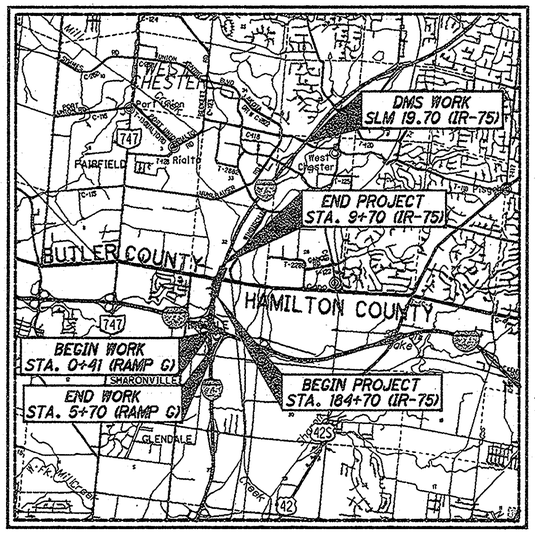


LOCATION MAP

LATITUDE: 39°17'59" LONGITUDE: -84°26'22"

SCALE IN MILES

0 1 2 3 4

PORTION TO BE IMPROVED

INTERSTATE HIGHWAY

FEDERAL ROUTES

STATE ROUTES

COUNTY & TOWNSHIP ROADS

OTHER ROADS

DESIGN DESIGNATION - SEE SHEET 2

STATE OF OHIO

DEPARTMENT OF TRANSPORTATION

HAM/BUT-75-17.22/0.00

CITY OF SHARONVILLE
WEST CHESTER TOWNSHIP
HAMILTON AND BUTLER COUNTIES

INDEX OF SHEETS:

PROJECT DESCRIPTION

THIS PROJECT CONSISTS OF LENGTHENING APPROXIMATELY 2,220 FEET OF AN IR-75 ACCELERATION LANE FROM THE IR-275 EASTBOUND AND WESTBOUND RAMPS. ADDITIONAL WORK INCLUDES DRAINAGE IMPROVEMENTS TO THE ERODED SLOPE OF THE EASTBOUND IR-275 RAMP G AND REPLACEMENT OF A DYNAMIC MESSAGE SIGN ON SOUTHBOUND IR-75.

EARTH DISTURBED AREAS

PROJECT EARTH DISTURBED AREA:	3.6 ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA:	0.4 ACRES
NOTICE OF INTENT EARTH DISTURBED AREA:	4.9 ACRES

LIMITED ACCESS

THIS IMPROVEMENT IS ESPECIALLY DESIGNED FOR THROUGH TRAFFIC AND HAS BEEN DECLARED A LIMITED ACCESS HIGHWAY OR FREEWAY BY ACTION OF THE DIRECTOR IN ACCORDANCE WITH THE PROVISIONS OF SECTION 5511.02 OF THE OHIO REVISED CODE.

2013 SPECIFICATIONS

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

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

UNDER AUTHORITY OF SECTION 4511.21, DIVISION (H) OF THE OHIO REVISED CODE, THE REVISED PRIMA FACIE SPEED LIMITS AS INDICATED HEREIN ARE DETERMINED TO BE REASONABLE AND SAFE, AND ARE HEREBY ESTABLISHED FOR THE DURATION OF THIS PROJECT. THE PRIMA FACIE SPEED LIMIT OR LIMITS HEREBY ESTABLISHED SHALL BECOME EFFECTIVE WHEN THE APPROPRIATE SIGNS GIVING NOTICE THEREOF ARE ERECTED.

APPROVED Steve Mary
DATE 2/6/15 DISTRICT DEPUTY DIRECTOR

APPROVED Jerry Wray II
DATE 2-17-15 DIRECTOR, DEPARTMENT OF TRANSPORTATION

DESIGN EXCEPTIONS

NONE

UNDERGROUND UTILITIES

CONTACT BOTH SERVICES
CALL TWO WORKING DAYS
BEFORE YOU DIG

CALL
1-800-362-2764
(TOLL FREE)
OHIO UTILITIES PROTECTION SERVICE
NON-MEMBERS
MUST BE CALLED DIRECTLY

OIL & GAS PRODUCERS UNDERGROUND
PROTECTION SERVICE CALL: 1-800-925-0988

PLAN PREPARED BY:
DISTRICT 8 ENGINEERING
505 S SR 741
LEBANON, OH 45036

ENGINEERS SEAL:

STATE OF OHIO
JOSEPH A SMITHSON
E-64506
REGISTERED PROFESSIONAL ENGINEER

SIGNED: Joseph A Smithson
DATE: 2/5/15

STANDARD CONSTRUCTION DRAWINGS								SUPPLEMENTAL SPECIFICATIONS	
BP-3.1	7/18/14	RM-4.2	4/18/14	MT-99.30	7/19/13	TC-65.10	1/17/14	800	1/21/15
BP-5.1	7/19/13			MT-101.60	7/19/13	TC-65.11	7/18/14	809	7/18/14
BP-9.1	7/19/13	HL-10.12	1/17/14	MT-101.70	1/17/14			821	4/20/12
		HL-10.13	1/17/14	MT-101.90	7/18/14			832	1/17/14
DM-1.1	1/18/13	HL-20.11	1/17/14	MT-102.10	7/18/14			878	10/18/13
DM-1.2	1/18/13	HL-30.11	1/17/14	MT-102.20	7/18/14			921	4/20/12
DM-4.1	7/20/12	HL-30.21	1/17/14	MT-102.30	7/19/13			987	1/16/09
DM-4.3	7/19/13	HL-60.11	1/17/14	MT-105.10	7/19/13				
DM-4.4	7/20/12								
		MT-95.30	7/18/14	TC-41.10	7/19/13			SPECIAL PROVISIONS	
MGS-1.1	7/19/13	MT-95.40	7/18/14	TC-41.20	10/18/13				
MGS-2.1	7/19/13	MT-98.10	7/18/14	TC-42.10	10/18/13				
MGS-3.1	7/18/14	MT-98.11	7/18/14	TC-42.20	10/18/13				
MGS-3.2	1/18/13	MT-98.28	7/18/14	TC-51.12	1/17/14				
MGS-4.3	1/18/13	MT-98.29	7/19/13	TC-52.10	10/18/13				
MGS-6.1	7/19/13	MT-99.20	7/19/13	TC-52.20	7/18/14				

FEDERAL PROJECT NO. E131 (448)

PID NO. 96421

CONSTRUCTION PROJECT NO. HAM/BUT-75-17.22/0.00

1/48

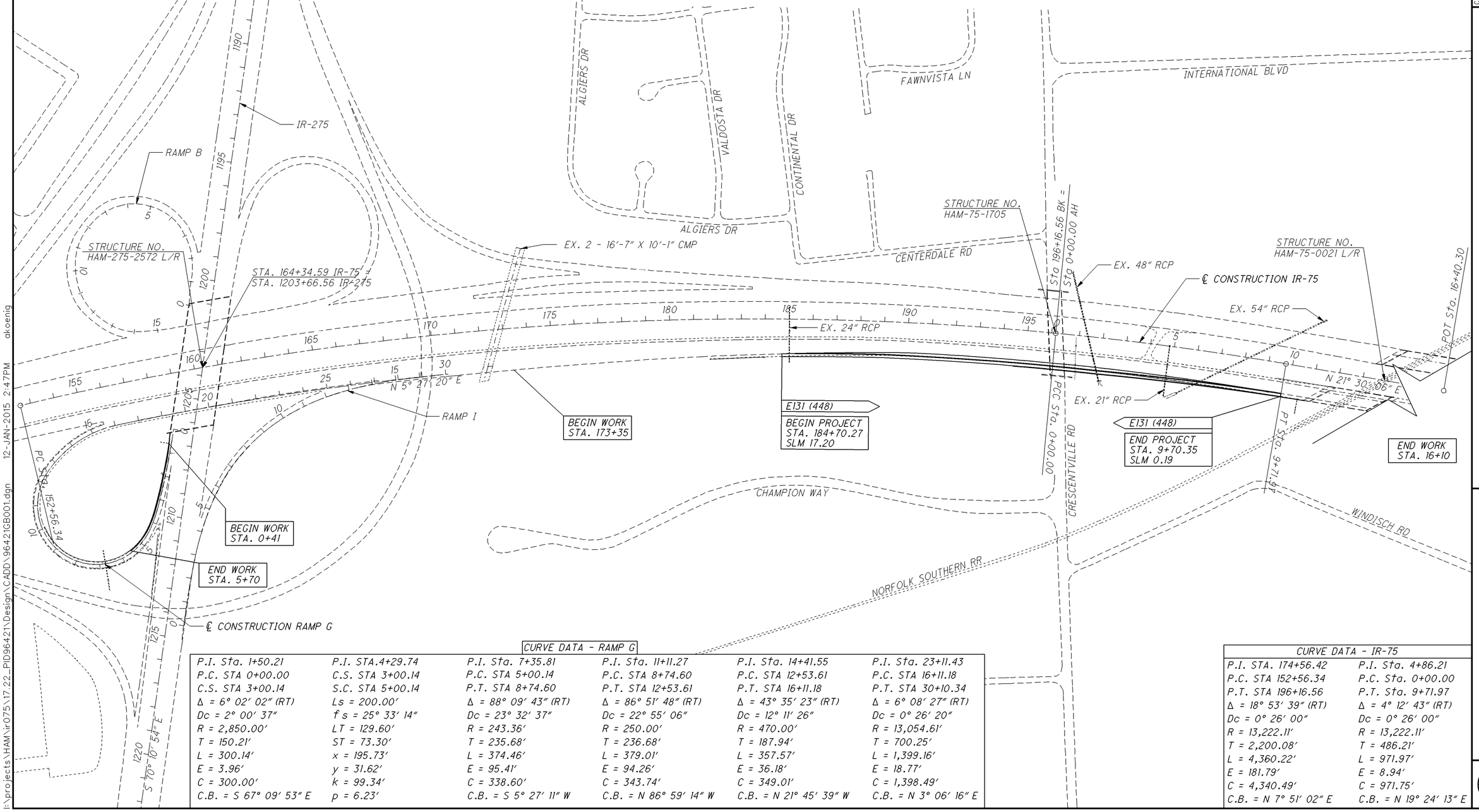
CURVE DATA - IR 275
P.I. Sta. 1149+53.16
P.C. STA 1110+11.94
P.T. STA 1188+28.19
Δ = 18° 10′ 22″ (RT)
Dc = 0° 13′ 57″
R = 24,643.34′
T = 3,941.22′
L = 7,816.25′
E = 313.17′
C = 7,783.52′
C.B. = S 79° 16′ 05″ E

PRIMARY PROJECT CONTROL INFORMATION

POINT	DESCRIPTION	NORTHING	EASTING	ELEVATION	STATION	OFFSET
VRE210	MAG NAIL SET	477986.14	1419426.31	589.907	182+17.58 (I.R. 75)	174.395
VRE207	MAG NAIL SET	478084.65	1419445.22	590.129	183+19.22 (I.R. 75)	173.363
AVA6	MONUMENT	478636.18	1419581.90	594.500	188+94.91 (I.R. 75)	182.265
VHH7	MAG NAIL SET	479251.69	1419710.33	595.843	195+30.44 (I.R. 75)	141.964
VHH1295	MAG NAIL FOUND	479492.80	1419832.65	592.494	1+83.98 (I.R. 75)	186.082
VHH1392	MAG NAIL FOUND	479634.35	1419883.09	594.095	3+36.38 (I.R. 75)	189.192
VHH1405	MAG NAIL FOUND	479681.67	1419875.34	594.292	3+79.24 (I.R. 75)	166.568
VJD114	MAG NAIL FOUND	479784.83	1419932.92	593.258	4+97.17 (I.R. 75)	187.033
VJD152	MAG NAIL FOUND	479856.75	1419963.46	591.618	5+76.30 (I.R. 75)	191.643
CTLPT1	IRON PIN SET	475165.74	1419472.41	590.727	10+65.53 (RAMP G)	110.187
CTRLPT2	IRON PIN SET	475412.41	1419236.16	591.605	15+59.32 (RAMP G)	63.73

DESIGN DESIGNATION	IR-75	RAMP G	RAMP I	IR-275 WEST OF IR-75	IR-275 OVER IR-75	IR-275 EAST OF IR-75
CURRENT ADT (2015)	164,160	13,980	15,970	149,530	122,180	134,220
DESIGN YEAR ADT (2035)	203,000	15,620	17,810	166,010	137,120	151,320
DESIGN HOURLY VOLUME (2035)	17,030	1,420	1,680	15,670	13,440	14,680
DIRECTIONAL DISTRIBUTION	51%	100%	100	51%	56%	51%
TRUCKS (24 HOUR B&C)	16%	8%	8%	11%	11%	11%
DESIGN SPEED	65	65	65	65	65	65
LEGAL SPEED	65	65	65	65	65	65

DESIGN FUNCTIONAL CLASSIFICATION: URBAN INTERSTATE
NHS PROJECT YES



CURVE DATA - RAMP G

P.I. Sta. 1+50.21	P.I. STA.4+29.74	P.I. Sta. 7+35.81	P.I. Sta. 11+11.27	P.I. Sta. 14+41.55	P.I. Sta. 23+11.43
P.C. STA 0+00.00	C.S. STA 3+00.14	P.C. STA 5+00.14	P.C. STA 8+74.60	P.C. STA 12+53.61	P.C. STA 16+11.18
C.S. STA 3+00.14	S.C. STA 5+00.14	P.T. STA 8+74.60	P.T. STA 12+53.61	P.T. STA 16+11.18	P.T. STA 30+10.34
Δ = 6° 02′ 02″ (RT)	Ls = 200.00′	Δ = 88° 09′ 43″ (RT)	Δ = 86° 51′ 48″ (RT)	Δ = 43° 35′ 23″ (RT)	Δ = 6° 08′ 27″ (RT)
Dc = 2° 00′ 37″	f s = 25° 33′ 14″	Dc = 23° 32′ 37″	Dc = 22° 55′ 06″	Dc = 12° 11′ 26″	Dc = 0° 26′ 20″
R = 2,850.00′	LT = 129.60′	R = 243.36′	R = 250.00′	R = 470.00′	R = 13,054.61′
T = 150.21′	ST = 73.30′	T = 235.68′	T = 236.68′	T = 187.94′	T = 700.25′
L = 300.14′	x = 195.73′	L = 374.46′	L = 379.01′	L = 357.57′	L = 1,399.16′
E = 3.96′	y = 31.62′	E = 95.41′	E = 94.26′	E = 36.18′	E = 18.77′
C = 300.00′	k = 99.34′	C = 338.60′	C = 343.74′	C = 349.01′	C = 1,398.49′
C.B. = S 67° 09′ 53″ E	p = 6.23′	C.B. = S 5° 27′ 11″ W	C.B. = N 86° 59′ 14″ W	C.B. = N 21° 45′ 39″ W	C.B. = N 3° 06′ 16″ E

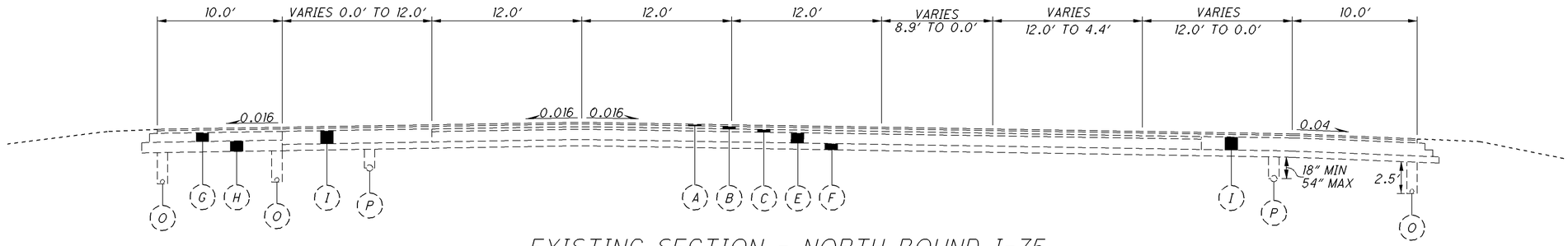
CURVE DATA - IR-75

P.I. STA. 174+56.42	P.I. Sta. 4+86.21
P.C. STA 152+56.34	P.C. Sta. 0+00.00
P.T. STA 196+16.56	P.T. Sta. 9+71.97
Δ = 18° 53′ 39″ (RT)	Δ = 4° 12′ 43″ (RT)
Dc = 0° 26′ 00″	Dc = 0° 26′ 00″
R = 13,222.11′	R = 13,222.11′
T = 2,200.08′	T = 486.21′
L = 4,360.22′	L = 971.97′
E = 181.79′	E = 8.94′
C = 4,340.49′	C = 971.75′
C.B. = N 7° 51′ 02″ E	C.B. = N 19° 24′ 13″ E

HORIZONTAL SCALE IN FEET
0 100 200 400
CALCULATED AHK
CHECKED RMH

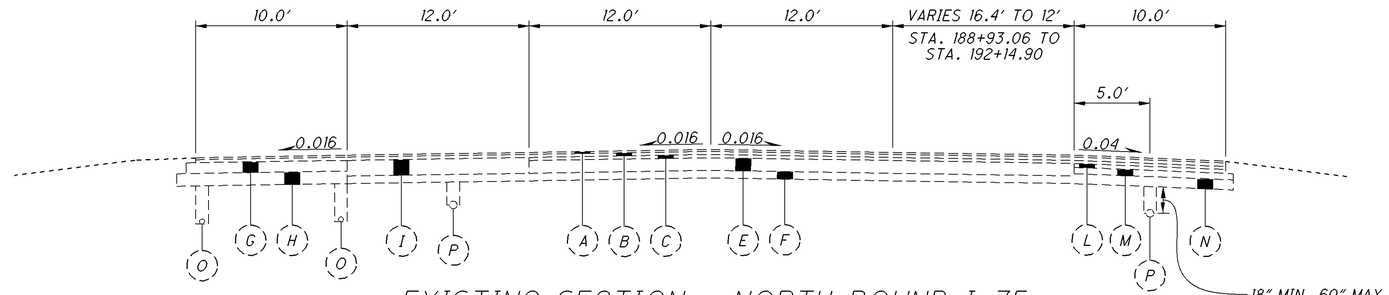
SCHEMATIC PLAN

HAM/BUT-75-17.22/0.00



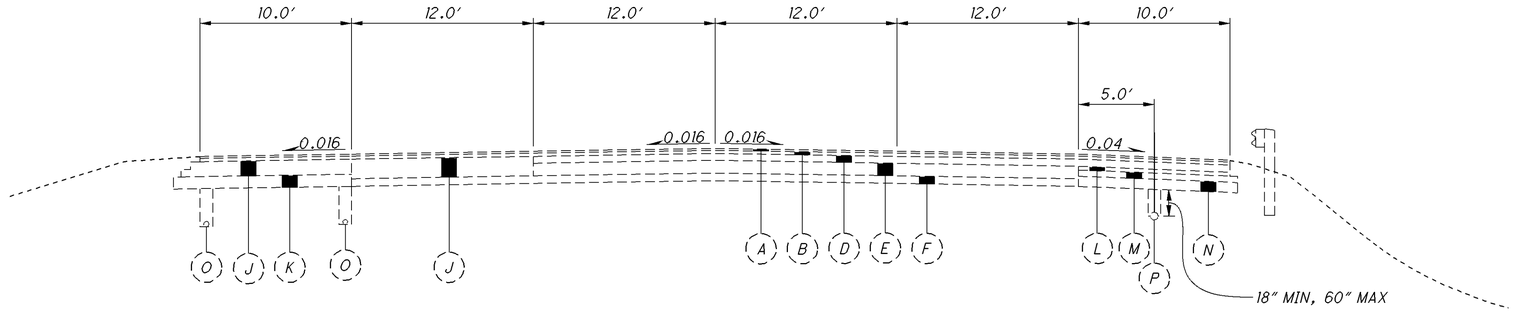
EXISTING SECTION - NORTH BOUND I-75

STA. 180+42.67 TO STA. 188+93.06



EXISTING SECTION - NORTH BOUND I-75

STA. 188+93.06 TO STA. 196+16.56



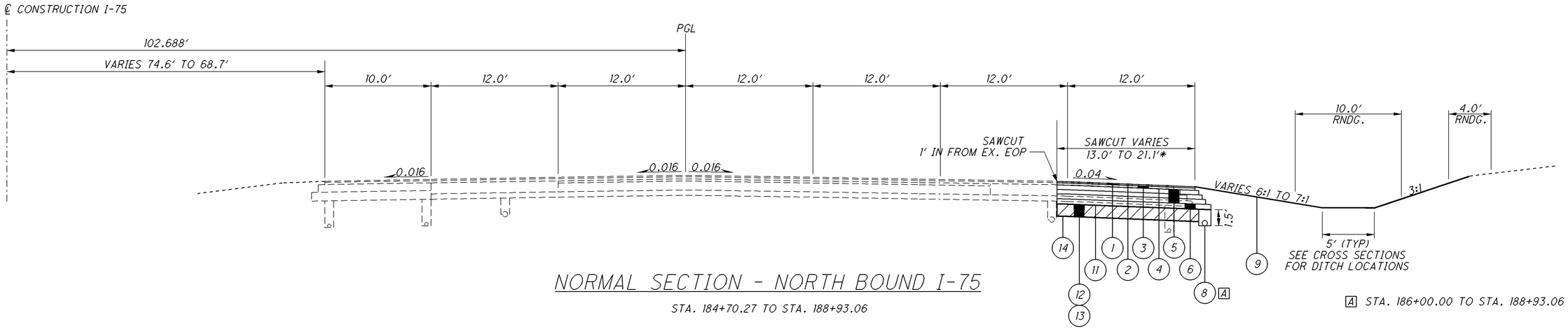
EXISTING SECTION - NORTH BOUND I-75

STA. 0+00.00 TO STA. 9+70.35

LEGEND

- (A) ITEM 446 - 1½″ ASPHALT CONCRETE SURFACE COURSE
- (B) ITEM 446 - 2½″ ASPHALT CONCRETE INTERMEDIATE COURSE
- (C) 2½″ FLEXIBLE PAVEMENT OVERLAY
- (D) 5½″ FLEXIBLE PAVEMENT OVERLAY
- (E) ITEM 451 - 10″ REINFORCED CONCRETE PAVEMENT
- (F) ITEM 304 - 6″ AGGREGATE BASE
- (G) ITEM 302 - 8½″ ASPHALT CONCRETE BASE
- (H) ITEM 304 - 10″ AGGREGATE BASE
- (I) ITEM 302 - 12½″ ASPHALT CONCRETE BASE
- (J) ITEM 302 - 12″ ASPHALT CONCRETE BASE
- (K) ITEM 304 - 9½″ AGGREGATE BASE
- (L) 3″ WATERPROOF AGGREGATE BASE
- (M) ITEM 411 - 5″ STABILIZED CRUSHED AGGREGATE
- (N) ITEM 304 - 8″ AGGREGATE BASE
- (O) ITEM 605 - 4″ SHALLOW PIPE UNDERDRAINS
- (P) 6″ PIPE UNDERDRAIN
- (Q) ITEM 442 - 1.75″ ASPHALT CONCRETE INTERMEDIATE COURSE
- (R) ITEM 302 - 10.5″ ASPHALT CONCRETE BASE

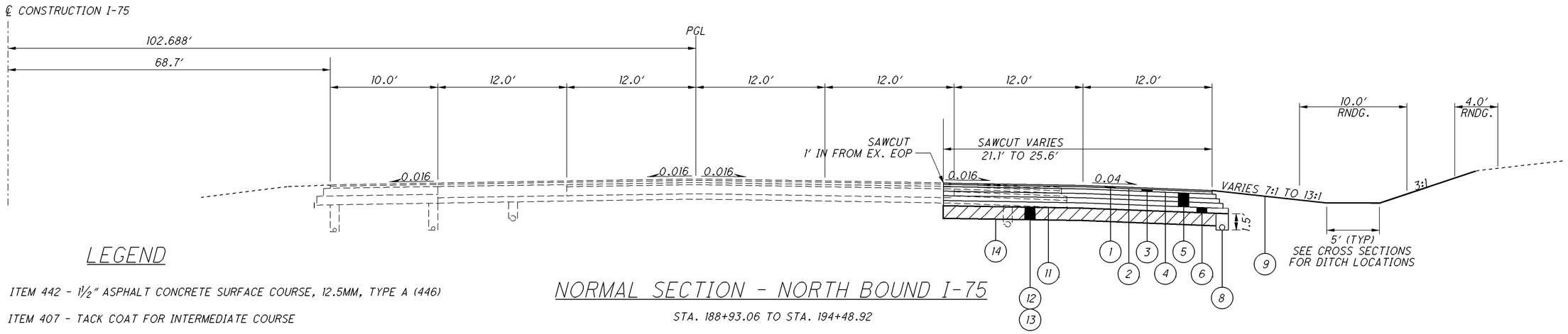
* - VARIES 11.9' TO 13.0' FROM STA. 184+70.27 TO STA. 185+26.87



NORMAL SECTION - NORTH BOUND I-75

STA. 184+70.27 TO STA. 188+93.06

A STA. 186+00.00 TO STA. 188+93.06

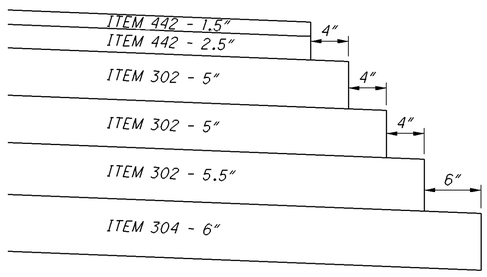


NORMAL SECTION - NORTH BOUND I-75

STA. 188+93.06 TO STA. 194+48.92

LEGEND

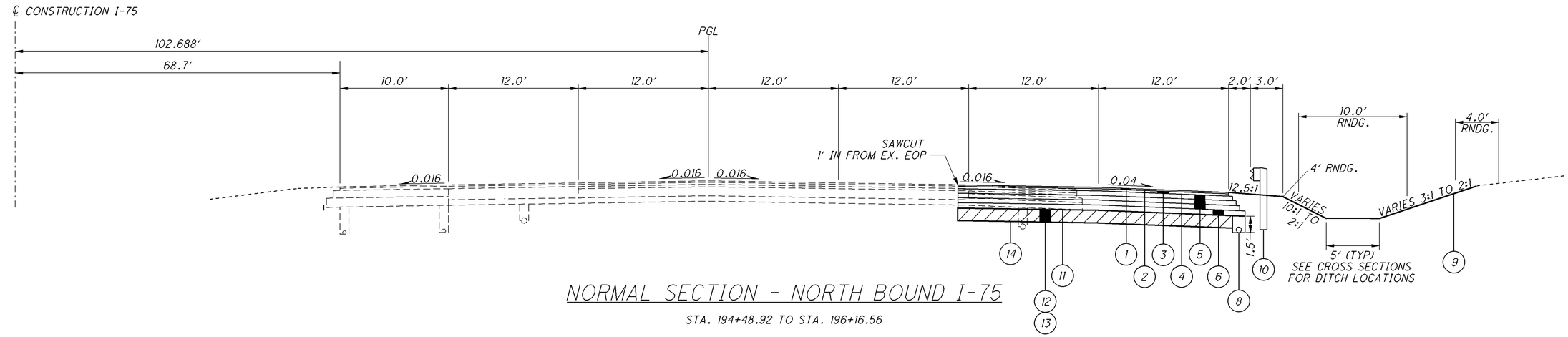
1. ITEM 442 - 1½" ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446)
2. ITEM 407 - TACK COAT FOR INTERMEDIATE COURSE
3. ITEM 442 - 2½" ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE A (446)
4. ITEM 407 - TACK COAT
5. ITEM 302 - 15½" ASPHALT CONCRETE BASE, PG64-22
6. ITEM 304 - 6" AGGREGATE BASE
7. ITEM 605 - 6" SHALLOW PIPE UNDERDRAIN
8. ITEM 605 - 6" BASE PIPE UNDERDRAIN, 707.31, 707.41
9. ITEM 659 - SEEDING AND MULCHING
10. ITEM 606 - GUARDRAIL, TYPE MGS
11. ITEM 204 - SUBGRADE COMPACTION AND PROOF ROLLING
12. ITEM 204 - EXCAVATION OF SUBGRADE, 14" DEEP
13. ITEM 204 - GRANULAR MATERIAL, TYPE C
14. ITEM 204 - GEOTEXTILE FABRIC, TYPE D
15. ITEM 442 - 2" ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446)
16. ITEM 302 - 10" ASPHALT CONCRETE BASE, PG64-22
17. ITEM 304 - 10" AGGREGATE BASE



I-75 PAVEMENT STEP DETAIL

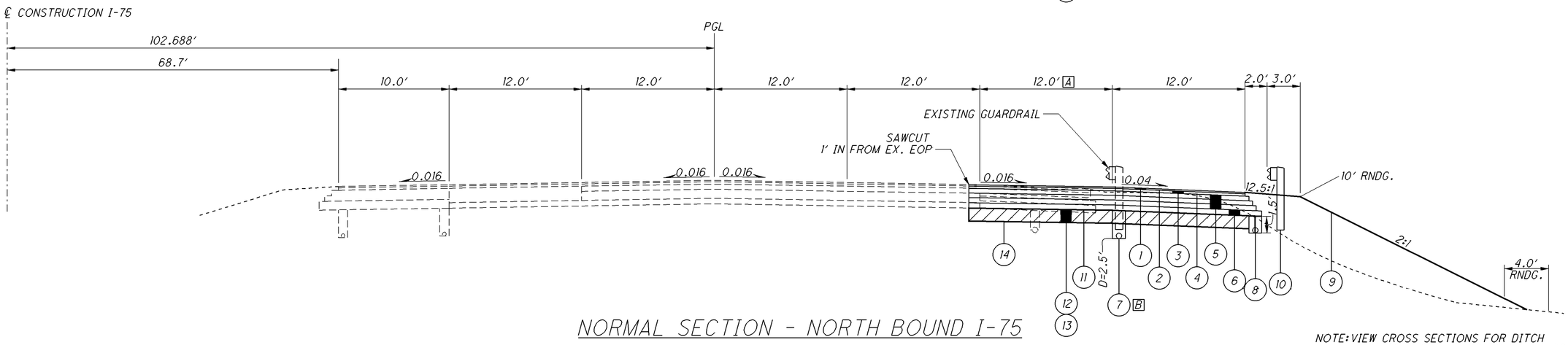
TYPICAL SECTIONS

HAM/BUT-75-17.22/0.00



NORMAL SECTION - NORTH BOUND I-75

STA. 194+48.92 TO STA. 196+16.56



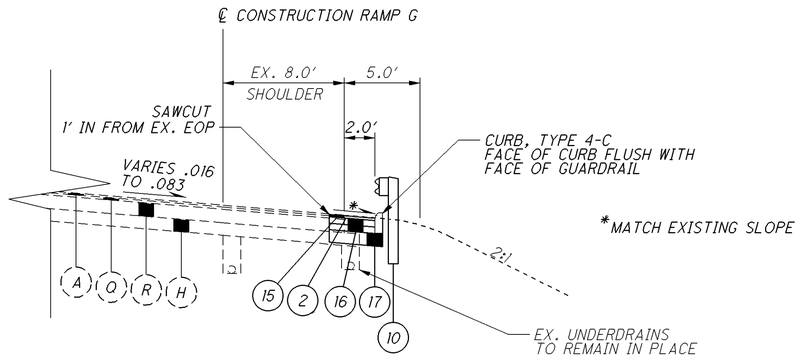
NORMAL SECTION - NORTH BOUND I-75

STA. 0+00.00 TO STA. 9+70.35

NOTE: VIEW CROSS SECTIONS FOR DITCH LOCATIONS STA. 0+00 TO STA. 1+00

A VARIES 12' TO 0' FROM STA. 1+90.35 TO STA. 9+70.35

B STA. 1+50 TO 5+00



NORMAL SECTION - RAMP G

STA. 0+64.22 TO STA. 5+53.89

TYPICAL SECTIONS

HAM/BUT-75-17.22/0.00

UTILITIES

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

DUKE ENERGY - ELECTRIC (TRANSMISSION)
139 E. 4TH ST, RM 552A
CINCINNATI, OH 45202
STEPHEN REISING (513-287-1931)
STEPHEN.REISING@DUKE-ENERGY.COM

DUKE ENERGY
139 E. 4TH ST, RM 467A
CINCINNATI, OH 45202
513-287-3674 (AARON WRIGHT)
AARON.WRIGHT@DUKE-ENERGY.COM

CINCINNATI BELL
221 E. 4TH ST, BLDG. 121-900
CINCINNATI, OH 45201
513-565-7043 (MARK CONNER)
MARK.CONNER@CINBELL.COM

TIME WARNER CABLE
11252 CORNELL PARK DR
CINCINNATI, OH 45242
513-386-5483 (JIM O'REILLY)
JIM.OREILLY@TWCABLE.COM

GREATER CINCINNATI WATER WORKS
1600 GEST STREET
CINCINNATI, OHIO 45204
513-557-5799 (JON HUNSEDER)
JON.HUNSEDER@GCWW.CINCINNATI-OH.GOV

LEVEL (3) COMMUNICATIONS, LLC
1902 SOUTH EAST STREET
INDIANAPOLIS, INDIANA 46225
317-916-2708 (DEWAYNE HAMILTON)
RELO@LEVEL3.COM

INTERIM COMPLETION DATE

AN INTERIM COMPLETION DATE FOR THE COMPLETION OF ALL WORK IS ESTABLISHED AS OCTOBER 31, 2015. ALL EXISTING LANES SHALL BE OPEN TO TRAFFIC BY THIS DATE, AND LIQUIDATED DAMAGES SHALL BE ASSESSED IN ACCORDANCE WITH C&MS 108.07 FOR EACH CALENDAR DAY THAT ALL LANES ARE NOT OPEN AND AVAILABLE TO TRAFFIC.

PAVEMENT ELEVATIONS IN CROSS SECTIONS

THE INTERSTATE 75 TRAVELED LANE PAVEMENT ELEVATIONS WERE CREATED USING LIDAR, WHILE THE SHOULDER ELEVATIONS WERE TAKEN MANUALLY BY THE DEPARTMENTS SURVEYORS. DUE TO THE POSSIBLE DIFFERENCES IN ELEVATIONS BETWEEN THESE TWO METHODS, THE CONTRACTOR SHALL VERIFY THE SAWCUT ELEVATIONS IN THE FIELD. PAVEMENT SLOPES SHOWN IN THE TYPICALS ALONG WITH DITCH LOCATIONS/ELEVATIONS SHALL STILL BE MAINTAINED IF THERE ARE ANY DIFFERENCES.

ITEM 606 - ANCHOR ASSEMBLY, MGS TYPE E

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY OF THE GUARDRAIL END TERMINALS FOR TYPE MGS GUARDRAIL AS LISTED ON ROADWAY ENGINEERING'S WEB PAGE UNDER ROADSIDE SAFETY DEVICES FOR APPROVED GUARDRAIL END TREATMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

THE FACE OF THE TYPE E IMPACT HEAD SHALL BE COVERED WITH A SHEET OF TYPE G REFLECTIVE SHEETING, PER CMS 730.19.

REFER TO THE MANUFACTURER'S INSTRUCTIONS REGARDING THE INSTALLATION OF, AND THE GRADING AROUND THE FOUNDATION TUBES AND GROUND STRUT. THE TOP OF ANY FOUNDATION TUBE SHOULD BE LESS THAN 4 INCHES ABOVE THE GROUND. THE PLACEMENT OF THE FOUNDATION TUBES SHOULD BE AN APPROPRIATE DEPTH BELOW THE LEVEL LINE IN ORDER TO MAINTAIN THE FINISHED GUARDRAIL HEIGHT OF 31 INCHES FROM THE EDGE OF THE SHOULDER.

ON-SITE GRADING IS REQUIRED IF THE TOP OF THE FOUNDATION TUBES OR TOP OF THE GROUND STRUT DOES PROJECT MORE THAN 4 INCHES ABOVE THE GROUND LINE.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, ANCHOR ASSEMBLY, MGS TYPE E, EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL ANCHOR ASSEMBLY SYSTEM, INCLUDING ALL RELATED TRANSITIONS, REFLECTIVE SHEETING, HARDWARE, GRADING, EMBANKMENT AND EXCAVATION NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

CONSTRUCTION NOTIFICATION

THE CONTRACTOR WILL ADVISE THE PROJECT ENGINEER A MINIMUM OF:
- FOURTEEN (14) DAYS PRIOR TO THE START OF CONSTRUCTION ACTIVITIES, AND/OR ROAD CLOSURES.
- SEVEN (7) DAYS PRIOR TO LANE CLOSURES AND/OR SHIFTS IN TRAFFIC PATTERNS. THE PROJECT ENGINEER WILL FORWARD THIS INFORMATION TO THE FOLLOWING:

DISTRICT PUBLIC INFORMATION OFFICER (PIO) BY FAX AT (513) 933-9472 OR EMAIL AT D08.PIO.FORM@DOT.STATE.OH.US
DISTRICT PERMIT SECTION BY FAX AT (513) 933-9472 OR EMAIL AT TOM.MAKRIS@DOT.STATE.OH.US
CENTRAL OFFICE SPECIAL HAUL PERMITS SECTION BY FAX AT (614) 728-4099 OR EMAIL AT HAULING.PERMITS@DOT.STATE.OH.US

THE PIO WILL, IN TURN, NOTIFY THE PUBLIC, THE LOCAL EMERGENCY SERVICES, AFFECTED SCHOOLS AND BUSINESSES, AND ANY OTHER IMPACTED LOCAL PUBLIC AGENCY OF ANY OF THE ABOVE MENTIONED ITEMS, VIA MEDIA SOURCES.

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.

SURVEYING PARAMETERS

USE THE FOLLOWING VERTICAL POSITIONING AND HORIZONTAL POSITIONING PARAMETERS FOR ALL SURVEYING:

VERTICAL POSITIONING

ORTHOMETRIC HEIGHT DATUM: NAD83
GEOID: 12A

HORIZONTAL POSITIONING

REFERENCE FRAME: NAD83(2011)
ELLIPSOID: GRS80
MAP PROJECTION: LAMBERT CONFORMAL CONIC
COORDINATE SYSTEM: OHIO SOUTH ZONE (SPC 3402)
COMBINED SCALE FACTOR: 1.0

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

ITEM SPECIAL - PIPE CLEANOUT, 27" TO 48"

THIS WORK SHALL CONSIST OF REMOVING SEDIMENT AND DEBRIS FROM THE EXISTING 48" DRAINAGE CONDUIT SHOWN ON SHEET 24. ALL MATERIAL REMOVED SHALL BE DISPOSED OF AS PER 105.16 AND 105.17.

CLEANOUT OF THE PIPE SHALL BE PAID FOR AT THE UNIT PRICE BID FOR ITEM SPECIAL - PIPE CLEANOUT. THIS PRICE SHALL INCLUDE THE COST FOR MATERIAL, EQUIPMENT, LABOR, AND ALL INCIDENTALS REQUIRED TO COMPLETE THE CLEANOUT. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE ABOVE NOTED WORK.

SPECIAL - PIPE CLEANOUT, 27" TO 48" - 471 FT

ITEM 203 - ROADWAY, MISC.: CHANNEL SHAPING

THIS WORK SHALL CONSIST OF REMOVING EXCESS SEDIMENT AND DEBRIS FROM THE CHANNEL OF THE EXISTING 48" DRAINAGE CONDUIT OUTLET LOCATED APPROXIMATELY AT STATION 2+00, 181' RT. ALL MATERIAL LOCATED ABOVE THE INVERT OF THE OUTLET SHALL BE REMOVED SO THAT POSITIVE DRAINAGE CAN BE ACHIEVED. REMOVAL LIMITS ARE FROM THE CULVERT OUTLET TO THE EXISTING FENCE LINE (APPROXIMATELY 20'). ALL MATERIAL REMOVED SHALL BE DISPOSED OF AS PER 105.16 AND 105.17. THIS LUMP SUM ITEM INCLUDES THE COST OF EQUIPMENT, LABOR, MATERIAL REMOVAL, AND ANY INCIDENTALS REQUIRED TO COMPLETE THE CHANNEL SHAPING.

SHALLOW INFIELD DITCH RELOCATION

REALIGN AND RESHAPE APPROXIMATELY 115 FEET OF THE SHALLOW DITCH IN ORDER TO PLACE TIED CONCRETE BLOCK MAT, TYPE 2 ON A LINEAR, SMOOTH SWALE STARTING ON RAMP G, STA. 0+61, 45' RIGHT. THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR THIS WORK:

ITEM 203 - EMBANKMENT - 15 CU YD
ITEM 203 - EXCAVATION - 15 CU YD

SPEEDINFO SENSORS

ANY EXISTING SPEEDINFO SENSOR EQUIPMENT ATTACHED TO EXISTING LIGHT POLES ARE MAINTAINED BY:

CAPITAL ELECTRIC LINE BUILDERS
3150 ENCRETE LANE
MORAINE, OH 45439-1902

CONTACT: MATT SLUSHER
EMAIL: MSLUSHER@CAPITALELECTRIC.COM
WORK: +1 (937) 531-7518
MOBILE: +1 (513) 617-6488

THEREFORE, IF THERE ARE ANY SPEEDINFO SENSORS ENCOUNTERED BY THE CONTRACTOR THAT NEED TO BE REMOVED AND RELOCATED TO COMPLETE THIS WORK, THE THE CONTRACTOR SHALL NOTIFY CAPITAL ELECTRIC LINE BUILDERS 1 WEEK PRIOR TO NEEDING THIS EQUIPMENT REMOVED AND RELOCATED OFF THE EXISTING POLES.

COORDINATION OF THE REMOVAL, REERECTION, AND POSSIBLE RELOCATION OF THE SPEEDINFO SENSORS, SHALL BE MANAGED BY THE PROJECT ENGINEER.

CALCULATED AHK
CHECKED JAS

GENERAL NOTES

HAM/BUT-75-17.22/0.00

ITEM 203 - EMBANKMENT, AS PER PLAN

PLACE EMBANKMENT IN THE EROSION RAVINES ALONG THE RAMP G SLOPE FROM STA. 0+75 TO STA. 5+50 (RAMP G). EMBANKMENT SHALL BE CONSTRUCTED IN CONFORMANCE WITH ITEM 203, EXCEPT THAT THE MATERIAL MUST CONSIST OF NATURAL SOILS PER CMS 703.16.A. DUE TO THE STEEPNESS OF THE SLOPE, MINIMUM COMPACTION REQUIREMENTS OF ITEM 203 SHALL BE WAIVED. THE CONTRACTOR SHALL MAKE AN EFFORT TO PLACE AND COMPACT THE MATERIAL IN ORDER TO MINIMIZE FUTURE SURFACE SLOUGHING AND EROSION. MATERIAL SHALL BE PLACED TO MATCH THE EXISTING SLOPE OF THE EMBANKMENT. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE WORK NOTED ABOVE:

203 EMBANKMENT, AS PER PLAN - 350 CU YD

ITEM 625 - LIGHT POLE FOUNDATION, 24" X 10' DEEP, AS PER PLAN

LIGHT POLE FOUNDATIONS SHALL BE CONSTRUCTED IN CONFORMANCE WITH ITEM 625, EXCEPT THAT PRIOR TO THE INSTALLATION OF THE LIGHT POLE FOUNDATION, THE CONTRACTOR SHALL FIELD VERIFY THE REQUIRED BOLTING PATTERN AND BOLT SIZE TO SUPPORT THE EXISTING LIGHT POLES, AND PROVIDE NEW ANCHOR BOLTS TO THESE DIMENSIONS.

INCLUDED WITH THIS WORK IS THE REMOVAL AND DISPOSAL OF ALL OUT OF SERVICE CONDUIT AND CABLE LOCATED BELOW THE GROUND BETWEEN THE EXISTING LIGHT POLES.

PAYMENT WILL BE MADE AT THE UNIT PRICE AND SHALL INCLUDE ALL MATERIAL, LABOR, EQUIPMENT, AND INCIDENTALS NECESSARY TO COMPLETE THIS WORK.

EXISTING SUBSURFACE DRAINAGE

PROVIDE UNOBSTRUCTED OUTLETS FOR ALL EXISTING UNDERDRAINS ENCOUNTERED DURING CONSTRUCTION.

PROVIDE AN OUTLET PER STANDARD CONSTRUCTION DRAWING DM-1.1 FOR ALL UNDERDRAINS THAT OUTLET TO A SLOPE.

UNDERDRAINS THAT CAN BE CONNECTED TO THE NEW OR EXISTING UNDERDRAINS AT THE END OF THE PROJECT LIMITS AS WELL AS ALL NECESSARY BENDS OR BRANCHES REQUIRED FOR CONNECTION ARE INCLUDED IN THE BASIS OF PAYMENT FOR UNCLASSIFIED PIPE UNDERDRAINS.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE WORK NOTED ABOVE:

601 TIED CONCRETE BLOCK MAT, TYPE 1 - 4 SQ YD
605 6" UNCLASSIFIED PIPE UNDERDRAINS - 50 FT
611 6" CONDUIT, TYPE F - 50 FT
611 PRECAST REINFORCED CONCRETE OUTLET - 2 EACH

SEEDING AND MULCHING

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

659, TOPSOIL 1478 CU YD

659, SEEDING AND MULCHING 13317 SQ. YD. (8073 - IR-75, 5287 - RAMP G)

659, COMMERCIAL FERTILIZER 1.80 TON

659, LIME 2.75 ACRES

659, WATER 72 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 FOR AREAS OUTSIDE THE RIGHT-OF-WAY LINES COVERED BY WORK AGREEMENT OR SLOPE EASEMENT. QUANTITY CALCULATIONS FOR SEEDING AND MULCHING ARE BASED ON THESE LIMITS.

TIED CONCRETE BLOCK MAT, TYPE 2, AS PER PLAN

CONSTRUCT THE TIED CONCRETE BLOCK MAT, TYPE 2 IN CONFORMANCE WITH ITEM 601, EXCEPT INCLUDED WITH THIS ITEM IS THE SHAPING OF THE EMBANKMENT SLOPE TO FORM THE FLUME AS DEPICTED ON STANDARD CONSTRUCTION DRAWING DM-4.1.

GENERAL NOTES

MAINTENANCE OF TRAFFIC GENERAL NOTES

ITEM 614 - MAINTAINING TRAFFIC

THE PURPOSE OF THIS PROJECT IS TO WIDEN INTERSTATE 75, ELIMINATE EROSION ON THE RAMP G INFIELD BY INSTALLING CURB AND TIED CONCRETE BLOCK MATS, AND TO REPLACE AN EXISTING DMS WITH A NEW DMS SIGN. ALL EXISTING LANES OF TRAFFIC SHALL BE MAINTAINED AT ALL TIMES (EXCEPT AS ALLOWED BY THE LANE VALUE CONTRACT TABLE) BY THE USE OF EXISTING PAVEMENT AND THE COMPLETED PAVEMENT.

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 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 REQUIREMENTS 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) SHALL BE PROVIDED FOR THE FOLLOWING TRAFFIC CONTROL TASKS:

- DURING THE ENTIRE ADVANCE PREPARATION AND CLOSURE SEQUENCE WHERE COMPLETE BLOCKAGE OF TRAFFIC IS REQUIRED.

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:

- FOR LANE CLOSURES: DURING INITIAL SET-UP PERIODS, TEAR DOWN PERIODS, SUBSTANTIAL SHIFTS OF A CLOSURE POINT OR WHEN 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 AT THE POINT OF LANE RESTRICTION OR ROAD CLOSURE AND TO MANUALLY CONTROL TRAFFIC MOVEMENTS THROUGH INTERSECTIONS IN WORK ZONES.
- WHEN CONSTRUCTION VEHICLES ARE ENTERING/EXITING THE ZONE DIRECTLY FROM/INTO AN OPEN LANE OF TRAFFIC. IF A LANE HAS BEEN CLOSED TO PROVIDE AN ACCELERATION/ DECELERATION LANE FOR THE VEHICLE, THE LEO WILL NOT BE REQUIRED.

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.

THE LEO SHALL REPORT IN TO THE CONTRACTOR PRIOR TO THE START OF THE SHIFT, IN ORDER TO RECEIVE INSTRUCTIONS REGARDING 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. ONCE THE LEO HAS COMPLETED THE DUTIES DESCRIBED ABOVE AND STILL HAS TIME REMAINING ON HIS/HER SHIFT, THE LEO MAY BE ASKED TO PATROL THROUGH THE WORK ZONE (WITH FLASHING LIGHTS OFF) OR BE PLACED AT A LOCATION TO DETER MOTORISTS FROM SPEEDING. 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 DURING CONSTRUCTION OPERATIONS (CONTINUED)

ITEM 614 - LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE 130 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 AN LEO ARE INCLUDED WITH THE BID UNIT PRICE FOR ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSITANCE.

WORK ZONE INCREASED PENALTIES SIGN (R11-H5A)

R11-H5A-48 SIGNS SHALL BE FURNISHED, ERECTED, AND MAINTAINED IN GOOD CONDITION AND/OR REPLACED AS NECESSARY AND SUBSEQUENTLY REMOVED BY THE CONTRACTOR. SIGNS SHALL BE MOUNTED AT THE APPROPRIATE OFFSETS AND ELEVATIONS AS PRESCRIBED BY THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. THEY SHALL BE MAINTAINED ON SUPPORTS MEETING CURRENT SAFETY CRITERIA.

THE SIGNS MAY BE ERECTED OR UNCOVERED NO MORE THAN FOUR HOURS BEFORE THE ACTUAL START OF WORK. THE SIGNS SHALL BE REMOVED OR COVERED NO LATER THAN FOUR HOURS FOLLOWING RESTORATION OF ALL LANES TO TRAFFIC WITH NO RESTRICTIONS, OR SOONER AS DIRECTED BY THE ENGINEER. TEMPORARY SIGN COVERING AND UNCOVERING DUE TO TEMPORARY LANE RESTORATIONS SHALL BE GUIDED BY THE FOUR-HOUR LIMITATIONS STATED ABOVE. SUCH LANE RESTORATIONS SHOULD BE EXPECTED TO REMAIN IN EFFECT FOR 30 OR MORE CONSECUTIVE CALENDAR DAYS, SUCH AS DURING WINTER SHUTDOWNS.

THE CONTRACTOR MAY USE SIGNS AND SUPPORTS IN USED, BUT GOOD, CONDITION PROVIDED THE SIGNS MEET CURRENT ODOT SPECIFICATIONS. SIGN FACES SHALL BE RETROREFLECTORIZED WITH TYPE G SHEETING COMPLYING WITH THE REQUIREMENTS OF C&MS 730.19.

WORK ZONE INCREASED PENALITIES SIGNS AND SUPPORTS WILL BE MEASURED AS THE NUMBER OF SIGN INSTALLATIONS, INCLUDING THE SIGN AND NECESSARY SUPPORTS. IF A SIGN AND SUPPORT COMBINATION IS REMOVED AND REERECTED AT ANOTHER LOCATION AS DIRECTED BY THE ENGINEER, IT SHALL BE CONSIDERED ANOTHER UNIT.

PAYMENT FOR ACCEPTED QUANTITIES, COMPLETE, IN PLACE WILL BE MADE AT THE CONTRACT UNIT PRICE. PAYMENT SHALL BE FULL COMPENSATION FOR ALL MATERIALS, LABOR, INCIDENTALS AND EQUIPMENT FOR FURNISHING, ERECTING, MAINTAINING, COVERING DURING SUSPENSION OF WORK, AND REMOVAL OF THE SIGN AND SUPPORT.

ITEM 614, WORK ZONE INCREASED PENALITIES SIGN - 4 EACH

WORK ZONE INCREASED PENALTIES SIGNS WILL BE PLACED AT THE LOCATIONS SHOWN IN THE PLANS.

ITEM SPECIAL - MAINTAIN EXISTING LIGHTING

EXISTING ROADWAYS WHICH ARE TO REMAIN OPEN TO TRAFFIC DURING CONSTRUCTION OF THIS PROJECT AND WHICH ARE LIGHTED SHALL HAVE THE LIGHTING MAINTAINED AS DESCRIBED HEREIN.

BEFORE ANY WORK IS STARTED IN THE IMMEDIATE VICINITY OF ANY EXISTING LIGHTING CIRCUITS, REPRESENTATIVES OF THE STATE, THE MAINTAINING AGENCY, AND THE CONTRACTOR SHALL MAKE A VISUAL INSPECTION OF THE EXISTING ROADWAY LIGHTING CIRCUITS TO BE MAINTAINED. DURING THIS INSPECTION, A WRITTEN RECORD OF THE CONDITION OF THE EXISTING LIGHTING SHALL BE MADE BY THE STATE'S REPRESENTATIVE. THIS WRITTEN REPORT SHALL NOTE INDIVIDUAL LUMINAIRES WHICH ARE NOT IN WORKING ORDER, INDIVIDUAL POLES WHICH ARE NOT STANDING, AND INDIVIDUAL CIRCUITS WHICH ARE NOT IN WORKING ORDER. THE COMPLETED REPORT SHALL BE SIGNED BY THE REPRESENTATIVES OF THE STATE, THE MAINTAINING AGENCY, AND THE CONTRACTOR.

IF, AS A RESULT OF THIS INSPECTION, IT IS DETERMINED THAT THE CONDITION OF THE EXISTING SYSTEM IS BELOW THAT REQUIRED FOR THE SAFETY OF THE TRAVELING PUBLIC, THEN THE MAINTAINING AGENCY SHALL MAKE REPAIRS NECESSARY TO RETURN THE SYSTEM TO AN ACCEPTABLE CONDITION. FOLLOWING THESE REPAIRS, THE SYSTEM SHALL AGAIN BE INSPECTED AND A REPORT MADE AND SIGNED AS OUTLINED HEREIN.

WHEN THE EXISTING SYSTEM IS IN AN ACCEPTABLE CONDITION, IT SHALL BE TURNED OVER TO THE CONTRACTOR WHO SHALL THEN BE REQUIRED TO MAINTAIN THE EXISTING LIGHTING TO THE CONDITION OUTLINED IN THIS REPORT WITH THE EXCEPTION OF KNOCKDOWNS DUE TO TRAFFIC ACCIDENTS.

REPLACEMENT OF KNOCKED DOWN UNITS SHALL BE DONE ONLY WHEN THE ENGINEER HAS DETERMINED THAT THE REPLACEMENT OF THE KNOCKED DOWN UNIT IS NECESSARY AND SHALL BE PAID SEPARATELY ON A UNIT BASIS.

BETTERMENTS SHALL BE COVERED IN ITEMS OF WORK PERTAINING TO THE CONSTRUCTION OF PERMANENT IMPROVEMENTS.

ITEM SPECIAL - MAINTAIN EXISTING LIGHTING (CONTINUED)

THE CONTRACTOR SHALL COORDINATE HIS WORK TO MINIMIZE THE AMOUNT OF TIME THE EXISTING LIGHTING SYSTEM IS TAKEN OUT OF SERVICE. ROADWAYS THAT ARE CURRENTLY ILLUMINATED SHALL NOT BE WITHOUT LIGHTING, DUE TO THE CONTRACTOR'S WORK, FOR MORE THAN 7 CONSECUTIVE CALENDAR DAYS. FOR OUTAGES LASTING MORE THAN 7 DAYS, THE CONTRACTOR SHALL PROVIDE TEMPORARY LIGHTING EQUIVALVENT TO THE EXISTING AS PART OF THIS PAY ITEM.

THE LUMP SUM PRICE BID FOR ITEM SPECIAL - MAINTAIN EXISTING LIGHTING SHALL INCLUDE PAYMENT FOR ALL LABOR, EQUIPMENT, AND MATERIALS AND INCIDENTALS NECESSARY TO MAINTAIN THE EXISTING LIGHTING AS SPECIFIED HEREIN.

THE UNIT PRICE BID FOR ITEM SPECIAL - REPLACEMENT OF EXISTING LIGHTING UNIT SHALL BE FULL PAYMENT FOR THE REPLACEMENT OF AN EXISTING LIGHTING UNIT WHICH HAS BEEN KNOCKED DOWN AFTER THE AFOREMENTIONED INSPECTION AND SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO PROVIDE A REPLACEMENT FOR SUCH UNIT. AN ESTIMATED QUANTITY OF ONE (1) IS INCLUDED IN THE GENERAL SUMMARY FOR THIS PURPOSE.

ITEM 614 - MAINTAINING TRAFFIC, MISC.: RUMBLE STRIP MILLED/FILLED

THE CONTRACTOR SHALL MILL THE EXISTING RUMBLE STRIPS A WIDTH OF 3 FEET AT 1½ INCH DEPTH AND PAVE WITH 1½ INCH ITEM 448 ASPHALT CONCRETE SURFACE COURSE, TYPE 1. PAYMENT FOR ALL MATERIALS, LABOR AND EQUIPMENT SHALL BE INCLUDED FOR PAYMENT UNDER ITEM 614 MAINTAINING TRAFFIC, MISC.: RUMBLE STRIP MILLED/FILLED - 2358 FT.

ITEM 614, MAINTAINING TRAFFIC (LANES OPEN DURING HOLIDAYS OR SPECIAL EVENTS)

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
EASTER	

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 6:00 AM MONDAY
MONDAY	12:00N FRIDAY THROUGH 6:00 AM TUESDAY
TUESDAY	12:00N MONDAY THROUGH 6:00 AM WEDNESDAY
WEDNESDAY	12:00N TUESDAY THROUGH 6:00 AM THURSDAY
THURSDAY	12:00N WEDNESDAY THROUGH 6:00 AM FRIDAY
THURSDAY	(THANKSGIVING ONLY) 6:00 AM WEDNESDAY THROUGH 6:00 AM MONDAY
FRIDAY	12:00N THURSDAY THROUGH 6:00 AM MONDAY
SATURDAY	12:00N FRIDAY THROUGH 6:00 AM MONDAY

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THESE REQUIREMENTS, THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE IN THE AMOUNT OF $125/MIN FOR EACH MINUTE THE ABOVE DESCRIBED LANE CLOSURE RESTRICTIONS ARE VIOLATED.

DUST CONTROL

THE CONTRACTOR SHALL FURNISH AND APPLY WATER FOR DUST CONTROL AS DIRECTED BY THE ENGINEER. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED FOR DUST CONTROL PURPOSES:

ITEM 616, WATER 51 M. GAL

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.

ITEM 614, WORK ZONE IMPACT ATTENUATOR FOR 24" WIDE HAZARDS (UNIDIRECTIONAL OR BIDIRECTIONAL)

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING A NON-GATING IMPACT ATTENUATOR. FURNISH AN IMPACT ATTENUATOR FROM THE OFFICE OF ROADWAY ENGINEERING'S APPROVED LIST FOR WORK ZONE IMPACT ATTENUATORS, FROM THE ROADWAY STANDARDS WEB PAGE FOR ROADWAY STANDARDS APPROVED PRODUCTS.

INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

THE CONTRACTOR SHALL REPAIR OR REPLACE A DAMAGED UNIT WITHIN 24 HOURS OF A DAMAGING IMPACT.

WHEN BIDIRECTIONAL DESIGNS ARE SPECIFIED, THE CONTRACTOR SHALL SUPPLY APPROPRIATE TRANSITIONS.

WHEN GATING IMPACT ATTENUATORS ARE DESIRED, THE CONTRACTOR SHALL SUBMIT DOCUMENTATION TO THE ENGINEER FOR ACCEPTANCE.

THE COST FOR THE ADDITIONAL BARRIER REQUIRED FOR A GATING IMPACT ATTENUATOR SHALL BE INCLUDED IN THE COST OF THE GATING IMPACT ATTENUATOR.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT AND MAINTAIN A COMPLETE AND FUNCTIONAL IMPACT ATTENUATOR SYSTEM, INCLUDING ALL RELATED BACKUPS, TRANSITIONS, LEVELING PADS, HARDWARE AND GRADING, NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGNS, AS PER PLAN

THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN AND REMOVE, WHEN NO LONGER NEEDED, A CHANGEABLE MESSAGE SIGN. THE SIGN SHALL BE OF A TYPE SHOWN ON A LIST OF APPROVED PCMS UNITS AVAILABLE ON THE (OFFICE OF MATERIALS MANAGEMENT WEB PAGE). THE LIST CONTAINS CLASS A AND B UNITS WITH MINIMUM LEGIBILITY DISTANCES OF 650 FEET AND 475 FEET, RESPECTIVELY.

EACH SIGN SHALL BE TRAILER-MOUNTED AND EQUIPPED WITH A FUNCTIONAL DIMMING MECHANISM, TO DIM THE SIGN DURING DARKNESS, AND A TAMPER AND VANDAL PROOF ENCLOSURE. EACH SIGN SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ON-SITE PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT. THE SIGN SHALL ALSO BE CAPABLE OF BEING POWERED BY AN ELECTRICAL SERVICE DROP FROM A LOCAL UTILITY COMPANY. THE PCMS SHALL BE DELINEATED IN ACCORDANCE WITH C&MS 614.03.

PLACEMENT, OPERATION, MAINTENANCE AND ALL ACTIVATION OF THE SIGNS BY THE CONTRACTOR SHALL BE AS DIRECTED BY THE ENGINEER. THE PCMS SHALL BE LOCATED IN A HIGHLY VISIBLE POSITION YET PROTECTED FROM TRAFFIC. THE CONTRACTOR SHALL, AT THE DIRECTION OF THE ENGINEER, RELOCATE THE PCMS TO IMPROVE VISIBILITY OR ACCOMMODATE CHANGED CONDITIONS. WHEN NOT IN USE, THE PCMS SHALL BE TURNED OFF. ADDITIONALLY, WHEN NOT IN USE FOR EXTENDED PERIODS OF TIME, THE PCMS SHALL BE TURNED AWAY FROM ALL TRAFFIC.

THE ENGINEER SHALL BE PROVIDED ACCESS TO EACH SIGN UNIT AND SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ODOT PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT, AND TO REVISE SIGN MESSAGES, IF NECESSARY.

ALL MESSAGES TO BE DISPLAYED ON THE SIGN WILL BE PROVIDED BY THE ENGINEER. A LIST OF ALL REQUIRED PRE-PROGRAMMED MESSAGES WILL BE GIVEN TO THE CONTRACTOR AT THE PROJECT PRECONSTRUCTION CONFERENCE. THE SIGN SHALL HAVE THE CAPABILITY TO STORE UP TO 99 MESSAGES. MESSAGE MEMORY OR PRE-PROGRAMMED DISPLAYS SHALL NOT BE LOST AS A RESULT OF POWER FAILURES TO THE ON-BOARD COMPUTER. THE SIGN LEGEND SHALL BE CAPABLE OF BEING CHANGED IN THE FIELD. THREE-LINE PRESENTATION FORMATS WITH UP TO SIX MESSAGE PHASES SHALL BE SUPPORTED. PCMS FORMAT SHALL PERMIT THE COMPLETE MESSAGE FOR EACH PHASE TO BE READ AT LEAST TWICE. THE PCMS SHALL CONTAIN AN ACCURATE CLOCK AND PROGRAMMING LOGIC WHICH WILL ALLOW THE SIGN TO BE ACTIVATED, DEACTIVATED OR MESSAGES CHANGED AUTOMATICALLY AT DIFFERENT TIMES OF THE DAY FOR DIFFERENT DAYS OF THE WEEK.

THE PCMS UNIT SHALL BE MAINTAINED IN GOOD WORKING ORDER BY THE CONTRACTOR IN ACCORDANCE WITH THE PROVISIONS OF C&MS 614.07. THE CONTRACTOR SHALL, PRIOR TO ACTIVATING THE UNIT, MAKE ARRANGEMENTS, WITH AN AUTHORIZED SERVICE AGENT FOR THE PCMS, TO ASSURE PROMPT SERVICE IN THE EVENT OF FAILURE. ANY FAILURE SHALL NOT RESULT IN THE SIGN BEING OUT OF SERVICE FOR MORE THAN 12 HOURS, INCLUDING WEEKENDS. FAILURE TO COMPLY MAY RESULT IN AN ORDER TO STOP WORK AND OPEN ALL TRAFFIC LANES AND/OR IN THE DEPARTMENT TAKING APPROPRIATE ACTION TO SAFELY CONTROL TRAFFIC. THE ENTIRE COST TO CONTROL TRAFFIC, ACCRUED BY THE DEPARTMENT DUE TO THE CONTRACTOR'S NONCOMPLIANCE, WILL BE DEDUCTED FROM MONEYS DUE, OR TO BECOME DUE THE CONTRACTOR ON HIS CONTRACT.

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGNS, AS PER PLAN (CONTINUED)

THE CONTRACTOR SHALL BE RESPONSIBLE FOR 24-HOUR-PER-DAY OPERATION AND MAINTENANCE OF THESE SIGNS ON THE PROJECT FOR THE DURATION OF THE PHASES WHEN THE PLAN REQUIRES THEIR USE.

PAYMENT FOR THE ABOVE DESCRIBED ITEM SHALL BE AT THE CONTRACT UNIT PRICE. PAYMENT SHALL INCLUDE ALL LABOR, LATERIALS, EQUIPMENT, FUELS, LUBRICATING OILS, SOFTWARE, HARDWARE AND INCIDENTALS TO PERFORM THE ABOVE DESCRIBED WORK.

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN - 1 SIGN MONTH

ITEM 614 - WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN

WORK ZONE RAISED PAVEMENT MARKERS, AS PER PLAN, AND THEIR INSTALLATION SHALL CONFORM TO C&MS 614 OR C&MS 621 AS SPECIFIED HEREIN.

RAISED PAVEMENT MARKERS IN USE DURING THE SNOW-PLOWING SEASON SHALL CONFORM TO 621.

RAISED PAVEMENT MARKERS IN USE DURING THE NON-SNOW-PLOW SEASON SHALL CONFORM TO EITHER 614 OR TO 621.

THE SNOW-PLOWING SEASON SHALL RUN FROM OCTOBER 31 - APRIL 1. IF PROJECT DELAYS, NOT THE FAULT OF ODOT, CAUSE THE WORK TO EXTEND INTO THE SNOW-PLOWING SEASON, THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING WORK ZONE RAISED PAVEMENT MARKERS CONFORMING TO C&MS 614, WITH RAISED PAVEMENT MARKERS CONFORMING TO 621, AS DETERMINED BY THE ENGINEER, AT THE CONTRACTOR'S EXPENSE.

THIS ITEM SHALL INCLUDE PURCHASE, INSTALLATION AND REMOVAL OF ITEM 614 WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN, INCLUDING FILLING OF ANY DEPRESSIONS CREATED IN THE PAVEMENT AS PER C&MS 621.08.

THE FOLLOWING BID ITEMS SHOULD BE INCLUDED IN THE PLANS:

ITEM 614 WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN - 565 EACH

SHORT-DURATION CLOSURE OF INTERSTATE ROUTE 75 FOR ARTIMIS WORK

THE CONTRACTOR IS PERMITTED TO PERFORM 15 MINUTE SHORT DURATION CLOSURES OF SOUTHBOUND IR-75 IN ORDER TO REMOVE THE EXISTING DYNAMIC MESSAGE SIGN AND INSTALL THE DYNAMIC MESSAGE SIGN OBTAINED FROM ODOT. 15 MINUTE SHORT DURATION CLOSURES ARE TO BE PERFORMED PER THE LANE VALUE CONTRACT TABLE. 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 (LEO FOR ASSISTANCE).

TRUCK MOUNTED ATTENUATOR

WHEN THE CONTRACTOR IS SETTING SHORT TERM WORK ZONES, A TRUCK MOUNTED ATTENUATOR (TMA) MUST TRAIL THE OPERATION OF SETTING THE ADVANCE WARNING SIGNS UP OR TAKING THEM DOWN. THIS SAME TRUCK MUST HAVE A TYPE B FLASHING ARROW PANEL MOUNTED ON IT FACING THE REAR OF THE TRUCK. THE CONTRACTOR SHALL USE A TMA FOR ANY APPLICATION WHERE THE OMUCTD OR STANDARD CONSTRUCTION DRAWING USES THE PHRASE "OPTIONAL" OR "WHEN SPECIFIED IN THE PLAN".

THE T.M.A. MUST BRING A VEHICLE WEIGHING 1800 TO 4500 LBS. AND TRAVELING AT 60 MPH TO A SAFE, CONTROLLED STOP, PER NCHRP 350 CRITERIA. THE MANUFACTURER'S SPECIFICATION MUST BE FOLLOWED CONCERNING THE SIZE OF THE TRUCK AND THE CONNECTIONS TO THE T.M.A.

PAYMENT FOR THE TRUCK MOUNTED ATTENUATOR SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614 - MAINTAINING TRAFFIC.

DELINEATION OF TEMPORARY AND PERMANENT GUARDRAIL

BARRIER REFLECTORS SHALL BE INSTALLED ON ALL TEMPORARY GUARDRAIL USED FOR TRAFFIC CONTROL AND ON ALL PERMANENT GUARDRAIL LOCATED WITHIN 5 FEET OF THE EDGE OF THE ADJACENT TRAVEL LANE. BARRIER REFLECTORS SHALL CONFORM TO C&MS 626.

OBJECT MARKERS SHALL BE INSTALLED ON ALL TEMPORARY AND PERMANENT GUARDRAIL LOCATED WITHIN 5 FEET OF THE EDGE OF THE ADJACENT TRAVEL LANE. GUARDRAIL-MOUNTING OF OBJECT MARKERS SHALL BE MADE BY INSTALLING THE OBJECT MARKERS ON THE EXTENSION BLOCKS RATHER THAN DIRECTLY ONTO THE GUARDRAIL ITSELF. OBJECT MARKERS SHALL CONFORM TO C&MS 614.03 AND THE SPACING SHALL BE APPROXIMATELY 50 FEET.

THE LOCATION OF THE BARRIER REFLECTORS AND OBJECT MARKERS INCLUDED IN THIS NOTE SHALL BE ON THE APPROXIMATELY 225' OF GUARDRAIL ON IR-75, STA. 9+40 TO 11+65, LT.

THE FOLLOWING ESTIMATED QUANITIES HAVE BEEN INCLUDED IN THE PLANS AND CARRIED TO THE GENERAL SUMMARY:

DELINEATION OF TEMPORARY AND PERMANENT GUARDRAIL (CONTINUED)

ITEM 614, BARRIER REFLECTOR, TYPE A - 6 EACH
ITEM 614, OBJECT MARKER, ONE WAY - 5 EACH

PAYMENT SHALL BE FULL COMPENSATION FOR ALL MATERIAL, LABOR, INCIDENTALS AND EQUIPMENT NECESSARY FOR FURNISHING, INSTALLING, MAINTAINING AND REMOVING THE ABOVE ITEM(S).

PERMITTED LANE/RAMP CLOSURE TIMES - LANE VALUE CONTRACT TABLE

SHORT TERM LANE AND RAMP CLOSURES ARE THOSE WHICH ARE PERMITTED BY THE FOLLOWING TABLE. THESE TIMES SHALL NOT BE REVISED WITHOUT PRIOR APPROVAL FROM THE DISTRICT 8 WORK ZONE TRAFFIC CONTROL ENGINEER. SHORT TERM LANE/RAMP CLOSURES SHALL ONLY BE IMPLEMENTED WHEN WORK IS BEING CONTINUOUSLY PERFORMED IN THE LANE. THE CLOSURE SHALL BE REMOVED AS SOON AS POSSIBLE AFTER WORK HAS STOPPED. THE PERMITTED LANE CLOSURE MAP (PLC MAP) CAN BE FOUND AT THE FOLLOWING SITE: PLCM.DOT.STATE.OH.US.

DESCRIPTION OF CRITICAL LANE/RAMP TO BE MAINTAINED	RESTRICTED TIME PERIOD	TIME UNIT	DISINCENTIVE $ PER TIME UNIT
NB AND SB IR-75 FROM IR-275 TO CINCINNATI DAYTON RD	PER THE PLC MAP	MINUTE	$125
RAMP G - COMPLETE CLOSURE*	23:00 TO 05:00	MINUTE	$125
ALL RAMPS - SHOULDER WORK/LANE WIDTH REDUCTION	19:00 TO 05:00	MINUTE	$125
15 MINUTE SHORT DURATION CLOSURES	23:00 TO 05:00	MINUTE	$125

* RAMP G IS PERMITTED TO BE CLOSED A MAXIMUM OF TWO TIMES

DELINEATION OF PORTABLE AND PERMANENT BARRIER

BARRIER REFLECTORS AND OBJECT MARKERS SHALL BE INSTALLED ON ALL PORTABLE BARRIER (PB) USED FOR TRAFFIC CONTROL AND ON PERMANENT CONCRETE BARRIER (INCLUDING BRIDGE PARAPETS) LOCATED WITHIN 5 FEET OF THE EDGE OF THE ADJACENT TRAVEL LANE.

BARRIER REFLECTORS SHALL CONFORM TO C&MS 626, EXCEPT THAT THE SPACING SHALL BE AS PER TRAFFIC SCD MT-101.70. OBJECT MARKERS AND THEIR INSTALLATION SHALL CONFORM TO C&MS 614.03 AND SCD MT-101.70. WHEN THE PB CONTAINS GLARE SCREEN, ONE SET OF THREE VERTICAL STRIPES OF SHEETING SHALL BE CONSIDERED EQUIVALENT TO AN OBJECT MARKER, ONE-WAY.

INCREASED BARRIER DELINEATION, AS SPECIFIED HEREIN, SHALL BE INSTALLED ON ALL PB AND CONCRETE PERMANENT BARRIER LOCATED WITHIN 5 FEET OF THE EDGE OF THE TRAVELED LANE ALONG TAPERS AND TRANSITION AREAS AND ALONG CURVES (OUTSIDE ONLY) WITH DEGREE OF CURVATURE GREATER THAN OR EQUAL TO 3 DEGREES.

THE INCREASED BARRIER DELINEATION SHALL CONSIST OF EITHER DELINEATION PANELS OR THE TRIPLE STACKING OF WORK ZONE BARRIER REFLECTORS.

DELINEATION PANELS SHALL CONSIST OF PANELS OF DELINEATION, APPROXIMATELY 34 INCHES LONG AND 6 INCHES WIDE AND SHALL BE "CRIMPED." PANELS SHALL BE INSTALLED AND SPACED PER TRAFFIC SCD MT-101.70.

TRIPLE-STACKED BARRIER REFLECTORS SHALL CONSIST OF ALIGNING THREE BARRIER REFLECTORS VERTICALLY, AT LOCATIONS WHERE A SINGLE BARRIER REFLECTOR WOULD BE OTHERWISE ATTACHED. THERE SHALL BE NO OPEN SPACE BETWEEN THE ADJACENT BARRIER REFLECTORS. THE TRIPLE-STACKED BARRIER REFLECTORS SHALL CONFORM TO C&MS 626, EXCEPT THAT THEY SHALL BE SPACED AND ALIGNED PER TRAFFIC SCD MT-101.70.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE PLANS AND CARRIED TO THE GENERAL SUMMARY:

ITEM 614, BARRIER REFLECTOR, TYPE B 21 EACH
ITEM 614, OBJECT MARKER, ONE-WAY 20 EACH
ITEM 614, INCREASED BARRIER DELINEATION 2196 FEET

PAYMENT SHALL BE FULL COMPENSATION FOR ALL MATERIAL, LABOR, INCIDENTALS AND EQUIPMENT NECESSARY FOR FURNISHING, INSTALLING, MAINTAINING AND REMOVING EACH OF THE ABOVE ITEMS.

CALCULATED AHK
CHECKED SRK

GENERAL NOTES

MAINTENANCE OF TRAFFIC

HAM/BUT-75-17.22/0.00

TYPE A WARNING LIGHT

ROAD WORK AHEAD

2 - W20-1-48
STA. 135+35
NORTHBOUND I.R. 75

WORK ZONE
SPEEDING
FINES DOUBLED
CAUSE DEATH OR INJURY
FINE/JAIL

2 - R11-H5A-48
STA. 141+95
NORTHBOUND I.R. 75

TRUCKS USE RIGHT 2 LANES

2 - R4-H5A-48
STA. 148+55
NORTHBOUND I.R. 75

SIGNS NOT SHOWN ON MAP

TYPE A WARNING LIGHT

ROAD WORK AHEAD

2 - W20-1-48
STA. 1155+60
EASTBOUND I.R. 275
1 - W20-1-48
STA. 10+00, RT
RAMP B

TYPE A WARNING LIGHT

WORK IN EXIT LANE

2 - W20-H8-48
STA. 1182+00
EASTBOUND I.R. 275

EXIT OPEN AHEAD

2 - E5-H2B-48
STA. 1197+00
EASTBOUND I.R. 275

EXIT

E5-H2DR-48
STA. 1208+50 (GORE)
EASTBOUND I.R. 275

RAMP G DRAINAGE WORK (SHORT TERM WORK) MOT SIGNAGE

IR-275

RAMP B

STRUCTURE NO.
HAM-275-2572 L/R
STA. 164+34.59 IR-75 =
STA. 1203+66.56 IR-275

STAY IN LANE
2 - R4-9-48
STA. 161+75
NB I.R. 75

2 - W1-4CL-48
STA. 176+75
NB I.R. 75

ALGIERS DR
VALDOSTA DR
CONTINENTAL DR
FAWNVISTA LN
INTERNATIONAL BLVD
CENTERDALE RD

STRUCTURE NO.
HAM-75-1705

Sta 196+16.56 BK =
Sta 0+00.00 AH

STRUCTURE NO.
HAM-75-0021 L/R

℄ CONSTRUCTION IR-75

PCC Sta. 0+00.00

CRESCENTVILLE RD

CHAMPION WAY

2 - W1-4BL-48
STA. 27+93
RAMP G

2 - W9-1R-48
STA. 172+00
NB I.R. 75
(PLACE ON ENTRANCE RAMP)

RIGHT LANE ENDS

2 - W1-H16-36
STA. 174+00 RT
STA. 175+00 RT
NB I.R. 75
(PLACED ON ENT. RAMP)

W4-2R-48
STA. 177+00 RT
NB I.R. 75
(PLACE ON ENTRANCE RAMP)

4 - W1-H16-36
STA. 186+75 RT
STA. 187+75 RT
STA. 188+75 RT
STA. 189+75 RT
NB I.R. 75

2 - W1-40R-48
STA. 196+00
NB I.R. 75

4 - W1-H16-36
STA. 9+85 LT
STA. 10+85 LT
STA. 11+85 LT
STA. 12+85 LT
NB I.R. 75

END ROAD WORK
2 - G20-2-48
STA. 9+80
NB I.R. 75

WINDISCH RD

WORK ZONE
SPEEDING
FINES DOUBLED
CAUSE DEATH OR INJURY
FINE/JAIL

R11-H5A-48
STA. 11+00 - RAMP I RT
STA. 20+50 - RAMP G RT

NORFOLK SOUTHERN RR

℄ CONSTRUCTION
RAMP G

RAMP I

N 5° 27' 20" E

HORIZONTAL SCALE IN FEET
0 100 200 400

CALCULATED AHK
CHECKED SRK

MAINTENANCE OF TRAFFIC SIGNING

HAM/BUT-75-17.22/0.00

10
48

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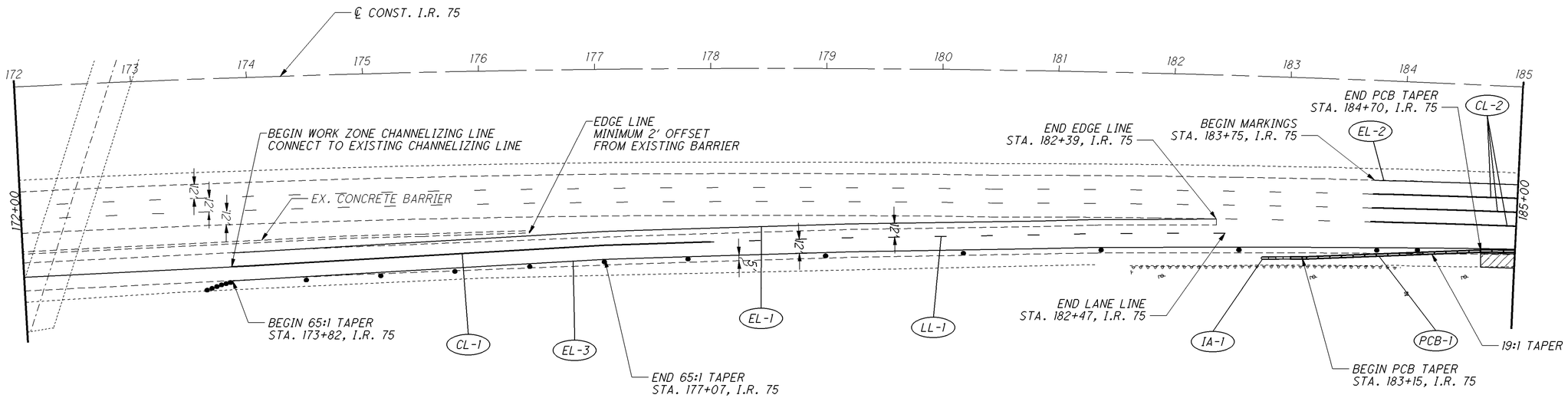

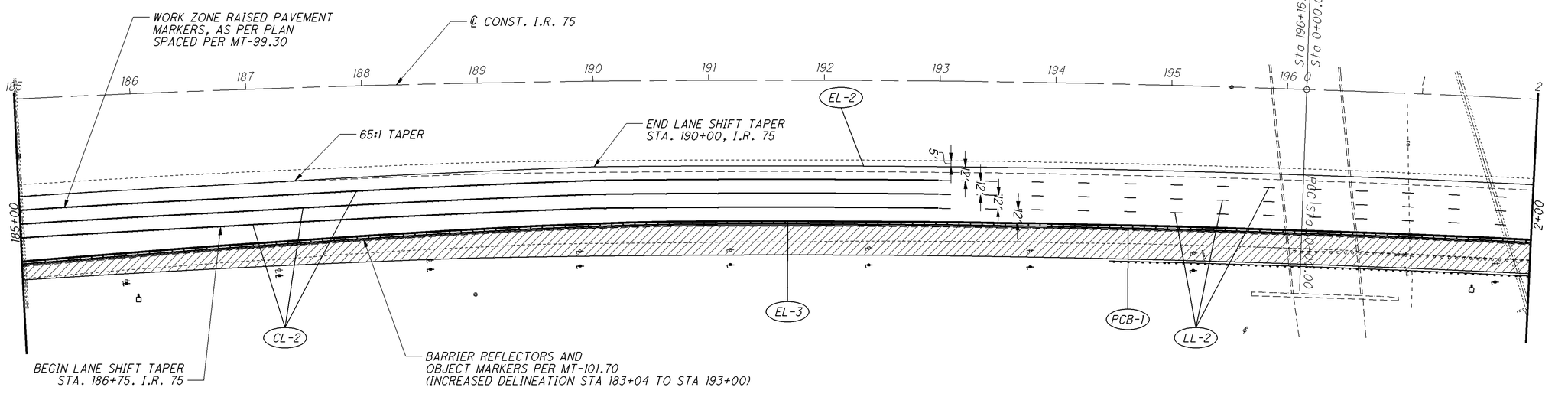

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED AHK
CHECKED SRK

MAINTENANCE OF TRAFFIC - I.R. 75
STA. 172+00 TO STA. 2+00

HAM/BUT-75-17.22/0.00

11
48

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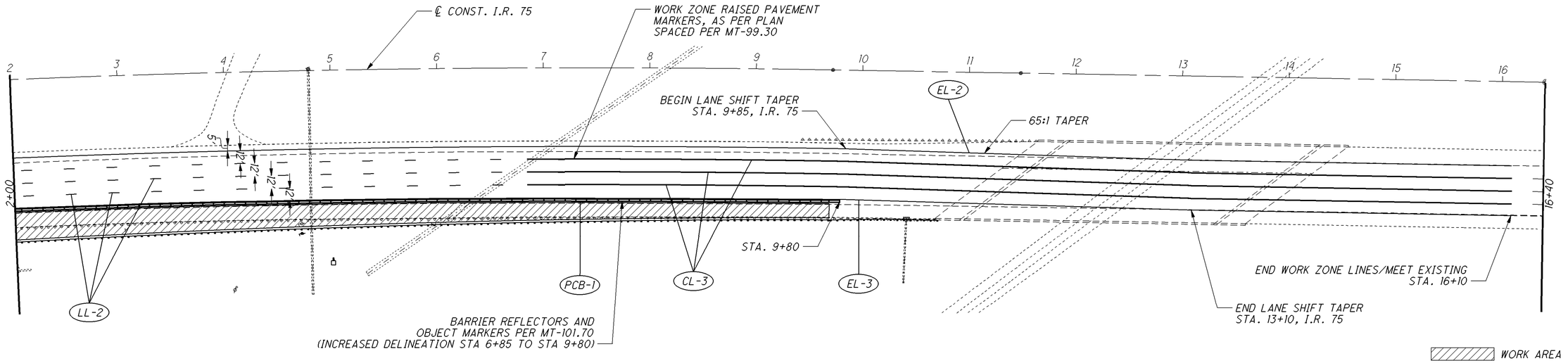
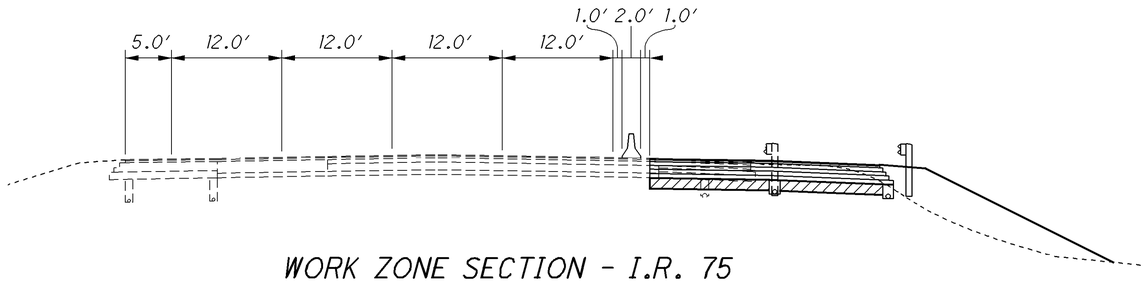




WORK ZONE SECTION - I.R. 75

N

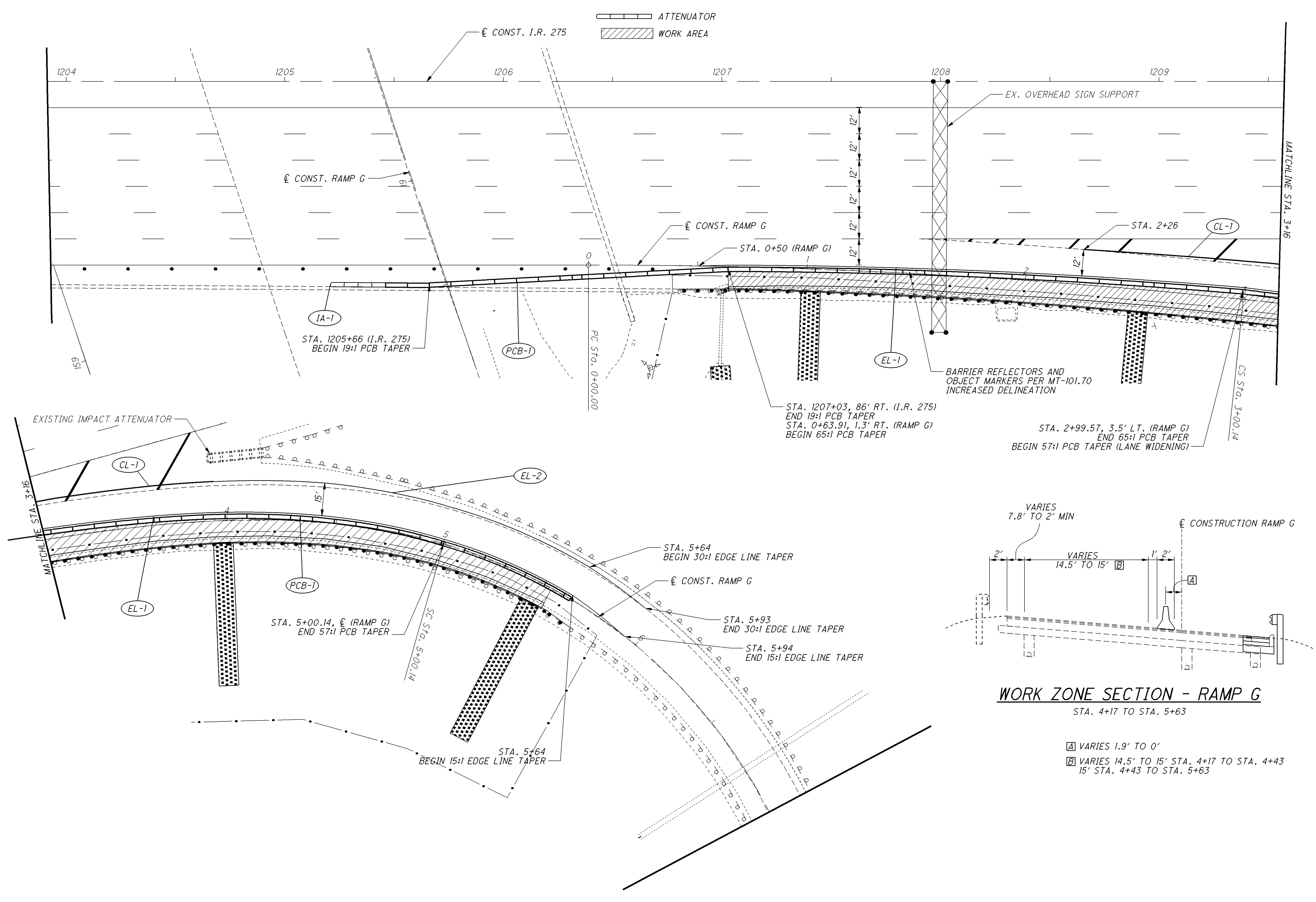
HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED AHK
CHECKED SRK

MAINTENANCE OF TRAFFIC - I.R. 75
STA. 2+00 TO STA. 16+10

HAM/BUT-75-17.22/0.00

12
48


ATTENUATOR
WORK AREA
℄ CONST. I.R. 275
1204
1205
1206
1207
1208
1209
EX. OVERHEAD SIGN SUPPORT
℄ CONST. RAMP G
℄ CONST. RAMP G
STA. 0+50 (RAMP G)
STA. 2+26
CL-1
12'
MATCHLINE STA. 3+16
IA-1
STA. 1205+66 (I.R. 275)
BEGIN 19:1 PCB TAPER
PCB-1
PC Sta. 0+00.00
EL-1
BARRIER REFLECTORS AND
OBJECT MARKERS PER MT-101.70
INCREASED DELINEATION
CS Sta. 3+00.14
STA. 1207+03, 86' RT. (I.R. 275)
END 19:1 PCB TAPER
STA. 0+63.91, 1.3' RT. (RAMP G)
BEGIN 65:1 PCB TAPER
STA. 2+99.57, 3.5' LT. (RAMP G)
END 65:1 PCB TAPER
BEGIN 57:1 PCB TAPER (LANE WIDENING)
EXISTING IMPACT ATTENUATOR
CL-1
EL-2
15'
MATCHLINE STA. 3+16
STA. 5+64
BEGIN 30:1 EDGE LINE TAPER
℄ CONST. RAMP G
PCB-1
EL-1
STA. 5+00.14, ℄ (RAMP G)
END 57:1 PCB TAPER
SC Sta. 5+00.14
STA. 5+93
END 30:1 EDGE LINE TAPER
STA. 5+94
END 15:1 EDGE LINE TAPER
STA. 5+64
BEGIN 15:1 EDGE LINE TAPER
VARIES
7.8' TO 2' MIN
℄ CONSTRUCTION RAMP G
2'
VARIES
14.5' TO 15' B
1' 2'
A
WORK ZONE SECTION - RAMP G
STA. 4+17 TO STA. 5+63
A VARIES 1.9' TO 0'
B VARIES 14.5' TO 15' STA. 4+17 TO STA. 4+43
15' STA. 4+43 TO STA. 5+63

0 10 20 40
HORIZONTAL SCALE IN FEET

CALCULATED AHK
CHECKED SRK

MAINTENANCE OF TRAFFIC - RAMP G

HAM/BUT-75-17.22/0.00

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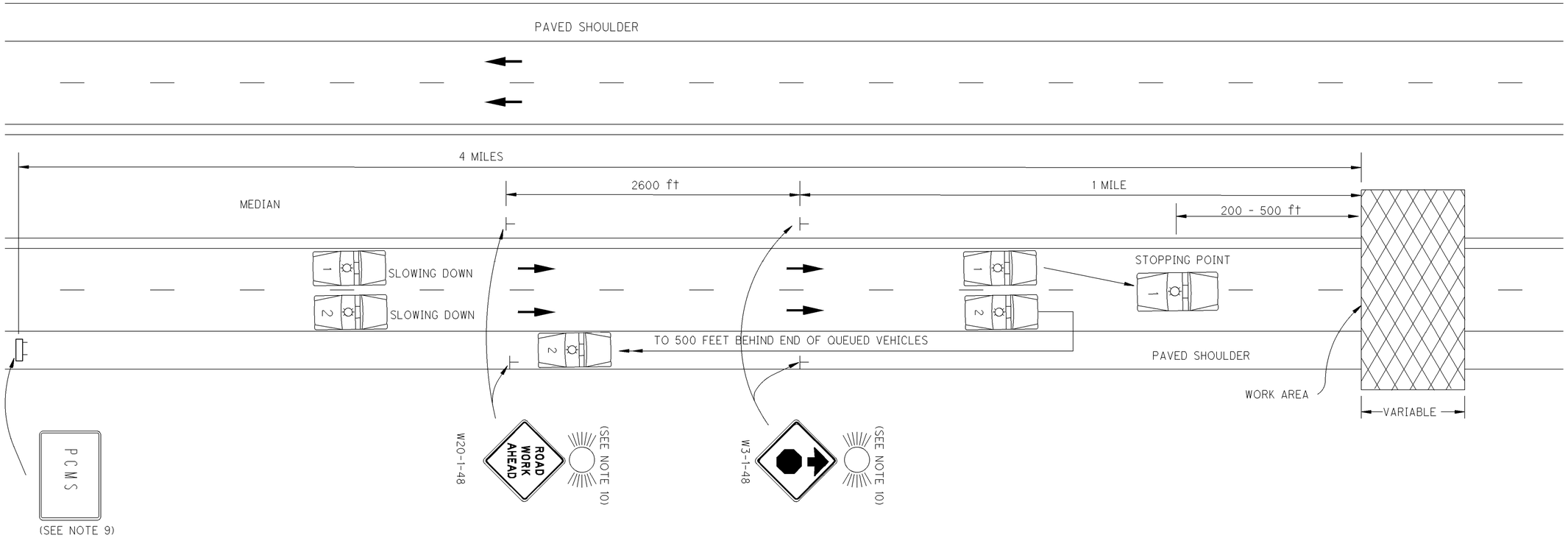


NOTES

1. This type of highway closure shall be used for all construction, maintenance and utility operations when the duration of closure will not exceed 15 minutes.

2. A minimum of two law enforcement officers (LEO) with patrol cars per direction shall be provided to block traffic and pace motorists to a stop. The number of patrol cars shall equal the number of lanes closed on the highway.

3. Patrol cars, with lights flashing, should enter the stream of traffic at approximately 3 miles before the point of closure. At approximately 2 miles before the point of closure, they should begin the gradual slow down. Traffic shall be brought to a complete stop a safe distance, between 200 and 500 feet, from the work area. This slowing operation shall take no more than 10 minutes. After traffic has been stopped, one patrol car shall travel along the roadway shoulder 500 feet behind the end of the queued vehicles.

4. The Contractor shall not begin work until traffic has been brought to a complete stop.

5. All entrance ramps located between the stopped traffic and the work area shall be closed.

6. After the highway has been closed and reopened via this procedure, both of the following requirements shall have been met before implementation of another short duration closure, except with the approval of the Engineer:
   a) A minimum period of 15 minutes shall have elapsed; and
   b) The queued traffic shall have dissipated.

7. The time frame for stopping traffic shall be specified.

8. The public shall be given advance notice of the upcoming closure by providing portable changeable message signs at the site in advance of the scheduled closing. Closure information should also be provided to the Engineer.

9. An ODOT-approved portable changeable message sign, Class 1, shall be provided during operation. The message sign shall be placed approximately 4 miles in advance of the closure or as directed by the Engineer. The message shall be ROAD CLOSED AHEAD (2 sec.), PREPARE TO STOP (2 sec.)

10. The Contractor shall erect and maintain 48-inch ROAD WORK AHEAD and Stop Ahead signs on each side of the highway. Each sign shall be equipped with one Type A flashing warning light and one flare. There shall be one flare at each sign on both sides of the roadway. The flare shall be replaced if it burns out.

OFFICE OF TRAFFIC ENGINEERING

DESIGNED SHB
REVIEWED LAM

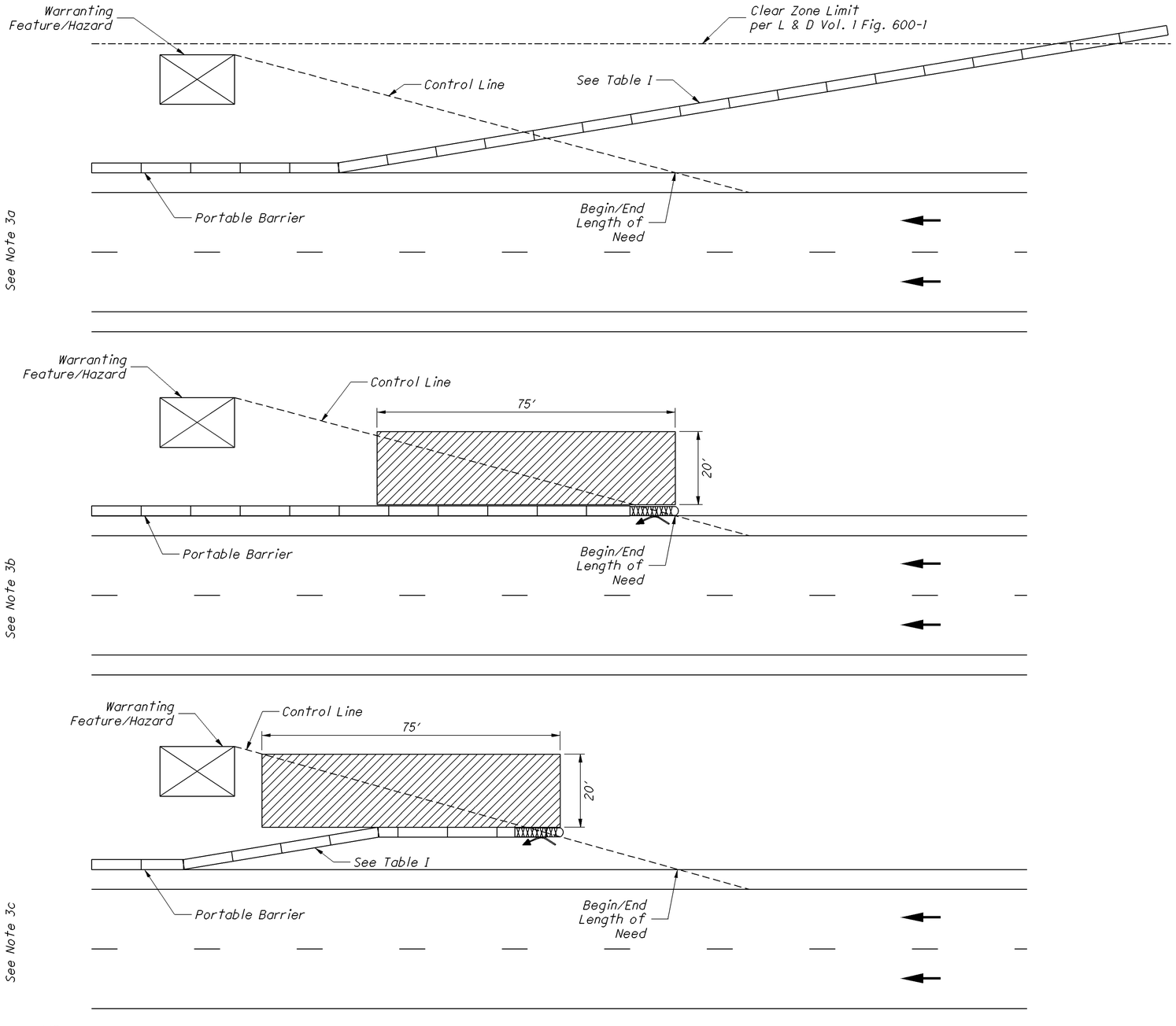
REVISION DATE 07/20/12
CHECKED

PID NUMBER 209960

PLAN INSERT SHEET

SHORT-DURATION CLOSURE OF MULTI-LANE DIVIDED HIGHWAY

HAM/BUT-75-17.22/0.00



LEGEND

- RECOVERY AREA
- PORTABLE BARRIER
- NON-GATING IMPACT ATTENUATOR
- DIRECTION OF TRAVEL

NOTES:

1. Attenuators shall be installed per the manufacturer's specifications.

2. Recovery area shall have slopes 3:1 or flatter and be free of workers, hazards, equipment, drop-offs, and material storage.

3. The Contractor shall select one of the three acceptable options for terminating portable barrier:

   a) Terminate flared section of portable barrier outside clear zone with tapered end only where cross slopes are 10:1 or flatter.
   b) Terminate portable barrier with an impact attenuator. A non-gating attenuator may be included in the length of need measurement.
   c) Flare a section of portable barrier to the length of need control line and terminate with an impact attenuator. A non-gating impact attenuator may be included in the flared section of portable barrier.

4. The Contractor shall submit documentation to the Engineer, 2 weeks prior to implementation, for acceptance when:

   a) Deviating from the three acceptable options for terminating portable barrier.

      Documentation shall explain any deviations and verify that the recovery area fulfills the manufacturer's specifications and Note 2.

   b) Using a gating impact attenuator in lieu of a non-gating impact attenuator.

      The gating impact attenuator length shall not be included as part of the length of need or recovery area requirements. Additional portable barrier will need to be added. The additional cost for the additional barrier required for a gating impact attenuator shall be included in the cost of the gating impact attenuator.

      Documentation shall verify that the extended recovery area fulfills the manufacturer's specifications and and Note 2.

5. Gating impact attenuators shall not be used in gore locations or within the clear zone between bi-directional traffic.

TABLE I

SPEED LIMIT (MPH)	PB FLARE RATE MINIMUM
25	8:1
30	8:1
35	9:1
40	10:1
45	12:1
50	14:1
55	16:1
60	18:1
65	19:1
70	20:1

THIS DRAWING REPLACES PIS 2010175 DATED 7-20-2012.

OFFICE OF ROADWAY ENGINEERING

DESIGNED | REVIEWED

REVISION DATE 7-19-2013 | CHECKED

PIS NUMBER 2010175

PLAN INSERT SHEET

IMPACT ATTENUATOR PLACEMENT

HAM/BUT-75-17.22/0.00

SHEET NUMBER											PARTICIPATION			ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
	6	7	18	19	20	43	46	48			01/IMS/PV	02/IMS/OT							
																		ROADWAY	
	LUMP										LUMP			201	11000	LS		CLEARING AND GRUBBING	
				227							227			202	23000	227	SY	PAVEMENT REMOVED	
				1521							1521			202	38000	1521	FT	GUARDRAIL REMOVED	
				1							1			202	42010	1	EACH	ANCHOR ASSEMBLY REMOVED, TYPE E	
				2							2			202	47000	2	EACH	BRIDGE TERMINAL ASSEMBLY REMOVED	
	471					7184					471			SPECIAL	20270120	471	FT	PIPE CLEANOUT, 27" TO 48"	6
	15					7199					7199			203	10000	7199	CY	EXCAVATION	
	15					5178					5193			203	20000	5193	CY	EMBANKMENT	
		350									350			203	20001	350	CY	EMBANKMENT, AS PER PLAN	7
	LUMP										LUMP			203	98500	LS		ROADWAY, MISC.: CHANNEL SHAPING	6
					5276						5276			204	10000	5276	SY	SUBGRADE COMPACTION	
					2052						2052			204	13000	2052	CY	EXCAVATION OF SUBGRADE	
					2052						2052			204	30020	2052	CY	GRANULAR MATERIAL, TYPE C	
					2						2			204	45000	2	HOUR	PROOF ROLLING	
					5276						5276			204	50000	5276	SY	GEOTEXTILE FABRIC	
				5							5			209	15000	5	STA	RESHAPING UNDER GUARDRAIL	
				1681							1681			606	15050	1681	FT	GUARDRAIL, TYPE MGS	
				1							1			606	26150	1	EACH	ANCHOR ASSEMBLY, MGS TYPE E	
				1							1			606	35002	1	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1	
				1							1			606	35102	1	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 2	
											LUMP			878	25000	LS		INSPECTION AND COMPACTION TESTING OF UNBOUND MATERIALS	
																		EROSION CONTROL	
		4		6							10			601	21050	10	SY	TIED CONCRETE BLOCK MAT, TYPE 1	
				109							109			601	21060	109	SY	TIED CONCRETE BLOCK MAT, TYPE 2	
				273							273			601	21061	273	SY	TIED CONCRETE BLOCK MAT, TYPE 2, AS PER PLAN	7
											51			616	10000	51	MGAL	WATER	8
		1478				20					1498			659	00300	1498	CY	TOPSOIL	
		13317									13317			659	10000	13317	SY	SEEDING AND MULCHING	
		1.8									1.8			659	20000	1.8	TON	COMMERCIAL FERTILIZER	
		2.75									2.75			659	31000	2.75	ACRE	LIME	
		72									72			659	35000	72	MGAL	WATER	
						217					217			670	00700	217	SY	DITCH EROSION PROTECTION	
											LUMP			832	15000	LS		STORM WATER POLLUTION PREVENTION PLAN	
											26000			832	30000	26000	EACH	EROSION CONTROL	
																		DRAINAGE	
				347							347			605	11100	347	FT	6" SHALLOW PIPE UNDERDRAINS	
		50									50			605	13300	50	FT	6" UNCLASSIFIED PIPE UNDERDRAINS	
				1967							1967			605	14000	1967	FT	6" BASE PIPE UNDERDRAINS, 707.31, 707.41	
				104							104			611	00510	104	FT	6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS	
		50									50			611	01500	50	FT	6" CONDUIT, TYPE F	
		2		3							5			611	99710	5	EACH	PRECAST REINFORCED CONCRETE OUTLET	
																		PAVEMENT	
					2041						2041			252	01500	2041	FT	FULL DEPTH PAVEMENT SAWING	
					2227						2227			302	46000	2227	CY	ASPHALT CONCRETE BASE, PG64-22	
					924						924			304	20000	924	CY	AGGREGATE BASE	
					380						380			407	10000	380	GAL	TACK COAT	
					198						198			407	14000	198	GAL	TACK COAT FOR INTERMEDIATE COURSE	
					213						213			442	10000	213	CY	ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446)	
					343						343			442	10100	343	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE A (446)	
					434						434			609	24510	434	FT	CURB, TYPE 4-C	
					32						32			609	24511	32	FT	CURB, TYPE 4-C, AS PER PLAN	27
							4453				4453			618	40100	4453	FT	RUMBLE STRIPS, (ASPHALT CONCRETE)	

CALCULATED AHK
CHECKED RMH

GENERAL SUMMARY

HAM/BUT-75-17.22/0.00

SHEET NUMBER											PARTICIPATION			ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
	6	7	18	19	20	43	46	48			01/IMS/PV	02/IMS/OT							
																		LIGHTING	
								33			33			625	00450	33	EACH	CONNECTION, FUSED PULL APART	
								10			10			625	14201	10	EACH	LIGHT POLE FOUNDATION, 24" X 10' DEEP, AS PER PLAN	7
								1000			1000			625	23400	1000	FT	NO. 10 AWG POLE AND BRACKET CABLE	
								1712			1712			625	24320	1712	FT	1-1/2" DUCT CABLE WITH THREE NO. 4 AWG 5000 VOLT CABLES	
								1612			1612			625	29002	1612	FT	TRENCH, 24" DEEP	
								10			10			625	32000	10	EACH	GROUND ROD	
								10			10			625	35010	10	EACH	REMOVE AND REERECT EXISTING LIGHT POLE	
								10			10			625	35100	10	EACH	REERECT EXISTING LUMINAIRE	
											LUMP			SPECIAL	62540000	LS		MAINTAIN EXISTING LIGHTING	8
											1			SPECIAL	62540010	1	EACH	REPLACEMENT OF EXISTING LIGHTING UNIT	8
								10			10			625	75500	10	EACH	LIGHT POLE FOUNDATION REMOVED	
								1			1			625	75800	1	EACH	DISCONNECT CIRCUIT	
																		TRAFFIC CONTROL	
							113				113			621	00100	113	EACH	RPM	
							14				14			626	00100	14	EACH	BARRIER REFLECTOR	
							106.3				106.3			630	03100	106.3	FT	GROUND MOUNTED SUPPORT, NO. 3 POST	
							69.6				69.6			630	04100	69.6	FT	GROUND MOUNTED SUPPORT, NO. 4 POST	
							48.8				48.8			630	07500	48.8	FT	GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W10X22	
							85.5				85.5			630	80100	85.5	SF	SIGN, FLAT SHEET	
							2				2			630	84500	2	EACH	GROUND MOUNTED STRUCTURAL BEAM SUPPORT FOUNDATION	
							7				7			630	84900	7	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	
							1				1			630	85100	1	EACH	REMOVAL OF GROUND MOUNTED SIGN AND REERECTION	
							2				2			630	85600	2	EACH	REMOVAL OF GROUND MOUNTED MAJOR SIGN AND REERECTION	
							9				9			630	86002	9	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	
							4				4			630	86102	4	EACH	REMOVAL OF GROUND MOUNTED STRUCTURAL BEAM SUPPORT AND DISPOSAL	
							1.38				1.38			644	00104	1.38	MILE	EDGE LINE, 6"	
							2.06				2.06			644	00204	2.06	MILE	LANE LINE, 6"	
							336				336			644	00404	336	FT	CHANNELIZING LINE, 12"	
							747				747			644	01510	747	FT	DOTTED LINE, 6"	
																		TRAFFIC SURVEILLANCE	
												1		631	94490	1	EACH	REMOVAL, MISC.: EXISTING DYNAMIC MESSAGE SIGN	47
												1		809	63001	1	EACH	DYNAMIC MESSAGE SIGN (DMS), FULL-SIZE WALK-IN, AS PER PLAN	47
																		MAINTENANCE OF TRAFFIC	
											130			614	11110	130	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	8
			2196								2196			614	11630	2196	FT	INCREASED BARRIER DELINEATION	9
			2								2			614	12350	2	EACH	WORK ZONE IMPACT ATTENUATOR	
											4			614	12484	4	EACH	WORK ZONE INCREASED PENALTIES SIGN	8
			565								565			614	12801	565	EACH	WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN	9
											6			614	13200	6	EACH	BARRIER REFLECTOR, TYPE A	9
			21								21			614	13300	21	EACH	BARRIER REFLECTOR, TYPE B	9
			20								25			614	13350	25	EACH	OBJECT MARKER, ONE WAY	9
			2358								2358			614	18030	2358	FT	MAINTAINING TRAFFIC, MISC.: RUMBLE STRIP MILLED/FILLED	8
											1			614	18601	1	SNMT	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	9
			0.66								0.66			614	20200	0.66	MILE	WORK ZONE LANE LINE, CLASS I, 740.06, TYPE I	
			1.58								1.58			614	22200	1.58	MILE	WORK ZONE EDGE LINE, CLASS I, 740.06, TYPE I	
			6113								6113			614	23400	6113	FT	WORK ZONE CHANNELIZING LINE, CLASS I, 740.06, TYPE I	
			2930								2930			622	41000	2930	FT	PORTABLE BARRIER, 32"	
											LUMP			614	11000	LS		MAINTAINING TRAFFIC	
											LUMP			623	10000	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING	
											LUMP			624	10000	LS		MOBILIZATION	

CALCULATED AHK
CHECKED RMH

GENERAL SUMMARY

HAM/BUT-75-17.22/0.00

17
48

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REF NO.	SHEET NO.	STATION TO STATION	614										622
			WORK ZONE IMPACT ATTENUATOR	WORK ZONE LANE LINE, CLASS I, 740.06, TYPE 1	WORK ZONE EDGE LINE, CLASS I, 740.06, TYPE 1 (WHITE)	WORK ZONE EDGE LINE, CLASS I, 740.06, TYPE 1 (YELLOW)	WORK ZONE CHANNELIZING LINE, CLASS I, 740.06, TYPE 1	BARRIER REFLECTOR, TYPE B	OBJECT MARKER, ONE WAY	WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN	MAINTAINING TRAFFIC, MISC.: RUMBLE STRIP MILLED/FILLED	INCREASED BARRIER DELINEATION	PORTABLE BARRIER, 32"
			EACH	MILE	MILE	MILE	FT	EACH	EACH	EACH	FT	FT	FT
MAINELINE I.R. 75													
IA-1	11	183+05	1										
LL-1	11	178+00 TO 182+47		0.09									
LL-2	11-12	193+00 TO 6+85		0.57									
EL-1	11	173+82 TO 182+39			0.17								
EL-2	11-12	183+75 TO 16+10			0.54								
EL-3	11-12	173+82 TO 16+10				0.73							
CL-1	11	173+82 TO 178+00					414						
CL-2	11	183+75 TO 193+00					2757						
CL-3	12	6+85 TO 16+10					2769						
PCB-1	11-12	183+05 TO 9+80						21	20			1279	2270
		173+35 TO 16+10								565			
		181+20 TO 182+39 [A]									118		
		186+75 TO 13+10 [B]									2240		
		173+82 TO 176+42 [C]										257	
RAMP G													
IA-1	13	1205+46 (IR-275)	1										
PCB-1	13	1205+46 (IR 275) TO 5+64										660	660
EL-1	13	0+50 TO 5+94			0.10								
EL-2	13	3+95 TO 5+93				0.04							
CL-1	13	2+26 TO 3+95					173						
SUBTOTAL			2	0.66	1.58		6113	21	20	565	2358	2196	2930
TOTALS CARRIED TO GENERAL SUMMARY			2	0.66	1.58		6113	21	20	565	2358	2196	2930

[A] IR-75 MAINLINE RIGHT SIDE
[B] IR-75 MAINLINE LEFT SIDE
[C] EXISTING CONCRETE BARRIER

CALCULATED AHK
CHECKED SRK

MAINTENANCE OF TRAFFIC - SUBSUMMARY

HAM/BUT-75-17.22/0.00

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REF NO.	SHEET NO.	STATION TO STATION	202 GUARDRAIL REMOVED	202 ANCHOR ASSEMBLY REMOVED, TYPE E	202 BRIDGE TERMINAL ASSEMBLY REMOVED	202 PAVEMENT REMOVED	209 RESHAPING UNDER GUARDRAIL	601 TIED CONCRETE BLOCK MAT, TYPE 1	601 TIED CONCRETE BLOCK MAT, TYPE 2	601 TIED CONCRETE BLOCK MAT, TYPE 2, AS PER PLAN	605 6" SHALLOW PIPE UNDERDRAINS	605 6" BASE PIPE UNDERDRAINS, 707.31, 707.41	606 GUARDRAIL, TYPE MGS	606 ANCHOR ASSEMBLY, MGS TYPE E	606 MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1	606 MGS BRIDGE TERMINAL ASSEMBLY, TYPE 2		611 6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS	611 PRECAST REINFORCED CONCRETE OUTLET
			FT	EACH	EACH	SQ YD	STA	SQ YD	SQ YD	SQ YD	FT	FT	FT	EACH	EACH	EACH		FT	EACH
		MAINLINE I.R. 75																	
AA-1	24	194+48.92												1					
BT-1	26	10+72.27													1				
DR-1	22	186+00.00																	1
DR-2	24	1+50.00																	1
DR-3	25	5+00.00																	1
EC-1	22	186+00.00						2											
EC-2	24	1+50.00						2											
EC-3	25	5+00.00						2											
GR-1	24-26	194+99.51 TO 10+45.38											1156						
R-1	24	196+09.16		1															
R-2	24-26	0+43.12 TO 10+49.29	996																
R-3	26	10+74.29			1														
		184+70.08 TO 9+70.34 (CONCRETE SAWCUT)				227													
UD-1	22	186+00.00																18	
UD-2	22-24	186+00.00 TO 1+50.00										1154							
UD-3	24	1+50.00																32	
UD-4	24-25	1+50.00 TO 5+00.00										347							
UD-5	24-25	1+50.00 TO 5+00.00									347								
UD-6	25	5+00.00																54	
UD-7	25-26	5+00.00 TO 9+70.49										466							
		RAMP G																	
BT-1	27	0+40.68														1			
EC-1	27	0+61.14							109										
EC-2	27	1+01.99								70									
EC-3	27	2+52.53								67									
EC-4	27	3+97.84								66									
EC-5	27	5+47.66								70									
GR-1	27	0+70.86 TO 5+69.97					5						525						
R-1	27	0+41.00			1														
R-2	27	0+41.00 TO 5+69.97	525																
TOTALS CARRIED TO GENERAL SUMMARY			1521	1	2	227	5	6	109	273	347	1967	1681	1	1	1		104	3

CALCULATED AHK
CHECKED RHM

EROSION CONTROL/DRAINAGE SUBSUMMARY

ROADWAY/

HAM/BUT-75-17.22/0.00

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IR-75																		
				ITEM 442	ITEM 407	ITEM 442	ITEM 407		ITEM 302		ITEM 302		ITEM 302		ITEM 304	ITEM 204	ITEM 204	ITEM 204
STATION		SIDE	SURFACE AREA (SQ FT)	1½" ASPHALT SURFACE COURSE	TACK COAT FOR INTERMEDIATE	2½" ASPHALT INTERMEDIATE COURSE	TACK COAT	BASE AREA FIRST LIFT (SQ FT)	15½" ASPHALT BASE (FIRST LIFT 5")	BASE AREA SECOND LIFT (SQ FT)	15½" ASPHALT BASE (5" SECOND LIFT)	BASE AREA THIRD LIFT (SQ FT)	15½" ASPHALT BASE (5½" THIRD LIFT)	AGGREGATE BASE AREA (SQ FT)	6" AGGREGATE BASE	SUBGRADE COMPACTION	PROOF ROLLING	EXCAVATION OF SUBGRADE (14" DEEP)
FROM	TO		CADD AREA "A"	(1.5/36)*(A/9)	0.04*(A/9)	(2.5/36)*(A/9)	0.075*(A/9)	CADD AREA "A1"	(5/36)* (A1/9)	CADD AREA "A2"	(5/36)* (A2/9)	CADD AREA "A3"	(5.5/36)* (A3/9)	CADD AREA "A4"	(6/36)* (A4/9)	(A4/9)	(A4/9)/3000	(14/36)* (A4/9)
184+70.27	9+70.35	RT	44,365.23	205.40	197.18	342.32	369.71	45,058.24	695.34	45,750.60	706.03	46,442.74	788.38	47,482.46	879.31	5275.83	1.76	2051.71

IR-75					
			ITEM 204	ITEM 204	ITEM 252
STATION		SIDE	GRANULAR MATERIAL, TYPE C	GEOTEXTILE FABRIC, TYPE D	FULL DEPTH PAVEMENT SAWING
FROM	TO		(14/36)* (A4/9)	(A4/9)	CADD LENGTH
184+70.27	9+70.35	RT	2051.71	5275.83	2040.50

RAMP G										
				ITEM 442	ITEM 407	ITEM 302		ITEM 304	ITEM 609	ITEM 609
STATION		SIDE	SURFACE AREA (SQ FT)	2" ASPHALT SURFACE COURSE	TACK COAT	10" ASPHALT BASE	10" AGGREGATE BASE AREA	10" AGGREGATE BASE	CURB, TYPE 4-C	CURB, TYPE 4-C, AS PER PLAN
FROM	TO		CADD AREA "A"	(2/36)*(A/9)	0.075*(A/9)	(10/36)*(A/9)	CADD AREA "A2"	(10/36)*(A/9)	CADD LENGTH	CADD LENGTH
0+64.22	5+53.89	RT	1206.75	7.45	10.06	37.25	1441.76	44.50	433.83	32

SUMMARY OF PAVEMENT ITEMS	204					252	302	304	407		442		609	
	SUBGRADE COMPACTION	PROOF ROLLING	EXCAVATION OF SUBGRADE (14" DEEP)	GRANULAR MATERIAL, TYPE C	GEOTEXTILE FABRIC, TYPE D	FULL DEPTH PAVEMENT SAWING	ASPHALT BASE	AGGREGATE BASE	TACK COAT	TACK COAT FOR INTERMEDIATE	ASPHALT SURFACE COURSE	ASPHALT INTERMEDIATE COURSE	CURB, TYPE 4-C	CURB, TYPE 4-C, AS PER PLAN
	SQ YD	HOUR	CU YD	CU YD	SQ YD	FT	CU YD	CU YD	GAL	GAL	CU YD	CU YD	FT	FT
IR-75	5275.83	1.76	2051.71	2051.71	5275.83	2040.50	2189.75	879.31	369.71	197.18	205.40	342.32		
RAMP G							37.25	44.50	10.06		7.45		433.83	32
TOTALS CARRIED TO GENERAL SUMMARY	5276	2	2052	2052	5276	2041	2227	924	380	198	213	343	434	32

CALCULATED AHK
CHECKED RMH

PAVEMENT CALCULATIONS

HAM/BUT-75-17.22/0.00

20
48

PROJECT DATA	
TOTAL AREA (RIGHT-OF-WAY)	22 AC
PROJECT EARTH DISTURBED AREA	3.6 AC
ESTIMATED CONTRACTOR EARTH DISTURBED AREA	0.4 AC
NOTICE OF INTENT EARTH DISTURBED AREA	4 AC
IMPERVIOUS (PAVED) AREA FOR PRE-CONSTRUCTION SITE	3.9 AC
IMPERVIOUS (PAVED) AREA FOR POST CONSTRUCTION SITE	4.3 AC
RUNOFF COEFFICIENT FOR PRE-CONSTRUCTION SITE	0.65
RUNNOFF COEFFICIENT FOR POST CONSTRUCTION SITE	0.70
POST CONSTRUCTION BMP: VEGETATED BIOFILTERS WERE PROVIDED TO MEET NPDES POST-CONSTRUCTION REQUIREMENTS. SEE CROSS SECTION SHEETS FOR LOCATIONS.	
IMMEDIATE RECEIVING WATERS	UNNAMED TRIBUTARY TO MILL CREEK
SUBSEQUENT RECEIVING WATER	MILL CREEK

BMP TYPE	LATITUDE/LONGITUDE				EDA TREATMENT CREDIT (ACRES)
	BEGIN (STA. 194+00)		END (STA. 0+50)		
VEGETATED BIOFILTER	39.299309	-84.439486	39.300009	-84.439253	0.80
			TREATMENT PROVIDED		0.80
			TREATMENT REQUIRED		0.49

USGS MAPS:
MASON 15 MINUTE QUADRANGLE
GLENDALE 7.5 MINUTE QUADRANGLE

LONGITUDE: -84°26'22"
LATITUDE: 39°17'59"

LONGITUDE AND LATITUDE TO APPROX. CENTER OF PROJECT

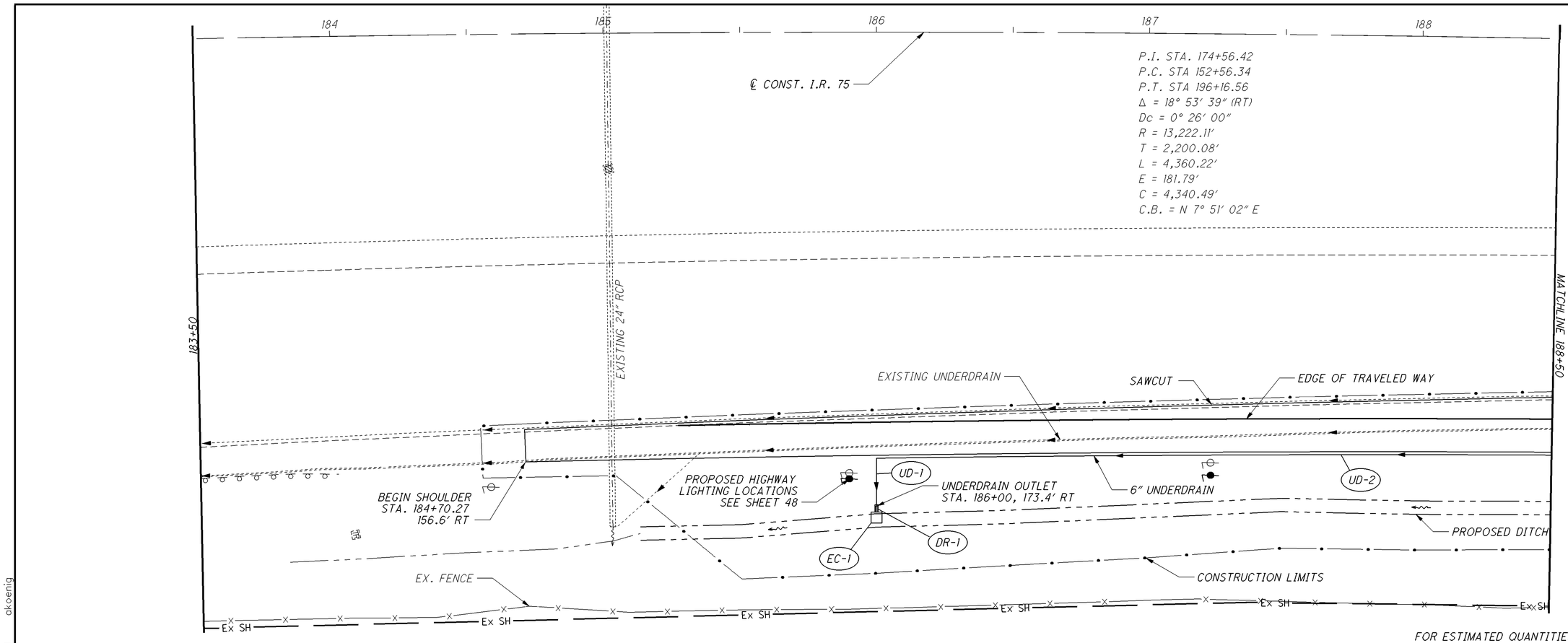
PROJECT DESCRIPTION:
THIS PROJECT CONSISTS OF LENGTHENING APPROXIMATELY 2,220 FEET OF AN IR-75 ACCELERATION LANE FROM THE IR-275 EASTBOUND AND WESTBOUND RAMPS. ADDITIONAL WORK INCLUDES DRAINAGE IMPROVEMENTS TO THE ERODED SLOPE OF THE EASTBOUND IR-275 RAMP G AND REPLACEMENT OF A DYNAMIC MESSAGE SIGN ON SOUTHBOUND IR-75.

HORIZONTAL SCALE IN FEET
0 100 200 400

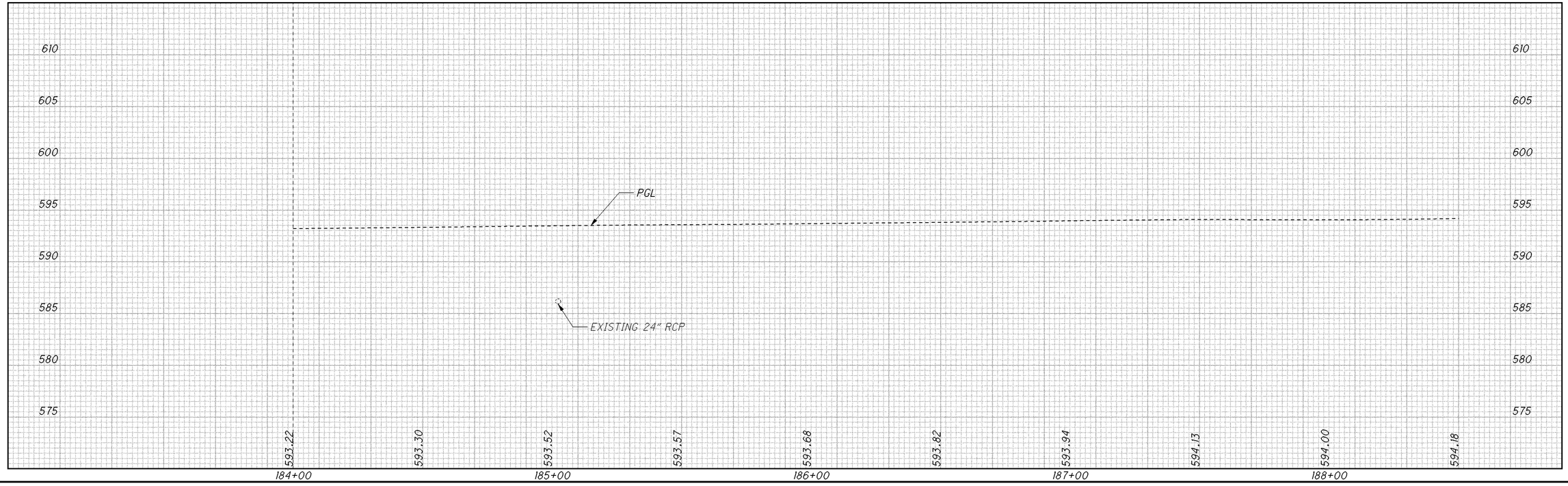
CALCULATED AHK
CHECKED DAG

PROJECT SITE PLAN

HAM/BUT-75-17.22/0.00



FOR ESTIMATED QUANTITIES, SEE SHEET 19



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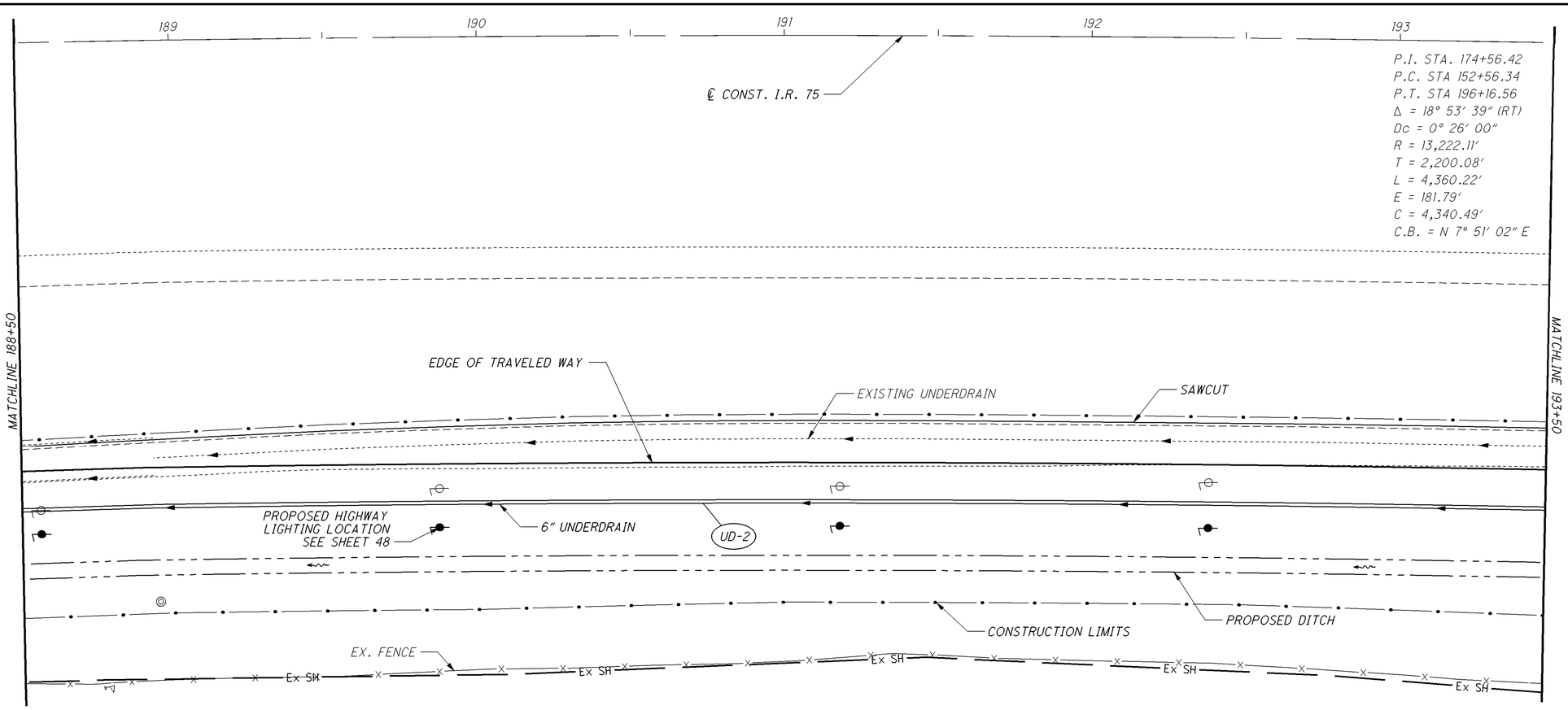
HORIZONTAL SCALE IN FEET
0 10 20 40

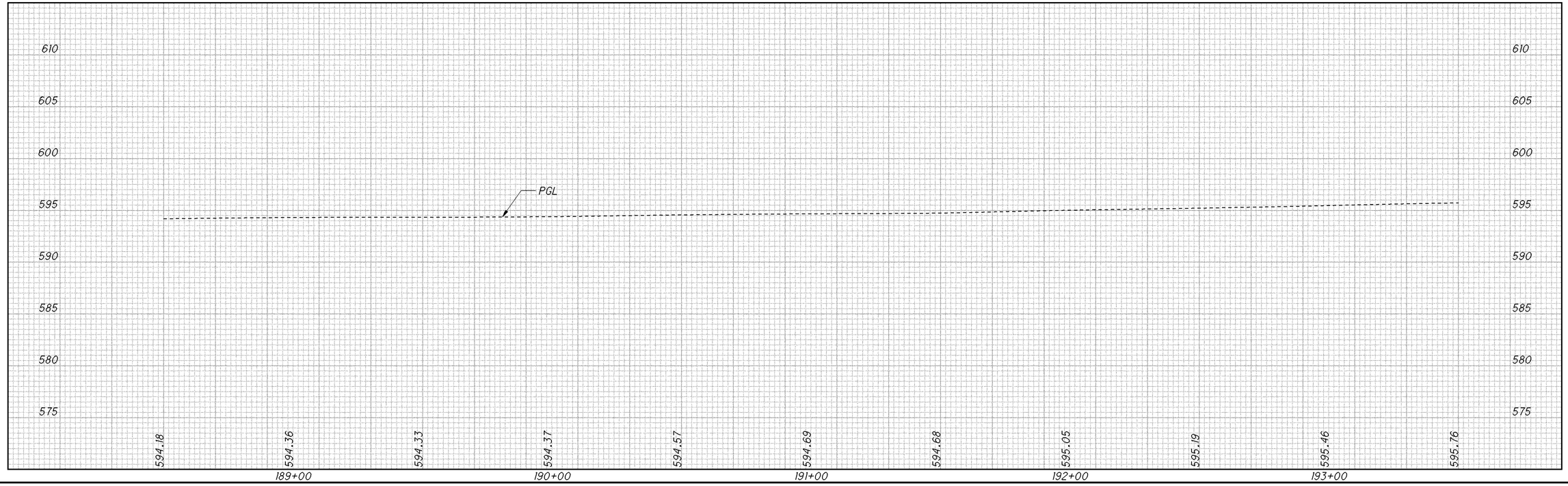
CALCULATED AHK
CHECKED RHM

PLAN AND PROFILE I.R. 75
STA. 183+50 TO STA. 188+50

HAM/BUT-75-17.22/0.00



FOR ESTIMATED QUANTITIES, SEE SHEET 19



HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED AHK
CHECKED RHM

PLAN AND PROFILE I.R. 75
STA. 188+50 TO STA. 193+50

HAM/BUT-75-17.22/0.00

23
48

P.I. STA. 174+56.42
P.C. STA 152+56.34
P.T. STA 196+16.56
Δ = 18° 53′ 39″ (RT)
Dc = 0° 26′ 00″
R = 13,222.11′
T = 2,200.08′
L = 4,360.22′
E = 181.79′
C = 4,340.49′
C.B. = N 7° 51′ 02″ E

℄ CONSTR. I.R. 75

STA. 196+16.56 BK = STA. 0+00.00 AH

PCC STA. 0+00.00

P.I. Sta. 4+86.21
P.C. Sta. 0+00.00
P.T. Sta. 9+71.97
Δ = 4° 12′ 43″ (RT)
Dc = 0° 26′ 00″
R = 13,222.11′
T = 486.21′
L = 971.97′
E = 8.94′
C = 971.75′
C.B. = N 19° 24′ 13″ E

EXISTING 48″ RCP

STRUCTURE HAM-75-1705

EX. 30″ WM

MATCHLINE 193+50

MATCHLINE 2+33

SAWCUT

EDGE OF TRAVELED WAY

EDGE OF SHOULDER

END VEGETATED BIOFILTER STA. 0+50

BEGIN 65:1 PAVEMENT TAPER STA. 1+90.35, 150.69′ RT

R-1

R-2

UD-5

UD-3

UD-4

UD-2

AA-1

GR-1

DR-2

EC-2

PROPOSED DITCH

UNDERDRAIN OUTLET STA. 1+50, 162.9′ RT

BEGIN VEGETATED BIOFILTER STA. 194+00

PROPOSED HIGHWAY LIGHTING LOCATION SEE SHEET 48

CONSTRUCTION LIMITS

EX. FENCE

ROADWAY, MISC.: CHANNEL SHAPING SEE SHEET 6

Ex SH

ITEM SPECIAL - PIPE CLEANOUT SEE SHEET 6

FOR ESTIMATED QUANTITIES, SEE SHEET 19

615
610
605
600
595
590
585
580

PGL

EX. 30″ WM

APPROXIMATE DEPTH OF FIBER OPTIC

EXISTING 48″ RCP

595.76 595.83 596.50 597.00 597.67 598.00 598.29 599.19 599.97 600.82 601.94

194+00 195+00 196+00 0 1+00 2+00

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED AHK
CHECKED RHM

PLAN AND PROFILE I.R. 75
STA. 193+50 TO STA. 2+33

HAM/BUT-75-17.22/0.00

24
48

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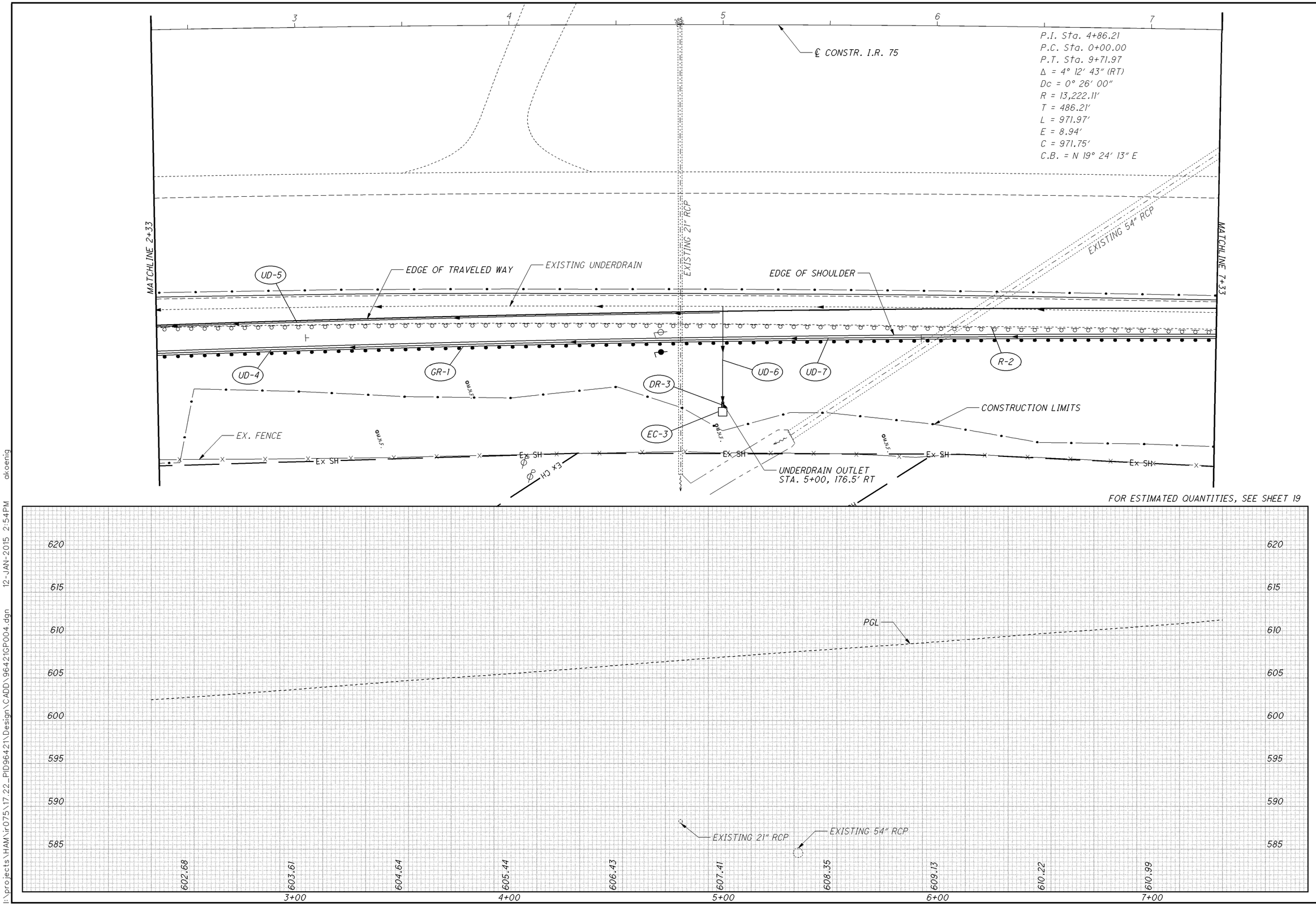

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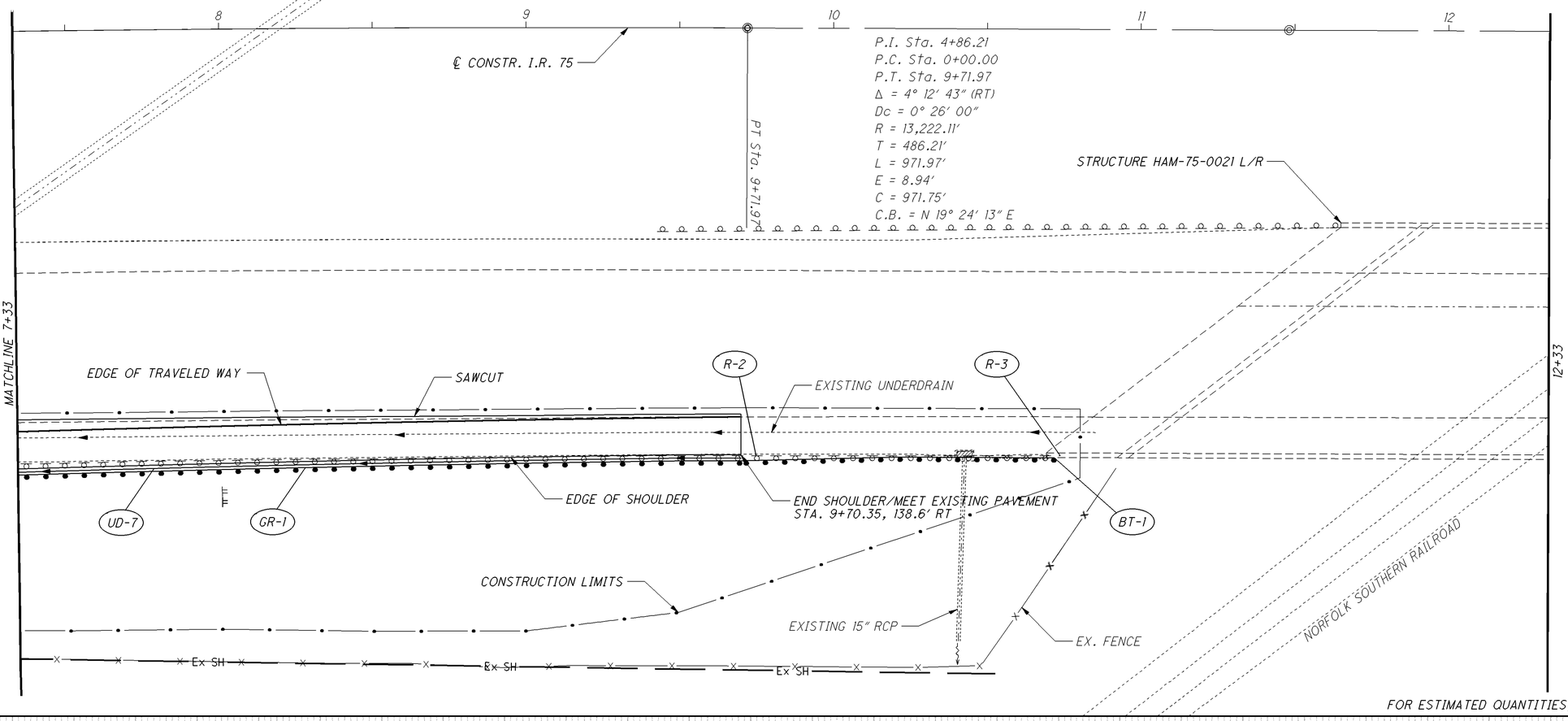
HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED AHK
CHECKED RHM

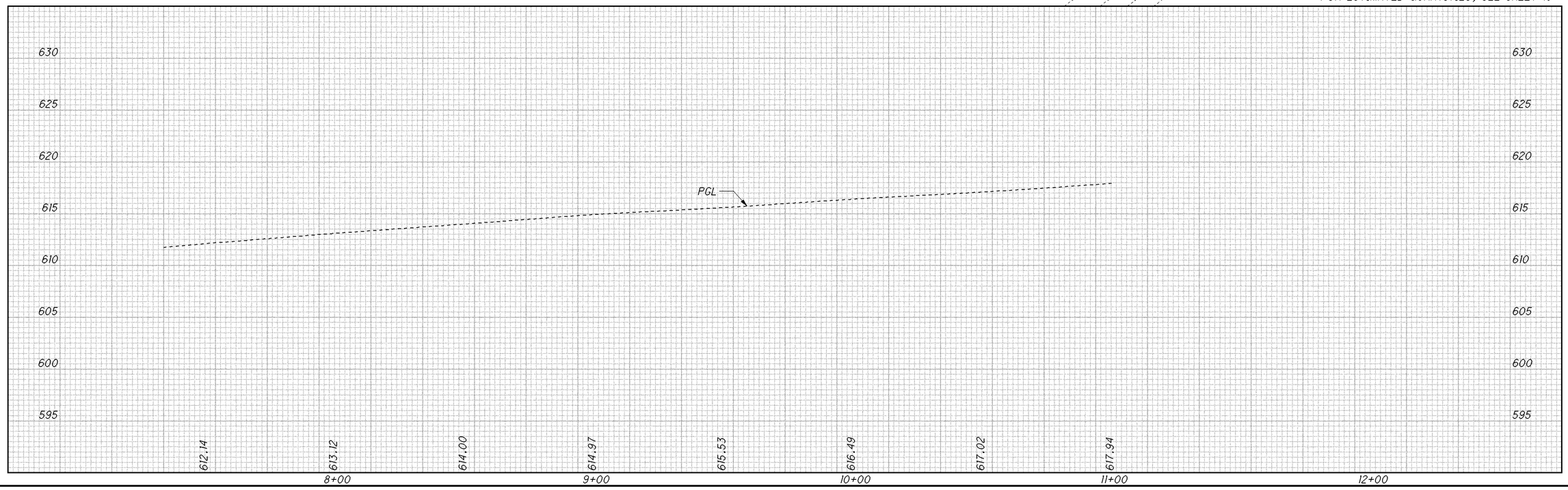
PLAN AND PROFILE I.R. 75
STA. 2+33 TO STA. 7+33

HAM/BUT-75-17.22/0.00

25
48



FOR ESTIMATED QUANTITIES, SEE SHEET 19



HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED AHK
CHECKED RHM

PLAN AND PROFILE I.R. 75
STA. 7+33 TO STA. 12+33

HAM/BUT-75-17.22/0.00

26
48

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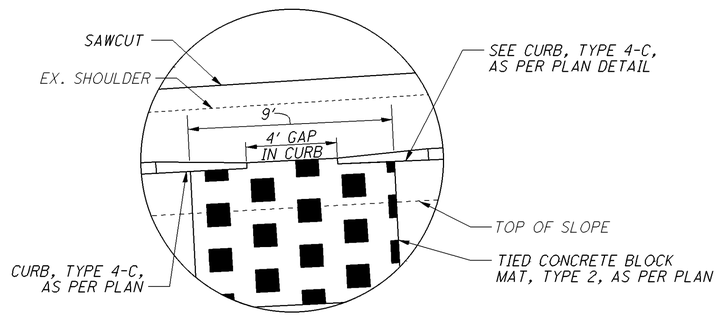
* CONSTRUCT DEPRESSED SHOULDER AND FLUME PER DETAILS ON STANDARD CONSTRUCTION DRAWING DM-4.1. DEPRESS THE SHOULDER ONLY WITHIN THE LIMITS OF THE SHOULDER WIDENING PERFORMED WITH THE PROJECT.

P.I. Sta. 1+50.21
Δ = 6° 02′ 02″ (RT)
Dc = 2° 00′ 37″
R = 2,850.00′
T = 150.21′
L = 300.14′
E = 3.96′
C = 300.00′
C.B. = S 67° 09′ 53″ E

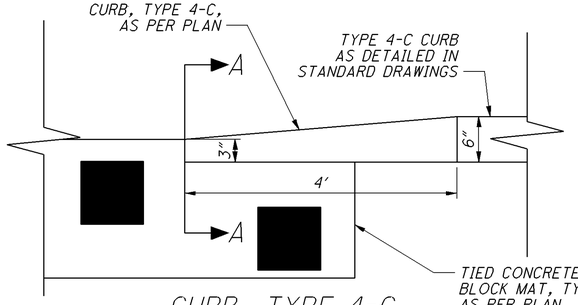
P.I. STA. 4+29.74
Ls= 200.00′
θs = 25° 33′ 14″
LT = 129.60′
ST = 73.30′
x = 195.73′
y = 31.62′
k = 99.34′
p = 6.23′

FOR ESTIMATED QUANTITIES, SEE SHEET 19

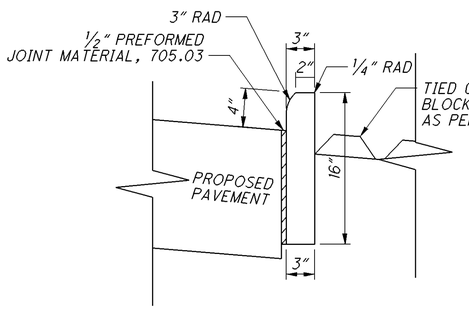
IR-275
1207
BEGIN CURB, TYPE 4-C AT END OF EXISTING CURB STA. 0+64, 10.8′ RT
STA. 1+02 10.3′ RT
STA. 2+53 10.3′ RT
℄ CONST. RAMP G
EX. SHOULDER
1′ SAWCUT FROM EDGE OF SHOULDER
CURB, TYPE 4-C
STA. 3+98 10.3′ RT
STA. 5+48 10.3′ RT
END CURB, TYPE 4-C STA. 5+54, 10′ RT
R-1
BT-1
GR-1
R-2
DETAIL A
GUARDRAIL, TYPE MGS
EC-3
EC-4
CS Sta. 3+00.14
TOP OF SLOPE
SC Sta. 5+00.14
EX. OVERHEAD SIGN SUPPORT (DO NOT DISTURB)
PC Sta. 0+00.00
EX. 15″
STA. 0+61 45.7′ RT
EC-2
TOE OF SLOPE
STA. 2+52 76.8′ RT
STA. 3+98 75.5′ RT
EC-5
EX. LIGHT TOWER
STA. 1+02 79.8′ RT
CONSTRUCTION LIMITS
EC-1
TIED CONCRETE BLOCK MAT, TYPE 2, AS PER PLAN*
STA. 5+47 80.3′ RT
LINE EX. DITCH WITH TIED CONCRETE BLOCK MAT, TYPE 2 SEE "SHALLOW INFIELD DITCH RELOCATION" NOTE ON SHEET 6
EX. 30″ STM
STA. 5+70 CONNECT TO EXISTING TYPE 5 GUARDRAIL PER STANDARD DRAWING MGS-4.3
STA. 16+68 78.0′ RT
EX. DITCH



DETAIL A
(GUARDRAIL NOT SHOWN FOR CLARITY)



CURB, TYPE 4-C, AS PER PLAN - PLAN VIEW



SECTION A-A

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED AHK
CHECKED DAG

PLAN - RAMP G
SLOPE EROSION CONTROL

HAM/BUT-75-17.22/0.00

27
48

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SEEDING	
END WIDTH	SQ. YDS.
44	125
1	0
0	125

END AREA	
CUT	FILL
42	5
25	0
0	0

VOLUME	
CUT	FILL
62	5
23	0
0	0
85	5

CALCULATED AHK
CHECKED JAS

CROSS SECTIONS I.R. 75
STA. 184+50 TO STA. 185+50

HAM/BUT-75-17.22/0.00

28
48

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SEEDING END WIDTH	SEEDING SQ. YDS.
38	217
40	231
43	242
	690

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
65	10	117	22
61	14	112	20
60	8	95	12
		324	54

CALCULATED AHK
CHECKED JAS

CROSS SECTIONS I.R. 75
STA. 186+00 TO STA. 187+00

593.94
187+00.00

593.30
593.23
592.75
153.37' RT
6:1
3:1
3:1
589.44
174.75' R
EX SH

593.82
186+50.00

593.18
593.12
592.64
154.06' RT
6:1
3:1
3:1
588.75
177.20' R
EX SH

593.68
186+00.00

592.96
592.92
592.44
154.76' RT
6:1
3:1
3:1
588.00
179.53' R
EX SH
ITEM 601 TIED CONCRETE BLOCK MAT, TYPE 1
UNDERDRAIN OUTLET
STA. 186+00, 173.4' RT
ELEV. 588.6
ITEM 611 PRECAST REINFORCED CONCRETE OUTLET PER DM-1.1

600 595 590 585 580

90 100 110 120 130 140 150 160 170 180 190 200 210

HAM/BUT-75-17.22/0.00

29
48

akoenig
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SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL
35	194	87	11	155	22
35		80	13		
34	192	64	11	134	22
	200			120	20
	586			409	64

CALCULATED AHK
CHECKED JAS

CROSS SECTIONS I.R. 75
STA. 187+50 TO STA. 188+50

HAM/BUT-75-17.22/0.00

30
48

SEEDING END WIDTH	SEEDING SQ. YDS.
34	192
35	194
35	194
	500

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
98	8	179	17
95	10	170	17
89	8	163	18
		512	52

CALCULATED AHK
CHECKED JAS

CROSS SECTIONS I.R. 75
STA. 189+00 TO STA. 190+00

HAM/BUT-75-17.22/0.00

31
48

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
32	178	94	6	179	11
32	181	99	6	185	11
33	187	101	6	185	13
	546			549	35

CALCULATED AHK
CHECKED JAS

CROSS SECTIONS I.R. 75
STA. 190+50 TO STA. 191+50

HAM/BUT-75-17.22/0.00

akoenig
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SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
33	181	77	11	146	18
32	178	81	8	155	13
32	178	86	6	167	11
	537			468	42

CALCULATED AHK
CHECKED JAS

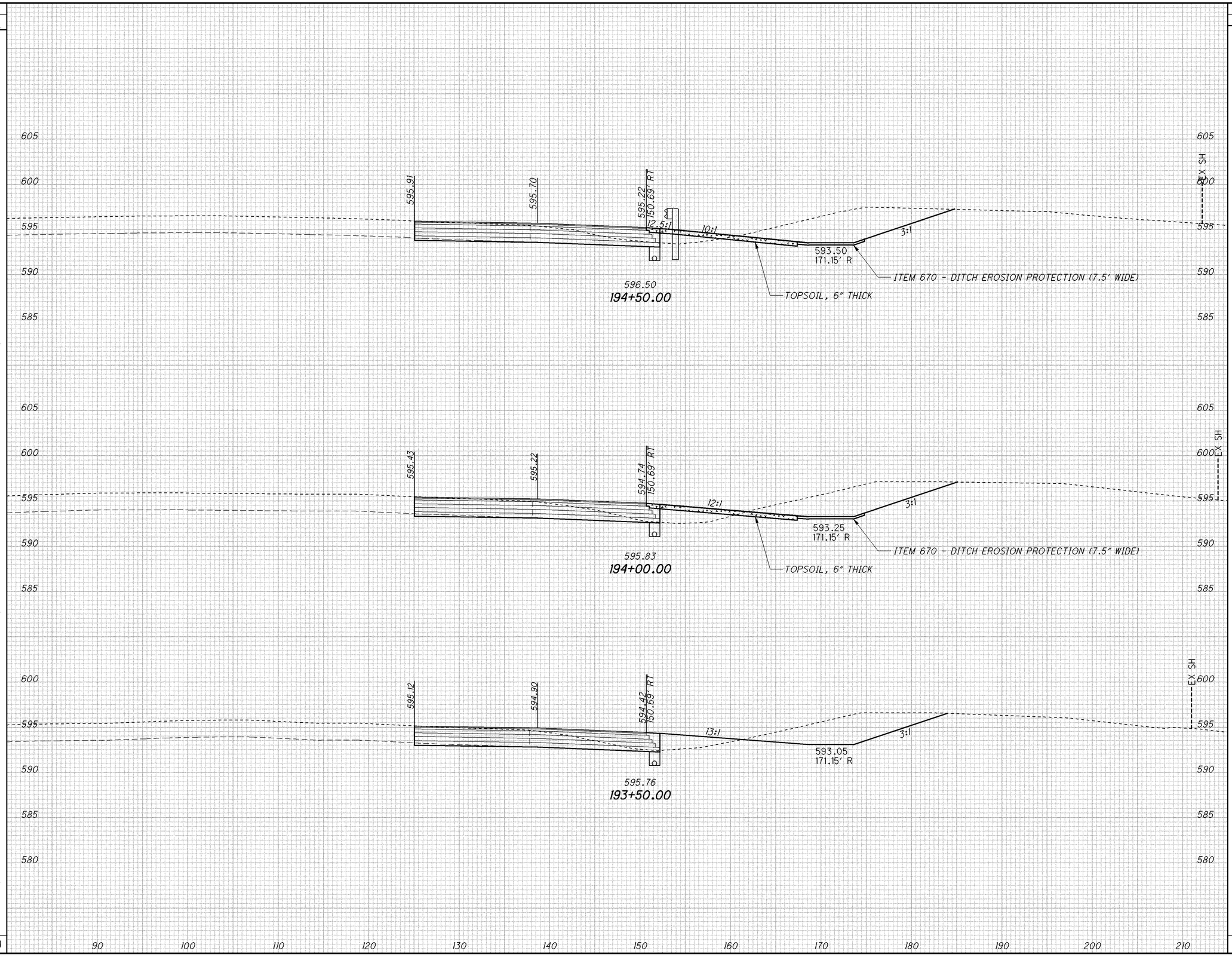
CROSS SECTIONS I.R. 75
STA. 192+00 TO STA. 193+00

HAM/BUT-75-17.22/ 0.00

33
48

akoenig
I:\projects\HAM\ir075\17.22_PID96421\Design\CADD\96421XS001.dgn 12-JAN-2015 3:11PM

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL
35	195	89	9	159	21
35	192	82	14	150	23
34	187	79	11	144	20
	574			453	64



CALCULATED AHK
CHECKED JAS

CROSS SECTIONS I.R. 75
STA. 193+50 TO STA. 194+50

HAM/BUT-75-17.22/0.00

34
48

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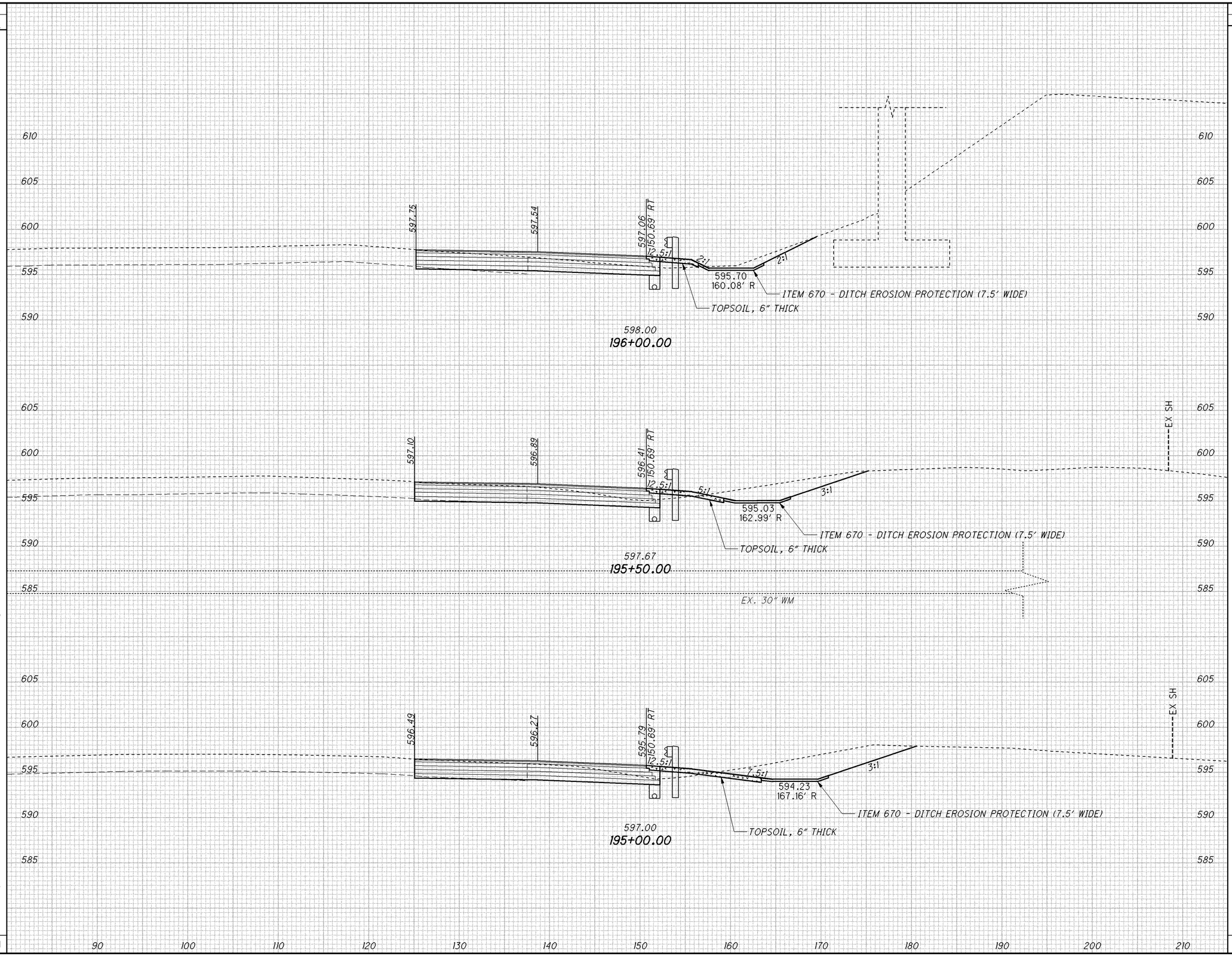
SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
26	142	45	5	98	8
25	156	61	4	129	9
31	183	78	6	155	14
	481			382	31



CALCULATED AHK
CHECKED JAS

CROSS SECTIONS I.R. 75
STA. 195+00 TO STA. 196+00

HAM/BUT-75-17.22/0.00

35
48

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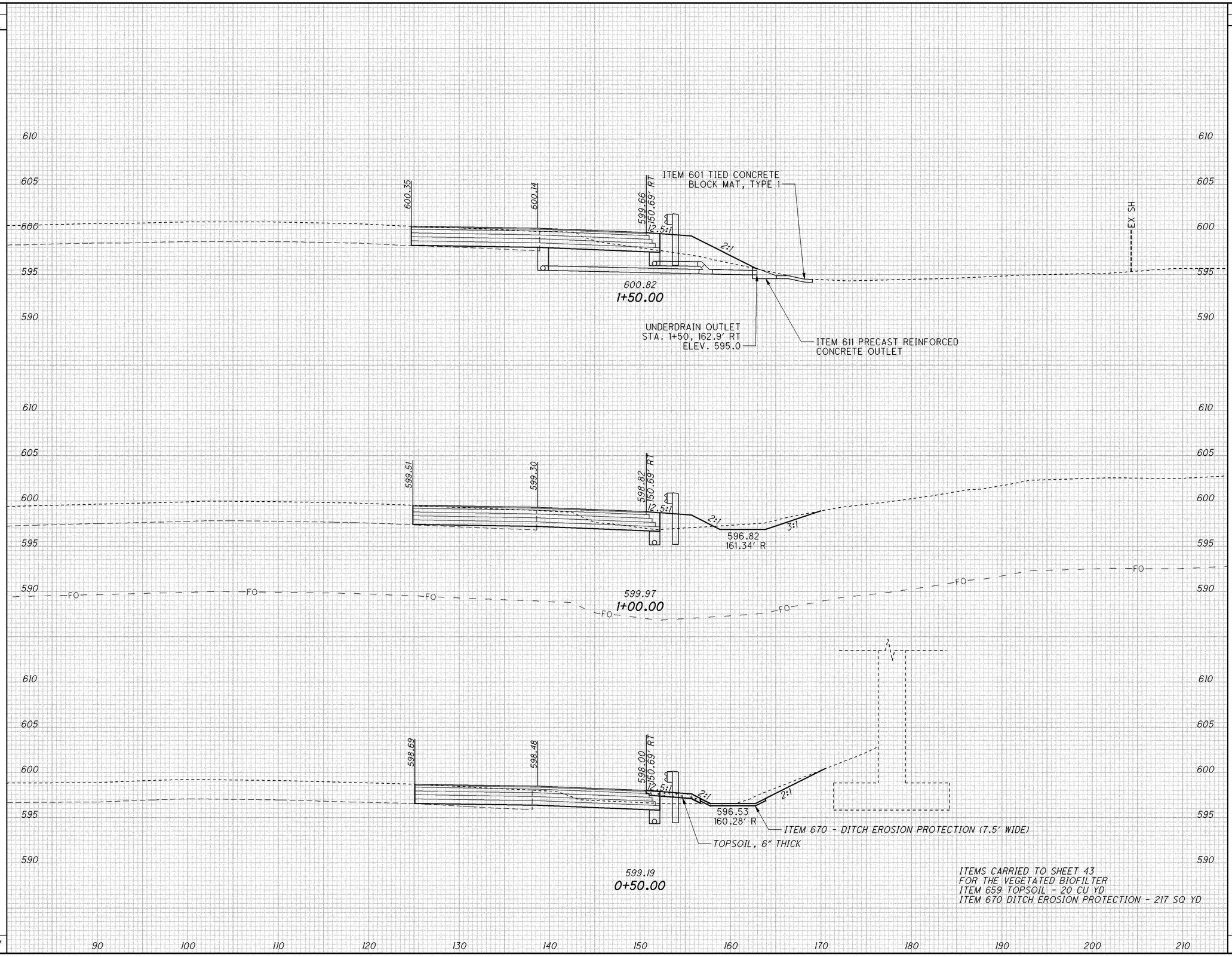
SEEDING END WIDTH	SEEDING SQ. YDS.
13	92
20	114
21	174
	337



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
42	15		
45	8		
43	6		
		80	21
		81	13
		109	14
		268	44

CALCULATED AHK
CHECKED JAS

CROSS SECTIONS I.R. 75
STA. 0+50 TO STA. 1+50

HAM/BUT-75-17.22/0.00

36
48

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SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
22	111	73	71	127	113
18	103	64	51	120	101
19	89	65	58	99	68
	303			346	282

CALCULATED AHK
CHECKED JAS

CROSS SECTIONS I.R. 75
STA. 2+00 TO STA. 3+00

HAM/BUT-75-17.22/0.00

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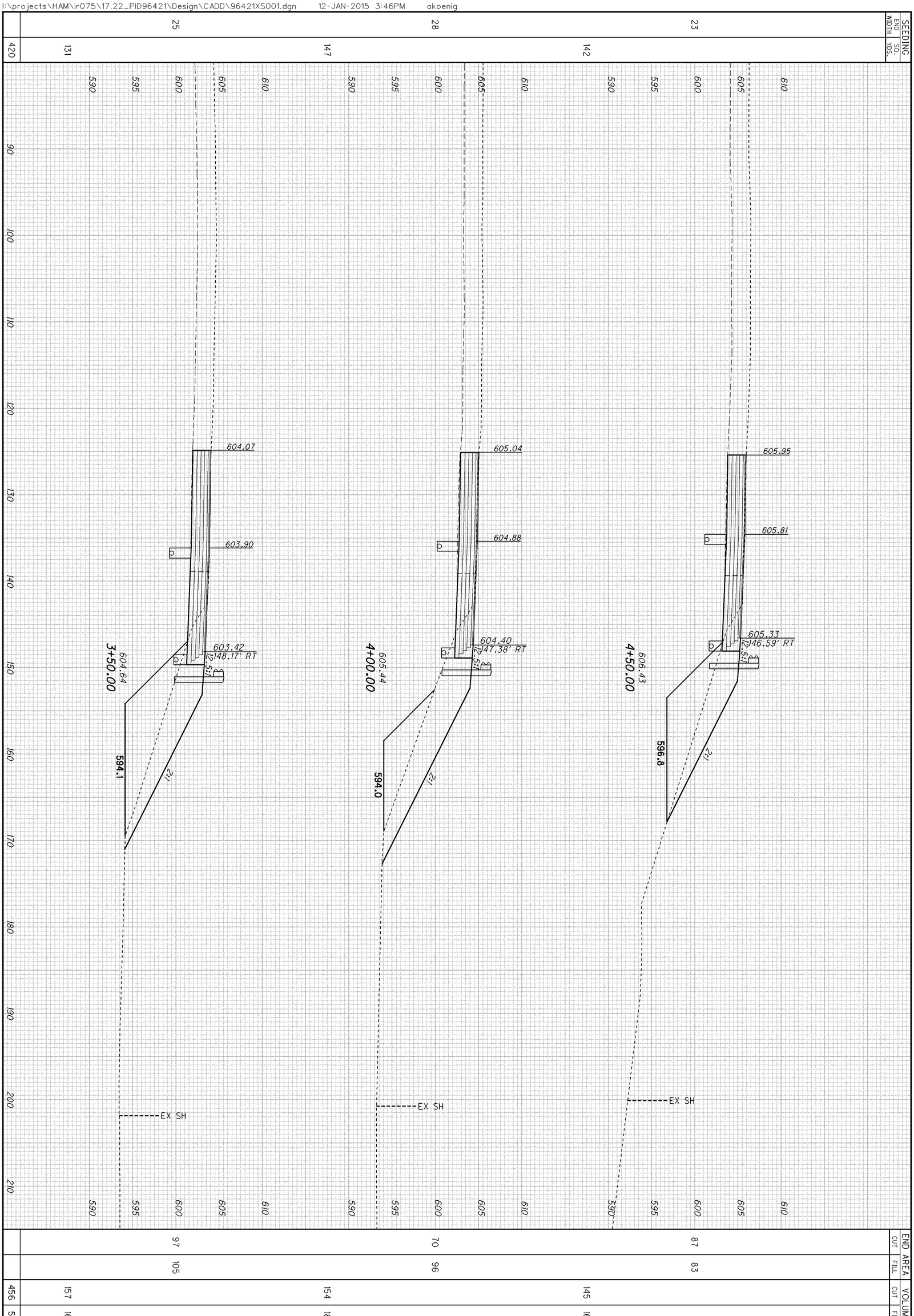


38
48

HAM/BUT-75-17.22/0.00

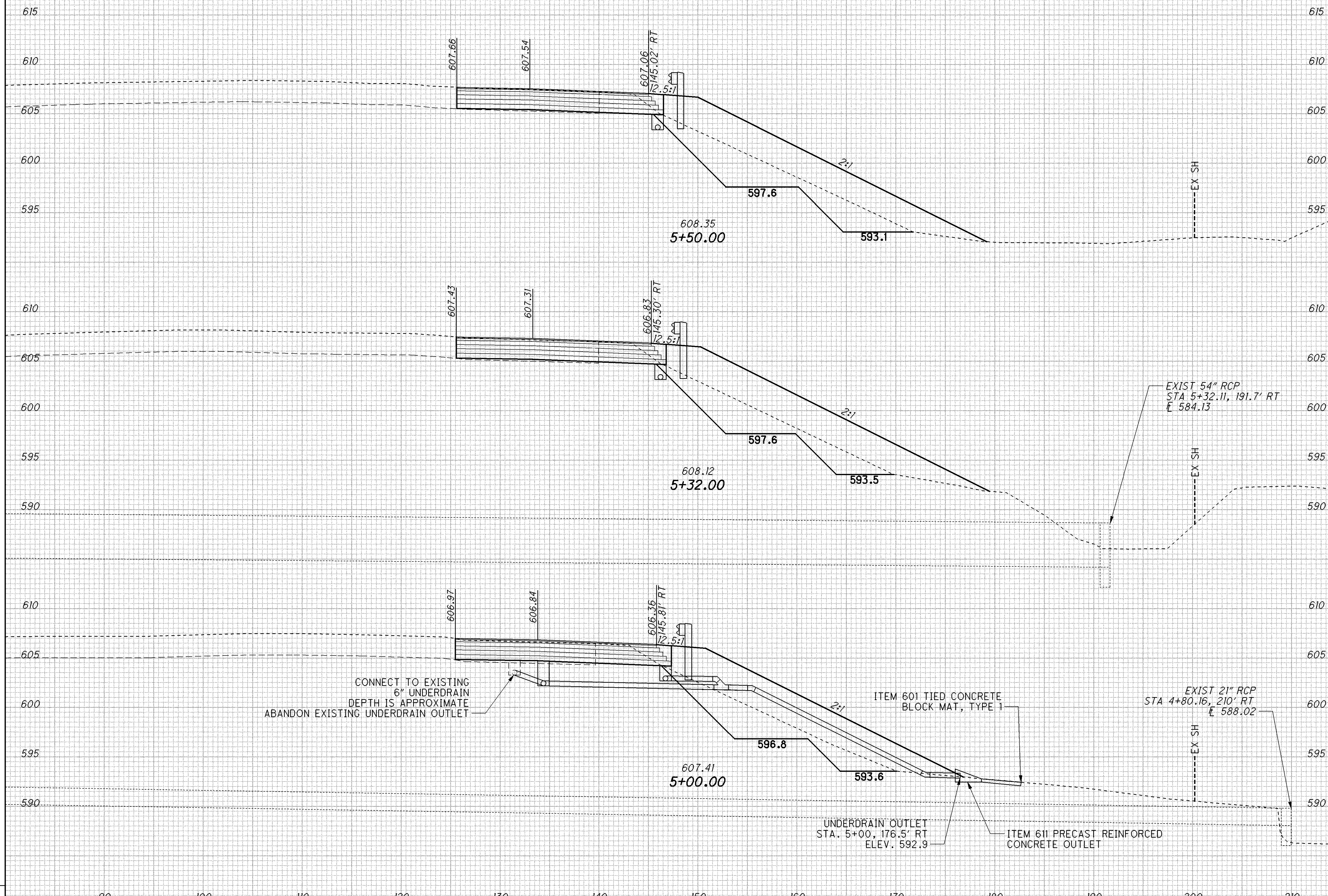
CROSS SECTIONS I.R. 75
STA. 3+50 TO STA. 4+50

CALCULATED AHK
CHECKED JAS

CROSS SECTIONS I.R. 75
STA. 5+00 TO STA. 5+50

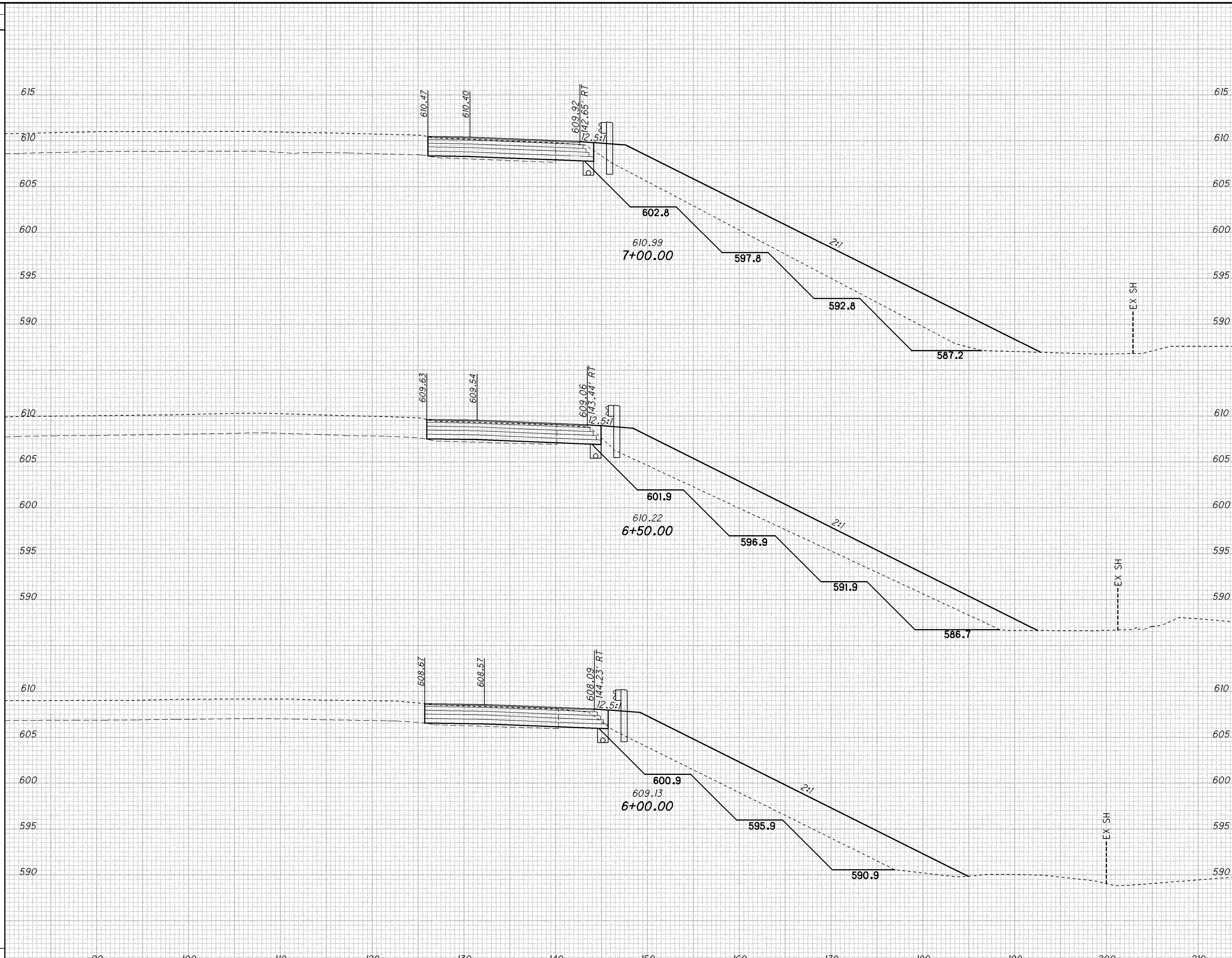
HAM/BUT-75-17.22/0.00

CALCULATED AHK CHECKED JAS



SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
38		96	145		
	76			60	94
38		85	138		
	128			100	161
34		83	133		
	158			158	200
	362			318	455

SEEDING	
END WIDTH	SQ. YDS.
56	
	306
54	
	275
45	
	231
	812



END AREA		VOLUME	
CUT	FILL	CUT	FILL
121	229		
		241	419
139	223		
		218	370
96	177		
		178	298
		637	1087

CALCULATED AHK
CHECKED JAS

CROSS SECTIONS I.R. 75
STA. 6+00 TO STA. 7+00

HAM/BUT-75-17.22/0.00

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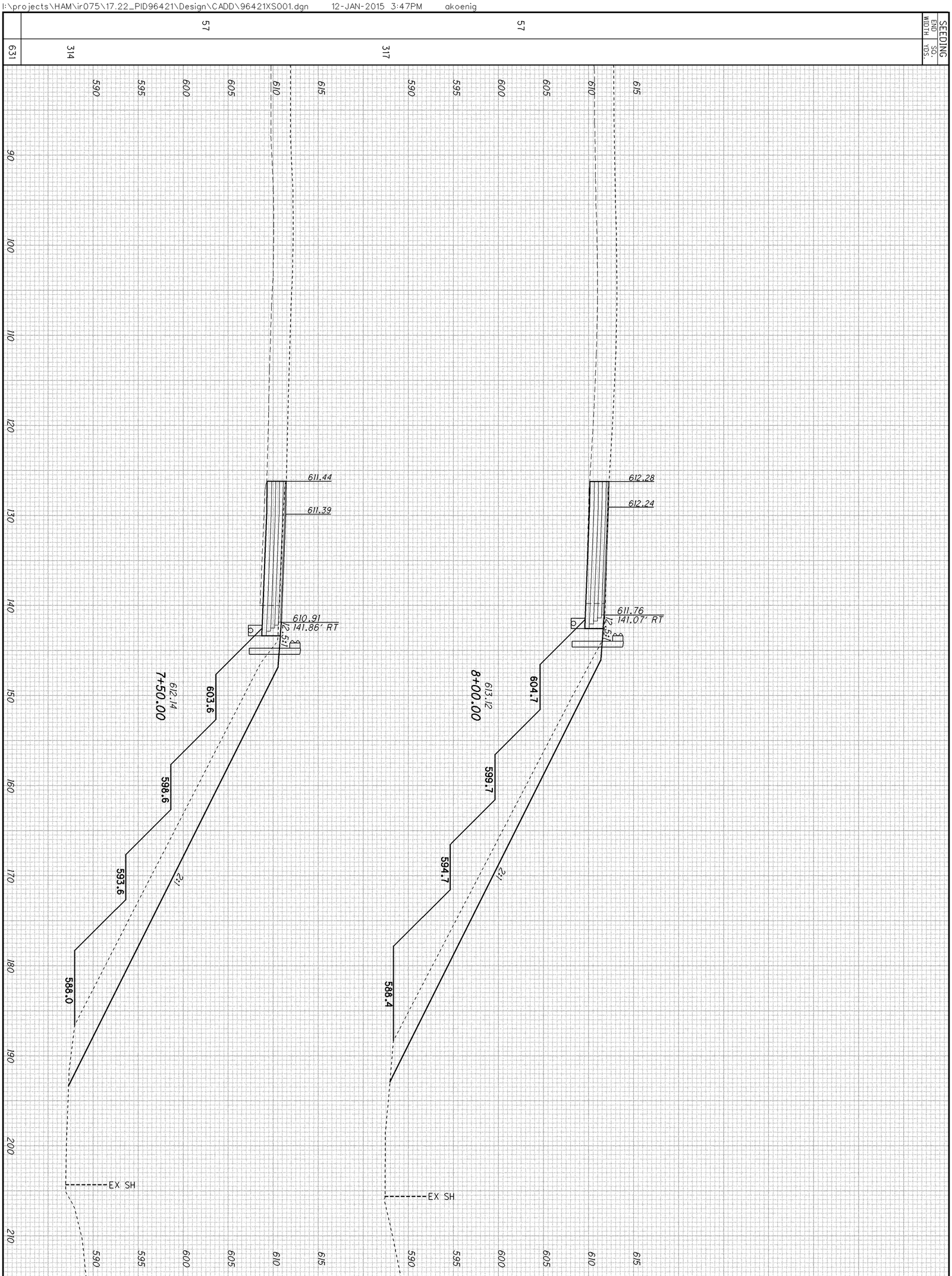

41
48

HAM/BUT-75-17.22/0.00

CROSS SECTIONS I.R. 75
STA. 7+50 TO STA. 8+00

CALCULATED AHK
CHECKED JAS

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL
60		227	257		
	331			388	469
59		193	249		
	322			369	452
	653			757	921

CALCULATED AHK
CHECKED JAS

CROSS SECTIONS I.R. 75
STA. 8+50 TO STA. 9+00

HAM/BUT-75-17.22/0.00

42
48

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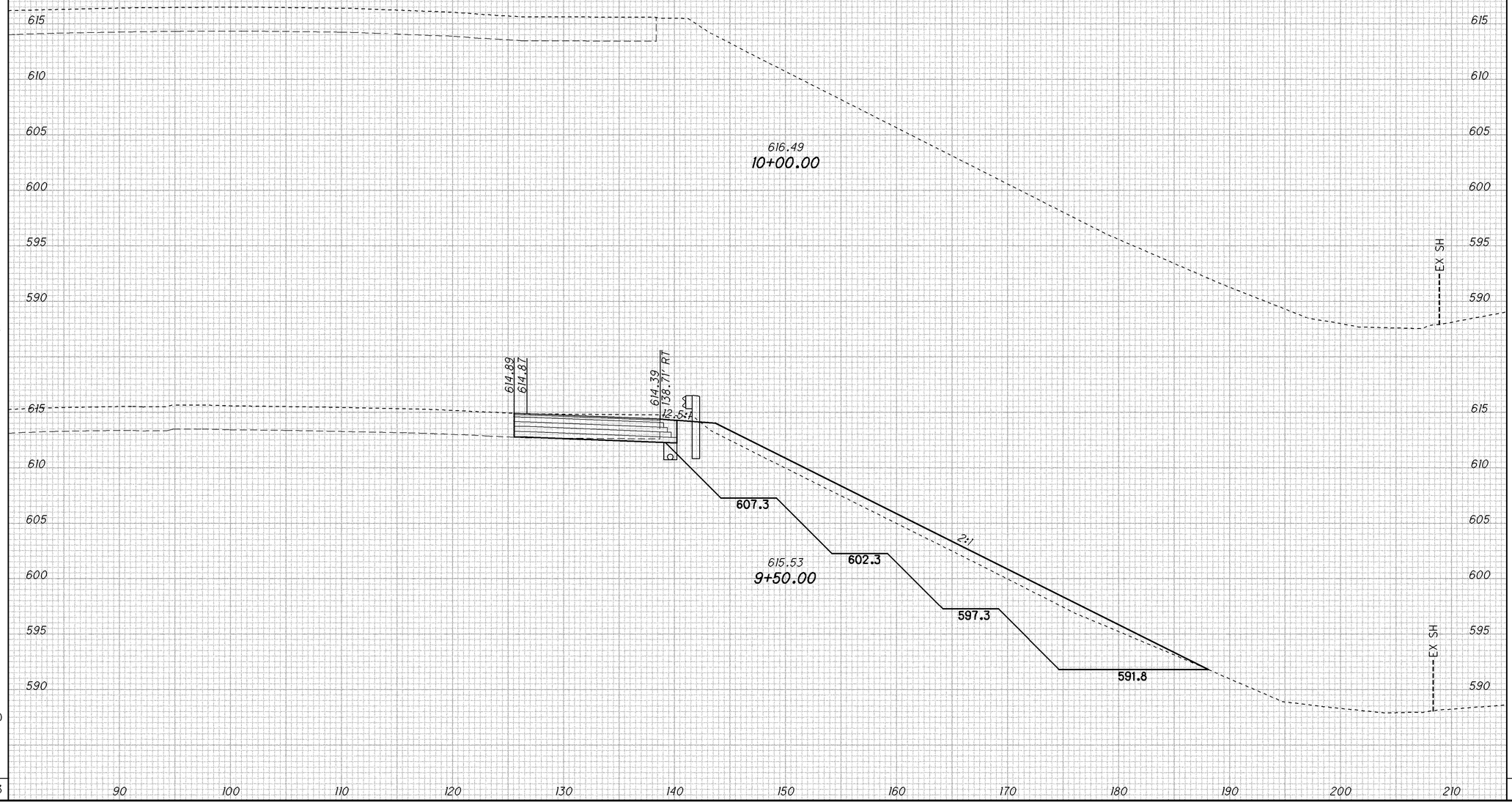
SEEDING END WIDTH	SEEDING SQ. YDS.	
	8073	TOTAL CARRIED TO SHEET 7
0	153	
55	320	
	473	

TOTAL CARRIED TO GENERAL SUMMARY

THE FOLLOWING ITEMS ARE CARRIED TO THE GENERAL SUMMARY FOR THE VEGETATED BIOFILTER BMP:
ITEM 659 TOPSOIL 6" THICK - 20 CU YD (DOES NOT INCLUDE THE 4" REQUIRED BY CMS 659.11)
ITEM 670 DITCH EROSION PROTECTION - 217 SQ YD



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
		7184	5178
0	0	209	210
225	227	419	448
		628	658

CALCULATED AHK
CHECKED JAS

CROSS SECTIONS I.R. 75
STA. 9+50 TO STA. 10+00

HAM/BUT-75-17.22/ 0.00

43
48

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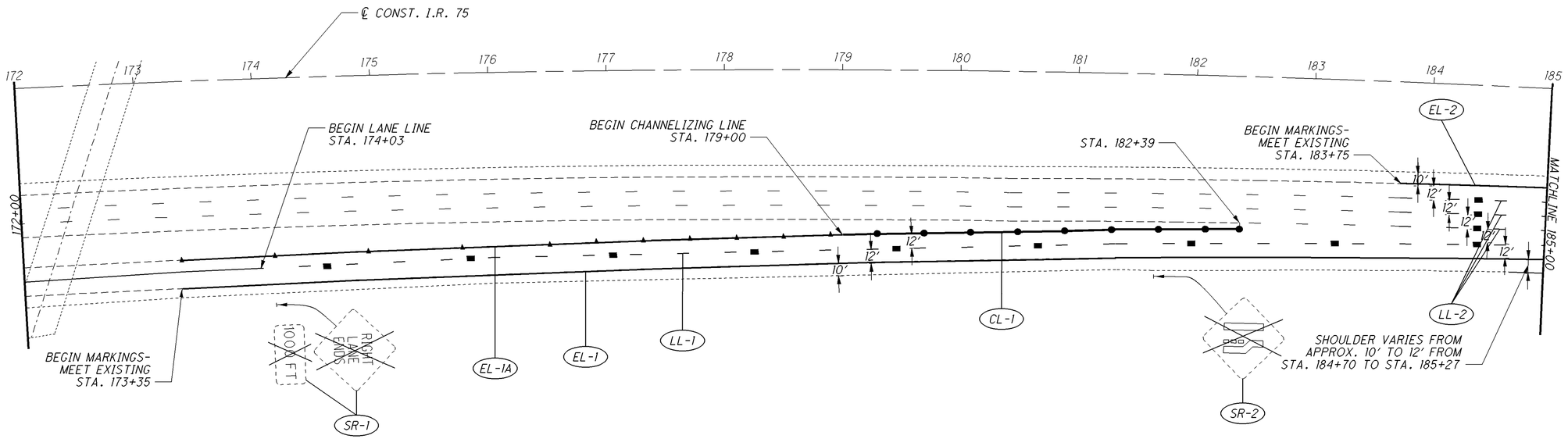
PAVEMENT MARKINGS/SIGNING
STA. 172+00 TO STA. 2+00

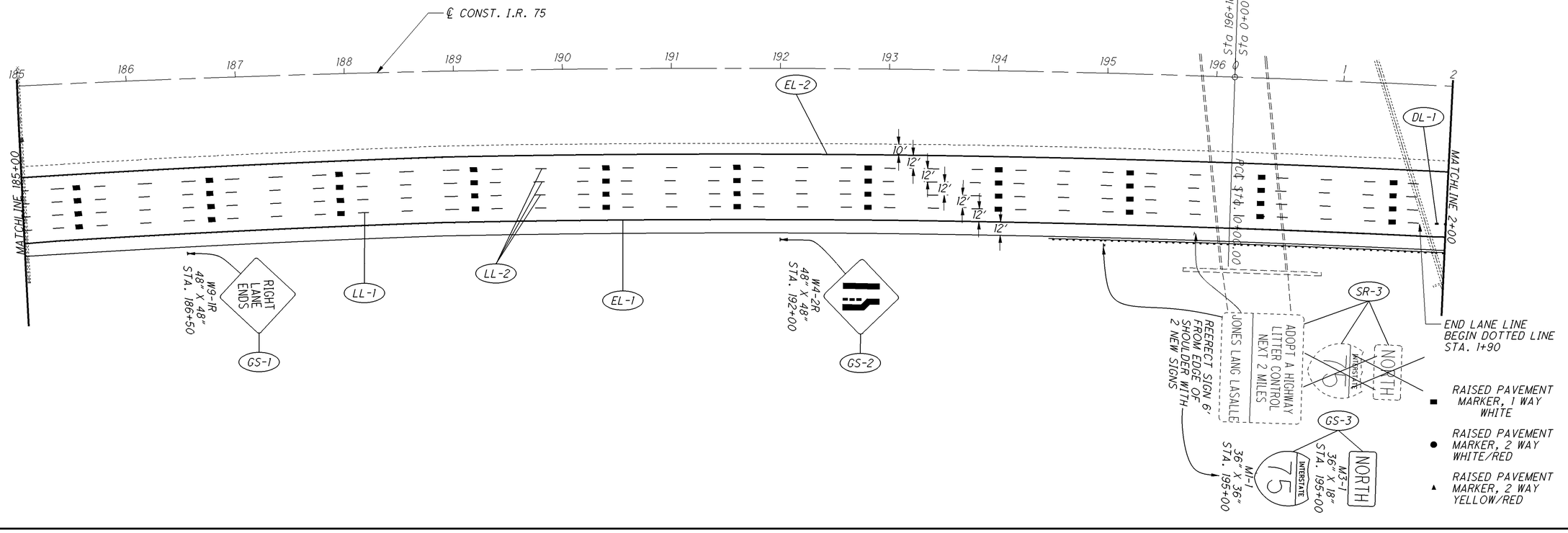
HAM/BUT-75-17.22/0.00

44
48

CALCULATED AHK
CHECKED MAG

HORIZONTAL SCALE IN FEET
0 25 50 100





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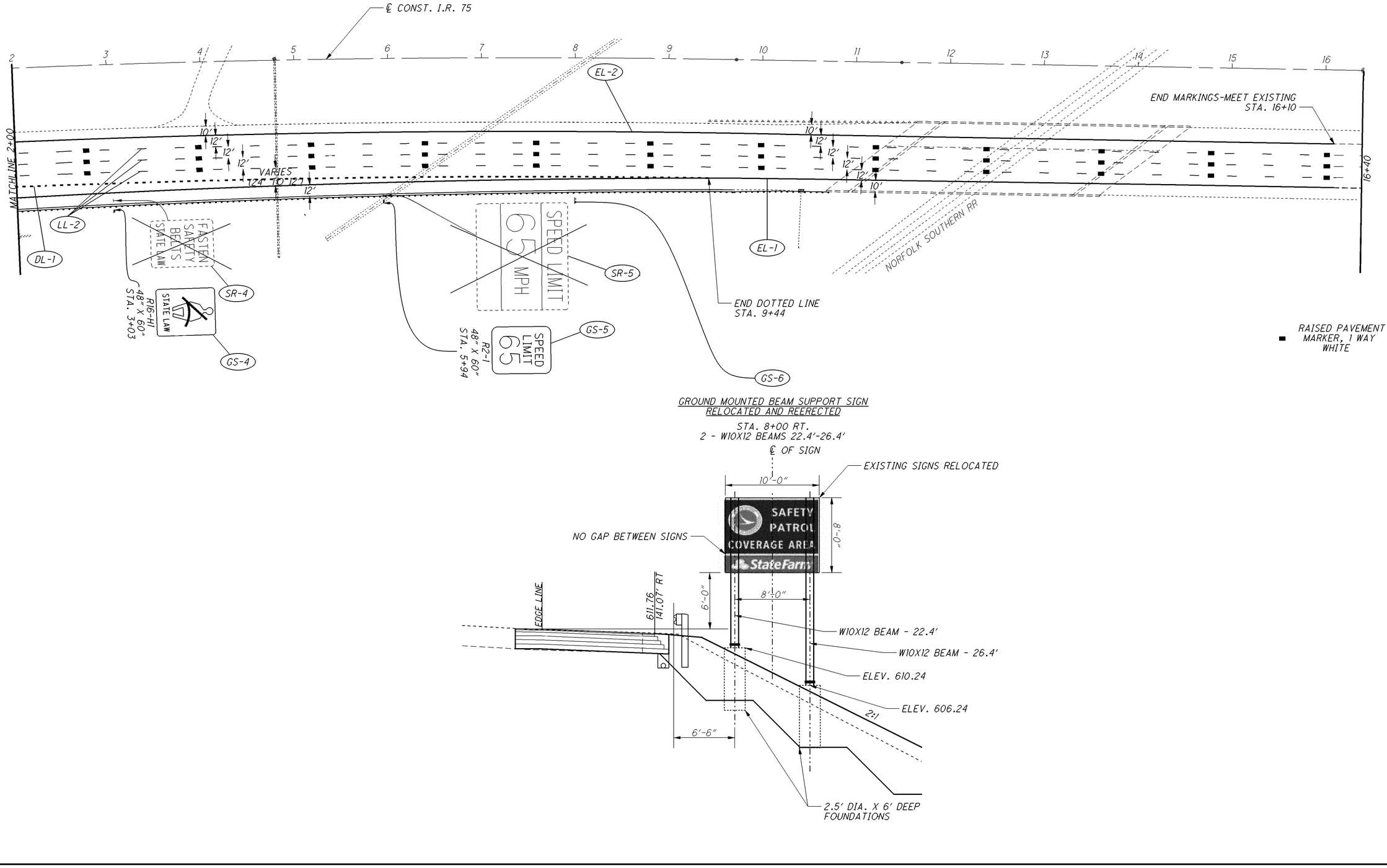

GROUND MOUNTED BEAM SUPPORT SIGN
RELOCATED AND REERECTED

N

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED AHK
CHECKED MAG

PAVEMENT MARKINGS/SIGNING
STA. 2+00 TO STA. 16+40

HAM/BUT-75-17.22/0.00

45
48

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REF NO.	SHEET NO.	STATION	SIDE		618			621				626		644				
					RUMBLE STRIPS, (ASPHALT CONCRETE)			RAISED PAVEMENT MARKER, 1 WAY WHITE	RAISED PAVEMENT MARKER, 2 WAY WHITE/RED	RAISED PAVEMENT MARKER, 2 WAY YELLOW/RED		BARRIER REFLECTOR (TYPE A)		EDGE LINE, 6" WHITE	EDGE LINE, 6" YELLOW	LANE LINE, 6"	CHANNELIZING LINE, 12"	DOTTED LINE, 12"
					FT			EACH	EACH	EACH		EACH		MILE	MILE	MILE	FT	FT
		NB IR-75																
EL-1	44-45	173+35 TO 16+10	RT											0.73				
EL-1A	44	173+35 TO 179+00	RT												0.11			
EL-2	44-45	183+75 TO 16+10	LT												0.54			
LL-1	44	174+03 TO 1+90														0.45		
LL-2	44-45	183+75 TO 16+10														1.61		
DL-1	44-45	1+90 TO 9+44																747
CL-1	44	179+00 TO 182+39	RT														336	
	44-45	174+60 TO 16+03						93										
	44	179+00 TO 182+39							9									
	44	173+35 TO 179+00								11								
	44-45	194+47 TO 10+72	RT									14						
	44	181+20 TO 182+39	RT		118													
	44-45	184+70 TO 9+70	RT		2095													
	44-45	186+75 TO 13+10	LT		2240													
SUBTOTAL					4453			93	15	5		14		0.73	0.65	2.06	336	747
TOTAL					4453			113				14		1.38		2.06	336	747
TOTALS CARRIED TO GENERAL SUMMARY					4453			113				14		1.38		2.06	336	747

REF NO.	SHEET NO.	STATION	SIDE	CODE	SIZE (INCHES)	630									
						REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	REMOVAL OF GROUND MOUNTED STRUCTURAL BEAM SUPPORT AND DISPOSAL	REMOVAL OF GROUND MOUNTED SIGN AND REERECTION	REMOVAL OF GROUND MOUNTED MAJOR SIGN AND REERECTION	SIGN, FLAT SHEET	GROUND MOUNTED SUPPORT, NO. 3 POST	GROUND MOUNTED SUPPORT, NO. 4 POST	GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W10X22	GROUND MOUNTED STRUCTURAL BEAM SUPPORT FOUNDATION
						EACH	EACH	EACH	EACH	EACH	SQ FT	FT	FT	FT	EACH
		NB IR-75													
SR-1	44	174+15	RT			2	3								
SR-2	44	181+66	RT			1	2								
SR-3	44	195+84	RT			2	2		1						
SR-4	45	3+03	RT			1	2								
SR-5	45	5+94	RT			1		2							
GS-1	44	186+50	RT	W9-1R	48 X 48						16	16.3-16.7			
GS-2	44	192+00	RT	W4-2R	48 X 48						16	15.7-15.9			
GS-3	44	195+00	RT	M3-1	36 X 18						4.5	20.7-21.0			
				M1-1	36 X 36						9				
GS-4	45	3+03	RT	R16-H1	48 X 60						20		16.8-18.0		
GS-5	45	5+94	RT	R2-1	48 X 60						20		16.8-18.0		
GS-6	45	8+00	RT	D-12-H5b	120 X 72			2		1				22.4-26.4	2
				D-12-H5bP	120 X 24					1					
SUBTOTAL						7	9	2	1	2	85.5	106.3	69.6	48.8	2
TOTAL						7	9	2	1	2	85.5	106.3	69.6	48.8	2
TOTALS CARRIED TO GENERAL SUMMARY						7	9	2	1	2	85.5	106.3	69.6	48.8	2

CALCULATED AHK
CHECKED MAG

PAVEMENT MARKING/SIGNING SUBSUMMARY

HAM/BUT-75-17.22/0.00

ITEM 809 - DYNAMIC MESSAGE SIGN (DMS), FULL-SIZE WALK-IN, AS PER PLAN

THIS WORK CONSISTS OF INSTALLING A DYNAMIC MESSAGE SIGN OBTAINED FROM ODOT ON THE EXISTING TRUSS SUPPORT LOCATED ON IR-75 SOUTHBOUND, APPROXIMATELY 2300' NORTH OF THE UNION CENTRE BOULEVARD INTERCHANGE. THE DYNAMIC MESSAGE SIGN INSTALLATION SHALL MEET THE REQUIREMENTS SET FORTH IN THE TRAFFIC OPERATIONS HANDBOOK, VERSION 4.3, SECTION 1500. THE DYNAMIC MESSAGE SIGN OBTAINED FROM ODOT IS A DAKTRONICS SIGN MODEL VF-2020-27X105-66-A. INSTALLATION HARDWARE IS INCLUDED WITH THE SIGN. THE NEW DYNAMIC MESSAGE SIGN AND CONTROLLER WITH HARDWARE IS CURRENTLY IN STORAGE AT ODOT'S HAMILTON COUNTY MAINTENANCE GARAGE LOCATED AT:

1400 EAST SEYMOUR AVE, CINCINNATI, OH 45237

THE DMS AND HARDWARE IS AVAILABLE FOR INSPECTION BY PROSPECTIVE BIDDERS FROM 8 AM TO 2 PM MONDAY-THURSDAY. CONTACT JUSTIN KEMP AT (513) 821-1410 TO SCHEDULE AN APPOINTMENT TO VIEW THE SIGN.

DAMAGE TO THE SIGN OR ANY COMPONENTS DURING THE TRANSFERRING OPERATIONS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. WHILE ERECTING THE NEW DMS ON THE EXISTING INFRASTRUCTURE, THE CONTRACTOR SHALL INSTALL THE SIGN TO ENSURE THAT THE NEW DMS IS EASILY ACCESSIBLE FROM THE EXISTING CATWALK. THE DOOR MUST BE ABLE TO FULLY OPEN TO 90-DEGREES FROM THE ENCLOSURE. ANY CHANGES IN THE CATWALK OR RAILING TO ADJUST FOR THIS REQUIREMENT SHALL NOT RESULT IN GAPS EXCEEDING 2 INCHES. THE MOUNTING LOCATION OF THE NEW DMS SHALL ALSO MAINTAIN THE ROADWAY CLEARANCE TO THE BOTTOM OF THE SIGN AS A MINIMUM OF SEVENTEEN (17) FEET.

PORTIONS OF EXISTING INFRASTRUCTURE ARE TO BE REUSED OR MAINTAINED, INCLUDING THE EXISTING WIRING FROM THE POWER SOURCE AND/OR COMMUNICATION SOURCE TO THE EXISTING DMS GROUND-MOUNTED CABINET. SOME NEW OR ADDITIONAL WIRING FROM THE EXISTING DMS GROUND MOUNTED CABINET TO THE NEWLY ERECTED DMS MAY BE NEEDED FOR PROPER FUNCTIONALITY. THE NEW DMS CONTROLLER SHALL BE LOCATED IN THE EXISTING DMS GROUND MOUNTED CABINET AND MAY REQUIRE DIFFERENT WIRING TO THE SIGN. EXISTING CONDUIT SHALL BE USED FOR ANY NEW OR ADDITIONAL WIRING.

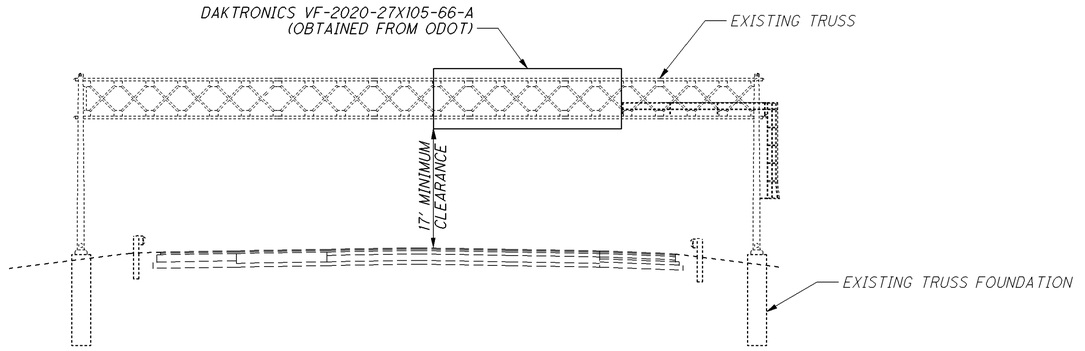
IN ORDER TO REDUCE THE DOWNTIME OF THE FUNCTIONALITY OF THE DMS, THE TIME BETWEEN DISCONNECTING THE EXISTING DMS FROM USE AND GAINING FUNCTIONAL USE TO THE DMS OBTAINED FROM ODOT SHALL BE KEPT TO A MAXIMUM OF FIVE DAYS. FOR EACH CALENDAR DAY BEYOND FIVE DAYS THAT THIS WORK REMAINS INCOMPLETE, THE DEPARTMENT WILL ASSESS LIQUIDATED DAMAGES IN THE AMOUNT OF FIVE HUNDRED DOLLARS ($500) PER CALENDAR DAY.

ALL SPECIFICATIONS FOR THIS ITEM ARE PROVIDED IN THE SPECIAL PROVISIONS, OFFICE OF TRAFFIC OPERATIONS HANDBOOK, VERSION 4.3, SECTION 1500. PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 809 - DYNAMIC MESSAGE SIGN (DMS), FULL-SIZE WALK-IN, AS PER PLAN, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT, AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL BY REMOTE MEANS DMS.

ITEM 631 - REMOVAL, MISC.: EXISTING DYNAMIC MESSAGE SIGN

THIS ITEM OF WORK SHALL CONSIST OF THE REMOVAL AND DISPOSAL OF THE EXISTING DMS FROM THE EXISTING OVERHEAD TRUSS.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 631 - REMOVAL MISC.: EXISTING DYNAMIC MESSAGE SIGN, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT, AND MATERIALS NECESSARY TO COMPLETE THE ITEM.



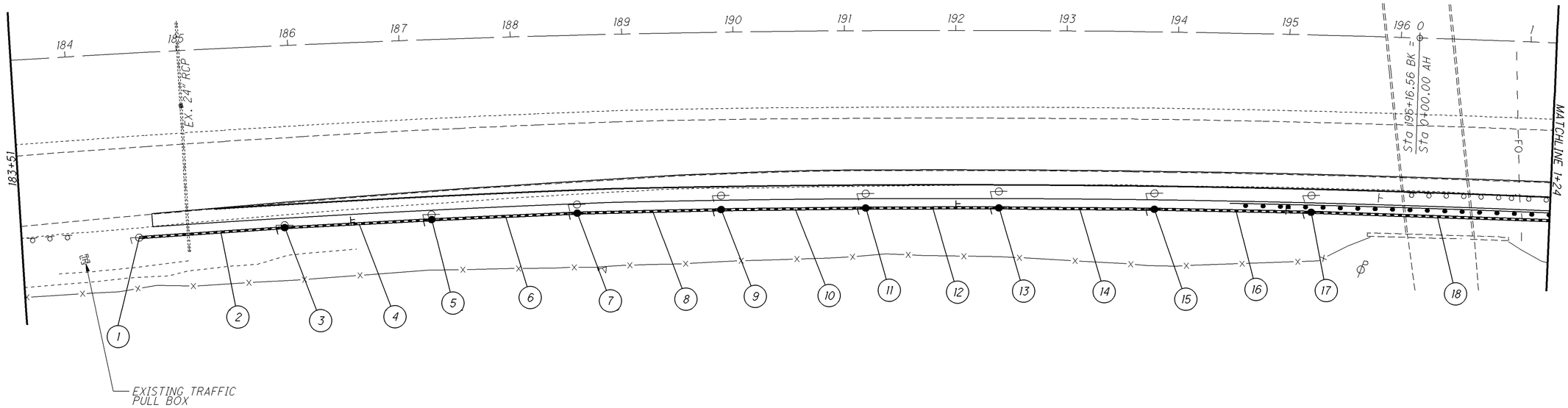
IR-75 SOUTHBOUND, SLM 19.7

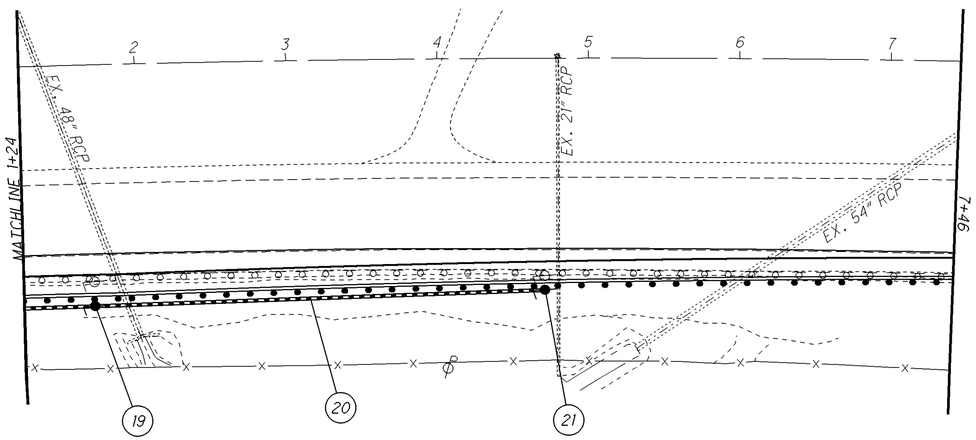
CALCULATED AHK
CHECKED MAG

ARTIMIS DETAILS

DYNAMIC MESSAGE SIGN REPLACEMENT

HAM/BUT-75-17.22/0.00





REFERENCE NO.	SIDE	STATION*	625									
			CONNECTION, FUSED PULL APART	LIGHT POLE FOUNDATION, 24" X 10' DEEP, AS PER PLAN	NO. 10 AWG POLE AND BRACKET CABLE	1-½" DUCT CABLE WITH THREE NO. 4 AWG 5000 VOLT CABLES	TRENCH, 24" DEEP	GROUND ROD	REMOVE AND REERECT EXISTING LIGHT POLE	REERECT EXISTING LUMINAIRE	LIGHT POLE FOUNDATION REMOVED	DISCONNECT CIRCUIT
			EACH	EACH	FT	FT	FT	EACH	EACH	EACH	EACH	EACH
1	RT	184+57, 165.7' RT	3									1
2	RT					141	131					
3	RT	185+90, 163.4' RT	3	1	100			1	1	1	1	
4	RT					142	132					
5	RT	187+24, 161.5' RT	3	1	100			1	1	1	1	
6	RT					141	131					
7	RT	188+56, 159.7' RT	3	1	100			1	1	1	1	
8	RT					139	129					
9	RT	189+87, 159.2' RT	3	1	100			1	1	1	1	
10	RT					140	130					
11	RT	191+18, 159.2' RT	3	1	100			1	1	1	1	
12	RT					130	120					
13	RT	192+39, 159.2' RT	3	1	100			1	1	1	1	
14	RT					150	140					
15	RT	193+80, 159.2' RT	3	1	100			1	1	1	1	
16	RT					151	141					
17	RT	195+23, 159.2' RT	3	1	100			1	1	1	1	
18	RT					271	261					
19	RT	1+70, 159.2' RT	3	1	100			1	1	1	1	
20	RT					307	297					
21	RT	4+71, 152.8' RT	3	1	100			1	1	1	1	
TOTALS CARRIED TO GENERAL SUMMARY			33	10	1000	1712	1612	10	10	10	10	1

*LOCATION OF THE REERECTED LIGHTPOLE

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED AHK
CHECKED MAG

LIGHTING PLAN
STA. 183+51 TO STA. 7+46

HAM/BUT-75-17.22/0.00

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