

CATTARAUGUS COUNTY DEPARTMENT OF PUBLIC WORKS

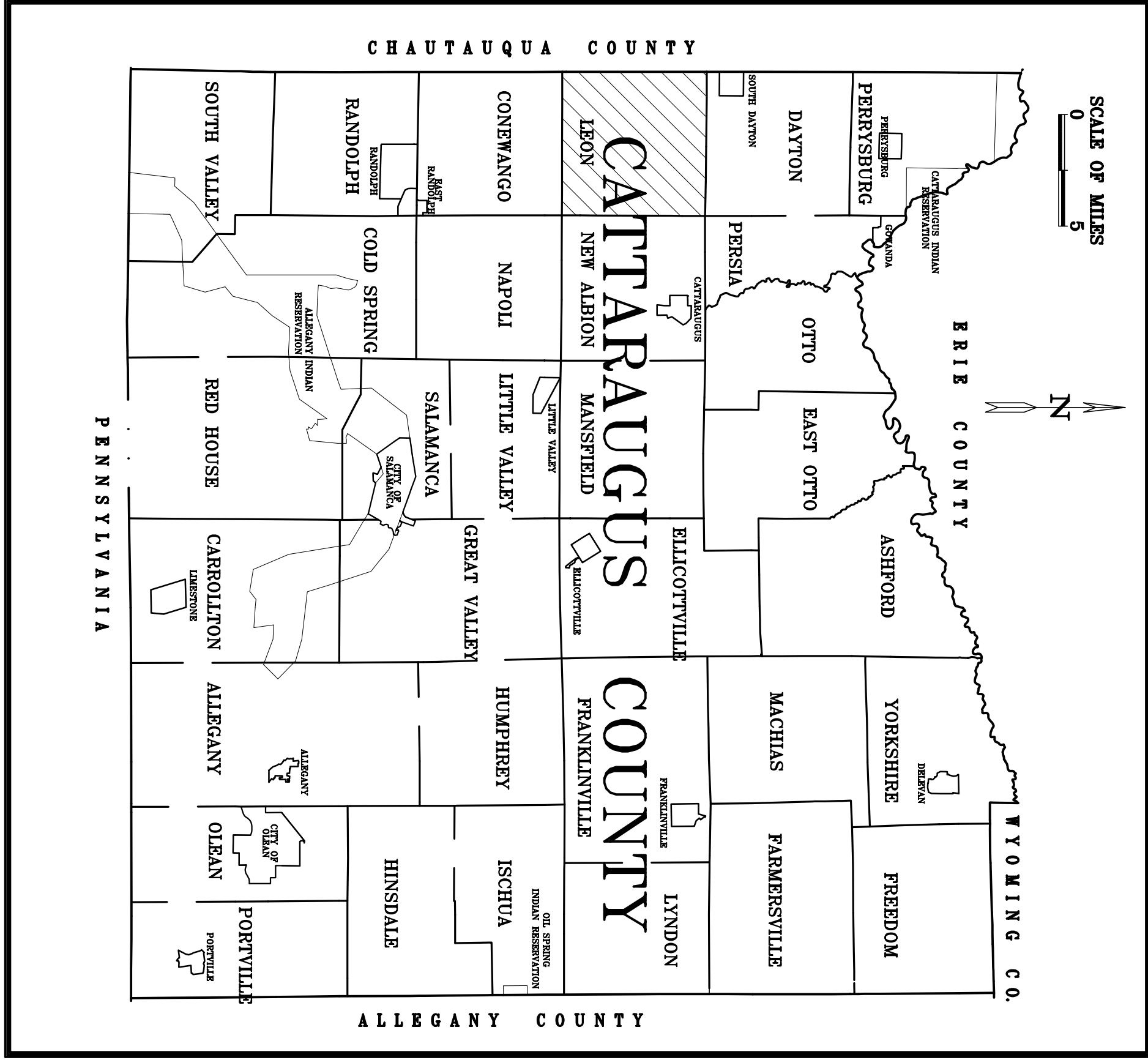
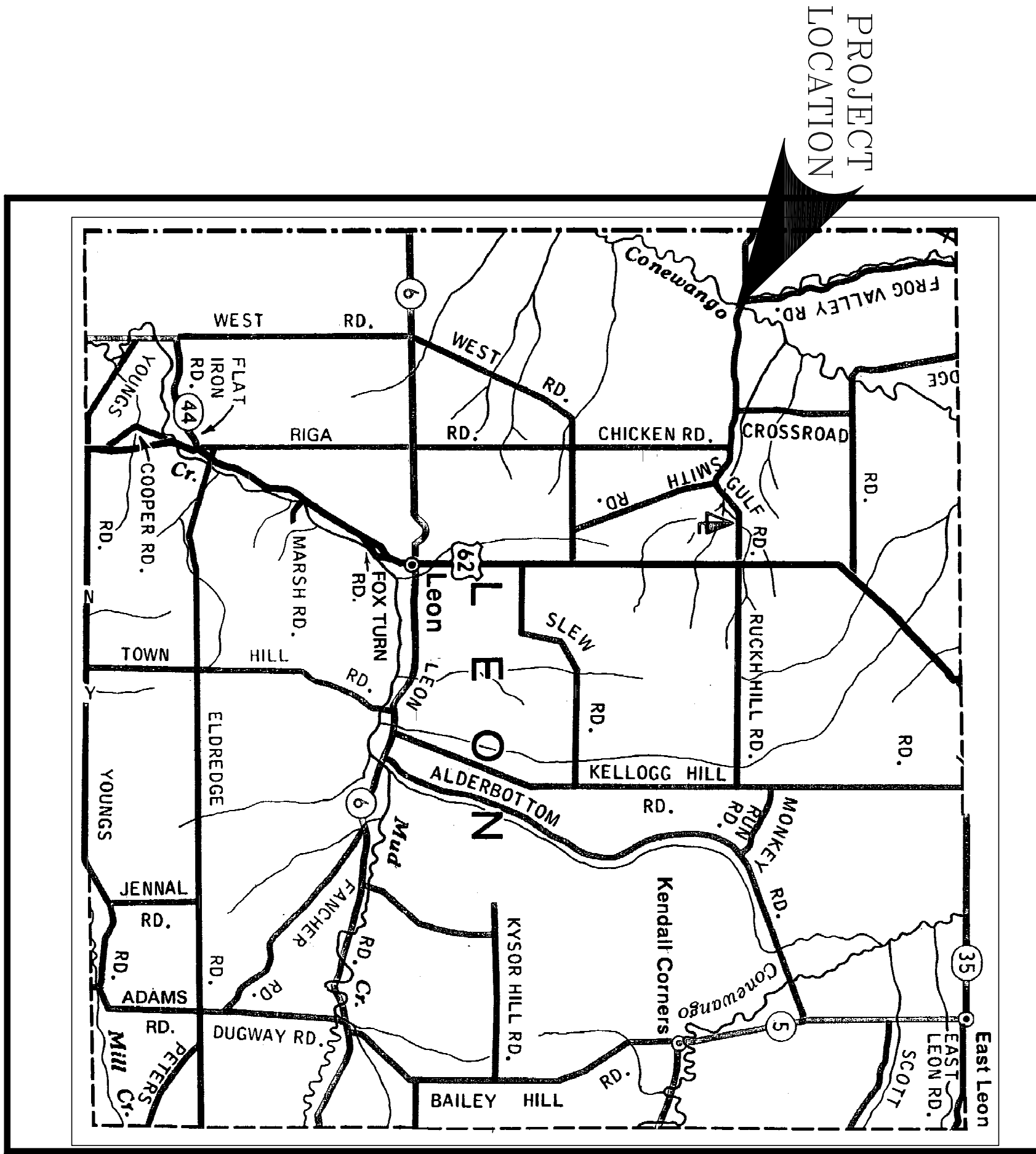
LEON BRIDGE 35 OVER CONEWANGO CREEK SMITH ROAD INTERSECTION AND FROG VALLEY ROAD TOWN OF LEON, CATTARAUGUS COUNTY, NEW YORK

JOSEPH T. PILITTERE
COMMISSIONER
8810 Rt. 242
LITTLE VALLEY, NY 14755

B.I.N. 3322250

MARK C. BURR, P.E.
DIRECTOR OF ENGINEERING
8810 Rt. 242
LITTLE VALLEY, NY 14755

PROJECT SITE



SHEET INDEX DESCRIPTION

1 of 10	COVER SHEET
2 of 10	GENERAL NOTES AND QUANTITIES
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10 of 10	EROSION CONTROL PLAN & NOTES

TABLE OF QUANTITIES				
ITEM	DESCRIPTION	UNIT	EST. QUANT	FINL QUANT
201.06	CLEARING AND GRUBBING	LS	Nec.	
C202.1301	REMOVAL OF EXISTING BRIDGE	LS	Nec.	
203.02	UNCLASSIFIED EXCAVATION & DISPOSAL	CY	2120	
203.21	SELECT STRUCTURE FILL	CY	115	
206.01	STRUCTURE EXCAVATION	CY	420	
206.02	TRENCH AND CULVERT EXCAVATION	LF	230	
209.13	SILT FENCE TEMPORARY	LF	450	
209.1501	TURBIDITY CURTAIN	LF	1000	
551.13	FURNISHING EQUIPMENT FOR PILE DRIVING	LS	Nec.	
552.11	PERMANENT STEEL SHEETING	SF	7965	
564.0501	STRUCTURAL STEEL	LS	Nec.	
619.01	BASIC WORK ZONE TRAFFIC CONTROL	LS	Nec.	
619.04	TYPE III CONSTRUCTION BARRICADES	EA	35	
620.05	STONE FILLING (HEAVY)	CY	675	
625.01	SURVEY AND OPERATIONS	LS	Nec.	
699.04	MOBILIZATION (4% MAX)	LS	Nec.	

NOTE: ALL QUANTITIES ARE FOR THE CONTRACTORS INFORMATION ONLY.
THE CONTRACTOR SHALL VERIFY ALL QUANTITIES FOR HIS INFORMATION.

GENERAL NOTES:

- DESIGN SPECIFICATIONS:
A. NEW YORK STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS WITH ALL PROVISIONS IN EFFECT AS OF MAY 1, 2017.
B. ASHTO – STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, 17TH EDITION,
- LIVE LOAD: HS25
- CONSTRUCTION AND MATERIALS SPECIFICATIONS: STANDARD SPECIFICATIONS, CONSTRUCTION AND MATERIALS, NEW YORK STATE DEPARTMENT OF TRANSPORTATION, OFFICE OF ENGINEERING, DATED MAY 1, 2017 WITH CURRENT ADDITIONS AND MODIFICATIONS. EXCEPTION TO ANY OF THE LISTED ITEM NUMBERS PREFIXED SUFFIXED WITH "C" ARE NOTED IN THE SPECIAL SPECIFICATIONS.
- NO CHANGES IN MAINTENANCE JURISDICTION WILL BE CREATED BY THIS PROJECT.
- HIGHWAY CLASSIFICATION – RURAL LOCAL
- THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO PREPARING HIS BID PROPOSAL TO FAMILIARIZE HIMSELF WITH THE CONDITIONS THAT EXIST.
- THE LOAD RATINGS ARE IN ACCORDANCE WITH THE ASHTO "MANUAL FOR CONDITION EVALUATION OF BRIDGES – 1994" WITH ALL INTERIM PROVISIONS IN EFFECT.
- THE COST OF WATER USED FOR COMPACTION OF SELECT FILL ITEMS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 203.21 – SELECT STRUCTURE FILL.
- THE COST OF ALL JOINT MATERIAL SHALL BE INCLUDED IN THE UNIT PRICES BID FOR THE VARIOUS ITEMS OF THE CONTRACT, UNLESS OTHERWISE SPECIFIED ON THE PLANS.
- ALL WORK ON THIS PROJECT IS TO BE CONDUCTED WITHIN THE ROAD RIGHT-OF-WAY AND/OR EASEMENT LIMITS. ANY DAMAGE CREATED BY THE CONTRACTOR OR HIS REPRESENTATIVES OUTSIDE THE ROAD RIGHT-OF-WAY, SHALL BE REPAIRED TO THE OWNER'S REPRESENTATIVE'S SATISFACTION AND AT THE CONTRACTOR'S EXPENSE.
- ALL AREAS DISTURBED OUTSIDE OF THE WORK AREA ARE TO BE TOPSOILED AND SEEDED TO THE REQUIREMENTS OF ITEM 610.0203 AND 613.0101 AT THE CONTRAOR'S EXPENSE.
- THE CONTRACTOR SHALL RESET ALL DAMAGED SURVEY PROPERTY PINS AND SUBMIT CERTIFICATIONS OF ACCURACY BY A LICENSED LAND SURVEYOR REGISTERED IN THE STATE OF NEW YORK.
- UTILITIES – THERE ARE NO UTILITY RELOCATIONS AS PART OF THIS PROJECT.

REMOVAL NOTES

- EXISTING SUBSTRUCTURE, SUPERSTRUCTURE, BRIDGE RAILING AND APPROACH RAILING SHALL BE REMOVED WITHIN THE LIMITS SHOWN ON THE PLANS UNDER ITEMS C202.1301.
- THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE REQUIREMENTS OF SUBSECTION 202-3.01 GENERAL AND SAFETY REQUIREMENTS. A REMOVAL PLAN, SIGNED BY A REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF NEW YORK, SHALL BE SUBMITTED TO THE ENGINEER FIFTEEN (15) DAYS PRIOR TO BEGINNING THE DEMOLITION. THE REQUIREMENT THAT IT BE SIGNED BY A PROFESSIONAL ENGINEER IS WAIVED.
- EXCAVATION BELOW THE PLANNED BOTTOM OF STEM ELEVATION WILL NOT BE ALLOWED WITHOUT WRITTEN PERMISSION FROM THE ENGINEER. BACKFILL OF UNAUTHORIZED EXCAVATIONS BELOW OR BEYOND THE PAYMENT LINES WILL BE AT THE CONTRACTOR'S EXPENSE. BACKFILL MATERIAL WILL BE AS DIRECTED BY THE ENGINEER.
- DURING REMOVAL OPERATIONS, THE CONTRACTOR SHALL NOT BE ALLOWED TO DROP WASTE CONCRETE, DEBRIS AND OTHER MATERIAL TO THE AREA BELOW THE BRIDGE. EXCEPT WHERE THE PLANS SPECIFICALLY PERMIT THE DROPPING OF MATERIAL. PLATFORMS, NETS, SCREENS OR OTHER PROTECTIVE DEVICES SHALL BE USED TO CATCH THE MATERIAL. IF THE ENGINEER DETERMINES THAT ADEQUATE PROTECTIVE DEVICES ARE NOT BEING EMPLOYED, THE WORK SHALL BE SUSPENDED UNTIL ADEQUATE PROTECTION IS PROVIDED.
- ALL MATERIAL FALLING ON THE AREA BELOW AND ADJACENT TO THE BRIDGE SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR DAILY AT NO COST TO THE COUNTY.
- THE COST OF FURNISHING, INSTALLING, MAINTAINING, REMOVING AND DISPOSING OF ALL PLATFORMS, NETS, SCREENS OR OTHER PROTECTIVE DEVICES SHALL BE INCLUDED IN THE UNIT PRICES BID FOR THE APPROPRIATE ITEMS OF THE CONTRACT.
- WHENEVER ITEMS IN THE CONTRACT REQUIRE MATERIALS TO BE REMOVED AND DISPOSED OF, THE COST OF SUPPLYING A DISPOSAL AREA AND TRANSPORTATION TO THAT AREA SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THOSE ITEMS.
- RECORD PLANS FOR THIS STRUCTURE ARE NOT AVAILABLE.

PILE FOUNDATION NOTES:

- SUBSURFACE EXPLORATIONS HAVE BEEN COMPLETED FOR THIS PROJECT. LOCATION OF THE BORING AND BORING LOGS ARE INCLUDED ON SHEET 8.
- IF ANY OBSTRUCTIONS TO PILE DRIVING ARE ENCOUNTERED WITHIN 10 FEET OR LESS FROM THE BOTTOM OF THE ABUTMENT, THE CONTRACTOR SHALL, IF ORDERED BY THE ENGINEER, PULL THE PARTIALLY DRIVEN PILE OR PILES AND REMOVE THE OBSTRUCTION, BACKFILLING THE HOLE WITH APPROVED SUITABLE MATERIAL WHICH SHALL BE THOROUGHLY COMPACTED TO THE SATISFACTION OF THE ENGINEER. HOWEVER, NO PARTIALLY DRIVEN PILE SHALL BE REMOVED UNTIL THE ENGINEER IS SATISFIED THAT THE CONTRACTOR HAS MADE EVERY EFFORT TO DRIVE THE PILE THROUGH THE OBSTRUCTION. PAYMENT FOR THE EXCAVATION WILL BE MADE AT THE UNIT PRICE. BID FOR THE STRUCTURE EXCAVATION ITEM. NO OTHER EXTRA PAYMENT WILL BE MADE FOR THIS WORK.
- THE USE OF MECHANICAL PILE SPLICES SHALL NOT BE ALLOWED ON THE STRUCTURE.

SUBSTRUCTURE NOTES

- HIGHWAY EMBANKMENT MATERIAL (HIGHWAY ESTIMATE) AND SELECT STRUCTURE FILL SHALL BE PLACED SIMULTANEOUSLY, IN CONTACT, ON BOTH SIDES OF THE VERTICAL PAYMENT LINE.
- ALL SELECT STRUCTURAL FILL AND SUBBASE MATERIAL SHALL BE COMPACTED TO 95% OF MAXIMUM DRY DENSITY.

STREAM PROTECTION NOTES

- DURING THE COURSE OF CONSTRUCTION, THE CONTRACTOR SHALL CONDUCT OPERATIONS IN SUCH A MANNER AS TO PREVENT OR REDUCE TO A MINIMUM ANY DAMAGE TO ANY STREAM FROM POLLUTION BY DEBRIS, SEDIMENT, OR OTHER FOREIGN MATERIAL, OR FROM MANIPULATION OF EQUIPMENT AND/OR MATERIALS IN OR NEAR SUCH STREAMS. THE CONTRACTOR SHALL NOT RETURN DIRECTLY TO A STREAM ANY WATER WHICH HAS BEEN USED FOR WASH PURPOSES OR OTHER SIMILAR OPERATIONS WHICH CAUSE THIS WATER TO BECOME POLLUTED WITH SAND, SILT, CEMENT, OIL, OR OTHER IMPURITIES. IF THE CONTRACTOR USES WATER FROM A STREAM, THE CONTRACTOR SHALL CONSTRUCT AN INTAKE OR TEMPORARY DAM REQUIRED TO PROTECT AND MAINTAIN WATER RIGHTS AND TO SUSTAIN FISH LIFE DOWNSTREAM.
- CONEWANGO CREEK IS DESIGNATED AS "C" BY THE WATER QUALITY STANDARDS.

MAINTENANCE AND PROTECTION OF TRAFFIC NOTES:

THE CONTRACTOR SHALL CLOSE THE BRIDGE AND MAINTAIN THE BRIDGE CLOSURE AND ALL SIGNAGE WITHIN 500 FEET OF THE BRIDGE. THE COUNTY SHALL POST AND MAINTAIN THE DETOUR AND ALL SIGNAGE BEYOND 500 FEET OF THE BRIDGE. SEE DETOUR PLAN IN SPECIFICATION BOOK FOR CLOSURE DETAILS.

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DATE		DATE	
CK		MCB	

SCALE:		AS NOTED	
DWG.		MJM	
DGN.		MJM	
TR.			

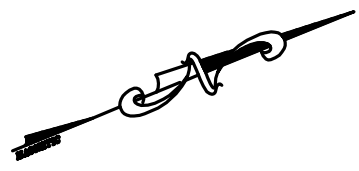
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CATTARAUGUS COUNTY	
DEPARTMENT OF PUBLIC WORKS	
8610 NYS ROUTE 242	
LITTLE VALLEY, NEW YORK 14755	
716-938-9121	

GENERAL NOTES AND QUANTITIES	
TOWN OF LEON	
SMITH ROAD	
LEON BRIDGE No. 35 OVER CONEWANGO CREEK	
INTERSECTION SMITH ROAD AND FROG VALLEY ROAD	

SHEET	OF
2	10
PROJECT NO. H.5198.25086	

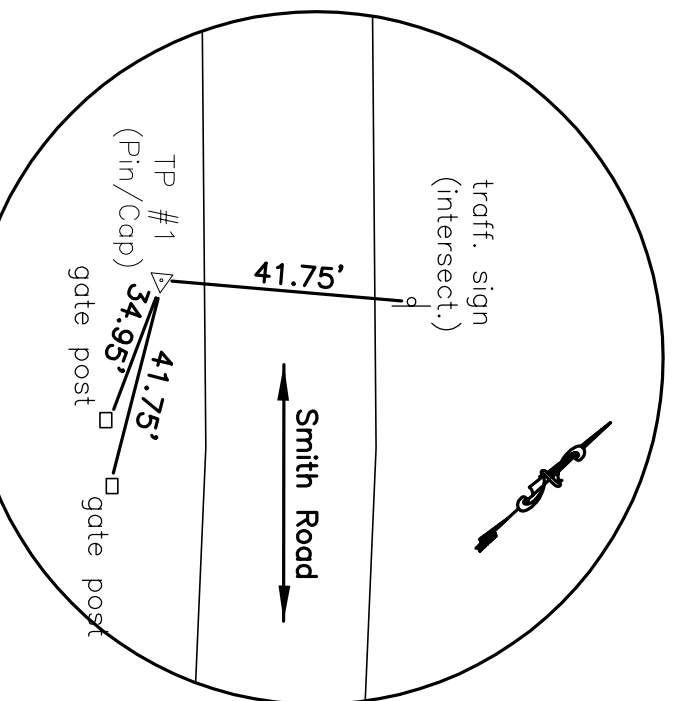
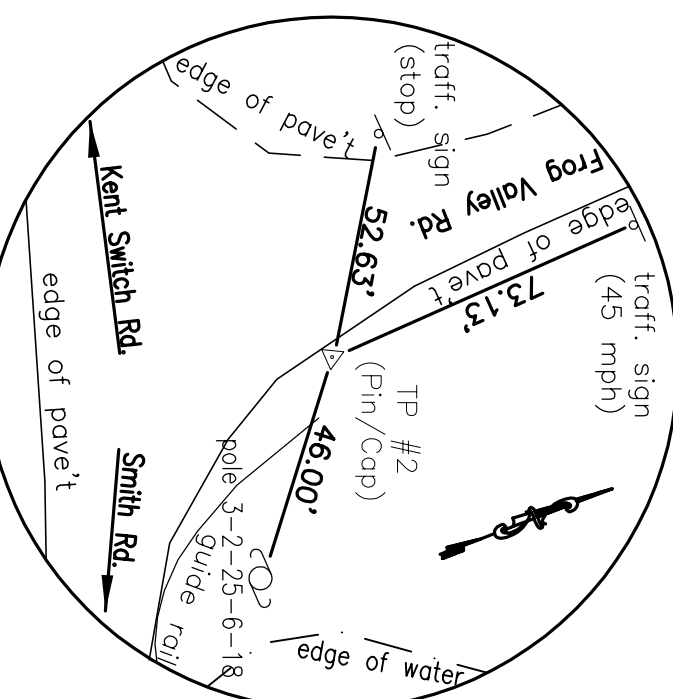
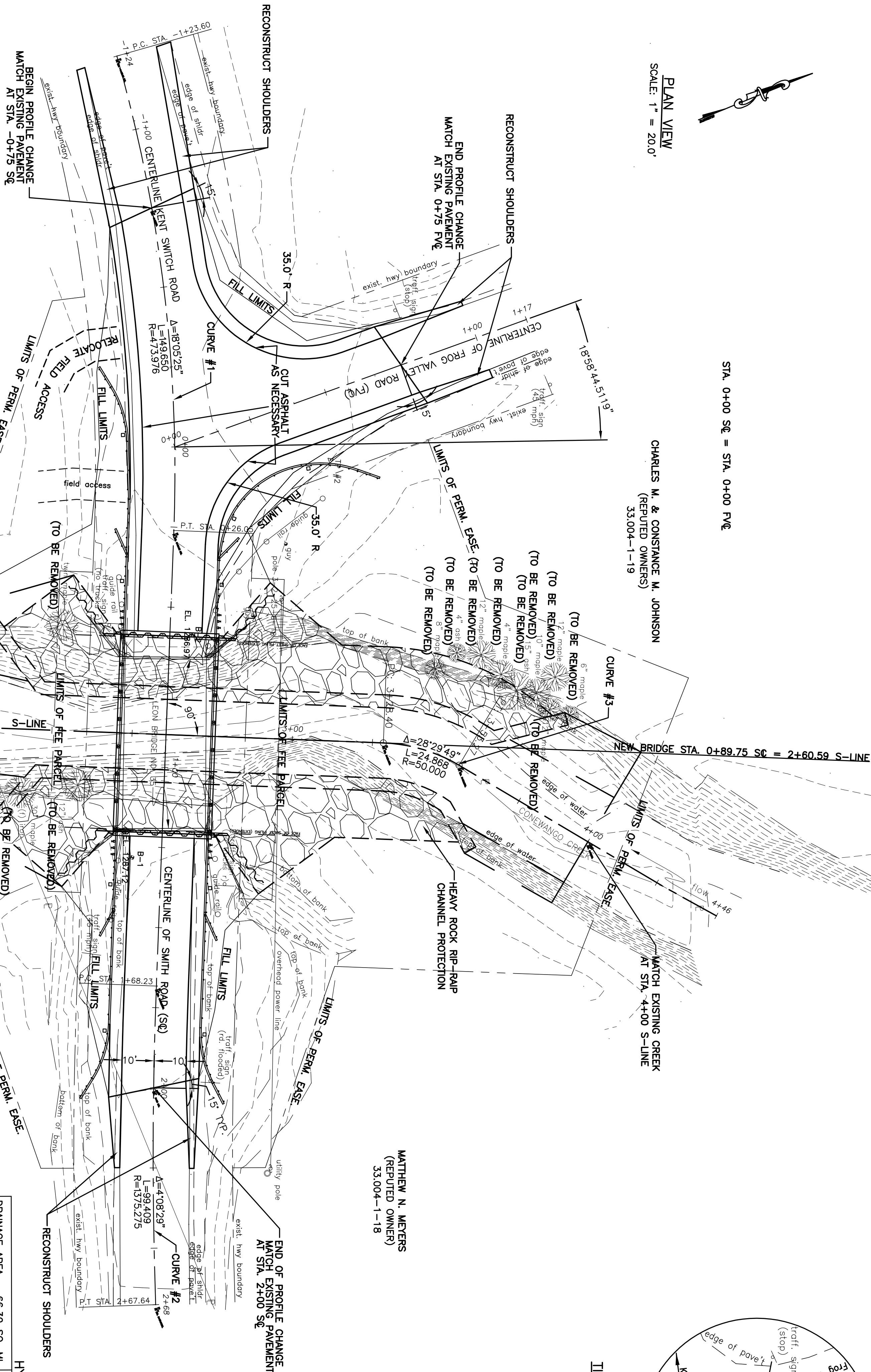
NOTE:
BASELINE/CONSTRUCTION LINE STATIONING IS ESTABLISHED FOR CONSTRUCTION PURPOSES ONLY, AND MAY OR MAY NOT BE CONCORDANT WITH CORRECT LOT LINES, INDIVIDUAL PROPERTY LINES, OR FUTURE/ESTABLISHED STATIONING.



STA. 0+00 SCL = STA. 0+00 FVCL

PLAN VIEW
SCALE: 1" = 20.0'

CHARLES M. & CONSTANCE M. JOHNSON
(REPUTED OWNERS)
33.004-1-19



NOT TO SCALE

TIE POINTS – TP #2

N. - 84/80/2/
E. - 1021927.96
EL. - 1283.69

NOT TO SCALE

THE POINTS - TP #1

N. - 847579.01'
E. - 1022303.61'

Point Table		
Nothing	Easting	Description
847666.56	1021960.23	P1 STA. +1+93.69SL
847836.69	1022068.47	STA. 4+000SL
847650.62	1021950.50	STA. +1+75SL
847785.42	1021834.06	STA. -0+735SL
847662.32	1022068.41	STA. 2+00 SCL
847793.21	1021786.11	PC STA. -1+23.60 SCL
847753.79	1021929.83	PT STA. 0+26.03 SCL
847695.10	1022059.33	PC STA. +1+68.23SCL
847654.47	1021953.57	P1 STA. +1+79.74SL
847789.26	1022015.64	PC STA. 3+28.40SL
847808.48	1022031.21	PT STA. 3+53.27SL
847657.36	1022151.28	PT STA. 2+67.64SCL

[illegible]

DESCRIPTION	EXISTING	PROPOSED
OPENING (norm. to structure)	54.70'	61.50'
CLEAR SPAN	53.50'	60.12'
CLEAR HEIGHT	12.50'	14.60'
SKIEW	SQUARE	SQUARE
LOW MEMBER ELEV.	1284.78'	1284.78'
ROADWAY ELEVATION	1287.60'	1287.60'
CREEK ELEVATION QUANT.	1287.11'	975 C.Y.
ROCK RIP-RAP QUANT.	—	1025 TONS

PLAN VIEW

TOWN OF LEON

SMITH ROAD

LEON BRIDGE NO. 35 OVER CONEWANGO CREEK

INTERSECTION SMITH ROAD AND FROG VALLEY ROAD

CATTARAUGUS COUNTY
DEPARTMENT OF PUBLIC WORKS
8810 NYS ROUTE 242
LITTLE VALLEY, NEW YORK 14755
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SURVEY #		C-38-16	
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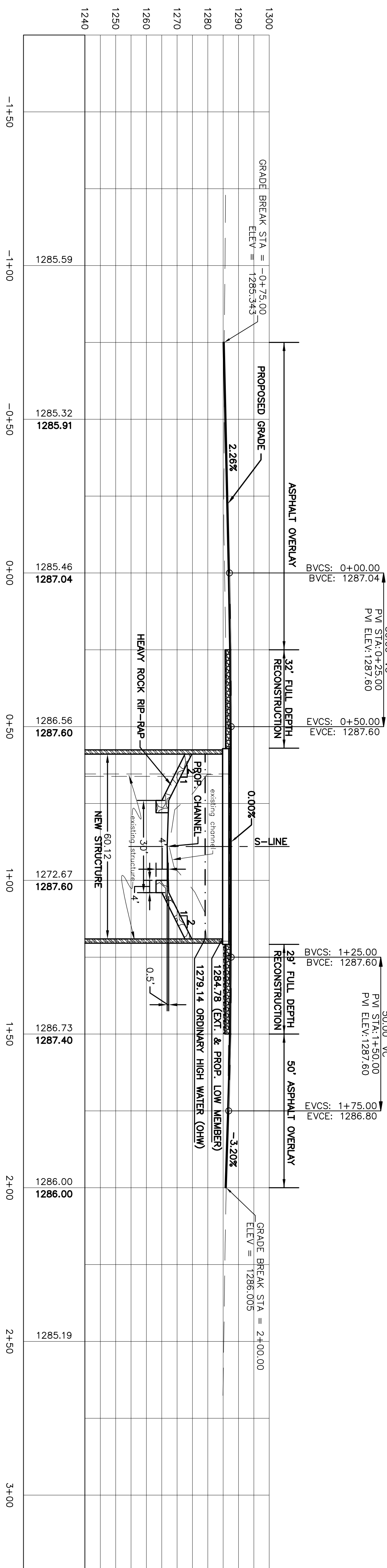
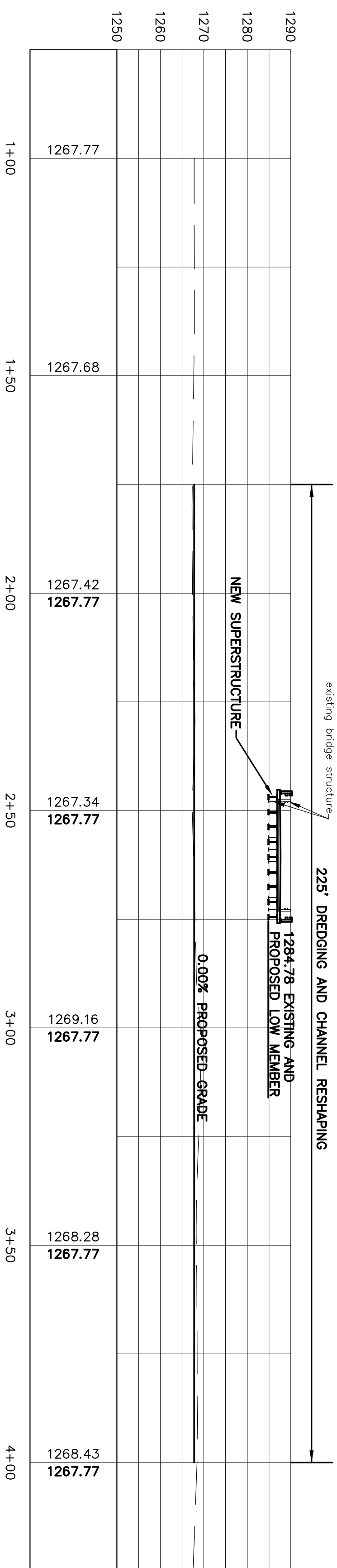
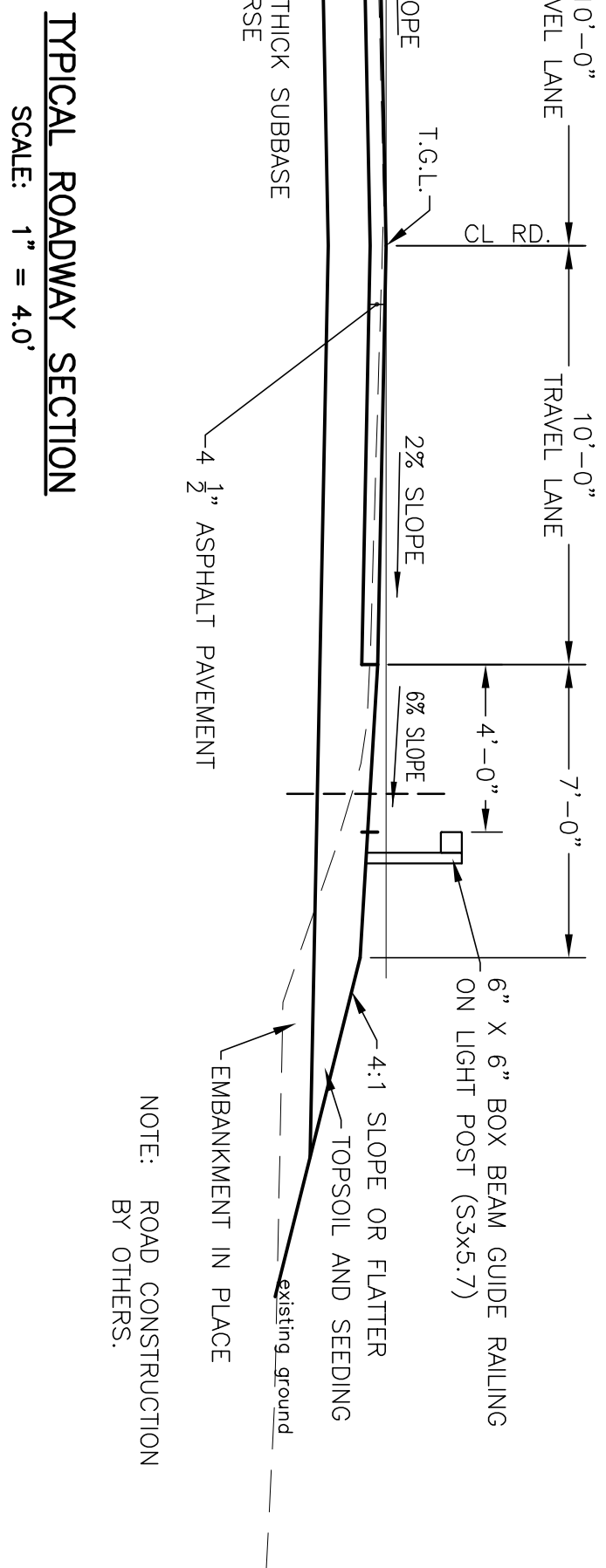
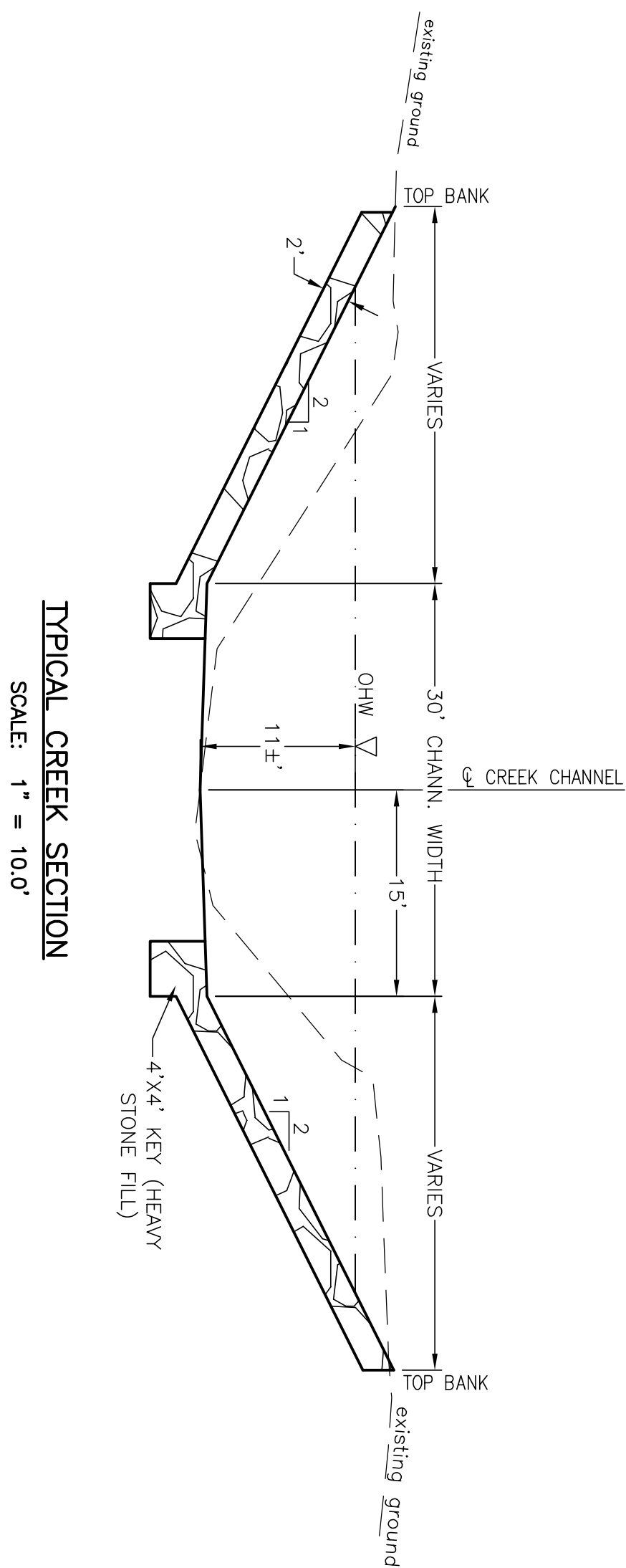
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REVISIONS			DATE			
DWG.	MJM	DGN.	MJM	TR.	CK.	MCB

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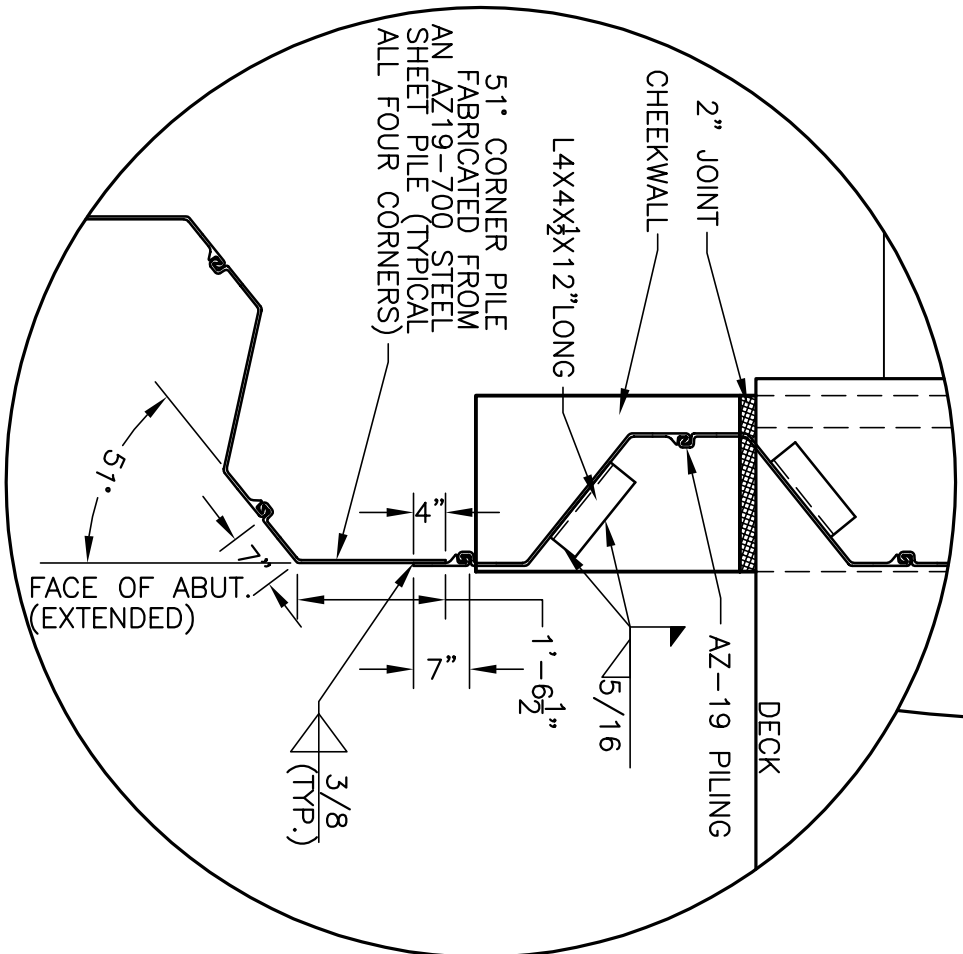
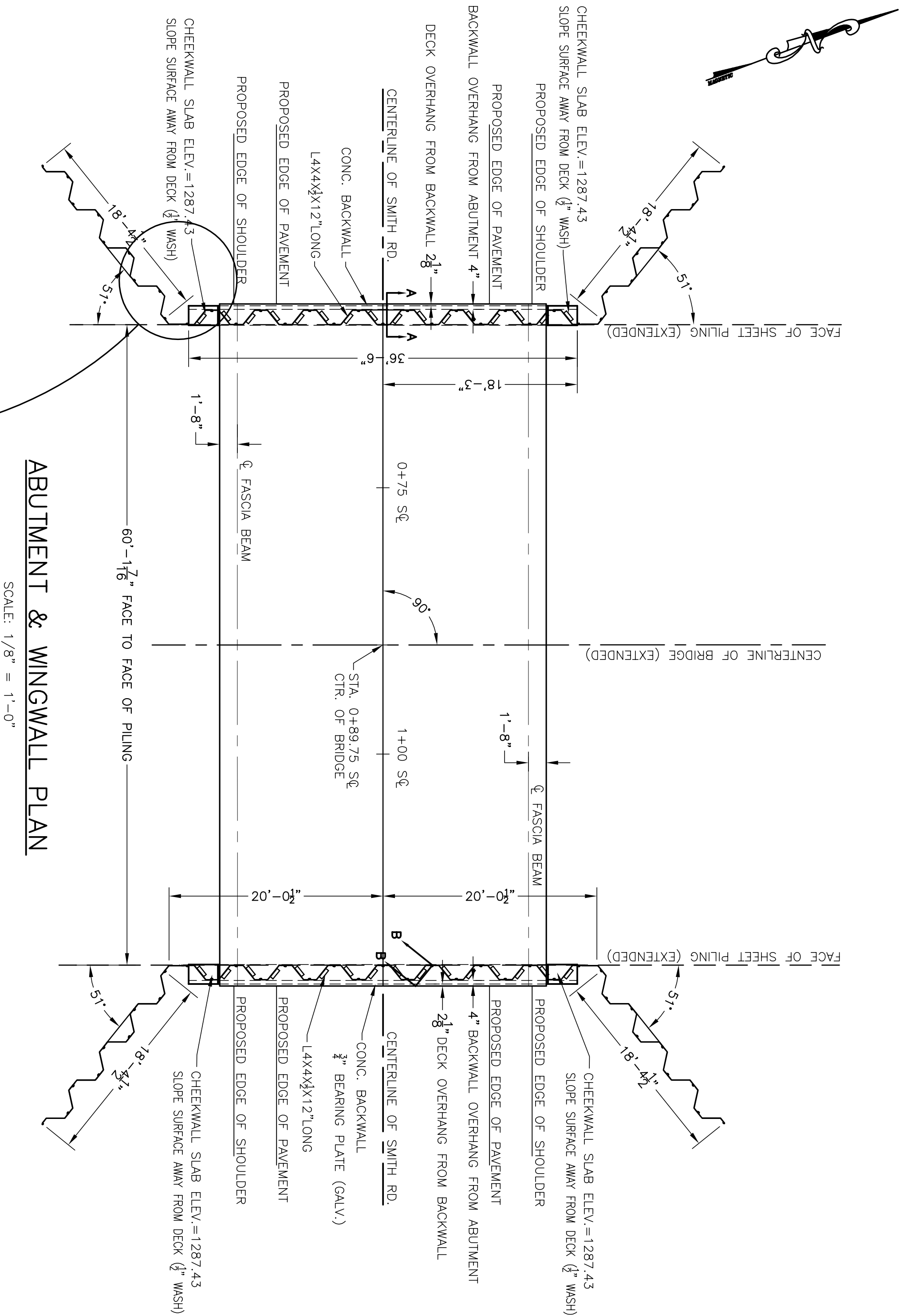
SHEET OF

310

PROJECT NO.
H.5198.25086

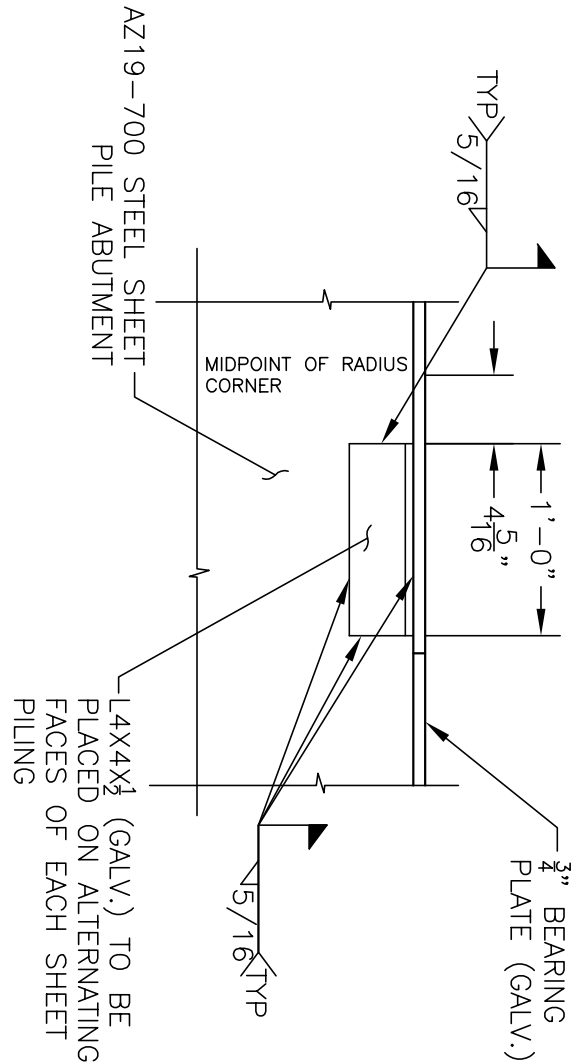


NOTE: BASELINE/CONSTRUCTION LINE STATIONING IS ESTABLISHED FOR CONSTRUCTION PURPOSES ONLY, AND MAY OR MAY NOT BE COINCIDENTAL WITH GREAT LOT LINES, INDIVIDUAL PROPERTY LINES, OR PREVIOUSLY ESTABLISHED STATIONING.

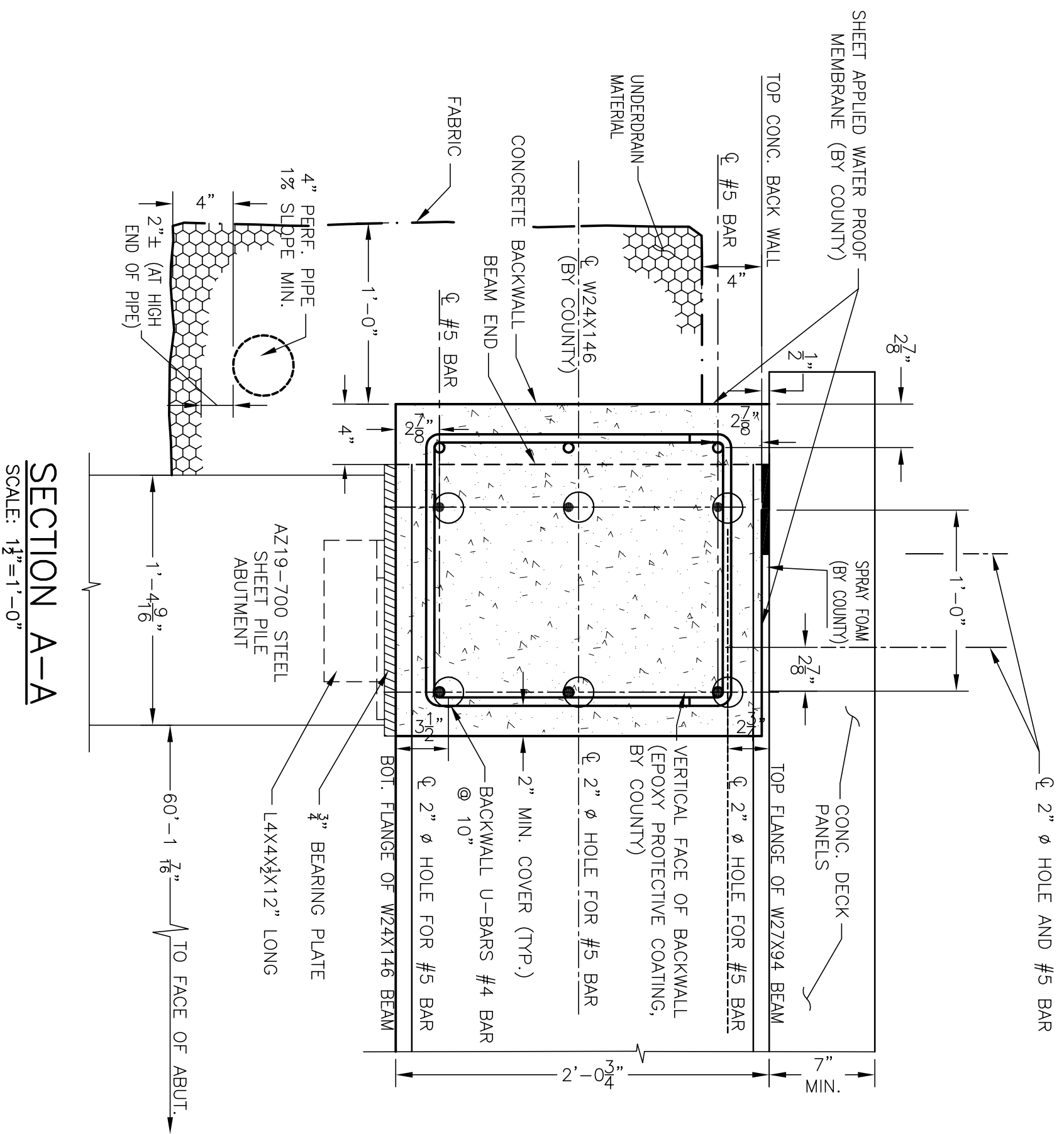


Z SHEET	HOT ROLLED OR COLD FORMED	SECTION MODULUS IN ³ /FT	MOMENT OF INERTIA IN ⁴ /FT	DIMENSIONS (INCHES)				AREA		MASS		MATERIAL SPECIFICATION	YIELD STRENGTH (MN)
				b	h	d	e	CROSS-SECTION IN ² /FT	COATING FT ² /FT (BOTH SIDES)	LBS/FT SINGLE SHEET	LBS/FT ² SHORED WALL		
AZ19-700	H	34.8	286.4	27.56	16.56	0.375	0.375	7.18	6.10	53.77	23.41	ASTM A572	50 KSI

NOTE: SHEET PILING SHALL BE PAID FOR UNDER ITEM 552.11.
ALL OTHER STEEL INCLUDING BUT NOT LIMITED TO PLATES
AND ANGLES THAT ARE PART OF THE ABUTMENT SHALL BE
PAID FOR UNDER ITEM 564.0501. ONLY HOT ROLLED SHEET
PILING WILL BE ALLOWED



NOTE: ALL ANGLES AND STEEL PLATES SHALL BE GALVANIZED AND FIELD WELDS SHALL BE COLD GALVANIZED. GALVANIZATION OF STEEL PRODUCTS WILL BE DONE IN ACCORDANCE TO SECTION 719-01 OF THE STANDARD SPECIFICATION. COSTS FOR GALVANIZING WILL BE INCLUDED IN ITEM 564.0501. NO SEPARATE PAYMENT FOR GALVANIZING WILL BE MADE.



NOTE: BASELINE CONSTRUCTION LINE STATIONING IS ESTABLISHED FOR CONSTRUCTION PURPOSES ONLY. ANY AND MAY OR MAY NOT BE CONCORDANT WITH ON-SITE LOT LINES, INDIVIDUAL PROPERTY LINES, OR PARADIGM ESTABLISHED STATIONING.

PROJECT NO.
H-5198-2586

SHEET
OF
610

ABUTMENT& WINGWALL PLAN

TOWN OF LEON
SMITH ROAD
LEON BRIDGE NO. 35 OVER CONEWANGO CREEK
INTERSECTION SMITH ROAD AND FROG VALLEY ROAD

CATTARAUGUS COUNTY
DEPARTMENT OF PUBLIC WORKS
8610 NYS ROUTE 242
LITTLE VALLEY, NEW YORK 14755
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SURVEY #
C-38-16

BK. 313

PG. 4

LOT T

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DATE:
APR '17

REVISIONS

DWG. MJM

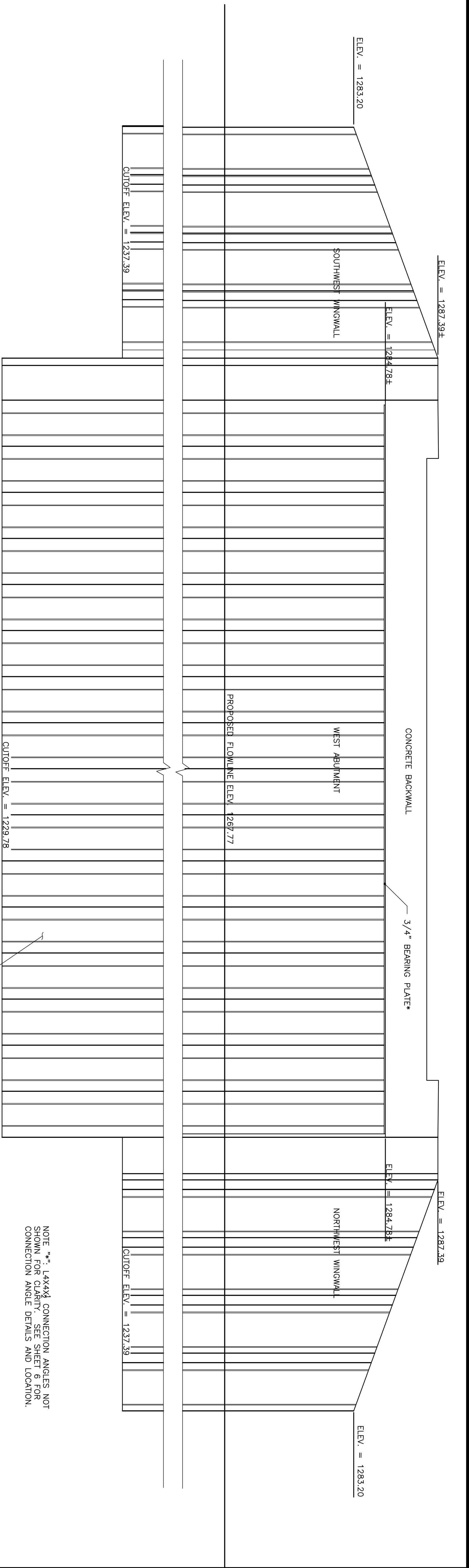
DGN. WAF

TR.

CK. MCB

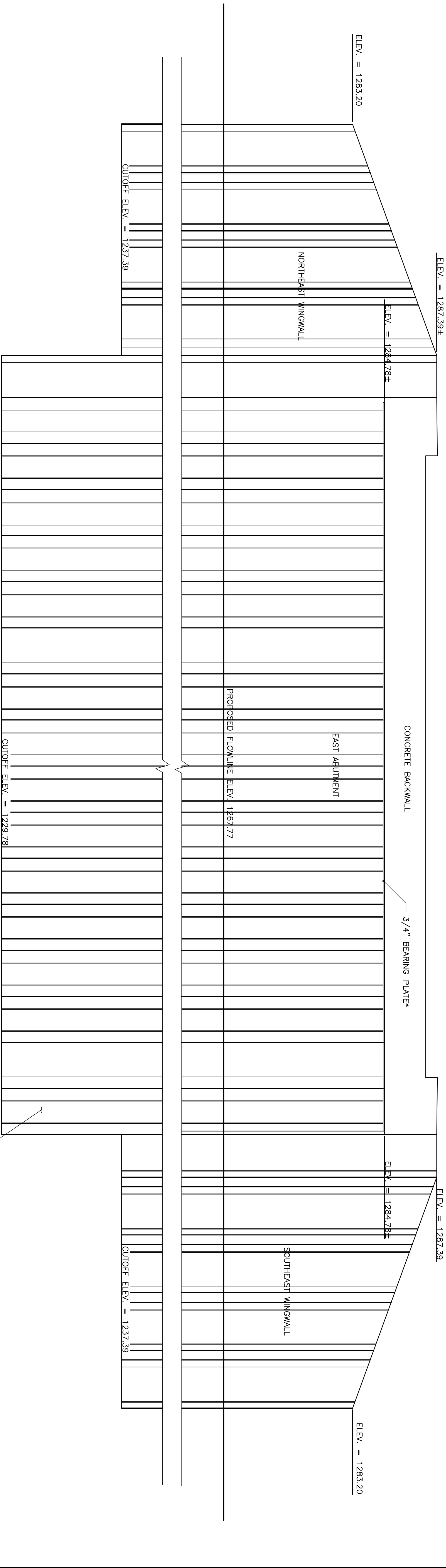
DATE

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WEST ABUTMENT ELEVATION

SCALE: 3/8" = 1'-0"



EAST ABUTMENT ELEVATION

SCALE: 3/8" = 1'-0"

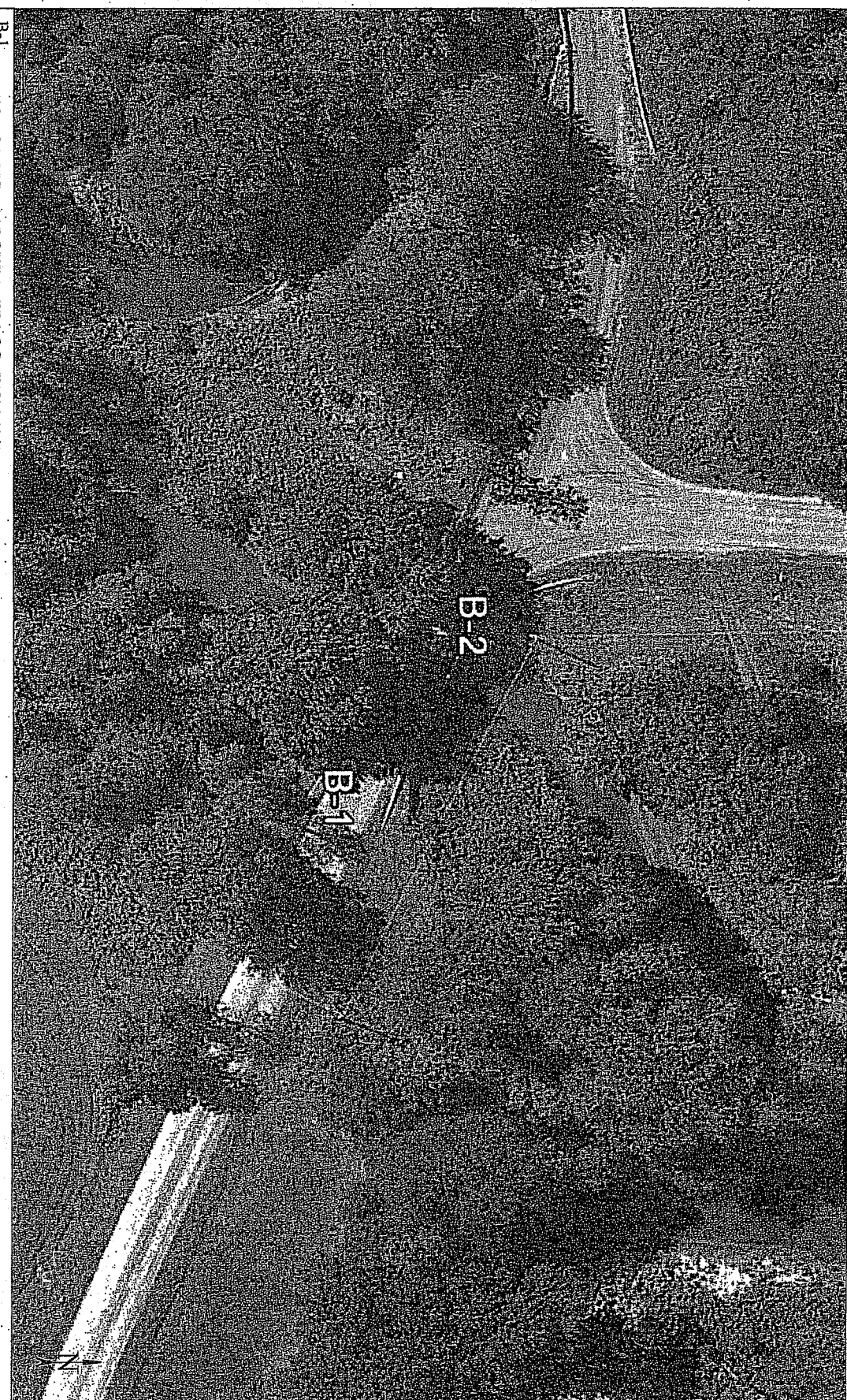
NOTE "A": 14x44" CONNECTION ANGLES NOT SHOWN FOR CLARITY. SEE SHEET 6 FOR CONNECTION ANGLE DETAILS AND LOCATION.

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<div>BK.313PG.4</div>		<div>LOT T R</div>		<div>REVISIONS</div>		<div>DATE</div>	
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				<div>CK. MCB</div>			

<div>ABUTMENT ELEVATION PLAN</div>		<div>TOWN OF LEON</div>	
<div>SMITH ROAD</div>		<div>LEON BRIDGE NO. 35 OVER CONEWANGO CREEK</div>	
<div>INTERSECTION SMITH ROAD AND FROG VALLEY ROAD</div>			


<div>SHEET7</div>	<div>OF10</div>
<div>PROJECT NO. H-5198-25086</div>	

<div>CATTARAUGUS COUNTY</div>		<div>DEPARTMENT OF PUBLIC WORKS</div>	
<div>8810 NYS ROUTE 242</div>		<div>LITTLE VALLEY, NEW YORK 14755</div>	
<div>716-938-9121</div>			



B-1
 INDICATES APPROXIMATE LOCATION AND DESIGNATION OF TEST BORING.

NOTE: FIGURE DEVELOPED FROM AS DRILLED LOCATIONS

SUBSURFACE EXPLORATION PLAN		LEON BRIDGE 35 XURA SMITH ROAD OVER CONEWAUNGO CREEK LEON, NEW YORK
	DR BY: GQ CHD BY: GQ DATE: 10/25/16	

[illegible]

DATE: 10/13/2016

START: 10/14/2016

FINISH: 10/14/2016

SHEET: 1 OF 3

SUB SERVICES, INC.

SUBSURFACE LOG

HOLE NO. B-2

SURF. ELEV. _____

G.W. DEPTH _____ See Notes


[illegible]

S, INC.
E LOG

PROJ. NO. _____
HOLE NO. _____
SURF. ELEV. _____
G.W. DEPTH. _____

DATE: _____
START: 10/17/2016
FINISH: 10/18/2016
SHEET: 2 OF 3

SUB SERVICES, INC.
SUBSURFACE LOG



HOLE NO. B-1
SURF. ELEV. _____
G.W. DEPTH. _____
Sss Notes _____

PROJECT: LEON BRIDGE #35
PROJ. NO. BD-16-10
LOCATION: XILISA SMITH ROAD
LEON, NY

DEPTH	SOIL	SPT	REMARKS OR EXPLANATION			SOIL OR ROCK CLASSIFICATION	NOTES
			1	2	3		
12	1	3					Groundwater at 10' upon completion, and 10' below after completion.
12	2	2					
13	1	1					
13	3	1					
45							Runflg, 2.5'-5.0' 95% Recovery 50% RPD

DATE: _____						HOLE NO. B-2. _____					
START TIME: _____						SURF. ELEV. _____					
FINISH _____						G.W. DEPTH _____ See Notes					
SHEET 2 OF 3											
PROJECT: LEON BRIDGE #B5											
PROJ. NO. BD-16-110											
LOCATION: XURA SMITH ROAD LEON, IN.											
DEPTH						SOIL OR ROCK CLASSIFICATION					
NO. OF		TYPE OF SAMPLES									
IN	OUT	TEST	TYPE	N							
12	3	5		9							
—	4	6									
46	13	4	6								
—	4	5		10							
—	—	—	—	—							
30	—	—	—	—							

(well firm)




TABLE II			
Identification and soil type is made on basis of an estimate of particle sizes, and the value of the grain soil also			
Soil type	Soil Particle Size		
<input checked="" type="checkbox"/> Sand <input type="checkbox"/> Silt <input type="checkbox"/> Clay	> 12"		
<input type="checkbox"/> Gravel <input type="checkbox"/> Gravel-Cobble <input type="checkbox"/> Gravel or Sand <input type="checkbox"/> Fine <input type="checkbox"/> Sand <input type="checkbox"/> Fine	3" - 12" 3/4" - 3" 3/4" - 1/4" (granular) 1/4" - 3/16" #40 - #200 #40 - #200	Coarse Gravel Coarse Gravel (granular) Coarse Gravel Fine Sand Fine	
<input type="checkbox"/> Rock <input type="checkbox"/> Rock Core	> 200"	Fine Grained	

TABLE IV			
The relative compactness or consistency is described in accordance with the following terms			
Term	Browse per Foot N	Consistency State	Browse per Foot N
Loose	0 - 4	Very Soft	0 - 2
Loose	4 - 10	Medium	2 - 4
Firm	10 - 30	Hard	4 - 8
Compact	30 - 50	Very Stiff	8 - 20
Very Compact	> 50	Hard	> 30

(Note: particles in the soils will often significantly influence the browse per foot recorded during the penetration test)

TABLE III			
The following terms are used in classifying soils consisting of mixtures of two or more soil types. The relative is based on weight of the samples.			
Term	Percent of Total Sample		
Trace	less than 10		
Slight	10 - 20		
Small	20 - 34		
Medium	34 - 49		
Large	49 - 64		
Very Large	64 - 79		
Extremely Large	79 - 94		
Very Extremly Large	94 - 100		

(When sampling gravelly soils with a standard split spoon, the per centage of gravel is often not determined, use the term "relatively sand sampler")

TABLE V			
Varved			
Layer	Horizontal uniform layers or seams of soil		
Layer	Soil deposit more than 1" thick		
Sham	Soil deposit less than 1" thick		
Parting	Soil deposit less than 1/8" thick		
Laminated	Irregular, horizontal and angled seams and parting of soils		

TABLE III																		
The following terms are used in classifying soils consisting of mixtures of two or more soil types. The estimate is based on weight of total sample.																		
Term	Percent of Total Sample																	
"sand"	35 - 50																	
"silt"	20 - 35																	
"clay"	10 - 20																	
"trace"	less than 10																	
(When sampling gravelly soils with a standard split spoon, the true percentage of gravel is often not apparent. It is due to the relatively small sample diameter.)																		
TABLE V																		
Varved	Horizontal uniform layers or seams of soils (a)																	
Layer	Soil deposit more than 6" thick																	
Stain	Soil deposit less than 6" thick																	
Parting	Soil deposit less than 1/8" thick																	
Laminated (irregular, horizontal and angled seams and partings of soils).																		

	17	20	32	(moist-wet, compact, GC-SM)
55	15	10	13	(firm)
	14	18	27	
60	16	6	8	Gray Silty CLAY, h-sand (moist, stiff, CL)
	5	11	13	Contains Silt partings
	17	8	9	(v. stiff)
	10	13	19	
70	18	1	2	Gray fine SAND, some Clayey Silt
	4	6	6	(moist-wet, loose, GC-SM)
75	19	3	2	(wet)
	4	3	6	

Rock Classification Term	Meaning
Fieldress	- Soil
- Medium hand	- Scratched easily by penknife
- Hard	- Scratched with difficulty by penknife
- Very hard	- Cannot be scratched by penknife
Weathering	- Judged from the relative amounts of disintegration, from staining, color
- Well-weathered	

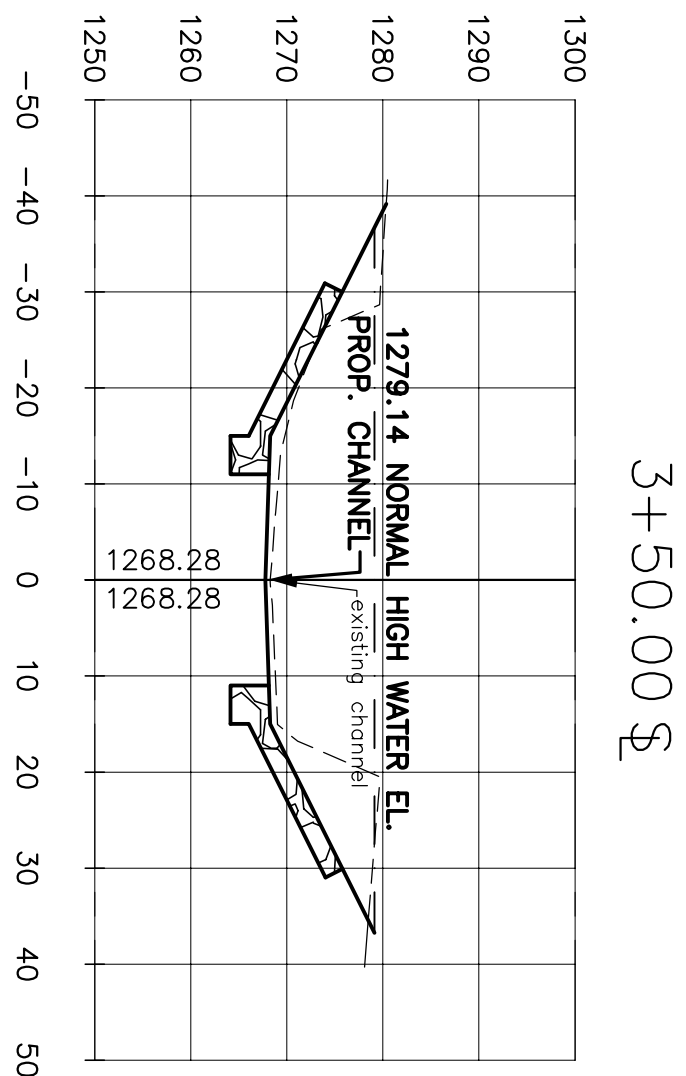
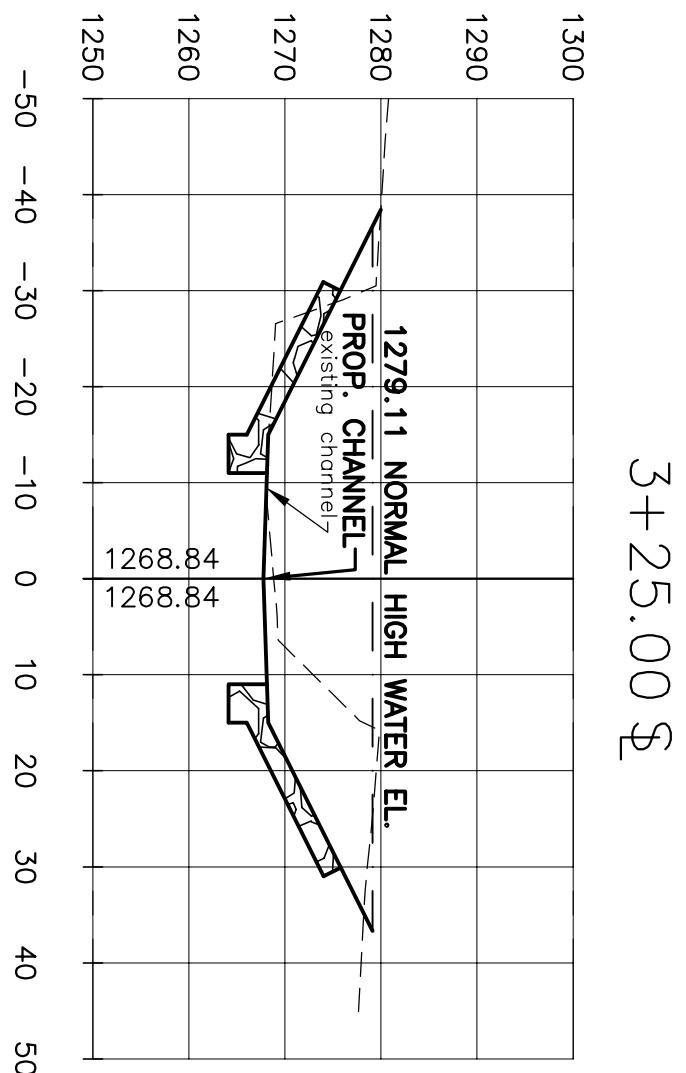
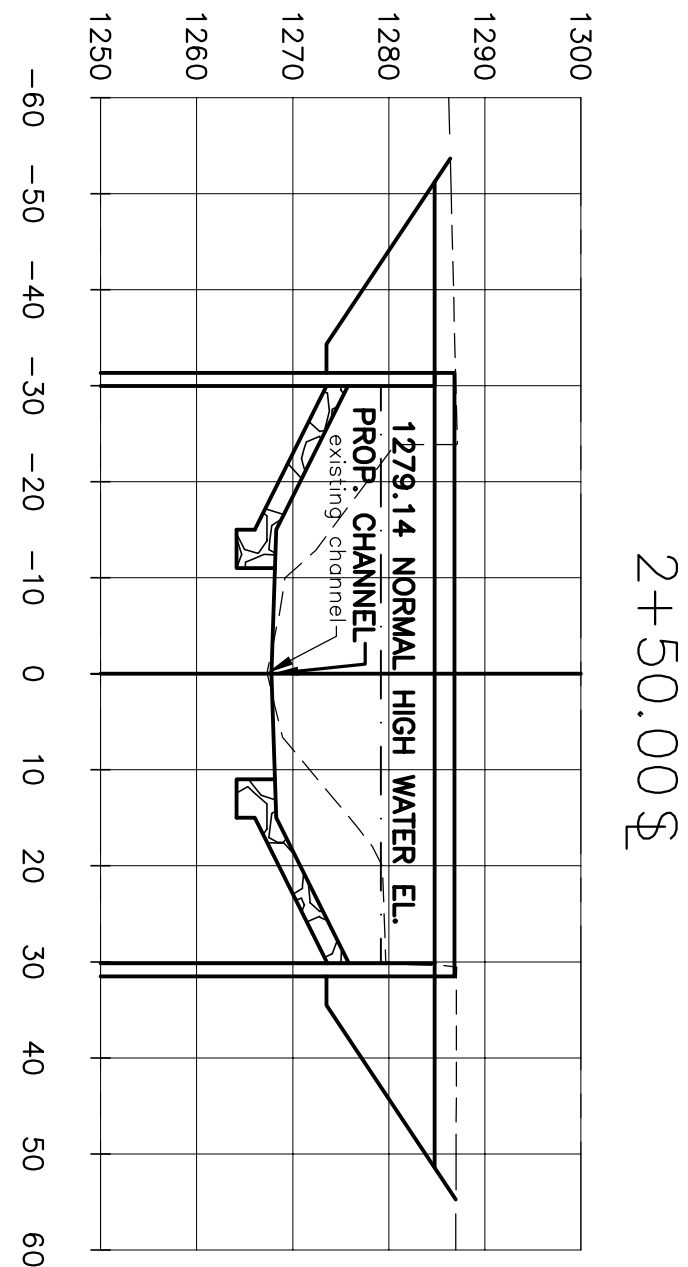
Rock Classification Term	Meaning
Bedding	- (-1)
- Laminated	- (1 ⁺ - 4)
- Thin Bedded	- (4 ⁺ - 12)
- Bedded	- Natural breaks in rock layers
- Thick Bedded	- (12 - 39)
- Massive	- (>39)

(Fracturing refers to natural breaks in the rock oriented at some

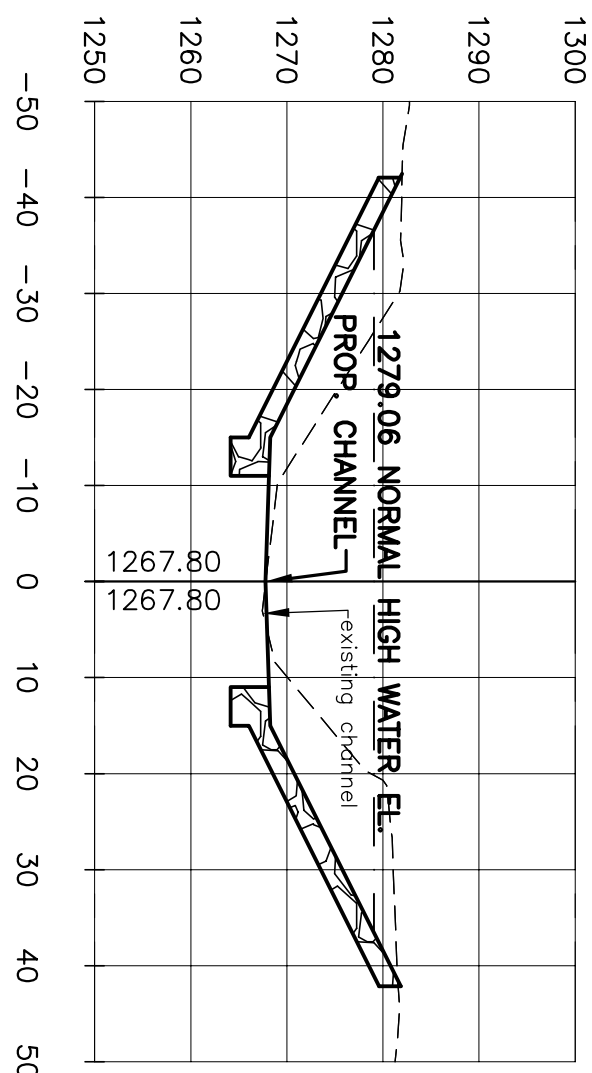
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IN-NO BLADES TO DRIVE AND SPOON 8 INCHES WITH A HALL PAVY FILLING AND OTHERS BLOW
 PRIMER _____ 6 DELUDE _____ BALL AND TYPE _____ DIEDRON D-50 _____
 METHOD OF INVESTIGATION ZSMIT D-586 USING FOLLOW UP RESEARCHERS _____

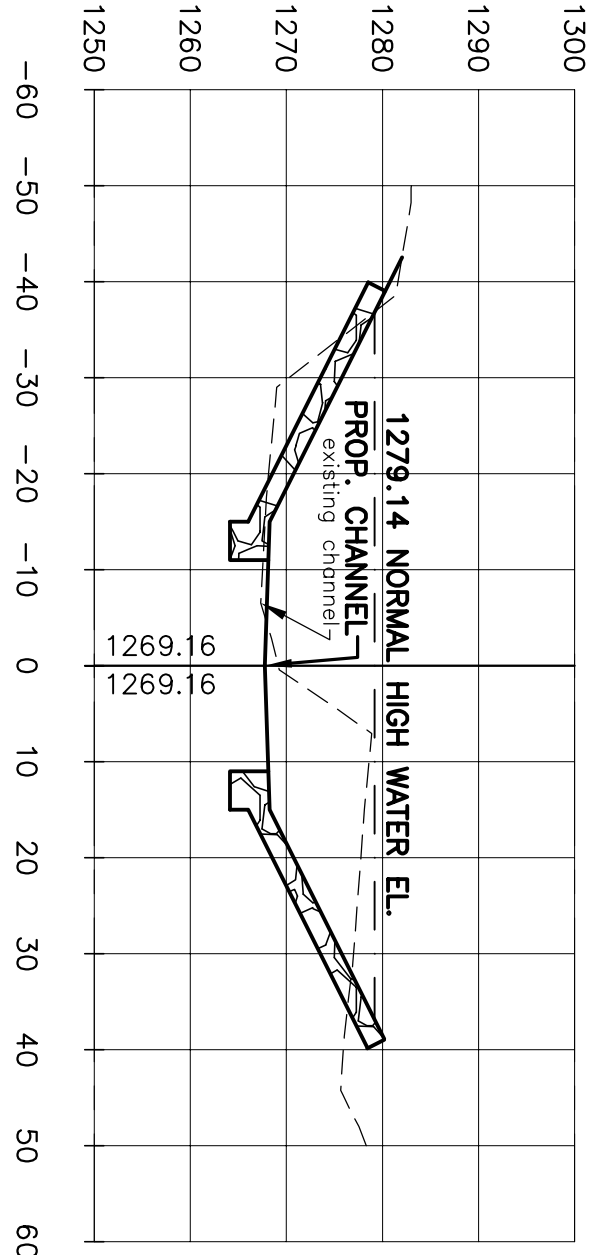
CLASSIFIED BY: _____
 DECLASSIFIED _____



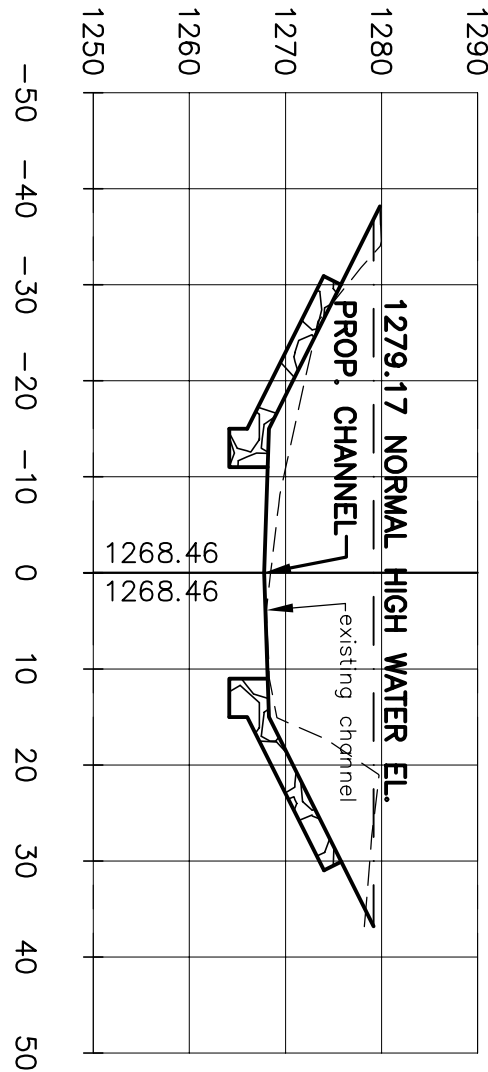
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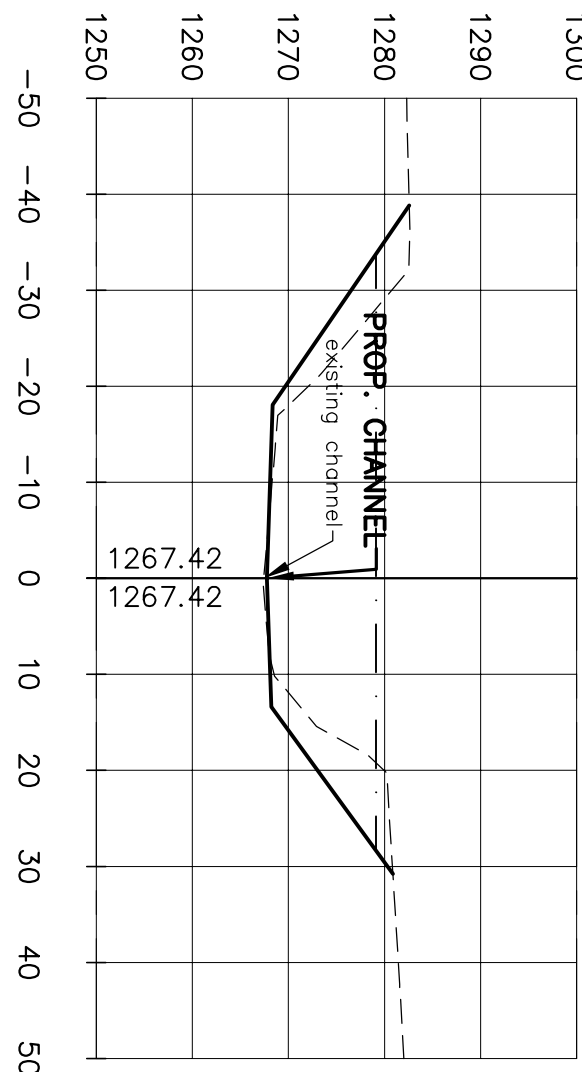
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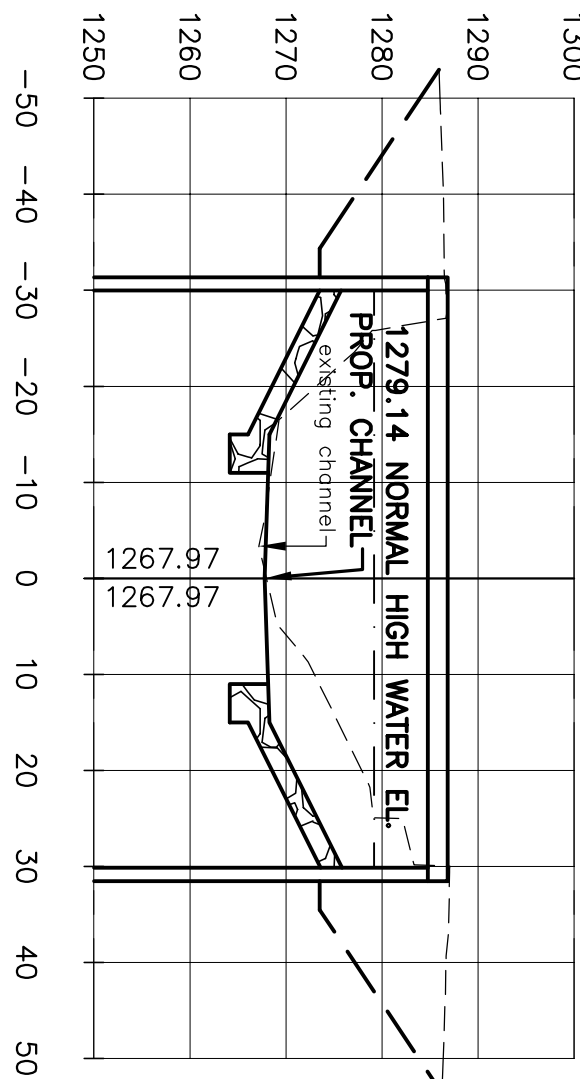
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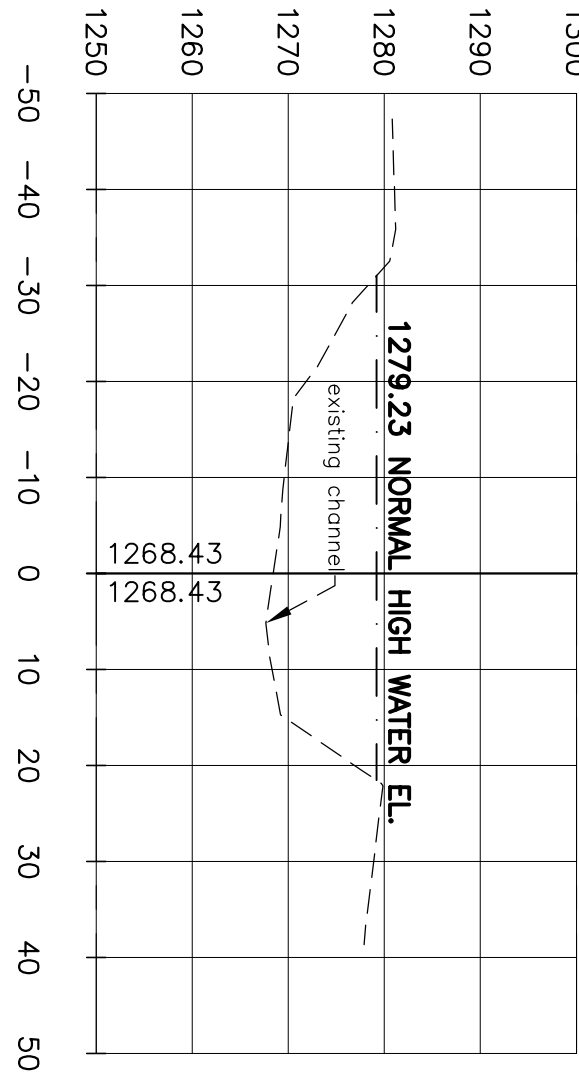
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2+75.00 £

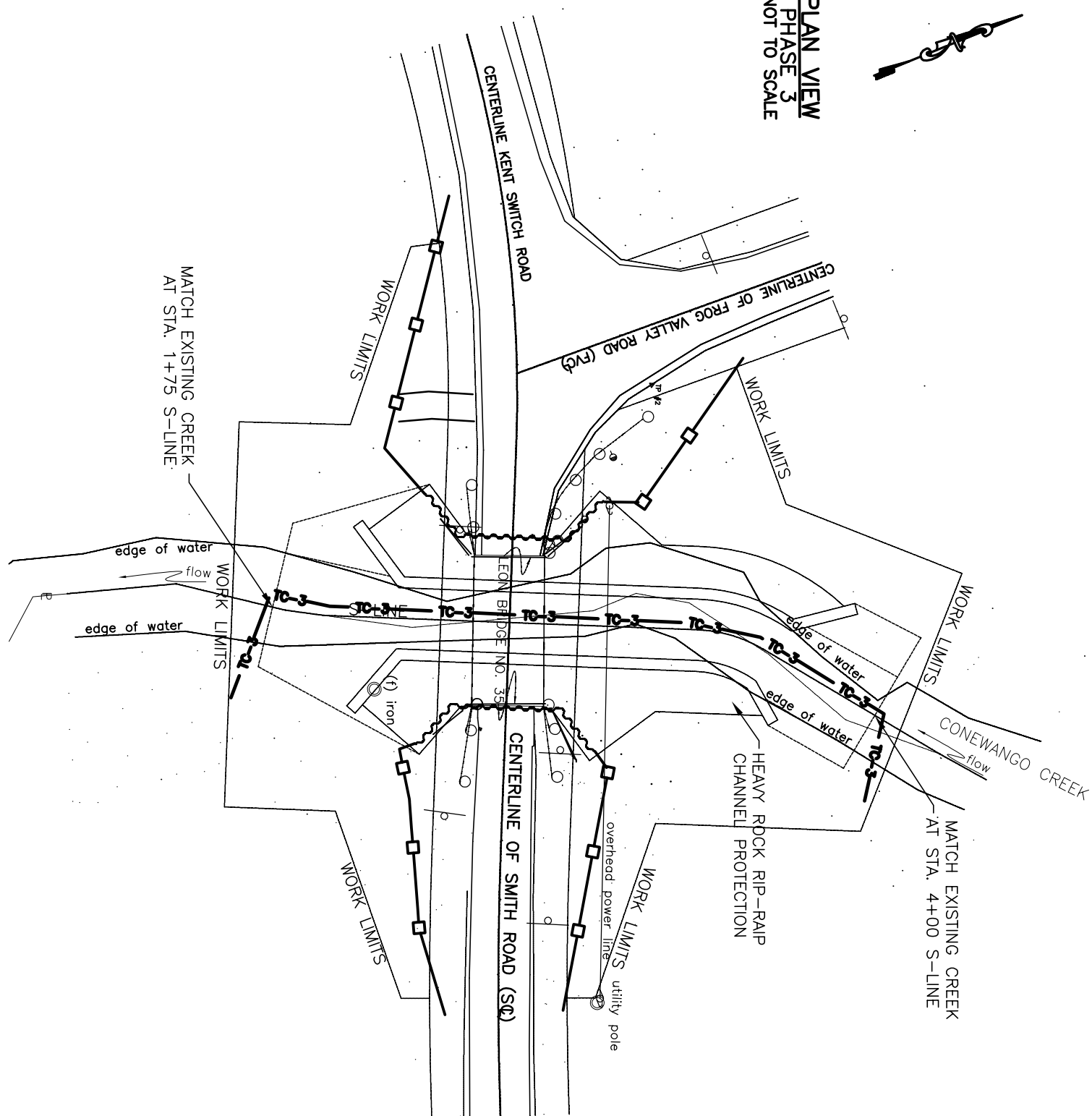
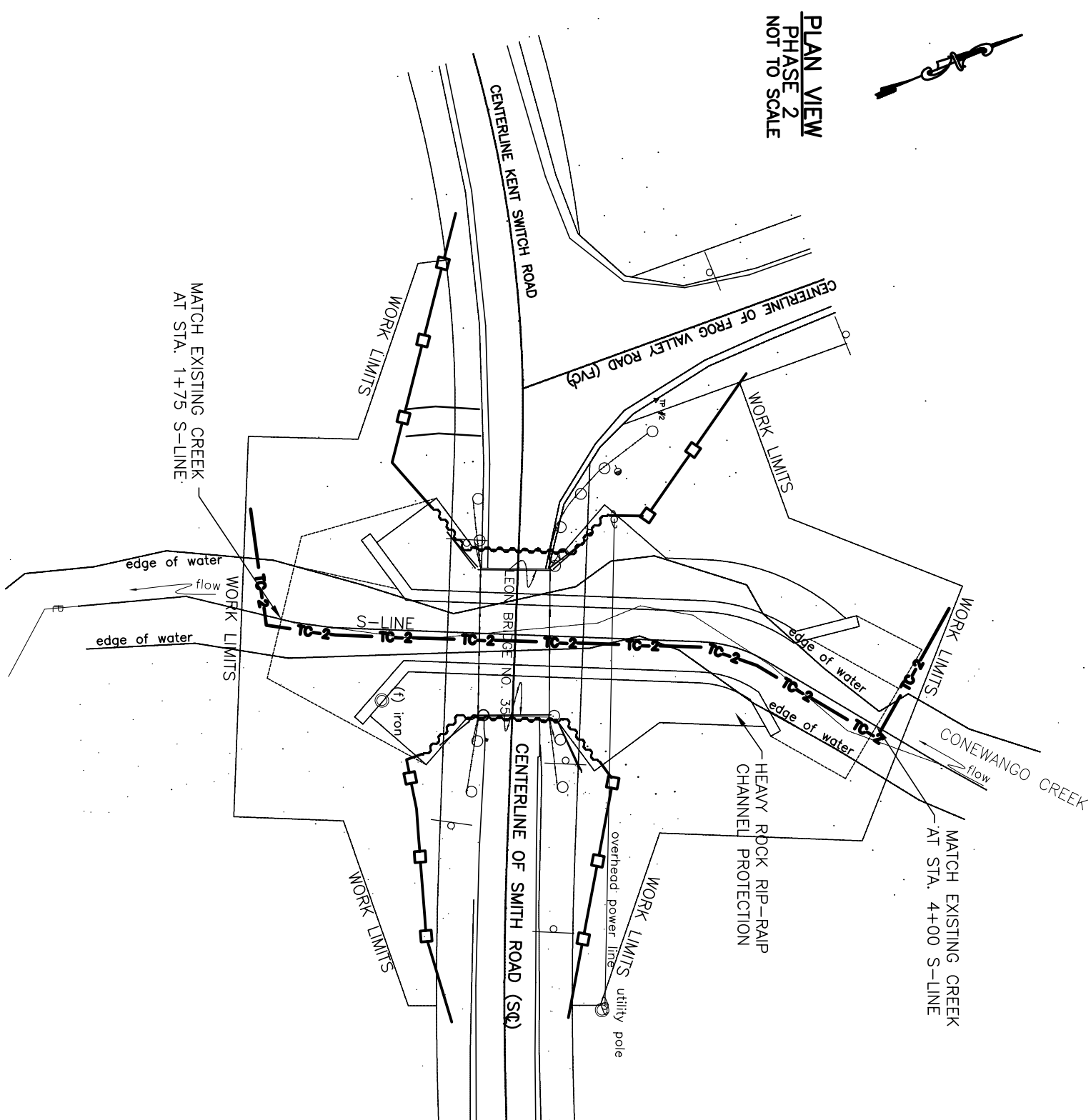
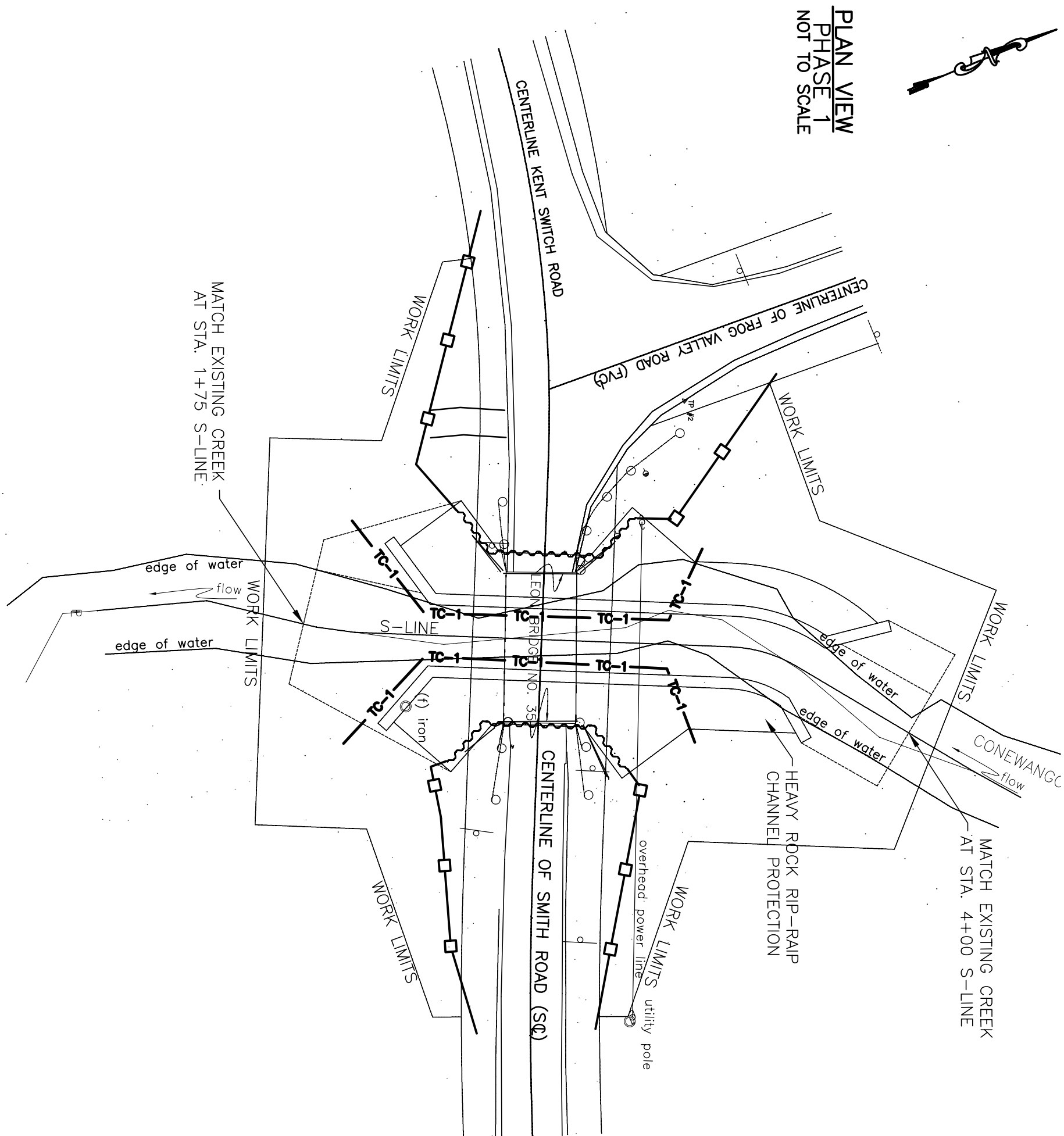


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NOTE:
BASELINE/CONSTRUCTION LINE STATIONING IS ESTABLISHED FOR CONSTRUCTION PURPOSES ONLY. AND MAY OR MAY NOT
BE CONCORDANT WITH CORRECT LOT LINES, INDIVIDUAL PROPERTY LINES, OR FARBROUSE ESTABLISHED STATIONING.

PROJECT NO. H.5198.25086		SHEET OF 910		CREEK CROSS SECTIONS		TOWN OF LEON SMITH ROAD LEON BRIDGE NO. 35 OVER CONEWANGO CREEK INTERSECTION SMITH ROAD AND FROG VALLEY ROAD		CATTARAUGUS COUNTY DEPARTMENT OF PUBLIC WORKS 8810 NYS ROUTE 242 LITTLE VALLEY, NEW YORK 14755 716-938-9121		SURVEY # BK. PG. LOT T R UNAUTHORIZED ALTERATION OR ADDITION TO THIS DOCUMENT IS A VIOLATION OF SECTION 7209 OF THE NEW YORK STATE EDUCATION LAW CAD DRAWING: DO NOT EDIT MANUALLY		SCALE: AS NOTED DATE: 12/3/2016 REVISIONS DWG. DGN. TR. CK.		© CATTARAUGUS COUNTY -2017	
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LEGEND

- SILT FENCE (TEMPORARY) – ITEM 209.13
- TO-1 – TURBIDITY CURTAIN PHASE 1 – ITEM 209.1501
- TO-2 – TURBIDITY CURTAIN PHASE 2 – ITEM 209.1501
- TO-3 – TURBIDITY CURTAIN PHASE 3 – ITEM 209.1501

1. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE STANDARDS FOR THE UNITED STATES ARMY CORPS OF ENGINEERS, SECTION 404 NATIONWIDE PERMITS.
2. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE STANDARDS FOR THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION, SECTION 401 WATER QUALITY CERTIFICATION.
3. THE ELEMENTS ON THESE PAGES KNOWN AS "EROSION AND SEDIMENT CONTROL" (ESC) SHALL BE USED DURING CONSTRUCTION IN ANY AREA WHERE FINE MATERIALS MAY ENTER THE WATERS OF THE STATE OF NEW YORK.
4. THE CONTRACTOR SHALL SUBMIT FOR APPROVAL TO THE ENGINEER HIS WRITTEN SCHEDULE AND PROPOSED MEASURES FOR TEMPORARY AND PERMANENT EROSION AND SEDIMENT CONTROL, WORK AND SCHEDULE OF OPERATIONS AS REQUIRED BY SECTION 209 OF THE NYSOT STANDARD SPECIFICATIONS.
5. ALL STREAM CHANNEL WORK SHALL BE LIMITED TO WITHIN THE DESIGNATED RIGHT OF WAY, EASEMENT, TEMPORARY OCCUPANCY OR RELEASE LIMITS.
6. ALL NECESSARY PRECAUTIONS SHALL BE TAKEN TO PREVENT CONTAMINATION OF ANY STREAM OR WATERWAY BY SILT, SEDIMENT, FUELS, SOLVENTS, LUBRICANTS, EPOXY COATINGS, CONCRETE LEACHATE OR ANY OTHER POLLUTANT ASSOCIATED WITH CONSTRUCTION AND CONSTRUCTION PROCEDURES.
7. DURING CONSTRUCTION, NO WET OR FRESH CONCRETE OR LEACHATE SHALL BE ALLOWED TO ESCAPE INTO ANY WATERS, NOR SHALL WASHINGS FROM CONCRETE TRUCKS, MIXERS OR OTHER DEVICES BE ALLOWED TO ENTER ANY WETLAND OR WATERS.
8. ANY DEBRIS OR EXCESS MATERIALS FROM CONSTRUCTION SHALL BE IMMEDIATELY AND COMPLETELY REMOVED FROM THE BED AND BANKS OF ALL WATER AREAS TO APPROPRIATE UPLAND AREAS FOR DISPOSAL. NO MATERIAL SHALL BE ALLOWED TO BE DROPPED INTO THE STREAM CHANNEL.
9. ALL DREDGED AND EXCAVATED MATERIAL THAT IS DISPOSED OF ON AN UPLAND SITE SHALL BE SUITABLY STABILIZED WITH SEED AND MULCH IN ACCORDANCE WITH SECTION 209 OF THE NYSOT STANDARD SPECIFICATIONS SO THAT IT CANNOT REASONABLY RE-ENTER ANY WATER BODY OR WETLAND AREA.
10. INSPECTION, PERIODIC CLEANING AND MAINTENANCE OF TEMPORARY SOIL EROSION AND POLLUTION CONTROL DEVICES SHALL BE PERFORMED ON A SCHEDULE BASIS IN ACCORDANCE WITH SECTION 209 OF THE NYSOT STANDARD SPECIFICATIONS. THE COST OF INSTALLING, CLEANING AND REMOVING TEMPORARY SOIL EROSION AND WATER POLLUTION CONTROL DEVICES SHALL BE PAID FOR UNDER THE ITEMS SHOWN.
11. APPLICABLE CONTROL MEASURES SHALL BE PLACED PRIOR TO STARTING EARTH WORK OPERATIONS AND SHALL REMAIN IN PLACE UNTIL THE NEW SLOPES ARE STABILIZED WITH SEEDING, MULCH AND/OR SLOPE PROTECTION, IN ACCORDANCE WITH SECTION 209 OF THE NYSOT STANDARD SPECIFICATIONS.
12. ALL Dewatering OPERATIONS OF EXCAVATED AREAS SHALL BE DONE IN A MANNER THAT WILL NOT CREATE EROSION OR SEDIMENT-LOADED WATER, AS DEWATERING OPERATIONS OF EXCAVATED AREAS BECOME NECESSARY, A SETTLING BASIN WILL BE REQUIRED UNLESS THE PUMP DISCHARGE IS AS CLEAR AND FREE OF SEDIMENT AS THE FLOWING STREAM. LOCATION AND DESIGN TO BE APPROVED A.O.B.E.
13. HEAVY EQUIPMENT SHALL NOT BE DRIVEN IN THE WATER, EXCEPT AS NEEDED DURING "CLEANING AND SHARPING EXISTING CREEK" AFTER ESC MEASURES HAVE BEEN INSTALLED IN CREEK.
14. CONTROLS SHALL BE ESTABLISHED TO PREVENT THE TRACKING, SPILLING, AND DROPPING OF SEDIMENTS OUTSIDE OF THE WORK AREAS BY CONSTRUCTION VEHICLES. IF WASHING IS PERFORMED, THE WASHING AREA SHALL BE LOCATED IN AN AREA WHICH WILL DRAIN INTO AN APPROVED SEDIMENT CONTROL MEASURE(S). NO SEPARATE PAYMENT WILL BE MADE FOR MAINTENANCE, ESTABLISHMENT, AND MATERIALS FOR WASHING AREAS. COST TO BE INCLUDED IN THE UNIT BID PRICES OF VARIOUS EROSION AND SEDIMENT CONTROL ITEMS STATED IN THE CONTRACT.
15. THE CONTRACTOR SHALL NOT USE THE STREAM BED OR BANKS AS A STAGING AREA FOR EQUIPMENT OR MATERIALS, AFTER EACH WORK DAY, ALL MECHANIZED EQUIPMENT SHALL BE REMOVED FROM THE BED AND BANKS OF THE CREEK AND STORED IN AN APPROVED UPLAND SITE.
16. OTHER EROSION CONTROL MEASURES MAY BE REQUIRED A.O.B.E. IN ADDITION TO CONFIGURATION SHOWN. PAYMENT FOR ADDITIONAL WORK SHALL BE MADE UNDER THE APPROPRIATE ITEMS IN THE CONTRACT.

17. RING ANY TEMPORARY STOCKPILES OF TOP-SOIL OR FILL WITH SILT FENCES AS SHOWN IN THE SILT FENCE DETAIL IN THE NYSOT STANDARD SHEETS AND SPREAD SPECIFICATIONS TO CONTAIN ANY EROSION OF THE PILE. PILES EXPOSED FOR LONGER THAN ONE WEEK SHALL BE STABILIZED WITH SEEDING, MULCH AND/OR SLOPE PROTECTION IN ACCORDANCE WITH SECTION 209 OF THE NYSOT STANDARD SPECIFICATIONS. NO SEPARATE PAYMENT WILL BE MADE FOR THE COST OF PROTECTING STOCKPILES.
18. WHERE SILT FENCE IS USED IN AREAS OF CONCENTRATED FLOW, THE ENGINEER IN CHARGE MAY CALL FOR BACKING THE SILT FENCE WITH STRAW BALES. THE SILT FENCE WITH SEEDING OR FILTER FENCE MAY BE SUBSTITUTED FOR STRAW BALES AT NO ADDITIONAL COST TO THE COUNTY. GEOTEXTILE SHALL SATISFY THE REQUIREMENTS OF SECTION 207-2 OF THE STANDARD SPECIFICATIONS.
19. ALL METHODS AND EQUIPMENT PROPOSED BY THE CONTRACTOR TO ACCOMPLISH THE WORK SHALL BE SUBJECT TO THE APPROVAL OF THE ENGINEER IN CHARGE.
20. ALL DITCH AND STORM DRAINAGE OUTLETS SHALL BE STABILIZED, AS REQUIRED AND A.O.B.E., BEFORE THE DISCHARGE POINTS BECOME OPERATIONAL.
21. THE SITE SHALL AT ALL TIMES BE GRADED AND MAINTAINED SUCH THAT ALL STORM WATER RUNOFF IS DIVERGED TO SOIL EROSION AND SEDIMENT CONTROL DEVICES BEFORE ENTERING A WATERBODY.
22. THE LOCATIONS OF EROSION AND SEDIMENT CONTROL MEASURES, AS INDICATED IN THE CONTRACT DOCUMENTS MAY REQUIRE FIELD ADJUSTMENTS DEPENDING ON THE SEQUENCE OF CONSTRUCTION ACTIVITIES, CONSTRUCTION METHODS AND/OR ACTUAL FIELD CONDITIONS.
23. THE COUNTY'S SUPERVISORY ENGINEER SHALL BE NOTIFIED OF ANY SIGNIFICANT FIELD CHANGES TO THE EROSION AND SEDIMENT CONTROL MEASURES INDICATED IN THE CONTRACT DOCUMENTS.
24. ALL IN-STREAM WORK SHALL BE CONDUCTED DURING PERIODS OF LOW FLOW, A.O.B.E. IN COORDINATION WITH THE COUNTY'S SUPERVISORY ENGINEER.
25. ALL SILT FENCE (ITEM 209.13) SHALL REMAIN IN PLACE AFTER COMPLETION OF CONSTRUCTION.

NOTE:
BASELINE/CONSTRUCTION LINE STATIONING IS ESTABLISHED FOR CONSTRUCTION PURPOSES ONLY, AND MAY OR MAY NOT BE COINCIDENTAL WITH CORRECT LOT LINES, INDIVIDUAL PROPERTY LINES, OR FUTURE/ESTABLISHED STATIONING.

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DATE		DATE	
12/3/2016		DATE	
REVISIONS		DATE	
DWG. MJM		DGN. MJM	
TR.		CK. MCB	

SURVEY #		C-38-16	
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CATTARAUGUS COUNTY
DEPARTMENT OF PUBLIC WORKS
8810 NYS ROUTE 242
LITTLE VALLEY, NEW YORK 14755
716-938-9121

EROSION CONTROL PLAN
TOWN OF LEON
SMITH ROAD
LEON BRIDGE NO. 35 OVER CONEWANGO CREEK
INTERSECTION SMITH ROAD AND FROG VALLEY ROAD

SHEET
10 OF 10
PROJECT NO.
H.S.198.25086