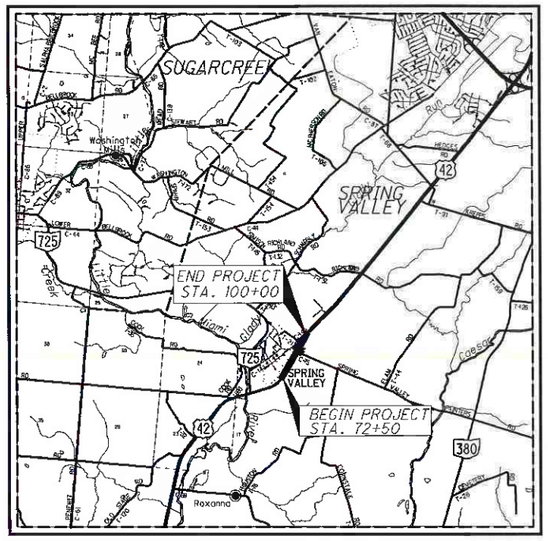


LOCATION MAP

LATITUDE: 39°36'38.43" LONGITUDE: -84°0'3.91"

SCALE IN MILES 0 1 2 3 4

N

PORTION TO BE IMPROVED
INTERSTATE HIGHWAY
FEDERAL ROUTES
STATE ROUTES
COUNTY & TOWNSHIP ROADS
OTHER ROADS

DESIGN DESIGNATION

	SLM 2.484-3.623	SLM 3.623-6.137
CURRENT ADT (2020)	7,600	9,600
DESIGN YEAR ADT (2040)	9,900	12,500
DESIGN HOURLY VOLUME (2040)	1,000	1,200
DIRECTIONAL DISTRIBUTION	55%	51%
TRUCKS (24 HOUR B&C)	6%	4%
DESIGN SPEED	60 MPH	60 MPH
LEGAL SPEED	55 MPH	55 MPH
DESIGN FUNCTIONAL CLASSIFICATION:	04 MINOR ARTERIAL (RURAL)	

NHS PROJECT ..... NO

DESIGN EXCEPTIONS

NONE REQUIRED

UNDERGROUND UTILITIES
Contact Two Working Days Before You Dig
OHIO811.org Before You Dig
OHIO811, 8-1-1, or 1-800-362-2764
(Non-members must be called directly)

PLAN PREPARED BY:
OHIO DEPARTMENT OF TRANSPORTATION
DISTRICT 8 ENGINEERING
505 S. SR 741
LEBANON, OH 45036

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

GRE-42-3.15

SPRING VALLEY TOWNSHIP
GREENE COUNTY

INDEX OF SHEETS:

PROJECT DESCRIPTION

INSTALL A RESTRICTED CROSSING U-TURN (RCUT) AT THE INTERSECTION OF US ROUTE 42 AND SPRING VALLEY PAINTERSVILLE ROAD.

EARTH DISTURBED AREAS

PROJECT EARTH DISTURBED AREA:	5.1 ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA:	0.0 ACRES
NOTICE OF INTENT EARTH DISTURBED AREA:	5.1 ACRES

2019 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PLANS AND CHANGES LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

REGISTERED PROFESSIONAL ENGINEER
STATE OF OHIO
ANDREA B. HENDERSON
82970
SIGNED: ANDREA B. HENDERSON
DATE: 12-2-19

STANDARD CONSTRUCTION DRAWINGS							
BP-3.1	7/18/14	RM-1.1	7/18/14	TC-41.30	10/18/13	I-2.1	1/15/16
BP-5.1	1/18/19	RM-3.1	7/19/13	TC-42.20	10/18/13		
		PCB-91	1/18/13	TC-52.10	10/18/13		
				TC-52.20	7/20/18		
		MT-95.30	4/19/19	TC-61.10	1/17/14		
		MT-97.10	4/19/19	TC-61.30	7/19/19		
HW-2.1	7/20/18	MT-97.12	1/20/17	TC-64.10	7/19/19		
HW-2.2	7/20/18	MT-95.50	7/21/17	TC-65.10	1/17/14		
		MT-99.20	4/19/19	TC-65.11	7/21/17		
MGS-1.1	1/19/18	MT-101.90	7/21/17	TC-71.10	1/19/18		
MGS-2.1	1/19/18			CB-4.2	1/18/13		
MGS-4.2	7/19/13	MT-105.10	7/19/13	DM-1.1	7/21/17		
MGS-4.3	1/18/13			DM-1.2	1/18/13		
				DM-1.3	7/18/14		
				DM-4.3	1/15/16		
				DM-4.4	1/15/16		

SUPPLEMENTAL SPECIFICATIONS	
800-2019	7/19/19
832	10/19/18
821	4/20/12
878	1/18/19
921	4/20/12

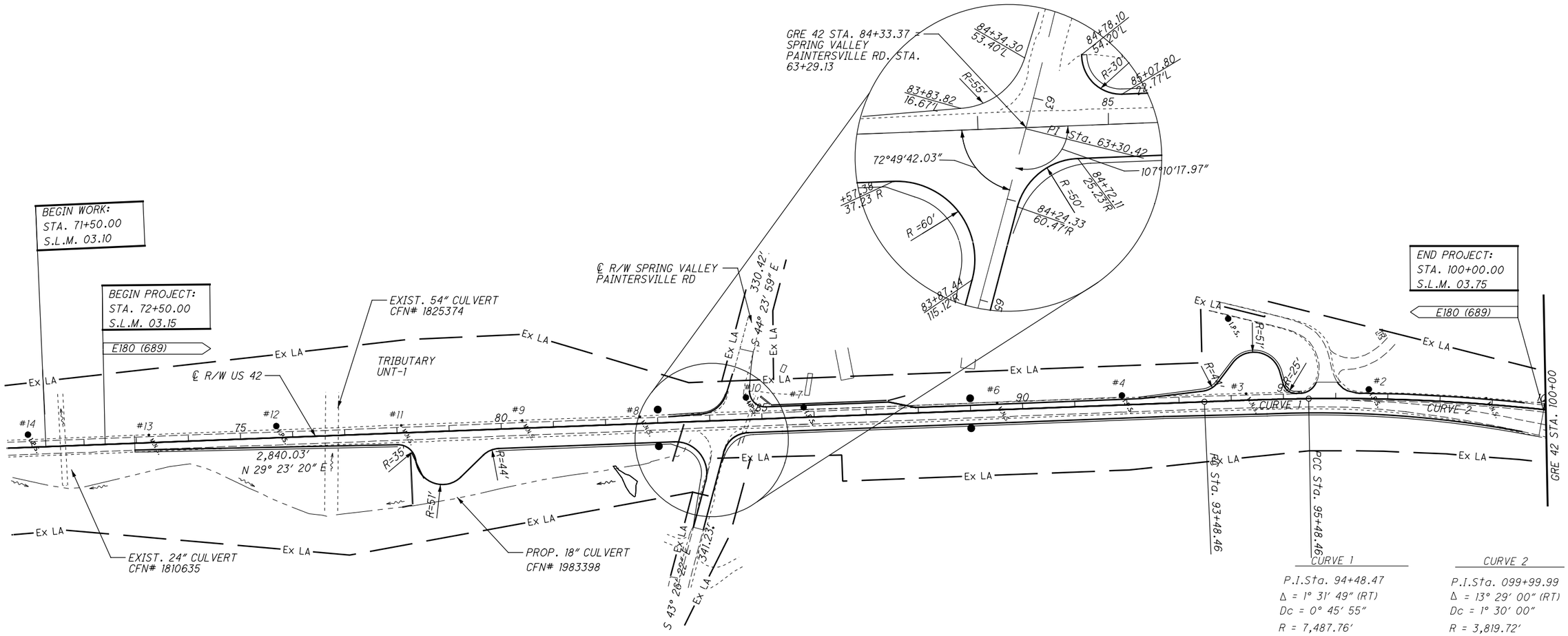
SPECIAL PROVISIONS
WATERWAY PERMIT CONDITIONS-TBD

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

APPROVED Tony K Campbell
DATE 12/3/19 DISTRICT DEPUTY DIRECTOR

APPROVED _____
DATE _____ DIRECTOR, DEPARTMENT OF TRANSPORTATION

FEDERAL PROJECT NO. E180(689)
PID NO. 108640
CONSTRUCTION PROJECT NO.
RAILROAD INVOLVEMENT NONE
GRE-42-3.15
1/73



GRID VALUES

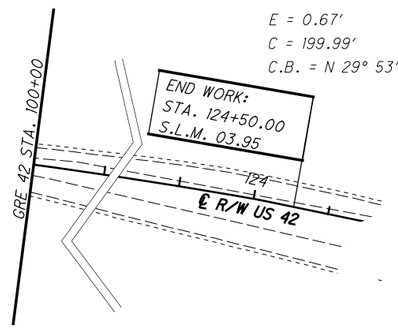
	Point	North	East	Elevation	Station	Offset	Feature
#1	SV4	591411.95	1546356.00	905.17	98+87.98	-11.48	MAGS
#2	SV5	591229.47	1546223.50	904.28	96+63.40	-18.12	IPINS
#3	SV6	591024.81	1546107.30	903.46	94+28.90	-12.54	MAGS
#4	SV7	590820.19	1545985.43	901.25	91+90.86	-18.20	IPINS
#5	SV8	591070.77	1545966.90	913.01	93+99.83	-157.34	IPINS
#6	SV9	590609.11	1545872.36	899.97	89+51.46	-13.13	MAGS
#7	SV10	590289.00	1545685.04	894.27	85+80.62	-19.25	IPINS
#8	SV11	590012.26	1545535.96	889.48	82+66.34	-13.34	MAGS
#9	SV12	589816.44	1545423.98	884.14	80+40.76	-14.81	MAGS
#10	SV13	590204.66	1545610.99	892.43	84+70.80	-42.38	IPINS
#11	SV14	589613.94	1545310.37	878.16	78+08.58	-14.43	MAGS
#12	SV15	589409.48	1545185.91	869.90	75+69.35	-22.54	IPINS
#13	SV16	589192.58	1545072.47	863.82	73+24.69	-14.93	MAGS
#14	SV17	588995.44	1544950.43	855.70	70+93.03	-24.53	IPINS

CURVE 1

P.I.Sta. 94+48.47
Δ = 1° 31' 49" (RT)
Dc = 0° 45' 55"
R = 7,487.76'
T = 100.01'
L = 200.00'
E = 0.67'
C = 199.99'
C.B. = N 29° 53' 20" E

CURVE 2

P.I.Sta. 099+99.99
Δ = 13° 29' 00" (RT)
Dc = 1° 30' 00"
R = 3,819.72'
T = 451.53'
L = 898.89'
E = 26.60'
C = 896.82'
C.B. = N 37° 37' 50" E



HORIZONTAL SCALE IN FEET
25 50 100 200

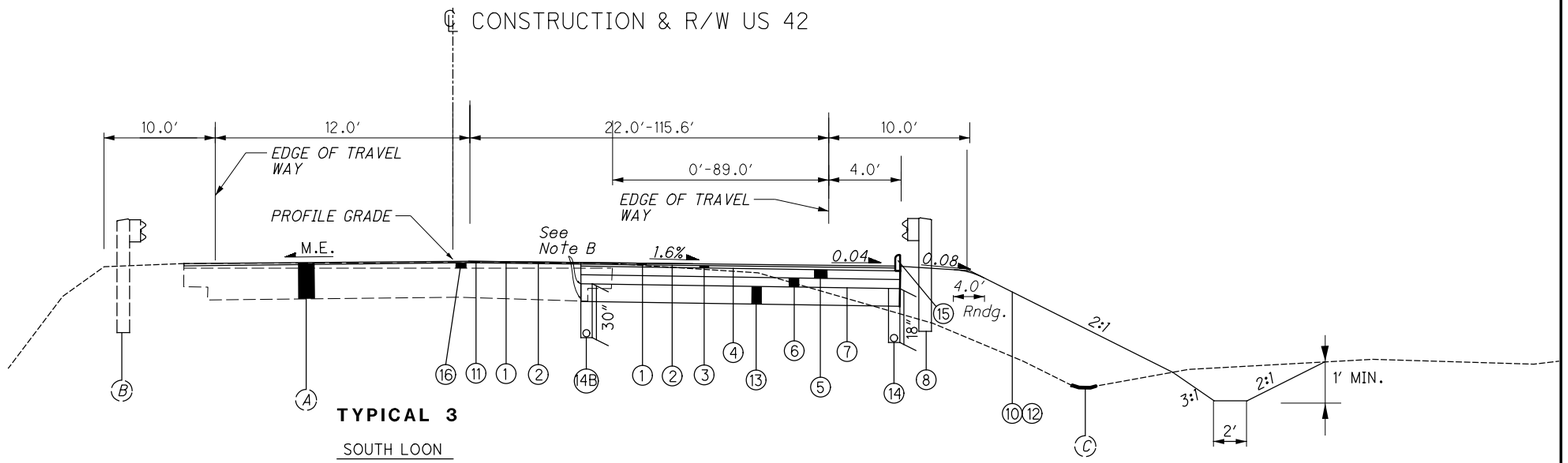
CALCULATED ABH
CHECKED JDO

SCHEMATIC PLAN

GRE-42-3.15

2
73

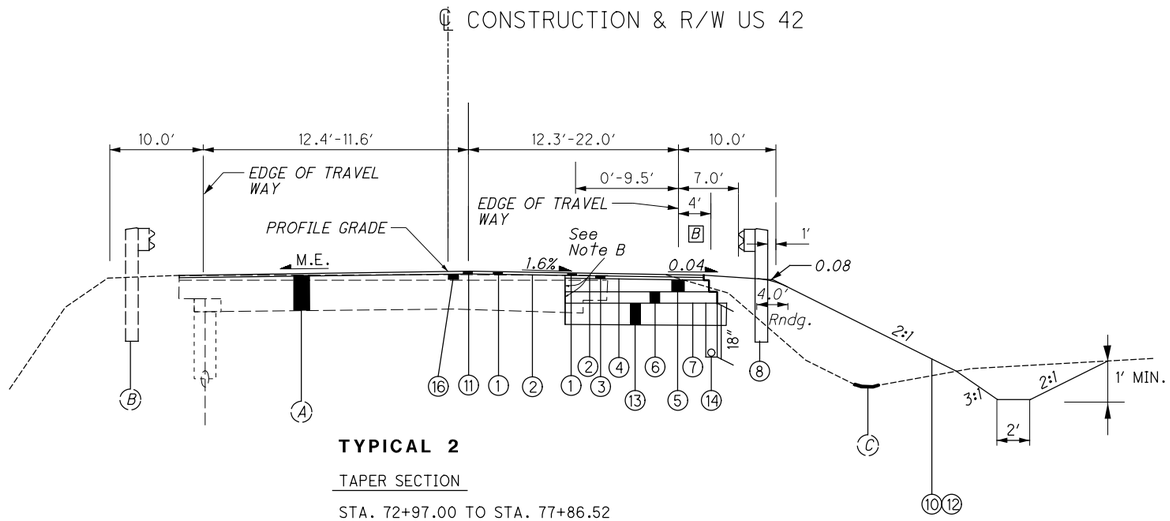
I:\ProjectData\GRE\108640_GRE-US42-3.16\Design\Roadway\Sheets\108640_GB001.dgn Sheet 1/2/2020 10:26:38 AM ahenders



TYPICAL 3

SOUTH LOON

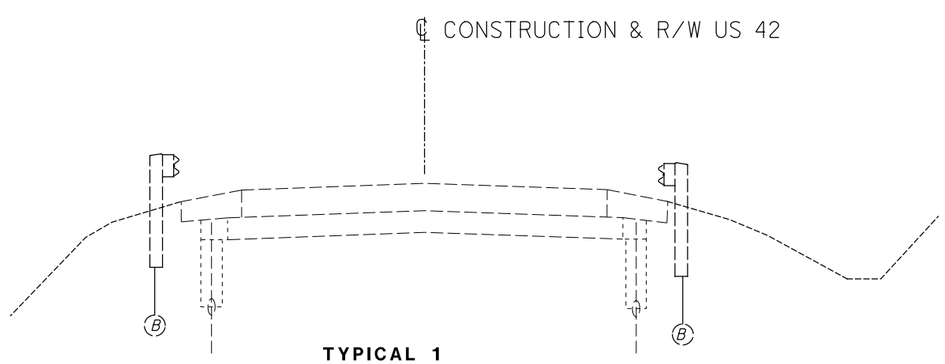
STA. 77+86.52 TO STA. 80+09.66



TYPICAL 2

TAPER SECTION

STA. 72+97.00 TO STA. 77+86.52



TYPICAL 1

EXISTING SECTION

STA. 70+50.00 TO STA. 72+97.02

LEGEND:

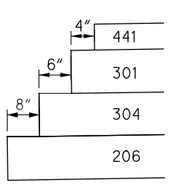
① ITEM 441 - 1.25" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22
② ITEM 407 - NON-TRACKING TACK COAT
③ ITEM 441 - 1.75" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448)
④ ITEM 407 - NON-TRACKING TACK COAT
⑤ ITEM 301 - 6" ASPHALT CONCRETE BASE, PG64-22
⑥ ITEM 304 - 6" AGGREGATE BASE
⑦ ITEM 204 - SUBGRADE COMPACTION
⑧ ITEM 606 - GUARDRAIL, TYPE MGS WITH LONG POSTS -STA. 72+61.00 TO STA. 84+00.00
⑨ ITEM 606 - 4" CONCRETE MEDIAN -STA. 83+32.61 TO STA. 85+33.01*
⑩ ITEM 659 - SEEDING AND MULCHING
⑪ ITEM 254 - 1.25" PAVEMENT PLANING, ASPHALT CONCRETE
⑫ ITEM 659 - TOPSOIL
⑬ ITEM 206 - CEMENT STABILIZED SUBGRADE, 12" DEEP
⑭ ITEM 605 - 6" BASE PIPE UNDERDRAINS (MAXIMUM SPACING 24')
⑭B ITEM 605 - 6" SHALLOW PIPE UNDERDRAIN
⑮ ITEM 611 - 4" CURB, TYPE 4B
⑯ ITEM 441 - 0" MIN, ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1 (448) (SEE NOTE C)
Ⓐ *EXISTING ASPHALT PAVEMENT*
Ⓑ *EXISTING GUARDRAIL*
Ⓒ *EXISTING CONCRETE CHANNEL*

[A] LOON WIDENING -STA. 77+86.52 TO STA. 80+09.66
STA. 92+26.81 TO STA. 95+25.00

[B] VARIES: 3.4' - 4' STA. 72+97.00 TO STA. 73+46.86 R
4' - 2.4' STA. 99+61.64 TO STA. 99+96.60 R
3.4' - 4' STA. 92+23.96 TO STA. 93+29.10 L
4' - 2.8' STA. 94+97.22 TO STA. 95+22.04 L

[C] VEGETATED BIOFILTER -STA. 90+50 TO STA. 96+65

[D] ROCK CHANNEL PROTECTION - STA. 80+75 TO STA. 83+25



BASE STEP DETAIL
(NTS)

NOTES:

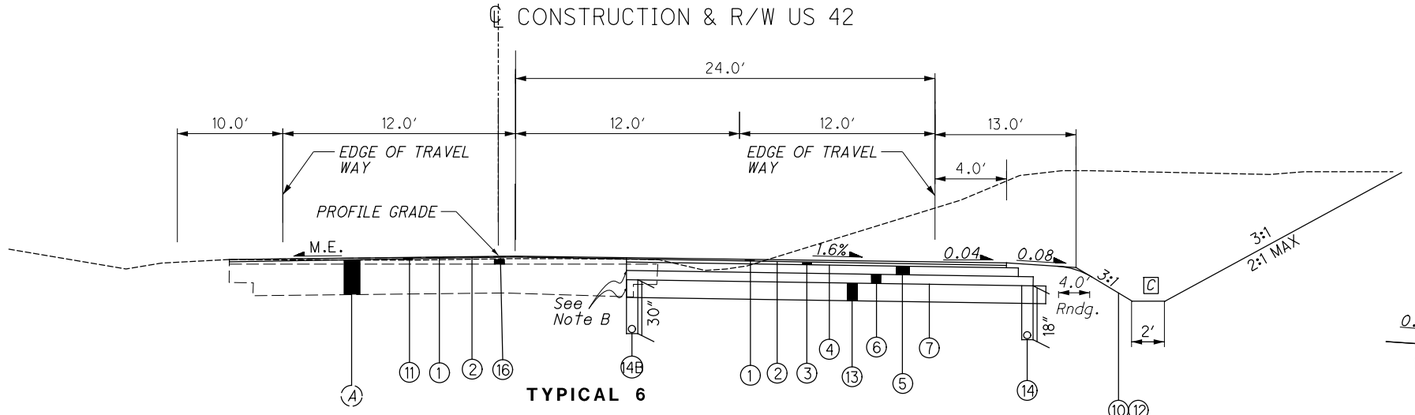
"M.E." MEANS "MATCH EXISTING"

NOTE "B"
THE EXISTING PAVEMENT EDGES SHALL BE SAW CUT TO LOCATE A SOUND EDGE PER SEC. 203.04(e) OF THE CMS. FOR ESTIMATING PURPOSES, PAVEMENT CALCULATIONS INCLUDED IN THE PLAN INDICATE AN AVERAGE WIDTH OF 1 FT OF EXISTING PAVEMENT BEING REPLACED.

NOTE C
ITEM 441, ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (448) IS TO BE USED AS A LEVELING COURSE TO ESTABLISH A 0.016 CROSS SLOPE. ESTIMATED QUANTITIES HAVE BEEN ADDED TO THE GENERAL SUMMARY.

TYPICAL SECTIONS

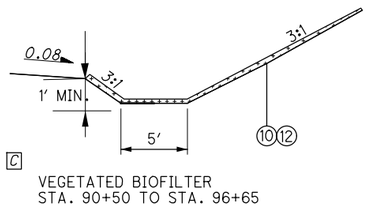
GRE-42-3.15



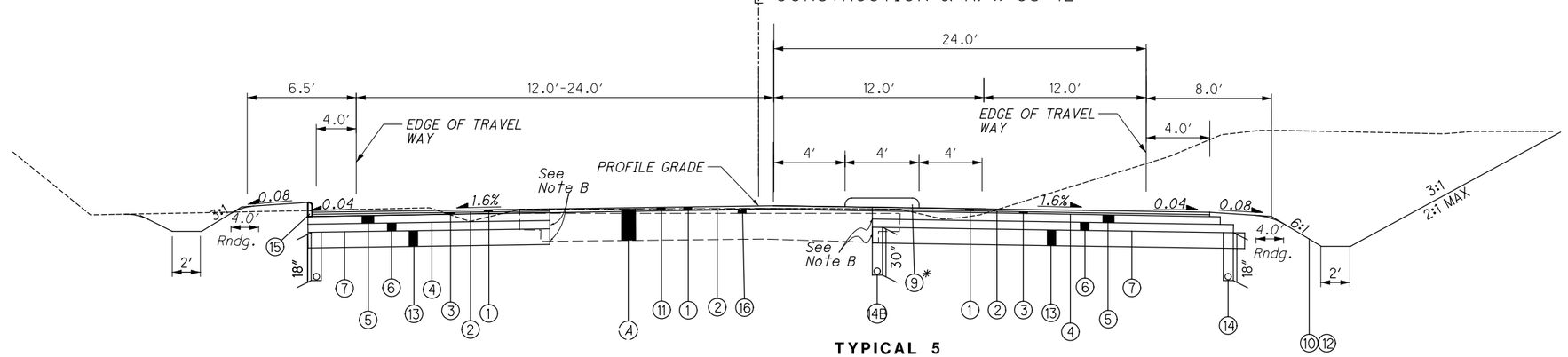
TYPICAL 6

WIDEN RIGHT

STA. 87+94.75 TO STA. 92+23.95



VEGETATED BIOFILTER
STA. 90+50 TO STA. 96+65



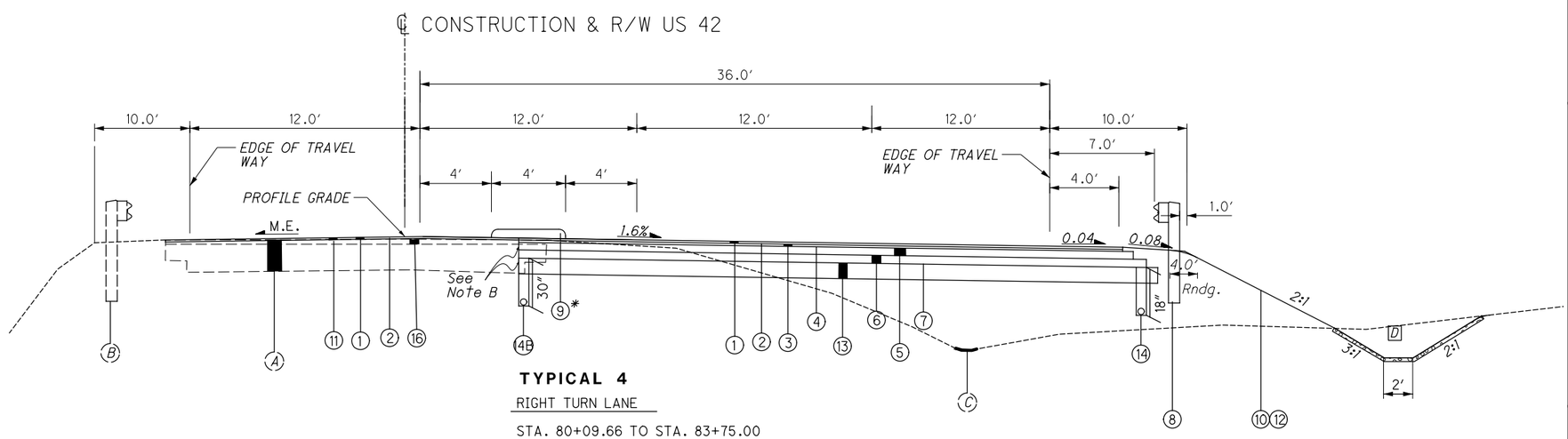
TYPICAL 5

WIDEN BOTH BOTH SIDES

STA. 84+75.00 TO STA. 87+94.75

FOR PAVEMENT LEGEND SEE SHEET 3

FOR BASE AND SUBBASE STEP DETAIL, SEE SHEET 3



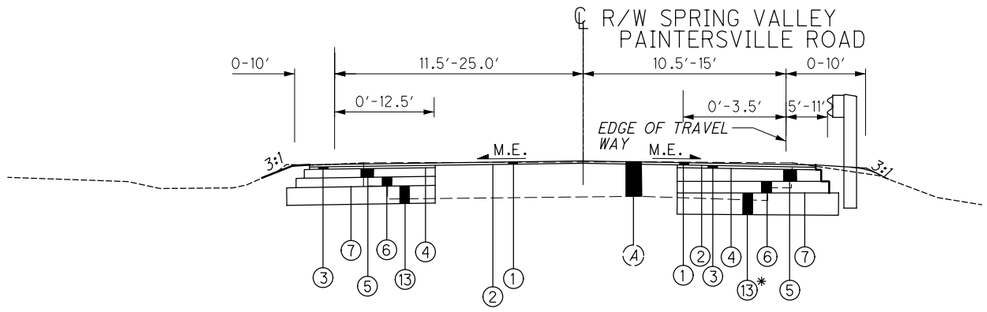
TYPICAL 4

RIGHT TURN LANE

STA. 80+09.66 TO STA. 83+75.00

TYPICAL SECTIONS

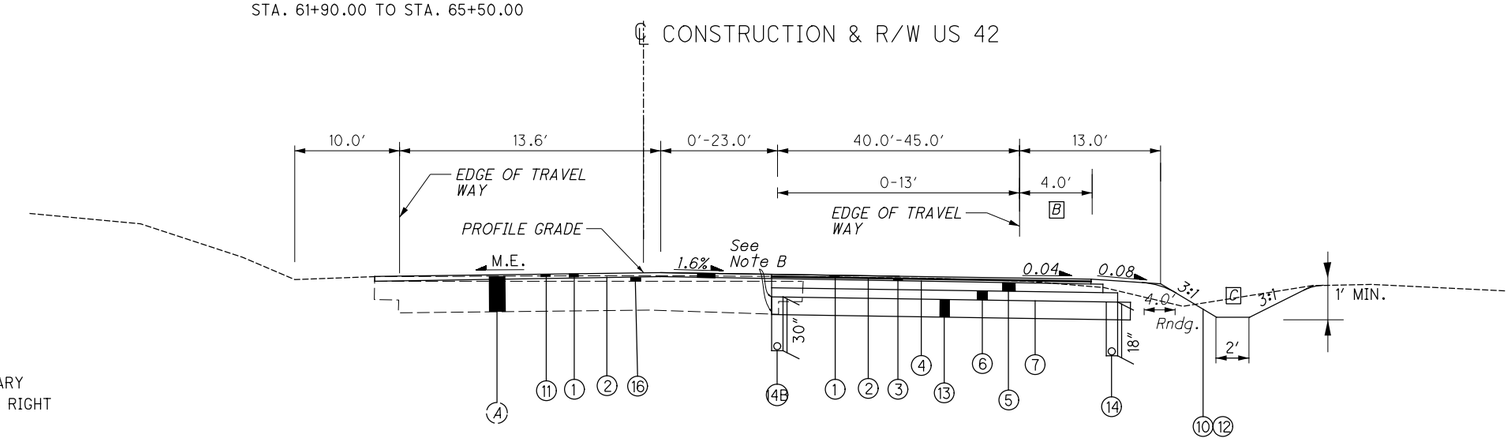
GRE-42-3.15



TYPICAL 9

SPRING VALLEY PAINTERSVILLE ROAD

STA. 61+90.00 TO STA. 65+50.00



NOTES

* CEMENT STABILIZATION WILL NOT BE NECESSARY ON SPRING VALLEY ROAD STA. 61+90 TO 63+00 RIGHT (SOUTH WEST RADIUS)

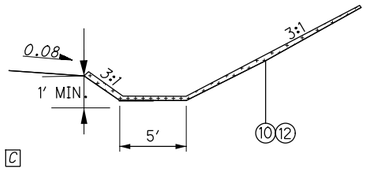
TYPICAL 8

CURVE SECTION

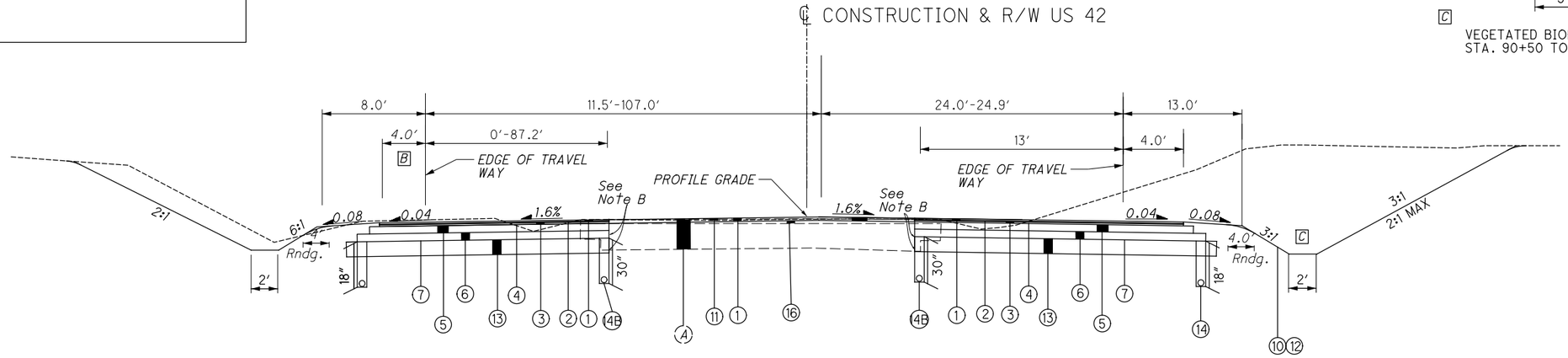
STA. 95+34.61 TO STA. 99+96.60

FOR PAVEMENT LEGEND SEE SHEET 3

FOR BASE AND SUBBASE STEP DETAIL, SEE SHEET 3



VEGETATED BIOFILTER
STA. 90+50 TO STA. 96+65



TYPICAL 7

NORTH LOON PAVEMENT

STA. 92+23.95 TO STA. 95+34.61

TYPICAL SECTIONS

GRE-42-3.15

UTILITIES

LISTED BELOW ARE ALL UTILITIES LOCATED WITHIN THE PROJECT CONSTRUCTION LIMITS TOGETHER WITH THEIR RESPECTIVE OWNERS:

DAYTON POWER & LIGHT COMPANY
1900 DRYDEN ROAD
DAYTON, OHIO 45439
937-331-4521 (WILLIAM GOURLEY
WILLIAM.GOURLEY@AES.COM

VECTREN ENERGY
6500 CLYO ROAD
CENTERVILLE, OHIO 45459
937-312-2539 (JEFF PIKE)
JEFFREY.T.PIKE@CENTERPOINTENERGY.COM
(SEND PLANS TO SHARED EMAIL BOX:
PUBLICPROJECT@CENTERPOINTENERGY.COM

AT&T OHIO
7201 FAR HILLS AVENUE
DAYTON, OHIO 45459
937-296-3588 (HOWARD LAUDERMILK)
HL1596@ATT.COM

CHARTER COMMUNICATIONS/SPECTRUM
3691 TURNER ROAD
DAYTON, OHIO 45415
937-425-8854 (CHRIS BOOKSH)
CHRISTOPHER.BOOKSH@CHARTER.COM

GREENE COUNTY WATER & SEWER
667 DAYTON-XENIA ROAD
XENIA, OHIO 45385
937-562-7462 (MARISSA RAGLIN)
MRAGLIN@CO.GREENE.OH.US

GREENE COUNTY WATER & SEWER
667 DAYTON-XENIA ROAD
XENIA, OHIO 45385
937-562-7462 (KEVIN MOYER)
KMOYER@CO.GREENE.OH.US

GREENE COUNTY ENGINEER'S OFFICE
615 DAYTON-XENIA ROAD
XENIA, OHIO 45385
937-562-7500 (STEPHANIE ANN GOFF)
SGOFF@CO.GREENE.OH.US

VILLAGE OF SPRING VALLEY/SPRING VALLEY VILLAGE COUNCIL
7 W. MAIN STREET
SPRING VALLEY, OHIO 45370
937-367-4368 (BRETT BONECUTTER, ADMINSTRATOR)
BBONESV@GMAIL.COM

WORK LIMITS

THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. PROVIDE THE INSTALLATION AND OPERATION OF ALL WORK ZONE TRAFFIC CONTROL AND WORK ZONE TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.

PART-WIDTH CONSTRUCTION

BECAUSE OF THE NECESSITY TO BUILD THIS PROJECT UNDER TRAFFIC AND TO CONSTRUCT THE FULL PAVEMENT WIDTH IN STAGES, EXERCISE CARE TO PREVENT THE CONSTRUCTION OF A BUTT JOINT IN THE BASE COURSES. LAP LONGITUDINAL JOINTS AS SHOWN ON STANDARD CONSTRUCTION DRAWING BP-3.1.

ROUNDING

THE ROUNDING AT SLOPE BREAKPOINTS SHOWN ON THE TYPICAL SECTIONS APPLIES TO ALL CROSS-SECTIONS EVEN THOUGH OTHERWISE SHOWN.

SURVEYING PARAMETERS

PRIMARY PROJECT CONTROL MONUMENTS GOVERN ALL POSITIONING ON ODOT PROJECTS. SEE SHEET __2 OF THE PLANS FOR A TABLE CONTAINING PROJECT CONTROL INFORMATION.

USE THE FOLLOWING VERTICAL POSITIONING AND HORIZONTAL POSITIONING PARAMETERS FOR ALL SURVEYING:
VERTICAL POSITIONING
ORTHOMETRIC HEIGHT DATUM: NAVD 88
GEOID: GEOID 12A
HORIZONTAL POSITIONING
REFERENCE FRAME: NAD 83
ELLIPSOID: GRS80
MAP PROJECTION: LAMBERT CONFORMAL CONIC
COORDINATE SYSTEM: OHIO SOUTH ZONE (SPC 3402)
THE COMBINED SCALE FACTOR IS 1.0

UNITS ARE IN U.S. SURVEY FEET. USE THE FOLLOWING CONVERSION FACTOR: 1 METER = 3.280833333 U.S. SURVEY FEET.

USE THE POSITIONING METHODS AND MONUMENT TYPE USED IN THE ORIGINAL SURVEY TO RESTORE ALL MONUMENTS RELATED TO PRIMARY PROJECT CONTROL THAT ARE DAMAGED OR DESTROYED BY CONSTRUCTION ACTIVITIES. RESTORE THE DAMAGED OR DESTROYED MONUMENTS IN ACCORDANCE WITH CMS 623.

MONUMENT ASSEMBLIES

CONSTRUCT MONUMENTS IN ACCORDANCE WITH THE DETAILS SHOWN ON THE STANDARD CONSTRUCTION DRAWING RM-1.1 AND AT THE LOCATIONS SHOWN BELOW.

STA. 83+00 26' L
STA. 83+00 44' R
STA. 89+00 24' L
STA 89+00 33' R

CROSSINGS AND CONNECTIONS TO EXISTING PIPES AND UTILITIES

WHERE PLANS PROVIDE FOR A PROPOSED CONDUIT TO BE CONNECTED TO, OR CROSS OVER OR UNDER AN EXISTING SEWER OR UNDERGROUND UTILITY, THE CONTRACTOR SHALL LOCATE THE EXISTING PIPES OR UTILITIES BOTH AS TO LINE AND GRADE BEFORE STARTING TO LAY THE PROPOSED CONDUIT.

IF IT IS DETERMINED THAT THE ELEVATION OF THE EXISTING CONDUIT, OR EXISTING APPURTENANCE TO BE CONNECTED, DIFFERS FROM THE PLAN ELEVATION OR RESULTS IN A CHANGE IN THE PLAN CONDUIT SLOPE, THE ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WILL BE AFFECTED BY THE VARIANCE IN THE EXISTING ELEVATIONS.

IF IT IS DETERMINED THAT THE PROPOSED CONDUIT WILL INTERSECT AN EXISTING SEWER OR UNDERGROUND UTILITY IF CONSTRUCTED AS SHOWN ON THE PLAN, THE ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WOULD BE AFFECTED BY THE INTERFERENCE WITH AN EXISTING FACILITY.

PAYMENT FOR ALL THE OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 611 CONDUIT ITEM.

CONNECTION BETWEEN EXISTING AND PROPOSED GUARDRAIL

WHEN IT IS NECESSARY TO SPLICE PROPOSED GUARDRAIL TO EXISTING GUARDRAIL, ONLY THE EXISTING GUARDRAIL SHALL BE CUT, DRILLED, OR PUNCHED. THE CONNECTION SHALL BE MADE USING A W-BEAM, BEAM SPLICE AS SHOWN IN AASHTO M 180-12, EXCEPT THE BEAM WASHERS ARE NOT TO BE USED. PAYMENT SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE RESPECTIVE GUARDRAIL ITEMS.

ITEM 204 - PROOF ROLLING

THE FOLLOWING QUANTITY IS PROVIDED IN THE GENERAL SUMMARY TO ADDRESS LOCATIONS REQUIRING PROOF ROLLING.

ITEM 204 - PROOF ROLLING ____3 HOUR.

ITEM 878 -INSPECTION AND COMPACTION TESTING OF UNBOUND MATERIALS

THIS ITEM SHALL INCLUDE GRE-US42 LOCATIONS. A LUMP SUM QUANTITIY HAS BEEN INCLUDED IN THE GENERAL SUMMARY FOR ALL WORK AS DESCRIBED IN SUPPLEMENTAL SPECIFICATION 878.

ITEM 878 INSPECTION AND TESTING OF UNBOUND MATERIALS LUMP

ITEM 621 - RAISED PAVEMENT MARKERS (RPM)

INSTALL RAISED PAVEMENT MARKERS ACCORDING TO SCD TC-65.10 AND TC-65.11.

SIGN, MISC: REMOVAL OF SOLAR POWERED LED SIGNS FOR SALVAGE, EACH

632 REMOVAL OF TRAFFIC SIGNAL INSTALLATION

REQUIRED UNDER THE PROVISIONS OF 203.05. TRAFFIC SIGNAL INSTALLATIONS, INCLUDING SIGNAL HEADS, CABLE, MESSENGER WIRE, STRAIN POLES, CABINET, CONTROLLER, ETC., SHALL BE REMOVED IN ACCORDANCE WITH C&MS 632.26 AND AS INDICATED ON THE PLANS. REMOVED ITEMS SHALL BE REUSED AS PART OF A NEW INSTALLATION ON THE PROJECT OR STORED ON THE PROJECT FOR SALVAGE BY (D08 TRAFFIC DEPARTMENT) IN ACCORDANCE WITH THE LISTING GIVEN HEREIN.

NO ITEMS WILL BE REUSED

ITEMS TO BE STORED INCLUDE SIGNAL HEADS AND FLASHER CABINET

ITEMS TO BE STORED SHALL BE DELIVERED TO THE NEAREST ODOT FACILITY WHOSE ADDRESS IS LISTED BELOW:

ODOT DISTRICT 08, ATTN: JIM JUDD
513-933-6692
505 SOUTH STATE ROUTE 741
LEBANON, OHIO 45036

IN THE EVENT THE ITEMS STORED ON THE PROJECT FOR SALVAGE BY THE LOCAL AGENCY ARE NOT REMOVED, THE CONTRACTOR SHALL, WHEN DIRECTED BY THE ENGINEER IN WRITING, REMOVE AND DISPOSE OF THE ITEMS AT NO ADDITIONAL COST TO THE PROJECT.

CLEARING AND GRUBBING

ALTHOUGH THERE ARE NO TREES OR STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE LIMITS OF THE PROJECT, A LUMP SUM QUANTITY IS INCLUDED IN THE GENERAL SUMMARY FOR ITEM 201, CLEARING AND GRUBBING. ALL PROVISIONS AS SET FORTH IN THE SPECIFICATIONS UNDER THIS ITEM ARE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 201, CLEARING AND GRUBBING.

BAT HABITAT REMOVAL PLAN

THE PROJECT IS LOCATED WITHIN THE KNOWN HABITAT RANGES OF THE FEDERALLY LISTED AND PROTECTED INDIANA BAT AND NORTHERN LONG-EARED BAT. THE CONTRACTOR SHALL NOT REMOVE TREES UNDER THIS PROJECT FROM APRIL 1 THROUGH SEPTEMBER 30. ALL NECESSARY TREE REMOVAL SHALL OCCUR FROM OCTOBER 1 THROUGH MARCH 31. THE CONTRACTOR SHALL DEMARCATE CLEARING LIMITS IN THE FIELD TO AVOID ANY UNAUTHORIZED TREE CLEARING. THIS REQUIREMENT IS NECESSARY TO AVOID AND MINIMIZE IMPACTS TO THESE SPECIES AS REQUIRED BY THE ENDANGERED SPECIES ACT. FOR THE PURPOSES OF THIS NOTE, A TREE IS DEFINED AS A LIVE, DYING, OR DEAD WOODY PLANT, WITH A TRUNK THREE INCHES OR GREATER IN DIAMETER AT A HEIGHT OF 4.5 FEET ABOVE THE GROUND SURFACE, AND WITH A MINIMUM HEIGHT OF 13 FEET.

SEEDING AND MULCHING

THE FOLLOWING QUANTITIES ARE PROVIDED TO PROMOTE GROWTH AND CARE OF PERMANENT SEEDED AREAS:

659, TOPSOIL	170 CU. YD.
659, SEEDING AND MULCHING	1533 SQ. YD.
659, COMMERCIAL FERTILIZER	.21 TON
659, LIME	.32 ACRES
659, WATER	8.3 M. GAL.

SEEDING AND MULCHING SHALL BE APPLIED TO ALL AREAS OF EXPOSED SOIL BETWEEN THE RIGHT-OF-WAY LINES, AND WITHIN THE CONSTRUCTION LIMITS. QUANTITY CALCULATIONS FOR SEEDING AND MULCHING ARE BASED ON THESE LIMITS.

BENCHING OF FOUNDATION SLOPES

ALTHOUGH CROSS-SECTIONS INDICATE SPECIFIC DIMENSIONS FOR PROPOSED BENCHING OF THE EMBANKMENT FOUNDATIONS IN CERTAIN AREAS, NO WAIVER OF THE SPECIFICATIONS IS INTENDED. BENCH ALL OTHER SLOPED EMBANKMENT AREAS AS SET FORTH IN 203.05. NO ADDITIONAL PAYMENT WILL BE MADE FOR BENCHING REQUIRED UNDER THE PROVISIONS OF 203.05.

EMBANKMENT OVER EXISTING DITCHES

WHERE NEW EMBANKMENT IS TO BE PLACED OVER EXISTING DITCHES, ALL SOFT AND WET SOILS SHALL BE REMOVED AS SHOWN ON THE PLAN DETAIL AND REPLACED WITH SUITABLE EMBANKMENT MATERIAL.
QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY TO BE USED AS SHOWN ON THE PLANS.

203, EMBANKMENT.....428 CY
203, EXCAVATION.....389 CY

CALCULATED ABH
CHECKED JDO

GENERAL NOTES

GRE-42-3.15

CALCULATED ABH
CHECKED JDO

GENERAL NOTES

VEGETATED BIOFILTER

THIS PLAN UTILIZES VEGETATED BIOFILTER(S) FOR POST CONSTRUCTION STORM WATER TREATMENT. PLACE EITHER ITEM 660 SODDING OR ITEM 659 SEEDING AND MULCHING WITH A 4-INCH LIFT OF TOPSOIL AS SHOWN IN THE PLANS TO ANY DISTURBED AREA ON THE SHOULDER AND FORESLOPE DRAINING TO A VEGETATED BIOFILTER. EACH VBF WILL INCLUDE ITEM 670, DITCH EROSION PROTECTION. THE DITCH FOR EACH VEGETATED BIOFILTER SHALL BE TRAPEZOIDAL, AS SHOWN IN THE PLANS.

VEGETATED BIOFILTER
STA. 92+50 TO STA. 96+65

ITEM 659 TOPSOIL = 33.6 CY
ITEM 670 DITCH EROSION PROTECTION = 404 SY

ASBESTOS NOTIFICATION

UTILITY REVIEWS FOR THIS LOCATION INDICATE THE PRESENCE OF 48" WATER LINE BURIED AT AN ASSUMED DEPTH OF 3' BELOW THE DITCH LINE.
THE CONTRACTOR SHALL COMPLETE THE 10 DAY OEPA NOTIFICATION OR DEMOLOTION FORM AND SUBMIT IT ELECTRONICALLY TO https://epa.ohio.gov/dapc/atu/asbestos AT LEAST TEN (10) WORKING DAYS PRIOR TO THE START OF ANY DEMOLITION AND/OR RENOVATION.

THE CONTRACTOR SHALL PROVIDE A COPY OF THE COMPLETED FORM TO THE ENGINEER AT LEAST TEN (10) WORKING DAYS PRIOR TO THE START OF ANY DEMOLITION AND/OR RENOVATION. THE FORM SHALL INCLUDE: 1) THE CONTRACTORS NAME AND ADDRESS, 2) THE SCHEDULED DATES FOR THE START AND COMPLETION OF THE BRIDGE REMOVAL AND 3) A DESCRIPTION OF THE PLANNED DEMOLITION WORK AND THE METHOD(S) TO BE USED.

DUE CARE WILL BE TAKEN TO NOT IMPACT THIS WATERLINE. SHOULD THE WATERLINE BECOME EXPOSED OR IMPACTED THE CONTRACTOR SHALL STOP WORK AND CONTACT SUZANNE ENDERS AT SUZANNE.ENDERS@DOT.OHIO.GOV (513-933-6286), AS WELL AS THE APPROPRIATE OEPA CONTACT LISTED AT THE ABOVE WEB ADDRESS.

SHOULD CONSTRUCTION REQUIRE THE REMOVAL AND DISPOSAL OF THIS MATERIAL, THE CONTRACTOR SHALL ENSURE THAT ASBESTOS CONTAINING MATERIALS DO NOT BECOME FRIABLE (BROKEN-UP OR DISPERSED) AND THAT NO VISIBLE FIBER EMISSIONS WILL OCCUR. ADDITIONALLY, THE REMOVAL AND DISPOSAL OF THE ASBESTOS CONTAINING MATERIAL SHALL COMPLY WITH CHAPTER 3745-20 OF THE OHIO ADMINISTRATIVE CODE, THE NATIONAL EMISSION STANDARD FOR HAZARDOUS AIR POLLUTANTS (NESHAP) AND APPLICABLE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) REGULATIONS (29 CFR 1926.1101).

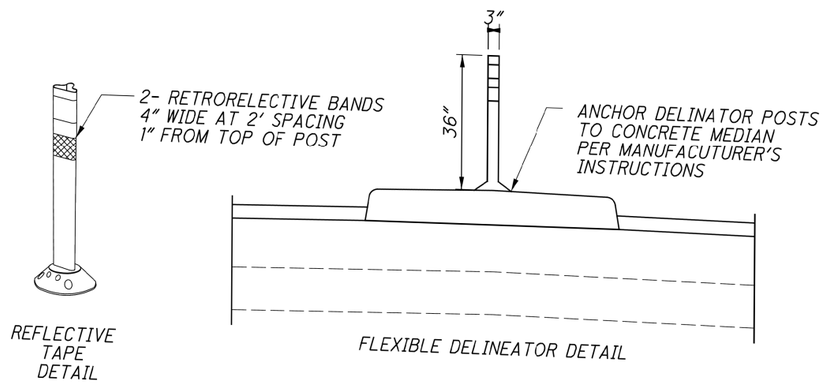
BASIS FOR PAYMENT THE CONTRACTOR SHALL FURNISH ALL FEES, LABOR, AND MATERIAL NECESSARY TO COMPLETE AND SUBMIT THE OEPA NOTIFICATION FORM. PAYMENT FOR THIS WORK SHALL BE INCLUDED IN ITEM 202 PORTIONS OF STRUCTURE REMOVED, AS PER PLAN.

FRICKE AIRPORT
OWNER: DONALD E. FRICKE
2408 US RT 42
SPRING VALLEY, OH 45370
PHONE 937-862-4560
MANAGER: DONALD E. FRICKE
2408 US RT 42
SPRING VALLEY, OH 45370
PHONE 937-862-4560

INSTREAM WORK RESTRICTION

THE CONTRACTOR SHALL NOT PERFORM ANY WORK WITHIN THE JURISDICTIONAL BOUNDARIES OF ANY WATERWAY, INCLUDING WETLANDS, UNTIL ODOT OBTAINS THE NECESSARY WATERWAY PERMIT. THIS INCLUDES THE PLACEMENT OF ANY TEMPORARY OR PERMANENT FILLS.

POTENTAILLY IMPACTED AIRPORTS	AIRPORT ELEVATION "A"	PROJECT ELEVATION "B" + 25 FEET (CONTRLLING CRITERIA)	DISTANCE BETWEEN AIRPORT & PROJECT "C"	NOTIFICATION SLOPE X:1	USE TYPE	AMOUNT OF CLEARANCE ABOVE NOTIFICATION SLOPE "Z"
FRICKE AIRPORT	905 FT	906 + 40 = 910 FT	1,854 FT	50:1	PRIVATE	-1.92 FT



ITEM 620 DELINIEATOR, MISC. SURFACE MOUNTED-YELLOW

GRE-42-3.15

ITEM 614, MAINTAINING TRAFFIC

ALL LANES OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES, EXCEPT IN ACCORDANCE WITH THE PERMITTED LANE CLOSURE TIMES, BY USE OF THE EXISTING PAVEMENT AND COMPLETED PAVEMENT.

NO WORK SHALL BE PERFORMED AND ALL EXISTING LANES SHALL BE OPEN TO TRAFFIC DURING THE FOLLOWING DESIGNATED HOLIDAYS OR EVENTS:

CHRISTMAS FOURTH OF JULY
NEW YEARS LABOR DAY
MEMORIAL DAY THANKSGIVING
(OTHER HOLIDAY OR EVENT)

THE PERIOD OF TIME THAT THE LANES ARE TO BE OPEN DEPENDS ON THE DAY OF THE WEEK ON WHICH THE HOLIDAY OR EVENT FALLS. THE FOLLOWING SCHEDULE SHALL BE USED TO DETERMINE THIS PERIOD:

DAY OF HOLIDAY OR EVENT	TIME ALL LANES MUST BE OPEN TO TRAFFIC
SUNDAY	12:00N FRIDAY THROUGH 6:00AM MONDAY
MONDAY	12:00N FRIDAY THROUGH 6:00AM TUESDAY
TUESDAY	12:00N MONDAY THROUGH 6:00AM WEDNESDAY
WEDNESDAY	12:00N TUESDAY THROUGH 6:00AM THURSDAY
THURSDAY	12:00N WEDNESDAY THROUGH 6:00AM FRIDAY
THURSDAY	(THANKSGIVING ONLY) 6:00AM WEDNESDAY THROUGH 6:00AM MONDAY
FRIDAY	12:00N THURSDAY THROUGH 6:00AM MONDAY
SATURDAY	12:00N FRIDAY THROUGH 6:00AM MONDAY

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THESE REQUIREMENTS, THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE PER THE LANE VALUE CONTRACT (PN 127).

LENGTH AND DURATION OF LANE CLOSURES AND RESTRICTIONS SHALL BE AT THE APPROVAL OF THE ENGINEER. IT IS THE INTENT TO MINIMIZE THE IMPACT TO THE TRAVELING PUBLIC. LANE CLOSURES OR RESTRICTIONS OVER SEGMENTS OF THE PROJECT IN WHICH NO WORK IS ANTICIPATED WITHIN A REASONABLE TIME FRAME, AS DETERMINED BY THE ENGINEER, SHALL NOT BE PERMITTED. THE LEVEL OF UTILIZATION OF MAINTENANCE OF TRAFFIC DEVICES SHALL BE COMMENSURATE WITH THE WORK IN PROGRESS.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH C&MS 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

ITEM 254 - PAVEMENT PLANING

THE PAVEMENT PLANING SHALL BE SCHEDULED SO AS TO BE COVERED BY THE SURFACE COURSE WITHIN 5 CALENDAR DAYS. THE COST OF THE ABOVE SHALL BE INCLUDED IN THE UNIT BID PRICE FOR THE RESPECTIVE ITEM. A DISINCENTIVE IN THE AMOUNT OF $3900 SHALL BE ASSESSED FOR EACH DAY, OR PORTION THEREOF, A PLANED SURFACE IS OPEN TO TRAFFIC BEYOND THE SPECIFIED TIME LIMIT.

ITEM 614 - LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE DURING CONSTRUCTION OPERATIONS

USE OF LAW ENFORCEMENT OFFICERS (LEOS) BY CONTRACTORS OTHER THAN THE USES SPECIFIED BELOW WILL NOT BE PERMITTED AT PROJECT COST. LEOS SHOULD NOT BE USED WHERE THE OMUTCD INTENDS THAT FLAGGERS BE USED.

IN ADDITION TO THE REQUIREMENT OF C&MS 614 AND THE OMUTCD, A UNIFORMED LEO WITH AN OFFICIAL PATROL CAR (CAR WITH TOP-MOUNTED EMERGENCY FLASHING LIGHTS AND COMPLETE MARKINGS OF THE APPROPRIATE LAW ENFORCEMENT AGENCY) SHOULD BE PROVIDED FOR THE FOLLOWING TRAFFIC CONTROL TASKS AS APPROVED BY THE ENGINEER:

FOR LANE CLOSURES: DURING INITIAL SET-UP PERIODS, TEAR DOWN PERIODS, SUBSTANTIAL SHIFTS OF A CLOSURE POINT OR WHEN A NEW LANE CLOSURE ARRANGEMENTS ARE INITIATED FOR LONG-TERM LANE CLOSURES/SHIFTS (FOR THE FIRST AND LAST DAY OF MAJOR CHANGES IN TRAFFIC CONTROL SETUP).

IN GENERAL, LEOS SHOULD BE POSITIONED IN ADVANCE OF AND ON THE SAME SIDE AS THE LANE RESTRICTION OR AT THE POINT OF ROAD CLOSURE, AND TO MANUALLY CONTROL TRAFFIC MOVEMENTS THROUGH SIGNALIZED INTERSECTIONS IN WORK ZONES.

LEOS SHOULD NOT FORGO THEIR TRAFFIC CONTROL RESPONSIBILITIES TO APPREHEND MOTORISTS FOR ROUTINE TRAFFIC VIOLATIONS. HOWEVER, IF A MOTORIST'S ACTIONS ARE CONSIDERED TO BE RECKLESS, THEN PURSUIT OF THE MOTORIST IS APPROPRIATE.

THE LEOS WORK AT THE DIRECTION OF THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR SECURING THE SERVICES OF THE LEOS WITH THE APPROPRIATE AGENCIES AND COMMUNICATING THE INTENTIONS OF THE PLANS WITH RESPECT TO DUTIES OF THE LEOS. THE ENGINEER SHALL HAVE FINAL CONTROL OVER THE LEOS' DUTIES AND PLACEMENT, AND WILL RESOLVE ANY ISSUES THAT MAY ARISE BETWEEN THE TWO PARTIES.

ENSURE PROVIDED LEOS HAVE BEEN TRAINED APPROPRIATE TO THE JOB DECISIONS THEY ARE REQUIRED TO MAKE WHILE ON THE PROJECT, IN ACCORDANCE WITH C&MS 614.03.

FLOODLIGHTING

FLOODLIGHTING OF THE WORK SITE FOR OPERATIONS CONDUCTED DURING NIGHTTIME PERIODS SHALL BE ACCOMPLISHED SO THAT THE LIGHTS DO NOT CAUSE GLARE TO THE DRIVERS ON THE ROADWAY. TO ENSURE THE ADEQUACY OF THE FLOODLIGHT PLACEMENT, THE CONTRACTOR AND THE ENGINEER SHALL DRIVE THROUGH THE WORK SITE EACH NIGHT WHEN THE LIGHTING IS IN PLACE AND OPERATIVE PRIOR TO COMMENCING ANY WORK. IF GLARE IS DETECTED, THE LIGHT PLACEMENT AND SHIELDING SHALL BE ADJUSTED TO THE SATISFACTION OF THE ENGINEER BEFORE WORK PROCEEDS.

PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC.

THE LEO SHALL REPORT IN TO THE CONTRACTOR PRIOR TO THE START OF THE SHIFT, IN ORDER TO RECEIVE INSTRUCTIONS REGARDING THE SPECIFIC WORK ASSIGNMENTS DURING HIS/HER SHIFT. THE LEO IS EXPECTED TO STAY AT THE PROJECT SITE FOR THE ENTIRE DURATION OF HIS/HER SHIFT. THE LEO SHALL REPORT TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT. SHOULD IT BE NECESSARY TO LEAVE THE PROJECT SITE, THE LEO SHALL NOTIFY THE ENGINEER. THE CONTRACTOR SHALL PROVIDE THE LEO WITH A TWO-WAY COMMUNICATION DEVICE WHICH SHALL BE RETURNED TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT.

LEOS (WITH PATROL CAR) REQUIRED BY THE TRAFFIC MAINTENANCE TASKS ABOVE SHALL BE PAID FOR ON A UNIT PRICE (HOURLY) BASIS UNDER ITEM 614, LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE 30 HOURS

THE HOURS PAID SHALL INCLUDE ANY MINIMUM SHOW-UP TIME REQUIRED BY THE LAW ENFORCEMENT AGENCY INVOLVED.

ANY ADDITIONAL COSTS (ADMINISTRATIVE OR OTHERWISE) INCURRED BY THE CONTRACTOR TO OBTAIN THE SERVICES OF A LEO ARE INCLUDED WITH THE BID UNIT PRICE FOR ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE.

TRENCH FOR WIDENING

TRENCH EXCAVATION FOR BASE WIDENING SHALL BE ONLY ON ONE SIDE OF THE PAVEMENT AT A TIME. THE OPEN TRENCH SHALL BE ADEQUATELY MAINTAINED AND PROTECTED WITH DRUMS OR BARRICADES AT ALL TIMES. PLACEMENT OF PROPOSED SUBBASE AND BASE MATERIAL SHALL FOLLOW AS CLOSELY AS POSSIBLE BEHIND EXCAVATION OPERATIONS. THE LENGTH OF WIDENING TRENCH WHICH IS OPEN AT ANY ONE TIME SHALL BE HELD TO A MINIMUM AND SHALL AT ALL TIMES BE SUBJECT TO APPROVAL OF THE ENGINEER.

OVERNIGHT TRENCH CLOSING

THE BASE WIDENING SHALL BE COMPLETED TO A DEPTH OF TO A DEPTH OF NO MORE THAN 12 INCHES BELOW THE EXISTING PAVEMENT BY THE END OF EACH WORK DAY. NO TRENCH SHALL BE LEFT OPEN OVERNIGHT EXCEPT FOR A SHORT LENGTH (25 FEET OR LESS) OF A WORK SECTION AT THE END OF THE TRENCH. IN CASE WORK MUST BE SUSPENDED BECAUSE OF INCLEMENT WEATHER OR OTHER REASONS, THE TRENCH FOR THE UNCOMPLETED BASE WIDENING SHALL BE BACKFILLED AT THE DIRECTION OF THE ENGINEER.

WORK ZONE MARKINGS AND SIGNS

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AT LOCATIONS IDENTIFIED BY THE ENGINEER FOR WORK ZONE PAVEMENT MARKINGS AND SIGNS PER THE REQUIREMENTS OF C&MS 614.04 AND 614.11.

ITEM 614, WORK ZONE CENTER LINE, CLASS III, 642 PAINT, 0.70 MI
ITEM 614, WORK ZONE EDGE LINE, CLASS III, 4", 642 PAINT, 0.70 MI
ITEM 614, WORK ZONE STOP LINE, CLASS III, 642 PAINT 32 FT

NOTIFICATION OF TRAFFIC RESTRICTIONS

THROUGHOUT THE DURATION OF THE PROJECT, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IN WRITING OF ALL TRAFFIC RESTRICTIONS AND UPCOMING MAINTENANCE OF TRAFFIC CHANGES. THE CONTRACTOR SHALL ENSURE THE WRITING OF ALL TRAFFIC RESTRICTIONS AND UPCOMING MAINTENANCE OF TRAFFIC CHANGES. THE CONTRACTOR SHALL ENSURE THE WRITTEN NOTIFICATION IS SUBMITTED IN A TIMELY MANNER TO ALLOW THE PROJECT ENGINEER TO MEET THE REQUIRED TIME FRAMES SET FORTH IN THE TABLE BELOW TO INFORM THE SPECIAL HAULING PERMITS SECTION (HAULING.PERMITS@DOT.OHIO.GOV) AND THE DISTRICT PUBLIC INFORMATION OFFICE (PIO). THIS NOTIFICATION SHALL BE RECEIVED BY THE PROJECT ENGINEER PRIOR TO THE PHYSICAL SETUP OF ANY APPLICABLE SIGNS OR MESSAGE BOARDS.

INFORMATION SHOULD INCLUDE, BUT IS NOT LIMITED TO, ALL CONSTRUCTION ACTIVITIES THAT IMPACT OR INTERFERE WITH TRAFFIC AND SHALL LIST THE SPECIFIC LOCATION, TYPE OF WORK, ROAD STATUS, DATE AND TIME OF RESTRICTION, DURATION OF RESTRICTION, NUMBER OF LANES MAINTAINED, NUMBER OF LANES CLOSED, MINIMUM VERTICAL CLEARANCE, MINIMUM WIDTH OF DRIVABLE PAVEMENT, DETOUR ROUTES, IF APPLICABLE, AND ANY OTHER INFORMATION REQUESTED BY THE PROJECT ENGINEER.

NOTIFICATION TIME TABLE

ITEM	DURATION OF CLOSURE	NOTICE DUE TO PERMITS & PIO
RAMP & ROAD CLOSURES	>= 2 WEEKS	21 CALENDAR DAYS PRIOR TO CLOSURE
	> 12HOURS & < 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	< 12 HOURS	4 CALENDAR DAYS PRIOR TO CLOSURE
LANE CLOSURES & RESTRICTIONS	>= 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	< 2 WEEKS	5 BUSINESS DAYS PRIOR TO CLOSURE
START OF CONSTRUCTION & TRAFFIC PATTERN CHANGES	N/A	14 CALENDAR DAYS PRIOR TO IMPLEMENTATION

ANY UNFORESEEN CONDITIONS NOT SPECIFIED IN THE PLANS REQUIRING TRAFFIC RESTRICTIONS SHALL ALSO BE REPORTED TO THE PROJECT ENGINEER USING THE NOTIFICATION TIME TABLE.

CALCULATED ABH CHECKED LB

MAINTENANCE OF TRAFFIC GENERAL NOTES

GRE-42-03.15

PERMITTED LANE CLOSURE TIMES

SHORT TERM LANE CLOSURES ARE THOSE WHICH ARE PERMITTED BY THE PERMITTED LANE CLOSURE NOTE. THESE TIMES SHALL NOT BE REVISED WITHOUT PRIOR APPROVAL FROM THE DISTRICT 8 WORK ZONE TRAFFIC CONTROL MANAGER. SHORT TERM LANE CLOSURES SHALL ONLY BE IMPLEMENTED WHEN WORK IS BEING CONTINUOUSLY PERFORMED IN THE LANE. THE CLOSURE SHALL BE REOMOVED AS SOON AS POSSIBLE AFTER WORK HAS STOPPED. PERMITTED LANE CLOSURES SHALL ONLY BE ALLOWED DURING THE TIMES SPECIFIED IN THE UNAUTHORIZED LANE USE TABLE INCLUDED IN THESE PLANS. NO LANE OR SHOULDER CLOSURE SHALL BE IN PLACE WHEN NO WORK IS BEING PERFORMED.

SEQUENCE OF CONSTRUCTION

PHASE 1

CONTRACTOR SHALL PERFORM ALL WORK ON THE EAST SIDE OF US 42. CONTRACTOR SHALL MAINTAIN ONE LANE OF TRAFFIC IN EACH DIRECTION FROM 4 PM - 6 PM. LANES SHALL BE A MINIMUM OF 10 FEET WIDTH WITH A 2 FOOT SHOULDER ON EACH SIDE WITH DRUMS PER SCD MT-101.90 ON THE WIDENED SIDE. TRAFFIC SHALL BE MAINTAINED ACCORDING TO SCD MT-97.10 AND MT-101.90 FROM 6 PM - 4 PM.

PHASE 2

CONTRACTOR SHALL PERFORM ALL WORK ON THE WEST SIDE OF US 42. CONTRACTOR SHALL MAINTAIN ONE LANE OF TRAFFIC IN EACH DIRECTION FROM 4 PM - 6 PM. LANES SHALL BE A MINIMUM OF 10 FEET WIDTH WITH A 2 FOOT SHOULDER ON EACH SIDE WITH DRUMS PER SCD MT-101.90 ON THE WIDENED SIDE. TRAFFIC SHALL BE MAINTAINED ACCORDING TO SCD MT-97.10 AND MT-101.90 FROM 6 PM - 4 PM.

PHASE 3

CONTRACTOR SHALL MILL/PLANE THE ENTIRE LENGTH OF THE PROJECT. TRAFFIC SHALL BE MAINTAINED ACCORDING TO SCD MT-97.10 AND MT-97.12 FROM 6 PM - 4 PM.

PHASE 4

CONTRACTOR SHALL COMPLETE ALL MEDIAN WORK AND PAVING OF SURFACE COURSE. TRAFFIC SHALL BE MAINTAINED ACCORDING TO SCD MT-97.10, MT-97.12, AND MT-101.90 FROM 6 PM - 4 PM.

PHASE 5

CONTRACTOR SHALL COMPLETE ALL SIGNING AND MARKING WORK. TRAFFIC SHALL BE MAINTAINED AT ALL TIMES.

UNAUTHORIZED LANE USE TABLE

DESCRIPTION OF CRITICAL LANE/RAMP TO BE MAINTAINED	PERMITTED TIME PERIOD	TIME UNIT	DISINCENTIVE $ PER TIME UNIT
US 42: MAINTAIN ONE LANE OF TRAFFIC IN EACH DIRECTION	4 PM to 6 PM	1 MINUTE	$65
US 42: MAINTAIN ONE LANE OF TWO-WAY TRAFFIC USING A FLAGGER.	6 PM to 4 PM	1 MINUTE PERIOD	$65
SPRING VALLEY PAINTERSVILLE ROAD: MAINTAIN ONE LANE OF TWO-WAY TRAFFIC USING A FLAGGER.	ALL TIMES	1 MINUTE PERIOD	$65

CALCULATED ABH
CHECKED LB

MAINTENANCE OF TRAFFIC GENERAL NOTES

GRE-42-03.16

SHEET NUM.										PART.	ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
	2	4	6	8	14	15	59	62	64	01/SAF/OT						
															ROADWAY	
			LS							LS	201	11000	LS		CLEARING AND GRUBBING	
										16,988	202	23010	16,988	SY	PAVEMENT REMOVED, ASPHALT	
										1,325	202	38000	1,325	FT	GUARDRAIL REMOVED	
										1	202	20010	1	EACH	HEADWALL REMOVED	
										222	202	32700	222	SY	GUTTER REMOVED	
							18,507			18,507	203	10000	18,507	CY	EXCAVATION	
							18,483			18,483	203	20000	18,483	CY	EMBANKMENT	
										1,300	204	13000	1,300	CY	EXCAVATION OF SUBGRADE	
			3							3	204	45000	3	HOUR	PROOF ROLLING	
										386	206	10500	386	TON	CEMENT	
										6,770	206	11000	6,770	SY	CURING COAT	
										6,770	206	15010	6,770	SY	CEMENT STABILIZED SUBGRADE, 12 INCHES DEEP	
										LS	206	30000	LS		MIXTURE DESIGN FOR CHEMICALLY STABILIZED SOILS	
						2				2	606	26500	2	EACH	ANCHOR ASSEMBLY, TYPE T	
										1,425	606	15100	1,425	FT	GUARDRAIL, TYPE MGS WITH LONG POSTS	
										89	609	70000	89	SY	4" CONCRETE MEDIAN	
			4							4	623	40500	4	EACH	REFERENCE MONUMENT, TYPE A	6
										LS	878	25000	LS		INSPECTION AND COMPACTION TESTING OF UNBOUND MATERIALS	
															EROSION CONTROL	
			216							216	659	00300	216	CY	TOPSOIL	
			1,533							1,533	659	10000	1,533	SY	SEEDING AND MULCHING	
			0.21							0.21	659	20000	0.21	TON	COMMERCIAL FERTILIZER	
			0.32							0.32	659	31000	0.32	ACRE	LIME	
			8							8	659	35000	8	MGAL	WATER	
						300				300	601	32200	300	CY	ROCK CHANNEL PROTECTION, TYPE C WITH FILTER	
					4.4					4.4	601	10990	4.4	SY	RIPRAP, TYPE C	
						5				5	601	11000	5	SY	RIPRAP, TYPE D	
			555							555	670	00700	555	SY	DITCH EROSION PROTECTION	
										48,300	832	30000	48,300	EACH	EROSION CONTROL	
										LS	832	15000	LS		STORM WATER POLLUTION PREVENTION PLAN	
										LS	832	15002	LS		STORM WATER POLLUTION PREVENTION INSPECTIONS	
										LS	832	15010	LS		STORM WATER POLLUTION PREVENTION INSPECTION SOFTWARE	
															DRAINAGE	
										LS	503	11100	LS		COFFERDAMS AND EXCAVATION BRACING	
		0.6								0.6	602	20000	0.6	CY	CONCRETE MASONRY	
		4,122								4,122	605	98000	4,122	FT	UNDERDRAINS, MISC.:, BASE PIPE	3
		2,358								2,358	605	11100	2,358	FT	6" SHALLOW PIPE UNDERDRAINS	
		197								197	611	00510	197	FT	6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS	
						11				11	611	13200	11	FT	30" CONDUIT, TYPE A, 707.01 (AL COATED), 707.04 (POLYMERIC)	
										1.3	601	21050	1.3	SY	TIED CONCRETE BLOCK MAT, TYPE 1	
						1				1	611	99094	1	EACH	INLET, NO. 3 FOR SINGLE SLOPE BARRIER, TYPE B	
										4	611	98180	4	EACH	CATCH BASIN, NO. 3A	
										1	611	98230	1	EACH	CATCH BASIN, NO. 4	
										1	611	99574	1	EACH	MANHOLE, NO. 3	
										327	611	04400	327	FT	12" CONDUIT, TYPE B	
										343	611	07600	343	FT	18" CONDUIT, TYPE C	
															PAVEMENT	
										9,517	254	01000	9,517	SY	PAVEMENT PLANING, ASPHALT CONCRETE, 1.25"	
										3,462	255	20000	3,462	FT	FULL DEPTH PAVEMENT SAWING	
										1,128	301	46000	1,128	CY	ASPHALT CONCRETE BASE, PG64-22	
										1,128	304	20000	1,128	CY	AGGREGATE BASE	
										1,756	407	20000	1,756	GAL	NON-TRACKING TACK COAT	
										566	441	50000	566	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22	
										329	441	50300	329	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448)	
										50	441	50200	50	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (448)	

CALCULATED ABH
CHECKED JDO

GENERAL SUMMARY

GRE-42-3.15

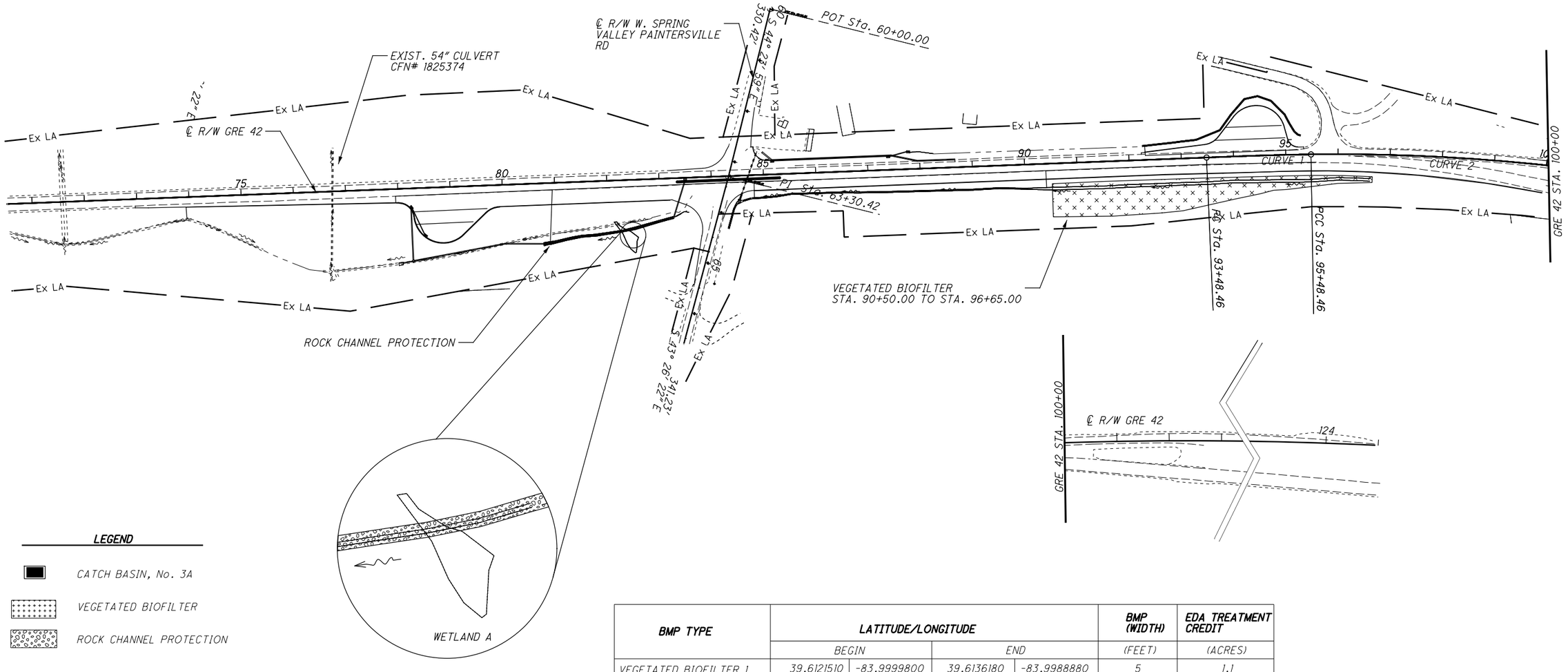
SHEET NUM.										PART.	ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
	2	4	6	8	14	15	59	62	64	01/SAF/OT						
															TRAFFIC CONTROL	
								151		151	621	00100	151	EACH	RPM	62
										1,300	642	30000	1,300	FT	REMOVAL OF PAVEMENT MARKING	62
								35		35	621	54000	35	EACH	RAISED PAVEMENT MARKER REMOVED	62
								1.08		1.08	644	00104	1.08	MILE	EDGE LINE, 6"	62
								0.07		0.07	644	00204	0.07	MILE	LANE LINE, 6"	62
								30		30	620	70000	30	EACH	DELINEATOR, MISC.:TYPE C, WHITE	62
										10	620	70000	10	EACH	DELINEATOR, MISC.:SURFACE MOUNTED, YELLOW	6
								1		1	644	00300	1	MILE	CENTER LINE	62
								1,250		1,250	644	00400	1,250	FT	CHANNELIZING LINE, 8"	62
								32		32	644	00500	32	FT	STOP LINE	62
								18		18	644	01300	18	EACH	LANE ARROW	62
								817		817	644	00700	817	FT	TRANSVERSE/DIAGONAL LINE	62
										232	630	03100	232	FT	GROUND MOUNTED SUPPORT, NO. 3 POST	64
									274	274	630	80100	274	SF	SIGN, FLAT SHEET	64
									4	4	630	08600	4	EACH	SIGN POST REFLECTOR	64
									16	16	630	84900	16	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	64
									6	6	630	85100	6	EACH	REMOVAL OF GROUND MOUNTED SIGN AND REERECTION	64
									10	10	630	86002	10	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	64
										13	626	00110	13	EACH	BARRIER REFLECTOR, TYPE 2, WHITE/WHITE	
															TRAFFIC SIGNALS	
										1	632	90100	1	EACH	REMOVAL OF TRAFFIC SIGNAL INSTALLATION	6
															MAINTENANCE OF TRAFFIC	
				30						30	614	11110	30	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	
				0.7						0.7	614	21550	0.7	MILE	WORK ZONE CENTER LINE, CLASS III, 642 PAINT	
				0.7						0.7	614	22350	0.7	MILE	WORK ZONE EDGE LINE, CLASS III, 4", 642 PAINT	
				32						32	614	26610	32	FT	WORK ZONE STOP LINE, CLASS III, 642 PAINT	
															INCIDENTALS	
										LS	614	11000	LS		MAINTAINING TRAFFIC	
										LS	623	10000	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING	
										LS	624	10000	LS		MOBILIZATION	

CALCULATED ABH
CHECKED JDO

GENERAL SUMMARY

GRE-42-3.15

PROJECT DATA	
TOTAL AREA (RIGHT OF WAY)----------1.1 AC	RUNOFF COEFFICIENT FOR PRE-CONSTRUCTION SITE----------0.90
PROJECT EARTH DISTURBED AREA---------5.1 AC	RUNOFF COEFFICIENT FOR POST-CONSTRUCTION SITE----------0.90
ESTIMATED CONTRACTOR EARTH DISTURBED AREA----------0 AC	POST CONSTRUCTION BMP: VEGETATED BIOFILTERS WERE PROVIDED TO MEET NPDES POST-CONSTRUCTION REQUIREMENTS. SEE CROSS SECTION SHEETS FOR LOCATIONS.
NOTICE OF INTENT EARTH DISTURBED AREA----------5.1 AC	
IMPERVIOUS (PAVED) AREA FOR PRE-CONSTRUCTION SITE----------2.25 AC	IMMEDIATE RECEIVING WATERS---TRIB. TO LITTLE MIAMI RIVER
IMPERVIOUS (PAVED) AREA FOR POST-CONSTRUCTION SITE----------3.67 AC	SUBSEQUENT RECEIVING WATER



LEGEND

- CATCH BASIN, No. 3A
- VEGETATED BIOFILTER
- ROCK CHANNEL PROTECTION

BMP TYPE	LATITUDE/LONGITUDE				BMP (WIDTH)	EDA TREATMENT CREDIT
	BEGIN		END		(FEET)	(ACRES)
VEGETATED BIOFILTER 1	39.6121510	-83.9999800	39.6136180	-83.9988880	5	1.1
				TREATMENT PROVIDED		1.1
				TREAMENT REQUIRED		1.02

PROJECT DESCRIPTION

INSTALL A RESTRICTED CROSSING U-TURN (RCUT) AT THE INTERSECTION OF US ROUTE 42 AND W SPRING VALLEY PAINTERSVILLE ROAD.

HORIZONTAL SCALE IN FEET
25 50 100 200

CALCULATED ABH
CHECKED TRB

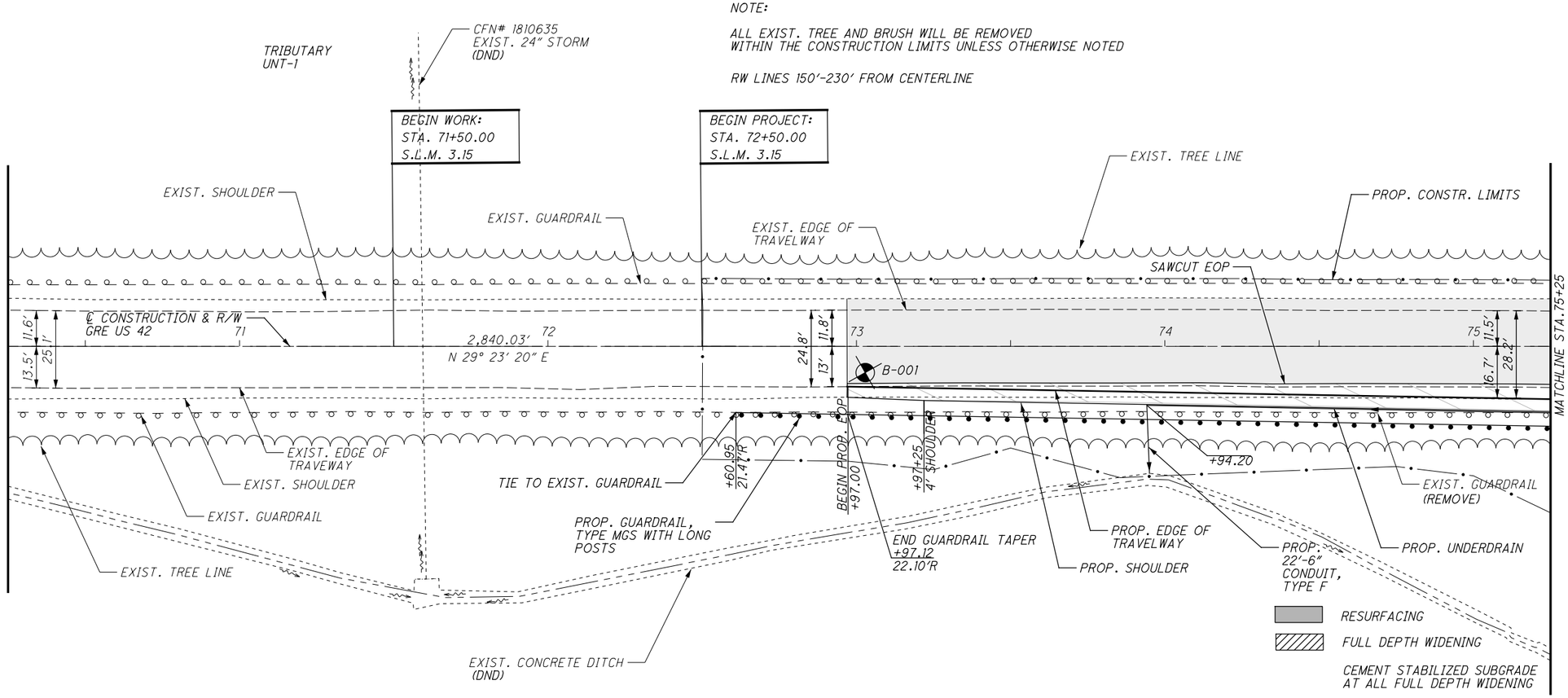
PROJECT SITE PLAN

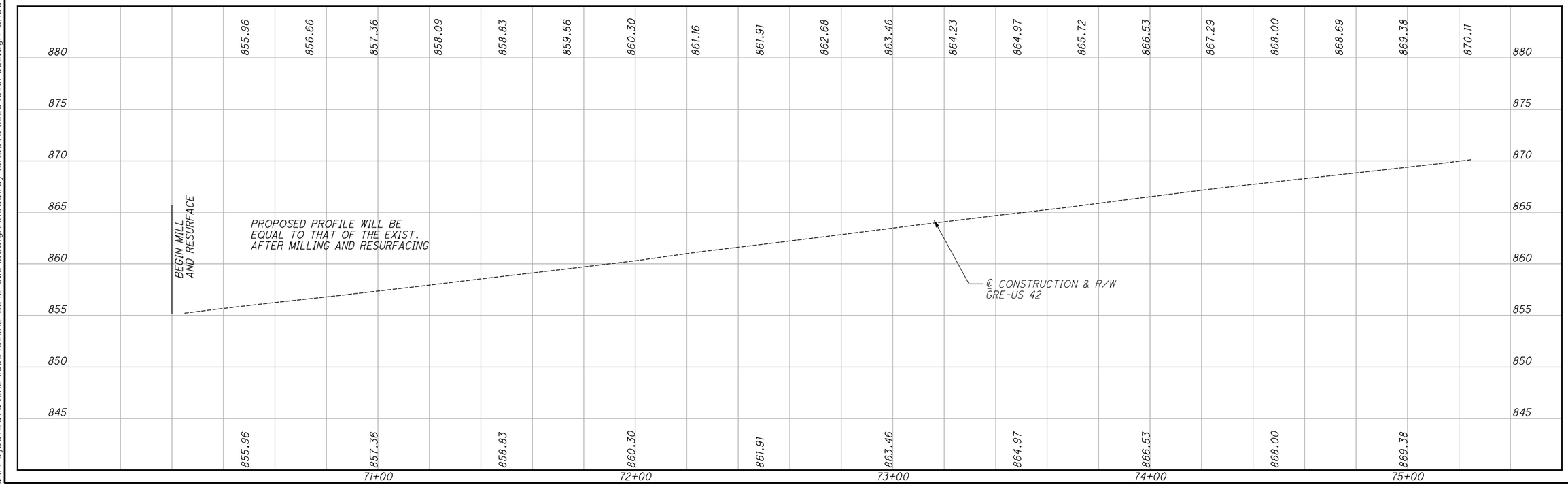
GRE-42-3.15

NOTE:

ALL EXIST. TREE AND BRUSH WILL BE REMOVED WITHIN THE CONSTRUCTION LIMITS UNLESS OTHERWISE NOTED

RW LINES 150'-230' FROM CENTERLINE





HORIZONTAL SCALE IN FEET: 0, 10, 20, 40

CALCULATED ABH
CHECKED JDO

PLAN AND PROFILE
STA. 70+00 TO STA. 75+25

GRE-42-3.15

13 / 73

EXIST. GUARDRAIL
EXIST. SHOULDER
EXIST. EDGE OF TRAVELWAY
EXIST. TREE LINE
SAWCUT EOP
℄ CONSTRUCTION & R/W GRE US 42
2,840.03'
N 29° 23' 20" E
B-002
B-003
11.3'
17.2'
28.5'
10.8'
22.1'
11'
37'
48'
76
77
78
79
80
EXIST. GUARDRAIL (REMOVE)
PROP. GUARDRAIL, TYPE MGS LONG POST
EXIST. TREE LINE
EXIST. SHOULDER (REMOVE)
13' TYPE F CONDUIT
+49.67
30.10'R
BEGIN CURB STA. 77+99.74
26.07'R
+25.00
37.15'R
R=35'
R=44'
STA. 79+93.87
41.04'R
MATCHLINE STA.75+25
MATCHLINE STA.80+25
PROP. 12" CONDUIT TYPE B
PROP. UNDERDRAIN
PROP. EDGE OF TRAVELWAY
PROP. CURB TYPE 4B
B-003-1
EXIST. PAVED GUTTER (DND)
CFN# 1825374
EXIST. 54" STORM
(DND)
PROP. 18" TYPE C CONDUIT
R=51'
PROP. CB No. 3A
4.4 SY RIP RAP TYPE C
5'X8'X1.5'
EXIST. PAVED GUTTER (REMOVE)
PROP. CONSTR. LIMITS
PROP. 18" TYPE C CULVERT SFN # 1983398
PROP. MANHOLE No. 3

RESURFACING
ROCK CHANNEL PROTECTION, TYPE C
FULL DEPTH WIDENING
CEMENT STABILIZED SUBGRADE AT ALL FULL DEPTH WIDENING

NOTES:
RW LINES 150'-230' FROM CENTERLINE
ALL EXIST. TREE AND BRUSH WILL BE REMOVED WITHIN THE CONSTRUCTION LIMITS UNLESS OTHERWISE NOTED

	870.87	871.58	872.30	873.02	873.77	874.52	875.28	876.03	876.79	877.51	878.22	878.94	879.62	880.26	880.92	881.58	882.22	882.87	883.51	884.14
890																				
885																				
880																				
875																				
870																				
865																				
860																				
855																				
	870.87		872.30		873.77		875.28		876.79		878.22		879.62		880.92		882.22		883.51	
			76+00				77+00				78+00				79+00				80+00	

CONTINUE MILL AND RESURFACE
PROPOSED PROFILE WILL BE EQUAL TO THAT OF THE EXIST. AFTER MILLING AND RESURFACING
℄ CONSTRUCTION & R/W GRE-US 42
EXIST. 54" STORM
STA. +68.15
INVERT 811.36

HORIZONTAL SCALE IN FEET
0 10 20 40
CALCULATED ABH
CHECKED JDO

PLAN AND PROFILE
STA. 75+25 TO STA. 80+25

GRE-42-3.15

14
73

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CEMENT STABILIZED SUBGRADE AT ALL FULL DEPTH WIDENING

FULL DEPTH WIDENING

RESURFACING

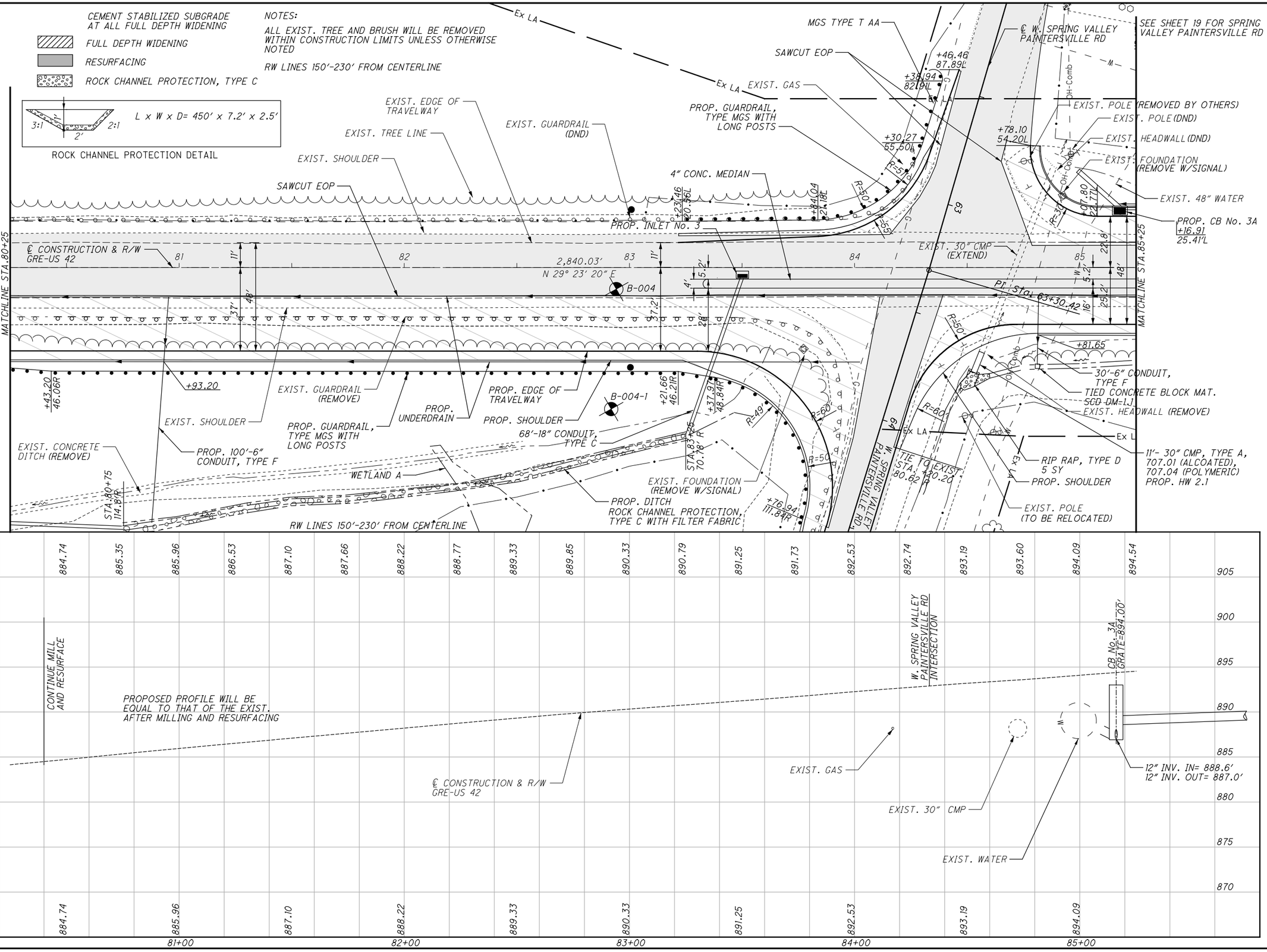
ROCK CHANNEL PROTECTION, TYPE C

NOTES:

ALL EXIST. TREE AND BRUSH WILL BE REMOVED WITHIN CONSTRUCTION LIMITS UNLESS OTHERWISE NOTED

RW LINES 150'-230' FROM CENTERLINE

ROCK CHANNEL PROTECTION DETAIL



PLAN AND PROFILE
STA. 80+25 TO STA. 85+25

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED ABH
CHECKED JDO

GRE-42-3.15

15
73

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ALL EXIST. TREE AND BRUSH WILL BE REMOVED
WITHIN THE CONSTRUCTION LIMITS UNLESS OTHERWISE NOTED

Ex LA
EXIST. WALL (DND)
EXIST. PARKLOT (DND)
CARRY OUT SHED
RES. BLDG
PROP. CONSTR. LIMITS
EXIST. TOP OF BANK
PROP. EDGE OF TRAVELWAY
PROP. CB No. 3A
PROP. CURB TYPE 4B
PROP. 12" CONDUIT TYPE B
BEGIN TAPER +44.75 22.76' L
+78.53 32.83' L
PROP. CB No. 4
PROP. UNDERDRAIN
EXIST. DITCH (DND)
EXIST. SHOULDER
EXIST. EDGE OF TRAVELWAY
END TAPER +94.75 10.76 L
TIE TO EXIST. +67.29 10.56 L
+42.01 25.76' L
B-005-1
B-005
B-007
B-007-1
MATCHLINE STA.85+25
MATCHLINE STA.90+25
22.8'
48'
25.2'
10.8'
36'
86
87
88
89
90
2,840.03'
N 29° 23' 20" E
2,840.03'
N 29° 23' 20" E
℄ CONSTRUCTION & R/W
GRE US 42
STA. +33.81
7.20 R
PROP. DITCH
SAWCUT EOP
PROP. UNDERDRAIN
EXIST. EDGE OF TRAVELWAY
EXIST. SHOULDER
PROP. EDGE OF TRAVELWAY
PROP. SHOULDER
PROP. CONSTR. LIMITS

RESURFACING
FULL DEPTH WIDENING
CEMENT STABILIZED SUBGRADE AT ALL FULL DEPTH WIDENING

RW LINES 150'-230' FROM CENTERLINE

CONTINUE MILL AND RESURFACE
PROPOSED PROFILE WILL BE EQUAL TO THAT OF THE EXIST. AFTER MILLING AND RESURFACING
CB No. 3A GRATE=897.34'
CB No. 4 GRATE=896.23'
℄ CONSTRUCTION & R/W GRE-US 42
220.3'-12" CONDUIT @2%
32.5'-12" CONDUIT @2%
12" INV. OUT= 894.00'
12" INV. IN= 893.35'
12" INV. OUT= 893.00'

894.93 895.33 895.81 896.20 896.57 896.93 897.26 897.59 897.92 898.23 898.55 898.86 899.16 899.42 899.70 899.98 900.22 900.48 900.70 900.91
915 910 905 900 895 890 885 880
894.93 895.81 896.57 897.26 897.92 898.55 899.16 899.70 900.22 900.70
86+00 87+00 88+00 89+00 90+00

HORIZONTAL SCALE IN FEET
0 10 20 40
CALCULATED ABH
CHECKED JDO

PLAN AND PROFILE
STA. 85+25 TO STA. 90+25

GRE-42-3.15

16
73

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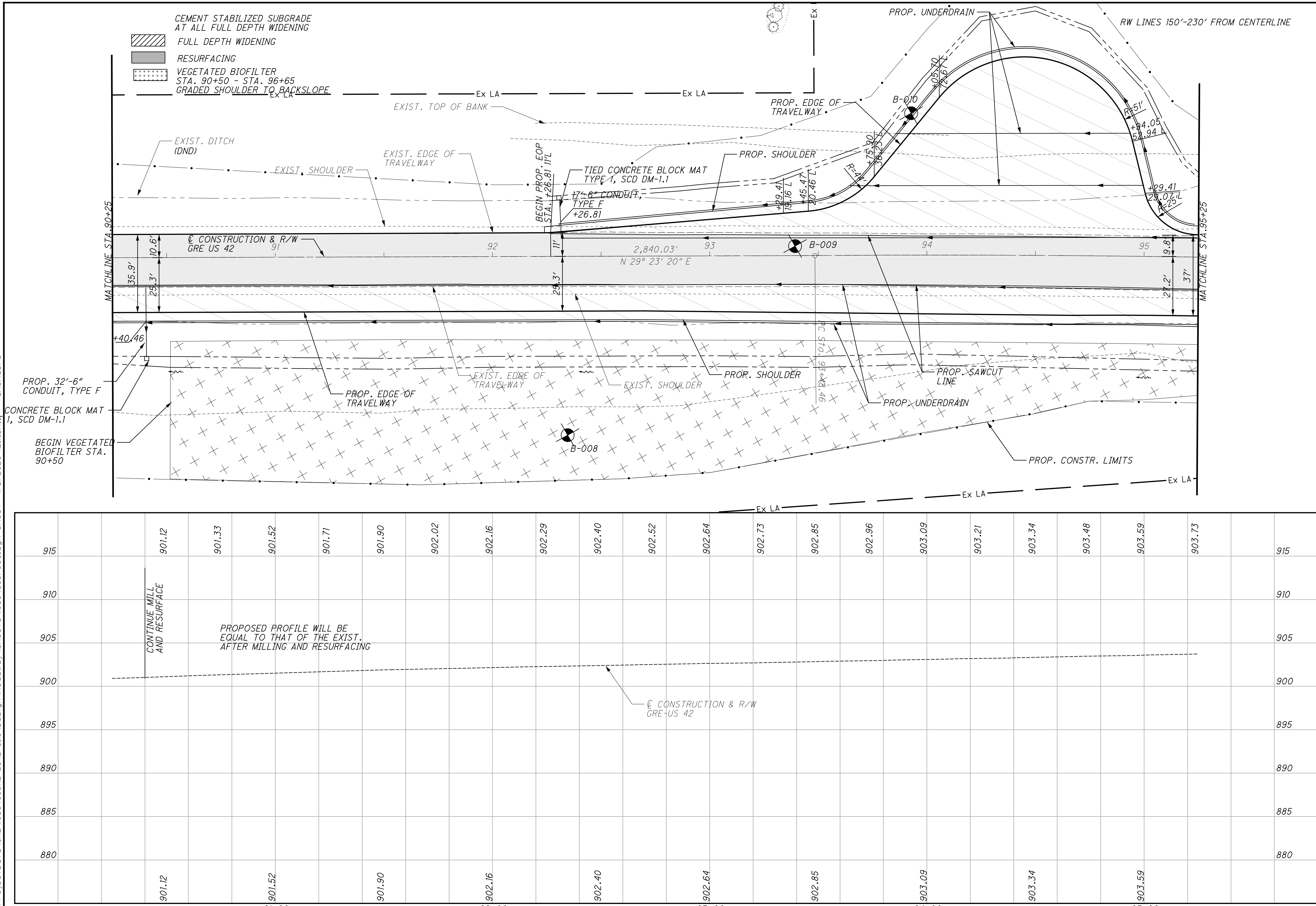

CEMENT STABILIZED SUBGRADE AT ALL FULL DEPTH WIDENING
FULL DEPTH WIDENING
RESURFACING
VEGETATED BIOFILTER STA. 90+50 - STA. 96+65 GRADED SHOULDER TO BACKSLOPE
PROP. UNDERDRAIN
RW LINES 150'-230' FROM CENTERLINE
Ex LA
EXIST. TOP OF BANK
EXIST. DITCH (DND)
EXIST. SHOULDER
EXIST. EDGE OF TRAVELWAY
BEGIN PROP. EOP STA. +26.81 11'L
TIED CONCRETE BLOCK MAT TYPE 1, SCD DM-1.1
17'-6" CONDUIT, TYPE F +26.81
PROP. SHOULDER
PROP. EDGE OF TRAVELWAY
B-010
B-009
B-008
MATCHLINE STA. 90+25
MATCHLINE STA. 95+25
℄ CONSTRUCTION & R/W GRE US 42
2,840.03'
N 29° 23' 20" E
PROP. 32'-6" CONDUIT, TYPE F
TIED CONCRETE BLOCK MAT TYPE 1, SCD DM-1.1
BEGIN VEGETATED BIOFILTER STA. 90+50
PROP. SAWCUT LINE
PROP. UNDERDRAIN
PROP. CONSTR. LIMITS
CONTINUE MILL AND RESURFACE
PROPOSED PROFILE WILL BE EQUAL TO THAT OF THE EXIST. AFTER MILLING AND RESURFACING
℄ CONSTRUCTION & R/W GRE-US 42
91+00
92+00
93+00
94+00
95+00

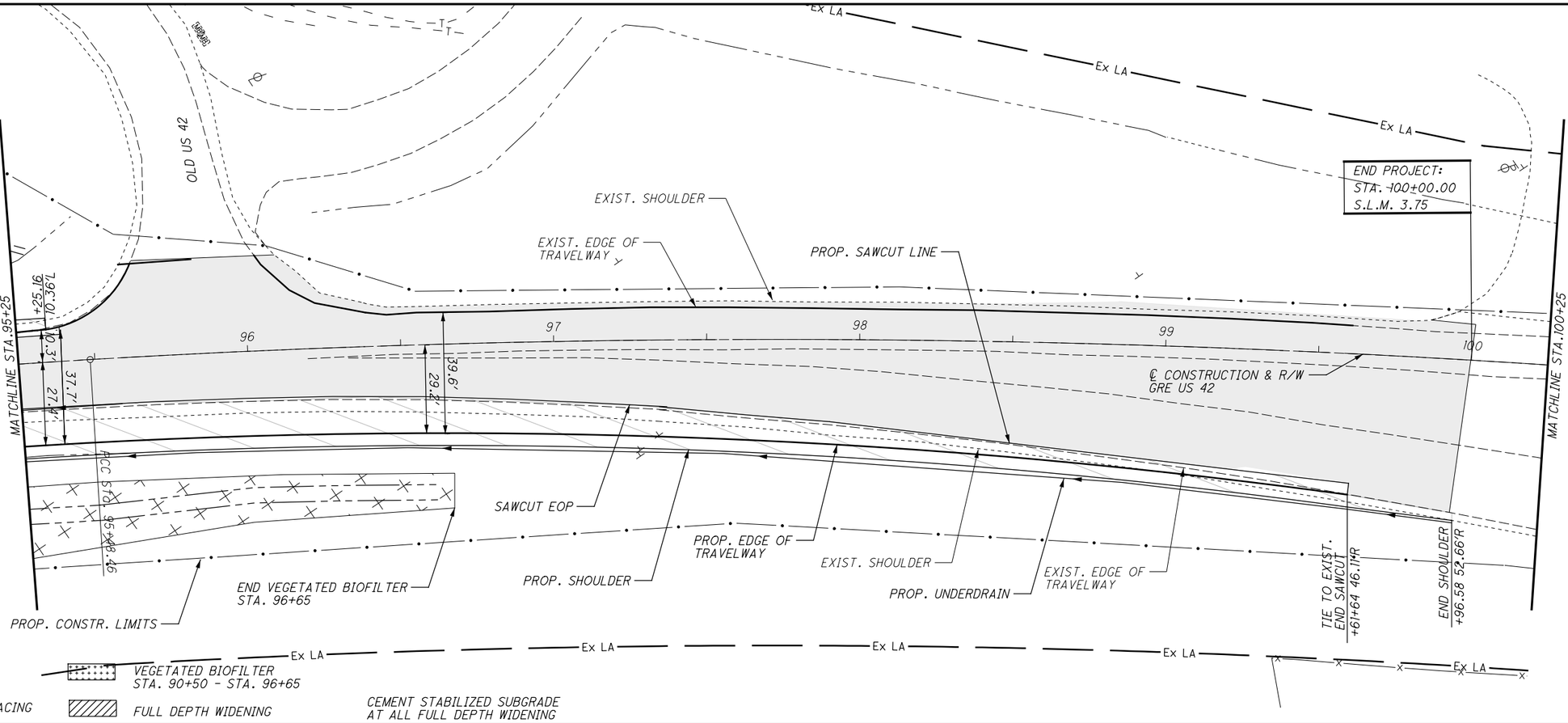
HORIZONTAL SCALE IN FEET

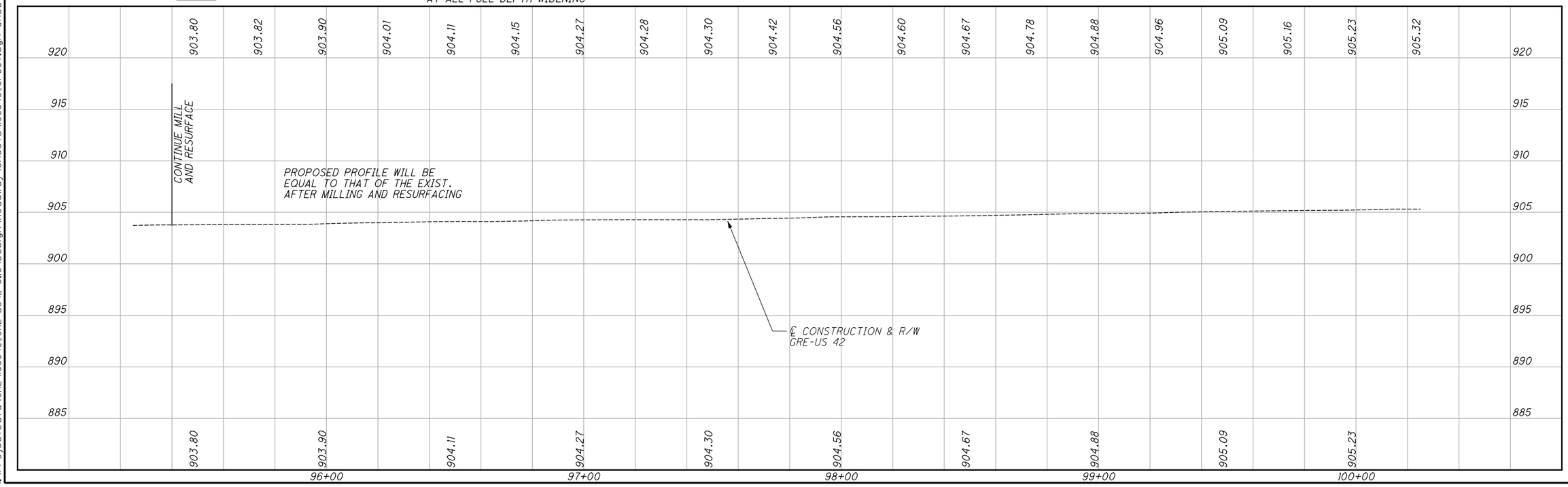
CALCULATED ABH

CHECKED JDO

PLAN AND PROFILE
STA. 90+25 TO STA. 95+25

GRE-42-3.15





0 10 20 40 HORIZONTAL SCALE IN FEET

CALCULATED ABH CHECKED JDO

PLAN AND PROFILE
STA. 95+25 TO STA. 100+00

GRE-42-3.15

18
73

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END WORK:
STA. 61+90.00

SEE SHEET 15 FOR GRE US 42

END WORK:
STA. 65+50.00

EXIST. GAS LINE

℄ W. SPRING VALLEY PAINTERSVILLE RD

TIE TO EXIST. +42.39 9.73L

PI Sta. 63+30.42

PI Sta. 66+71.65

W. SPRING VALLEY PAINTERSVILLE RD

341.23'
S 43° 26' 22" E

GRE US 42

62 63 64 65 66 67

TYPE T AA

EXIST. GUARDRAIL (REMOVE)

+46.44 87.90L

+30.06 54.89L

R=50.5'

+42.39 9.73R

+01.76 17.56R

+77.90 112.14R

R=49'

R=50'

MGS TYPE T AA

PROP. GUARDRAIL, TYPE MGS WITH LONG POSTS

+23.72 41.21R

℄ CONSTRUCTION & R/W GRE-US 42

NO CEMENT STABILATION WILL BE REQUIRED AT SPRINGVALLEY PAINTERSVILLE RD SW CORNER

TIE TO EXIST. +21.81 20.56L

RESURFACING

FULL DEPTH WIDENING

CEMENT STABILIZED SUBGRADE AT ALL FULL DEPTH WIDENING

PROPOSED PROFILE WILL BE EQUAL TO THAT OF THE EXIST. AFTER MILLING AND RESURFACING

W. SPRING VALLEY PAINTERSVILLE RD. PROFILE

CONTINUE MILL AND RESURFACE

GRE US 42 INTERSECTION

EXIST. GAS

915 910 905 900 895 890 885 880

889.14 890.52 891.60 892.18 892.64 892.90 892.60 892.59 893.35 894.46 896.01 897.98 900.13 902.24 904.17 905.86

889.14 891.60 892.64 892.60 893.35 896.01 900.13 904.17

63+00 64+00 65+00 66+00 67+00

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED ABH
CHECKED JDO

PLAN AND PROFILE
STA. 62+25.00 TO STA 65+50.00
SPRING VALLEY PAINTERSVILLE RD

GRE-42-3.15

19
73

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SEEDING	
END WIDTH	SQ. YDS.

END AREA	
CUT	FILL
0	0

VOLUME	
CUT	FILL
0	0
0	0
0	0
0	0

CALCULATED ABH
CHECKED JDO

GRE 42 INTERSECTION
SEE GRE 42 XSECS

EXIST. GAS LINE

892.64
63+00.00 R1

GUARDRAIL BEGIN AT 62+77.35

892.21 892.37 -.006 00 892.18
3.0:1
EXIST. 30" CMP
892.18
62+75.00 R1

ASPHALT
PARKING LOT
891.60 891.76 .006 .003 891.19
3.0:1
891.95
62+65.00 R1

892.10 .02 .009 891.48
Ex ES
891.60
62+50.00 R1

910 900 890 880 870

-110 -100 -90 -80 -70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160

CROSS SECTIONS SPRING VALLEY
STA. 62+50.00 R1 TO STA. 63+00.00 R1

GRE-42-03.15

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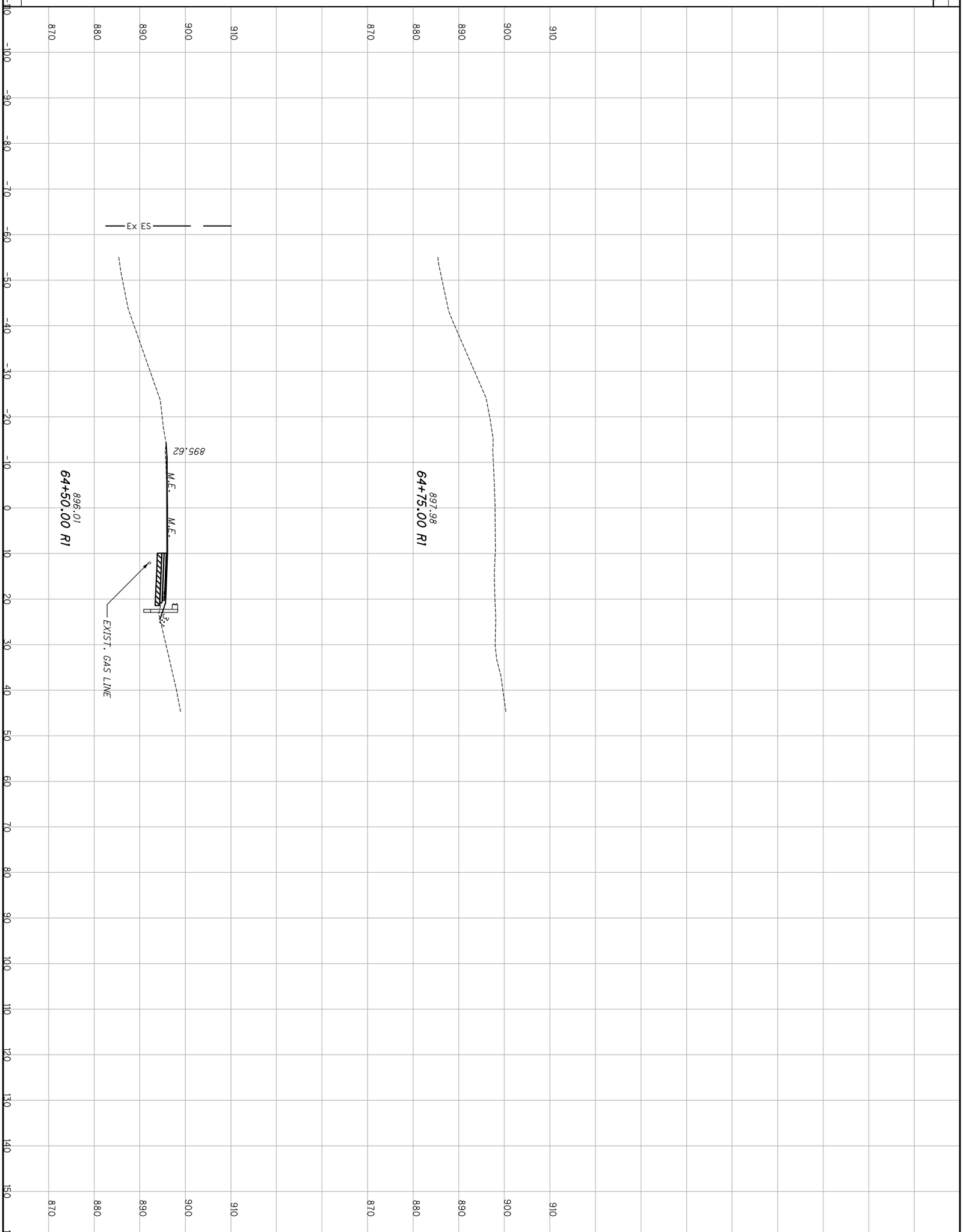
SEEDING
END WIDTH | SQ. YDS.



END AREA	
CUT	0
FILL	0

VOLUME	
CUT	0
FILL	0

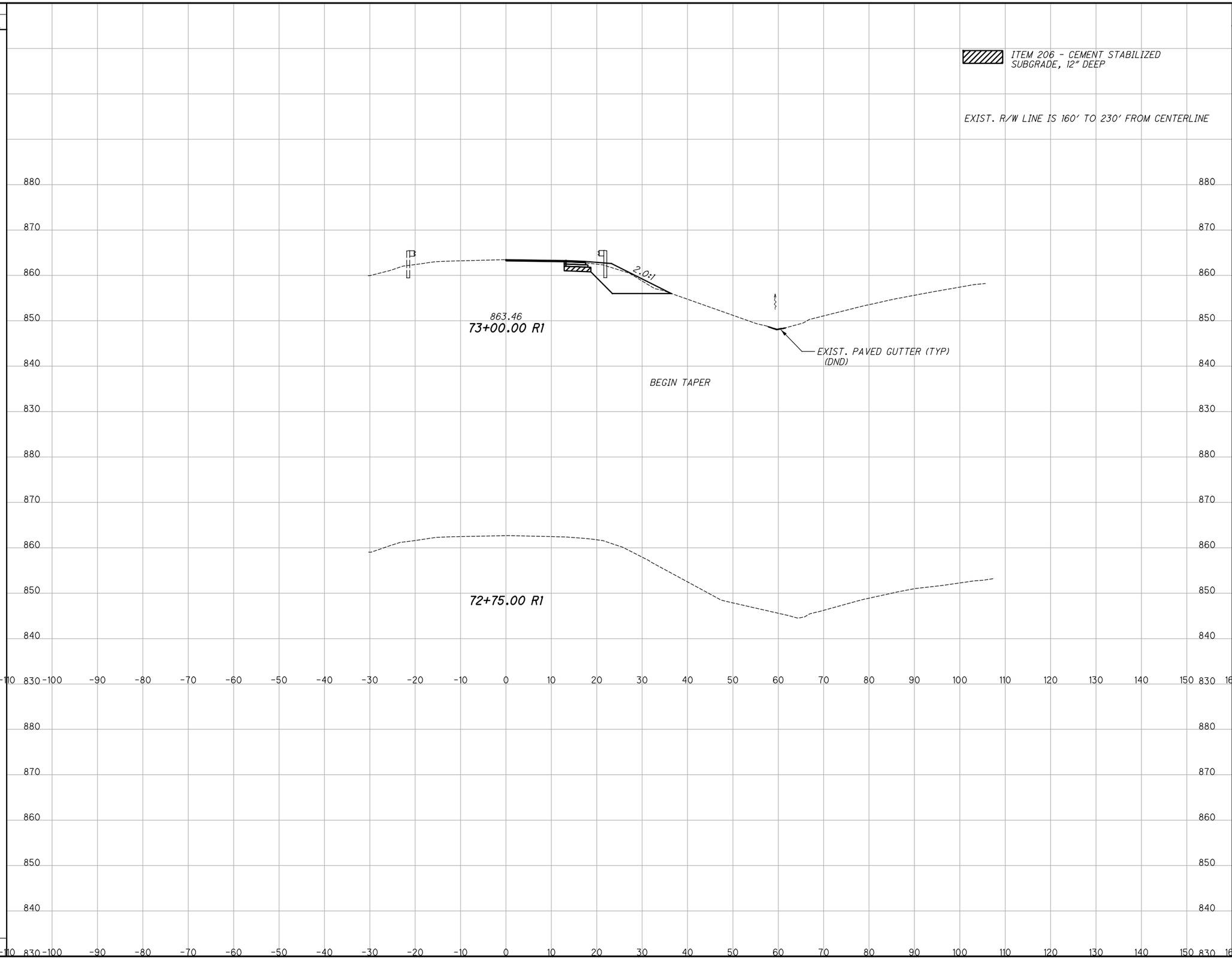
21
73

GRE-42-03.15

CROSS SECTIONS SPRING VALLEY
STA. 64+50.00 R1 TO STA. 64+75.00 R1

CALCULATED ABH
CHECKED JDO

SEEDING	
END WIDTH	SQ. YDS.



END AREA		VOLUME	
CUT	FILL	CUT	FILL
8	8		
		4	4
0	0		
		0	0
0	0		
		0	0

CALCULATED ABH
CHECKED JDO

CROSS SECTIONS - U.S. 42
STA. 72+50.00 R1 TO STA. 73+00.00 R1

GRE-42-03.15

22
73

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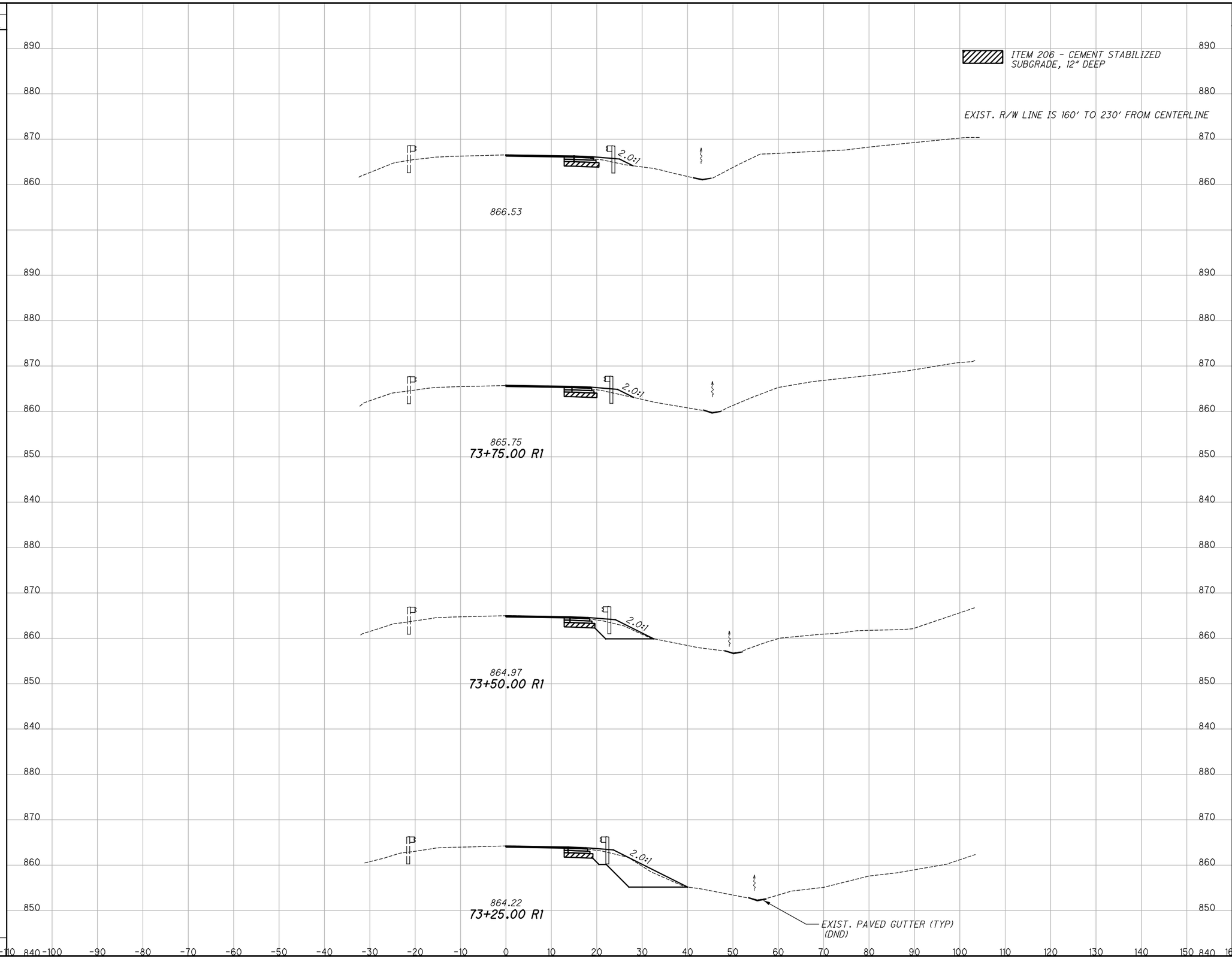
SEEDING	
END WIDTH	SQ. YDS.



END AREA		VOLUME	
CUT	FILL	CUT	FILL
10	5		
		9	5
10	6		
		10	6
11	6		
		9	7
9	10		
		8	8

CALCULATED ABH
CHECKED JDO

CROSS SECTIONS - U.S. 42
STA. 73+25.00 R1 TO STA. 74+00.00 R1

GRE-42-03.15

23
73

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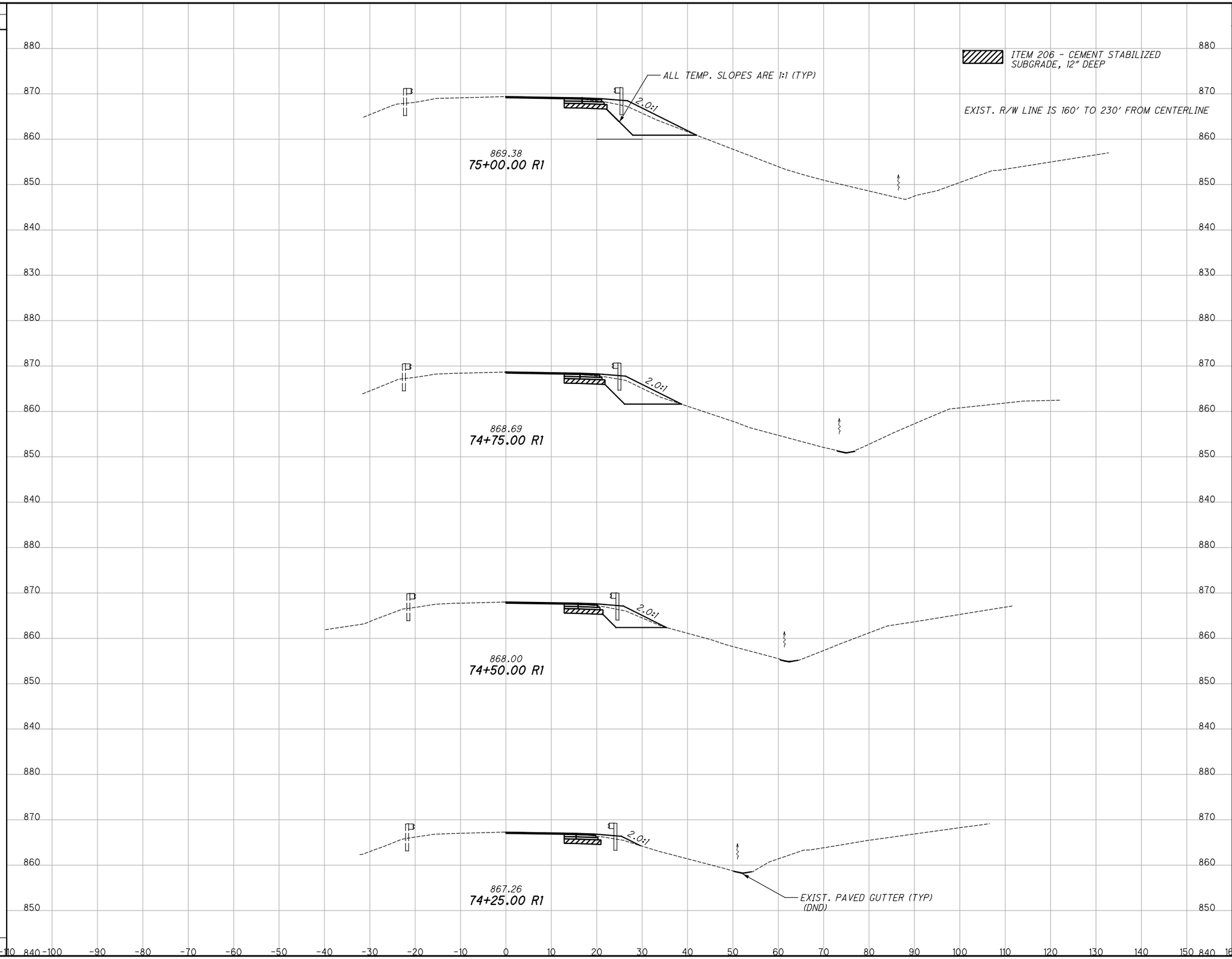
SEEDING	
END WIDTH	SQ. YDS.



END AREA		VOLUME	
CUT	FILL	CUT	FILL
59	17		
		32	14
11	13		
		10	10
11	9		
		10	6
11	5		
		10	5

CALCULATED ABH
CHECKED JDO

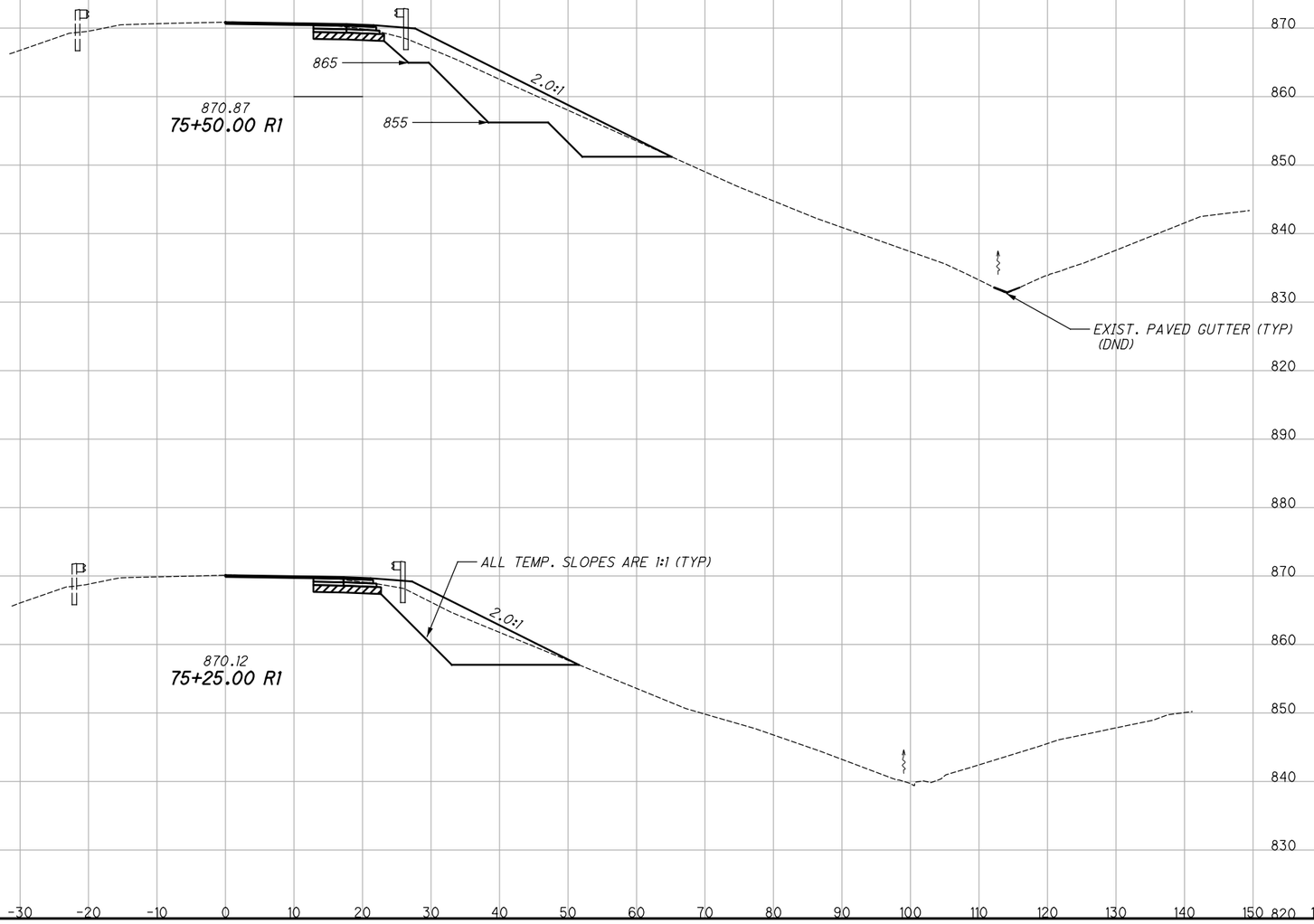
CROSS SECTIONS - U.S. 42
STA. 74+25.00 R1 TO STA. 75+00.00 R1

GRE-42-03.15

SEEDING	
END WIDTH	SQ. YDS.

ITEM 206 - CEMENT STABILIZED SUBGRADE, 12" DEEP

EXIST. R/W LINE IS 160' TO 230' FROM CENTERLINE



END AREA		VOLUME	
CUT	FILL	CUT	FILL
205	43		
		141	34
99	31		
		73	22

CALCULATED ABH
CHECKED JDO

CROSS SECTIONS - U.S. 42
STA. 75+25.00 R1 TO STA. 75+50.00 R1

GRE-42-03.15

25
73

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SEEDING	
END WIDTH	SQ. YDS.

ITEM 206 - CEMENT STABILIZED SUBGRADE, 12" DEEP

EXIST. R/W LINE IS 160' TO 230' FROM CENTERLINE

872.30
76+00.00 R1

865
855
850
2.0:1

871.58
75+75.00 R1

865
855
2.0:1
ALL TEMP. SLOPES ARE 1:1 (TYP)

EXIST. PAVED GUTTER (TYP) (DND)

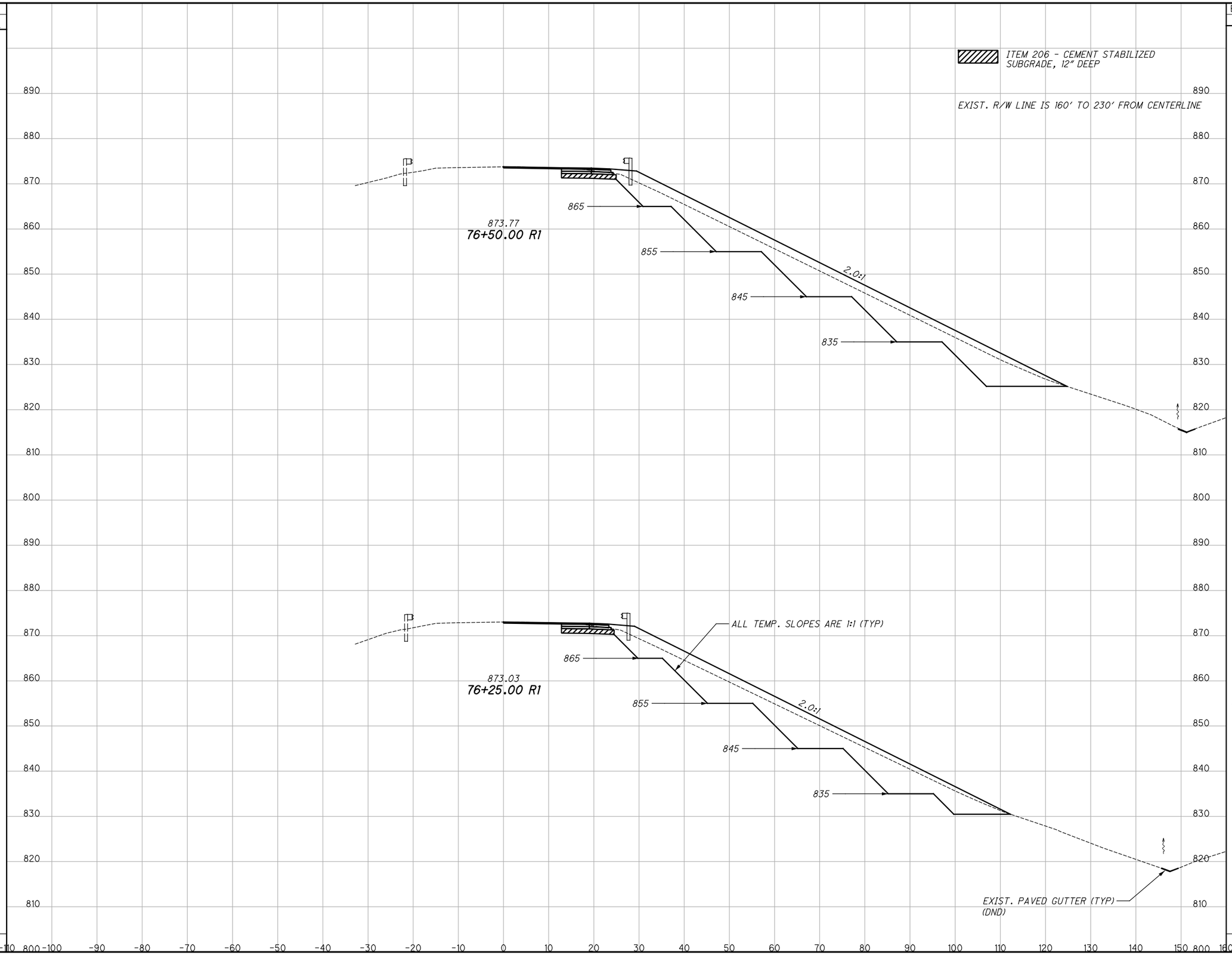
END AREA		VOLUME	
CUT	FILL	CUT	FILL
308	69		
252	51	259	56
		212	44

CALCULATED ABH
CHECKED JDO

CROSS SECTIONS - U.S. 42
STA. 75+75.00 R1 TO STA. 76+00.00 R1

GRE-42-03.15

SEEDING	
END WIDTH	SQ. YDS.



END AREA		VOLUME	
CUT	FILL	CUT	FILL
461	170		
		407	138
419	129		
		337	92

CALCULATED ABH
CHECKED JDO

CROSS SECTIONS - U.S. 42
STA. 76+25.00 R1 TO STA. 76+50.00 R1

GRE-42-03.15

27
73

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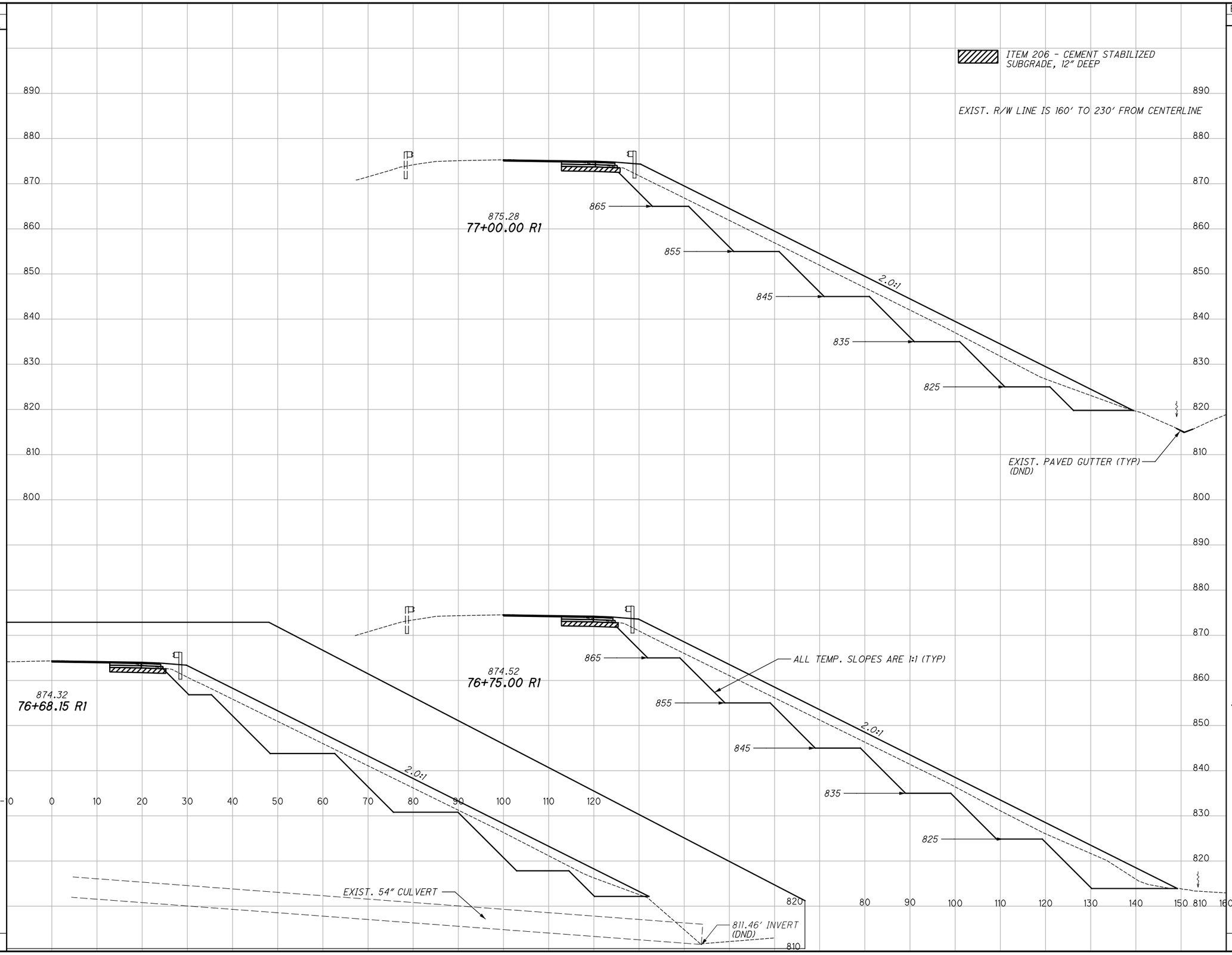
SEEDING	
END WIDTH	SQ. YDS.



END AREA		VOLUME	
CUT	FILL	CUT	FILL
491	271		
		479	253
544	275		
		465	206

CALCULATED ABH
CHECKED JDO

CROSS SECTIONS-U.S. 42
STA. 76+75.00 R1 TO STA. 77+00.00 R1

GRE-42-03.15

28
73

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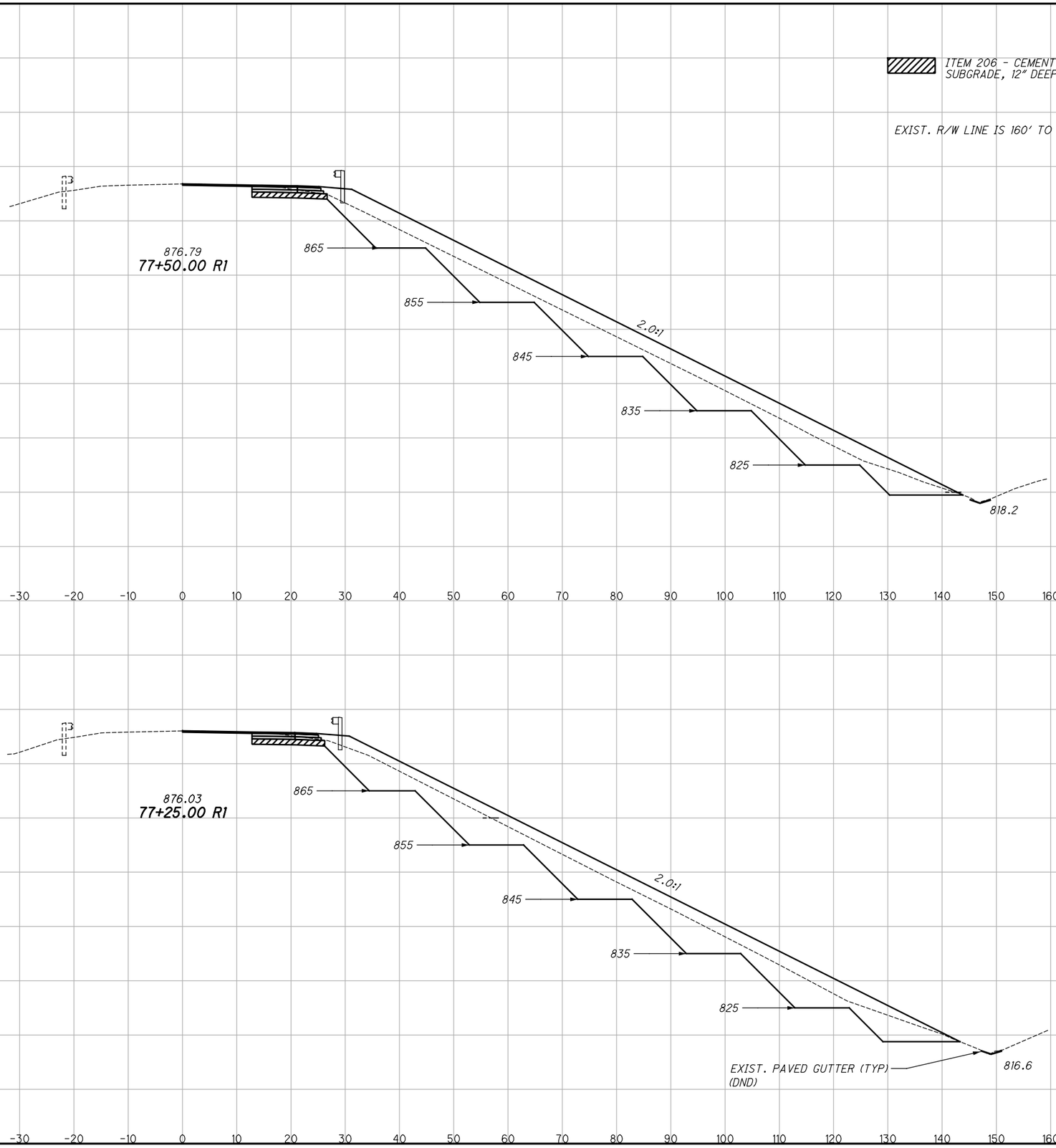
SEEDING	
END WIDTH	SQ. YDS.



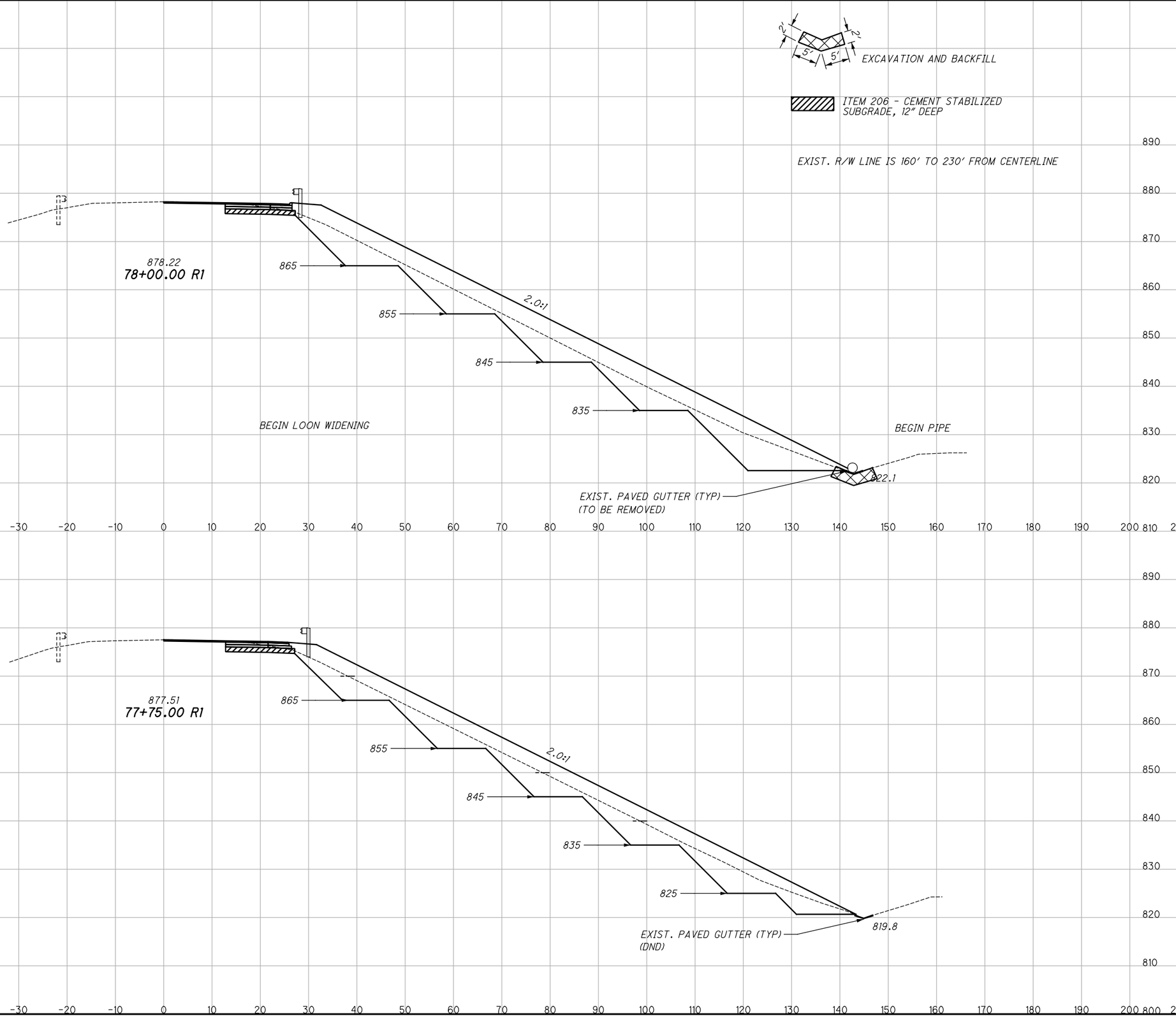
END AREA		VOLUME	
CUT	FILL	CUT	FILL
12	306		
		11	253
12	240		
		0	0

CALCULATED ABH
CHECKED JDO

CROSS SECTIONS - U.S. 42
STA. 77+25.00 R1 TO STA. 77+50.00 R1

GRE-42-3.15

SEEDING	
END WIDTH	SQ. YDS.



END AREA		VOLUME	
CUT	FILL	CUT	FILL
12	434		
		11	354
11	331		
		11	295

CALCULATED ABH
CHECKED JDO

CROSS SECTIONS - U.S. 42
STA. 77+75.00 R1 TO STA. 78+00.00 R1

GRE-42-3.15

30
73

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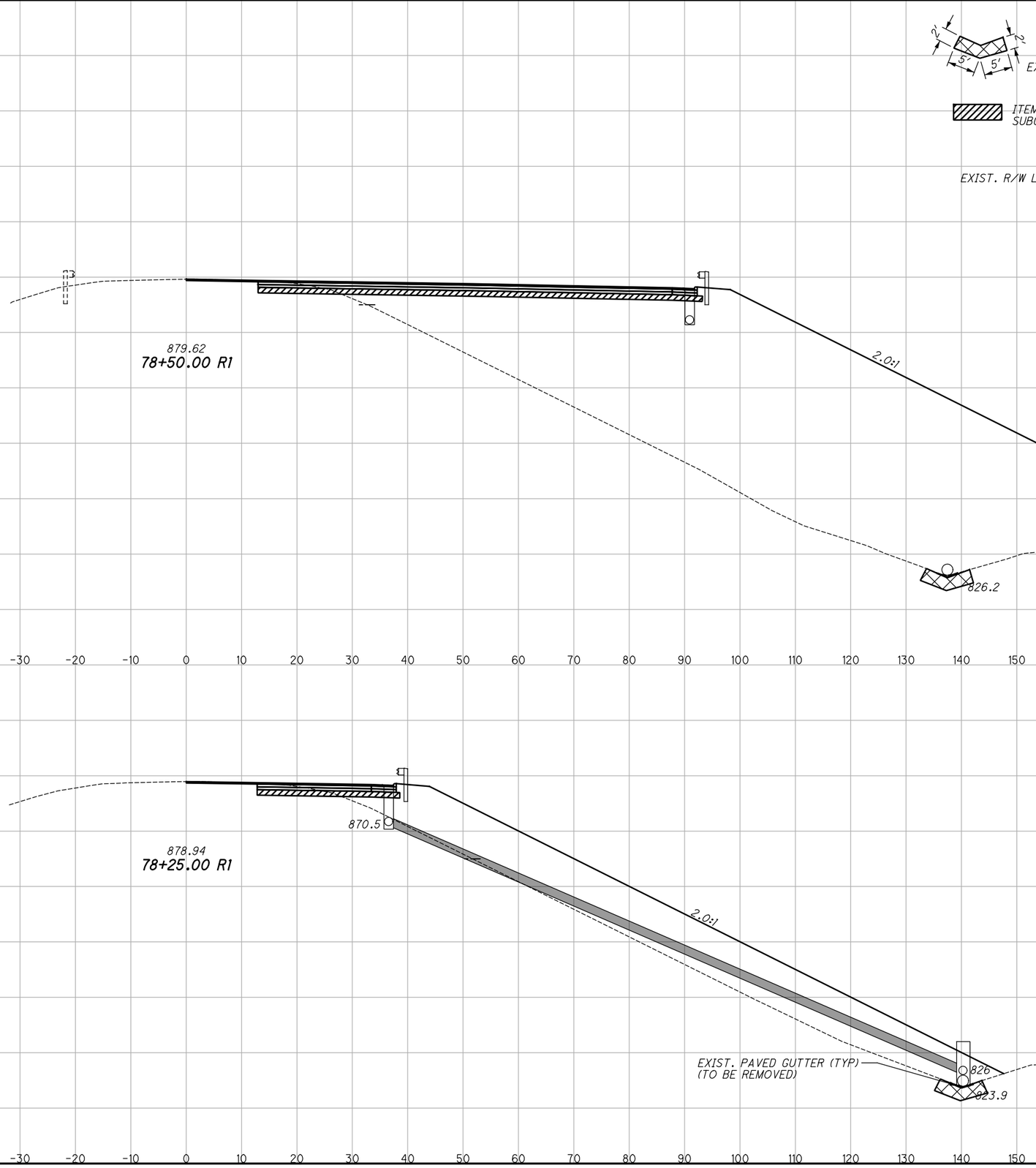
SEEDING	
END WIDTH	SQ. YDS.



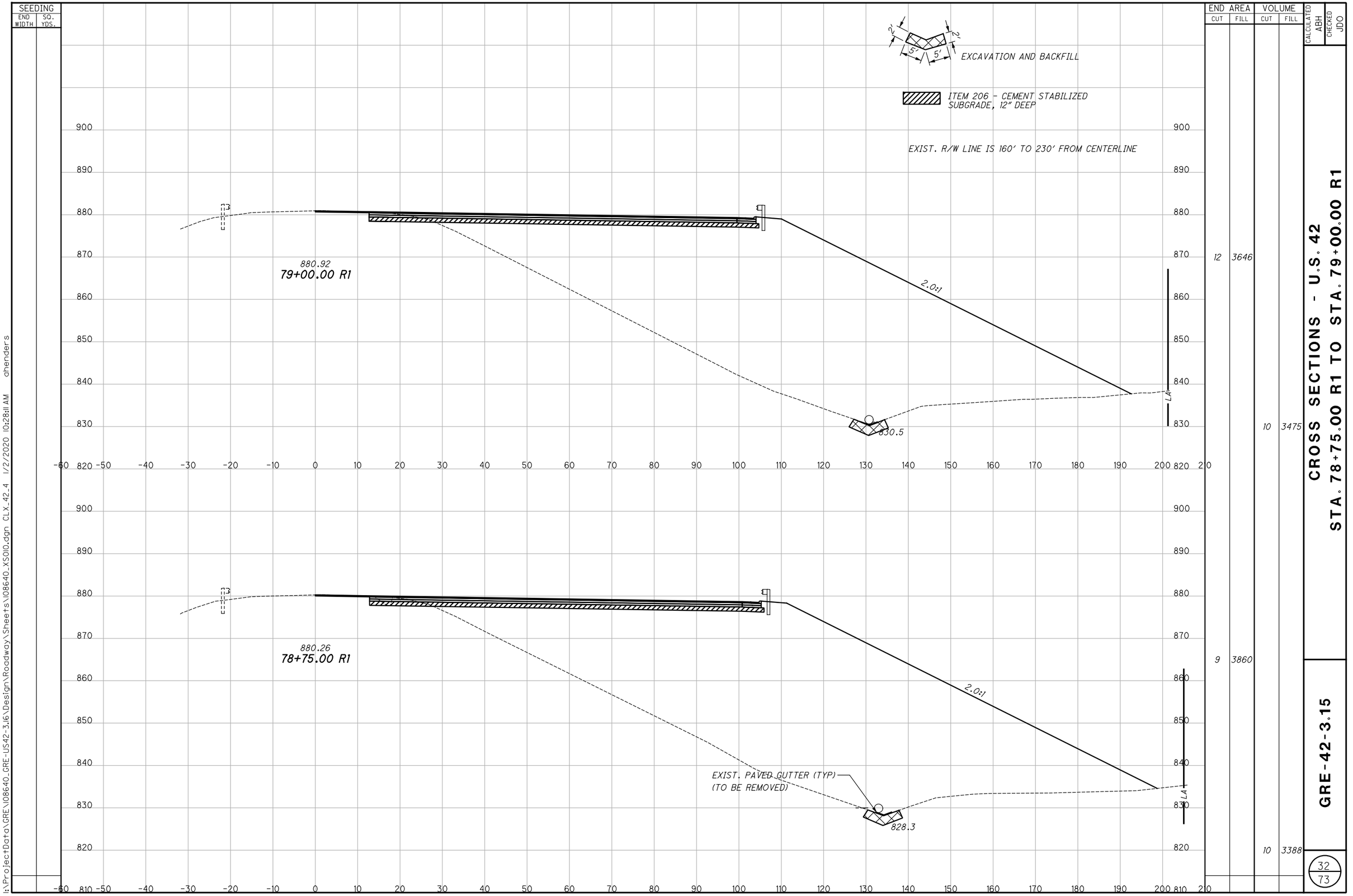
END AREA		VOLUME	
CUT	FILL	CUT	FILL
12	3459		
		11	2046
12	960		
		11	645

CALCULATED ABH
CHECKED JDO

CROSS SECTIONS - U.S. 42
STA. 78+25.00 R1 TO STA. 78+50.00 R1

GRE-42-3.15

SEEDING	
END WIDTH	SQ. YDS.



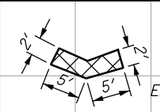
END AREA		VOLUME	
CUT	FILL	CUT	FILL
12	3646		
		10	3475
9	3860		
		10	3388

CALCULATED ABH
CHECKED JDO

CROSS SECTIONS - U.S. 42
STA. 78+75.00 R1 TO STA. 79+00.00 R1

GRE-42-3.15

SEEDING	
END WIDTH	SQ. YDS.



EXCAVATION AND BACKFILL

ITEM 206 - CEMENT STABILIZED SUBGRADE, 12" DEEP

EXIST. R/W LINE IS 160' TO 230' FROM CENTERLINE

882.22
79+50.00 R1

2.0:1

836.4

LA

881.58
79+25.00 R1

2.0:1

EXIST. PAVED GUTTER (TYP)
(TO BE REMOVED)

833.3

LA

END AREA		VOLUME	
CUT	FILL	CUT	FILL
11	1878		
		11	2184
12	2839		
		11	3002

CALCULATED ABH
CHECKED JDO

CROSS SECTIONS - U.S. 42
STA. 79+25.00 R1 TO STA. 79+50.00 R1

GRE-42-3.15

33
73

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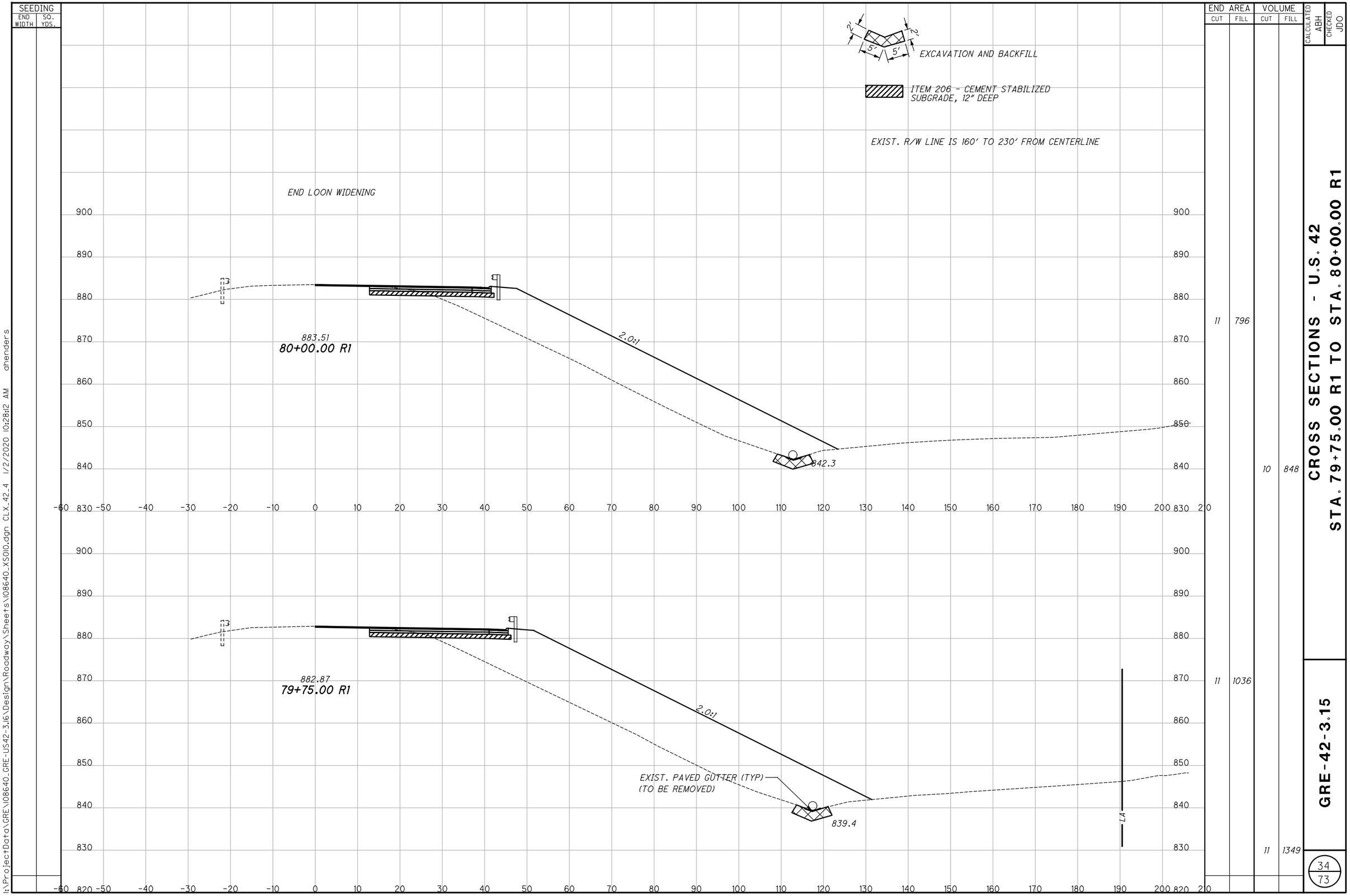
SEEDING	
END WIDTH	SQ. YDS.



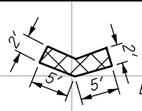
END AREA		VOLUME	
CUT	FILL	CUT	FILL
11	796		
		10	848
11	1036		
		11	1349

CALCULATED ABH
CHECKED JDO

CROSS SECTIONS - U.S. 42
STA. 79+75.00 R1 TO STA. 80+00.00 R1

GRE-42-3.15

SEEDING	
END WIDTH	SQ. YDS.



EXCAVATION AND BACKFILL

ITEM 206 - CEMENT STABILIZED SUBGRADE, 12" DEEP

EXIST. R/W LINE IS 160' TO 230' FROM CENTERLINE

884.74
80+50.00 R1

884.14
80+25.00 R1

2.0:1

EXIST. PAVED GUTTER (TYP)
(TO BE REMOVED)

BEGIN RIGHT TURN LANE

LA

END AREA		VOLUME	
CUT	FILL	CUT	FILL
13	656		
		12	639
12	724		
		0	0

CALCULATED ABH
CHECKED JDO

CROSS SECTIONS - U.S. 42
STA. 80+25.00 R1 TO STA. 80+50.00 R1

GRE-42-3.15

35
73

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SEEDING	
END WIDTH	SQ. YDS.

2'
2'
5'
5'
EXCAVATION AND BACKFILL

ITEM 206 - CEMENT STABILIZED SUBGRADE, 12" DEEP

ROCK CHANNEL PROTECTION
SEE SHEET 15 FOR DETAIL

EXIST. R/W LINE IS 160' TO 230' FROM CENTERLINE

886.53
81+25.00 R1

2.0:1

856.5

LA

885.96
81+00.00 R1

2.0:1

LA

885.35
80+75.00 R1

2.0:1

EXIST. PAVED GUTTER (TYP)
(TO BE REMOVED)

851.2

END PIPE
BEGIN DITCH

LA

END AREA		VOLUME	
CUT	FILL	CUT	FILL
15	520		
		14	493
15	545		
		14	531
14	601		
		13	582

CALCULATED ABH
CHECKED JDO

CROSS SECTIONS - U.S. 42
STA. 80+75.00 R1 TO STA. 81+25.00 R1

GRE-42-3.15

36
73

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SEEDING	
END WIDTH	SQ. YDS.

EXIST. R/W LINE IS 160' TO 230' FROM CENTERLINE UNLESS OTHERWISE SHOWN

2' 2' 5' 5' EXCAVATION AND BACKFILL

ITEM 206 - CEMENT STABILIZED SUBGRADE, 12" DEEP

ROCK CHANNEL PROTECTION SEE SHEET 15 FOR DETAIL

888.22
82+00.00 R1

2.0:1
862.0
862.0
2.0:1
Ex LA

887.66
81+75.00 R1

2.0:1
860.0
860.0
3.0:1
2.0:1

887.10
81+50.00 R1

2.0:1
EXIST. PAVED GUTTER (TYP)
(TO BE REMOVED)
858.7
858.0
3.0:1
2.0:1

END AREA		VOLUME	
CUT	FILL	CUT	FILL
40	460		
		38	433
41	474		
		32	446
29	489		
		29	467

CALCULATED ABH
CHECKED JDO

CROSS SECTIONS - U.S. 42
STA. 81+50.00 R1 TO STA. 82+00.00 R1

GRE-42-3.15

37
73

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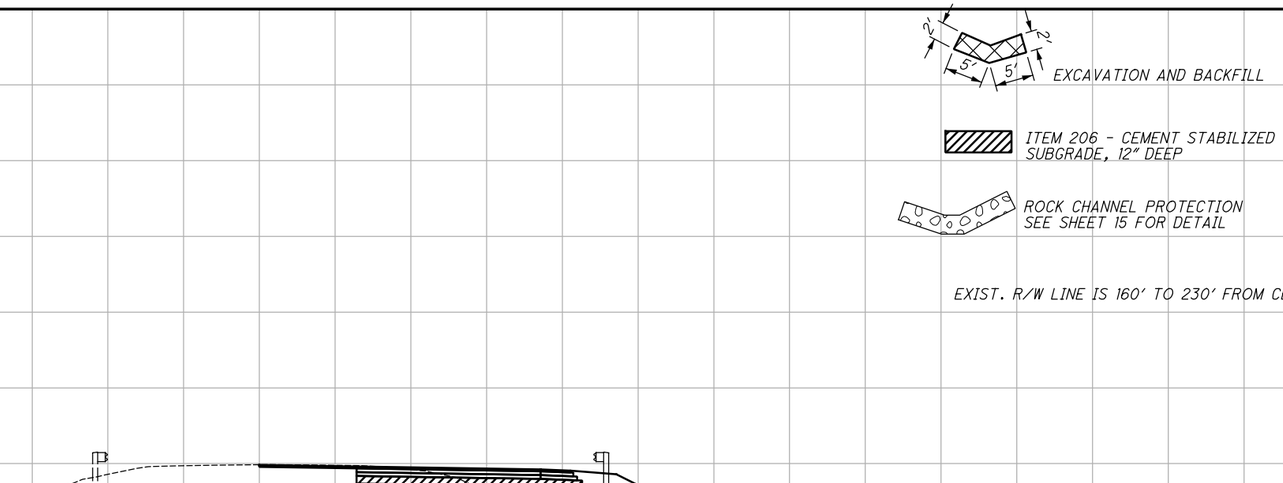
SEEDING	
END WIDTH	SQ. YDS.



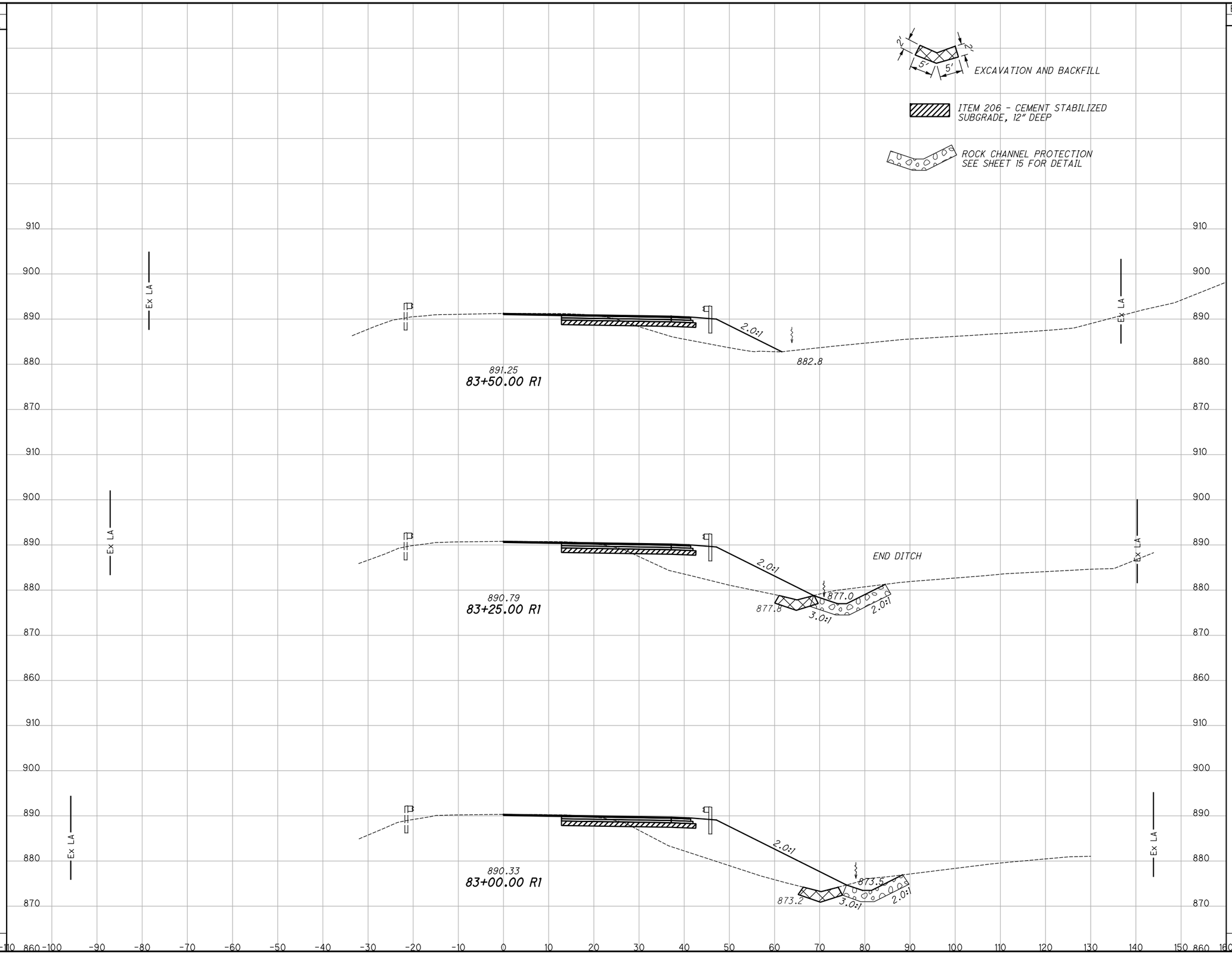
END AREA		VOLUME	
CUT	FILL	CUT	FILL
40	314		
		39	328
45	394		
		42	383
46	434		
		40	414

CALCULATED ABH
CHECKED JDO

CROSS SECTIONS - U.S. 42
STA. 82+25.00 R1 TO STA. 82+75.00 R1

GRE-42-3.15

SEEDING	
END WIDTH	SQ. YDS.



END AREA		VOLUME	
CUT	FILL	CUT	FILL
18	111		
		29	139
45	189		
		37	215
35	275		
		35	273

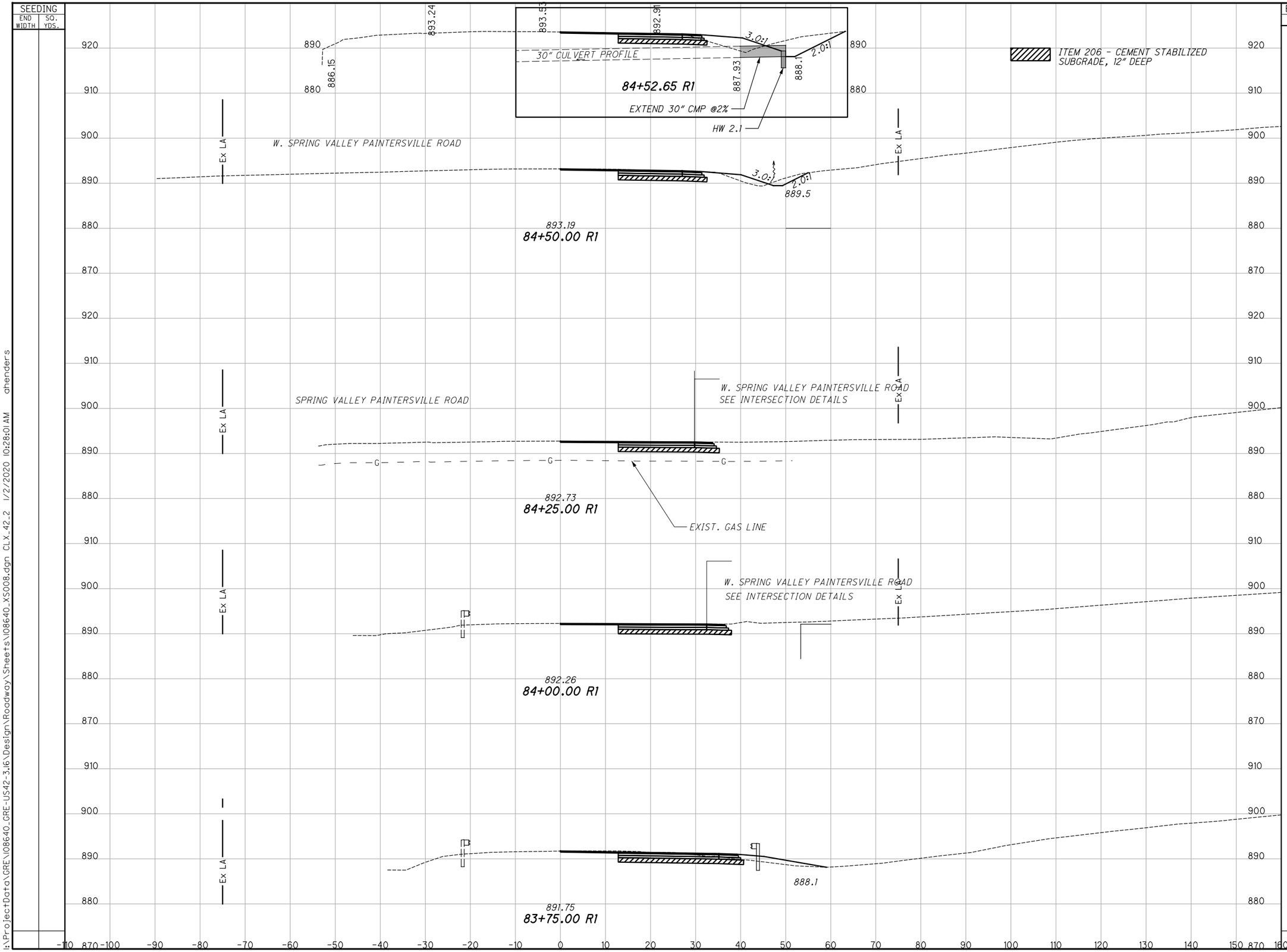
CALCULATED ABH
CHECKED JDO

CROSS SECTIONS - U.S. 42
STA. 83+50.00 R1 TO STA. 83+00.00 R1

GRE-42-3.15

SEEDING

END WIDTH	SQ. YDS.



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
27	5		
		13	2
0	0		
		0	0
0	0		
		15	0
32	17		
		23	59

CALCULATED ABH
CHECKED JDO

CROSS SECTIONS - U.S. 42
STA. 83+75.00 R1 TO STA. 84+50.00 R1

GRE-42-3.15

SEEDING	
END WIDTH	SQ. YDS.

ITEM 206 - CEMENT STABILIZED SUBGRADE, 12" DEEP

Ex LA

3.0:1

889.1

894.51
85+25.00 R1

3.0:1

892.2

2.0:1

Ex LA

888.1

894.09
85+00.00 R1

EXIST. WATER

4.0:1

30" CULVERT PROFILE

890

885.77 LT

886.15

880

1.12%

893.62
84+75.00 R1

889.8

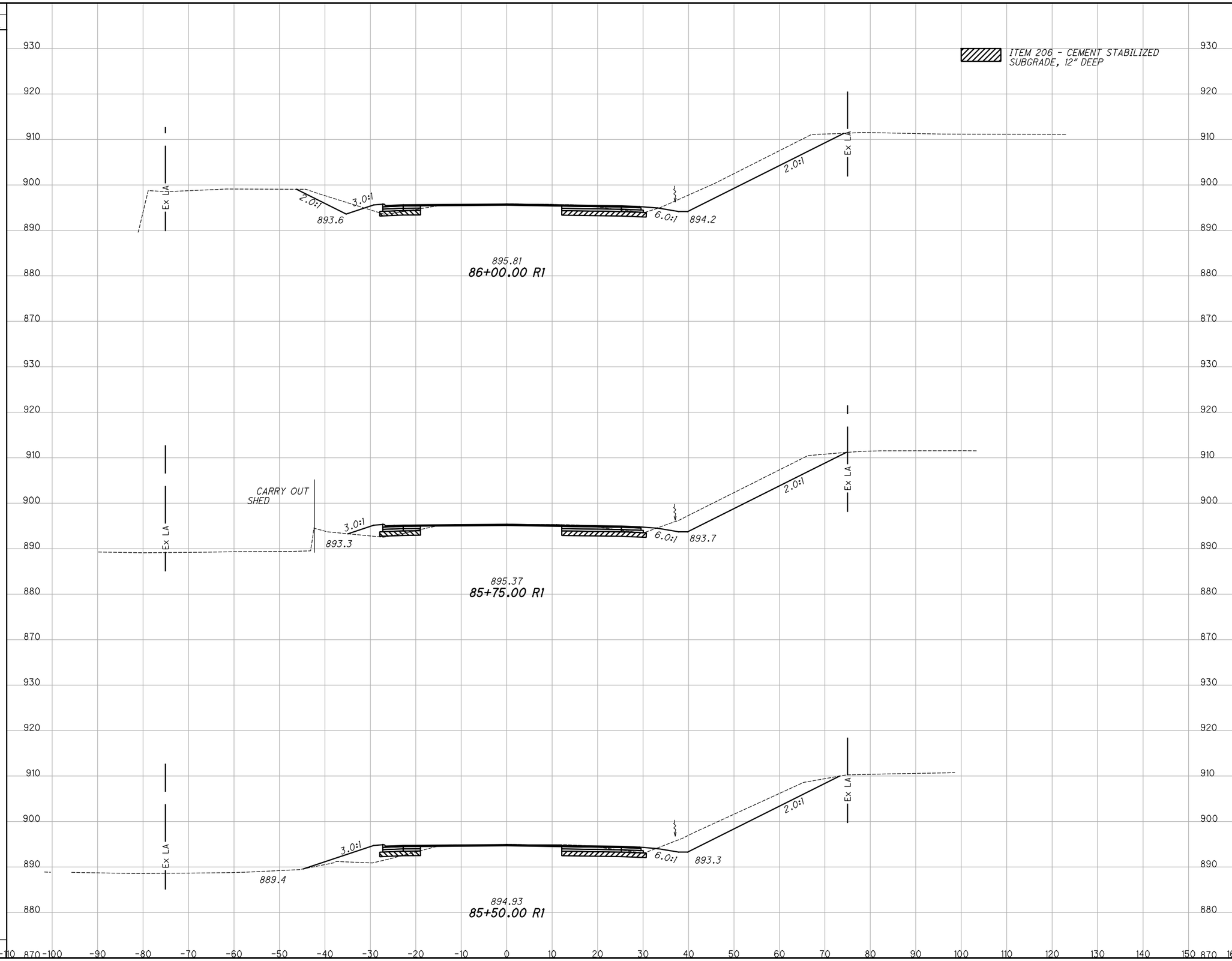
END AREA		VOLUME	
CUT	FILL	CUT	FILL
137	8	109	6
98	7	76	4
67	3	44	3

CALCULATED ABH
CHECKED JDO

CROSS SECTIONS - U.S. 42
STA. 84+75.00 R1 TO STA. 85+25.00 R1

GRE-42-3.15

SEEDING	
END WIDTH	SQ. YDS.



END AREA		VOLUME		
CUT	FILL	CUT	FILL	
126	9			
		117	8	
126	8			
		116	17	
125	29			
		121	8	

CALCULATED ABH
CHECKED JDO

CROSS SECTIONS - U.S. 42
STA. 85+50.00 R1 TO STA. 86+00.00 R1

GRE-42-3.15

42
73

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SEEDING	
END WIDTH	SQ. YDS.

ITEM 206 - CEMENT STABILIZED SUBGRADE, 12" DEEP

RES. BLD.

Ex LA

2.0:1

3.0:1

894.8

896.91
86+75.00 R1

3.0:1

895.0

2.0:1

Ex LA

Ex LA

2.0:1

3.0:1

894.4

896.57
86+50.00 R1

6.0:1

894.8

2.0:1

Ex LA

Ex LA

2.0:1

3.0:1

894.0

896.19
86+25.00 R1

6.0:1

894.5

2.0:1

Ex LA

930
920
910
900
890
880

-110 -100 -90 -80 -70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160

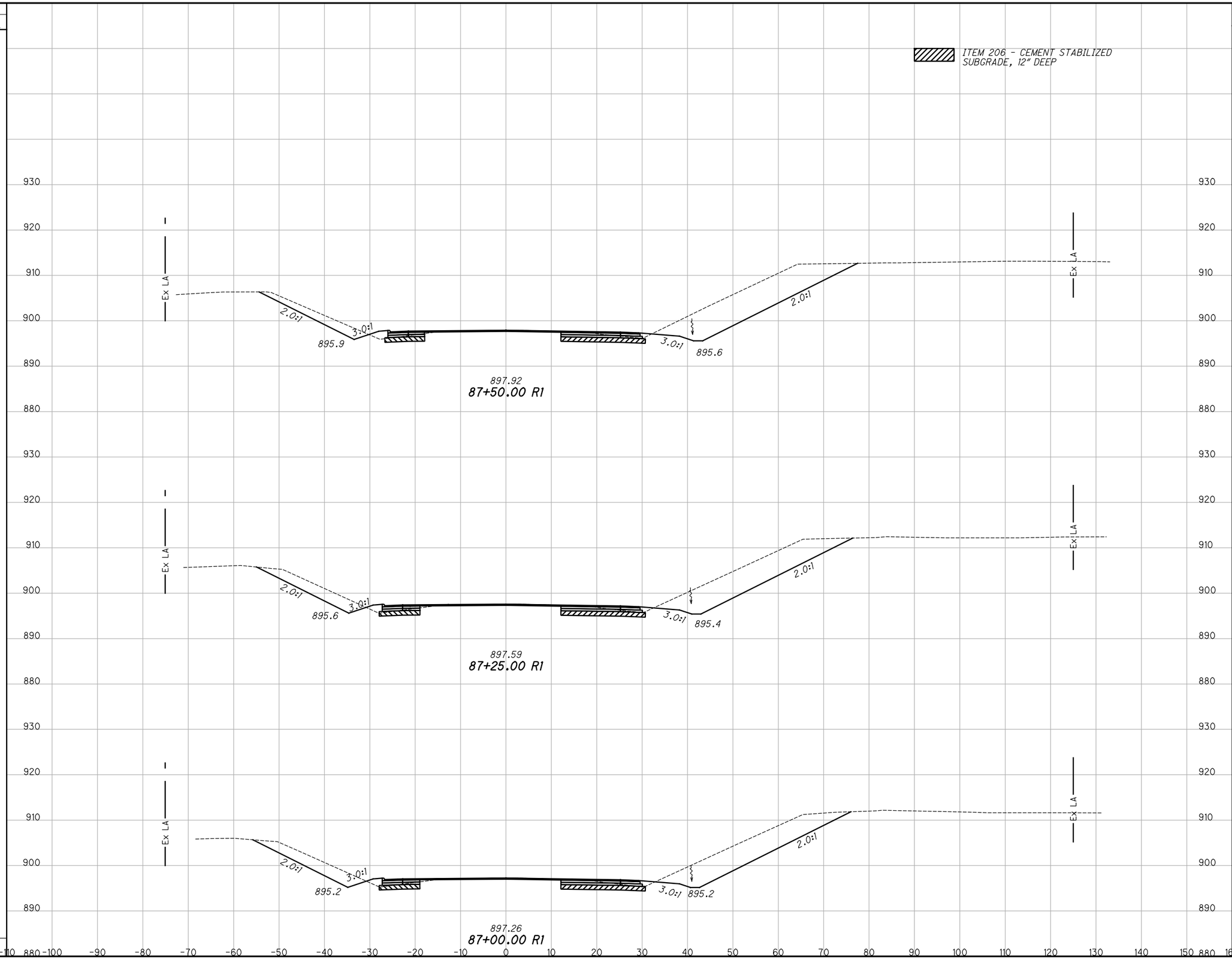
END AREA		VOLUME	
CUT	FILL	CUT	FILL
252	6		
		167	7
108	9		
		107	8
124	9		
		116	8

CALCULATED ABH
CHECKED JDO

CROSS SECTIONS - U.S. 42
STA. 86+25.00 R1 TO STA. 86+75.00 R1

GRE-42-3.15

SEEDING	
END WIDTH	SQ. YDS.



END AREA		VOLUME	
CUT	FILL	CUT	FILL
353	1975		
		306	6
308	6		
		274	6
284	6		
		248	6

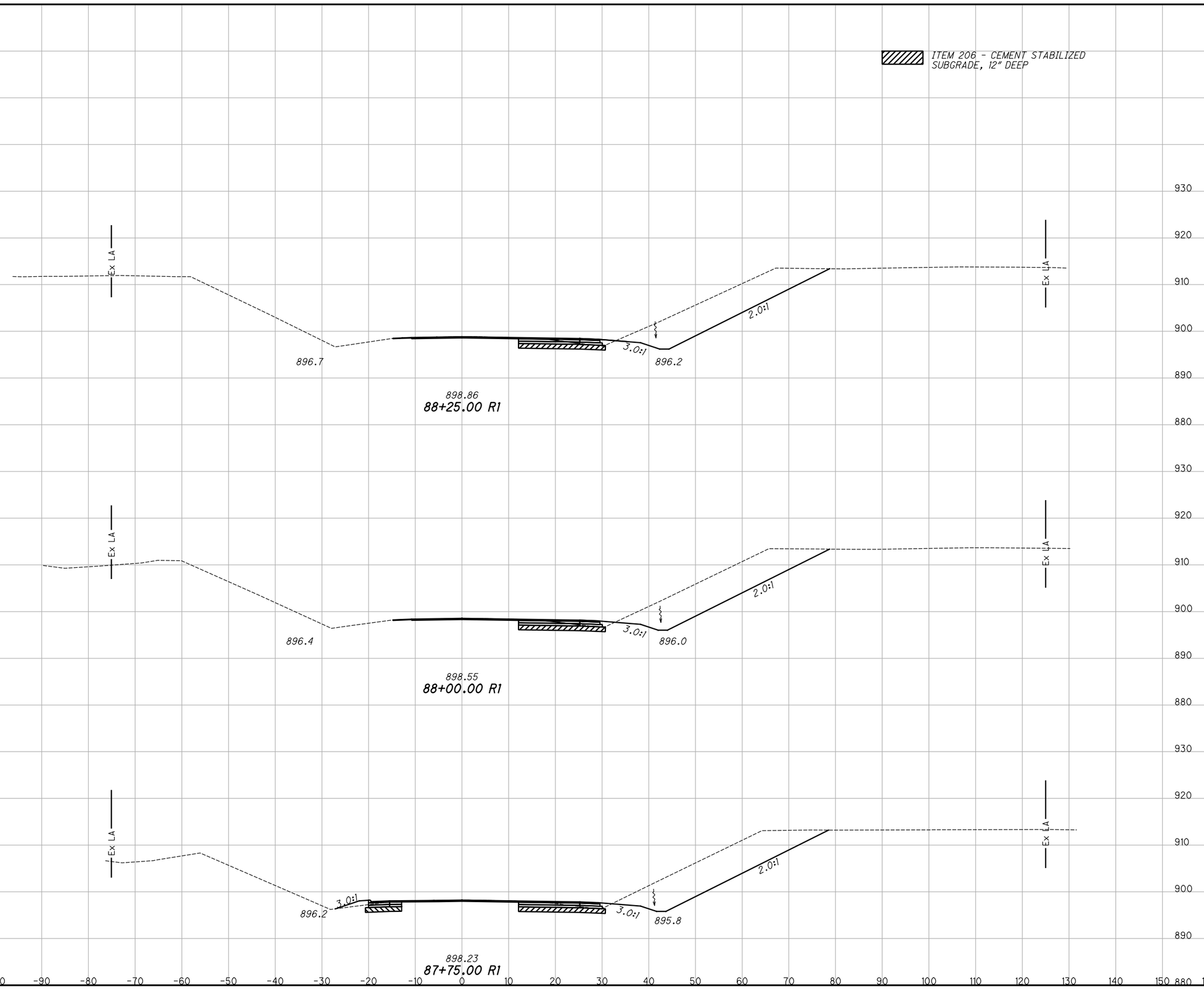
CALCULATED ABH
CHECKED JDO

CROSS SECTIONS - U.S. 42
STA. 87+00.00 R1 TO STA. 87+50.00 R1

GRE-42-3.15

SEEDING	
END WIDTH	SQ. YDS.

ITEM 206 - CEMENT STABILIZED SUBGRADE, 12" DEEP



END AREA		VOLUME	
CUT	FILL	CUT	FILL
345	8		
		321	7
348	7		
		326	7
357	8		
		329	7

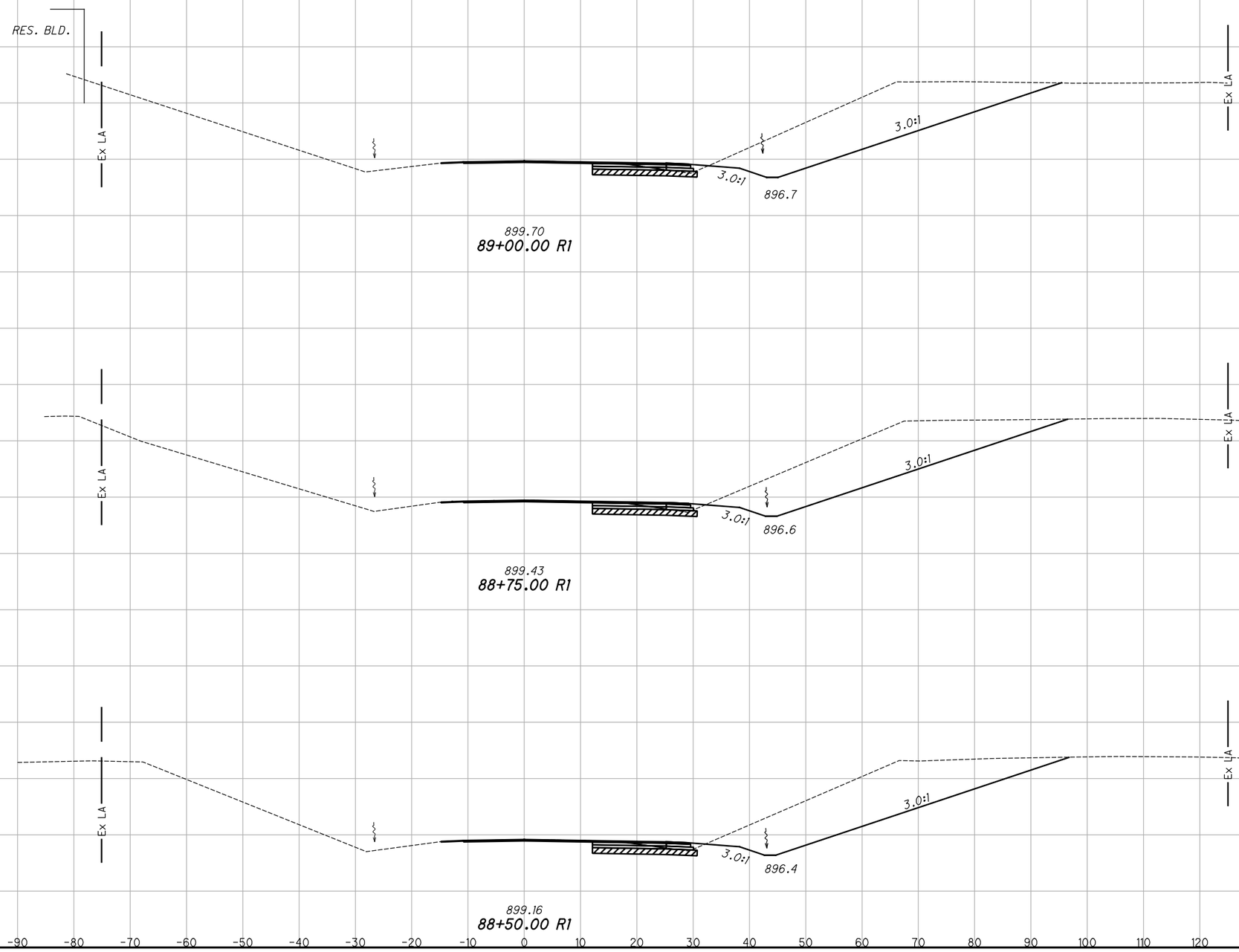
CALCULATED ABH
CHECKED JDO

CROSS SECTIONS - U.S. 42
STA. 87+75.00 R1 TO STA. 88+25.00 R1

GRE-42-3.15

SEEDING	
END WIDTH	SQ. YDS.

ITEM 206 - CEMENT STABILIZED SUBGRADE, 12" DEEP



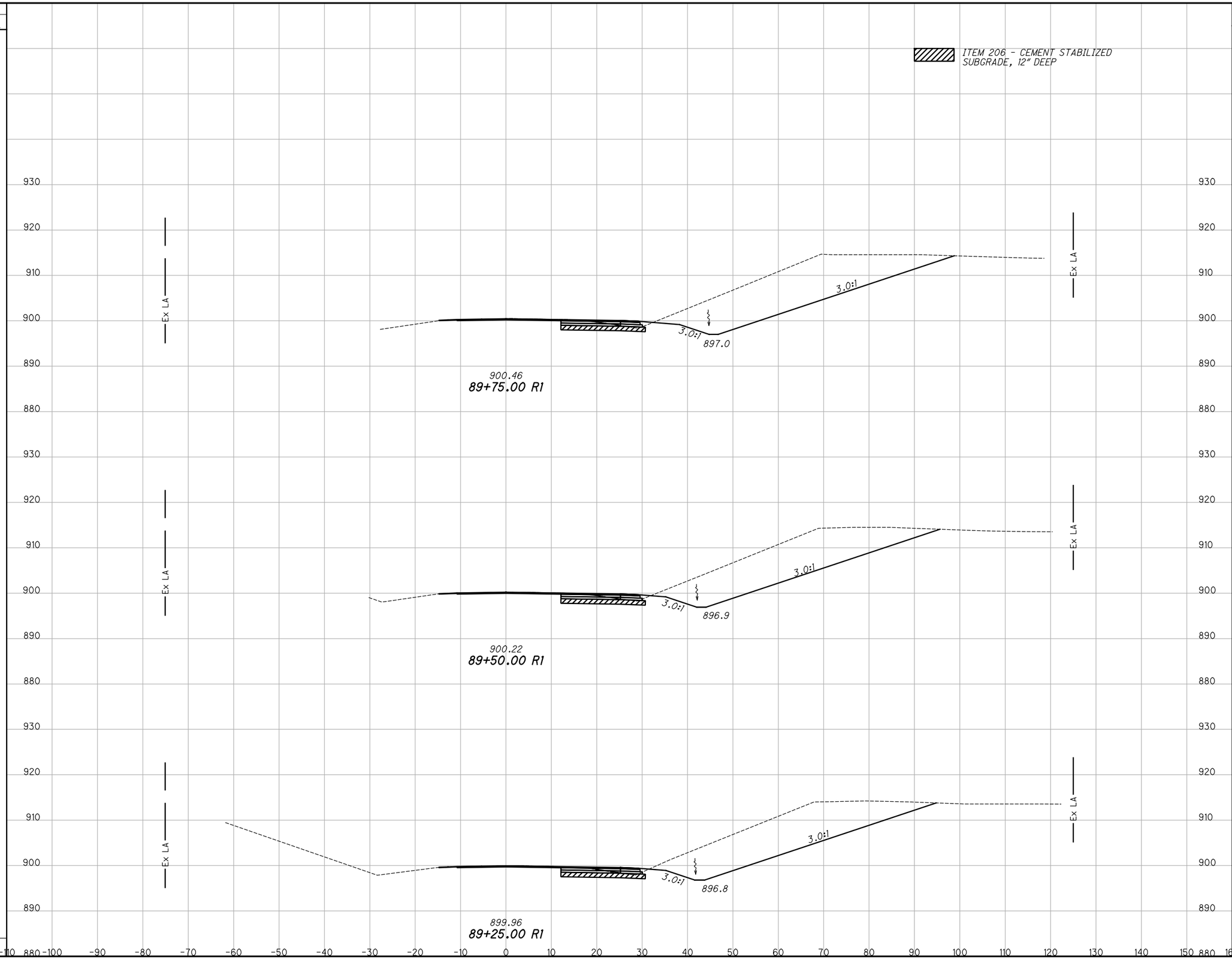
END AREA		VOLUME	
CUT	FILL	CUT	FILL
346	8		
		317	7
338	7		
		318	7
349	7		
		321	7

CALCULATED ABH
CHECKED JDO

CROSS SECTIONS - U.S. 42
STA. 88+50.00 R1 TO STA. 89+00.00 R1

GRE-42-3.15

SEEDING	
END WIDTH	SQ. YDS.



END AREA		VOLUME	
CUT	FILL	CUT	FILL
368	7		
		332	6
350	6		
		327	6
356	7		
		325	7

CALCULATED ABH
CHECKED JDO

CROSS SECTIONS - U.S. 42
STA. 89+25.00 R1 TO STA. 89+75.00 R1

GRE-42-3.15

SEEDING	
END WIDTH	SQ. YDS.

ITEM 206 - CEMENT STABILIZED SUBGRADE, 12" DEEP

Ex LA

3.0:1

897.4

VEGETATED BIOFILTER (TYPICAL)

901.12
90+50.00 R1

BEGIN VEGETATED BIOFILTER

Ex LA

3.0:1

3.0:1

897.3

900.91
90+25.00 R1

Ex LA

3.0:1

3.0:1

897.1

900.70
90+00.00 R1

END AREA		VOLUME	
CUT	FILL	CUT	FILL
466	7		
426	6		
446	7		
		413	6
		404	6
		377	7

CALCULATED ABH
CHECKED JDO

CROSS SECTIONS - U.S. 42
STA. 90+00.00 R1 TO STA. 90+50.00 R1

GRE-42-3.15

48
73

SEEDING		END AREA		VOLUME		CALCULATED	CHECKED
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL	ABH	JDO

CROSS SECTIONS - U.S. 42
STA. 90+75.00 R1 TO STA. 91+25.00 R1

GRE-42-3.15

SEEDING	
END WIDTH	SQ. YDS.

ITEM 206 - CEMENT STABILIZED SUBGRADE, 12" DEEP

Ex LA

3.0:1

898.3

902.16
92+00.00 R1

Ex LA

3.0:1

898.2

902.03
91+75.00 R1

Ex LA

3.0:1

898.0

VEGETATED BIOFILTER (TYPICAL)

901.90
91+50.00 R1

END AREA		VOLUME	
CUT	FILL	CUT	FILL
481	7	443	7
475	8	452	8
502	9	461	8

CALCULATED ABH
CHECKED JDO

CROSS SECTIONS - U.S. 42
STA. 91+50.00 R1 TO STA. 92+00.00 R1

GRE-42-3.15

50
73

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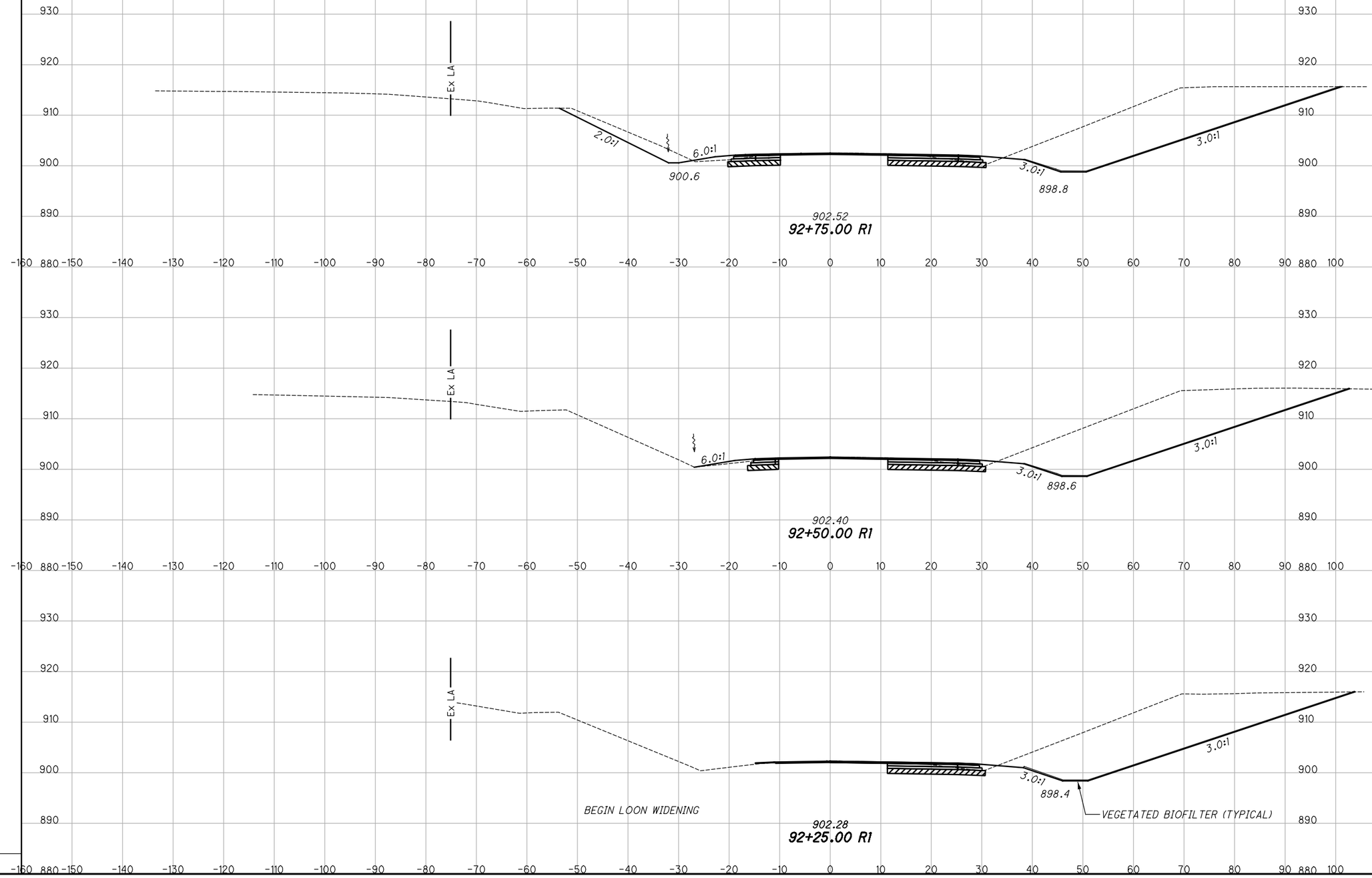
SEEDING	
END WIDTH	SQ. YDS.

ITEM 206 - CEMENT STABILIZED SUBGRADE, 12" DEEP

EXIST. R/W LINE IS 150' TO 193' FROM CENTERLINE UNLESS OTHERWISE SHOWN



END AREA	
CUT	FILL
472	
485	6
474	10
0	0

VOLUME	
CUT	FILL
443	7
444	7
0	0

CALCULATED ABH
CHECKED JDO

CROSS SECTIONS - U.S. 42
STA. 92+25.00 R1 TO STA. 92+75.00 R1

GRE-42-3.15

51
73

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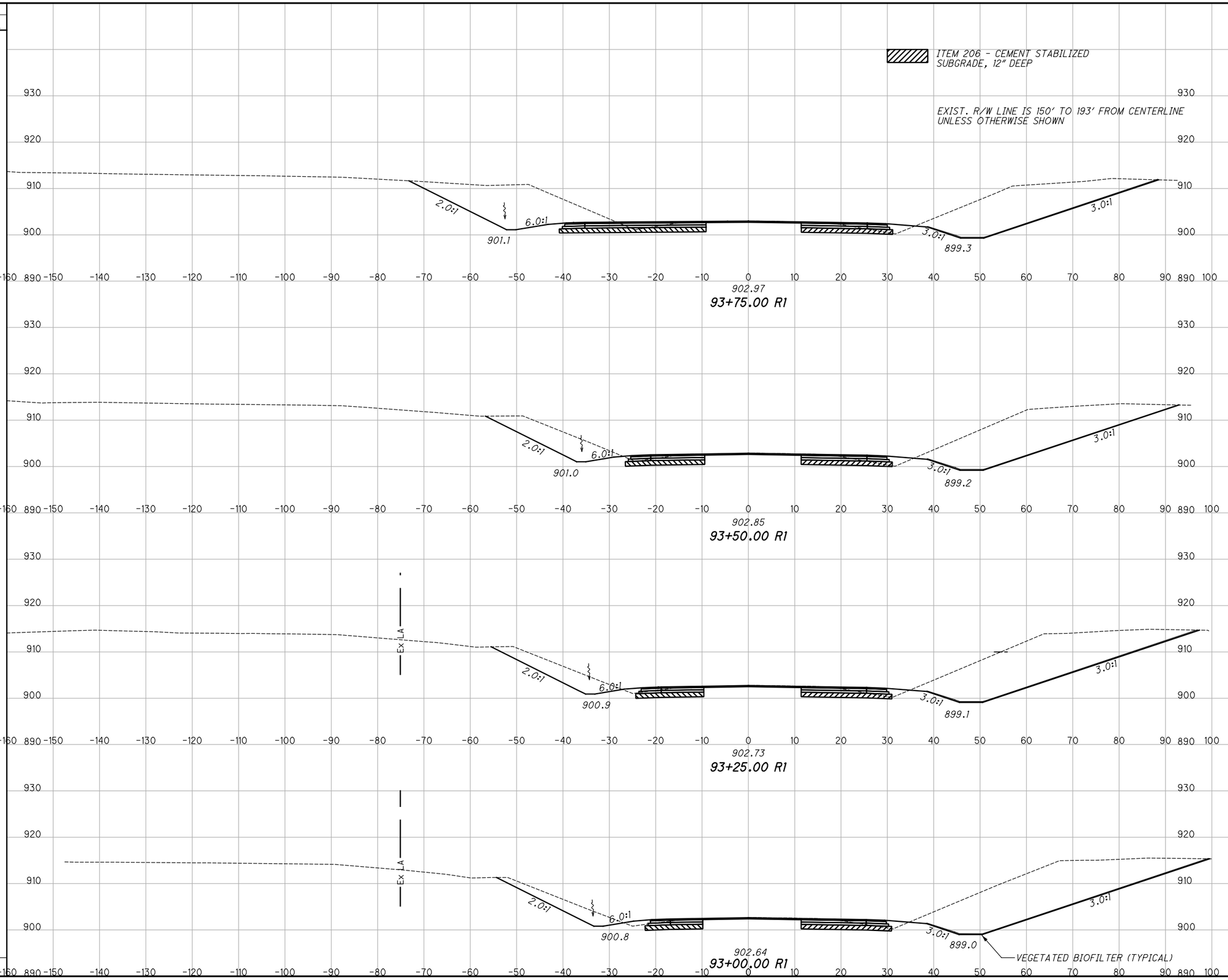
SEEDING	
END WIDTH	SQ. YDS.



END AREA	
CUT	FILL
538	9
428	9
459	10
463	40

VOLUME	
CUT	FILL
438	9
411	9
427	9
433	9

CALCULATED ABH
CHECKED JDO

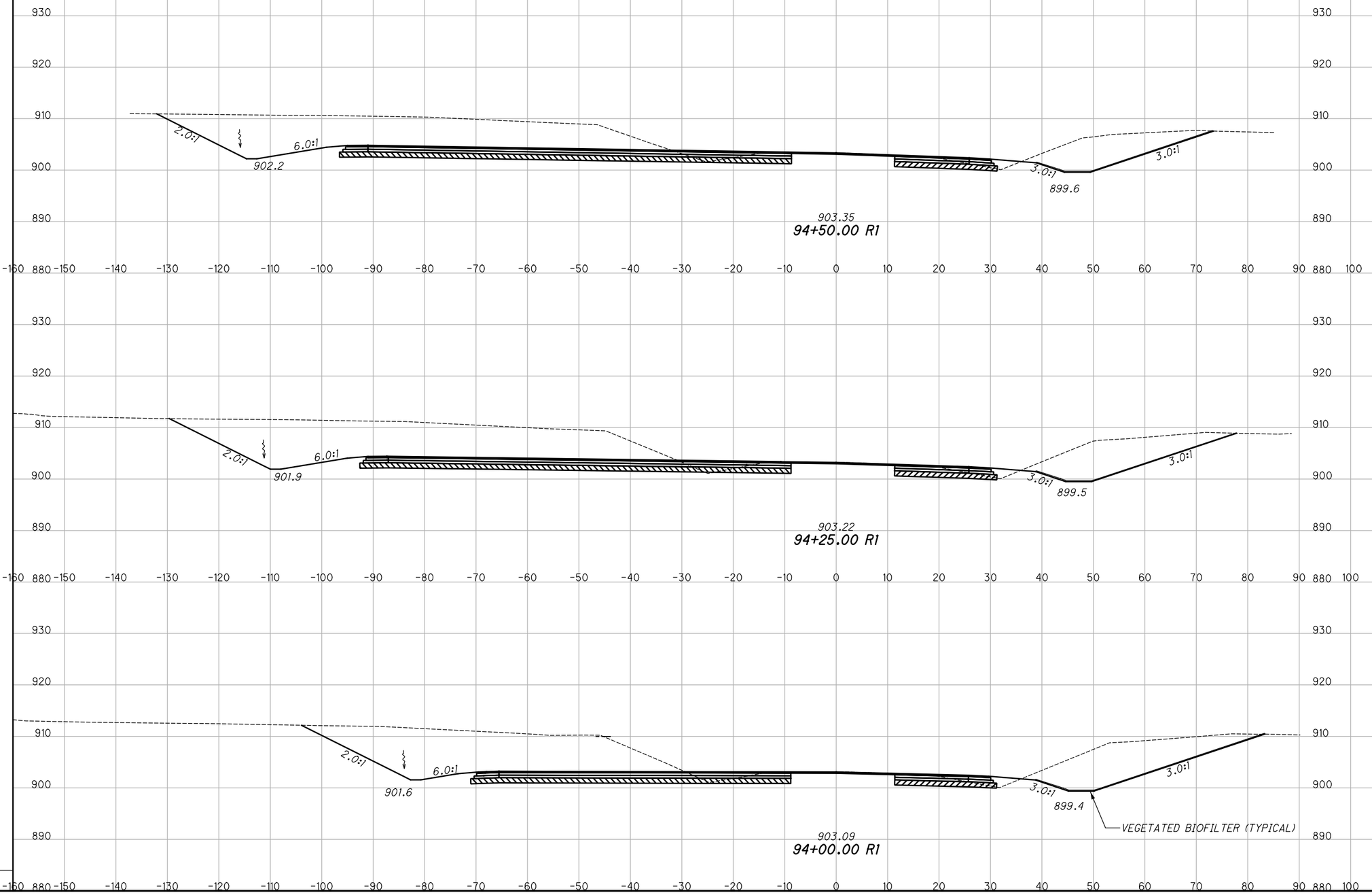
CROSS SECTIONS - U.S. 42
STA. 93+00.00 R1 TO STA. 93+75.00 R1

GRE-42-3.15

SEEDING	
END WIDTH	SQ. YDS.

ITEM 206 - CEMENT STABILIZED SUBGRADE, 12" DEEP

EXIST. R/W LINE IS 150' TO 193' FROM CENTERLINE UNLESS OTHERWISE SHOWN



END AREA		VOLUME	
CUT	FILL	CUT	FILL
796	15		
		753	13
830	14		
		725	12
736	12		
		581	10

CALCULATED ABH
CHECKED JDO

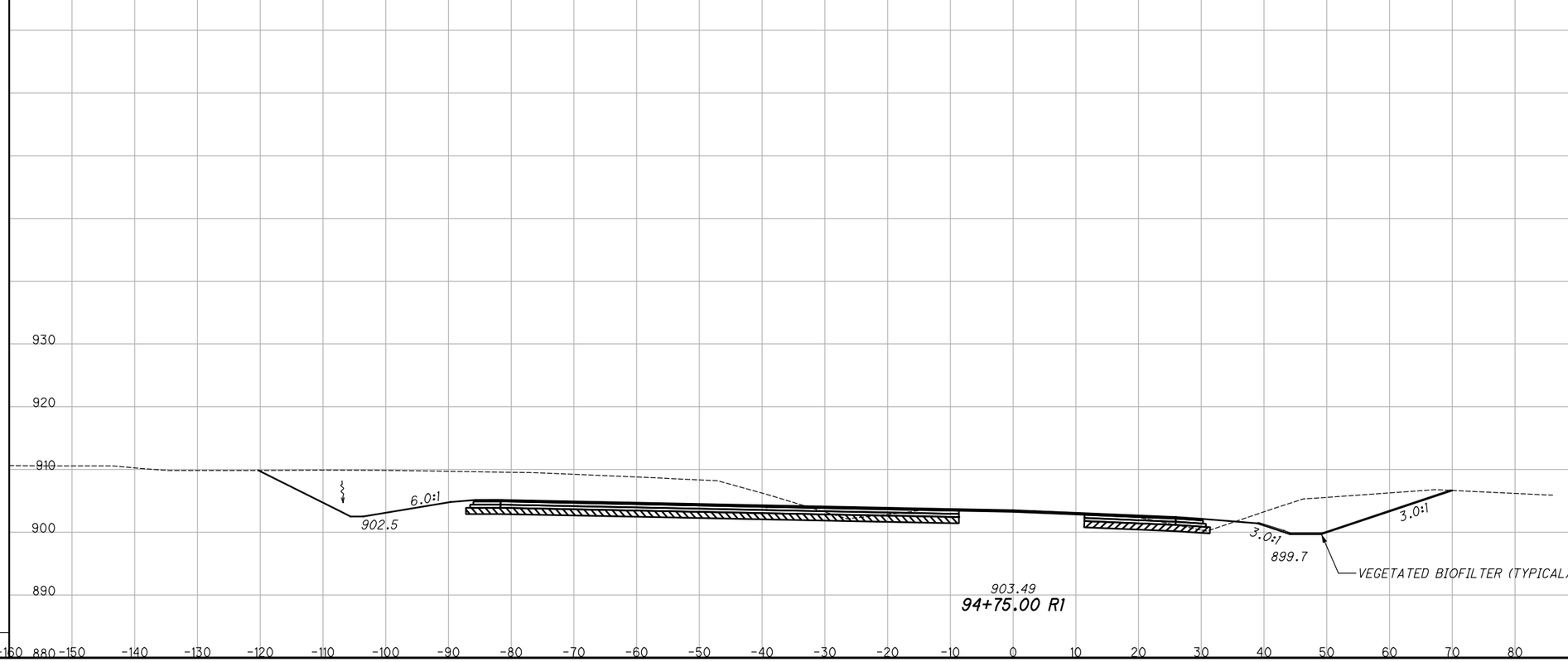
CROSS SECTIONS - U.S. 42
STA. 94+00.00 R1 TO STA. 94+50.00 R1

GRE-42-3.15

SEEDING	
END WIDTH	SQ. YDS.

ITEM 206 - CEMENT STABILIZED SUBGRADE, 12" DEEP

EXIST. R/W LINE IS 150' TO 193' FROM CENTERLINE UNLESS OTHERWISE SHOWN



END AREA		VOLUME	
CUT	FILL	CUT	FILL
562	15	629	14

CALCULATED ABH
CHECKED JDO

CROSS SECTIONS - U.S. 42
STA. 94+75.00 R1 TO STA. 95+00.00 R1

GRE-42-3.15

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL
		48	2		
				45	3
		49	5		
				50	10
		59	18		
				62	16
		74	18		
				120	16
		185	9		
				188	9

CALCULATED ABH
CHECKED JDO

ITEM 206 - CEMENT STABILIZED SUBGRADE, 12" DEEP

EXIST. R/W LINE IS 150' TO 193' FROM CENTERLINE UNLESS OTHERWISE SHOWN

903.90
96+00.00 R1

OLD US 42
3.0:1
3.0:1
900.3
Ex LA

903.83
95+75.00 R1

OLD US 42
3.0:1
3.0:1
900.2
Ex LA

903.80
95+50.00 R1

OLD US 42
3.0:1
3.0:1
900.1
Ex LA

903.72
95+25.00 R1

903.1
3.0:1
3.0:1
900.0
Ex LA

903.60
95+00.00 R1

END LOON WIDENING
2.0:1
6.0:1
902.7
3.0:1
3.0:1
899.8
VEGETATED BIOFILTER (TYPICAL)
Ex LA

910
900
890
920

-110 -100 -90 -80 -70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160

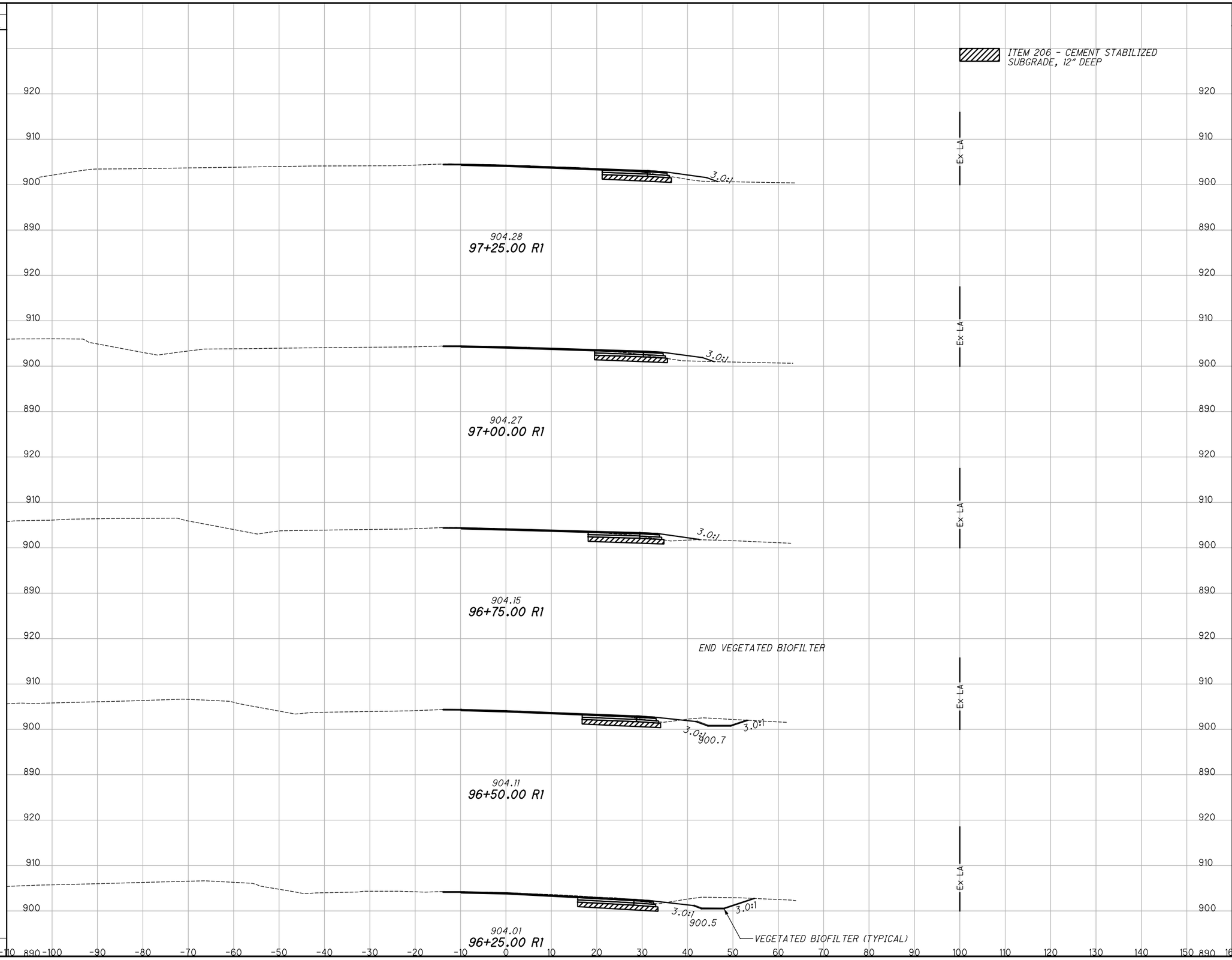
CROSS SECTIONS
STA. 95+00.00 R1 TO STA. 96+00.00 R1

GRE-42-03.15

55
73

I:\ProjectData\GRE\108640_GRE-US42-3.16\Design\Roadway\Sheets\108640_XS008.dgn CLX_42_2 1/2/2020 10:28:04 AM chenders

SEEDING	
END WIDTH	SQ. YDS.



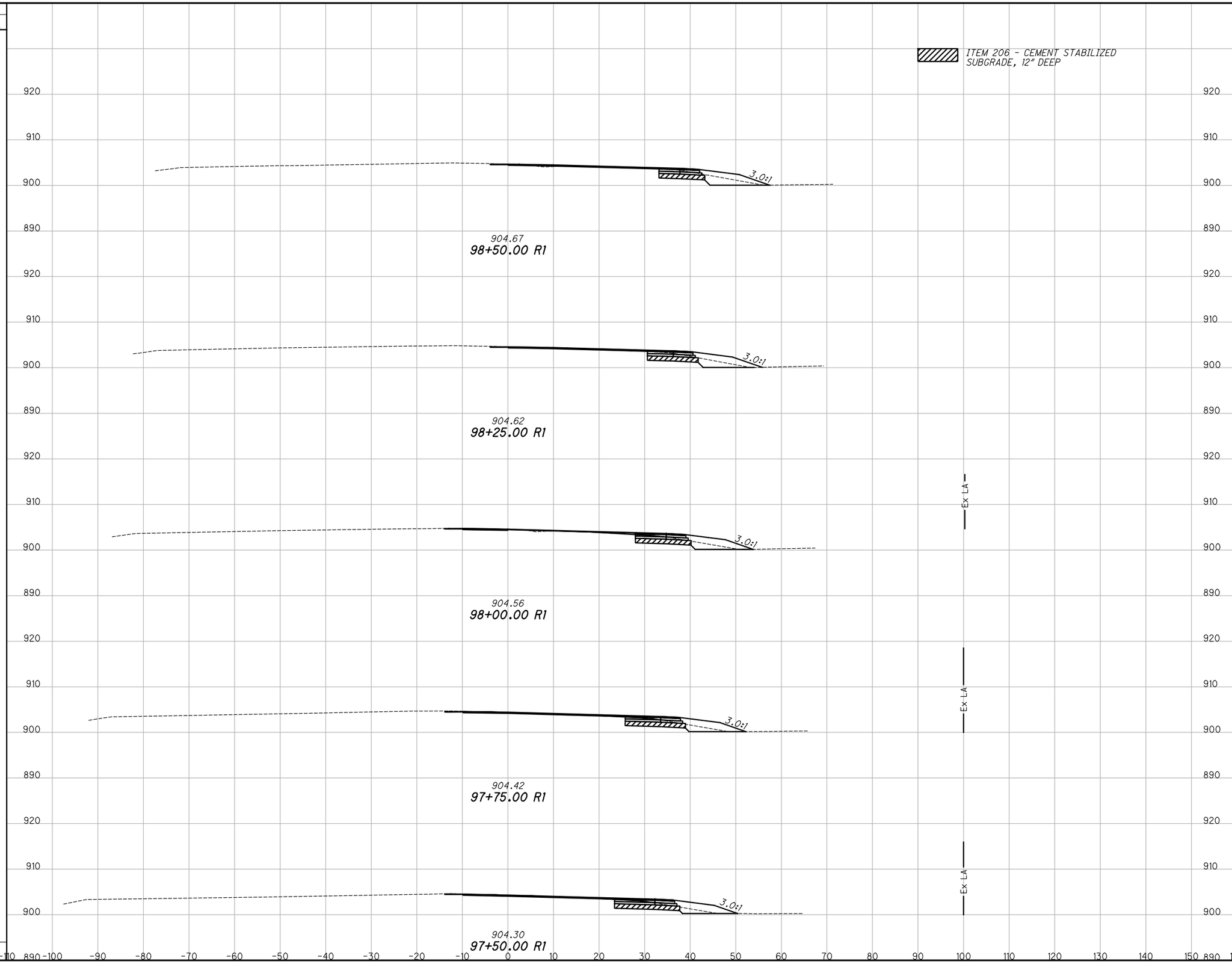
END AREA		VOLUME	
CUT	FILL	CUT	FILL
11	2		
		11	6
13	4		
		11	8
7	6		
		33	6
23	6		
		45	4
49	2		
		45	2

CALCULATED ABH
CHECKED JDO

CROSS SECTIONS
STA. 96+25.00 R1 TO STA. 97+25.00 R1

GRE-42-03.15

SEEDING	
END WIDTH	SQ. YDS.



END AREA		VOLUME	
CUT	FILL	CUT	FILL
7	11		
		6	10
7	12		
		7	11
8	13		
		10	14
14	18		
		13	11
13	4		
		11	6

CALCULATED ABH
CHECKED JDO

CROSS SECTIONS
STA. 97+50.00 R1 TO STA. 98+50.00 R1

GRE-42-03.15

57
73

I:\Project Data\GRE\108640_GRE-US42-3.16\Design\Roadway\Sheets\108640_XS008.dgn CLX_42_2 1/2/2020 10:28:04 AM chenders

SEEDING	
END WIDTH	SQ. YDS.

ITEM 206 - CEMENT STABILIZED SUBGRADE, 12" DEEP

TIE TO EXIST. EOP

905.09
99+50.00 R1

4.0:1

904.99
99+25.00 R1

4.0:1

904.88
99+00.00 R1

4.0:1

904.78
98+75.00 R1

3.0:1

END AREA		VOLUME	
CUT	FILL	CUT	FILL
8	4	7	4
7	6		
6	7		
7	9	7	7
8	8		
7	8		

CALCULATED ABH
CHECKED JDO

CROSS SECTIONS
STA. 98+75.00 R1 TO STA. 99+50.00 R1

GRE-42-03.15

58
73

I:\ProjectData\GRE\108640_GRE_US42-3.16\Design\Roadway\Sheets\108640_XS008.dgn CLX_42_2 1/2/2020 10:28:05 AM chenders

SEEDING	
END WIDTH	SQ. YDS.

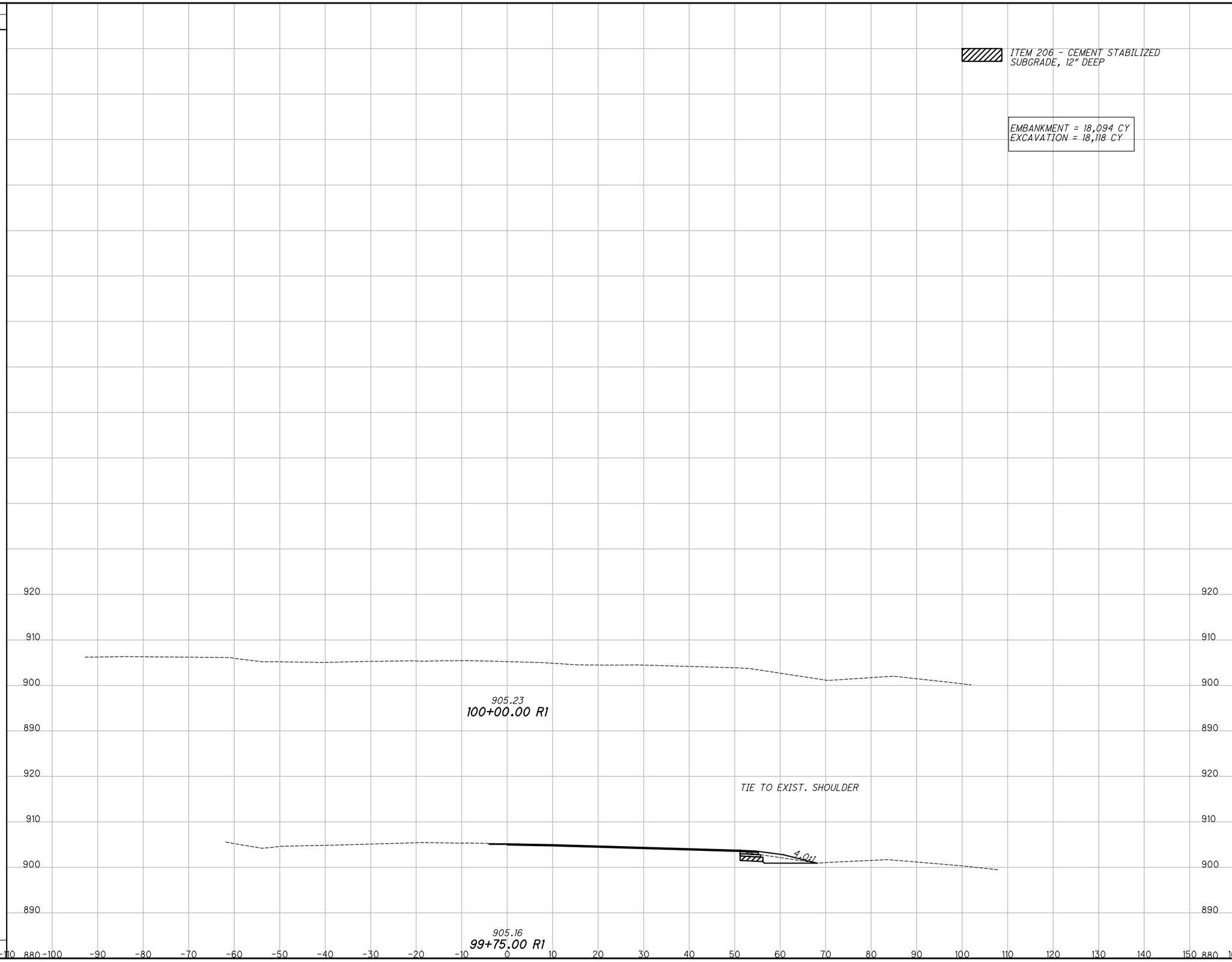
ITEM 206 - CEMENT STABILIZED SUBGRADE, 12" DEEP

EMBANKMENT = 18,094 CY
EXCAVATION = 18,118 CY

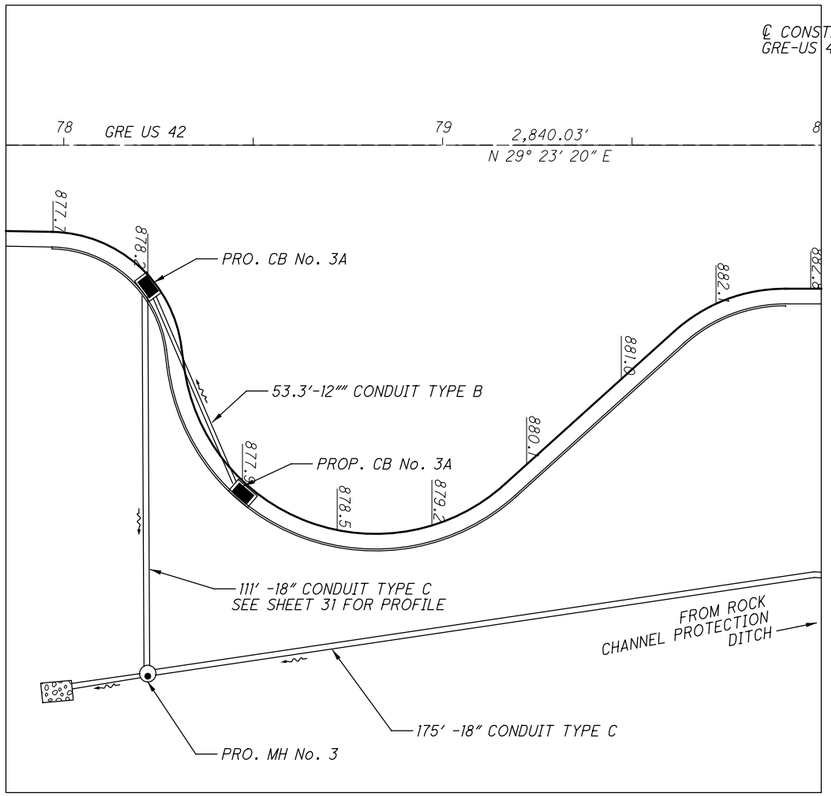
END AREA		VOLUME	
CUT	FILL	CUT	FILL
0	6		
		0	6
0	6		
		4	4

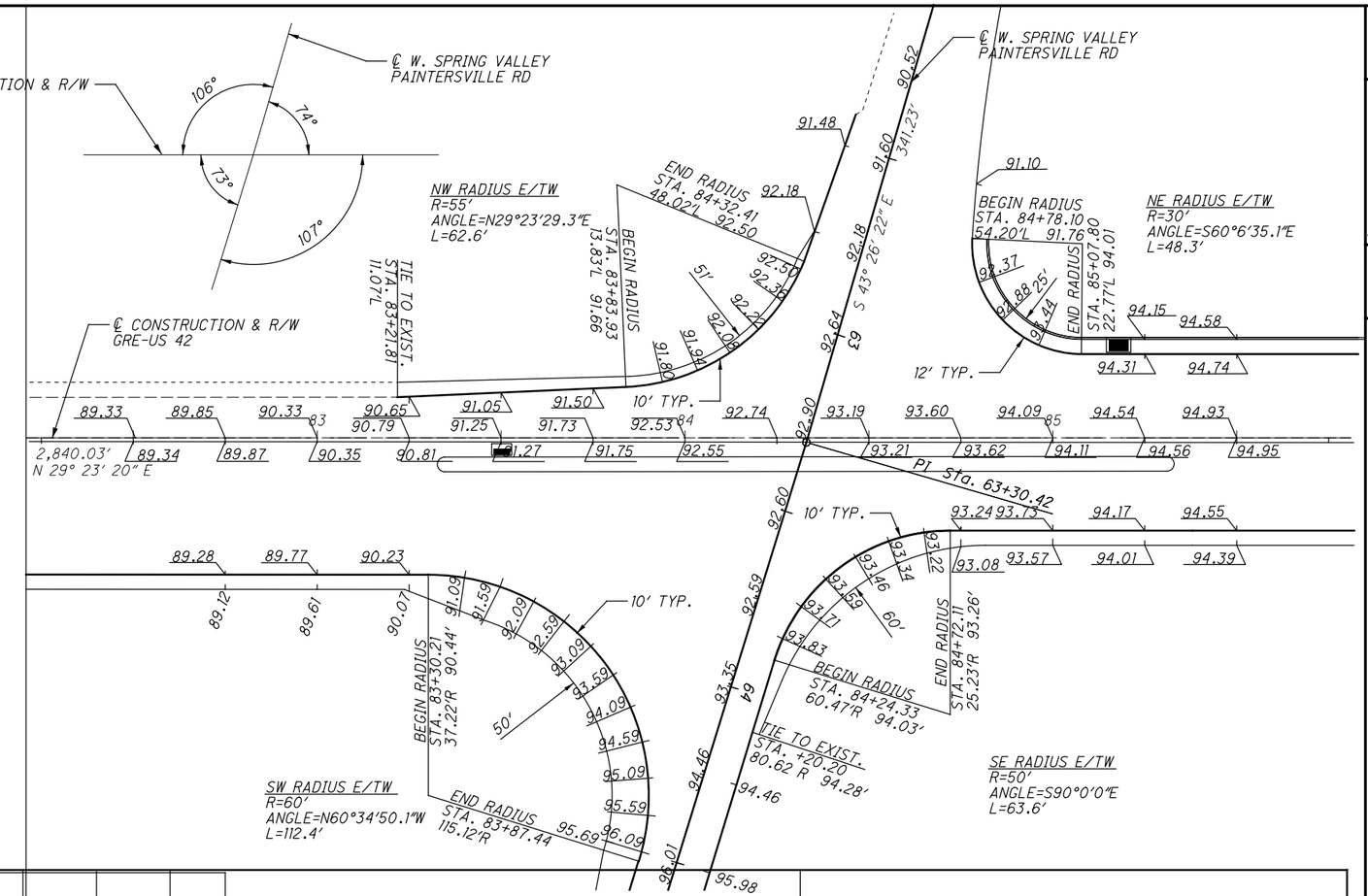
CALCULATED ABH
CHECKED JDO

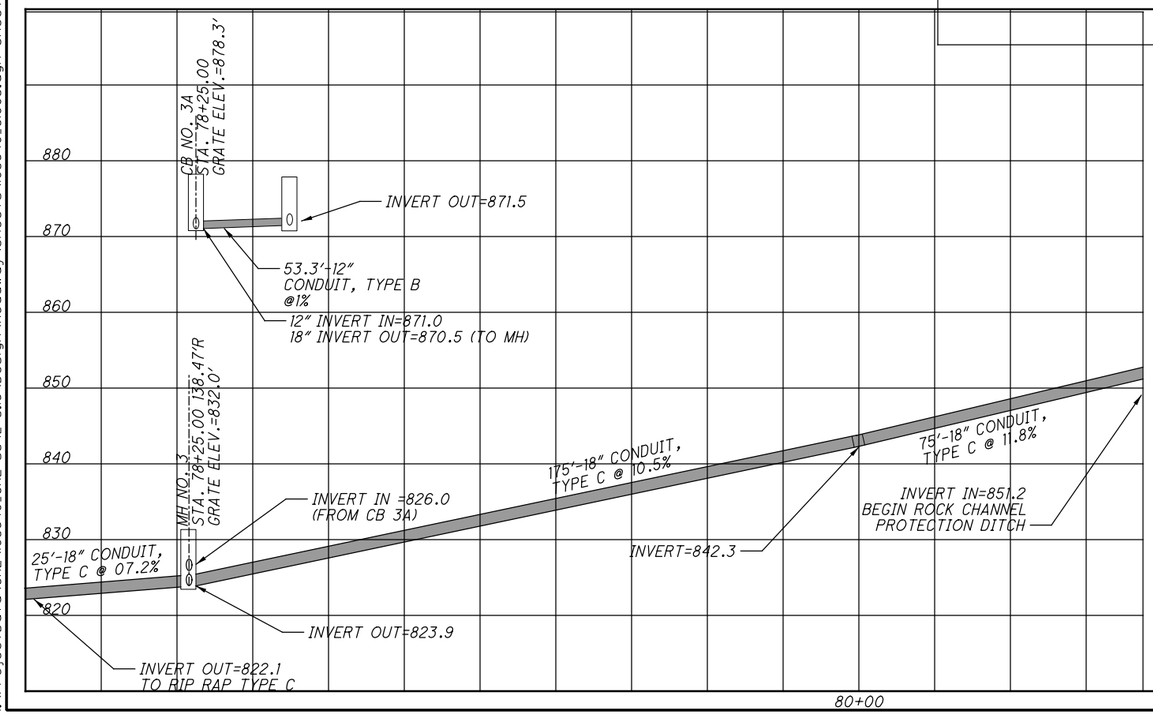
CROSS SECTIONS
STA. 99+75.00 R1 TO STA. 100+00.00 R1

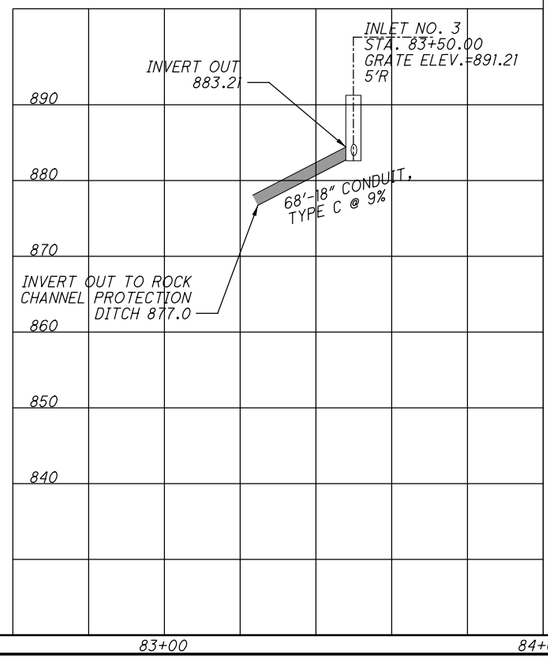


GRE-42-03.15









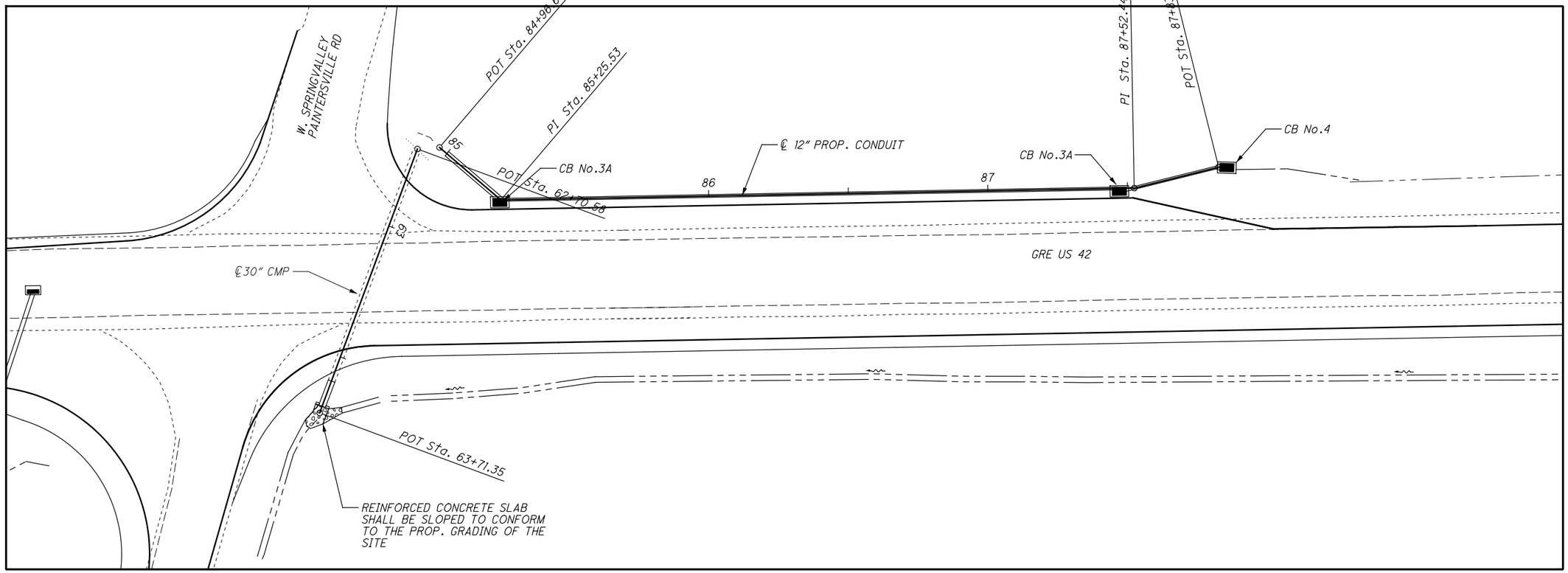
HORIZONTAL SCALE IN FEET
0 10 20 40
CALCULATED ABH
CHECKED JDO

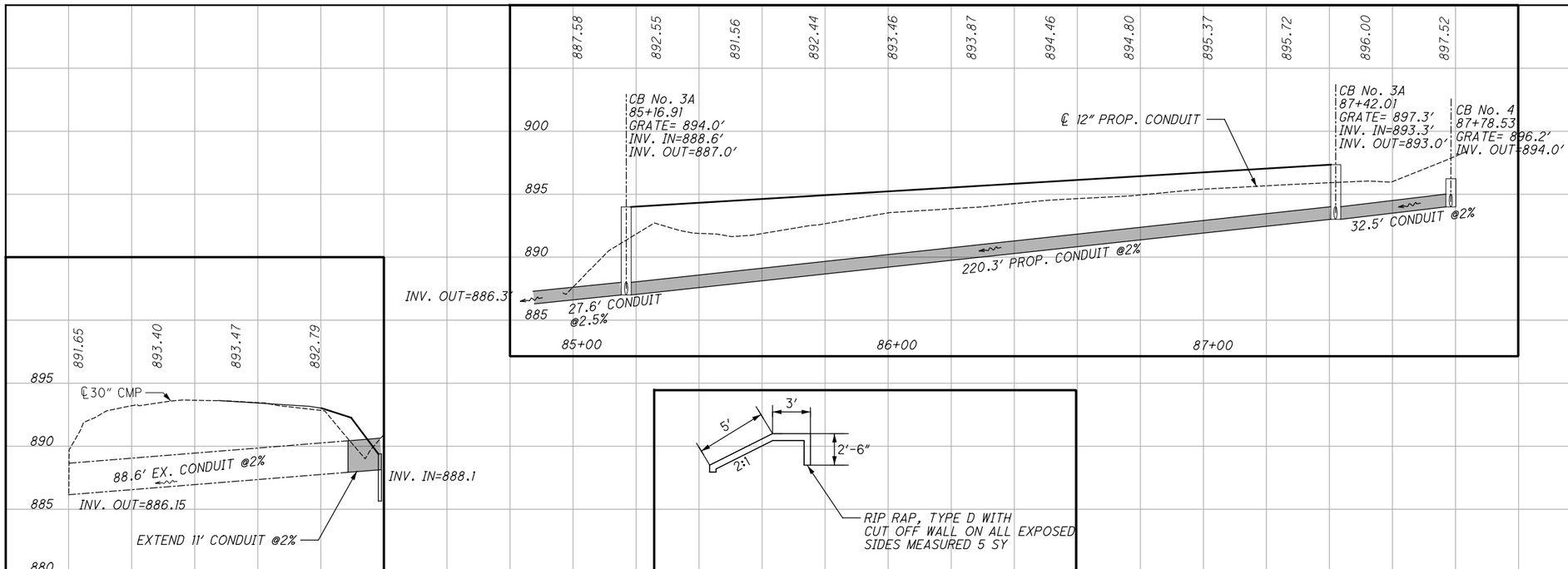
DRAINAGE DETAIL
INTERSECTION DETAIL

GRE-42-3.15

60
73

I:\ProjectData\GRE\108640_GRE-US42-3.16\Design\Roadway\Sheets\108640_GI003.dgn Sheet 1/7/2020 4:22:05 PM dhenders





HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED ABH
CHECKED TRB

DRAINAGE DETAIL

GRE-42-3.15

SHEET NO.	REFERENCE NO.	LOCATION	STATION		SIDE	644 CENTERLINE	644 EDGE LINE 6"	644 EDGE LINE, 6"	644 CHANNELIZING LINE, 8"	644 STOP LINE, 24"	644 LANE ARROW	644 LANE LINE	621 RPM (YELLOW-YELLOW)	621 RPM (WHITE)	644 TRANSVERSE LINE	620 DELINEATOR, MISC. TYPE C WHITE	620 DELINEATOR, MISC. SURFACE MOUNTED, YELLOW	621 RAISED PAVEMENT MARKER REMOVED	202 REMOVE PAVEMENT MARKING
			FROM	TO		MILE	MILE	MILE	FT	FT	EACH	MILE	EA	EA	FT	EA	EA	EA	FT
66	ELW-1	GRE US 42	72+50.00	84+05.58	L			0.22											
66	ELW-2	GRE US 42	72+50.00	83+95.60	R			0.22											
68	ELW-3	GRE US 42	84+69.95	95+62.70	L			0.21											
68	ELW-4	GRE US 42	84+77.10	99+66.63	R			0.28											
71	ELW-5	GRE US 42	96+05.44	99+66.63	L			0.07											
66	CL-1	GRE US 42	72+50.00	78+52.00	R	0.11							16						
66	CL-2	GRE US 42	72+97.25	78+30.61	R	0.10							14						
67	CL-3	GRE US 42	79+00.00	83+29.14	R	0.08							11						
68	CL-4	GRE US 42	85+38.00	94+44.44	R	0.17							24						
68	CL-5	GRE US 42	85+38.00	91+10.76	R	0.11							15						
71	CL-6	GRE US 42	96+32.77	113+47.34	R	0.32							45						
71	CL-7	GRE US 42	96+32.77	100+00.00		0.07							10						
71	CL-8	GRE US 42	94+95.73	95+50.44		0.01							1						
68	ELY-1	GRE US 42	83+34.59	85+38.01	R		0.04												
68	ELY-2	GRE US 42	83+34.59	85+38.01	R		0.04												
67	CH-1	GRE US 42	80+74.15	83+34.47	R				260.32					7					
68	CH-2	GRE US 42	84+94.75	87+44.75	L				250.00					7					
70	CH-3	GRE US 42	91+60.86	95+50.44	R				389.58										
67	CH-4	GRE US 42	78+50.00	82+00.00	R				350.00										
67	CT-1	GRE US 42													93				
69	CT-2	GRE US 42													311				
71	CT-3	GRE US 42													413				
					SUBTOTAL	0.98	0.08	0.99	1250	32.00	18	0.07	136	15	817.00	30.00	10	30	1300
					TOTAL CARRIED TO THE GENERAL SUMMARY	0.98	0.08	0.99	1250	32.00	18	0.07	136	15	817.00	30.00	10	30	1300

CALCULATED ABH
CHECKED TCS

PAVEMENT MARKINGS SUBSUMMARY

GRE-42-3.15

SHEET NO.	REFERENCE NO.	LOCATION	STATION FROM	STATION TO	SIDE	644 CENTERLINE	644 EDGE LINE 6"	644 EDGE LINE, 6"	644 CHANNELIZING LINE, 8"	644 STOP LINE, 24"	644 LANE ARROW	644 LANE LINE	621 RPM (YELLOW-YELLOW)	621 RPM (WHITE)	644 TRANSVERSE LINE	620 DELINEATOR, MISC. TYPE C WHITE	620 DELINEATOR, MISC. SURFACE MOUNTED, YELLOW	621 RAISED PAVEMENT MARKER REMOVED
						MILE	MILE	MILE	FT	FT	EACH	MILE	EA	EA	FT	EA	EA	EA
66	ELW-1	GRE US 42	72+50.00	84+05.58	L			0.22										
66	ELW-2	GRE US 42	72+50.00	83+95.60	R			0.22										
68	ELW-3	GRE US 42	84+69.95	95+62.70	L			0.21										
68	ELW-4	GRE US 42	84+77.10	99+66.63	R			0.28										
71	ELW-5	GRE US 42	96+05.44	99+66.63	L			0.07										
66	CL-1	GRE US 42	72+50.00	78+52.00	R	0.11							16					
66	CL-2	GRE US 42	72+97.25	78+30.61	R	0.10							14					
67	CL-3	GRE US 42	79+00.00	83+29.14	R	0.08							11					
68	CL-4	GRE US 42	85+38.00	94+44.44	R	0.17							24					
68	CL-5	GRE US 42	85+38.00	91+10.76	R	0.11							15					
71	CL-6	GRE US 42	96+32.77	113+47.34	R	0.32							45					
71	CL-7	GRE US 42	96+32.77	100+00.00		0.07							10					
71	CL-8	GRE US 42	94+95.73	95+50.44		0.01							1					
68	ELY-1	GRE US 42	83+34.59	85+38.01	R		0.04											
68	ELY-2	GRE US 42	83+34.59	85+38.01	R		0.04											
67	CH-1	GRE US 42	80+74.15	83+34.47	R				260.32					7				
68	CH-2	GRE US 42	84+94.75	87+44.75	L				250.00					7				
70	CH-3	GRE US 42	91+60.86	95+50.44	R				389.58									
67	CH-4	GRE US 42	78+50.00	82+00.00	R				350.00									
67	CT-1	GRE US 42													93			
69	CT-2	GRE US 42													311			
71	CT-3	GRE US 42													413			
					SUBTOTAL	0.98	0.08	0.99	1250	32.00	18	0.07	136	15	817.00	30.00	10	30
					TOTAL CARRIED TO THE GENERAL SUMMARY	0.98	0.08	0.99	1250	32.00	18	0.07	136	15	817.00	30.00	10	30

CALCULATED ABH
CHECKED TCS

PAVEMENT MARKINGS SUBSUMMARY

GRE-42-3.15

SHEET NO.	REFERENCE NO.	LOCATION	STATION	SIDE	CODE	SIZE (INCHES)	630 REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	630 REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL		630 SIGN, FLAT SHEET	630 GROUND MOUNTED SIGN SUPPORT, NO. 3 POST	630 SIGN POST REFLECTOR		630 REMOVAL OF GROUND MOUNTED SIGN AND REECTION		
							EACH	EACH		SQ FT	FT	EACH		EA		
67		GRE US 42		RT	R3-5A	30				7.50	1					
67		GRE US 42		RT	R6-1L	36				3.00	1					
68		GRE US 42		RT	R3-H8	30				7.50	1					
68		GRE US 42		RT	R4-7	24				5.00	1					
68		GRE US 42		RT	R6-1R	36				3.00	1					
68		GRE US 42		RT	R6-1R	36				3.00						
69		GRE US 42		RT	R4-7	24				5.00	1					
69		GRE US 42		LT	R3-H8	30				7.50	1					
70		GRE US 42		RT	R3-H8	30				7.50	1					
70		GRE US 42		LT	R6-1L	36				3.00	1					
70		GRE US 42		LT	R3-5A	36				7.50	1					
71		GRE US 42		LT	W2-2R	30				6.25	1					
71		GRE US 42		LT	W12-H3	24				2.00						
68		GRE US 42		LT	SPECIAL	36				15.00	1					
68		GRE US 42		LT	SPECIAL	60				20.00	1					
68		GRE US 42		RT	SPECIAL	60				20.00	1					
69		GRE US 42		LT	SPECIAL	60				20.00	1					
69		GRE US 42		RT	SPECIAL	60				20.00	1					
69		GRE US 42		LT	SPECIAL	60				20.00	1					
69		GRE US 42		RT	SPECIAL	60				20.00	1					
70		GRE US 42		RT	SPECIAL	36				15.00	1					
67		GRE US 42		LT	M3-3	24				2.00						
67		GRE US 42		LT	M1-4	24				4.00	1					
67		GRE US 42		LT	M4-5	12				2.00						
68		SPRINGVALLEY PAINTERSVILLE		RT	M5-1	12				2.60						
68		SPRINGVALLEY PAINTERSVILLE		RT	M5-1	12				2.60						
68		SPRINGVALLEY PAINTERSVILLE		RT	M1-4	24				4.00	1					
68		SPRINGVALLEY PAINTERSVILLE		RT	M1-4	24				4.00	1					
68		SPRINGVALLEY PAINTERSVILLE		RT	M3-1	24				2.00						
68		SPRINGVALLEY PAINTERSVILLE		RT	M3-3	24				2.00						
68		SPRINGVALLEY PAINTERSVILLE		RT	R3-5R	30				7.50	1					
68		SPRINGVALLEY PAINTERSVILLE		RT	R1-1	30				6.25	1	1				
68		SPRINGVALLEY PAINTERSVILLE		LT	R1-1	30				6.25	1	1				
68		SPRINGVALLEY PAINTERSVILLE		RT	R3-7	30				6.25	1					
68		SPRINGVALLEY PAINTERSVILLE		LT	M6-1	12				2.20						
68		SPRINGVALLEY PAINTERSVILLE		LT	M6-1	12				2.20						
68		SPRINGVALLEY PAINTERSVILLE		LT	M1-4	24				4.00	1					
68		SPRINGVALLEY PAINTERSVILLE		LT	M1-4	24				4.00	1					
68		SPRINGVALLEY PAINTERSVILLE		LT	M3-1	24				2.00						
68		SPRINGVALLEY PAINTERSVILLE		LT	M3-3	24				2.00						
68		SPRINGVALLEY PAINTERSVILLE		LT	R3-5R	30				7.50	1					
68		SPRINGVALLEY PAINTERSVILLE		LT	R1-1	30				6.25	1	1				
68		SPRINGVALLEY PAINTERSVILLE		RT	R1-1	30				6.25	1	1				
68		SPRINGVALLEY PAINTERSVILLE		LT/RT	M4-5	12 (4)				8.00						
						SUBTOTAL	10	16		273.60	29	4		6		
						TOTAL CARRIED TO THE GENERAL SUMMARY	10	16		273.60	29	4		6		

CALCULATED ABH
CHECKED LB

SIGNING SUBSUMMARY

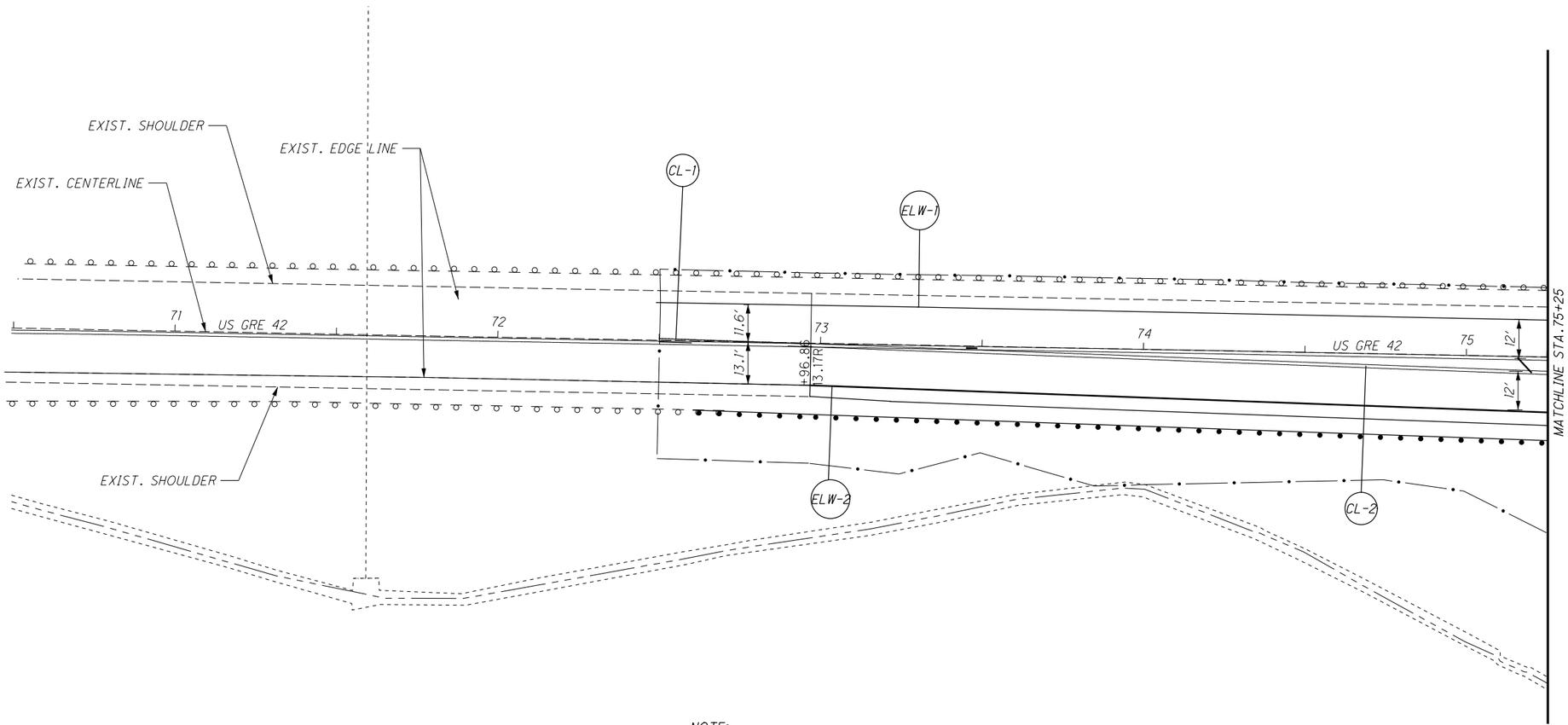
GRE-42-3.15

SHEET NO.	REFERENCE NO.	LOCATION	STATION	SIDE	CODE	SIZE (INCHES)	630 REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	630 REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL		630 SIGN, FLAT SHEET	630 GROUND MOUNTED SIGN SUPPORT, NO. 3 POST	630 SIGN POST REFLECTOR		630 REMOVAL OF GROUND MOUNTED SIGN AND REECTION		
							EACH	EACH		SQ FT	FT	EACH		EA		
67		US 42	76+04.00	RT/LT	W2-1	18	2	2								
68		US 42	84+50.00	RT	D1-1C	18								1		
68		SPRINGVALLEY PAINTERSVILLE		RT/LT	R1-1	30	4	4								
68		SPRINGVALLEY PAINTERSVILLE		RT/LT	I-3	12		4								
68		US 42	82+50.00	LT	M1-4	24	1	1								
68		US 42	82+50.00	LT	M3-3	24		1								
69		US 42	89+18.00	RT	M1-4	24	1	1								
69		US 42	89+18.00	RT	M3-1	24		1								
70		US 42	91+13.35	RT	W6-1	30								1		
70		US 42	92+80.00	RT/LT	W2-1	18	2	2								
71		US 42	97+27.55	RT	R2-1	12								1		
71		US 42	97+34.00	RT	W11-8	12								1		
73		US 42	113+00.00	RT/LT	W4-2L	30								2		
						SUBTOTAL	10	16		273.60	29	4		6		
						TOTAL CARRIED TO THE GENERAL SUMMARY	10	16		273.60	29	4		6		

CALCULATED ABH
CHECKED LB

SIGNING SUBSUMMARY

GRE-42-3.15



RW LINE 150'-230' FROM CENTERLINE

NOTE:
INSTALL RAISED PAVEMENT MARKERS ACCORDING TO SCD TC-65.10 AND TC-65.11

PAVEMENT MARKING LEGEND

DL	DOTTED LINE, 6" WHITE	LL	LANE LINE, 6" WHITE	CT	TRANSVERSE LINE	ON	ONLY MARKING
CH	CHANNELIZING LINE, 12" WHITE	ELY	EDGE LINE, 6" YELLOW	SL	STOP LINE		
CL	CENTERLINE, 4"	ELW	EDGE LINE, 6" WHITE	LA	LANE ARROW		

SIGN LEGEND

EXISTING | PROPOSED | REMOVED | RELOCATED

STA. XX+XX

RELOCATED FROM STA. XX+XX TO STA. XX+XX

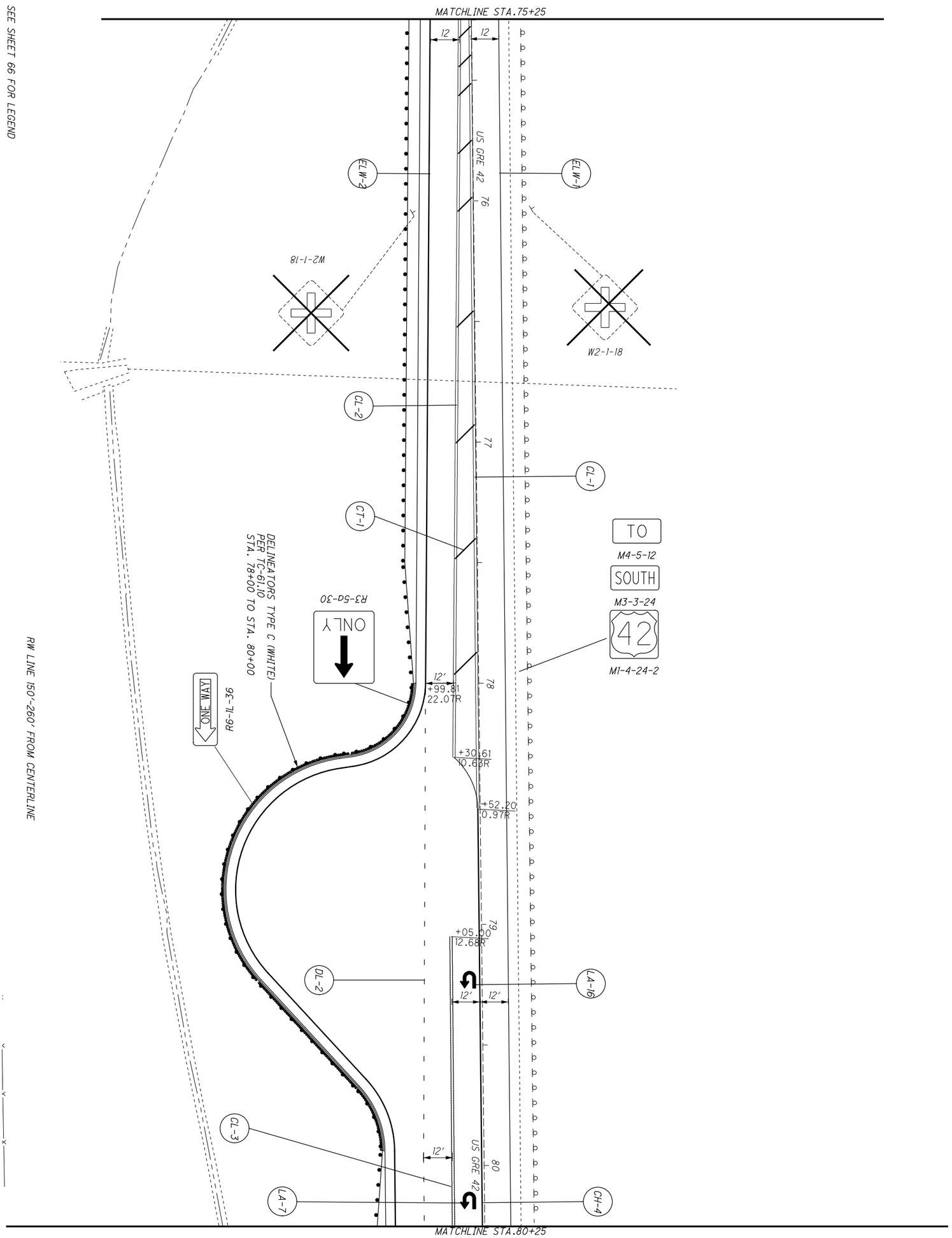
0 10 20 40 HORIZONTAL SCALE IN FEET

CALCULATED ABH CHECKED TCS

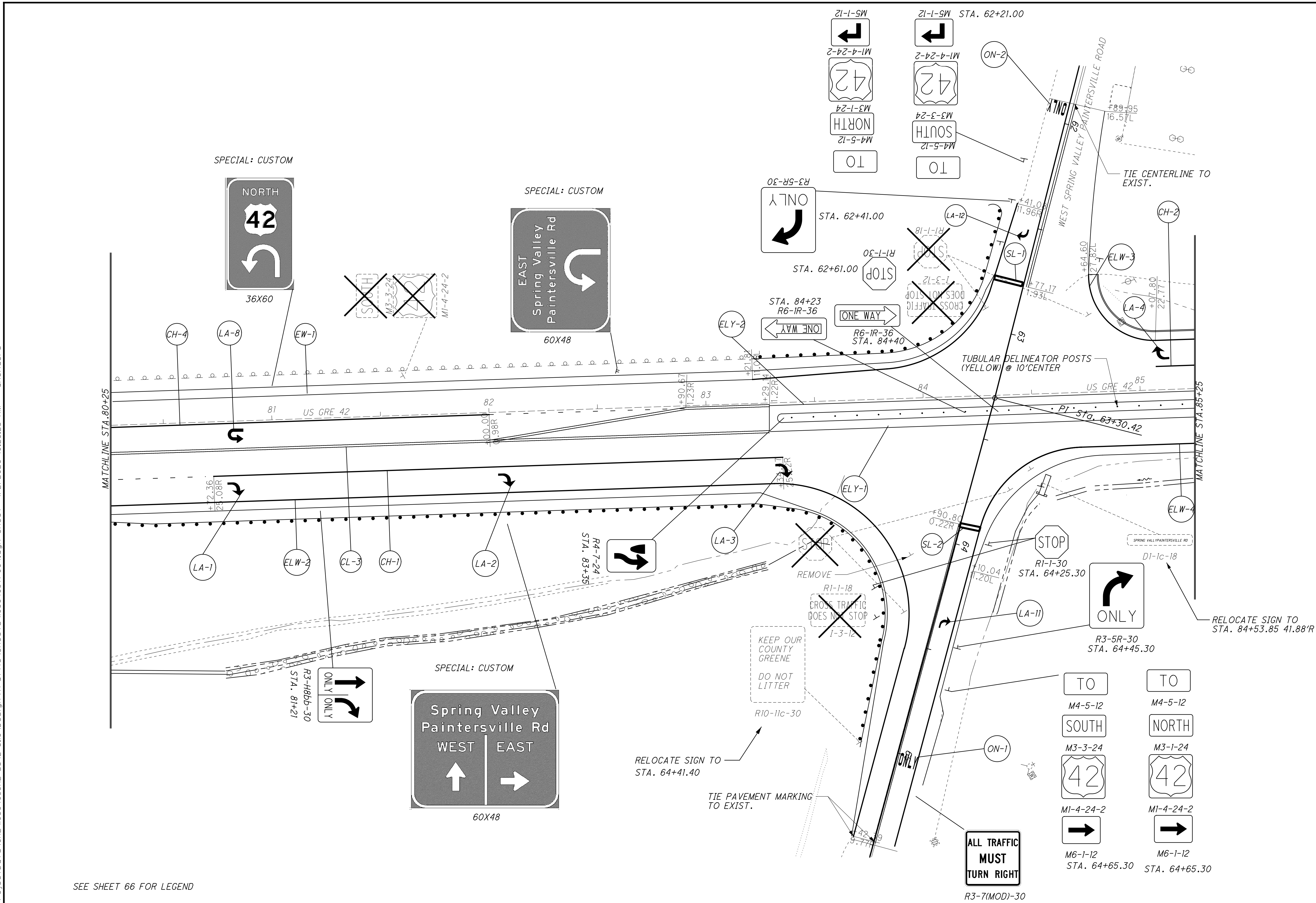
SIGNING & PAVEMENT MARKING STA. 70+00.00 TO STA. 75+25.00

GRE-42-3.15

66
73



67 / 73	GRE-42-3.15	SIGNING & PAVEMENT MARKING STA. 75+25.00 TO STA. 80+25.00	CALCULATED ABH CHECKED TCS	0 10 20 40 HORIZONTAL SCALE IN FEET



SPECIAL: CUSTOM
NORTH 42
36X60
SPECIAL: CUSTOM
EAST Spring Valley Paintersville Rd
60X48
SPECIAL: CUSTOM
Spring Valley Paintersville Rd
WEST EAST
60X48
M3-3-24
M1-4-24-2
SOUTH
M5-1-12
M1-4-24-2
M3-1-24
NORTH
M4-5-12
TO
STA. 62+21.00
M3-3-24
SOUTH
R3-5R-30
ONLY
STA. 62+41.00
R1-1-30
STOP
STA. 62+61.00
R1-1-18
I-3-12
CROSS TRAFFIC DOES NOT STOP
STA. 84+23
R6-1R-36
ONE WAY
R6-1R-36
STA. 84+40
TUBULAR DELINEATOR POSTS (YELLOW) @ 10'CENTER
TIE CENTERLINE TO EXIST.
WEST SPRING VALLEY PAINTERSVILLE ROAD
US GRE 42
PI Sta. 63+30.42
MATCHLINE STA.80+25
MATCHLINE STA.85+25
CH-4
LA-8
EW-1
ELY-2
ON-2
LA-12
SL-1
ELW-3
CH-2
LA-4
ELY-1
ELW-4
SL-2
LA-11
ON-1
LA-1
ELW-2
CL-3
CH-1
LA-2
LA-3
R4-7-24
STA. 83+35
R3-H8bb-30
STA. 81+21
ONLY ONLY
REMOVE
KEEP OUR COUNTY GREENE
DO NOT LITTER
R10-11c-30
RELOCATE SIGN TO STA. 64+41.40
TIE PAVEMENT MARKING TO EXIST.
STOP
R1-1-30
STA. 64+25.30
SPRING VALLEYPAINTERSVILLE RD
D1-1c-18
RELOCATE SIGN TO STA. 84+53.85 41.88'R
ONLY
R3-5R-30
STA. 64+45.30
TO
M4-5-12
SOUTH
M3-3-24
42
M1-4-24-2
M6-1-12
STA. 64+65.30
TO
M4-5-12
NORTH
M3-1-24
42
M1-4-24-2
M6-1-12
STA. 64+65.30
ALL TRAFFIC MUST TURN RIGHT
R3-7(MOD)-30

SEE SHEET 66 FOR LEGEND

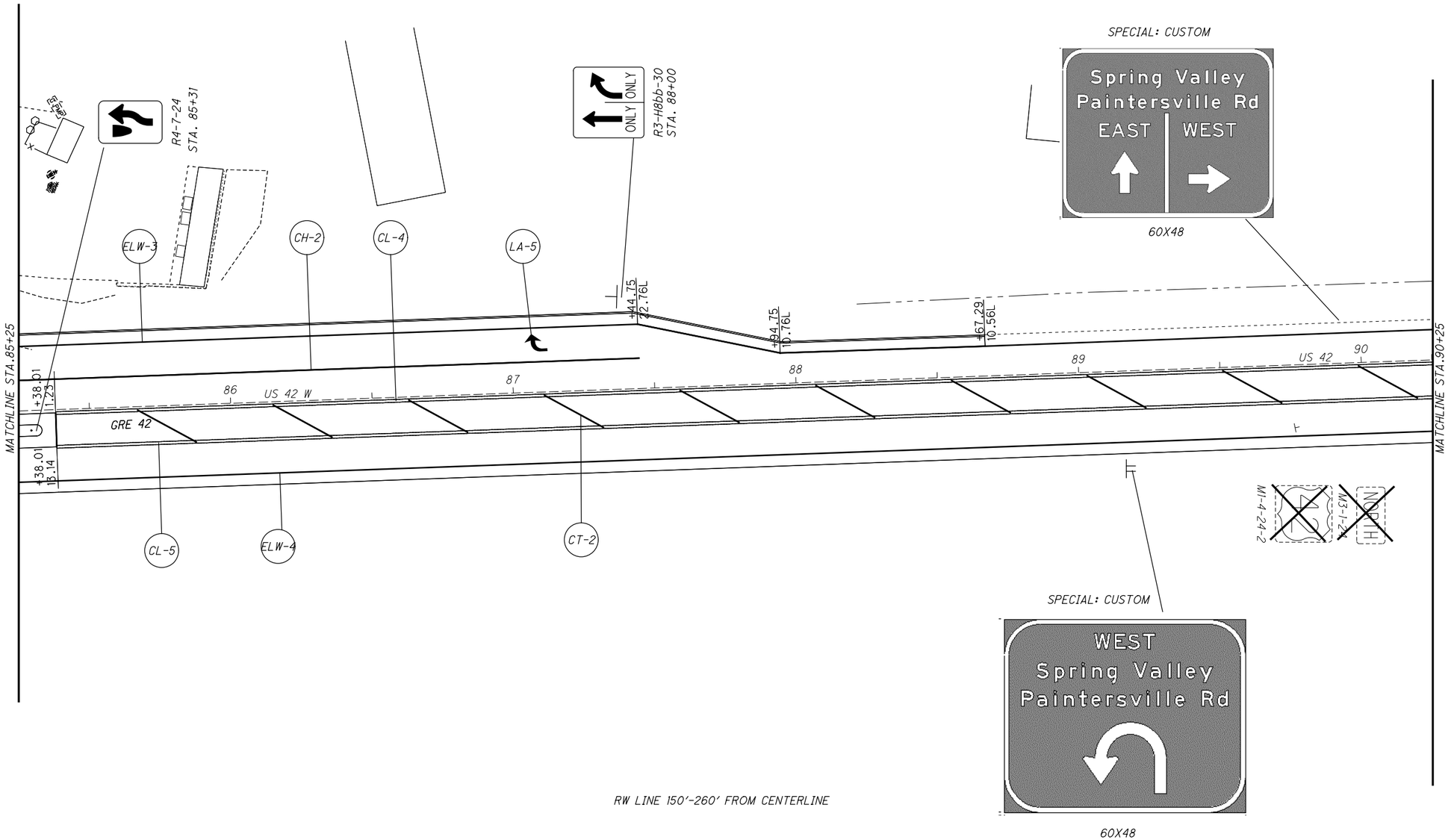
HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED ABH
CHECKED TCS

SIGNING & PAVEMENT MARKING STA. 80+25.00 TO STA. 85+25.00

GRE-42-3.15

I:\ProjectData\GRE\108640_GRE-US42-3.16\Design\Traffic\Sheets\108640_TP004.dgn Sheet 1/2/2020 10:28:25 AM ahenders



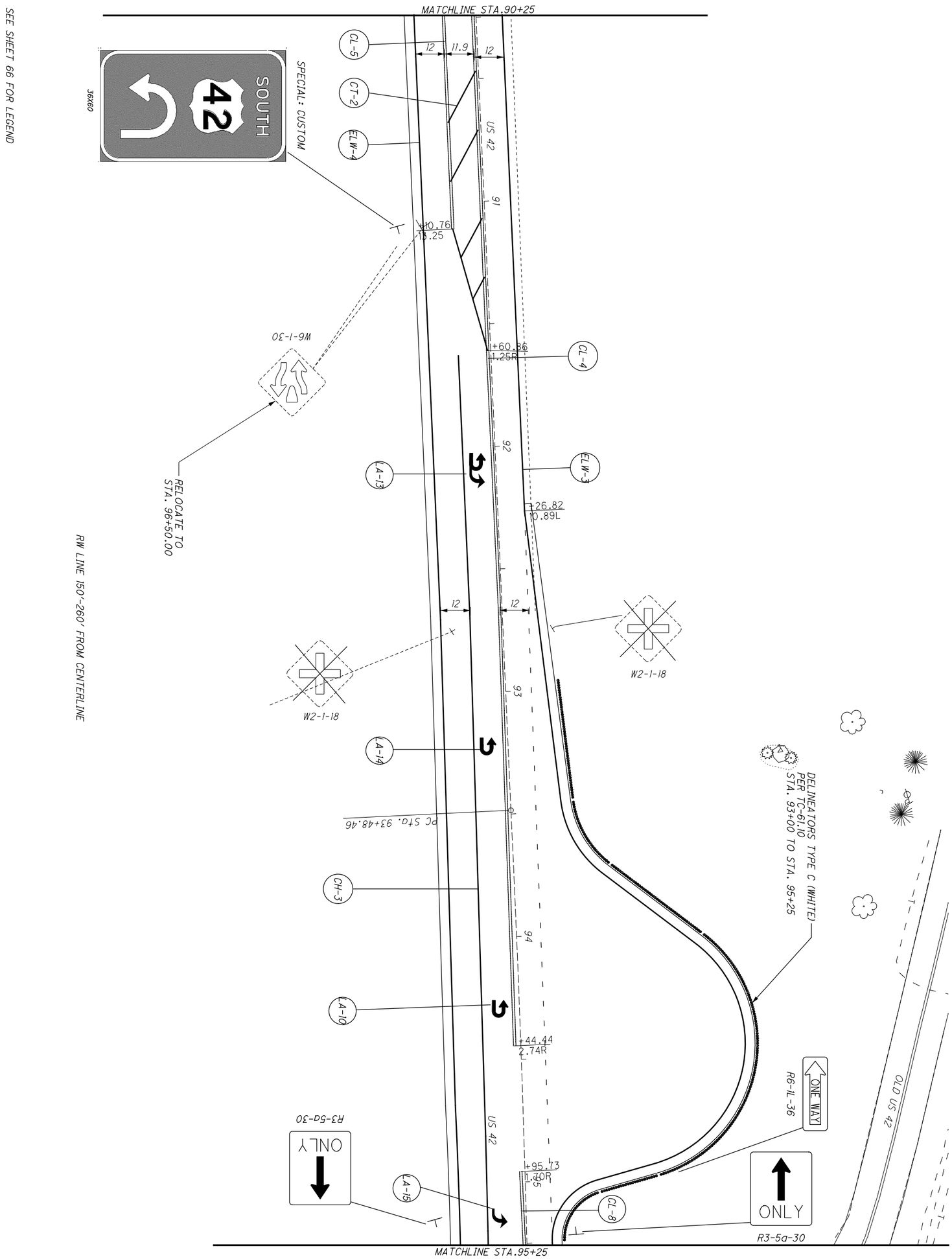
SEE SHEET 66 FOR LEGEND

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED ABH
CHECKED TCS

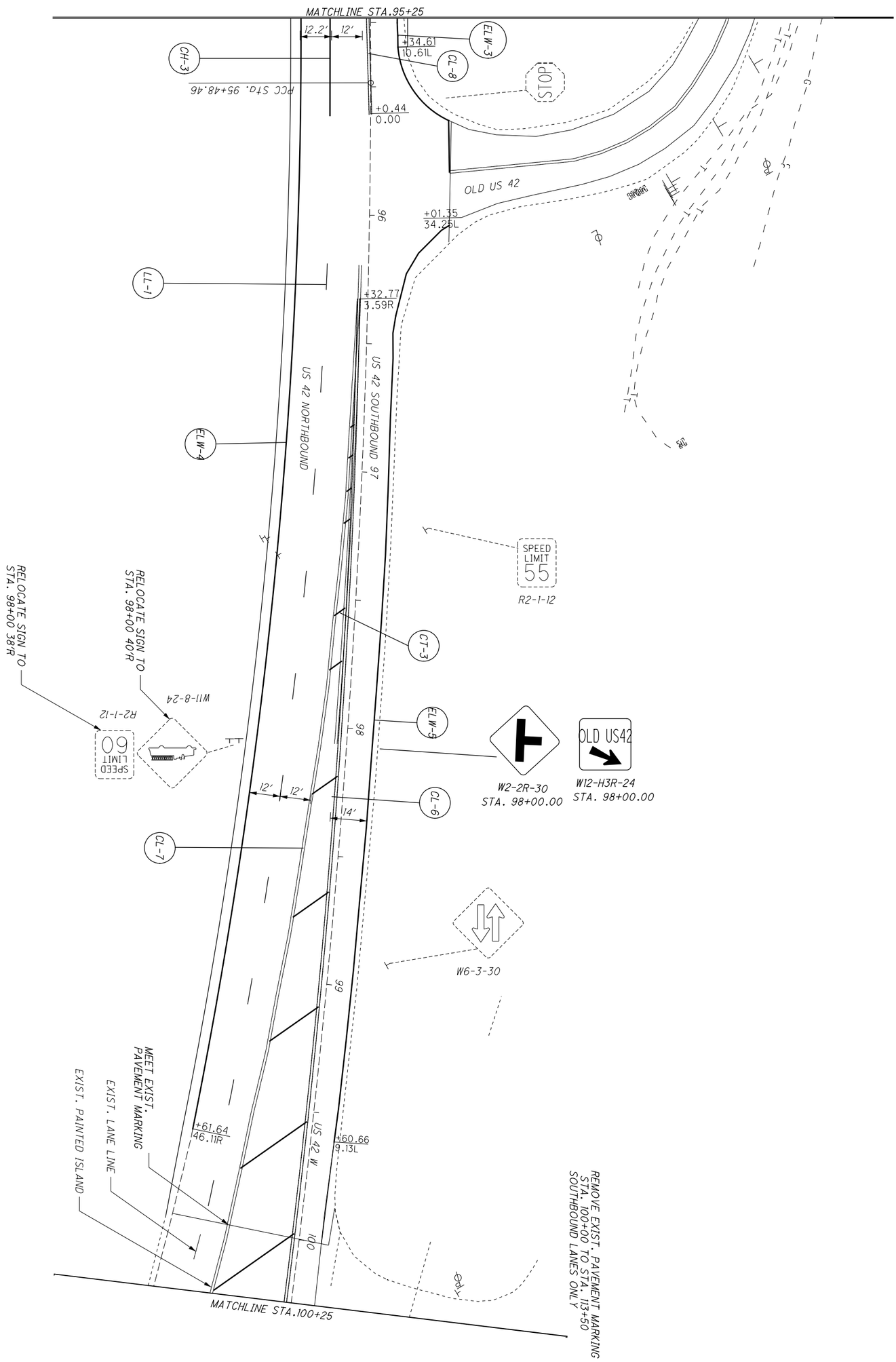
SIGNING & PAVEMENT MARKING
STA. 85+25.00 TO STA. 90+25.00

GRE-42-3.15



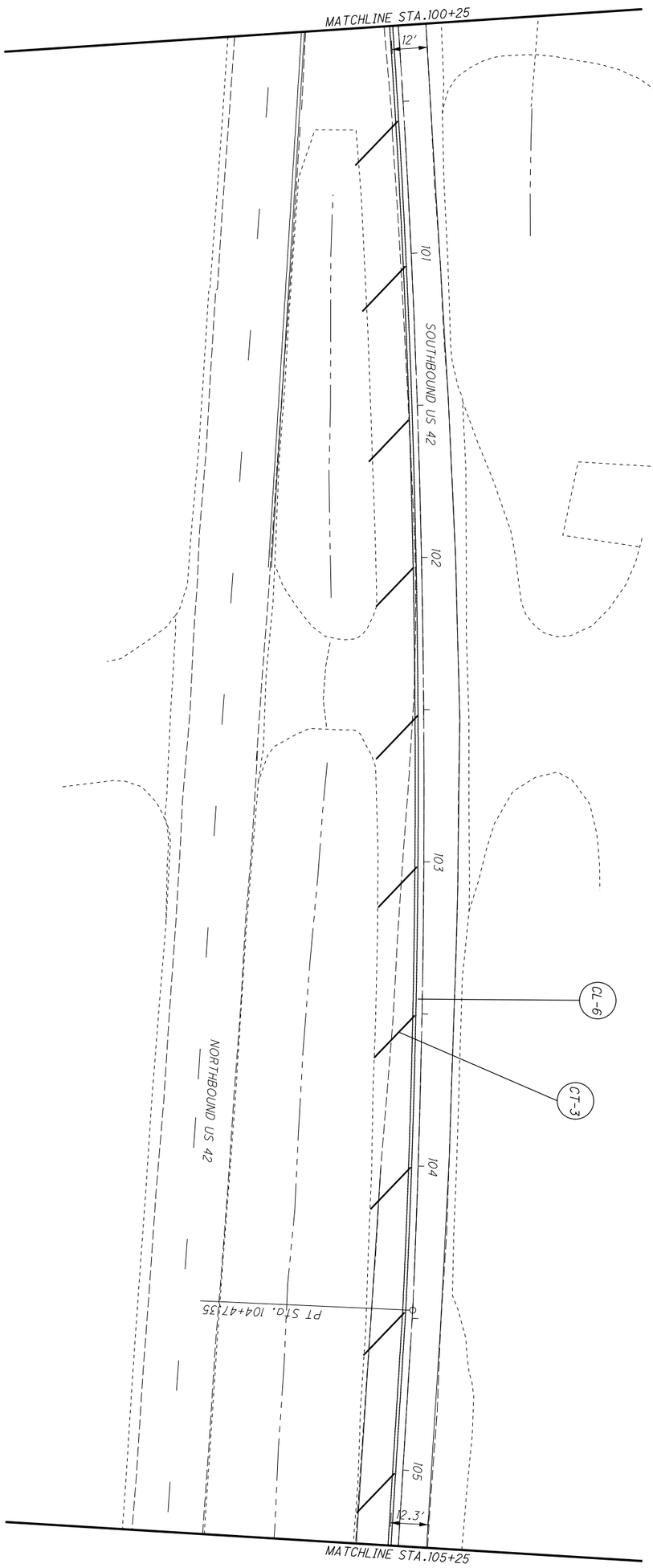
70/73	GRE-42-3.15	SIGNING & PAVEMENT MARKING STA. 90+25.00 TO STA. 95+25.00	CALCULATED ABH CHECKED TCS	0 20 10 40 HORIZONTAL SCALE IN FEET

SEE SHEET 66 FOR LEGEND



71/73	GRE-42-3.15	SIGNING & PAVEMENT MARKING STA. 95+25.00 TO STA. 100+25.00	CALCULATED ABH CHECKED TCS	0 10 20 40 HORIZONTAL SCALE IN FEET

SEE SHEET 66 FOR LEGEND



REMOVE EXIST. PAVEMENT MARKING STA.100+00 TO STA.113+50 SOUTHBOUND LANES ONLY

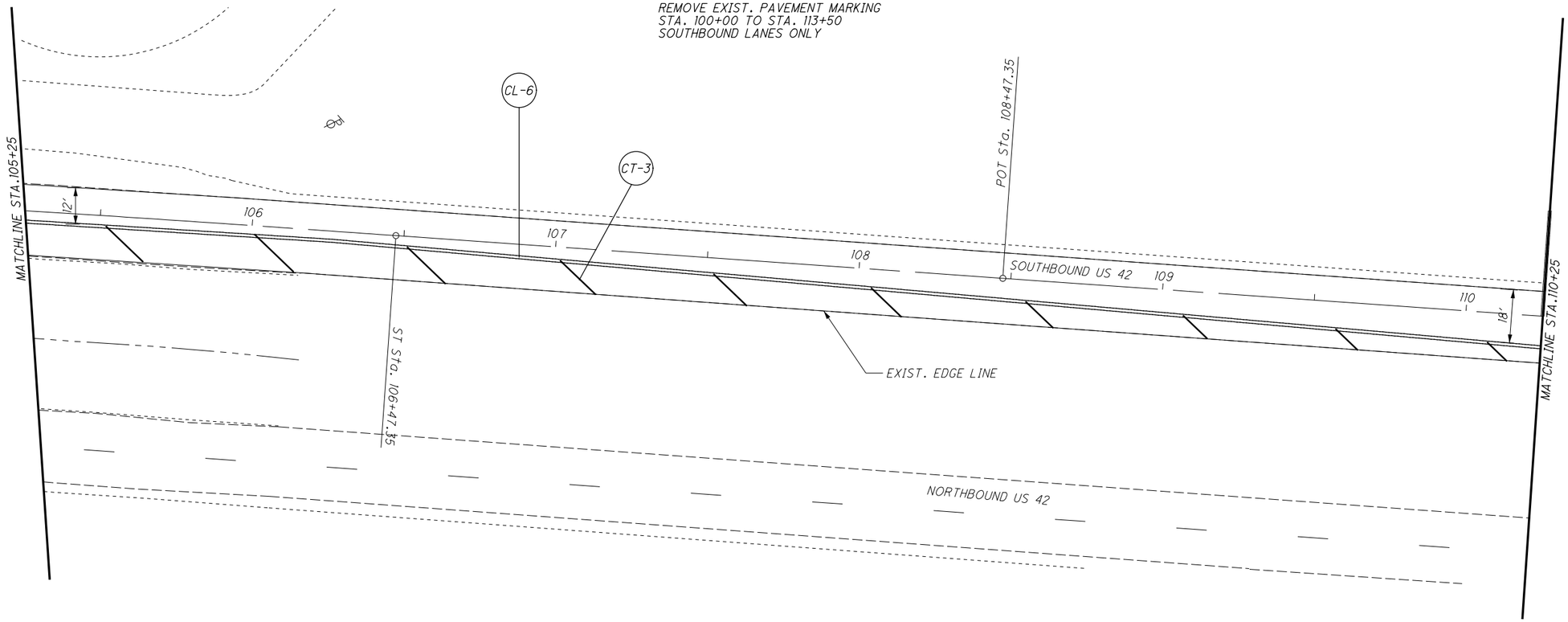
GRE-42-03.15

SIGNING AND PAVEMENT MARKING PLAN
STA. 100+25.00 TO STA. 105+25.00

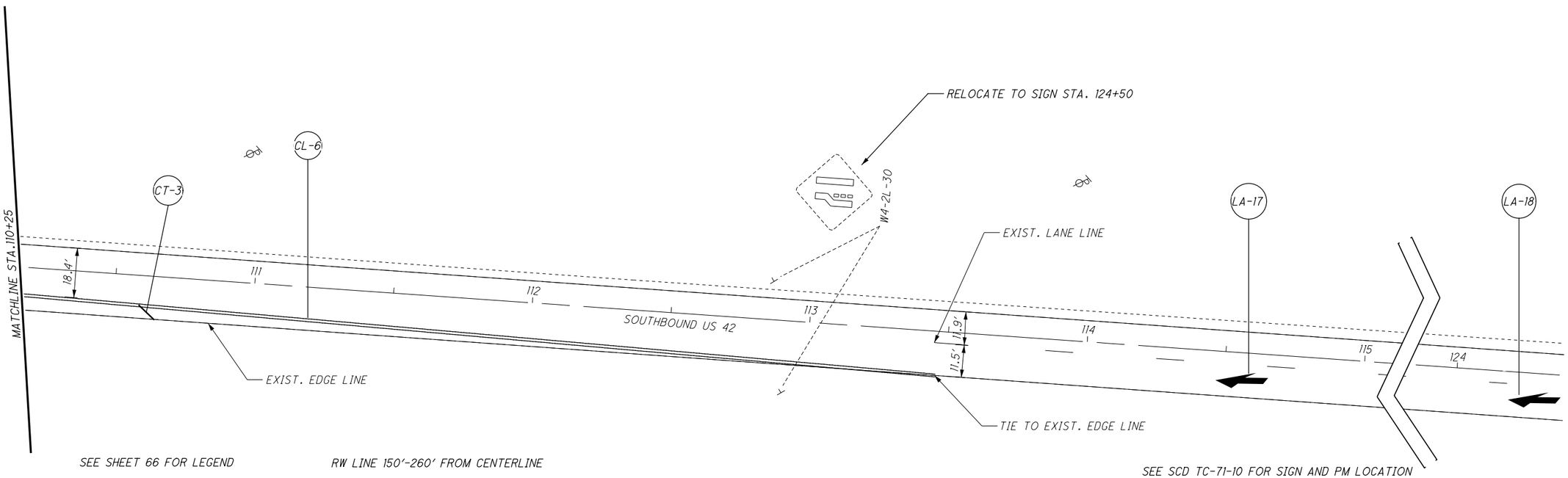
CALCULATED ABH
CHECKED TCS

0 10 20 40
HORIZONTAL SCALE IN FEET

REMOVE EXIST. PAVEMENT MARKING
STA. 100+00 TO STA. 113+50
SOUTHBOUND LANES ONLY



REMOVE EXIST. PAVEMENT MARKING
STA. 100+00 TO STA. 113+50
SOUTHBOUND LANES ONLY



SEE SHEET 66 FOR LEGEND

RW LINE 150'-260' FROM CENTERLINE

SEE SCD TC-71-10 FOR SIGN AND PM LOCATION

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED ABH
CHECKED TCS

SIGNING AND PAVEMENT MARKING PLAN
STA. 105+25.00 TO STA. 124+50.00

GRE-42-03.15

73
73

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PROJECT DESCRIPTION

INSTALL A RESTRICTED CROSSING U-TURN (RCUT) AT THE INTERSECTION OF US 42 AND SPRING VALLEY PAINTERSVILLE ROAD.

HISTORIC RECORDS

NO HISTORIC RECORDS WERE FOUND FOR THIS SITE.

GEOLOGY

THE PROJECT SITE IS LOCATED WITHIN THE GLACIATED SOUTHERN OHIO LOAMY TILL PLAIN. THE AREA IS CHARACTERIZED BY GENTLY ROLLING TERRAIN DISSECTED BY THE INCISED VALLEY OF THE LITTLE MIAMI RIVER WHICH CONTAINS GLACIAL OUTWASH DEPOSITS. THE THICK GLACIAL DEPOSITS ARE UNDERLAIN BY SHALE AND LIMESTONE UNITS FROM THE UPPER ORDOVICIAN AGE.

RECONNAISSANCE

FIELD RECONNAISSANCE WAS COMPLETED BY PERSONNEL FROM THE OFFICE OF GEOTECHNICAL ENGINEERING ON AUGUST 2, 2019. THE PROJECT AREA WAS NOTED FOR THE EXISTING ROADWAY BEING CONSTRUCTED ON EMBANKMENT FILLS TO APPROXIMATELY STATION 84+50 WHERE THE ROADWAY TRANSITIONS INTO CUT SECTION. AT APPROXIMATELY STATION 95+50 THE ROADWAY IS CONSTRUCTED IN A RELATIVELY FLAT SECTION AT GRADE. THE EMBANKMENT SLOPES ARE STEEP AND VEGETATED AND WOODED. AN INTERMITTENT STREAM IS PRESENT ALONG THE TOE OF THE EASTERN EMBANKMENT. NORTH OF THE SPRING VALLEY PAINTERSVILLE RD. INTERCHANGE THE CUT SECTION IS RELATIVELY THICKLY WOODED OR GRASS COVERED AT THE BASE OF THE CUT. THE ADJACENT PROPERTIES ALONG THE PROJECT ARE PREDOMINATELY WOODED WITH AREAS OF RURAL RESIDENTIAL AND COMMERCIAL LOTS.

SUBSURFACE EXPLORATION

FOURTEEN (14) BORINGS, B-001-0-19 THROUGH B-005-0-19, B-007-0-19 THROUGH B-011-0-19, AND B-003-1-19, B-004-1-19, B-005-1-19, AND B-007-1-19 WERE DRILLED BETWEEN AUGUST 14 AND 27, 2019. B-006-0-19 WAS PLANNED BUT ELIMINATED DUE TO ACCESS CONSTRAINTS. ALL BORINGS WERE COMPLETED UTILIZING A TRACK MOUNTED CME 850 ROTARY DRILL RIG USING 3¾ INCH I.D. HOLLOW STEM AUGERS, EXCEPT FOR B-003-1 AND B-004-1 WHICH WERE COMPLETED WITH AN ACKER XLS TRACK MOUNTED ROTARY DRILL RIG AND 3¼ INCH I.D HOLLOW STEM AUGERS. DISTURBED SAMPLES WERE COLLECTED IN ACCORDANCE WITH THE STANDARD PENETRATION TEST (AASHTO T206) AT CONTINUOUS INTERVALS WITHIN AREAS OF SUBGRADE EVALUATION AND 2.5-FOOT INTERVALS FOR THE EMBANKMENT OR CUT SLOPE EVALUATIONS. THE HAMMER SYSTEMS USED WERE CALIBRATED ON MAY 1, 2019, AND THE AVERAGE DRILL ROD ENERGY RATIO (ER) IS 89.1% FOR THE CME 850 AND 90.6% FOR THE ACKER.

EXPLORATION FINDINGS

BORINGS B-001-0-19 THROUGH B-007-0-19, AND B-009-0-19, AND B-011-0-19 WERE COMPLETED WITHIN THE ROADWAY AND WERE SAMPLED FOR SUBGRADE EVALUATIONS. THESE BORINGS ENCOUNTERED 3.5 TO 9 INCHES OF ASPHALT UNDERLAIN BY 5 TO 9 INCHES OF CONCRETE. AGGREGATE BASE WAS NOTED IN B-003-0-19 AND B-004-0-19 AT 4 AND 4.5 INCHES OF THICKNESS RESPECTIVELY. BENEATH THE PAVEMENT BORINGS B-001-0-19 THROUGH B-004-0-19, WHICH WERE COMPLETED THROUGH EMBANKMENT FILLS, ENCOUNTERED PREDOMINATELY NON-COHESIVE SOILS RANGING FROM GRAVEL AND STONE FRAGMENTS WITH SAND (A-1-b), COARSE AND FINE SAND (A-3a) AND GRAVEL AND STONE FRAGMENT WITH SAND AND SILT (A-2-4) IN MEDIUM DENSE TO VERY DENSE COMPACTNESS AND DAMP CONDITION. LAYERS OF VERY STIFF TO HARD SANDY SILT (A-4a) IN DAMP TO MOIST CONDITIONS WERE NOTED WITHIN THE NON-COHESIVE LAYERS. BENEATH THE PAVEMENT BORINGS B-005-0-19 THROUGH B-011-0-19-19, WHICH WERE COMPLETED WITHIN THE CUT OR AT GRADE SECTION, ENCOUNTERED PREDOMINATELY NON-COHESIVE SOILS RANGING FROM GRAVEL WITH SAND (A-1-b) AND COARSE AND FINE SAND (A-3a) IN MEDIUM DENSE TO DENSE COMPACTNESS AND DAMP CONDITION.

B-003-0-19 WAS EXTENDED THROUGH THE ENTIRE DEPTH OF THE EMBANKMENT TO CHARACTERIZE THE EMBANKMENT FILLS FOR WIDENING. ENCOUNTERING PREDOMINATELY NON-COHESIVE SOILS BELOW SUBGRADE SAMPLES CONSISTING OF GRAVEL AND STONE FRAGMENTS WITH SAND (A-1-b) IN DENSE COMPACTNESS AND DAMP CONDITION TO ELEVATION 871.9 FEET UNDERLAIN BY VERY STIFF TO HARD SANDY SILT (A-4a) IN MOIST CONDITION. BETWEEN ELEVATION 862.4 AND 859.9 FEET VERY DENSE GRAVEL AND STONE FRAGMENT WITH SAND (A-1-B) WAS ENCOUNTERED UNDERLAIN BY VERY STIFF SILTY CLAY (A-6b) IN DAMP TO MOIST CONDITION EXTENDING TO ELEVATION 852.4 FEET WHERE HARD SANDY SILT (A-4a) IN DAMP CONDITION WAS ENCOUNTERED IN WHICH THE BORING WAS TERMINATED.

B-003-1-19 AND B-004-1-19 WERE COMPLETED AT THE TOE OF THE PROPOSED EMBANKMENT WIDENING. B-003-1-19 ENCOUNTERED 18 INCHES OF TOPSOIL UNDERLAIN BY VERY STIFF SILTY CLAY (A-6b) WHICH WAS SLIGHTLY ORGANIC AND MOIST EXTENDING TO ELEVATION 838.6 FEET. MEDIUM DENSE GRAVEL AND STONE FRAGMENTS WITH SAND AND SILT (A-2-4) IN DAMP CONDITION WAS ENCOUNTERED BETWEEN ELEVATION 838.6 AND 833.6 FEET UNDERLAIN BY DENSE GRAVEL AND STONE FRAGMENTS WITH SAND (A-1-b) TO ELEVATION 831.1 FEET THEN VERY DENSE COARSE AND FINE SAND (A-3a) WHICH CONTAINED COBBLES AND BOULDERS. THE BORING WAS TERMINATED IN MEDIUM DENSE SILT (A-4b) ENCOUNTERED BELOW ELEVATION 826.1 FEET. B-004-1-19 ENCOUNTERED GRAVEL WITH SAND AND SILT (A-2-4) BELOW THE CUT BENCH ESTABLISHED FOR THE BORING EXTENDING TO ELEVATION 870.9 FEET UNDERLAIN BY GRAVEL AND STONE FRAGMENTS WITH SAND (A-1-b) IN MEDIUM DENSE COMPACTNESS AND MOIST TO WET CONDITION. MEDIUM DENSE SILT (A-4b) WAS ENCOUNTERED AT ELEVATION 865.9 FEET EXTENDING TO ELEVATION 860.9 FEET UNDERLAIN BY GRAVEL WITH SAND (A-1-b) MEDIUM DENSE IN COMPACTNESS AND DAMP IN WHICH THE BORING WAS TERMINATED.

LEGEND

DESCRIPTION	ODOT CLASS	CLASSIFIED MECH./VISUAL	
GRAVEL AND/OR STONE FRAGMENTS	A-1-a (0)	1	2
GRAVEL AND/OR STONE FRAGMENTS WITH SAND	A-1-b (0)	17	14
COARSE AND FINE SAND	A-3a (0)	13	10
GRAVEL AND/OR STONE FRAGS. WITH SAND & SILT	A-2-4 (0)	3	1
SANDY SILT	A-4a (3)	11	9
SILT	A-4b (8)	3	-
SILT AND CLAY	A-6a (7)	2	-
SILTY CLAY	A-6b (9)	4	3
CLAY	A-7-6 (13)	1	-
	TOTAL	55	39

PAVEMENT OR BASE = X = APPROXIMATE THICKNESS — *VISUAL*

TOPSOIL = X = APPROXIMATE THICKNESS — *VISUAL*

BORING LOCATION - PLAN VIEW.

DRIVE SAMPLE AND/OR ROCK CORE BORING PLOTTED TO VERTICAL SCALE ONLY. HORIZONTAL BAR INDICATES A CHANGE IN STRATIGRAPHY.

WC INDICATES WATER CONTENT IN PERCENT.

N_{60} INDICATES STANDARD PENETRATION RESISTANCE NORMALIZED TO 60% DRILL ROD ENERGY RATIO.

⊖ INDICATES A NON-PLASTIC MATERIAL WITH A MOISTURE CONTENT GREATER THAN 25 % OR GREATER THAN 19 % WITH A WET APPEARANCE.

SS INDICATES A SPLIT SPOON SAMPLE.

NP INDICATES A NON-PLASTIC SAMPLE.

SO_4 INDICATES SULFATE CONTENT IN PARTS PER MILLION.

LOI INDICATES ORGANIC CONTENT BY LOSS ON IGNITION TEST (AASHTO T267).

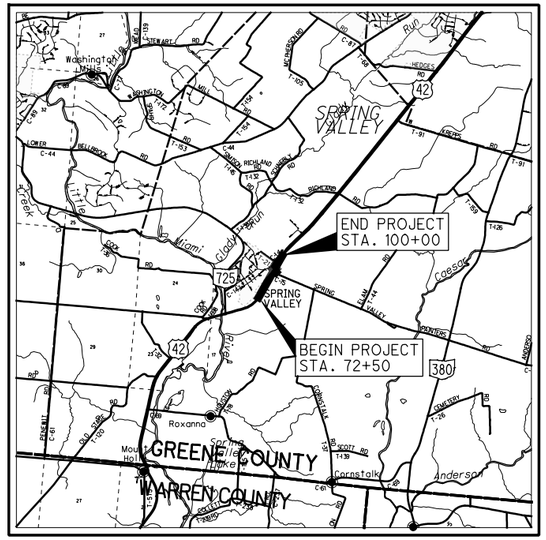
EXPLORATION FINDINGS (CONT.)

BORINGS B-005-1-19, B-007-1-19, B-008-0-19, AND B-010-0-19 WERE COMPLETED IN THE PROPOSED CUT SECTION. B-005-1-19 ENCOUNTERED 18 INCHES OF TOPSOIL UNDERLAIN BY LOOSE TO MEDIUM DENSE COARSE AND FINE SAND (A-3a) IN WHICH THE BORING WAS TERMINATED. B-007-1-19 FIRST ENCOUNTERED 2 INCHES OF TOP SOIL UNDERLAIN BY COHESIVE SILT AND CLAY (A-6a) AND SILTY CLAY (A-6b) WHICH WERE HARD IN CONSISTENCY AND MODERATELY ORGANIC EXTENDING TO ELEVATION 908.4 FEET. BENEATH THE COHESIVE SOILS THE BORING ENCOUNTERED NON-COHESIVE SOILS CONSISTING OF GRAVEL WITH SAND (A-1-b), AND COARSE AND FINE SAND (A-3a) WHICH WERE LOOSE TO DENSE IN COMPACTNESS AND DAMP IN CONDITION. B-008-0-19 FIRST ENCOUNTERED 6 INCHES OF TOPSOIL UNDERLAIN BY COHESIVE CLAY (A-7-6) AND SILTY CLAY (A-6b) WHICH WERE VERY STIFF TO HARD IN CONSISTENCY EXTENDING TO ELEVATION 910.1 FEET. BENEATH THE COHESIVE SOILS THE BORING ENCOUNTERED NON-COHESIVE SOILS CONSISTING OF GRAVEL (A-1-a), AND COARSE AND FINE SAND (A-3a) WHICH WERE MEDIUM DENSE TO DENSE IN COMPACTNESS AND DAMP IN CONDITION. B-010-0-19 ENCOUNTERED 6 INCHES OF TOPSOIL UNDERLAIN BY NON-COHESIVE SOILS CONSISTING SANDY SILT (A-4a), GRAVEL AND STONE FRAGMENTS WITH SAND (A-1-b) AND COARSE AND FINE SAND (A-3a) IN RANGED FROM LOOSE TO MEDIUM DENSE IN COMPACTNESS AND DAMP IN CONDITION.

ALL BORINGS WERE REPORTED AS BEING DRY AT COMPLETION.

SPECIFICATIONS

THIS GEOTECHNICAL EXPLORATION WAS PERFORMED IN ACCORDANCE WITH THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, OFFICE OF GEOTECHNICAL ENGINEERING, SPECIFICATIONS FOR GEOTECHNICAL EXPLORATIONS, DATED JANUARY 2019.



LOCATION MAP

SCALE IN MILES

0 1 2 3 4

N

PARTICLE SIZE DEFINITIONS

12"	3"	2.0 mm	0.42 mm	0.074 mm	0.005 mm
BOULDERS	COBBLES	GRAVEL	COARSE SAND	FINE SAND	SILT	CLAY
		No. 10 SIEVE	No. 40 SIEVE	No. 200 SIEVE		

AVAILABLE INFORMATION

ALL AVAILABLE SOIL AND BEDROCK INFORMATION THAT CAN BE CONVENIENTLY SHOWN ON THE GEOTECHNICAL EXPLORATION SHEETS HAS BEEN SO REPORTED. ADDITIONAL EXPLORATIONS MAY HAVE BEEN MADE TO STUDY SOME SPECIAL ASPECT OF THE PROJECT. COPIES OF THIS DATA, IF ANY, MAY BE INSPECTED IN THE DISTRICT DEPUTY DIRECTOR'S OFFICE OR THE OFFICE OF GEOTECHNICAL ENGINEERING AT 1980 WEST BROAD STREET.

RECON. - AMJ 08/02/19

DRILLING - DML, CEM, ZJB 08/14/19 - 08/27/19

DRAWN - BKL 11/19

REVIEWED - ST 11/19

DESIGN AGENCY
OHIO DEPARTMENT OF TRANSPORTATION
OFFICE OF GEOTECHNICAL ENGINEERING
1980 W. BROAD ST. COLUMBUS, OH 43223

PID NO. 108640

SOIL PROFILE

GRE-42-3.15

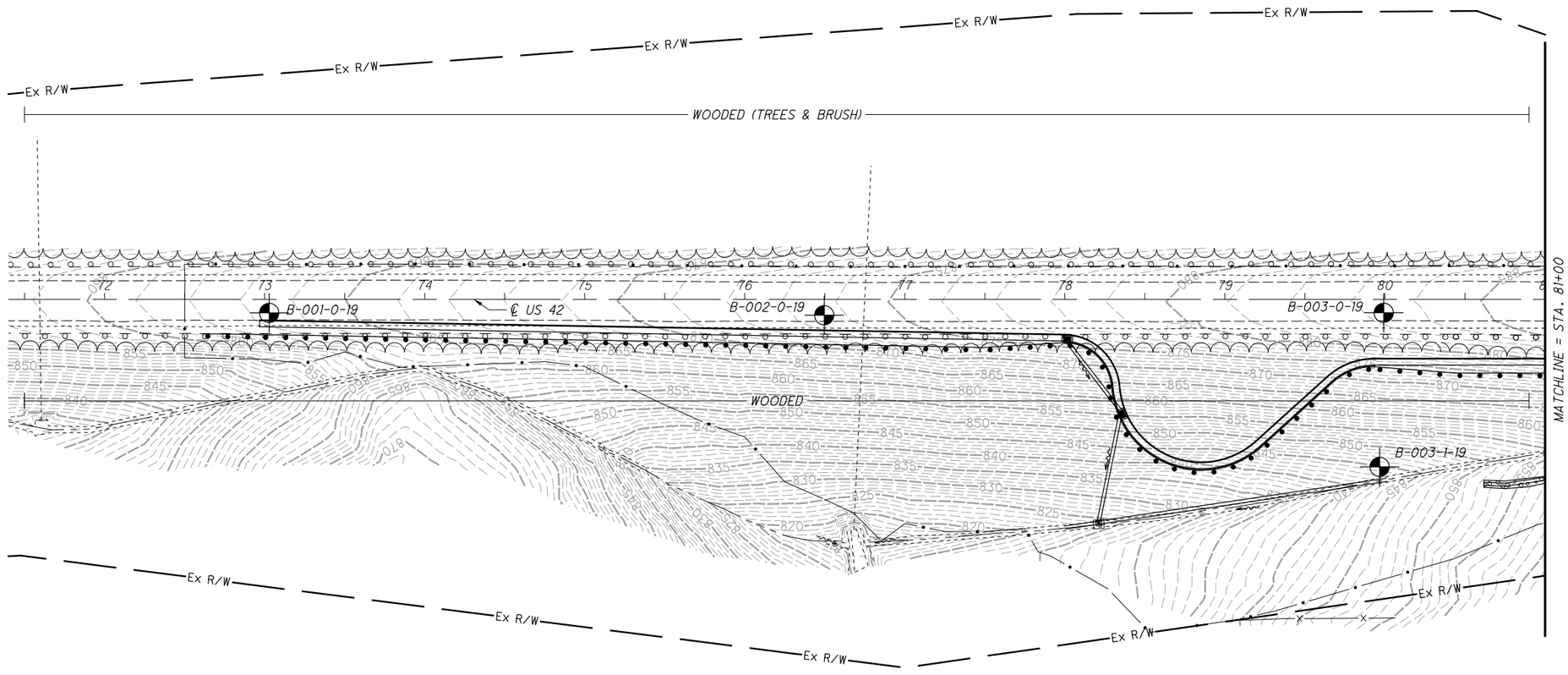
SUMMARY OF SOIL TEST DATA
US 42

EXPLORATION ID., STATION & OFFSET	FROM - TO	SAMPLE ID	N60	% REC	tsf HP	% GR	% CS	% FS	% SILT	% CLAY	LL	PL	PI	% WC	ODOT CLASS (GI)	ppm SO_4
B-001-0-19	01.50 - 02.20	SS-1A	25	56		29	29	20	16	6	NP	NP	NP	8	A-1-b (0)	<100
STA. 73+03, 9' RT.	02.20 - 03.00	SS-1B			3			SAME AS SS-2						11	A-4a (VISUAL)	-
LATITUDE = 39.607933	03.00 - 04.50	SS-2	30	67	4	16	12	18	36	18	22	13	9	10	A-4a (4)	150
LONGITUDE = -84.002922	04.50 - 05.30	SS-3A	28	67	4			SAME AS SS-2						13	A-4a (VISUAL)	-
	05.30 - 06.00	SS-3B				38	30	17	13	2	NP	NP	NP	5	A-1-b (0)	-
	06.00 - 06.30	SS-4A	25	78				SAME AS SS-3B						6	A-1-b (VISUAL)	-
	06.30 - 07.50	SS-4B			3	18	8	13	42	19	25	15	10	15	A-4a (5)	-
B-002-0-19	01.50 - 03.00	SS-1	36	67		28	30	23	15	4	NP	NP	NP	10	A-1-b (0)	<100
STA. 76+50, 10' RT.	03.00 - 03.70	SS-2A	33	56		28	23	33	13	3	NP	NP	NP	10	A-1-b (0)	<100
LATITUDE = 39.608768	03.70 - 04.50	SS-2B			2			SAME AS SS-3						12	A-4a (VISUAL)	-
LONGITUDE = -84.002331	04.50 - 06.00	SS-3	22	56	2	20	12	19	35	14	21	14	7	12	A-4a (3)	-
	06.00 - 07.50	SS-4	24	56	4			SAME AS SS-3						13	A-4a (VISUAL)	-
B-003-0-19	01.50 - 03.00	SS-1	21	44	4.5+	18	10	14	36	22	22	13	9	10	A-4a (5)	390
STA. 79+99, 8' RT.	03.00 - 04.50	SS-2	19	33	4	24	7	14	34	21	25	14	11	13	A-6a (4)	220
LATITUDE = 39.609614	04.50 - 06.00	SS-3	33	44		15	32	35	12	6	NP	NP	NP	10	A-3a (0)	-
LONGITUDE = -84.001745	06.00 - 06.40	SS-4A	34	44				SAME AS SS-3						10	A-3a (VISUAL)	-
	06.40 - 07.50	SS-4B			1			SAME AS SS-5A						17	A-4a (VISUAL)	-
	08.50 - 09.30	SS-5A	43	78	4	19	10	15	32	24	24	14	10	11	A-4a (4)	-
	09.30 - 10.00	SS-5B						SAME AS SS-6A						5	A-1-b (VISUAL)	-
	11.00 - 11.50	SS-6A	37	89		35	26	20	12	7	NP	NP	NP	7	A-1-b (0)	-
	11.50 - 12.50	SS-6B			3			SAME AS SS-8						16	A-4a (VISUAL)	-
	13.50 - 15.00	SS-7	31	44	3			SAME AS SS-8						13	A-4a (VISUAL)	-
	16.00 - 17.50	SS-8	42	89	4.5+	18	10	15	35	22	22	14	8	11	A-4a (4)	-
	18.50 - 20.00	SS-9	36	89	4			SAME AS SS-8						9	A-4a (VISUAL)	-
	21.00 - 22.50	SS-10	58	56		40	23	18	12	7	NP	NP	NP	6	A-1-b (0)	-
	23.50 - 25.00	SS-11	16	44	4	22	4	10	40	24	32	15	17	19	A-6b (9)	-
	26.00 - 27.50	SS-12	48	89	4			SAME AS SS-11						14	A-6b (VISUAL)	-
	28.50 - 30.00	SS-13	34	89	4			SAME AS SS-11						12	A-6b (VISUAL)	-
	31.00 - 32.50	SS-14	56	89	5	11	15	25	33	16	19	14	5	9	A-4a (3)	-
	33.50 - 35.00	SS-15	31	89	3			SAME AS SS-14						17	A-4a (VISUAL)	-
B-003-1-19	01.50 - 03.00	SS-1	14	11				SAME AS SS-2						24	A-6b (VISUAL)	-
STA. 79+97, 105' RT.	03.50 - 05.00	SS-2	14	33	3	30	12	18	17	23	35	15	20	25	A-6b (4)	-
LATITUDE = 39.609482	06.00 - 07.50	SS-3	17	78		36	21	16	22	5	NP	NP	NP	9	A-2-4 (0)	-
LONGITUDE = -84.001449	08.50 - 10.00	SS-4	14	11				SAME AS SS-3						11	A-2-4 (VISUAL)	-
	11.00 - 12.50	SS-5	36	56		48	10	23	16	3	NP	NP	NP	5	A-1-b (0)	-
	13.50 - 15.00	SS-6	69	0				SAME AS SS-7						9	A-3a (VISUAL)	-
	16.00 - 17.50	SS-7	71	89		5	4	72	14	5	NP	NP	NP	6	A-3a (0)	-
	18.50 - 20.00	SS-8	24	78		3	4	10	64	19	NP	NP	NP	20	A-4b (8)	-
B-004-0-19	01.50 - 03.00	SS-1	21	44	4	28	13	13	30	16	21	14	7	11	A-4a (2)	210
STA. 82+94, 10' RT.	03.00 - 03.80	SS-2A	28	67	2	22	12	17	33	16	23	14	9	10	A-4a (3)	210
LATITUDE = 39.610325	03.80 - 04.50	SS-2B				30	25	24	16	5	NP	NP	NP	7	A-1-b (0)	<100
LONGITUDE = -84.001243	04.50 - 04.70	SS-3A	40	78				SAME AS SS-2B						6	A-1-b (VISUAL)	-
	04.70 - 06.00	SS-3B			4	28	10	13	35	14	22	13	9	9	A-4a (3)	-
	06.00 - 07.50	SS-4	55	89		23	19	30	20	8	NP	NP	NP	9	A-2-4 (0)	-
B-004-1-19	01.50 - 03.00	SS-1	11	28		33	25	16	14	12	24	14	10	14	A-2-4 (0)	-
STA. 82+92, 63' RT.	03.50 - 05.00	SS-2	20	28				SAME AS SS-3						11	A-1-b (VISUAL)	-
LATITUDE = 39.610250	06.00 - 07.50	SS-3	26	67		36	20	24	6	14	NP	NP	NP	13	A-1-b (0)	-
LONGITUDE = -84.001080	08.50 - 10.00	SS-4	12	50		2	1	2	68	27	NP	NP	NP	20	A-4b (8)	-
	11.00 - 12.50	SS-5	18	50		1	0	1	73	25	NP	NP	NP	19	A-4b (8)	-
	13.50 - 15.00	SS-6	24	56		19	41	26	10	4	NP	NP	NP	5	A-1-b (0)	-
B-005-0-19	01.50 - 03.00	SS-1	27	44		14	32	32	18	4	NP	NP	NP	7	A-3a (0)	<100
STA. 85+42, 5' LT.	03.00 - 04.50	SS-2	21	56		18	32	34	7	9	NP	NP	NP	5	A-1-b (0)	<100
LATITUDE = 39.610943	04.50 - 06.00	SS-3	22	56				SAME AS SS-2						5	A-1-b (VISUAL)	-
LONGITUDE = -84.000870	06.00 - 07.50	SS-4	36	78				SAME AS SS-2						5	A-1-b (VISUAL)	-
B-005-1-19	01.50 - 03.00	SS-1	12	50		3	32	46	15	4	NP	NP	NP	3	A-3a (0)	-
STA. 85+39, 35' LT.	03.50 - 05.00	SS-2	6	50		2	25	55	13	5	NP	NP	NP	6	A-3a (0)	-
LATITUDE = 39.610975	06.00 - 07.50	SS-3	19	100		20	28	35	13	4	NP	NP	NP	14	A-3a (0)	-
LONGITUDE = -84.000968	08.50 - 10.00	SS-4	21	100				SAME AS SS-3						14	A-3a (VISUAL)	-
B-007-0-19	01.50 - 03.00	SS-1	42	67		11	43	30	11	5	NP	NP	NP	7	A-1-b (0)	<100
STA. 89+38, 8' RT.	03.00 - 04.50	SS-2	27	78				SAME AS SS-1						6	A-1-b (VISUAL)	-
LATITUDE = 39.611881	04.50 - 06.00	SS-3	22	67		1	5	75	15	4	NP	NP	NP	6	A-3a (0)	<100
LONGITUDE = -84.000159	06.00 - 07.50	SS-4	28	67				SAME AS SS-3						7	A-3a (VISUAL)	-
B-007-1-19	01.50 - 03.00	SS-1	21	44	5	17	1	5	48	29	34	19	15	16	A-6a (10)	-
STA. 89+32, 81' RT.	03.50 - 05.00	SS-2	25	67	5	13	3	5	50	29	37	18	19	17	A-6b (12)	-
LATITUDE = 39.611772	06.00 - 07.50	SS-3	9	28				SAME AS SS-4						2	A-1-b (VISUAL)	-
LONGITUDE = -83.999942	08.50 - 10.00	SS-4	19	89		37	34	16	10	3	NP	NP	NP	3	A-1-b (0)	-
	11.00 - 12.50	SS-5	30	100				SAME AS SS-4						4	A-1-b (VISUAL)	-
	13.50 - 15.00	SS-6	24	89		7	37	43	10	3	NP	NP	NP	4	A-3a (0)	-
	16.00 - 17.50	SS-7	43	100				SAME AS SS-6						4	A-3a (VISUAL)	-
	18.50 - 20.00	SS-8	28	89		32	35	20	9	4	NP	NP	NP	4	A-1-b (0)	-
	21.00 - 22.50	SS-9	30	100				SAME AS SS-8						6	A-1-b (VISUAL)	-
	23.50 - 25.00	SS-10	34	83				SAME AS SS-8						5	A-1-b (VISUAL)	-
B-008-0-19	01.50 - 03.00	SS-1	22	67	4.5+	20	1	4	46	29	41	18	23	19	A-7-6 (13)	-
STA. 92+34, 82' RT.	03.50 - 05.00	SS-2	19	78	3.50	11	6	16	42	25	33	17	16	17	A-6b (9)	-
LATITUDE = 39.612499	06.00 - 07.50	SS-3	28	94		50	25	10	11	4	NP	NP	NP	3	A-1-a (0)	-
LONGITUDE = -83.999427	08.50 - 10.00	SS-4	42	78				SAME AS SS-3						4	A-1-a (VISUAL)	-
	11.00 - 12.50	SS-5	31	67				SAME AS SS-3						4	A-1-a (VISUAL)	-
	13.50 - 15.00	SS-6	18	78		6	39	44	8	3	NP	NP	NP	4	A-3a (0)	-
	16.00 - 17.50	SS-7	33	78				SAME AS SS-6						4	A-3a (VISUAL)	-
	18.50 - 20.00	SS-8	19	67				SAME AS SS-6						4	A-3a (VISUAL)	-
B-009-0-19	01.50 - 03.00	SS-1	25	67		1	5	70	19	5	NP	NP	NP	10	A-3a (0)	<100
STA. 93+39, 4' LT.	03.00 - 04.50	SS-2	21	89				SAME AS SS-1						9	A-3a (VISUAL)	-
LATITUDE = 39.612866	04.50 - 06.00	SS-3	19	78				SAME AS SS-1						6	A-3a (VISUAL)	-
LONGITUDE = -83.999520	06.00 - 07.50	SS-4	18	100		6	35	44	11	4	NP	NP	NP	5	A-3a (0)	<100
B-010-0-19	01.50 - 03.00	SS-1	10	17		25	24	15	15	21	NP	NP	NP	13	A-4a (0)	<100
STA. 93+93, 65' LT.	03.50 - 05.00	SS-2	19	67		48	23	12	14	3	NP	NP	NP	5	A-1-b (0)	<100
LATITUDE = 39.613075	06.00 - 07.50	SS-3	27	89				SAME AS SS-2						4	A-1-b (VISUAL)	-
LONGITUDE = -83.999620	08.50 - 10.00	SS-4	19	78				SAME AS SS-2						4	A-1-b (VISUAL)	-
	11.00 - 12.50	SS-5	24	89		1	18	63	15	3	NP	NP	NP	4	A-3a (0)	-
	13.50 - 15.00	SS-6	28	94		0	12	73	13	2	NP	NP	NP	6	A-3a (0)	-

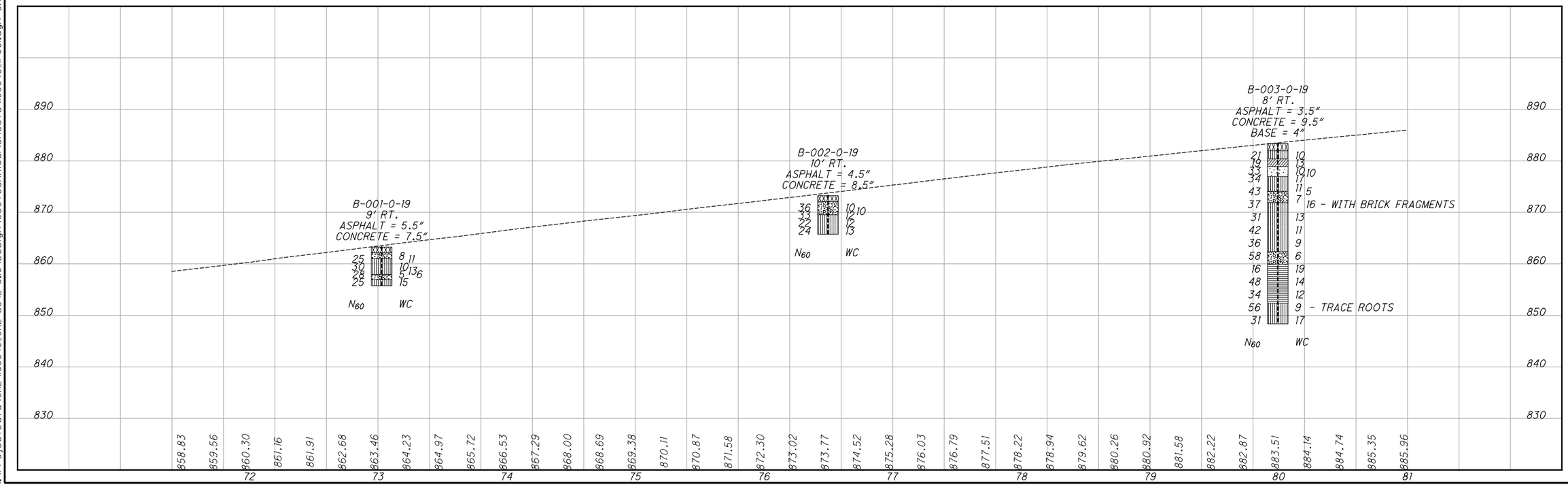
SUMMARY OF SOIL TEST DATA (CONT.)

US 42

EXPLORATION ID., STATION & OFFSET	FROM - TO	SAMPLE ID	N_{60}	% REC	tsf HP	% GR	% CS	% FS	% SILT	% CLAY	LL	PL	PI	% WC	ODOT CLASS (GI)	ppm SO_4
B-011-0-19	01.50 - 03.00	SS-1	24	44		42	23	15	16	4	NP	NP	NP	6	A-1-b (0)	<100
STA. 97+35, 17' RT.	03.00 - 04.50	SS-2	9	50		41	23	14	16	6	NP	NP	NP	6	A-1-b (0)	<100
LATITUDE = 39.613775	04.50 - 06.00	SS-3	6	61		SAME AS SS-2								8	A-1-b (VISUAL)	-
LONGITUDE = -83.998753	06.00 - 07.50	SS-4	12	28		MEDIUM DENSE, BROWN, COARSE AND FINE SAND, LITTLE GRAVEL AND STONE FRAGMENTS, TRACE SILT, TRACE CLAY (NOT ENOUGH TO RUN CLASSIFICATION TESTS), DAMP								7	A-3a (VISUAL)	<100



FOR BORING B-003-1-19 SEE SHEET NO. 7.



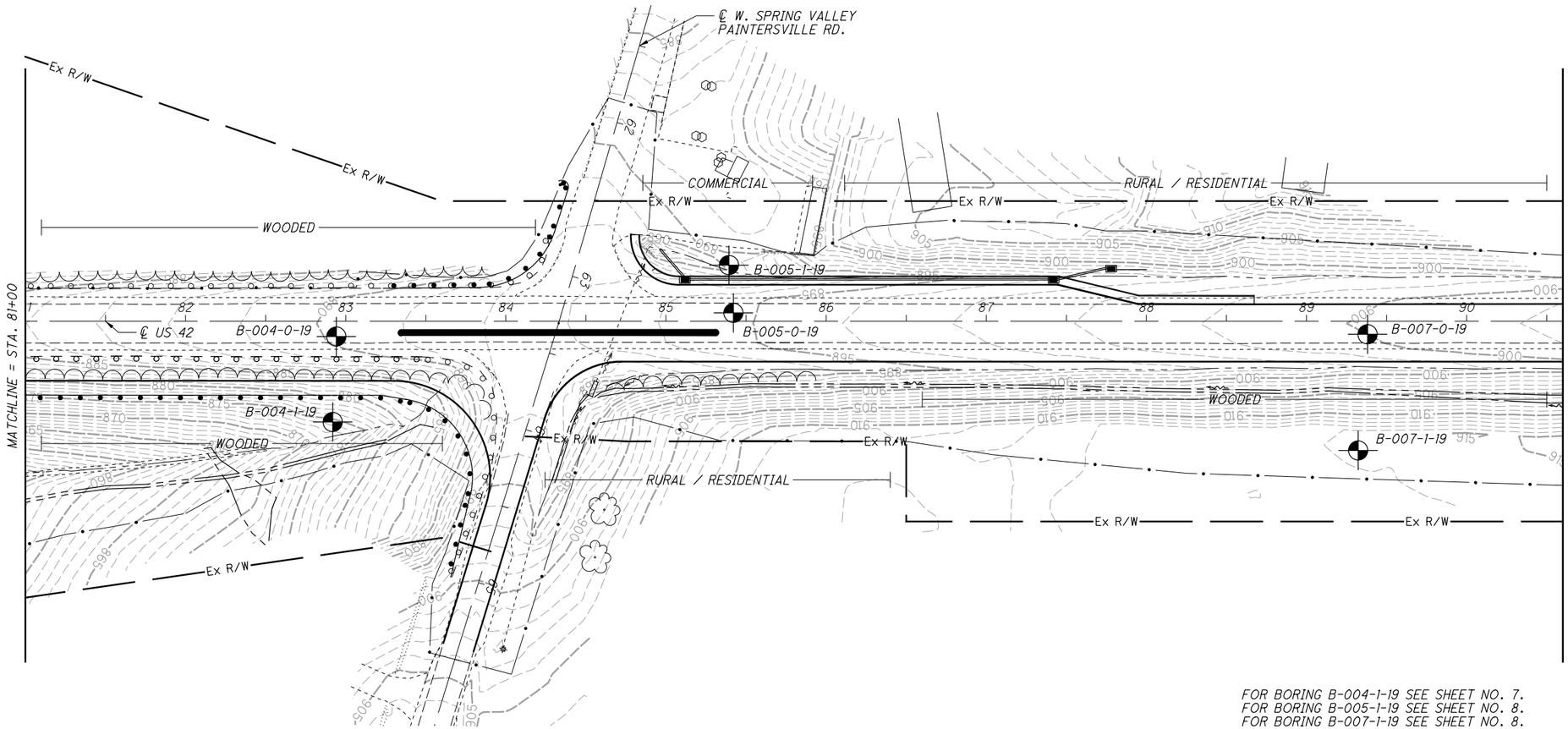
HORIZONTAL SCALE IN FEET
0 20 40 80

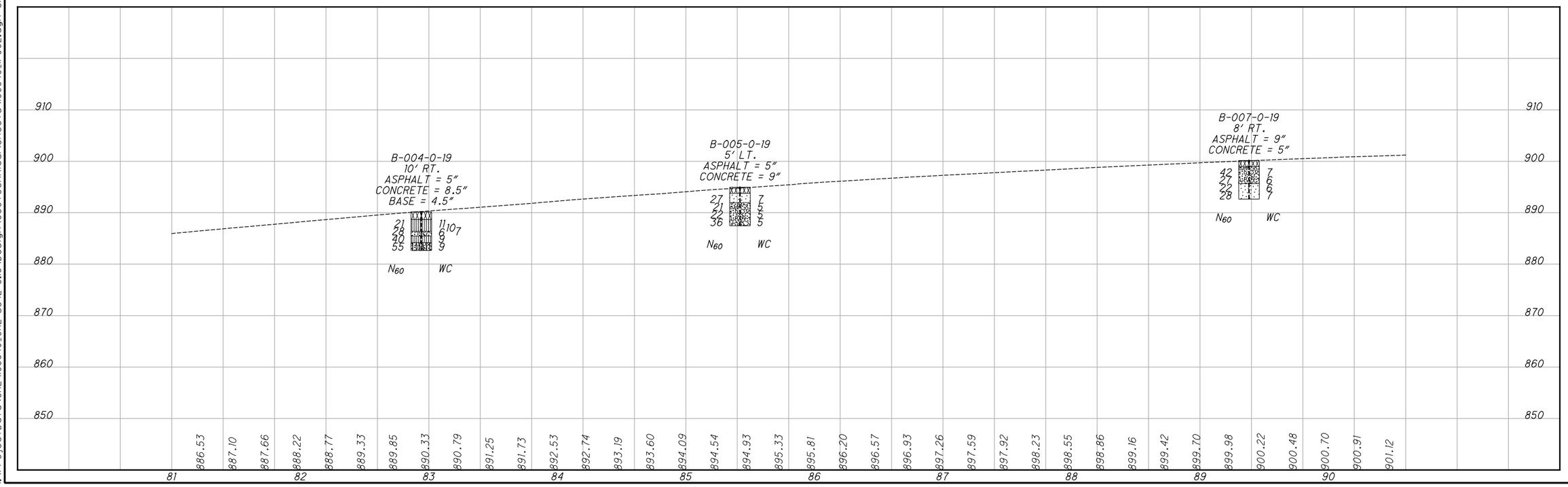
DRAWN BKL
CHECKED ST

SOIL PROFILE

STA. 72+40 TO STA. 81+00 - US 42

GRE-42-3.15





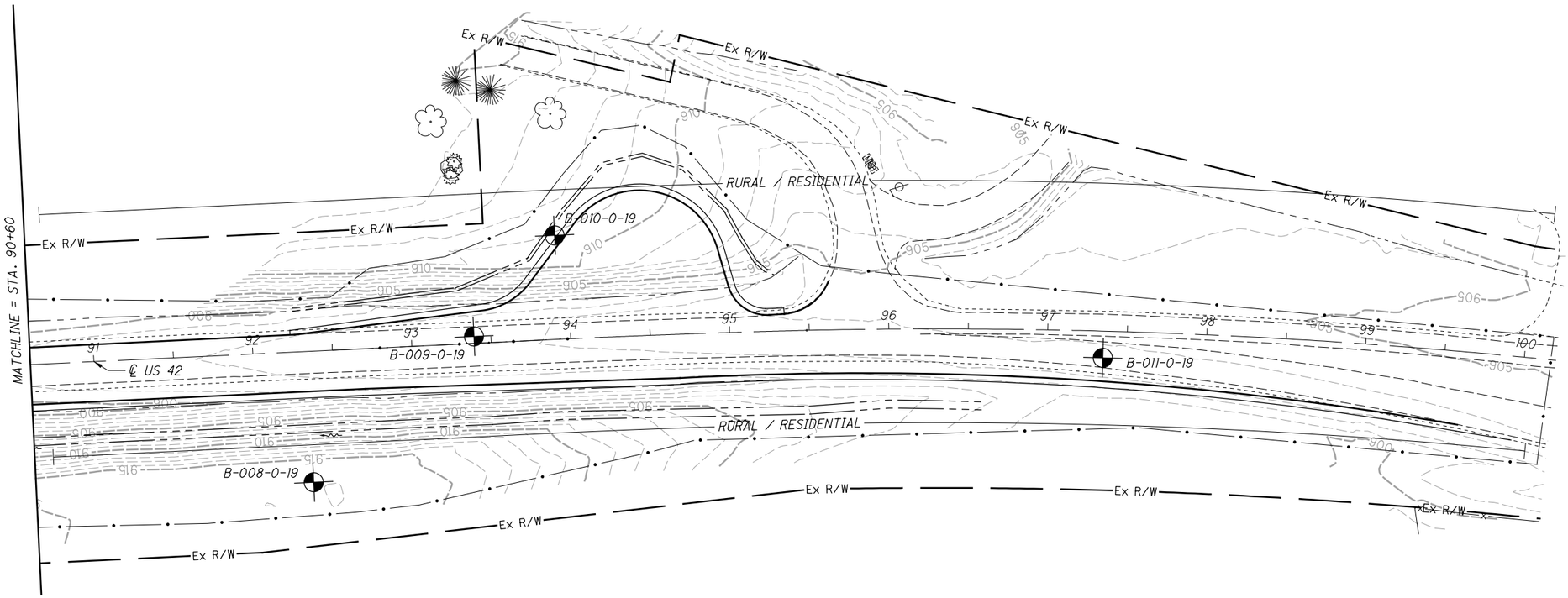
HORIZONTAL SCALE IN FEET
0 20 40 80

DRAWN BKL
CHECKED ST

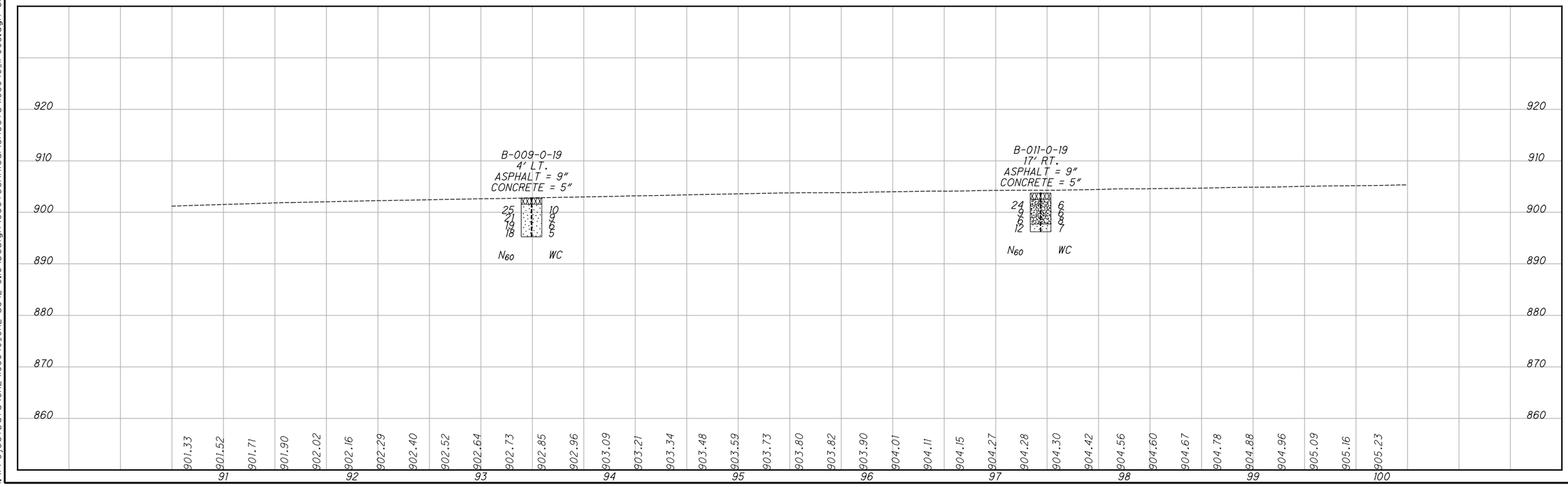
SOIL PROFILE
STA. 81+00 TO STA. 90+60 - US 42

GRE-42-3.15

5 / 9



FOR BORING B-008-0-19 SEE SHEET NO. 9.
FOR BORING B-010-0-19 SEE SHEET NO. 9.



SOIL PROFILE
STA. 90+60 TO STA. 100+20 - US 42

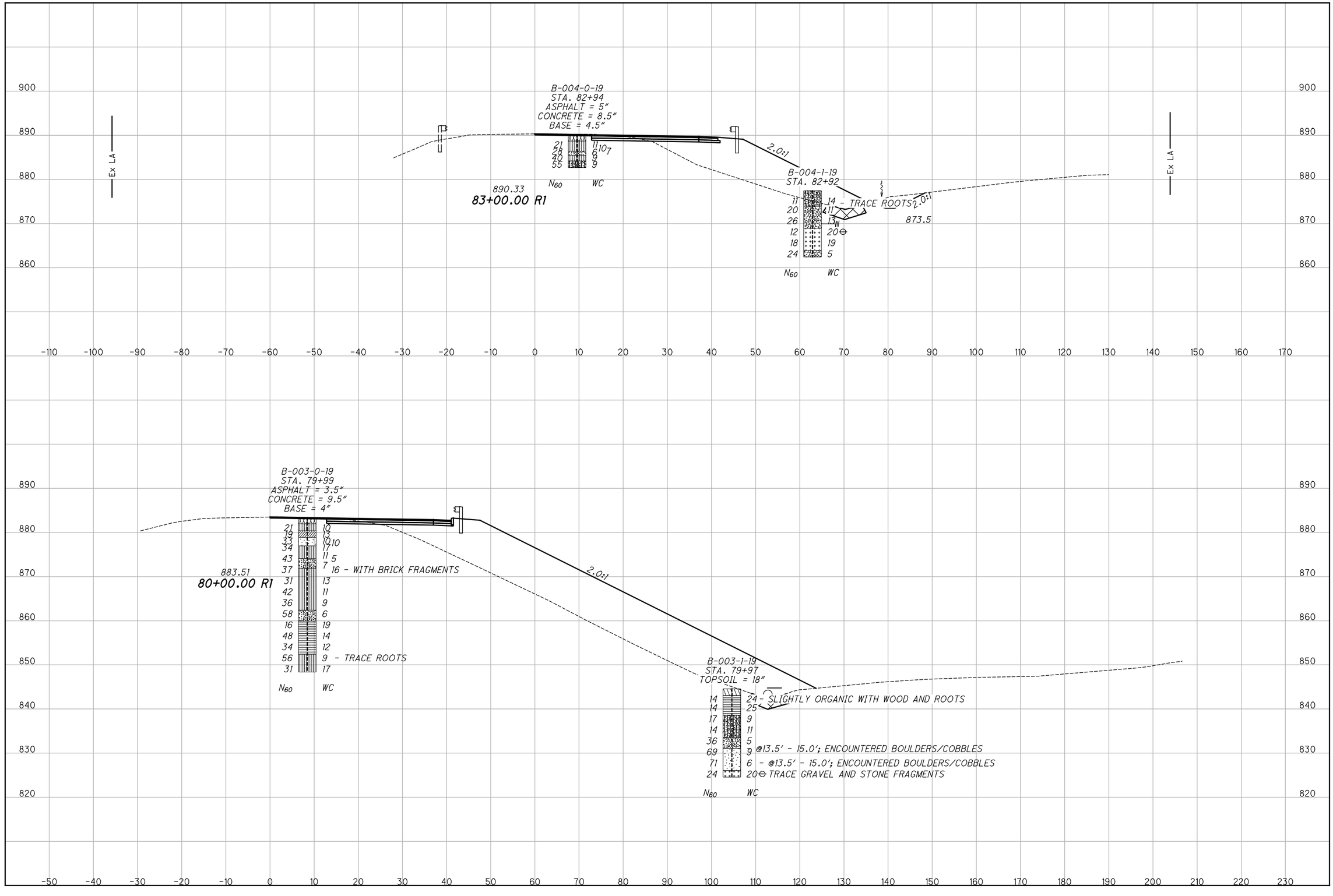
GRE-42-3.15

6 / 9

DRAWN BKL
CHECKED ST

HORIZONTAL SCALE IN FEET
0 20 40 80

I:\ProjectData\GRE\108640_GRE-US42-3.16\Design\Geotechnical\Sheets\108640_IP003.dgn Sheet 11/21/2019 2:37:02 PM blogston



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HORIZONTAL SCALE IN FEET
0 5 10 20

DRAWN BKL
CHECKED ST

SOIL PROFILE
CROSS SECTIONS STA. 80+00 & STA. 83+00 - US 42

GRE-42-3.15

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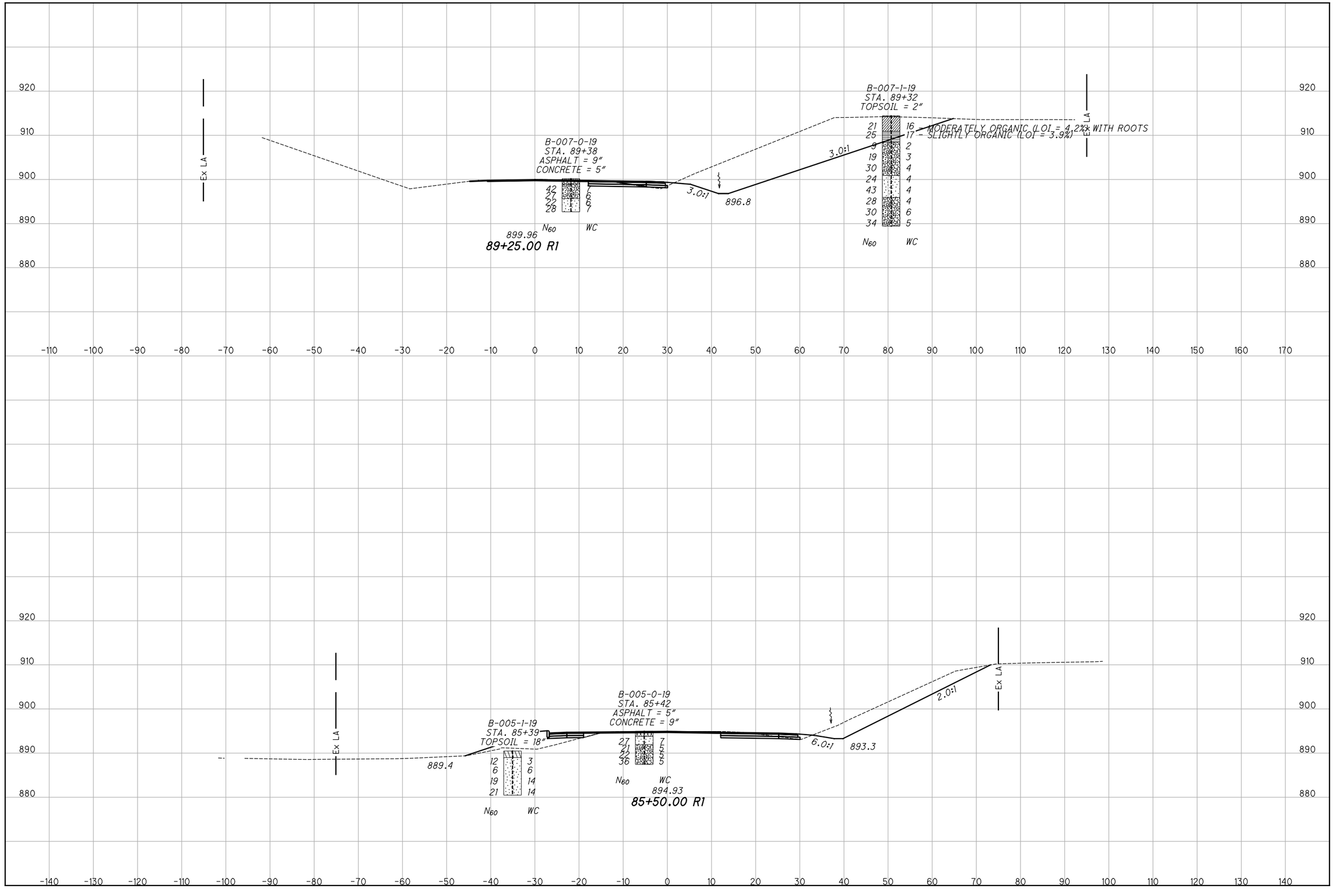

DRAWN BKL
CHECKED ST

SOIL PROFILE
CROSS SECTIONS STA. 85+50 & STA. 89+25 - US 42

GRE-42-3.15

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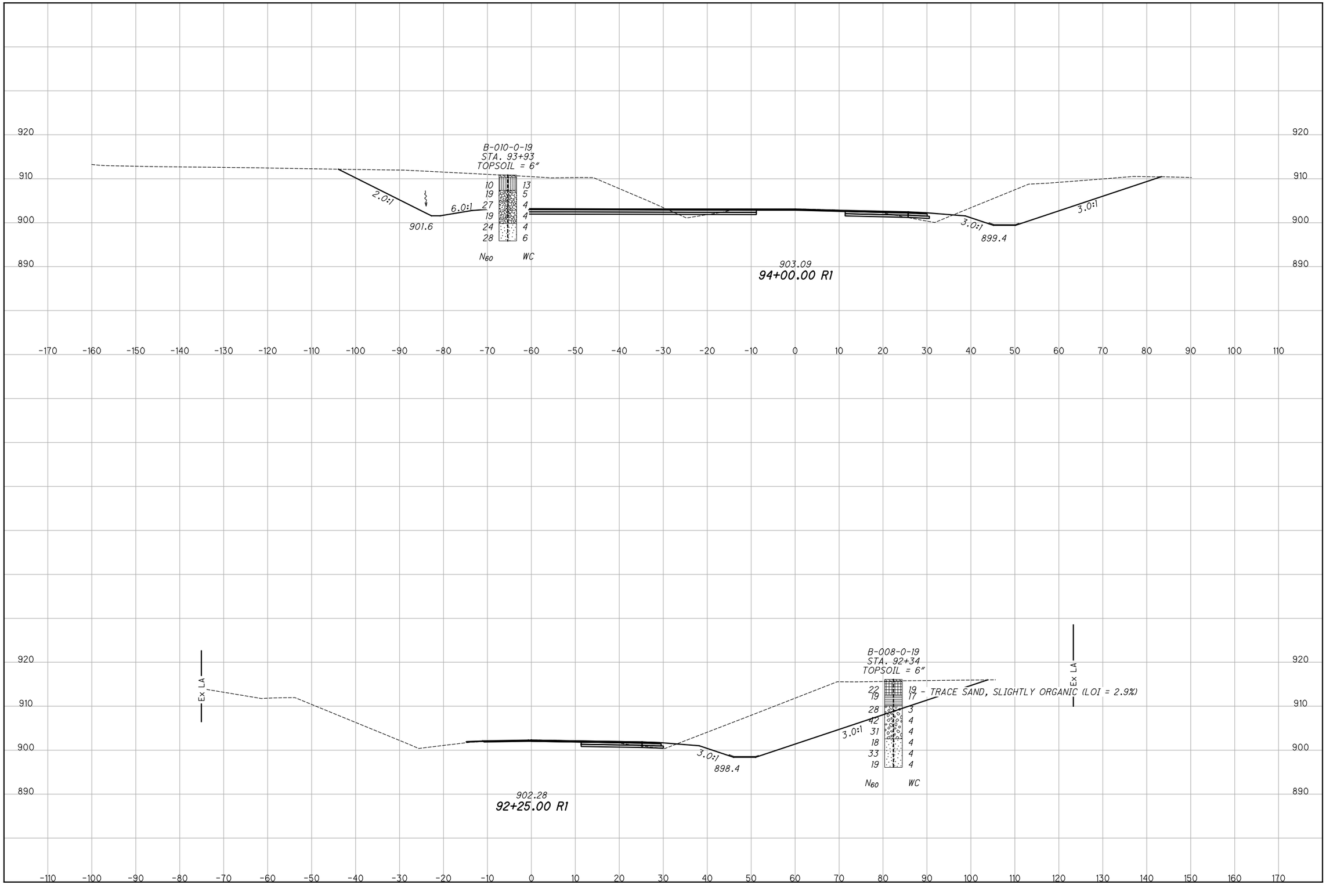
I:\ProjectData\GRE\108640_GRE-US42-3.16\Design\Geotechnical\Sheets\108640_IX002.dgn Sheet 11/21/2019 2:37:05 PM blogston



HORIZONTAL SCALE IN FEET
0 5 10 20

DRAWN BKL
CHECKED ST

SOIL PROFILE
CROSS SECTIONS STA. 92+25 & STA. 94+00 - US 42

GRE-42-3.15

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I:\ProjectData\GRE\108640_GRE-US42-3.16\Design\Geotechnical\Sheets\108640_IX003.dgn Sheet 11/21/2019 2:37:05 PM blogston