

LOCATION MAP
WEST KILL
7.5 MINUTE USGS TOPOGRAPHIC MAP
SCALE: 1" = 2000'

CONTRACT NO. TS-164

LOWER BIRCH CREEK ROAD BRIDGE REPLACEMENT BIN 2270700 PW-8301 FEMA 4020 DR NY

TOWN OF SHANDAKEN ULSTER COUNTY NEW YORK

TOWN OFFICIALS

ROBERT A. STANLEY, TOWN SUPERVISOR

TOWN COUNCIL
TIMOTHY MALLORY
FAYE STORMS
PETER DISCIAFANI
GAEL ALBA

JOYCE GRANT, TOWN CLERK
ERIC HOFMEISTER, HIGHWAY SUPERINTENDENT

MARCH 2016

BRINNIER AND LARIOS, P. C.
PROFESSIONAL ENGINEERS AND LAND SURVEYORS

67 MAIDEN LANE
KINGSTON, NEW YORK
(845) 338-7622

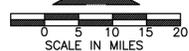
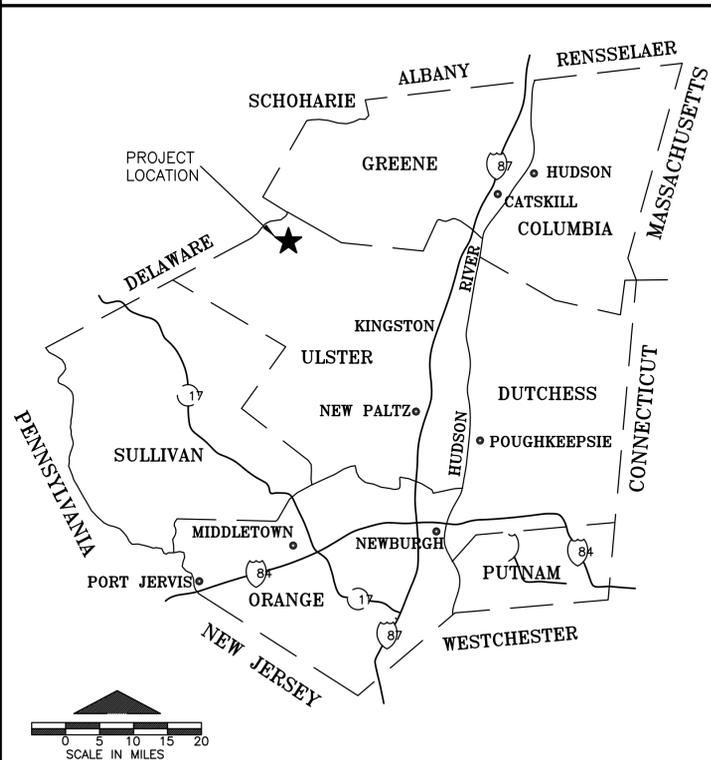
Unauthorized alteration or addition to a plan bearing a licensed engineer's seal is a violation of section 7209, subdivision 2, of the New York State Education Law.



JOHN STINEMIRE, P.E., CONSULTING ENGINEER
15 RAILROAD AVENUE KINGSTON, NEW YORK 12401 845-331-8806

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S9.	ALTERNATE BID #1 SECTION AND DETAILS



GENERAL LOCATION MAP



Know what's below.
Call before you dig.

NOTES:

- SEE SPECIFICATION SECTION 02200-EARTHWORK FOR SOIL BORING LOGS.



LANDS OF THE CITY OF NEW YORK-DEP
BUREAU OF WATER SUPPLY
SBL: 4-1-5.910

BENCHMARK
TOP OF MAG NAIL
IN TOP STUMP OF
20" TRIPLE HEMLOCK
EL. = 1800.00'
DATUM ASSUMED

RESET BENCHMARK BEFORE
TREE REMOVAL

LANDS OF THE CITY OF NEW YORK-DEP
BUREAU OF WATER SUPPLY
SBL: 4-1-5.30

LANDS OF THE CITY OF NEW YORK-DEP
BUREAU OF WATER SUPPLY
SBL: 4-1-5.400

EXISTING CONDITIONS

SCALE: 1" = 20'

LEGEND

- 1790----- EXISTING CONTOUR (MAJOR)
- 1789----- EXISTING CONTOUR (MINOR)
- R----- EXISTING PROPERTY LINE
-  TREE
- EDGE OF STREAM
- STORM CULVERT
- GRAVEL ROAD
-  B-1 BORING

NOTES:
1. PROPERTY LINES ARE APPROXIMATE
AND WERE OBTAINED FROM THE
ULSTER COUNTY TAX MAPS.

NOTE:
The location of existing underground utilities are shown in an
approximate way only and have not been independently verified by
the owner or its representative. The contractor shall determine
the exact location of all existing utilities before commencing work,
and agrees to be fully responsible for any and all damages which
might be occasioned by the contractor's failure to exactly locate
and preserve any and all underground utilities.

GRAPHIC SCALE IN FEET



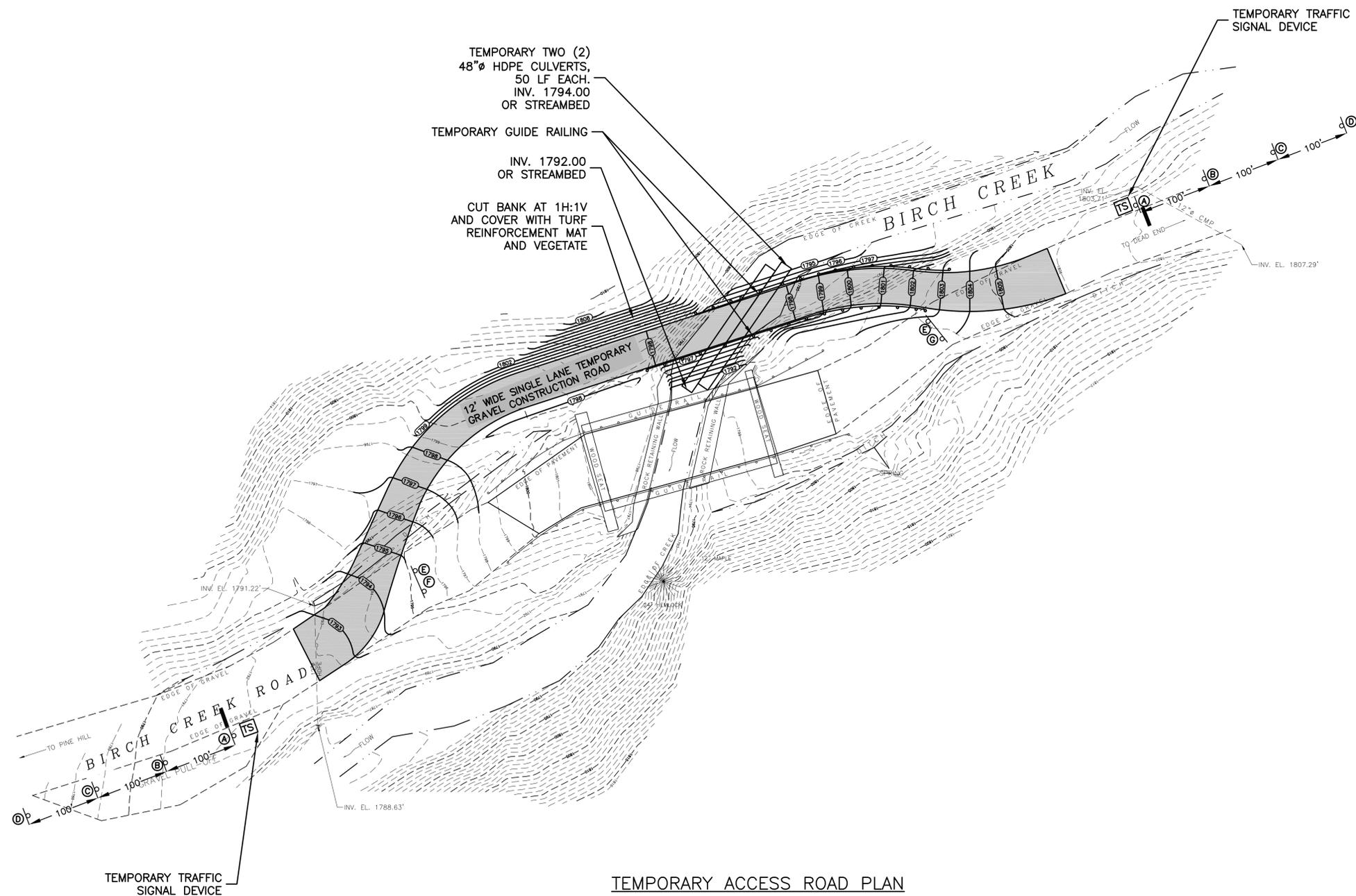
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**EXISTING CONDITIONS
CONTRACT NO. TS-164**

LOWER BIRCH CREEK ROAD BRIDGE REPLACEMENT BIN 2270700 PW-8301 FEMA 4020 DR NY			
TOWN OF SHANDAKEN		ULSTER COUNTY NEW YORK	
DATE	REVISION RECORD		
	BRINNIER & LARIOS, P.C. ENGINEERS & LAND SURVEYORS 67 MAIDEN LANE KINGSTON, N.Y.		
SCALE	DATE	SHEET NO.	
1" = 20'	MARCH 2016	C1	
	DWG	CHK	DML
	RJS	CHK	DML



SIGN NO.	ADVANCE SIGN SCHEDULE	NO. REQ.
(A)	R10-6 STOP HERE ON RED	2
(B)	W3-3	2
(C)	W20-4 ONE LANE ROAD AHEAD	2
(D)	W20-1 ROAD WORK AHEAD	2
(E)	R11-2 ROAD CLOSED WITH ITEM 619.04 TYPE III CONSTRUCTION BARRICADES	2
(F)	M4-10L	1
(G)	M4-10R	1

ALL SIGNS CONVENTIONAL ROAD SIZE

NOTES:

1. IF AN UNOBSTRUCTED LINE OF SIGHT IS NOT PROVIDED BETWEEN THE TWO TEMPORARY ROAD STOP BARS, CONTRACTOR SHALL PROVIDE A TEMPORARY 1 - LANE, 2 - WAY TRAFFIC SIGNAL DETOUR PLAN IN ACCORDANCE WITH NYS DOT WORK ZONE TRAFFIC CONTROL SHEET 619-62.
2. CONTRACTOR SHALL MAINTAIN THE SINGLE LANE GRAVEL ROADWAY THROUGHOUT THE DURATION OF THE PROJECT.
3. REMOVE TEMPORARY GRAVEL CONSTRUCTION ROAD AND RESTORE ALL DISTURBED AREAS AFTER COMPLETION OF THE LITTLE BIRCH ROAD REPLACEMENT BRIDGE.

TEMPORARY ACCESS ROAD PLAN

SCALE: 1" = 20'

LEGEND

- 1790--- EXISTING CONTOUR (MAJOR)
- 1789--- EXISTING CONTOUR (MINOR)
- P — EXISTING PROPERTY LINE
- ⊗ TREE
- EDGE OF STREAM
- STORM CULVERT
- GRAVEL ROAD
- █ TEMPORARY GRAVEL ACCESS ROAD

GRAPHIC SCALE IN FEET



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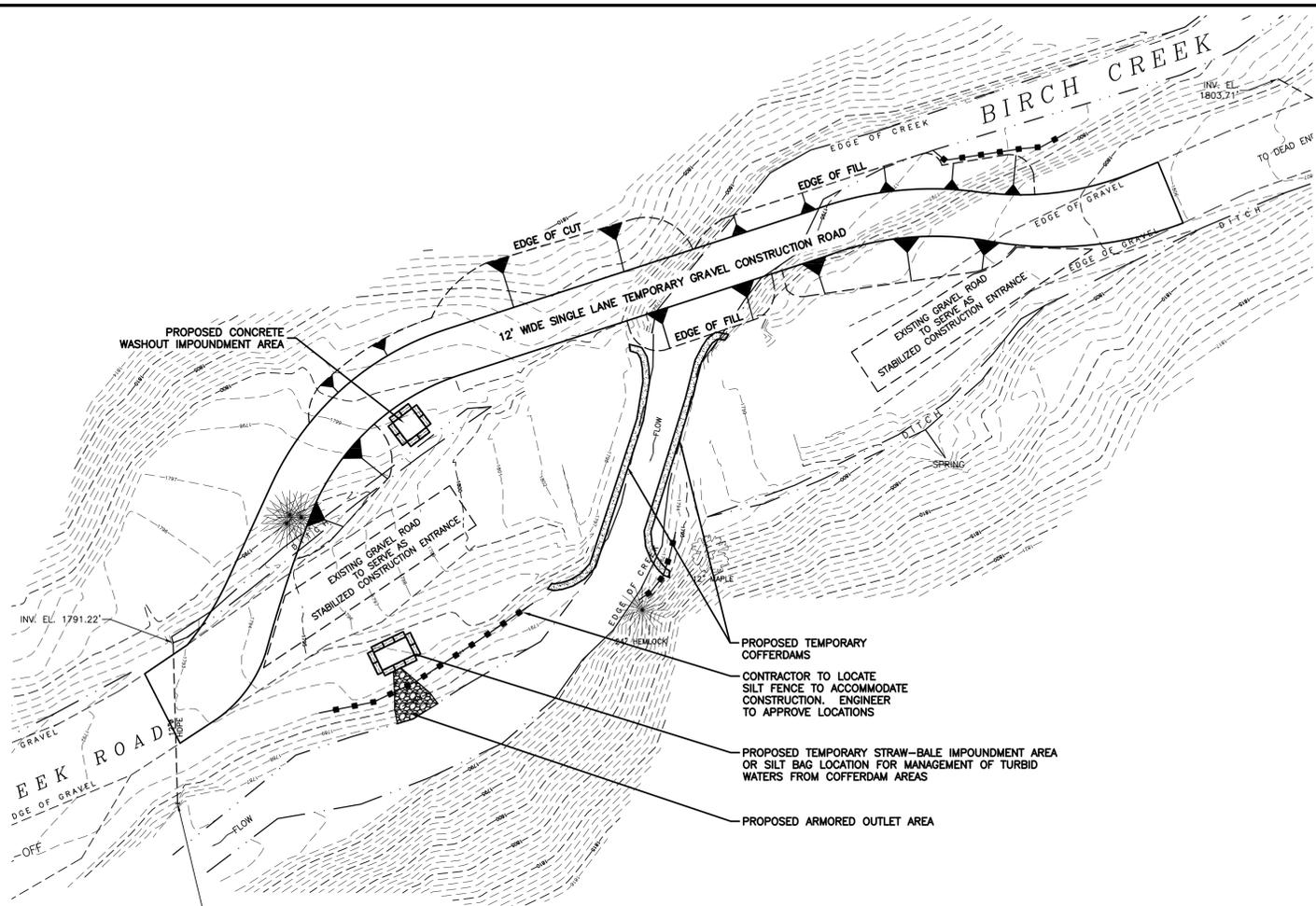


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TEMPORARY ACCESS ROAD PLAN
CONTRACT NO. TS-164

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SCALE	DATE
1" = 20'	MARCH 2016
	DWG: RJS
	CHK: DML
	SHEET NO. C2

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STREAM PROTECTION PLAN
SCALE: 1" = 20'

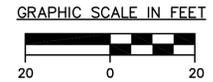
STREAM PROTECTION NOTES:

- A. THE STREAM PROTECTION PLAN INVOLVES THE CONSTRUCTION OF TEMPORARY COFFERDAMS TO ISOLATE THE WORK AREA. THE PURPOSE OF THE TEMPORARY COFFERDAMS IS TO ALLOW THE STREAM TO FLOW PAST THE WORK AREA AND TO CONTAIN THE SEDIMENT AND SOIL FROM THE CONSTRUCTION ACTIVITIES WITH LITTLE OR NO IMPACT TO THE STREAM. THE GENERAL SEQUENCE OF THE OPERATION WILL BE AS FOLLOWS:
- INSTALL SILT FENCE ALONG THE PERIMETER OF THE AREA TO BE DISTURBED.
 - INSTALL THE TEMPORARY COFFERDAM ON ONE SIDE OF THE STREAM PRIOR TO COMMENCING THE ABUTMENT DEMOLITION AND CONSTRUCTION WORK. AFTER WORK ON ONE ABUTMENT IS COMPLETED, REMOVE AND REPOSITION THE TEMPORARY COFFERDAM TO THE OTHER SIDE OF THE STREAM. COFFERDAM SHOULD BE SAND BAGS, PRECAST CONCRETE JERSEY BARRIERS OR IMPERVIOUS GEOSYNTHETIC LINER MATERIAL(S) KEYED INTO STREAMBED.
 - IN-STREAM EXCAVATION.** IN-STREAM EXCAVATION SHALL BE LIMITED TO ONLY THAT NECESSARY TO ALLOW INSTALLATION AND MAINTENANCE OF THE TEMPORARY COFFERDAM.
 - BRIDGE REPAIR WORK** SHOULD BE CONDUCTED DURING LOW-FLOW SEASON AND SHOULD BE HALTED IN EXTREME WET WEATHER CONDITIONS.
 - INSPECTION AND MAINTENANCE.** PERIODICALLY INSPECT THE TEMPORARY COFFERDAM TO INSURE ITS INTEGRITY AND FUNCTIONALITY. REPAIR AS NECESSARY.
 - REMOVAL.** WHEN THE CONSTRUCTION WORK IS COMPLETED, THE TEMPORARY COFFERDAM MATERIALS SHALL BE REMOVED. ALL REMOVED MATERIALS SHALL BE TAKEN OFF-SITE AND NOT PLACED IN THE WATERWAY OR FLOODPLAIN.
 - DEWATERING.** REMOVAL OF WATER FROM WITHIN THE COFFERDAM AREA SHALL BE ACCOMPLISHED USING A PUMP(S). THE PUMP(S) SHALL BE DISCHARGED IN A CONTROLLED MANNER TO A IMPOUNDMENT AREA, DEPRESSION OR SEDIMENT BAG LOCATED ADJACENT TO THE WORK AREA TO ALLOW REMOVAL OF SEDIMENT AND SUSPENDED SOLIDS BEFORE THE WATER RE-ENTERS THE STREAM. DISCHARGING THE PUMP DIRECTLY TO THE STREAM IS PROHIBITED.
 - PLACEMENT OF CONCRETE MATERIALS OR DISCHARGE OF CONCRETE WASH WATERS DIRECTLY INTO THE STREAM IS PROHIBITED.
 - DISTURBED AREAS SHALL BE STABILIZED IMMEDIATELY AFTER CONSTRUCTION ACTIVITY CEASES. IF A WORK AREA IS TO REMAIN IDLE FOR MORE THAN TWO WEEKS, APPLY TEMPORARY SEED AND MULCH TO PROTECT THE AREA.
- B. CONTRACTOR SHALL SUBMIT DETAILS OF THEIR STREAM PROTECTION PLAN FOR APPROVAL.
- C. ALL WORK TO BE DONE IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF NYSDEC AND USACE ENVIRONMENTAL PERMITS.

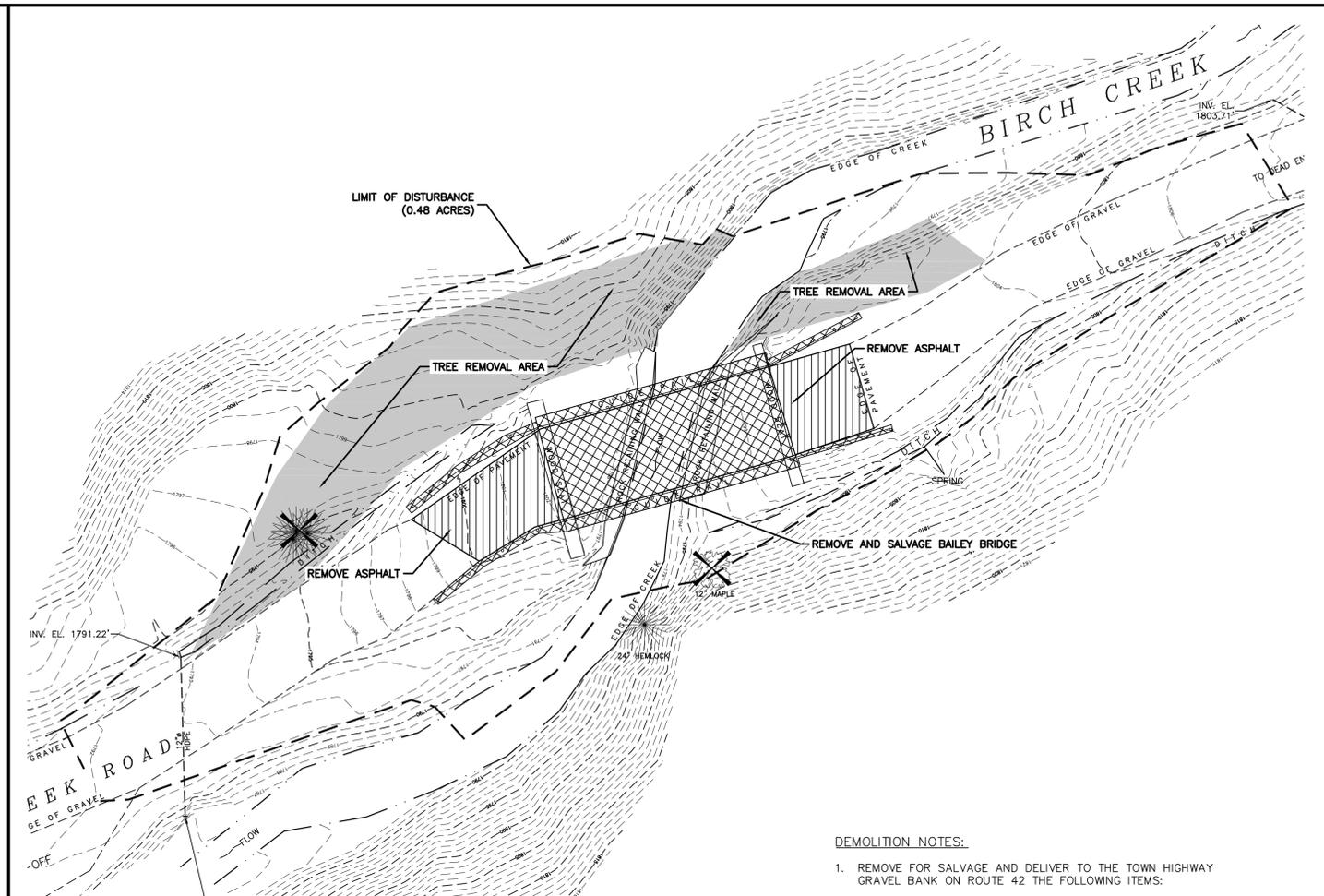
LEGEND

- 1790--- EXISTING CONTOUR (MAJOR)
- 1789--- EXISTING CONTOUR (MINOR)
- (1804) PROPOSED CONTOUR
- (TREE SYMBOL) TREE
- - - - - EDGE OF STREAM
- - - - - STORM CULVERT
- - - - - GRAVEL ROAD
- ■ - ■ - ■ - ■ - ■ - PROPOSED SILT FENCE

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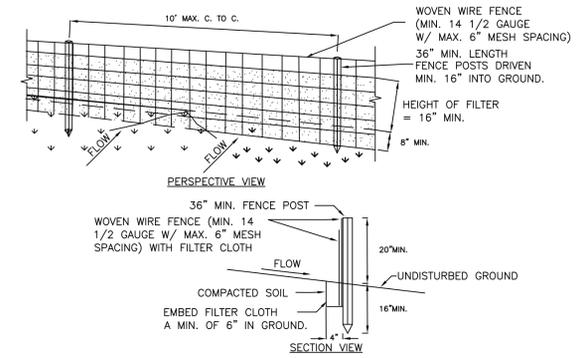
DEMOLITION PLAN
SCALE: 1" = 20'

DEMOLITION NOTES:

- REMOVE FOR SALVAGE AND DELIVER TO THE TOWN HIGHWAY GRAVEL BANK ON ROUTE 42 THE FOLLOWING ITEMS:
 - GUIDE RAILING
 - TEMPORARY BAILEY BRIDGE
- STREAM PROTECTION MEASURES SHALL BE IN PLACE AND PROPERLY FUNCTIONING PRIOR TO DEMOLITION OF EXISTING BRIDGE ABUTMENTS.

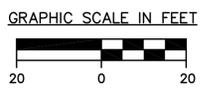
LEGEND

- 1790--- EXISTING CONTOUR (MAJOR)
- 1789--- EXISTING CONTOUR (MINOR)
- (TREE SYMBOL) TREE
- - - - - EDGE OF STREAM
- - - - - STORM CULVERT
- - - - - GRAVEL ROAD
- (X SYMBOL) TREE REMOVAL
- (Hatched Box) TREE CLEARING
- (Cross-hatched Box) TO BE DEMOLISHED AND SALVAGED
- (Diagonal-hatched Box) TO BE DEMOLISHED



CONSTRUCTION SPECIFICATIONS

- WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES. POSTS SHALL BE STEEL EITHER "T" OR "U" TYPE OR HARDWOOD.
- FILTER CLOTH TO BE TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION. FENCE SHALL BE WOVEN WIRE; 12 1/2 GAUGE, 6" MAXIMUM MESH OPENING.
- WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVER-LAPPED BY SIX INCHES AND FOLDED. FILTER CLOTH SHALL BE EITHER FILTER X, MIRAFI 100X, STABILINKA T140N, OR APPROVED EQUIVALENT.
- PREFABRICATED UNITS SHALL BE GEOFAB, ENVIROFENCE, OR APPROVED EQUIVALENT.
- MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.
- SILT FENCE LOCATIONS AS DEPICTED ON PLANS ARE ILLUSTRATIVE. CONTRACTOR SHALL EXERCISE DILIGENCE WHEN INSTALLING SILT FENCE TO CAPTURE ALL SEDIMENT LADEN RUNOFF.



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DEMOLITION AND STREAM PROTECTION PLANS
CONTRACT NO. TS-164

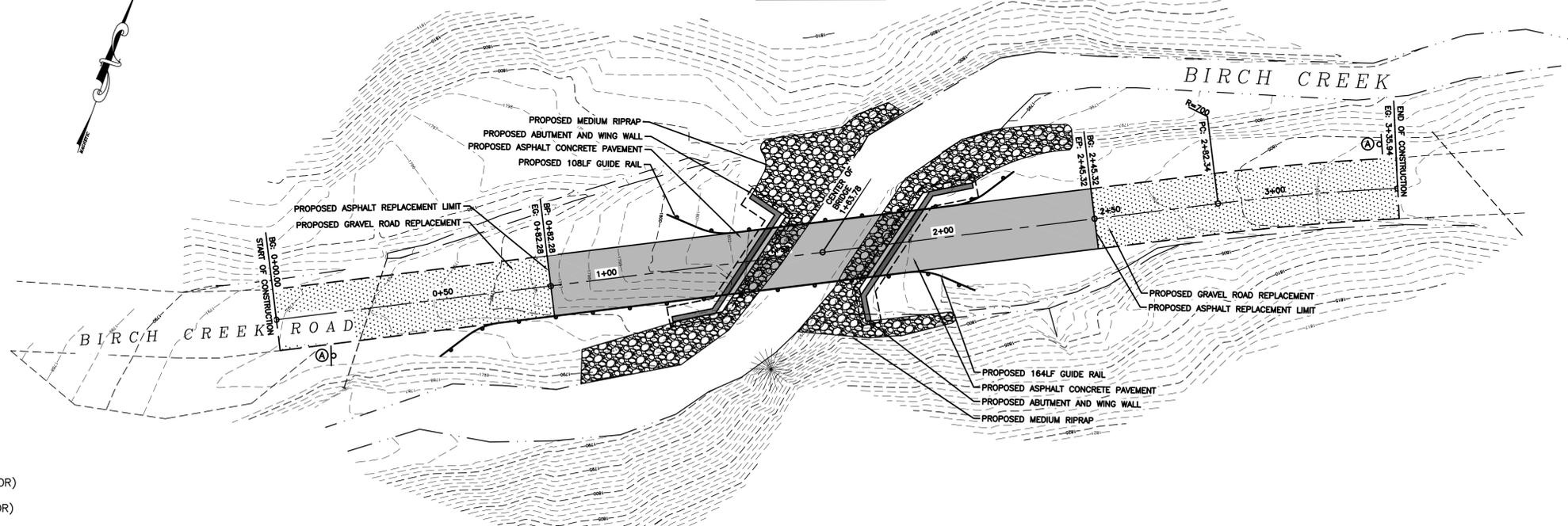
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SCALE	DATE
1" = 20'	MARCH 2016
	DWG: RJS CHK: DML
	SHEET NO. C3

SIGN NO.	SIGN SCHEDULE	NO. REQ.
(A)	NARROW BRIDGE	2

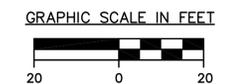
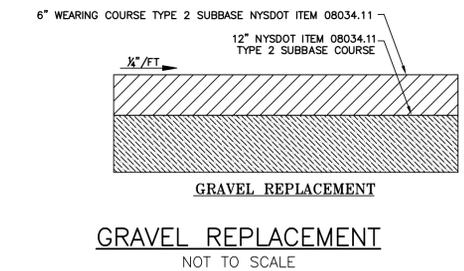
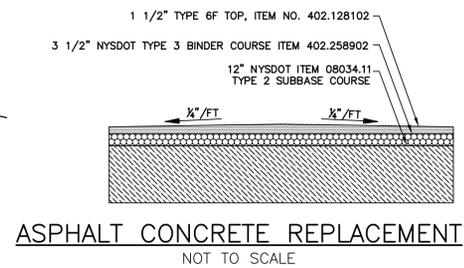
CONVENTIONAL ROAD SIZE



SEE BELOW FOR
FINISH GRADING PLAN

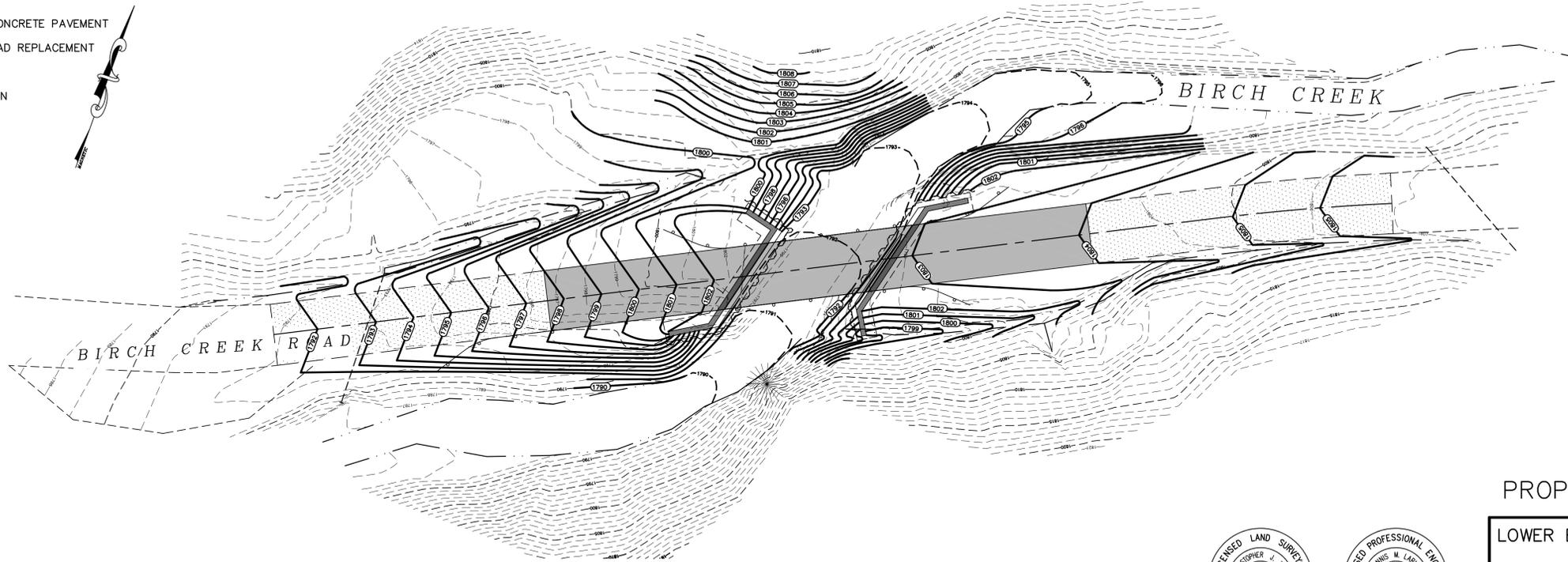


SITE PLAN
SCALE: 1" = 20'



LEGEND

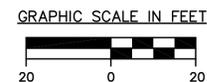
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- 1789--- EXISTING CONTOUR (MINOR)
- (1804)--- PROPOSED CONTOURS
- (T) TREE
- EDGE OF STREAM
- EXISTING OVERHEAD UTILITY LINES
- PROPOSED GUIDE RAIL
- PROPOSED ASPHALT CONCRETE PAVEMENT
- PROPOSED GRAVEL ROAD REPLACEMENT
- PROPOSED RIPRAP
- (C) PROPOSED TRAFFIC SIGN



GRADING PLAN
SCALE: 1" = 20'

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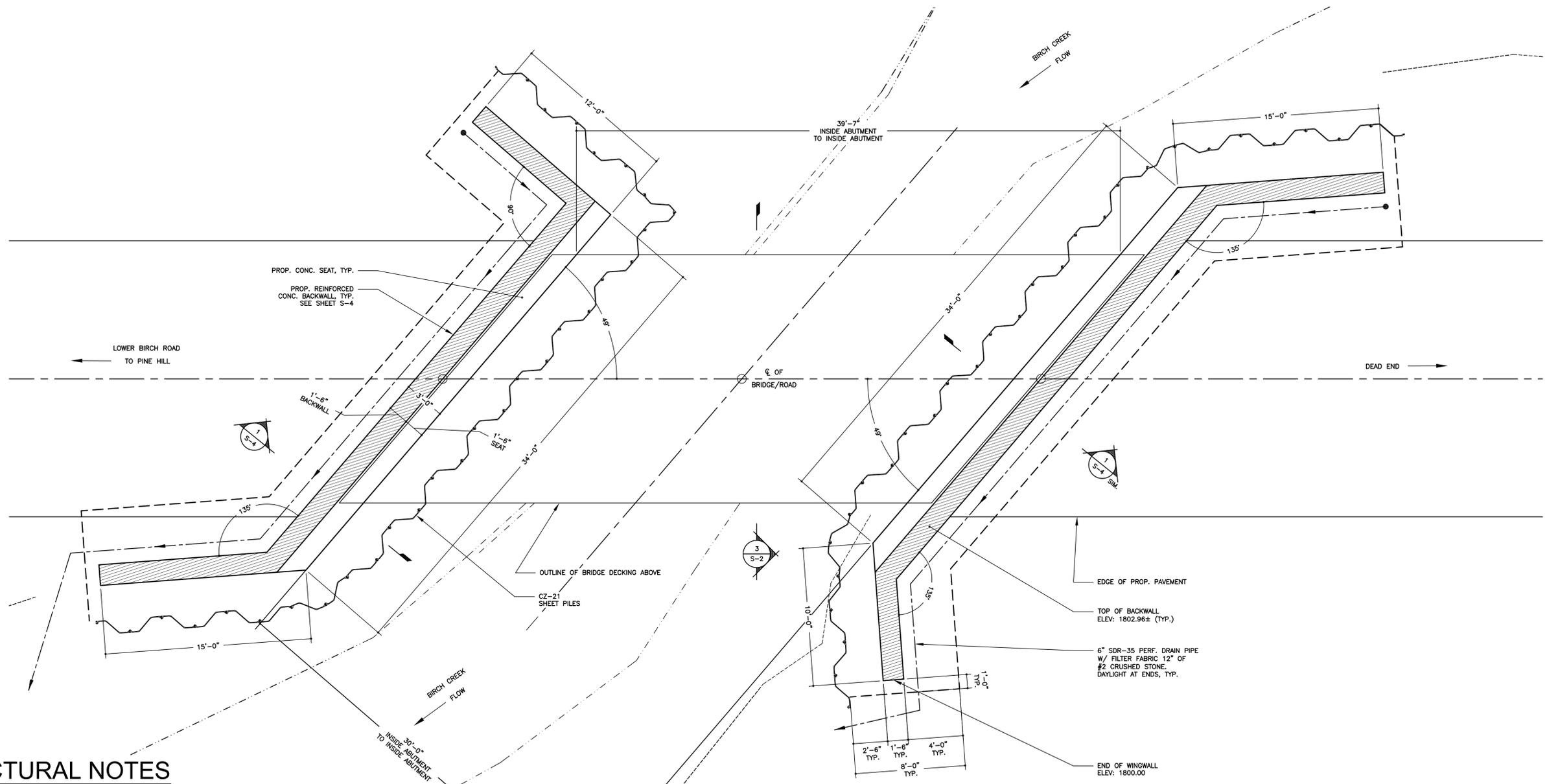
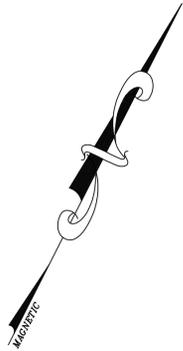
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PROPOSED BRIDGE PLAN/GRADING

LOWER BIRCH CREEK ROAD BRIDGE REPLACEMENT BIN 2270700 PW-8301 FEMA 4020 DR NY		
TOWN OF SHANDAKEN	ULSTER COUNTY	NEW YORK
DATE	REVISION RECORD	BRINNIER & LARIOS, P.C. ENGINEERS & LAND SURVEYORS 67 MAIDEN LANE KINGSTON, N.Y.
SCALE	DATE	SHEET NO.
1" = 20'	MARCH 2016	C4
	DWG RJS	CHK DML



STRUCTURAL NOTES

GENERAL NOTES:

1. ALL DIMENSIONS SHALL BE VERIFIED IN FIELD BY CONTRACTOR WITH ALL DISCREPANCIES REPORTED TO THE ENGINEER.
2. DO NOT CHANGE SIZE NOR SPACING OF STRUCTURAL ELEMENTS.
3. DETAILS SHOWN ARE TYPICAL; SIMILAR DETAILS APPLY TO SIMILAR CONDITIONS UNLESS OTHERWISE NOTED.
4. THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY.
5. CONTRACTOR SHALL DETERMINE EXACT LOCATION OF EXISTING UTILITIES, IF ANY, BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE UNDERGROUND UTILITIES.
6. INCORRECTLY FABRICATED, DAMAGED, OR OTHERWISE MISFITTING OR NONCONFORMING MATERIALS OR CONDITIONS SHALL BE REPORTED TO THE OWNER PRIOR TO REMEDIAL OR CORRECTIVE ACTION. ANY SUCH ACTION SHALL REQUIRE APPROVAL.
7. EACH CONTRACTOR SHALL COOPERATE WITH THE OWNER'S REPRESENTATIVE, AND COORDINATE HIS WORK WITH THE WORK OF OTHERS.
8. VERIFY SIZE AND LOCATION OF OPENINGS. FOR DIMENSIONS AND OPENINGS NOT SHOWN, SEE MECHANICAL, ELECTRICAL, AND ARCHITECTURAL DRAWINGS.

DESIGN DATA:

STRUCTURAL DESIGN HAS BEEN PERFORMED IN ACCORDANCE WITH THE FOLLOWING CODES AND STANDARDS:

- A) AISC, MANUAL OF STEEL CONSTRUCTION, ALLOWABLE STRESS DESIGN, 9TH ED.
1. TRAFFIC LOADS
H20 TRUCK LOADING IN ACCORDANCE WITH AASHTO STANDARDS
 2. DEAD LOADS
CONCRETE FLOOR: = 12.5 PSF PER INCH THICKNESS OF CONC. x 7' = 87.50 PSF
PAVEMENT = 25 PSF.
FUTURE WEARING COURSE = 25 PSF.

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ABBREVIATIONS

A.B.	ANCHOR BOLT
A.O.B.E.	AS ORDERED BY ENGINEER
B.P.	BASE PLATE
COLS.	COLUMNS
do.	DITTO
E.O.	EVERY OTHER
E.W.	EACH WAY
EXP.	EXPANSION
FDN.	FOUNDATION
F.G.	FINISHED GRADE
HDR.	HEADER
HSS	HOLLOW STRUCTURAL SHAPE (A.I.S.C.)
JT.	JOINT
L.L.V.	LONG LEG VERTICAL
PAF	POWDER ACTUATED FASTENER
P.C.	PRE-CAST
PERF.	PERFORATED
PL.	PLATE
R/C	REINFORCED CONCRETE
REINF.	REINFORCEMENT
S.L.	SELF-LEVELING
SLV	SHORT LEG VERTICAL
S.O.G.	SLAB ON GRADE
STL	STEEL
T/FTG.	TOP OF FOOTING
T/WALL	TOP OF WALL
T&S.	TEMPERATURE AND SHRINKAGE
U.N.O.	UNLESS NOTED OTHERWISE
W.C.J.	WALL CONTROL JOINT

1 FOUNDATION PLAN
S-1 SCALE: 1/4" = 1'-0"

JOHN STINEMIRE, P.E., CONSULTING ENGINEER

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FOUNDATION PLAN & STRUCTURAL NOTES CONTRACT NO. TS-164

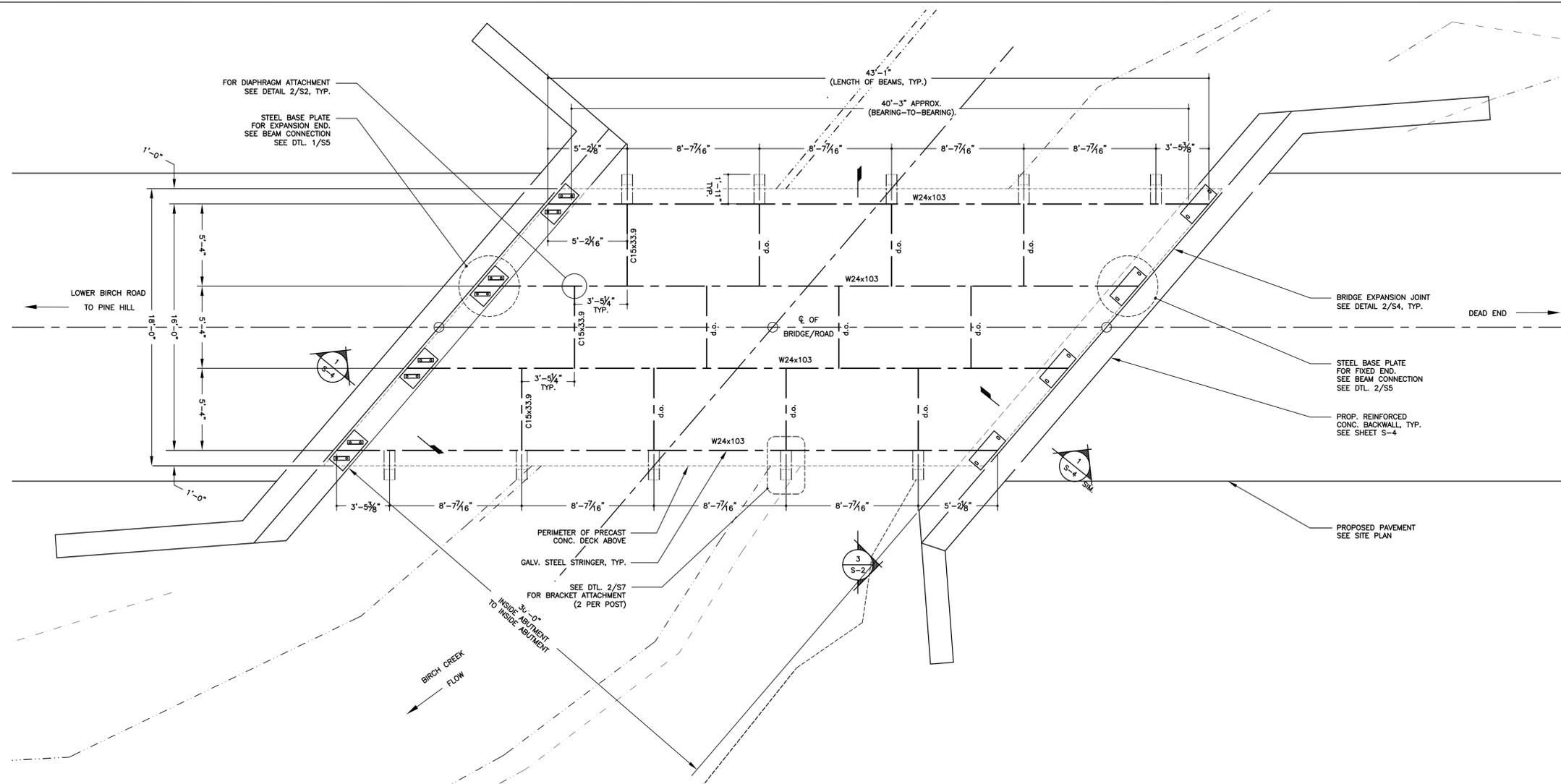
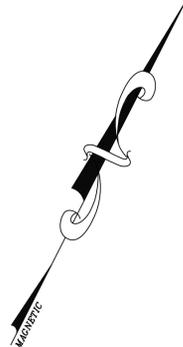
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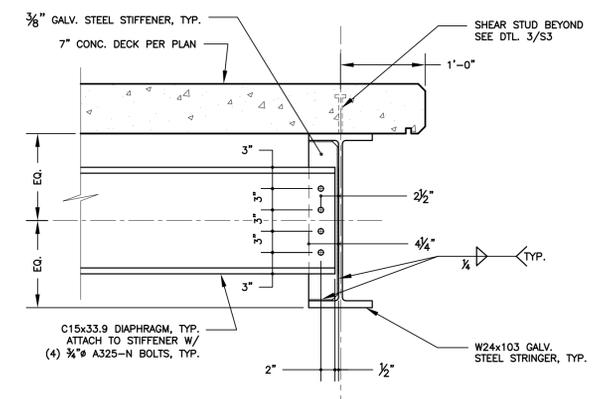
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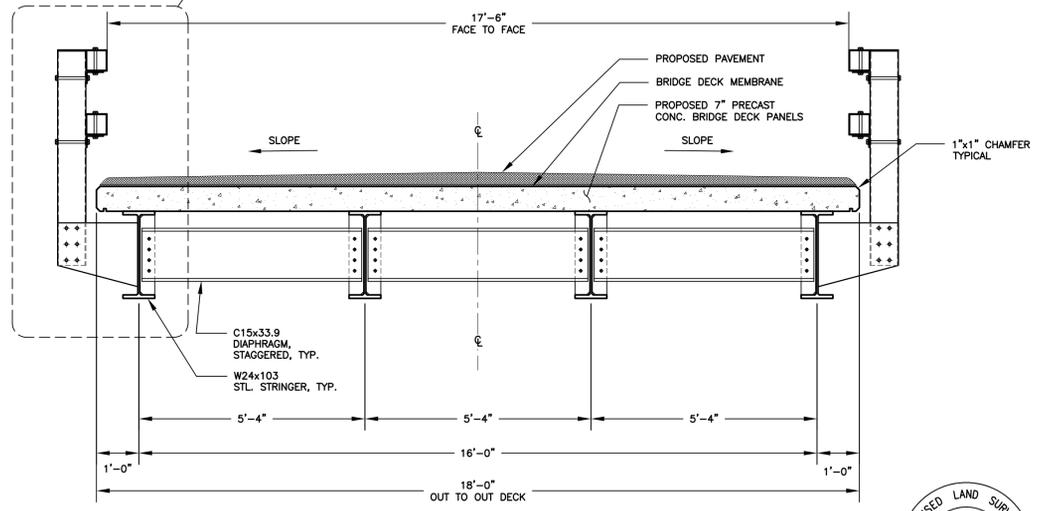
DATE	REVISION	RECORD	SCALE	DATE	SHEET NO.
			AS SHOWN	MARCH 2016	S1
				DWG	CHK
				JH	JES



1 BRIDGE FRAMING PLAN
SCALE: 1/4" = 1'-0"



2 TYPICAL DIAPHRAGM CONNECTION DETAIL
SCALE: 1" = 1'-0"



3 SECTION
SCALE: 1/2" = 1'-0"

NOTE: ALL DESIGN DIMENSIONS NOTED ON PLANS ARE BASED ON FABRICATION AND INSTALLATION OF STRUCTURAL ELEMENTS AT AN AMBIENT TEMPERATURE OF 68 DEGREES FAHRENHEIT

NOTE: BRIDGE RAIL AND BRACKET NOT SHOWN FOR CLARITY.

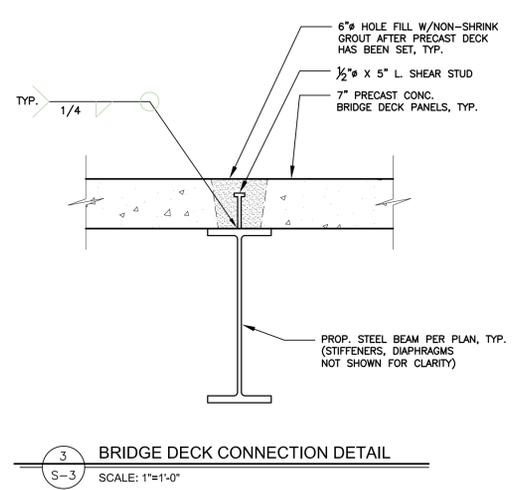
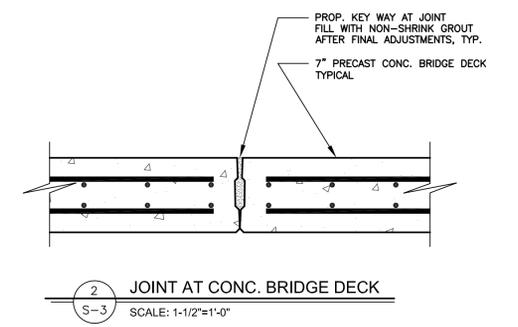
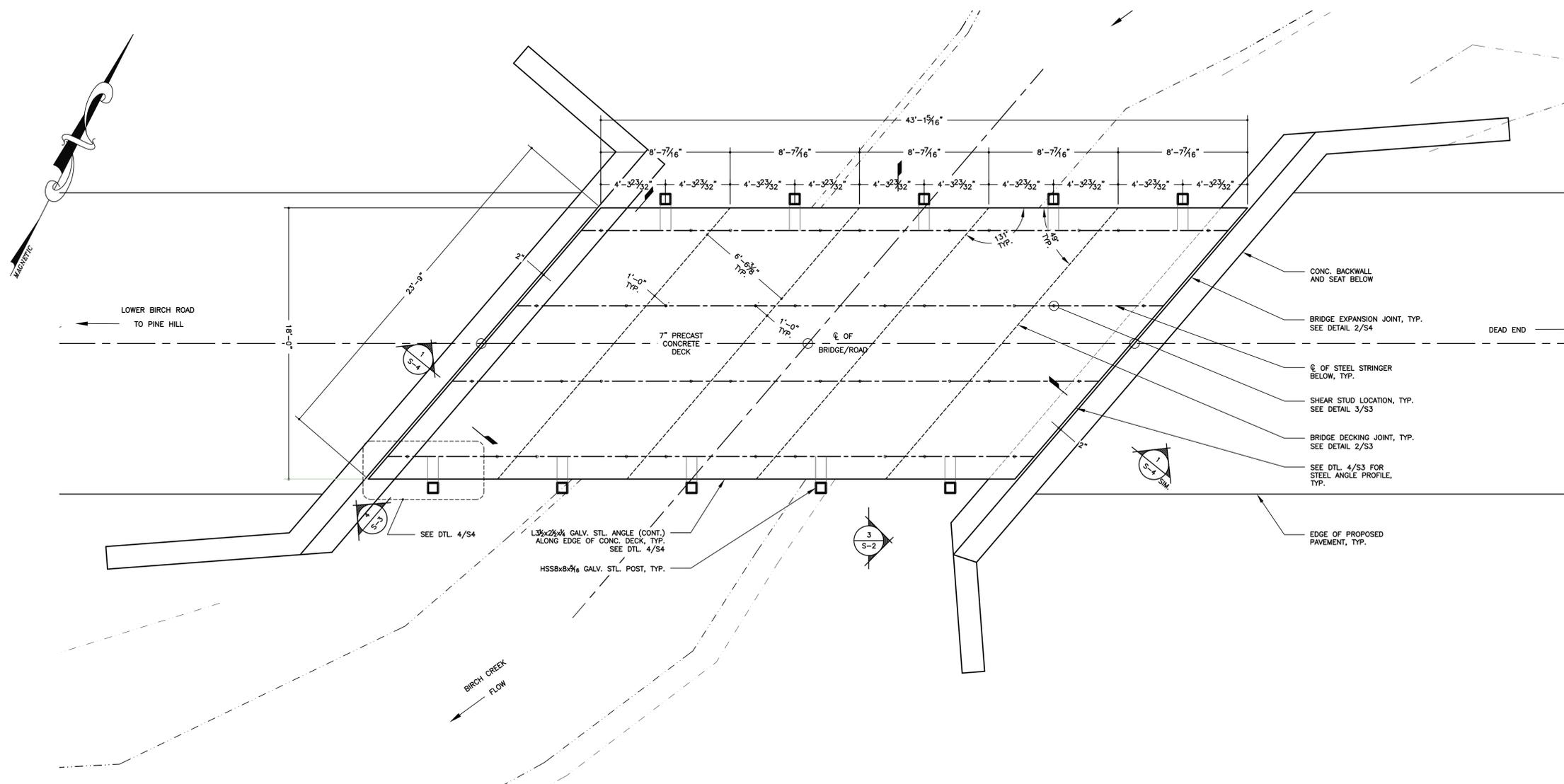
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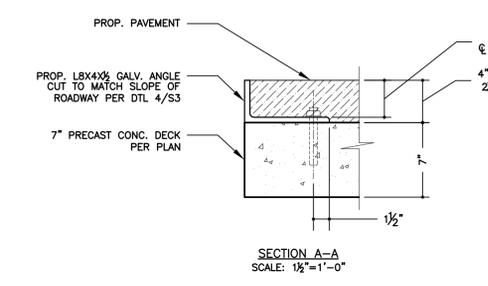
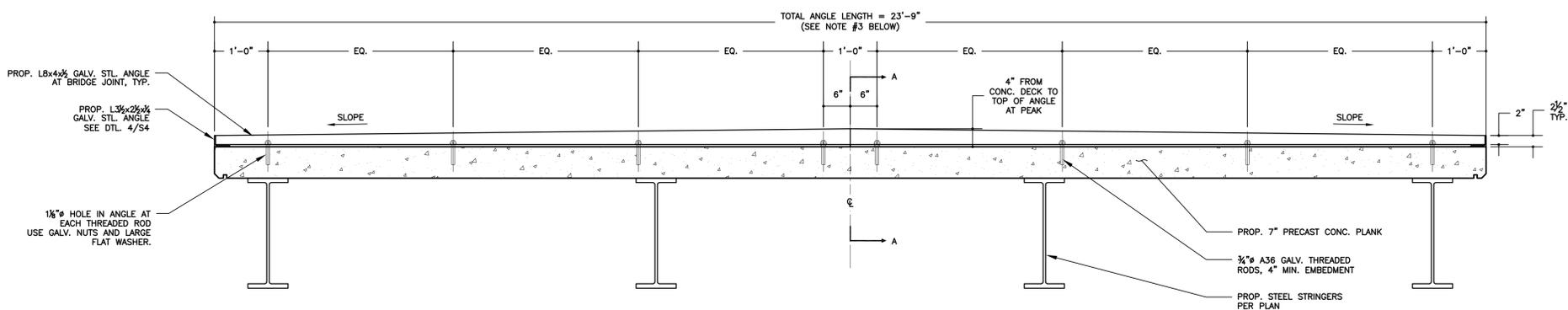
BRIDGE FRAMING PLAN
CONTRACT NO. TS-164

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TOWN OF SHANDAKEN	ULSTER COUNTY	NEW YORK
DATE	REVISION RECORD	
BRINNIER & LARIOS, P.C. ENGINEERS & LAND SURVEYORS 67 MAIDEN LANE KINGSTON, N.Y.		SHEET NO. S2
SCALE AS SHOWN	DATE MARCH 2016 DWG JH	CHK JES



1 PRECAST CONC. PANEL DECK PLAN

S-3 SCALE: 1/4" = 1'-0"



NOTE:

1. GUIDE RAILS AND PAVEMENT NOT SHOWN FOR CLARITY.
2. STEEL STIFFENERS AND DIAPHRAGMS NOT SHOWN FOR CLARITY.
3. STL. ANGLE AT BRIDGE JOINT TO BE MITERED AT CORNERS. SEE DETAIL 4/S4

4 STEEL ANGLE DETAIL

S-3 SCALE: 3/4" = 1'-0"

NOTE:

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JOHN STINEMIRE, P.E., CONSULTING ENGINEER

15 RAILROAD AVENUE KINGSTON NEW YORK 12401 845-331-8806



Unauthorized alteration or addition to a plan bearing a licensed engineer's seal is a violation of section 7209, subdivision 2, of the New York State Education Law.

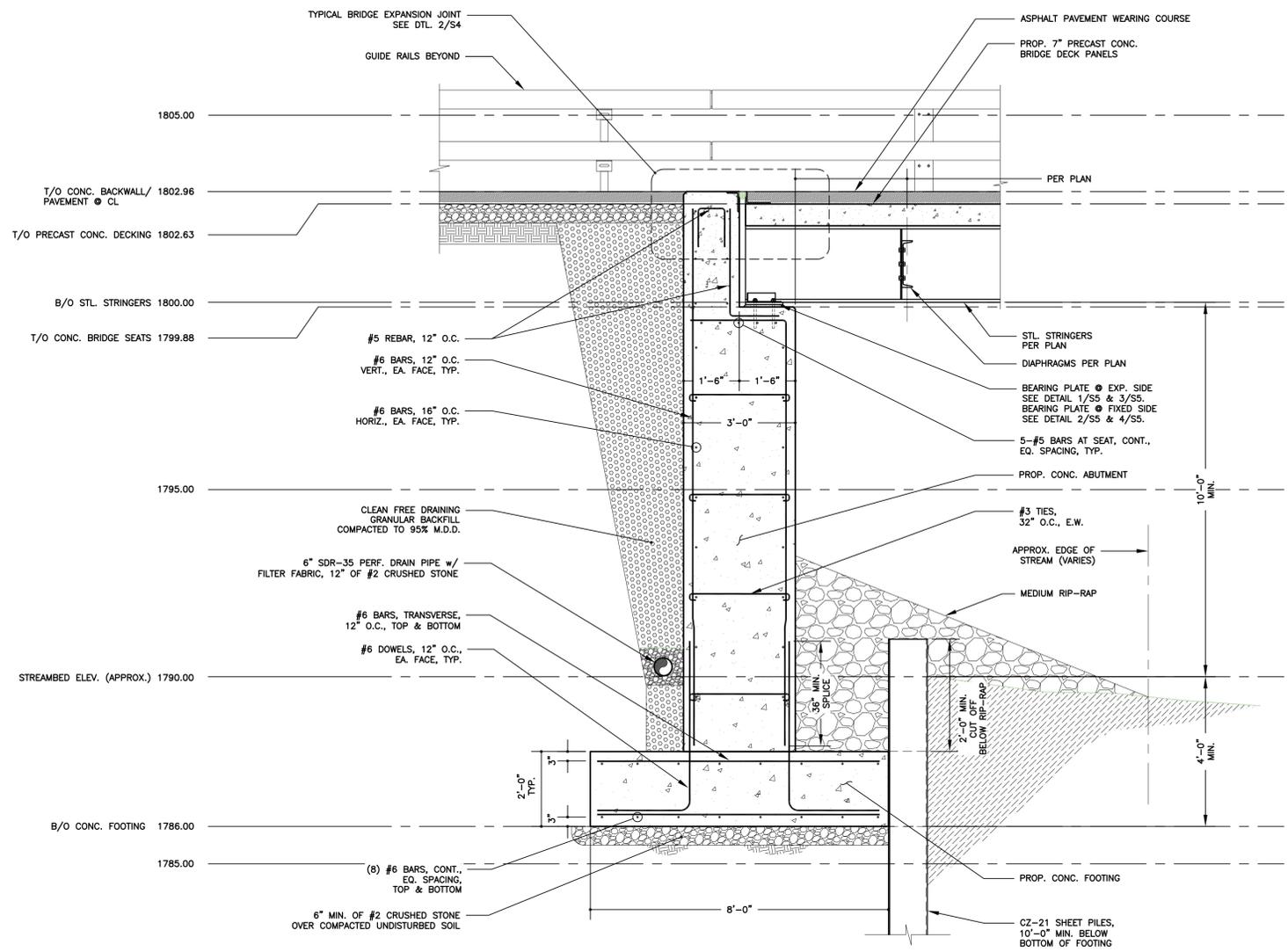
PRECAST DECK PANEL PLAN
CONTRACT NO. TS-164

LOWER BIRCH CREEK ROAD BRIDGE REPLACEMENT
BIN 2270700
PW-8301 FEMA 4020 DR NY
TOWN OF SHANDAKEN ULSTER COUNTY NEW YORK

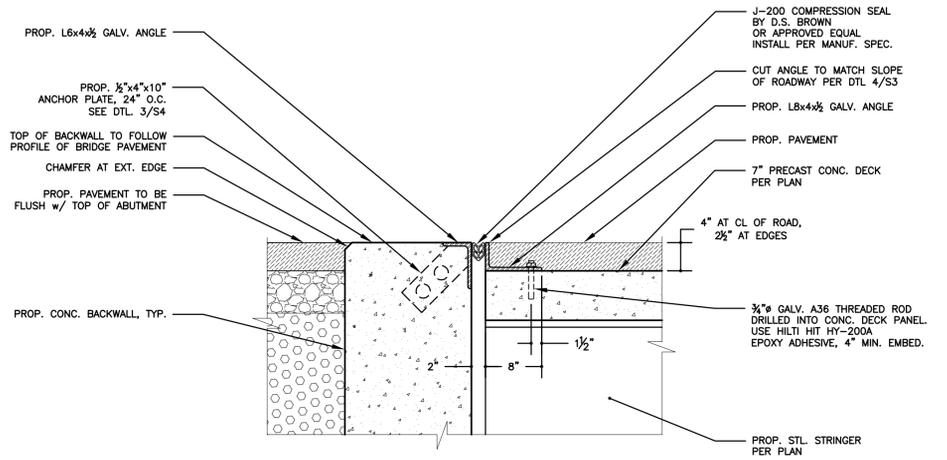
DATE	REVISION RECORD

BRINNIER & LARIOS, P.C.
ENGINEERS & LAND SURVEYORS
67 MAIDEN LANE KINGSTON, N.Y.

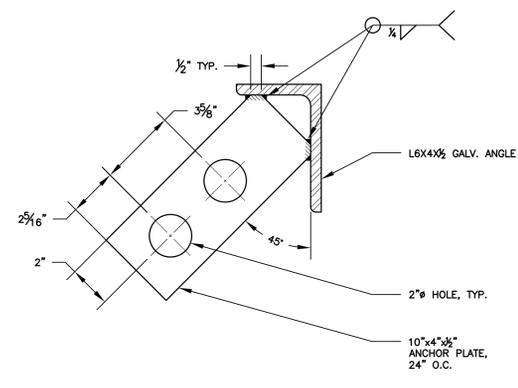
SCALE	DATE	SHEET NO.
AS SHOWN	MARCH 2016	S3
DWG	CHK	
JH	JES	



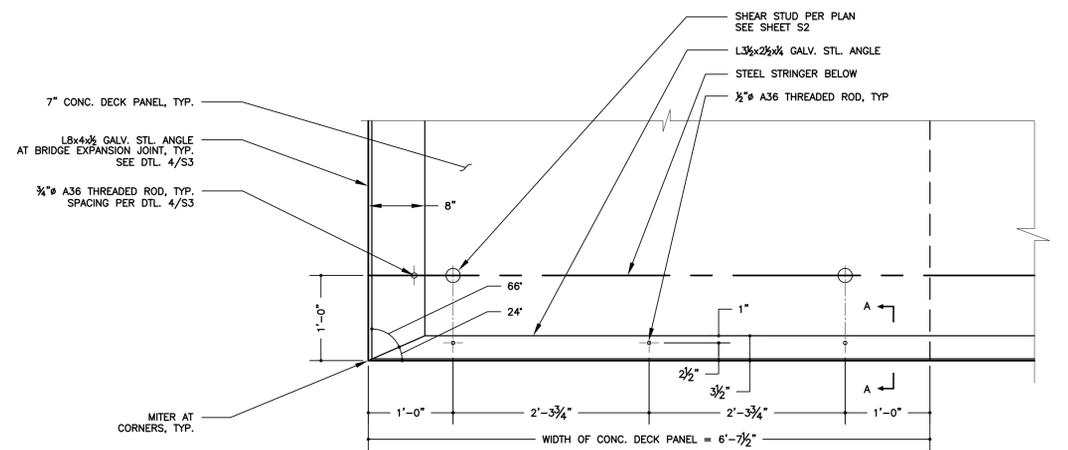
1 TYPICAL BRIDGE ABUTMENT SECTION
S-4 SCALE: 1/2" = 1'-0"



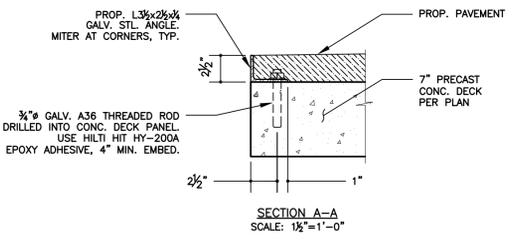
2 TYPICAL BRIDGE EXPANSION JOINT DETAIL
S-4 SCALE: 1" = 1'-0"



3 ANCHOR PLATE DETAIL
S-4 SCALE: 3" = 1'-0"



4 STL. ANGLE CONNECTION DETAIL
S-4 SCALE: 1" = 1'-0"



SECTION A-A
SCALE: 1 1/2" = 1'-0"

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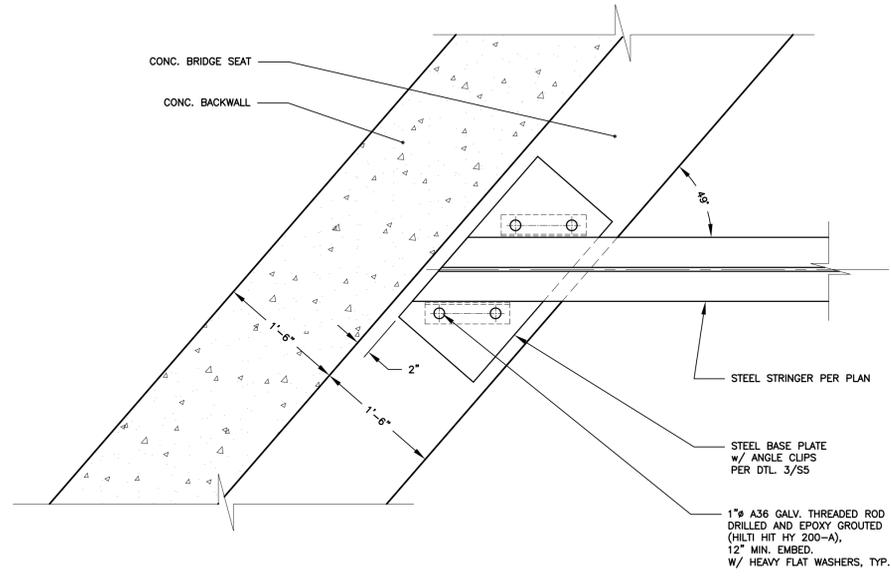
JOHN STINEMIRE, P.E., CONSULTING ENGINEER
15 RAILROAD AVENUE KINGSTON NEW YORK 12401 845-331-8806



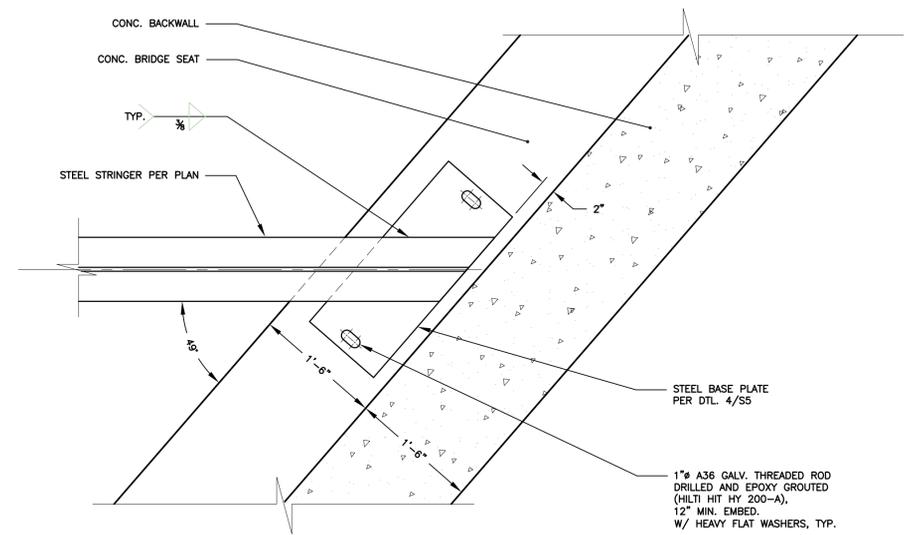
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SECTIONS & DETAILS
CONTRACT NO. TS-164

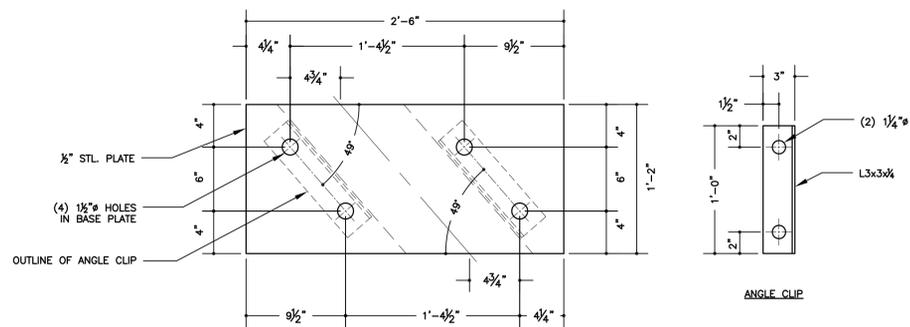
LOWER BIRCH CREEK ROAD BRIDGE REPLACEMENT BIN 2270700		PW-8301 FEMA 4020 DR NY	
TOWN OF SHANDAKEN		ULSTER COUNTY NEW YORK	
DATE	REVISION RECORD	BRINNIER & LARIOS, P.C. ENGINEERS & LAND SURVEYORS 67 MAIDEN LANE KINGSTON, N.Y.	
SCALE	DATE	DATE	SHEET NO.
AS SHOWN	MARCH 2016	MARCH 2016	S4
	DWG JH	CHK JES	



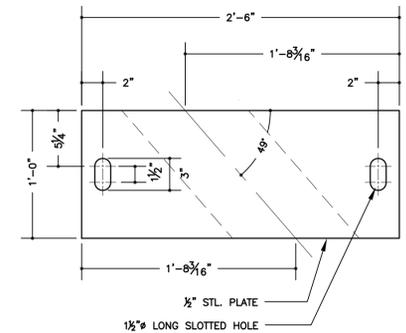
1 STEEL BEAM CONNECTION DETAIL
S-5 SCALE: 1" = 1'-0" (EXPANSION SIDE)



2 STEEL BEAM CONNECTION DETAIL
S-5 SCALE: 1" = 1'-0" (FIXED SIDE)



3 BASE PLATE DETAIL (EXPANSION SIDE)
S-5 SCALE: 1-1/2" = 1'-0"



4 BASE PLATE DETAIL (FIXED SIDE)
S-5 SCALE: 1-1/2" = 1'-0"

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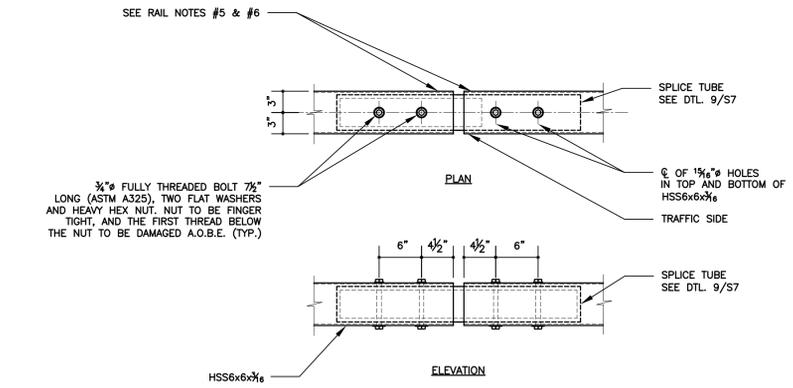
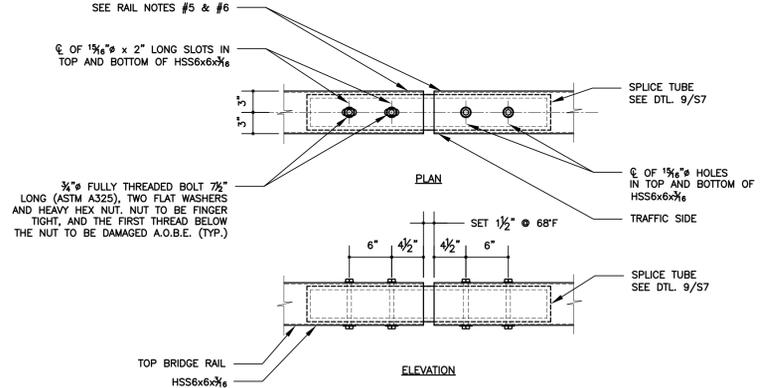
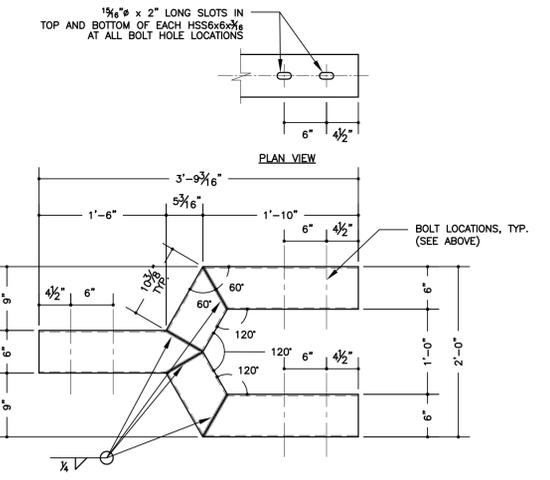
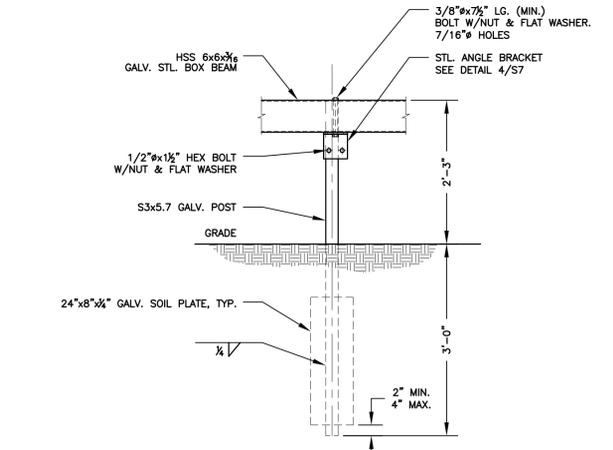
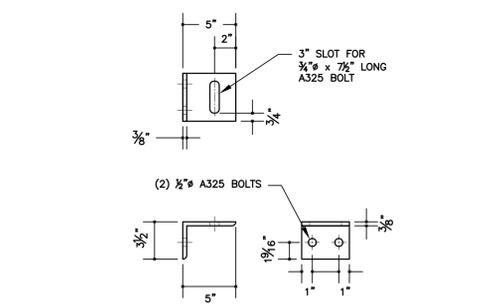
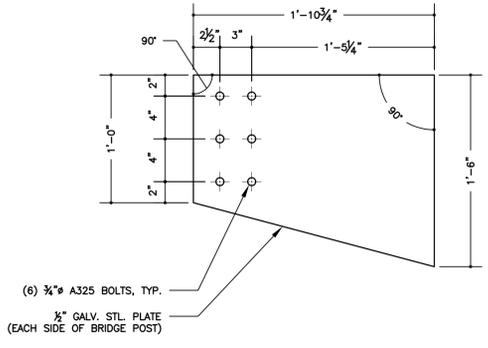
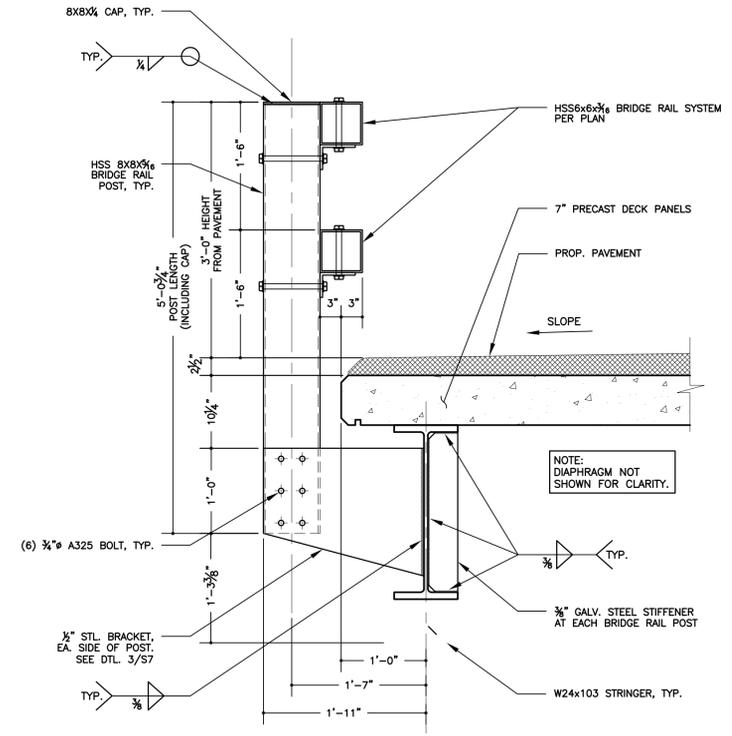
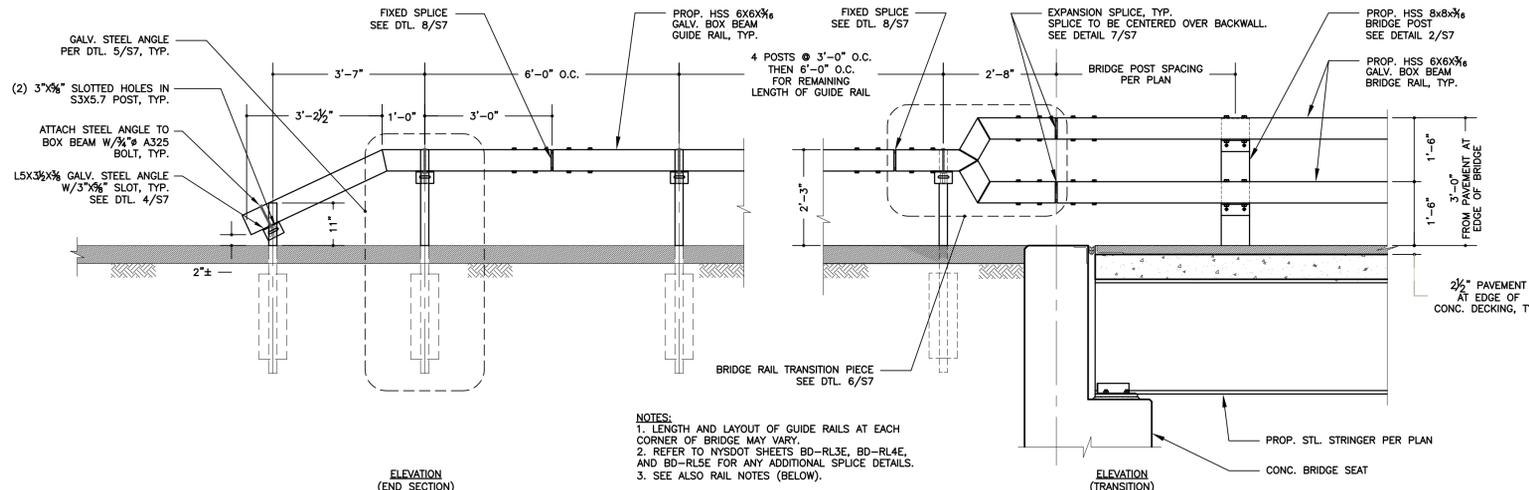
JOHN STINEMIRE, P.E., CONSULTING ENGINEER
15 RAILROAD AVENUE KINGSTON NEW YORK 12401 845-331-8806



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DETAILS
CONTRACT NO. TS-164

LOWER BIRCH CREEK ROAD BRIDGE REPLACEMENT BIN 2270700		FEMA 4020 DR NY	
PW-8301		TOWN OF SHANDAKEN ULSTER COUNTY NEW YORK	
DATE	REVISION RECORD	BRINNIER & LARIOS, P.C. ENGINEERS & LAND SURVEYORS 67 MAIDEN LANE KINGSTON, N.Y.	
SCALE	DATE	DATE	SHEET NO.
AS SHOWN	MARCH 2016	MARCH 2016	S5
	DWG	CHK	
	JH	JES	



RAIL NOTES:

- ALL BRIDGE RAIL AND GUIDE RAIL COMPONENTS SHALL BE HOT DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A123 AND ALL FASTENERS AND HARDWARE SHALL BE HOT DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A153.
- BRIDGE RAIL DETAILS AND INSTALLATION SHALL BE IN ACCORDANCE WITH NYSDOT STANDARD BRIDGE DETAIL SHEETS UNLESS NOTED OTHERWISE.
- BRIDGE RAIL SHALL BE DOUBLE BOX BEAM BRIDGE RAIL FOR LOW VOLUME BRIDGES IN ACCORDANCE WITH NYSDOT STANDARD SHEETS BD-RL3E, RL4E AND RL5E.
- GUIDE RAIL FROM THE BRIDGE TRANSITION RAIL TO THE END SECTION SHALL BE BOX BEAM GUIDE RAIL WITH A TYPE IIA END ASSEMBLY CONSISTENT WITH NYSDOT STANDARD SHEET NUMBER 606-04 SHEET 1 THRU 4.
- PROTRUSIONS CAUSED BY WELDING OR GALVANIZING ARE NOT PERMITTED ON THE INSIDE WALLS OF THE SPLICE AREA.
- PROTRUSIONS CAUSED BY WELDING OR GALVANIZING ARE NOT PERMITTED ON THE OUTSIDE WALLS OF THE SPLICE TUBE AND THE OUTSIDE SURFACES OF THE FILL PLATES.

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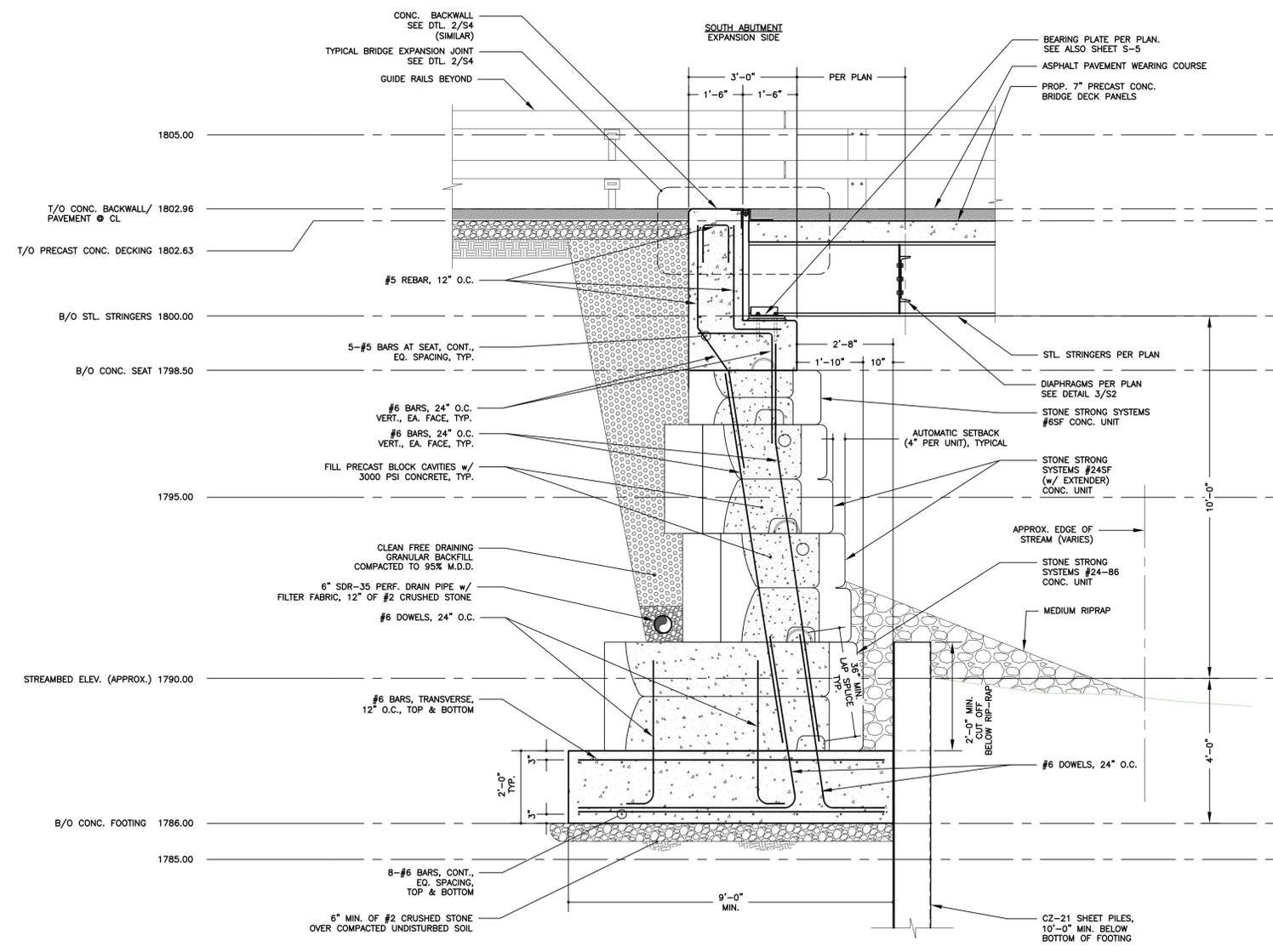
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GUIDE RAIL DETAILS
CONTRACT NO. TS-164

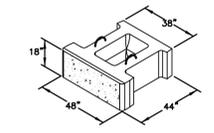
LOWER BIRCH CREEK ROAD BRIDGE REPLACEMENT
BIN 2270700
PW-8301 FEMA 4020 DR NY
TOWN OF SHANDAKEN ULSTER COUNTY NEW YORK

DATE	REVISION RECORD	SCALE	DATE	SHEET NO.
		AS SHOWN	MARCH 2016	S7
			CHK JES	

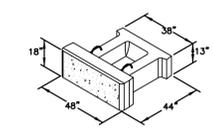
BRINNIE & LARIOS, P.C.
ENGINEERS & LAND SURVEYORS
67 MAIDEN LANE KINGSTON, N.Y.



1 BRIDGE ABUTMENT SECTIONS (ALTERNATE)
S-9 SCALE: 1/2" = 1'-0"

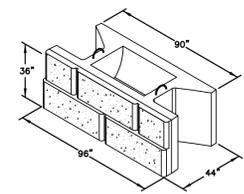


STONE STRONG 6SF UNIT
NOT TO SCALE

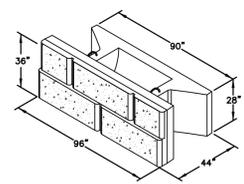


STONE STRONG 6SF TOP UNIT
NOT TO SCALE

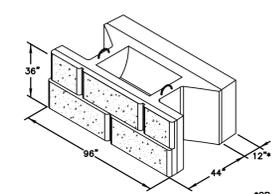
NOTES:
CHISELLED GRANITE STYLE HAS 4 DIFFERENT FACE PATTERNS ON 24SF BLOCKS.
INSTALL A, B, C, & D PATTERNS AT RANDOM IN WALL.



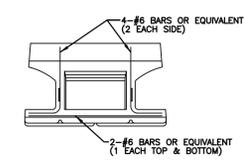
STONE STRONG 24SF UNIT
CHISELLED GRANITE FACE
NOT TO SCALE



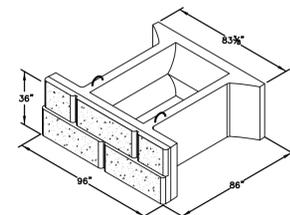
STONE STRONG 24SF TOP UNIT
CHISELLED GRANITE FACE
NOT TO SCALE



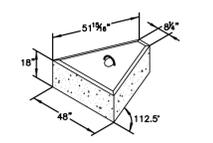
STONE STRONG 24SF UNIT w/ MASS EXTENDER
NOT TO SCALE



NOTES:
CHISELLED GRANITE STYLE HAS 4 DIFFERENT FACE PATTERNS ON 24-86 BLOCKS.
INSTALL A, B, C, & D PATTERNS AT RANDOM IN WALL.



STONE STRONG 24-86 UNIT
NOT TO SCALE



STONE STRONG 45' CORNER UNIT
NOT TO SCALE

2 STONE STRONG COMPONENTS
S-9 N.T.S.

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ALTERNATE BID #1
SECTION & DETAILS
CONTRACT NO. TS-164

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TOWN OF SHANDAKEN		ULSTER COUNTY NEW YORK	
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	DWG JH	CHK JES	