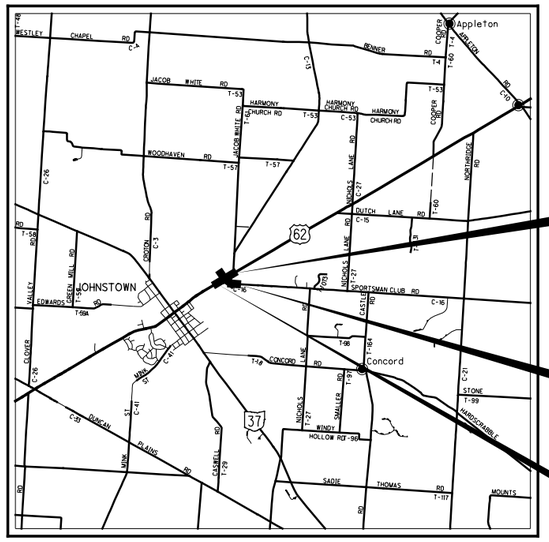
STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

LIC-CR16-0.007

CITY OF JOHNSTOWN
LICKING COUNTY



LOCATION MAP

LATITUDE: 40°09'34" LONGITUDE: 82°40'26"

SCALE IN MILES
0 1 2 3 4

N

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

DESIGN DESIGNATION

	US 62	CR 16
CURRENT ADT (2019)	12,346	1,183
DESIGN YEAR ADT (2039)	15,435	N/A
DESIGN HOURLY VOLUME (2042)	2,315	N/A
DIRECTIONAL DISTRIBUTION	50	N/A
TRUCKS (24 HOUR B&C)	6%	N/A
DESIGN SPEED	55	35
LEGAL SPEED	35/55	35
DESIGN FUNCTIONAL CLASSIFICATION:	MAJOR COLLECTOR	LOCAL ROAD
NHS PROJECT	NO	NO

DESIGN EXCEPTIONS

NONE

INDEX OF SHEETS:

PROJECT DESCRIPTION

IMPROVEMENT OF THE INTERSECTION OF US 62 / CR 16 (SPORTSMAN CLUB ROAD) BY CONSTRUCTING A ROUNDABOUT WITH SINGLE LANE APPROACHES AND DEPARTURES, CURB AND GUTTER, ROADWAY DRAINAGE, LIMITED LIGHTING, AND UTILITY RELOCATIONS.

EARTH DISTURBED AREAS

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

2019 SPECIFICATIONS

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

STAGE 1 - 3/15/2022
NOT FOR CONSTRUCTION

APPROVED _____
DATE _____ JOHNSTOWN MAYOR

APPROVED _____
DATE _____ CITY MANAGER

APPROVED _____
DATE _____ ASSISTANT CITY MANAGER

APPROVED _____
DATE _____ DISTRICT DEPUTY DIRECTOR

APPROVED _____
DATE _____ DIRECTOR, DEPARTMENT OF TRANSPORTATION

UNDERGROUND UTILITIES
CONTACT BOTH SERVICES TWO WORKING DAYS BEFORE YOU DIG.
OHIO Utilities Protection SERVICE
Call Before You Dig
1-800-362-2764
(Non-members must be called directly)
OIL & GAS PRODUCERS UNDERGROUND PROTECTION SERVICE
1-800-925-0988

PLAN PREPARED BY:

HULL
Environment / Energy / Infrastructure
59 Grant Street
Newark, Ohio 43055
Tel: 740-344-5451
Fax: 740-344-8659
www.hullinc.com

ENGINEERS SEAL:

SIGNED: _____
DATE: _____

STANDARD CONSTRUCTION DRAWINGS	SUPPLEMENTAL SPECIFICATIONS	SPECIAL PROVISIONS

FEDERAL PROJECT NO. NONE
PID NO. 113935
CONSTRUCTION PROJECT NO. 0
RAILROAD INVOLVEMENT NONE
LIC-CR16-0.007
1 / 44

BEGIN WORK
US 62
STA 108+63.51

BEGIN PROJECT
US 62
STA 108+73.51

℄ R/W AND CONST US 62
(JOHSNTOWN UTICA RD)

N 59° 15′ 04″ E

110

PI Sta. 105+97.34

TR = 1′

N 59° 01′ 06″ E

PI Sta. 109+75.01

N 59° 16′ 52″ E

PC Sta. 204+37.06

PI Sta. 112+65.84

200

S 30° 43′ 08″ E

℄ CONST CR 16
(SPORTSMAN CLUB RD)

FUTUTRE LEG OF ROUNDABOUT

END WORK
US 62
STA 117+35.00

END PROJECT
US 62
STA 117+25.00

115

N 59° 11′ 54″ E

END WORK
CR 16
STA 207+95.91

END PROJECT
CR 16
STA 207+85.91

2 STORY
RESIDENTIAL

2 STORY
COMMERCIAL

1 STORY
RESIDENTIAL

SHED

205

1 STORY
COMMERCIAL

2 STORY
COMMERCIAL

BENCHMARK #1
N: 786558.33
E: 1920098.46
Z=1154.80

BENCHMARK #999
CHISELED DIAMOND ON HEADWALL
ELEV. = 1152.21

PT Sta. 206+79.81

POT Sta. 122+25.27

℄ R/W AND CONST US 62
(JOHSNTOWN UTICA RD)

120

N 59° 38′ 54″ E

PI Sta. 118+74.15

℄ CONST CR 16
(SPORTSMAN CLUB RD)

210

S 86° 21′ 11″ E

BENCHMARK #2
N: 786555.89
E: 1920586.05
Z=1155.83

BENCHMARKS:
AS PER THE TOPOGRAPHIC SURVEY PREPARED BY HULL & ASSOCIATES THE CONTRACTOR AND/OR HIS SURVEYOR SHALL BE RESPONSIBLE TO CROSS CHECK ALL CONTROL FOR DISTURBANCE PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.

BENCHMARK #1 & CNPT#1 - IRON PIN SET WITH RED CAP
ELEVATION = 1154.80

BENCHMARK #2 & CNPT#2 - IRON PIN SET WITH RED CAP
ELEVATION = 1155.83

BENCHMARK #999 - CHISELED DIAMOND ON HEADWALL
ELEVATION = 1152.21

CONTROL POINTS

1	786558.332	1920098.461	1154.800	CNPT IPINS W/RED TRAVERSE CAP
2	786555.893	1920586.053	1155.830	CNPT IPINS W/RED TRAVERSE CAP

℄ CURVE DATA - CR 16
P.I. Sta. 205+68.97
Δ = 55° 38′ 03″ (LT)
Dc = 22° 55′ 06″
R = 250.00′
T = 131.91′
L = 242.75′
E = 32.66′
C = 233.33′
C.B. = S 58° 32′ 09″ E

NOTE: THERE ARE NO EXISTING LANDSCAPED AREAS WITHIN THE WORK LIMITS.

N

0 25 50 100
HORIZONTAL SCALE IN FEET

CALCULATED MRO
CHECKED NRV

SCHEMATIC PLAN

LIC-CR16-0.007

(A) SE STA 160+00.00 =
CR 16 STA 206+80.89, 13.58' LT
NORTHING: 786,603.79
EASTING: 1,920,290.01

(B) SR STA 60+00.00 =
CR 16 STA 205+42.48, 1.12' LT
NORTHING: 786,636.23
EASTING: 1,920,160.79

(C) SL STA 70+00.00 =
CR 16 STA 205+42.47, 1.88' RT
NORTHING: 786,633.78
EASTING: 1,920,159.05

(D) SW STA 133+58.92 =
CR 16 STA 206+80.92, 14.42' RT
NORTHING: 786,575.85
EASTING: 1,920,288.26

(E) SW STA 130+00.00 =
US 62 STA 111+08.09, 12.00' RT
NORTHING: 786,676.48
EASTING: 1,919,961.25

(F) WR STA 20+00.00 =
US 62 STA 111+09.19, 0.00' RT
NORTHING: 786,687.36
EASTING: 1,919,956.06

(G) WL STA 30+00.00 =
US 62 STA 110+60.20, 0.00' RT
NORTHING: 786,662.33
EASTING: 1,919,913.95

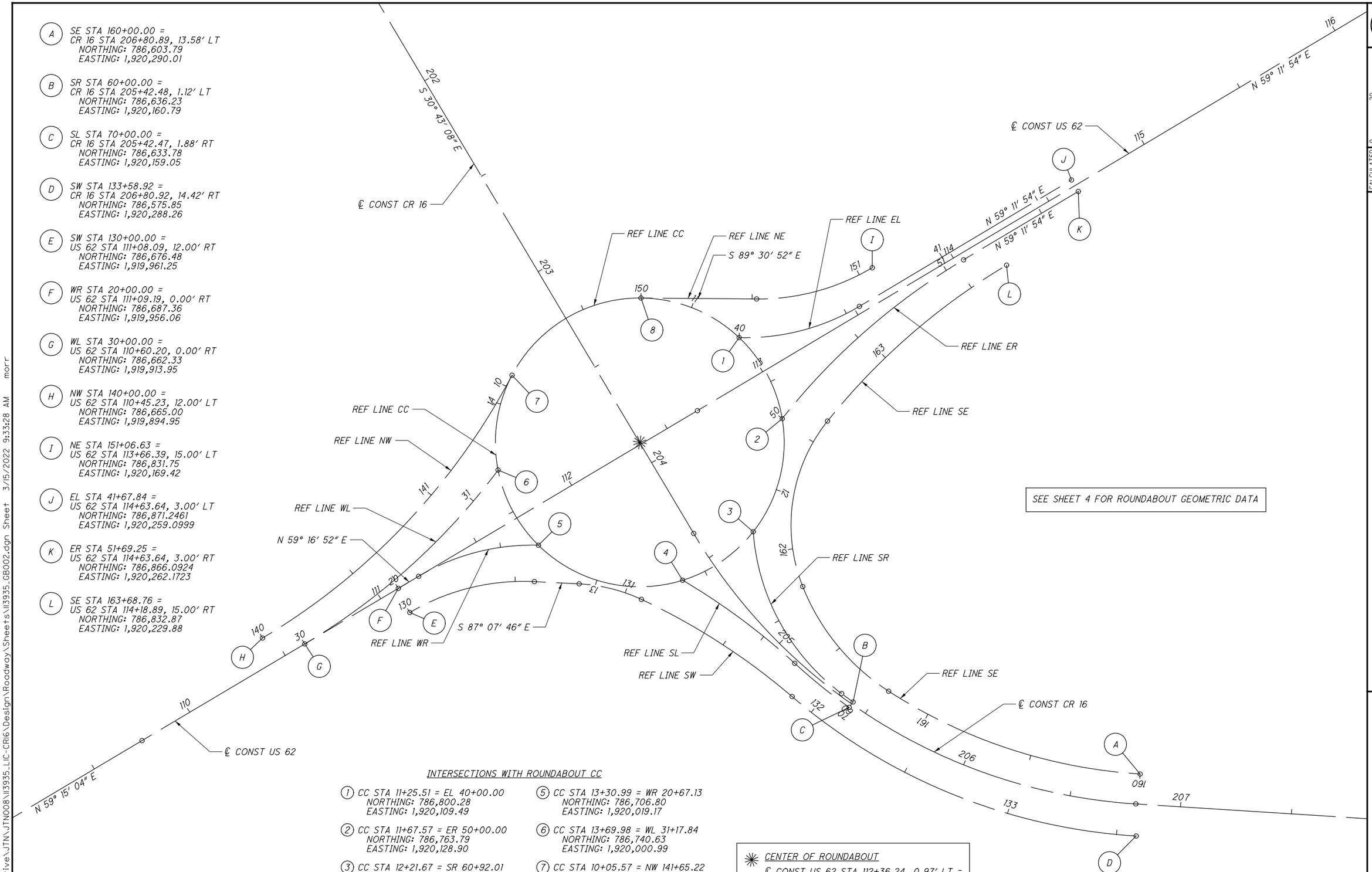
(H) NW STA 140+00.00 =
US 62 STA 110+45.23, 12.00' LT
NORTHING: 786,665.00
EASTING: 1,919,894.95

(I) NE STA 151+06.63 =
US 62 STA 113+66.39, 15.00' LT
NORTHING: 786,831.75
EASTING: 1,920,169.42

(J) EL STA 41+67.84 =
US 62 STA 114+63.64, 3.00' LT
NORTHING: 786,871.2461
EASTING: 1,920,259.0999

(K) ER STA 51+69.25 =
US 62 STA 114+63.64, 3.00' RT
NORTHING: 786,866.0924
EASTING: 1,920,262.1723

(L) SE STA 163+68.76 =
US 62 STA 114+18.89, 15.00' RT
NORTHING: 786,832.87
EASTING: 1,920,229.88



INTERSECTIONS WITH ROUNDABOUT CC

(1) CC STA 11+25.51 = EL 40+00.00
NORTHING: 786,800.28
EASTING: 1,920,109.49

(2) CC STA 11+67.57 = ER 50+00.00
NORTHING: 786,763.79
EASTING: 1,920,128.90

(3) CC STA 12+21.67 = SR 60+92.01
NORTHING: 786,712.88
EASTING: 1,920,115.86

(4) CC STA 12+60.82 = SL 70+94.47
NORTHING: 786,691.03
EASTING: 1,920,084.09

(5) CC STA 13+30.99 = WR 20+67.13
NORTHING: 786,706.80
EASTING: 1,920,019.17

(6) CC STA 13+69.98 = WL 31+17.84
NORTHING: 786,740.63
EASTING: 1,920,000.99

(7) CC STA 10+05.57 = NW 141+65.22
NORTHING: 786,783.33
EASTING: 1,920,007.25

(8) CC STA 10+76.77 = NE 150+00.00
NORTHING: 786,818.09
EASTING: 1,920,065.34

✳ CENTER OF ROUNDABOUT
℄ CONST US 62 STA 112+36.24, 0.97' LT =
℄ CONST CR 16 STA 203+89.42, 0.09' LT
RADIUS = 65.00'
NORTHING = 786,753.09
EASTING = 1,920,064.79

NOTE:
FOR PROPOSED GEOMETRY OF ℄ CONST US 62
AND ℄ CONST CR 16 SEE SHEET 2.

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED MRO
CHECKED NRV

ROUNDABOUT GEOMETRIC PLAN

LIC-CR16-0.007

3
44

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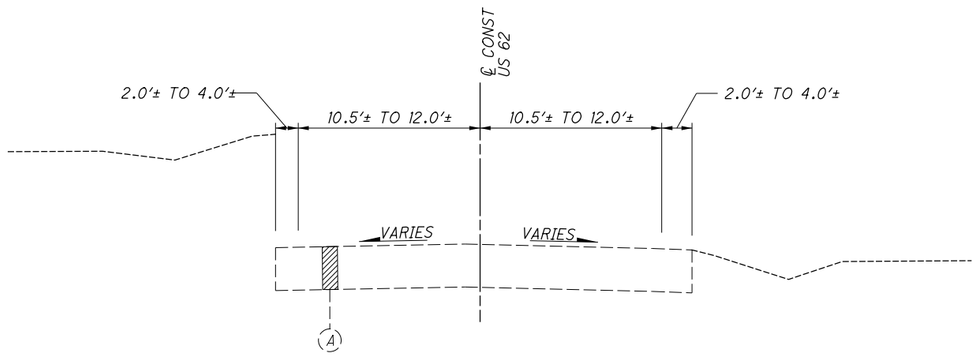
REF LINE	P.I. STATION	P.I. NORTHING	P.I. EASTING	D	Dc	TANGENT LENGTH (FT)	ARC LENGTH (FT)	RADIUS (FT)	BEGIN CURVE	END CURVE
CC	10+00.00	786,778.30	1,920,004.88	360°00'00"	N/A	N/A	408.41	65.00	10+00.00	14+08.41
EL	40+29.14	786,799.42	1,920,138.62	32°29'36" (LT)	57°17'45"	29.14	56.71	100.00	40+00.00	40+56.71
ER	50+55.18	786,807.05	1,920,163.14	20°50'33" (RT)	19°05'55"	55.18	109.13	300.00	50+00.00	51+09.13
NE	150+80.03	786,817.41	1,920,145.36	31°17'14" (LT)	57°17'45"	28.00	54.61	100.00	150+52.02	151+06.63
NW	140+84.76	786,708.30	1,919,967.82	31°33'19" (LT)	19°05'55"	84.77	165.22	300.00	140+00.00	141+65.22
SE	160+61.59	786,607.63	1,920,228.54	29°18'40" (RT)	24°19'46"	61.59	120.48	235.50	160+00.00	161+20.48
	161+52.47	786,658.43	1,920,149.95	35°29'14" (RT)	57°17'45"	32.00	61.94	100.00	161+20.48	161+82.41
	162+25.99	786,728.69	1,920,122.09	60°19'09" (RT)	76°23'40"	43.58	78.96	75.00	161+82.41	162+61.37
	163+15.65	786,805.07	1,920,183.25	20°30'37" (RT)	19°05'55"	54.28	107.39	300.00	162+61.37	163+68.76
SL	70+15.79	786,642.93	1,920,146.17	07°11'13" (RT)	22°46'54"	15.79	31.55	251.50	70+00.00	70+31.55
	70+63.12	786,674.97	1,920,111.28	12°01'01" (LT)	19°05'55"	31.58	62.92	300.00	70+31.55	70+94.47
	71+15.39	786,701.66	1,920,066.07	07°58'47" (LT)	19°05'55"	20.93	41.78	300.00	70+94.47	71+36.25
SR	60+03.19	786,638.08	1,920,158.18	01°28'23" (RT)	23°03'24"	3.19	6.39	248.50	60+00.00	60+06.39
	60+52.02	786,667.36	1,920,119.11	49°03'24" (RT)	57°17'45"	45.63	85.62	100.00	60+06.39	60+92.01
	60+92.51	786,713.38	1,920,115.82	00°34'15" (RT)	57°17'45"	0.50	1.00	100.00	60+92.01	60+93.00
SW	130+30.18	786,691.90	1,919,987.20	33°35'22" (RT)	57°17'45"	30.18	58.62	100.00	130+00.00	130+58.62
	130+93.51	786,688.64	1,920,052.19	22°13'48" (RT)	76°23'40"	14.73	29.10	75.00	130+78.78	131+07.88
	131+48.59	786,665.12	1,920,102.40	15°27'30" (RT)	19°05'55"	40.72	80.94	300.00	131+07.88	131+88.82
	132+76.95	786,581.34	1,920,200.30	36°59'18" (LT)	21°44'39"	88.14	170.11	263.50	131+88.82	133+58.92
WL	30+59.69	786,692.82	1,919,965.26	22°30'20" (LT)	19°05'55"	59.69	117.84	300.00	30+00.00	31+17.84
	31+38.76	786,757.39	1,920,013.52	07°58'47" (LT)	19°05'55"	20.93	41.78	300.00	31+17.84	31+59.62
WR	20+39.67	786,707.62	1,919,990.17	32°21'13" (RT)	57°17'45"	29.01	56.47	100.00	20+10.66	20+67.13
	20+68.21	786,706.77	1,920,020.24	01°14'09" (RT)	57°17'45"	1.08	2.16	100.00	20+67.13	20+69.29

HORIZONTAL SCALE IN FEET
0 0 0 0

CALCULATED MRO
CHECKED NRV

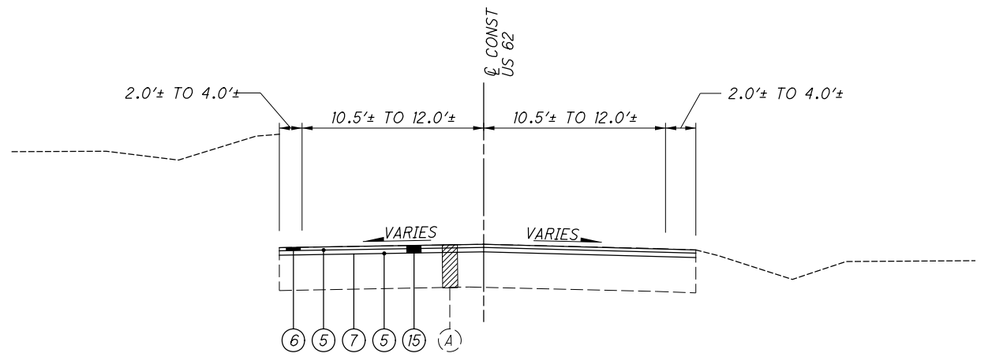
ROUNDABOUT GEOMETRIC PLAN

LIC-CR16-0.007



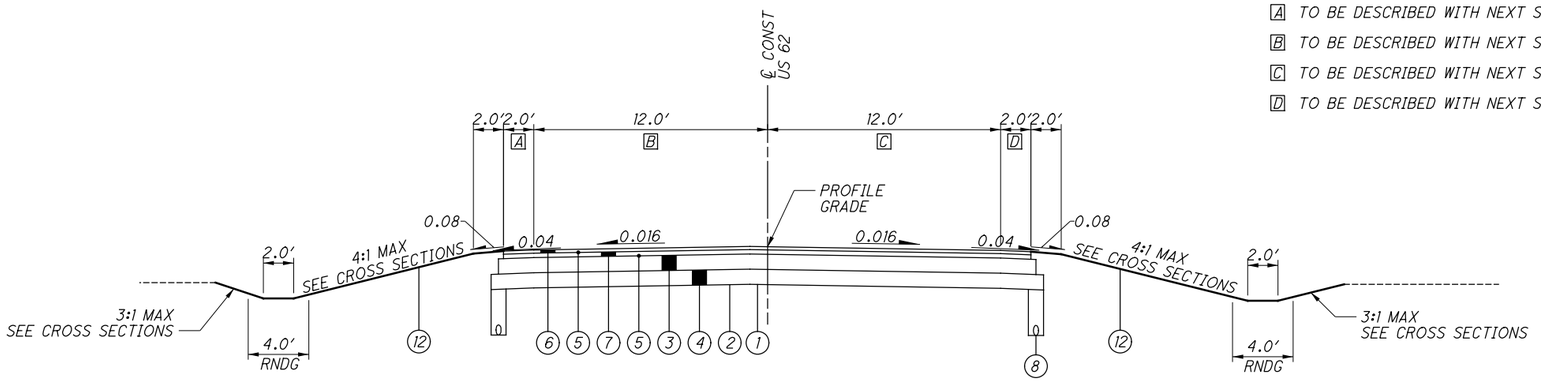
ADJOINING SECTION

STA 108+73.51 US 62 (JOHNSTOWN UTICA RD)
STA 117+25.00 US 62 (JOHNSTOWN UTICA RD)



RESURFACING SECTION

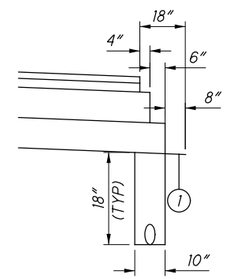
STA 108+48.51 STA 108+73.51 US 62 (JOHNSTOWN UTICA RD)
STA 117+25.00 TO STA 117+50.00 US 62 (JOHNSTOWN UTICA RD)



NORMAL SECTION

STA 108+73.51 TO STA 110+45.23 (US 62)
STA 115+00.00 TO STA 117+25.00 (US 62)

A TO BE DESCRIBED WITH NEXT SUBMITTAL
B TO BE DESCRIBED WITH NEXT SUBMITTAL
C TO BE DESCRIBED WITH NEXT SUBMITTAL
D TO BE DESCRIBED WITH NEXT SUBMITTAL



STEP DETAIL - US 62

NOT TO SCALE

LEGEND

1. ITEM 204 SUBGRADE COMPACTION
2. ITEM 204 PROOF ROLLING
3. ITEM 301 6" ASPHALT CONCRETE BASE, PG64-22
4. ITEM 304 6" AGGREGATE BASE
5. ITEM 407 NON-TRACKING TACK COAT (RATE PER TABLE 407.06-1) (PER ODOT C&MS)
6. ITEM 442 1 1/4" ASPHALT CONCRETE SURFACE COURSE, 9.5MM, TYPE A (446)
7. ITEM 442 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE A (446)
8. ITEM 605 4" BASE PIPE UNDERDRAINS
9. ITEM 609 COMBINATION CURB AND GUTTER, TYPE 2
10. ITEM 609 CURB, TYPE 6
11. ITEM 609 CURB, TYPE 3-B, AS PER PLAN - SEE DETAIL ON SHEET 9
12. ITEM 659 SEEDING AND MULCHING (TOPSOIL = 4")
13. ITEM 452 NON-REINFORCED CONCRETE PAVEMENT MISC.: 8" TRUCK APRON STAINED - SEE DETAIL ON SHEET 10
14. ITEM 609 6" CONCRETE TRAFFIC ISLAND, AS PER PLAN, TOOLED AND STAINED
15. ITEM 254 PAVEMENT PLANING, ASPHALT CONCRETE, 3"
16. ITEM 452 6" NON-REINFORCED CONCRETE PAVEMENT CLASS QC1 (DRIVEWAY)
17. ITEM 452 8" NON-REINFORCED CONCRETE PAVEMENT CLASS QC1 (DRIVEWAY)

A. EX ASPHALT PAVEMENT

TYPICAL SECTIONS - US 62

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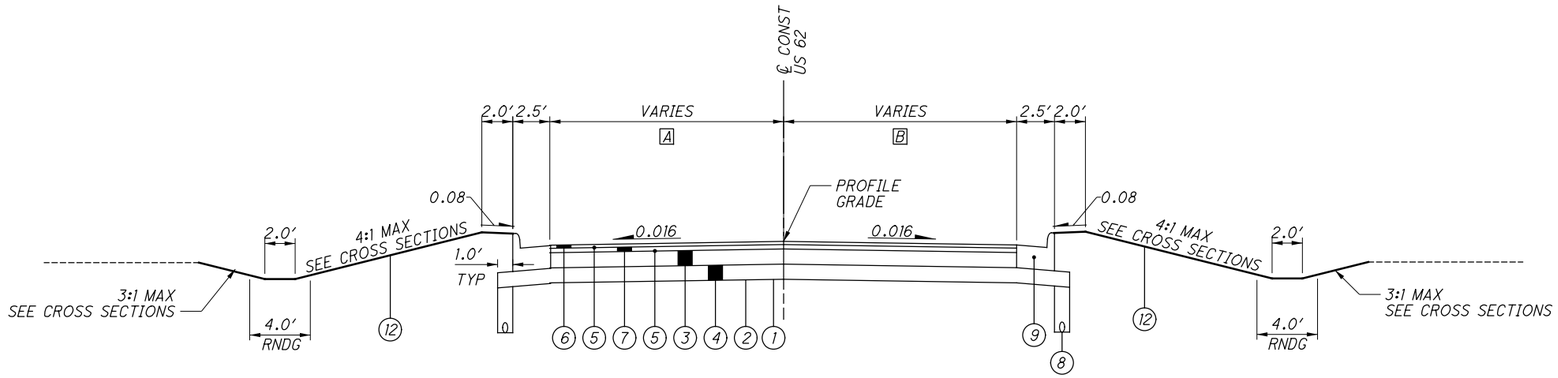

NORMAL SECTION

STA 110+45.23 TO STA 111+07.19 (US 62)

A TO BE DESCRIBED WITH NEXT SUBMITTAL

B TO BE DESCRIBED WITH NEXT SUBMITTAL

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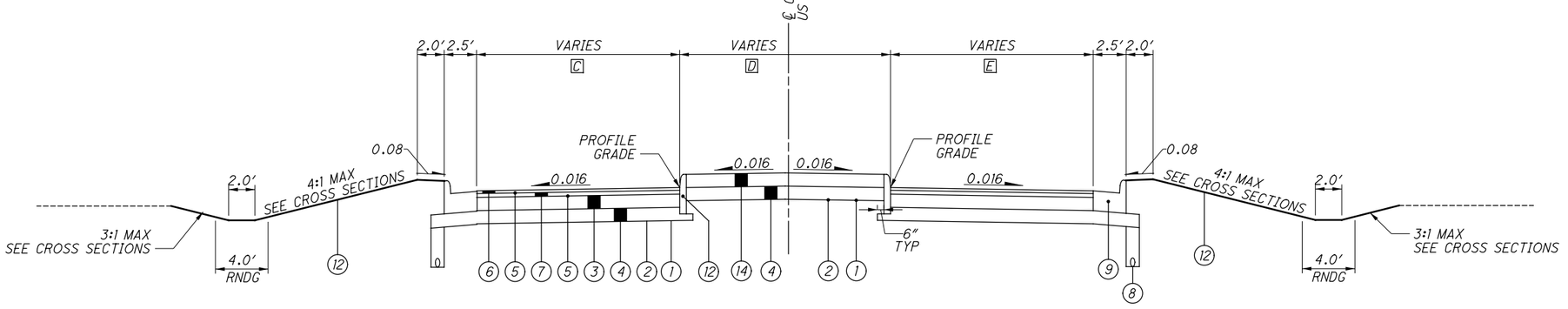
D TO BE DESCRIBED WITH NEXT SUBMITTAL

E TO BE DESCRIBED WITH NEXT SUBMITTAL

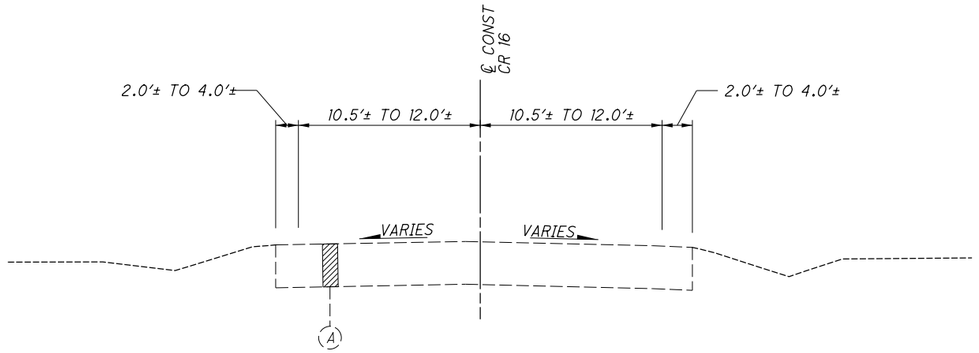


NORMAL SECTION

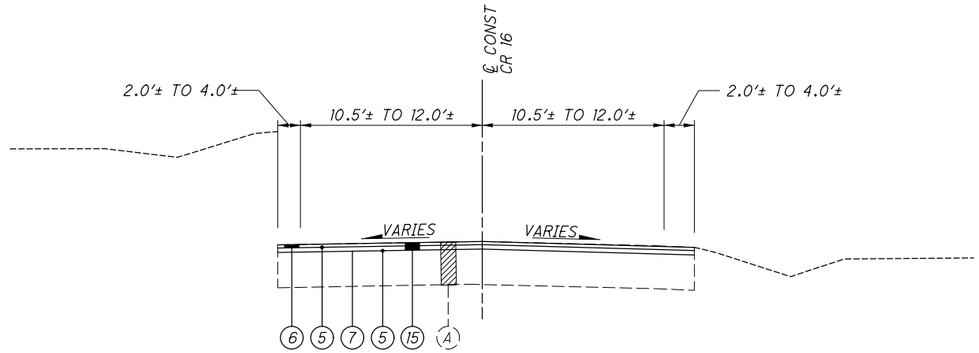
STA 111+07.19 TO STA 111+69.07 (US 62)
SEE ROUNDABOUT DETAIL
STA 113+03.55 TO STA 115+00.00 (US 62)

TYPICAL SECTIONS - US 62

LIC-CR16-0.007



ADJOINING SECTION
STA 207+85.91 CR 16 (SPORTSMAN CLUB RD)



RESURFACING SECTION
STA 207+85.91 TO STA 208+10.91 CR 16 (SPORTSMAN CLUB RD)

A TO BE DESCRIBED WITH NEXT SUBMITTAL
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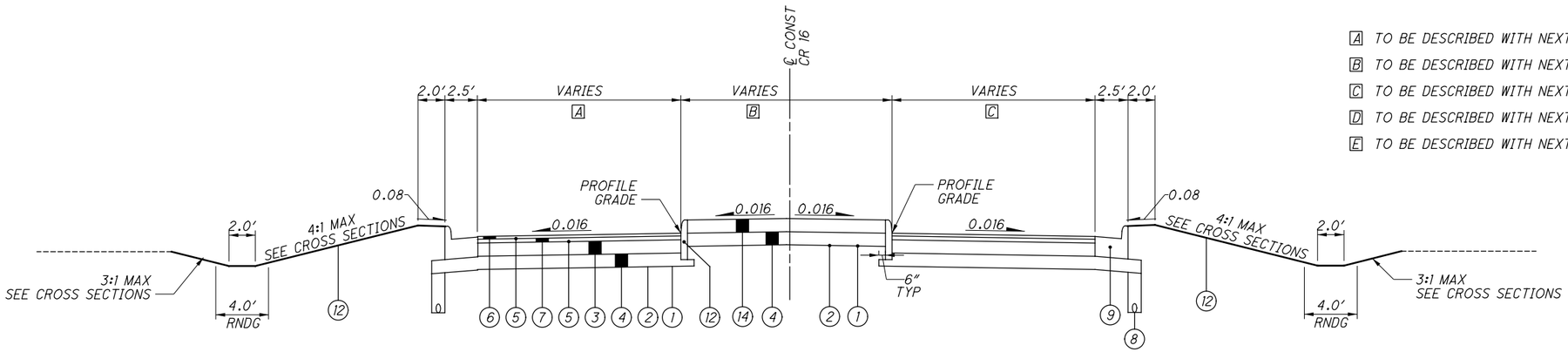
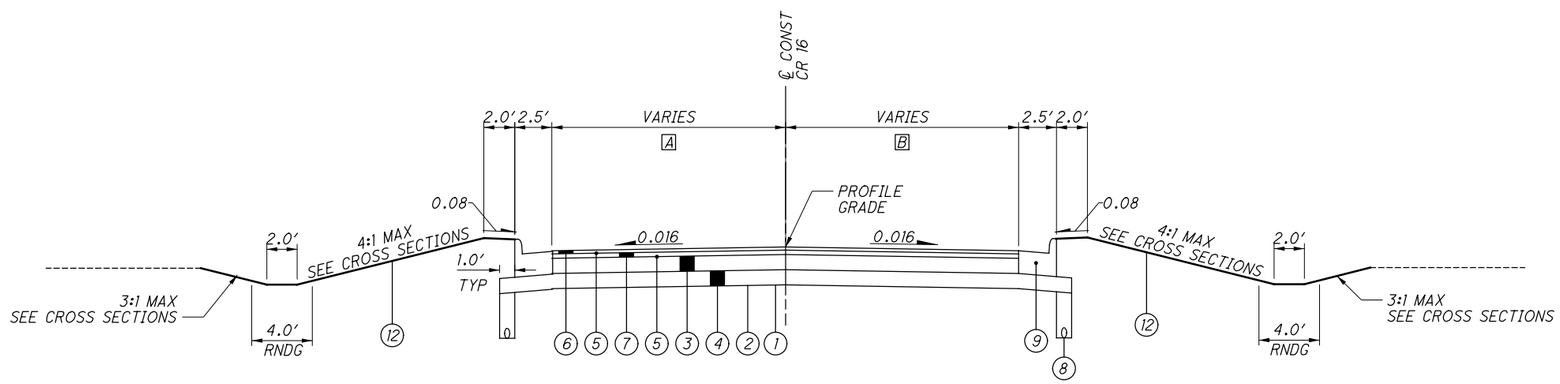


NORMAL SECTION
SEE ROUNDABOUT DETAIL BEFORE STA 204+57.07 (CR 16)
STA 204+57.07 TO STA 205+43.97 (CR 16)



NORMAL SECTION
STA 205+43.97 TO STA 206+80.90 (CR 16)

TYPICAL SECTIONS - CR 16

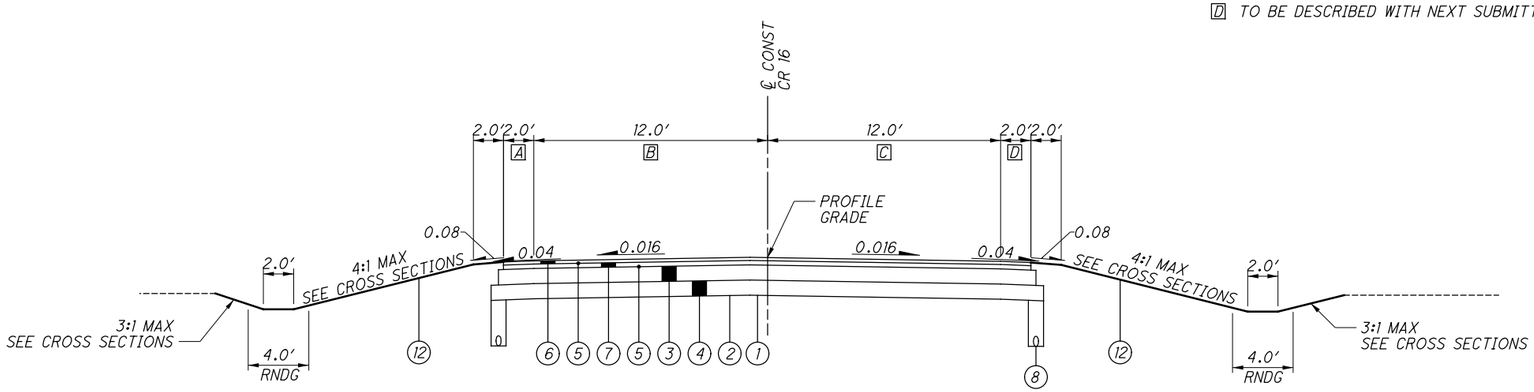
LIC-CR16-0.007

A TO BE DESCRIBED WITH NEXT SUBMITTAL

B TO BE DESCRIBED WITH NEXT SUBMITTAL

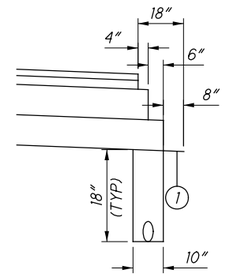
C TO BE DESCRIBED WITH NEXT SUBMITTAL

D TO BE DESCRIBED WITH NEXT SUBMITTAL



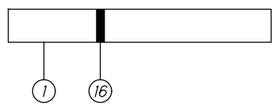
NORMAL SECTION

STA 206+80.90 TO STA 207+85.91 (CR 16)

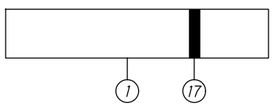


STEP DETAIL - CR 16

NOT TO SCALE



RESIDENTIAL DRIVE DETAIL



COMMERCIAL DRIVE DETAIL

TYPICAL SECTIONS - CR 16

LIC-CR16-0.007

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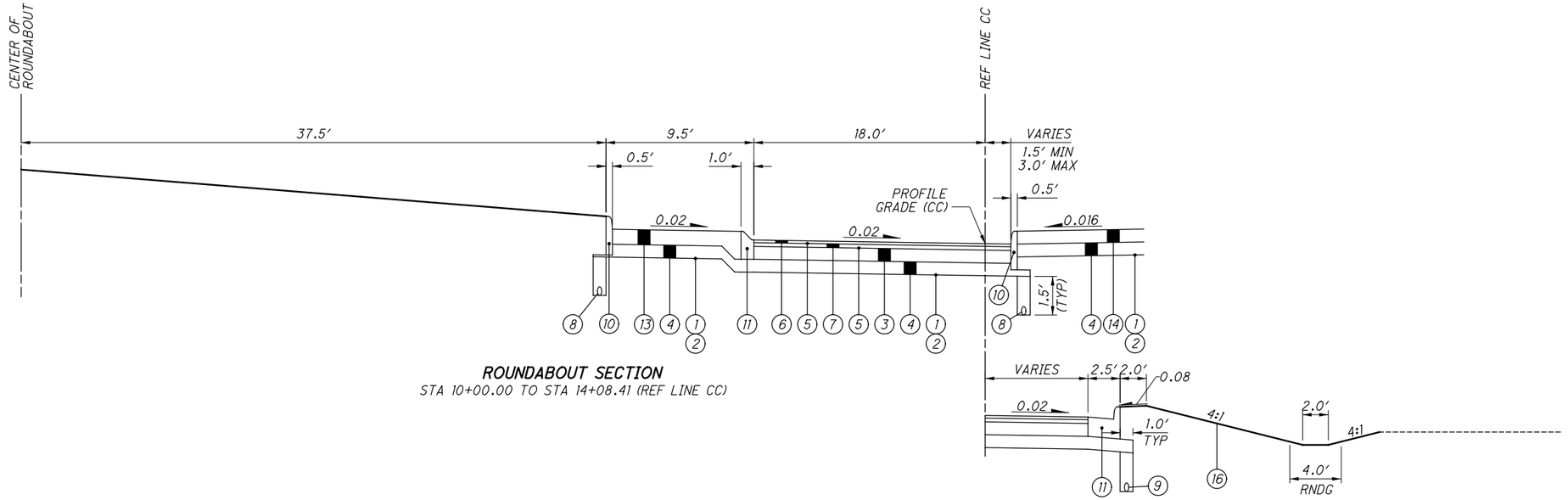
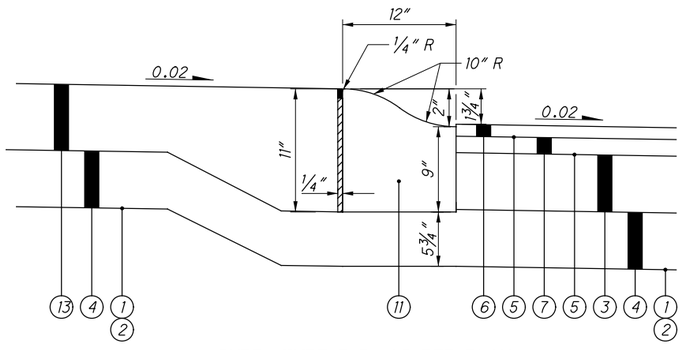
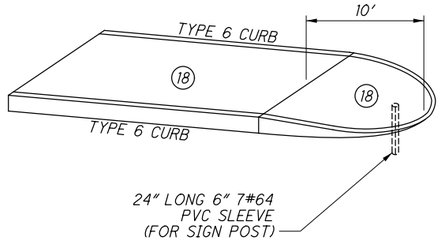
44



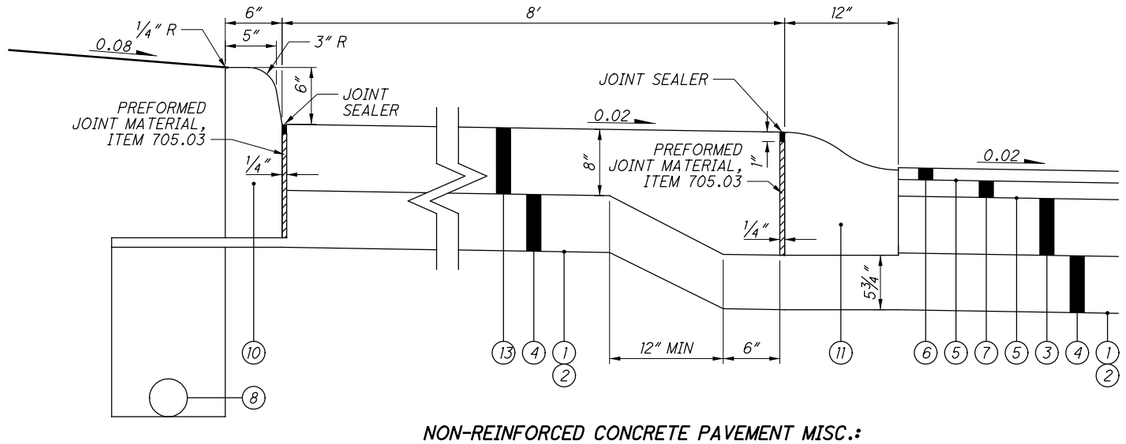
ROUNDABOUT SECTION
STA 10+00.00 TO STA 14+08.41 (REF LINE CC)



CURB, TYPE 3-B, AS PER PLAN
NOT TO SCALE



TRAFFIC ISLAND TAPER DETAIL
NOT TO SCALE



NON-REINFORCED CONCRETE PAVEMENT MISC.:
8″ TRUCK APRON STAINED
NOT TO SCALE

TYPICAL SECTIONS - ROUNDABOUT

LIC-CR16-0.007

UTILITIES

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

AEP - AMERICAN ELECTRIC POWER
850 TECH CENTER SR
GAHANNA, OH 43230
6141-883-6831

COLUMBIA GAS OF OHIO
3550 JOHNY APPLESEED CT
COLUMBUS, OH 43231
614-818-2133

THE CITY OF JOHNSTOWN
599 SOUTH MAIN ST
P.O. BOX 457
740-967-4746

LICKING RURAL ELECTRIC
11339 MOUNT VERNON RD
P.O. BOX 455
UTICA, OH 43080
740-348-1149

EVERSTREAM SOLUTIONS
1228 EUCLID AVE, SUITE 250
CLEVELAND, OH 44115
844-733-4700
support@everstream.net

EVERSTREAM SOLUTIONS
1228 EUCLID AVE, SUITE 250
CLEVELAND, OH 44115
844-733-4700
support@everstream.net

CENTURY LINK
441 WEST BROAD ST
PATASKALA, OH 43062
740-927-8282

CHARTER COMM (SPECTRUM/TIME WARNER)
3760 INTERCHANGE RD
COLUMBUS, OH 43204
614-481-5262

THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS AS REQUIRED BY SECTION 153.64 O.R.C.

SURVEYING PARAMETERS

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

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

PROJECT CONTROL

POSITIONING METHOD: ODOT VRS
MONUMENT TYPE: "B"

VERTICAL POSITIONING

ORTHOMETRIC HEIGHT DATUM: NAVD 1988
GEOID: GEOID 12A

HORIZONTAL POSITIONING

REFERENCE FRAME: NAD83 (2011)
ELLIPSOID: GRS 1980
MAP PROJECTION: LAMBERT CONFORMAL CONIC
COORDINATE SYSTEM: OHIO SOUTH (NSRS 2011)
COMBINED SCALE FACTOR: N/A (GROUND TO GRID)
ORIGIN OF COORDINATE
SYSTEM: 0, 0

USE THE POSITIONING METHODS AND MONUMENT TYPE USED IN THE ORIGINAL SURVEY TO RESTORE ALL MONUMENTS RELATED TO PRIMARY PROJECT CONTROL THAT ARE DAMAGED OR DESTROYED BY CONSTRUCTION ACTIVITIES. RESTORE THE DAMAGED OR DESTROYED MONUMENTS IN ACCORDANCE WITH SUPPLEMENTAL SPECIFICATION 823.

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

WORK LIMITS

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

ROUNDING

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

CONSTRUCTION NOISE

ACTIVITIES AND LAND USE ADJACENT TO THIS PROJECT MAY BE AFFECTED BY CONSTRUCTION NOISE. IN ORDER TO MINIMIZE ANY ADVERSE CONSTRUCTION NOISE IMPACTS, DO NOT OPERATE POWER-OPERATED CONSTRUCTION-TYPE DEVICES BETWEEN THE HOURS OF 8:00PM AND 7:00AM. IN ADDITION, DO NOT OPERATE AT ANY TIME ANY DEVICE IN SUCH A MANNER THAT THE NOISE CREATED SUBSTANTIALLY EXCEEDS THE NOISE CUSTOMARILY AND NECESSARILY ATTENDANT TO THE REASONABLE AND EFFICIENT PERFORMANCE OF SUCH EQUIPMENT.

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.

SEEDING AND MULCHING

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

659, SOIL ANALYSIS TEST	3 EACH
659, SEEDING AND MULCHING	8,410 SQ. YD.
659, TOPSOIL	934 CU. YD.
659, REPAIR SEEDING AND MULCHING	421 SQ. YD.
659, INTER-SEEDING	421 SQ. YD.
659, COMMERCIAL FERTILIZER	0.76 TON
659, LIME	1.74 ACRES
659, WATER	45 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.

ITEM 204 - GEOTEXTILE FABRIC

PREPARE AND SMOOTH OUT THE AREAS AND PLACE THE GEOTEXTILE FABRIC IN THE SPLITTER ISLANDS AND INSIDE THE ROUNDABOUT AS DETAILED IN THE PLANS.

REVIEW OF DRAINAGE FACILITIES

BEFORE ANY WORK IS STARTED ON THE PROJECT AND AGAIN BEFORE FINAL ACCEPTANCE BY THE STATE, REPRESENTATIVES OF THE STATE AND THE CONTRACTOR, ALONG WITH LOCAL REPRESENTATIVES, SHALL MAKE AN INSPECTION OF ALL EXISTING SEWERS WHICH ARE TO REMAIN IN SERVICE AND WHICH MAY BE AFFECTED BY THE WORK. THE CONDITION OF THE EXISTING CONDUITS AND THEIR APPURTENANCE SHALL BE DETERMINED FROM FIELD OBSERVATIONS. RECORDS OF THE INSPECTION SHALL BE KEPT IN WRITING BY THE STATE.

ALL NEW CONDUITS, INLETS, CATCH BASINS, AND MANHOLES CONSTRUCTED AS A PART OF THE PROJECT SHALL BE FREE OF ALL FOREIGN MATTER AND IN A CLEAN CONDITION BEFORE THE PROJECT WILL BE ACCEPTED BY THE STATE.

ALL EXISTING SEWERS INSPECTED INITIALLY BY THE ABOVE MENTIONED PARTIES SHALL BE MAINTAINED AND LEFT IN A CONDITION REASONABLY COMPARABLE TO THAT DETERMINED BY THE ORIGINAL INSPECTION. ANY CHANGE IN THE CONDITION RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE CORRECTED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER.

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

CROSSINGS AND CONNECTIONS TO EXISTING PIPES AND UTILITIES

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

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

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

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

CALCULATED MRO
CHECKED NRV

GENERAL NOTES

LIC-CR16-0.007

ITEM 611 - FARM DRAINS

ALL FARM DRAINS, WHICH ARE ENCOUNTERED DURING CONSTRUCTION, SHALL BE PROVIDED WITH UNOBSTRUCTED OUTLETS. EXISTING COLLECTORS WHICH ARE LOCATED BELOW THE ROADWAY DITCH ELEVATIONS, AND WHICH CROSS THE ROADWAY, SHALL BE REPLACED WITHIN THE (RIGHT OF WAY) (CONSTRUCTION) LIMITS BY ITEM 611 CONDUIT, TYPE B, ONE COMMERCIAL SIZE LARGER THAN THE EXISTING CONDUIT.

EXISTING COLLECTORS AND ISOLATED FARM DRAINS, WHICH ARE ENCOUNTERED ABOVE THE ELEVATION OF ROADWAY DITCHES, SHALL BE OUTLETTED INTO THE ROADWAY DITCH BY 611 TYPE F CONDUIT. THE OPTIMUM OUTLET ELEVATION SHALL BE ONE FOOT ABOVE THE FLOWLINE ELEVATION OF THE DITCH. LATERAL FIELD TILES WHICH CROSS THE ROADWAY SHALL BE INTERCEPTED BY 611, TYPE E CONDUIT, AND CARRIED IN A LONGITUDINAL DIRECTION TO AN ADEQUATE OUTLET OR ROADWAY CROSSING.

THE LOCATION, TYPE, SIZE AND GRADE OF REPLACEMENTS SHALL BE DETERMINED BY THE ENGINEER AND PAYMENT SHALL BE MADE ON FINAL MEASUREMENTS.

EROSION CONTROL PADS SHALL BE PROVIDED AT THE OUTLET END OF ALL FARM DRAINS AS PER STANDARD CONSTRUCTION DRAWING DM-1.1, EXCEPT WHEN THEY OUTLET INTO A DRAINAGE STRUCTURE. PAYMENT FOR THE EROSION CONTROL PADS AND ANY NECESSARY BENDS OR BRANCHES SHALL BE INCLUDED FOR PAYMENT IN THE PERTINENT CONDUIT ITEMS.

PAYMENT FOR ALL LABOR AND MATERIALS WILL BE PERFORMED BY CHANGE ORDER.

ITEM 611 - RESIDENTIAL AND COMMERCIAL DRAINAGE CONNECTIONS

EXISTING ROOF DRAINS, FOOTER DRAINS, OR YARD DRAINS, DISTURBED BY THE WORK, SHALL BE PROVIDED WITH UNOBSTRUCTED OUTLETS BY CONNECTING A CONDUIT THROUGH THE CURB OR INTO A DRAINAGE STRUCTURE. THE LOCATION, TYPE, SIZE AND GRADE OF THE NEW CONDUIT REQUIRED TO REPLACE OR EXTEND THE EXISTING DRAIN WILL BE DETERMINED BY THE ENGINEER.

THE FOLLOWING CONDUIT TYPES MAY BE USED: 707.33, 707.41 NON-PERFORATED, 707.42, 707.43, 707.45, 707.46, 707.47, 707.51, 707.52 SDR35.

PAYMENT FOR ALL LABOR AND MATERIALS WILL BE PERFORMED BY CHANGE ORDER

ITEM 609 - CURB, TYPE 3-B, AS PER PLAN

CURB SHALL BE IN ACCORDANCE WITH THE PLANS AND SECTION 609 OF THE ODOT STANDARD SPECIFICATIONS AND STANDARD CONSTRUCTION DRAWING BP-5.1, AND AS SHOWN ON THE DETAIL IN THIS PLAN. CURB HEIGHT VARIES FROM STANDARD DRAWING, AND SHALL BE 2". CURB WIDTH SHALL BE 12"

MANUFACTURED WATER QUALITY STRUCTURE

THIS PLAN UTILIZES MANUFACTURED WATER QUALITY STRUCTURES FOR WATER QUALITY TREATMENT. AREAS HAVE BEEN SHOWN IN THE PLANS FOR PLACEMENT OF AN OFF-LINE SYSTEM. PAYMENT FOR THESE DEVICES SHALL BE MADE AT THE CONTRACT UNIT PRICE FOR ITEM 895, MANUFACTURED WATER QUALITY STRUCTURE, TYPE 2.

ITEM SPECIAL - MAILBOX SUPPORT

THIS WORK SHALL CONSIST OF FURNISHING AND ERECTING MAILBOX SUPPORTS AND ANY ASSOCIATED MOUNTING HARDWARE IN ACCORDANCE WITH PLAN DETAILS, AND ATTACHING AN OWNER-SUPPLIED MAILBOX AT LOCATIONS SPECIFIED IN THE PLAN, OR OTHERWISE ESTABLISHED BY THE ENGINEER.

WOOD POSTS SHALL BE NOMINAL 4 INCHES BY 4 INCHES SQUARE OR 4.5 INCHES DIAMETER ROUND, AND CONFORM TO 710.14.

STEEL POSTS SHALL BE NOMINAL PIPE SIZE 2 INCHES I.D., AND CONFORM TO AASHTO M 181.

ALL HARDWARE INCLUDING BUT NOT LIMITED TO PLATES, SCREWS, BOLTS, AND ETC. SHALL BE COMMERCIAL-GRADE GALVANIZED STEEL.

POSTS SHALL BE SET PER THE FIRST PARAGRAPH OF 606.03, AND SHALL IN NO INSTANCE BE ENCASED IN CONCRETE.

SUPPORT HARDWARE SHALL ACCOMMODATE EITHER A SINGLE OR A DOUBLE MAILBOX INSTALLATION, AND NO MORE THAN TWO BOXES MAY BE MOUNTED ON A SINGLE POST.

THE MAILBOX SHALL BE SECURELY AND NEATLY ATTACHED BY THE CONTRACTOR TO THE NEW SUPPORT. THE CONTRACTOR SHALL FURNISH ALL NECESSARY ATTACHMENT HARDWARE (NUTS, BOLTS, PLATES, SPACERS, AND WASHERS) AS NECESSARY TO ACCOMMODATE THE COMPLETE INSTALLATION.

IN THE ABSENCE OF A NEW BOX SUPPLIED BY THE OWNER, THE CONTRACTOR SHALL SALVAGE THE EXISTING BOX AND PLACE IT ON THE NEW SUPPORT. DUE CARE SHALL BE EXERCISED IN SUCH AN OPERATION, AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING OR REPLACING ANY BOX DAMAGED BY IMPROPER HANDLING ON HIS PART, AS JUDGED AND DIRECTED BY THE ENGINEER.

IN THE ABSENCE OF A NEW BOX SUPPLIED BY THE OWNER, THE CONTRACTOR SHALL SALVAGE THE EXISTING BOX AND PLACE IT ON THE NEW SUPPORT. DUE CARE SHALL BE EXERCISED IN SUCH AN OPERATION, AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING OR REPLACING ANY BOX DAMAGED BY IMPROPER HANDLING ON HIS PART, AS JUDGED AND DIRECTED BY THE ENGINEER.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE LOCAL POST MASTER REGARDING THE TIMING OF THE MOVEMENT OF ANY MAILBOX TO A NEW LOCATION.

PAYMENT UNDER THIS ITEM SHALL BE LIMITED TO FINAL PERMANENT INSTALLATIONS. TEMPORARY INSTALLATIONS SHALL BE IN ACCORDANCE WITH 107.10. HOWEVER, THE SAME MATERIAL AND SIZE LIMITATIONS AS FOR PERMANENT INSTALLATIONS SHALL APPLY.

MAILBOX SUPPORTS, COMPLETE IN PLACE, WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH, FOR ITEM SPECIAL MAILBOX SUPPORT SYSTEM, (SINGLE) (DOUBLE).

ITEM 452 - NON-REINFORCED CONCRETE PAVEMENT, MISC.: 8" TRUCK APRON STAINED

THIS WORK SHALL CONSIST OF CONSTRUCTING THE CONCRETE INCLUDING A STAIN COLORING FOR THE ROUNDABOUT TRUCK APRON.

MATERIALS:

A. CONCRETE SHALL BE IN ACCORDANCE WITH THE PLANS AND SECTION 452 OF THE ODOT STANDARD SPECIFICATIONS. DO NOT COMPLY WITH THE REQUIREMENTS OF 451.14. CONCRETE SHALL BE CLASS QC1 WITH QC/QA.

B. THE CONCRETE COLOR SHALL BE "NATURAL GRAY" AS MANUFACTURED BY BOMANITE OR APPROVED EQUAL; PHONE 303-369-1115, E-MAIL INFO@BOMANITE.COM, OR INTERNET WWW.BOMANITE.COM.

C. COLORED CONCRETE WILL BE AN INTEGRAL COLORING APPLICATION, WITH COLORING ADDITIVES MIXED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. MIX UNTIL COLOR ADDITIVES ARE UNIFORMLY DISPERSED THROUGHOUT MIXTURE. COLOR SHALL BE UNIFORM THROUGHOUT THE CONCRETE.

D. CURING COMPOUND FOR COLORED CONCRETE: CURING COMPOUND SHALL COMPLY WITH ASTM C309 AND BE APPROVED BY COLOR ADDITIVE MANUFACTURER FOR USE WITH COLORED CONCRETE. PROVIDE JS CLEAR COAT SEALER OR APPROVED EQUAL ON ALL SURFACES.

E. ADMIXTURES: DO NOT USE CALCIUM CHLORIDE ADMIXTURES.

CONSTRUCTION REQUIREMENTS:

A. PREPARE SUBGRADE AND INSTALL COLORED CONCRETE IN ACCORDANCE WITH THE PLANS AND SECTION 452 OF THE ODOT STANDARD SPECIFICATIONS, EXCEPT AS NOTED HEREIN.

B. FINISH: COLORED CONCRETE SHALL HAVE A BROOMED FINISH. PULL BROOM ACROSS FRESHLY FLOATED CONCRETE TO PRODUCE TEXTURE INDICATED IN STRAIGHT LINES PERPENDICULAR TO MAIN LINE OF TRAFFIC. DO NOT DAMPEN BROOMS. ROUNDABOUT TRUCK APRONS SHALL HAVE A LIGHT BROOM FINISH.

C. CURING: APPLY CURING COMPOUND FOR COLORED CONCRETE IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. APPLY CURING COMPOUND AT CONSISTENT TIME FOR EACH POUR TO MAINTAIN CLOSE COLOR CONSITENCY.

D. PROTECT ADJACENT FINISHED SURFACES FROM SPLATTERS.

E. DO NOT ADD WATER TO CONCRETE AT JOB SITE, FOG OR SPRAY SURFACE WITH WATER, OR PUT INTO PUMPS OR ONTO TOOLS OR BROOMS.

F. DO NOT APPLY COLOR ADDITIVES MEANT FOR INTEGRAL COLORING TO SURFACE OF CONCTETE.

PAYMENT WILL INCLUDE THE COST OF FURNISHING AND PLACING ALL OF THE MATERIALS, FINISHING, AND TESTING. THE DEPARTMENT WILL PAY FOR ACCEPTED QUANTITIES AT THE CONTRACT PRICE PER SQUARE YARD FOR ITEM 452 - NON-REINFORCED CONCRETE PAVEMENT, MISC.: 8" TRUCK APRON STAINED.

CALCULATED MRO
CHECKED NRV

GENERAL NOTES

LIC-CR16-0.007

ITEM 609 - 6" CONCRETE TRAFFIC ISLAND, AS PER PLAN, TOOLED AND STAINED

THIS WORK SHALL CONSIST OF CONSTRUCTING THE COLORING AND JOINTING OF CONCRETE FOR THE SPLITTER ISLANDS.

MATERIALS:

A. CONCRETE SHALL BE IN ACCORDANCE WITH THE PLANS AND SECTION 609 OF THE ODOT STANDARD SPECIFICATIONS.

B. THE CONCRETE COLOR IS TO MATCH THE TRUCK APRON AND SHALL BE "BRICK RED" AS MANUFACTURED BY BROMANITE OR APPROVED EQUAL; PHONE 303-369-1115, E-MAIL INFO@BOMANITE.COM, OR INTERNET WWW. BOMANITE.COM.

C. COLORED CONCRETE WILL BE AN INTEGRAL COLORING APPLICATION, WITH COLORING ADDITIVES MIXED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. MIX UNTIL COLOR ADDITIVES ARE UNIFORMLY DISPERSED THROUGHOUT MIXTURE. COLOR SHALL BE UNIFORM THROUGHOUT THE CONCRETE.

D. CURING COMPOUND FOR COLORED CONCRETE: CURING COMPOUND SHALL COMPLY WITH ASTM C309 AND BE APPROVED BY COLOR ADDITIVE MANUFACTURER FOR USE WITH COLORED CONCRETE. PROVIDE JS CLEAR COAT SEALER OR APPROVED EQUAL ON ALL SURFACES.

E. ADMIXTURES: DO NOT USE CALCIUM CHLORIDE ADMIXTURES.

CONSTRUCTION REQUIREMENTS:

A. PREPARE SUBGRADE AND INSTALL COLORED CONCRETE IN ACCORDANCE WITH THE PLANS AND SECTION 609 OF THE ODOT STANDARD SPECIFICATIONS , EXCEPT AS NOTED HEREIN.

B. JOINTS SHALL BE TOOLED IN PATTERNS INDICATED ON PLANS, OR AS NOTED HEREIN. (PATTERN: BRICK RUNNING BOND). THE SPLITTER ISLANDS SHALL BE SCORED IN A 24-INCH RUNNING BOND PATTERN PERPENDICULAR TO THE REFERENCE LINE THAT THE SPLITTER ISLAND IS CONSTRUCTED.

C. TOOLED JOINTS: FORM JOINTS AFTER INITIAL FLOATING BY GROOVING AND FINISHING EACH EDGE OF JOINT WITH GROOVING TOOL TO A 1/4-INCH RADIUS. REPEAT GROOVING OF CONSTRUCTION JOINTS AFTER APPLYING SURFACE FINISHES. ELIMINATE TOOL MARKS ON CONCRETE SURFACES. EDGES OF COLORED CONCRETE NOT CONTAINED BY STANDARD CONCRETE SHALL BE TOOLED IN THE SAME MANNER.

D. FINISH: COLORED CONCRETE SHALL HAVE A BROOMED FINISH. PULL BROOM ACROSS FRESHLY FLOATED CONCRETE TO PRODUCE TEXTURE INDICATED IN STRAIGHT LINES PERPENDICULAR TO MAIN LINE OF TRAFFIC. DO NOT DAMPEN BROOMS. ROUNDABOUT TRUCK APRONS SHALL HAVE A LIGHT BROOM FINISH.

E. CURING: APPLY CURING COMPOUND FOR COLORED CONCRETE IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. APPLY CURING COMPOUND AT CONSISTENT TIME FOR EACH POUR TO MAINTAIN CLOSE COLOR CONSISTENCY.

F. PROTECT ADJACENT FINISHED SURFACES FROM SPLATTERS.

G. DO NOT ADD WATER TO CONCRETE AT JOB SITE, FOG OR SPRAY SURFACE WITH WATER, OR PUT INTO PUMPS OR ONTO TOOLS OR BROOMS.

H. DO NOT APPLY COLOR ADDITIVES MEANT FOR INTEGRAL COLORING TO SURFACE OF CONCRETE.

PAYMENT WILL INCLUDE THE COST OF FURNISHING AND PLACING ALL OF THE MATERIALS, FINISHING, AND TESTING. THE DEPARTMENT WILL PAY FOR ACCEPTED QUANTITIES AT THE CONTRACT PRICE PER SQUARE YARD FOR ITEM 609 - 6" CONCRETE TRAFFIC ISLAND, AS PER PLAN, TOOLED AND STAINED.

ITM 632 - REMOVAL OF TRAFFIC SIGNAL INSTALLATION

TRAFFIC SIGNAL INSTALLATIONS, INCLUDING SIGNAL HEADS, CABLE, MESSENGER WIRE, STRAIN POLES, CABINET, CONTROLLER, ETC., SHALL BE REMOVED IN ACCORDANCE WITH CMS 632.26 AND AS INDICATED ON THE PLANS. REMOVED ITEMS SHALL BE STORED ON THE PROJECT FOR SALVAGE BY ODOT.

ITEMS TO BE STORED

SIGNAL HEADS, CABLE, MESSENGER WIRE, STRAIN POLES, CABINET, AND CONTROLLER.

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

SALVAGE OF TRAFFIC SIGNAL ITEMS SHALL BE COORDINATED WITH STEVE FRANKS - ODOT DISTRIC 3 TRAFFIC (419-207-7184) CONTRACTOR SHALL PROVIDE NOTIFICATION 5 DAYS IN ADVANCE OF REMOVAL AND STORAGE.

ITEM 657 - RIPRAP FOR TREE PROTECTION, AS PER PLAN

THIS WORK CONSISTS OF FURNISHING AND PLACING RIPRAP ON TOP OF THE GEOTEXTILE FABRIC WITHIN THE CIRCLE AREA OF THE ROUNDABOUT AS SHOWN IN THE PLANS.

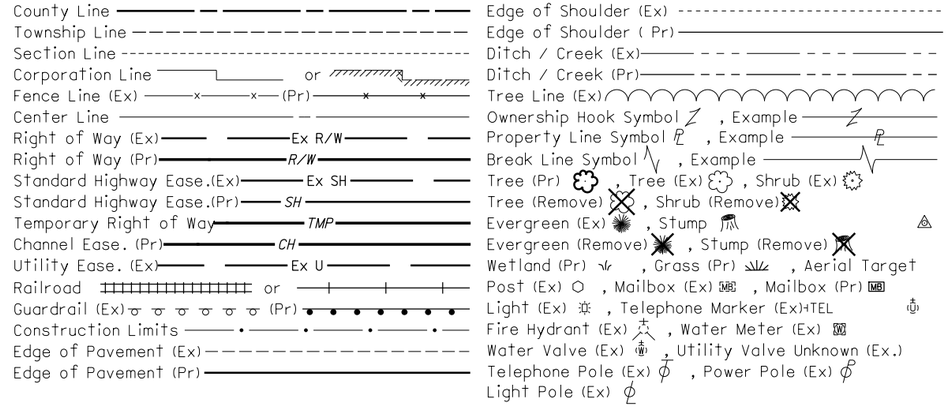
MATERIALS:

USE A NON-CRUSHED NATURAL ROCK GRAVEL. LIMESTONE IS NOT ACCEPTABLE. THE SOUNDNESS REQUIREMENTS OF 657.02 ARE WAIVED. THE GRADATION REQUIRED WILL BE 100% PASSING A 6" SIEVE AND 0% PASSING A 3" SIEVE. PLACE STONES IN A 6" LIFT. MANUAL PLACING REQUIREMENTS PER 657.05 IS WAIVED.

METHOD OF MEASUREMENT AND PAYMENT:

THE GEOTEXTILE FABRIC IS PAID SEPARATE AND UNDER ITEM 204 GEOTEXTILE FABRIC. MEASUREMENT AND PAYMENT FOR THE GRAVEL MATERIAL SHALL BE BY THE SQUARE YARD, COMPLETE IN PLACE AND ACCEPTED BY THE ENGINEER AS PER ITEM 657 - RIPRAP FOR TREE PROTECTION, AS PER PLAN.

CONVENTIONAL SYMBOLS



CALCULATED MRO
CHECKED NRV

GENERAL NOTES

LIC-CR16-0.007

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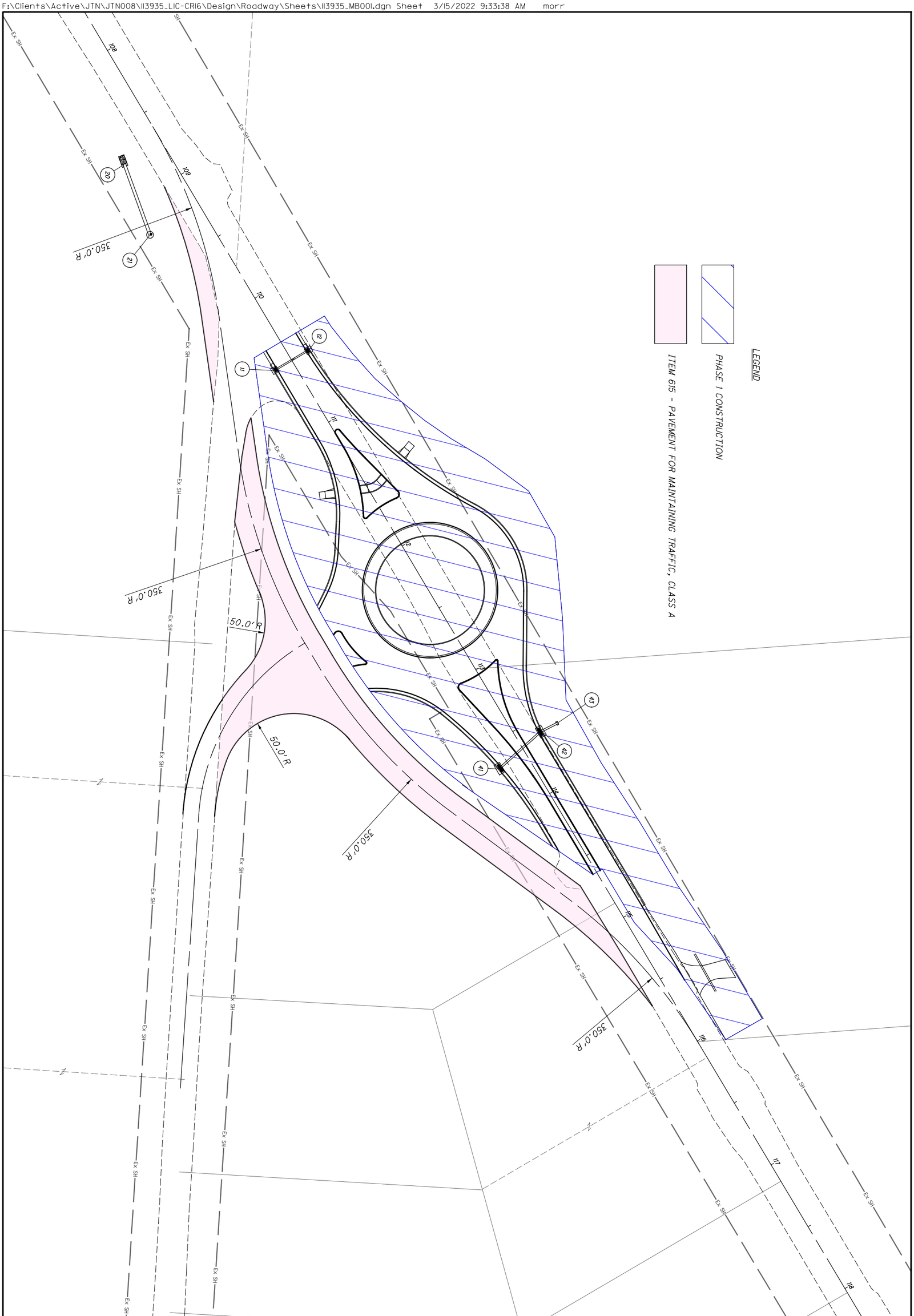

13 / 414	LIC-CR16-0.007	MAINTENANCE OF TRAFFIC - PHASE 1	CALCULATED MRO / CHECKED NRV	0 15 30 60 HORIZONTAL SCALE IN FEET

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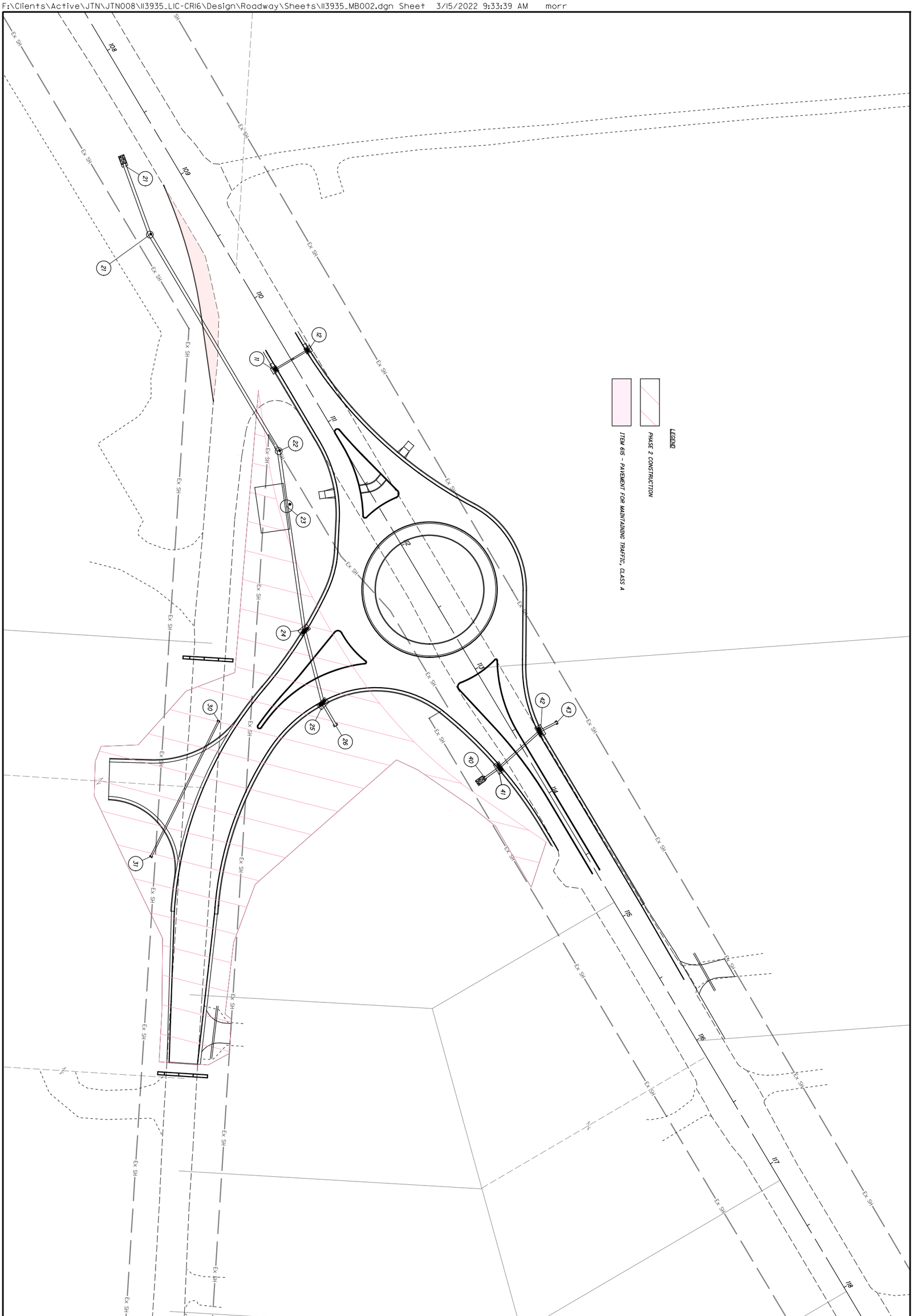

14 / 44	LIC-CR16-0.007	MAINTENANCE OF TRAFFIC - PHASE 2	CALCULATED MRO / CHECKED NRV	0 15 30 60 HORIZONTAL SCALE IN FEET

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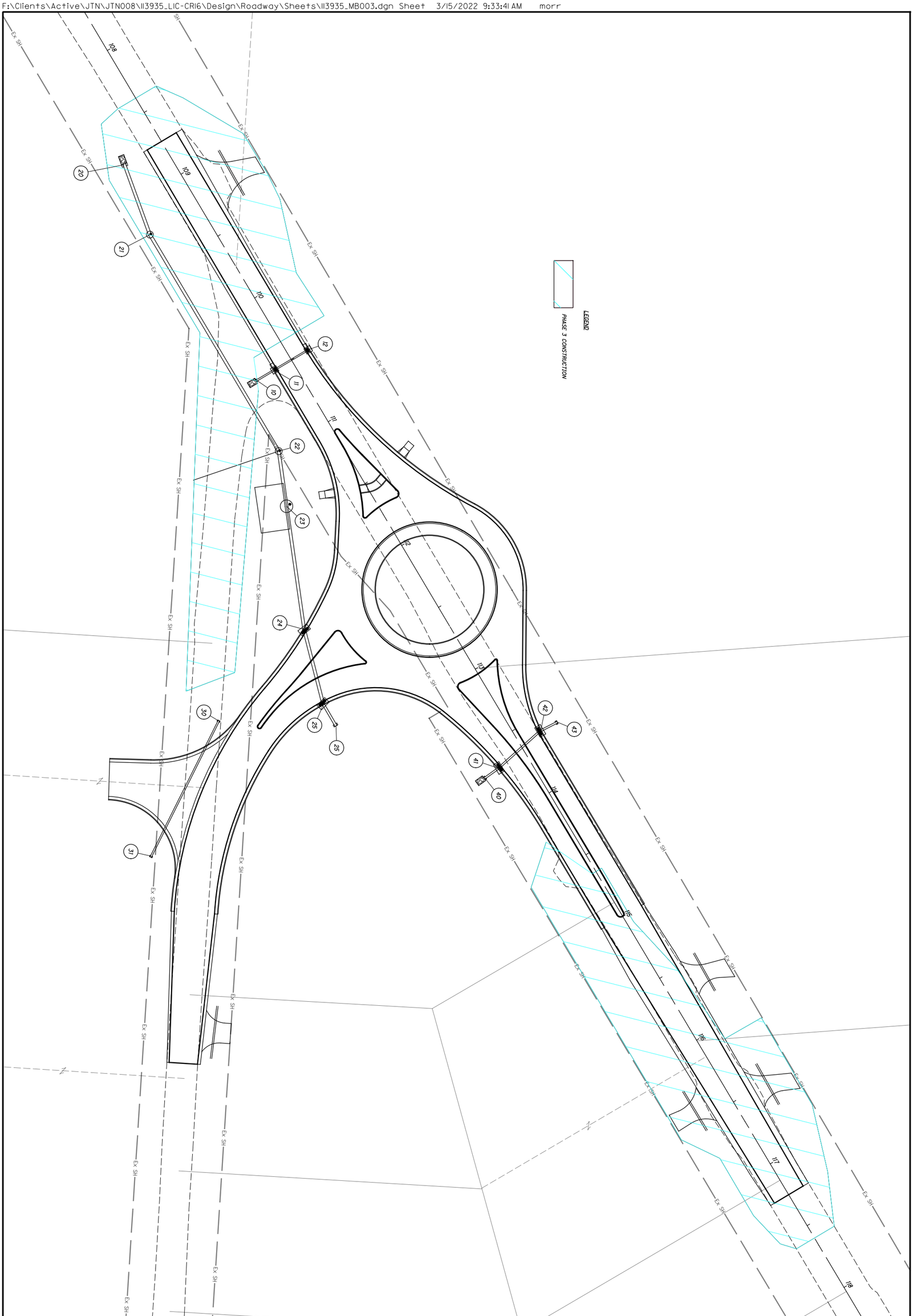


15 / 44	LIC-CR16-0.007	MAINTENANCE OF TRAFFIC - PHASE 3	CALCULATED MRO / CHECKED NRV	0 15 30 60 HORIZONTAL SCALE IN FEET

END WORK
STA 208+20.89

END PROJECT
STA 207+85.92

LEGEND

TBRBO	TO BE REMOVED BY OTHERS
DND	DO NOT DISTURB
ATG	ADJUST TO GRADE
TBRL	TO BE RELOCATED

REBECCA DODDERER
P.N. 052-174090-00.000
I.N. 202107160021493
9668 JOHNSTOWN-UTICA RD.
T.D. = 79.39 AC.

NOTE:
ALL STATION/OFFSETS ARE TO US 62 UNLESS OTHERWISE NOTED

FUTURE C & G (TYP)
FUTURE ROUNDABOUT NORTH LEG
FUTURE WALK (TYP)
CONST LIMITS
EX FENCE POST (NO WIRE) TBR
REF LINE CC
C & G, TYPE 2
CURB, TYPE 6
REF LINE NE
EX 15" STM TBR
EX POLE W/ SPAN WIRE TBR
15" CONDUIT, TYPE D
C & G, TYPE 2 TBR
OVERHEAD POWER TBR
PROP RAMP
CURB, TYPE 6
REF LINE NW
PROP SHLD
108+73.51 16.56 LT
109+75.01 14.00 LT
110+45.23 14.00 LT
108+48.51 16.55 LT
108+73.51 11.95 LT
109+75.01 12.00 LT
110+45.23 12.00 LT
108+48.51 14.33 RT
108+73.51 11.57 RT
109+75.01 12.00 RT
110+45.23 12.00 RT
108+73.51 11.57 RT
109+75.01 14.00 RT
110+45.23 14.00 RT
℄ R/W & CONST US 62
REF LINE WL
111+69.07 0.00 LT
CURB, TYPE 6
CURB, TYPE 3-B, APP
REF LINE EL
111+09.19 0.00 RT
REF LINE WR
113+03.55 0.00 LT
MATCH LINE STA 113+60, SEE SHEET 17
REF LINE ER
PROP RAMP
TBRBO
CURB, TYPE 6
REF LINE SE
C&G, TYPE 2
EX 12" STM TBR
TEMP CONST FENCE
10' COLUMBIA GAS EASEMENT O.R. 192, PG. 735
5' C&SOE EASEMENT O.B. 567, PG. 598 &
10' C&SOE EASEMENT D.B. 747, PG. 375
25' WATER/SEWER EASEMENT O.R. 198, PG. 104
4" P-MP GAS LINE (COLUMBIA GAS)
EX ASPHALT PARKING
2" PLASTIC GAS
EX POLE W/ SPAN WIRE TBR
CONST LIMITS
EX ASPH TBR
MANUFACTURED SYSTEM TYPE 2
EX 6" DRAIN INV 1150.11
REF LINE SL
EX 12" STM TBR
EX GRAVEL DRIVE TBRBO
CONST LIMITS
REF LINE SE
℄ CONST SPORTSMAN CLUB RD (CR 16)
EX BUILDING TBRBO
REF LINE SR
SPORTSMAN CLUB RD (CR 16)
REF LINE SW
MATCH LINE STA 205+00, SEE SHEET 18
TEMP CONST FENCE

TECH INTERNATIONAL (JOHNSTOWN) LLC
P.N. 053-172644-00.001
I.N. 201505140009279
539 E. COSHOCTON ST.
T.D. = 9.61 AC.

STANEART PROPERTIES LLC
P.N. 053-176256-00.000
I.N. 200904020006737
9571 JOHNSTOWN-UTICA RD.
T.D. = 1.80 AC.

LEGEND

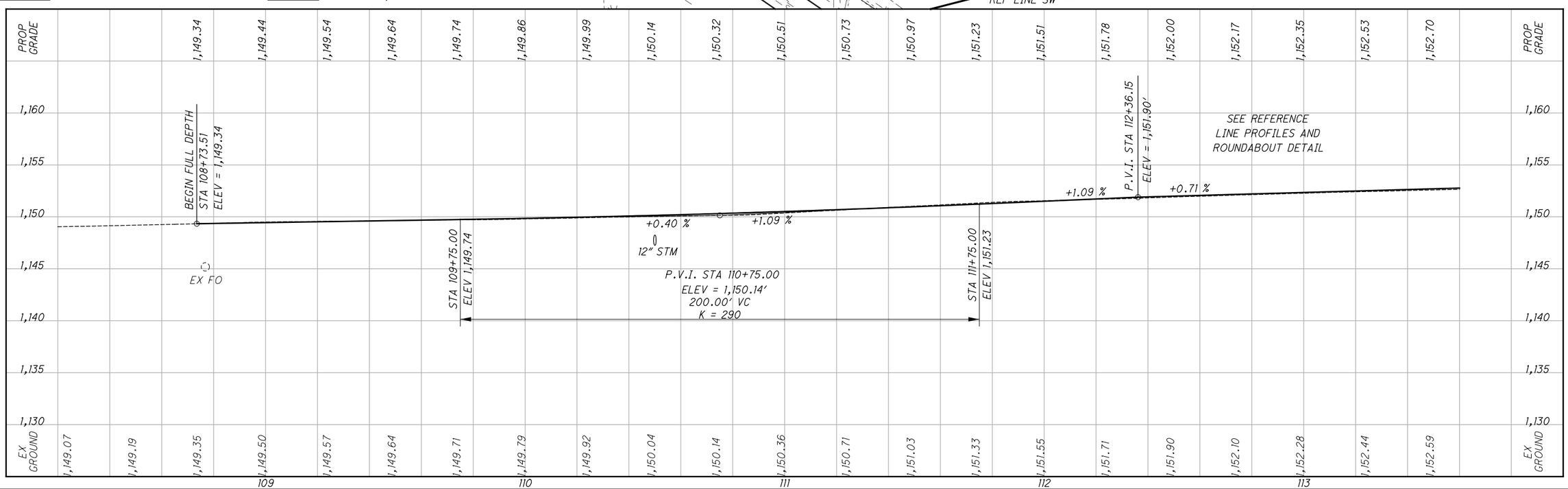
ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE

ITEM 452 - NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1

ITEM 609 - 6" CONCRETE TRAFFIC ISLAND, AS PER PLAN, TOOLED AND STAINED

PROPOSED HARDSCAPE FEATURES

ITEM 452 - NON-REINFORCED CONCRETE PAVEMENT, MISC.: 8" TRUCK APRON STAINED



HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED MRO
CHECKED NRV

PLAN AND PROFILE - US 62
STA 108+00 TO STA 113+60

LIC-CR16-0.007

16
44

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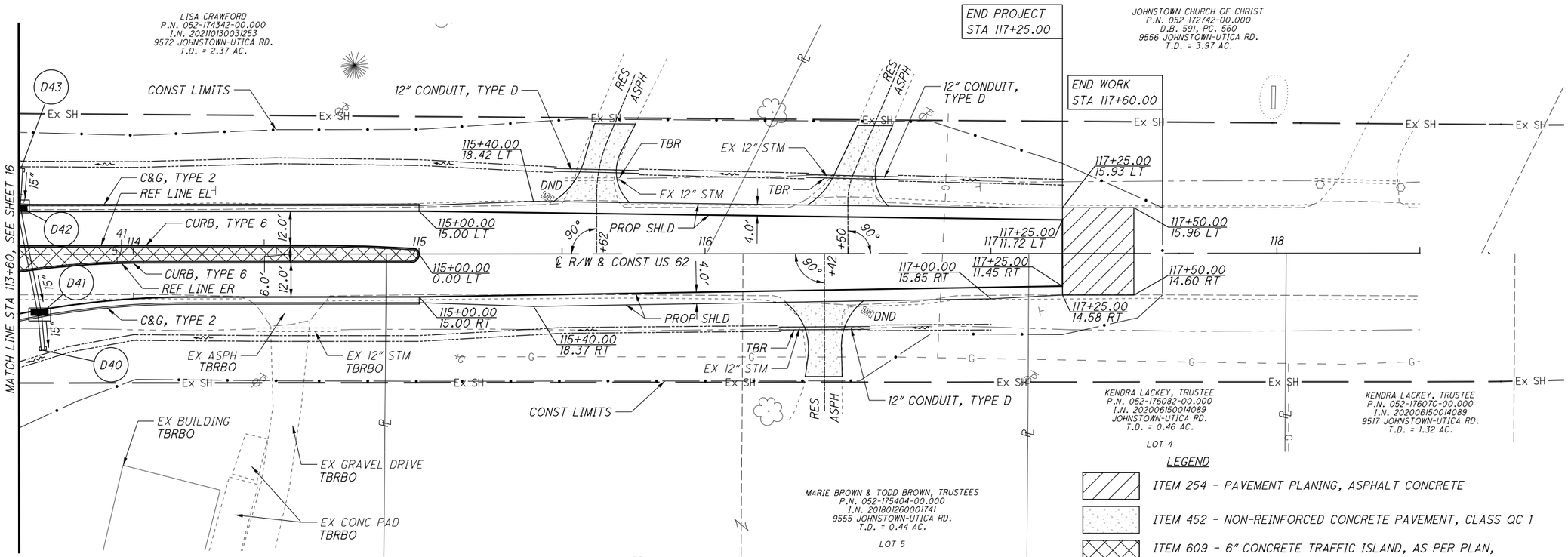


HORIZONTAL SCALE IN FEET
0 10 20 40

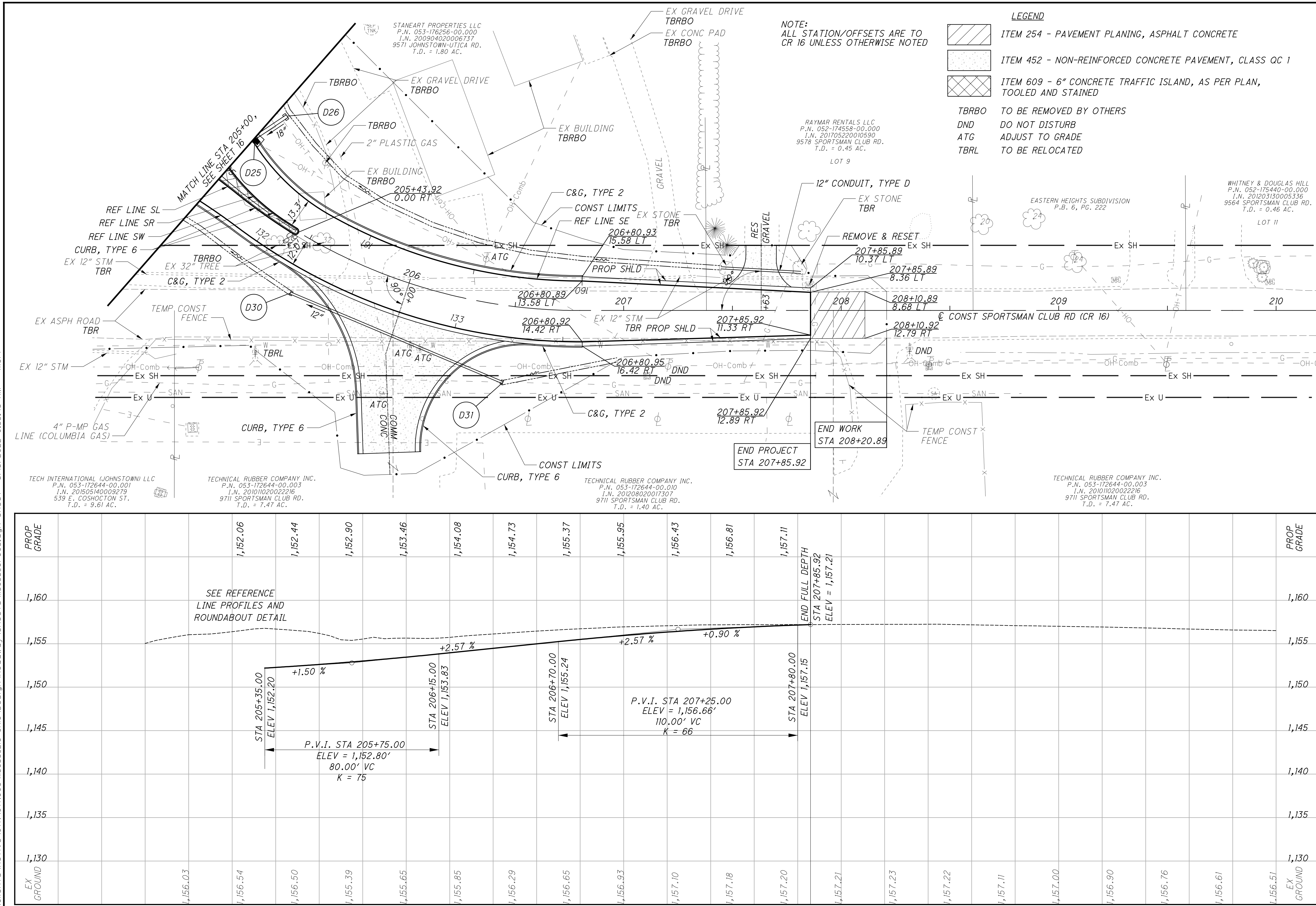
CALCULATED MRO
CHECKED NRV

PLAN AND PROFILE - US 62
STA 113+60 TO STA 118+50

LIC-CR16-0.007

17
44

F:\Clients\Active\JTN\JTN008\ll3935_LIC-CR16\Design\Roadway\Sheets\ll3935_GP002.dgn Sheet 3/15/2022 9:33:44 AM morr



HORIZONTAL SCALE IN FEET

0 10 20 40

CALCULATED MRO

CHECKED NRV

PLAN AND PROFILE - CR 16
STA 205+00 TO STA 210+00

LIC-CR16-0.007

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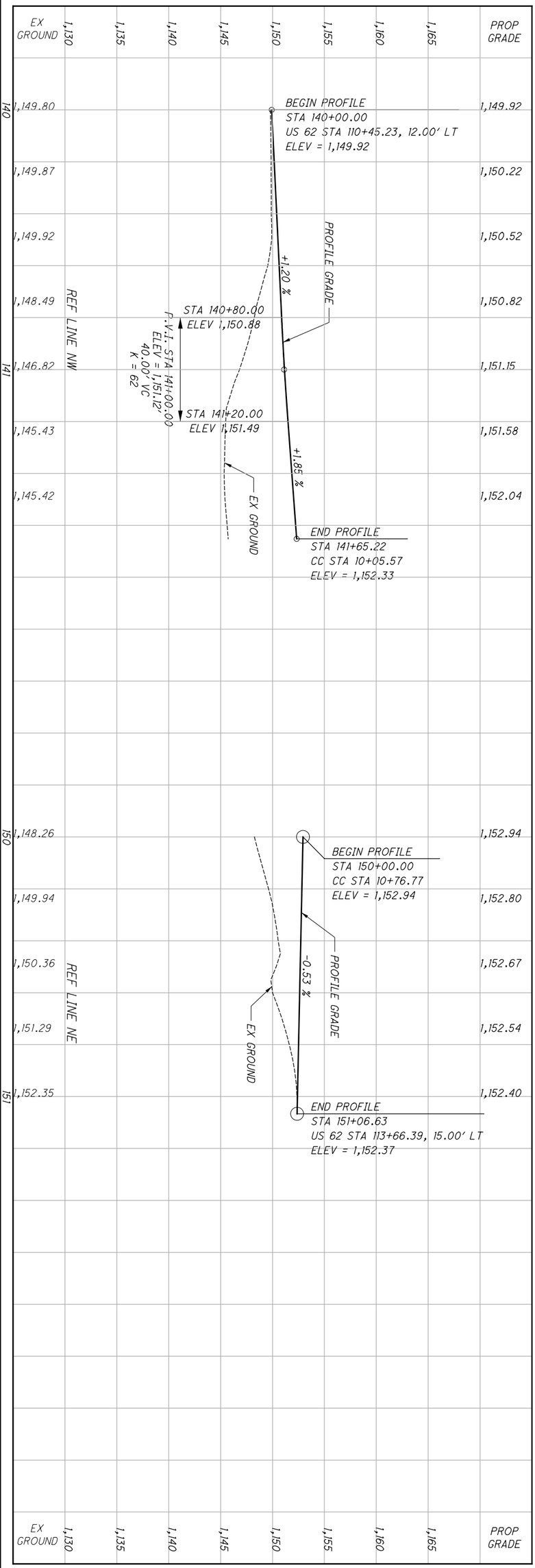
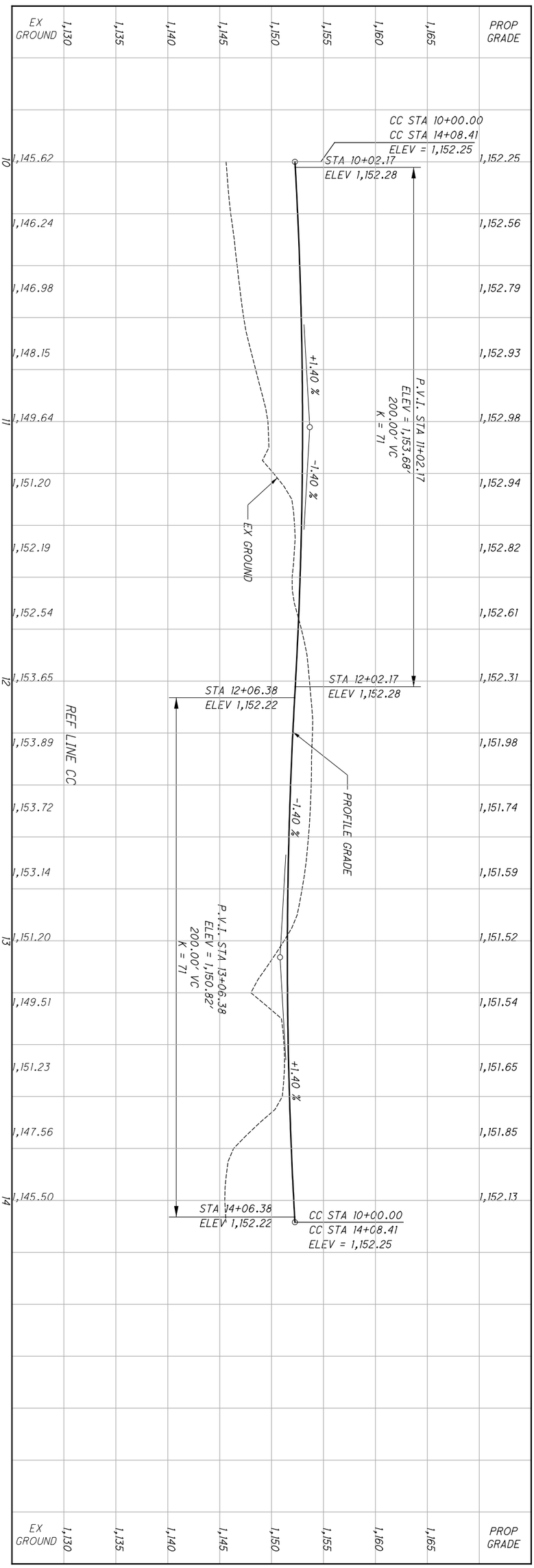
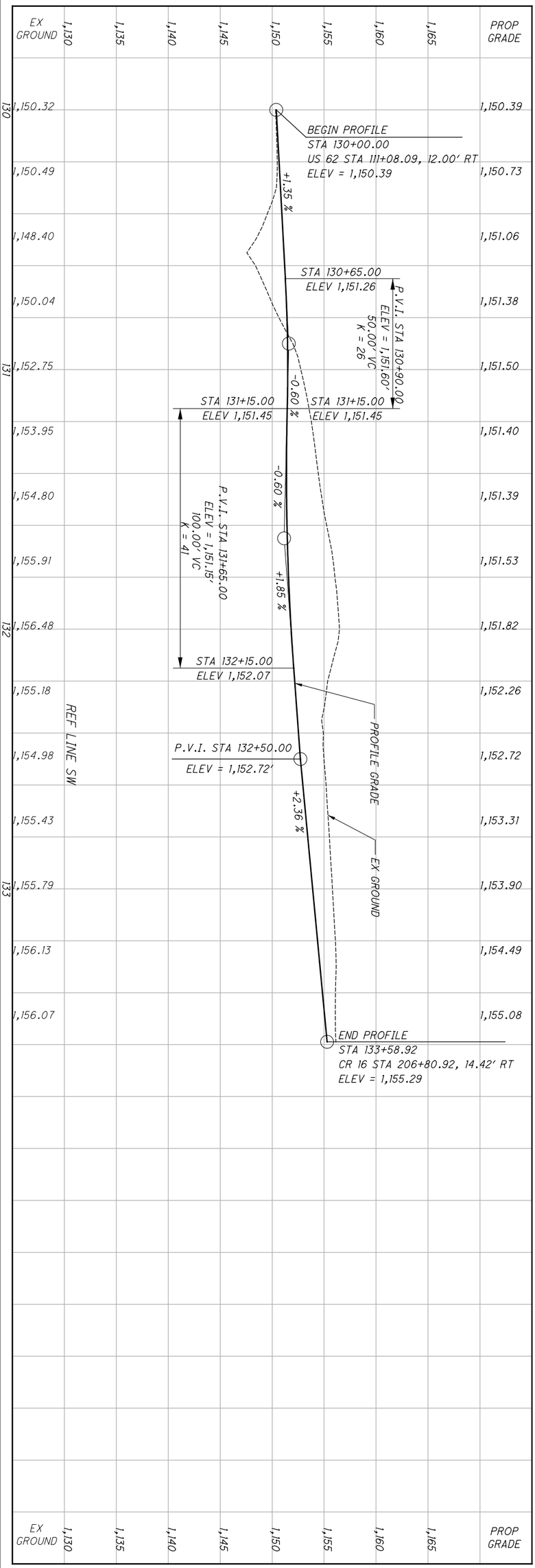


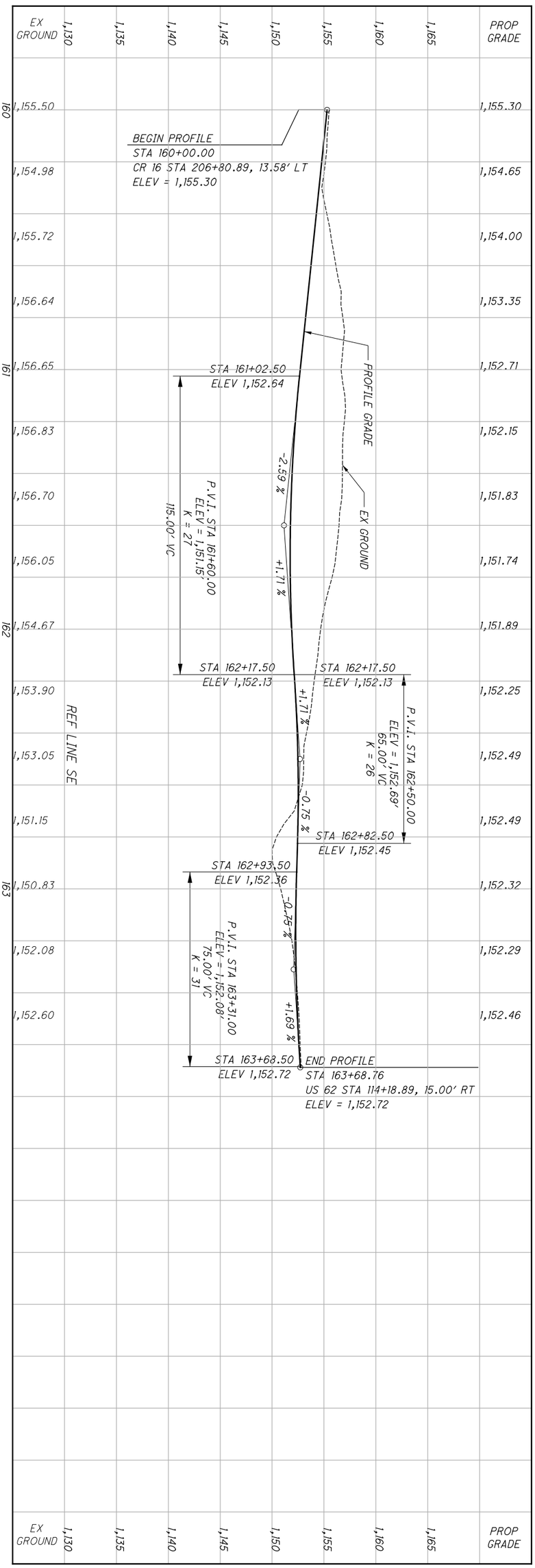


LIC-CR16-0.007

PROFILE - REF LINES CC, NW AND NE

CALCULATED MRO
CHECKED NRV



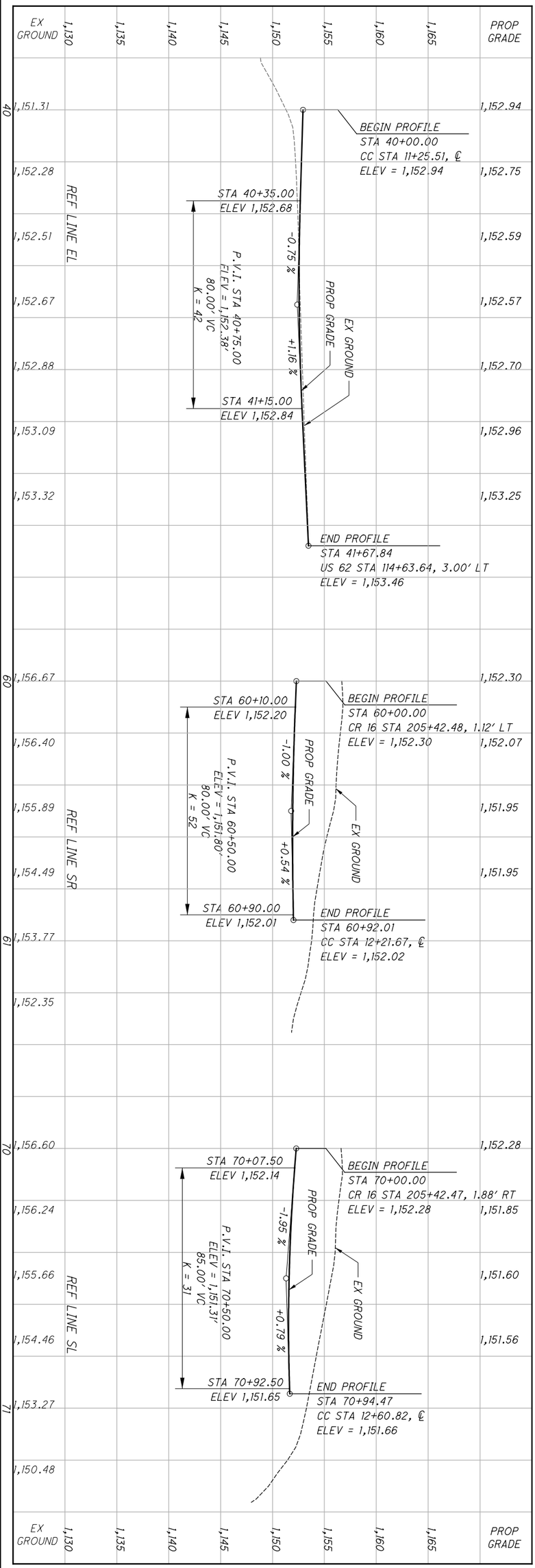


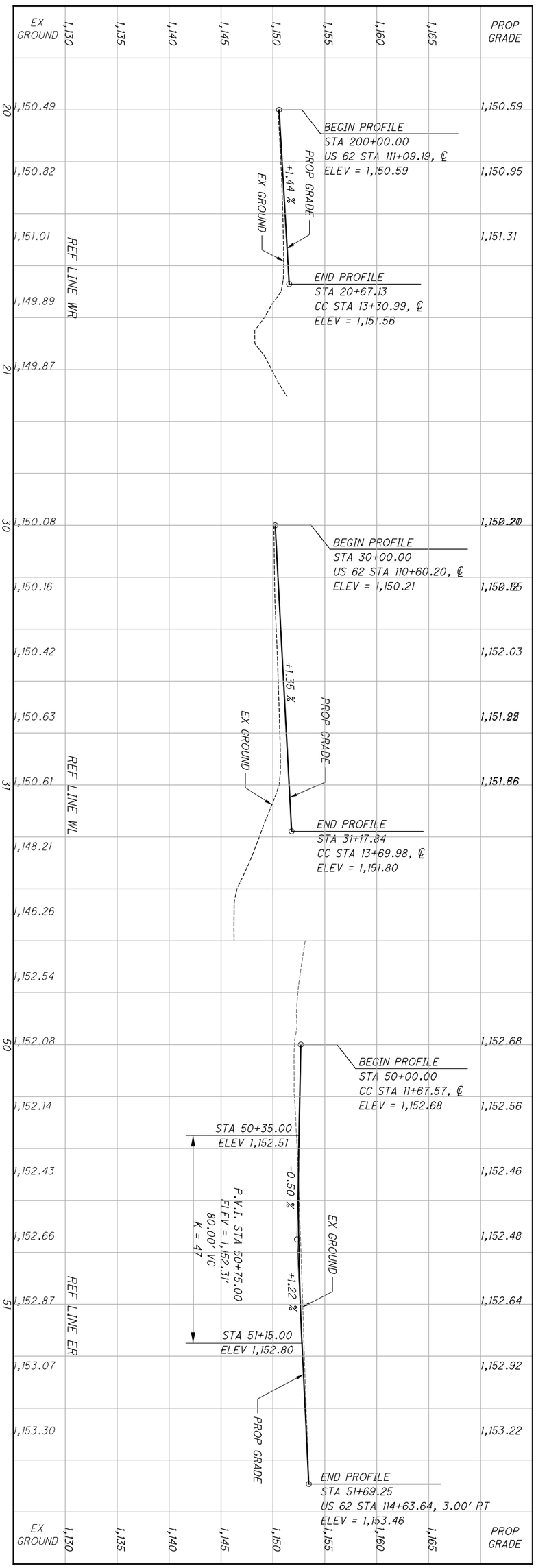
LIC-CR16-0.007

PROFILE - REF LINES SE AND SW

CALCULATED MRO
CHECKED NRV

F:\Clients\Active\JTN\JTN008\113935_LIC-CR16\Design\Roadway\Sheets\113935_GF003.dgn Sheet 3/15/2022 9:33:48 AM morr





LIC-CR16-0.007

PROFILE- REF LINES WR, WL, ER, EL, SR AND SL

CALCULATED MRO
CHECKED NRV

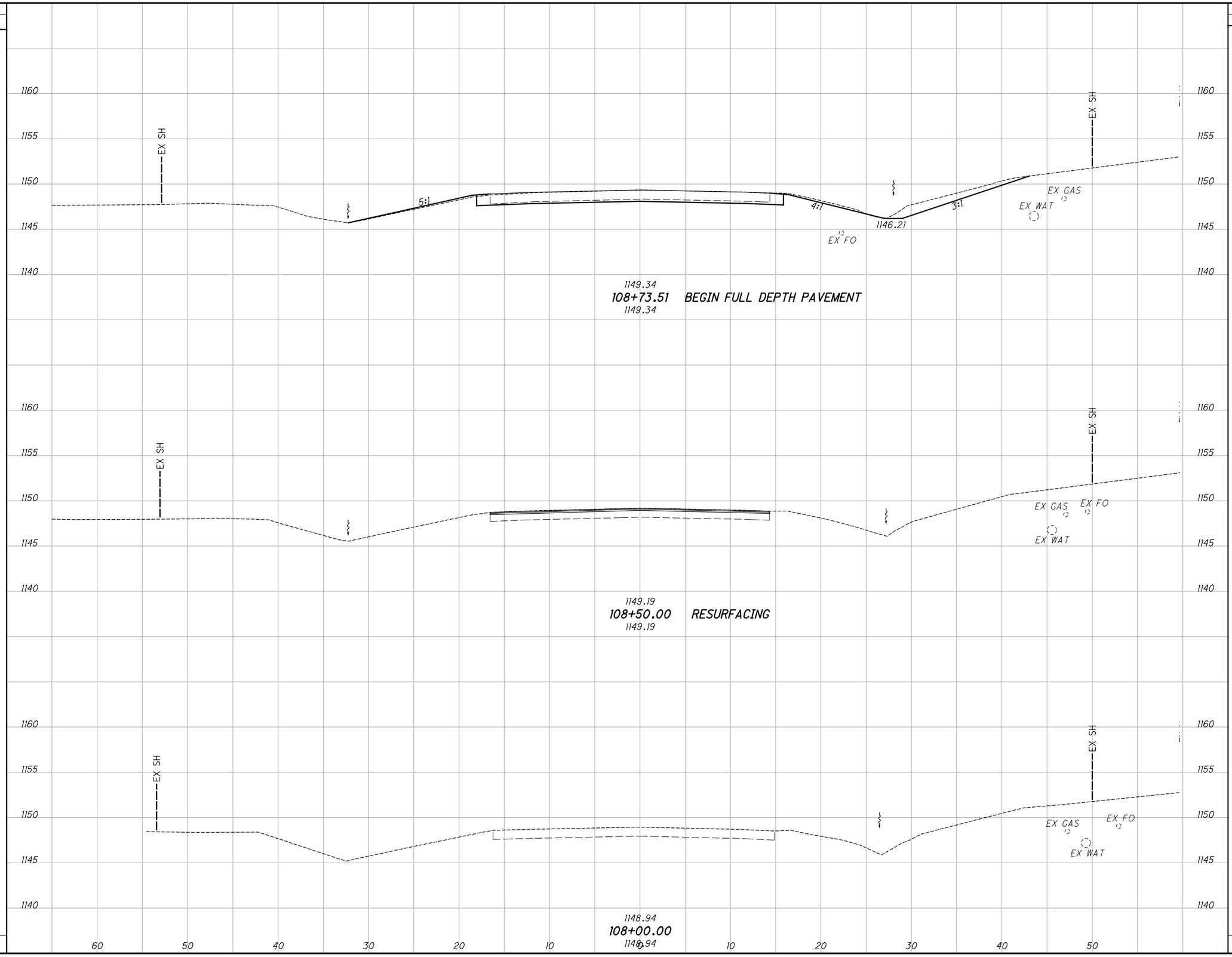
SEEDING	
END WIDTH	SQ. YDS.

END AREA	
CUT	FILL

VOLUME	
CUT	FILL

CALCULATED MRO

CHECKED NRV



CROSS SECTIONS US 62
STA. 108+00.00 TO STA. 108+73.51

LIC-CR16-0.007

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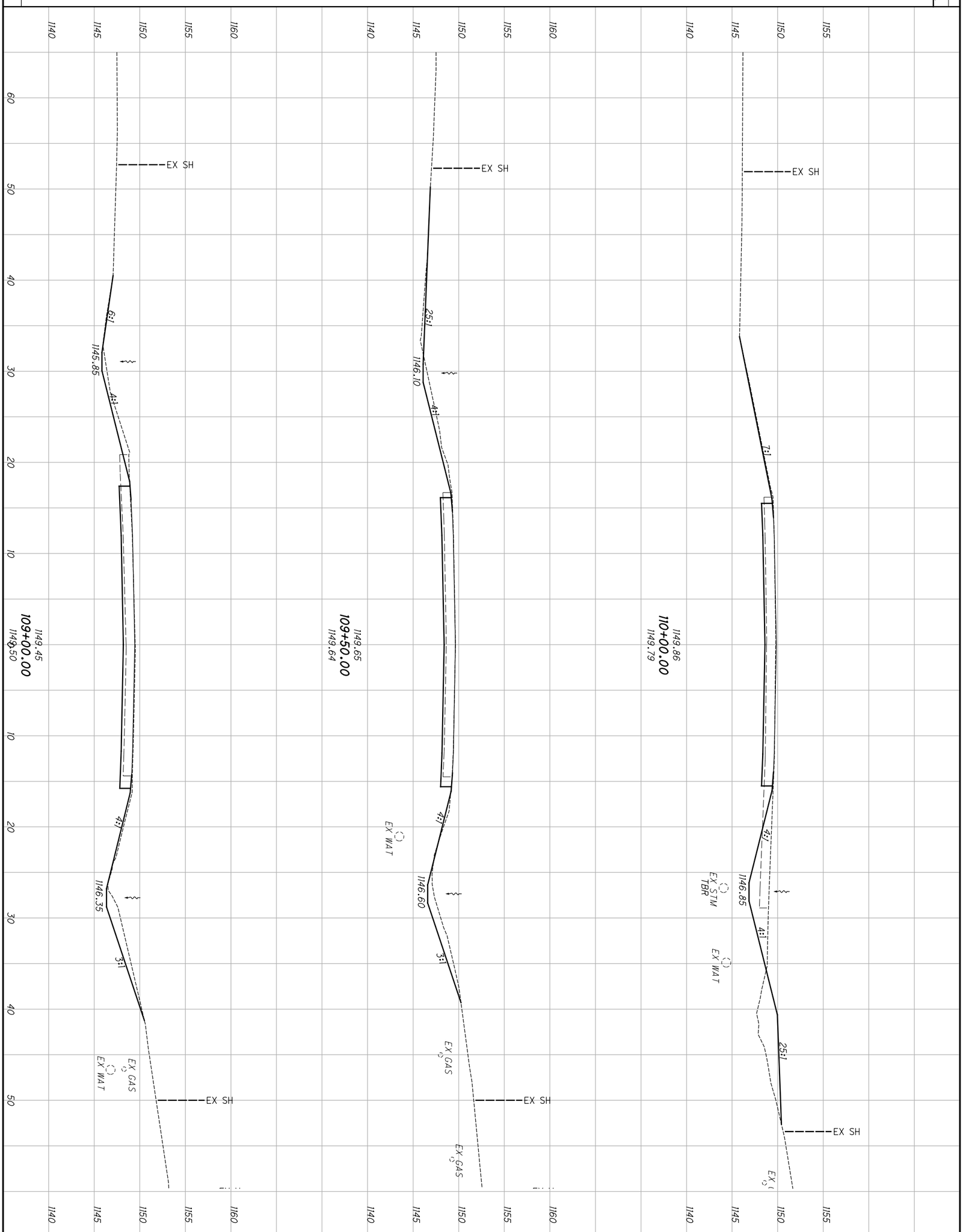
SEEDING
END WIDTH | SQ. YDS.



END AREA CUT | FILL
VOLUME CUT | FILL

23 / 44	LIC-CR16-0.007	CROSS SECTIONS US 62 STA. 109+00.00 TO STA. 110+00.00

CALCULATED MRO
CHECKED NRV

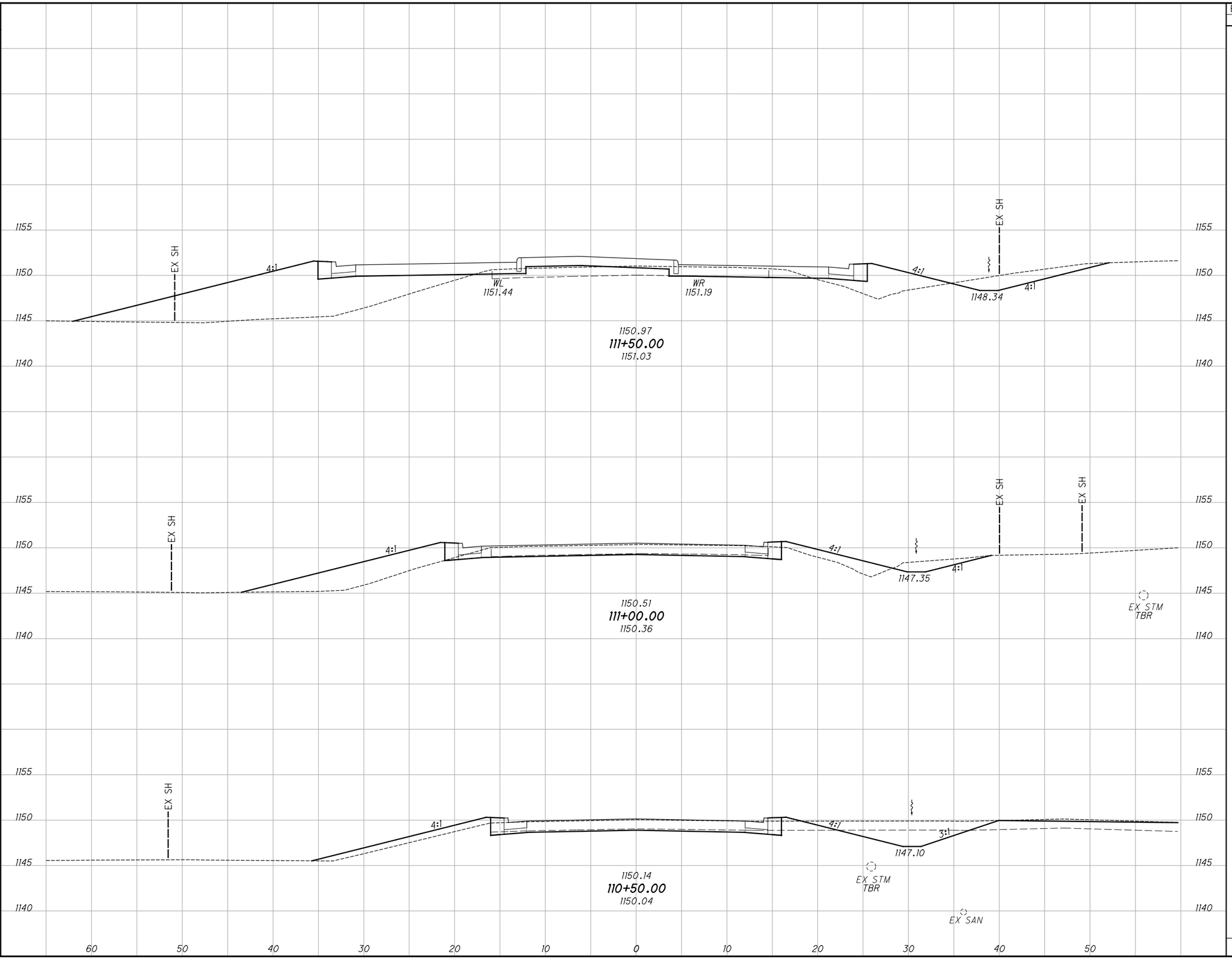
SEEDING	
END WIDTH	SQ. YDS.

END AREA	
CUT	FILL

VOLUME	
CUT	FILL

CALCULATED MRO

CHECKED NRV



CROSS SECTIONS US 62
STA. 110+50.00 TO STA. 111+50.00

LIC-CR16-0.007

SEEDING	
END WIDTH	SQ. YDS.

END AREA	
CUT	FILL

VOLUME	
CUT	FILL

CALCULATED MRO

CHECKED NRV

CROSS SECTIONS US 62

STA. 112+00.00 TO STA. 113+00.00

LIC-CR16-0.007

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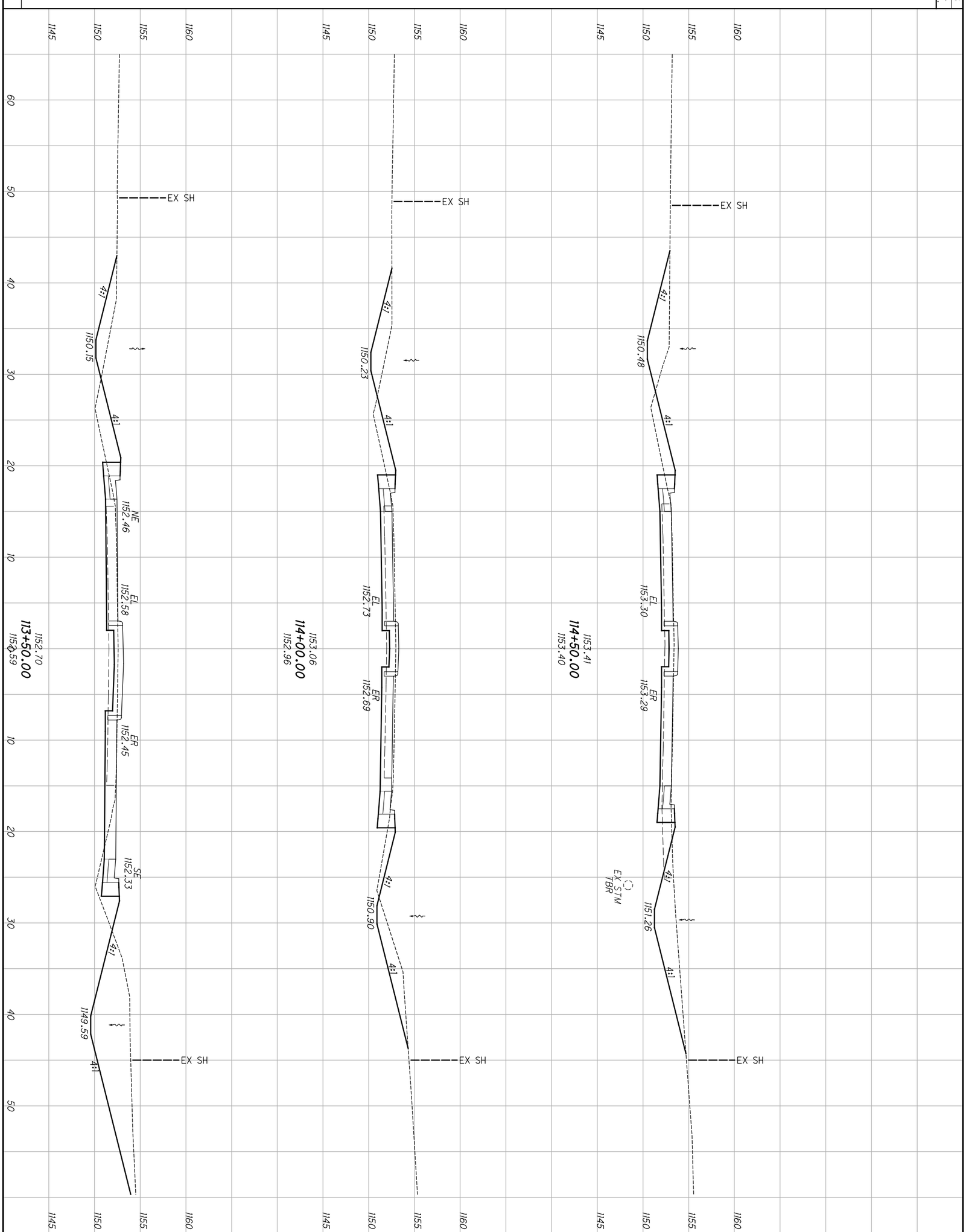
SEEDING
END WIDTH | SQ. YDS.



END AREA CUT | FILL
VOLUME CUT | FILL

26 / 44	LIC-CR16-0.007	CROSS SECTIONS US 62 STA. 113+50.00 TO STA. 114+50.00

CALCULATED MRO
CHECKED NRV

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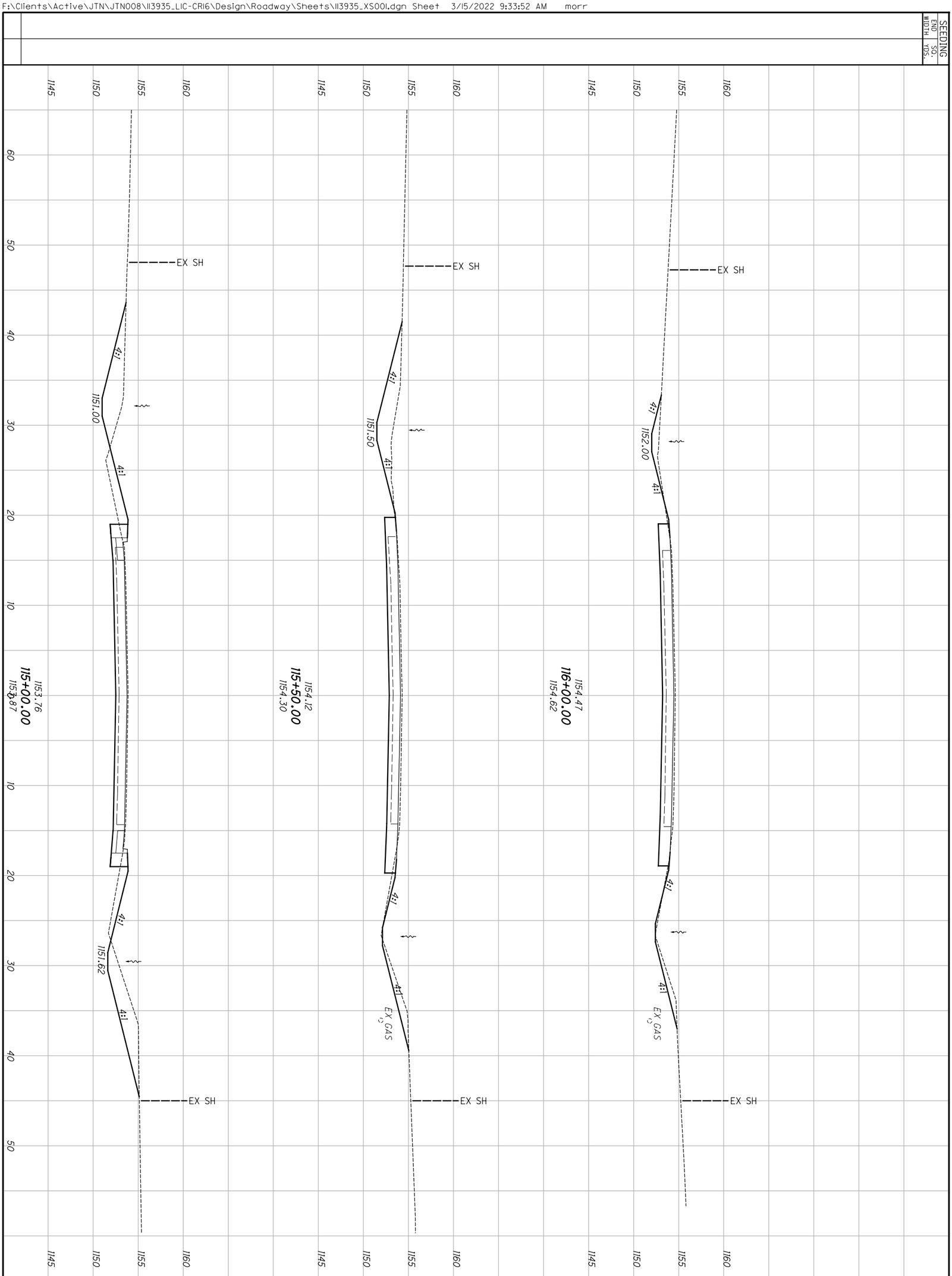

END AREA CUT FILL
VOLUME CUT FILL

27/44

LIC-CR16-0.007

CROSS SECTIONS US 62
STA. 115+00.00 TO STA. 116+00.00

CALCULATED MRO
CHECKED NRV

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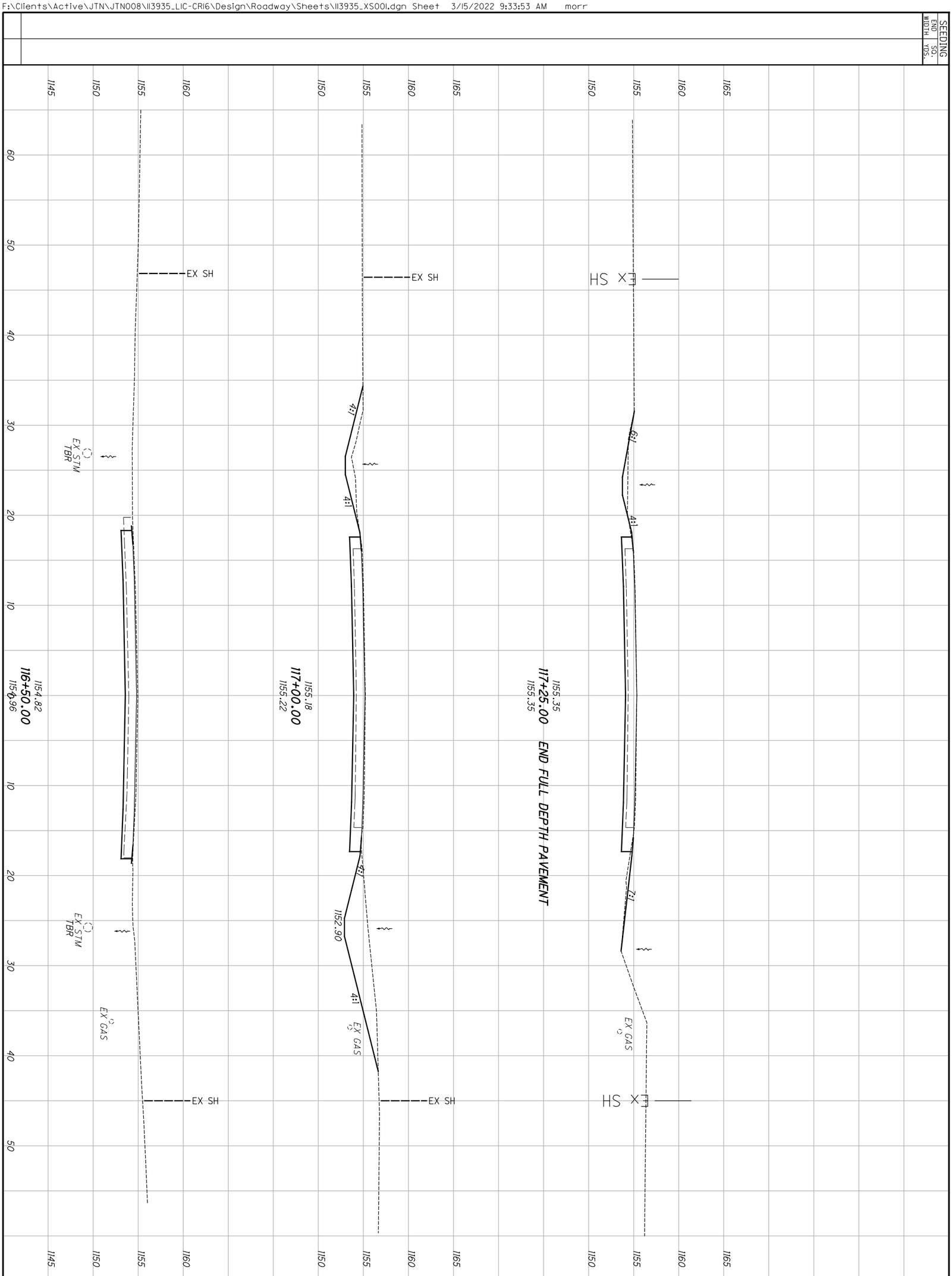

28
44

LIC-CR16-0.007

CROSS SECTIONS US 62
STA. 116+50.00 TO STA. 117+25.00

CALCULATED MRO
CHECKED NRV

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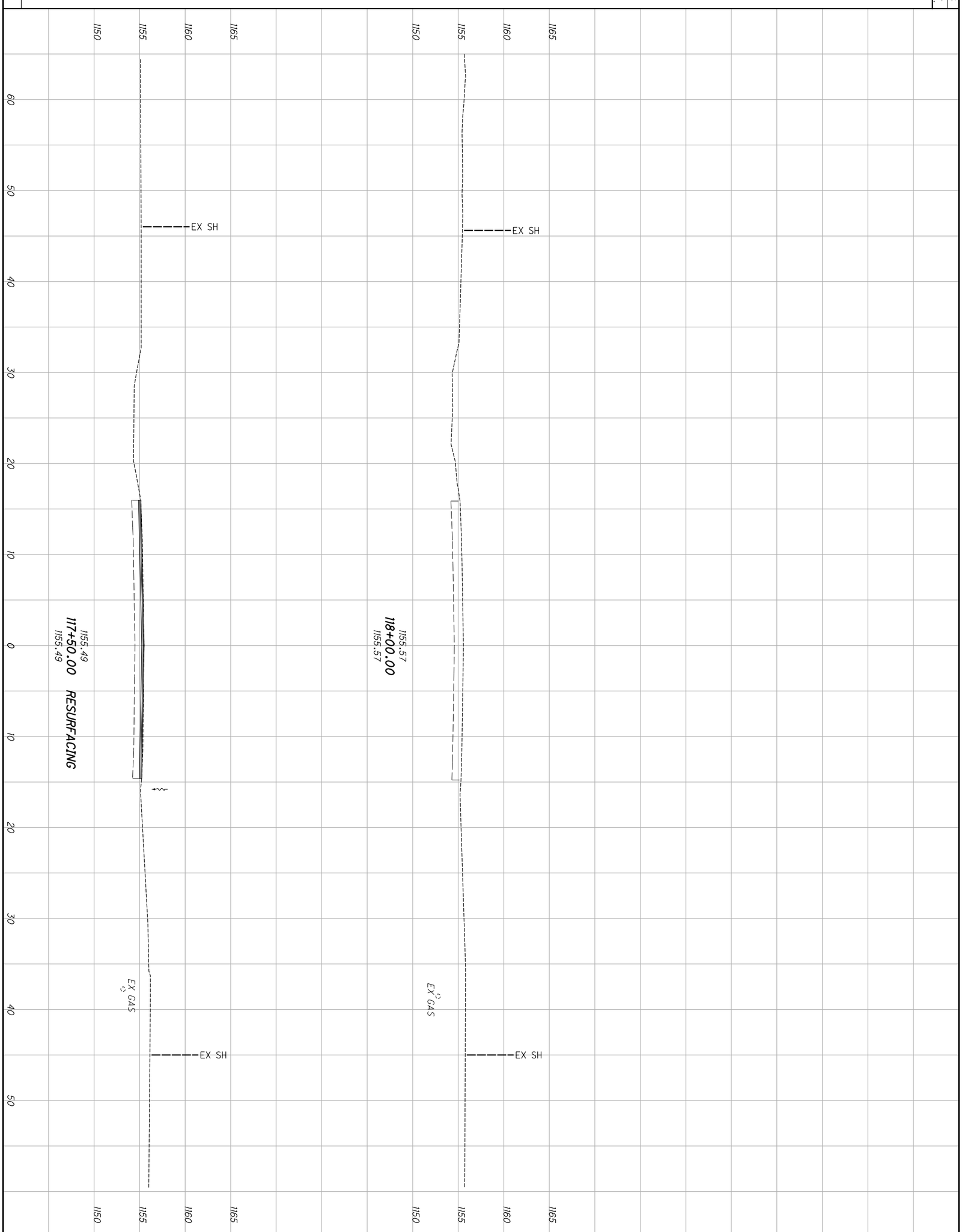
SEEDING
END WIDTH | SQ. YDS.



END AREA
CUT | FILL

VOLUME
CUT | FILL

LIC-CR16-0.007

CROSS SECTIONS US 62
STA. 117+50.00 TO STA. 118+00.00

CALCULATED MRO
CHECKED NRV

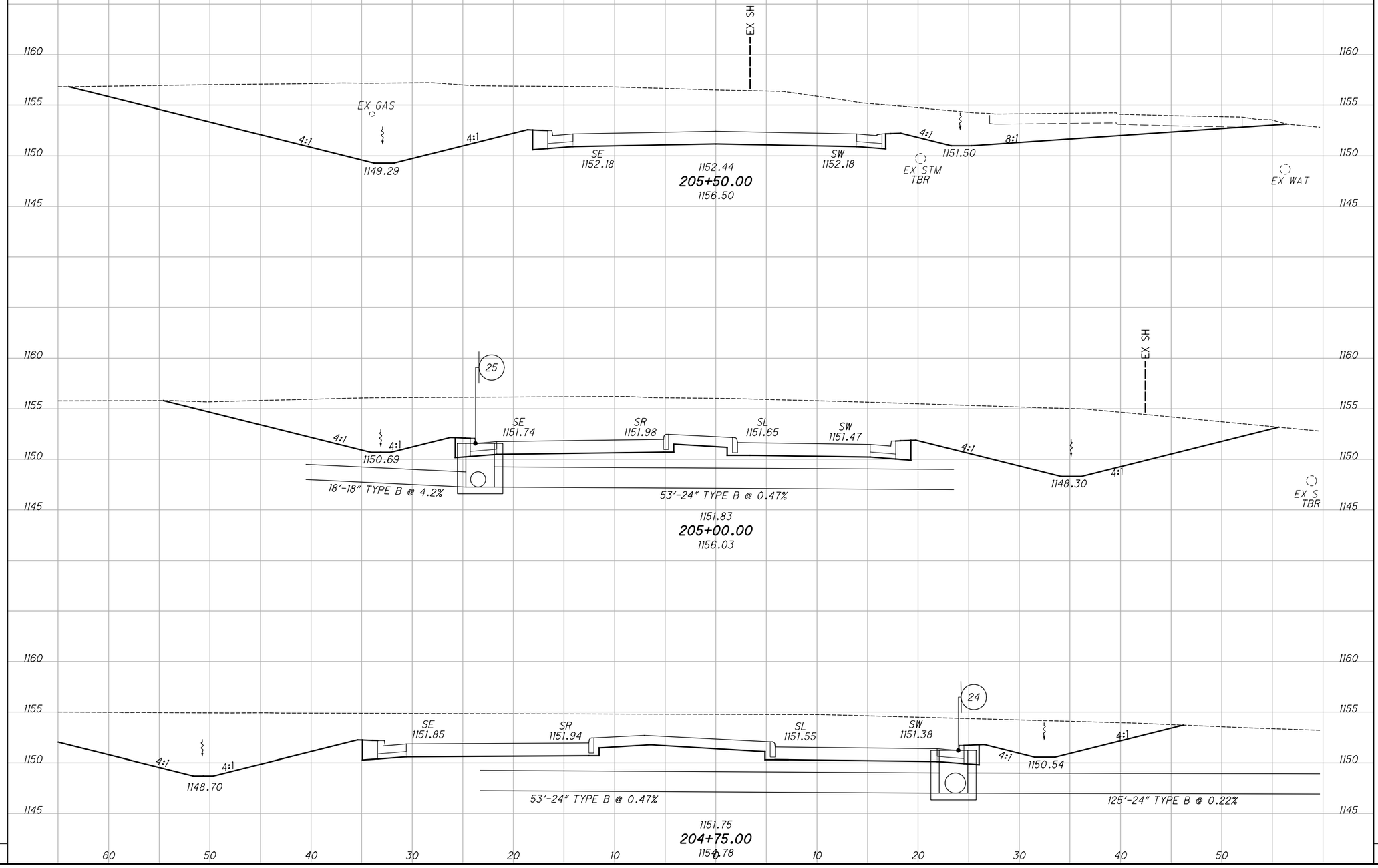
SEEDING	
END WIDTH	SQ. YDS.

END AREA	
CUT	FILL

VOLUME	
CUT	FILL

CALCULATED MRO

CHECKED NRV



CROSS SECTIONS CR 16
STA. 204+75.00 TO STA. 205+50.00

LIC-CR16-0.007

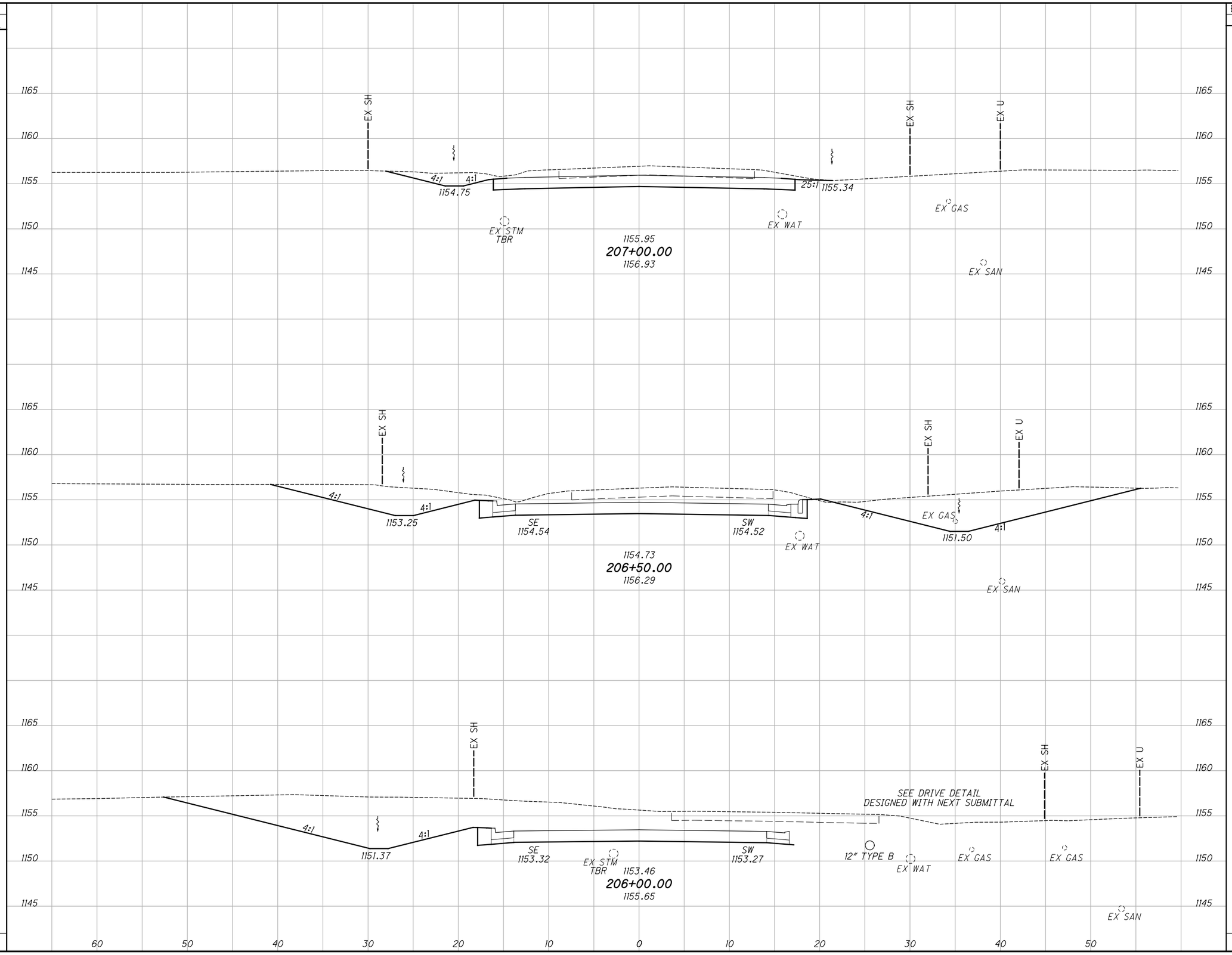
SEEDING	
END WIDTH	SQ. YDS.

END AREA	
CUT	FILL

VOLUME	
CUT	FILL

CALCULATED MRO

CHECKED NRV



CROSS SECTIONS CR 16
STA. 206+00.00 TO STA. 207+00.00

LIC-CR16-0.007

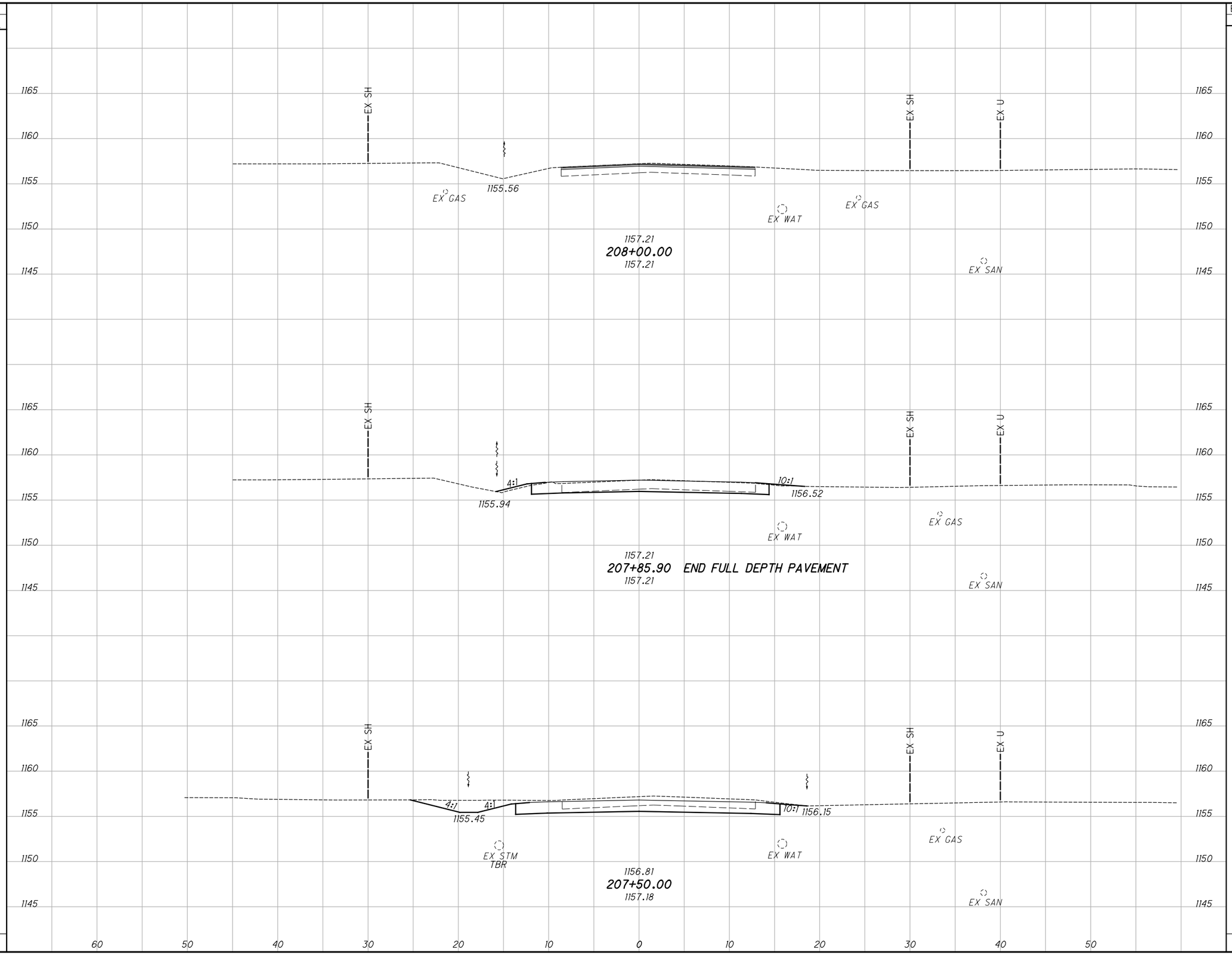
SEEDING	
END WIDTH	SQ. YDS.

END AREA	
CUT	FILL

VOLUME	
CUT	FILL

CALCULATED MRO

CHECKED NRV



CROSS SECTIONS CR 16

STA. 207+50.00 TO STA. 208+00.00

LIC-CR16-0.007

SEEDING	
END WIDTH	SQ. YDS.

END AREA	
CUT	FILL

VOLUME	
CUT	FILL

CALCULATED MRO

CHECKED NRV

CROSS SECTIONS CR 16

STA. 208+50.00

LIC-CR16-0.007

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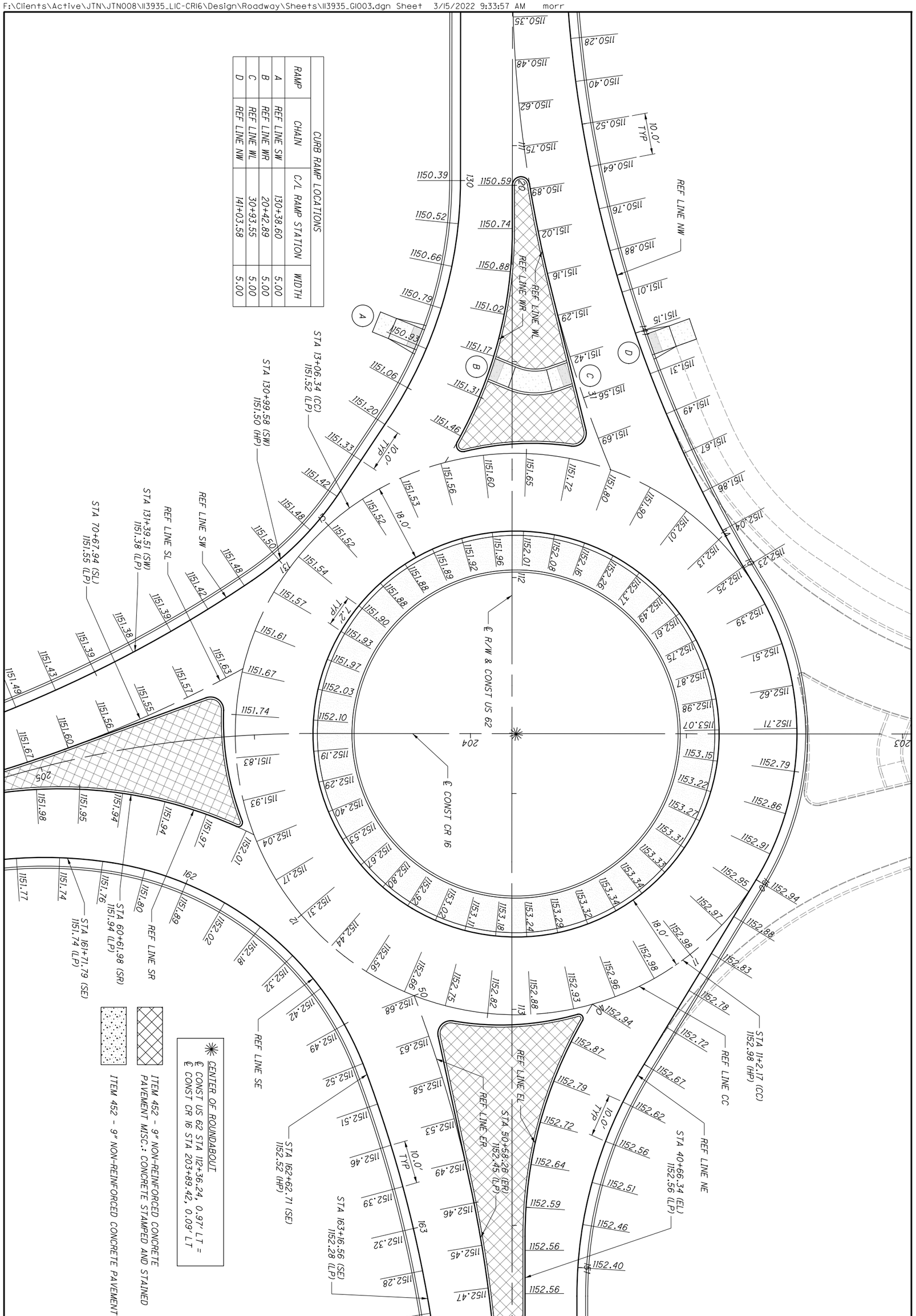
CURB RAMP LOCATIONS			
RAMP	CHAIN	C/L RAMP STATION	WIDTH
A	REF LINE SW	130+38.60	5.00
B	REF LINE WR	20+42.89	5.00
C	REF LINE WL	30+93.55	5.00
D	REF LINE NW	141+03.58	5.00

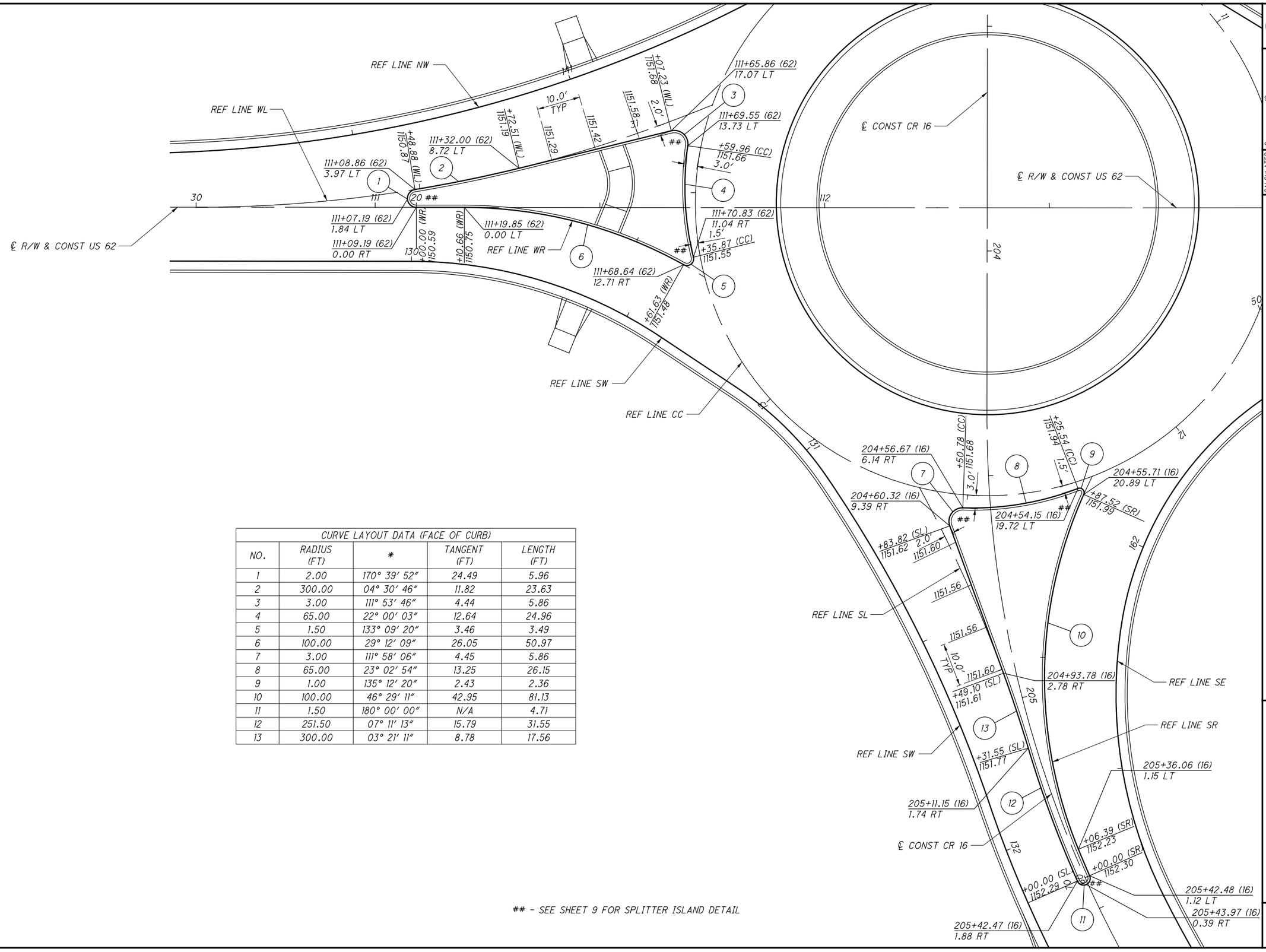


LIC-CR16-0.007

ROUNDABOUT DETAIL
US 62 AND CR 16

CALCULATED MRO
CHECKED NRV

0 5 10 20
HORIZONTAL SCALE IN FEET



CURVE LAYOUT DATA (FACE OF CURB)				
NO.	RADIUS (FT)	*	TANGENT (FT)	LENGTH (FT)
1	2.00	170° 39′ 52″	24.49	5.96
2	300.00	04° 30′ 46″	11.82	23.63
3	3.00	111° 53′ 46″	4.44	5.86
4	65.00	22° 00′ 03″	12.64	24.96
5	1.50	133° 09′ 20″	3.46	3.49
6	100.00	29° 12′ 09″	26.05	50.97
7	3.00	111° 58′ 06″	4.45	5.86
8	65.00	23° 02′ 54″	13.25	26.15
9	1.00	135° 12′ 20″	2.43	2.36
10	100.00	46° 29′ 11″	42.95	81.13
11	1.50	180° 00′ 00″	N/A	4.71
12	251.50	07° 11′ 13″	15.79	31.55
13	300.00	03° 21′ 11″	8.78	17.56

- SEE SHEET 9 FOR SPLITTER ISLAND DETAIL

HORIZONTAL SCALE IN FEET
0 5 10 20

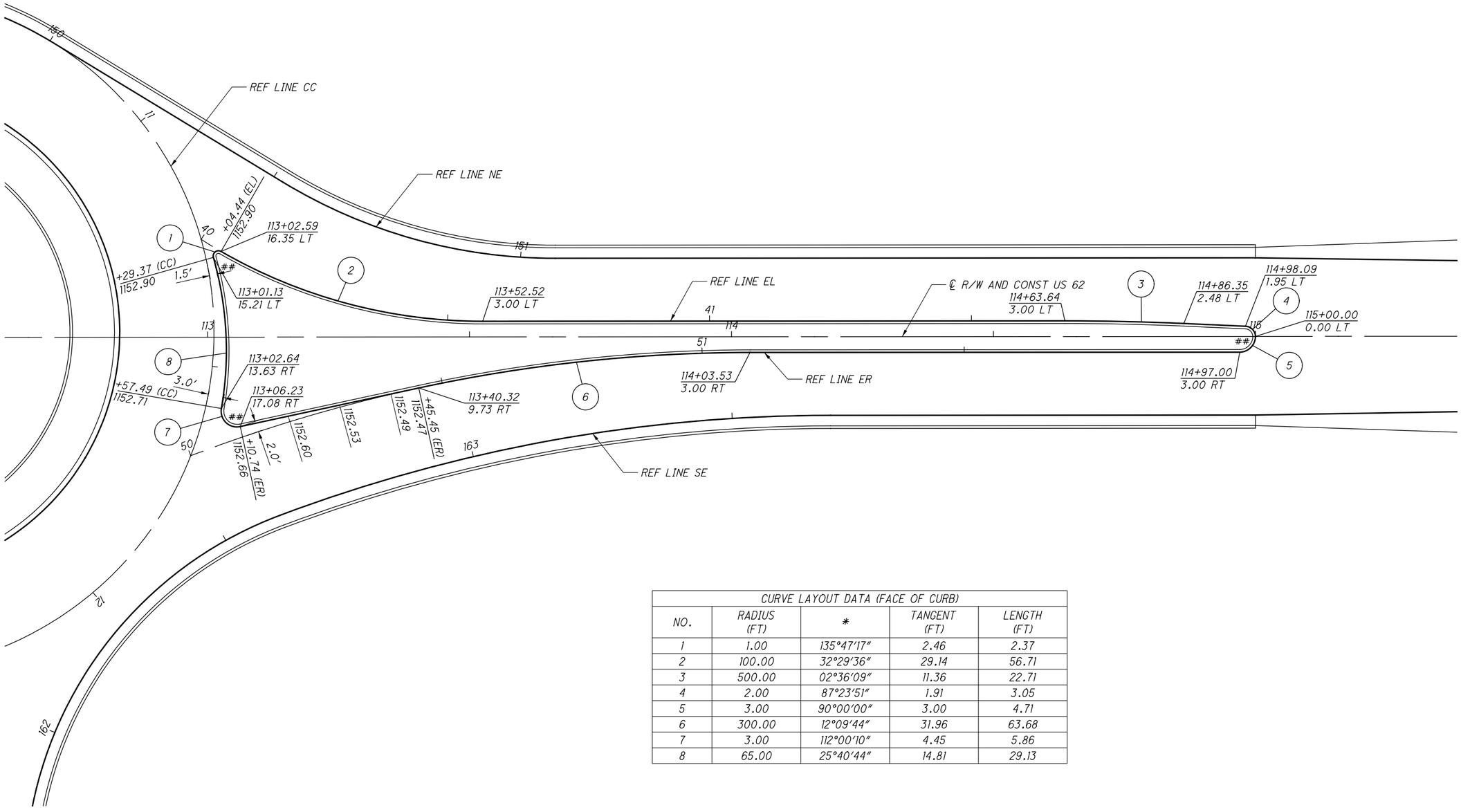
CALCULATED MRO
CHECKED NRV

ROUNDABOUT
SPLITTER ISLAND DETAILS

LIC-CR16-0.007

35
44

- SEE SHEET 9 FOR SPLITTER ISLAND DETAIL



CURVE LAYOUT DATA (FACE OF CURB)				
NO.	RADIUS (FT)	*	TANGENT (FT)	LENGTH (FT)
1	1.00	135°47'17"	2.46	2.37
2	100.00	32°29'36"	29.14	56.71
3	500.00	02°36'09"	11.36	22.71
4	2.00	87°23'51"	1.91	3.05
5	3.00	90°00'00"	3.00	4.71
6	300.00	12°09'44"	31.96	63.68
7	3.00	112°00'10"	4.45	5.86
8	65.00	25°40'44"	14.81	29.13

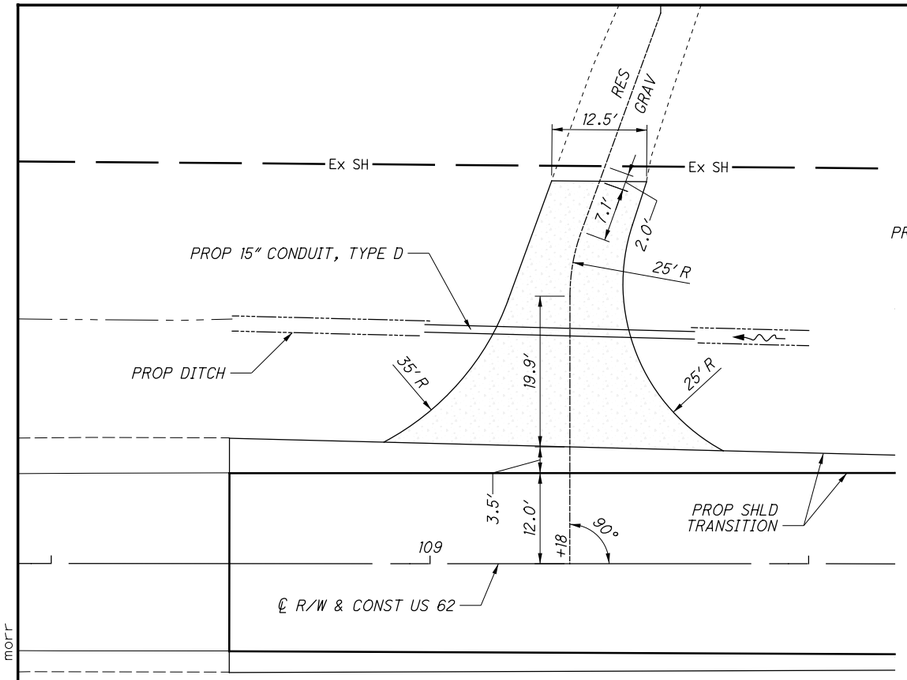
ALL STATIONS REFERENCE US 62 UNLESS STATED OTHERWISE.

HORIZONTAL SCALE IN FEET
0 5 10 20

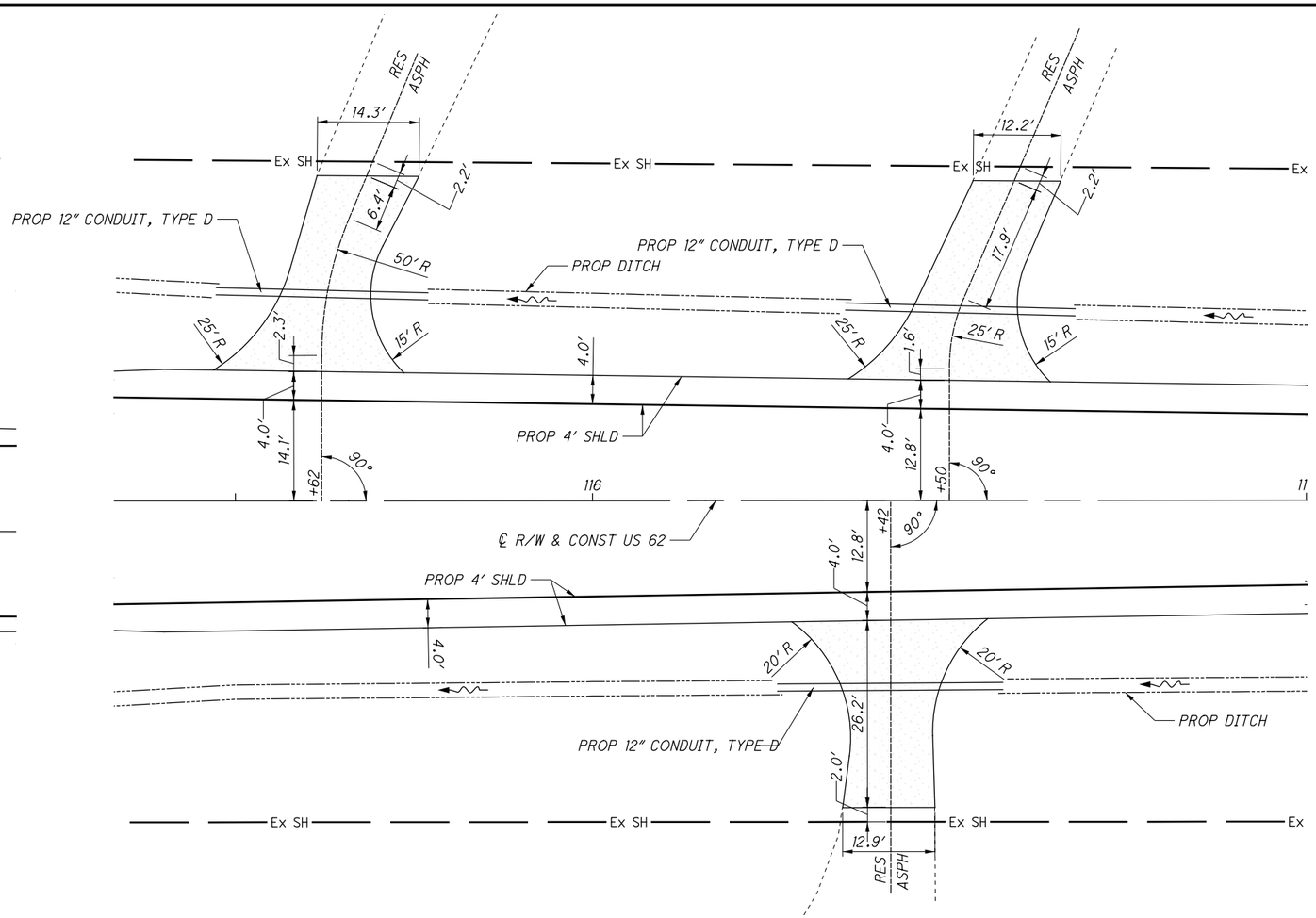
CALCULATED MRO
CHECKED NRV

ROUNDABOUT SPLITTER ISLAND DETAILS

LIC-CR16-0.007



DR1 RESIDENTIAL DRIVE
GRAVEL - STA 109+18.47



DR2 RESIDENTIAL DRIVE
ASPHALT - STA 115+62.10

DR3 RESIDENTIAL DRIVE
ASPHALT - STA 116+41.76

DR4 RESIDENTIAL DRIVE
ASPHALT - STA 116+50.00

LEGEND

ITEM 452 - 6" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1

HORIZONTAL SCALE IN FEET
0 5 10 20

CALCULATED MRO
CHECKED NRV

DRIVEWAY DETAILS US 62

LIC-CR16-0.007

37
44

LEGEND

ITEM 452 - 6" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1 (RESIDENTIAL)
ITEM 452 - 8" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1 (COMMERCIAL)

HORIZONTAL SCALE IN FEET
0 5 10 20

CALCULATED MRO
CHECKED NRV

DR6 RESIDENTIAL DRIVE
GRAVEL - STA 207+63.23

RES GRAV APRON CONC DRIVE
14.0'
15.0' R
18.5'
15.0' R
9.5'
2.0'
90°
+63

PROP DITCH
PROP 12" CONDUIT, TYPE D
PROP 2' SHLD
Ex SH
132
70
191
091
160
207
208
℄ CONST CR 16

DROPPED CURB (PER BP-4.1)
206
14.1'
+00
90°
2.0'
133
18.1'
160°
10.2'
75.0' R
35.5'
24.0'
CONC
CONC

30
31

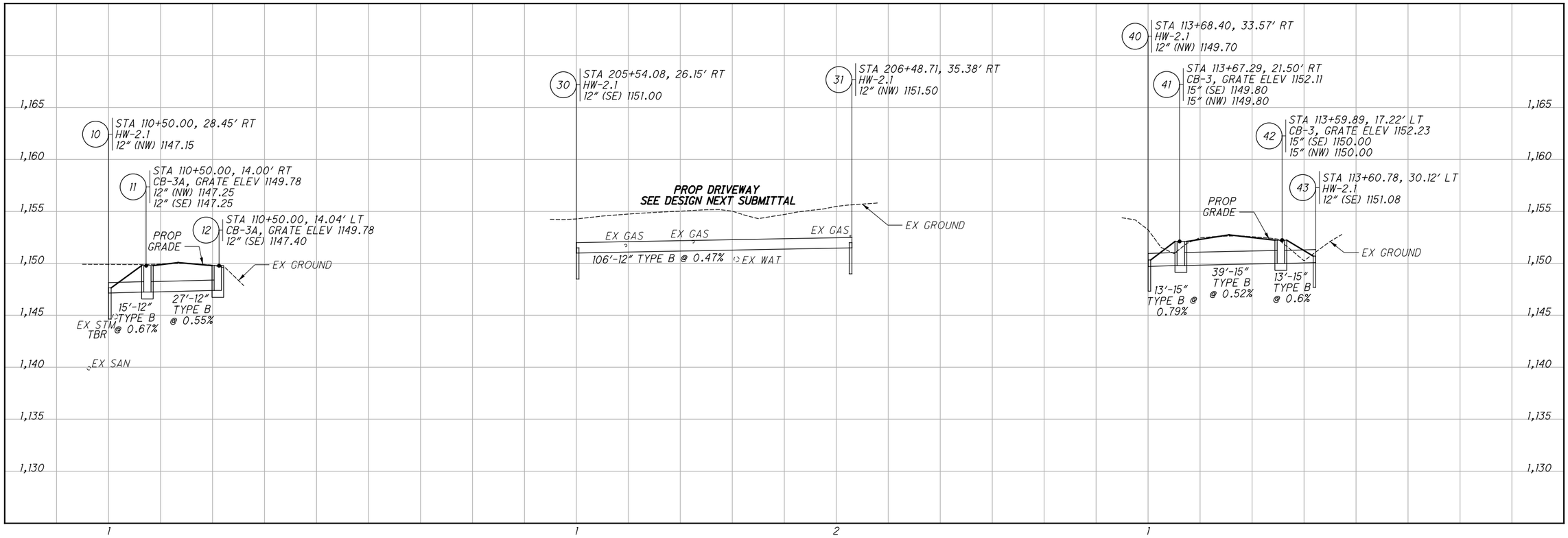
PROP C&G, TYPE 2
PROP CURB, TYPE 6
50.0' R
PROP 12" CONDUIT, TYPE B
PROP DITCH
PROP CURB, TYPE 6

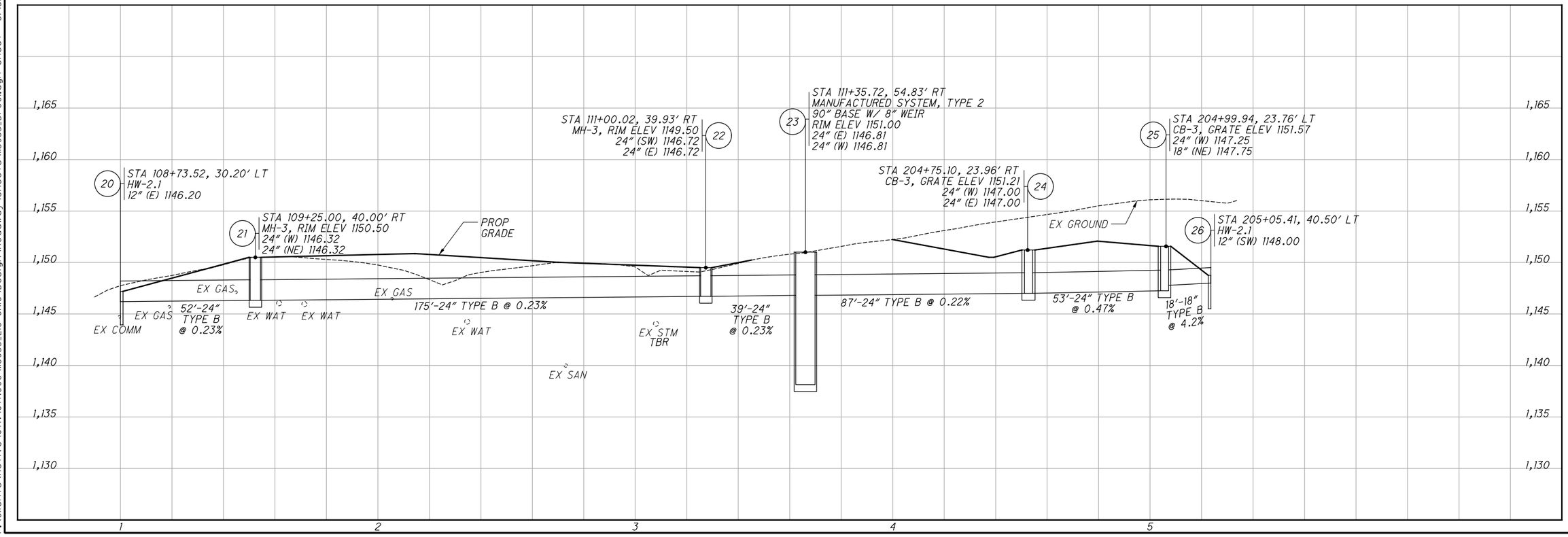
EX ASPHALT DRIVE
EX ASPHALT PARKING

DR5 COMMERCIAL DRIVE
CONCRETE - STA 206+00.00

DRIVEWAY DETAILS CR 16

LIC-CR16-0.007





CALCULATED MRO
CHECKED NRV

STORM SEWER PROFILES

LIC-CR16-0.007

39
44

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SIGNING, MISC: SOLAR POWERED LED ENHANCED SIGN

IN ADDITION TO THE REQUIREMENTS OF ITEM 630 - SIGN, FLAT SHEET, AS PER PLAN, THIS SPECIFICATION DESCRIBES THE MINIMUM ACCEPTABLE DESIGN AND PERFORMANCE REQUIREMENTS FOR LED ENHANCED SIGNS. THE SIGN SHALL BE SELF-POWERED BY SOLAR PANELS AND BATTERIES WITH NO EXTERNAL ELECTRICAL POWER INSTALLATION. THE LED ENHANCED SIGN SHALL BE MUTCD COMPLIANT. THE FOLLOWING CRITERIA SHALL BE MET:

1. THE NEW UNIT SHALL ATTACH SECURELY TO THE PROPOSED SIGN SUPPORT USING A TAMPER RESISTANT FASTENING SYSTEM. SPECIAL TOOLS NEEDED FOR THE TAMPER RESISTANT FASTENING SYSTEM SHALL BE SUPPLIED WITH EACH SIGN.

2. EACH SIGN UNIT SHALL BE IDENTIFIED WITH THE MANUFACTURER'S NAME, DATE OF MANUFACTURE, AND SERIAL NUMBER ON THE BACK SIDE.

3. THE SIGN UNIT SHALL BE VISIBLE AT A MINIMUM OF ¼ MI. DURING ALL CONDITIONS.

4. THE SIGN UNIT SHALL INCORPORATE CIRCUITRY AND A PHOTOCELL TO ENSURE THAT IS HAS BRIGHTNESS ADJUSTMENT DURING DAY, DUSK, AND AT NIGHT.

5. THE LENS OF THE LED UNIT SHALL BE CAPABLE OF WITHSTANDING ULTRAVIOLET LIGHT (DIRECT SUNLIGHT) EXPOSURE FOR A MINIMUM TIME PERIOD OF FIVE YEARS WITHOUT EXHIBITING EVIDENCE OF DETERIORATION.

6. THE LENSES SHALL WITHSTAND A 3 FOOT DROP TEST ONTO A HARD SURFACE AND SHALL BE A MINIMUM OF ¼ INCH THICK AND FREE OF BUBBLES AND IMPERFECTIONS. THE LENSES SHALL BE SMOOTH ON THE OUTSIDE, WITH NO EXTERNAL FACETS TO PREVENT DIRT AND DEBRIS BUILD-UP.

7. IF LENSES ARE TINTED, THEY SHALL MATCH THE WAVELENGTH (CHROMATICITY) OF THE LED.

8. THE INDIVIDUAL LED LIGHT SOURCES SHALL BE WIRED SO THAT A CATASTROPHIC FAILURE OF ONE LED LIGHT SOURCE WILL NOT RESULT IN THE LOSS OF MORE THAN ONE LED LIGHT SOURCE IN THE SIGN UNIT.

9. LED UNITS AND ASSOCIATED ON-BOARD CIRCUITRY SHALL CONFORM TO THE REQUIREMENTS IN FEDERAL COMMUNICATIONS COMMISSION (FCC) TITLE 47, SUB PART B, SECTION 15 REGULATIONS CONCERNING THE EMISSION OF ELECTRONIC NOISE.

10. LED'S SHALL BE RATED FOR USE IN THE AMBIENT OPERATING TEMPERATURE RANGE OF -40°F TO +166°F. (=-40°C TO +74°C)

11. THE LED'S WIRING SHALL BE SEALED WATERTIGHT TO ELIMINATE DIRT CONTAMINATION AND ALLOW FOR SAFE HANDLING IN ALL WEATHER CONDITIONS. THE LED'S SHALL BE SEALED AGAINST DUST AND MOISTURE INTRUSION AS PER THE REQUIREMENTS OF NEMA STANDARD 250-1991 FOR TYPE 4 ENCLOSURES AND TO PROTECT ALL INTERNAL LED AND ELECTRICAL COMPONENTS.

12. THE SIGN LED'S SHALL DISPLAY A MINIMUM OF 500,000 MCD FOR DAYTIME VISIBILITY.

SOLAR REQUIREMENTS -

SEE "GENERAL ELECTRICAL REQUIREMENTS FOR SOLAR-POWERED DEVICES".

REQUIRED DOCUMENTATION -

EACH SIGN UNIT SHALL BE PROVIDED WITH THE FOLLOWING DOCUMENTATION EITHER IN HARD COPY OR AS A PDF.

1. ONE SCHEMATIC DIAGRAM SHALL BE PROVIDED FOR THE SIGN UNIT ALONG WITH ANY NECESSARY INSTALLATION INSTRUCTIONS.

2. THE LED MANUFACTURERS NAME, BRAND, AND MODEL NUMBER.

WARRANTY -

1. THE LED ENHANCED SIGN UNIT SHALL BE REPAIRED OR REPLACED BY THE MANUFACTURER IF IT EXHIBITS A FAILURE DUE TO WORKMANSHIP OR MATERIAL DEFECTS WITHIN 2 YEARS OF FIELD OPERATION.

2. THE MANUFACTURER SHALL PROVIDE A WRITTEN WARRANTY AGAINST DEFECTS IN MATERIALS, WORKMANSHIP, AND LUMINOUS INTENSITY FOR THE LED ENHANCED SIGN UNIT FOR A PERIOD OF 2 YEARS AFTER INSTALLATION. A REPLACEMENT LED ENHANCED SIGN UNIT SHALL BE PROVIDED WITHIN 10 DAYS AFTER RECEIPT OF FAILED UNIT AT NO COST, EXCEPT THE COST OF SHIPPING THE FAILED UNIT.

PAYMENT -

PAYMENT FOR ITEM 630 - SIGNING MISC., SOLAR POWERED LED ENHANCED SIGN SHALL BE MADE AT THE CONTRACT BID PRICE, EACH, COMPLETELY INSTALLED IN PLACE AND FULLY FUNCTIONAL INCLUDING ALL MATERIAL, LABOR, AND EQUIPMENT REQUIRED TO FURNISH THE SIGN WITH SOLAR POWERED LED'S AND MOUNT THE SOLAR UNIT TO THE SIGN SUPPORT AS PER THE LED ENHANCED SIGN DETAIL.

GENERAL ELECTRICAL REQUIREMENTS FOR SOLAR-POWERED DEVICES

RUN REQUIREMENTS OF THIS DEVICE ARE 24 HOURS PER DAY, 7 DAYS PER WEEK.

UTILIZE ENVIRONMENTALLY-SEALED, HIGH-EFFICIENCY LED LIGHT SOURCES FOR THIS SOLAR-POWERED APPLICATION.

HOUSE THE SOLAR POWER SUPPLY CONTROLLER AND BATTERY IN ONE OR TWO STAINLESS STEEL OR ALUMINUM ENCLOSURES WITH A MINIMUM NEMA 3 OR 3X RATING.

IF THE EXTERIOR SIZE OF THE ENCLOSURE NECESSARY TO MEET THE REQUIREMENTS BELOW IS LESS THAN 1000 CUBIC INCHES, A SINGLE POLYMER ENCLOSURE RATED NEMA 4 AND LISTED AS SUNLIGHT-RESISTANT MAY BE INSTALLED, WITH APPROVAL OF THE ENGINEER.

SEAL ENCLOSURE CONDUIT ENTRIES TO PREVENT INSECT AND/OR RODENT ENTRY.

PROVIDE METAL ENCLOSURES WITH AN EXTERIOR OF BARE OR POWDER-COATED ALUMINUM, OR STAINLESS STEEL.

PROVIDE A LOCKING ENCLOSURE USING EITHER AN INTEGRATED LOCKING MECHANISM OR A PADLOCK PER C&MS 631.06.

SMALL ENCLOSURES OF 300 CUBIC INCHES OR LESS (EXTERIOR) MAY BE PROVIDED WITH SECURITY FASTENERS IN LIEU OF A LOCKING MECHANISM OR PADLOCK.

SEPARATE THE CONTROL ELECTRONICS AND BATTERY, IF CONTAINED WITHIN A SINGLE ENCLOSURE, TO PREVENT DAMAGE TO THE CONTROL ELECTRONICS IF THE BATTERY ENVELOPE IS COMPROMISED.

PROVIDE SEALED GEL-CELL OR AGM (ABSORBED GLASS MAT) LEAD-ACID BATTERIES FOR ALL INSTALLATIONS WITH INSTANTANEOUS LOAD REQUIREMENTS OF 4 WATTS OR ABOVE, REGARDLESS OF DUTY CYCLE.

FOR INSTALLATIONS WITH INSTANTANEOUS LOAD REQUIREMENTS OF LESS THAN 4 WATTS, RECHARGEABLE NICD, LI-ION, OR NIMH BATTERIES MAY BE USED INSTEAD OF AGM OR GEL-CELL, IF APPROVED BY THE ENGINEER.

PROVIDE SIGNED COPIES FROM THE SOLAR PANEL AND/OR CONTROLLER MANUFACTURER OF ALL CALCULATIONS USED TO SIZE THE SOLAR PANEL AND BATTERIES.

INCLUDE IN THESE CALCULATIONS THE INSOLATION VALUE USED AND ITS REFERENCE SOURCE, THE SOLAR PANEL EFFICIENCY, CHARGER/CONTROLLER EFFICIENCY, INVERTER EFFICIENCY, PROPOSED LED LAMP AND/OR EQUIPMENT LOAD, AND A FIGURE REPRESENTING ANTICIPATED MISCELLANEOUS LOSSES.

SHOW CALCULATIONS DOCUMENTING A RESERVE CAPACITY OF TWO WEEKS OPERATION UNDER CONTINUOUS WORST-CASE (MINIMUM) INSOLATION FIGURES (USUALLY DECEMBER) FOR THE PROPOSED GEOGRAPHIC LOCATION, USING A PANEL ELEVATION ANGLE APPROPRIATE TO THE SITE, AT A SUSTAINED TEMPERATURE OF 25 DEGREES FAHRENHEIT (-4 DEGREES CELSIUS).

DELIVER A COPY OF THE CALCULATIONS TO THE ENGINEER AND ANOTHER COPY TO THE OFFICE OF ROADWAY ENGINEERING FOR APPROVAL.

PROVIDE DOCUMENTATION SHOWING THAT THE SOLAR PANEL MANUFACTURER TESTED THE PANEL ACCORDING TO IEC61215 OR EQUIVALENT APPROVED STANDARD.

PROVIDE DOCUMENTATION SHOWING THAT SOLAR PANEL MOUNTING IS RATED FOR 90 MPH DESIGN WIND AND DESIGNED TO RESIST VANDALISM.

ENSURE NEC GROUNDING AND BONDING REQUIREMENTS ARE MET IF VOLTAGES OVER 50V AC OR DC ARE PRESENT.

PROVIDE A TIMER (IF REQUIRED) THAT SATISFIES THE REQUIREMENTS OF C&MS 731.10 AND IS LISTED ON THE ODOT QUALIFIED PRODUCTS LIST.

PROVIDE COMPLETE PHOTO-CONTROLLER SPECIFICATIONS, INCLUDING ON/OFF PHOTOMETRIC SWITCH POINTS (TYPICALLY GIVEN IN FOOT-CANDLES), IF A PHOTO-CONTROLLER IS UTILIZED.

ITEM 630 - GROUND-MOUNTED SUPPORT, NO. 3 POST, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF ODOT'S CONSTRUCTION AND MATERIAL SPECIFICATIONS, ITEM 630 - GROUND-MOUNTED SUPPORT, NO. 3 POST, AS PER PLAN SHALL UTILIZE A 2" SQUARE, BLACK POWDER COATED SUPPORT SYSTEM FROM DECKER SUPPLY, OR APPROVED EQUAL. THE POSTS SHALL FEATURE A KNOCKOUT QWIK-PUNCH CONSTRUCTION WHEREIN THE POSTS ARE MADE WITH 7/16" KNOCKOUTS, 1" ON THE CENTER, ON ALL FOUR SIDES. THE CITY OF GREEN WILL NOT ACCEPT ANY POSTS WHICH ARRIVE HAVING BEEN PRE-DRILLED OR GALVANIZED.

THE COST OF ALL LABOR, MATERIALS AND EQUIPMENT ASSOCIATED WITH THIS ITEM SHALL BE INCLUDED IN THE SQUARE FOOT PRICE FOR ITEM 630 - GROUND-MOUNTED SUPPORT, NO. 3 POST, AS PER PLAN

ITEM 630 - SIGN, FLAT SHEET, AS PER PLAN

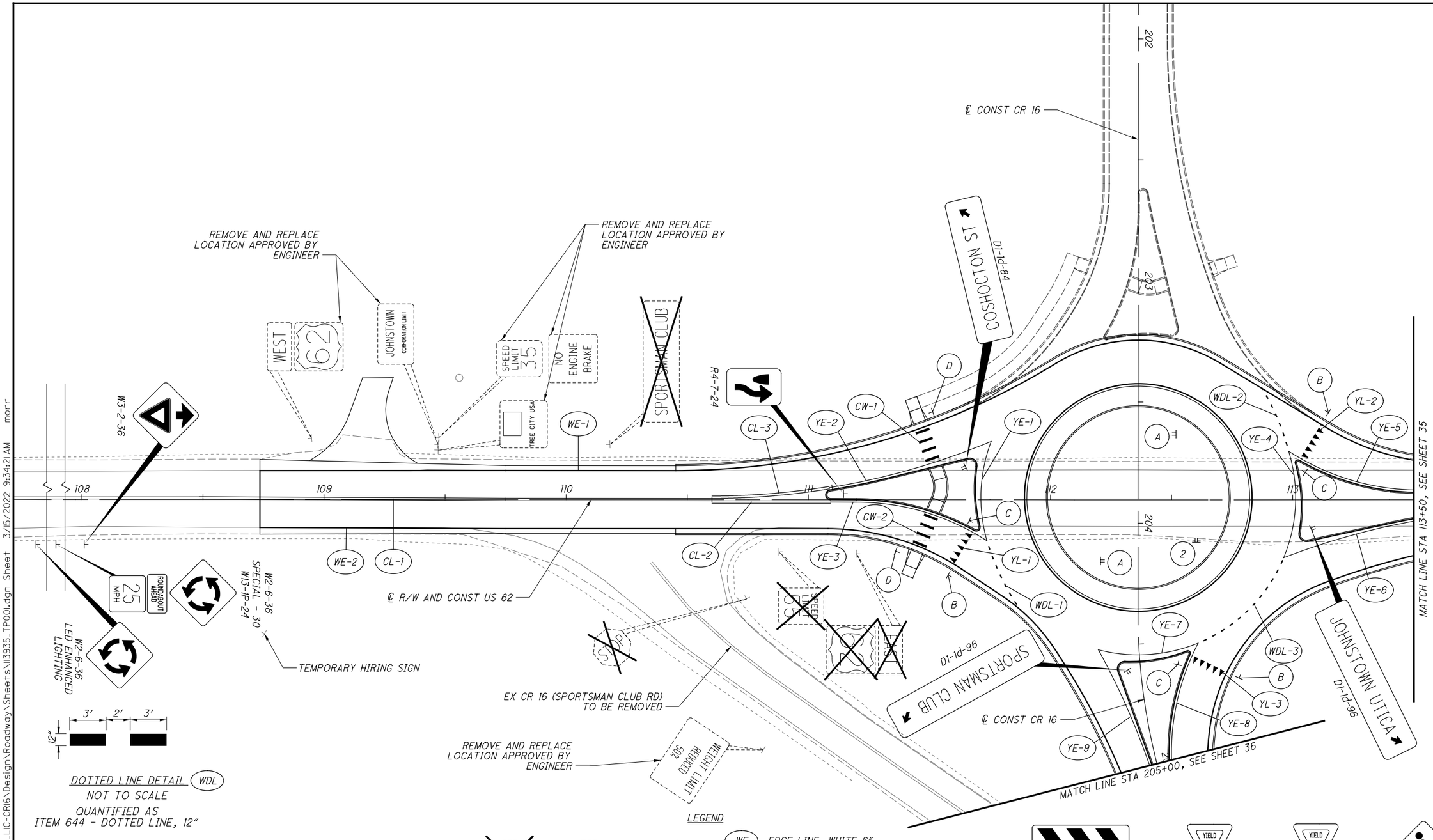
IN ADDITION TO THE REQUIREMENTS OF ODOT'S CONSTRUCTION AND MATERIAL SPECIFICATIONS, ITEM 630 - SIGN, FLAT SHEET, AS PER PLAN SHALL ALSO INCLUDE COVERING THE REVERSE SIDE OF EACH SIGN WITH BLACK VINYL SHEETING. THIS SHEETING SHALL BE "SIGNBACKER" AS MANUFACTURED BY TAPCO OR APPROVED EQUAL.

THE COST OF ALL LABOR, MATERIALS AND EQUIPMENT ASSOCIATED WITH THIS ITEM SHALL BE INCLUDED IN THE SQUARE FOOT PRICE FOR ITEM 630 - SIGN, FLAT SHEET, AS PER PLAN.

CALCULATED MRO
CHECKED NRV

TRAFFIC CONTROL NOTES

LIC-CR16-0.007



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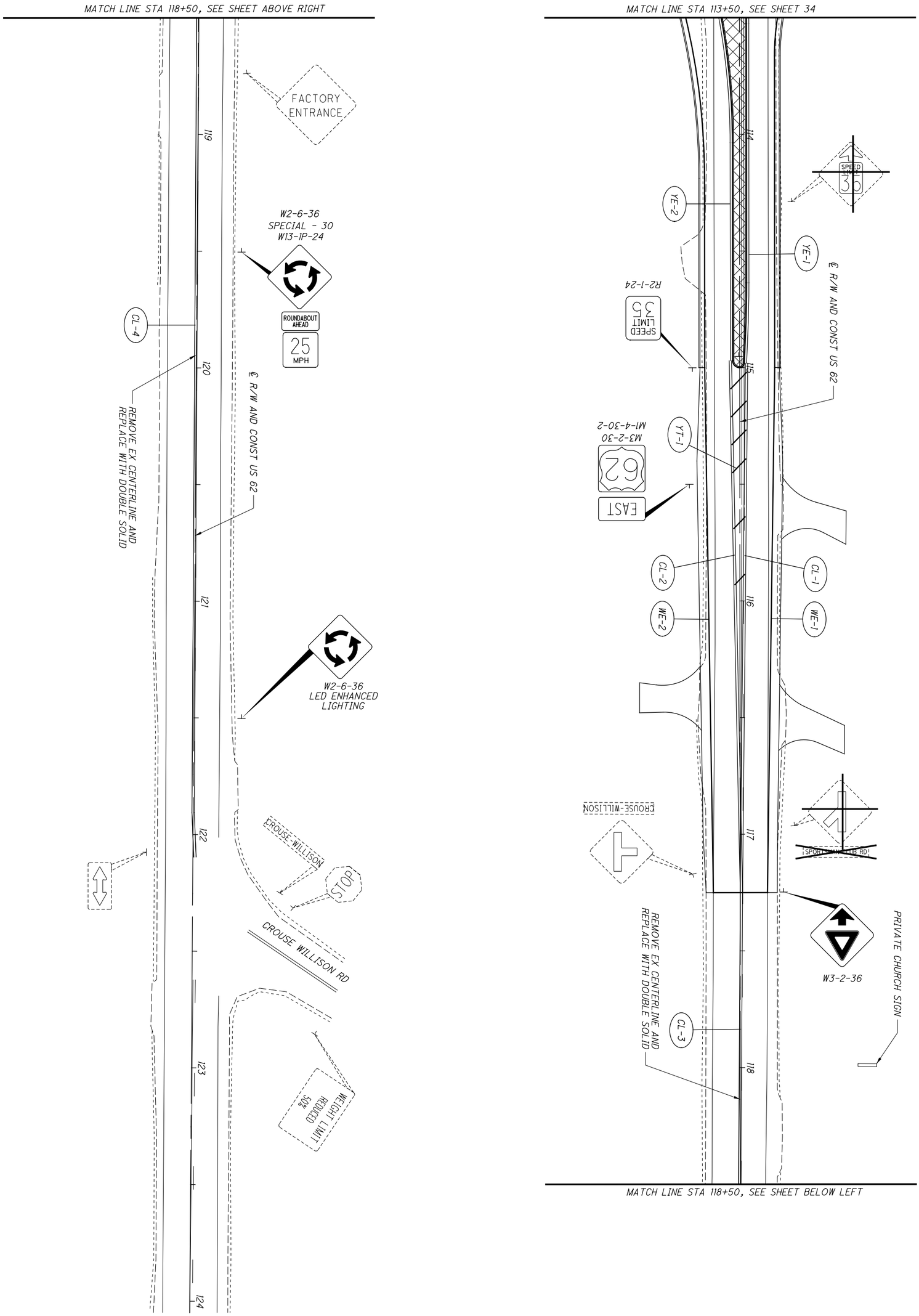
HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED MRO
CHECKED NRV

SIGNING AND PAVEMENT MARKING PLAN
US 62 AND ROUNDABOUT

LIC-CR16-0.007

41
44



FOR LEGEND SEE SHEET 34

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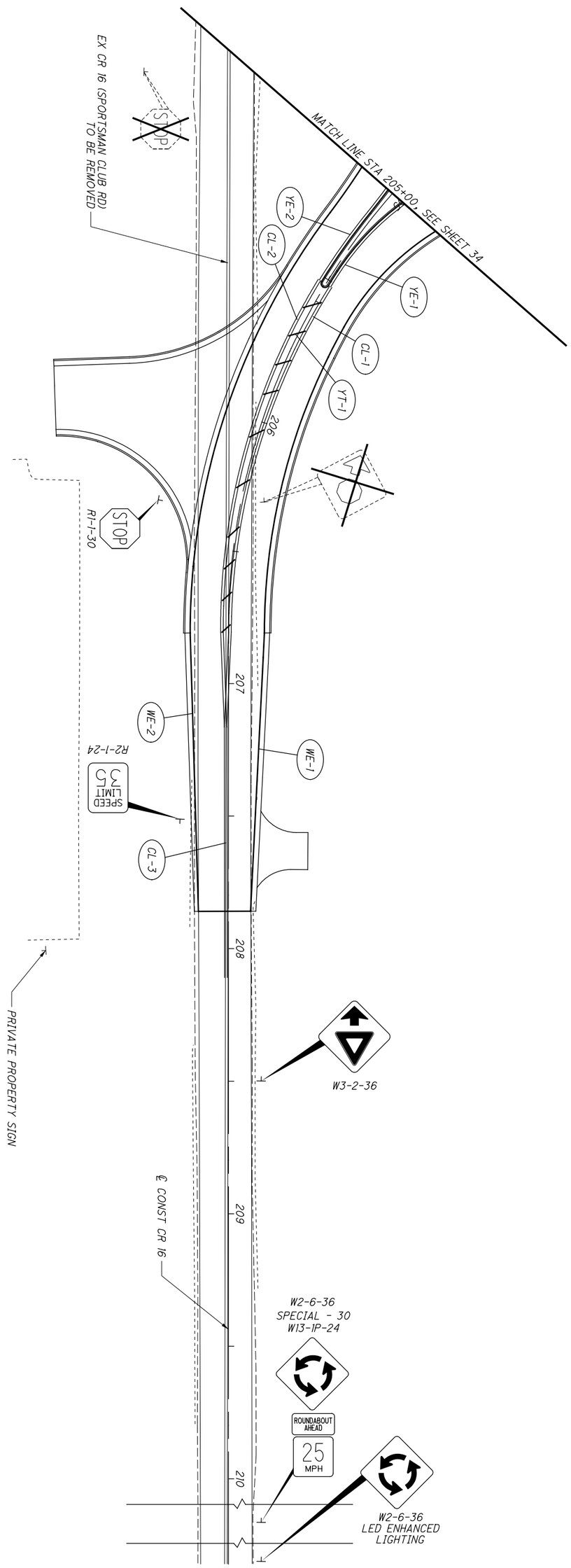
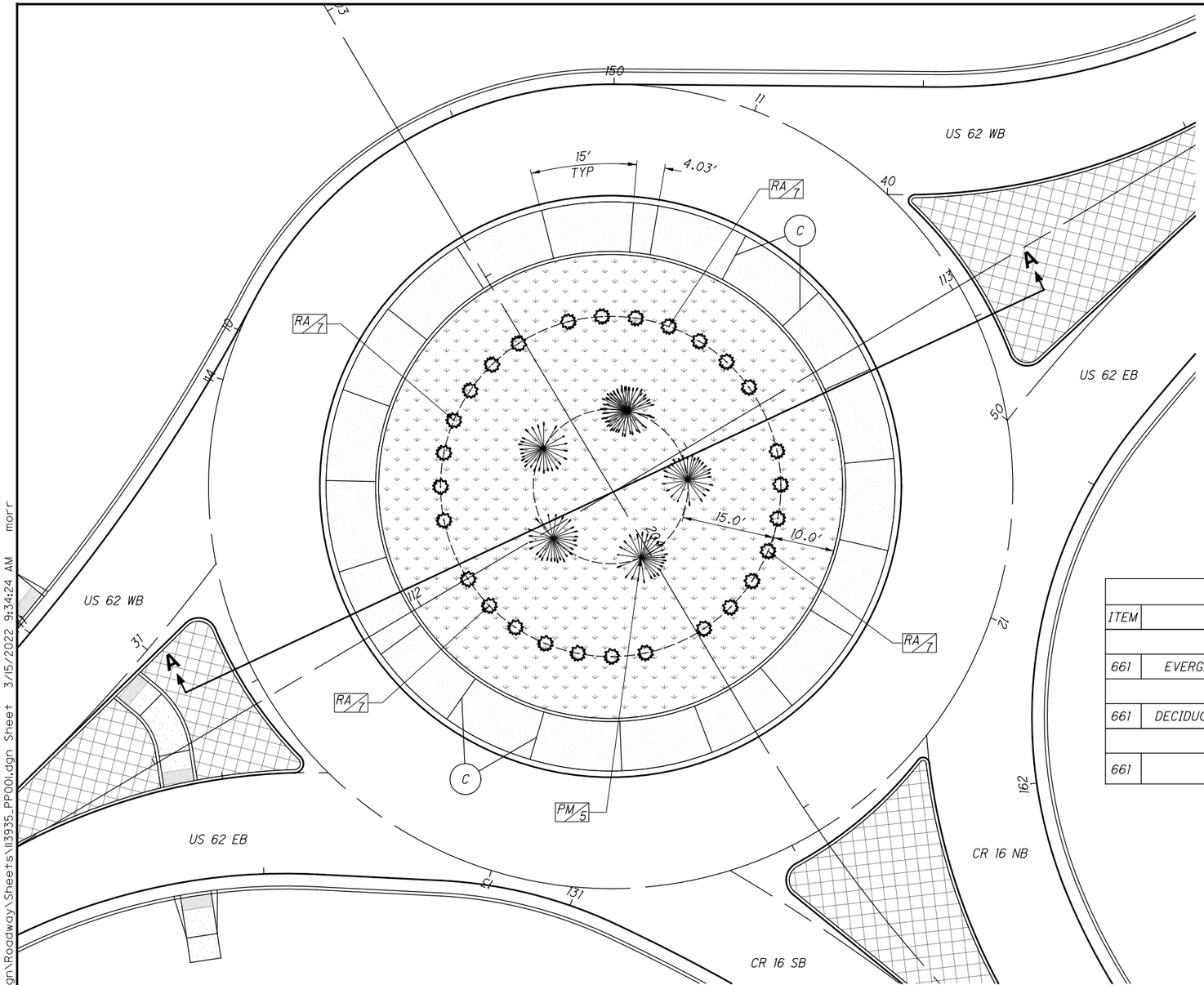
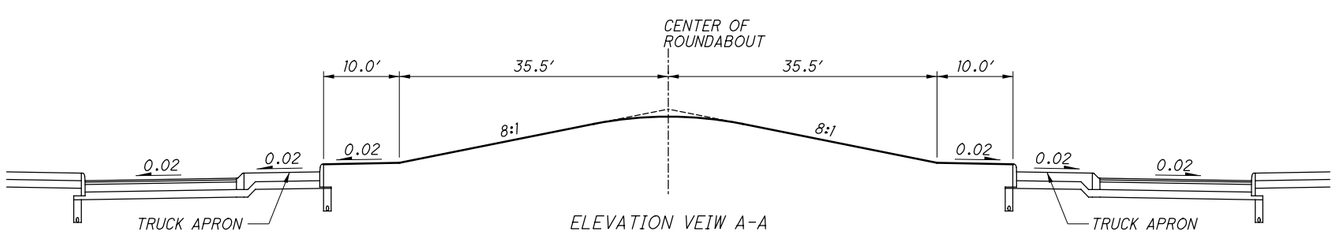


FOR LEGEND SEE SHEET 34





ELEVATION VEIW A-A

PLANTING SCHEDULE						
ITEM	DESCRIPTION	KEY	QTY	BOTANICAL NAME	COMMON NAME	PLANTING SIZE
TREES						
661	EVERGREEN TREE, 2' HEIGHT	PM	5	PINUS MUGO	MUGO PINE	5 GAL
SHRUBS						
661	DECIDUOUS SHRUB, 12" HEIGHT	RA	28	RHUS AROMATICA	FRAGRANT SUMAC	3 GAL
MULCH						
661	MULCH		-- CY	SHREDDED HARDWOOD BARK MULCH	MULCH	

LEGEND

- ITEM 657 - RIPRAP FOR TREE PROTECTION, AS PER PLAN
- ITEM 204 - GEOTEXTILE FABRIC

- ITEM 452 - NON-REINFORCED CONCRETE PAVEMENT, MISC.: 8" TRUCK APRON STAINED

- ITEM 609 - 6" CONCRETE TRAFFIC ISLAND, AS PER PLAN, TOOLED AND STAINED

(C) - CONTRACTION JOINT AS PER BP-2.2

ITEM	DESCRIPTION	QTY
204	GEOTEXTILE FABRIC	--- SY
657	RIPRAP FOR TREE PROTECTION, AS PER PLAN	--- SY

HORIZONTAL SCALE IN FEET
0 5 10 20

CALCULATED MRO
CHECKED NRV

LANDSCAPE PLAN AND PAVEMENT JOIN DETAIL - ROUNDABOUT

LIC-CR16-0.007

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