lansing, MI 48909

Mr. John Crumm  
Macomb County Department of Roads  
117 South Groesbeck Highway  
Mount Clemens, MI 48043

Re: **South Segment Roadway RFC Plans**  
Design-Build Innovate Mound Road  
Job Number: 207178

Dear Mr. Chomas and Mr. Crumm:

The Design-Builder's Project Manager certifies that they have reviewed this submittal and agrees with the information presented.

A blue ink signature of Steve Lampton, consisting of a stylized first name and a last name that appears to be "Lampton".

Steve Lampton  
Dan's Excavating, Inc.  
Design-Builder Project Manager

The Design Quality Control Manager certifies that the design work performed for this submittal has been reviewed in accordance with our Design Quality Manual and the design work generally conforms to the Contract requirements, applicable law, applicable governmental approvals, and Alternative Technical Concepts submitted with the Technical Proposal. Required right-of-way is secured and applicable approvals from utility owners. Applicable comments from MDOT and other reviewing agencies from previous submittals have been resolved.

A blue ink signature of Charles Stein, featuring a stylized first name and a last name that appears to be "Stein".

Charles Stein  
AECOM Great Lakes, Inc.  
Design Quality Control Manager

# Innovate Mound Road

## Design-Build

JN 207178A  
CS INFR50000

### South Segment Roadway RFC Plans

NB Mound Rd Begin Construction STA 173+71.52 to STA 402+00  
SB Mound Rd POB STA 166+50.21 to STA 402+40

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ROAD	2019 TRAFFIC DATA		2050 TRAFFIC DATA		SPEED DATA	
	ADT	COMM	ADT	COMM	DESIGN	POSTED
MOUND ROAD	77,550	14.1%	85,096	14.1%	55	50

Innovate Mound Project

REVIEW

APPROVED ☐

APPROVED AS NOTED ☐

ACCEPTED ☒

ACCEPTED AS NOTED ☐

AMEND AND RESUBMIT ☐

REJECTED - SEE REMARKS ☐

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HNTB

BY Sean G. Kelsch

DATE 10/28/2022

			Department of Roads	NO SCALE	DATE: 10/12/22	CS: INFR50000	TITLE SHEET	DRAWING	SHEET
					DESIGN UNIT:XXX	JN: 207178A		MOUND TTL 001	SECT 1 1
					TSC: MACOMB				

## PUBLIC UTILITIES

The existing utilities listed below and shown on these plans represent the best information available as obtained on our surveys. This information does not relieve the contractor of the responsibility to be satisfied as to it's accuracy and the location of existing utilities.

<u>Name Of Owner</u>	<u>Type Of Utility</u>
----------------------	------------------------

123.NET,INC  
Attention: AMANDA GRIFFITH  
24700 Northwestern Hwy, Suite 700  
Southfield, MI 48075  
Phone: (248) 228-8223; (906)-370-2767  
Email: [agriffith@123.net](mailto:agriffith@123.net)

ATT  
Attention: DAREN HECKMAN  
100 S. Main St,  
Mount Clemens, MI 48043  
Phone: (586) 549-8961  
Email: [dh7851@att.com](mailto:dh7851@att.com)

ATT  
Attention: ERIC BRISKEY  
100 S. Main St,  
Mount Clemens, MI 48043  
Phone: (586) 549-8961  
Email: [eb1719@att.com](mailto:eb1719@att.com)

CONSUMERS ENERGY  
Attention: JEFFREY PAROL  
Phone: (586) 549-8961  
Email: [Jeffrey.parol@cmsenergy.com](mailto:Jeffrey.parol@cmsenergy.com)

CONSUMERS ENERGY  
Attention: BOB RATKUS  
Phone: (586) 549-8961  
Email: [Robert.Ratkus@cmsenergy.com](mailto:Robert.Ratkus@cmsenergy.com)

COMCAST  
Attention: SHEILA SCHUCH  
25626 Telegraph Rd,  
Southfield, MI 48033  
Phone: (248) 809-2715; 248-977-8996  
Email: [Sheila\\_Schuch2@comcast.com](mailto:Sheila_Schuch2@comcast.com)

COMCAST  
Attention: WARREN SETTY  
25626 Telegraph Rd,  
Southfield, MI 48033  
Phone: (248) 809-2715; 248-977-8996  
Email: [Warren\\_Setty@comcast.com](mailto:Warren_Setty@comcast.com)

DETROIT EDISON  
Attention: STEPHANIE BERES  
Phone: (248) 416-0192  
Email: [stephanie.beres@dteenergy.com](mailto:stephanie.beres@dteenergy.com)

GREAT LAKES WATER AUTHORITY  
Attention: DAN MILLER  
735 Randolph, Suite 1900,  
Detroit, MI 48226  
Phone: (313) 267-4857  
Email: [daniel.miller@glwater.org](mailto:daniel.miller@glwater.org)

GREAT LAKES WATER AUTHORITY  
Attention: ANUPAM KUMAR  
735 Randolph, Suite 1900,  
Detroit, MI 48226  
Phone: (313) 267-4857  
Email: [anupam.kumar@glwater.org](mailto:anupam.kumar@glwater.org)

GREAT LAKES WATER AUTHORITY  
Attention: DALE ECHOLS  
735 Randolph, Suite 1900,  
Detroit, MI 48226  
Phone: (313) 267-4857  
Email: [dale.echols@glwater.org](mailto:dale.echols@glwater.org)

MACOMB COUNTY ROAD COMM ELECTRIC SHOP    Municipal  
Attention: CHRIS FLORKA  
117 South Geosbeck Hwy,  
Mount Clements, MI 48043  
Phone: (586) 463-8671  
Email: [cflorka@rcmcweb.org](mailto:cflorka@rcmcweb.org)

MACOMB COUNTY PUBLIC WORKS OFFICE                      Municipal  
Attention: STAN SLANEC  
Phone: (586) 307-8274  
Email: [missdig@macombgov.org](mailto:missdig@macombgov.org)

OAKLAND COUNTY DRAIN COMMISSIONER  
Attention: CHRIS GIANAKOS  
1 Public Works Dr, Building 95W,  
Waterford, MI 48328  
Phone: (248) 858-1116  
Email: [gianaosc@oakgov.com](mailto:gianaosc@oakgov.com)

SHELBY TOWNSHIP DPW  
Attention: PAT MCMAHON  
6333 23 Mile Rd,  
Shelby Township, MI 48316  
Phone: (586)-731-5990  
Email: [MISSDIG@SHELBYTWP.ORG](mailto:MISSDIG@SHELBYTWP.ORG)

STERLING HEIGHTS CITY  
Attention: BRENT BASHAW  
40555 Utica Rd,  
Sterling Heights, MI 48313  
Phone: (586) 446-2721  
Email: [bbashaw@sterling-heights.net](mailto:bbashaw@sterling-heights.net)

WIDE OPEN WEST  
Attention: BRUCE ROACH  
37150 Plymouth Rd,  
Livonia, MI 48150  
Phone: (248) 506-7951  
Email: [bruce.roach@wowinc.com](mailto:bruce.roach@wowinc.com)

WIDE OPEN WEST  
Attention: SHAWN DALEY  
37150 Plymouth Rd,  
Livonia, MI 48150  
Phone: (248) 506-7951  
Email: [shawn.daley@wowinc.com](mailto:shawn.daley@wowinc.com)

SUNOCO PIPELINE LP  
Attention: DEB SCHNECK  
525 Fritztown Rd,  
Sinking Spring, PN 19608  
Phone: (610) 670-3258  
Email: [debra.schneck@energytransfer.com](mailto:debra.schneck@energytransfer.com)

SUNOCO PIPELINE LP  
Attention: JOHN RUSZKAY  
525 Fritztown Rd,  
Sinking Spring, PN 19608  
Phone: (610) 670-3258  
Email: [john.ruszkay@energytransfer.com](mailto:john.ruszkay@energytransfer.com)

SUNOCO PIPELINE LP  
Attention: RICK JOYCE  
525 Fritztown Rd,  
Sinking Spring, PN 19608  
Phone: (610) 670-3258  
Email: [richard.joyce@energytransfer.com](mailto:richard.joyce@energytransfer.com)

CLEAR RATE COMMUNICATIONS INC. Communications  
Attention: RICK ANDRICKS  
2600 W. Big Beaver Rd, Suite 450,  
Troy, MI 48084  
Phone: (419) 551-7247  
Email: [randricks@clearrate.com](mailto:randricks@clearrate.com)

MCI/ VERIZON BUSINESS  
Attention: MICHAEL BRUNING  
24242 Northwestern Hwy,  
Southfield, MI 48075  
Phone: (248) 794-7906  
Email: [Michael.bruning@VerizonWireless.com](mailto:Michael.bruning@VerizonWireless.com)

MCI/ VERIZON BUSINESS  
Attention: MARLON REDD  
24242 Northwestern Hwy,  
Southfield, MI 48075  
Phone: (248) 794-7906  
Email: [marlon.redd@verizon.com](mailto:marlon.redd@verizon.com)

MCI/ VERIZON BUSINESS  
Attention: JOHN IRVING  
24242 Northwestern Hwy,  
Southfield, MI 48075  
Phone: (248) 794-7906  
Email: [john.t.irving@verizon.com](mailto:john.t.irving@verizon.com)

CROWN CASTLE/ LIGHTTOWER FIBER NETWORK Communications  
Attention: DOUG FISHER  
755 Big Beaver Rd, Suite 200,  
Troy, MI 48084  
Phone: (947) 252-1259  
Email: [doug.fisher@crowncastle.com](mailto:doug.fisher@crowncastle.com)

WARREN CONSOLIDATED SCHOOLS  
Attention: TINA SNOBLEN  
3529 W. Genesee, Suite 6,  
Lapeer, MI 48446  
Phone: (586)-698-4777  
Email: [Tsnohlen@fiberlinkinc.com](mailto:Tsnohlen@fiberlinkinc.com)

WARREN CITY  
Attention: TINA GAPSHES  
1 City Square,  
Warren, MI 48093  
Phone: (586) 759-9300  
Email: [tgapshes@cityofwarren.org](mailto:tgapshes@cityofwarren.org)

LEVEL 3 NOW LUMEN  
Attention: DAVID HUCKFELDT  
19675 W 10 Mile Rd,  
Southfield, MI 48075  
Phone: (414) 224-6767  
Email: [dave.huckfeldt@lumen.com](mailto:dave.huckfeldt@lumen.com)

WINDSTREAM COMMUNICATIONS  
Attention: CHRIS ROGERS  
800 N Durand Rd,  
Corunna, MI 48817  
Phone: (812)-459-6649  
Email: [christopher.rogers@windstream.com](mailto:christopher.rogers@windstream.com)

ITC  
Attention: GRETCHEN RAILLING  
27175 Energy Way,  
Novi, MI 48377  
Phone: (586) 707-5773  
Email: [grailing@itctransco.com](mailto:grailing@itctransco.com)

ITC  
Attention: GARY KIRSH  
27175 Energy Way,  
Novi, MI 48377  
Phone: (586) 707-5773  
Email: [gkirsh@itctransco.com](mailto:gkirsh@itctransco.com)



MCDR Utilities/COMTEC  
Attention: ADAM MERCHANT  
117 S Groesbeck Hwy,  
Mt Clemens, MI 48043  
Phone: (586) 840-3064  
Email: [amerchant@rcmcweb.org](mailto:amerchant@rcmcweb.org)

UTICA COMMUNITY SCHOOLS  
Attention: TINA SNOBLEN  
3529 W. Genesee, Suite 6,  
Lapeer, MI 48446  
Phone: (586)-698-4777  
Email: [Tsnoblen@fiberlinkinc.com](mailto:Tsnoblen@fiberlinkinc.com)

<h1 style="margin: 0;">REVIEW</h1> <p>Reviewed only for general conformance with the project requirements indicated in Contract Documents and/or for consistency with the project design concept. This review does not relieve the Contractor from responsibility for errors or omissions in designs for which the Contractor is responsible. Contractor is responsible for compliance with all requirements of the Contract Documents and for the safe and successful construction of the work. This review does not consider the means, methods, techniques, sequences, fabrication processes, and operations of construction, or safety precautions or programs indicated thereto, which are the sole responsibility of the Contractor.</p>	<b>APPROVED</b> <input type="checkbox"/>
	<b>APPROVED AS NOTED</b> <input type="checkbox"/>
	<b>ACCEPTED</b> <input checked="" type="checkbox"/>
	<b>ACCEPTED AS NOTED</b> <input type="checkbox"/>
	<b>AMEND AND RESUBMIT</b> <input type="checkbox"/>
	<b>REJECTED - SEE REMARKS</b> <input type="checkbox"/>

**BY**                     *Steve G. Hoffman*

**DATE** 10/28/2022

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE: )								 	NO SCALE		DATE: 10/12/22	CS: INFR50000	<b>PROJECT INFORMATION SHEET</b> DRAWING MOUND PROJ 001 SHEET 2
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION				DESIGN UNIT: XXX	JN: 207178A	
										FILE: 207178 Project Info Sheet.doc	TSC: MACOMB		

NOTES APPLYING TO STANDARD PLANS

Where the following items are called for on plans, they are to be constructed according to the standard plan given below opposite each item unless otherwise indicated.

Title	Plan No.
ROAD	
DRAINAGE STRUCTURES	R-1-G
COVER B	R-7-F
COVER C	R-8-D
COVER D	R-9-D
MONUMENT BOXES	R-11-E
COVER G	R-12-E
COVER J	R-14-D
COVER K	R-15-G *
COVER Q	R-18-F
BRIDGE APPROACH CURB & GUTTER	R-27-F *
CURB RAMP AND DETECTABLE WARNING DETAILS	R-28-J *
DRIVEWAY OPENINGS & APPROACHES AND CONCRETE SIDEWALK	R-29-I
CONCRETE CURB AND CONCRETE CURB & GUTTER	R-30-G
INTEGRAL CURB AND INTEGRAL CURB & GUTTER	R-31-F
APPROACH CURB & GUTTER, DOWNSPOUTS (FOR BRIDGE BARRIER ON RURAL HIGHWAYS)	R-32-F *
APPROACH CURB & GUTTER, DOWNSPOUTS (FOR EXISTING RAILINGS)	R-32-SD *
ISOLATION JOINT DETAILS	R-37-B
TRANSVERSE PAVEMENT JOINTS (PLAIN CONCRETE PAVEMENT)	R-39-K
LOAD TRANSFER ASSEMBLIES FOR TRANSVERSE JOINTS	R-40-H
LONGITUDINAL PAVEMENT JOINTS	R-41-H
TYPICAL JOINT LAYOUTS FOR CONCRETE PAVEMENT	R-42-F
LOCATION OF TRANSVERSE JOINTS IN PLAIN CONCRETE PAVEMENT	R-43-I
PAVEMENT REINFORCEMENT FOR BRIDGE APPROACH	R-45-J
GUARDRAIL AT BRIDGES AND EMBANKMENTS	R-59-E
GUARDRAIL TYPES A, B, BD, T, TD, MGS-8 & MGS-8D	R-60-J *
GUARDRAIL APPROACH TERMINAL TYPE 2M	R-62-H *
GUARDRAIL DEPARTING TERMINAL TYPES B, T, & MGS	R-66-E *
GUARDRAIL ANCHORAGE, BRIDGE, DETAILS	R-67-G *
GUARDRAIL ANCHORAGE, BRIDGE, DETAILS (FOR EXISTING RAILINGS)	R-67-SD *
GRANULAR BLANKET, UNDERDRAINS, OUTLET ENDINGS FOR UNDERDRAINS, AND SEWER BULKHEADS	R-80-E
BEDDING AND FILLING AROUND PIPE CULVERTS	R-82-D
UTILITY TRENCHES	R-83-C
SOIL EROSION & SEDIMENTATION CONTROL MEASURES	R-96-E
SEEDING AND TREE PLANTING	R-100-H
GRADING CROSS-SECTIONS	R-105-D
SUPERELEVATION AND PAVEMENT CROWNS	R-107-H
GUARDRAIL AT INTERSECTIONS	Special Detail 21 *

\* Denotes Special Detail

Innovate Mound Project

REVIEW

APPROVED ☐

APPROVED AS NOTED ☐

ACCEPTED ☒

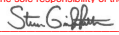
ACCEPTED AS NOTED ☐

AMEND AND RESUBMIT ☐


REJECTED - SEE REMARKS ☐

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HNTB

BY 

DATE 10/28/2022

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NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION				DESIGN UNIT: XXX	JN: 207178A		MOUND PROJ 002	SECT 1
											FILE: 207178 Project Info Sheet.doc	TSC: MACOMB			3





UTILITIES

COMBINED SEWER

- COMBINED SEWER
- COMBINED SEWER - OUT OF SERVICE
- COMBINED SEWER - TO BE TAKEN OUT OF SERVICE
- COMBINED SEWER - TO BE REMOVED

COMMUNICATION

- FIBER OPTIC
- FIBER OPTIC - OUT OF SERVICE
- FIBER OPTIC - OVERHEAD
- FIBER OPTIC MARKER
- CABLE
- CABLE - OUT OF SERVICE
- CABLE - OVERHEAD
- CABLE MARKER
- CABLE PEDESTAL
- TELEPHONE
- TELEPHONE - OUT OF SERVICE
- TELEPHONE - OVERHEAD
- TELEPHONE BOX
- TELEPHONE MANHOLE
- TELEPHONE PEDESTAL

FUEL / PETROLEUM

- GASOLINE FILLER PIPE
- GASOLINE PUMP
- GASOLINE UNDERGROUND TANK
- PETROLEUM PIPELINE
- PETROLEUM PIPELINE - OUT OF SERVICE
- PETROLEUM PIPELINE MARKER
- PETROLEUM WELL
- PROPANE TANK

NATURAL GAS

- GAS LINE
- GAS LINE - OUT OF SERVICE
- MARKER
- VALVE
- WELL

SANITARY SEWER

- MANHOLE WITH COVER (DIA VARIES)
- SEWER
- SEWER - OUT OF SERVICE
- SEWER - TO BE TAKEN OUT OF SERVICE
- SEWER - TO BE REMOVED

WATER

- FIRE HYDRANT
- GATE VALVE AND BOX
- GATE VALVE IN WELL
- IRRIGATION CONTROL VALVE
- IRRIGATION SPRINKLER HEAD
- SERVICE METER
- SERVICE SHUTOFF
- WATER WELL
- IRRIGATION
- WATER MAIN
- WATER MAIN - OUT OF SERVICE
- WATER MAIN - TO BE TAKEN OUT OF SERVICE
- WATER MAIN - TO BE REMOVED

STEAM

- STEAM MANHOLE COVER
- STEAM MANHOLE (DIA VARIES)
- STEAM
- STEAM - OUT OF SERVICE

GENERIC EXISTING UTILITIES

- CATCH BASIN COVER
- MANHOLE COVER
- MARKER
- PEDESTAL
- SEWER CLEANOUT ACCESS
- STRUCTURE BOTTOM (DIA VARIES)
- UTILITY BOX
- UTILITY

DRAINAGE

- CATCH BASIN W/ COVER (DIA VARIES)
- DRAINAGE STRUCTURE NUMBER
- DRAIN CASTING
- DROP INLET
- END SECTION (SIZE VARIES)
- FLOW DIRECTION ARROW
- HEADWALL (SIZE VARIES)
- MANHOLE W/ COVER (DIA VARIES)
- MANHOLE BASE W/ COVER (SIZE VARIES)
- MANHOLE TEE W/ COVER (SIZE VARIES)
- OUTLET HEADWALL (SIZE VARIES)
- CULVERT - EXISTING
- CULVERT (SIZE VARIES)
- DITCH CENTERLINE
- STORM SEWER - EXISTING
- STORM SEWER
- STORM SEWER - TO BE REMOVED
- UNDERDRAIN
- WATER EDGE

NOTE:

EXISTING ITEMS ARE REPRESENTED BY THIN LINE WEIGHTS.  
PROPOSED ITEMS ARE REPRESENTED BY HEAVIER LINE WEIGHTS.

Innovate Mound Project

REVIEW

APPROVED ☐

APPROVED AS NOTED ☐

ACCEPTED ☒

ACCEPTED AS NOTED ☐

AMEND AND RESUBMIT ☐

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BY DATE 10/28/2022

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NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION				DESIGN UNIT: XXX	JN: 207178A			MOUND	SECT 1
															LEGEND	
											FILE: 207178_Legend.dgn	TSC: MACOMB			2	5

ELECTRICAL				ARCHITECTURAL				ITS / SIGNALS				CABLING / WIRING DIAGRAM			
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FINAL ROW PLAN REVISIONS (SUBMITTAL DATE: )								<div><div><div><div><div><div></div></div></div><div>AECOM</div></div><div><div><div><div><div><div></div></div></div><div>Department of Roads</div></div></div></div></div></div>		NO SCALE				DATE: 10/12/22		CS: INFR50000		LEGEND		DRAWING		SHEET	
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POLE UTILITY

TRANSFORMER - PAD MOUNTED

TRANSFORMER - POLE MOUNTED

CABLE

CABLE - TO BE REMOVED

CABLE OVERHEAD

CABLE OVERHEAD - TO BE REMOVED

CABLE IN CONDUIT

CABLE IN CONDUIT - TO BE REMOVED

CABLE IN CONDUIT - DIRECTIONAL BORE

GENERAL NOTES

UTILITIES

MISS DIG/UNDERGROUND UTILITY NOTIFICATION

For the protection of underground utilities and in conformance with MCL 460.171 et seq, the Contractor shall contact MISS DIG System, Inc. by phone at 811 or 800-482-7171 or via the web at either elocate.missdig.org for single address or rte.missdig.org, a minimum of 3 work days prior to excavating, excluding weekends and holidays.

ROW / REAL ESTATE

PROPERTY OWNERS

The names of property owners shown on the plans are for information only, and their accuracy is not guaranteed.

MARKETABLE TIMBER

Marketable timber shall be handled in accordance with Section 201.03 of the 2012 Standard Specifications for Construction.

LAWN SPRINKLER SYSTEMS AND LANDSCAPING

Owners of existing lawn sprinkler systems and/or landscaping shall be notified (in writing with a copy sent to the Engineer) by the Contractor two weeks in advance of any work to be done that will affect those systems and/or landscaping. If the property owner fails to relocate the lawn sprinkler system prior to the Contractor beginning work, and if the Contractor cuts the system during the construction, the Contractor shall cap the system pipe and witness the location of the cap with a wooden stake for the property owner's use. The Contractor shall place the salvaged sprinkler heads on the property owner's property. If the property owner fails to relocate the landscaping prior to the Contractor beginning work, the Contractor shall carefully salvage the landscaping items and stockpile them on the property owner's property for the property owner. Any other modification to the lawn sprinkler systems and/or landscaping is the responsibility of the owner and is not part of this contract. This work is included in other items of the project.

SURVEY

ADJUSTING MONUMENT BOXES

All government corners on this project shall be preserved, whether shown or not. It may be necessary to place or adjust monument boxes, as required.

OLD PLANS

OLD ROAD PLANS

The following old road plans were referred to in the design of this project.

W.O. 1803, W.O. 1815, 30084A, 106729A, 32178A, 113218A, 203267

In addition, other old road plans that predate this project may be available. These plans may be reviewed at the Macomb County Department of Roads during normal working hours.

DETAILED GRADES

GRADES FOR INTERSECTIONS

All intersections are to be considered as complete units and their grades determined before construction is started.

SIGNALIZED SIDE ROAD TO TRUNK LINE INTERSECTIONS:

The normal edge of pavement grade of the proposed trunk line adjacent to the side road intersection shall be carried across the intersection wherever possible. The side road approach grade and

crown shall be established to provide for drainage and to assure suitable rideability of the side road.

SIGNALIZED TRUNK LINE TO TRUNK LINE INTERSECTIONS:

The grades to be established shall provide for drainage and rideability of each trunk line. Crowns may be varied on each trunk line to best fit the longitudinal grades of each trunk line.

UNSIGNALIZED SIDE ROAD TO TRUNK LINE INTERSECTIONS:

The normal edge of pavement grade of the proposed trunk line adjacent to the side road intersection shall be carried across the intersection. The side road approach grade and crown shall be established to provide for drainage.

SIDEWALK AND SIDEWALK RAMP GRADES

All sidewalk and sidewalk ramp grades shall be staked according to Standard Plan R-28 series and as shown on the plans. Prior to constructing the sidewalk and sidewalk ramps, the Engineer will verify the grades and authorize the construction of the sidewalk and sidewalk ramps.

EARTHWORK

SLOPES

Class A slopes shall be constructed on this project.

EARTH DISTURBANCE LIMITS

The earth disturbance limit for this project will be limited to 10' beyond the slope stake line or to the ROW line whichever is less for all areas except for wetland areas. For areas adjacent to wetlands, the earth disturbance limit will be limited to the slope stake line. Restoration measures have been included in this set of plans for the approved areas of disturbance. The Contractor shall submit an earth change plan for any work beyond the approved limits to the Engineer to review for approval prior to the disturbance. All costs for obtaining and executing an approved earth change plan, including restoration, shall be at the Contractor's expense.

SOIL EROSION MEASURES

Appropriate soil erosion and sedimentation control measures shall be in place prior to earth-disturbing activities. Place turf establishment items as soon as possible on potential erodable slopes as directed by the Engineer. Critical ditch grades shall be protected with either sod or seed/mulch or mulch blanket as directed by the Engineer.

PEAT EXCAVATION AT CULVERTS

At the time of peat excavation, the specific treatment called for on plans at any given swamp shall be widened out at culverts to provide stable foundation for the entire length of culvert, including head walls or end sections.

BASES

AGGREGATE BASE

Aggregate bases shall use aggregate 21AA, unless otherwise specified.

DRAINAGE

CULVERT EXTENSIONS

The extension of existing culverts on this project may require extra work to obtain a tight seal at the joint connecting new culvert pipe to existing culvert pipe. The joint between the existing and new pipes shall be constructed according to the 2012 Standard Specifications for Construction. Any extra work required to obtain tight joints will not be paid for separately but will be included in compensation for extending culverts.

DRAINAGE MARKER POSTS

Drainage marker posts shall not be placed in medians less than 150' wide.

ILLICIT CONNECTIONS TO STORM WATER SYSTEM

Connections to existing storm conveyance systems not shown on the plans must be reconnected with minimal interruption in service. Size, type and location by station and offset and any suspect illicit discharge observed shall be reported to the Engineer prior to reconnecting. Contractor shall proceed as directed by the Engineer.

TEMPORARY BULKHEADS

Temporary bulkheads may be required for the part width construction of the culverts and sewers. All cost associated with the temporary bulkheads are included in the item of the pipe.

PAVEMENT

PAVEMENT AND HMA SURFACE REMOVAL QUANTITIES

Pavement and HMA Surface removal as shown on the plans will be at the discretion of the Engineer. If in his/her judgment, areas of pavement may be left in place, or additional areas added to provide the proper cross-section and base. Changes will be made in the quantities.

SOIL BORINGS AND/OR PAVEMENT CORES

The soil boring logs and/or pavement cores represent point information. No inference should be made that subsurface or pavement conditions are the same at other locations.

CONCRETE HAND FINISHING

Hand finishing of concrete pours to be struck off and consolidated by hand methods will be permitted on variable width lanes and lanes formed by flexible forms for short radius curves, as directed by the Engineer.

BRIDGE APPROACHES

SHOULDER TRANSITION AT BRIDGES WITH EROSION CONTROL CURB AND GUTTER

Transition the normal shoulder width with erosion control curb and gutter (Type D) to the shoulder width at the bridge approach curb and gutter in 12.5' (one guardrail beam length) prior to the bridge approach curb and gutter.

GUARDRAIL

GUARDRAIL POST LENGTH

When the plans specify guardrail to be placed at the shoulder hinge point, rather than as specified on Standard Plan R-60 series, 8' (type B or T) or 9' (type MGS-8) posts shall be provided, with the additional length embedded for added stability. The additional post length will not be paid for separately but shall be included in the appropriate guardrail pay item.

GUARDRAIL AT BRIDGE APPROACH

Guardrail shall be extended parallel to the existing bridge railing until past the bridge approach curb & gutter before flaring to shoulder.

GUARDRAIL AT INTERSECTIONS

If curved beam guardrail Type T is to be used at intersections, it shall be constructed similar to the detail for Type B guardrail in Special Detail 21 and includes the use of CRT posts and the removal of the wood blocks.

GUARDRAIL POST HOLES

Posts placed within 3' of existing culverts shall be in drilled holes and shall not be driven.

TURF ESTABLISHMENT

SEED MIXTURE

The symbol for the permanent turf seed mixture on this project is symbol TUF.

REST AREA AND/OR LANDSCAPING

Existing vegetation shall not be damaged during construction operations, per the 2012 Standard Specifications for Construction.

Heavy equipment will not be allowed to work outside the slope stake lines in the wooded portion of the site. All equipment to be used must be approved by the engineer prior to beginning work.

Storage of equipment and materials will be restricted to areas designated by the Engineer. No equipment is permitted within the drip line of existing trees to remain.

Branches of all trees to be saved shall not be removed or damaged by construction equipment. If removal of lower branches is necessary, contact Roadside Development or the Region Resource Specialist for proper methods.

Do not trench within the drip line of existing trees to remain unless specifically approved by the Engineer.

Contractor shall promptly restore any property damage at no expense to MDOT.

All raw fill or cut slopes will be covered with slope restoration according to the special provision and time limitations specified in section 816.03 of the 2012 Standard Specifications for Construction.

All excavated material will become the property of the contactor. Any excavated material not used on the project will be removed from the site and disposed of in accordance with section 205.03.P. of the 2012 Standard Specification for Construction and any applicable state and/or local ordinances.

No cereal rye seeding shall be used on this project.

Protect existing sidewalks from damage.

Plant material, soil, fertilizer and mulch will be inspected/approved by the Engineer/Region Resource Specialist or the Landscape Architect prior to installation. Plant inspection may occur at the nursery source or when plants arrive on site.

Entire planting bed will be mulched with 5-6" of shredded hardwood bark mulch and paid for as Site Preparation.

Remove unacceptable plants fall inspection. Remove entire plant (including root ball) and dispose of offsite. Restore planting hole to existing conditions according to Sections 107.7 and 816 of the 2012 Standard Specifications for Construction.

Final staking may be adjusted to avoid conflicts with utilities and legally permitted billboards.

ENVIRONMENTAL

PROTECTED TURTLES

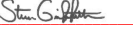
Historical records for protected turtles exist within or near this project. These turtle species warrant special consideration as they are rare in Michigan. In the event turtles are observed within the construction zone, move the turtle(s) into adjacent vegetative cover, away from physical work activities. If possible, please take a photo and immediately contact the Engineer.


REVIEW

APPROVED BY  
INNOVATE MOVED PROJECT  
REVIEWED BY  
ACCEPTED AS NOTED  
AMEND AND RESUBMIT  
REJECTED - SEE REMARKS

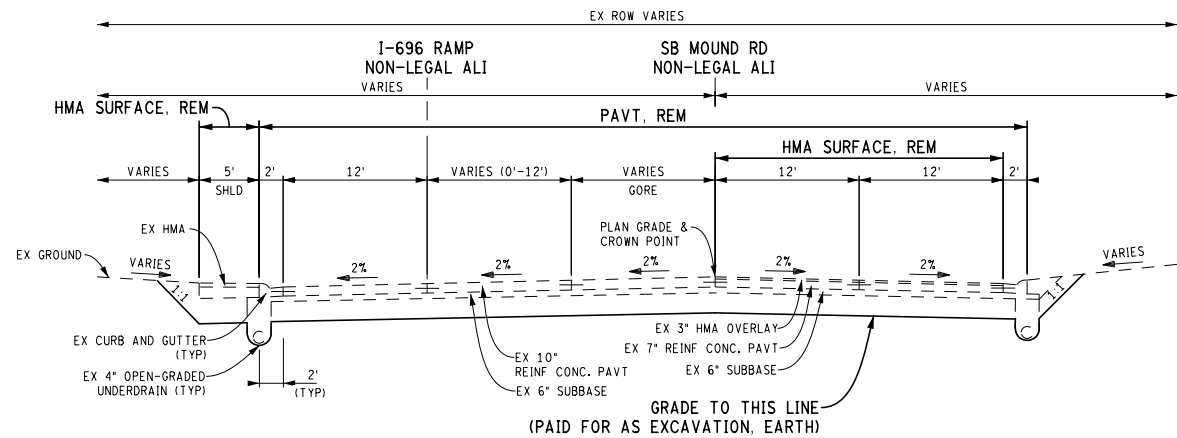
Reviewed only for general conformance with the project requirements indicated in Contract Documents and/or for consistency with the project design concept. This review does not relieve the Contractor from responsibility for errors or omissions in designs for which the Contractor is responsible. Contractor is responsible for compliance with all requirements of the Contract Documents and for the safe and successful construction of the work. This review does not consider the means, methods, techniques, sequences, fabrication processes, and operations of construction, or safety precautions or programs incidental thereto, which are the sole responsibility of the Contractor.

HNTB

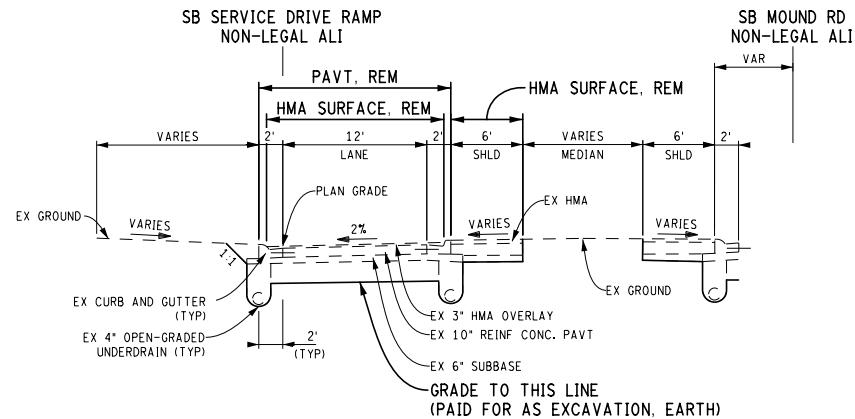
BY  DATE 10/28/2022

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE: )								 	NO SCALE		DATE: 10/12/22	CS: INFR500000	NOTE SHEET	DRAWING	SHEET
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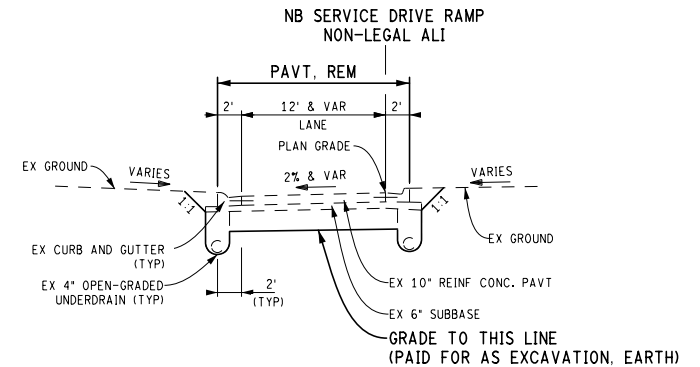




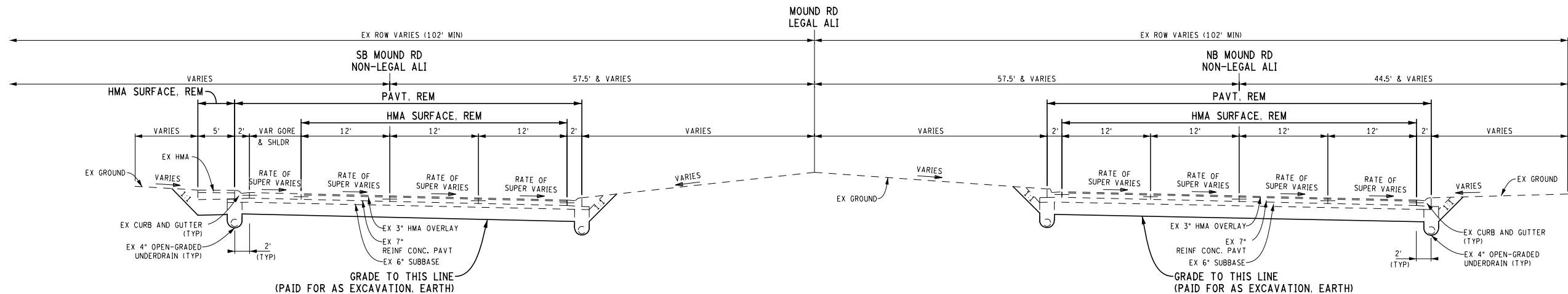
EXISTING NORMAL TYPICAL SECTION  
APPLIES TO:  
SB MOUND RD POB STA 166+50.21 TO STA 171+18.25



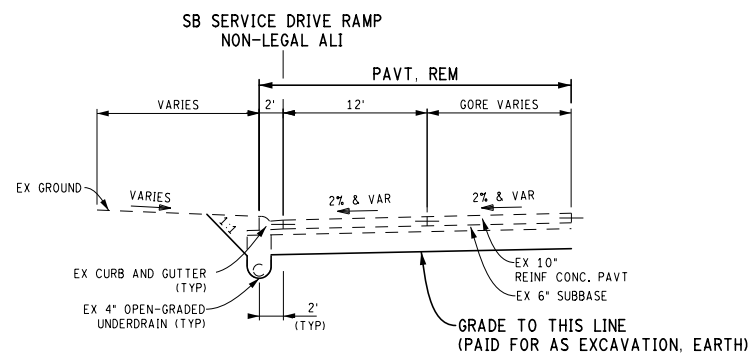
EXISTING TYPICAL SECTION  
APPLIES TO:  
SB SERVICE DRIVE RAMP STA 400+98.21 TO STA 403+11.73



EXISTING TYPICAL SECTION  
APPLIES TO:  
NB SERVICE DRIVE RAMP STA 6+75.84 TO STA 8+23.83



EXISTING SUPERELEVATED TYPICAL SECTION  
APPLIES TO:  
SB MOUND RD STA 171+18.25 TO STA 177+00.00  
NB MOUND RD STA POB 173+71.52 TO STA 177+00.00



EXISTING HALF TYPICAL SECTION  
APPLIES TO:  
SB MOUND RD STA 176+13.40 TO STA 177+00.00

Innovate Mound Project

REVIEW

APPROVED ☐

APPROVED AS NOTED ☐

ACCEPTED ☒

ACCEPTED AS NOTED ☐

AMEND AND RESUBMIT ☐

REJECTED - SEE REMARKS ☐

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HNTB

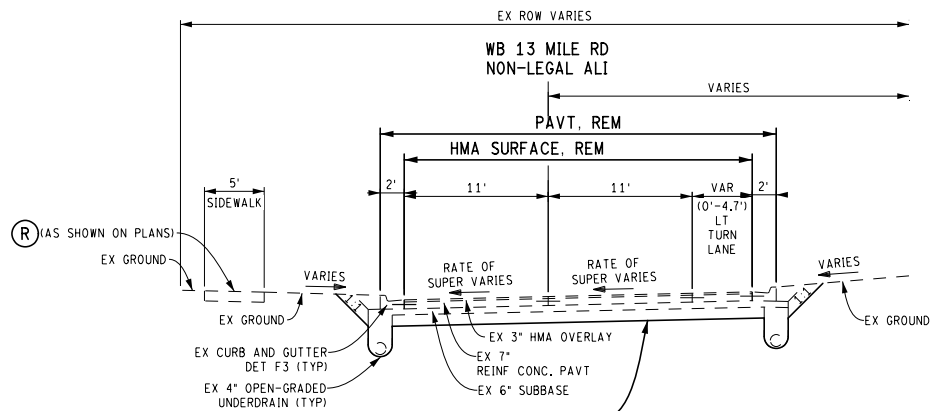
BY Steve G. [Signature]

DATE 10/28/2022

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE: )								<div><div>AECOM</div><div><div>MISSOURI DEPARTMENT OF ROADS</div><div>Department of Roads</div></div></div>	<div><div>0</div><div>HORZ. (FT)</div><div>16</div></div>	DATE: 10/12/22		CS: INFR50000		TYPICAL CROSS SECTIONS		DRAWING	SHEET		
NO.		DATE		AUTH		DESCRIPTION				NO.		DATE		AUTH		DESCRIPTION		MOUND TYP 1	SECT 1 8
FILE: 207178_Ex_Typ_S_Mound.dgn								DESIGN UNIT: XXX		JN: 207178A									
TSC: MACOMB																			

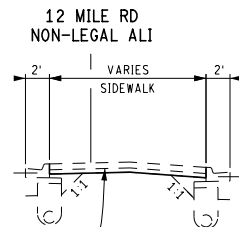






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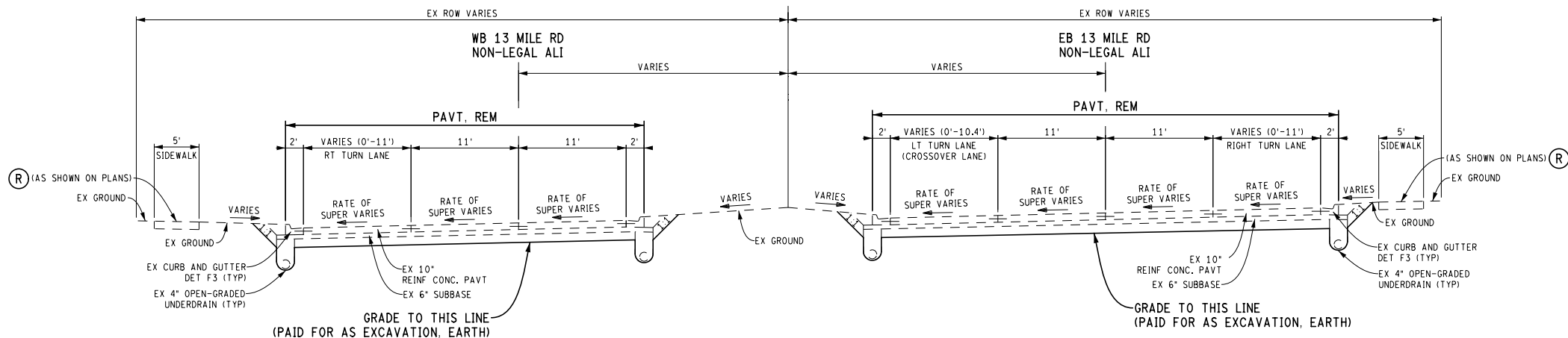
WB 13 MILE RD STA 8+00.00 TO STA 8+12.02



EX 6" CONC. SIDEWALK

EXISTING MEDIAN TYPICAL SECTION  
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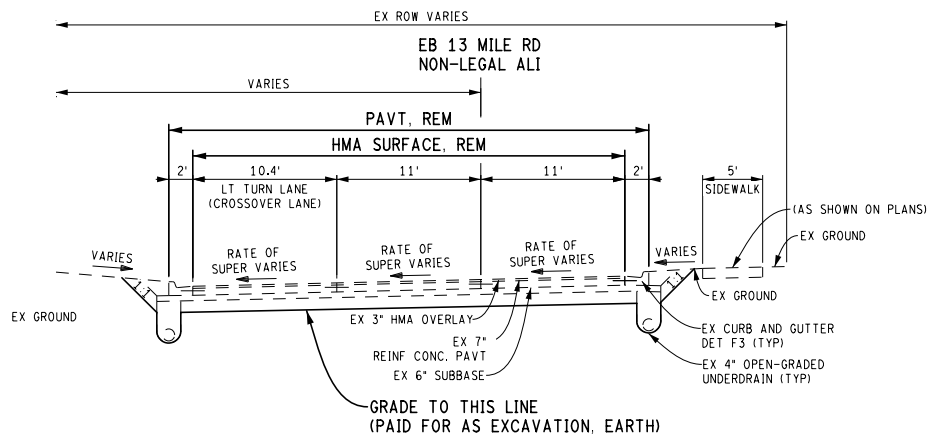
12 MILE RD STA 4+41.75 TO STA 9+17.22  
12 MILE RD STA 9+68.55 TO STA 10+32.16  
12 MILE RD STA 10+83.20 TO STA 13+67.68



EXISTING SUPERELEVATED TYPICAL SECTION  
APPLIES TO:

WB 13 MILE RD STA 8+12.02 TO STA 12+41.79

EB 13 MILE RD STA 7+19.36 TO STA 12+97.48



EXISTING SUPERELEVATED TYPICAL SECTION  
APPLIES TO:

EB 13 MILE RD STA 12+97.48 TO STA 13+35.00

Innovate Mound Project

REVIEW

APPROVED ☐

APPROVED AS NOTED ☐

ACCEPTED ☒

ACCEPTED AS NOTED ☐

AMEND AND RESUBMIT ☐

REJECTED - SEE REMARKS ☐

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HNTB

BY Steve G. [Signature]

DATE 10/28/2022

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE: )								TYPICAL CROSS SECTIONS		DRAWING	SHEET
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION			MOUND TYP	SECT
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AECOM

25 YEARS

OF  
EXPERIENCE

Department of Roads

0

HORZ. (FT)

16

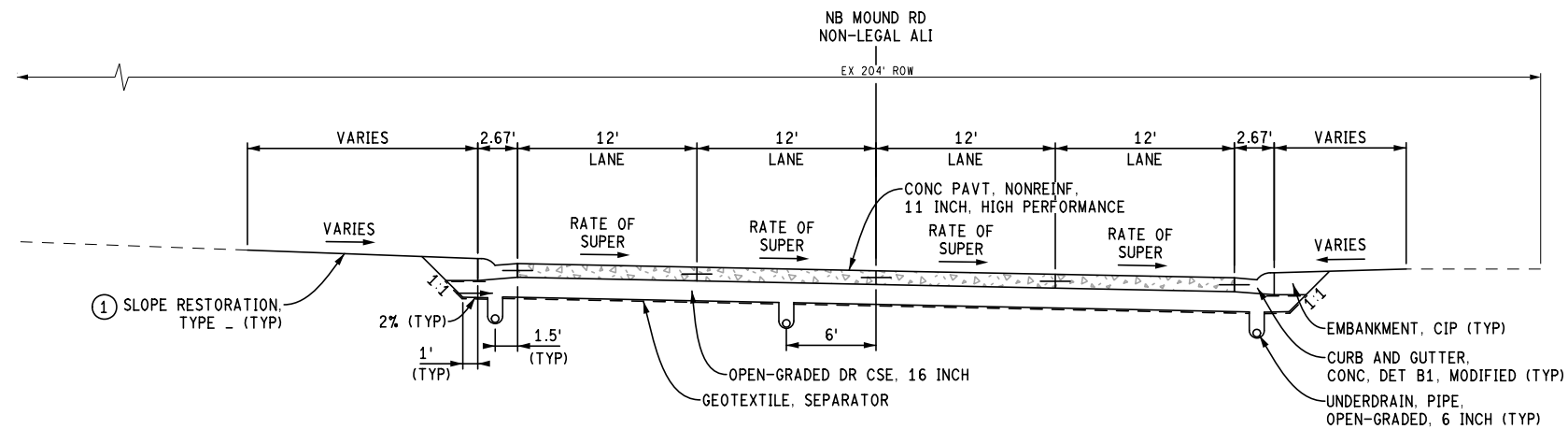
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DESIGN UNIT: XXX

TSC: MACOMB

CS: INFR50000

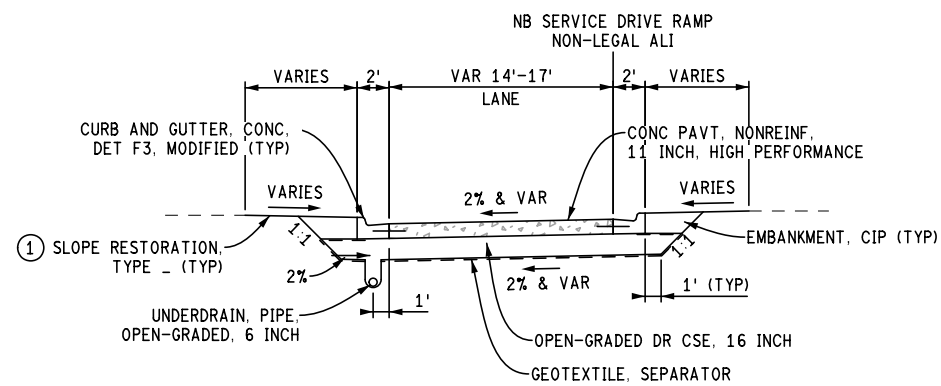
JN: 207178A



PROPOSED SUPERELEVATED TYPICAL SECTION

APPLIES TO:

NB MOUND RD STA 173+71.52 TO STA 179+01.55



PROPOSED RAMP TYPICAL SECTION

APPLIES TO:

NB SERVICE DRIVE RAMP STA 6+75.74 TO STA 8+24.06

Innovate Mound Project

REVIEW

APPROVED ☐

APPROVED AS NOTED ☐

ACCEPTED ☒

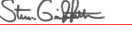
ACCEPTED AS NOTED ☐

AMEND AND RESUBMIT ☐

REJECTED - SEE REMARKS ☐

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HNTB


BY 

DATE 10/28/2022

① SLOPE RESTORATION REQUIRED IN DISTURBED AREAS ONLY

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE: )								TYPICAL CROSS SECTIONS		DRAWING	SHEET
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION			MOUND TYP	SECT
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AECOM

 Department of Roads

0

HORZ. (FT)

12

FILE: 207178\_Pr\_Typ\_S\_Mound.dgn

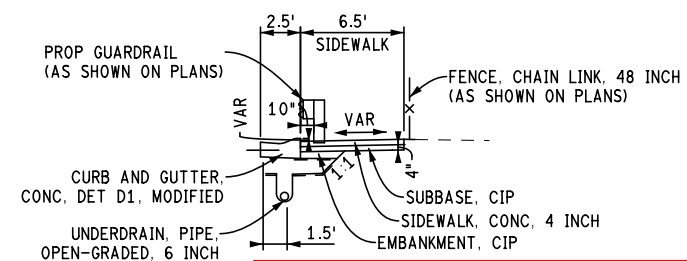
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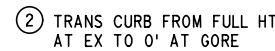
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CS: INFR50000

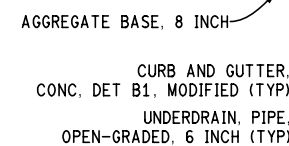
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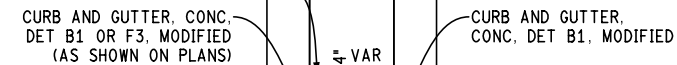
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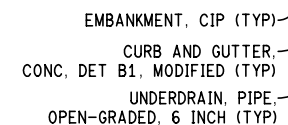
APPLIES TO:

SB MOUND RD POB STA 166+50.21 TO STA 170+14.06



APPLIES TO:

SB MOUND RD STA 175+30.08 TO STA 175+87.27




APPLIES TO:

SB MOUND RD STA 170+14.06 TO STA 175+49.71

IDENT NO.	ITEM	RATE LBS PER SYD	PERFORMANCE GRADE	REMARKS
LVSP-1	HMA, LVSP	220	58-22	PARKING LOT, TOP COURSE / SHOULDER, TOP & BASE
LVSP-2	HMA, LVSP	VAR (330 MAX)	58-22	PARKING LOT, BASE COURSE - VARIES TO MATCH ADJACENT EX PAVT DEPTH
	* BOND COAT	0.05-0.15 GAL		

\*FOR INFORMATION ONLY




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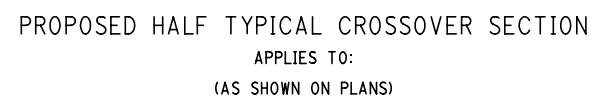
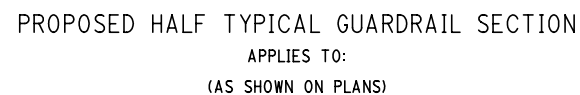
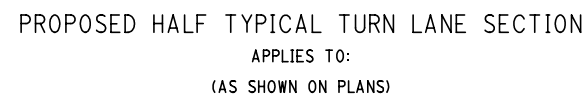
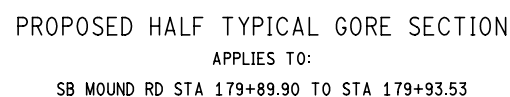
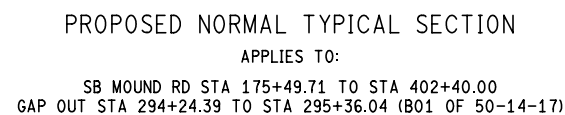
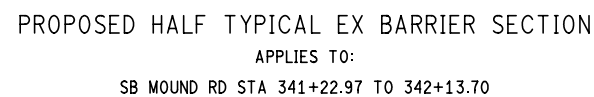
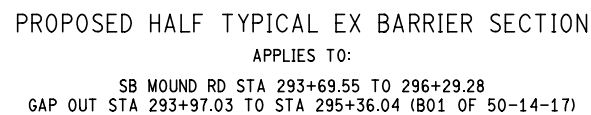
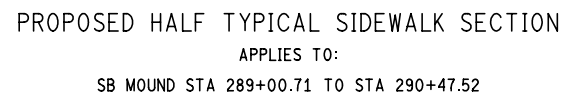
BY  Steve G. Griffin

**HNTB**

**DATE 10/28/2022**

**① SLOPE RESTORATION REQUIRED IN DISTURBED AREAS ONLY**

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE: )									 Department of Roads	 HORZ. (FT)		DATE: 10/12/22	CS: INFR50000	TYPICAL CROSS SECTIONS		DRAWING	SHEET
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION					DESIGN UNIT: XXX	JN: 207178A		MOUND TYP	SECT 1	
										FILE: 207178_Pr_Typ_S_Mound.dgn	TSC: MACOMB						



<p>APPLIES TO:</p> <p>SB SERVICE DRIVE RAMP STA 400+98.17 TO STA 402+95.64</p> <p>REVIEWED AND APPROVED FOR THE CONTRACTOR BY: _____</p> <p>_____ Contractor</p>	<p>AMEND AND RESUBMIT <input type="checkbox"/></p> <p>REJECTED - SEE REMARKS <input type="checkbox"/></p> <p>REVIEWED AND APPROVED FOR THE OWNER BY: _____</p> <p>_____ Owner</p>
--	---




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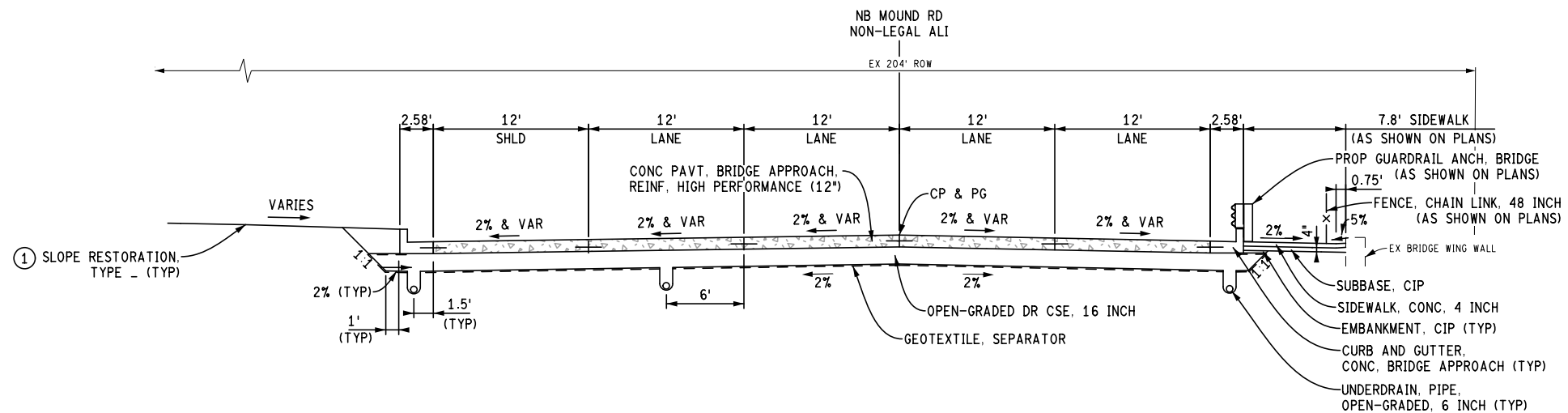


BY Steve G. Gifford

① SLOPE RESTORATION REQUIRED IN DISTURBED AREAS ONLY

② SEE SIDEWALK GRADING PLAN

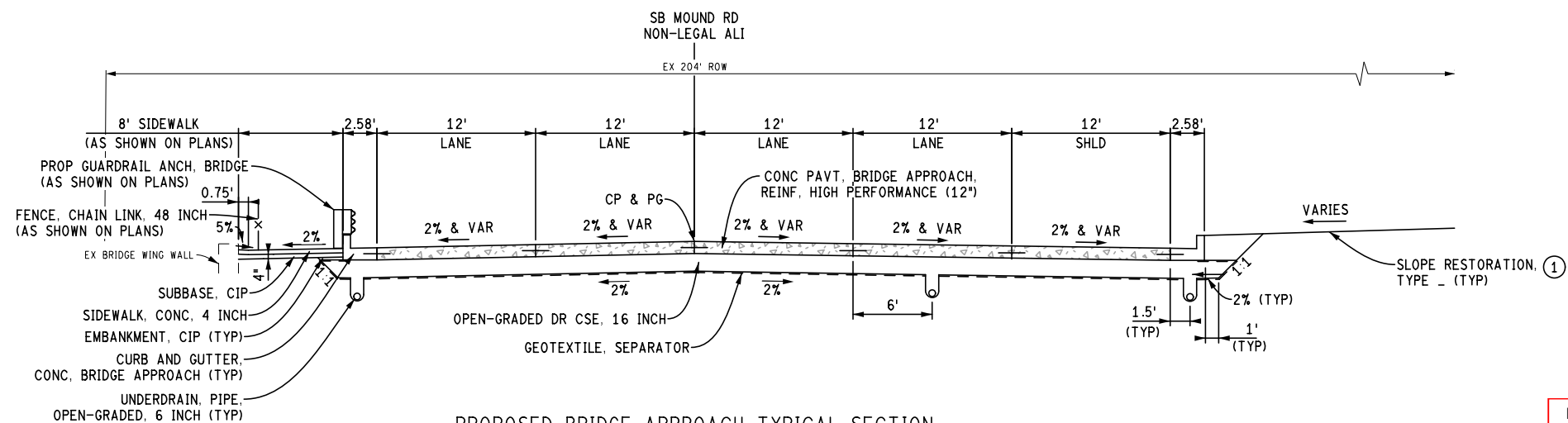
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NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION					DESIGN UNIT: xxx	JN: 207178A		MOUND TYP 7	SECT 1	
												FILE: 207178_Pr_Typ_S_Mound.dgn	TSC: MACOMB			14	



PROPOSED BRIDGE APPROACH TYPICAL SECTION

APPLIES TO:

NB MOUND STA 294+22.68 TO STA 295+36.15 (GAP OUT B01 OF 50-14-17)



PROPOSED BRIDGE APPROACH TYPICAL SECTION

APPLIES TO:

SB MOUND STA 294+22.70 TO STA 295+36.04 (GAP OUT B01 OF 50-14-17)

Innovate Mound Project

REVIEW

APPROVED ☐

APPROVED AS NOTED ☐

ACCEPTED ☒

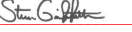
ACCEPTED AS NOTED ☐

AMEND AND RESUBMIT ☐

REJECTED - SEE REMARKS ☐

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HNTB

BY 

DATE 10/28/2022

① SLOPE RESTORATION REQUIRED IN DISTURBED AREAS ONLY

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE: )												TYPICAL CROSS SECTIONS		DRAWING	SHEET
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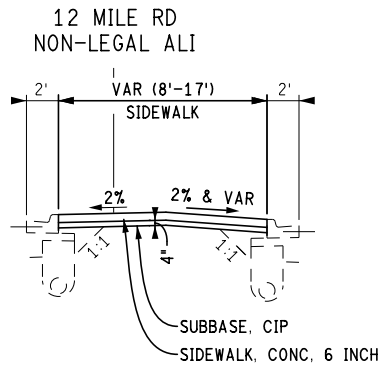
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DATE: 10/12/22  
DESIGN UNIT: XXX  
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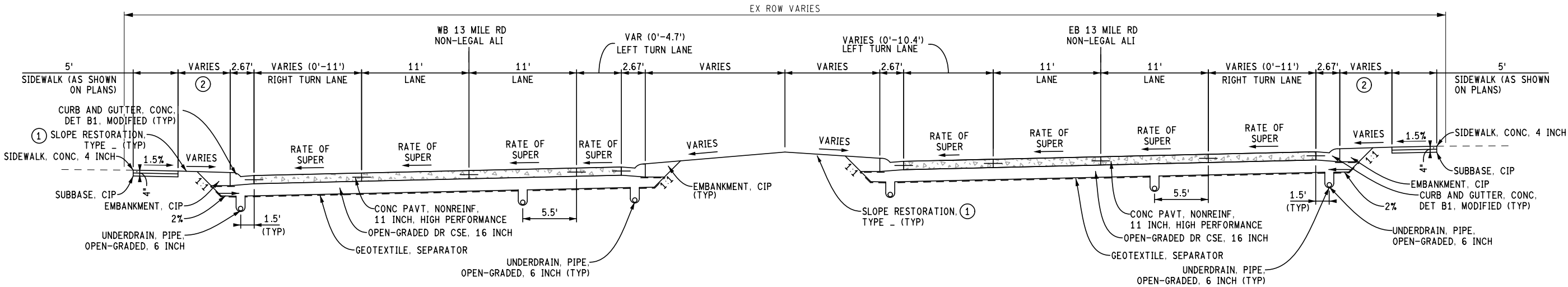




PROPOSED MEDIAN TYPICAL SECTION

APPLIES TO:

12 MILE RD STA 4+41.75 TO STA 9+17.22  
12 MILE RD STA 9+68.55 TO STA 10+32.16  
12 MILE RD STA 10+83.20 TO STA 13+67.68



PROPOSED SUPERELEVATED TYPICAL SECTION

APPLIES TO:

WB 13 MILE RD STA 8+00.00 TO STA 12+41.79

EB 13 MILE RD STA 7+19.36 TO STA 13+35.00

Innovate Mound Project

REVIEW

APPROVED ☐

APPROVED AS NOTED ☐

ACCEPTED ☒

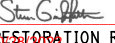
ACCEPTED AS NOTED ☐

AMEND AND RESUBMIT ☐

REJECTED - SEE REMARKS ☐

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HNTB

BY 

① SLOPE RESTORATION REQUIRED IN DISTURBED AREAS ONLY

② SEE SIDEWALK GRADING PLAN

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE: )								TYPICAL CROSS SECTIONS				DRAWING	SHEET
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION					LOCAL TYP	SECT 1
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AECOM

25 YEARS OF EXCELLENCE

Department of Roads

0

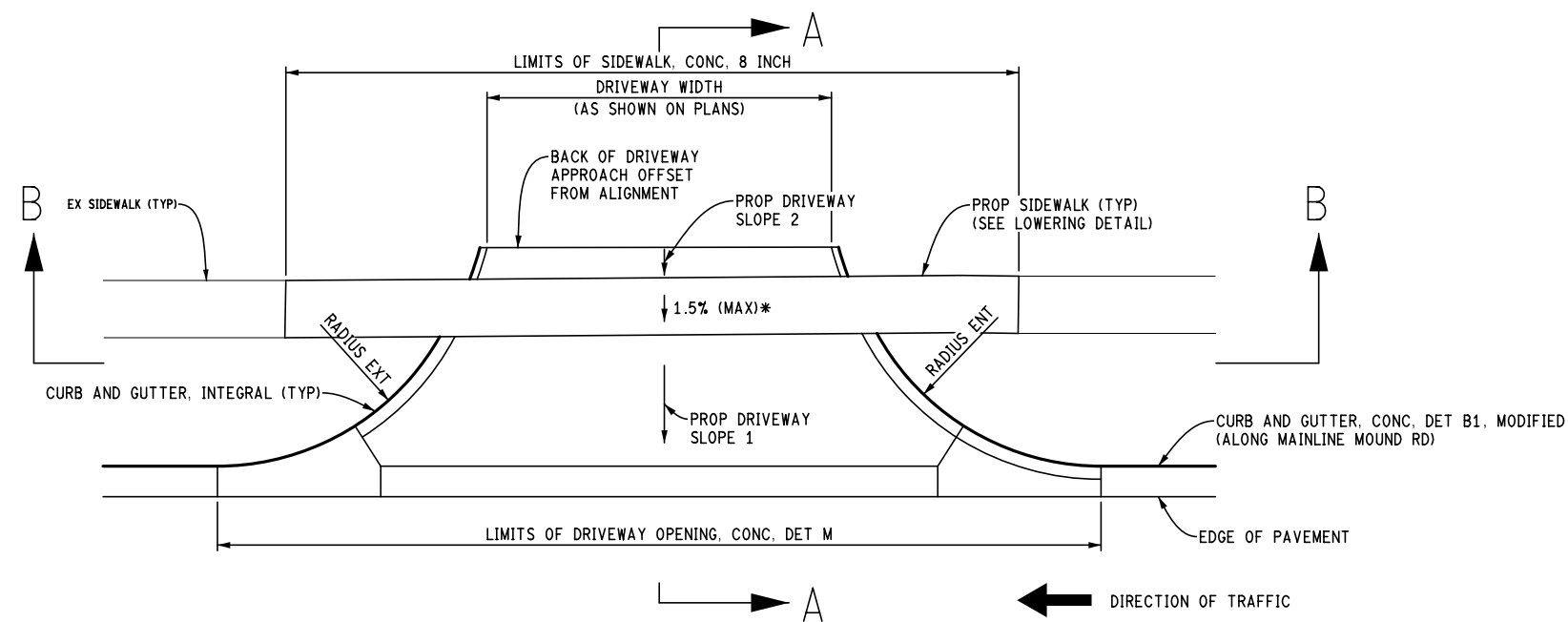
HORZ. (FT)

12

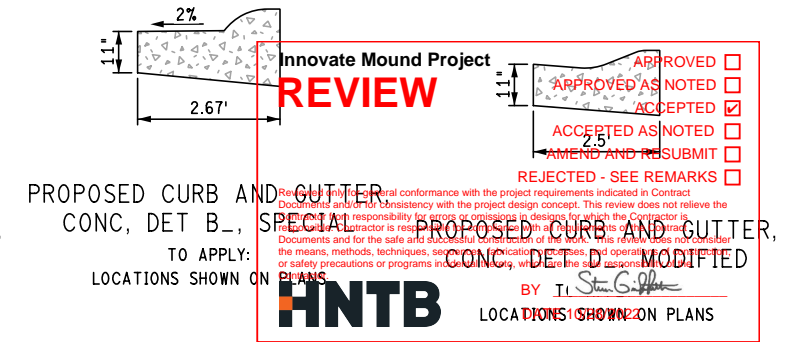
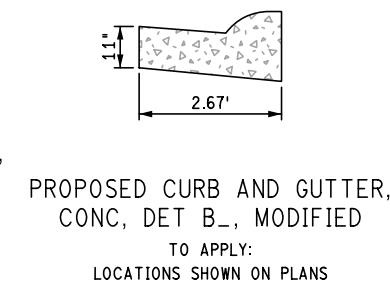
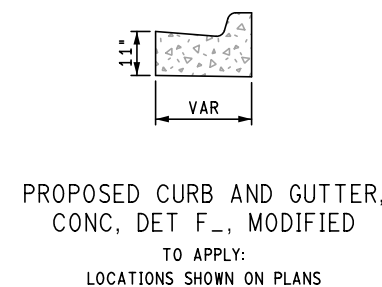
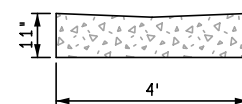
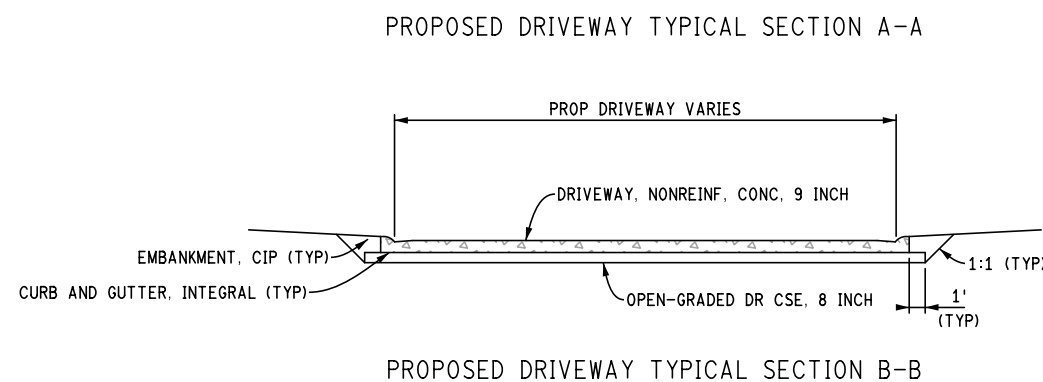
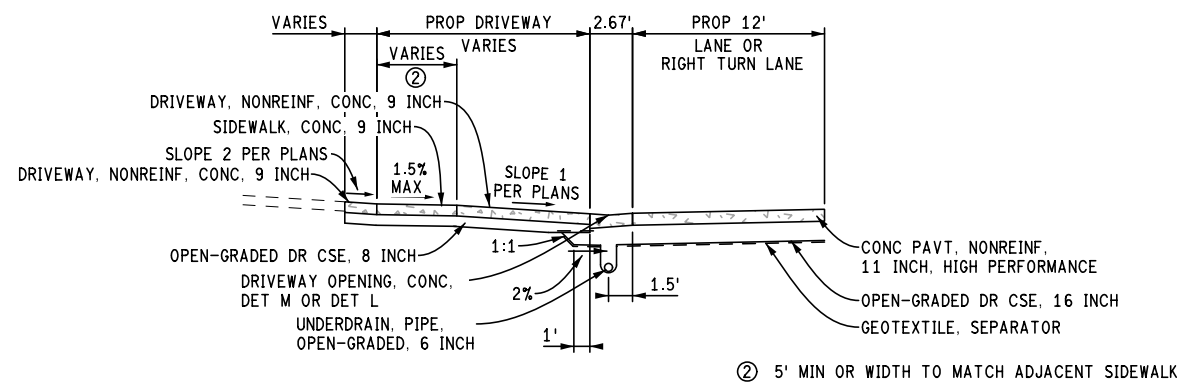
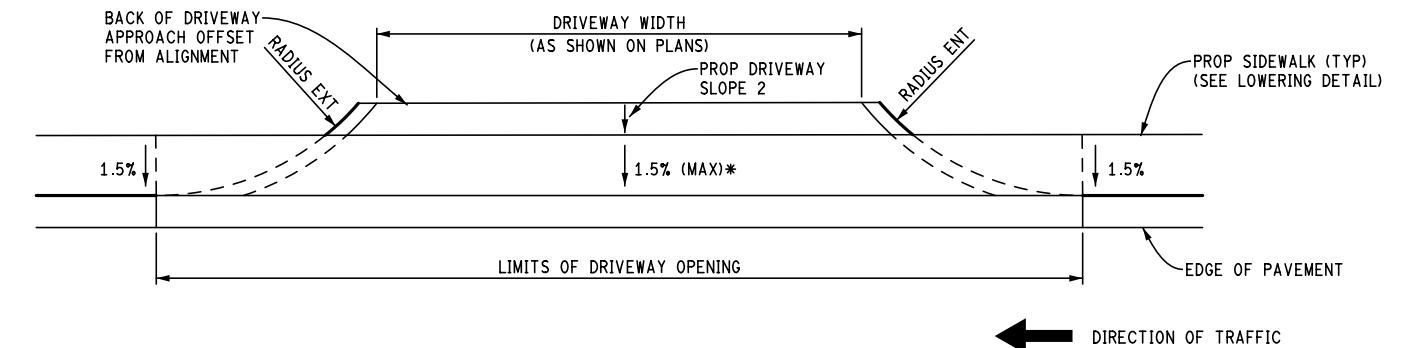
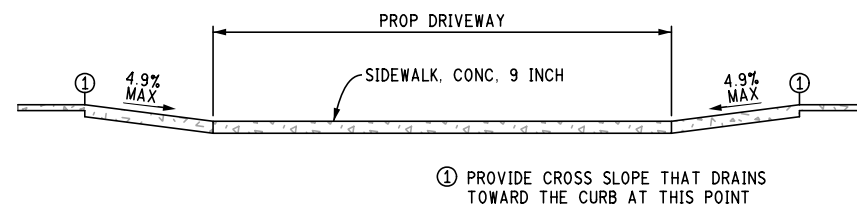
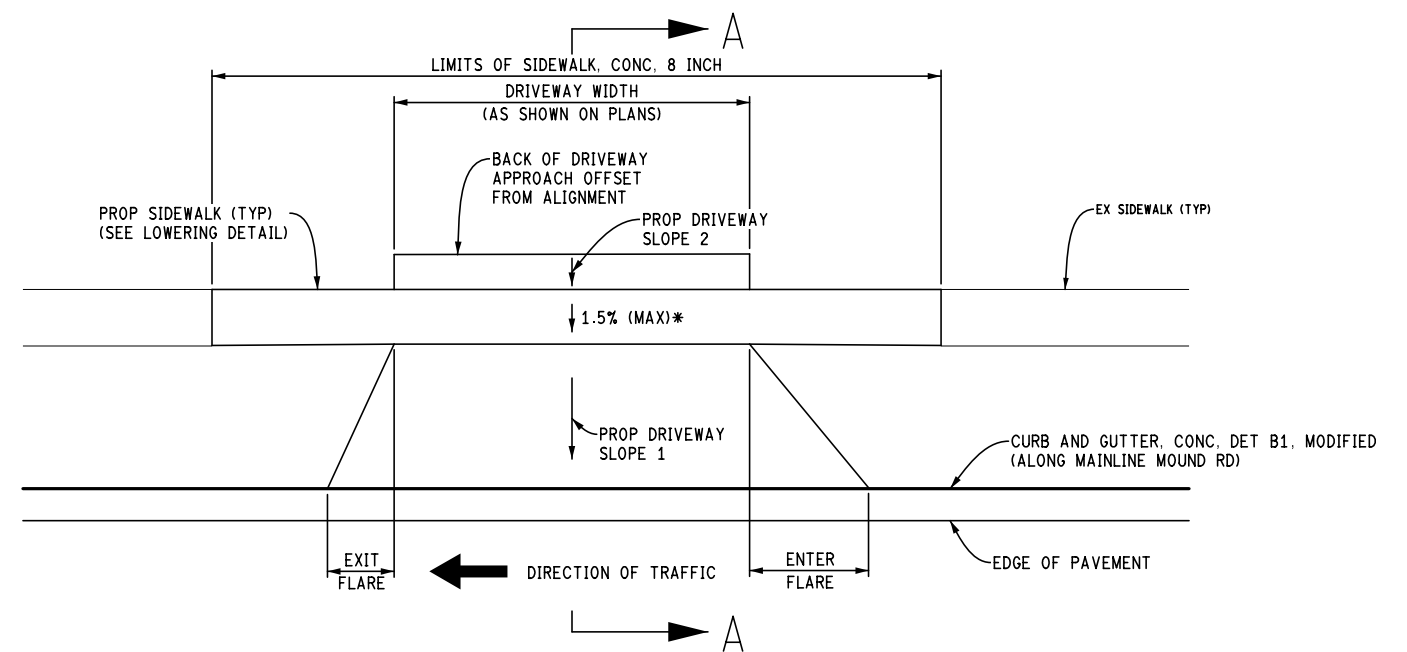
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TSC: MACOMB

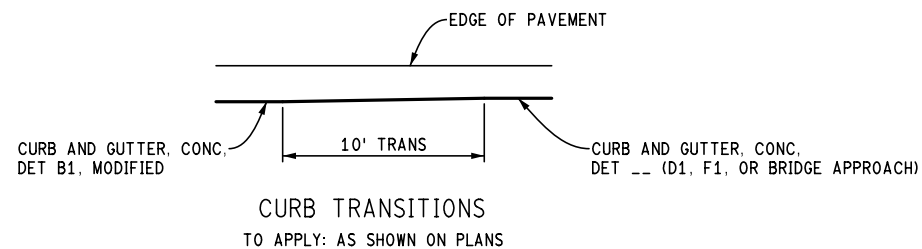
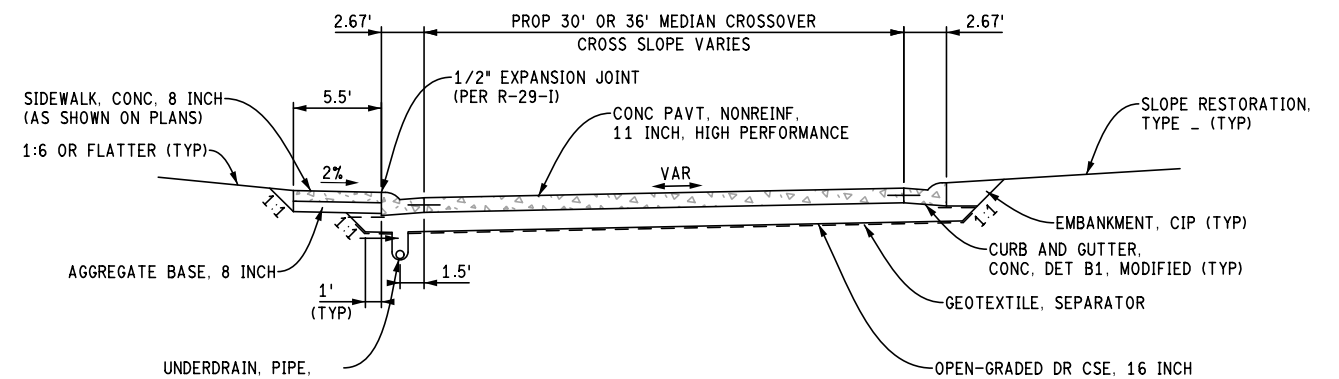
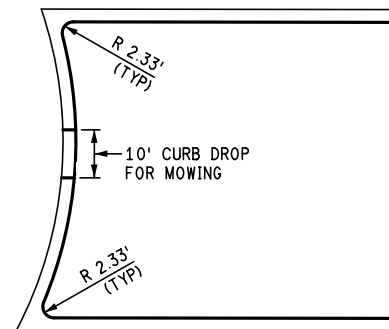
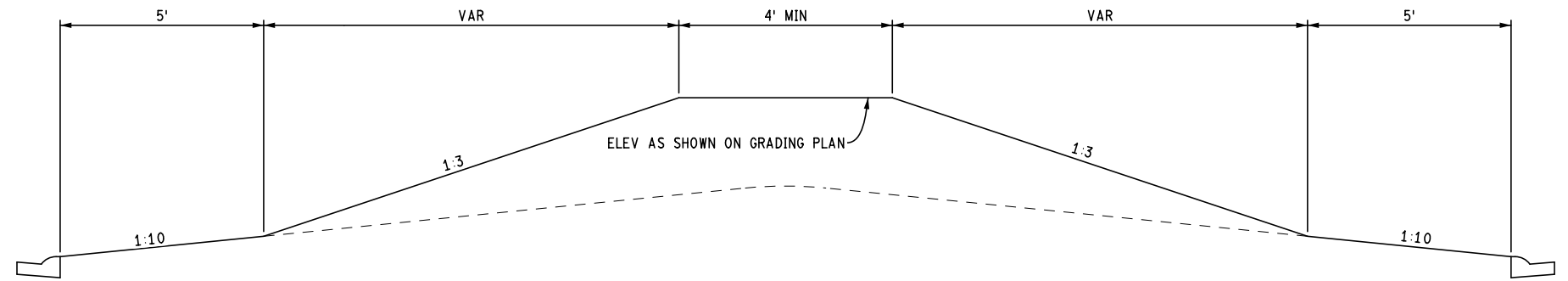
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JN: 207178A



\* SEE GRADING DETAIL SHEET FOR  
SIDEWALK SLOPES UNDER 1.5%



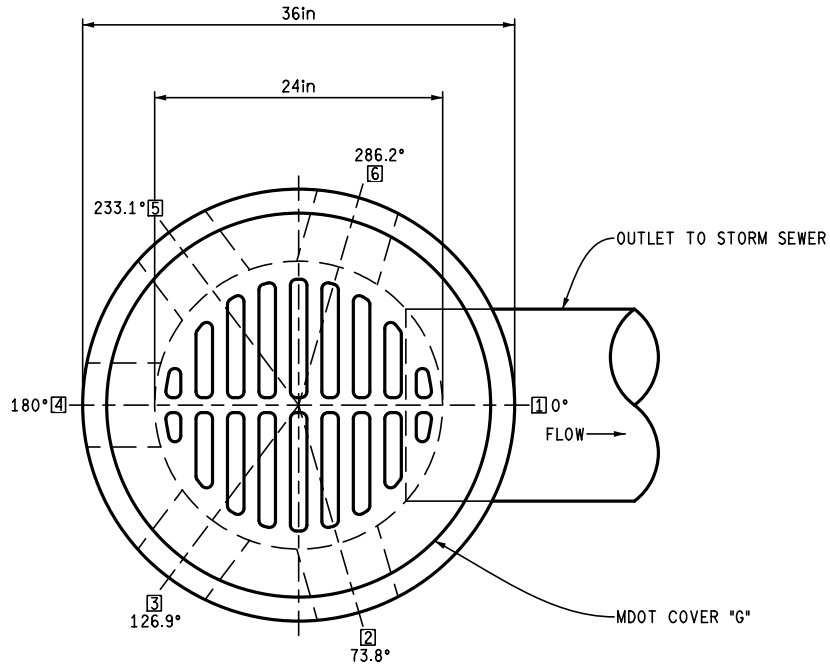
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NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION				DESIGN UNIT: XXX	JN: 207178A		MOUND MSCDET	SECT 1	
										FILE: 207178_S_Mound_DET_01.dgn	TSC: MACOMB				1	17



FINAL ROW PLAN REVISIONS (SUBMITTAL DATE: )							
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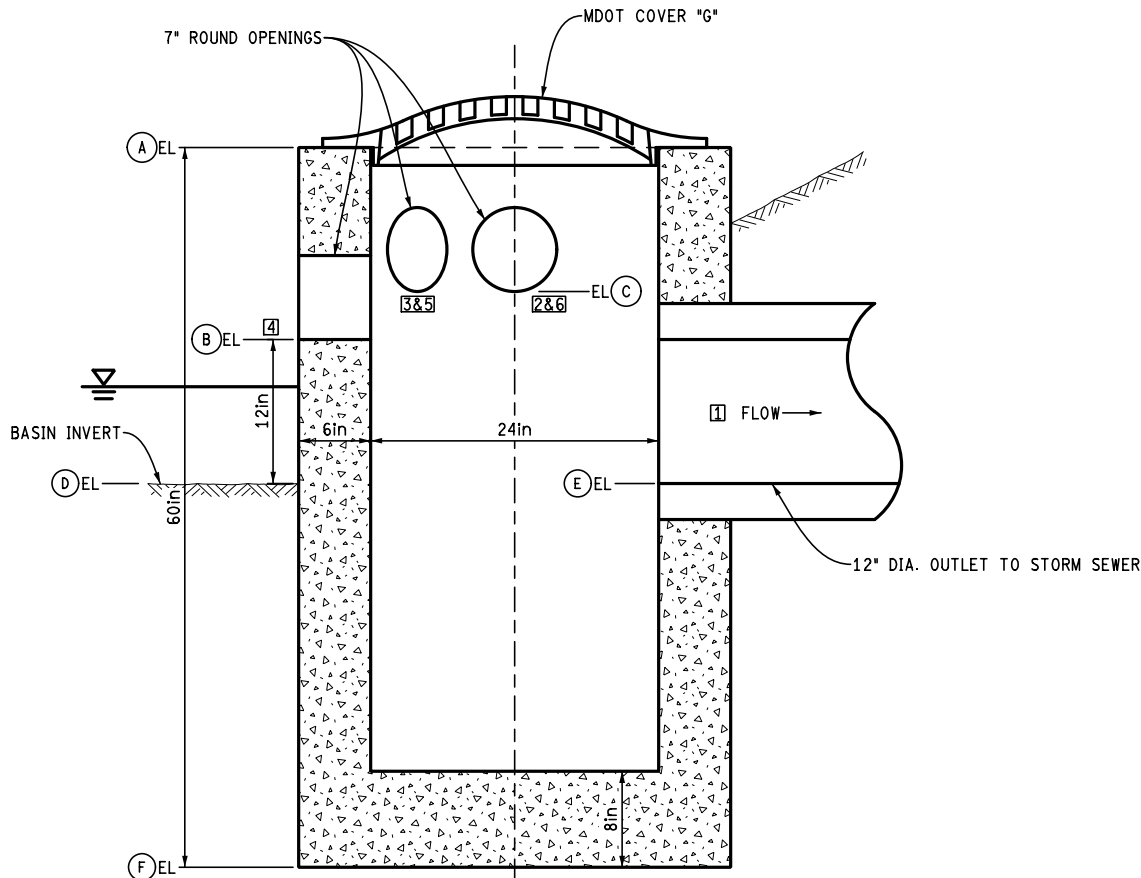
DRAWING	SHEET
FOUND MSCDET 2	SECT 1  18

BY Sten Gifford  
DATE 10/28/2022



PLAN VIEW (TYPICAL)

Riser Structure ID	Elevations						Outlet to MH
	A	B	C	D	E	F	
IN-3460	611.86	610.86	611.11	609.86	609.86	606.86	600386
IN-3470	612.03	611.03	611.28	610.03	610.03	607.03	600386
IN-3500	613.70	612.70	612.95	611.70	611.70	608.70	600389



SECTION - BASIN RISER

Innovate Mound Project

REVIEW

APPROVED ☐

APPROVED AS NOTED ☐

ACCEPTED ☒

ACCEPTED AS NOTED ☐

AMEND AND RESUBMIT ☐

REJECTED - SEE REMARKS ☐

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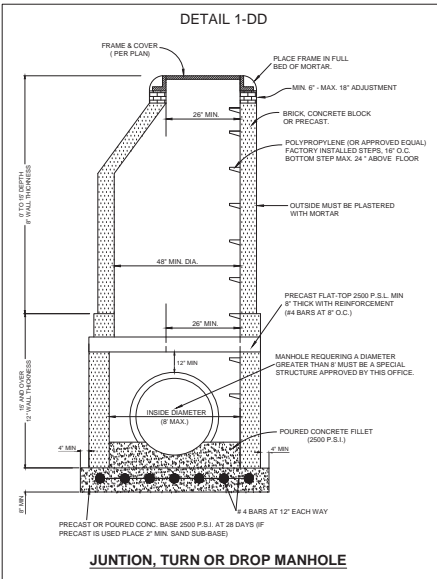
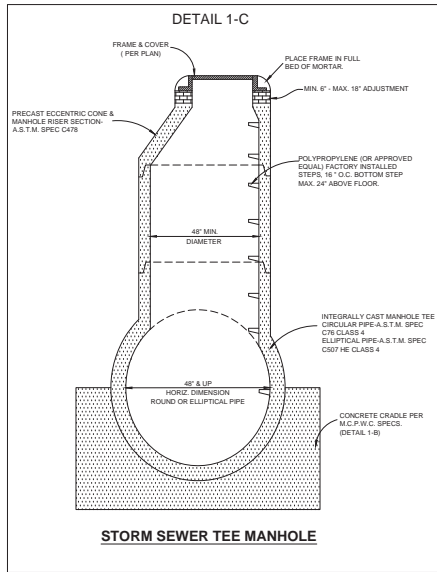
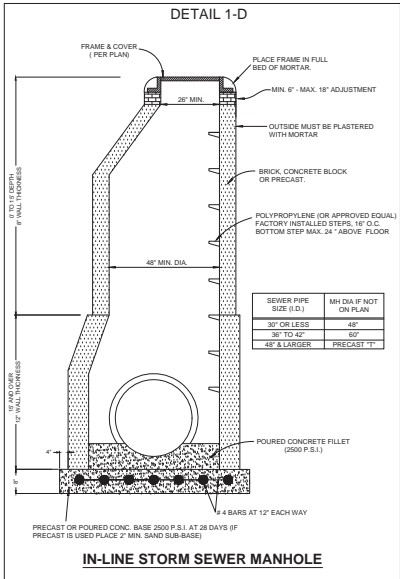
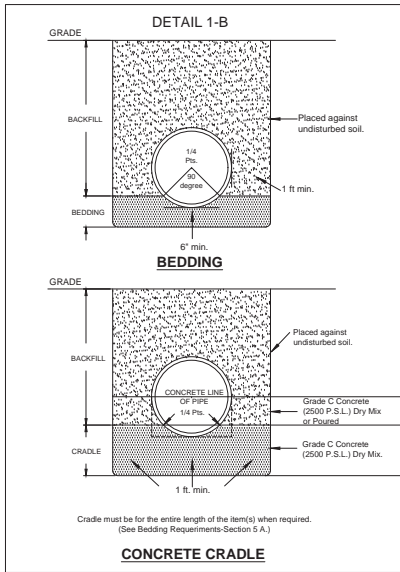
HNTB

BY Steve G. [Signature]

DATE 10/28/2022

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE: )								<div><div>AECOM</div><div><div>MAHARAJA</div><div>Department of Roads</div></div></div>		NO SCALE		DATE: 10/12/22 DESIGN UNIT: XXX FILE: 207178_S_Mound_Riser_DET_RoundTop.MACOMB		CS: INFR50000 JN: 207178A		MISCELLANEOUS DETAILS		DRAWING SHEET MOUND MSCDET 3 SECT 1 19	
DETENTION BASIN RISERS																			





**DETAIL 1-Z.1**  
**ROAD R.O.W. UTILITY TRENCH**  
**TYPE B**

Bedding and Backfill of pipe within the Road R.O.W. must meet the requirements of MDOT as specified in the MDOT Standards IV-83G **TYPE B** Utility Trench dated 10-22-91. (See Detail 1-Z.2)

Class IIIA material shall be as defined by MDOT Supplemental Specifications for Utility Trench dated 4-25-91. (See Detail 1-Z.3)

Class III Granular Material shall consist of sand which meets the specifications described in Table 8.02-3, 1990 MDOT Standard Specifications for Construction. (See Detail 1-Z.4)

If pea gravel is used for Class IIIA material within the Road R.O.W. a filter fabric must be placed between the Class IIIA material and Class III material. Said filter fabric must meet requirements of MDOT Standards 8.09.02 Geotextiles. (See Detail 1-Z.5)

And acceptable alternative to using the filter fabric is to add a sand cement dry mix (Grade C-2500 P.S.I.) to the Class IIIA material within the Road R.O.W.

**DETAIL 1-Z.3**  
**MICHIGAN DEPARTMENT OF TRANSPORTATION BUREAU OF HIGHWAYS**  
**SUPPLEMENTAL SPECIFICATION FOR UTILITY TRENCH BACKFILL**

1 of 1

10-10-90  
FHWA Approval 04-25-91

a. Description - This work shall consist of backfilling trenches where called for on the plans with a porous bedding material in accordance with the typical trench sections shown on Standard Plan IV-83 Series. Granular Material Class IIIA for use as trench backfill may also consist of crushed concrete.

b. Material - The porous bedding materials for backfilling sewer trenches shall be Granular Material Class IIIA and shall meet the requirements specified in Subsection 8.02.06 of the 1990 Standard Specifications with the following additions:

The following material is hereby added to Table 8.02-3:

MATERIAL	SIEVE ANALYSIS (ASTM C 136) TOTAL PERCENT PASSING (a)										Lost by Washing (a) Percent
	6"	3"	2"	1"	1/2"	3/8"	No. 4	No. 30	No. 100	No. 400	
Class IIIA	150 mm	75 mm	50 mm	25 mm	12.5 mm	9.5 mm	4.75 mm	0.60 mm	0.150 mm	0.075 mm	0-5

(a) Based on dry weights.

The following sentence is hereby added at the end of the first paragraph:

Granular Material Class IIIA for use as trench backfill may also consist of crushed concrete.

c. Construction Methods - Trenches shall be backfilled and compacted in accordance with the methods specified under Backfilling. Subsection 5.13.08, of the 1990 Standard Specifications, except the third paragraph is hereby deleted and is replaced with the following paragraph:

Backfill for sewer within the limits of the roadbed as shown on the plans or as directed by the Engineer shall be Granular Material as shown on the plans and shall be compacted to 95 percent of Maximum Unit Weight.

d. Measurement and Payment - The completed work as measured for UTILITY TRENCH will not be paid for separately. Payment for such work will be considered as having been included in the contract unit prices bid for pay items in the contract.

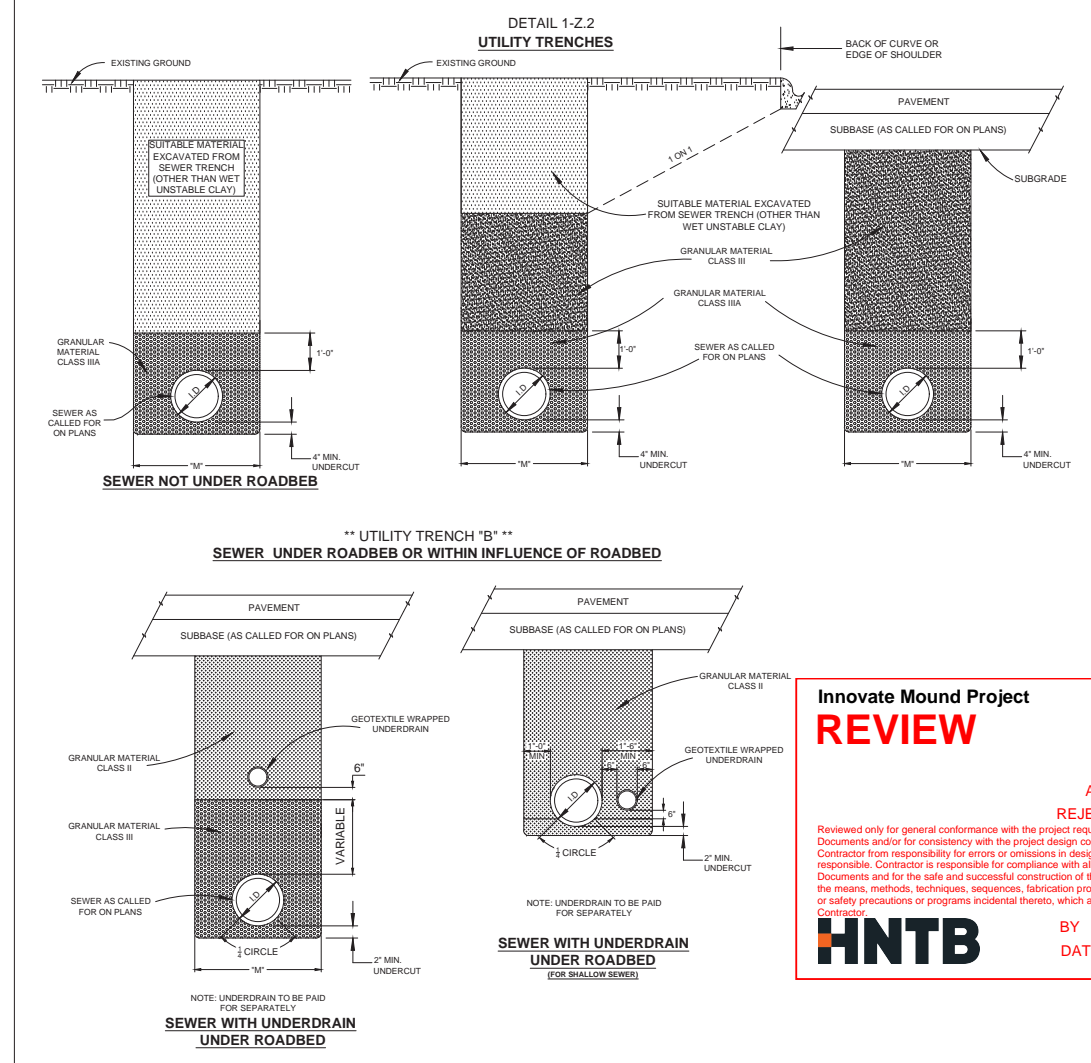
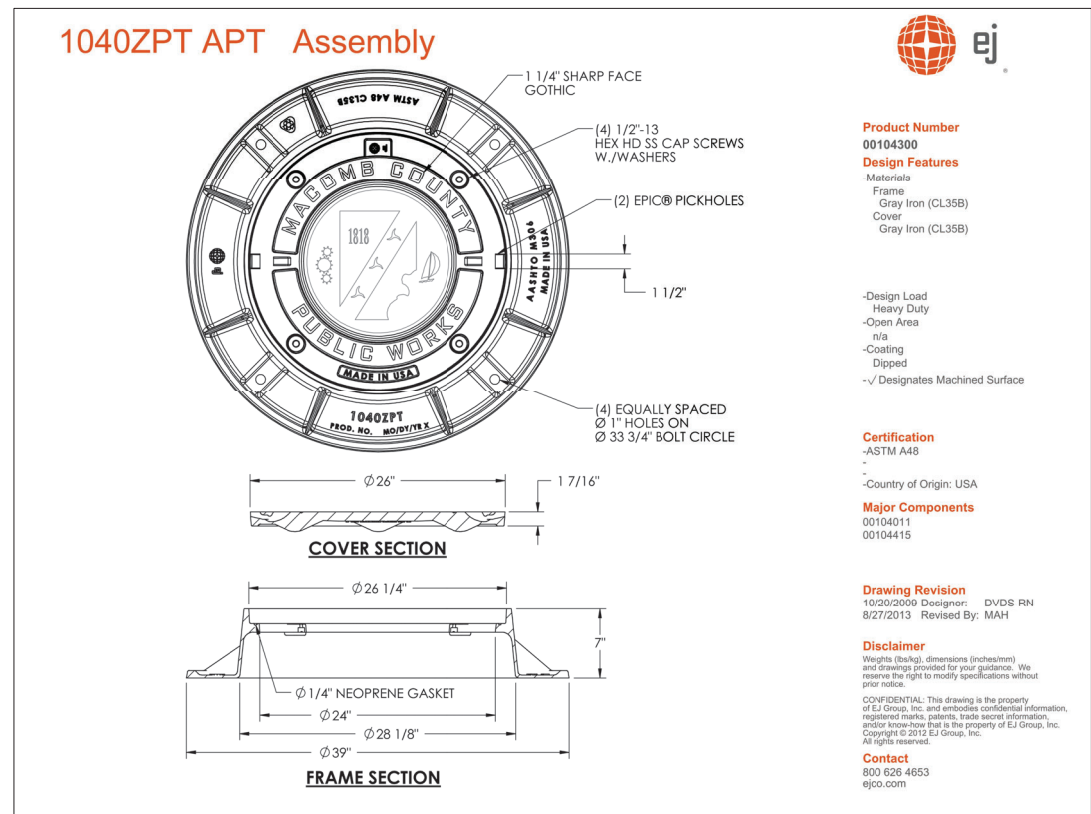
**DETAIL 1-Z.4**  
**Table 8.02-3 Grading Requirements for Granular Materials**  
**1990**

MATERIAL	SIEVE ANALYSIS (ASTM C 136) TOTAL PERCENT PASSING (a)										Lost by Washing (a) Percent
	6"	3"	2"	1"	1/2"	3/8"	No. 4	No. 30	No. 100	No. 400	
Class I	150 mm	75 mm	50 mm	25 mm	12.5 mm	9.5 mm	4.75 mm	0.60 mm	0.150 mm	0.075 mm	0-5
Class II(b)		100	100	60-100	45-85	20-85	5-30		0-30	0-7(c)	
Class IIa(b)		100	100	60-100					0-35	0-10(c)	
Class III	100	95-100							0-15(c)	0-15(c)	

(a) Based on dry weights.

(b) Except for use in Granular Blankets. Class IIA granular material may be substituted for Class II granular material for projects located in the following counties: Arenac, Bay, Genesee, Gladwin, Huron, Lapeer, Macomb, Midland, Oakland, Saginaw, Sanilac, Shawassee, St. Clair, Tuscola, and Wayne counties.

(c) To be determined on that portion of the sample which passes the 1 inch sieve.



8.08.17 obtain specimens of the shape and size specified for the Compression Set Test, a specimen of the largest obtainable size shall be used and the Compression Set shall not be more than 30 percent.

c. External Type Rubber Gaskets. - External rubber gaskets, mastic, and protective film for seating culvert and sewer joints shall meet the requirements of ASTM C 877.

8.08.18 Metal End Sections. - Metal end section shall be fabricated in accordance with the details shown on the plans and shall be furnished complete with coupling bands or hardware as indicated in the plans. The metallic coating on the end sections shall be the same as the metallic coating on the pipe, except zinc coated steel end sections may be used with aluminum coated steel pipe. Metal end sections shall conform to AASHTO M 36, where applicable.

8.08.19 Concrete End Sections. - Precast concrete sections shall be constructed of concrete and reinforcement conforming to the requirements of AASHTO M 170 (ASTM C 76). Class II as modified by details shown on the plans. Concrete for end sections made by the dry-pack process shall contain a minimum of 658 pounds of cement per cubic yard and a liquid air entraining agent used at four times the dosage as needed for conventional slump concrete. Concrete to pipe culvert shall be by of tongue and groove joints.

#### 8.09 GEOTEXTILES

8.09.01 General Requirements. - Geotextiles shall be stored and handled carefully and in accordance with the manufacturer's recommendations. Torn or punctured geotextiles shall not be used unless repaired to the satisfaction of the Engineer. The minimum certifiable values will be based on a 95 percent confidence level and for directional properties the minimum principle direction will control.

8.09.02 Geotextiles for Pipe-Wrap, Trench Linings, and Ditch Linings. - Geotextiles for pipe wrap, trench linings, and ditch linings, shall weigh at least 3.5 ounces per square yard in the condition of use and shall meet the requirements of AASHTO M 288, with the following modifications to the values listed in Table 1:

The range for Apparent Opening Size (A.O.S.) shall be 70-120 (U.S. Standard Sieve Size).  
The minimum requirement for Coefficient of Permeability shall be 0.02 cm/sec.  
The minimum requirement for Flow Rate shall be 60 gal/min/ft2.

For pipe wrap where the backfill being used around the pipe is

Granular Material Class II or better polyester geotextiles having an A.O.S. in the range of 20 to 100, weighing at least 3.0 ounces per square yard in the condition of use, and having a nominal Burst Strength of 100 psi when tested in accordance with ASTM D 3786 will be permitted as an alternate pipe wrap.

8.09.03 Geotextiles for Granular Blanket. - Geotextiles used in granular blankets shall meet the requirements for geotextiles used for trench and ditch linings with an additional requirements that the fabric shall have a rough surface to provide a high soil-to-fabric friction value.

8.09.04 Geotextile Liner for Riprap. - The geotextiles liner for areas to be riprapped shall weigh at least 4.5 ounces per square yard in the condition of use, shall contain a small amount of non-toxic lamblack as an ultraviolet inhibitor, and shall meet the requirements of AASHTO M 288, with the following modifications to the values listed in Table 1:

The minimum requirement for Tensile Strength shall be 200 lbs  
The minimum requirement for Burst Strength shall be 250 psi.  
The range for Apparent Opening Size (A.O.S.) shall be 70-120 (U.S. Standard Sieve Size)

8.09.05 Three- Dimensional Mesh. - Three dimensional mesh meeting the approval of the Engineer may be used as an alternate to open-graded aggregate used as a drainage layer. The Engineer's approval of a three-dimensional mesh will be based on such characteristics as durability, strength, resistance to crushing, and thickness. The geotextile to be placed above and below the three dimensional mesh may be heat-bonded or otherwise attached to the mesh.

8.09.06 Geotextile Silt Fence. - Geotextile silt fence shall be commercially produced product for that purpose which has the following properties:

Property	Value	Unit	Test Method
Grab Tensil Strength	100 (minimum)	lbs	ASTM D 463
Trapezoid Tear Strength	45 (minimum)	lbs	ASTM D 453
Mullen Burst Strength	280 (minimum)	psi	ASTM D 378
U.V. Resistance (Strength Retained)	70 (minimum)	%	ASTM D 435
Water Flow Rate	30 (minimum)	gal/min/ft2	AASHTO M 28
Apparent Opening Size	0.600 (minimum) No. 30 (minimum)(U.S. Std. mesh)	mm	AASHTO D 475

**Innovate Mound Project**  
**REVIEW**

Reviewed only for general conformance with the project requirements indicated in Contract Documents and/or for consistency with the project design concept. The reviewer does not relieve the Contractor from responsibility for errors or omissions in designs for which the Contractor is responsible. Contractor is responsible for compliance with all requirements in the Contract Documents and for the safe and successful construction of the work. This review does not consider the means, methods, techniques, sequences, fabrication processes, and operations of construction, or safety precautions or programs incidental thereto, which are the sole responsibility of the Contractor.

BY: *Steve G. Miller*  
DATE: 10/28/2022

APPROVED ☐  
APPROVED AS NOTED ☐  
ACCEPTED ☒  
ACCEPTED AS NOTED ☐  
AMEND AND RESUBMIT ☐  
REJECTED - SEE REMARKS ☐

**HNTB**

**PLAN VIEW (NOT TO SCALE)**

Labels in Plan View:

- TOE OF SLOPE
- TOE OF DRAIN
- CENTERLINE
- 90 deg angle
- FLOW
- TOE OF SLOPE
- FLARED END SECTION
- PIPE
- LINE
- ROW
- Manhole to be placed just inside ROW Line No Sump.
- TOP OF BANK

Annotation in Plan View:

- This area feathered to match end section and provide a smooth transition to drain bank.

**SECTION A-A (NOT TO SCALE)**

Labels in Section A-A:

- PIPE not to extend beyond intersection of top of pipe and drain bank. I.E. Pipe not to be exposed.
- FEATHERED AREA
- MIN. SLOPE %
- ROW Line

Annotation in Section A-A:

- Tap to open drain last 2 pipe plus end-section to be bedded in sand-cement dry-mix. Grade C (2500 P.S.I. - 5.0 sack)

**TYPICAL DETAIL OF TAP TO OPEN DRAIN**

- NOTE:  
IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY ANCHOR THE RECP's.

**PLAN VIEW**

Diagram showing the top view of the riprap structure. Dimensions include: 2' MIN. (width of the top section), 2' MIN. (width of the bottom section), D (total width), L (length of the structure), and A (width of the opening).

**SECTION A-A**

Diagram showing a cross-section of the riprap structure. Dimensions include: 12" MIN. (height of the riprap layer), 6" MIN. (height of the concrete header), and 12" MIN. (width of the riprap layer). Labels include: GRADE P2 CONCRETE HEADER, GEOTEXTILE LINER PLACE UNDER RIPRAP, and 2' MIN. (width of the riprap layer).

**SECTION B-B**

Diagram showing a cross-section of the riprap structure, similar to Section A-A, but with a different internal structure.

**SECTION C-C**

Diagram showing a cross-section of the riprap structure. Dimensions include: 8 INCH MIN. STONE SIZE (stone size), 4" (width of the riprap layer), and 4" GROUT (grout size). Labels include: SEE DETAIL D and GEOTEXTILE LINER.

**DETAIL D**

Diagram showing a detail of the riprap structure. Dimensions include: 4" GROUT (IF RIPRAP GROUTED CALLED FOR ON PLANS) and GEOTEXTILE FABRIC.

PIPE DIA.	D	E	F	Syd
12"	5'-0"	6'-6"	3'-0"	3.7
15"	5'-0"	7'-0"	3'-0"	4.1
18"	5'-0"	7'-6"	3'-6"	4.3
21"	5'-6"	8'-0"	4'-0"	5.4
24"	6'-0"	8'-6"	4'-6"	6.3
27"	6'-6"	9'-0"	5'-0"	7.3
30"	7'-0"	9'-9"	5'-6"	8.4
36"	8'-0"	10'-9"	6'-0"	10.3
42"	9'-0"	11'-9"	6'-6"	12
48"	10'-0"	13'-0"	7'-0"	14.2
54"	11'-0"	13'-6"	7'-6"	15.9
60"	12'-0"	14'-0"	8'-0"	17.6

**MANHOLE TAP**

REQUIRE COLLARS TO BE FORMED AND POURED IN PLACE

CLASS B CONCRETE COLLAR AND BEDDING SHALL BE A MINIMUM OF 12" X 12". SHALL BE PLACED ON UNDISTURBED SOIL AND EXTENDED TO THE FIRST JOINT OF THE PROPOSED TAP.

NO BRICK OR BLOCK TO BE USED IN COLLARS

12" MIN

JOINT IN EXISTING DRAIN

NO BRICK OR BLOCK TO BE USED IN COLLARS

CLASS B CONCRETE COLLAR AND BEDDING SHALL BE A MINIMUM OF 12" X 12". SHALL BE PLACED ON UNDISTURBED SOIL AND EXTEND TO THE FIRST JOINT OF PROPOSED TAP.

12" MIN

UNDISTURBED SOIL

THE TAP SHALL BE MADE IN A MANNER SUCH THAT IT WILL NOT HINDER ACCESS WITHIN THE MANHOLE AS PROVIDED

IF "C" IS LESS THAN 18" THEN "D" NOT TO BE LESS THAN 24"

12" MIN

ALLOWABLE ANGLE

UPPER QUARTER	45 - 90
LOWER QUARTER	45 - 60

MAXIMUM ALLOWABLE TAP TO A MANHOLE SHALL BE 24" DIAMETER

THE PROPOSED TAP SHALL BE ABOVE THE EXISTING CONCRETE FILLET.

6" SPIGOT TAP SADDLE EPOXY TO  
CORED HOLE IN CONCRETE PIPE  
(AS MANUFACTURED BY PREDCO  
1-800-323-6188 OR APPROVED EQUAL)

3" SCH 40 PVC

6" - 3" FERNCO COUPLING

CONCRETE PIPE

PLAN VIEW

**SUMP PUMP LEAD CONNECTION DETAIL**  
**FERNCO COUPLING (NO SCALE)**

Reserved only for general conformance with the project requirements indicated in Contract Documents and/or for consistency with the project design concept. This review does not relieve the Contractor from responsibility for errors or omissions in designs for which the Contractor is responsible. Contractor is responsible for compliance with all requirements of the Contract Documents and for the safe and successful construction of the work. This review does not consider the means, methods, techniques, sequences, fabrication processes, and operations of construction, or safety precautions or programs incidental thereto, which are the sole responsibility of the Contractor.

BY Steven G. Harte  
DATE 10/28/2022











**CONTROL PT#: 300**  
DESCRIPTION: SET 5/8" X 36" REROD WITH YELLOW SSI TRAVERSE CAP IN CENTER MEDIAN OF MOUND ROAD, SOUTHEAST OF MARTHUM AVENUE.  
STATION: 140+81.57    OFFSET: -82.99    ALI: MOUND RD LEGAL ALI  
COORDINATES: N=378149.255    E=13478823.278    EL=615.391  
SDN=0.000    SDE=0.000    SDZ=0.003  
COMBINED SCALE FACTOR: 0.99990196  
WITNESSES:  
1. S36°W    42.43'    CENTERLINE OF CATCH BASIN  
2. S46°E    64.60'    CENTERLINE OF CATCH BASIN  
3. S80°E    46.00'    BACK OF CURB  
4. N50°E    25.40'    SET SSI NAIL AND TAG IN POWER POLE

**CONTROL PT#: 301**  
DESCRIPTION: SET 5/8" X 36" REROD WITH YELLOW SSI TRAVERSE CAP IN CENTER MEDIAN NORTH OF METRO PARKWAY (16 MILE).  
STATION: 271+34.80    OFFSET: 10.28    ALI: MOUND RD LEGAL ALI  
COORDINATES: N=391188.715    E=13478239.740    EL=626.276  
SDN=0.009    SDE=0.009    SDZ=0.006  
COMBINED SCALE FACTOR: 0.99989780  
WITNESSES:  
1. S28°W    31.83'    CENTERLINE OF ELECTRIC MANHOLE  
2. N80°W    29.78'    BACK OF CURB  
3. S85°E    19.10'    BACK OF CURB  
4. N60°E    29.82'    SSI NAIL AND TAG IN BEECH NUT TREE

**CONTROL PT#: 302**  
DESCRIPTION: SET 5/8" X 36" REROD WITH YELLOW SSI TRAVERSE CAP IN MEDIAN SOUTH OF 18 1/2 MILE ROAD.  
STATION: 395+19.33    OFFSET: 13.13    ALI: MOUND RD LEGAL ALI  
COORDINATES: N=403557.343    E=13477615.387    EL=627.441  
SDN=0.000    SDE=0.000    SDZ=0.011  
COMBINED SCALE FACTOR: 0.99989464  
WITNESSES:  
1. N15°E    75.74'    SOUTHEAST BOLT OF STRAIN POLE  
2. S90°W    21.00'    CENTERLINE OF CATCH BASIN  
3. S05°W    49.57'    SSI NAIL AND TAG IN WILD CHERRY TREE  
4. S82°E    18.38'    BACK OF CURB

**BENCHMARKS**

**BENCHMARK#: 37**  
DESCRIPTION: PAINTED "X" ON SOUTHEAST BOLT ON SOUTH LEG OF GAS SIGN.  
STATION: 488+76.83    OFFSET: 9393.51    ALI: MOUND RD LEGAL ALI  
ELEVATION: 632.71    SDZ: 0.000

**BENCHMARK#: 40**  
DESCRIPTION: SET CHISELED "X" ON NORTHERLY FLANGE BOLT OF FIRE HYDRANT.  
STATION: 488+62.75    OFFSET: 6569.34    ALI: MOUND RD LEGAL ALI  
ELEVATION: 641.29    SDZ: 0.000

**BENCHMARK#: 318**  
DESCRIPTION: CHISELED SQUARE ON SOUTHEAST SIDE OF STEEL STRAIN POLE BASE ON NORTH SIDE OF SERVICE DRIVE +/- 50' WEST OF BRIDGE OVER MOUND ROAD.  
STATION: OUTSIDE ALIGNMENT LIMITS    OFFSET: OUTSIDE ALIGNMENT LIMITS    ALI: MOUND RD LEGAL ALI  
ELEVATION: 618.676    SDZ: 0.000

**BENCHMARK#: 319**  
DESCRIPTION: CHISELED "X" ON SOUTHWEST BOLT OF LIGHT POLE BASE +/- 100' WEST OF DWYER ROAD ON NORTH SIDE OF SERVICE DRIVE.  
STATION: OUTSIDE ALIGNMENT LIMITS    OFFSET: OUTSIDE ALIGNMENT LIMITS    ALI: MOUND RD LEGAL ALI  
ELEVATION: 618.640    SDZ: 0.000

**BENCHMARK#: 500**  
DESCRIPTION: SET COTTON PICK IN EAST SIDE OF UTILITY POLE IN MEDIAN OF MOUND ROAD, AND +/- 100' SOUTH OF HEATHDALE AVENUE.  
STATION: 20+11.00    OFFSET: -3.78    ALI: MOUND RD LEGAL ALI  
ELEVATION: 618.658    SDZ=0.004

**BENCHMARK#: 501**  
DESCRIPTION: CHISELED SQUARE ON CONCRETE BASE OF LIGHT POLE ON WEST SIDE, EAST SIDE OF MOUND ROAD, IN FRONT OF NATIONAL STORAGE BUILDING, AND +/- 4' FROM BACK OF CURB.  
STATION: 30+29.20    OFFSET: 87.38    ALI: MOUND RD LEGAL ALI  
ELEVATION: 616.520    SDZ=0.005

**BENCHMARK#: 502**  
DESCRIPTION: SET COTTON PICKER IN WEST SIDE OF UTILITY POLE ON EAST SIDE OF MOUND ROAD, AND +/- 1300' SOUTH FO 12 MILE.  
STATION: 40+86.91    OFFSET: 91.42    ALI: MOUND RD LEGAL ALI  
ELEVATION: 620.361    SDZ=0.006

**BENCHMARK#: 503**  
DESCRIPTION: CHISELED "X" IN SOUTHWEST BOLT OF LIGHT POLE, 6' WEST OF EDGE OF CURB ON EAST SIDE NORTHBOUND MOUND ROAD, AND +/- 750' NORTH OF 12 MILES.  
STATION: 61+32.92    OFFSET: 90.30    ALI: MOUND RD LEGAL ALI  
ELEVATION: 622.871    SDZ=0.005

**BENCHMARK#: 504**  
DESCRIPTION: TOP ARROW OF HYDRANT ON EAST SIDE NORTHBOUND MOUND ROAD, +/- 2450' SOUTH OF 13 MILE ROAD ACROSS FROM AT&T STORE, AND +/- 7' EAST OF EAST SIDE OF BACK OF CURB.  
STATION: 82+82.52    OFFSET: 90.42    ALI: MOUND RD LEGAL ALI  
ELEVATION: 616.819    SDZ=0.005

**BENCHMARK#: 505**  
DESCRIPTION: SET "ARROW" ON TOP OF HYDRANT ON EAST SIDE NORTHBOUND MOUND ROAD, +/- 75' NORTH OF CONSTRUCTION GATE ENTRANCE OF GENERAL MOTORS, AND +/- 11' EAST OF EAST BACK OF CURB.  
STATION: 102+72.94    OFFSET: 62.27    ALI: MOUND RD LEGAL ALI  
ELEVATION: 619.285    SDZ=0.003

**BENCHMARK#: 506**  
DESCRIPTION: SET COTTON PICKER IN WEST SIDE OF UTILITY POLE, 5' EAST OF CURB ON EAST SIDE OF MOUND ROAD, AND IN FRONT OF VILLAGE BOOK EXCHANGE STORE.  
STATION: 122+78.44    OFFSET: 20.31    ALI: MOUND RD LEGAL ALI  
ELEVATION: 620.062    SDZ=0.005

**BENCHMARK#: 507**  
DESCRIPTION: SET COTTON PICKER ON WEST SIDE OF UTILITY POLE ON EAST SIDE NORTHBOUND MOUND ROAD, +/- 170' SOUTH OF ST. ANNE CHRISTIAN CHURCH, +/- 50' SOUTH OF NORTH DRIVEWAY OF CHURCH, AND +/- 10' EAST OF EAST BACK OF CURB.  
STATION: 140+22.62    OFFSET: 24.28    ALI: MOUND RD LEGAL ALI  
ELEVATION: 616.077    SDZ=0.005

**BENCHMARK#: 508**  
DESCRIPTION: SET COTTON PICKER IN WEST SIDE OF UTILITY POLE, JUST SOUTH OF 14 MILE INTERSECTION ON EAST SIDE OF MOUND ROAD, AND +/- 7' EAST OF EAST BACK OF CURB.  
STATION: 162+49.52    OFFSET: 28.59    ALI: MOUND RD LEGAL ALI  
ELEVATION: 621.591    SDZ=0.003

**BENCHMARK#: 509**  
DESCRIPTION: ARROW ON TOP OF HYDRANT ON EAST SIDE NORTHBOUND MOUND ROAD, +/- 4' EAST OF EAST SIDE OF SIDEWALK, +/- 375' SOUTH OF STERLING DRIVE, AND +/- 3' NORTH OF END OF GUARD RAIL.  
STATION: 185+29.57    OFFSET: 100.08    ALI: MOUND RD LEGAL ALI  
ELEVATION: 617.141    SDZ=0.006

**BENCHMARK#: 510**  
DESCRIPTION: SET COTTON PICKER ON WEST SIDE OF UTILITY POLE ON EAST SIDE NORTHBOUND MOUND ROAD, IN SOUTHWEST CORNER OF DART PROPERTIES, +/- 1190' SOUTH OF 15 MILE, +/- 670' NORTH OF STERLING DRIVE, AND +/- 17' EAST OF EAST BACK OF CURB.  
STATION: 203+97.88    OFFSET: 100.00    ALI: MOUND RD LEGAL ALI  
ELEVATION: 619.822    SDZ=0.006

**BENCHMARK#: 511**  
DESCRIPTION: SET COTTON PICKER ON WEST SIDE OF UTILITY POLE ON EAST SIDE NORTHBOUND MOUND ROAD, +/- 2800' SOUTH OF CENTER DRIVE, 400' NORTH OF MILLETT AVENUE, +/- 9' EAST OF EAST BACK OF CURB, AND IN SOUTHWEST CORNER OF MOUND INDUSTRIAL COMMONS.  
STATION: 226+75.33    OFFSET: 90.74    ALI: MOUND RD LEGAL ALI  
ELEVATION: 622.784    SDZ=0.006

**BENCHMARK#: 512**  
DESCRIPTION: SET COTTON PICKER IN WEST SIDE OF UTILITY POLE ON EAST SIDE NORTHBOUND MOUND ROAD, +/- 2580' NORTH OF MILLETT AVENUE, +/- 50' SOUTH OF CENTER DRIVE, +/- 9' EAST OF EAST BACK OF CURB, AND IN FRONT OF MOUND COMMERCE CENTER.  
STATION: 247+77.42    OFFSET: 90.77    ALI: MOUND RD LEGAL ALI  
ELEVATION: 625.377    SDZ=0.007

**BENCHMARK#: 513**  
DESCRIPTION: SET "X" IN NORTHWEST BOLT IN LIGHT POLE IN MEDIAN OF METRO PARKWAY ON EAST SIDE NORTHBOUND MOUND ROAD, AND +/- 75' EAST OF INTERSECTION.  
STATION: 268+85.11    OFFSET: 115.35    ALI: MOUND RD LEGAL ALI  
ELEVATION: 627.087    SDZ=0.006

**BENCHMARK#: 514**  
DESCRIPTION: SET COTTON PICKER ON WEST SIDE OF UTILITY POLE ON EAST SIDE NORTHBOUND MOUND ROAD, +/- 590' SOUTH OF ROBOVENT DRIVEWAY, +/- 150' NORTH OF WALL STREET, AND +/- 13' EAST OF EAST BACK OF CURB.  
STATION: 289+46.91    OFFSET: 99.42    ALI: MOUND RD LEGAL ALI  
ELEVATION: 627.636    SDZ=0.008

**BENCHMARK#: 515**  
DESCRIPTION: SET COTTON PICKER ON WEST SIDE OF UTILITY POLE ON EAST SIDE NORTHBOUND MOUND ROAD, +/- 1350' SOUTH OF 17 MILE ROAD, AND +/- 250' NORTH OF GENERAL DYNAMICS DRIVEWAY.  
STATION: 308+86.89    OFFSET: 96.11    ALI: MOUND RD LEGAL ALI  
ELEVATION: 624.549    SDZ=0.009

**BENCHMARK#: 516**  
DESCRIPTION: CHISELED SQUARE IN SOUTHWEST CORNER OF LIGHT POLE ON EAST SIDE NORTHBOUND MOUND ROAD, +/- 2430' SOUTH OF SIMS DRIVE, +/- 850' NORTH OF 17 MILE ROAD, AND JUST SOUTH OF GATE 6 OF FORD PLANT.  
STATION: 330+96.13    OFFSET: 102.63    ALI: MOUND RD LEGAL ALI  
ELEVATION: 627.492    SDZ=0.009

**BENCHMARK#: 517**  
DESCRIPTION: SET COTTON PICKER IN WEST SIDE OF UTILITY POLE ON EAST SIDE NORTHBOUND MOUND ROAD, +/- 340' SOUTH OF SIMS DRIVE, +/- 200' EAST OF GATEWOOD DRIVE CENTERLINE, AND IN FRONT OF NU BUILT CABINETS, INC.  
STATION: 351+85.12    OFFSET: 98.48    ALI: MOUND RD LEGAL ALI  
ELEVATION: 627.348    SDZ=0.010

**BENCHMARK#: 518**  
DESCRIPTION: SET COTTON PICKER ON WEST SIDE OF UTILITY POLE ON EAST SIDE NORTHBOUND MOUND ROAD, +/- 470' SOUTH OF 18 MILE ROAD, AND IN FRONT OF PROGRESSIVE BUILDING.  
STATION: 370+56.73    OFFSET: 102.92    ALI: MOUND RD LEGAL ALI  
ELEVATION: 629.879    SDZ=0.010

**BENCHMARK#: 519**  
DESCRIPTION: SET COTTON PICKER ON WEST SIDE OF UTILITY POLE ON EAST SIDE NORTHBOUND MOUND ROAD, +/- 1530' NORTH OF 18 MILE ROAD, +/- 600' SOUTH OF 18 1/2 MILE ROAD, AND +/- 300' NORTH OF RIVER.  
STATION: 390+55.47    OFFSET: 91.55    ALI: MOUND RD LEGAL ALI  
ELEVATION: 627.167    SDZ=0.011

**BENCHMARK#: 520**  
DESCRIPTION: SET CHISELED SQUARE IN WEST SIDE OF FLAG POLE ON EAST SIDE NORTHBOUND MOUND ROAD, +/- 1800' SOUTH OF 19 MILE ROAD, +/- 1000' NORTH OF 18 1/2 MILE ROAD, AND IN FRONT OF GENERAL SHALE BRICK BUILDING.  
STATION: 410+31.18    OFFSET: 123.74    ALI: MOUND RD LEGAL ALI  
ELEVATION: 633.369    SDZ=0.010

Innovate Mound Project

REVIEW

APPROVED ☐

APPROVED AS NOTED ☐

ACCEPTED ☒

AMEND AND RESUBMIT ☐

REJECTED - SEE REMARKS ☐

Reviewed only for general conformance with the project requirements indicated in Contract Documents and/or for consistency with the project design concept. This review does not relieve the Contractor from responsibility for errors or omissions in designs for which the Contractor is responsible. Contractor is responsible for compliance with all requirements of the Contract Documents and for the safe and successful construction of the work. This review does not consider the means, methods, techniques, sequences, fabrication processes, and operations of construction, or safety precautions or programs incidental thereto, which are the sole responsibility of the Contractor.

HNTB

BY Steve G. Gilman

DATE 10/28/2022

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE: )									NO SCALE		DATE: 10/12/22	CS: INFR50000	SURVEY INFORMATION SHEET		DRAWING	SHEET
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION				DESIGN UNIT: XXX	JN: 207178A			MOUND SURVEY 004	SECT 1
										FILE: 207178_Survey_Info_Sheet.doc	TSC: MACOMB					25



<b>BENCHMARK#: 521</b> DESCRIPTION: CHISELED "X" IN SOUTHWEST TOP BOLT OF HYDRANT ON EAST SIDE OF MOUND ROAD, +/- 380' NORTH OF 19 MILE ROAD CENTELINE, +/- 260' SOUTH OF BURROUGHS AVENUE CENTERLINE, IN FRONT OF HOUSE #43080, AND IN BETWEEN CURB AND SIDEWALK. STATION: 432+31.82    OFFSET: 89.84    ALI: MOUND RD LEGAL ALI ELEVATION: 636.528    SDZ=0.010							
<b>BENCHMARK#: 522</b> DESCRIPTION: CHISELED "X" IN SOUTHWESTERLY TOP BOLT ON HYDRANT ON EAST SIDE OF MOUND ROAD, +/- 600' SOUTH OF STACY AVENUE, +/- 330' NORTH OF GOFF AVENUE, AND IN FRONT OF DECOR STATUETTE BUILDING. STATION: 451+33.61    OFFSET: 90.62    ALI: MOUND RD LEGAL ALI ELEVATION: 640.999    SDZ=0.010							
<b>BENCHMARK#: 523</b> DESCRIPTION: CHISELED "X" ON SOUTHWESTERLY BOLT OF HYDRANT ON EAST SIDE OF MOUND ROAD, +/- 320' NORTH OF POPLAR AVENUE, +/- 260' SOUTH OF CATALPA AVENUE, AND IN FRONT OF IFG BUILDING. STATION: 472+88.82    OFFSET: 90.21    ALI: MOUND RD LEGAL ALI ELEVATION: 645.144    SDZ=0.009							
<b>BENCHMARK#: 524</b> DESCRIPTION: SET COTTON PICK IN WEST SIDE OF UTILITY POLE ON EAST SIDE OF MOUND ROAD, +/- 250' NORTH OF DOBRY DRIVE WEST, +/- 105' SOUTHEAST OF SOUTHEAST CORNER OF SHELBY TOWNSHIP GROUND SIGN, AND IN FRONT OF COURTLAND RACQUETBALL CLUB BUILDING. STATION: 490+44.14    OFFSET: 87.37    ALI: MOUND RD LEGAL ALI ELEVATION: 651.298    SDZ=0.007							
<b>BENCHMARK#: 525</b> DESCRIPTION: SET PK NAIL IN SOUTHEAST CORNER IN CONCRETE PAD OF TRANSFORMER ON WEST SIDE OF MOUND ROAD, +/- 85' SOUTH OF UNOS BUILDING GROUND SIGN, AND +/- 40' WEST OF WEST CURB FACE OF SOUTHBOUND MOUND ROAD. STATION: 480+22.75    OFFSET: -111.59    ALI: MOUND RD LEGAL ALI ELEVATION: 648.496    SDZ=0.008							
<b>BENCHMARK#: 526</b> DESCRIPTION: SET COTTON PICKER IN EAST SIDE OF UTILITY POLE ON WEST SIDE OF MOUND ROAD, +/- 40' SOUTH OF PINE AIRER DRIVE, +/- 20' SOUTH OF SOUTH CURB FACE OF PINE AIRES DRIVE, AND +/- 8' WEST OF WEST CURB FACE OF SOUTHBOUND MOUND ROAD. STATION: 463+93.19    OFFSET: -80.49    ALI: MOUND RD LEGAL ALI ELEVATION: 641.553    SDZ=0.009							
<b>BENCHMARK#: 527</b> DESCRIPTION: SET "ARROW" ON TOP OF HYDRANT ON WEST SIDE OF MOUND ROAD, +/- 100' TO MAILBOX # 43409, BETWEEN THE CURB AND SIDEWALK, +/- 1100' SOUTH OF CANNES DRIVE, +/- 90' SOUTH OF DRIVEWAY OF ADDRESS 43463 SOUTHBOUND MOUND ROAD, AND +/- 15' WEST OF WEST CURB FACE OF SOUTHBOUND MOUND ROAD. STATION: 443+27.19    OFFSET: -88.65    ALI: MOUND RD LEGAL ALI ELEVATION: 638.313    SDZ=0.010							
<b>BENCHMARK#: 528</b> DESCRIPTION: SET "ARROW" ON TOP OF HYDRANT ON WEST SIDE OF MOUND ROAD, SOUTH 25' TO CENTERLINE OF HEINDALE ROAD, +/- 35' WEST OF WEST CURB FACE OF SOUTHBOUND MOUND ROAD. STATION: 422+10.45    OFFSET: -117.82    ALI: MOUND RD LEGAL ALI ELEVATION: 634.499    SDZ=0.010							

<b>BENCHMARK#: 529</b> DESCRIPTION: CHISELED "X" ON SOUTHEASTERLY TOP BOLT ON HYDRANT ON WEST SIDE OF MOUND ROAD, NORTH +/- 40' TO 18 1/2 MILE ROAD, +/- 20' WEST OF WEST CURB FACE OF SOUTHBOUND MOUND ROAD. STATION: 400+92.23    OFFSET: -96.63    ALI: MOUND RD LEGAL ALI ELEVATION: 630.721    SDZ=0.011							
<b>BENCHMARK#: 530</b> DESCRIPTION: SET "ARROW" ON TOP OF HYDRANT ON WEST SIDE OF MOUND ROAD, SOUTH +/- 350' TO 18 MILE ROAD, +/- 15' NORTH OF NORTH CURB FACE OF DEPARTMENT OF HUMAN RESOURCES DRIVEWAY. STATION: 379+08.25    OFFSET: -92.30    ALI: MOUND RD LEGAL ALI ELEVATION: 630.040    SDZ=0.010							
<b>BENCHMARK#: 531</b> DESCRIPTION: SET RAILROAD TIE IN EAST SIDE OF UTILITY POLE ON WEST SIDE OF MOUND ROAD, +/- 340' NORTH OF BRIDGEWOOD DRIVE CENTERLINE, +/- 200' SOUTH OF CASADEI STEEL SIGN. STATION: 362+58.31    OFFSET: -92.50    ALI: MOUND RD LEGAL ALI ELEVATION: 630.391    SDZ=0.010							
<b>BENCHMARK#: 532</b> DESCRIPTION: SET COTTON PICKER IN EAST SIDE OF UTILITY POLE ON WEST SIDE OF MOUND ROAD IN FRONT OF HOUSE #39675, +/- 350' SOUTH OF BRANCH STREET CENTELINE, AND +/- 250' NORTH OF GARDNER STREET EAST CENTERLINE. STATION: 342+16.47    OFFSET: -94.05    ALI: MOUND RD LEGAL ALI ELEVATION: 625.650    SDZ=0.010							
<b>BENCHMARK#: 533</b> DESCRIPTION: SET "ARROW" ON TOP OF HYDRANT ON WEST SIDE OF MOUND ROAD, WEST TO CAR WASH EXIT, +/- 300' SOUTH OF 17 MILE ROAD CENTELINE, AND +/- 15' NORTH OF NORTH CURB FACE OF DRIVEWAY TO POWER HOME SOLAR ROOFING. STATION: 319+44.10    OFFSET: -92.21    ALI: MOUND RD LEGAL ALI ELEVATION: 626.766    SDZ=0.009							
<b>BENCHMARK#: 534</b> DESCRIPTION: SET RAILROAD TIE IN EAST SIDE OF UTILITY POLE ON WEST SIDE OF MOUND ROAD ON NORTH SIDE OF FOX HILL PLAZA, AND +/- 8' SOUTH OF SOUTH CURB FACE OF STERLING CORPORATE CENTER DRIVEWAY. STATION: 299+13.28    OFFSET: -90.75    ALI: MOUND RD LEGAL ALI ELEVATION: 626.976    SDZ= 0.009							
<b>BENCHMARK#: 535</b> DESCRIPTION: SET COTTON PICKER IN EAST SIDE OF UTILITY POLE ON WEST SIDE OF MOUND ROAD, SOUTH SIDE OF JET AMERICAN PIZZA, AND +/- 190' NORTH OF PARIS STREET CENTELINE. STATION: 281+62.89    OFFSET: -89.71    ALI: MOUND RD LEGAL ALI ELEVATION: 626.015    SDZ=0.008							
<b>BENCHMARK#: 536</b> DESCRIPTION: SET COTTON PICKER IN EAST SIDE OF UTILITY POLE ON WEST SIDE OF MOUND ROAD, JUST SOUTH OF SEABREEZE LANE, AND +/- 85' SOUTHEAST OF MEADOWVIEW VILLAGE CONDOS SIGN. STATION: 259+42.69    OFFSET: -89.26    ALI: MOUND RD LEGAL ALI ELEVATION: 625.067    SDZ=0.003							

<b>BENCHMARK#: 537</b> DESCRIPTION: CHISELED SQUARE IN EAST SIDE OF CONCRETE LIGHT POLE ON WEST SIDE OF MOUND ROAD, IN FRONT OF FLEX N GATE BUILDING, +/- 700' SOUTH OF DOMINION CIRCLE DRIVE, AND +/- 50' WEST OF WEST CURB FACE OF SOUTHBOUND MOUND ROAD. STATION: 237+99.25    OFFSET: -133.89    ALI: MOUND RD LEGAL ALI ELEVATION: 624.766    SDZ=0.005							
<b>BENCHMARK#: 538</b> DESCRIPTION: CHISELED SQUARE IN EAST SIDE OF LIGHT POLE OF WEST SIDE OF MOUND ROAD, SOUTHWEST CORNER OF 15 MILE AND MOUND ROAD INTERSECTION, +/- 120' NORTH OF CHILI PEPPERS DRIVEWAY, AND +/- 70' SOUTH OF 15 MILE ROAD CENTELINE. STATION: 215+19.06    OFFSET: -89.34    ALI: MOUND RD LEGAL ALI ELEVATION: 620.145    SDZ=0.004							
<b>BENCHMARK#: 539</b> DESCRIPTION: CHISELED SQUARE IN EAST SIDE OF CONCRETE BASE OF LIGHT POLE ON WEST SIDE OF MOUND ROAD, IN FRONT OF KWIK KAR WASH, +/- 170' SOUTH OF KREGER STREET CENTERLINE, AND +/- 45' WEST OF WEST CURB FACE OF SOUTHBOUND MOUND ROAD. STATION: 196+42.93    OFFSET: -130.87    ALI: MOUND RD LEGAL ALI ELEVATION: 617.549    SDZ=0.001							
<b>BENCHMARK#: 540</b> DESCRIPTION: SET COTTON PICKER ON EAST SIDE OF UTILITY POLE ON WEST SIDE OF MOUND ROAD, +/- 190' SOUTH OF WIMSATT BUILDING DRIVEWAY, AND +/- 20' NORTH OF SOUTHLAWN DRIVE CENTERLINE. STATION: 175+78.42    OFFSET: -103.81    ALI: MOUND RD LEGAL ALI ELEVATION: 616.748    SDZ=0.005							
<b>BENCHMARK#: 541</b> DESCRIPTION: SET COTTON PICKER ON EAST SIDE OF UTILITY POLE ON WEST SIDE OF MOUND ROAD, IN FRONT OF BRONX BURGER BUILDING, +/- 900' SOUTH OF EAST 14 MILE ROAD CENTERLINE, AND +/- 210' NORTH OF STREEFKERK DRIVE CENTERLINE. STATION: 154+12.40    OFFSET: -148.78    ALI: MOUND RD LEGAL ALI ELEVATION: 617.905    SDZ=0.003							
<b>BENCHMARK#: 542</b> DESCRIPTION: SET COTTON PICKER IN EAST SIDE OF UTILITY POLE ON WEST SIDE OF MOUND RD, ON NORTHEAST CORNER OF HYDRO CAPITOL, +/- 170' SOUTH OF ARDEN AVE CL, AND +/- 42' EAST OF NORTHEAST CORNER OF GREAT AUTO SALES BLDG. STATION: 143+99.79    OFFSET: -156.58    ALI: MOUND RD LEGAL ALI ELEVATION: 616.278    SDZ=0.003							
<b>BENCHMARK#: 543</b> DESCRIPTION: SET "ARROW" ON TOP OF HYDRANT ON WEST SIDE OF MOUND ROAD, +/- 100' SOUTH TO CHICAGO ROAD, AND +/- 275' SOUTH OF RED RUN CREEK. STATION: 134+20.94    OFFSET: -157.91    ALI: MOUND RD LEGAL ALI ELEVATION: 617.069    SDZ=0.004							
<b>BENCHMARK#: 544</b> DESCRIPTION: CHISELED SQUARE IN EAST SIDE OF METAL LIGHT POLE BASE ON WEST SIDE OF MOUND ROAD, RIGHT AT "U" TURN INTERSECTION LIGHT, 850' SOUTH OF BEEBE AVENUE CENTELINE, AND +/- 110' TO SOUTHEAST CORNER OF PROGRESSIVE PLUMBING BUILDING. STATION: 114+45.92    OFFSET: -160.49    ALI: MOUND RD LEGAL ALI ELEVATION: 617.781    SDZ=0.003							

BENCHMARK#: 545

DESCRIPTION: SET COTTON PICKER ON EAST SIDE OF UTILITY POLE ON WEST SIDE OF MOUND ROAD, IN FRONT OF HERITAGE VILLAGE HOMES, +/- 1200' SOUTH OF EAST THIRTEEN MILE ROAD, +/- 250' NORTH OF GREENVIEW DRIVE, AND +/- 25' WEST OF WEST CURB FACE OF SOUTHBOUND MOUND ROAD.

STATION: 94+85.02    OFFSET: -109.29    ALI: MOUND RD LEGAL ALI

ELEVATION: 618.088    SDZ=0.005

BENCHMARK#: 546

DESCRIPTION: SET COTTON PICKER ON EAST SIDE OF UTILITY POLE ON WEST SIDE OF MOUND ROAD, +/- 170'NORTH OF MEIJER DRIVEWAY, AND +/- 100' SOUTH OF WATERVIEW DRIVE.

STATION: 72+76.83    OFFSET: -107.42    ALI: MOUND RD LEGAL ALI

ELEVATION: 618.591    SDZ=0.005

BENCHMARK#: 547

DESCRIPTION: CHISELED SQUARE IN CONCRETE ON EAST SIDE OF LIGHT POLE ON WEST SIDE OF MOUND ROAD, IN FRONT OF MCDONALD'S, +/- 270' NORTH OF ELMGROVE AVENUE, AND +/- 200' SOUTH OF TWELVE MILE ROAD CENTERLINE.

STATION: 51+55.18    OFFSET: -90.27    ALI: MOUND RD LEGAL ALI

ELEVATION: 621.045    SDZ=0.005

BENCHMARK#: 548

DESCRIPTION: SET COTTON PICKER ON EAST SIDE OF UTILITY POLE ON WEST SIDE OF MOUND ROAD, +/- 20' NORTH OF ELMER AVENUE CENTERLINE, AND +/- 75' SOUTHEAST OF SOUTHEAST CORNER OF MANCINI KLINE PC BULIDING.

STATION: 32+12.19    OFFSET: -105.34    ALI: MOUND RD LEGAL ALI

ELEVATION: 618.963    SDZ=0.006

Innovate Mound Project

REVIEW

APPROVED ☐

APPROVED AS NOTED ☐

ACCEPTED ☒


ACCEPTED AS NOTED ☐

AMEND AND RESUBMIT ☐

REJECTED - SEE REMARKS ☐

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BY 

DATE 10/28/2022

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NO.	DATE	AUTH	DESCRIPTION	NO.	DATE				AUTH	DESCRIPTION			DESIGN UNIT: XXX	JN: 207178A	MOUND SURVEY 005	SECT 1
																26
									FILE: 207178_Survey_Info_Sheet.doc				TSC: MACOMB			

GOVERNMENT CORNERS

SECTION CORNER: T1N-R12E / C-2

DESCRIPTION: FOUND 1/2" IRON IN BOX.  
COORDINATES: N=377089.32 E=13473342.89  
STATION: 133+06.36 OFFSET: -5604.2819 ALI: MOUND RD LEGAL ALI  
WITNESSES:  
1. N48°E 67.63' PK IN SOUTHEAST SIDE OF UTILITY POLE  
2. N24°W 108.04' PK IN SOUTHWEST SIDE OF UTILITY POLE  
3. S52°W 50.84' PK IN NORTH SIDE OF UTILITY POLE  
4. S54°W 79.14' CENTER TOP NUT OF HYDRANT

SECTION CORNER: T1N-R12E D-1

DESCRIPTION: FOUND REMONUMENTATION CAP IN BOX.  
COORDINATES: N=380213.59 E=13476005.83  
STATION: 162+65.81 OFFSET: -2808.5306 ALI: MOUND RD LEGAL ALI  
WITNESSES:  
1. S30°W 59.62' PK NAIL IN NORTHWEST SIDE OF UTILITY POLE  
2. N32°W 73.82' SET NAIL AND TAG IN EAST SIDE OF 14" MAPLE TREE  
3. N26°E 47.65' SET NAIL AND TAG IN SOUTHEAST SIDE OF 12" MAPLE TREE  
4. S15°E 80.16' TO TOP CENTER NUT OF HYDRANT

SECTION CORNER: T1N-R12E / D-2

DESCRIPTION: FOUND REMONUMENTATION CAP IN BOX.  
COORDINATES: N=377227.76 E=13476141.52  
STATION: 133+05.70 OFFSET: -2802.2430 ALI: MOUND RD LEGAL ALI  
WITNESSES:  
1. N45°W 0.96' OUTER RIM OF MANHOLE  
2. S78°W 140.84' "X" ON NORTHEAST BOLT OF HYDRANT  
3. SOUTH 21.92' PK IN WEST SIDE OF UTILITY POLE  
4. N34°E 25.16' PK IN NORTHWEST SIDE OF UTILITY POLE

SECTION CORNER: T1N-R12E / D-3

DESCRIPTION: FOUND REMONUMENTATION CAP IN MONUMENT BOX.  
COORDINATES: N=374673.85 E=13476253.28  
STATION: 107+49.47 OFFSET: -2827.2987 ALI: MOUND RD LEGAL ALI  
WITNESSES:  
1. N04°E 49.30' PK IN WEST SIDE OF UTILITY POLE  
2. S77°W 106.41' PK IN NORTHWEST SIDE OF UTILITY POLE  
3. N73°W 107.08' "X" IN SOUTHWEST SIDE OF LIGHT POLE  
4. S76°E 120.73' FOUND PK IN NORTHEAST SIDE OF UTILITY POLE

SECTION CORNER: T1N-R12E / D-5

DESCRIPTION: FOUND REMONUMENTATION IN MONUMENT BOX.  
COORDINATES: N=369342.08 E=13476478.17  
STATION: 53+76.61 OFFSET: -2822.3496 ALI: MOUND RD LEGAL ALI  
WITNESSES:  
1. N03°E 52.97' FOUND PK NAIL AND TAG IN EAST SIDE OF UTILITY POLE  
2. N55°W 93.16' CENTER TOP OF SOUTHEAST BOLT OF TRAFFIC POLE  
3. S53°W 91.13' STEEL FENCE POST  
4. S55°E 88.86' CENTER TOP OF NORTHWEST BOLT OF LIGHT POLE

SECTION CORNER: T1N-R12E / E-1; T2N-R12E / E-13

DESCRIPTION: FOUND 1/2" IRON IN MONUMENT BOX.  
COORDINATES: N=380391.49 E=13478809.29  
STATION: 163+22.31 OFFSET: 0.00 ALI: MOUND RD LEGAL ALI  
WITNESSES:  
1. S46°E 66.95' PK NAIL AND TAG IN SOUTHWEST SIDE OF UTILITY POLE  
2. N29°E 67.63' PK NAIL AND TAG IN SOUTHWEST SIDE OF UTILITY POLE  
3. S49°W 80.55' PK NAIL AND TAG IN NORTHWEST SIDE OF UTILITY POLE  
4. N41°W 91.15' PK NAIL AND TAG IN NORTHEAST SIDE OF UTILITY POLE

SECTION CORNER: T1N-R12E / E-2

DESCRIPTION: CORNER FALLS ON A STORM MANHOLE. FOUND AND SHOT 4 REFERENCE MONUMENTS TO CALULATE CORNER LOCATION.  
COORDINATES: N=377378.36 E=13478939.71  
STATION: 133+06.36 OFFSET: 0.00 ALI: MOUND RD LEGAL ALI  
WITNESSES:  
1. N49°E 45.55' REFERENCE MONUMENT NO. 1  
2. N51°W 71.28' REFERENCE MONUMENT NO. 2  
3. S46°W 68.76' REFERENCE MONUMENT NO. 3  
4. S25°E 103.28' REFERENCE MONUMENT NO. 4

SECTION CORNER: T1N-R12E / E-3

DESCRIPTION: FOUND 3/4" PIPE IN MONUMENT BOX.  
COORDINATES: N=374787.41 E=13479078.55  
STATION: 107+11.69 OFFSET: 0.0000 ALI: MOUND RD LEGAL ALI  
WITNESSES:  
1. N58°E 45.80' "X" IN NORTHWEST BOLT OF LIGHT POLE  
2. N44°W 94.26' MAG NAIL AND TAG IN SOUTHWEST SIDE OF UTILITY POLE  
3. S49°W 96.95' "X" IN NORTHWEST BOLT IN LIGHT POLE  
4. S62°E 69.64' STEEL FENCE POST

SECTION CORNER: T1N-R12E / E-4

DESCRIPTION: FOUND REMONUMENTATION CAP IN MONUMENT BOX IN MEDIAN.  
COORDINATES: N=372132.40 E=13479201.23  
STATION: 80+53.85 OFFSET: 0.0000 ALI: MOUND RD LEGAL ALI  
WITNESSES:  
1. N46°W 130.24' CENTER TOP NUT OF HYDRANT  
2. N45°E 51.08' SOUTHEAST CORNER OF CURB INLET CATCH BASIN  
3. S34°E 24.15' SET NAIL AND TAG IN SOUTHWEST SIDE OF 10" JACK PINE TREE  
4. N20°E 28.24' SET NAIL AND TAG IN WEST SIDE OF 9" MAPLE TREE

SECTION CORNER: T1N-R12E / E-5

DESCRIPTION: FOUND REMONUMENTATION CAP IN MONUMENT BOX.  
COORDINATES: N=369468.27 E=13479297.72  
STATION: 53+87.97 OFFSET: 0.0000 ALI: MOUND RD LEGAL ALI  
WITNESSES:  
1. N02°E 64.94' FOUND "X" ON SOUTH SIDE OF LIGHT POLE  
2. S87°E 104.77' FOUND "X" ON WEST SIDE OF LIGHT POLE  
3. S01°W 76.96' FOUND "X" ON NORTH SIDE OF LIGHT POLE  
4. N87°W 95.93' FOUND "X" ON EAST SIDE OF LIGHT POLE

SECTION CORNER: T1N-R12E / E-6

DESCRIPTION: FOUND REMONUMENTATION CAP IN MONUMENT BOX IN GRASS MEDIAN.  
COORDINATES: N=366790.32 E=13479406.77  
STATION: 27+07.80 OFFSET: 0.0000 ALI: MOUND RD LEGAL ALI  
WITNESSES:  
1. S06°W 6.40' FOUND PK WITH TAG IN WEST SIDE OF UTILITY POLE  
2. S82°E 19.80' TO BACK OF CONCRETE CURB  
3. N89°W 31.33' TO BACK OF CONCRETE CURB  
4. N70°W 126.59' TO CENTER TOP NUT TO HYDRANT

SECTION CORNER: T1N-R12E / E-7

DESCRIPTION: FOUND 1/2" IRON.  
COORDINATES: N=364085.03 E=13479523.37  
STATION: 0+00.00 OFFSET: 0.00 ALI: MOUND RD LEGAL ALI  
WITNESSES:  
1. N33°E 46.69' FOUND MAG NAIL AND TAG IN BRIDGE ABUTMENT WESTBOUND 11 MILE ROAD  
2. S85°E 22.57' FOUND MAG NAIL AND TAG ON TOP OF CONCRETE WALL  
3. S24°E 47.31' FOUND MAG NAIL AND TAG IN BRIDGE ABUTMENT EASTBOUND 11 MILE ROAD  
4. N84°W 12.96' EAST EDGE OF CONCRETE SOUTHBOUND MOUND ROAD

SECTION CORNER: T1N-R12E / F-1; T2N-R12E / F-13

DESCRIPTION: FOUND PK NAIL IN CENTERLINE OF RAILROAD TRACKS.  
COORDINATES: N=380527.93 E=13481306.27  
STATION: 163+36.13 OFFSET: 2500.67 ALI: MOUND RD LEGAL ALI  
WITNESSES:  
1. S51°E 63.47' PK NAIL AND TAG IN SOUTHWEST SIDE OF UTILITY POLE  
2. N53°W 80.29' "X" ON EAST SIDE OF SANITARY MANHOLE  
3. N34°E 38.05' TOP CENTER SOUTHWEST BOLT OF RAILROAD SIGNPOST  
4. S36°W 59.90' SET NAIL AND TAG IN SOUTHWEST SIDE OF UTILITY POLE

SECTION CORNER: T1N-R12E / F-2

DESCRIPTION: FOUND PK (MAC CO. ACT) IN RAILROAD TIE CENTERLINE OF TRACKS.  
COORDINATES: N=377470.86 E=13481412.88  
STATION: 132+66.39 OFFSET: 2474.57 ALI: MOUND RD LEGAL ALI  
WITNESSES:  
1. S09°W 24.41' PK NAIL AND TAG  
2. N07°W 30.58' PK NAIL AND TAG  
3. S26°E 44.10' PK NAIL AND TAG  
4. S66°E 49.30' NORTHWEST CORNER OF BUILDING

SECTION CORNER: T1N-R12E / F-5

DESCRIPTION: FOUND REMONUMENTATION CAP IN CENTERLINE OF RAILROAD TRACKS.  
COORDINATES: N=369578.02 E=13481757.78  
STATION: 54+08.61 OFFSET: 2462.42 ALI: MOUND RD LEGAL ALI  
WITNESSES:  
1. N60°E 25.76' FOUND PK NAIL AND TAG IN HEADWALL  
2. N49°W 24.71' FOUND PK NAIL AND TAG IN HEADWALL  
3. S18°E 25.52' SET PK IN BITUMINOUS  
4. S68°W 26.72' TO FACE OF END STEEL FENCE POST

SECTION CORNER: T2N-R12E / C-4

DESCRIPTION: FOUND CAPPED IRON (CAN'T READ).  
COORDINATES: N=403885.77 E=13472154.36  
STATION: 401+21.59 OFFSET: -5424.52 ALI: MOUND RD LEGAL ALI  
WITNESSES:  
1. S30°W 106.16' SET NAIL AND TAG IN NORTHWEST FACE OF UTILITY POLE  
2. N28°W 109.76' SET NAIL AND TAG IN NORTHEAST FACE OF UTILITY POLE  
3. S76°W 28.77' NORTHEAST FORNER OF CURB INLET  
4. N20°E 216.30' SOUTHEAST CORNER CONCRETE WALL

SECTION CORNER: T2N-R12E / D-1

DESCRIPTION: FOUND REMONUMENTATION CAP.  
COORDINATES: N=412702.07 E=13474488.68  
STATION: 488+08.14 OFFSET: -2635.01 ALI: MOUND RD LEGAL ALI  
WITNESSES:  
1. N04°E 11.46' SET NAIL AND TAG IN WEST SIDE OF 28" COTTONWOOD TREE  
2. N70°W 10.62' TO FACE OF 2" STEEL CORNER POST  
3. N76°E 33.08' FOUND PK ON NORTH SIDE OF UTILITY POLE  
4. S74°E 19.08' FOUND PK NAIL AND TAG IN TOP OF GUARDRAIL POST

SECTION CORNER: T2N-R12E / D-3

DESCRIPTION: FOUND 5/8" IRON.  
COORDINATES: N=406704.68 E=13474719.47  
STATION: 428+14.03 OFFSET: -2715.30 ALI: MOUND RD LEGAL ALI  
WITNESSES:  
1. N36°W 17.86' TO NORTHEAST CORNER OF INLET CATCH BASIN  
2. S46°W 23.60' TO SOUTHEAST CORNER OF INLET CATCH BASIN  
3. N84°E 47.53' SET NAIL AND TAG IN SOUTH SIDE OF 4" MAPLE TREE  
4. S86°W 37.78' SET NAIL AND TAG IN NORTH SIDE OF 3" MAPLE TREE

SECTION CORNER: T2N-R12E / D-5

DESCRIPTION: FOUND REMONUMENTATION CAP IN BOX.  
COORDINATES: N=401374.85 E=13475059.83  
STATION: 374+81.32 OFFSET: -2648.99 ALI: MOUND RD LEGAL ALI  
WITNESSES:  
1. S75°W 94.69' NAIL AND TAG IN SOUTHEAST SIDE OF UTILITY POLE  
2. N75°E 155.39' CONCRETE MONUMENT (PLAT)  
3. S70°E 78.51' SET NAIL AND TAG IN SOUTHWEST SIDE OF UTILITY POLE  
4. S30°W 80.56' SET NAIL AND TAG IN SOUTHWEST SIDE OF 16" MAPLE TREE

SECTION CORNER: T2N-R12E / D-7

DESCRIPTION: FOUND REMONUMENTATION CAP IN BOX.  
COORDINATES: N=396129.56 E=13475240.06  
STATION: 322+24.88 OFFSET: -2725.11 ALI: MOUND RD LEGAL ALI  
WITNESSES:  
1. N43°W 43.02' PK NAIL AND TAG IN SOUTHWEST SIDE OF UTILITY POLE  
2. N64°E 135.60' FOUND CAPPED IRON  
3. S33°E 53.00' SET NAIL AND TAG IN SOUTHWEST SIDE OF 8" MAPLE TREE  
4. S60°W 116.50' TOP CENTER OF SANITARY MANHOLE

Innovate Mound Project

REVIEW

APPROVED ☐

APPROVED AS NOTED ☐

ACCEPTED ☒

REJECTED - SEE REMARKS ☐

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HNTB

BY Steve G. [Signature]

DATE 10/28/2022

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE: )										NO SCALE		DATE: 10/12/22	CS: INFR50000	SURVEY INFORMATION SHEET		DRAWING	SHEET
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION					DESIGN UNIT: XXX	JN: 207178A			MOUND SURVEY 006	SECT 1
											FILE: 207178_Survey_Info_Sheet.doc	TSC: MACOMB				006	27



DESCRIPTION: FOUND CONCRETE MONUMENT WITHOUT CAP.  
COORDINATES: N=390789.69 E=13475476.98  
STATION: 268+83.85 OFFSET: -2769.85 ALI: MOUND RD LEGAL ALI  
WITNESSES:  
1. NORTH 33.48' FOUND BACK OF CURB  
2. SOUTH 33.12' FOUND BACK OF CURB  
3. S02°W 94.95' SET NAIL AND TAG IN WEST SIDE OF UTILITY POLE  
4. S32°W 115.73' SET NAIL AND TAG IN NORTHWEST SIDE OF  
UTILITY POLE

DESCRIPTION: FOUND REMONUMENTATION CAP IN MONUMENT BOX.  
COORDINATES: N=385479.22 E=13475736.07  
STATION: 215+49.33 OFFSET: -2824.88 ALI: MOUND RD LEGAL ALI  
WITNESSES:  
1. N39°E 55.36' TOP CENTER NUT OF HYDRANT  
2. S00°E 99.57' FOUND NORTHWEST CORNER OF BLOCK  
FOUNDATION  
3. N31°W 49.60' PK NAIL AND TAG IN SOUTHWEST SIDE OF UTILITY  
POLE  
4. S38°W 69.23' SET NAIL AND TAG IN NORTHWEST SIDE OF UTILITY  
POLE

DESCRIPTION: FOUND REMONUMENTATION CAP IN BOX.  
COORDINATES: N=380197.45 E=13475753.13  
STATION: 162+60.62 OFFSET: -3061.69 ALI: MOUND RD LEGAL ALI  
WITNESSES:  
1. N36°W 50.36' CENTER NUT OF HYDRANT  
2. EAST 253.21' D-1  
3. S12°E 50.85' SET NAIL AND TAG IN WEST SIDE OF UTILITY POLE  
4. S61°W 108.51' SET NAIL AND TAG IN NORTH SIDE OF UTILITY  
POLE

DESCRIPTION: FOUND 3/4" IRON WITHOUT CAP IN GRASS.  
COORDINATES: N=412841.30 E=13477120.02  
STATION: 488+16.49 OFFSET: 0.00 ALI: MOUND RD LEGAL ALI  
WITNESSES:  
1. N18°E 94.94' SET NAIL AND TAG IN SOUTH SIDE OF UTILITY POLE  
2. N34°W 8.73' FOUND NAIL AND TAG IN SOUTHWEST SIDE OF  
UTILITY POLE  
3. S55°E 15.04' NORTHWEST CORNER OF CURB INLET MANHOLE  
4. N84°W 98.60' SET NAIL AND TAG IN NORTH SIDE OF UTILITY POLE

DESCRIPTION: FOUND REMONUMENTATION CAP IN MONUMENT BOX.  
COORDINATES: N=409479.51 E=13477287.22  
STATION: 454+50.54 OFFSET: 0.00 ALI: MOUND RD LEGAL ALI  
WITNESSES:  
1. N79°E 95.43' "X" ON SOUTHWEST BOLT OF HYDRANT  
2. S07°W 52.88' "X" NORTH SIDE OF RIM OF STORM MANHOLE  
3. N70°W 95.19' FOUND PK IN NORTH SIDE OF UTILITY POLE  
4. S22°W 34.33' SET NAIL AND TAG IN WEST SIDE OF 10" MAPLE  
TREE

DESCRIPTION: FOUND REMONUMENTATION CAP IN MONUMENT BOX.  
COORDINATES: N=406870.52 E=13477429.80  
STATION: 428+37.66 OFFSET: 0.00 ALI: MOUND RD LEGAL ALI  
WITNESSES:  
1. N70°W 141.29' PK IN SOUTHWEST SIDE OF UTILITY POLE  
2. N73°E 104.03' PK NAIL AND TAG IN NORTHWEST SIDE OF UTILITY  
POLE  
3. S60°W 121.22' TO CENTER NUT ON HYDRANT  
4. N13°W 39.54' SET NAIL AND TAG IN EAST SIDE OF UTILITY POLE

DESCRIPTION: FOUND 3/4" IRON.  
COORDINATES: N=404182.07 E=13477570.83  
STATION: 401+45.51 OFFSET: 0.00 ALI: MOUND RD LEGAL ALI  
WITNESSES:  
1. N78°E 147.19' TOP CENTER NUT OF HYDRANT  
2. S60°E 105.62' PK IN SOUTHWEST SIDE OF UTILITY POLE  
3. S61°W 110.01' TOP CENTER NUT OF HYDRANT  
4. N80°W 140.35' TO TOP CENTER NUT OF HYDRANT

DESCRIPTION: FOUND REMONUMENTATION CAP IN MONUMENT BOX.  
 COORDINATES: N=401550.51 E=13477703.15  
 STATION: 375+10.63 OFFSET: 0.00 ALI: MOUND RD LEGAL ALI  
 WITNESSES:  
 1. N56°W 106.39' NAIL AND TAG IN SOUTHWEST SIDE OF UTILITY  
 POLE  
 2. S66°W 108.13' PK IN SOUTHEAST SIDE OF UTILITY POLE  
 3. S06°E 100.51' "X" CENTER LINE NUT OF HYDRANT  
 4. N68°E 109.46' PK NAIL IN SOUTHEAST SIDE OF UTILITY POLE

DESCRIPTION: FOUND 3/4" IRON WITHOUT CAP.  
COORDINATES: N=398899.96 E=13477849.86  
STATION: 348+56.02 OFFSET: 0.00 ALI: MOUND RD LEGAL ALI  
WITNESSES:  
1. N86°W 93.89' NAIL AND TAG IN NORTH FACE OF UTILITY POLE  
2. N70°E 101.90' CONCRETE PLAT MONUMENT  
3. S16°E 24.82' "X" ON NORTH RIM OF MANHOLE  
4. S47°W 141.54' PK NAIL AND TAG IN EAST SIDE OF UTILITY POLE

DESCRIPTION: FOUND REMONUMENTATION CAP IN MONUMENT BOX.  
COORDINATES: N=396281.34 E=13477960.96  
STATION: 322+35.04 OFFSET: 0.00 ALI: MOUND RD LEGAL ALI  
WITNESSES:  
1. N06°W 60.63' PK NAIL AND TAG IN EAST SIDE OF UTILITY POLE  
2. N65°E 118.88' PK NAIL AND TAG IN SOUTHEAST SIDE OF UTILITY  
POLE  
3. S54°E 124.78' PK NAIL AND TAG IN NORTHEAST SIDE OF UTILITY  
POLE  
4. S61°W 125.74' PK NAIL AND TAG IN SOUTHEAST SIDE OF UTILITY  
POLE

DESCRIPTION: FOUND CONCRETE MONUMENT WITHOUT CAP.  
COORDINATES: N=393611.35 E=13478099.91  
STATION: 295+61.44 OFFSET: 0.00 ALI: MOUND RD LEGAL ALI  
WITNESSES:

1. N44°E	18.33'	PK NAIL AND TAG IN SOUTHEAST SIDE OF UTILITY POLE
2. N66°W	99.95'	PK NAIL AND TAG IN SOUTHEAST SIDE OF UTILITY POLE
3. S72°W	98.22'	PK NAIL AND TAG IN SOUTHEAST SIDE OF UTILITY POLE
4. S40°E	32.78'	TO NORTHWEST CORNER OF CURB INLET CATCH BASIN

DESCRIPTION: FOUND CONCRETE MONUMENT WITHOUT CAP.  
COORDINATES: N=390937.53 E=13478242.88  
STATION: 268+83.80 OFFSET: 0.00 ALI: MOUND RD LEGAL ALI  
WITNESSES:  
1. N40°W 150.32' PK NAIL AND TAG IN NORTHEAST SIDE OF UTILITY  
POLE  
2. N48°E 144.75' PK NAIL AND TAG IN NORTHWEST SIDE OF UTILITY  
POLE  
3. S87°E 116.40' "X" ON NORTHWEST BOLT OF LIGHT POLE  
4. N85°W 115.13' "X" ON SOUTHEAST BOLT OF LIGHT POLE

DESCRIPTION: FOUND REMONUMENTATION CAP WITHOUT BOX IN  
MEDIAN.

COORDINATES: N=388297.04 E=13478384.08

STATION: 242+39.54 OFFSET: 0.00 ALI: MOUND RD LEGAL ALI

WITNESSES:

1. N90°E	12.73'	PK NAIL AND TAG IN SOUTH SIDE OF UTILITY POLE
2. S02°E	132.40'	PK NAIL AND TAG IN EAST SIDE OF UTILITY POLE
3. N27°W	21.55'	"X" ON SOUTHEAST SIDE OF MANHOLE RIM
4. N86°W	91.78'	PK NAIL AND TAG IN SOUTH SIDE OF UTILITY POLE

DESCRIPTION: FOUND 5/8" IRON IN MONUMENT BOX.  
 COORDINATES: N=385646.93 E=13478556.18  
 STATION: 215+83.85 OFFSET: 0.00 ALL: MOUND RD LEGAL ALLI  
 WITNESSES:  
 1. S01°E 49.95' PK NAIL AND TAG IN EAST SIDE OF UTILITY POLE  
 2. S67°W 131.52' PK NAIL AND TAG IN NORTHWEST SIDE OF UTILITY  
 POLE  
 3. N00°E 104.64' PK NAIL AND TAG IN WEST SIDE OF UTILITY POLE  
 4. N30°W 130.94' TO TOP CENTER NUT OF HYDRANT

DESCRIPTION: FOUND REMONUMENTATION CAP IN MONUMENT BOX.  
COORDINATES: N=383024.00 E=13478680.03  
STATION: 189+57.99 OFFSET: 0.00 ALI: MOUND RD LEGAL ALI  
WITNESSES:  
1. N01°W 53.30' PK NAIL AND TAG IN WEST SIDE OF UTILITY POLE  
2. S78°E 103.40' PK NAIL AND TAG IN NORTHWEST SIDE OF UTILITY  
POLE  
3. SOUTH 99.01' PK NAIL AND TAG IN WEST SIDE OF UTILITY POLE  
4. S12°W 13.91' SET NAIL AND TAG IN WEST SIDE OF MULBERRY  
TREE

DESCRIPTION: FOUND 3/4" IRON IN BOX.  
COORDINATES: N=412980.38 E=13479772.10  
STATION: 488+23.99 OFFSET: 2655.71 ALI: MOUND RD LEGAL ALI  
WITNESSES:  
1. S47°E 44.71' NAIL AND TAG IN NORTH SIDE OF UTILITY POLE  
2. N11°W 58.09' NAIL AND TAG IN WEST SIDE OF UTILITY POLE  
3. N46°W 38.78' TOP CENTER NUT OF HYDRANT  
4. S22°W 45.96' SET NAIL AND TAG IN NORTHWEST SIDE OF 5"  
CHERRY TREE

DESCRIPTION: FOUND REMONUMENTATION CAP IN CENTERLINE OF RAILROAD TRACKS.

COORDINATES: N=406998.40 E=13480075.96

STATION: 428+26.74 OFFSET: 2649.23 ALI: MOUND RD LEGAL ALI

WITNESSES:

1. S88°W	41.95'	TOP CENTER NUT OF HYDRANT
2. S24°W	90.55'	NORTHEAST VERTICAL BOLT OF RAILROAD SIGN
BASE		
3. N60°E	49.76'	FOUND PK IN SOUTHEAST SIDE OF UTILITY POLE
4. S40°E	25.39'	FOUND PK IN SOUTHWEST SIDE OF UTILITY POLE

DESCRIPTION: FOUND REMONUMENTATION CAP IN BOX.  
COORDINATES: N=401732.35 E=13480340.36  
STATION: 375+59.80 OFFSET: 2643.01 ALI: MOUND RD LEGAL ALI  
WITNESSES:

1. N67°E	66.23'	PK IN SOUTH SIDE OF UTILITY POLE
2. S48°E	86.10'	PK WITH TAG IN SOUTH SIDE OF UTILITY POLE
3. S48°W	72.85'	PK WITH TAG IN EAST SIDE OF UTILITY POLE
4. N53°W	79.06'	CENTER NUT OF HYDRANT

DESCRIPTION: FOUND REMONUMENTATION CAP IN BOX.  
 COORDINATES: N=396438.65 E=13480597.83  
 STATION: 322+80.44 OFFSET: 2641.17 ALI: MOUND RD LEGAL ALI  
 WITNESSES:  
 1. N51°W 78.26' CHISELED "+" ON SOUTHWEST BOLT LIGHT POLE  
 2. S40°E 67.62' CHISELED "+" ON NORTHEAST BOLT LIGHT POLE  
 3. S60°E 163.41' CHISELED "+" ON TOP BOLT OF HYDRANT  
 4. N81°E 78.84' CHISELED "+" ON TOP OF WALL AT DEDICATION  
 PLAQUE

DESCRIPTION: FOUND PK NAIL IN CENTERLINE OF RAILROAD TRACKS.  
COORDINATES: N=385796.89 E=13481123.62  
STATION: 215+83.85 OFFSET: -2571.82 ALI: MOUND RD LEGAL ALI  
WITNESSES:



1. N44°E	50.17'	PK NAIL AND TAG IN WEST SIDE OF UTILITY POLE
2. N59°E	100.53'	PK NAIL AND TAG IN SOUTHEAST SIDE OF UTILITY POLE
3. S85°E	25.19'	1" PIPE IN MONUMENT BOX (WITNESS CORNER)
4. EAST	3.16'	FOUND EDGE OF EAST RAIL OF MAIN RAILROAD TRACK

Innovate Mound Project	APPROVED	<input type="checkbox"/>
<b>REVIEW</b>	APPROVED AS NOTED	<input type="checkbox"/>
	ACCEPTED	<input checked="" type="checkbox"/>
	ACCEPTED AS NOTED	<input type="checkbox"/>
	AMEND AND RESUBMIT	<input type="checkbox"/>
	REJECTED - SEE REMARKS	<input type="checkbox"/>

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BY Steve Goffman

DATE 10/28/2022

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE: )									 Department of Roads	NO SCALE		DATE: 10/12/22	CS: INFR50000	SURVEY INFORMATION SHEET	DRAWING	SHEET		
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION					DESIGN UNIT: XXX	JN: 207178A					
												FILE: 207178_Survey_Info_Sheet.doc	TSC: MACOMB					

**SECTION CORNER: T2N-R12E / G-4**  
DESCRIPTION: FOUND REMONUMENTATION CAP IN BOX.  
COORDINATES: N=404460.35 E=13482873.33  
STATION: 401+45.63 OFFSET: 5309.80 ALI: MOUND RD LEGAL ALI  
WITNESSES:  
1. N64°W 66.20' PK NAIL AND TAG IN SOUTH SIDE OF LIGHT POLE  
2. N71°E 58.63' PK NAIL AND TAG IN NORTH SIDE OF UTILITY  
POLEELMER  
3. N60°E 18.23' NORTHWEST CORNER OF CURB INLET MANHOLE  
4. S46°W 120.20' TO TOP CENTER NUT OF HYDRANT

**SECTION CORNER: T3N-R12E / E-12**  
DESCRIPTION: FOUND REMONUMENTATION CAP ONE FOOT BELOW  
GRADE  
COORDINATES: N=415588.52 E=13477072.83  
STATION: 514+93.69 OFFSET: 0.00 ALI: MOUND RD LEGAL ALI  
WITNESSES:  
1. N71°E 57.88' REMON NAIL AND TAG IN NORTHWEST SIDE OF  
UTILITY POLE  
2. S46°E 164.23' TO TOP CENTER NUT OF HYDRANT  
3. S39°W 68.81' REMON NAIL AND TAG IN NORTHWEST SIDE OF  
UTILITY POLE  
4. N09°W 163.12' REMON NAIL AND TAG IN NORTHWEST SIDE OF 12"  
SPRUCE

Innovate Mound Project

REVIEW

APPROVED ☐

APPROVED AS NOTED ☐

ACCEPTED ☒

ACCEPTED AS NOTED ☐

AMEND AND RESUBMIT ☐

REJECTED - SEE REMARKS ☐

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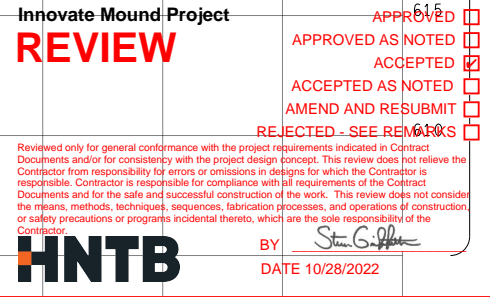
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BY 

DATE 10/28/2022

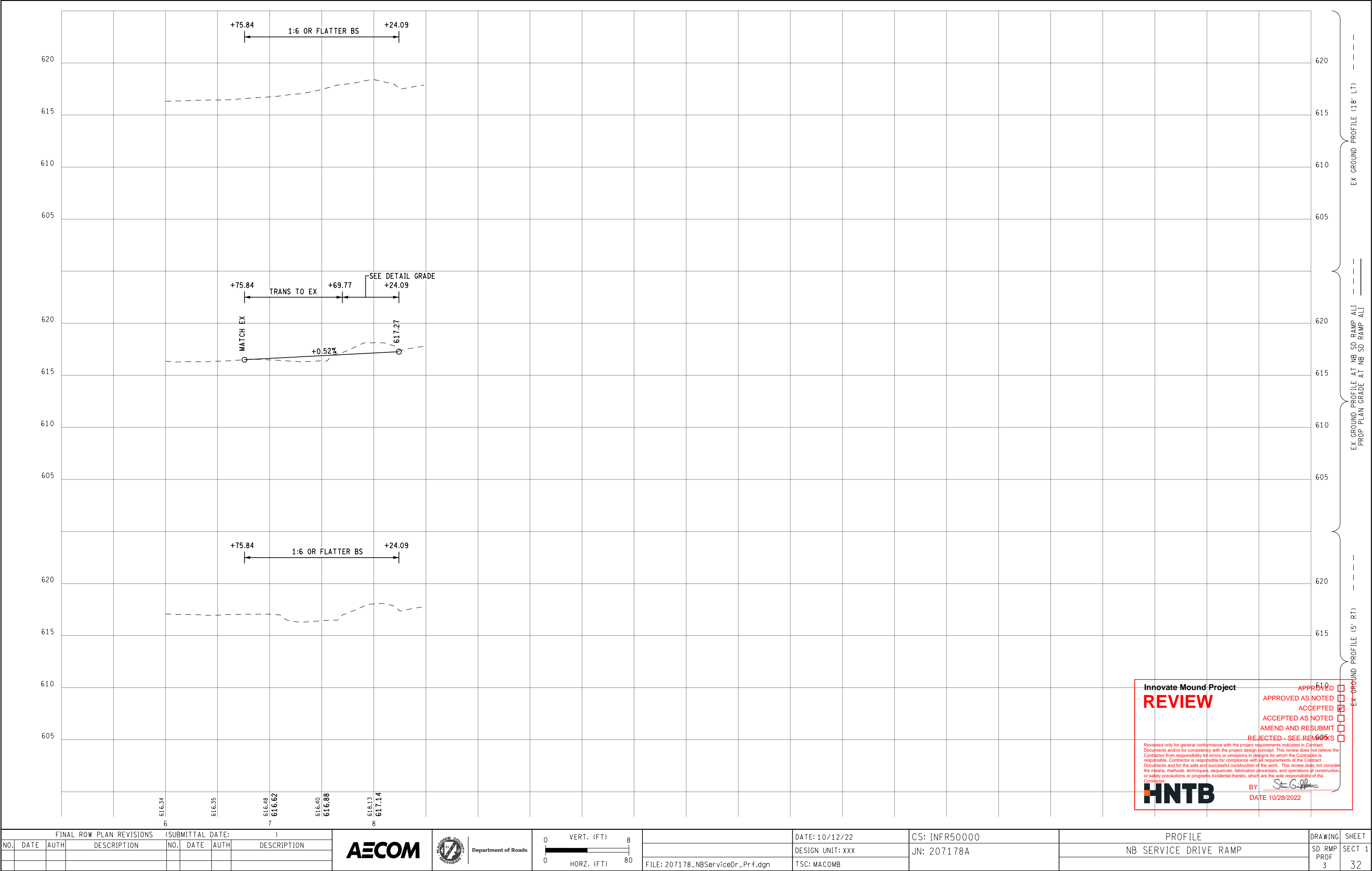
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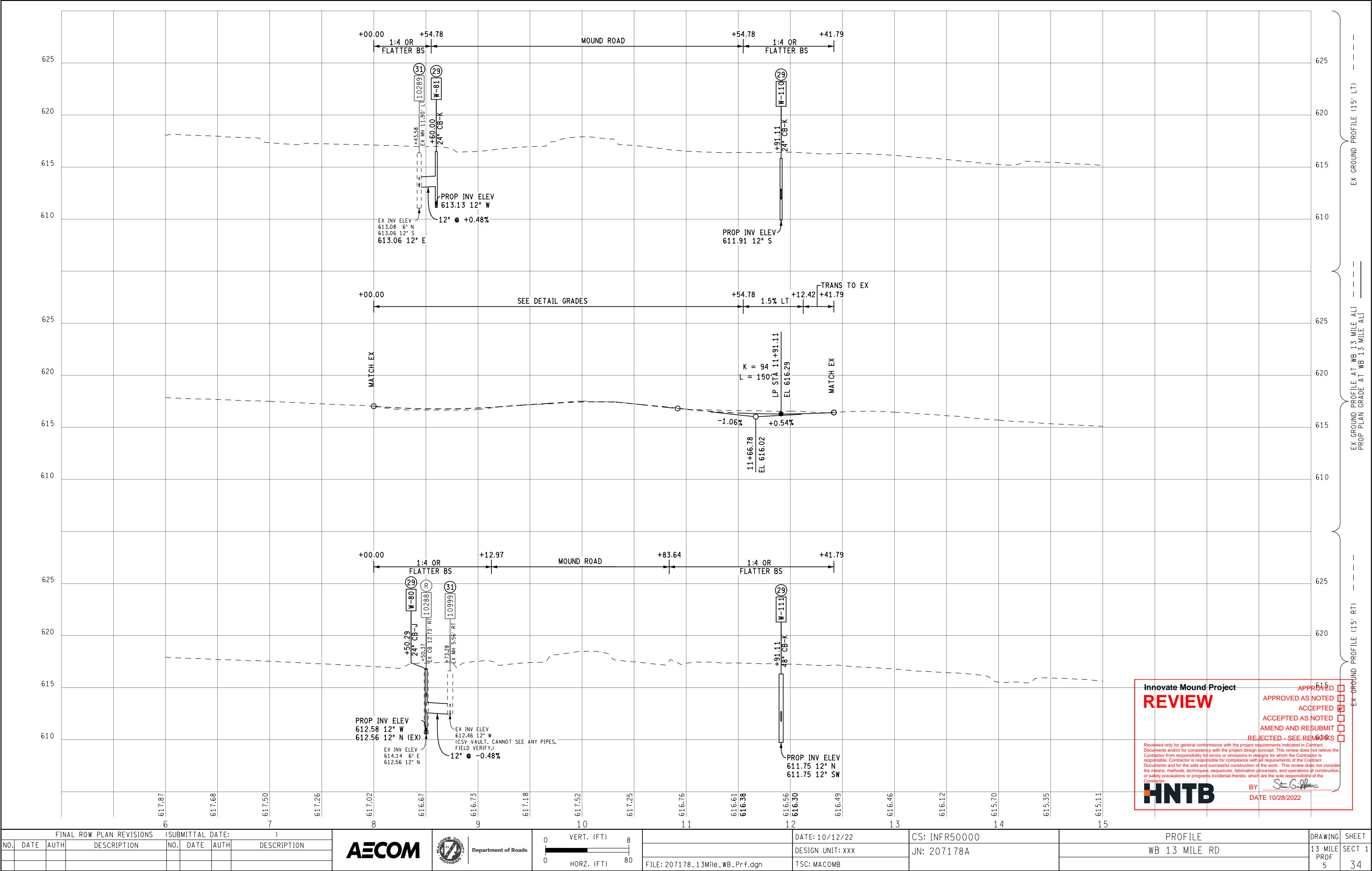


FINAL ROW PLAN REVISIONS (SUBMITTAL DATE: )									 Department of Roads			DATE: 10/12/22	CS: INFR50000	PROFILE		DRAWING	SHEET	
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Innovate Mound Project

REVIEW

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HNTB

BY *Steve G. [Signature]*

DATE 10/28/2022

APPROVED

APPROVED AS NOTED

ACCEPTED

ACCEPTED AS NOTED

AMEND AND RESUBMIT

REJECTED - SEE REMARKS

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE: )							
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION

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Department of Roads

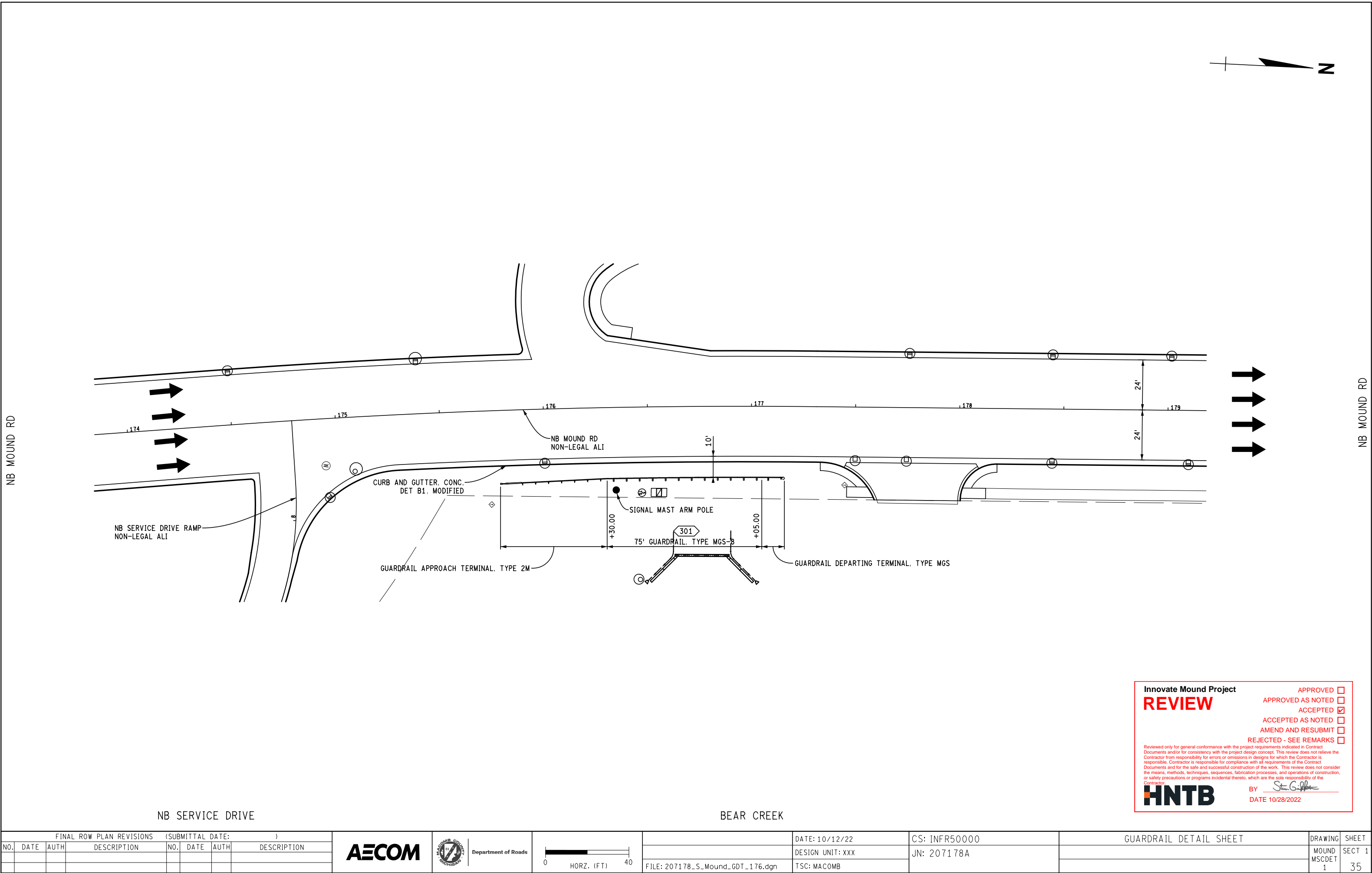
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DATE: 10/12/22  
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TSC: MACOMB

CS: INFR50000  
JN: 207178A

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WB 13 MILE RD

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Innovate Mound Project

REVIEW

APPROVED ☐

APPROVED AS NOTED ☐

ACCEPTED ☒

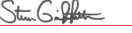
ACCEPTED AS NOTED ☐

AMEND AND RESUBMIT ☐

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HNTB

BY 

DATE 10/28/2022

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE: )							
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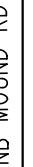
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TSC: MACOMB

CS: INFR50000  
JN: 207178A

GUARDRAIL DETAIL SHEET

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MOUND MSCDET 1	35





Innovate Mound Project	APPROVED	<input type="checkbox"/>
<b>REVIEW</b>	APPROVED AS NOTED	<input type="checkbox"/>
	ACCEPTED	<input checked="" type="checkbox"/>
	ACCEPTED AS NOTED	<input type="checkbox"/>
	AMEND AND RESUBMIT	<input type="checkbox"/>
	REJECTED - SEE REMARKS	<input type="checkbox"/>

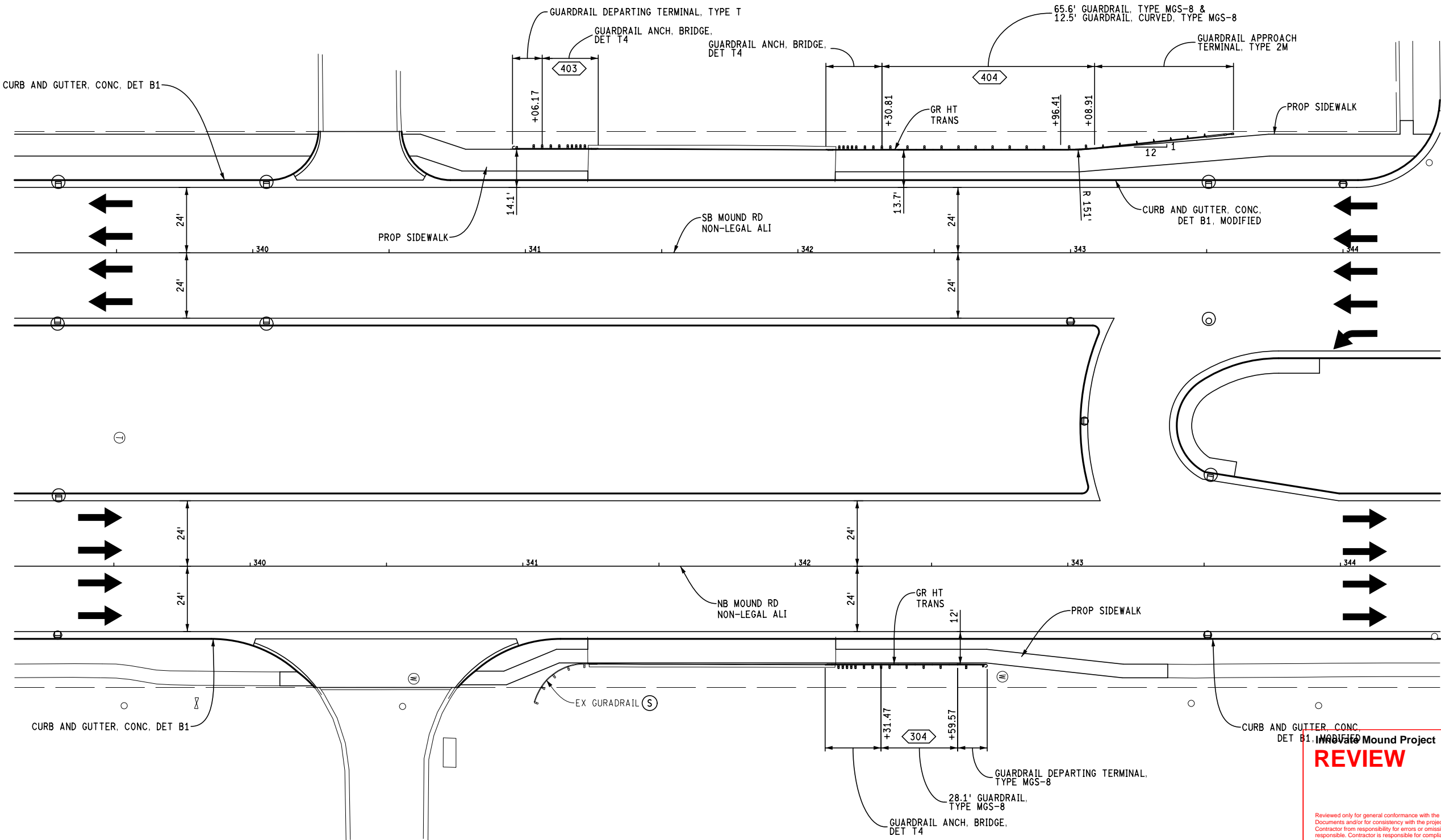
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**INB**

BY Steve G. Hoffman

DATE 10/28/2022

DRAWING	SHEET
FOUND SCDET 2	SECT 1  36



INNOVATE Mound Project

REVIEW

APPROVED ☐

APPROVED AS NOTED ☐

ACCEPTED ☒

ACCEPTED AS NOTED ☐

AMEND AND RESUBMIT ☐

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HNTB

BY Steve G. [Signature]

DATE 10/28/2022

FINAL ROW PLAN REVISIONS				(SUBMITTAL DATE: )			
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION

Department of Roads

BIG BEAVER CREEK

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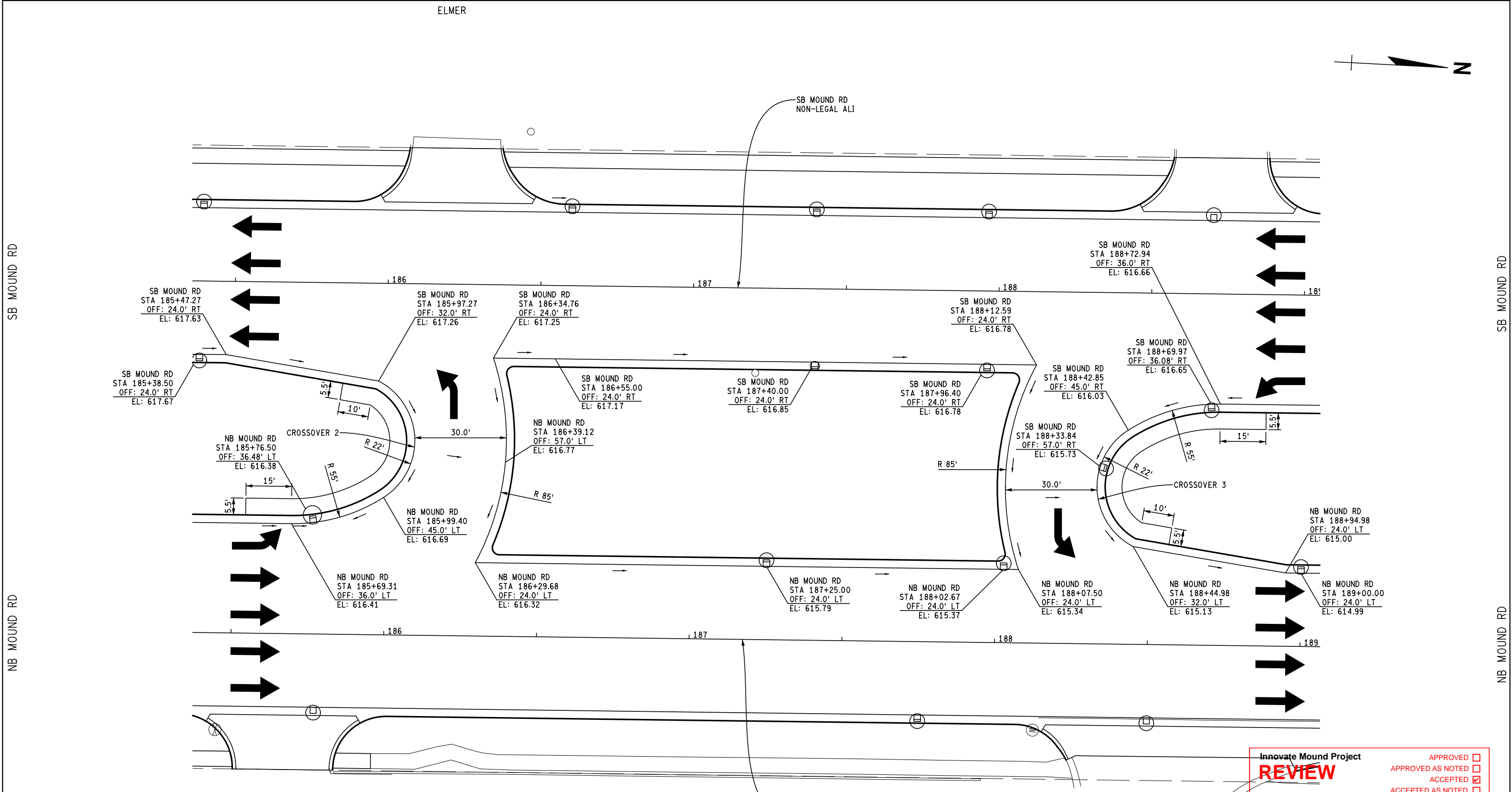
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TSC: MACOMB

CS: INFR50000  
JN: 207178A

GUARDRAIL DETAIL SHEET

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MOUND	SECT 1
MSCDET	37
3	





Innovate Mound Project

REVIEW

APPROVED ☐

APPROVED AS NOTED ☐

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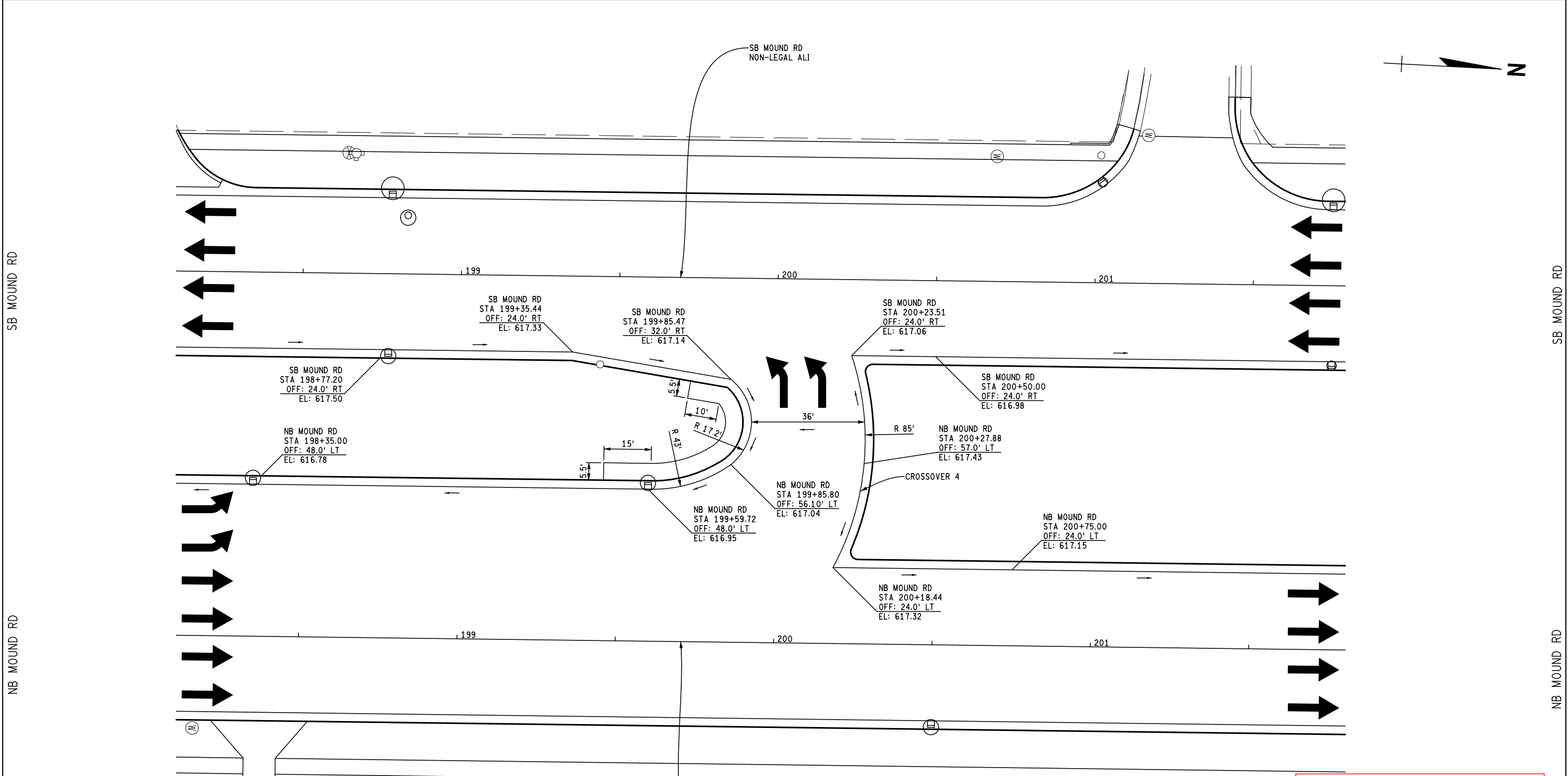
HNTB

BY *Steve G. [Signature]*

DATE 10/28/2022

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE: )						<div><div>AECOM</div><div><div>Department of Roads</div></div></div>		<div><div>0</div><div>HORZ. (FT)</div><div>30</div></div>	FILE: 207178_S_Mound_X0_02_186.dgn	DATE: 10/12/22 DESIGN UNIT: XXX TSC: MACOMB	CS: INFR50000 JN: 207178A	CROSSOVER DETAIL GRADES CROSSOVER 2 & 3	DRAWING	SHEET
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE								AUTH	DESCRIPTION





Innovate Mound Project

REVIEW

APPROVED ☐

APPROVED AS NOTED ☐

ACCEPTED ☒

ACCEPTED AS NOTED ☐

AMEND AND RESUBMIT ☐

REJECTED - SEE REMARKS ☐

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HNTB

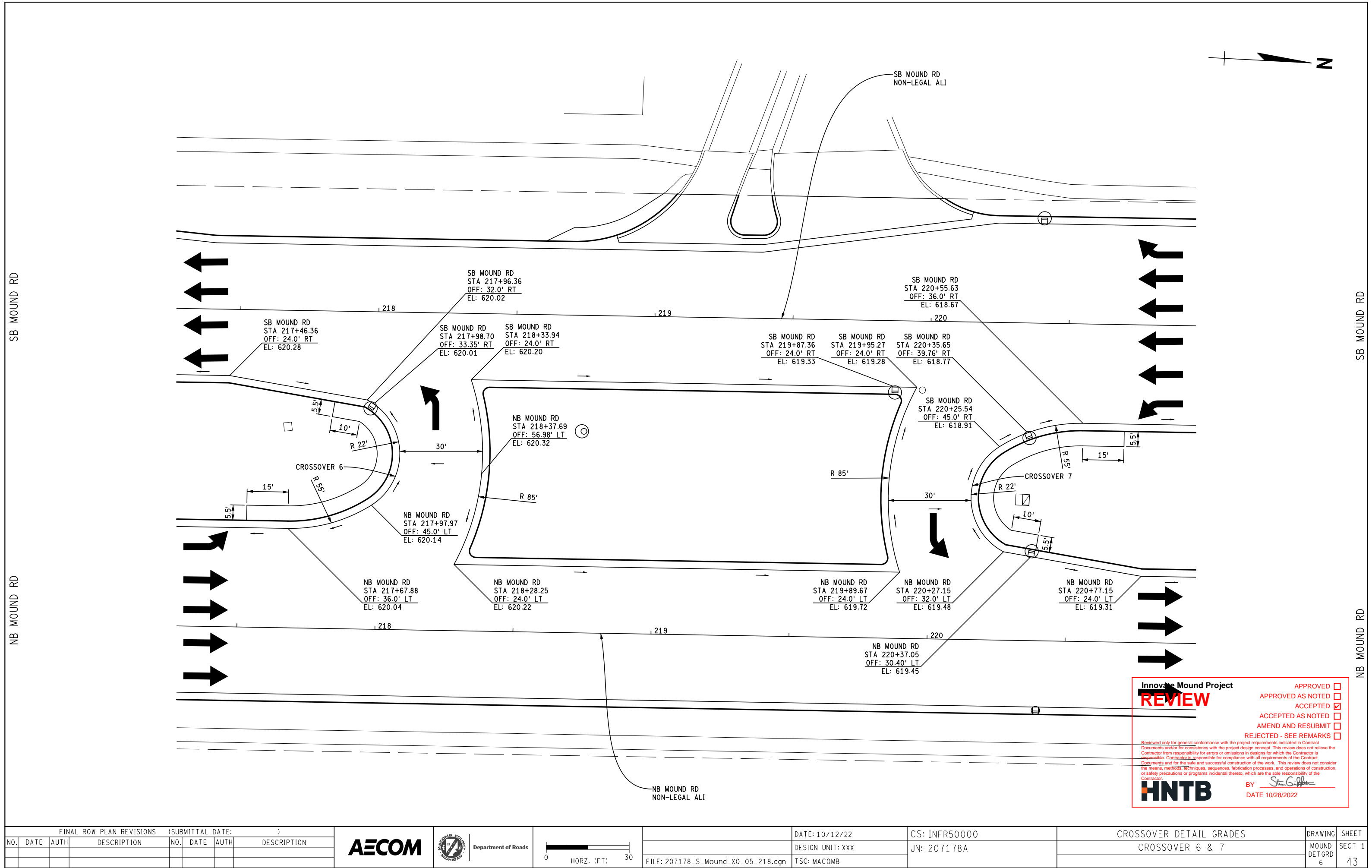
BY Steve G. [Signature]

DATE 10/28/2022

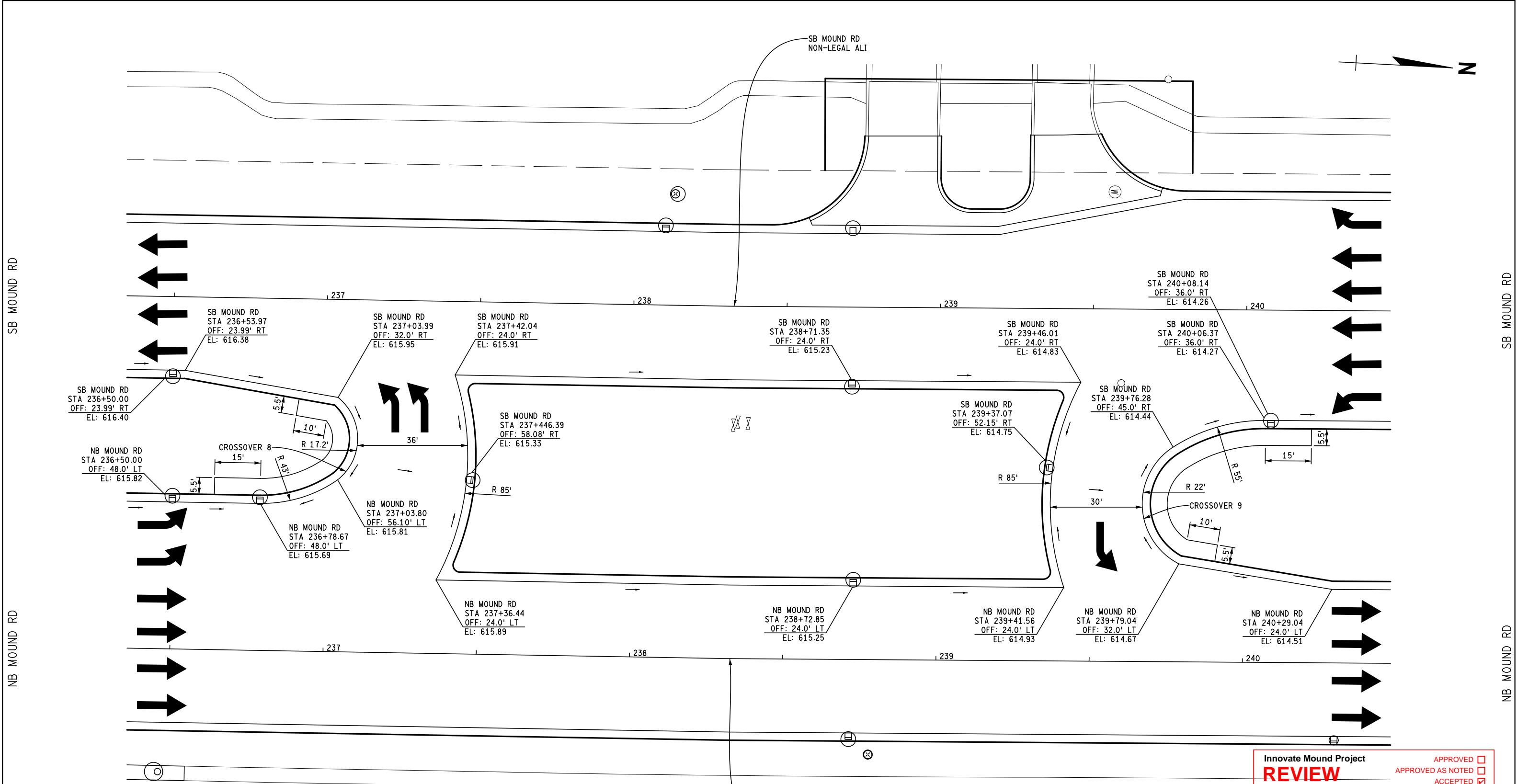
FINAL ROW PLAN REVISIONS (SUBMITTAL DATE: )						<div><div>AECOM</div><div><div>MACOMB COUNTY</div><div>Department of Roads</div></div></div>	<div><div>0</div><div>HORZ. (FT)</div><div>30</div></div>	FILE: 207178_S_Mound_X0_03A_200.dgn	DATE: 10/12/22	DESIGN UNIT: XXX	CS: INFR50000	JN: 207178A	CROSSOVER DETAIL GRADES	CROSSOVER 4	DRAWING MOUND DETGRD 3	SHEET 1 40		
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE												AUTH	DESCRIPTION











Innovate Mound Project

REVIEW

APPROVED ☐

APPROVED AS NOTED ☐

ACCEPTED ☒

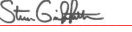
ACCEPTED AS NOTED ☐

AMEND AND RESUBMIT ☐

REJECTED - SEE REMARKS ☐

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HNTB

BY 

DATE 10/28/2022

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE: )							
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION

AECOM

 Department of Roads

0

HORZ. (FT)

30

FILE: 207178\_S\_Mound\_X0\_06\_237.dgn

DATE: 10/12/22  
DESIGN UNIT: XXX  
TSC: MACOMB

CS: INFR50000  
JN: 207178A

CROSSOVER DETAIL GRADES

CROSSOVER 8 & 9

DRAWING

SHEET

MOUND DETGRD

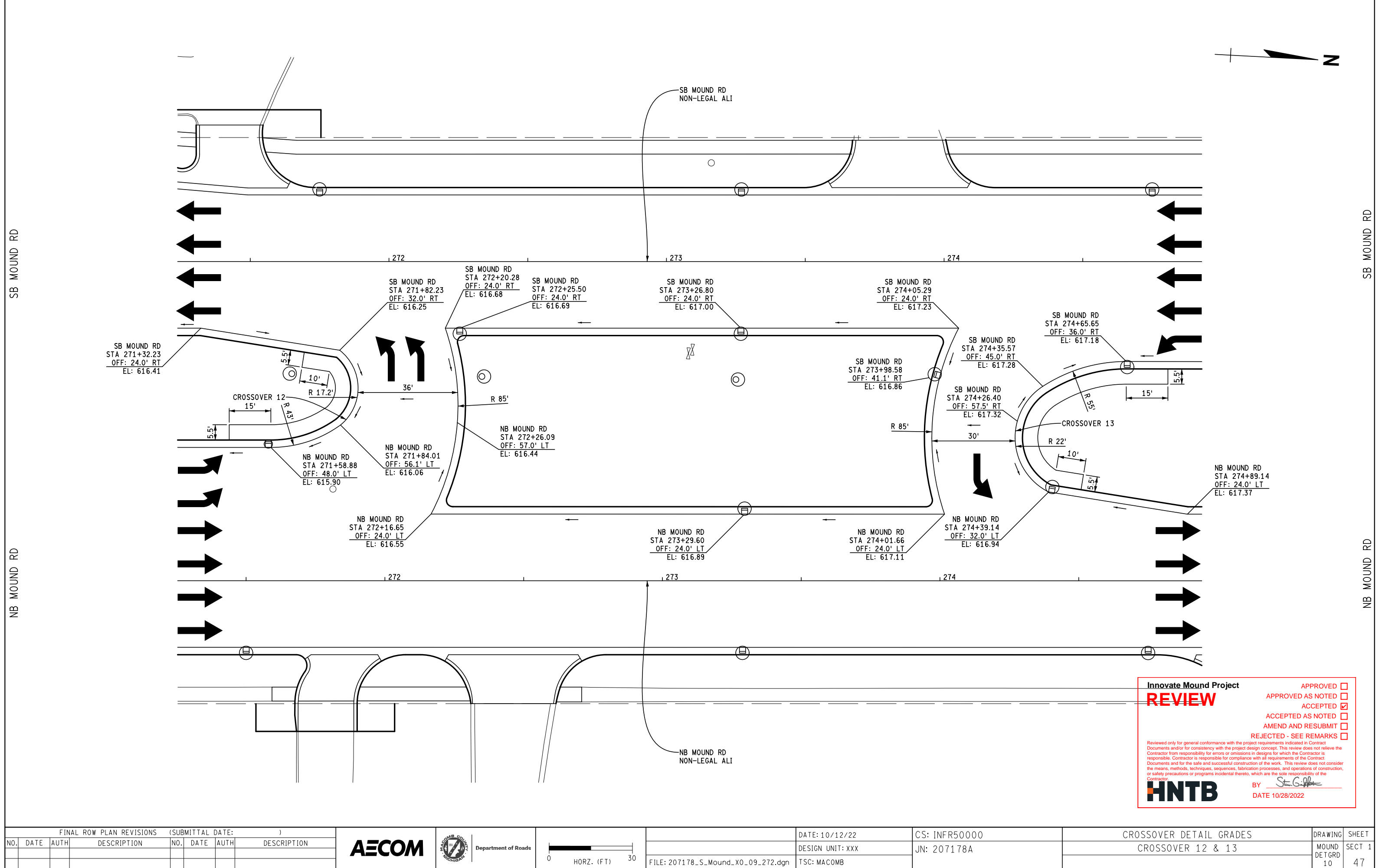
7

44

SECT 1







Innovate Mound Project

REVIEW

APPROVED ☐

APPROVED AS NOTED ☐

ACCEPTED ☒

ACCEPTED AS NOTED ☐

AMEND AND RESUBMIT ☐

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HNTB

BY *Steve G. [Signature]*

DATE 10/28/2022

FINAL ROW PLAN REVISIONS				(SUBMITTAL DATE: )			
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION

AECOM

MACOMB COUNTY

Department of Roads

0

HORZ. (FT)

30

FILE: 207178\_S\_Mound\_X0\_09\_272.dgn

TSC: MACOMB

DATE: 10/12/22

DESIGN UNIT: XXX

CS: INFR50000

JN: 207178A

CROSSOVER DETAIL GRADES

CROSSOVER 12 & 13

DRAWING

SHEET

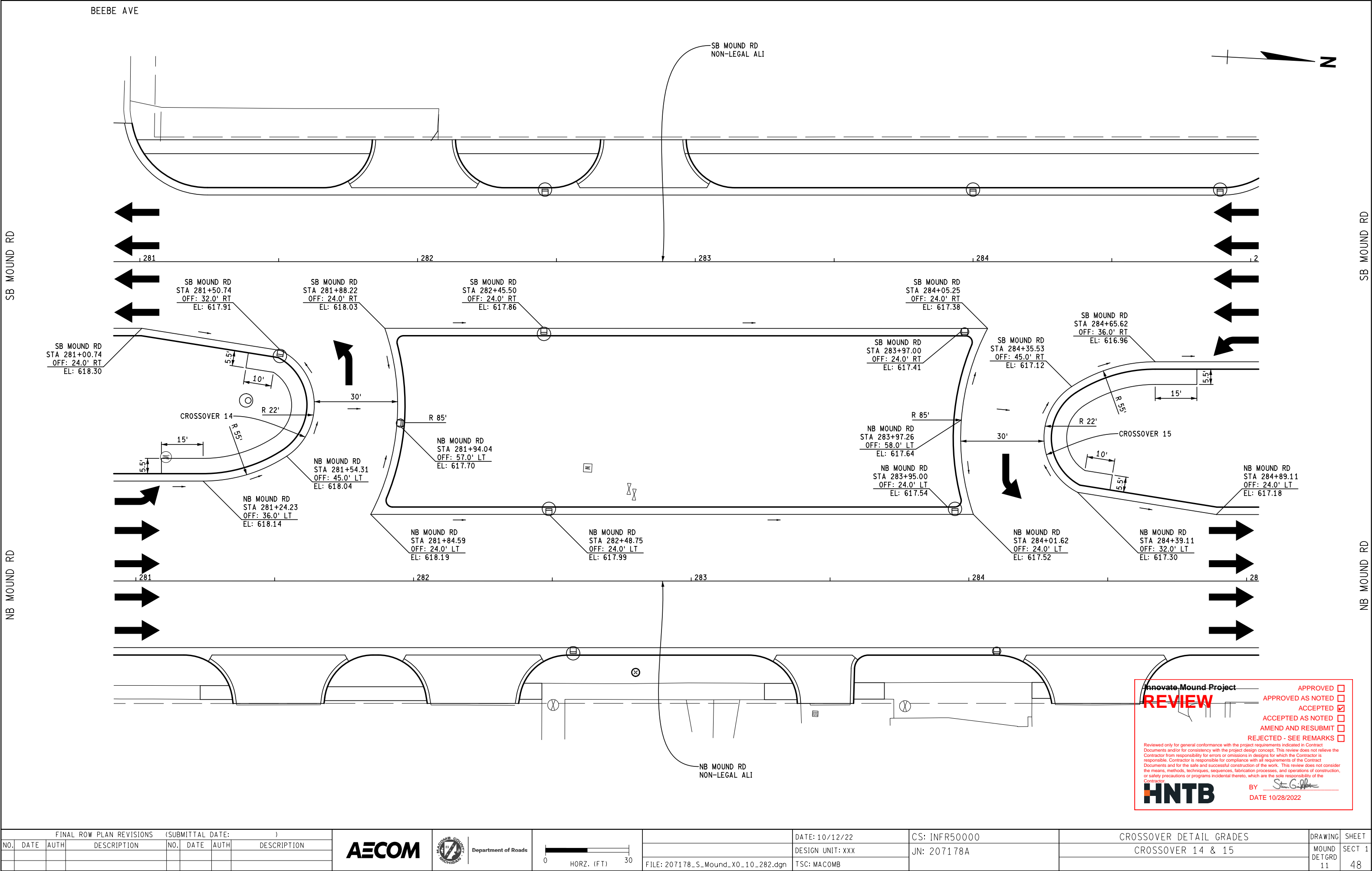
MOUND

DETGRD

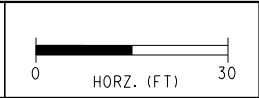
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47





FINAL ROW PLAN REVISIONS (SUBMITTAL DATE: )							
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION



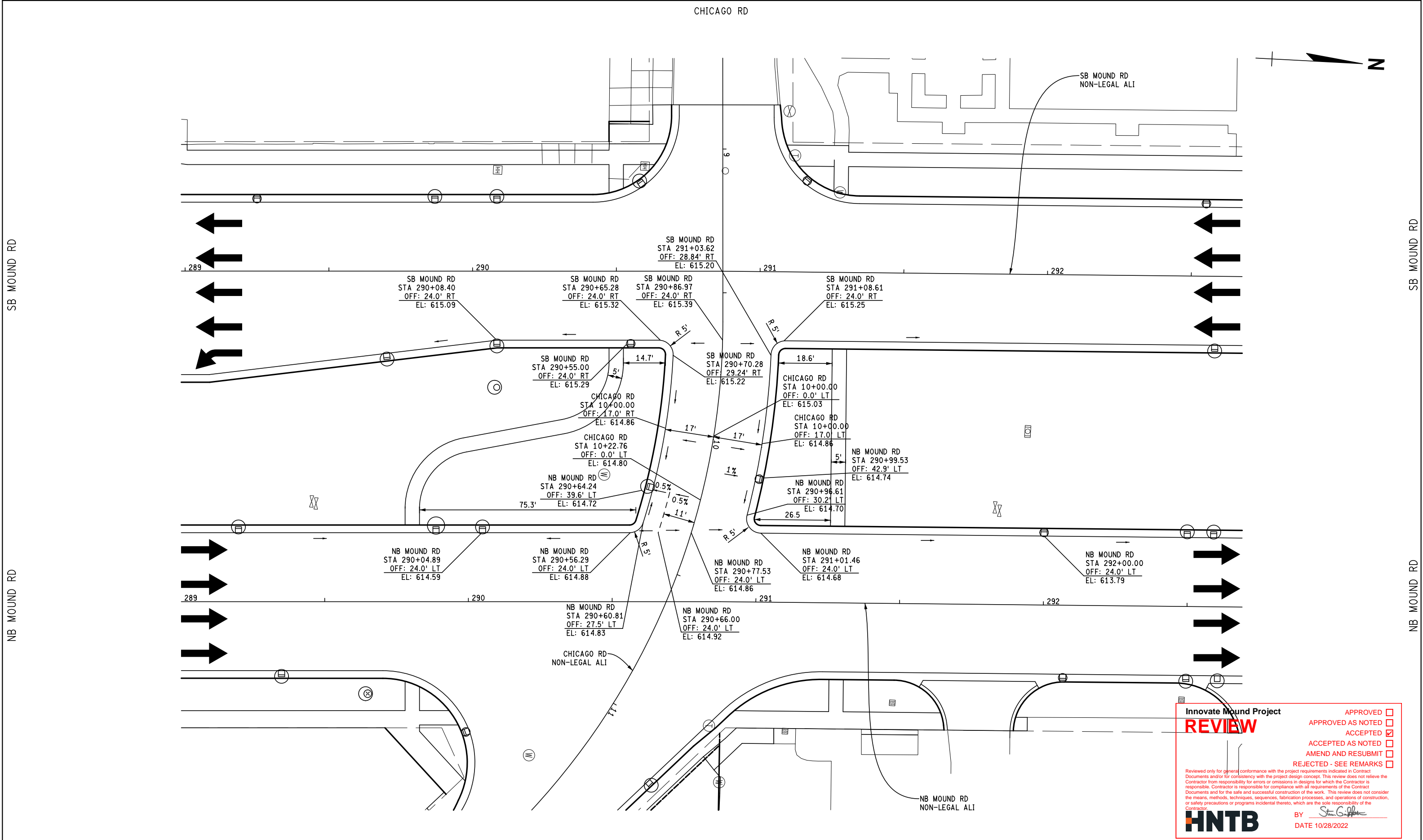
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DATE: 10/12/22  
DESIGN UNIT: XXX  
TSC: MACOMB

CS: INFR50000  
JN: 207178A

CROSSOVER DETAIL GRADES	
CROSSOVER 14 & 15	
MOUND DETGRD 11	SECT 1 48

DRAWING	SHEET
MOUND DETGRD 11	SECT 1 48



Innovate Mound Project

REVIEW

APPROVED ☐

APPROVED AS NOTED ☐

ACCEPTED ☒

ACCEPTED AS NOTED ☐

AMEND AND RESUBMIT ☐

REJECTED - SEE REMARKS ☐

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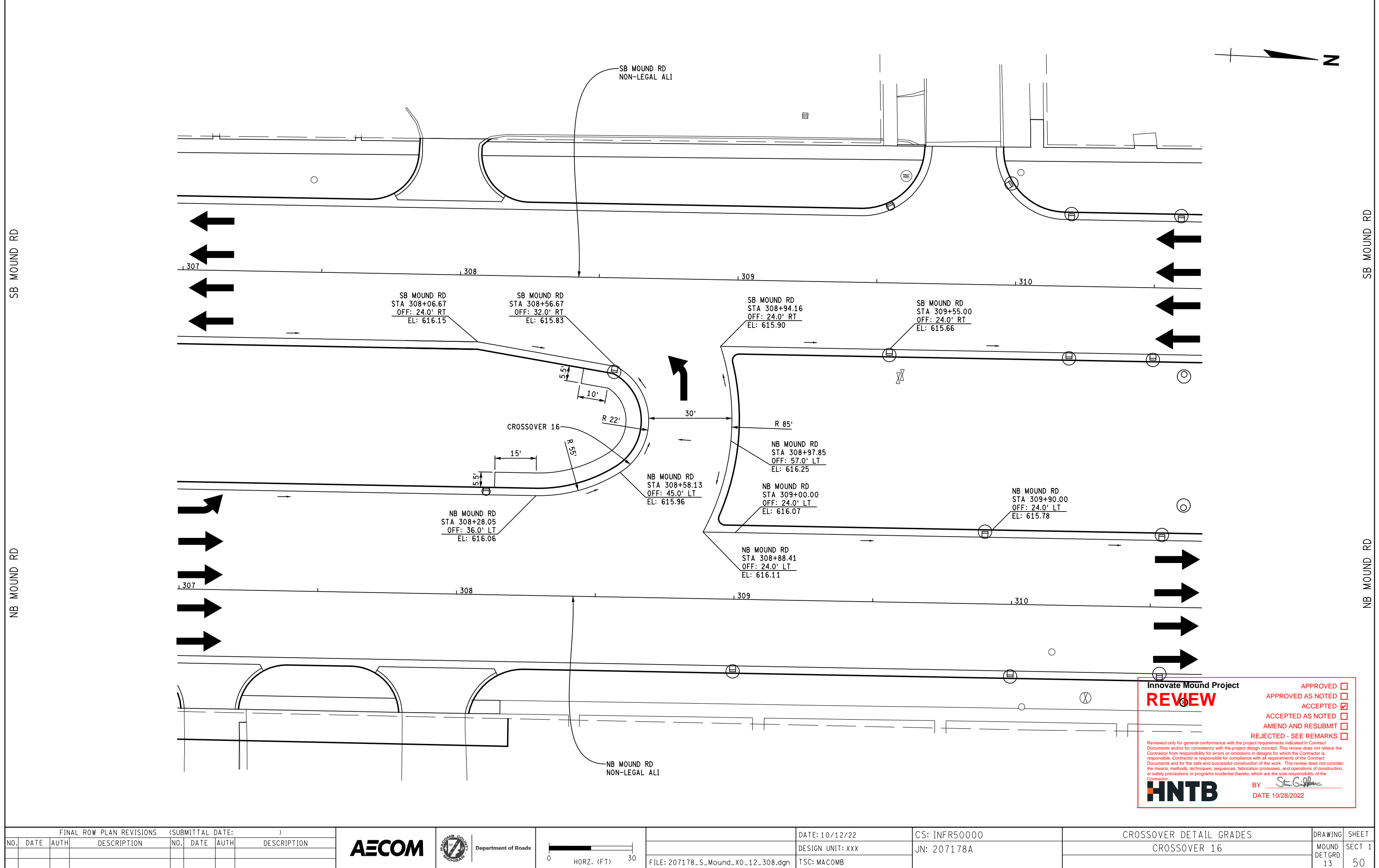
HNTB

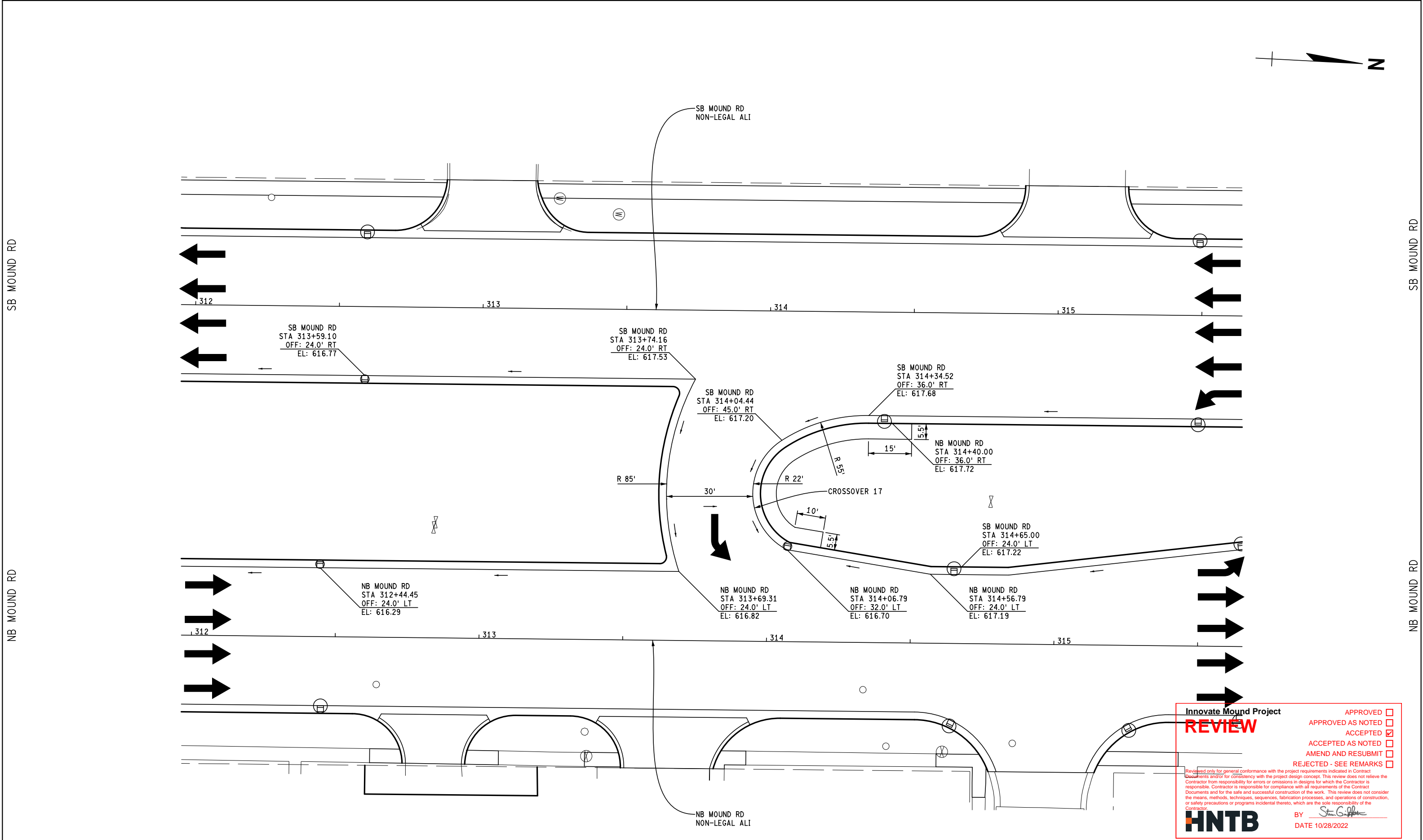
BY *Steve G. [Signature]*

DATE 10/28/2022

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE: )								AECOM		Department of Roads		FILE: 207178_S_Mound_X0_11_291.dgn	DATE: 10/12/22	DESIGN UNIT: XXX	TSC: MACOMB	CS: INFR50000	JN: 207178A	CROSSOVER DETAIL GRADES		DRAWING	SHEET
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION														

MOUND DETGRD		12
CHICAGO RD		49





Innovate Mound Project

REVIEW

APPROVED ☐

APPROVED AS NOTED ☐

ACCEPTED ☒

ACCEPTED AS NOTED ☐

AMEND AND RESUBMIT ☐

REJECTED - SEE REMARKS ☐

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HNTB

BY Steve G. [Signature]

DATE 10/28/2022

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE: )

NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION

AECOM

20 YEARS OF EXCELLENCE

Department of Roads

0 30

HORZ. (FT)

FILE: 207178\_S\_Mound\_X0\_13\_314.dgn

TSC: MACOMB

DATE: 10/12/22

DESIGN UNIT: XXX

CS: INFR50000

JN: 207178A

CROSSOVER DETAIL GRADES

CROSSOVER 17

DRAWING

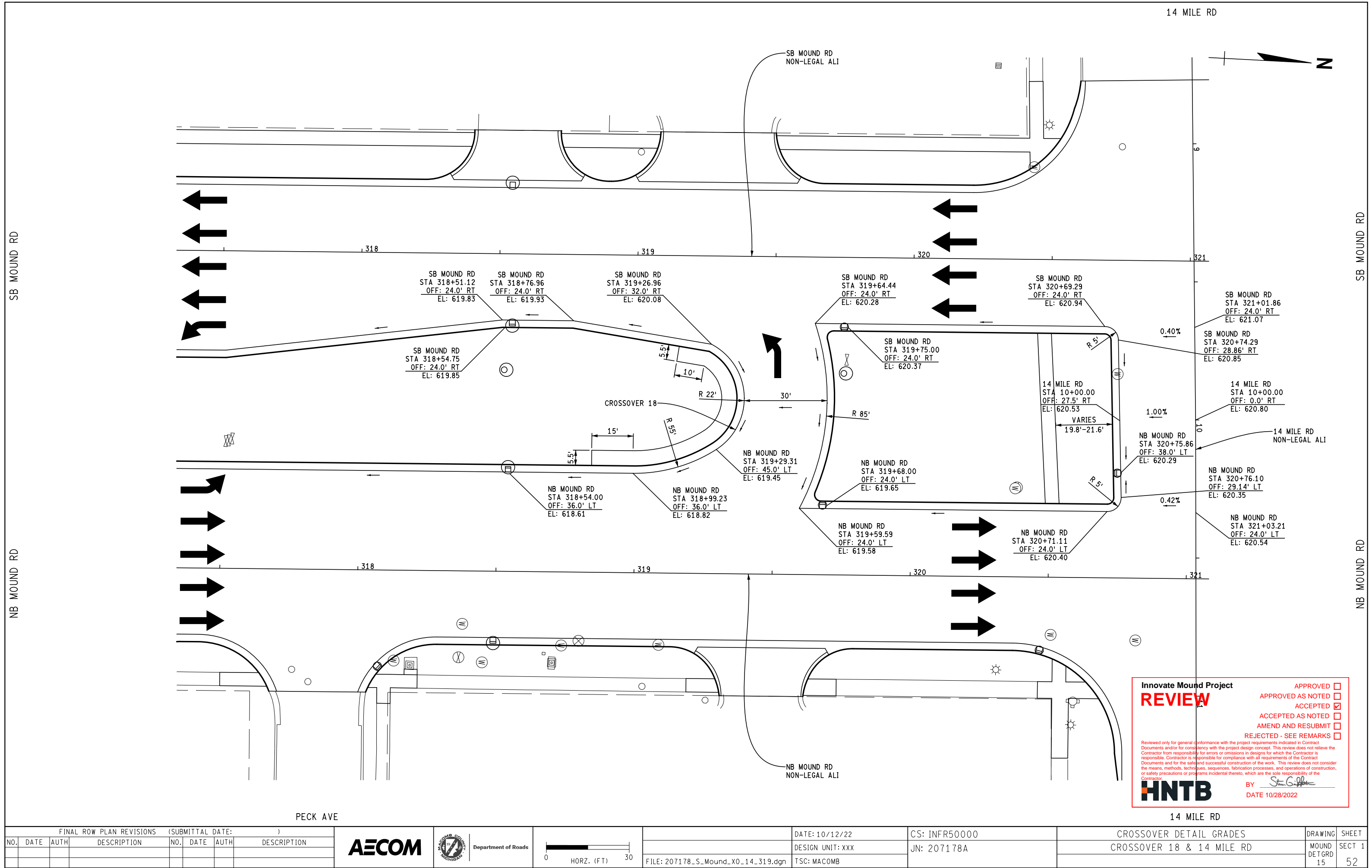
SHEET

MOUND DETGRD

14

51





14 MILE RD

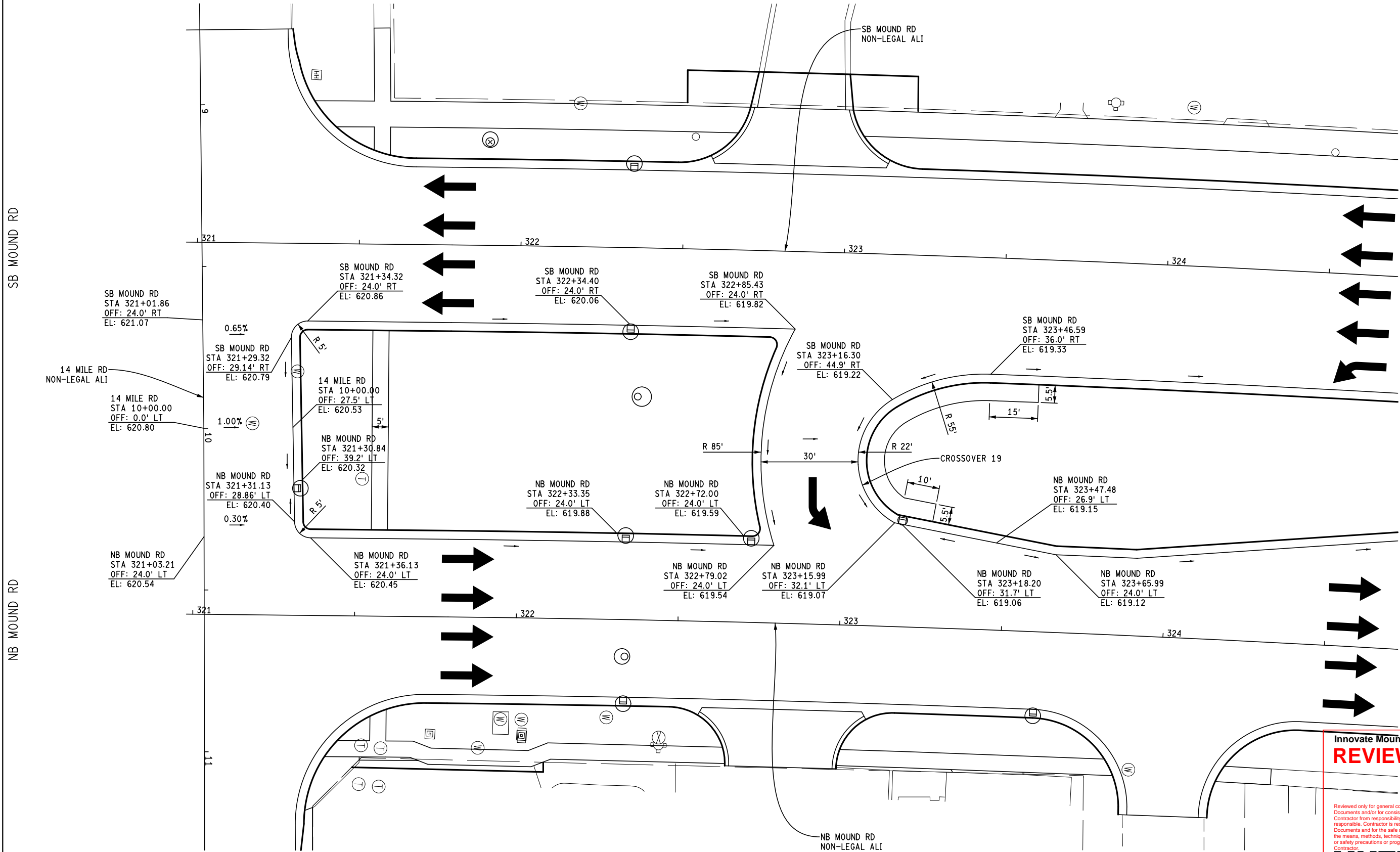


SB MOUND RD

SB MOUND RD

NB MOUND RD

NB MOUND RD



14 MILE RD

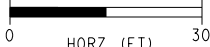
ALMORE RD

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE: )							
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION

AECOM



Department of Roads



FILE: 207178\_S\_Mound\_X0\_15\_323.dgn

DATE: 10/12/22  
DESIGN UNIT: XXX  
TSC: MACOMB

CS: INFR50000  
JN: 207178A

CROSSOVER DETAIL GRADES  
14 MILE RD & CROSSOVER 19

DRAWING	SHEET
MOUND DETGRD	16
	53

Innovate Mound Project

REVIEW

APPROVED ☐

APPROVED AS NOTED ☐

ACCEPTED ☒

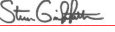
ACCEPTED AS NOTED ☐

AMEND AND RESUBMIT ☐

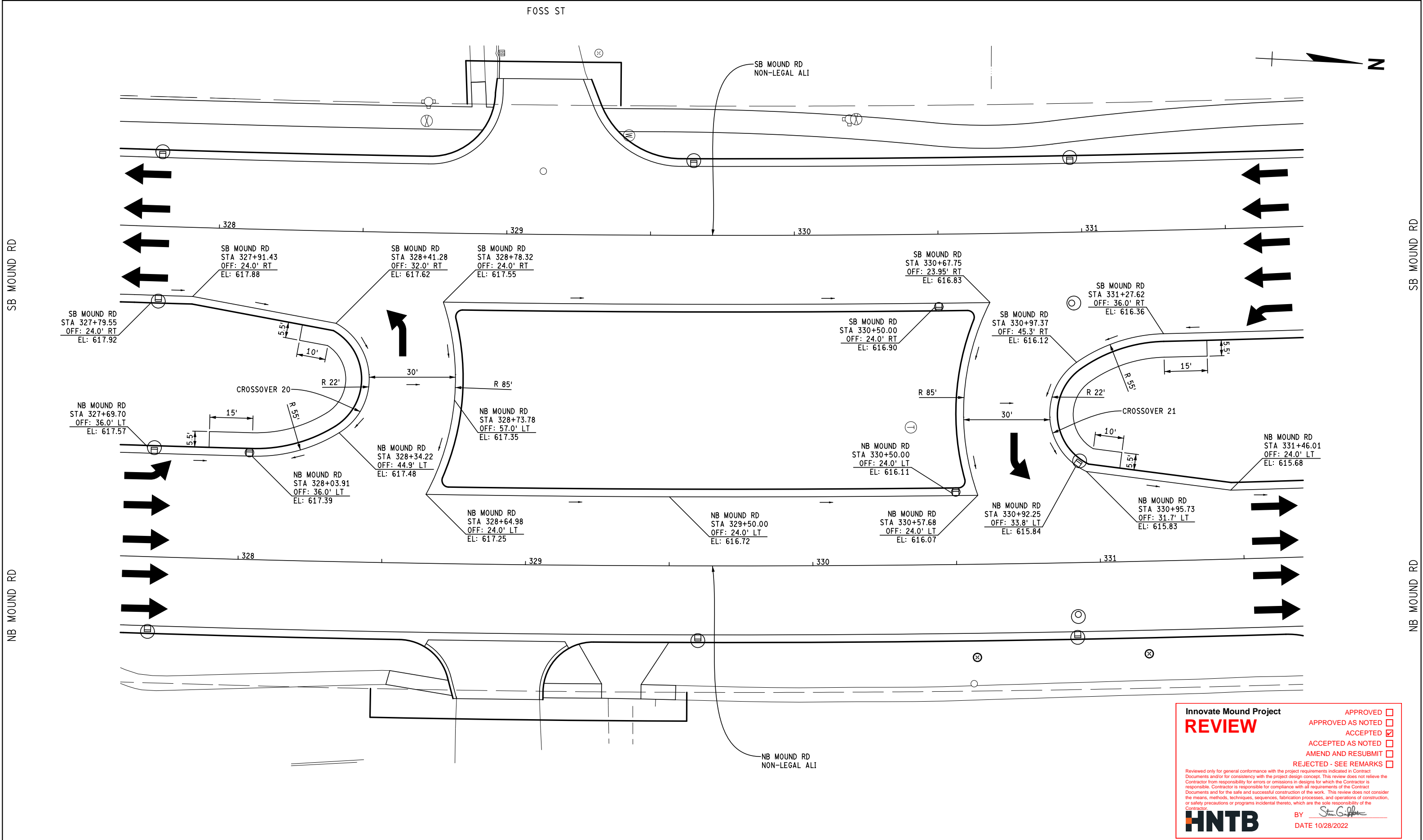
REJECTED - SEE REMARKS ☐

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HNTB

BY 

DATE 10/28/2022



Innovate Mound Project

REVIEW

APPROVED ☐

APPROVED AS NOTED ☐

ACCEPTED ☒

ACCEPTED AS NOTED ☐

AMEND AND RESUBMIT ☐

REJECTED - SEE REMARKS ☐

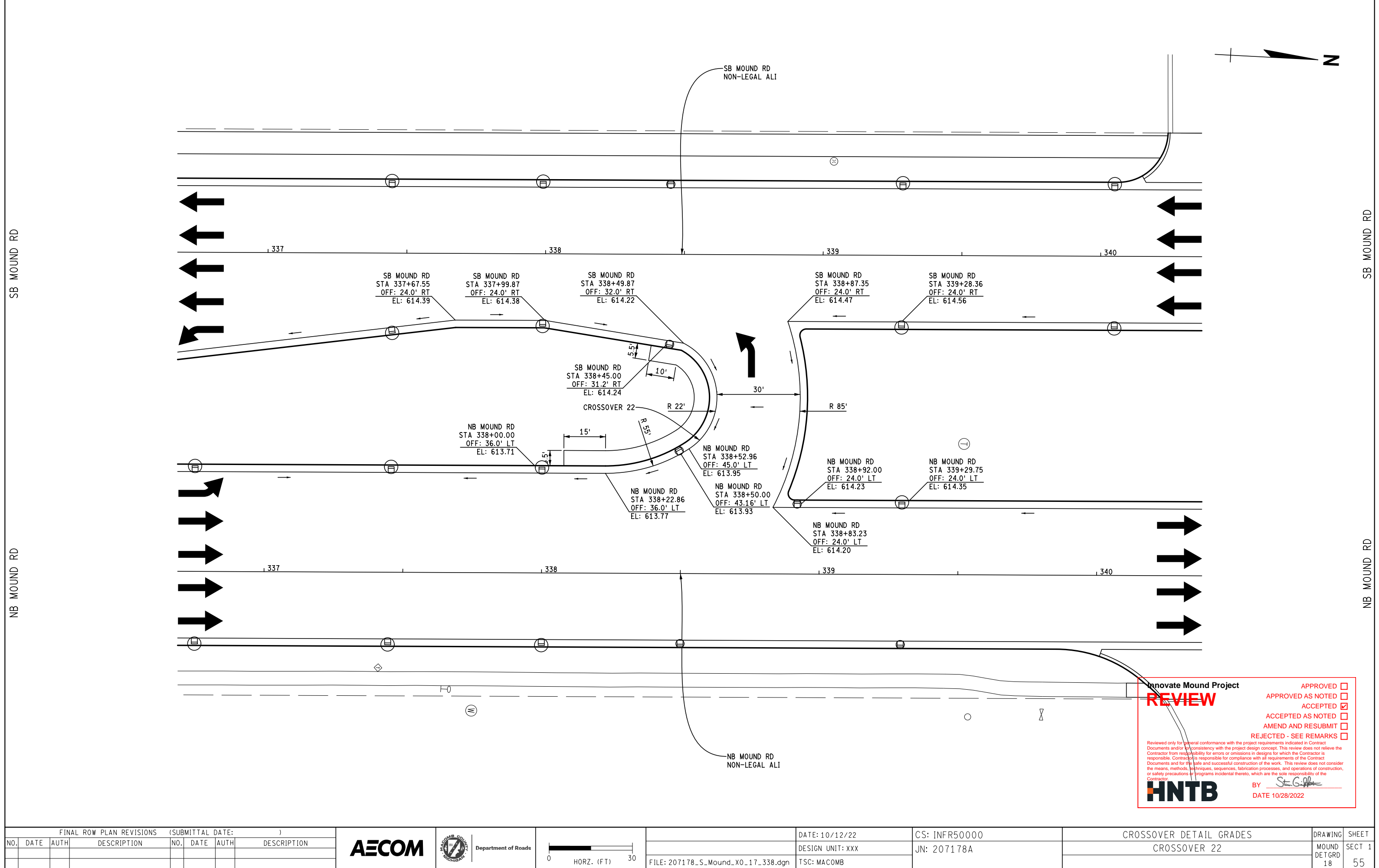
Reviewed only for general conformance with the project requirements indicated in Contract Documents and/or for consistency with the project design concept. This review does not relieve the Contractor from responsibility for errors or omissions in designs for which the Contractor is responsible. Contractor is responsible for compliance with all requirements of the Contract Documents and for the safe and successful construction of the work. This review does not consider the means, methods, techniques, sequences, fabrication processes, and operations of construction, or safety precautions or programs incidental thereto, which are the sole responsibility of the Contractor.

HNTB

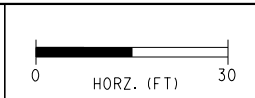
BY *Stu G. [Signature]*

DATE 10/28/2022

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE: )						<div><div>AECOM</div><div><div>Department of Roads</div></div></div>	<div><div>0</div><div>HORZ. (FT)</div><div>30</div></div>	FILE: 207178_S_Mound_X0_16_328.dgn	DATE: 10/12/22	CS: INFR50000	CROSSOVER DETAIL GRADES	DRAWING	SHEET	
									DESIGN UNIT: XXX	JN: 207178A				CROSSOVER 20 & 21
									TSC: MACOMB					
										17	54			



FINAL ROW PLAN REVISIONS (SUBMITTAL DATE: )							
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION



FILE: 207178\_S\_Mound\_X0\_17\_338.dgn

DATE: 10/12/22  
DESIGN UNIT: XXX  
TSC: MACOMB

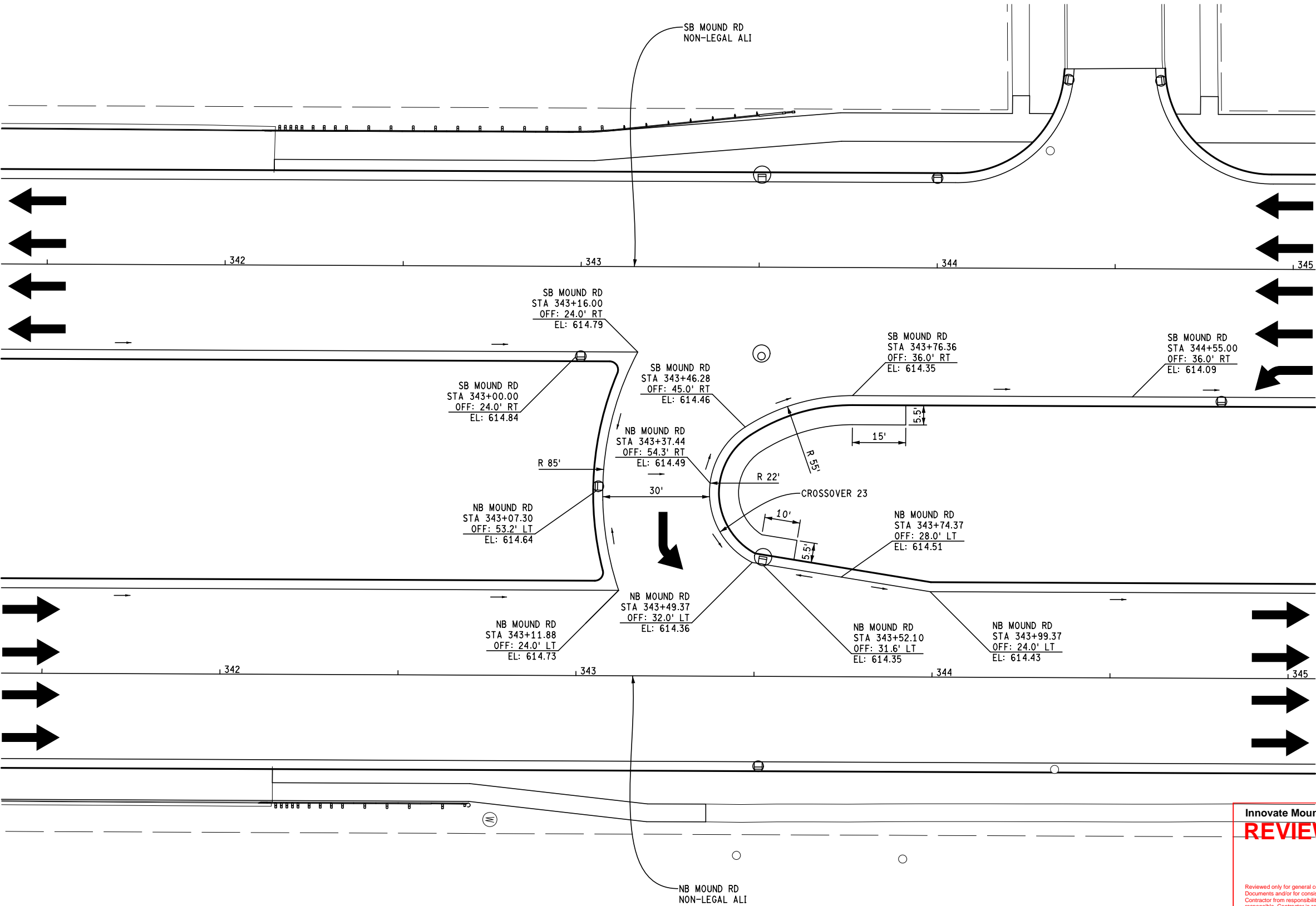
CS: INFR50000  
JN: 207178A

CROSSOVER DETAIL GRADES	
CROSSOVER 22	
MOUND DETGRD	18

DRAWING	SHEET
18	55

BIG BEAVER CREEK

NORTHLAWN DR



Innovate Mound Project

REVIEW

APPROVED ☐

APPROVED AS NOTED ☐

ACCEPTED ☒

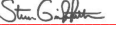
ACCEPTED AS NOTED ☐

AMEND AND RESUBMIT ☐

REJECTED - SEE REMARKS ☐

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HNTB

BY 

DATE 10/28/2022

BIG BEAVER CREEK

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE: )							
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION

Department of Roads

FILE: 207178\_S\_Mound\_X0\_18\_343.dgn

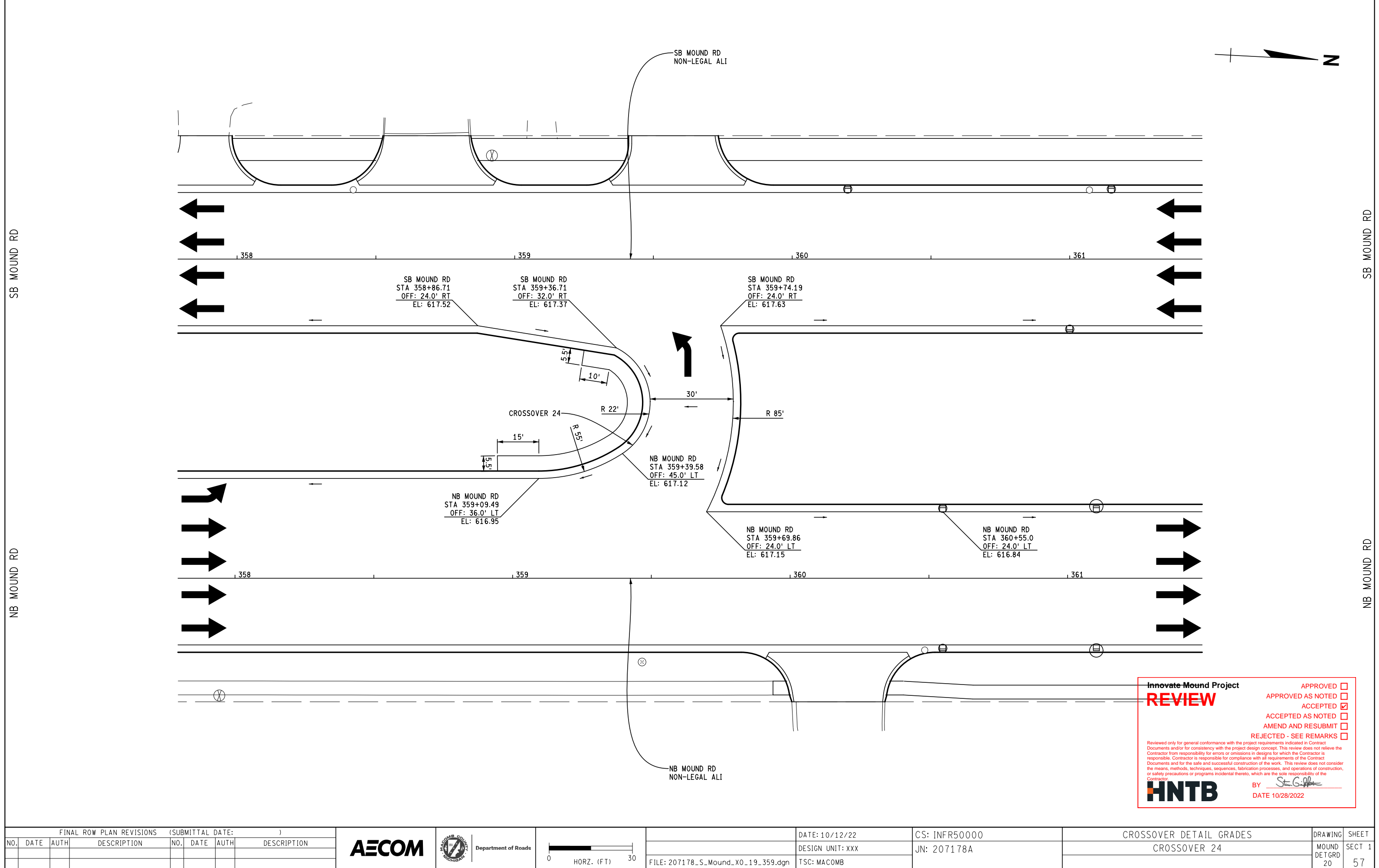
DATE: 10/12/22  
DESIGN UNIT: XXX  
TSC: MACOMB

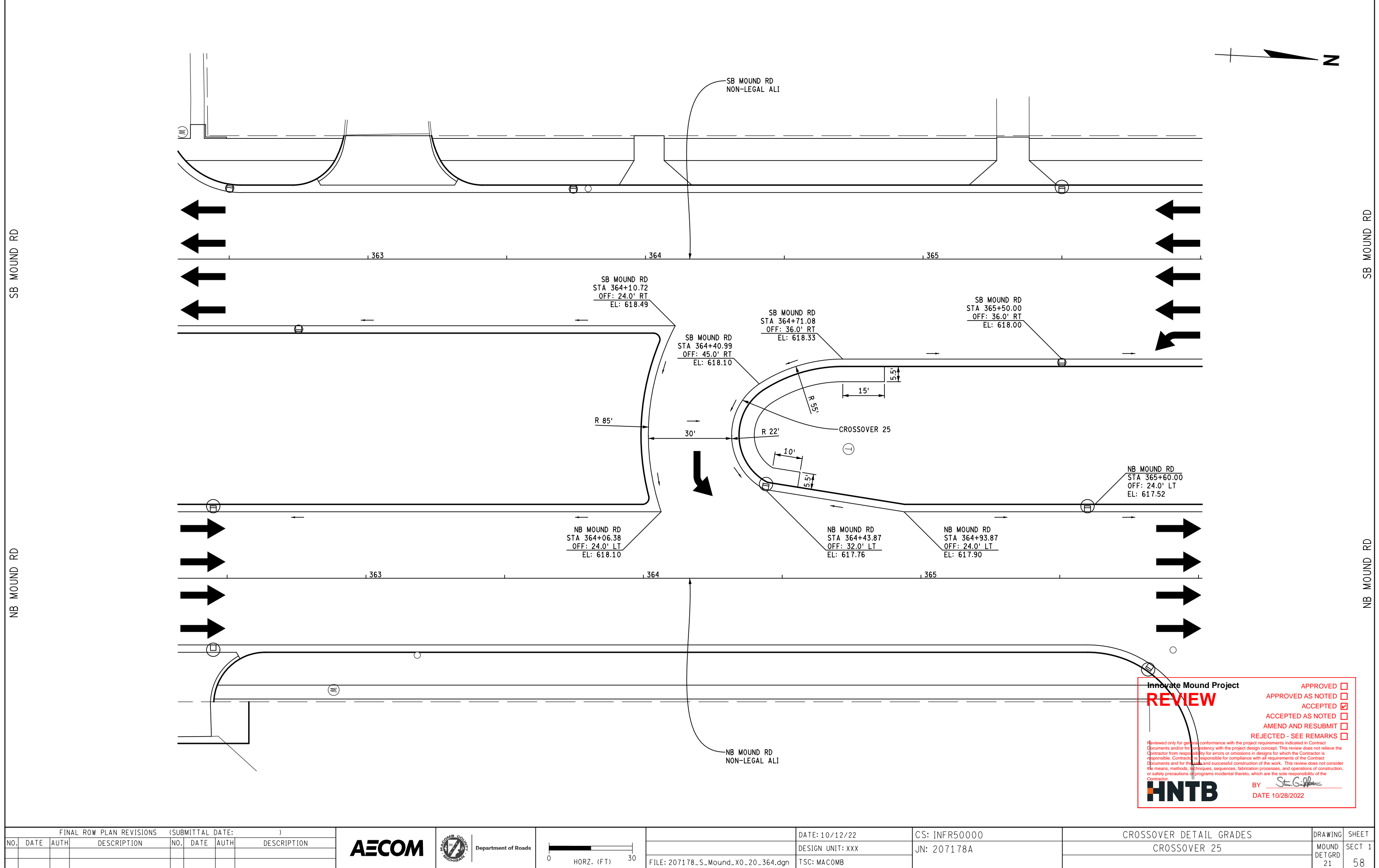
CS: INFR50000  
JN: 207178A

CROSSOVER DETAIL GRADES  
CROSSOVER 23

DRAWING	SHEET
MOUND DETGRD	19
	56







FINAL ROW PLAN REVISIONS (SUBMITTAL DATE: )							
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION



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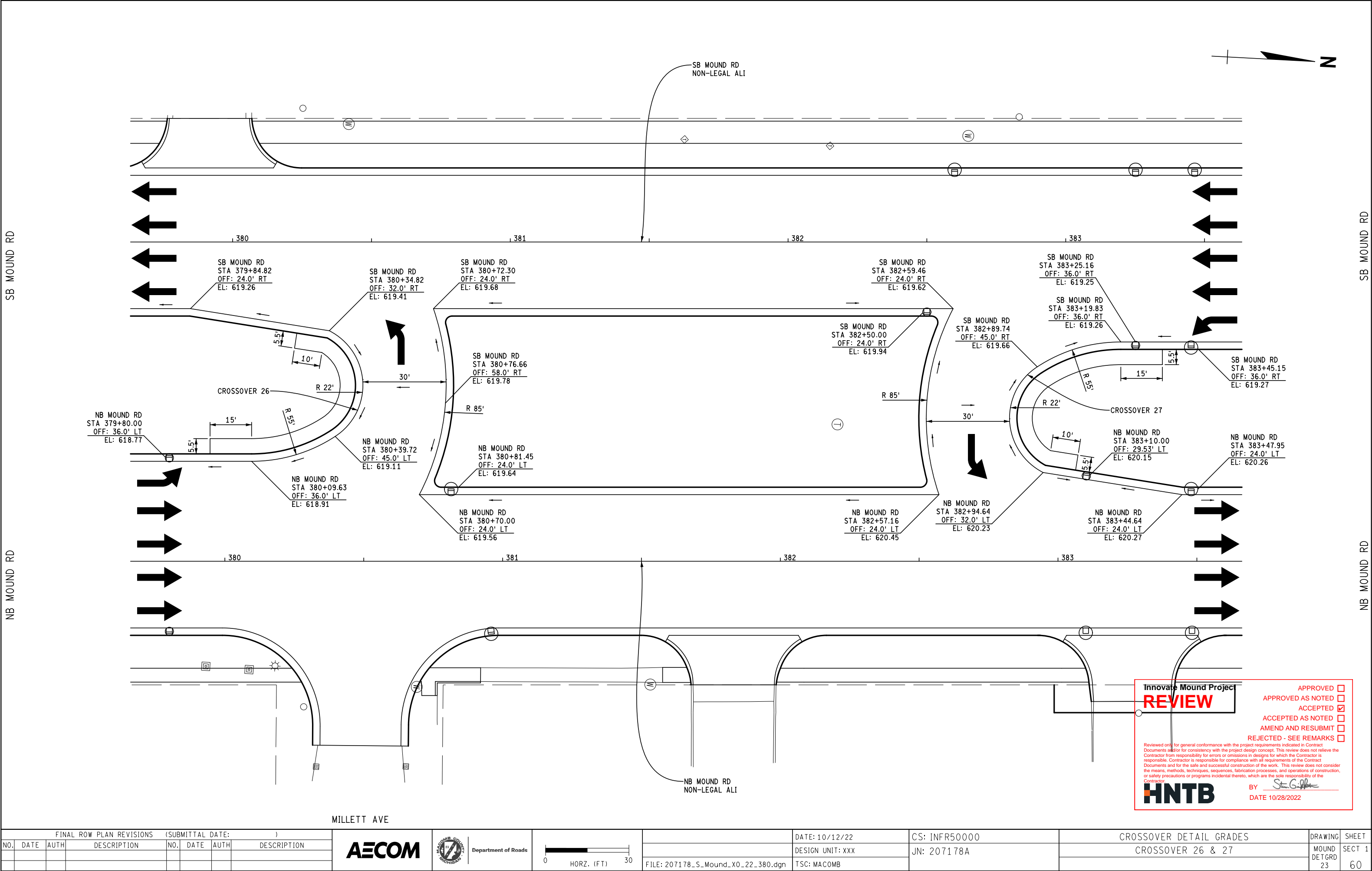
DATE: 10/12/22  
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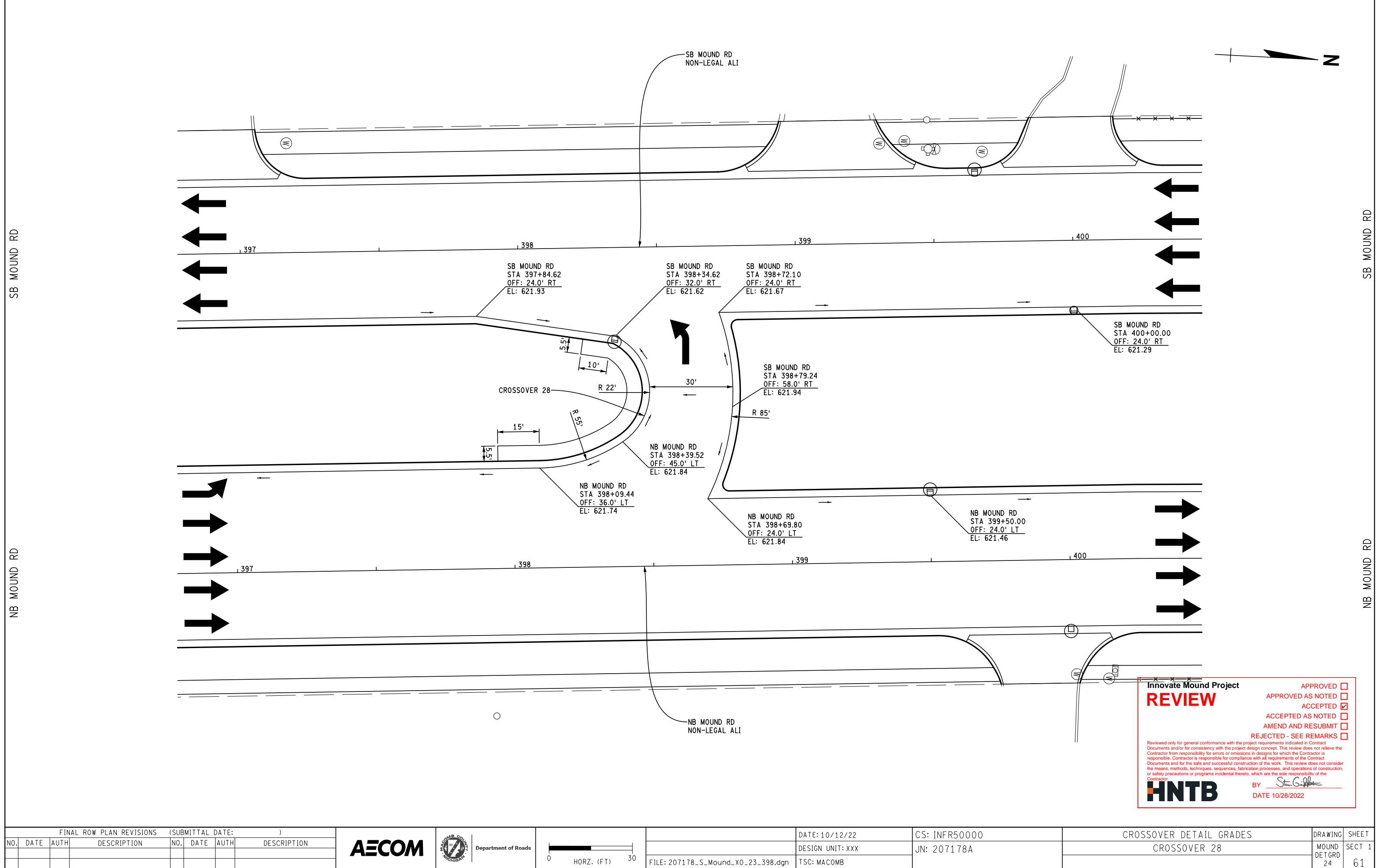
CS: INFR50000  
JN: 207178A

CROSSOVER DETAIL GRADES	
CROSSOVER 25	
MOUND DETGRD	21

DRAWING	SHEET
MOUND DETGRD	58







FINAL ROW PLAN REVISIONS (SUBMITTAL DATE: )							
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION

**AECOM**

**Department of Roads**

0

HORZ. (FT)

30

FILE: 207178\_S\_Mound\_X0\_23\_398.dgn

DATE: 10/12/22

DESIGN UNIT: XXX

TSC: MACOMB

CS: INFR50000

JN: 207178A

CROSSOVER DETAIL GRADES

CROSSOVER 28

DRAWING

MOUND DETGRD

24

SHEET

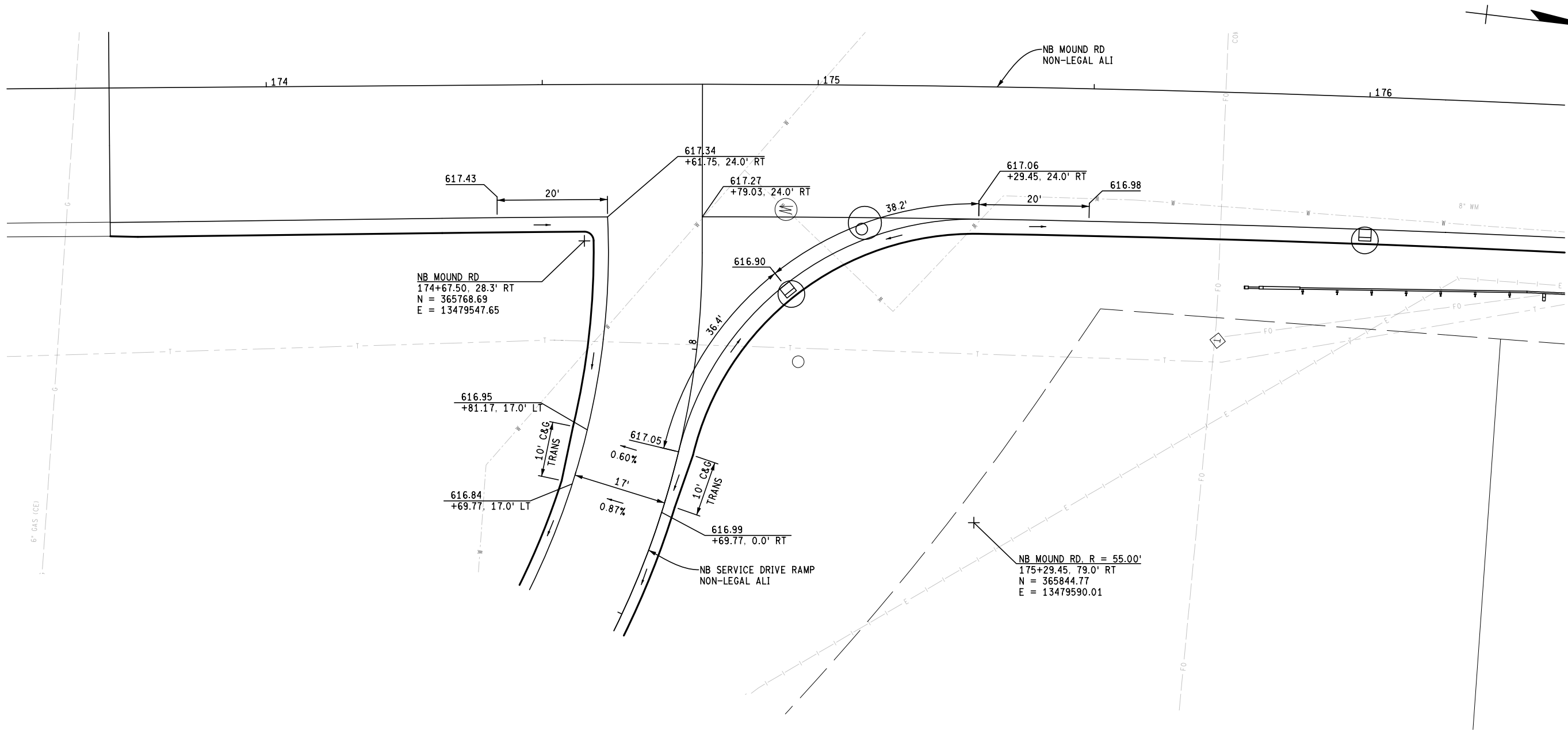
61

1



NB MOUND RD

NB MOUND RD



NB SERVICE DR

Innovate Mound Project

REVIEW

APPROVED ☐

APPROVED AS NOTED ☐

ACCEPTED ☒


ACCEPTED AS NOTED ☐

AMEND AND RESUBMIT ☐

REJECTED - SEE REMARKS ☐

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HNTB

BY 

DATE 10/28/2022

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE: )					
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE

AECOM

Department of Roads

DATE: 10/12/22

DESIGN UNIT: XXX

FILE: 207178\_S\_Mound\_DTG\_NB\_01\_Mound.DWG

CS: INFR50000





JN: 207178A

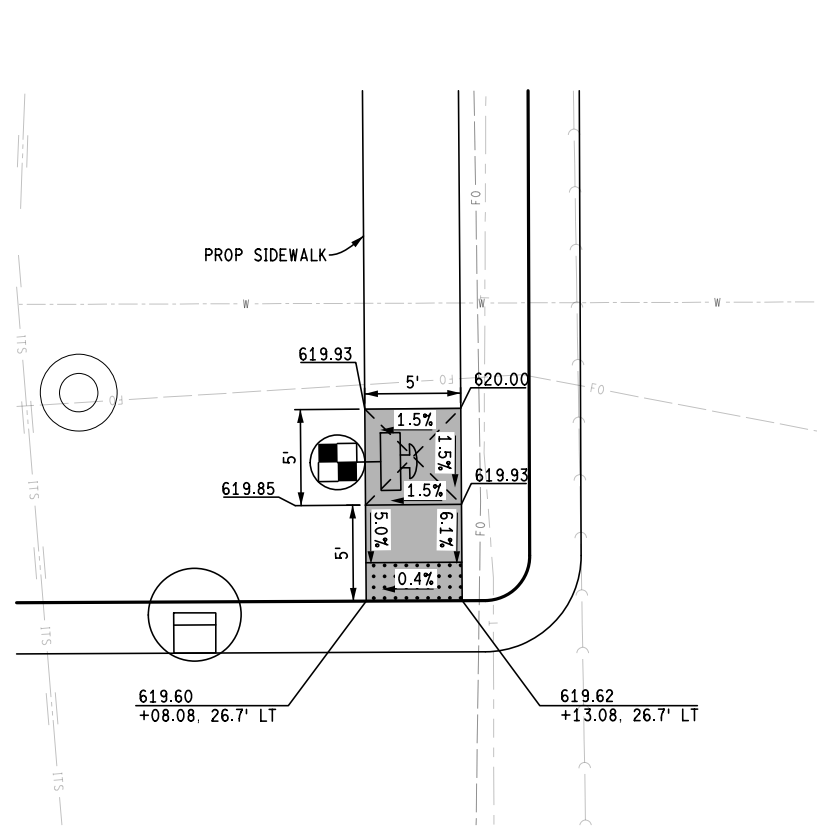
1.50 MACOMB

INTERSECTION DETAIL GRADES		DRAWING	SHEET
NB MOUND & NB SERVICE DR		MOUND DETGRD	SECT 1
		25	62

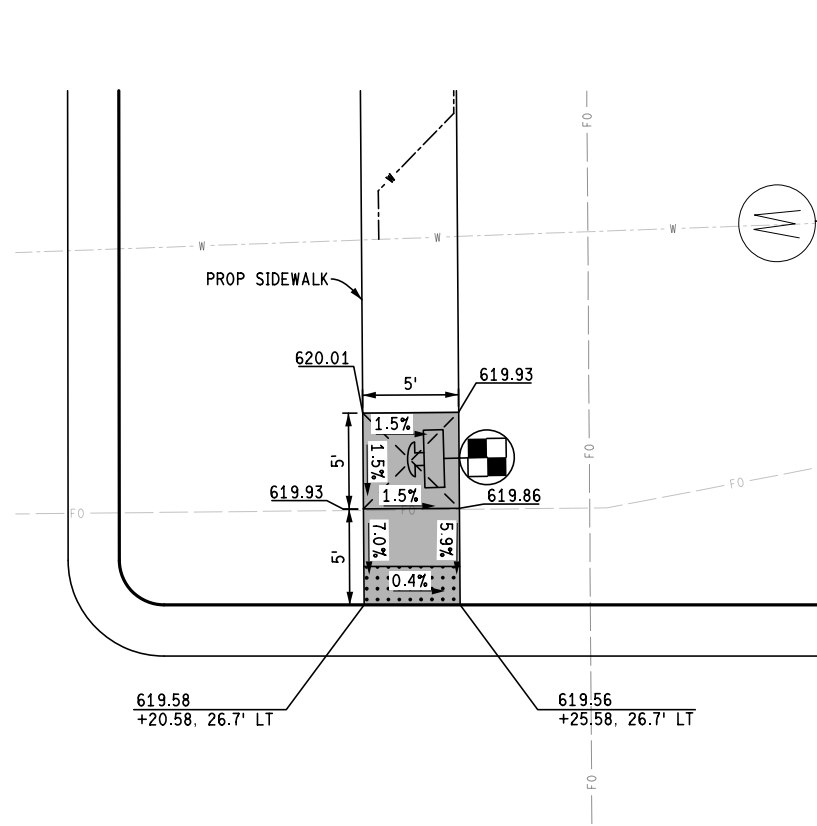
A diagram showing a vector  $z$ . It consists of a horizontal line with a vertical tick mark at the left end, representing the origin. A black arrow points to the right from this origin, and the letter  $z$  is placed at the tip of the arrow.



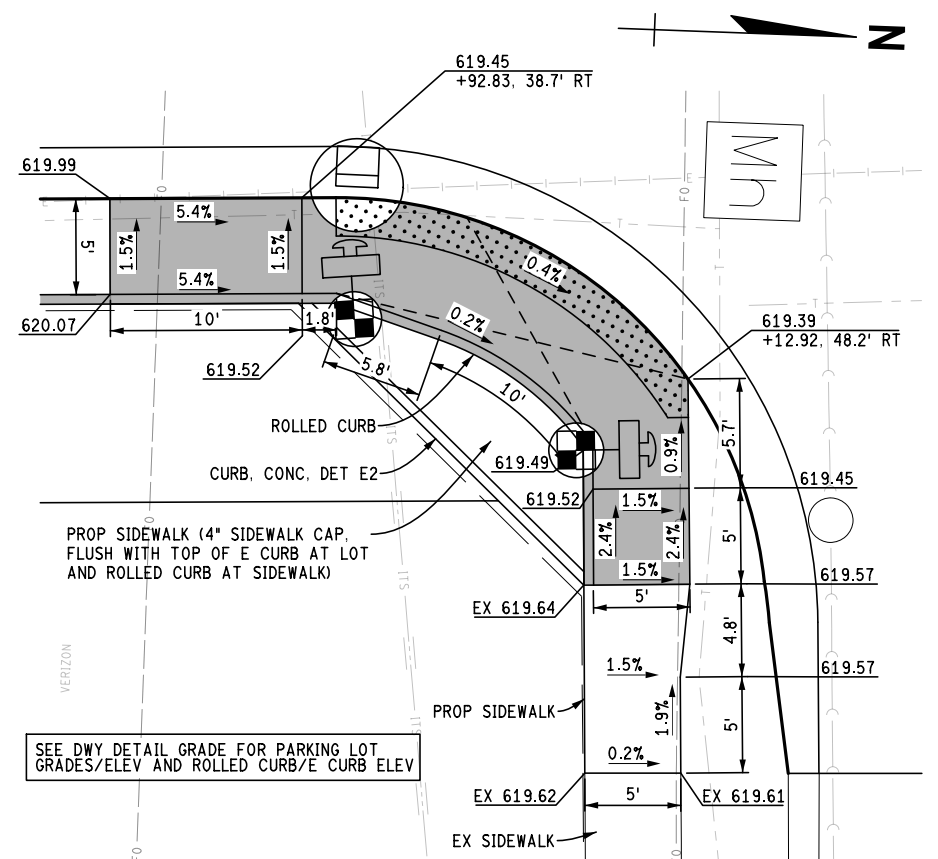
FINAL ROW PLAN REVISIONS				(SUBMITTAL DATE: )				  				DATE: 10/12/22	CS: INFR50000	INTERSECTION DETAIL GRADES		DRAWING	SHEET
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION					DESIGN UNIT: XXX	JN: 207178A	NB MOUND & 12 MILE RD		MOUND DETGRD 26	SECT 1
										FILE: 207178_S_Mound_DTG_NB_02_12_Mile_Comb		Michigan AECOM					63



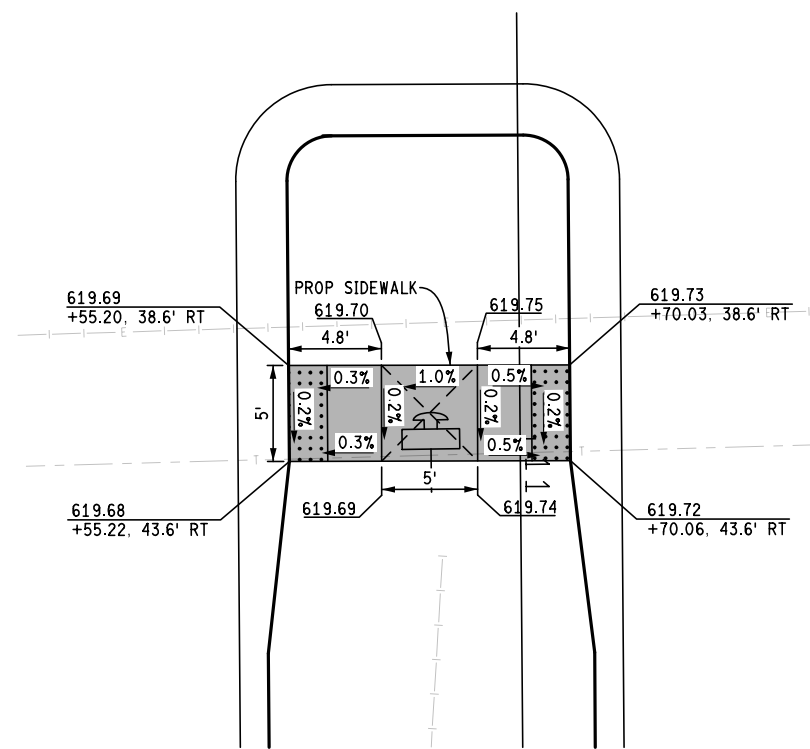
SIDEWALK RAMP DETAIL - SW QUADRANT



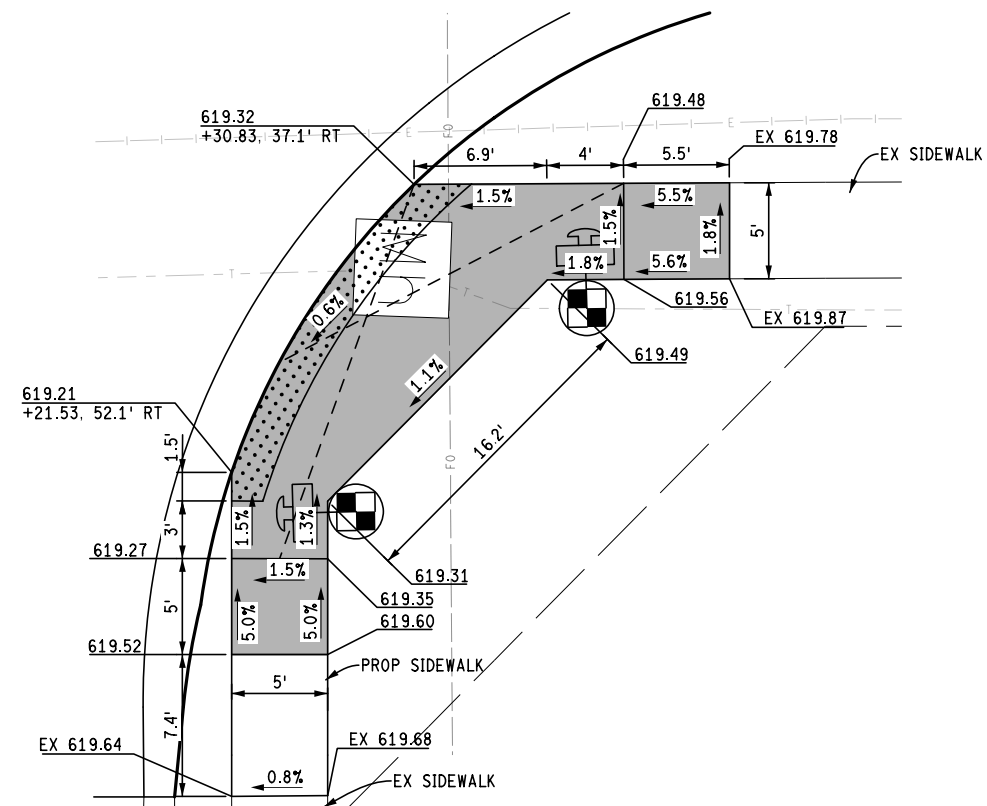
SIDEWALK RAMP DETAIL - NW QUADRANT



SIDEWALK RAMP DETAIL - SE QUADRANT



SIDEWALK RAMP DETAIL - CENTER QUADRANT



SIDEWALK RAMP DETAIL - NE QUADRANT

Innovate Mound Project

REVIEW

APPROVED ☐

APPROVED AS NOTED ☐

ACCEPTED ☒

ACCEPTED AS NOTED ☐

AMEND AND RESUBMIT ☐

REJECTED - SEE REMARKS ☐

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HNTB

BY Steve G. Gifford

DATE 10/28/2022

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE: )																			
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION												

AECOM

Department of Roads

FILE: 207178\_S\_Mound\_DTG\_NB\_02A\_12.MXD

DATE: 10/12/22

DESIGN UNIT: XXX

DATE: 10/12/22

CS: INFR50000

JN: 207178A

INTERSECTION DETAIL GRADES

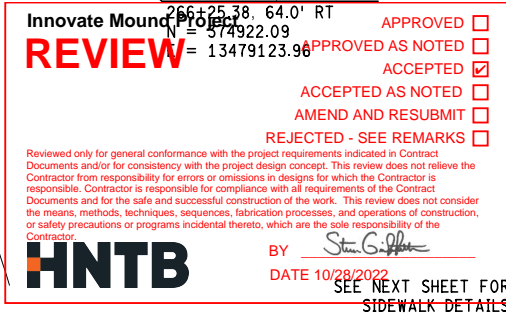
NB MOUND & 12 MILE RD




DRAWING

SHEET

MOUND DETGRD 27

64



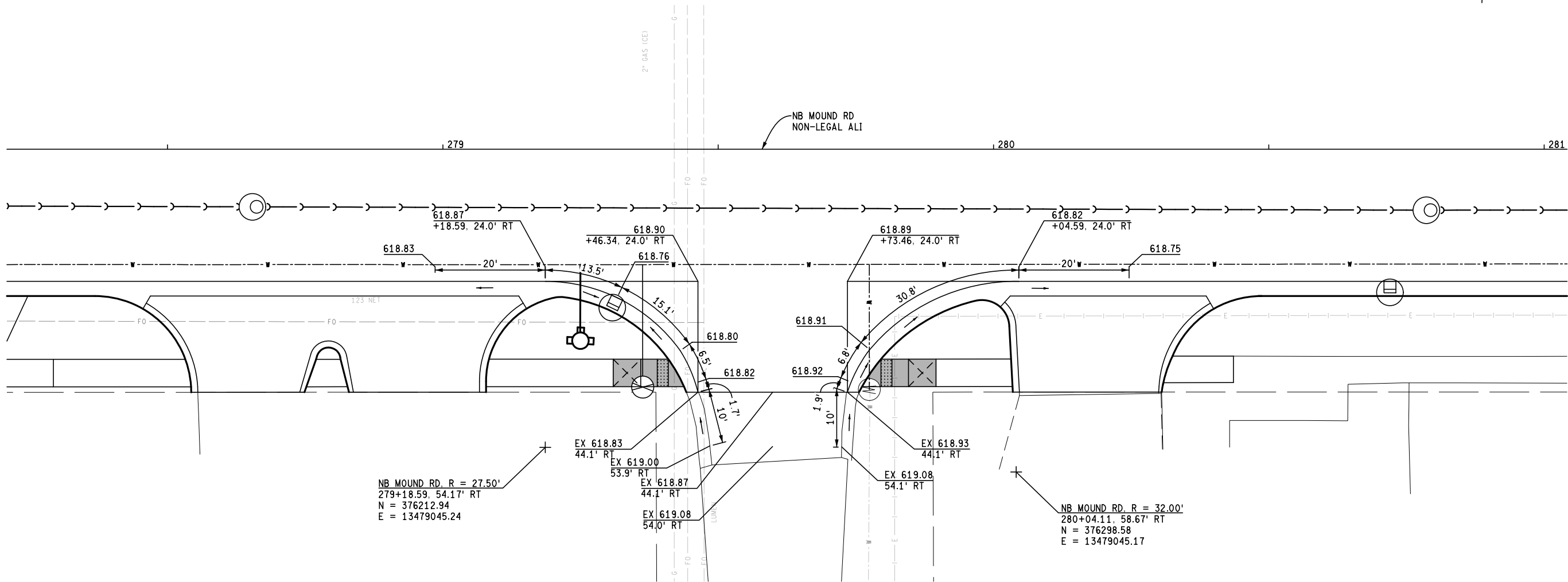
FINAL ROW PLAN REVISIONS				(SUBMITTAL DATE: )					 Department of Roads	 0                      20 HORZ. (FT)		DATE: 10/12/22	CS: INFR50000	INTERSECTION DETAIL GRADES		DRAWING	SHEET
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION					DESIGN UNIT: xxx	JN: 207178A	NB MOUND & 13 MILE RD		MOUND DETGRD 28	SECT 1
											FILE: 207178_S_Mound.DTG-NB-03-13-MT-01.dwg	MT-01	MACOMB			65	





NB MOUND RD

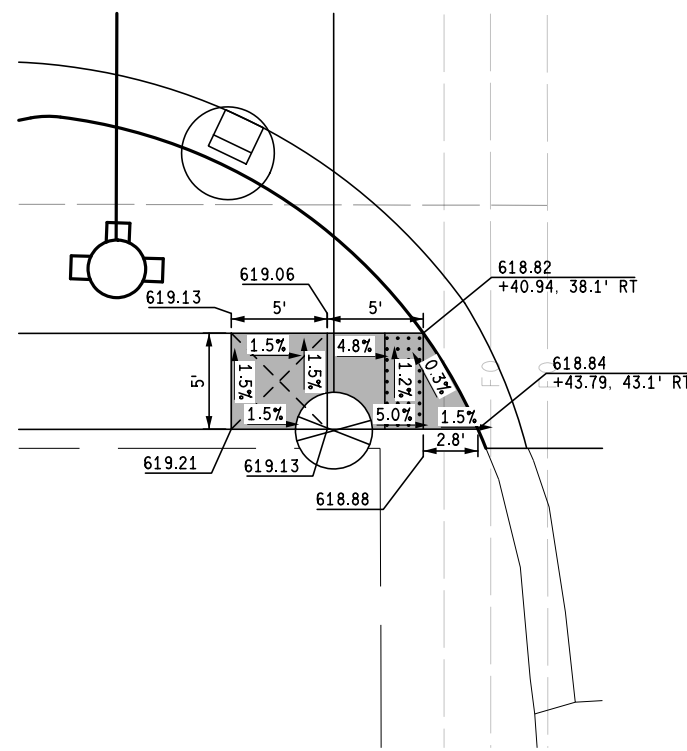
NB MOUND RD



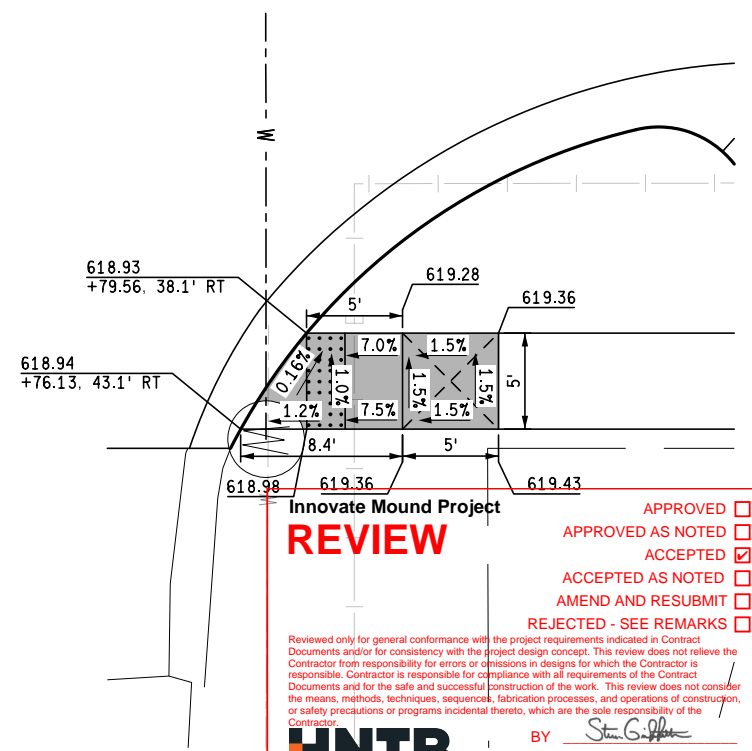
NB MOUND RD, R = 27.50'  
279+18.59, 54.17' RT  
N = 376212.94  
E = 13479045.24

NB MOUND RD, R = 32.00'  
280+04.11, 58.67' RT  
N = 376298.58  
E = 13479045.17

BEEBE AVE



SIDEWALK RAMP DETAIL - SE QUADRANT  
NOT TO SCALE



SIDEWALK RAMP DETAIL - NE QUADRANT  
NOT TO SCALE

**Innovate Mound Project**

**REVIEW**

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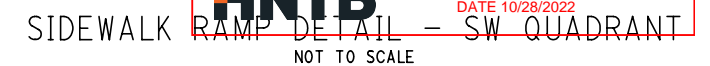
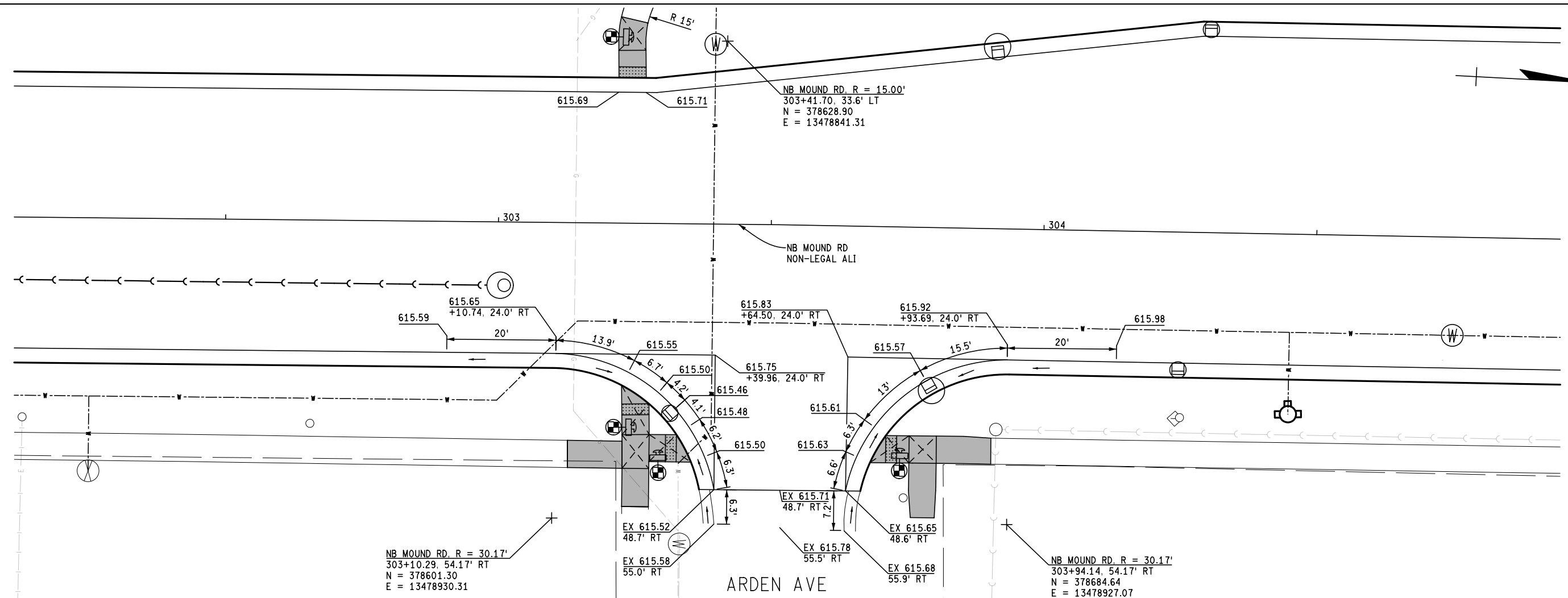
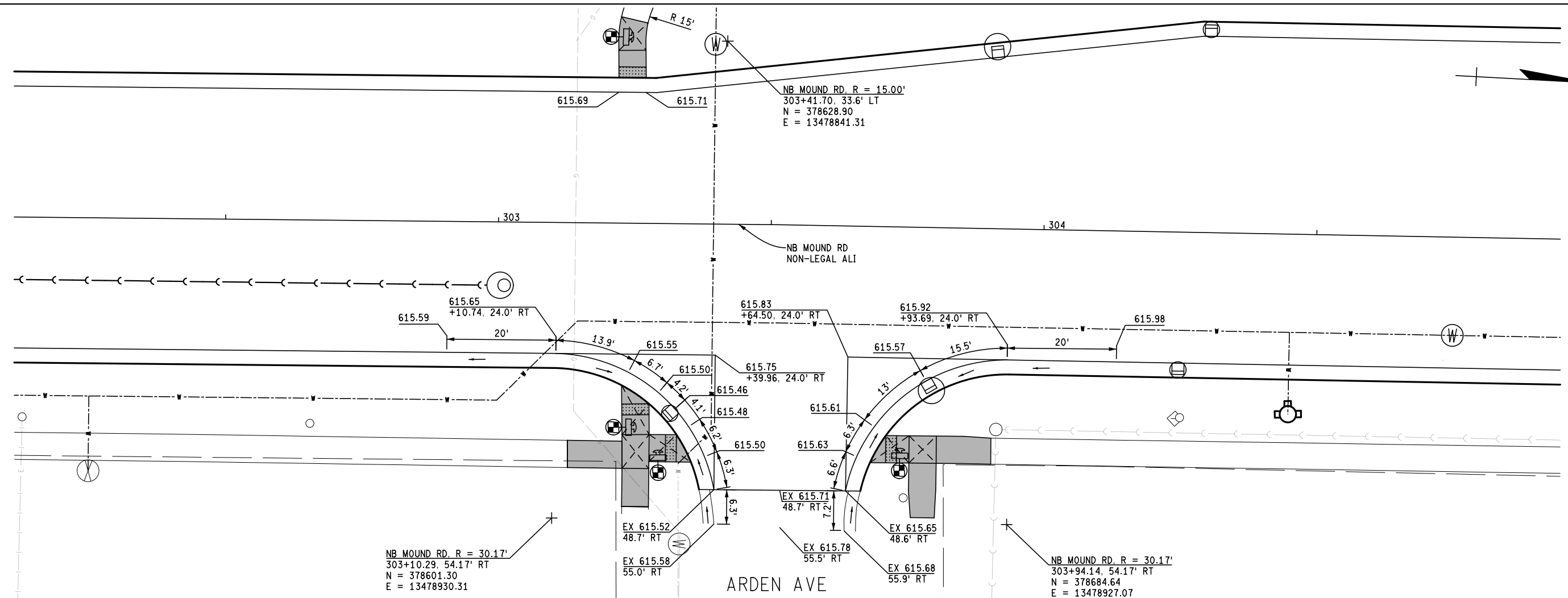
APPROVED ☐  
APPROVED AS NOTED ☐  
ACCEPTED ☒  
ACCEPTED AS NOTED ☐  
AMEND AND RESUBMIT ☐  
REJECTED - SEE REMARKS ☐

BY Steve G. [Signature]  
DATE 10/28/2022

**HNTB**







FINAL ROW PLAN REVISIONS				(SUBMITTAL DATE: )			
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION



A horizontal number line with tick marks at 0, 10, and 20. A point is marked at 10, labeled "10037 (FT)".

DATE: 10/12/22
DESIGN UNIT: XXX

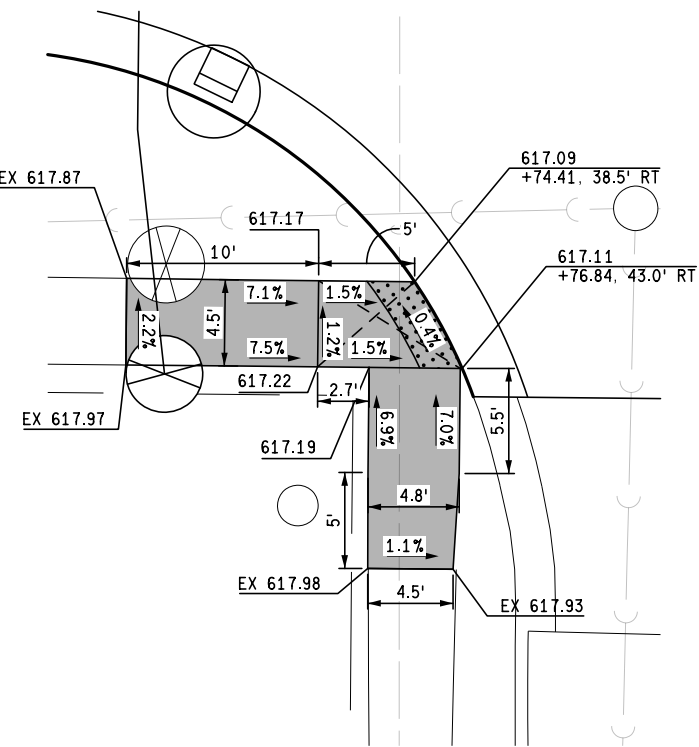
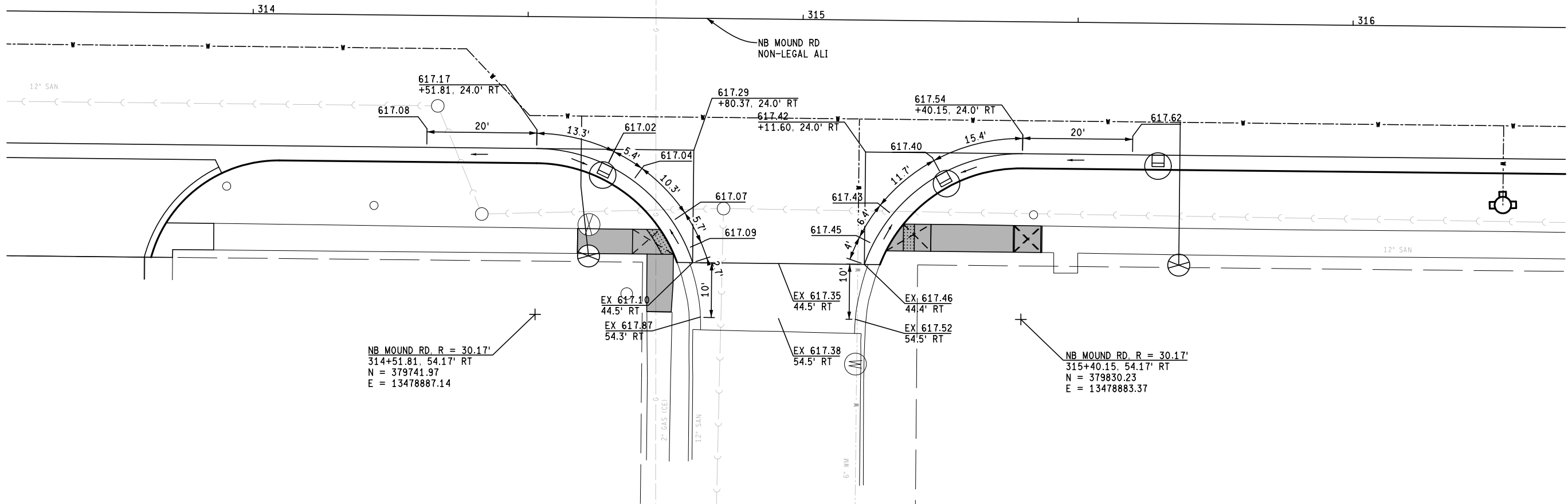
CS: INFR50000
JN: 207178A

INTERSECTION DETAIL GRADES  
NB MOUND & ARDEN AVE

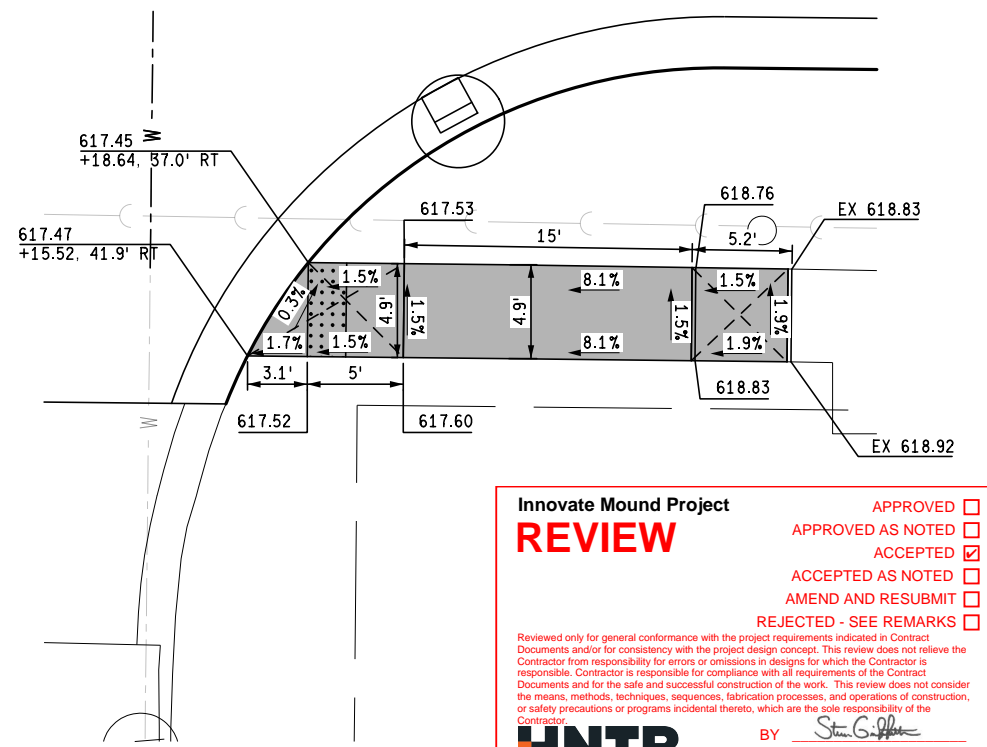
DRAWING	SHEET
FOUND DETGRD 33	SECT 1 70

NB MOUND RD

NB MOUND RD



SIDEWALK RAMP DETAIL - SE QUADRANT  
NOT TO SCALE



SIDEWALK RAMP DETAIL - NE QUADRANT  
NOT TO SCALE

Innovate Mound Project

REVIEW

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HNTB

BY *Steve G. Gillen*

DATE 10/28/2022

APPROVED ☐

APPROVED AS NOTED ☐

ACCEPTED ☒

ACCEPTED AS NOTED ☐

AMEND AND RESUBMIT ☐

REJECTED - SEE REMARKS ☐

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE: )							
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION

AECOM

Department of Roads

0

HORZ. (FT)

20

DATE: 10/12/22

DESIGN UNIT: XXX

CS: INFR50000

JN: 207178A

INTERSECTION DETAIL GRADES

NB MOUND & ADAMS AVE

DRAWING

SHEET

MOUND

DETGRD

34

71

FILE: 207178\_S\_Mound\_DTG\_NB\_07\_Adam



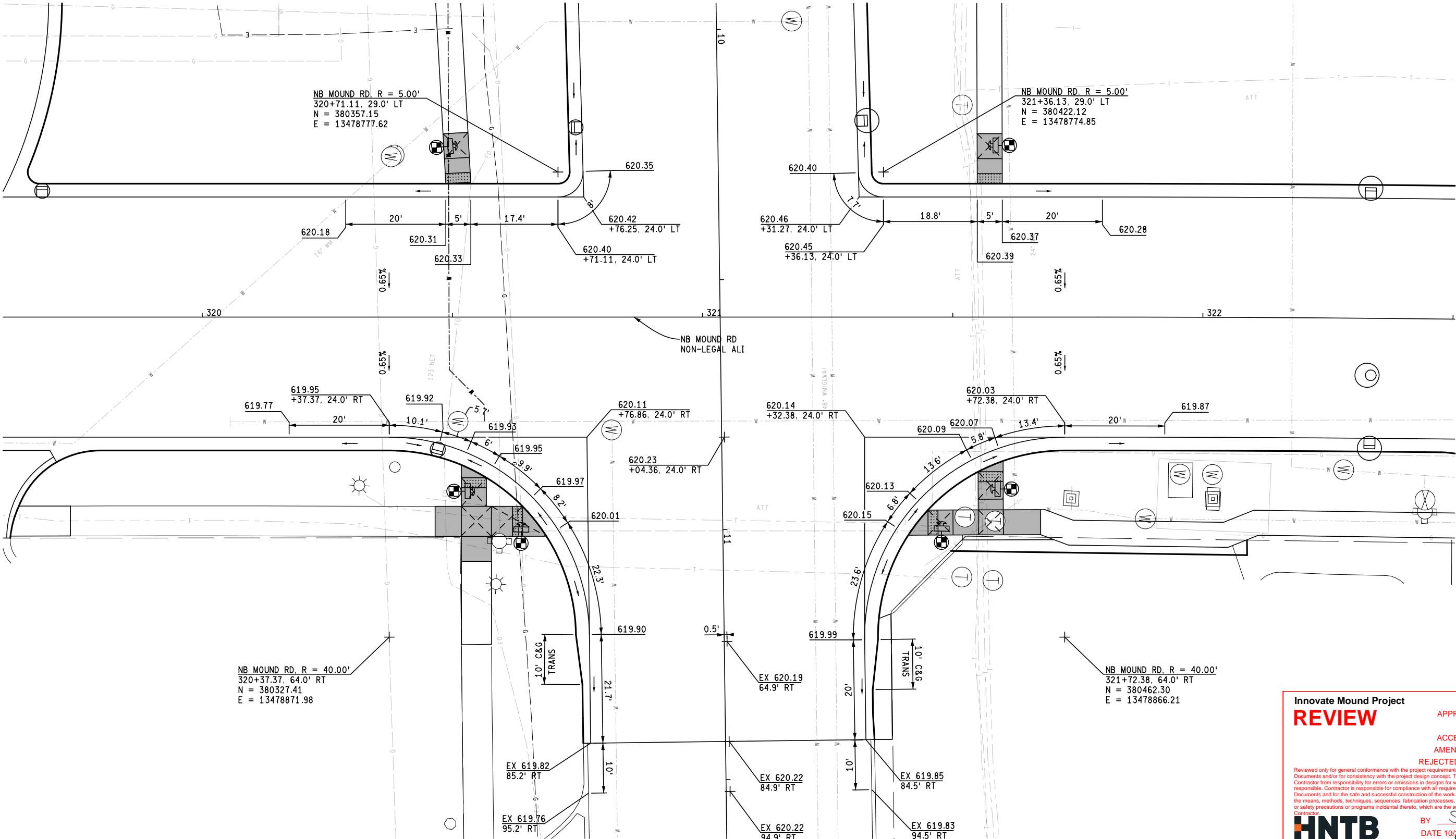


14 MILE RD



NB MOUND RD

NB MOUND RD



Innovate Mound Project

REVIEW

APPROVED ☐

APPROVED AS NOTED ☐

ACCEPTED ☒

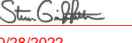
ACCEPTED AS NOTED ☐

AMEND AND RESUBMIT ☐

REJECTED - SEE REMARKS ☐

Reviewed only for general conformance with the project requirements indicated in Contract Documents and/or for consistency with the project design concept. This review does not relieve the Contractor from responsibility for errors or omissions in designs for which the Contractor is responsible. Contractor is responsible for compliance with all requirements of the Contract Documents and for the safe and successful construction of the work. This review does not consider the means, methods, techniques, sequences, fabrication processes, and operations of construction, or safety precautions or programs incidental thereto, which are the sole responsibility of the Contractor.

HNTB

BY 

DATE 10/28/2022

SEE NEXT SHEET FOR

SIDEWALK DETAILS

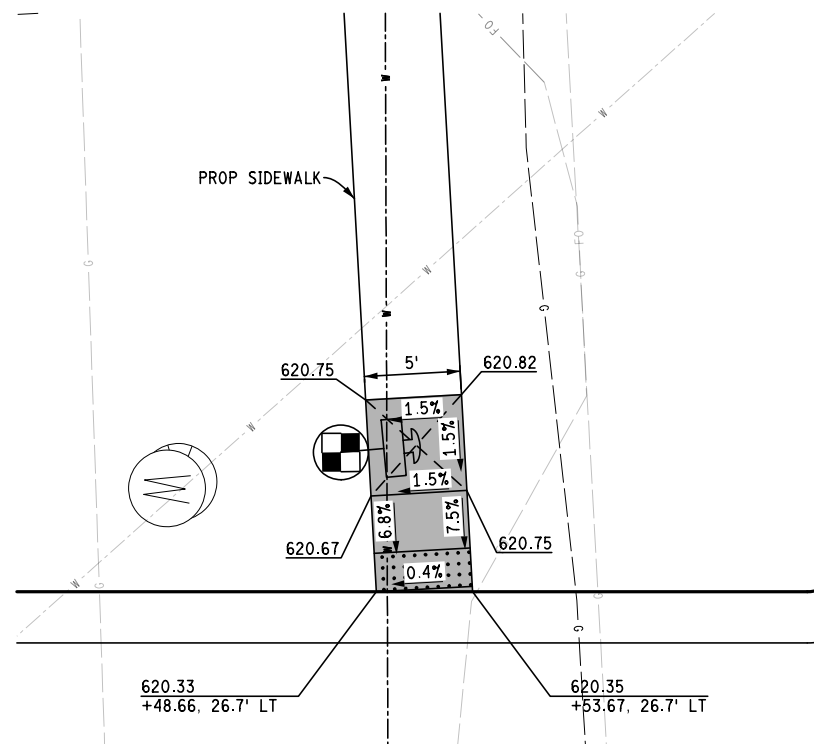
FINAL ROW PLAN REVISIONS (SUBMITTAL DATE: )					
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE

DATE: 10/12/22  
DESIGN UNIT: XXX  
FILE: 207178\_S\_Mound\_DTG\_NB\_09\_14\_MILE\_RD.dwg

CS: INFR50000  
JN: 207178A

INTERSECTION DETAIL GRADES  
NB MOUND & 14 MILE RD

DRAWING SHEET  
MOUND DETGRD 36  
SECT 1 73



The diagram illustrates a proposed sidewalk layout adjacent to a curved boundary. Key elements include:

- Proposed Sidewalk:** Labeled "PROP SIDEWALK" at the bottom left.
- Existing Features:**
  - EX 620.14
  - EX 620.20
  - EX 620.18
- Dimensions and Distances:**
  - Vertical distances: 2.6', 5.7', 6', 5.3'
  - Horizontal distances: 1.9', 0.3', 0.6%, 1.44', 1.5', 6.2', 4.8', 6.2', 1.3', 1.0%
  - Other dimensions: 6.2', 4.8', 1.0%
- Elevations and Stationing:**
  - 619.95 +51.78, 29.6' RT
  - 619.97 +56.78, 32.1' RT
  - 619.99 +64.00, 37.8' RT
  - 620.00
  - 620.05
  - 620.03 +68.78, 43.8' RT
  - 620.12
  - 620.07
  - 620.17
  - 620.18
  - 620.09
- Utility Structures:** Represented by circles with internal patterns (checkered, cross-hatched, or solid).
- Curved Alignment:** A thick black curve runs through the upper right portion of the plan.

[illegible]

**Innovate Mound Project**

# REVIEW

VARIES AS NEEDED ☐
NEEDED AS NOTED ☐
ACCEPTED ☒
ACCEPTED AS NOTED ☐
AMEND AND RESUBMIT ☐
REJECTED - SEE REMARKS ☐

The diagram shows three vertical arrows representing project phases: SIDEWALK, PARKING LOT, and PARKING GARAGE. A horizontal line spans across them at the 15% mark.




**15%**

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SIDEWALK      PARKING LOT      PARKING GARAGE

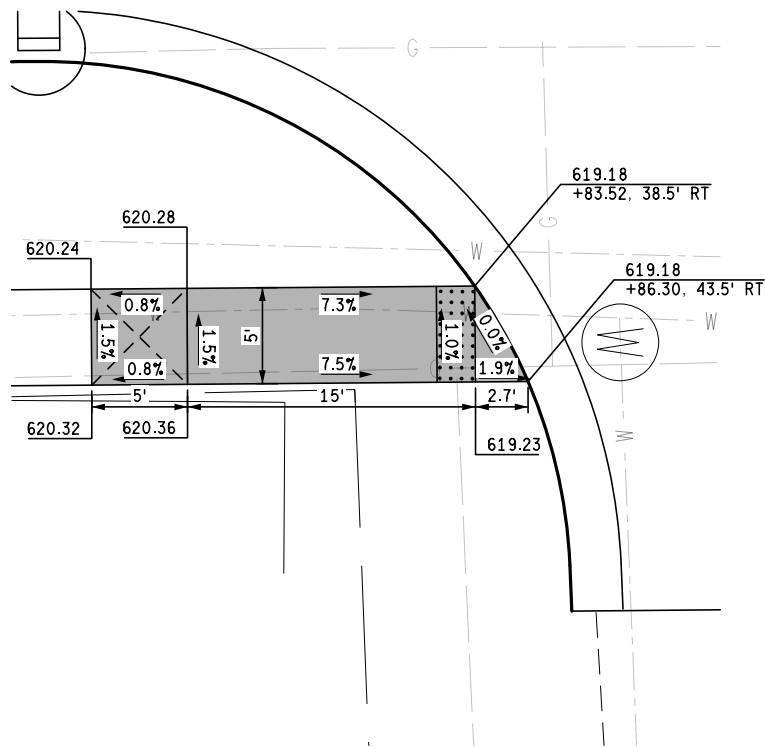
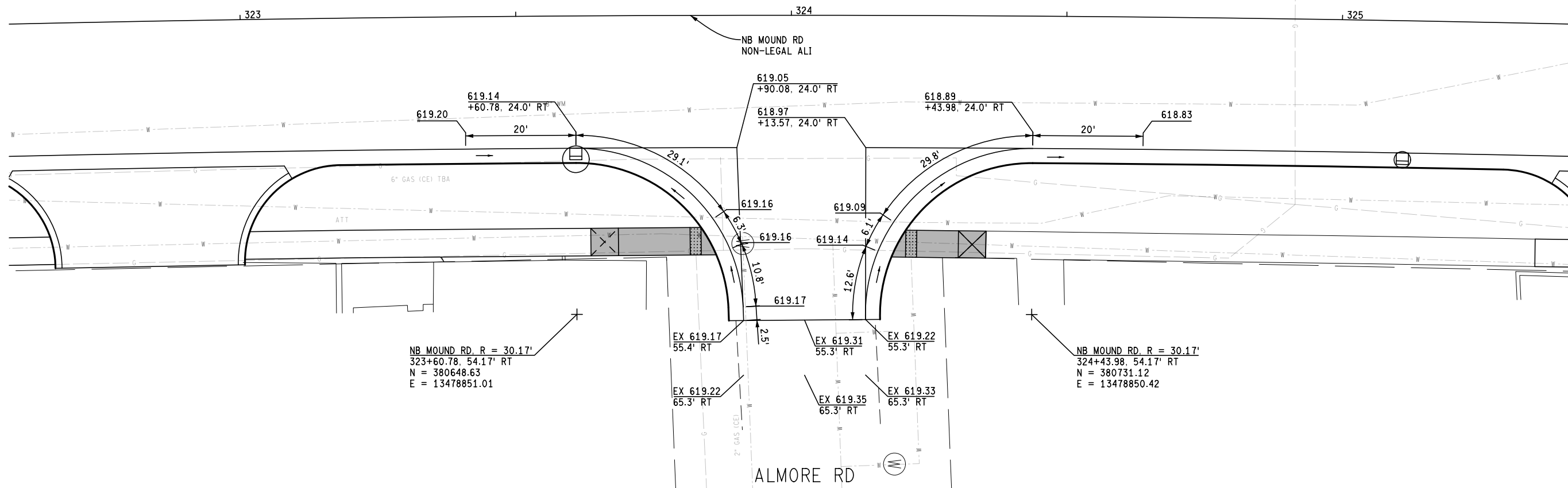
BY Steve G. [Signature]

DATE 10/28/2022

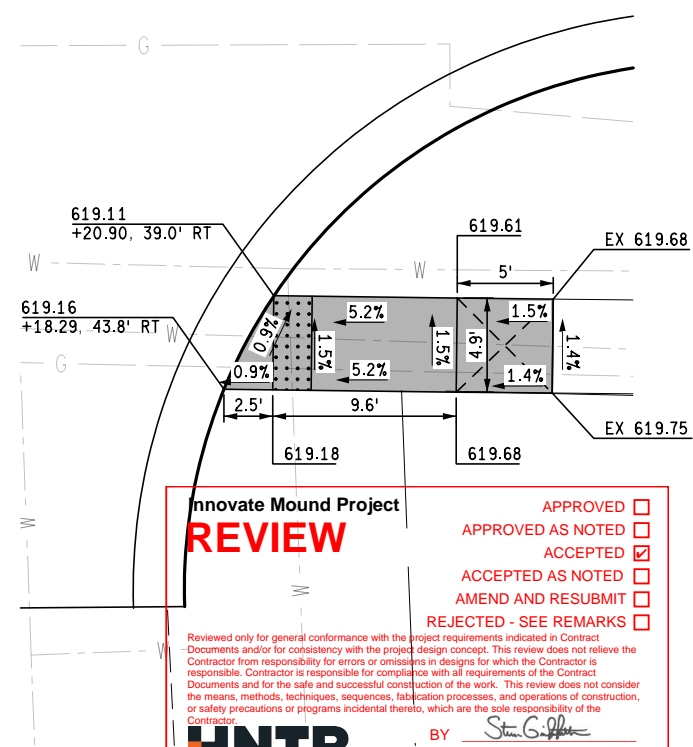
FINAL ROW PLAN REVISIONS (SUBMITTAL DATE: )								  Department of Roads	 0 10 HORZ. (FT)	DATE: 10/12/22	CS: INFR50000	INTERSECTION DETAIL GRADES		DRAWING	SHEET
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION			DESIGN UNIT: XXX	JN: 207178A	NB MOUND & 14 MILE RD		MOUND DET GRD	SECT 1
														37	74
										FILE: 207178_S_Mound-DTG-NB-09A_14	MS-COMB				

NB MOUND RD

NB MOUND RD



SIDEWALK RAMP DETAIL - SE QUADRANT  
NOT TO SCALE



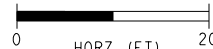
SIDEWALK RAMP DETAIL - NE QUADRANT  
NOT TO SCALE

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE: )					
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE

**AECOM**



Department of Roads



FILE: 207178\_S\_Mound\_DTG\_NB\_10\_Almore Rd.dwg

DATE: 10/12/22  
DESIGN UNIT: XXX

CS: INFR50000  
JN: 207178A

INTERSECTION DETAIL GRADES  
NB MOUND & ALMORE RD

DRAWING SHEET  
MOUND DETGRD  
38 75

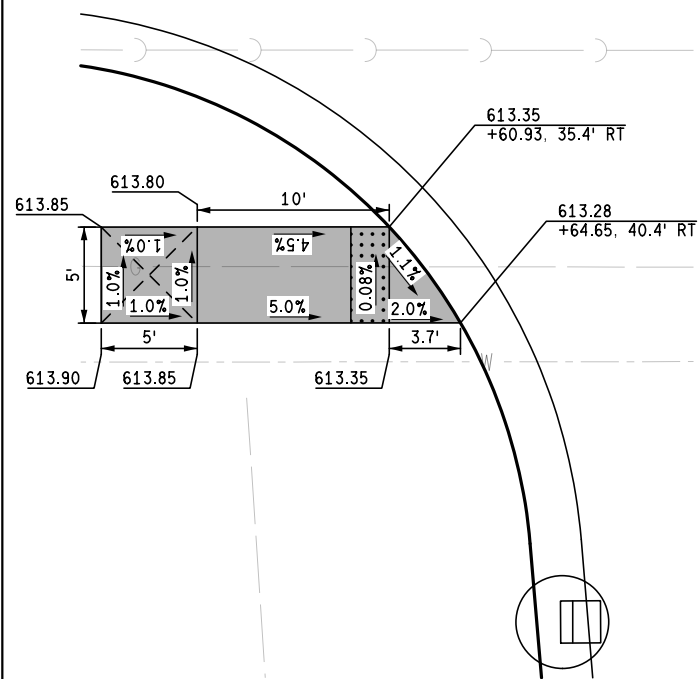
**Innovate Mound Project**  
**REVIEW**

APPROVED	<input type="checkbox"/>
APPROVED AS NOTED	<input type="checkbox"/>
ACCEPTED	<input checked="" type="checkbox"/>
ACCEPTED AS NOTED	<input type="checkbox"/>
AMEND AND RESUBMIT	<input type="checkbox"/>
REJECTED - SEE REMARKS	<input type="checkbox"/>

Reviewed only for general conformance with the project requirements indicated in Contract Documents and/or for consistency with the project design concept. This review does not relieve the Contractor from responsibility for errors or omissions in designs for which the Contractor is responsible. Contractor is responsible for compliance with all requirements of the Contract Documents and for the safe and successful construction of the work. This review does not consider the means, methods, techniques, sequences, fabrication processes, and operations of construction, or safety precautions or programs incidental thereto, which are the sole responsibility of the Contractor.

**HNTB**  
BY Steve G. [Signature]  
DATE 10/28/2022

NB MOUND RD



613.38  
+10.35, 38.5' RT

614.39

614.47

15'

6.7%

7.5%

4.0%

1.5%

1.5%

1.5%

0.8'

2.7'

5'

5'

613.30  
+07.60, 43.5' RT

**Innovate Mound Project**

**REVIEW**

613.34

APPROVED  
APPROVED AS NOTED  
AC 614.47  
APPROVED AS NOTED  
AMEND AND RESUBMIT  
REJECTED - SEE REMARKS

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BY *Steve G. [Signature]*

SIDEWALK RAMP DETAIL - NE QUADRANT

FINAL ROW PLAN REVISIONS				(SUBMITTAL DATE: )			
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION



JN: 207178A

NB MOUND &amp; STERLING DR S

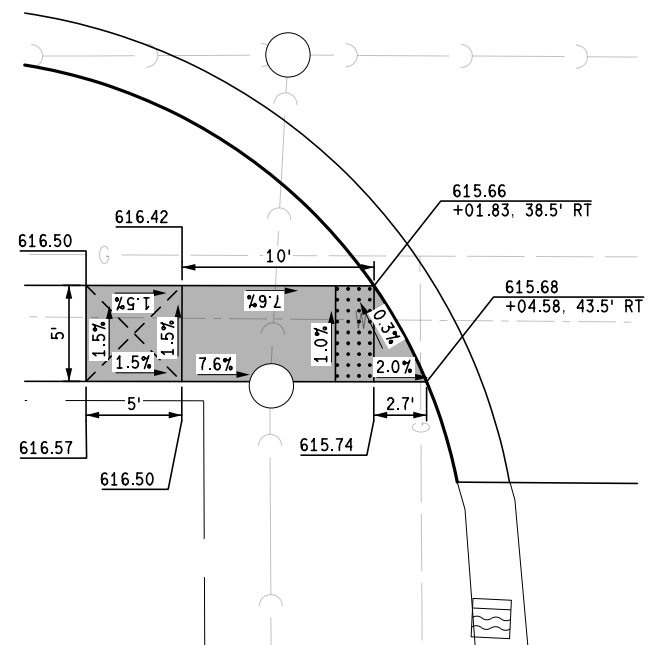
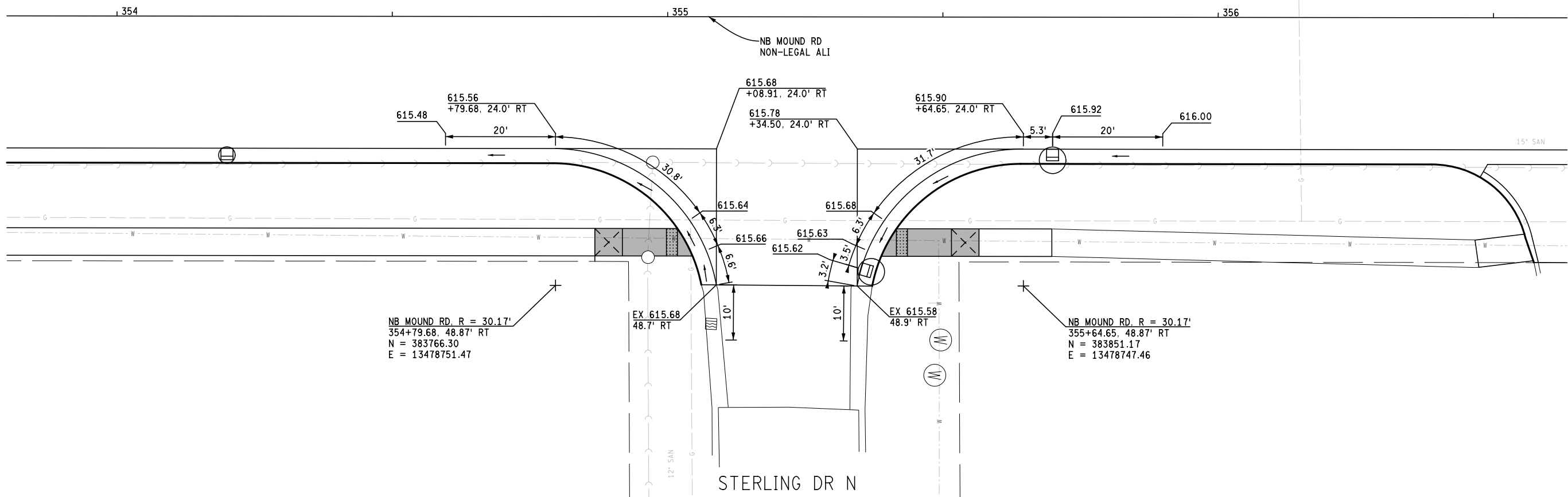
MOUND	SECT 1
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DET GRD	76
39	

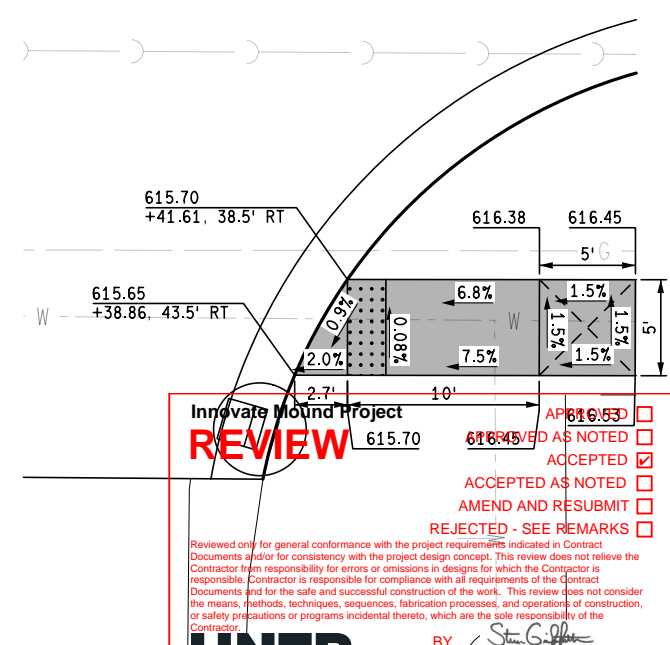


NB MOUND RD

NB MOUND RD

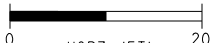


SIDEWALK RAMP DETAIL - SE QUADRANT  
NOT TO SCALE



SIDEWALK RAMP DETAIL - NE QUADRANT  
NOT TO SCALE

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE: )							
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION



FILE: 207178_S_Mound_DTG_NB_12_SterlingDr.COMB	DATE: 10/12/22	CS: INFR50000
	DESIGN UNIT: XXX	JN: 207178A


INTERSECTION DETAIL GRADES
NB MOUND & STERLING DR N

DRAWING	SHEET
MOUND DETGRD 40	77

Innovate Mound Project

REVIEW

APPROVED AS NOTED

ACCEPTED

ACCEPTED AS NOTED

AMEND AND RESUBMIT

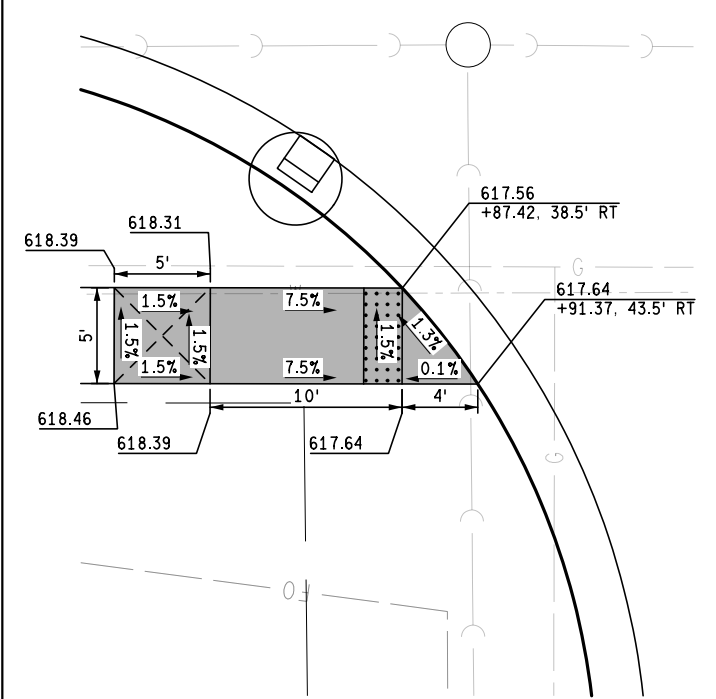
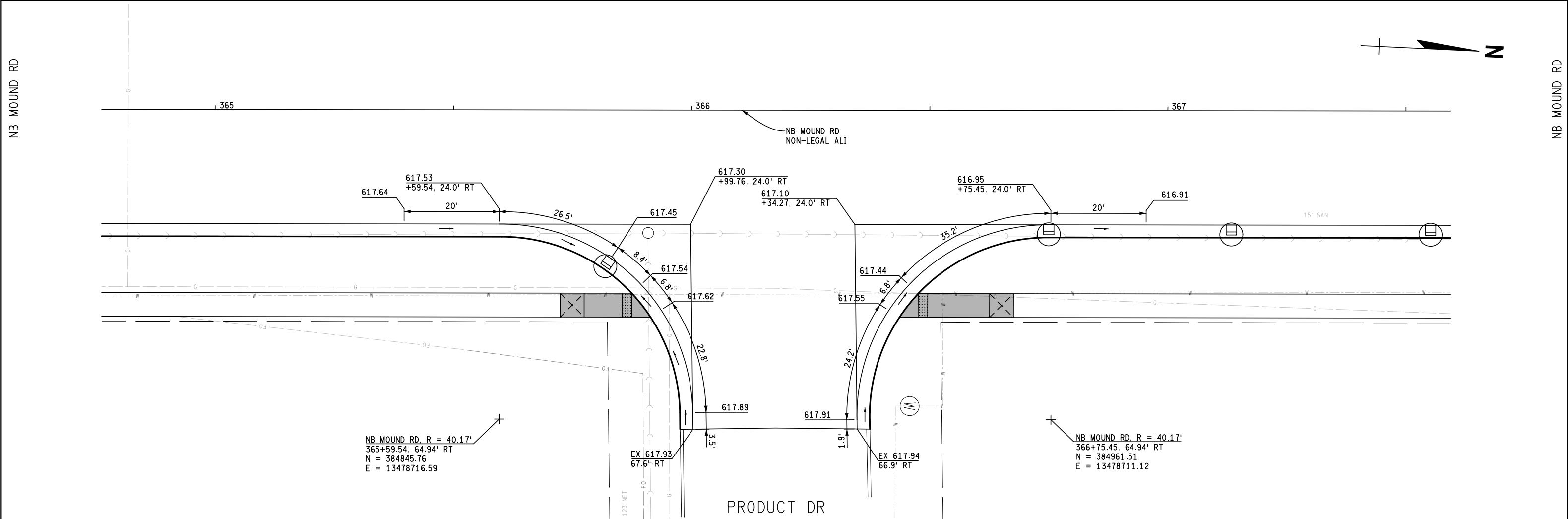
REJECTED - SEE REMARKS

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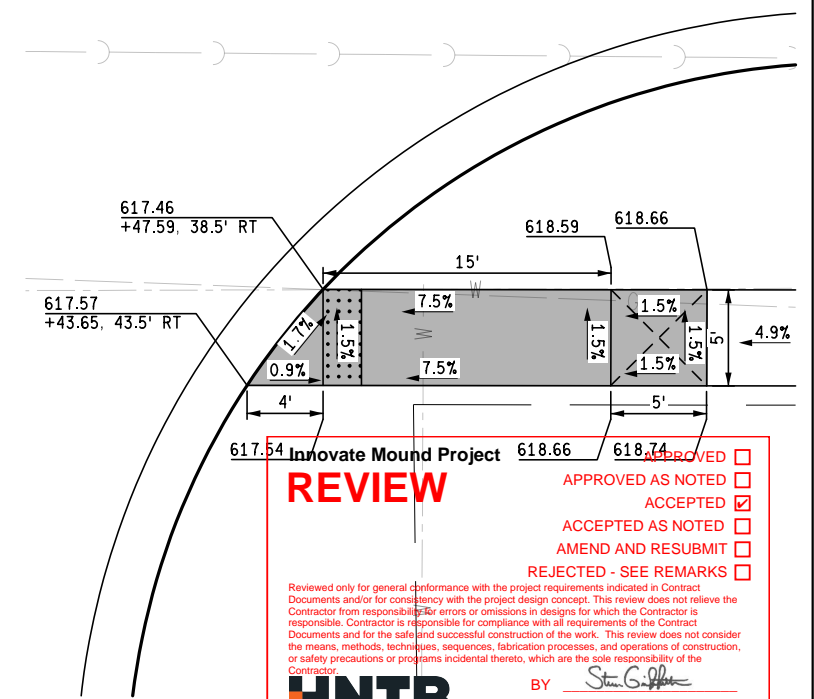
HNTB

BY: *Stu G. [Signature]*

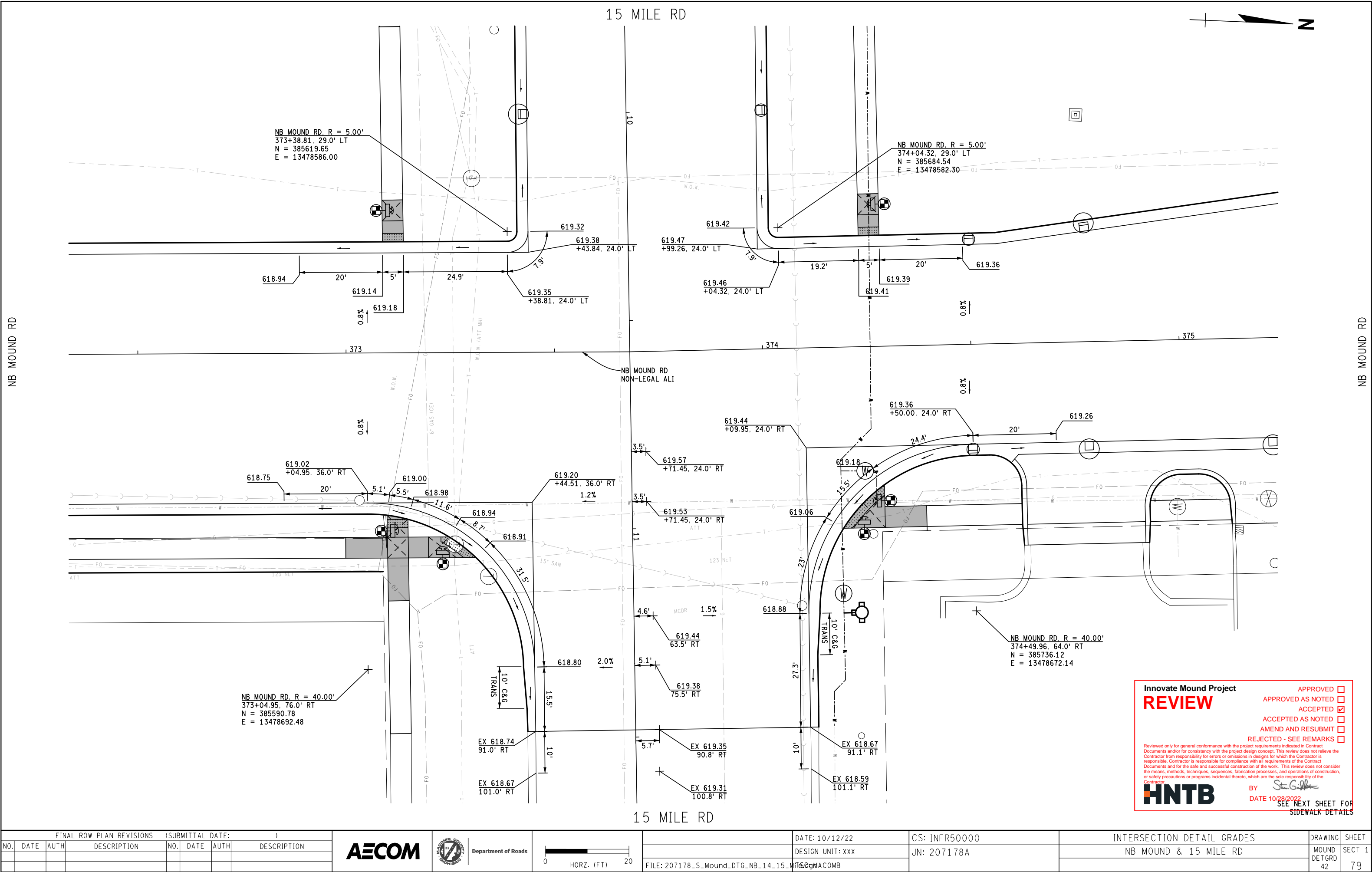
DATE 10/28/2022



SIDEWALK RAMP DETAIL - SE QUADRANT  
NOT TO SCALE



SIDEWALK RAMP DETAIL - NE QUADRANT  
NOT TO SCALE



Innovate Mound Project

REVIEW

APPROVED ☐

APPROVED AS NOTED ☐

ACCEPTED ☒

ACCEPTED AS NOTED ☐

AMEND AND RESUBMIT ☐

REJECTED - SEE REMARKS ☐

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HNTB

BY *Steve G. [Signature]*

DATE 10/28/2022

SEE NEXT SHEET FOR  
SIDEWALK DETAILS

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE: )					
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE

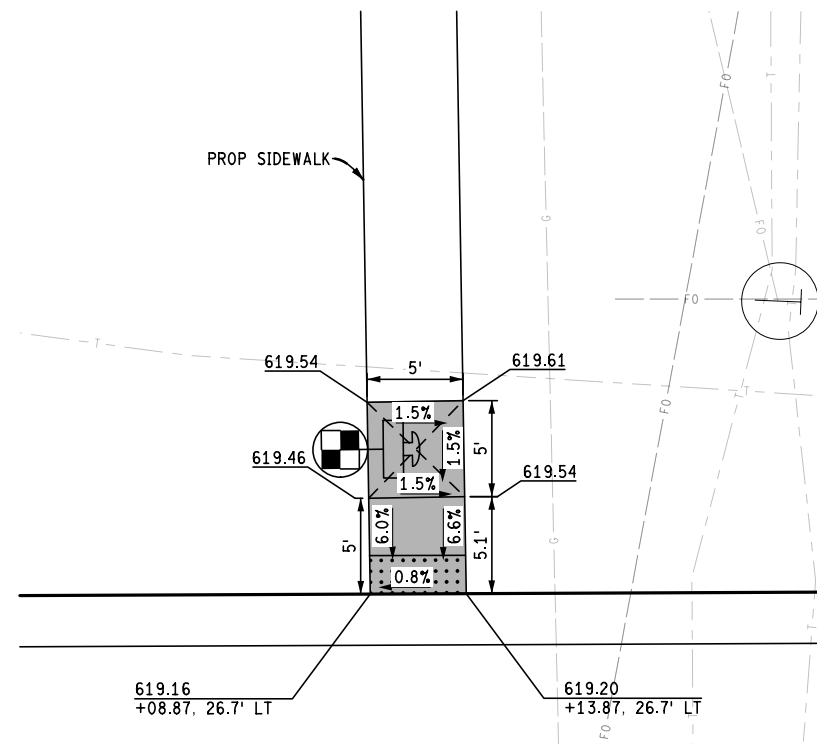
AECOM

Department of Roads

DATE: 10/12/22  
DESIGN UNIT: XXX  
FILE: 207178\_S\_Mound\_DTG\_NB\_14\_15\_Mile\_Rd.dwg

CS: INFR50000  
JN: 207178A

INTERSECTION DETAIL GRADES		DRAWING	SHEET
NB MOUND & 15 MILE RD		MOUND DETGRD	SECT 1
		42	79

[illegible]




Innovate Sound Project	APPROVED	<input type="checkbox"/>
<b>REVIEW</b>	APPROVED AS NOTED	<input type="checkbox"/>
	ACCEPTED	<input checked="" type="checkbox"/>
	ACCEPTED AS NOTED	<input type="checkbox"/>
	AMEND AND RESUBMIT	<input type="checkbox"/>
	REJECTED - SEE REMARKS	<input type="checkbox"/>

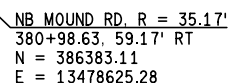
Reviewed only for general conformance with the project requirements indicated in Contract Documents and/or for consistency with the project design concept. This review does not relieve the Contractor from responsibility for errors or omissions in designs for which the Contractor is responsible. Contractor is responsible for compliance with all requirements of the Contract Documents and for the safe and successful construction of the work. This review does not consider the means, methods, techniques, sequences, fabrication processes, and operations of construction, or safety precautions or programs incidental thereto, which are the sole responsibility of the Contractor.

**HNTB**

BY Steve G. Hoffman

DATE 10/28/2022

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE: )								  Department of Roads	 0 10 HORZ. (FT)	DATE: 10/12/22	CS: INFR50000	INTERSECTION DETAIL GRADES	DRAWING	SHEET
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION			DESIGN UNIT: XXX	JN: 207178A	NB MOUND & 15 MILE RD	MOUND DETGRD	SECT 1
													43	80
										FILE: 207178_S_Mound.DTG_NB_14A_15	USE COMB			



FINAL ROW PLAN REVISIONS				(SUBMITTAL DATE: )			
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION



FILE: 207178\_S\_Mound\_DTG\_NB\_15\_Mille

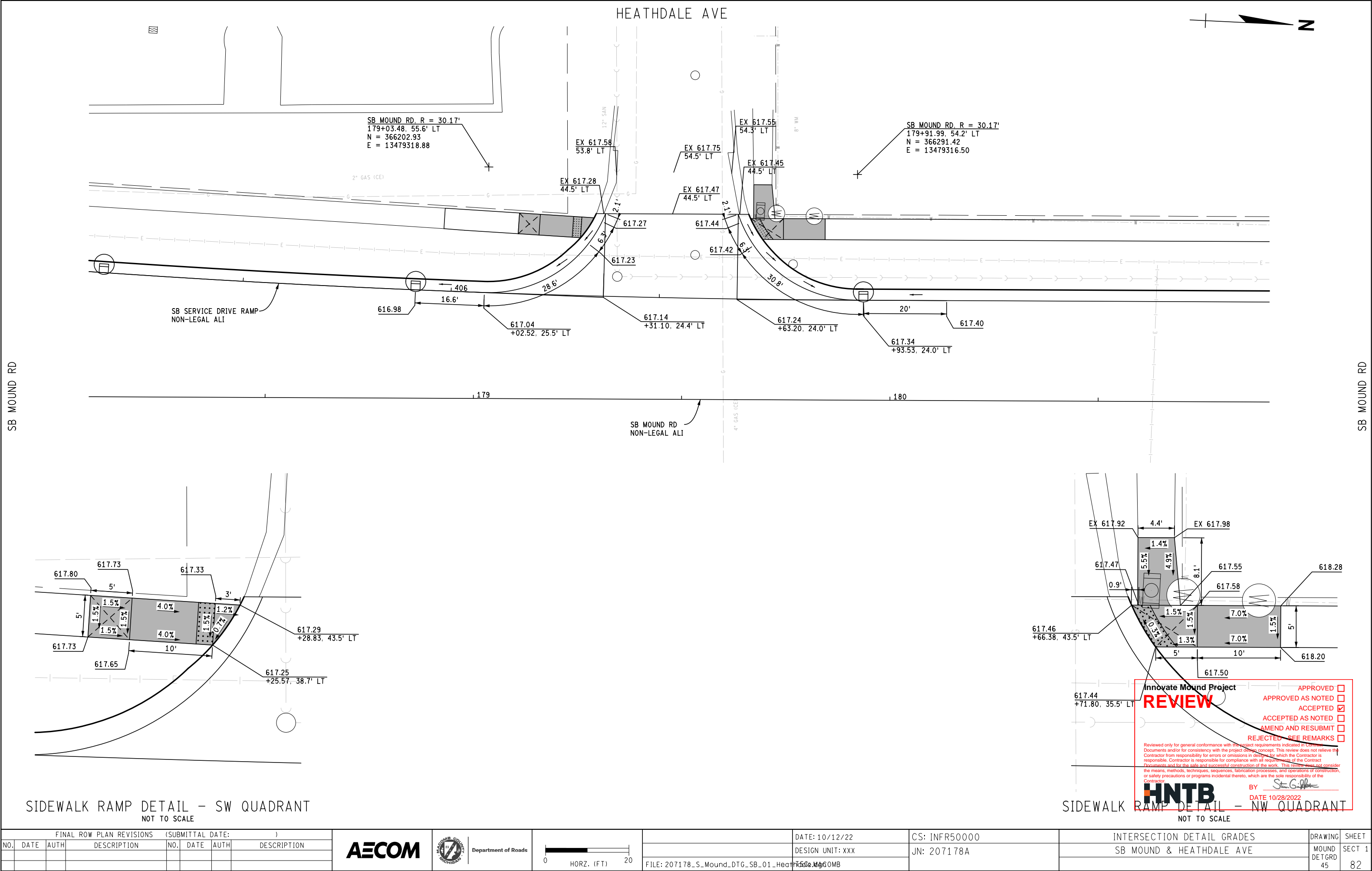
CS: INFR50000
JN: 207178A

INTERSECTION DETAIL GRADES  
NB MOUND & MILLETT AVE

	DRAWING	SHEET
	MOUND DET GRD 44	SECT 1  81

<p>620-11</p> <p><b>REVIEW</b></p>	<p>APPROVED <input type="checkbox"/></p> <p>APPROVED AS NOTED <input type="checkbox"/></p> <p>ACCEPTED <input checked="" type="checkbox"/></p> <p>ACCEPTED AS NOTED <input type="checkbox"/></p> <p>AMEND AND RESUBMIT <input type="checkbox"/></p> <p>REJECTED - SEE REMARKS <input type="checkbox"/></p> <p>Reviewed only for general conformance with the project requirements indicated in Contract Documents and/or for consistency with the project design concept. This review does not relieve the Contractor from responsibility for errors or omissions in designs for which the Contractor is responsible. Contractor is responsible for compliance with all requirements of the Contract Documents and for the safe and successful construction of the work. This review does not consider the means, methods, techniques, sequences, fabrication processes, and operations of construction, or safety precautions or programs incidental thereto, which are the sole responsibility of the Contractor.</p> <p><b>HNTB</b></p>
<p>DATE 10/28/2022</p>	<p>BY <u>Steve G. Hoffman</u></p>





FINAL ROW PLAN REVISIONS (SUBMITTAL DATE: )							
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION

Department of Roads



FILE: 207178\_S\_Mound\_DTG\_SB\_01\_Heathdale

DATE: 10/12/22  
DESIGN UNIT: XXX

CS: INFR50000  
JN: 207178A

INTERSECTION DETAIL GRADES		DRAWING	SHEET
SB MOUND & HEATHDALE AVE		MOUND DETGRD	SECT 1
		45	82

A diagram showing a horizontal line with a vertical tick mark at the left end. A black arrow points from the tick mark to the right, ending at a point labeled **z**.



Innovate Mound Project		APPROVED
<b>REVIEW</b>	APPROVED AS NOTED	<input type="checkbox"/>
	ACCEPTED	<input checked="" type="checkbox"/>
	ACCEPTED AS NOTED	<input type="checkbox"/>
	AMEND AND RESUBMIT	<input type="checkbox"/>
	REJECTED - SEE REMARKS	<input type="checkbox"/>

Reviewed only for general performance with the project. Comments indicated in Contract Documents and/or consistent with the project design. This review does not relieve the Contractor from responsibility for errors or omissions in designs for which the Contractor is responsible. Contractor is responsible for compliance with all requirements of the Contract Documents and for the safe and successful completion of the work. This review does not consider the means, methods, techniques, sequences, fabrication processes, and operations of construction, or safety precautions or programs incidental thereto, which are the sole responsibility of the Contractor.

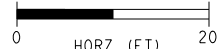
**HNTB** BY Steve G. Hoffman

**RAMP OF A - NW QUADRANT** DATE 10/28/2022

FINAL ROW PLAN REVISIONS				(SUBMITTAL DATE: )			
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION



Department of Roads



FILE: 207178\_S\_Mound\_DTG\_SB\_02\_Martin\_Sc

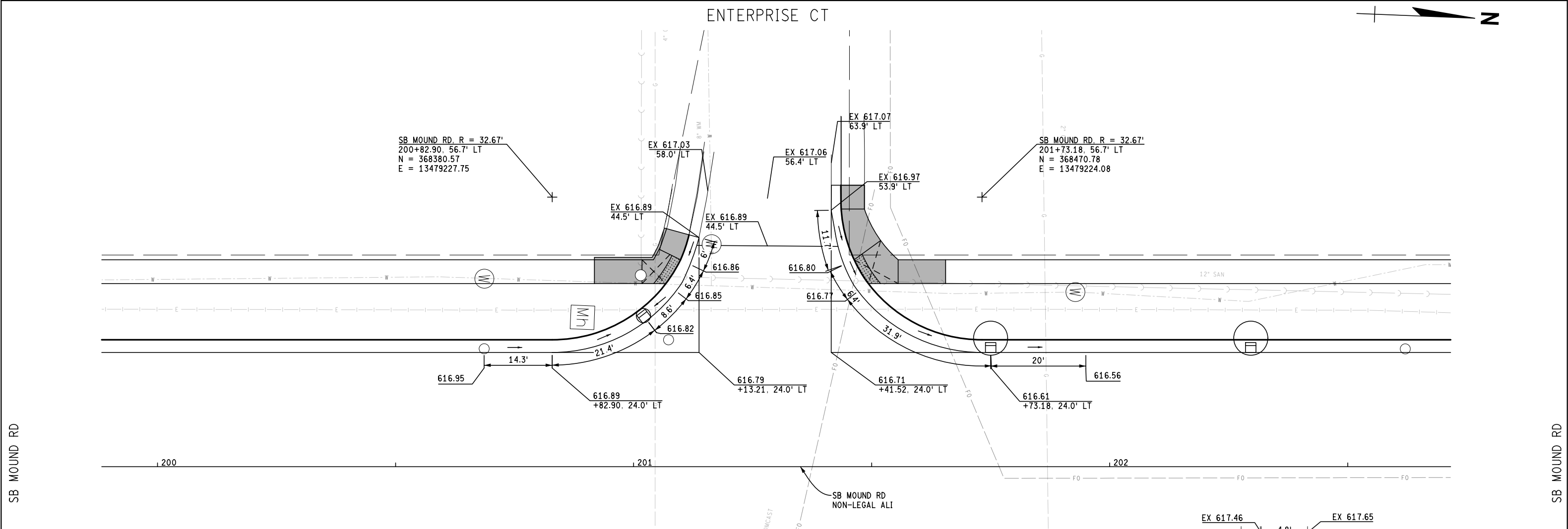
DATE: 10/12/22
DESIGN UNIT: XXX

CS: INFR50000
JN: 207178A

INTERSECTION DETAIL GRADES  
SB MOUND & MARTIN RD

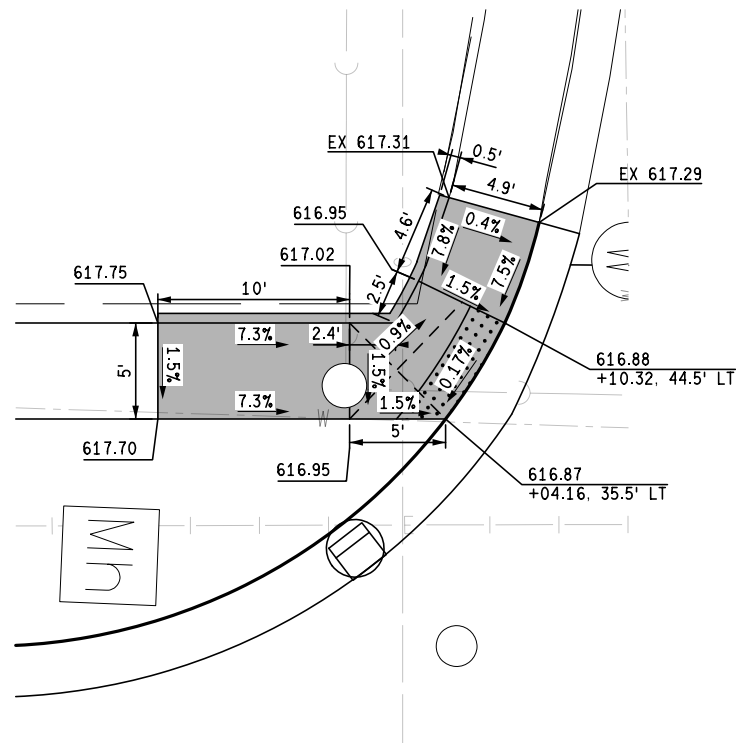
DRAWING	SHEET
MOUND DET GRD 46	SECT 1 83



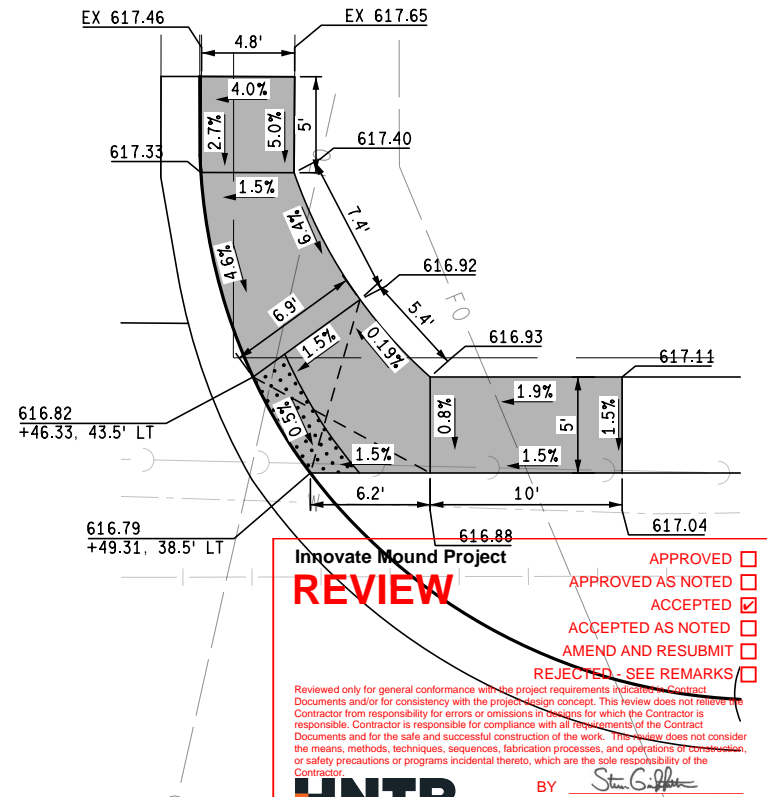


SB MOUND RD

SB MOUND RD



SIDEWALK RAMP DETAIL - SW QUADRANT  
NOT TO SCALE



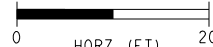
SIDEWALK RAMP DETAIL - NW QUADRANT  
NOT TO SCALE

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE: )							
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION

AECOM



Department of Roads



FILE: 207178\_S\_Mound\_DTG\_SB\_04\_Enterprise.DWG

DATE: 10/12/22  
DESIGN UNIT: XXX

CS: INFR50000  
JN: 207178A

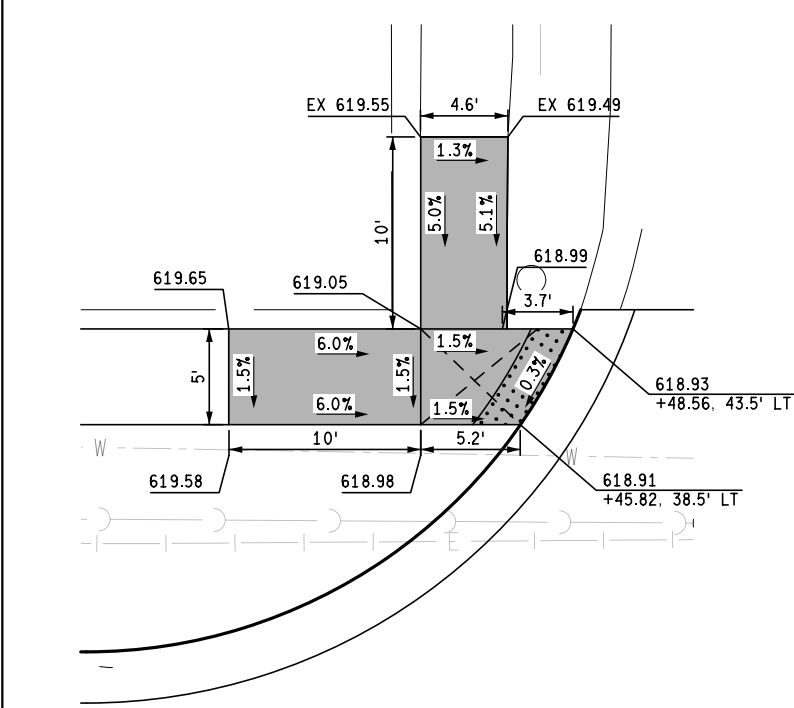
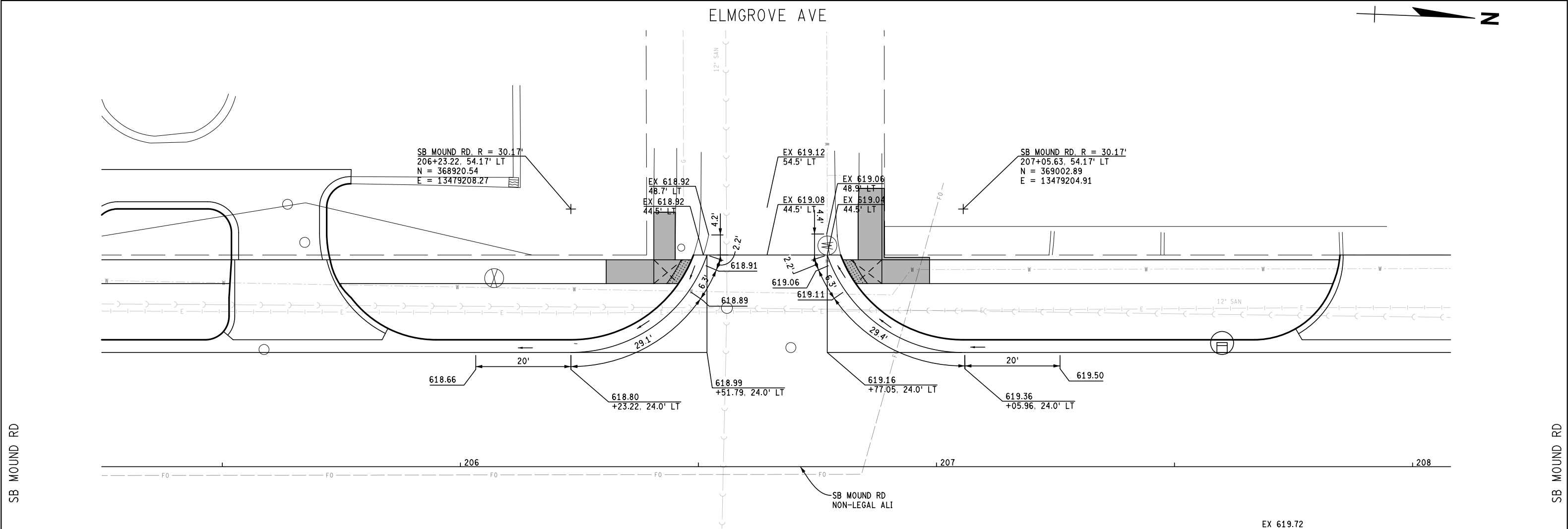
INTERSECTION DETAIL GRADES  
SB MOUND & ENTERPRISE CT

DRAWING	SHEET
MOUND DETGRD	SECT 1
48	85

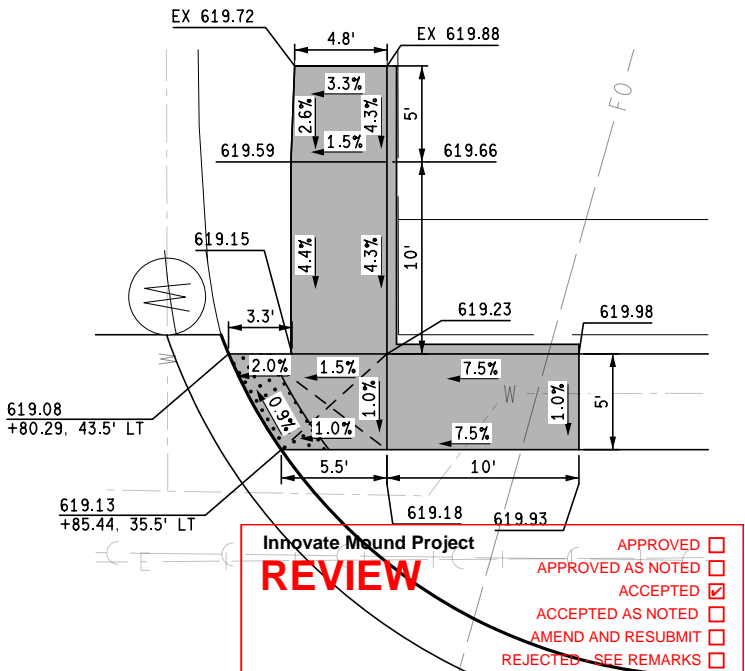
Innovate Mound Project	
REVIEW	APPROVED <input type="checkbox"/>
	APPROVED AS NOTED <input type="checkbox"/>
	ACCEPTED <input checked="" type="checkbox"/>
	ACCEPTED AS NOTED <input type="checkbox"/>
	AMEND AND RESUBMIT <input type="checkbox"/>
	REJECTED - SEE REMARKS <input type="checkbox"/>

Reviewed only for general conformance with the project requirements indicated on the Contract Documents and/or for consistency with the project design concept. This review does not relieve the Contractor from responsibility for errors or omissions in the design for which the Contractor is responsible. Contractor is responsible for compliance with all requirements of the Contract Documents and for the safe and successful construction of the work. This review does not consider the means, methods, techniques, sequences, fabrication processes, and operations or construction, or safety precautions or programs incidental thereto, which are the sole responsibility of the Contractor.

**HNTB**  
BY: *Steve G. [Signature]*  
DATE: 10/28/2022



SIDEWALK RAMP DETAIL - SW QUADRANT  
NOT TO SCALE



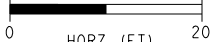
SIDEWALK RAMP DETAIL - NW QUADRANT  
NOT TO SCALE

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE: )							
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION

AECOM



Department of Roads



FILE: 207178\_S\_Mound\_DWG\_SB\_05\_Elmgrove.dwg

DATE: 10/12/22  
DESIGN UNIT: XXX

CS: INFR50000  
JN: 207178A

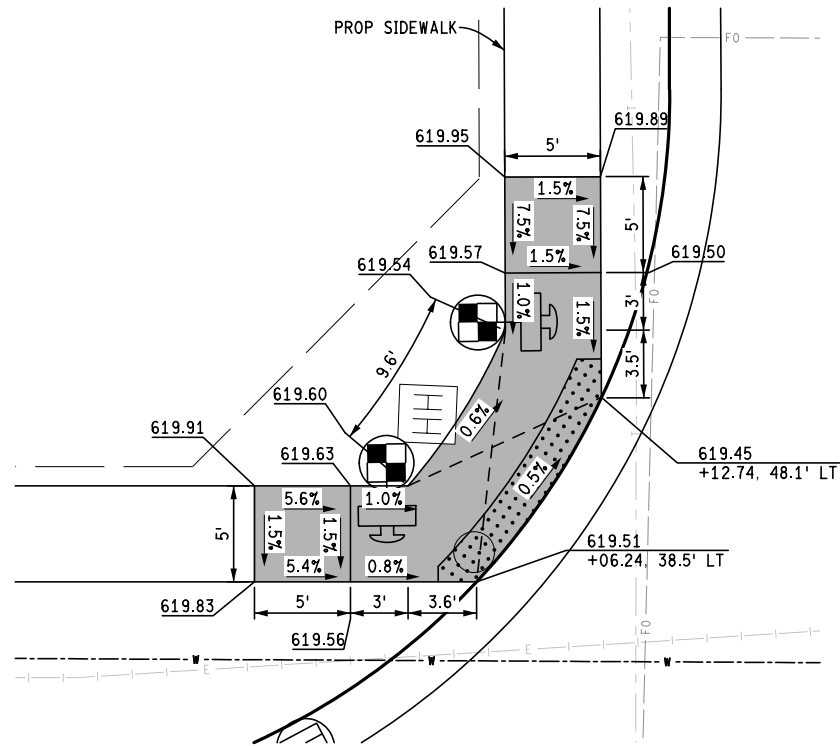
INTERSECTION DETAIL GRADES  
SB MOUND & ELMGROVE AVE

DRAWING  
MOUND  
DETRD  
49

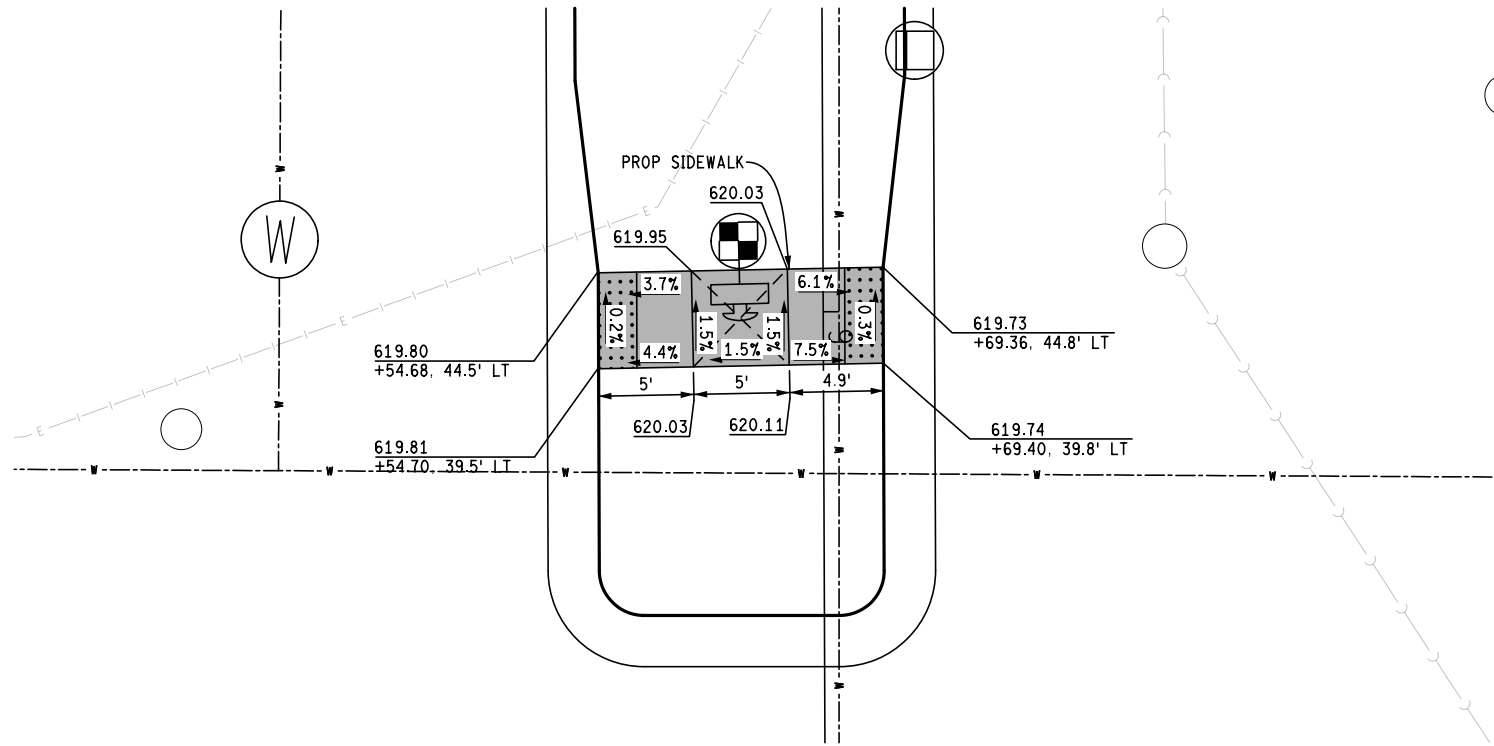
SHEET  
SECT 1  
86



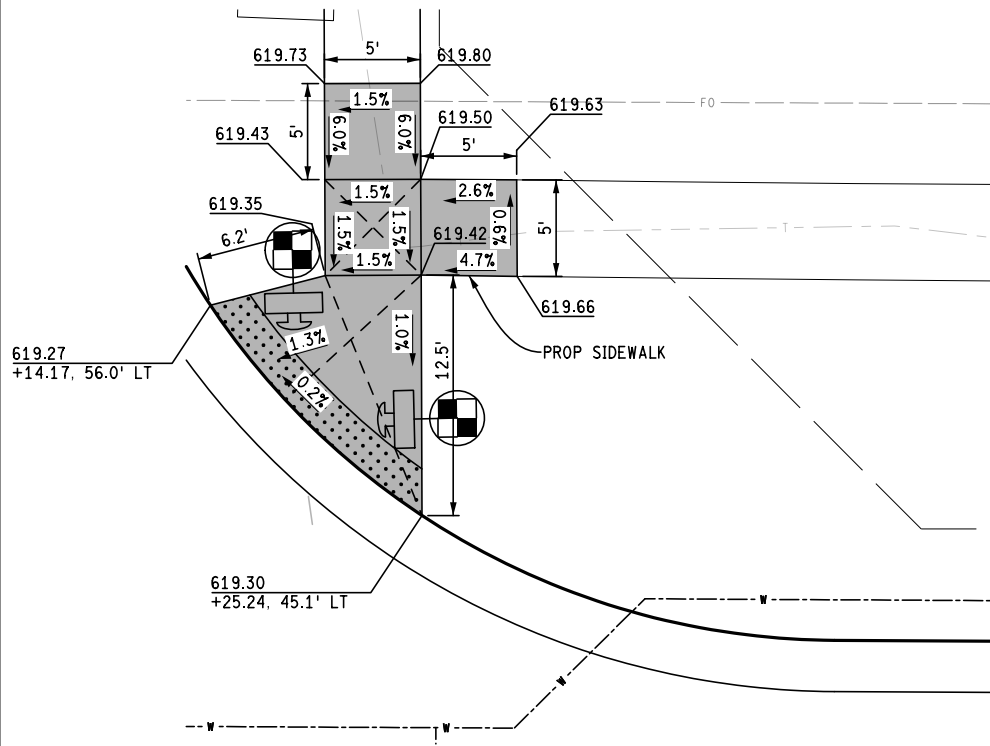




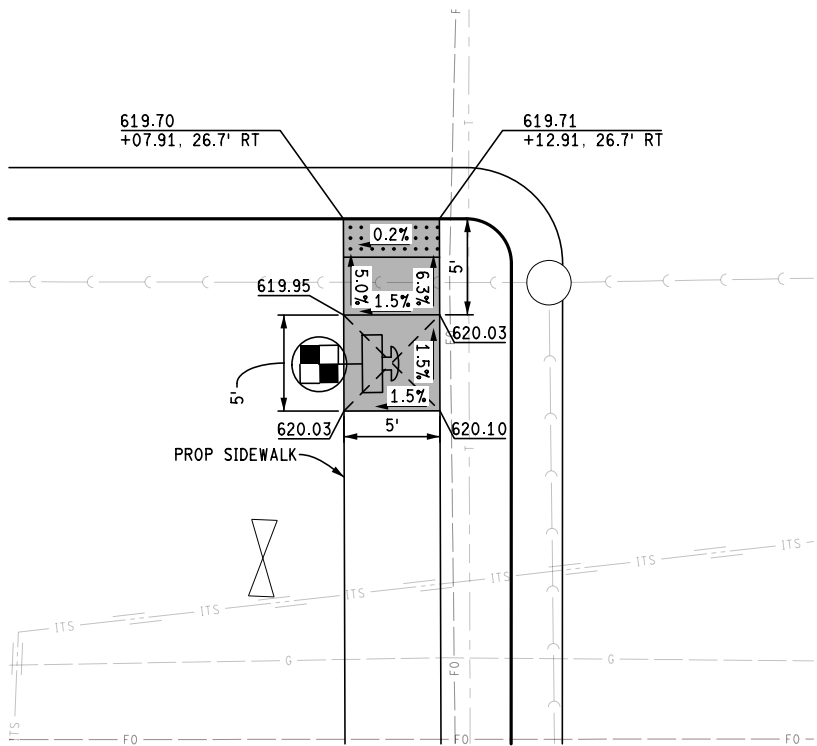
SIDEWALK RAMP DETAIL - SW QUADRANT



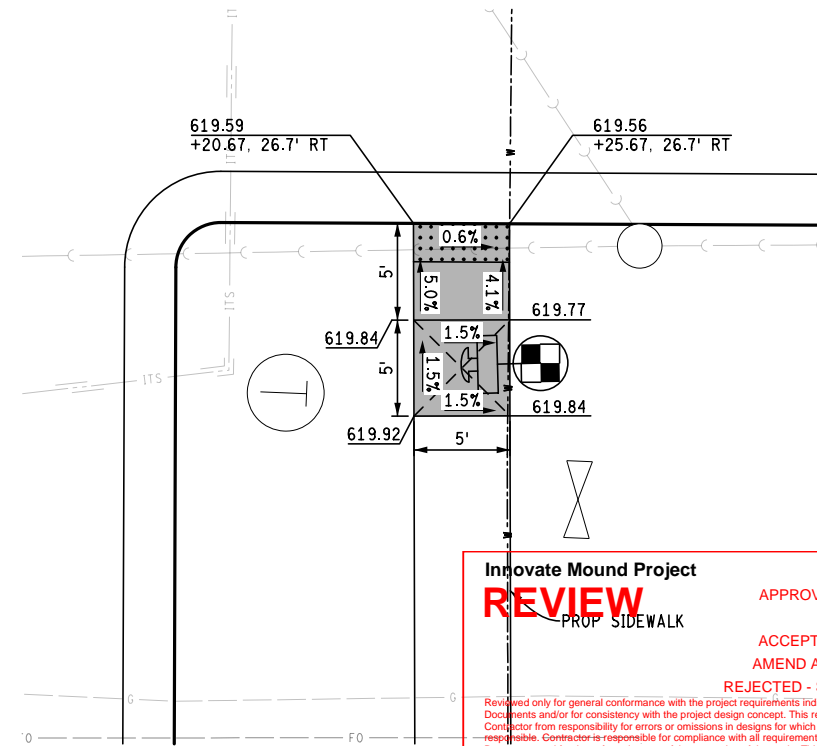
SIDEWALK RAMP DETAIL - CENTER QUADRANT



SIDEWALK RAMP DETAIL - NW QUADRANT



SIDEWALK RAMP DETAIL - SE QUADRANT



SIDEWALK RAMP DETAIL - E QUADRANT

Innovate Mound Project

**REVIEW**

PROP SIDEWALK

APPROVED ☐

APPROVED AS NOTED ☐

ACCEPTED ☒

ACCEPTED AS NOTED ☐

AMEND AND RESUBMIT ☐

REJECTED - SEE REMARKS ☐


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**HNTB**

DATE 10/28/2022

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE: )						
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH

**AECOM**



Department of Roads

0

HORZ. (FT)

10

FILE: 207178\_S\_Mound\_DTG\_SB\_06A\_12

DATE: 10/12/22

DESIGN UNIT: XXX

ISSUED FOR COMB

CS: INFR50000

JN: 207178A

INTERSECTION DETAIL GRADES

SB MOUND & 12 MILE RD

DRAWING

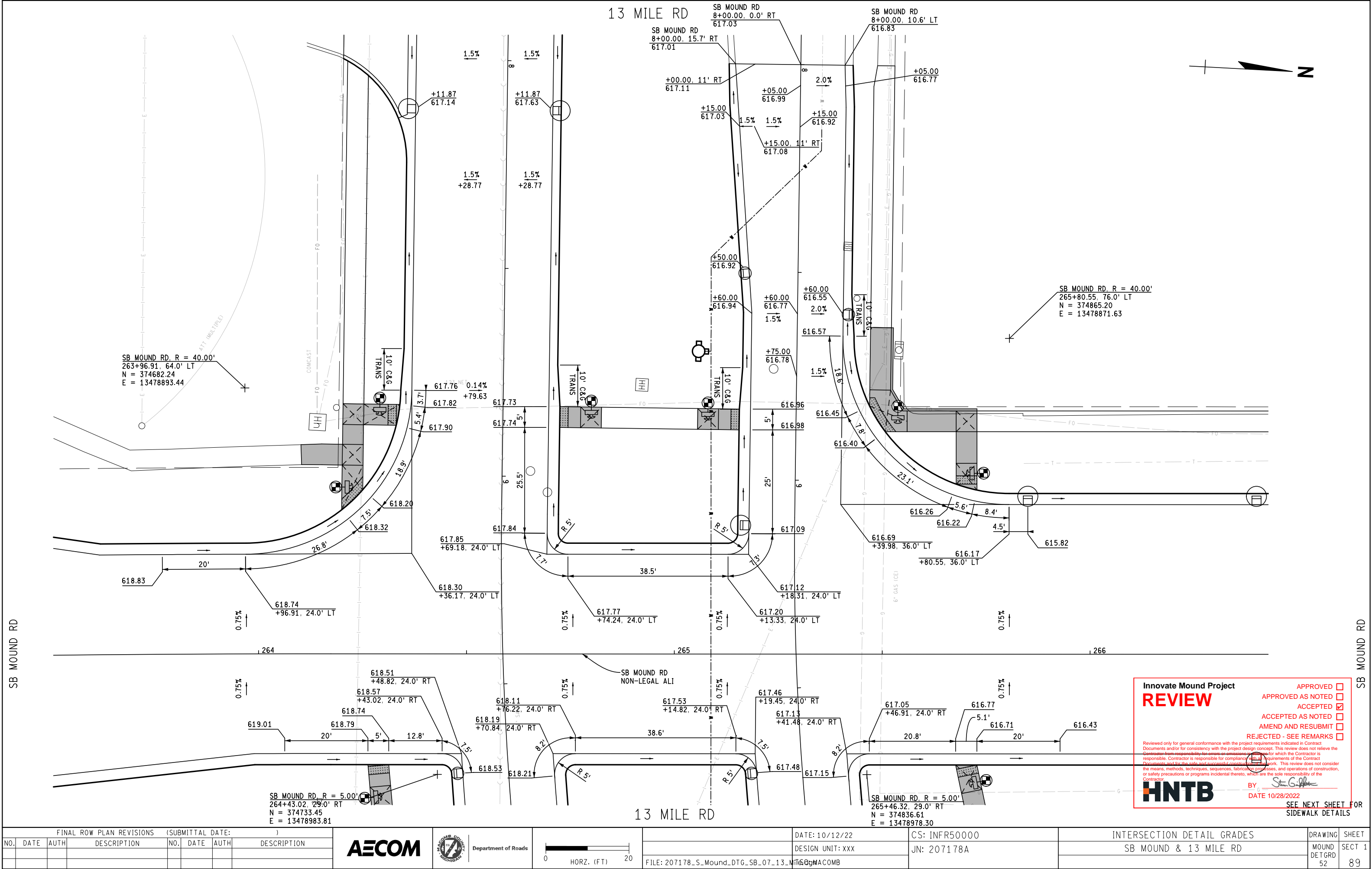
MOUND DETGRD

51

SHEET

88

SECT 1



Innovate Mound Project

REVIEW

APPROVED ☐

APPROVED AS NOTED ☐

ACCEPTED ☒

ACCEPTED AS NOTED ☐

AMEND AND RESUBMIT ☐

REJECTED - SEE REMARKS ☐

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HNTB

BY *Steve G. [Signature]*

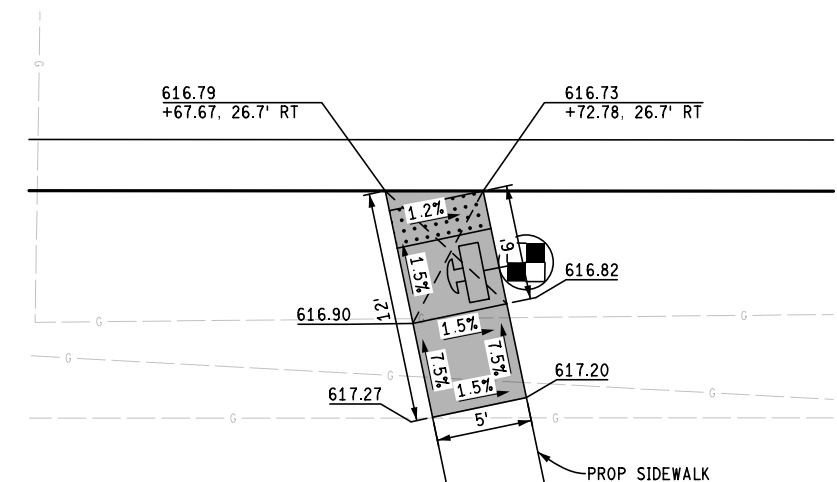
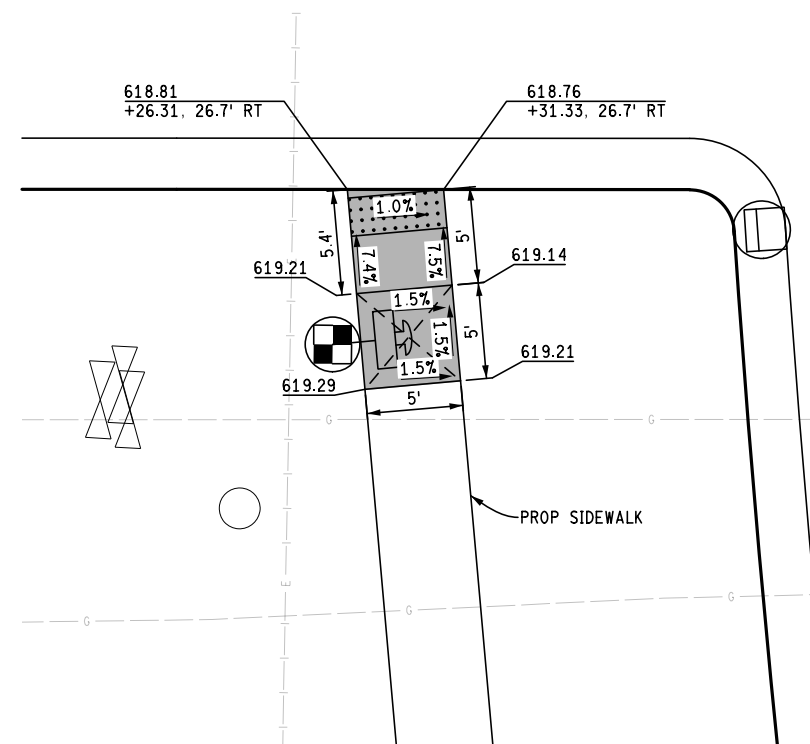
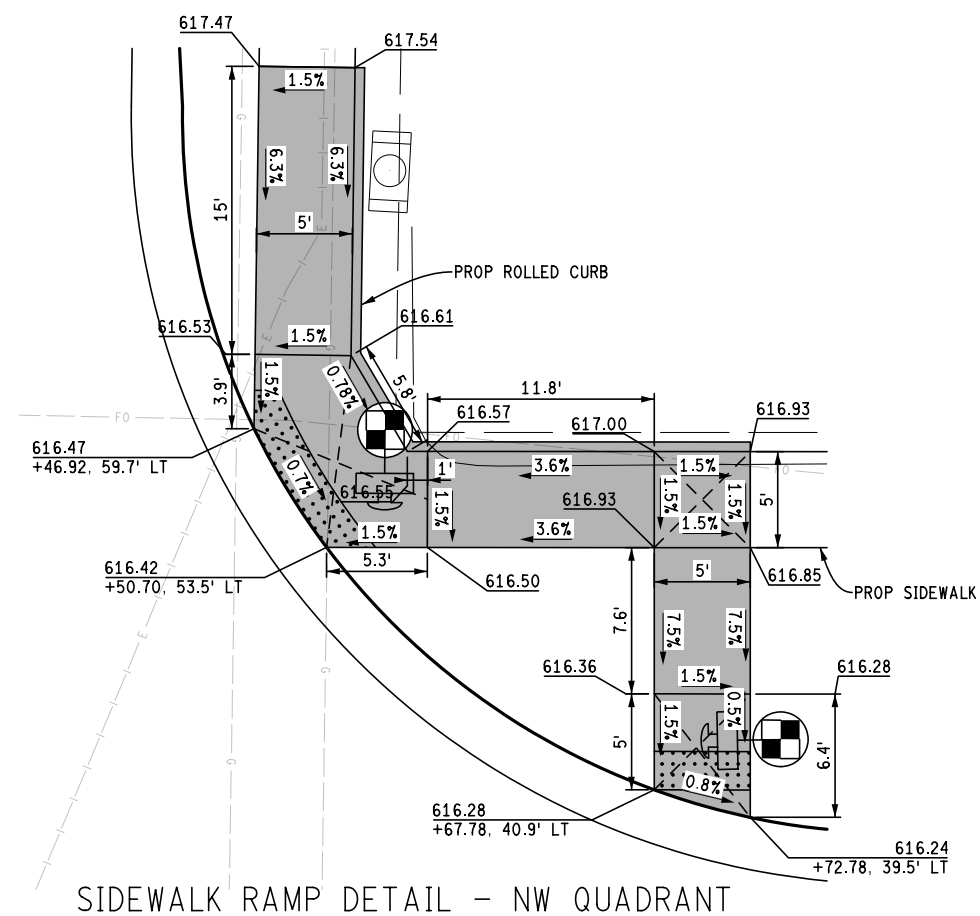
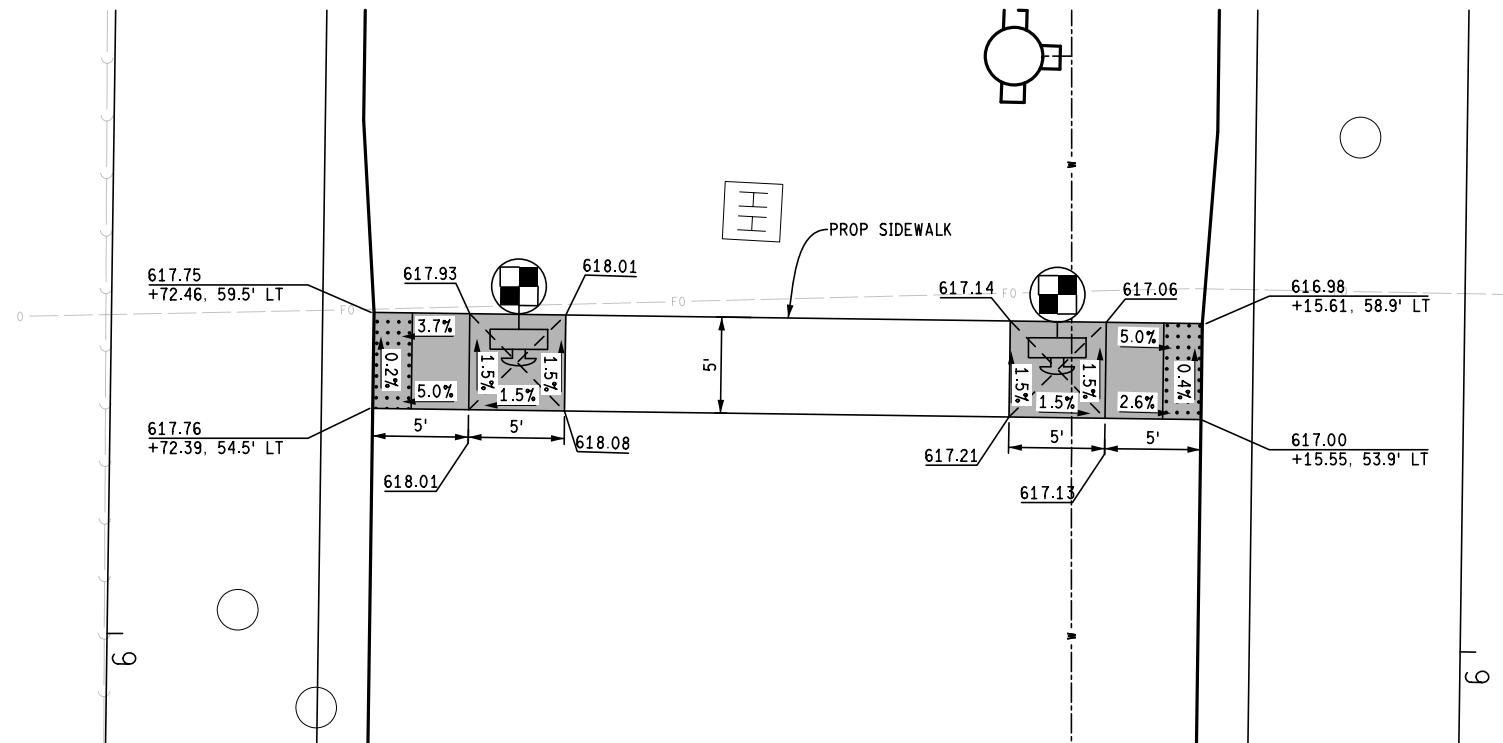
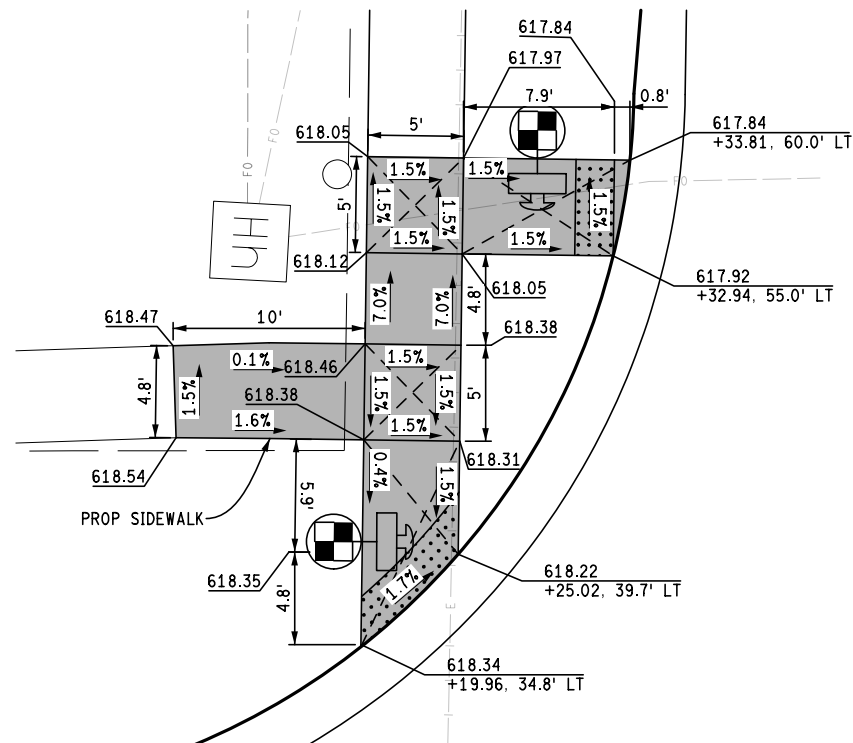
DATE 10/28/2022

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE: )					
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE

FILE: 207178\_S\_Mound\_DTG\_SB-07\_13\_Mile\_Rd.dwg

DATE: 10/12/22  
DESIGN UNIT: XXX  
CS: INFR50000  
JN: 207178A

INTERSECTION DETAIL GRADES		DRAWING	SHEET
SB MOUND & 13 MILE RD		MOUND DETGRD	SECT 1
		52	89



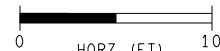
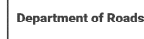
Innovate Sound Project	APPROVED	<input type="checkbox"/>
<b>REVIEW</b>	APPROVED AS NOTED	<input type="checkbox"/>
	ACCEPTED	<input checked="" type="checkbox"/>
	ACCEPTED AS NOTED	<input type="checkbox"/>
	AMEND AND RESUBMIT	<input type="checkbox"/>
	REJECTED - SEE REMARKS	<input type="checkbox"/>

Reviewed only for general conformance with the project requirements indicated in Contract Documents and/or for consistency with the project design concept. This review does not relieve the Contractor from responsibility for errors or omissions in drawings for which the Contractor is responsible. Contractor is responsible for compliance with all requirements of the Contract Documents and for the safe and successful construction of the work. This review does not consider the means, methods, techniques, sequences, fabrication processes, and operations of construction, or safety precautions or programs incidental thereto, which are the sole responsibility of the Contractor.

IL **HNTB** **DR** **PT** *Steve Giffen*

DATE 10/28/2022

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE: )							
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION



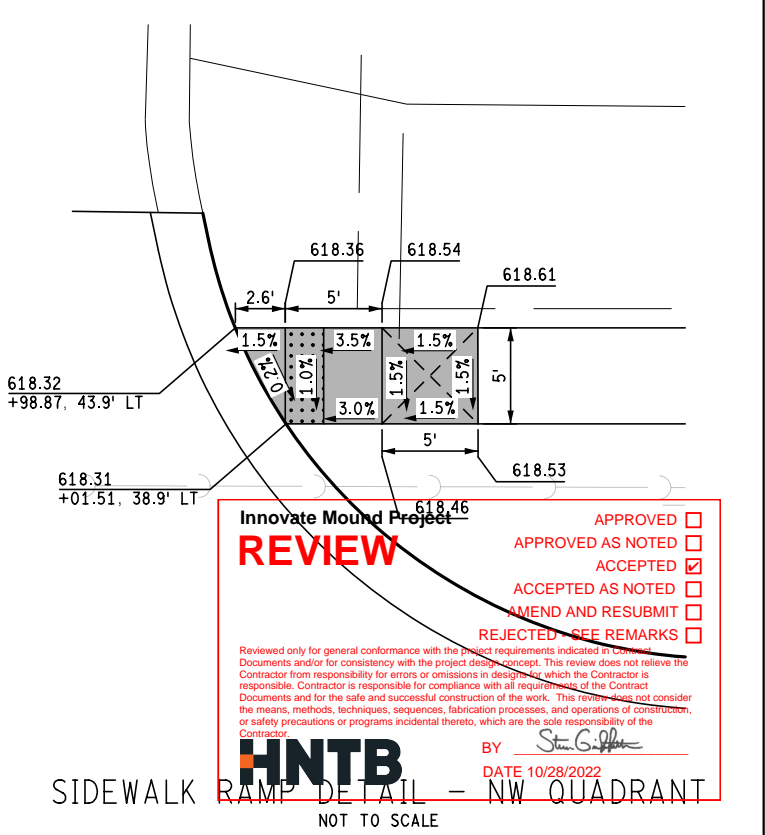
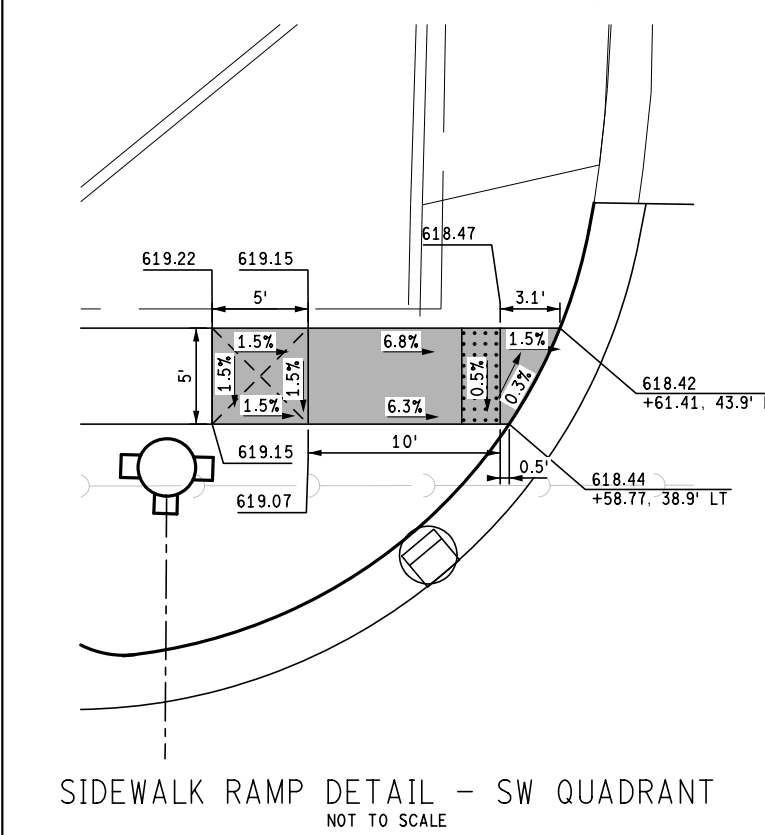
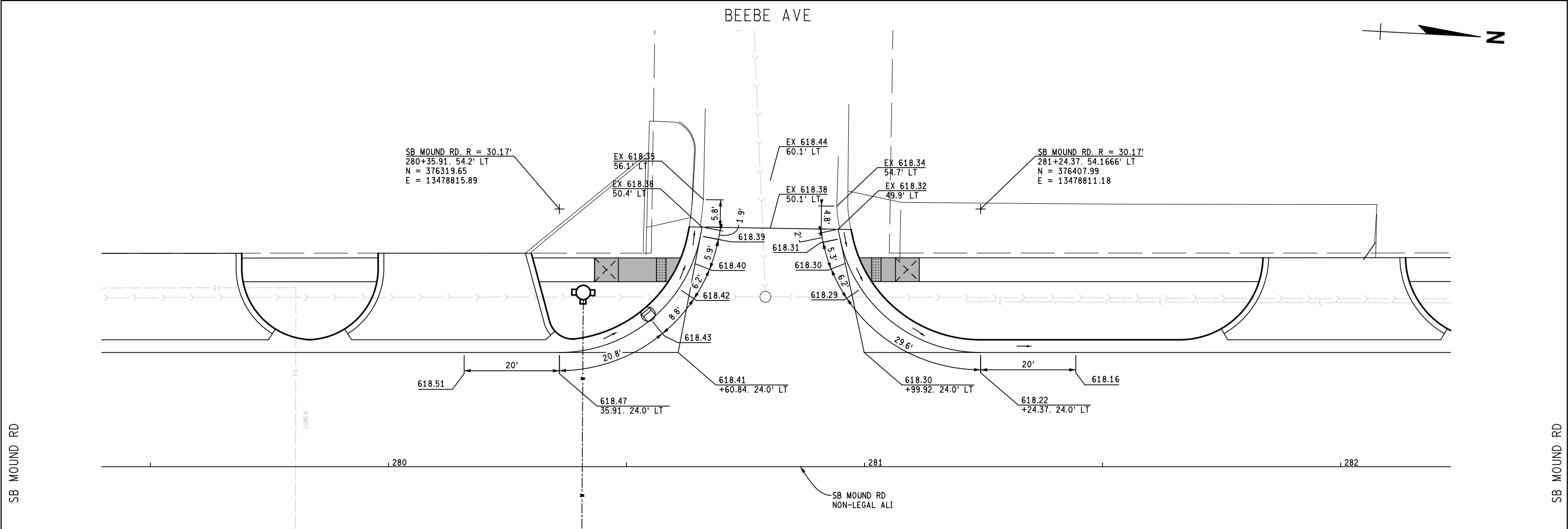
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DATE: 10/12/22
DESIGN UNIT: XXX

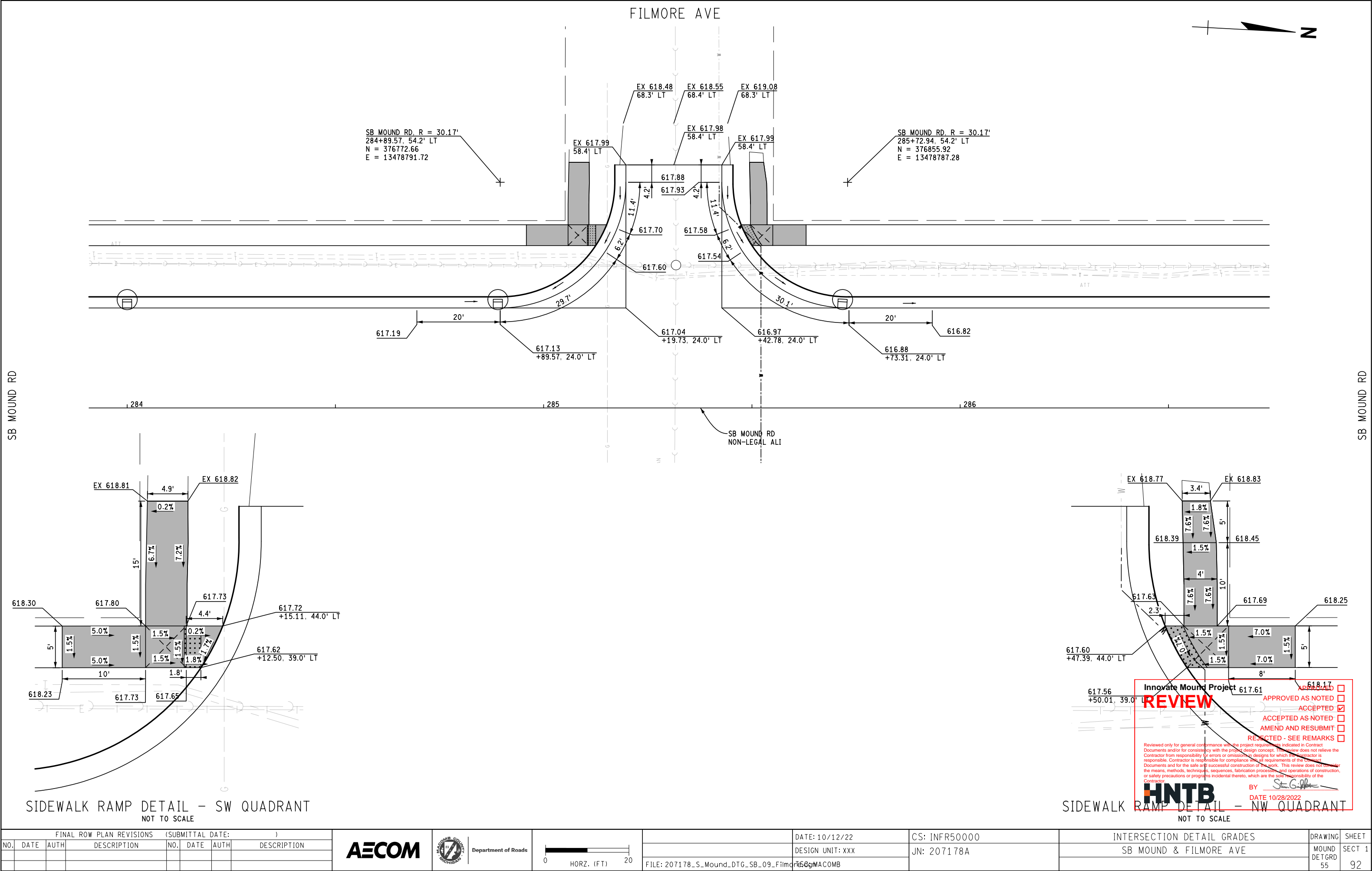
CS: INFR50000
JN: 207178A

INTERSECTION DETAIL GRADES  
SB MOUND & 13 MILE RD

DRAWING	SHEET
GROUND DETGRD	SECT 1
53	90







FINAL ROW PLAN REVISIONS (SUBMITTAL DATE: )							
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION

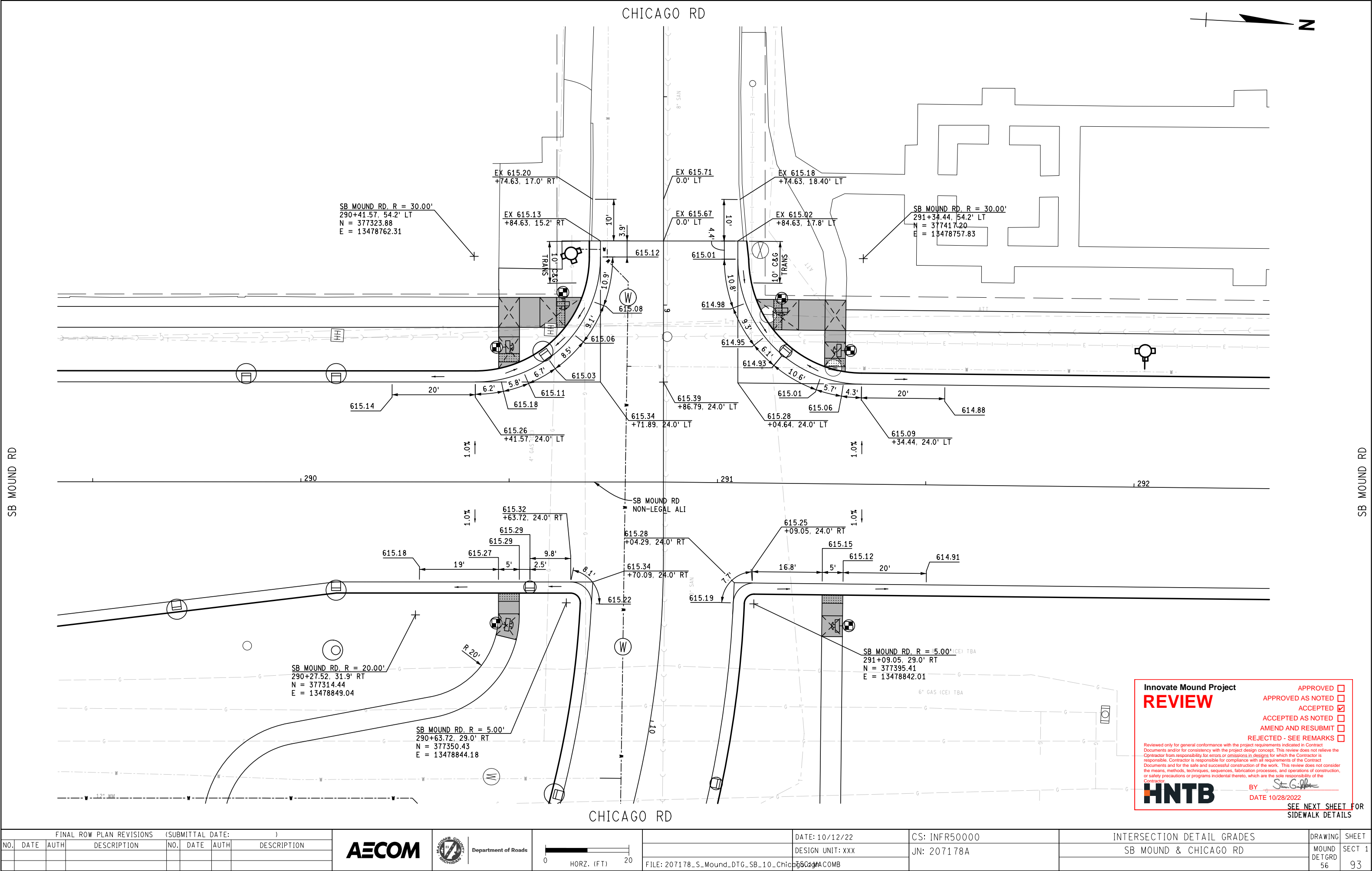


DATE: 10/12/22  
DESIGN UNIT: XXX  
FILE: 207178\_S\_Mound\_DTG\_SB\_09\_Filmore

CS: INFR50000  
JN: 207178A

INTERSECTION DETAIL GRADES  
SB MOUND & FILMORE AVE

DRAWING	SHEET
MOUND DETGRD 55	92



Innovate Mound Project

REVIEW

APPROVED ☐

APPROVED AS NOTED ☐

ACCEPTED ☒

ACCEPTED AS NOTED ☐

AMEND AND RESUBMIT ☐

REJECTED - SEE REMARKS ☐

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HNTB

BY *Steve G. [Signature]*

DATE 10/28/2022

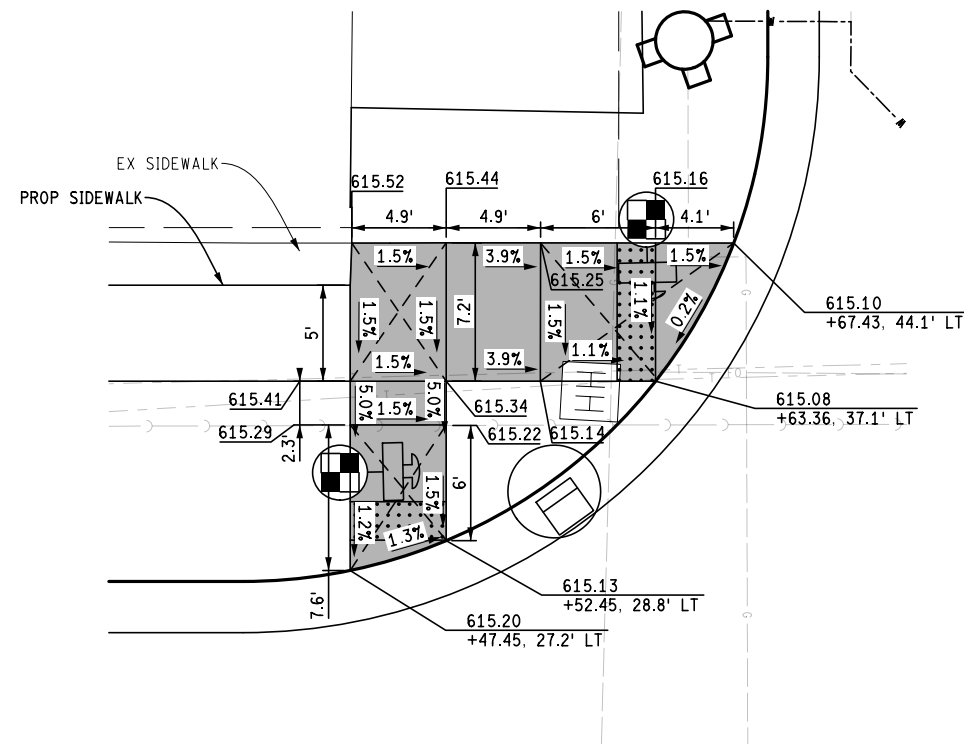
SEE NEXT SHEET FOR  
SIDEWALK DETAILS

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE: )					
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE

FILE: 207178\_S\_Mound\_DTG\_SB\_10\_Chicago\_Comb

DATE: 10/12/22  
DESIGN UNIT: XXX  
CS: INFR50000  
JN: 207178A

INTERSECTION DETAIL GRADES		DRAWING	SHEET
SB MOUND & CHICAGO RD		MOUND DETGRD	SECT 1
		56	93

[illegible]

615.17  
+25.40, 26.7' RT

615.14  
+30.40, 26.7' RT

615.42

615.35

615.50

615.42

5'

5'

5'

5.0%

1.5%

1.5%

0.6%

4.1%

1.5%

1.5%





PROP SIDEWALK

Innovate Sound Project	APPROVED	<input type="checkbox"/>
<b>REVIEW</b>	APPROVED AS NOTED	<input type="checkbox"/>
	ACCEPTED	<input checked="" type="checkbox"/>
	ACCEPTED AS NOTED	<input type="checkbox"/>
	AMEND AND RESUBMIT	<input type="checkbox"/>
	REJECTED - SEE REMARKS	<input type="checkbox"/>

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**HNTB** BY Steve G. Hoffman

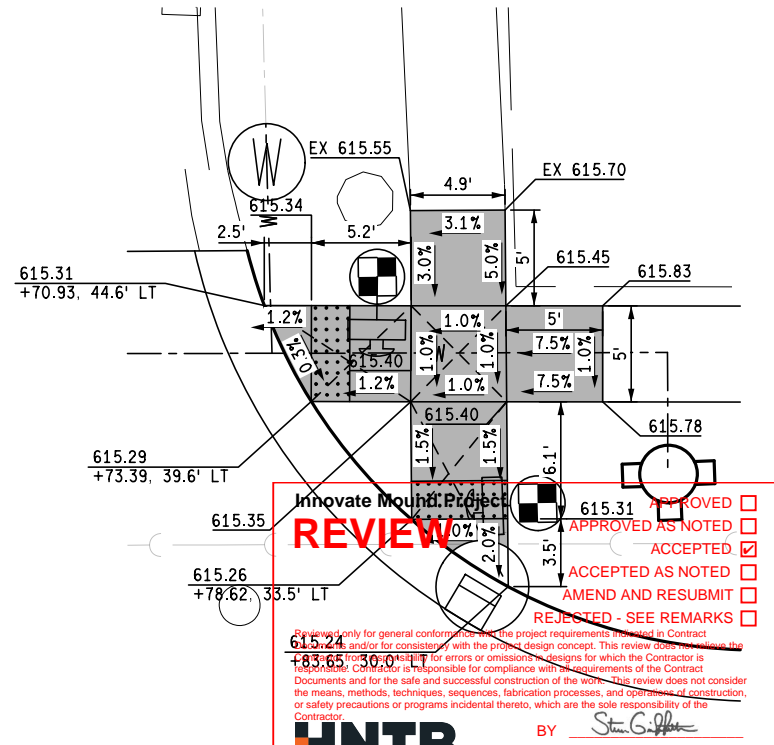
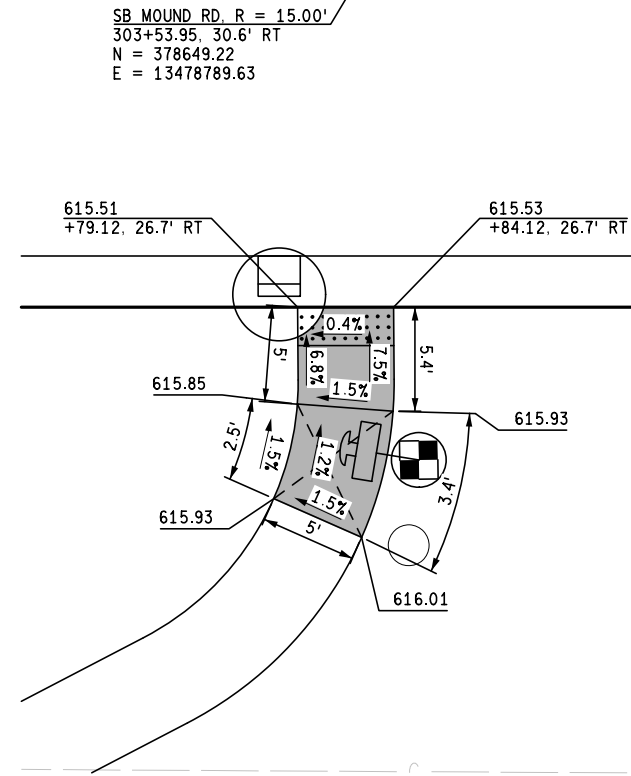
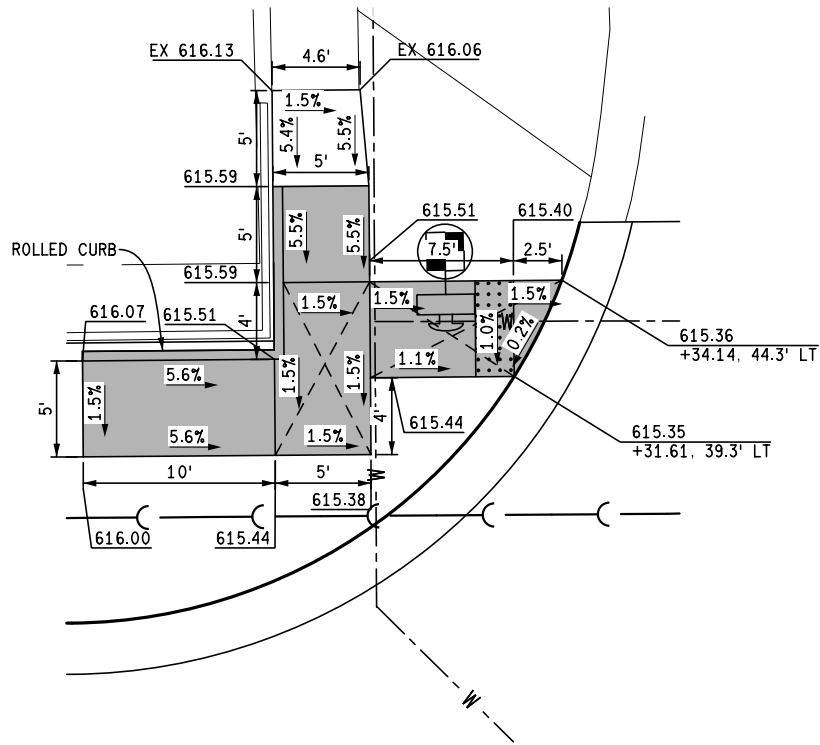
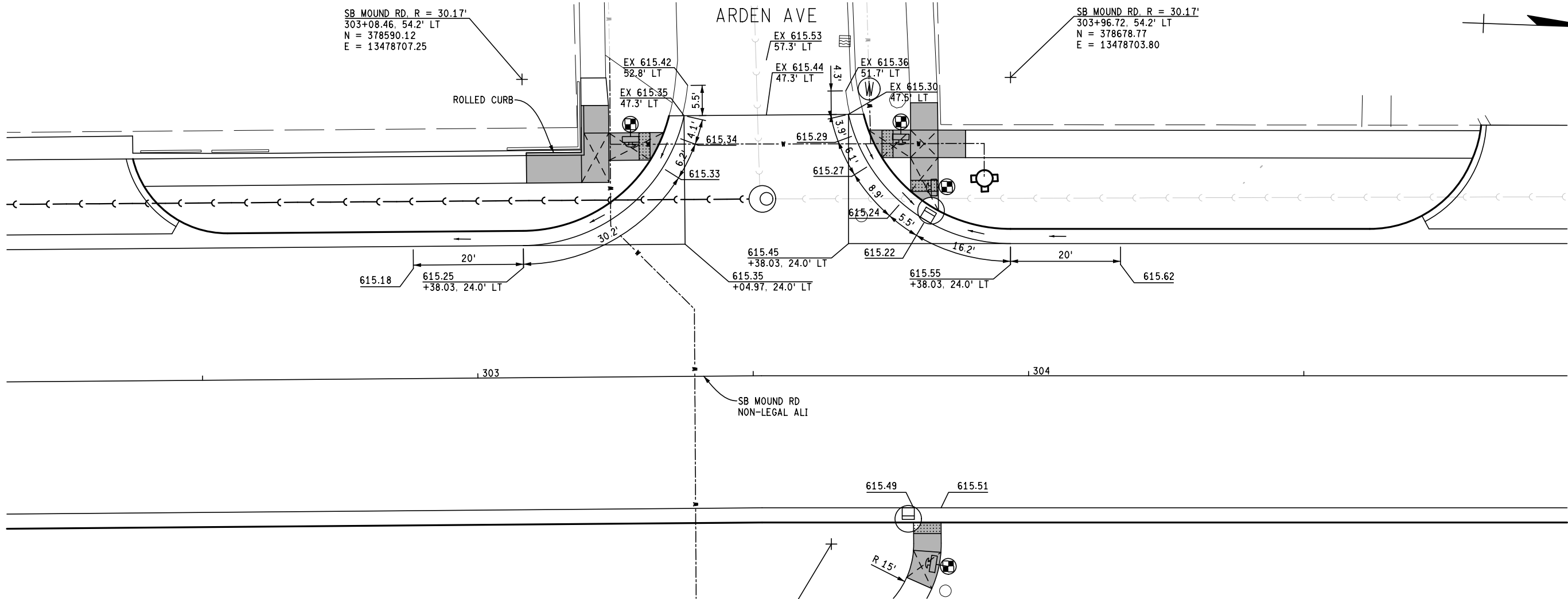
DATE 10/28/2022

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE: )								  		DATE: 10/12/22		CS: INFR50000		INTERSECTION DETAIL GRADES		DRAWING	SHEET
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION			DESIGN UNIT: XXX		JN: 207178A		SB MOUND & CHICAGO RD		MOUND DET GRD	SECT 1
										FILE: 207178_S_Mound_DTG-SB_10A_Chicago.DWG						57	94



SB MOUND RD

SB MOUND RD



SIDEWALK RAMP DETAIL - SW QUADRANT  
NOT TO SCALE

SIDEWALK RAMP DETAIL - NE QUADRANT  
NOT TO SCALE

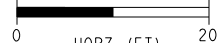
SIDEWALK RAMP DETAIL - NW QUADRANT  
NOT TO SCALE

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE: )							
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION

AECOM



Department of Roads



FILE: 207178\_S\_Mound\_DTG\_SB\_12\_Arden Ave MACOMB

DATE: 10/12/22  
DESIGN UNIT: XXX

CS: INFR50000  
JN: 207178A

INTERSECTION DETAIL GRADES  
SB MOUND & ARDEN AVE

DRAWING SHEET  
MOUND DETGRD SECT 1  
59 96

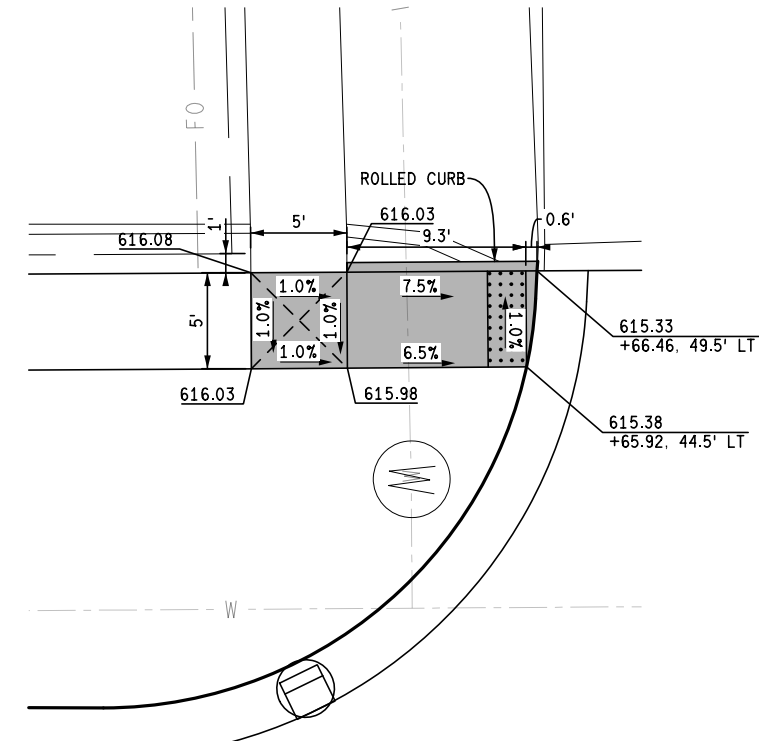
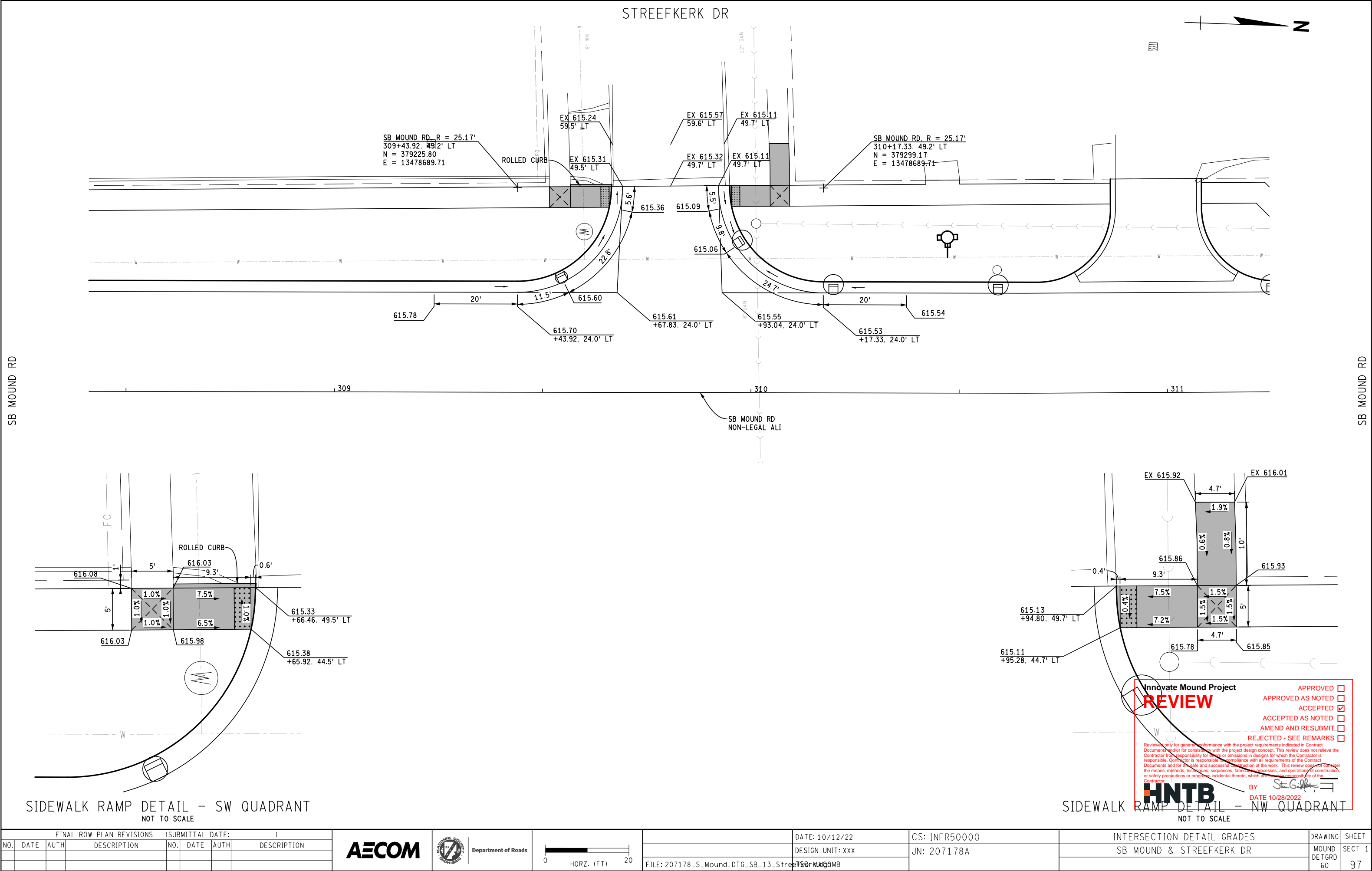
**REVIEW**

APPROVED	<input type="checkbox"/>
APPROVED AS NOTED	<input type="checkbox"/>
ACCEPTED	<input checked="" type="checkbox"/>
ACCEPTED AS NOTED	<input type="checkbox"/>
AMEND AND RESUBMIT	<input type="checkbox"/>
REJECTED - SEE REMARKS	<input type="checkbox"/>

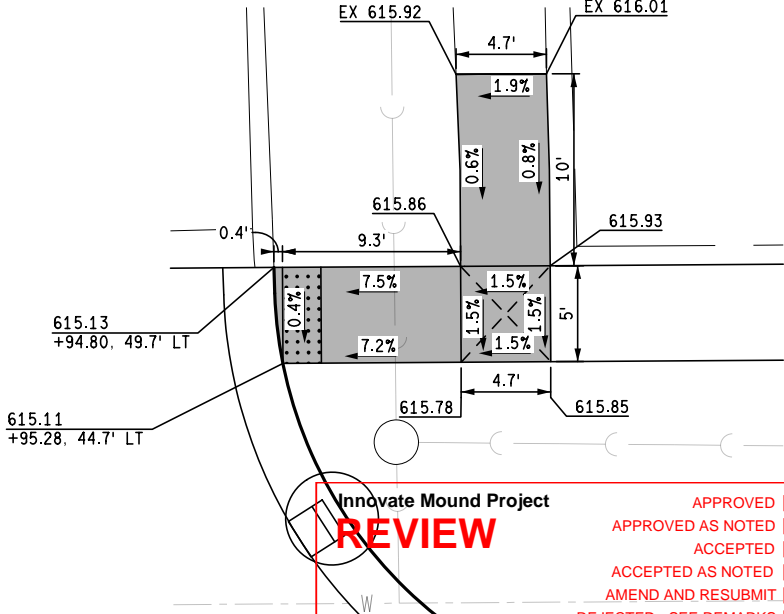
Reviewed only for general conformance with the project requirements presented in Contract Documents and for the safe and successful construction of the work. The review does not consider the means, methods, techniques, sequences, fabrication processes, and operations of construction, or safety precautions or programs incidental thereto, which are the sole responsibility of the Contractor.

**HNTB** BY *Steve G. [Signature]*  
DATE 10/28/2022



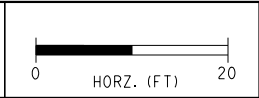


SIDEWALK RAMP DETAIL - SW QUADRANT  
NOT TO SCALE



SIDEWALK RAMP DETAIL - NW QUADRANT  
NOT TO SCALE

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE: )					
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE



DATE: 10/12/22  
DESIGN UNIT: XXX  
FILE: 207178\_S\_Mound\_DTG\_SB\_13\_StreefkerkDr.dwg

CS: INFR50000  
JN: 207178A

INTERSECTION DETAIL GRADES  
SB MOUND & STREEFKERK DR

DRAWING  
MOUND  
DETGRD  
60

SHEET  
SECT 1  
97

Innovate Mound Project

REVIEW

APPROVED ☐

APPROVED AS NOTED ☐

ACCEPTED ☒


ACCEPTED AS NOTED ☐

AMEND AND RESUBMIT ☐

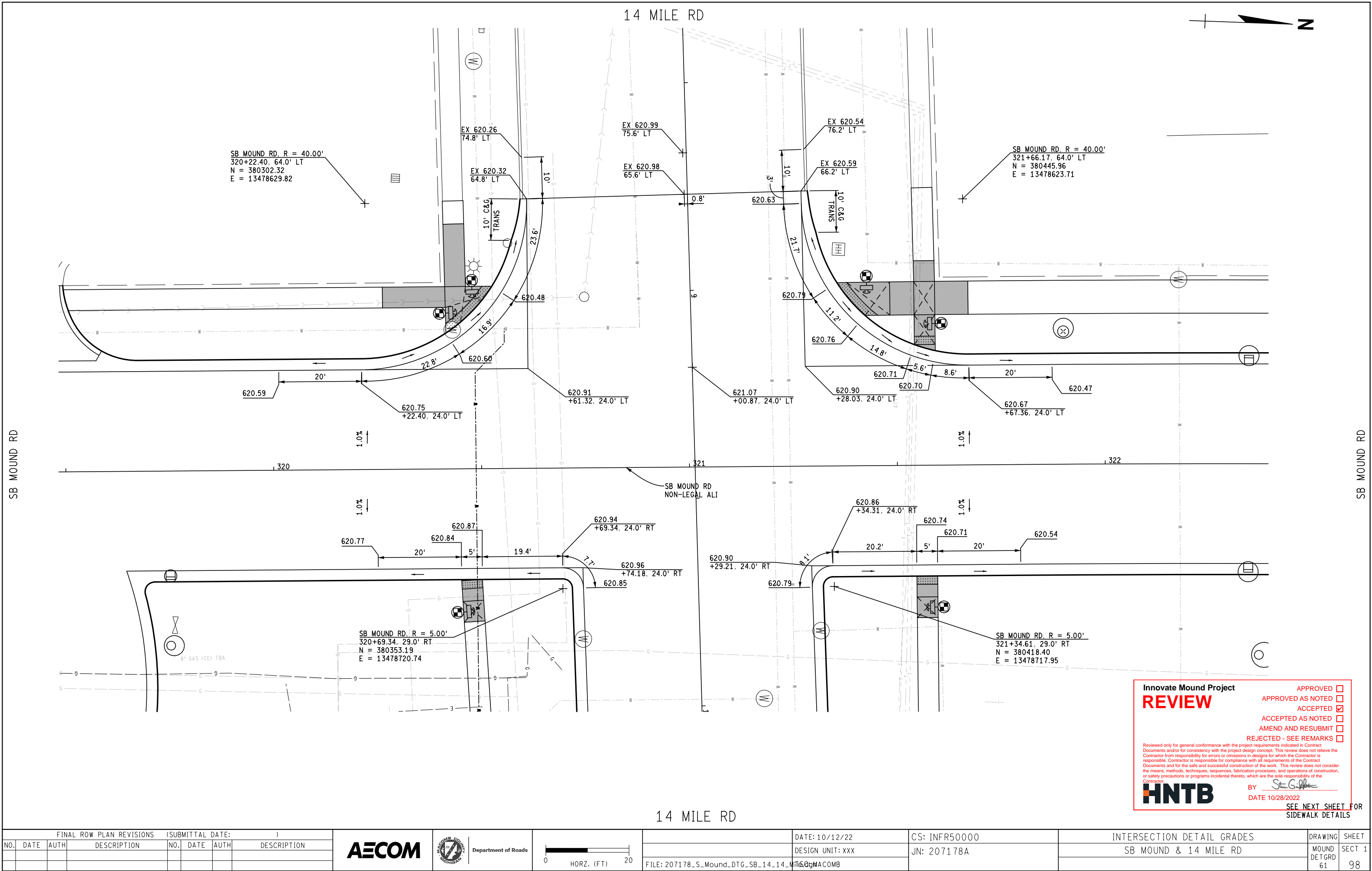
REJECTED - SEE REMARKS ☐

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HNTB

BY 

DATE 10/28/2022



Innovate Mound Project

REVIEW

APPROVED ☐

APPROVED AS NOTED ☐

ACCEPTED ☒

ACCEPTED AS NOTED ☐

AMEND AND RESUBMIT ☐

REJECTED - SEE REMARKS ☐

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HNTB

BY *Stu G. [Signature]*

DATE 10/28/2022

SEE NEXT SHEET FOR  
SIDEWALK DETAILS

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE: )							
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION

AECOM

Department of Roads

0

HORZ. (FT)

20

DATE: 10/12/22

DESIGN UNIT: XXX

CS: INFR50000

JN: 207178A

INTERSECTION DETAIL GRADES

SB MOUND & 14 MILE RD

DRAWING

SHEET

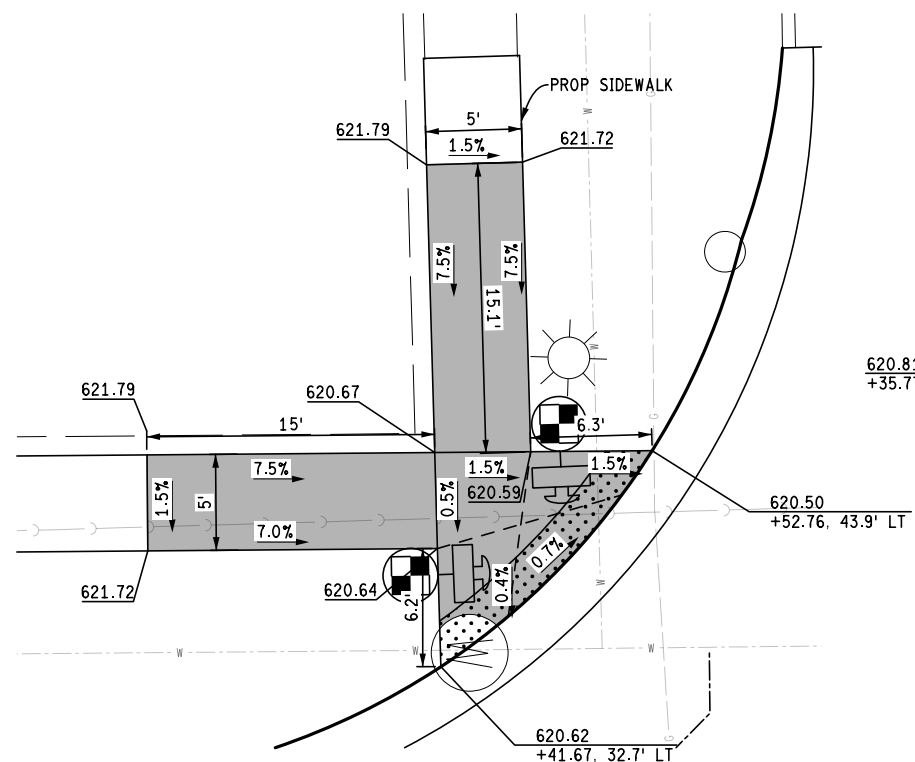
MOUND

DETGRD

61

SECT 1

98

[illegible]

620.76  
+54.49, 26.7' RT

620.73  
+59.49, 26.7' RT

620.93

621.01

621.09

PROP SIDEWALK

0.6%

5.0'

4.1'

1.5%


1.5%

5'





5'

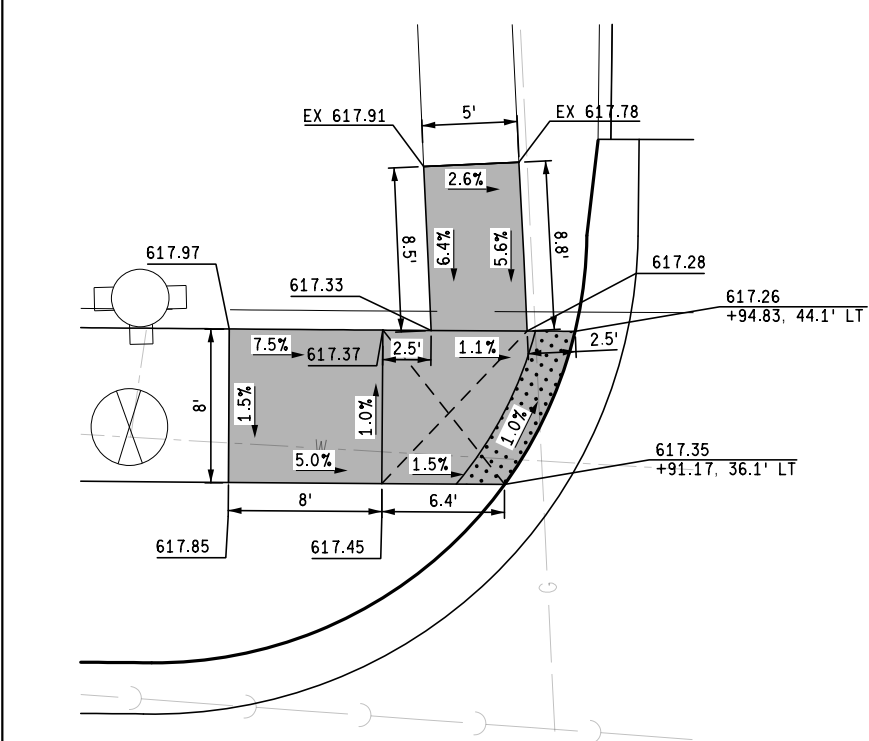
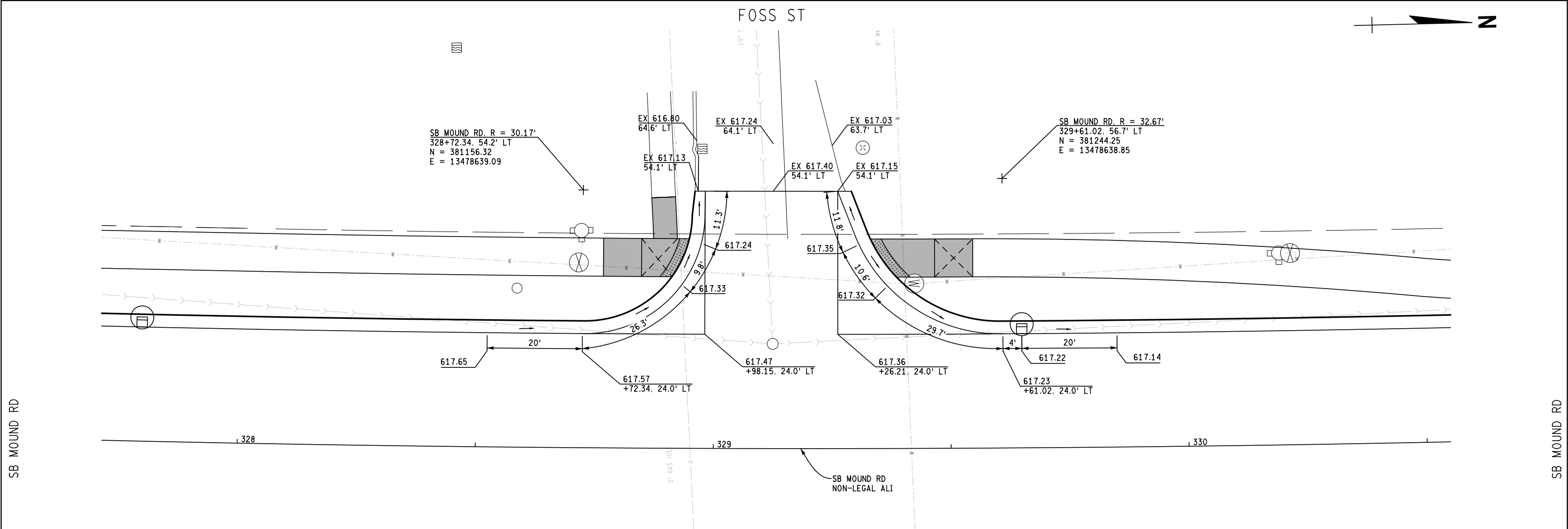
Innovate Mound Project	APPROVED	<input type="checkbox"/>
<b>REVIEW</b>	APPROVED AS NOTED	<input type="checkbox"/>
	ACCEPTED	<input checked="" type="checkbox"/>
	ACCEPTED AS NOTED	<input type="checkbox"/>
	AMEND AND RESUBMIT	<input type="checkbox"/>
	REJECTED - SEE REMARKS	<input type="checkbox"/>

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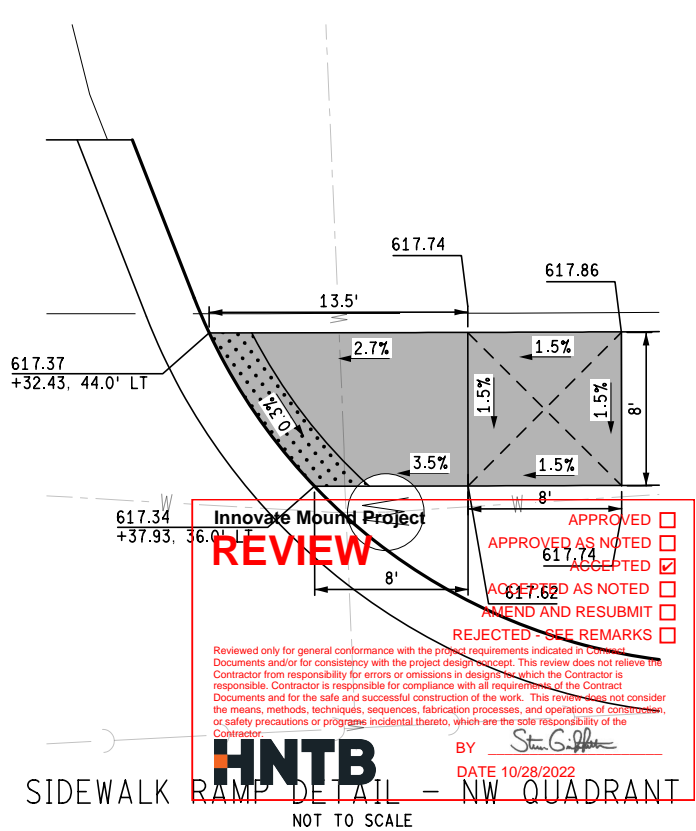

**HNTB**

BY Steve Giffen  
 DATE 10/28/2022

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE: )								  		DATE: 10/12/22		CS: INFR50000		INTERSECTION DETAIL GRADES		DRAWING	SHEET
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION			DESIGN UNIT: XXX		JN: 207178A		SB MOUND & 14 MILE RD		MOUND DET GRD	SECT 1
																62	99
FILE: 207178_S_Mound.DTG_SB_14A_14_Misc.dwg										MS-COMB							



SIDEWALK RAMP DETAIL - SW QUADRANT  
NOT TO SCALE

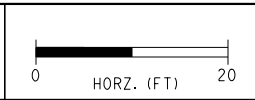


SIDEWALK RAMP DETAIL - NW QUADRANT  
NOT TO SCALE

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE: )							
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION



Department of Roads



FILE: 207178\_S\_Mound\_DTG\_SB\_15\_Foss.dwg  
DATE: 10/12/22  
DESIGN UNIT: XXX  
CS: INFR50000  
JN: 207178A  
BY: MACOMB

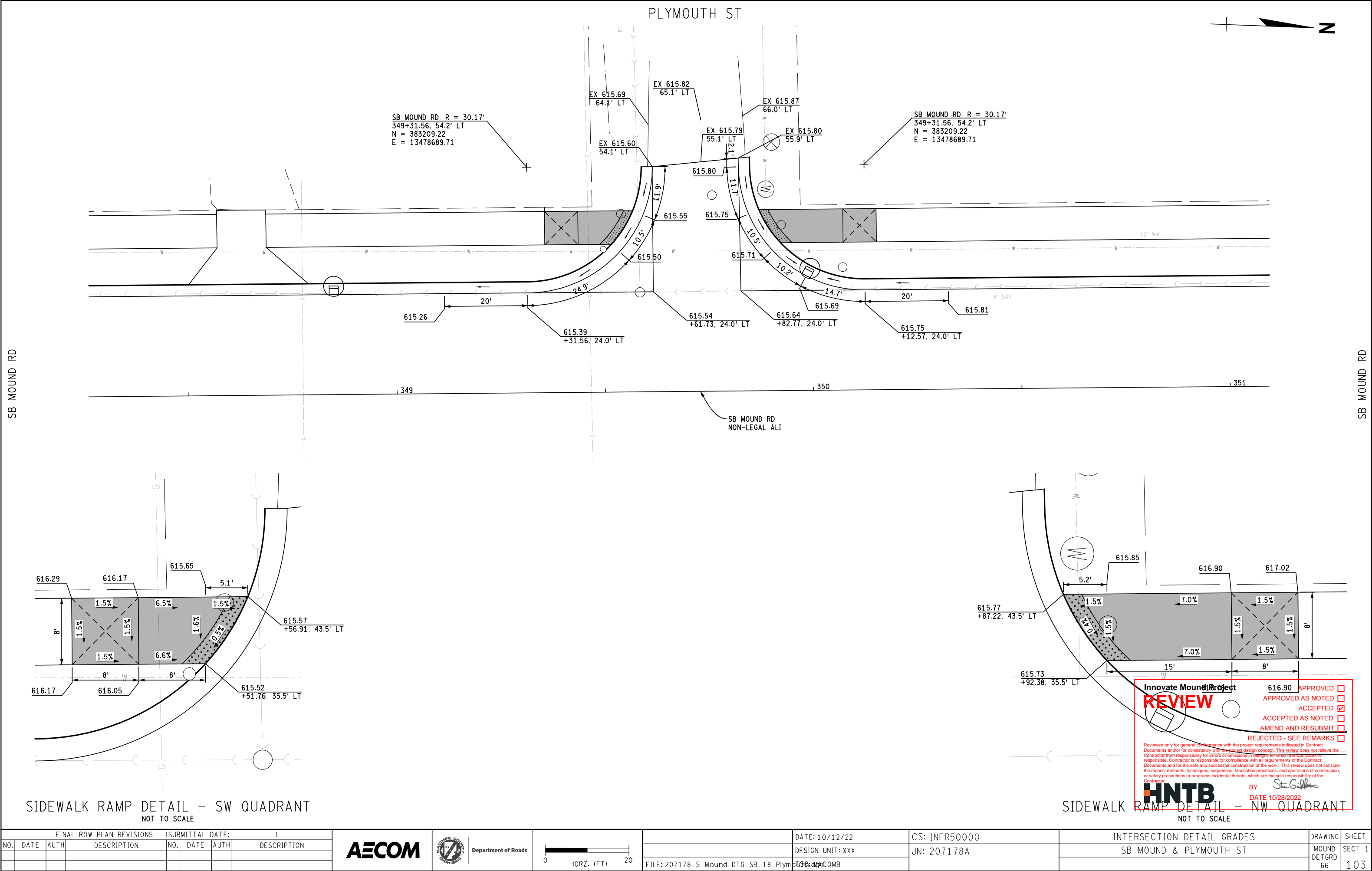
INTERSECTION DETAIL GRADES  
SB MOUND & FOSS ST

DRAWING	SHEET
MOUND DETGRD 63	SECT 1 100









SIDEWALK RAMP DETAIL - SW QUADRANT  
NOT TO SCALE

SIDEWALK RAMP DETAIL - NW QUADRANT  
NOT TO SCALE

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE: )							
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION



DATE: 10/12/22  
DESIGN UNIT: XXX  
FILE: 207178\_S\_Mound\_DTG\_SB\_18\_Plymouth\_Comb

CS: INFR50000  
JN: 207178A

INTERSECTION DETAIL GRADES	
SB MOUND & PLYMOUTH ST	
MOUND DETGRD	66

DRAWING	SHEET
MOUND DETGRD	103

Innovate Mound Project

REVIEW

616.90

APPROVED ☐

APPROVED AS NOTED ☐

ACCEPTED ☒

ACCEPTED AS NOTED ☐

AMEND AND RESUBMIT ☐

REJECTED - SEE REMARKS ☐

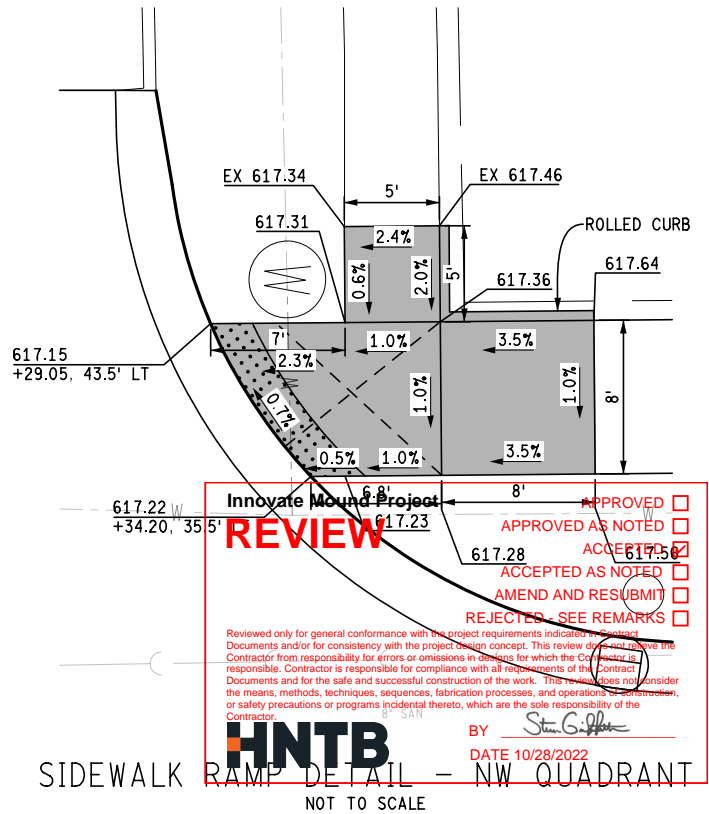
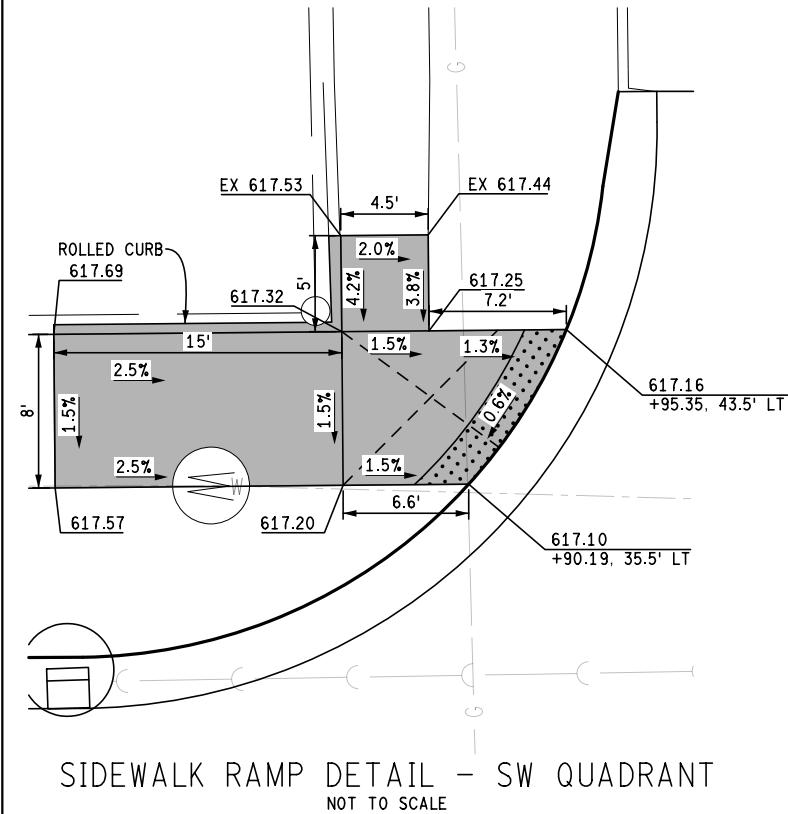
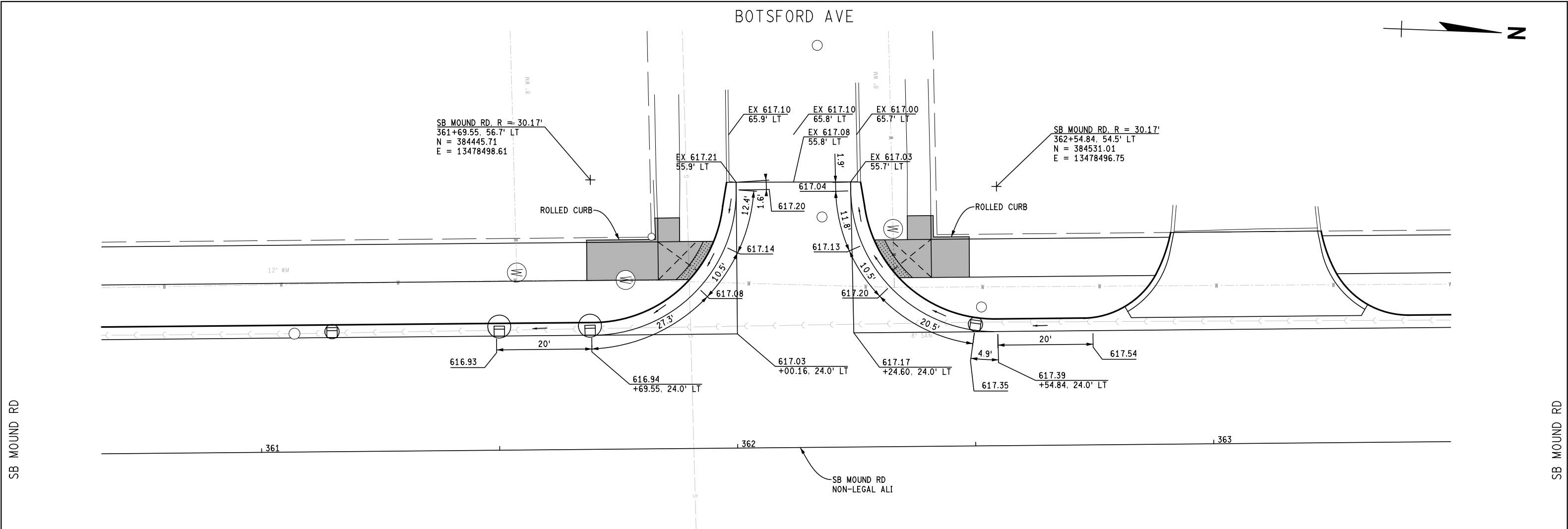
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HNTB

BY *Stu G. [Signature]*


DATE 10/28/2022

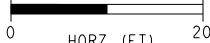




FINAL ROW PLAN REVISIONS				(SUBMITTAL DATE: )			
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION

**AECOM**

 **Department of Roads**

 **HORIZ. (FT)**

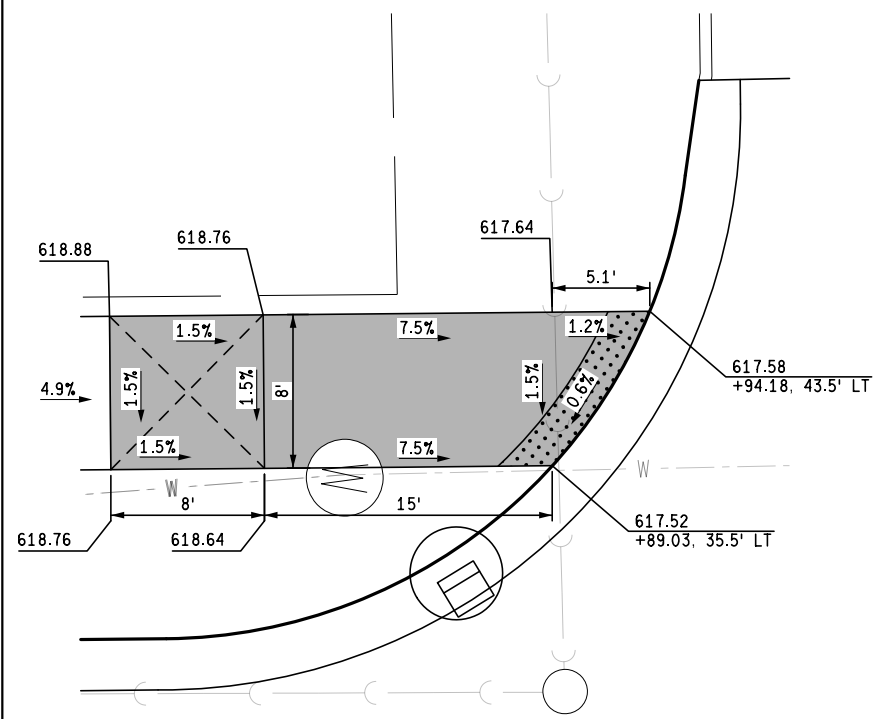
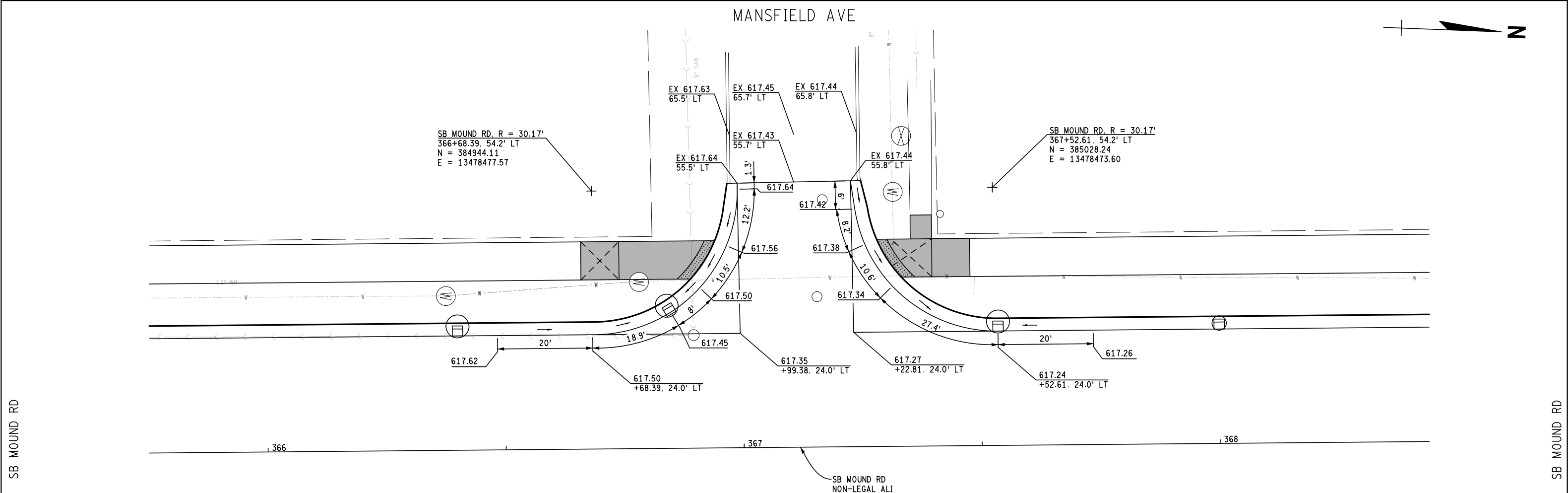
**DATE:** 10/12/22  
**DESIGN UNIT:** XXX

**CS:** INFR50000  
**JN:** 207178A

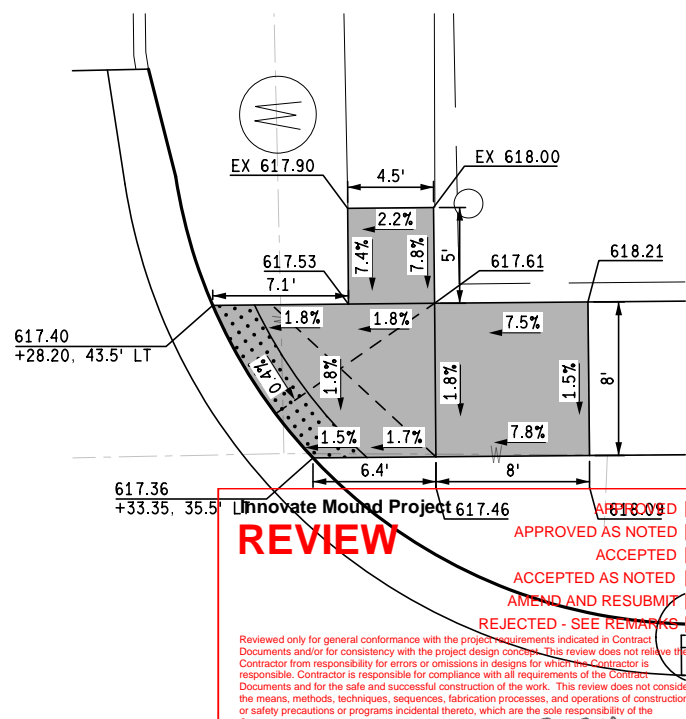
**INTERSECTION DETAIL GRADES**  
**SB MOUND & BOTSFORD AVE**

**DRAWING**  
MOUND  
DETGRD  
68




**SHEET**  
SECT 1  
105



SIDEWALK RAMP DETAIL - SW QUADRANT  
NOT TO SCALE



SIDEWALK RAMP DETAIL - NW QUADRANT  
NOT TO SCALE

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE: )										Department of Roads			DATE: 10/12/22	CS: INFR50000	INTERSECTION DETAIL GRADES	DRAWING	SHEET			
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION						DESIGN UNIT: XXX	JN: 207178A				SB MOUND & MANSFIELD AVE	MOUND DET GRD 69	SECT 1  106
												FILE: 207178_S_Mound.DTG_SB_21_Mansfield.CMB								

**REVIEW**

APPROVED AS NOTED ☐  
ACCEPTED ☒  
ACCEPTED AS NOTED ☐  
AMEND AND RESUBMIT ☐  
REJECTED - SEE REMARKS ☐

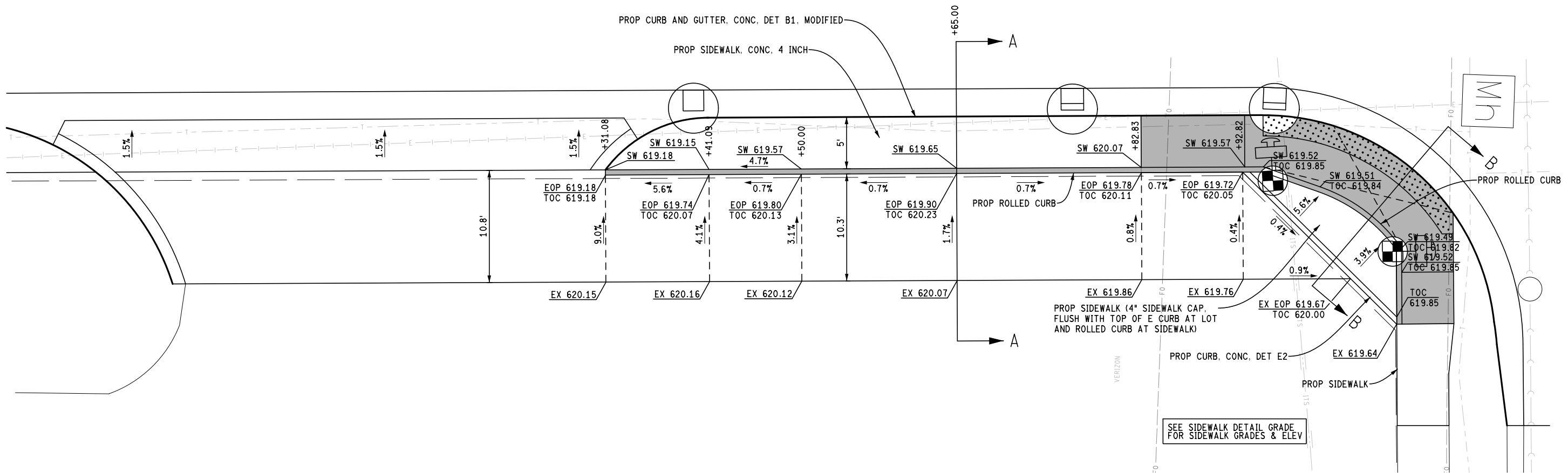
Reviewed only for general conformance with the project requirements indicated in Contract Documents and/or for consistency with the project design concept. This review does not relieve the Contractor from responsibility for errors or omissions in designs for which the Contractor is responsible. Contractor is responsible for compliance with all requirements of the Contract Documents and for the safe and successful construction of the work. This review does not consider the means, methods, techniques, sequences, fabrication processes, and operations of construction, or safety precautions or programs incidental thereto, which are the sole responsibility of the Contractor.

**HNTB**  
BY *Stu G. [Signature]*  
DATE 10/28/2022



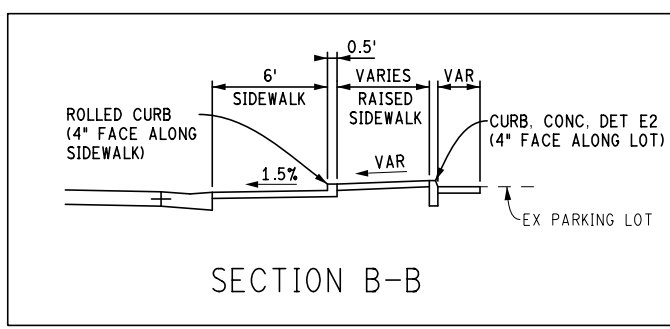
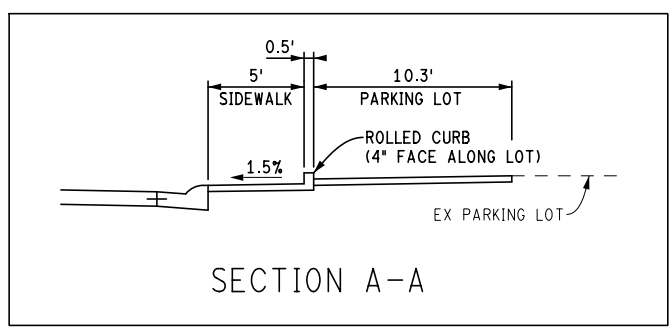






SIDEWALK/DRIVEWAY DETAIL – NB MOUND RD & 12 MILE SE QUADRANT

LEGEND  
SW – SIDEWALK ELEV  
EOP – EDGE OF PARKING LOT ELEV  
TOC – TOP OF ROLLED CURB/E CURB ELEV



**Innovate Mound Project**  
**REVIEW**

APPROVED ☐

APPROVED AS NOTED ☐

ACCEPTED ☒

ACCEPTED AS NOTED ☐

AMEND AND RESUBMIT ☐

REJECTED - SEE REMARKS ☐

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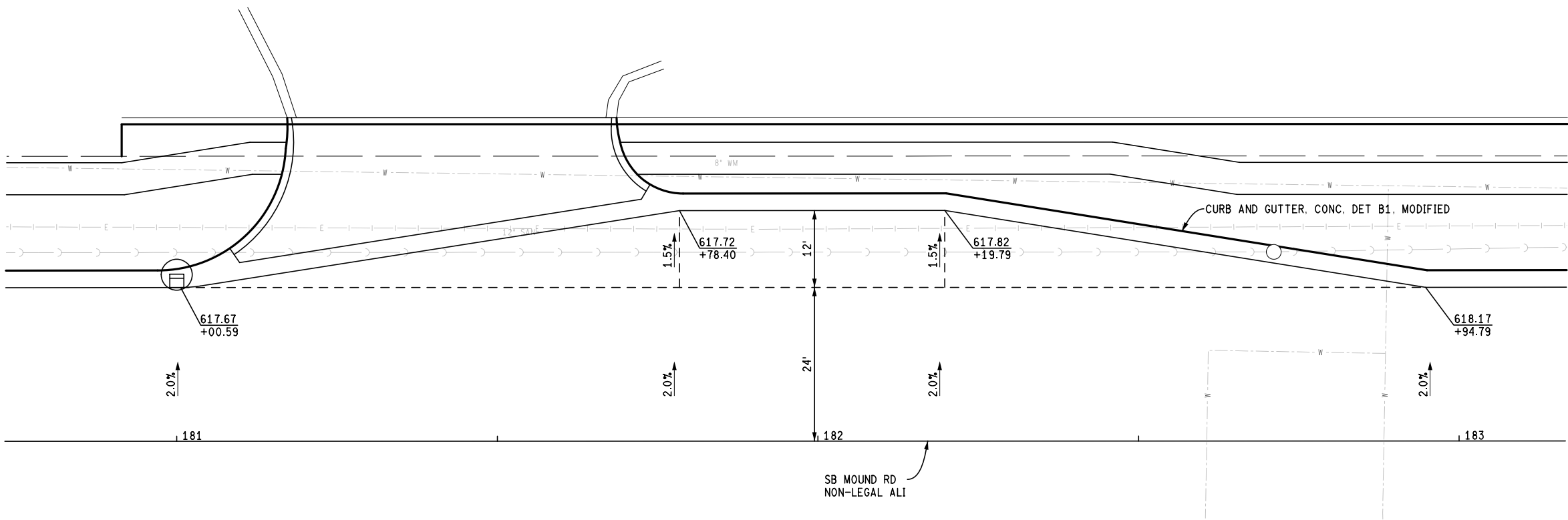
**HNTB**

BY Stu G. [Signature]  
DATE 10/28/2022





MOBIL GAS STATION



Innovate Mound Project

REVIEW

APPROVED ☐

APPROVED AS NOTED ☐

ACCEPTED ☒

ACCEPTED AS NOTED ☐

AMEND AND RESUBMIT ☐

REJECTED - SEE REMARKS ☐

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HNTB

BY Steve G. [Signature]

DATE 10/28/2022

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE: )							
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION

AECOM

Department of Roads

FILE: 207178\_S\_Mound\_DWY\_DTG\_03.dgn

DATE: 10/12/22  
DESIGN UNIT: XXX  
TSC: MACOMB

CS: INFR50000  
JN: 207178A

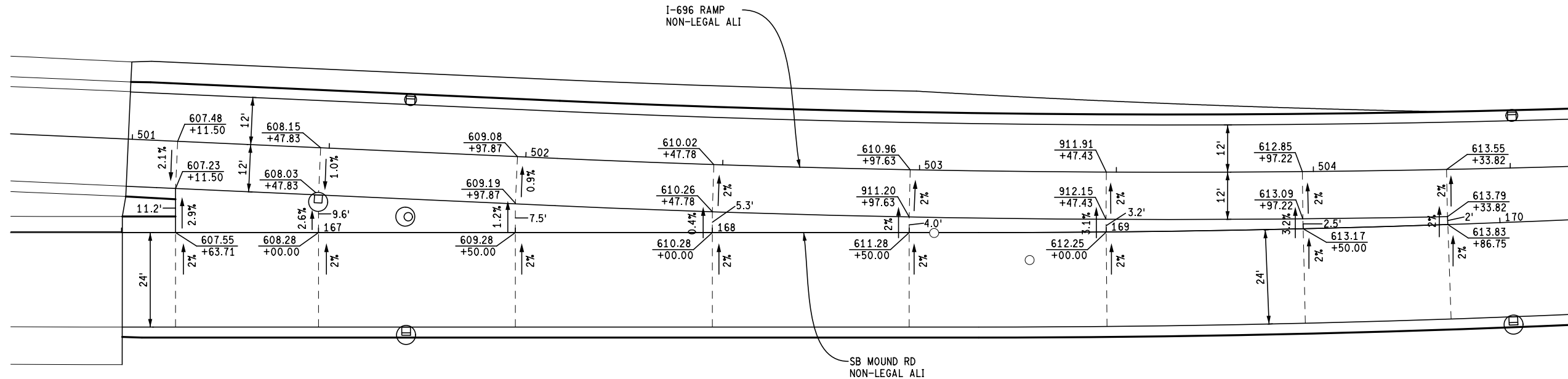
DETAIL GRADE  
MOBIL GAS STATION TURN LANE  
DRAWING MOUND DETGRD 74  
SHEET 111





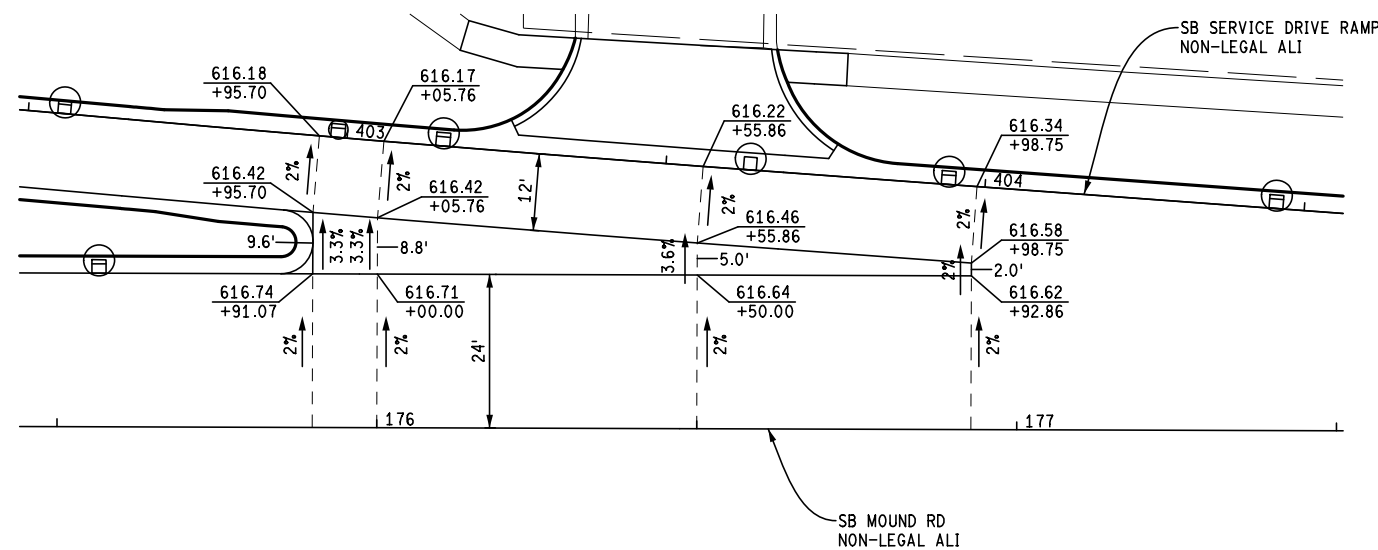


I-696 RAMP  
SB MOUND RD



I-696 RAMP  
SB MOUND RD

SB SERVICE DR  
RAMP  
SB MOUND RD



SB MOUND RD

Innovate Mound Project

REVIEW

APPROVED ☐

APPROVED AS NOTED ☐

ACCEPTED ☒

ACCEPTED AS NOTED ☐

AMEND AND RESUBMIT ☐

REJECTED - SEE REMARKS ☐

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HNTB

BY Steve G. Gilman

DATE 10/28/2022

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE: )							
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION

FILE: 207178\_S\_Mound\_DTG\_SB\_23\_GoreDetail.dgn

DATE: 10/12/22  
DESIGN UNIT: XXX

CS: INFR50000  
JN: 207178A

GORE DETAIL GRADES  
SB MOUND & I-696 RAMP  
SB MOUND & SB SERVICE DRIVE RAMP

DRAWING SHEET  
MOUND DETGRD 76  
SECT 1 113