

FOR LIST OF HIGHWAY STANDARDS, SEE SHEET NO. 2.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

**PROPOSED
HIGHWAY PLANS**

FAP ROUTE 332 (IL RTE 1)
OVER PIKE CREEK
SECTION 4 BR
PROJECT NO. NHPP-C2A5 (681)
STRUCTURE REPLACEMENT
IROQUOIS COUNTY

C-93-072-20

INDEX OF SHEETS

| | |
|-------|---|
| 1 | COVER SHEET |
| 2 | HIGHWAY STANDARDS, GENERAL NOTES & LEGEND |
| 3-9 | SUMMARY OF QUANTITIES |
| 10-11 | TYPICAL SECTIONS |
| 12-14 | SCHEDULES OF QUANTITIES |
| 15 | ALIGNMENT, TIES AND BENCHMARKS |
| 16-18 | PLAN & PROFILES |
| 19 | RIGHT OF WAY PLAT |
| 20-27 | STAGING PLANS |
| 28-29 | EROSION CONTROL & DRAINAGE PLANS |
| 30-31 | PAVEMENT MARKING & SIGNING PLANS |
| 32-51 | STRUCTURE PLANS |
| 53-56 | MISCELLANEOUS |
| 57-62 | CROSS SECTIONS |

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|-------------|---------|----------|--------------|--------------------|
| 332 | 4 BR | IROQUOIS | 63 | 1 |
| | | | ILLINOIS | CONTRACT NO. 66959 |

D-93-033-20



FUNCTIONAL CLASSIFICATION
OTHER PRINCIPAL ARTERIAL
2019 ADT = 2200
P.U. = 88% S.U. = 7% M.U. = 5%
DESIGN SPEED = 55 MPH

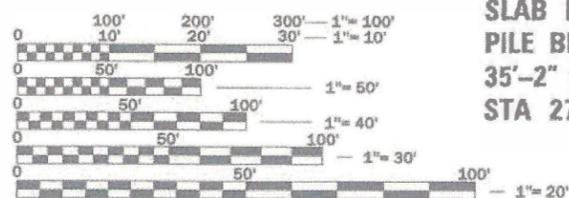
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED August 14th 2020
[Signature]
REGIONAL ENGINEER

October 2, 2020
[Signature]
ENGINEER OF DESIGN AND ENVIRONMENT

October 2, 2020
[Signature]
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

**PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS**



FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

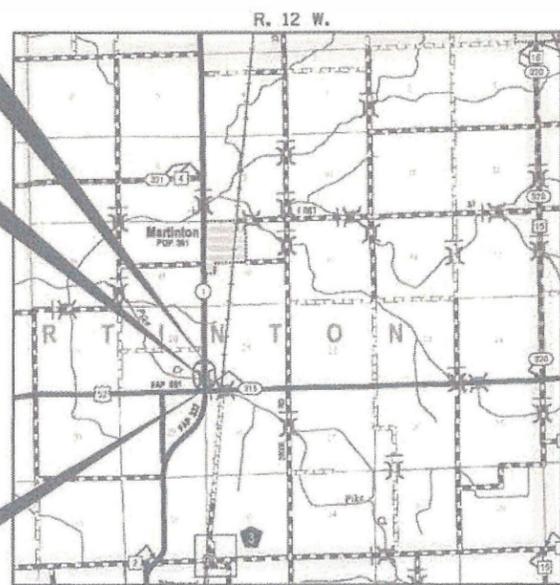
J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123
OR 811

PROJECT ENGINEER: BRADLEY DUNCAN, P.E.
UNIT CHIEF: DARCY CARPENTER
DISTRICT 3 NO. (815) 434-6131
CONTRACT NO. 66959

END IMPROVEMENT
STA 277+50.00

PROPOSED STRUCTURE SN 038-0226
THREE SPAN W/15" REINFORCED CONCRETE
SLAB DECK ON INTEGRAL ABUTMENTS AND
PILE BENT PIERS 91'-0" BK TO BK, AND
35'-2" Ø TO Ø DECK. NO SKEW.
STA 273+22.00 (EXISTING SN 038-0020)

BEGIN IMPROVEMENT
STA 269+00.00



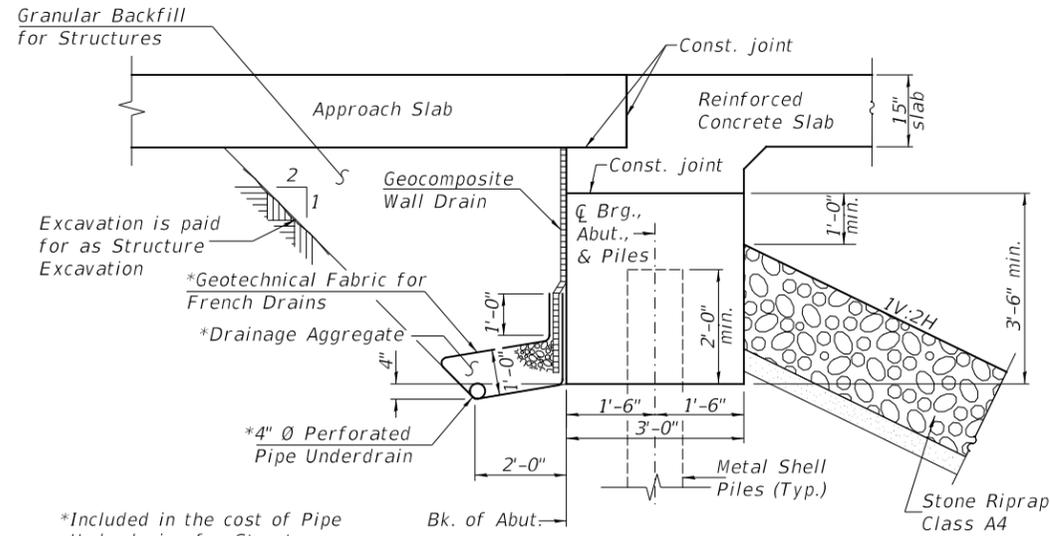
GROSS LENGTH = 1220.87 FT. = 0.231 MILE
NET LENGTH = 850.00 FT. = 0.161 MILE

Hutchinson Engineering, Inc.
Jacksonville - Moline - Peoria - Shorewood
Since 1945
2020 JOB #4389.01

8/6/20
DATE
LUKE D. ZELLER
REGISTERED PROFESSIONAL ENGINEER OF ILLINOIS
ENGINEER'S SEAL

INDEX OF SHEETS

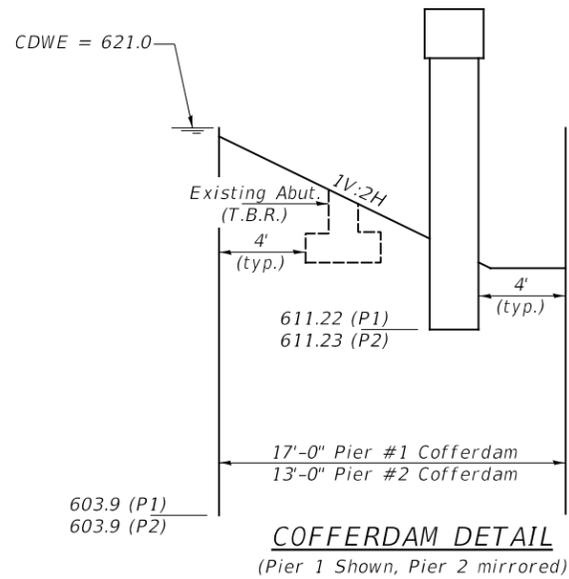
| SH. # | DESCRIPTION |
|---------|---|
| 1 | General Plan & Elevation |
| 2 | General Data |
| 3-3A | Stage Construction Details |
| 4 | Temporary Concrete Barrier for Stage Construction |
| 5 | Top of Slab Elevations |
| 6 - 7 | Top of Approach Slab Elevations |
| 8 | Superstructure |
| 9 | Superstructure Details |
| 10 - 11 | Bridge Approach Slab Details |
| 12 | South Abutment |
| 13 | North Abutment |
| 14 | Pier 1 |
| 15 | Pier 2 |
| 16 | Metal Shell Pile Details |
| 17 | Concrete Parapet Slipforming Option |
| 18 | Mechanical Splicer/Bar Splicer Details |
| 19 - 21 | Soil Boring Logs |



SECTION THRU ABUTMENTS

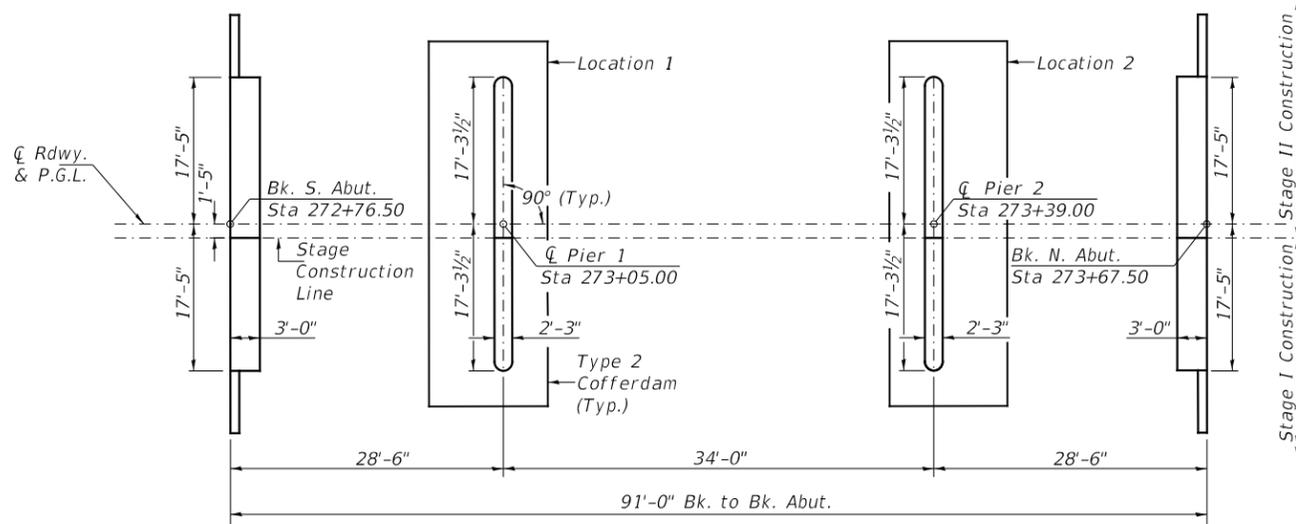
*Included in the cost of Pipe Underdrains for Structures (See Special Provisions)

Note:
All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).



COFFERDAM DETAIL

(Pier 1 Shown, Pier 2 mirrored)



FOOTING LAYOUT

GENERAL NOTES

Reinforcement bars designated (E) shall be epoxy coated.
Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
The Contractor shall make allowance for the deflection of forms, shrinkage and settlement of falsework, in addition to allowance for dead load deflection. Forms for deck slab shall be removed prior to placement of bridge approach slab.
Soil borings indicate hard driving of piles is anticipated. Care shall be taken to avoid damaging the piles at piers while driving.

TOTAL BILL OF MATERIAL

| ITEM | UNIT | SUPER | SUB | TOTAL |
|---|-------|---------|--------|---------|
| Stone Riprap, Class A4 | SQ YD | — | 525 | 525 |
| Filter Fabric | SQ YD | — | 525 | 525 |
| Removal of Existing Structures | EACH | — | — | 1 |
| Structure Excavation | CU YD | — | 110 | 110 |
| Cofferdam Excavation | CU YD | — | 260 | 260 |
| Cofferdam (Type 2) (Location-1) | EACH | — | 1 | 1 |
| Cofferdam (Type 2) (Location-2) | EACH | — | 1 | 1 |
| Concrete Structures | CU YD | — | 139.6 | 139.6 |
| Concrete Superstructure | CU YD | 181.1 | — | 181.1 |
| Bridge Deck Grooving | SQ YD | 497 | — | 497 |
| Protective Coat | SQ YD | 643 | — | 643 |
| Concrete Superstructure (Approach Slab) | CU YD | 94.8 | — | 94.8 |
| Reinforcement Bars, Epoxy Coated | POUND | 110,280 | 13,660 | 123,940 |
| Bar Splicers | EACH | 636 | 96 | 772 |
| Furnishing Metal Shell Piles 14"x0.312" | FOOT | — | 895 | 895 |
| Driving Piles | FOOT | — | 895 | 895 |
| Test Pile Metal Shells | EACH | — | 4 | 4 |
| Name Plates | EACH | 1 | — | 1 |
| Temporary Sheet Piling | SQ FT | — | 606 | 606 |
| Pile Shoes | EACH | — | 12 | 12 |
| Granular Backfill for Structures | CU YD | — | 75 | 75 |
| Geocomposite Wall Drain | SQ YD | — | 35 | 35 |
| Pipe Underdrains for Structures 4" | FOOT | — | 102 | 102 |

MODEL: H:\001\NAMES FILE NAME: 10/28/2020 - 11.1 over Piles Creek - (DOT D-3 Sub to IPI\CADD\CADD_Sheets\038023666959-002-GENERAL DATA.dgn

Hutchison Engineering, Inc.
Jacksonville-Moline-Peoria-Shorewood
Since 1945

| | | |
|----------------------------|----------------|----------------------------|
| USER NAME = BNebl | DESIGNED CTM | REVISED - 10/28/2020 - BAN |
| DRAWN CTM | REVISIONS - | |
| PLOT SCALE = 2.0000' / in. | CHECKED ZL/BAN | REVISIONS - |
| PLOT DATE = 10/28/2020 | DATE - | REVISIONS - |

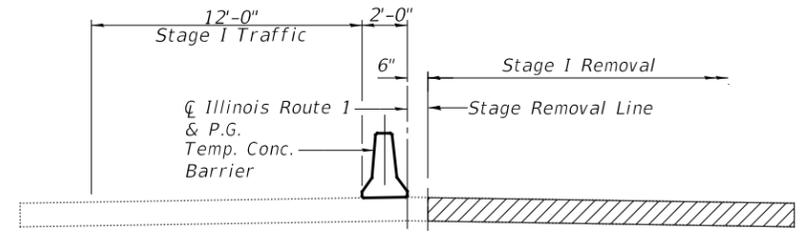
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**GENERAL DATA
STRUCTURE NO. 038-0226**

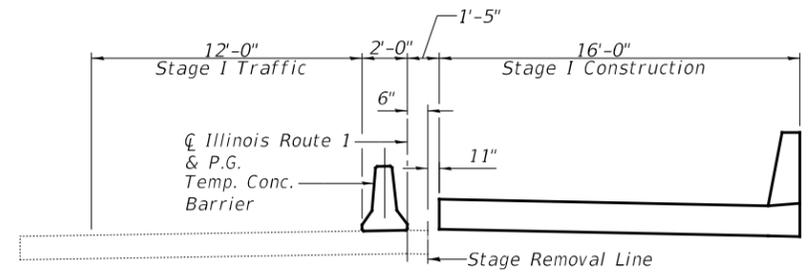
SCALE: SHEET 2 OF 21 SHEETS STA. TO STA.

| | | | | |
|---------------------------|--------------|-----------------|--------------------|--------------|
| F.A.P. RTE. 332 | SECTION 4-BR | COUNTY IROQUOIS | TOTAL SHEETS 62 | SHEET NO. 33 |
| ILLINOIS FED. AID PROJECT | | | CONTRACT NO. 66959 | |

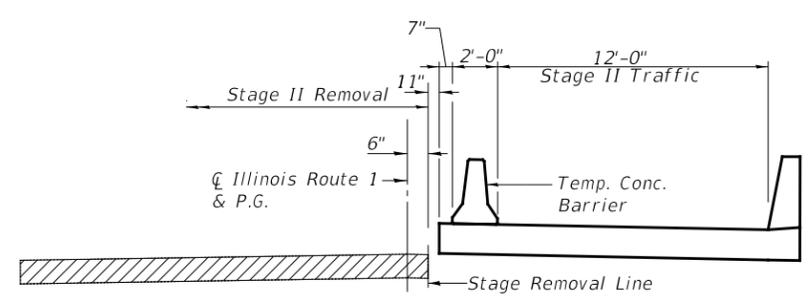
MODEL: STAGECONV.MXD
 FILE NAME: V:\2020\1 - IL - I over Pike Creek - I.DOT D-3 Sub to IPI\CADD\CADD_Sheets\0380236-66959-003A-STAGE CONSTRUCTION DETAILS APP_SLAB.dgn



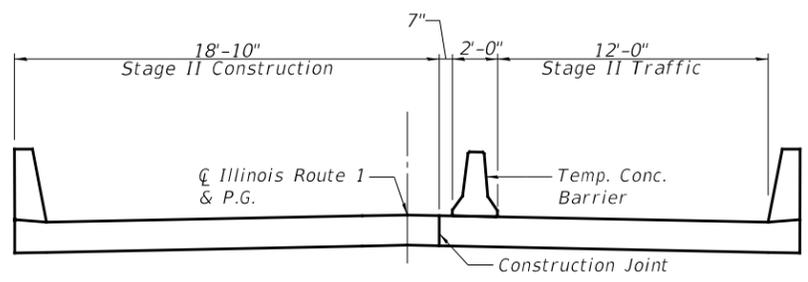
STAGE I REMOVAL
(Looking North)



STAGE I CONSTRUCTION
(Looking North)



STAGE II REMOVAL
(Looking North)



STAGE II CONSTRUCTION
(Looking North)

Notes: Hatched area indicates Removal of Existing Superstructures.
 For quantity of Temporary Concrete Barriers, see Roadway Plans.
 Removal of existing bridge railing is included with Removal of Existing Structures.
 For details of Temporary Concrete Barrier, see Sheet 4 of 21.
 The details on this sheet are for the approach pavement only.

Hutchison Engineering, Inc.
 Jacksonville-Moline-Peoria-Shorewood
 Since 1945

| | | |
|---------------------------|----------------|-----------------------------|
| USER NAME = BNebel | DESIGNED CTM | REVISED - 10/28/2020 - BAN |
| | DRAWN CTM | REVISED - |
| PLOT SCALE = 2.0000" / 1' | CHECKED ZL/BAN | REVISED - |
| PLOT DATE = 10/28/2020 | DATE - | REVISED - |

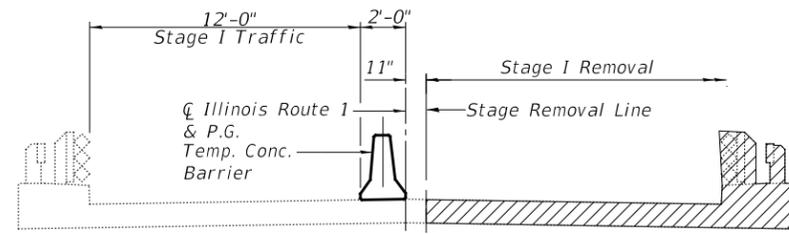
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE CONSTRUCTION DETAILS - APPROACH PAVEMENT
STRUCTURE NO. 038-0226

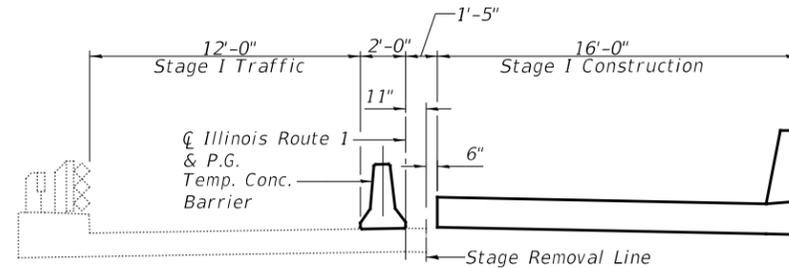
SCALE: SHEET 3A OF 21 SHEETS STA. TO STA.

| | | | | |
|---------------------------|--------------|-----------------|-----------------|---------------|
| F.A.P. RTE. 332 | SECTION 4-BR | COUNTY IROQUOIS | TOTAL SHEETS 62 | SHEET NO. 34A |
| CONTRACT NO. 66959 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |

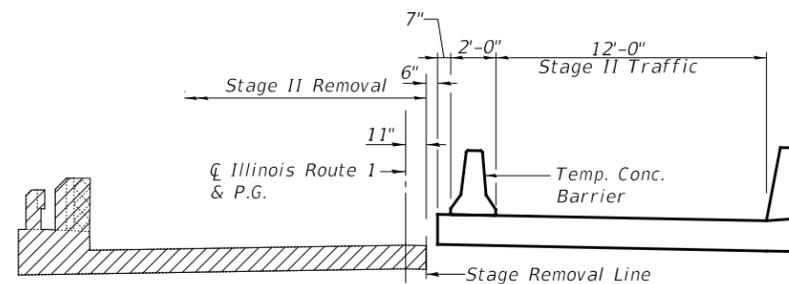
REV. 10/28/20



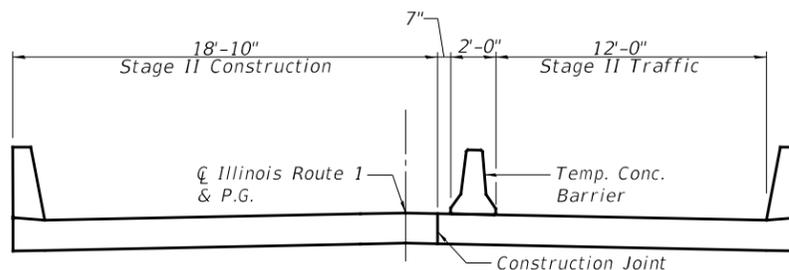
STAGE I REMOVAL
(Looking North)



STAGE I CONSTRUCTION
(Looking North)

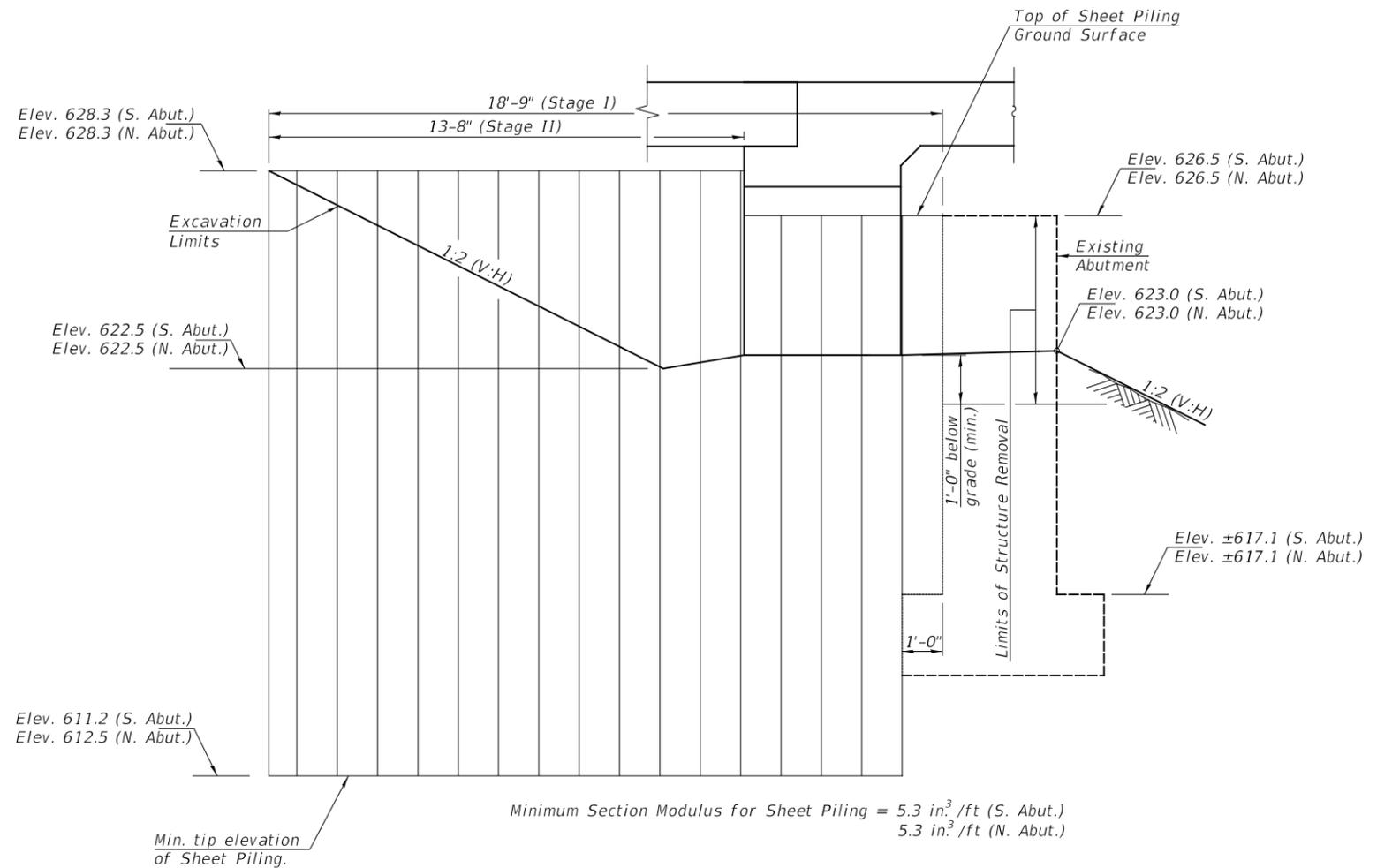


STAGE II REMOVAL
(Looking North)



STAGE II CONSTRUCTION
(Looking North)

Notes: Hatched area indicates Removal of Existing Structures. 
 For quantity of Temporary Concrete Barriers, see Roadway Plans.
 Removal of existing bridge railing is included with Removal of Existing Structures.
 For details of Temporary Concrete Barrier, see Sheet 4 of 21.



TEMPORARY SHEET PILING AT ABUTMENTS

If the Contractor chooses to alter the temporary cantilevered sheet piling design requirements shown on the plans, a design submittal including plan details and calculations will be required for review and acceptance by the Engineer.
 The Contractor shall connect the first sheet to the existing abutment wall to ensure stability of sheets driven to the top of the existing footing. This connection shall be reviewed and accepted by the Engineer and included in the cost for Temporary Sheet Piling.

MODEL: STAGECONSTR.DWG
 FILE NAME: V:\2020\1 - IL - I over Pike Creek - (DDOT D-3 Sub to IPI\CADD\CADD_Sheets\0380226\66959-00\3-STAGE CONSTRUCTION DETAILS.dwg
 11/11/2020 10:11:11 AM

Hutchison Engineering, Inc.
 Jacksonville-Moline-Peoria-Shorewood
 Since 1945

| | | |
|----------------------------|----------------|----------------------------|
| USER NAME = BNebe1 | DESIGNED CTM | REVISED - 10/28/2020 - BAN |
| DRAWN CTM | REVISI | |
| PLOT SCALE = 2.0000' / in. | CHECKED ZL/BAN | REVISI |
| PLOT DATE = 10/28/2020 | DATE - | REVISI |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE CONSTRUCTION DETAILS
STRUCTURE NO. 038-0226

SCALE: SHEET 3 OF 21 SHEETS STA. TO STA.

| | | | | |
|-------------|---------|----------|--------------------|-----------|
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 332 | 4-BR | IROQUOIS | 62 | 34 |
| | | | CONTRACT NO. 66959 | |
| | | ILLINOIS | FED. AID PROJECT | |

 REV. 10/28/20