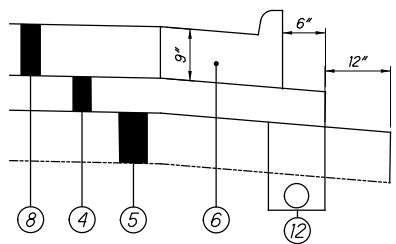
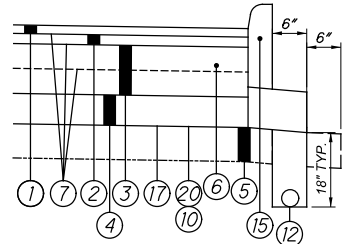


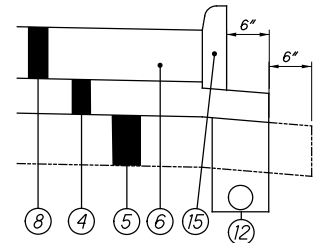
**DETAIL 1**  
 ASPHALT PAVEMENT  
 BASE AND SUBBASE STEP



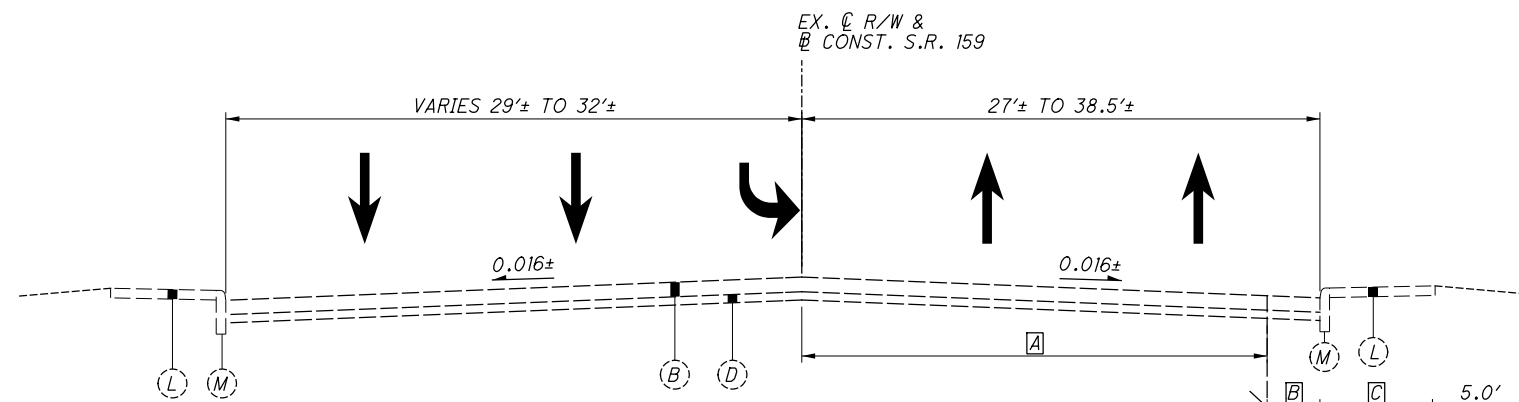
**DETAIL 2**  
 CONCRETE PAVEMENT  
 BASE AND SUBBASE STEP



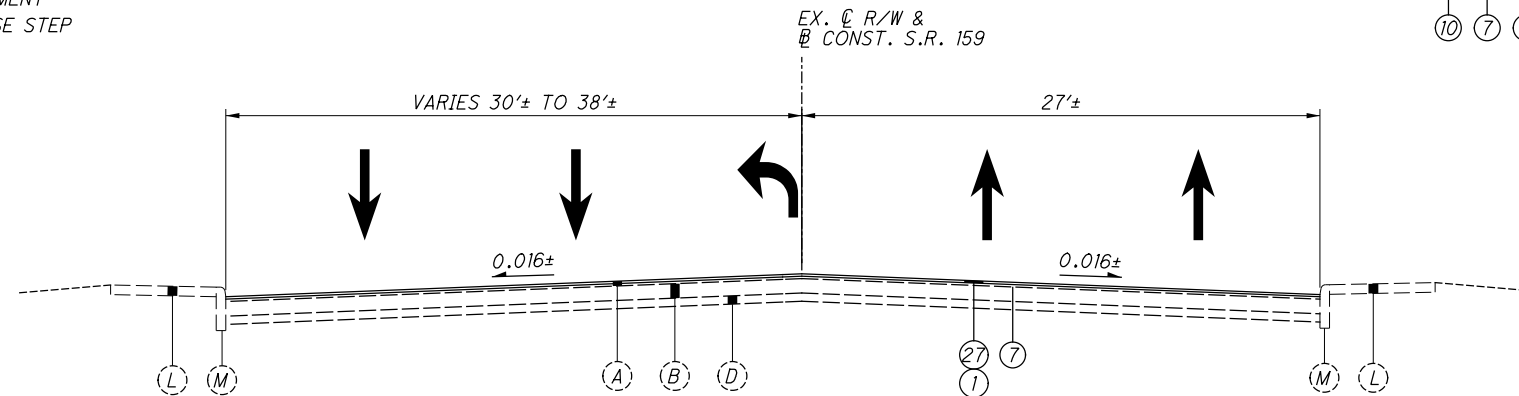
**DETAIL 3**  
 ASPHALT PAVEMENT  
 BASE AND SUBBASE STEP



**DETAIL 4**  
 CONCRETE PAVEMENT  
 BASE AND SUBBASE STEP



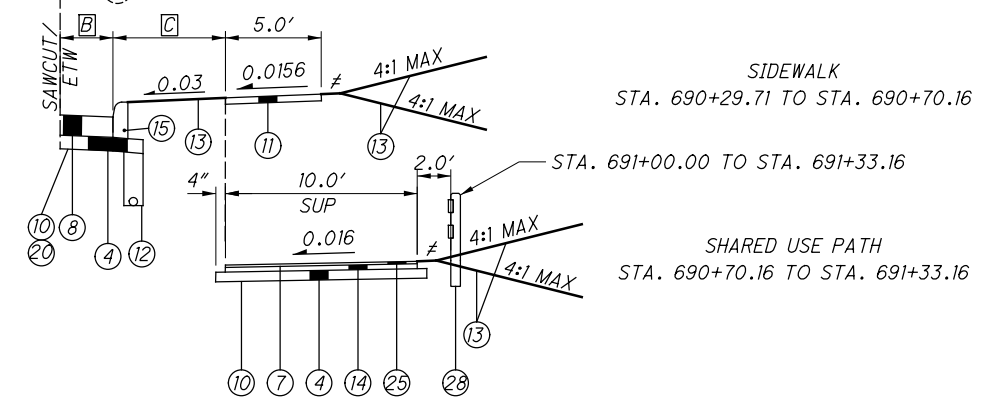
**NORMAL SECTION - BRIDGE STREET**  
 STA. 690+26.79 TO STA. 691+33.16  
 (BEGIN EXISTING APPROACH SLAB)



**NORMAL SECTION - BRIDGE STREET**  
 STA. 688+50.00 TO STA. 690+26.79

≠ 2' GRADED SHOULDER WITH 4' ROUNDING

- Ⓐ 24.88' AT STA. 690+29.71 TO 24.25' AT STA. 691+30.00  
 24.25' FROM STA. 691+30.00 TO STA. 691+33.16
- Ⓑ 3.25' FROM STA. 690+29.71 TO 1.50' AT STA. 690+79.92  
 1.50' FROM STA. 690+79.92 TO STA. 691+33.16
- Ⓒ VARIES, SEE PLAN SHEETS



**NOTE:**  
 VOID REDUCING ASPHALT MEMBRANE (VRAM) SHALL BE FURNISHED  
 ON ALL COLD LONGITUDINAL CONSTRUCTION JOINTS FOR ITEM 442  
 ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446)

± MATCH EXISTING

**PROPOSED LEGEND**

- ① ITEM 442 - 1.50" ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446)
- ①A ITEM 442 - 1.50" ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446), AS PER PLAN
- ② ITEM 442 - 2.25" ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE A, (446)
- ③ ITEM 301 - 8" ASPHALT CONCRETE BASE, (449), PG64-22 (PLACED IN TWO 4" LIFTS)
- ④ ITEM 304 - 6" AGGREGATE BASE
- ⑤ ITEM 204 - EXCAVATION OF SUBGRADE (S.R. 159 18"; MARIETTA RD. 12")  
 ITEM 204 - GEOTEXTILE FABRIC  
 ITEM 204 - GRANULAR MATERIAL, TYPE C
- ⑥ ITEM 609 - COMBINATION CURB AND GUTTER, TYPE 2
- ⑦ ITEM 407 - NON-TRACKING TACK COAT (APPLICATION RATE PER CMS 407.06)
- ⑧ ITEM 452 - 9" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P WITH QC/QA
- ⑨ ITEM 452 - 8" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P WITH WC/QA
- ⑩ ITEM 204 - SUBGRADE COMPACTION
- ⑪ ITEM 608 - 4" CONCRETE WALK
- ⑫ ITEM 605 - 6" BASE PIPE UNDERDRAINS (18" DEPTH)
- ⑬ ITEM 659 - SEEDING AND MULCHING, CLASS 1
- ⑭ ITEM 301 - 3" ASPHALT CONCRETE BASE, (449), PG64-22
- ⑮ ITEM 609 - CURB, TYPE 6

**EXISTING LEGEND**

- Ⓐ 4"± ASPHALT CONCRETE PAVEMENT
- Ⓑ 9"± REINFORCED CONCRETE PAVEMENT
- Ⓒ 9"± ASPHALT CONCRETE BASE
- Ⓓ 6"± AGGREGATE BASE
- Ⓔ 2.5"± ASPHALT CONCRETE PAVEMENT
- Ⓕ 4"± AGGREGATE BASE
- Ⓖ 6"± ASPHALT CONCRETE BASE
- Ⓗ 3"± ASPHALT CONCRETE PAVEMENT
- Ⓘ 7"± ASPHALT CONCRETE PAVEMENT
- Ⓙ 10"± SUBBASE
- Ⓚ 12"± ASPHALT CONCRETE PAVEMENT
- Ⓛ SIDEWALK
- Ⓜ CURB
- Ⓝ CURB & GUTTER
- Ⓞ UNDERDRAIN
- ⑯ ITEM 609 - CONCRETE MEDIAN
- ⑰ ITEM 304 - 8.75" AGGREGATE BASE (PLACED UNDER CURB AND GUTTER)
- ⑱ ITEM 622 - CONCRETE BARRIER, SINGLE SLOPE, TYPE D
- ⑲ ITEM 606 - GUARDRAIL, TYPE MGS
- ⑳ ITEM 204 - PROOF ROLLING
- ㉑ LONGITUDINAL JOINT PER BP-2.1
- ㉒ ITEM 609 - CURB, TYPE 9
- ㉓ ITEM 441 - 1.5" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (448)
- ㉔ ITEM 452 - 7" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P
- ㉕ ITEM 441 - 1.50" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448)
- ㉖ ITEM 622 - CONCRETE BARRIER, TYPE B, AS PER PLAN
- ㉗ ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE, 1.50"
- ㉘ NOT USED
- ㉙ ITEM 609 - CURB, TYPE 7
- ㉚ ITEM 601 - PAVED GUTTER, TYPE 1-2
- ㉛ ITEM 601 - CRUSHED AGGREGATE SLOPED PROTECTION (6" THICK)

TYPICAL SECTIONS - BRIDGE STREET

DESIGN AGENCY

**B&N**  
 burgessniple.com

DESIGNER  
 WKA

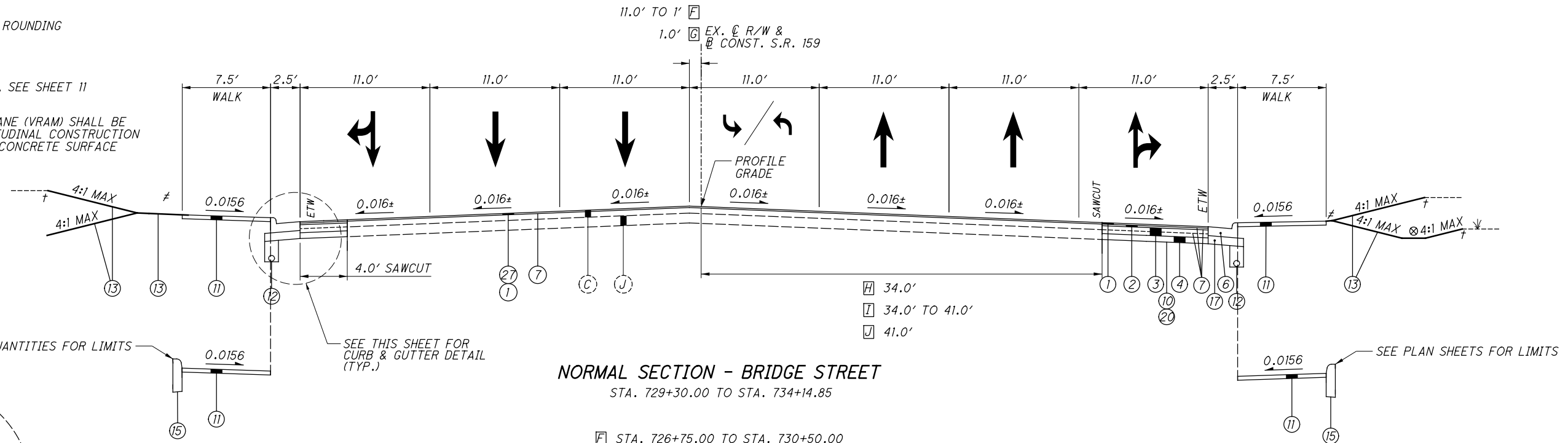
REVIEWER  
 DSS 10/07/24

PROJECT ID  
 113013

SHEET TOTAL  
 11 592

SEE LEGEND ON SHEET 11  
 ≠ 2' GRADED SHOULDER WITH 4' ROUNDING  
 ⊗ 4' DITCH WITH 8' ROUNDING  
 † 4' ROUNDING  
 ± MATCH EXISTING  
 FOR CURB AND GUTTER DETAILS, SEE SHEET 11

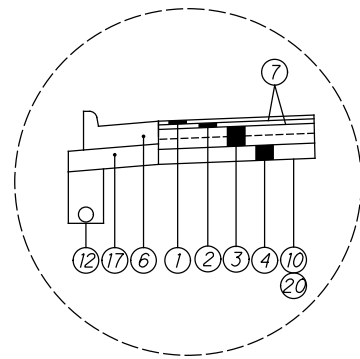
NOTE:  
 VOID REDUCING ASPHALT MEMBRANE (VRAM) SHALL BE FURNISHED ON ALL COLD LONGITUDINAL CONSTRUCTION JOINTS FOR ITEM 442 ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446)



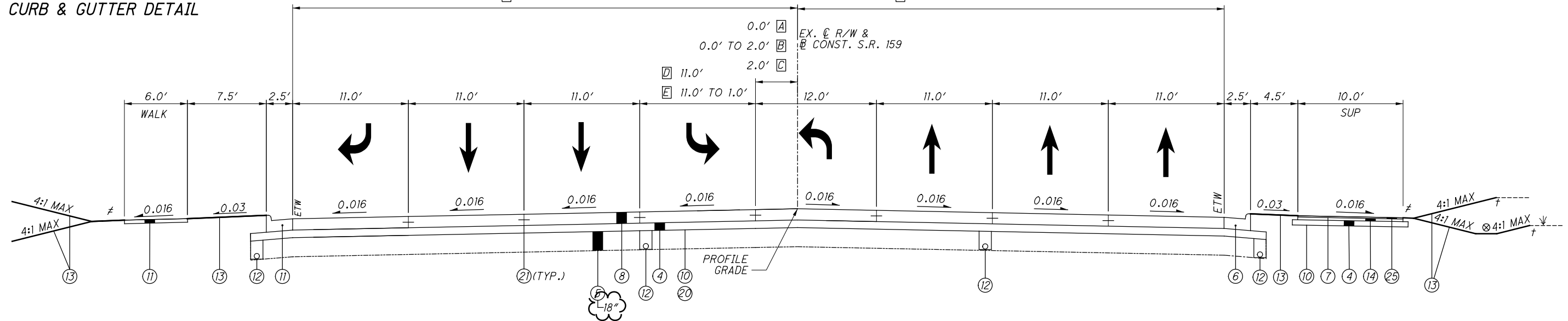
**NORMAL SECTION - BRIDGE STREET**  
 STA. 729+30.00 TO STA. 734+14.85

- F STA. 726+75.00 TO STA. 730+50.00
- G STA. 730+50.00 TO STA. 733+50.00
- H STA. 729+30.00 TO STA. 731+00.00
- I STA. 731+00.00 TO STA. 731+57.14
- J STA. 731+57.14 TO STA. 733+00.00

- D 44.0'
- E 44.0' TO 34.0'
- A 45.0'
- B 45.0' TO 43.0'
- C 43.0'



**CURB & GUTTER DETAIL**



**NORMAL SECTION - BRIDGE STREET**  
 STA. 724+84.63 TO STA. 729+30.00

- A STA. 724+84.63 TO STA. 726+50.00
- B STA. 726+50.00 TO STA. 727+50.00
- C STA. 727+50.00 TO STA. 729+30.00
- D STA. 724+84.63 TO STA. 726+75.00
- E STA. 726+75.00 TO STA. 730+50.00

NOTE:  
 REMOVE AND REPLACE SUBGRADE FROM APPROXIMATELY STA. 727+00.00 TO STA. 729+00.00. SEE SUBGRADE COMPACTION NOTE ON SHEET 29.

ROS-159-0.41

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TYPICAL SECTIONS - BRIDGE STREET

DESIGN AGENCY

**B&N**  
 burgessniple.com

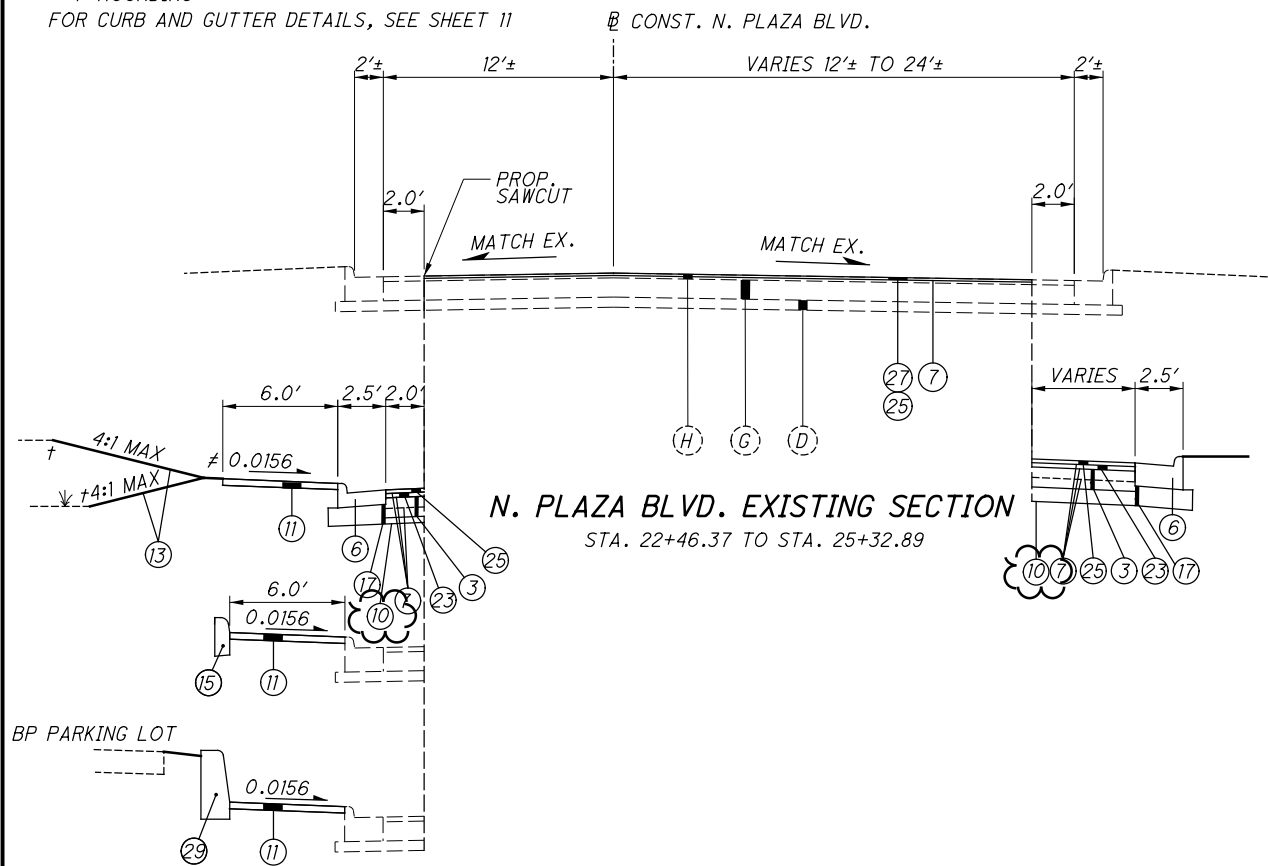
DESIGNER  
 WKA

REVIEWER  
 DSS 10/07/24

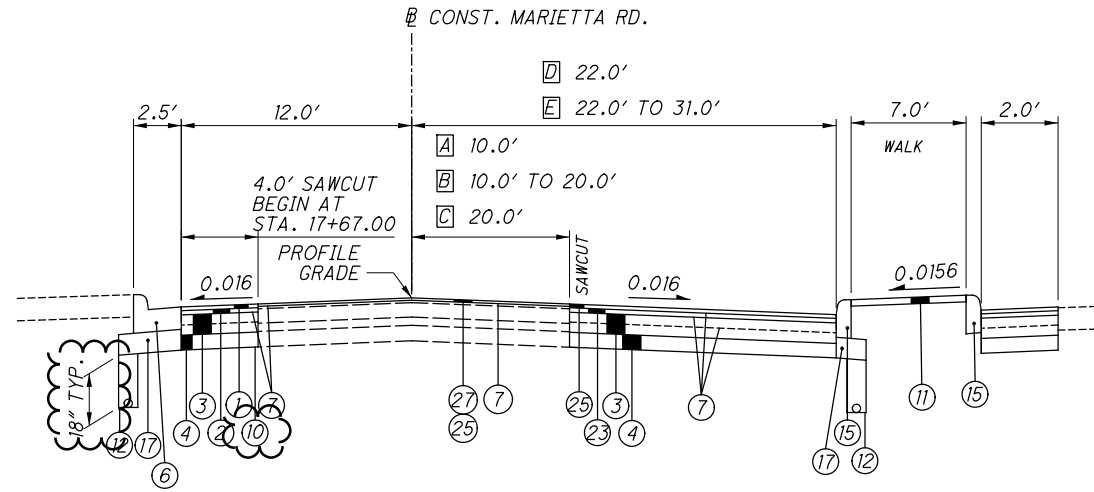
PROJECT ID  
 113013

SHEET TOTAL  
 15 592

SEE LEGEND ON SHEET 11  
 ≠ 2' GRADED SHOULDER WITH 4' ROUNDING  
 ⊗ 4' DITCH WITH 8' ROUNDING  
 † 4' ROUNDING  
 FOR CURB AND GUTTER DETAILS, SEE SHEET 11

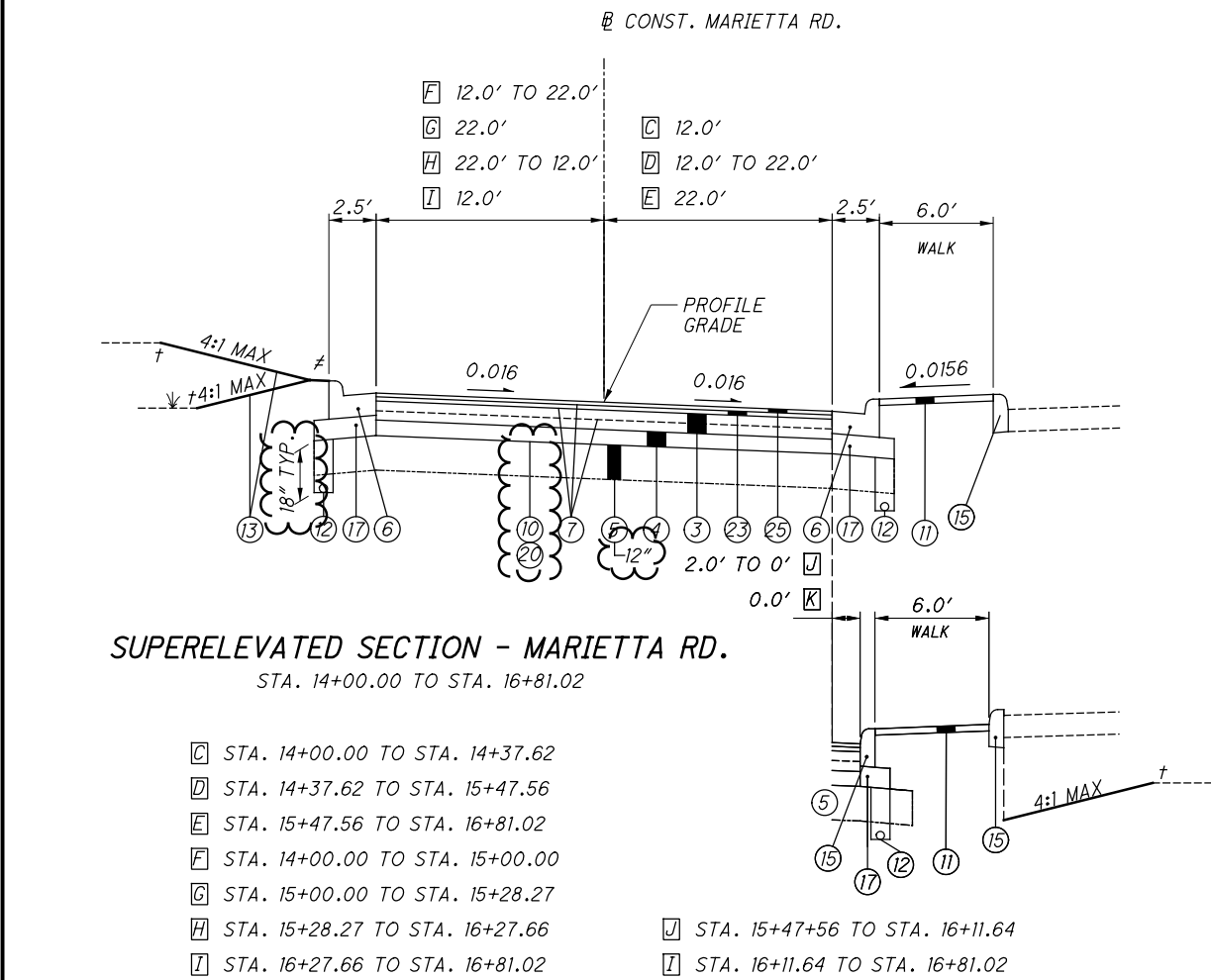


**N. PLAZA BLVD. EXISTING SECTION**  
 STA. 22+46.37 TO STA. 25+32.89



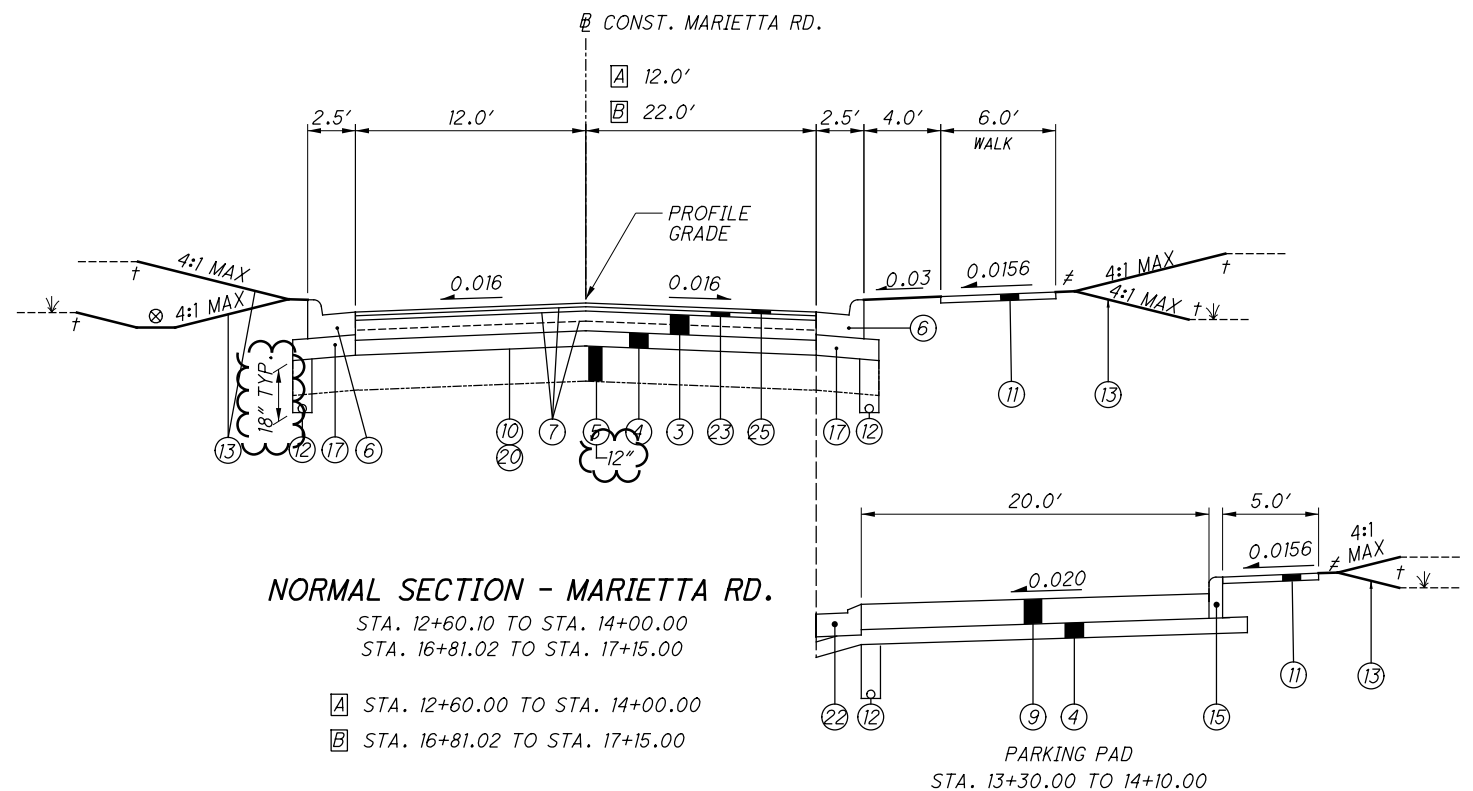
**NORMAL SECTION - MARIETTA RD.**  
 STA. 17+15.00 TO STA. 19+00.00

- A STA. 17+15.00 TO STA. 17+60.00
- B STA. 17+60.00 TO STA. 18+10.00
- C STA. 18+10.00 TO STA. 19+00.00
- D STA. 17+52.00 TO STA. 18+10.00
- E STA. 18+10.00 TO STA. 19+00.00



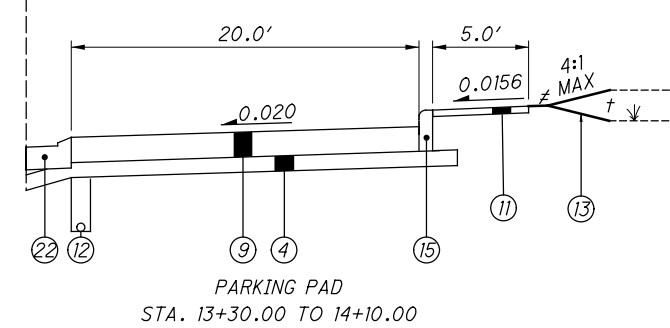
**SUPERELEVATED SECTION - MARIETTA RD.**  
 STA. 14+00.00 TO STA. 16+81.02

- C STA. 14+00.00 TO STA. 14+37.62
- D STA. 14+37.62 TO STA. 15+47.56
- E STA. 15+47.56 TO STA. 16+81.02
- F STA. 14+00.00 TO STA. 15+00.00
- G STA. 15+00.00 TO STA. 15+28.27
- H STA. 15+28.27 TO STA. 16+27.66
- I STA. 16+27.66 TO STA. 16+81.02
- J STA. 15+47.56 TO STA. 16+11.64
- K STA. 16+11.64 TO STA. 16+81.02



**NORMAL SECTION - MARIETTA RD.**  
 STA. 12+60.10 TO STA. 14+00.00  
 STA. 16+81.02 TO STA. 17+15.00

- A STA. 12+60.00 TO STA. 14+00.00
- B STA. 16+81.02 TO STA. 17+15.00



NOTE:  
 REMOVE AND REPLACE SUBGRADE FROM APPROXIMATELY STA. 15+00.00 TO STA. 17+50.00. SEE SUBGRADE COMPACTION NOTE ON SHEET 29.

**UTILITIES**

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

**TELECOMMUNICATIONS**

CHARTER COMMUNICATIONS  
32 Enterprise Drive  
Chillicothe, Ohio 45601  
Mr. Aaron Kempton  
740-648-3091

GLO FIBER  
(FORMERLY HORIZON CHILLICOTHE TELEPHONE)  
P. O. Box 480  
Chillicothe, Ohio 45601  
Mr. Jon Dreitzler  
740-606-0937

**ELECTRIC**

AMERICAN ELECTRIC POWER (DISTRIBUTION)  
38831 State Route 7  
Reedsville, Ohio 45772  
Mr. Clarke Saunders  
740-985-3054

**WATER/SANITARY/STORM**  
CITY OF CHILLICOTHE  
UTILITY DEPARTMENT  
P.O. Box 630  
Chillicothe, OH 45601  
Mr. Nathan Prosch, Utilities Director  
740-773-1932

AMERICAN ELECTRIC POWER (TRANSMISSION)  
8600 Smiths Mill Road  
New Albany, Ohio 43054  
Mr. Michael Carr  
380-205-5072

**GAS**  
COLUMBIA GAS OF OHIO  
843 Piatt Avenue  
Chillicothe, Ohio 45601  
Mr. Hudson Park  
740-637-9378

AMERICAN ELECTRIC POWER (SOLUTION CENTER)  
1-800-277-2177

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.

THE DISPOSITION OF EXISTING PRIVATELY OWNED PUBLIC UTILITIES ARE NOT SPECIFIED IN THE PLANS. REFER TO THE UTILITY NOTE PROVIDED IN THE CONTRACT DOCUMENTS FOR THE DISPOSITION OF THESE UTILITIES. UTILITY RELOCATION PLANS ARE ON FILE AND MAY BE REVIEWED AT THE DISTRICT 9 UTILITIES OFFICE.

EXISTING CITY AND/OR STATE OWNED PUBLIC UTILITIES (CITY OF CHILLICOTHE AND ODOT) BEING IMPACTED BY THE PROPOSED WORK ARE TO BE RELOCATED WITH THIS PROJECT AS SPECIFIED IN THESE PLANS. IF IT IS DETERMINED A PUBLIC UTILITY IS IN CONFLICT WITH PROPOSED WORK AND IS NOT SPECIFIED TO BE RELOCATED IN THESE PLANS, CONTRACTOR SHALL COORDINATE WITH THE ENGINEER AND UTILITY OWNER TO DETERMINE A RELOCATION PLAN OR ALTERNATIVE DESIGN.

**SURVEYING PARAMETERS**

PRIMARY PROJECT CONTROL MONUMENTS GOVERN ALL POSITIONING ON ODOT PROJECTS. SEE SHEETS 3 - 5 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 V.R.S.  
MONUMENT TYPE: TYPE A

**VERTICAL POSITIONING**

ORTHOMETRIC HEIGHT DATUM: NAVD88  
GEOID: GEOID 18

**HORIZONTAL POSITIONING**

REFERENCE FRAME: NAD83 (2011)  
ELLIPSOID: GRS80  
MAP PROJECTION: LAMBERT CONFORMAL CONIC  
COORDINATE SYSTEM: OHIO STATE PLANE, SOUTH ZONE  
COMBINED SCALE FACTOR: 1.00008862  
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 CMS 623.

UNITS ARE IN U.S. SURVEY FEET.

**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 WITHIN 300-FEET OF RESIDENTIAL OR HOTEL PROPERTIES BETWEEN THE HOURS OF 9:00 PM AND 7:00 AM. 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.

**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.

**MONUMENT ASSEMBLIES**

CONSTRUCT MONUMENT ASSEMBLIES IN ACCORDANCE WITH THE DETAILS SHOWN ON THE STANDARD CONSTRUCTION DRAWINGS AND AT THE LOCATIONS SHOWN ON THE RIGHT OF WAY PLANS.

**ROUNDING**

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

**EXISTING UTILITY MANHOLES TO BE ABANDONED**

AT LOCATIONS SPECIFIED IN THE PLANS, CONTRACTOR SHALL FILL ABANDONED UTILITY (GLO FIBER) MANHOLES WITHIN PROPOSED PAVEMENT LIMITS AS DESCRIBED IN THIS NOTE. CONTRACTOR SHALL COORDINATE WITH UTILITY OWNER PRIOR TO COMPLETING THIS WORK TO ENSURE FACILITIES ARE ABANDONED.

REMOVE MANHOLE LID AND FILL VAULT AND OTHER VOIDS WITH LOW STRENGTH MORTAR (LSM) BACKFILL (TYPE 2) TO 12 INCHES BELOW THE SURROUNDING PAVEMENT SURFACE ELEVATION. REPLACE THE MANHOLE LID AND ALLOW THE LSM TO SET FOR AT LEAST 12 HOURS PER CMS SECTION 613. AFTER LSM IS CURED TO AN ACCEPTABLE LEVEL BY THE ENGINEER, REMOVE LID, CASTING, AND ANY ASSOCIATED CONCRETE OR LOOSE MATERIALS TO 12 INCHES BELOW THE SURROUNDING PAVEMENT ELEVATION AND FILL REMAINING 12 INCHES TO THE SURFACE OF SURROUNDING PAVEMENT WITH A RAPID REPAIR CONCRETE MIX (RRCM) CONFORMING TO CMS SECTION 255 PRIOR TO THE FINAL MILLING AND RESURFACING. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY AND SHALL INCLUDE ALL MATERIALS, LABOR, AND EQUIPMENT REQUIRED TO COMPLETE THE WORK DESCRIBED IN THIS NOTE.

ITEM 613 - LOW STRENGTH MORTAR BACKFILL (TYPE 2) 8 CY  
ITEM 202 - MANHOLE ABANDONED, AS PER PLAN 4 EACH  
ITEM 511 - CONCRETE, MISC.: CONCRETE, CLASS RRCM 8 SY

**EXISTING UTILITY HANDHOLES AND MANHOLES TO BE REMOVED**

AT LOCATIONS SPECIFIED IN THE PLANS, CONTRACTOR SHALL REMOVE ABANDONED UTILITY (GLO FIBER) HANDHOLES OR JUNCTION BOX AND MANHOLES PER CMS SECTION 202 AND BACKFILL WITH A SUITABLE MATERIAL AS SPECIFIED IN THE CMS AND APPROVED BY THE ENGINEER. CONTRACTOR SHALL COORDINATE WITH UTILITY OWNER PRIOR TO COMPLETING THIS WORK TO ENSURE FACILITIES ARE ABANDONED.

THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY AND SHALL INCLUDE ALL MATERIALS, LABOR, AND EQUIPMENT REQUIRED TO COMPLETE THE WORK DESCRIBED IN THIS NOTE.

ITEM 202 - JUNCTION BOX REMOVED, AS PER PLAN 4 EACH  
ITEM 202 - MANHOLE REMOVED, AS PER PLAN 4 EACH

**ITEM SPECIAL - FILL AND PLUG EXISTING CONDUIT**

THIS ITEM CONSISTS OF THE CONSTRUCTION OF BULKHEADS IN AN EXISTING 36 INCH DIAMETER CONDUIT AND FILLING THE AREA SEALED OFF WITH ITEM 613 LOW STRENGTH MORTAR BACKFILL.

LOCATE THE BULKHEADS AT THE LIMITS OF THE AREA TO BE FILLED. THE BULKHEADS CONSIST OF BRICK OR CONCRETE MASONRY WITH A MINIMUM THICKNESS OF 12 INCHES.

PUMP THE FILL MATERIAL INTO PLACE OR BY OTHER MEANS APPROVED BY THE ENGINEER, SO THAT AFTER SETTLEMENT, AT LEAST 90 PERCENT OF THE CROSS-SECTIONAL AREA OF THE CONDUIT, FOR ITS ENTIRE LENGTH IS FILLED. THE LENGTH OF FILLED AND PLUGGED CONDUIT TO BE PAID FOR IS THE ACTUAL NUMBER OF FEET (MEASURED ALONG THE CENTERLINE OF EACH CONDUIT FROM OUTER FACE TO OUTER FACE OF BULKHEADS) FILLED AND PLUGGED AS DESCRIBED ABOVE.

**PLAN ABBREVIATIONS**

THE FOLLOWING LIST OF ABBREVIATION DEFINITIONS IS USED FOR THIS PLAN SET:

ABBREVIATION	DESCRIPTION
ATG	ADJUSTED TO GRADE
AA	ANCHOR ASSEMBLY
APP	AS PER PLAN
ASPH.	ASPHALT
AVE.	AVENUE
BM	BENCH MARK
BLVD.	BOULEVARD
BTA	BRIDGE TERMINAL ASSEMBLY
CB	CATCH BASIN
COMM.	COMMERCIAL
CONC.	CONCRETE
CONST.	CONSTRUCTION
CONT'D	CONTINUED
CORP.	CORPORATION
CMP	CORRUGATED METAL PIPE
CU YD	CUBIC YARD
CI	CURB INLET
CS	COMBINED SEWER
DIST.	DISTANCE
DND	DO NOT DISTURB
DR.	DRIVE/DRIVEWAY
EA.	EACH
EDA	EARTH DISTURBED AREA
EB	EASTBOUND
EL	EDGE LINE
EOI	END OF INFORMATION
EORI	END OF RECORDED INFORMATION
EOP	EDGE OF PAVEMENT
EOS	EDGE OF SHOULDER
ELEC.	ELECTRIC
ELEV.	ELEVATION
EST.	ESTIMATE/ESTIMATED
EXC.	EXCAVATION
EX.	EXISTING
FT.	FEET
FH	FIRE HYDRANT
FM	FORCE MAIN
FSAN	FORCE MAIN SANITARY
GR	GUARDRAIL
HW	HEADWALL
HWY.	HIGHWAY
IN.	INCHES
INT.	INTERSECTION
INV.	INVERT
IR	INTERSTATE ROUTE
ITS	INTELLIGENT TRANSPORTATION
LON	LENGTH OF NEED
LIN.	LINEAR
MOT	MAINTENANCE OF TRAFFIC
MH	MANHOLE
MAX.	MAXIMUM
MGS	MIDWEST GUARDRAIL SYSTEM
MI.	MILE(S)
MIN.	MINIMUM
MO.	MONTH(S)
N	NORTH
NB	NORTHBOUND
NE	NORTHEAST
NW	NORTHWEST
NO.	NUMBER
N.T.S.	NOT TO SCALE
OH	OVERHEAD
PVMT	PAVEMENT
PL.	PLACE

**PLAN ABBREVIATIONS (CONTD.)**

ABBREVIATION	DESCRIPTION
PCB	PORTABLE CONCRETE BARRIER
PG	PROFILE GRADE
PGL	PROFILE GRADE LINE
PL OR P	PROPERTY LINE
PROP.	PROPOSED
QL	(SUE) QUALITY LEVEL
RAD.	RADIUS
REF.	REFERENCE
REINF.	REINFORCED
RMVD.	REMOVED
RES.	RESIDENTIAL
RD.	ROAD
RCP	ROCK CHANNEL PROTECTION
RNDG.	ROUNDING
RTG	RECONSTRUCTED TO GRADE
SAN.	SANITARY
SEC.	SECTION
SHT.	SHEET
SHLDR.	SHOULDER
S	SOUTH
SB	SOUTHBOUND
SE	SOUTHEAST
SR	STATE ROUTE
SW	SOUTHWEST
SQ FT	SQUARE FEET
SQ YD	SQUARE YARD
STD.	STANDARD
STA.	STATION
ST.	STREET
STM	STORM
STRUCT.	STRUCTURE
TELE.	TELEPHONE
TEMP.	TEMPORARY
TBA	TO BE ABANDONED
TBR	TO BE REMOVED
TBRR	TO BE REMOVED AND RELOCATED
TOT.	TOTAL
TWP.	TOWNSHIP
TYP.	TYPICAL
US	UNITED STATES ROUTE
VAR.	VARIABLE/VARIES
VC	VERTICAL CURVE
V.C.	VERTICAL CLEARANCE
Vdes	DESIGN SPEED
WM	WATER MAIN
WV	WATER VALVE
WB	WESTBOUND

**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.

**MONUMENT ASSEMBLIES**

CONSTRUCT MONUMENT ASSEMBLIES IN ACCORDANCE WITH THE DETAILS SHOWN ON THE STANDARD CONSTRUCTION DRAWINGS AND AT THE LOCATIONS SHOWN ON THE RIGHT OF WAY PLANS.

**ROUNDING**

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



**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, 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, NOTIFY THE ENGINEER 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, NOTIFY THE ENGINEER 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 IS INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 611 CONDUIT ITEM.

**REVIEW OF DRAINAGE FACILITIES**

PRIOR TO THE START OF WORK AND AGAIN BEFORE FINAL ACCEPTANCE, PERFORM AN INSPECTION WITH REPRESENTATIVES OF THE DEPARTMENT, CONTRACTOR AND LOCALS OF ALL EXISTING DRAINAGE FACILITIES THAT ARE TO REMAIN IN SERVICE WHICH MAY BE AFFECTED BY THE WORK. THE CONDITION OF THE EXISTING CONDUITS AND THEIR APPURTENANCES IS DETERMINED FROM FIELD OBSERVATIONS. RECORDS OF THE INSPECTION ARE MAINTAINED BY THE DEPARTMENT.

CONFIRM ALL EXISTING SEWERS INSPECTED INITIALLY BY THE ABOVE-MENTIONED PARTIES ARE MAINTAINED AND LEFT IN A CONDITION COMPARABLE TO THAT DETERMINED BY THE ORIGINAL INSPECTION. THE CONTRACTOR IS RESPONSIBLE TO CORRECT ANY CHANGE IN THE CONDITION RESULTING FROM THEIR OPERATIONS AS DIRECTED AND APPROVED BY THE ENGINEER.

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

**MANHOLES, CATCH BASINS AND INLETS REMOVED OR ABANDONED**

CAREFULLY REMOVE AND STORE ALL CASTINGS WITHIN THE RIGHT OF WAY FOR SALVAGE BY (DEPARTMENT) (CITY) (VILLAGE) (COUNTY) FORCES.

PAYMENT FOR ALL OF THE ABOVE IS INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 202 ITEM.

**EXISTING SUBSURFACE DRAINAGE**

PROVIDE UNOBSTRUCTED OUTLETS FOR ALL EXISTING UNDERDRAINS OR AGGREGATE DRAINS 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:

ITEM 601, TIED CONCRETE BLOCK MAT, TYPE 1	25 SQ. YD.
ITEM 611, 6" CONDUIT, TYPE F	50 FT.
ITEM 611, PRECAST REINFORCED CONCRETE OUTLET	5 EACH
ITEM 605, 6" UNCLASSIFIED PIPE UNDERDRAINS	50 FT.

**SANITARY SEWER COORDINATION**

PRIOR TO COMPLETING THE SANITARY SEWER WORK PROPOSED IN THE PLANS, CONTRACTOR SHALL COORDINATE WITH THE CITY OF CHILLICOTHE UTILITIES DIRECTOR AND ANY POTENTIALLY AFFECTED PROPERTY OWNERS TO ENSURE SERVICE IS NOT DISTURBED DURING CRITICAL BUSINESS HOURS. CONTRACTOR SHALL NOTIFY UTILITIES DIRECTOR AND PROPERTY OWNER AT LEAST 48 HOURS PRIOR TO ANY SANITARY SEWER DISCONNECT WITH AN ESTIMATED TIME OF DISCONNECT.

**DRAINAGE DISCHARGE CONTINUANCE**

FURNISH A DRAINAGE DISCHARGE CONTINUANCE FOR ANY DRAINAGE DISCHARGE DISTURBED BY THE WORK AND NOT SHOWN IN THE PLANS. THE LOCATION, TYPE (CONDUIT OR SWALE), SIZE AND GRADE OF THE DRAINAGE DISCHARGE CONTINUANCE WILL BE AGREED TO BY THE ENGINEER

FURNISH AN INSPECTION WELL AT THE RIGHT OF WAY LINE IN ACCORDANCE WITH SCD DM-3.1 FOR EACH DRAINAGE DISCHARGE THAT OUTLETS THROUGH A CURB OPENING, OR INTO A STORM SEWER OR DRAINAGE STRUCTURE. THE COST IS INCLUDED IN ITEM 611, INSPECTION WELL.

FURNISH A WELL GRADED TRANSITION BETWEEN THE DITCH AND THE SWALE WHEN OUTLETTING A SWALE TO A DITCH. THE COST FOR THE GRADED TRANSITION IS INCLUDED IN ITEM 203, EMBANKMENT AS PER PLAN.

FURNISH AN EROSION CONTROL PAD AS SHOWN IN SCD DM-1.1 WHEN OUTLETTING A CONDUIT TO A DITCH. THE COST FOR THE EROSION CONTROL PAD IS INCLUDED IN ITEM 611, CONDUIT, MISC.: TYPE \_ FOR DRAINAGE DISCHARGE CONTINUANCE.

FURNISH A DRILLED HOLE OR A CURB SECTION WITH A HOLE WHEN OUTLETTING A CONDUIT THROUGH A CURB OPENING. THE COST OF DRILLING, OR FURNISHING THE CURB SECTION WITH HOLE IS INCLUDED IN ITEM 611, CONDUIT, MISC.: TYPE \_ FOR DRAINAGE DISCHARGE CONTINUANCE.

FURNISH A DRILLED CORE HOLE WHEN OUTLETTING INTO A STORM SEWER OR DRAINAGE STRUCTURE. THE COST OF THE DRILLED CORE HOLE IS INCLUDED IN ITEM 611, CONDUIT, MISC.: TYPE \_ FOR DRAINAGE DISCHARGE CONTINUANCE.

**DOCUMENTATION**

THE CONTRACTOR SHALL FURNISH WRITTEN DOCUMENTATION TO THE ENGINEER AND TO THE DISTRICT R/W PERMIT OFFICE. THE DOCUMENTATION INCLUDES THE CONSTRUCTION PROJECT NUMBER, PID, COUNTY, ROUTE, SECTION, LATITUDE AND LONGITUDE OF THE DRAINAGE DISCHARGE AT THE R/W, THE NAME OF PROPERTY OWNER WITH ADDRESS, THE DATE THE DRAINAGE DISCHARGE WAS LOCATED, THE DATE THE DRAINAGE DISCHARGE CONTINUANCE WAS FURNISHED, A DETAILED DESCRIPTION OF THE WORK AND PICTURES OF THE DRAINAGE DISCHARGE CONTINUANCE (IN PDF OR JPEG FORMAT). THE DOCUMENTATION IS INCLUDED IN ITEM 611, CONDUIT, MISC.: TYPE \_ FOR DRAINAGE DISCHARGE CONTINUANCE OR ITEM 203, EMBANKMENT AS PER PLAN.

DRAINAGE DISCHARGE CONTINUANCE REMOVAL. THE ENGINEER MAY REQUIRE THE NEWLY INSTALLED DRAINAGE DISCHARGE CONTINUANCE TO BE REMOVED.

REMOVE THE NEWLY INSTALLED CONDUIT AND ANY EXISTING CONDUIT TO THE RIGHT OF WAY LINE. FOR CONDUIT THAT OUTLETS THROUGH THE CURB RESTORE THE CURB BY FILLING THE HOLE WITH CLASS QC 1 CONCRETE OR REPLACE THE CURB SECTION. FOR CONDUIT THAT OUTLETS TO A STORM SEWER OR DRAINAGE STRUCTURE LEAVE 6 INCHES PROTRUDING OUTSIDE OF THE CONDUIT. PLUG THE PROTRUDING CONDUIT WITH EITHER A MANUFACTURED CAP OR CLASS QC 1 CONCRETE. FOR CONDUIT THAT OUTLETS TO THE DITCH REMOVE THE EROSION CONTROL PAD. RESTORE ALL AREAS AS REQUIRED. PLUG THE EXISTING CONDUIT REGARDLESS OF SIZE AT THE RIGHT OF WAY LINE WITH CLASS QC 1 CONCRETE AND RESTORE ALL AREAS AS REQUIRED. ALL COSTS ARE INCLUDED IN ITEM 202, REMOVAL MISC. CONDUIT.

DAM THE SWALE THAT OUTLETS TO THE DITCH AT THE R/W AS DIRECTED BY THE ENGINEER. ALL COSTS ARE INCLUDED IN ITEM 203, EMBANKMENT AS PER PLAN.

REMOVE THE INSPECTION WELL AND RESTORE ALL AREAS AS REQUIRED. THE COST IS INCLUDED IN ITEM 202, REMOVAL MISC. INSPECTION WELL.

CONDUIT MATERIAL TYPES: THE FOLLOWING CONDUIT MATERIAL TYPES ARE PERMITTED: 707.33, 707.41 NON-PERFORATED, 707.42, 707.43, 707.45, 707.46, 707.47, 707.51, AND 707.52 SDR35.

PAY ITEMS: EACH OF THE PAY ITEMS LISTED BELOW FOR CONDUIT MISCELLANEOUS TYPES B, C, E AND F FOR DRAINAGE DISCHARGE CONTINUANCE INCLUDE CONDUIT SIZES 2 INCH TO 10 INCH. THERE IS NO COST DIFFERENTIATION FOR SIZE IN THESE PAY ITEMS.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER IN MAKING THE ABOVE DRAINAGE DISCHARGE CONTINUANCE:

ITEM 611 - INSPECTION WELL	2 EACH
ITEM 611 - CONDUIT, MISC TYPE B FOR DRINAGE DISCHARGE CONTINUANCE	35 FT
ITEM 611 - CONDUIT, MISC TYPE C FOR DRINAGE DISCHARGE CONTINUANCE	35 FT
ITEM 611 - CONDUIT, MISC TYPE E FOR DRINAGE DISCHARGE CONTINUANCE	35 FT
ITEM 611 - CONDUIT, MISC TYPE F FOR DRINAGE DISCHARGE CONTINUANCE	35 FT
ITEM 202 - REMOVAL MISC CONDUIT	35 FT
ITEM 202 - REMOVAL MISC INSPECTION WELL	1 EACH
ITEM 203 - EMBANKMENT AS PER PLAN	50 CY

**ITEM SPECIAL - PIPE CLEANOUT**

THIS WORK CONSISTS OF REMOVING SEDIMENT AND DEBRIS FROM THE EXISTING DRAINAGE CONDUITS SPECIFIED IN THE PLANS. DISPOSE OF ALL MATERIAL PER 105.16 AND 105.17. CLEAN OUT TO THE APPROVAL OF THE ENGINEER.

CLEANOUT OF THE PIPE IS PAID FOR AT THE UNIT PRICE BID FOR ITEM SPECIAL, PIPE CLEANOUT. THIS PRICE INCLUDES 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 WORK NOTED ABOVE:

ITEM SPECIAL, PIPE CLEANOUT, 24" AND UNDER	100 FT.
ITEM SPECIAL, PIPE CLEANOUT, 27" TO 48"	100FT.

**SEEDING AND MULCHING**

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

659, SOIL ANALYSIS TEST	2 EACH
659, TOPSOIL	2,618 CU. YD.
659, SEEDING AND MULCHING	23,559 SQ. YD.
659, REPAIR SEEDING AND MULCHING	1,179 SQ. YD.
659, INTER-SEEDING	1,179 SQ. YD.
659, COMMERCIAL FERTILIZER	3.18 TON
659, LIME	4.87 ACRES
659, WATER	127 M. GAL.
659, MOWING	53 M. SQ.FT.

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.

**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.

**CONNECTION BETWEEN EXISTING AND PROPOSED GUARDRAIL**

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

**ITEM 204 - PROOF ROLLING**

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

ITEM 204 - PROOF ROLLING	18 HOURS
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**CITY OF CHILLICOTHE WATER WORK & ITEM 638, AS PER PLAN**

PRIOR TO COMPLETING ANY WORK PROPOSED IN THE PLANS ON A POTABLE WATER SERVICE, CONTRACTOR SHALL COORDINATE WORK WITH CITY OF CHILLICOTHE UTILITIES DIRECTOR AND ANY POTENTIALLY AFFECTED PROPERTY OWNER TO ENSURE SERVICE IS NOT DISRUPTED DURING CRITICAL BUSINESS HOURS.

CITY OF CHILLICOTHE UTILITIES WILL PROVIDE MATERIALS FOR METER CHAMBERS, VALVES, VALVE BOXES AND FIRE HYDRANTS. CONTRACT UNIT PRICE FOR THESE ITEMS SHALL CONFORM TO CMS SECTION 638 EXCEPT THAT THE MATERIALS SPECIFIED IN THIS NOTE SHALL BE PROVIDED BY THE CITY OF CHILLICOTHE UTILITIES DEPARTMENT. CONTRACTOR SHALL COORDINATE WITH UTILITY DEPARTMENT AT LEAST 48 HOURS PRIOR TO PERFORMING THE WORK. ALL WORK MUST BE INSPECTED AND APPROVED BY A REPRESENTATIVE OF THE CHILLICOTHE UTILITY DEPARTMENT.

**CONCRETE WALK, CURB RAMP, AND CURB QUANTITIES**

CONCRETE WALK AND CURB QUANTITIES INCLUDE PAYMENT FOR THESE ITEMS AS SPECIFIED IN CMS SECTION 600, AND EXCLUDE CURB LENGTH AND SIDEWALK AREA WITHIN PROPOSED CURB RAMPS. CURB LENGTH IN FRONT OF CURB RAMPS AND SIDEWALK AREA WITHIN CURB RAMPS ARE INCLUDED WITH THE CURB RAMP QUANTITY. DETECTABLE WARNING MAT IS PAID FOR SEPARATELY UNDER ITS OWN ITEM.

**CONTRACTION AND/OR EXPANSION JOINTS**

ALTHOUGH SPECIFIC LOCATIONS OF CERTAIN CONTRACTION AND EXPANSION JOINTS HAVE BEEN DETAILED ON THIS PLAN, NO WAIVER OF THE SPECIFICATIONS IS INTENDED. IN ALL CASES, THE PROVISION OF EXPANSION JOINTS AT ALL MAJOR STRUCTURES INCLUDING THE MAXIMUM SPACING BETWEEN CONTRACTION JOINTS IS IN ACCORDANCE WITH STANDARD CONSTRUCTION DRAWING BP-2.2 AND THE SPECIFICATIONS.

**PART-WIDTH CONSTRUCTION**

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

**POST CONSTRUCTION STORM WATER TREATMENT**

THIS PLAN UTILIZES STRUCTURAL BEST MANAGEMENT PRACTICES (BMP'S) FOR POST CONSTRUCTION STORM WATER TREATMENT.

**INFILTRATION TRENCH (OR BASIN)**

THIS PLAN UTILIZES INFILTRATION FOR POST CONSTRUCTION STORM WATER TREATMENT. CONSTRUCT THE COMPLETED INFILTRATION TRENCH(ES) (AND OR BASIN(S)) AFTER ALL CONTRIBUTING DRAINAGE AREAS ARE STABILIZED AS SHOWN IN THE CONTRACT PLANS AND TO THE SATISFACTION OF THE ENGINEER. DO NOT USE INFILTRATION DEVICES AS TEMPORARY SEDIMENT CONTROL FACILITIES DURING CONSTRUCTION. DO NOT OPERATE HEAVY EQUIPMENT WITHIN THE PERIMETER OF AN INFILTRATION DEVICE DURING EXCAVATION OR BACKFILLING OF THE FACILITY.

**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.

**EARTHWORK SUBSUMMARY**

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

	ITEM 203 - EXCAVATION	ITEM 203 - EMBANKMENT	ITEM 659 - SEEDING & MULCHING
S.R. 159	12,855 CU. YD.	12,757 CU. YD.	13,422 SQ. YD.
RAMP C	4,571 CU. YD.	6,591 CU. YD.	5,463 SQ. YD.
RAMP D	303 CU. YD.	124 CU. YD.	638 SQ. YD.
RAMP A2	425 CU. YD.	43 CU. YD.	568 SQ. YD.
RAMP A1	626 CU. YD.	83 CU. YD.	447 SQ. YD.
CONNECTOR RD.	1,116 CU. YD.	101 CU. YD.	1,027 SQ. YD.
N. PLAZA BLVD.	56 CU. YD.	2 CU. YD.	96 SQ. YD.
MARIETTA RD.	23 CU. YD.	9 CU. YD.	57 SQ. YD.
STEWART RD.	1,090 CU. YD.	59 CU. YD.	448 SQ. YD.
REF. LINE SR	503 CU. YD.	190 CU. YD.	472 SQ. YD.
RIVER RD.	368 CU. YD.	44 CU. YD.	304 SQ. YD.
SUP	94 CU. YD.	49 CU. YD.	617 SQ. YD.
TOTALS CARRIED TO GENERAL SUMMARY	22,030 CU. YD.	20,052 CU. YD.	23,559 SQ. YD.

THE EXCAVATION QUANTITIES ABOVE INCLUDE THE EXISTING PAVEMENT REMOVAL VOLUMES. BASED ON THE ASSUMED EXISTING PAVEMENT DEPTHS SHOWN IN THE TYPICAL SECTIONS, EXCLUDING AGGREGATE BASE, THE FOLLOWING QUANTITY FOR EXCAVATION HAS BEEN CARRIED TO THE GENERAL SUMMARY. THIS QUANTITY EXCLUDES THE EXISTING PAVEMENT VOLUME THAT IS COVERED BY ITEM 202 - PAVEMENT REMOVED.

ITEM 203 - EXCAVATION

8,895 CU. YD.

**ITEM 622 - CONCRETE BARRIER, AS PER PLAN**

ALL NEW CONCRETE BARRIER, TYPE B AND TYPE D CONSTRUCTED WITH THE PROJECT SHALL CONFORM TO CMS SECTION 622 AND SHALL ALSO BE SEALED AND EPOXY COATED PER CMS SECTION 512.03. CONTRACTOR SHALL ENSURE COLOR MATCHES EXISTING CONCRETE COLOR OF US-35 BRIDGE AND SCIOTO RIVER BRIDGE BARRIERS. TEST COLOR PRIOR TO SEALING ENTIRE BARRIER TO ENSURE ENGINEER APPROVES OF COLOR. ALL MATERIALS, LABOR, AND EQUIPMENT NECESSARY TO COMPLETE THIS WORK SHALL BE PAID FOR UNDER THE PERTINENT 622 BARRIER ITEMS.

**ITEM 512 - SEALING OF CONCRETE SURFACES, AS PER PLAN**

THIS ITEM SHALL CONSIST OF PREPARING AND SEALING THE EXPOSED CONCRETE SURFACES OF THE EXISTING FLOOD WALL PER CMS SECTION 512.03. EXISTING JOINT SEALS SHALL BE REMOVED AND REPLACED PER CMS SECTION 516 AND CONSIDERED INCIDENTAL TO THIS PAY ITEM. CONTRACTOR SHALL ENSURE COLOR MATCHES EXISTING CONCRETE COLOR OF US-35 BRIDGE AND SCIOTO RIVER BRIDGE BARRIERS. TEST COLOR PRIOR TO SEALING ENTIRE BARRIER TO ENSURE ENGINEER APPROVES OF COLOR. NONE OF THE METAL OR OTHER NON-CONCRETE PARTS OF THE FLOODWALL SHALL BE SEALED OR PAINTED AND ARE TO BE PROTECTED DURING SEALING OF CONCRETE.

THE FOLLOWING QUANTITY IS CARRIED TO THE GENERAL SUMMARY FOR PAYMENT AND INCLUDES ALL NECESSARY MATERIALS, LABOR, AND EQUIPMENT REQUIRED TO COMPLETE THE WORK DESCRIBED IN THIS NOTE.

ITEM 512 - SEALING OF CONCRETE SURFACES, AS PER PLAN 125 SY

**ITEM 609 - CURB, TYPE 6, AS PER PLAN**

THIS ITEM SHALL CONFORM TO CMS SECTION 609 AND SCD BP-5.1 EXCEPT THAT THE DEPTH OF THE CURB WILL BE GREATER THAN 18". THIS ITEM IS DESIGNATED FOR LOCATIONS WHERE FINAL GRADING AT THE BACK OF SIDEWALK OR CURB RAMP IS LOWER THAN THE TOP OF CURB. THE EXPOSED CURB HEIGHT ON THE SIDEWALK SIDE SHALL BE 6", HOWEVER THE EXPOSED HEIGHT ON THE BACK OF CURB WILL VARY BASED ON THE FINAL GRADING. THE EXPOSED HEIGHT OF THE BACK OF CURB SHALL NOT EXCEED 14 INCHES. THE FINAL BURRIED HEIGHT OF CURB SHALL BE AT LEAST EQUAL TO THE FINAL HEIGHT OF EXPOSED BACK OF CURB. LOCATIONS HAVE BEEN IDENTIFIED IN THE PLANS AND ALL MATERIALS, LABOR, AND EQUIPMENT NECESSARY TO CONSTRUCT THE CURB AT THESE LOCATION SHALL BE INCLUDED IN THE UNIT BID PRICE FOR ITEM 609 - CURB, TYPE 6, AS PER PLAN.

**FENCE, MISC.: 4-RAIL STEEL BOARD FENCING**

PROPOSED BIKE FENCE AT LOCATION SPECIFIED IN THE PLANS SHALL BE A 4-RAIL STEEL BOARD FENCE BY THE MANUFACTURER BELOW, OR AN APPROVED EQUAL. FENCE SHALL BE INSTALLED PER THE MANUFACTURER'S SPECIFICATIONS. WHEN ABUTTING AGAINST RETAINING WALL, BRIDGE BARRIER, OR OTHER STRUCTURE, THE LAST POST OF THE FENCE SHALL HAVE A MAXIMUM HORIZONTAL GAP OF 3 INCHES TO THE ABUTTING SURFACE.

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**ITEM 209 - DITCH CLEANOUT, AS PER PLAN**

THIS ITEM INCLUDES RE-ESTABLISHING THE EXISTING PAVED GUTTER ON THE NORTH SIDE OF STEWART ROAD (APPROXIMATELY STATION 69+33 TO STATION 71+00) TO ITS ORIGINAL CROSS SECTION. THIS ITEM ASSUMES REMOVING THE SOIL AND VEGETATION FROM THE EXISTING CONCRETE AND DOES NOT INCLUDE REPLACEMENT OF ANY OF THE CONCRETE. IF THE EXISTING CONCRETE IS DAMAGED, RE-ESTABLISH THE DITCH PROFILE AT EXISTING ELEVATIONS AS A VEGETATED DITCH AND PLACE ITEM 659 SEEDING & MULCHING IN PLACE OF THE CONCRETE PAVED GUTTER. ENSURE POSITIVE DRAINAGE TO THE OUTLET OF THE DITCH. THIS ITEM INCLUDES ALL LABOR, MATERIALS, AND EQUIPMENT TO RE-ESTABLISH THE DITCH PROFILE FROM THE PROPOSED PAVED GUTTER TO THE PROPOSED OUTLET AS DESCRIBED IN THIS NOTE. THE FOLLOWING ITEM HAS BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 209 - DITCH CLEANOUT, AS PER PLAN 170 FT

**ITEM 407 - TACK COAT, 702.13**

THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY AS A CONTINGENCY TO BE USED AS DIRECTED BY THE ENGINEER. THIS ITEM IS INTENDED TO BE USED ON MILLED AREAS THAT EXPOSE CONCRETE PAVEMENT.

ITEM 407 - TACK COAT, 702.13 50 GAL

**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 REBOUNDABLE RETROREFLECTIVE SHEETING, PER CMS 730.191.

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.

**ITEM 606 - IMPACT ATTENUATOR, TYPE 2 (BIDIRECTIONAL)**

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY OF THE TYPE 2 IMPACT ATTENUATORS AS LISTED ON THE OFFICE OF ROADWAY ENGINEERING'S WEB PAGE (REFER TO THE POSTED SHOP DRAWINGS FOR THE MOST CURRENT APPROVED PRODUCT MODELS). WHEN BI-DIRECTIONAL DESIGNS ARE SPECIFIED, THE CONTRACTOR SHALL SUPPLY APPROPRIATE TRANSITIONS.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, IMPACT ATTENUATOR, TYPE 2 (40 MPH, 48 INCH HAZARD WIDTH, BIDIRECTIONAL), EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL IMPACT ATTENUATOR SYSTEM, INCLUDING ALL RELATED BACKUPS/BACKSTOPS, TRANSITIONS, HARDWARE AND GRADING, NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

**ITEM 621 - RAISED PAVEMENT MARKER**

EXISTING RAISED PAVEMENT MARKERS SHALL BE REMOVED AND REPLACED WHERE PERMANENT STRIPING IS PROPOSED ON BRIDGE STREET, INCLUDING THE SCIOTO RIVER BRIDGE, AND THE INTERCHANGE RAMPS. SEE SCD TC-65.10 & TC-65.11 FOR DETAILS.

THE FOLLOWING ESTIATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

RAISED PAVEMENT MARKER REMOVED	600 EACH
RPM, 1-WAY (WHITE)	136 EACH
RPM, 2-WAY (WHITE/RED)	319 EACH
RPM, 2-WAY (YELLOW/RED)	50 EACH
RPM, 2-WAY (YELLOW/YELLOW)	106 EACH
TOTAL	611 EACH

**ITEM 633 - TRAINING, AS PER PLAN - ITEM 452 TRAINING**

THIS ITEM SHALL FOLLOW THE SPECIAL PROVISION PROVIDED IN THE CONTRACT DOCUMENTS TITLED "ITEM 452 - TRAINING".

**PAVEMENT MARKING QUANTITIES**

LONG LINE PAVEMENT MARKINGS (EDGE LINES, LANE LINES, AND CENTERLINES) FOR THIS PROJECT WERE QUANTIFIED IN THE PAVEMENT MARKING SUBSUMMARY AS BEING MEASURED FROM STATION TO STATION AS MARKED ON THE TRAFFIC CONTROL SHEETS. PAVEMENT MARKING ITEMS WILL BE QUANTIFIED AND PAID PER THESE MEASUREMENTS.

**ITEM 204 - SUBGRADE COMPACTION AND PROOF ROLLING**

CONSTRUCT THE SUBGRADE AS FOLLOWS AND IN THE FOLLOWING SEQUENCE:

- SHAPE THE SUBGRADE TO WITHIN 0.2 FEET OF THE PLAN SUBGRADE ELEVATION.
- EXCAVATE AND REPLACE UNSUITABLE SUBGRADE BEFORE PROOF ROLLING. THE EXCAVATION LIMITS ARE SHOWN AND LABELED ON THE CROSS SECTIONS AS UNSUITABLE SUBGRADE. UNSUITABLE SUBGRADE INCLUDES UNSUITABLE SOIL (A-4B, A-2-5, A-5, A-7-5, AND SOIL WITH A LIQUID LIMIT GREATER THAN 65) AND ANY COAL, SHALE, OR ROCK WHICH NEEDS TO BE REMOVED ACCORDING TO SECTION 204.05 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS (C&MS). IF THERE IS UNSUITABLE SUBGRADE IN A SHALLOW FILL LOCATION, EXCAVATE AND REPLACE THE UNSUITABLE SUBGRADE BEFORE CONSTRUCTING THE SHALLOW FILL AND SHAPING THE SUBGRADE.
- COMPACT THE SUBGRADE ACCORDING TO C&MS 204.03.
- APPROXIMATE LIMITS FOR EXCAVATION OF UNSTABLE SUBGRADE ARE SHOWN AND LABELED ON THE CROSS SECTIONS AS UNSTABLE SUBGRADE. THE ENGINEER WILL IDENTIFY THE ACTUAL LIMITS OF EXCAVATION FOR UNSTABLE SUBGRADE BASED ON THE PROOF ROLLING RESULTS AND VISUAL OBSERVATIONS. PROOF ROLL THE COMPACTED SUBGRADE ACCORDING TO C&MS 204.06.
- EXCAVATE UNSTABLE SUBGRADE AS DIRECTED BY THE ENGINEER AND STABILIZE BY REPLACING WITH THE SPECIFIED MATERIALS ACCORDING TO C&MS 204.07. EXCAVATIONS WILL EXTEND 18 INCHES BEYOND THE EDGE OF THE SURFACE OF THE PAVEMENT, PAVED SHOULDERS, OR PAVED MEDIANS.
- PROOF ROLL THE STABILIZED AREAS ACCORDING TO C&MS 204.06 TO VERIFY STABILITY.
- FINE GRADE THE SUBGRADE TO THE SPECIFIED GRADE.

THE QUANTITIES FOR EXCAVATING THE UNSUITABLE SUBGRADE AND UNSTABLE SUBGRADE ARE BOTH PAID UNDER ITEM 204, EXCAVATION OF SUBGRADE.

THE FOLLOWING LIMITS FOR SUBGRADE STABILIZATION PER THIS NOTE ARE SHOWN ON THE CROSS SECTIONS. THESE LIMITS ARE APPROXIMATE BASED ON GEOTECHNICAL ANALYSIS. LIMITS TO BE CONFIRMED BY ENGINEER VIA PROOF ROLLING AND ADJUSTED ACCORDINGLY. SEE PAVEMENT QUANTITIES AND CROSS SECTIONS FOR DETAILS.

SR-159 - STA. 727+00.00 TO STA. 729+00.00

MARIETTA RD. - STA. 15+00 TO STA. 17+50.00

**PAVEMENT RESTORATION FOR PIPE AND DRAINAGE STRUCTURE INSTALLATIONS AND/OR REMOVALS**

THE FOLLOWING QUANTITY IS BASED ON A 301 THICKNESS OF 12 INCHES AND HAS BEEN PROVIDED FOR PAVEMENT RESTORATION FOLLOWING INSTALLATION AND/OR REMOVAL OF PIPES, OR TO BE USED AS DIRECTED BY THE ENGINEER. DRAINAGE STRUCTURE AND PIPE INSTALLATION OR REMOVAL SHALL BE COMPLETED PRIOR TO THE FINAL MILLING AND RESURFACING.

ITEM 301 - ASPHALT CONCRETE BASE, PG64-22 40 CU. YDS.

ALL OTHER MATERIALS, EQUIPMENT, AND LABOR REQUIRED FOR THE INSTALLATION AND/OR REMOVAL OF PIPES AND DRAINAGE STRUCTURES SHALL BE INCLUDED IN THE PERTINENT PROPOSED OR REMOVAL PAY ITEM.

**DRIVEWAY CONSTRUCTION QUANTITIES**

PROPOSED DRIVEWAY REPLACEMENT MAY REQUIRE PART-WIDTH CONSTRUCTION, TEMPORARY DRIVEWAYS, OR OTHER PHASING TO MAINTAIN ACCESS TO PROPERTIES AT ALL TIMES. THE FOLLOWING ITEM 304 - AGGREGATE BASE QUANTITY IS INCLUDED AS A CONTINGENCY FOR TEMPORARY DRIVEWAY TRAFFIC IN THE EVENT THERE IS A TIME GAP FROM WHEN THE EXISTING DRIVEWAY IS REMOVED TO WHEN THE NEW DRIVEWAY IS CONSTRUCTED.

ITEM 304 - AGGREGATE BASE 65 CY

IF ACCESS TO A PROPERTY CANNOT BE MAINTAINED WHILE THE DRIVEWAY IS BEING CONSTRUCTED, THE FOLLOWING ITEM 452 CONCRETE QUANTITY IS PROVIDED TO REPLACE THE STANDARD CONCRETE ITEM SPECIFIED IN THE PLANS. THIS ITEM MAY BE USED FOR CONSTRUCTION DURING NON-BUSINESS HOURS TO ENSURE ACCESS CAN BE PROVIDED BY THE OPEN OF BUSINESS THE FOLLOWING DAY. A JOB MIX FORMULA (JFM) SHALL BE DEVELOPED AND SUBMITTED FOR APPROVAL ACCORDING TO ODOT SUPPLEMENTAL 1126. THIS ITEM SHALL CONFORM TO ALL SPECIFICATIONS PER CMS SECTION 452 EXCEPT THAT THE CONCRETE MIXTURE SHALL BE MODIFIED AS FOLLOWS, WITH THE INTENT TO USE A CONCRETE MIX DESIGN THAT MATCHES THE NEW ODOT CLASS RS - RAPID SET CONCRETE WHICH IS REPLACING CLASS FS. CLASS RS IS A MIX DESIGNED FOR EARLY OPENING STRENGTH, LIKE FS AND RRCM WITHOUT THE PERFORMANCE AND EXPENSE OF THESE FORMER MIXES. CLASS RS ALLOWS FOR MATURITY ACCEPTANCE BUT DOES NOT REQUIRE IT.

THE MATERIAL REQUIREMENTS OF 255.02 MAY BE MODIFIED AS FOLLOWS:

PROVIDE A RRCM MIXTURE MEETING THE REQUIREMENTS OF 255.02 OR, AN ALTERNATE RRCM MIXTURE CONFORMING THE FOLLOWING REQUIREMENTS:

PORTLAND CEMENT CONCRETE: 499.03, CLASS QC 3, W/MACRO-FIBERS

PROVIDE A MIXTURE MEETING THE REQUIREMENTS OF WELL GRADED IN ITEM 499.

AIR CONTENT: 4 TO 8 PERCENT

FLEXURAL STRENGTH: DEVELOP A RRCM CONCRETE MIX DESIGN THAT WILL ACHIEVE A FLEXURAL STRENGTH OF 300 PSI (2.8 MPA) IN NOT LESS THAN 4 HOURS AND NOT MORE THAN 6 HOURS USING 6 IN X 6 IN (150 MM X 150 MM) BEAM SAMPLES CONFORMING TO ASTM C293.

PERMEABILITY: 2000 COULOMBS

COARSE AGGREGATE (NO. 57 & NO.8)	703.02 & 703.13
FINE AGGREGATE (NATURAL SAND)	703.02
PORTLAND CEMENT, TYPE I [1]	701.04
FLY ASH OR NATURAL POZZOLAN	701.13
SLAG CEMENT	701.11
WATER	499.02
CHEMICAL ADMIXTURE [2]	705.12
AIR-ENTRAINING ADMIXTURE	705.10
MACRO-FIBERS FOR CONCRETE [3]	705.29
LIQUID MEMBRANE-FORMING COMPOUNDS FOR CONCRETE CURING	705.07

[1] PROVIDE A MIXTURE WITH A PORTLAND CEMENT CONTENT OF 660LB OR LESS AND A TOTAL CEMENTITIOUS CONTENT OF 850LB OR LESS.  
 [2] A MAXIMUM OF 0.5% CALCIUM CHLORIDE BY MASS OF CEMENTITIOUS CONTENT OR A LIQUID NON-CHLORIDE ACCELERATING ADMIXTURE MAY BE USED TO GENERATE EARLY STRENGTH DEVELOPMENT. SPECIALTY TYPE 'S' ADMIXTURE ALSO PERMITTED (SUBMITTAL OF MANUFACTURER'S DATA SHEET REQUIRED)  
 [3] USE A MINIMUM DOSAGE RATE OF FIBERS OF 4.0 LB/YD3 OF CONCRETE.

ENSURE THE FINAL PROPOSED MIX IS WORKABLE AND ABLE TO BE PRODUCED SUCH THAT BALLING OR CLUMPING OF THE FIBERS IS NOT A PROBLEM AS DETERMINED BY THE ENGINEER. A DEMONSTRATION OF THE MIX PRODUCTION, OR TRIAL MIX, MAY BE REQUIRED BY THE ENGINEER PRIOR TO PLACING ANY OF THE MIX ON THE PROJECT.


SUBMIT LAB TESTING RESULTS OF THE ALTERNATE RRCM MIXTURE USING THE ACTUAL MATERIALS THAT WILL BE USED ON THE PROJECT. MAKE AT LEAST FIVE BEAM SPECIMENS AND TEST THEM AT 3, 4, 5, 6, AND 8 HOURS AGE. ALTERNATELY, THE CONTRACTOR MAY DEVELOP THE MIX'S MATURITY CURVE ACCORDING TO SUPPLEMENT 1098.

THE JMF WILL NOT BE APPROVED FOR USE ON THE ENTIRE PROJECT UNTIL A SUCCESSFUL FIELD PLACEMENT IS PERFORMED, ON THE PROJECT, WITH THE MIX DESIGN. THIS PLACEMENT MUST DEMONSTRATE THE MIXTURE IS CAPABLE OF MEETING THE PRESCRIBED FLEXURAL STRENGTH AND TIME REQUIREMENTS.

ITEM 452 - 8" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC MS, AS PER PLAN 180 SY


SHEET NUM.										PART.				ALT (X)	ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.	
27	28	29	125	131	138	139	140	147	335	01/SAF/21	02/S5K/06	04/SAF/28	05/NFP/21								
																		<b>ROADWAY</b>			
			40,697							15,751	24,946				202	23000	40,697	SY	PAVEMENT REMOVED		
			2,950							2,950					202	30000	2,950	SF	WALK REMOVED		
			28							28					202	30600	28	SY	CONCRETE MEDIAN REMOVED		
			467								467				202	30700	467	FT	CONCRETE BARRIER REMOVED		
			3,546							3,427	119				202	32000	3,546	FT	CURB REMOVED		
			1,784							1,652	132				202	32500	1,784	FT	CURB AND GUTTER REMOVED		
			20							20					202	32700	20	SY	GUTTER REMOVED		
			3,863								3,863				202	38000	3,863	FT	GUARDRAIL REMOVED		
			2								2				202	47800	2	EACH	IMPACT ATTENUATOR REMOVED		
			1							1					202	53100	1	EACH	MAILBOX REMOVED		
4										4					202	58001	4	EACH	MANHOLE REMOVED, AS PER PLAN	27	
4										4					202	58701	4	EACH	MANHOLE ABANDONED, AS PER PLAN	27	
4										4					202	62001	4	EACH	JUNCTION BOX REMOVED, AS PER PLAN	27	
			240								240				202	75000	240	FT	FENCE REMOVED		
	8,895									10,082	18,977				203	10000	18,977	CY	EXCAVATION		
	16,607										16,607				203	20000	16,607	CY	EMBANKMENT		
					39,532	2,570					20,673	18,667	2,762		204	10000	42,102	SY	SUBGRADE COMPACTION		
					1,824						684	1,140			204	13000	1,824	CY	EXCAVATION OF SUBGRADE		
					1,824						684	1,140			204	30020	1,824	CY	GRANULAR MATERIAL, TYPE C		
	18										18				204	45000	18	HOUR	PROOF ROLLING		
						4,329					2,050	2,279			204	50000	4,329	SY	GEOTEXTILE FABRIC		
											170				209	10001	170	FT	DITCH CLEANOUT, AS PER PLAN	29	
8		170									8				511	71300	8	SY	CONCRETE, MISC.: CONCRETE, CLASS RRCM	27	
		125									125				512	10051	125	SY	SEALING OF CONCRETE SURFACES (NON-EPOXY), AS PER PLAN	29	
				1,700								1,700			606	15050	1,700	FT	GUARDRAIL, TYPE MGS		
				2							2				606	25550	2	EACH	ANCHOR ASSEMBLY, MGS TYPE A		
				5							5				606	26150	5	EACH	ANCHOR ASSEMBLY, MGS TYPE E (MASH 2016)	29	
				4							4				606	26500	4	EACH	ANCHOR ASSEMBLY, TYPE T		
				2							2				606	35002	2	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1		
				2							2				606	60028	2	EACH	IMPACT ATTENUATOR, TYPE 2 (BIDIRECTIONAL) (40 MPH, 48" HAZARD WIDTH)	29	
												571	290		607	98000	861	FT	FENCE, MISC.: 4-RAIL STEEL BOARD FENCING	29	
						47,433						47,433			608	10000	47,433	SF	4" CONCRETE WALK		
				11,383								11,383			608	52000	11,383	SF	CURB RAMP		
				1,320								1,320			608	53020	1,320	SF	DETECTABLE WARNING		
8											8				613	41300	8	CY	LOW STRENGTH MORTAR BACKFILL (TYPE 2)	27	
				95							95				622	10061	95	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE B, AS PER PLAN	29	
				200							200				622	10161	200	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE D, AS PER PLAN	29	
				2							2				622	24841	2	EACH	CONCRETE BARRIER END SECTION, TYPE B, AS PER PLAN	29	
				6							6				622	25051	6	EACH	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE D, AS PER PLAN	29	
						845					845									<b>EROSION CONTROL</b>	
	25										33	4			601	20000	845	SY	CRUSHED AGGREGATE SLOPE PROTECTION (6")		
											3	3			601	21050	37	SY	TIED CONCRETE BLOCK MAT WITH TYPE 1 UNDERLAYMENT		
											3				601	32200	6	CY	ROCK CHANNEL PROTECTION, TYPE C WITH FILTER		
											53				601	37500	53	FT	PAVED GUTTER, TYPE 1-2		
	2										2				659	00100	2	EACH	SOIL ANALYSIS TEST		
	2,618									1,021	3,639				659	00300	3,639	CY	TOPSOIL		
	23,559									9,190	32,749				659	10000	32,749	SY	SEEDING AND MULCHING		
	1,179									460	1,639				659	14000	1,639	SY	REPAIR SEEDING AND MULCHING		
	1,179									460	1,639				659	15000	1,639	SY	INTER-SEEDING		
	3.18									1.24	4.42				659	20000	4.42	TON	COMMERCIAL FERTILIZER		
										1.9	6.77				659	31000	6.77	ACRE	LIME		
	4.87									50	177				659	35000	177	MGAL	WATER		
	127										53				659	40000	53	MSF	MOWING		
	53									LS	LS				832	15000	LS		STORM WATER POLLUTION PREVENTION PLAN		
										LS	LS				832	15002	LS		STORM WATER POLLUTION PREVENTION INSPECTIONS		
										LS	LS				832	15010	LS		STORM WATER POLLUTION PREVENTION INSPECTION SOFTWARE		
									180,000		180,000				832	30000	180,000	EACH	EROSION CONTROL		

GENERAL SUMMARY

DESIGN AGENCY  
  
 DESIGNER  
 DSS  
 REVIEWER  
 BDT 10/07/24  
 PROJECT ID  
 113013  
 SHEET TOTAL  
 116 592

SHEET NUM.							PART.					ALT	ITEM	ITEM	GRAND	UNIT	DESCRIPTION	SEE SHEET NO.
28	29	32	138	139	140		01/SAF/21	02/S5K/06	03/S5K/28	04/SAF/28	05/NFP/21	(X)	EXT	TOTAL				
																	<b>DRAINAGE</b>	
					6			6					202	20010	6	EACH	HEADWALL REMOVED	
					1,227		1,166	61					202	35100	1,227	FT	PIPE REMOVED, 24" AND UNDER	
					924		696	228					202	35200	924	FT	PIPE REMOVED, OVER 24"	
					9		7	2					202	58000	9	EACH	MANHOLE REMOVED	
					28		28						202	58100	28	EACH	CATCH BASIN REMOVED	
					135			135					SPECIAL	20270000	135	FT	FILL AND PLUG EXISTING CONDUIT, 36"	27
100							100						SPECIAL	20270110	100	FT	PIPE CLEANOUT, 24" AND UNDER	28
100							100						SPECIAL	20270120	100	FT	PIPE CLEANOUT, 27" TO 48"	28
1							1						202	98100	1	EACH	REMOVAL MISC.: INSPECTION WELL	28
35							35						202	98200	35	FT	REMOVAL MISC.: CONDUIT	28
50							50						203	20001	50	CY	EMBANKMENT, AS PER PLAN	28
					3.4		0.8	2.6					602	20000	3.4	CY	CONCRETE MASONRY	
50					914		847	117					605	13300	964	FT	6" UNCLASSIFIED PIPE UNDERDRAINS	28
					16,601		9,689	6,912					605	14000	16,601	FT	6" BASE PIPE UNDERDRAINS	
					1,232		735	497					611	00510	1,232	FT	6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS	
50							50						611	01500	50	FT	6" CONDUIT, TYPE F	
					30		30						611	02400	30	FT	8" CONDUIT, TYPE D	
					2,372		1,669	703					611	04400	2,372	FT	12" CONDUIT, TYPE B	
					45		45						611	04600	45	FT	12" CONDUIT, TYPE C	
					401		401						611	05900	401	FT	15" CONDUIT, TYPE B	
					47			47					611	06100	47	FT	15" CONDUIT, TYPE C	
					224		224						611	07400	224	FT	18" CONDUIT, TYPE B	
					35			35					611	07600	35	FT	18" CONDUIT, TYPE C	
					45		45						611	08900	45	FT	21" CONDUIT, TYPE B	
					702		664	38					611	10400	702	FT	24" CONDUIT, TYPE B	
					309			309					611	10600	309	FT	24" CONDUIT, TYPE C	
					696		696						611	11900	696	FT	27" CONDUIT, TYPE B	
					39			39					611	13600	39	FT	30" CONDUIT, TYPE C	
					349			349					611	16400	349	FT	36" CONDUIT, TYPE B	
					801			801					611	16600	801	FT	36" CONDUIT, TYPE C	
35							35						611	97400	35	FT	CONDUIT, MISC.: TYPE B FOR DRAINAGE DISCHAGE CONTINUANCE	28
35							35						611	97400	35	FT	CONDUIT, MISC.: TYPE C FOR DRAINAGE DISCHAGE CONTINUANCE	28
35							35						611	97400	35	FT	CONDUIT, MISC.: TYPE E FOR DRAINAGE DISCHAGE CONTINUANCE	28
35							35						611	97400	35	FT	CONDUIT, MISC.: TYPE F FOR DRAINAGE DISCHAGE CONTINUANCE	28
					20		19	1					611	98150	20	EACH	CATCH BASIN, NO. 3	
					30		22	8					611	98180	30	EACH	CATCH BASIN, NO. 3A	
					5		5						611	98370	5	EACH	CATCH BASIN, NO. 6	
					1		1						611	98470	1	EACH	CATCH BASIN, NO. 2-2B	
					1			1					611	98510	1	EACH	CATCH BASIN, NO. 2-3	
					1			1					611	98820	1	EACH	INLET, NO. 3D	
					1		1						611	99154	1	EACH	INLET RECONSTRUCTED TO GRADE	
					24		13	11					611	99574	24	EACH	MANHOLE, NO. 3	
					2			2					611	99586	2	EACH	MANHOLE, NO. 3 WITH 108" BASE I.D. AND 12" WEIR	
					6		5	1					611	99654	6	EACH	MANHOLE ADJUSTED TO GRADE	
5					6		9	2					611	99710	11	EACH	PRECAST REINFORCED CONCRETE OUTLET	
2							2						611	99720	2	EACH	INSPECTION WELL	
					2			2					895	10020	2	EACH	MANUFACTURED WATER QUALITY STRUCTURE, TYPE 2	
																	<b>PAVEMENT</b>	
					40		20,915						254	01000	20,915	SY	PAVEMENT PLANING, ASPHALT CONCRETE, 1-1/2"	
					30		2,546			203			301	56000	2,749	CY	ASPHALT CONCRETE BASE, PG64-22, (449)	
					30		4,233	3,112		461			304	20000	7,806	CY	AGGREGATE BASE	
					100		100						407	10000	100	GAL	TACK COAT	
					50		50						407	13900	50	GAL	TACK COAT, 702.13	29
							7,767	186					407	20000	7,953	GAL	NON-TRACKING TACK COAT	
					60		504	462		219			441	50000	564	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22	
							326	48					441	50200	326	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (448)	
							48						441	70500	48	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), (DRIVEWAYS)	

GENERAL SUMMARY

DESIGN AGENCY  
  
 DESIGNER  
 DSS  
 REVIEWER  
 BDT 10/07/24  
 PROJECT ID  
 113013  
 SHEET TOTAL  
 117 592



REF NO.	STATION RANGE		SIDE	SHEET NO.	CADD GENERATED AREA	PARTICIPATION	204	204	204	204	254	301	304	407	441	441	442	442	442	442	452	452	452	608
							GRANULAR MATERIAL, TYPE C	SUBGRADE COMPACTION	EXCAVATION OF SUBGRADE	GEOTEXTILE FABRIC	PAVEMENT PLANING, ASPHALT CONCRETE	ASPHALT CONCRETE BASE, PG64-22, (449)	AGGREGATE BASE	NON-TRACKING TACK COAT	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (448)	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446)	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446), AS PER PLAN	ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (446)	ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (446), AS PER PLAN	7" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC1	8" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC1 WITH QC/QA	9" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC1 WITH QC/QA	4" CONCRETE WALK
					SQ YD		CY	SY	CY	SY	SY	CY	CY	GAL	CY	CY	CY	CY	CY	SY	SY	SY	SF	
<b>PAWNEE ROAD</b>																								
PV-83	51+52.34	TO	52+52.84	LT/RT	279	334.34																		
												334.34		60.18	13.93									
PV-84	51+52.34	TO	52+59.91	RT	279	51.14		51.14																
						33.86						11.37	8.52	9.21	2.13	2.13								
												8.23												
PV-85	51+91.29	TO	52+46.48	LT	279	31.98		31.98																
						27.50						7.11	5.33	5.76	1.33	1.33								
												6.68												
PV-86	52+00.98	TO	52+33.49	LT	279	27.61																	248.52	
PV-87	53+57.98	TO	54+37.14	LT/RT	279	297.66																		
PV-88	53+66.83	TO	54+45.11	RT	279	22.42		22.42																
						10.61						4.98	3.74	4.04	0.93	0.93								
												1.77												
<b>STEWART ROAD (WEST)</b>																								
PV-89	62+54.69	TO	65+87.95	LT/RT	275	1971.92																		
PV-109	64+81.05	TO	64+94.48	RT	275	8.88																	79.96	
PV-90	63+61.47	TO	64+35.60	RT	275	43.81		43.81																
						11.70						9.74		7.89	1.83	1.83								
												1.95												
<b>CONSUMER CENTER DRIVE (WEST)</b>																								
PV-91	0+15.04	TO	4+66.36	LT/RT	275	1041.50																		
<b>STEWART ROAD (EAST)</b>																								
PV-92	67+69.95	TO	69+44.14	LT/RT	276	889.47		889.47																
						116.04																		
PV-93	69+44.14	TO	70+99.62	LT/RT	276	596.42		596.42																
						116.93																		
M-21	69+44.16	TO	70+98.07	LT/RT	276	149.79																149.79		
<b>RIVER TRACE</b>																								
PV-94	80+84.46	TO	82+04.98	LT	276	86.49																	778.40	
PV-95	80+60.35	TO	82+00.00	LT/RT	276	557.80		597.80																
						100.89																		
M-22	160+06.65	TO	160+69.27	RT	276	50.31																50.31		
<b>NOURSE ENTRANCE</b>																								
PV-96	180+00.00	TO	180+45.41	LT/RT	276	338.56		338.56																
						25.12																		
M-23	180+04.64	TO	180+23.55	RT	276	17.07																17.07		
<b>ROUNDABOUT</b>																								
PV-97	70+99.62	TO	80+84.46	LT/RT	276	640.88		640.88																
						7.26																		
						410.48																		
						342.96		342.96															342.96	
PV-98	0+02.23	TO	2+94.22	RT	276	93.07																	837.64	
<b>SUBTOTALS CARRIED TO SHEET 138</b>																								
								3515.46			3645.42	705.00	697.51	1326.27	158.12	195.17		125.96			560.13			
																								1944.52

<b>PAVEMENT SUBSUMMARY</b>	
DESIGN AGENCY	<b>B&amp;N</b> burgessniple.com
DESIGNER	RNK
REVIEWER	DSS 10/07/24
PROJECT ID	113013
SHEET TOTAL	136   592



REF NO.	STATION RANGE	SIDE	SHEET NO.	CADD GENERATED AREA	PARTICIPATION	204	204	204	204	254	301	304	407	441	441	442	442	442	442	452	452	452	608	601		
						GRANULAR MATERIAL, TYPE C	SUBGRADE COMPACTION	EXCAVATION OF SUBGRADE	GEOTEXTILE FABRIC	PAVEMENT PLANING, ASPHALT CONCRETE	ASPHALT CONCRETE BASE, PG64-22, (449)	AGGREGATE BASE	NON-TRACKING TACK COAT	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (448)	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446)	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446), AS PER PLAN	ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (446)	ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (446), AS PER PLAN	7" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P	8" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P WITH QC/QA	9" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P WITH QC/QA	4" CONCRETE WALK	CRUSHED AGGREGATE SLOPE PROTECTION (6')		
						CY	SY	CY	SY	SY	CY	CY	GAL	CY	CY	CY	CY	CY	CY	SY	SY	SY	SF	SY		
<b>QUANTITY TOTAL FOR PLAN SPLIT 01/SAF/21</b>																										
TOTAL FROM SHEET 132							6687.44			1448.09		1114.57	130.33				60.34								6243.44	
TOTAL FROM SHEET 133							3446.07			15455.67	765.79	937.53	3712.46				787.57		215.38							
TOTAL FROM SHEET 134							1436.77			4784.26	261.39	341.58	1238.67				256.80		89.80							
TOTAL FROM SHEET 135						683.23	2041.96	683.23	2049.68	4180.86	411.39	408.20	1052.27	243.73	69.53		7.61		11.41					177.59		
TOTAL FROM SHEET 136							3515.46			3645.42	705.00	697.51	1326.27	158.12	195.17			125.96				560.13				
TOTAL FROM SHEET 137							975.07				216.68	208.98	87.76		60.94		40.63				40.68					
<b>SUBTOTAL</b>						684	18103	684	2050	29515	2361	3709	7548		402	326	1113	167	317		601	178	6244			
<b>QUANTITY TOTAL FOR PLAN SPLIT 02/S5K/06</b>																										
TOTAL FROM SHEET 132						1139.04	13020.06	1139.04	2278.07				2170.01												12118.57	
TOTAL FROM SHEET 133																										
TOTAL FROM SHEET 134							4295.646						715.9409												4209.414	
TOTAL FROM SHEET 135							1350.416						225.0693												1236.687	
TOTAL FROM SHEET 136																										
TOTAL FROM SHEET 137																										
<b>SUBTOTAL</b>						1140	18667	1140	2279				3112											5447	12119	
<b>QUANTITY TOTAL FOR PLAN SPLIT 04/SAF/28</b>																										
TOTAL FROM SHEET 132							2222.37				161.25	370.39	174.15	80.62											37.26	17865.29
TOTAL FROM SHEET 133																										14766.77
TOTAL FROM SHEET 134																										7921.95
TOTAL FROM SHEET 135																										4911.18
TOTAL FROM SHEET 136																										1944.52
TOTAL FROM SHEET 137							539.32			40.85	89.89	44.12	20.43													2316.91
<b>SUBTOTAL</b>							2762			203	461	219	102											38	49727	
<b>TOTALS CARRIED TO GENERAL SUMMARY</b>						1824	39532	1824	4329	29515	2564	7282	7767		504	326	1113	167	317		601	5625	18401	49727	845	

PAVEMENT SUBSUMMARY

DESIGN AGENCY  
  
 DESIGNER: RNK  
 REVIEWER: DSS 10/07/24  
 PROJECT ID: 113013  
 SHEET TOTAL: 138 | 592

REF NO.	SHEET NO.	STATION TO STATION	PARTICIPATION	202	202	202	202	202	SPECIAL	602	601	611	611	611	611	611	611	611	611	611	611	611	611			
				CATCH BASIN REMOVED	MANHOLE REMOVED	PIPE REMOVED, 24" AND UNDER	PIPE REMOVED, OVER 24"	HEADWALL REMOVED	FILL AND PLUG EXISTING CONDUIT, 36"	CONCRETE MASONRY	ROCK CHANNEL PROTECTION, TYPE C WITH FILTER	8" CONDUIT, TYPE D	12" CONDUIT, TYPE B	12" CONDUIT, TYPE C	15" CONDUIT, TYPE B	15" CONDUIT, TYPE C	18" CONDUIT, TYPE B	18" CONDUIT, TYPE C	21" CONDUIT, TYPE B	24" CONDUIT, TYPE B	24" CONDUIT, TYPE C	27" CONDUIT, TYPE B	30" CONDUIT, TYPE C	36" CONDUIT, TYPE B		
				EACH	EACH	FT	FT	EACH	FT	CY	CY	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT		
SUBTOTAL FROM SHEET				141	01/SAF/21	28	7	1166	696	0	0	0.8	3	30	1669	0	401	0	224	0	45	664	0	696	0	
SUBTOTAL FROM SHEET				141	02/S5K/06	0	2	61	228	6	135	2.6	3	0	703	45	0	47	0	35	0	38	309	0	39	349
TOTALS CARRIED TO GENERAL SUMMARY						28	9	1227	924	6	135	3	6	30	2372	45	401	47	224	35	45	702	309	696	18885	698

REF NO.	SHEET NO.	STATION TO STATION	PARTICIPATION	611	611	611	611	611	611		611	611	611	611	611	601		895		601	605	605	611	611	
				36" CONDUIT, TYPE C	CATCH BASIN, NO. 3	CATCH BASIN, NO. 3A	CATCH BASIN, NO. 6	CATCH BASIN, NO. 2-2B	CATCH BASIN, NO. 2-3	INLET, NO. 3 FOR SINGLE SLOPE BARRIER, TYPE A	MANHOLE, NO. 3	MANHOLE, NO. 3 WITH 108" BASE I.D. AND 12" WEIR	MANHOLE ADJUSTED TO GRADE	INLET RECONSTRUCTED TO GRADE	PAVED GUTTER, TYPE 1-2	MANUFACTURED WATER QUALITY STRUCTURE, TYPE 2	TIED CONCRETE BLOCK MAT, TYPE 1	6" BASE PIPE UNDERDRAINS	6" UNCLASSIFIED PIPE UNDERDRAINS	6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS	PRECAST REINFORCED CONCRETE OUTLET				
				FT	EACH	EACH	EACH	EACH	EACH		EACH	EACH	EACH	EACH	EACH	FT		EACH		SY	FT	FT	FT	EACH	
SUBTOTAL FROM SHEET				142	01/SAF/21	0	19	22	5	1	0	0	13	0	5	1	53		0						
SUBTOTAL FROM SHEET				142	02/S5K/06	801	1	8	0	0	1	1	11	2	1	0	0		2						
SUBTOTAL FROM SHEET				145	01/SAF/21																0	2546	60	150	0
SUBTOTAL FROM SHEET				145	02/S5K/06															2	6674	117	452	1	
SUBTOTAL FROM SHEET				145	01/SAF/21															8	7143	737	585	4	
SUBTOTAL FROM SHEET				145	02/S5K/06															2	238	0	45	1	
TOTALS CARRIED TO GENERAL SUMMARY						801	20	30	5	1	1		1	24	2	6	53		2		12	16601	914	1232	6

DRAINAGE SUBSUMMARY

DESIGN AGENCY



DESIGNER  
DPF

REVIEWER  
DCJ 10/07/24

PROJECT ID  
113013

SHEET TOTAL  
140 592



REF. NO.	SHEET NO.	STATION		SIDE	PARTICIPATION	202						602	601	611														
		FROM	TO			REMOVE CATCH BASIN	REMOVE MANHOLE	REMOVE CONDUIT < 24"	REMOVE CONDUIT > 24"	REMOVE HEADWALL	FILL AND PLUG EXISTING CONDUIT, 36"	CONCRETE MASONRY	ROCK CHANNEL PROTECTION, TYPE C	8" CONDUIT, TYPE D	12" CONDUIT, TYPE B	12" CONDUIT, TYPE C	15" CONDUIT, TYPE B	15" CONDUIT, TYPE C	18" CONDUIT, TYPE B	18" CONDUIT, TYPE C	21" CONDUIT, TYPE B	24" CONDUIT, TYPE B	24" CONDUIT, TYPE C	27" CONDUIT, TYPE B	30" CONDUIT, TYPE C	36" CONDUIT, TYPE B		
		EACH	EACH			FT	FT	EACH	FEET	CY	CY	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT		
D1	158	690+41.00		RT	01/SAF/21	1		13																				
D2	162	711+82.00	712+00.00	RT	02/S5K/06					2																		
D3	162	712+00.00		RT																								
D4	162	714+10.00		LT	↑							0.20	2															
D5	162	714+10.00		LT																								
D6	162	714+10.00		LT																								
D7	162	714+10.00	716+40.00	RT												15												
D8	163	716+39.95	714+10.00	LT												230												
D9	163	716+39.92	718+10.00	RT												230												
D10	163	718+10.09		RT												169												
D11		718+10.11		RT												15												
D12	163	718+24.00	712+00.00	RT						1																		
D13	163	718+21.71	718+10.00	RT								0.43																
D14	163	719+57.00	719+50.00	LT								0.31						35					33					
D15	163	719+48.20	719+08.00	LT						1												38						
D16/D16A	164	720+10.89	719+14.00	RT																								
D17	164	720+16.89		RT																								
D18	164	721+27.16	720+11.00	RT																								
D19	164	721+27.30		RT																								
D20	164	722+84.08		RT						1																		
D21	164	722+77.40	721+27.00	RT																								
D22	164	723+47.41	722+77.00	RT																								
D23	164	723+49.70		RT																								
D24	164	722+39.30	722+65.00	LT																								
D25/D25A	164	724+45.00		RT																								
D26	164	724+71.67		LT																								
D27	165	725+10.00		LT																								
D28	165	725+10.00	724+72.00	LT																								
D29	165	726+91.75	725+10.00	LT																								
D30	165	725+96.13		RT																								
D31	165	726+00.00	725+96.00	RT	02/S5K/06																							
D32	165	729+84.18		RT	01/SAF/21																							
D33	165	729+79.00	729+84.00	RT	↑																							
D34	165	25+43.55		LT		1		10																				
D35	165	25+43.75		LT		1		10																				
D36	166	730+19.46	730+31.00	LT		1		17																				
D37	166	732+02.32	731+92.00	RT																								
D38	166	732+13.29	732+02.00	RT																								
D39	166	732+69.80		LT																								
D40	166	734+20.00		LT																								
D41	166	734+20.09		RT																								
D42	166	734+20.02		RT																								
D43	167	737+00.39		RT																								
D44	167	737+00.18	734+20.00	RT																								
D45	167	737+00.00		LT		1	1	10	276																			
D46	167	739+00.00		LT		1		10																				
D47	167	739+27.70	737+00.00	RT		1	1	10	224																			
D48	167	739+29.90		RT																								
D49	168	741+00.00		LT		1		10																				
D50	168	741+19.95	739+28.00	RT	01/SAF/21	1																						
					01/SAF/21																							
SUBTOTAL THIS SHEET					01/SAF/21	12	4	116	696	0	0	0	0	0	201	0	15	0	0	0	0	0	696	0	0			
SUBTOTAL THIS SHEET					02/S5K/06	0	2	61	228	6	135	2.6	3	0	703	45	0	47	0	35	0	38	309	0	39	349		
SUBTOTAL SHEET 143					01/SAF/21	16	3	1050	0	0	0	0.8	3	30	1468	0	386	0	224	0	45	664	0	0	0	0		
SUBTOTAL SHEET 143					02/S5K/06	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
<b>TOTALS CARRIED TO 140</b>					01/SAF/21	28	7	1166	696	0	0	0.8	3	30	1669	0	401	0	224	0	45	664	0	696	0	0		
<b>TOTALS CARRIED TO 140</b>					02/S5K/06	0	2	61	228	6	135	2.6	3	0	703	45	0	47	0	35	0	38	309	0	39	349		

REF. NO.	SHEET NO.	STATION		SIDE	PARTICIPATION	611													601	895
		FROM	TO			36" CONDUIT, TYPE C	CATCH BASIN, NO. 3	CATCH BASIN, NO. 3A	CATCH BASIN, NO. 6	CATCH BASIN, NO. 2-2B	CATCH BASIN, NO. 2-3	CATCH BASIN, NO. 1-3	MANHOLE, NO. 3	MANHOLE, NO. 3 WITH 108" BASE I.D. AND 12" WEIR	MANHOLE, ADJUSTED TO GRADE	INLET, RECONSTRUCTED TO GRADE	PAVED GUTTER, TYPE 1-2	MANUFACTURED WATER QUALITY STRUCTURE, TYPE 2		
						FEET	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	FT	EACH		
D1	158	690+41.00		RT	01/SAF/21															
D2	162	711+82.00	712+00.00	RT	02/S5K/06	18	1													
D3	162	712+00.00		RT																
D4	162	714+10.00		LT																
D5	162	714+10.00		LT																
D6	162	714+10.00		LT																
D7	162	714+10.00	716+40.00	RT																
D8	163	716+39.95	714+10.00	LT																
D9	163	716+39.92	718+10.00	RT																
D10	163	718+10.09		RT																
D11	163	718+10.11		RT																
D12	163	718+24.00	712+00.00	RT		622														
D13	163	718+21.71	718+10.00	RT																
D14	163	719+57.00	719+50.00	LT																
D15	163	719+48.20	719+08.00	LT																
D16/D16A	164	720+10.89	719+14.00	RT		161														
D17	164	720+16.89		RT																
D18	164	721+27.16	720+11.00	RT																
D19	164	721+27.30		RT																
D20	164	722+84.08		RT																
D21	164	722+77.40	721+27.00	RT																
D22	164	723+47.41	722+77.00	RT																
D23	164	723+49.70		RT																
D24	164	722+39.30	722+65.00	LT																
D25/D25A	164	724+45.00		RT		1														
D26	164	724+71.67		LT																
D27	165	725+10.00		LT																
D28	165	725+10.00	724+72.00	LT																
D29	165	726+91.75	725+10.00	LT																
D30	165	725+96.13		RT																
D31	165	726+00.00	725+96.00	RT	02/S5K/06															
D32	165	729+84.18		RT	01/SAF/21															
D33	165	729+79.00	729+84.00	RT																
D34	165	25+43.55		LT		1														
D35	165	25+43.75		LT		1														
D36	166	730+19.46	730+31.00	LT																
D37	166	732+02.32	731+92.00	RT																
D38	166	732+13.29	732+02.00	RT																
D39	166	732+69.80		LT																
D40	166	734+20.00		LT		1														
D41	166	734+20.09		RT																
D42	166	734+20.02		RT																
D43	167	737+00.39		RT																
D44	167	737+00.18	734+20.00	RT																
D45	167	737+00.00		LT																
D46	167	739+00.00		LT																
D47	167	739+27.70	737+00.00	RT																
D48	167	739+29.90		RT																
D49	168	741+00.00		LT																
D50	168	741+19.95	739+28.00	RT	01/SAF/21															
SUBTOTAL THIS SHEET					01/SAF/21	0	4	8	2	0	0	0	4	0	3	0	0	0		
SUBTOTAL THIS SHEET					02/S5K/06	801	1	8	0	0	1	1	11	2	1	0	0	2		
SUBTOTAL SHEET 144					01/SAF/21	0	15	14	3	1	0	0	9	0	2	1	53	0		
SUBTOTAL SHEET 144					02/S5K/06	0	0	0	0	0	0	0	0	0	0	0	0	0		
<b>TOTALS CARRIED TO 140</b>					01/SAF/21	<b>0</b>	<b>19</b>	<b>22</b>	<b>5</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>13</b>	<b>0</b>	<b>5</b>	<b>1</b>	<b>53</b>	<b>0</b>		
<b>TOTALS CARRIED TO 140</b>					02/S5K/06	<b>801</b>	<b>1</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>11</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>2</b>		

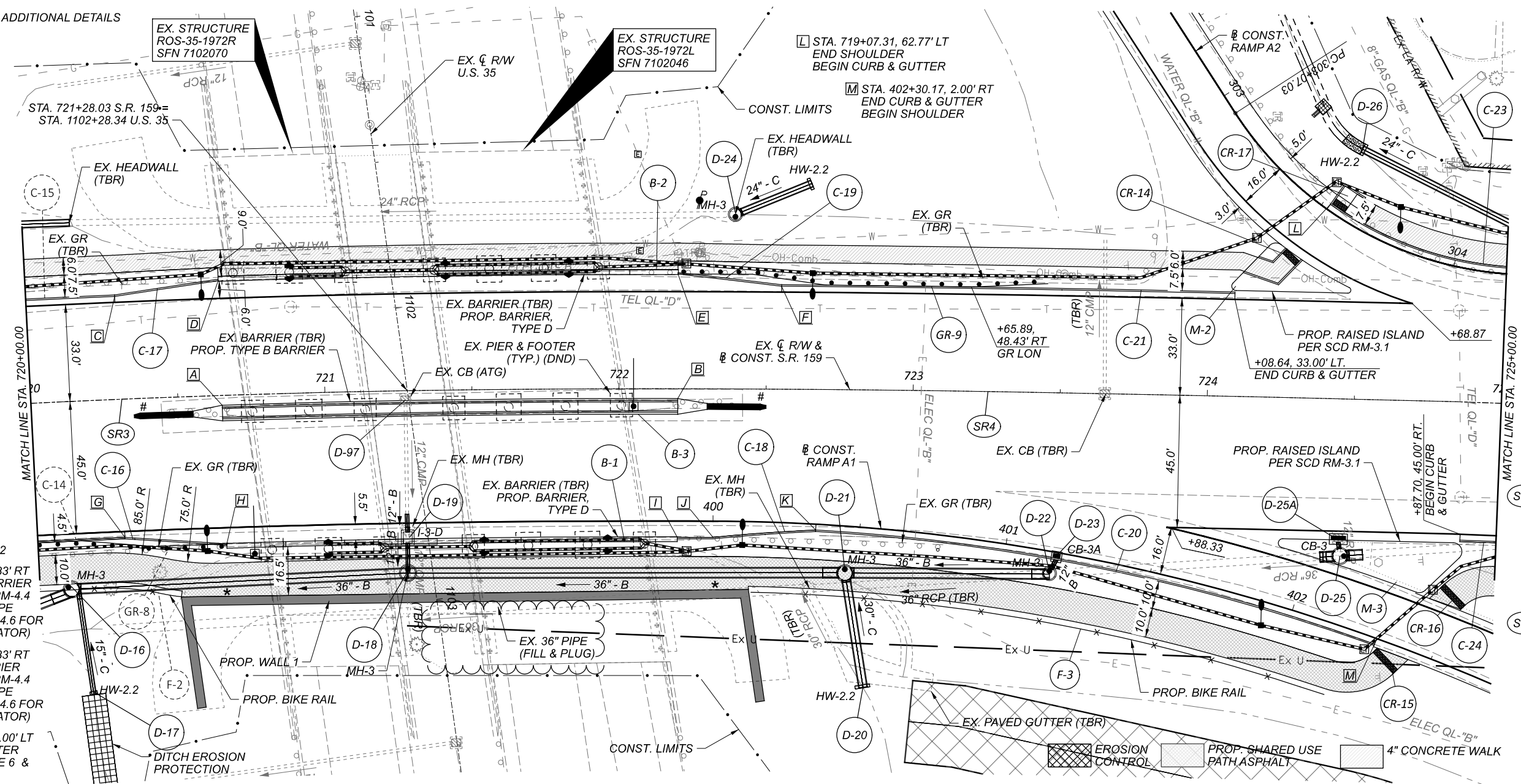
REF. NO.	SHEET NO.	STATION		SIDE	PARTICIPATION	202					FILL AND PLUG EXISTING CONDUIT, 36" CONCRETE MASONRY	611																								
		FROM	TO			REMOVE CATCH BASIN	REMOVE MANHOLE	REMOVE CONDUIT < 24"	REMOVE CONDUIT > 24"	REMOVE HEADWALL		ROCK CHANNEL PROTECTION, TYPE C	8" CONDUIT, TYPE D	12" CONDUIT, TYPE B	12" CONDUIT, TYPE C	15" CONDUIT, TYPE B	15" CONDUIT, TYPE C	18" CONDUIT, TYPE B	18" CONDUIT, TYPE C	21" CONDUIT, TYPE B	24" CONDUIT, TYPE B	24" CONDUIT, TYPE C	27" CONDUIT, TYPE B	30" CONDUIT, TYPE C	36" CONDUIT, TYPE B											
		EACH	EACH			FT	FT	EACH	FEET	CY																CY	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT
D51	168	743+00.00		LT	01/SAF/21	1		10								10																				
D52	168	743+20.86		RT	↑	1										5																				
D53	168	743+20.86		RT												8																				
D54	169	745+00.00		LT		1		8								8																				
D55	169	745+00.00		RT												7																				
D56	169	745+33.92		RT																																
D57	169	746+00.00		RT												7																				
D58	169	746+40.27	745+34.00	RT		1	1	102																												
D59	169	748+50.53	746+40.00	RT		1		206																												
D60	169	748+49.81		RT																					13											
D61	169	747+10.00	748+49.00	LT																																
D62	169	748+49.65		LT				30								30																				
D63	169	749+15.29		LT		1		5								5																				
D64	169	749+63.76	749+15.00	LT		2	1	50								47																				
D65	169	750+00.03	748+50.00	LT																				150												
D66	169	749+60.00	748+50.00	RT				110																												
D67	170	750+59.38	749+60.00	RT		1		65																												
D68	170	752+30.00	750+59.00	RT																																
D69	170	752+10.12	750+00.00	LT		2		160								170																				
D70	179	12+85.00		LT																																
D71	179	12+85.00	12+60.00	LT							0.20	2				14							35													
D72	179	12+85.00		RT		1																														
D73	179	14+59.69	12+85.00	CL														5																		
D74	179	15+55.91	14+59.00	RT												91		174																		
D75	179	15+56.25		RT												19																				
D76	180	17+00.00	15+56.00	RT												135																				
D77	180	17+68.93	17+00.00	RT		2	1	60								79																				
D78	180	17+00.00		LT												36																				
D79	180	17+63.74		LT		1		4								4																				
D80	186	68+52.36	68+48.00	RT		1										10																				
D81	186	68+76.38	68+52.00	LT												57																				
D82	186	68+75.00	69+27.00	LT												40																				
D83	186	70+39.86		LT												123																				
D84	186	70+44.08		RT																																
D85	186	12+01.51		RT				240																												
D86	186	71+06.69		LT							0.20																									
D87	186	81+13.28		LT												125																				
D88	186	80+99.80		LT																			21													
D89	186	80+82.22		RT																																
D90	186	80+81.45		RT																																
D91	189	10+81.06		LT																																
D92	189	10+80.60		RT																																
D93	189	10+81.38		RT																																
D94	189	68+46.30		RT							0.43	2																								
D95	168	742+29.00		LT																																
D96	168	742+22.00		LT												8																				
D97	168	721+28.00		LT																																
D98	196	13+91.00	13+91.40	LT/RT	01/SAF/21											30																				
SUBTOTAL CARRIED TO SHEET						141	01/SAF/21	16	3	1050	0	0	0	0.8	3	30	1468	0	386	0	224	0	45	664	0	0	0	0	0	0	0	0	0	0		

DRAINAGE ESTIMATED QUANTITIES

REF. NO.	SHEET NO.	STATION		SIDE	PARTICIPATION	611											601		895	
		FROM	TO			36" CONDUIT, TYPE C	CATCH BASIN, NO. 3	CATCH BASIN, NO. 3A	CATCH BASIN, NO. 6	CATCH BASIN, NO. 2-2B	CATCH BASIN, NO. 2-3	CATCH BASIN, NO. I-3	MANHOLE, NO. 3	MANHOLE, NO. 3 WITH 108" BASE I.D. AND 12" WEIR	MANHOLE, ADJUSTED TO GRADE	INLET, RECONSTRUCTED TO GRADE	PAVED GUTTER, TYPE 1-2	MANUFACTURED WATER QUALITY STRUCTURE, TYPE 2		
						FEET	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	FT		EACH	
D51	168	743+00.00		LT	01/SAF/21			1												
D52	168	743+20.86		RT											1					
D53	168	743+20.86		RT				1												
D54	169	745+00.00		LT																
D55	169	745+00.00		RT				1												
D56	169	745+33.92		RT											1					
D57	169	746+00.00		RT				1												
D58	169	746+40.27	745+34.00	RT								1								
D59	169	748+50.53	746+40.00	RT								1								
D60	169	748+49.81		RT				1												
D61	169	747+10.00	748+49.00	LT				1												
D62	169	748+49.65		LT					1											
D63	169	749+15.29		LT				1		1										
D64	169	749+63.76	749+15.00	LT				1												
D65	169	750+00.03	748+50.00	LT			1													
D66	169	749+60.00	748+50.00	RT				1												
D67	170	750+59.38	749+60.00	RT				1												
D68	170	752+30.00	750+59.00	RT				1												
D69	170	752+10.12	750+00.00	LT				1												
D70	179	12+85.00		LT			1													
D71	179	12+85.00	12+60.00	CL									1							
D72	179	12+85.00		RT			1													
D73	179	14+59.69	12+85.00	CL									1							
D74	179	15+55.91	14+59.00	RT									1							
D75	179	15+56.25		RT			1													
D76	180	17+00.00	15+56.00	RT					1											
D77	180	17+68.93	17+00.00	RT																
D78	180	17+00.00		LT					1											
D79	180	17+63.74		LT																
D80	186	68+52.36	68+48.00	RT																
D81	186	68+76.38	68+52.00	LT																
D82	186	68+75.00	69+27.00	LT													53			
D83	186	70+39.86		LT																
D84	186	70+44.08		RT																
D85	186	12+01.51		RT									1							
D86	186	71+06.69		LT																
D87	186	81+13.28		LT																
D88	186	80+99.80		LT						1										
D89	186	80+82.22		RT																
D90	186	80+81.45		RT																
D91	189	10+81.06		LT																
D92	189	10+80.60		RT																
D93	189	10+81.38		RT																
D94	185	68+46.30		RT																
D95	168	742+29.00		LT																
D96	168	742+22.00		LT																
D67	168	721+28.00		LT	01/SAF/21												1			
SUBTOTAL CARRIED TO 142						01/SAF/21	0	5	14	3	1	0	0	9	0	2	1	53		0

NOTE:  
SEE SHEET 297 FOR ADDITIONAL DETAILS

CROSS REFERENCES	
PLAN SECTION	SHEET NO.
CROSS SECTIONS	197-273
INTERSECTION DETAILS	289-304
DRIVE DETAILS	307-320

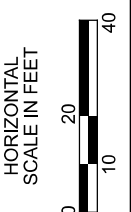
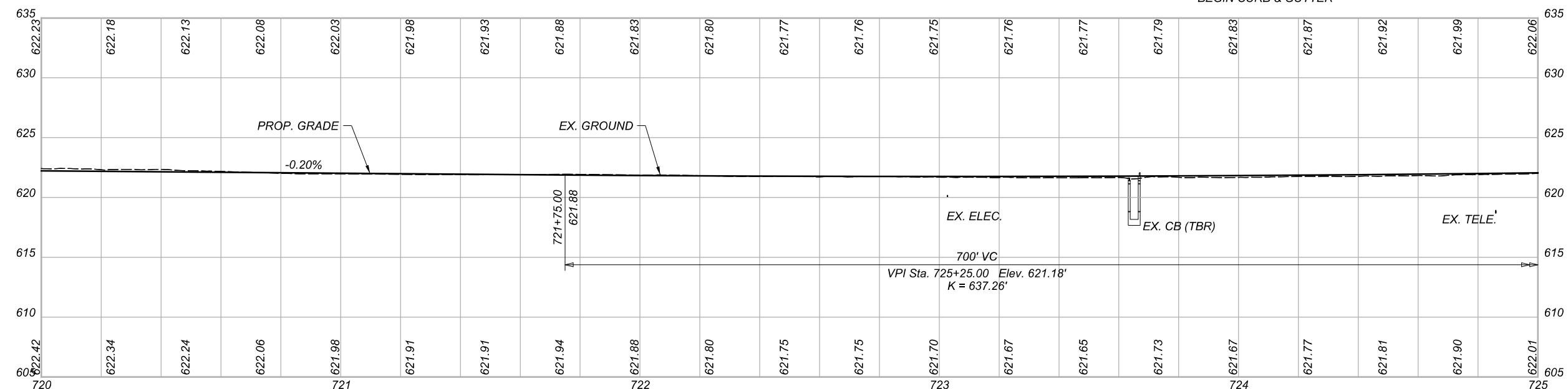


- # PROP. IMPACT ATTENUATOR, TYPE 2
- A STA. 720+65.00, 3.33' RT BEGIN TYPE B BARRIER WIDTH PER SCD RM-4.4 (TRANSITION SHAPE OVER 10' PER RM-4.6 FOR IMPACT ATTENUATOR)
- B STA. 722+20.00, 3.33' RT END TYPE B BARRIER WIDTH PER SCD RM-4.4 (TRANSITION SHAPE OVER 10' PER RM-4.6 FOR IMPACT ATTENUATOR)
- C STA. 720+30.00, 35.00' LT END CURB & GUTTER BEGIN CURB, TYPE 6 & TAPER
- D STA. 720+65.00, 39.00' LT END CURB, TYPE 6 & TAPER BEGIN TYPE D BARRIER
- E STA. 722+20.00, 39.00' LT END TYPE D BARRIER BEGIN CURB, TYPE 6 & TAPER
- F STA. 722+50.00, 35.00' LT END CURB, TYPE 6 & TAPER BEGIN CURB & GUTTER
- G STA. 720+30.00, 47.00' RT END CURB & GUTTER BEGIN CURB, TYPE 6 & TAPER
- H STA. 720+65.00, 50.50' RT END CURB, TYPE 6 & TAPER BEGIN TYPE D BARRIER
- I STA. 722+20.00, 50.50' RT END TYPE D BARRIER BEGIN CURB, TYPE 6
- J STA. 722+32.13, 50.50' RT BEGIN CURB TAPER
- K STA. 722+67.27, 47.81' RT STA. 400+35.00, 2.00' RT END CURB, TYPE 6 & TAPER BEGIN CURB & GUTTER
- \* STA. 720+62.33 TO STA. 722+34.85 PATH WIDTH VARIES; CONSTRUCT TO FACE OF WALL

**CURVE DATA - S.R. 159**

SR3  
P.I. = Sta. 720+29.91  
Δ = 01°38'30" RT  
Dc = 01°30'00"  
R = 3,819.70'  
L = 54.72'  
T = 109.44'  
E = .39'  
emax = 0.028  
V = 40 MPH  
NDC = NC SE

SR4  
P.I. = Sta. 722+18.00  
Ls = 400.00'  
θs = 03°00'00"  
LT = 266.70'  
ST = 133.37'  
x = 399.71'  
y = 13.96'  
k = 399.71'  
p = 13.96'  
C = 399.95'  
Start = Sta. 720+84.63  
End = Sta. 724+84.63  
C.B. = N00°55'19"E

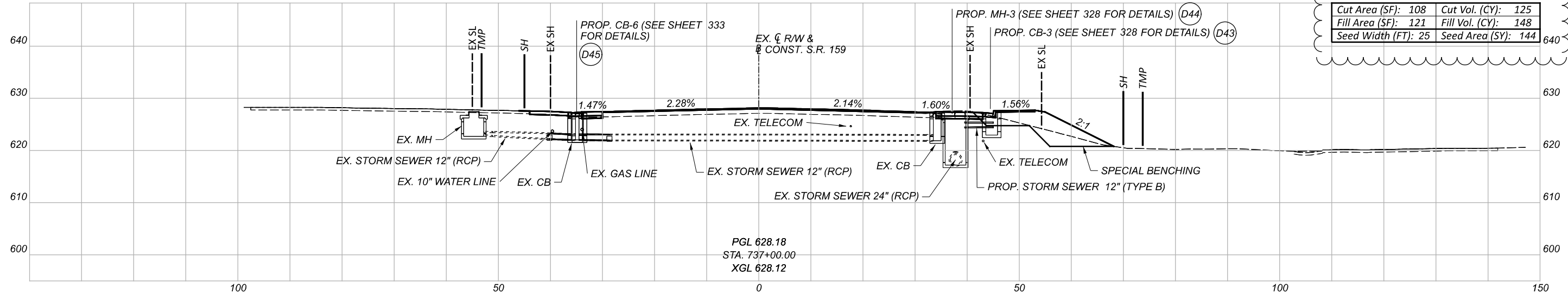
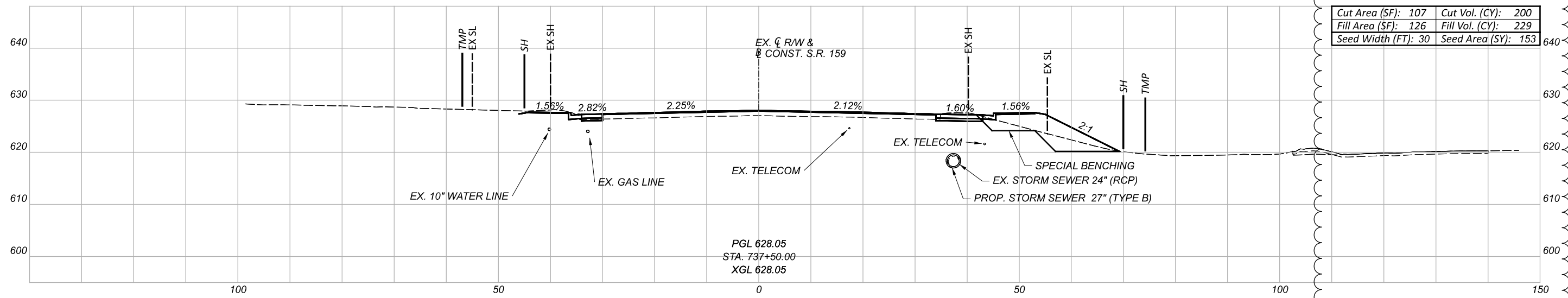
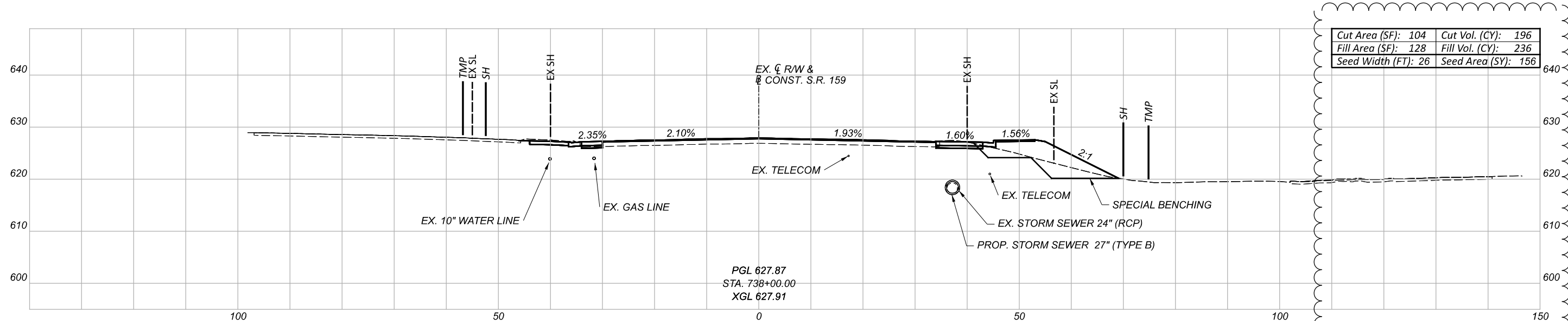


**PLAN AND PROFILE - S.R. 159**  
STA. 720+00.00 TO STA. 725+00.00

DESIGN AGENCY



DESIGNER	DSS
REVIEWER	BDT
DATE	10/07/24
PROJECT ID	113013
SHEET	164
TOTAL	592



CROSS SECTIONS - S.R. 159  
 STA. 737+00.00 TO STA. 738+00.00

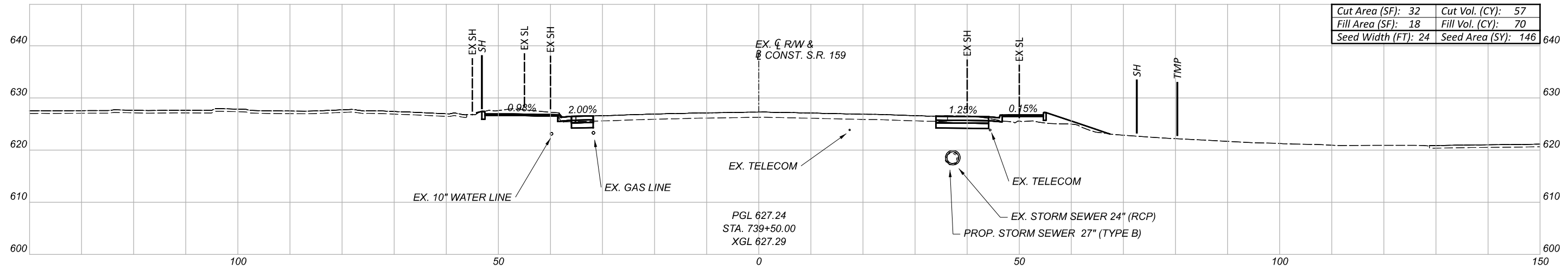
DESIGN AGENCY  
**B&N**  
 burgessniple.com

DESIGNER  
 NJL

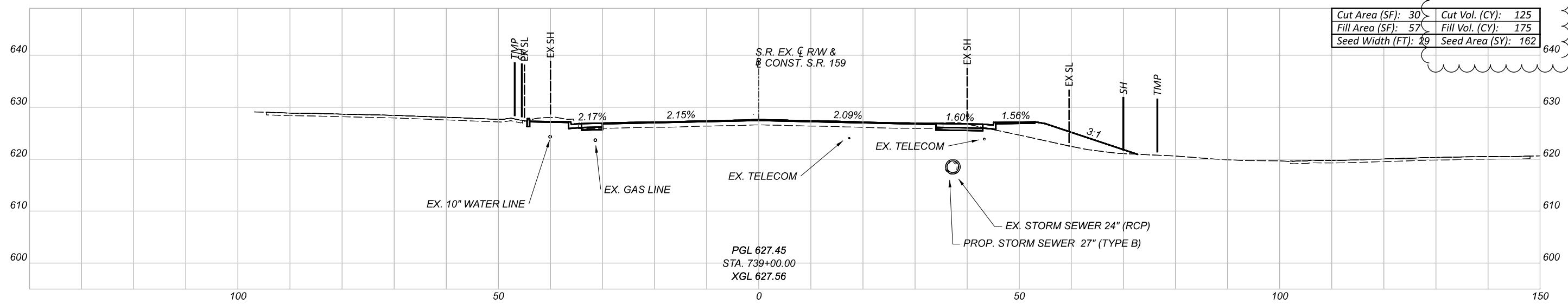
REVIEWER  
 XXX 10/07/24

PROJECT ID  
 113013

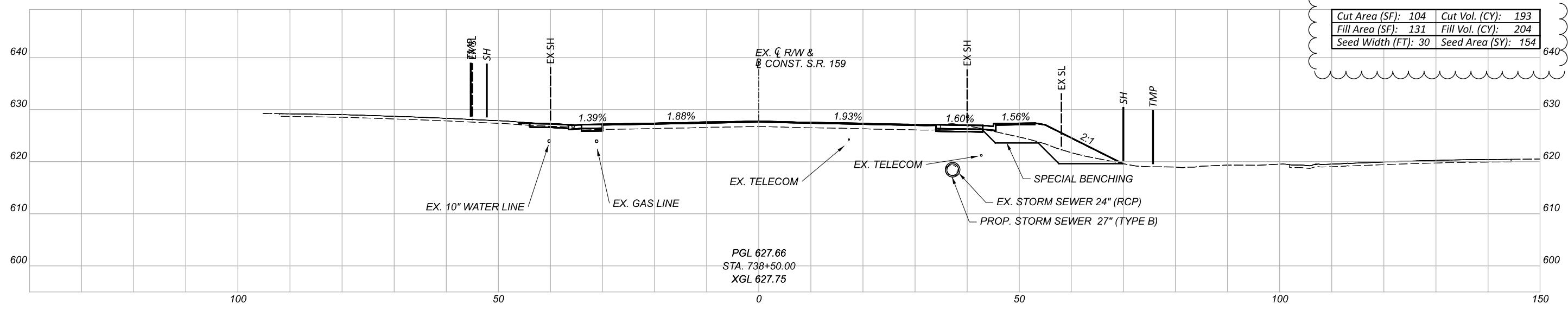
Sheet Totals	Seeding	Cut	Fill	SHEET TOTAL
	453	521	613	219   592



Cut Area (SF):	32	Cut Vol. (CY):	57
Fill Area (SF):	18	Fill Vol. (CY):	70
Seed Width (FT):	24	Seed Area (SY):	146



Cut Area (SF):	30	Cut Vol. (CY):	125
Fill Area (SF):	57	Fill Vol. (CY):	175
Seed Width (FT):	29	Seed Area (SY):	162



Cut Area (SF):	104	Cut Vol. (CY):	193
Fill Area (SF):	131	Fill Vol. (CY):	204
Seed Width (FT):	30	Seed Area (SY):	154

CROSS SECTIONS - S.R. 159  
 STA. 738+50.00 TO STA. 739+50.00

DESIGN AGENCY

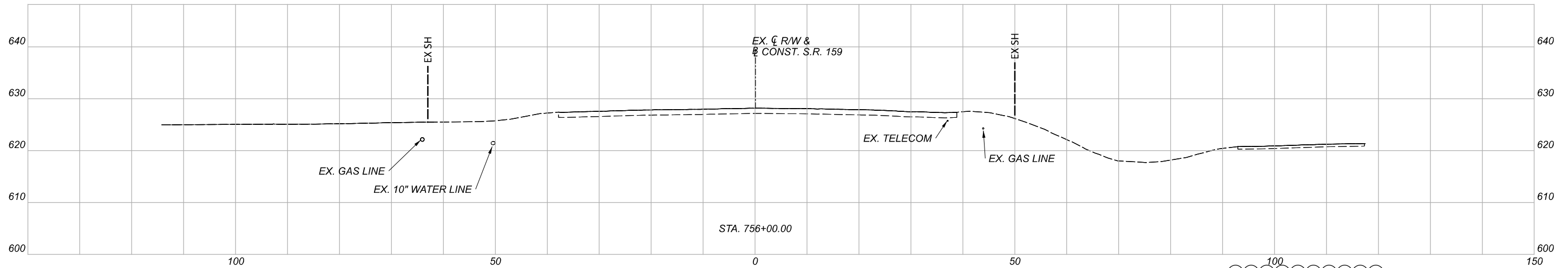


DESIGNER  
 NJL

REVIEWER  
 XXX 10/07/24

PROJECT ID  
 113013

Sheet Totals			SHEET	TOTAL
Seeding	Cut	Fill		
462	375	485	220	592

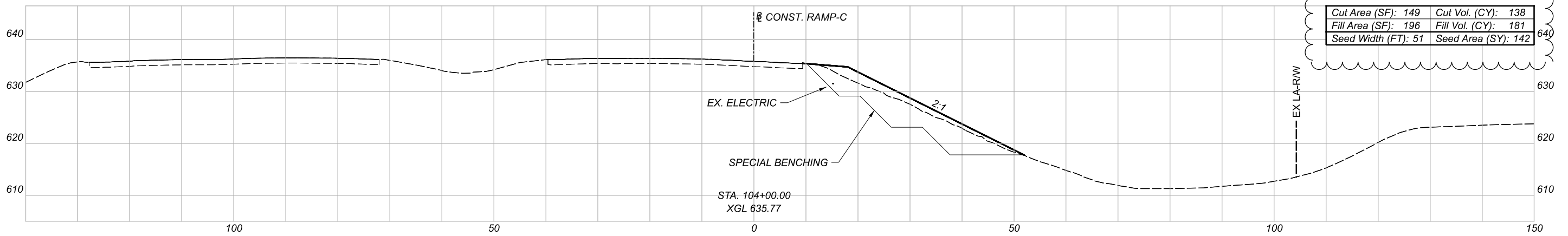
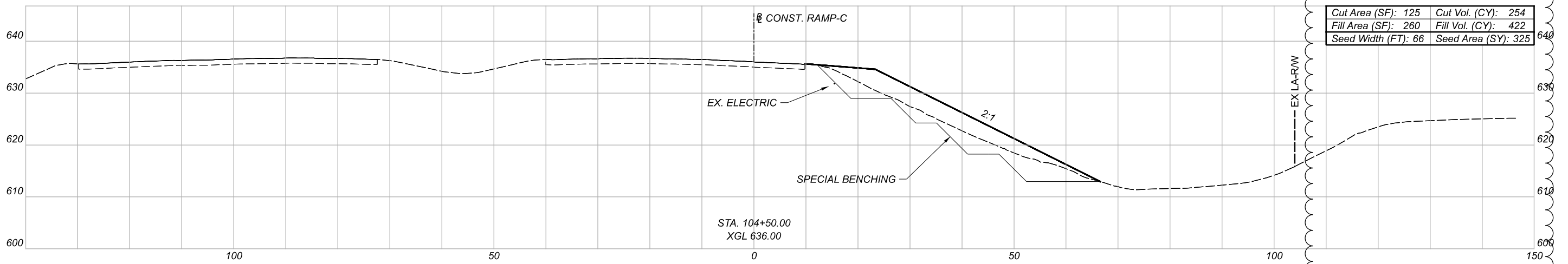
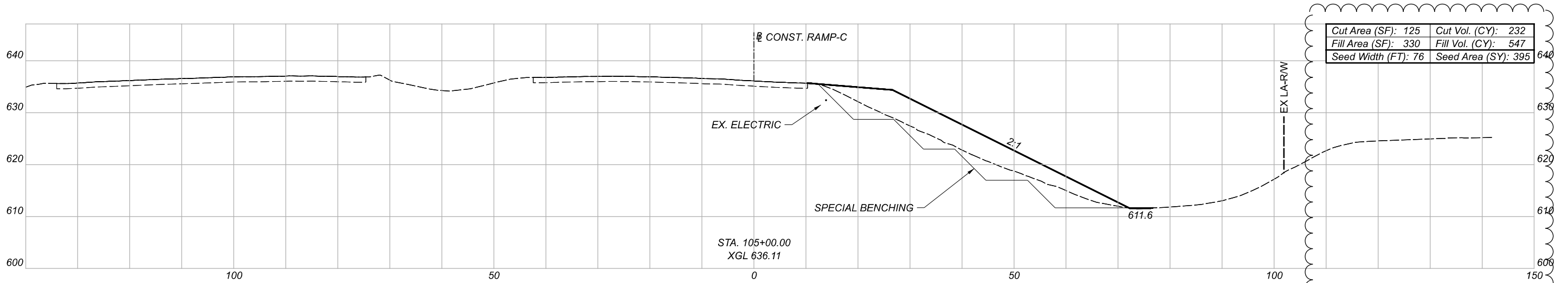


TOTALS CARRIED TO GENERAL NOTES			Sheet Totals		
ITEM 203 - EXCAVATION	ITEM 203 - EMBANKMENT	ITEM 659 - SEEDING & MULCHING	Seeding	Cut	Fill
12,855 CU. YD.	12,757 CU. YD.	13,422 SQ. YD.			

DESIGN AGENCY	<b>B&amp;N</b> burgessniple.com
DESIGNER	NJL
REVIEWER	XXX 10/07/24
PROJECT ID	113013
SHEET	232
TOTAL	592

CROSS SECTIONS - S.R. 159  
 STA. 756+00.00





CROSS SECTIONS - RAMP C  
 STA. 104+00.00 TO STA. 105+00.00

DESIGN AGENCY

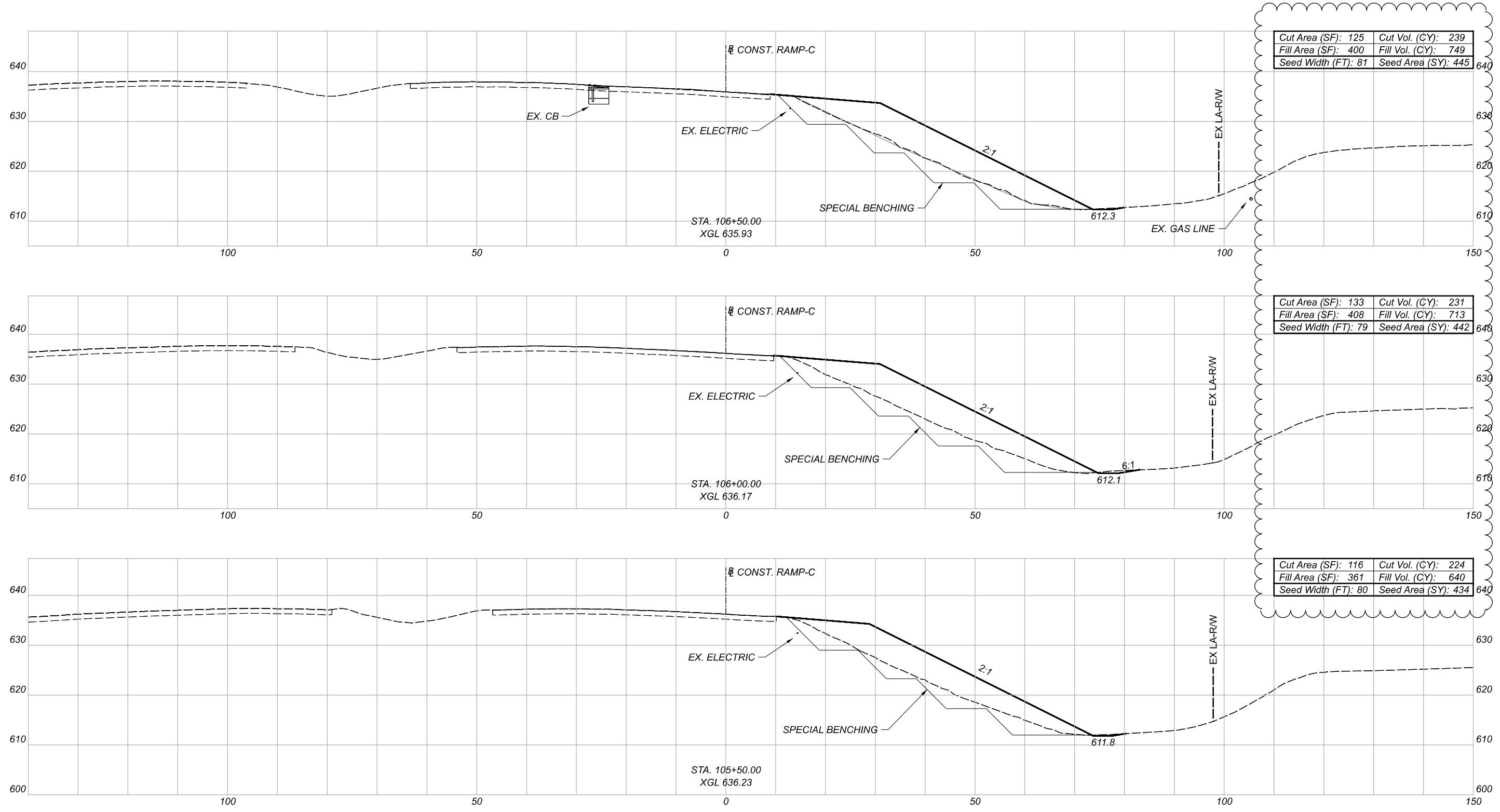


DESIGNER  
 NJL

REVIEWER  
 XXX 10/07/24

PROJECT ID  
 113013

Sheet Totals			SHEET	TOTAL
Seeding	Cut	Fill		
862	624	1150	234	592



Cut Area (SF): 125	Cut Vol. (CY): 239
Fill Area (SF): 400	Fill Vol. (CY): 749
Seed Width (FT): 81	Seed Area (SY): 445

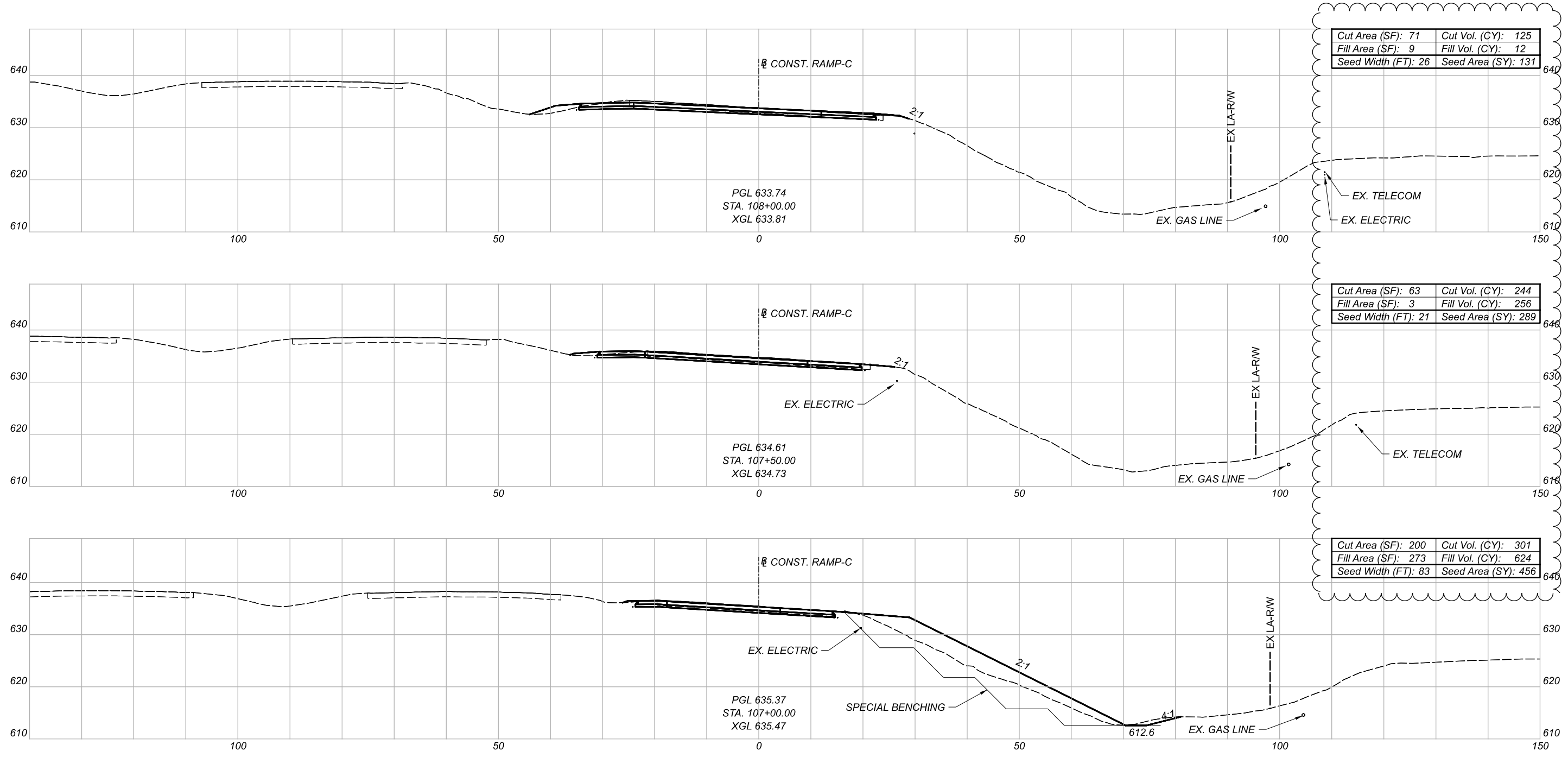
Cut Area (SF): 133	Cut Vol. (CY): 231
Fill Area (SF): 408	Fill Vol. (CY): 713
Seed Width (FT): 79	Seed Area (SY): 442

Cut Area (SF): 116	Cut Vol. (CY): 224
Fill Area (SF): 361	Fill Vol. (CY): 640
Seed Width (FT): 80	Seed Area (SY): 434

CROSS SECTIONS - RAMP C  
 STA. 105+50.00 TO STA. 106+50.00

DESIGN AGENCY	
<b>B&amp;N</b> burgessniple.com	
DESIGNER	NJL
REVIEWER	XXX 10/07/24
PROJECT ID	113013

Sheet Totals			SHEET	TOTAL
Seeding	Cut	Fill	235	592
1321	694	2102		



CROSS SECTIONS - RAMP C  
 STA. 107+00.00 TO STA. 108+00.00

DESIGN AGENCY



DESIGNER

NJL

REVIEWER

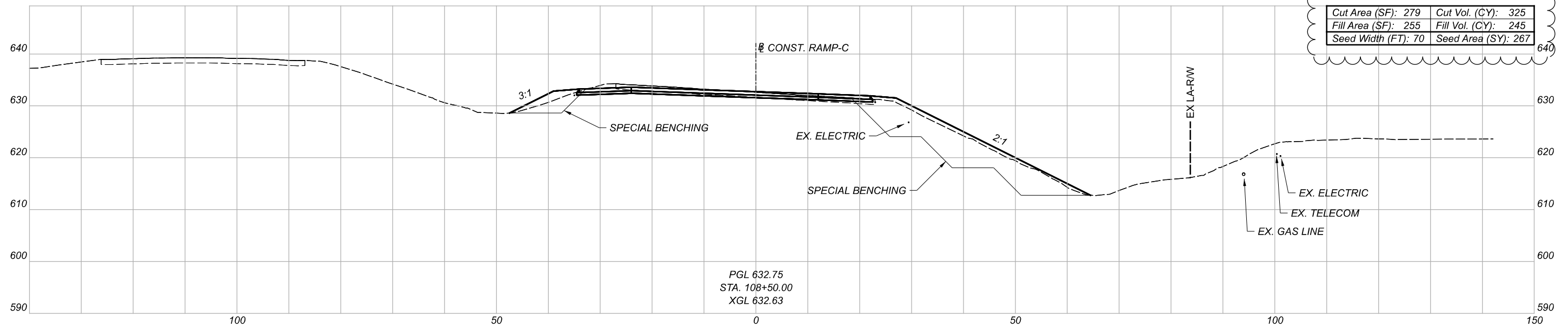
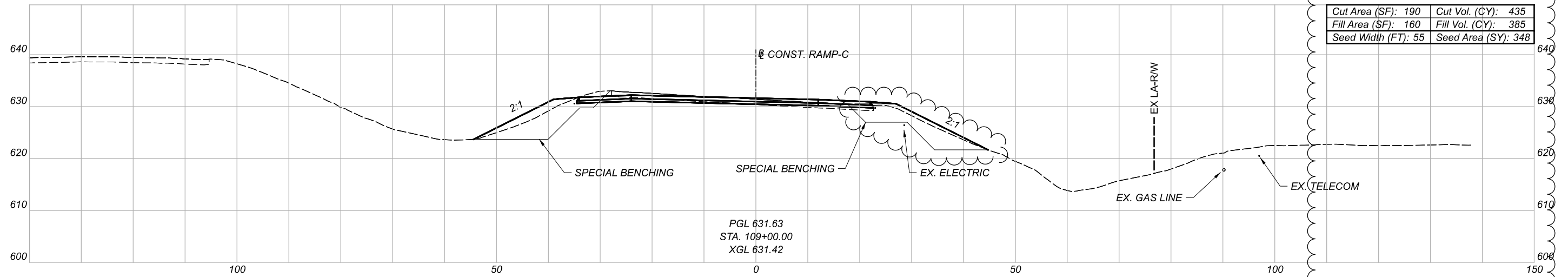
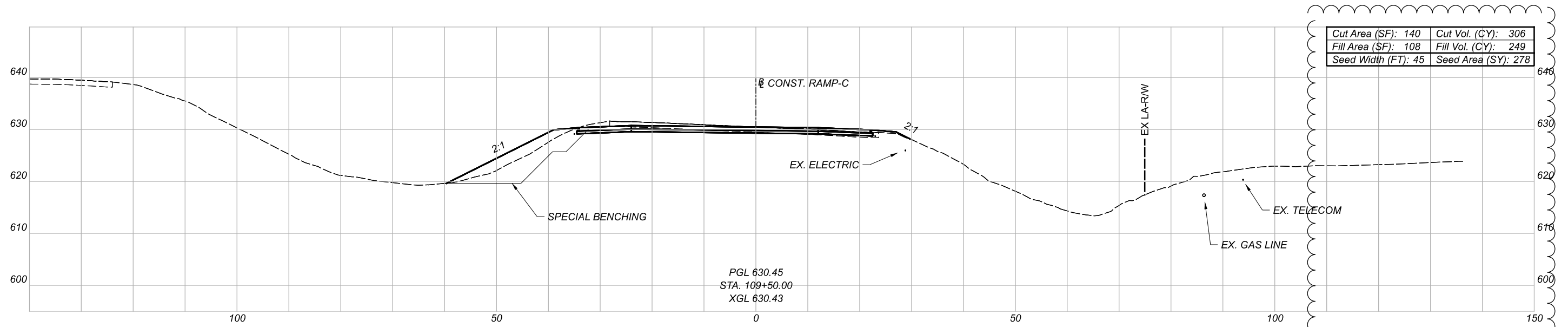
XXX 10/07/24

PROJECT ID

113013

Sheet Totals		
Seeding	Cut	Fill
876	670	892

SHEET	TOTAL
236	592



CROSS SECTIONS - RAMP C  
 STA. 108+50.00 TO STA. 109+50.00

DESIGN AGENCY

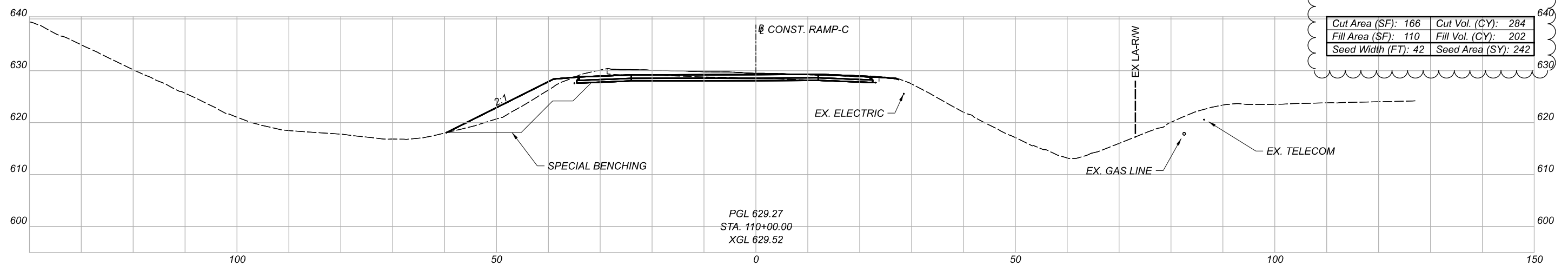
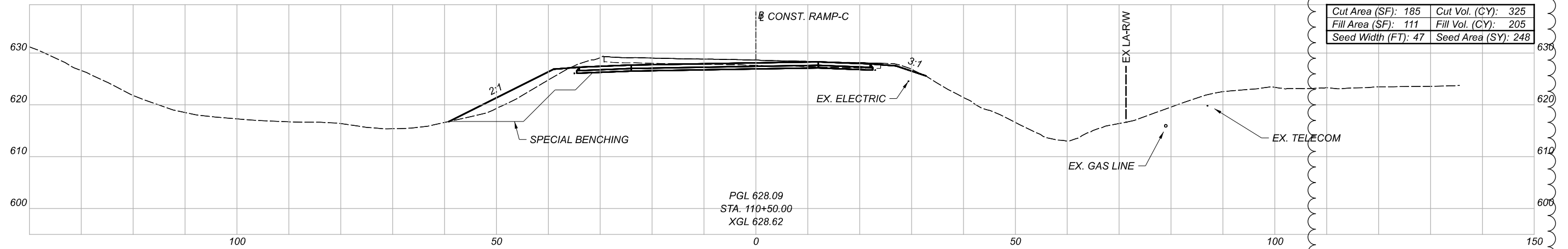
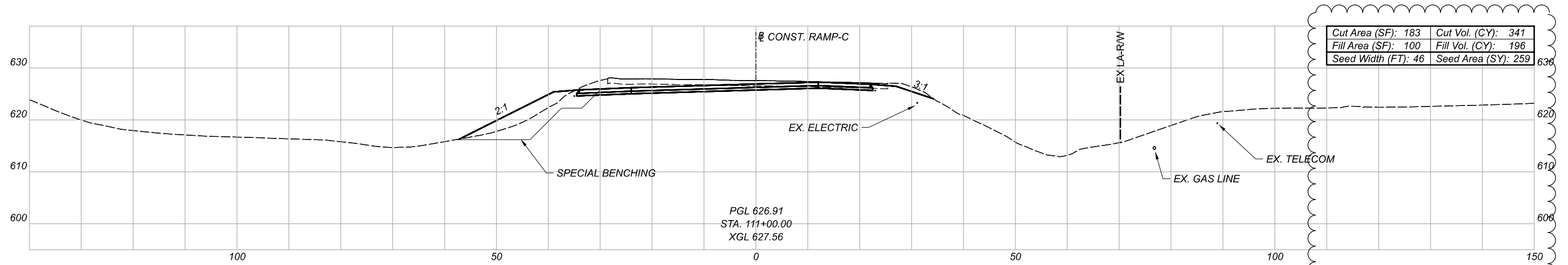


DESIGNER  
 NJL

REVIEWER  
 XXX 10/07/24

PROJECT ID  
 113013

Sheet Totals			SHEET	TOTAL
Seeding	Cut	Fill		
893	1066	879	237	592



CROSS SECTIONS - RAMP C  
 STA. 110+00.00 TO STA. 111+00.00

DESIGN AGENCY

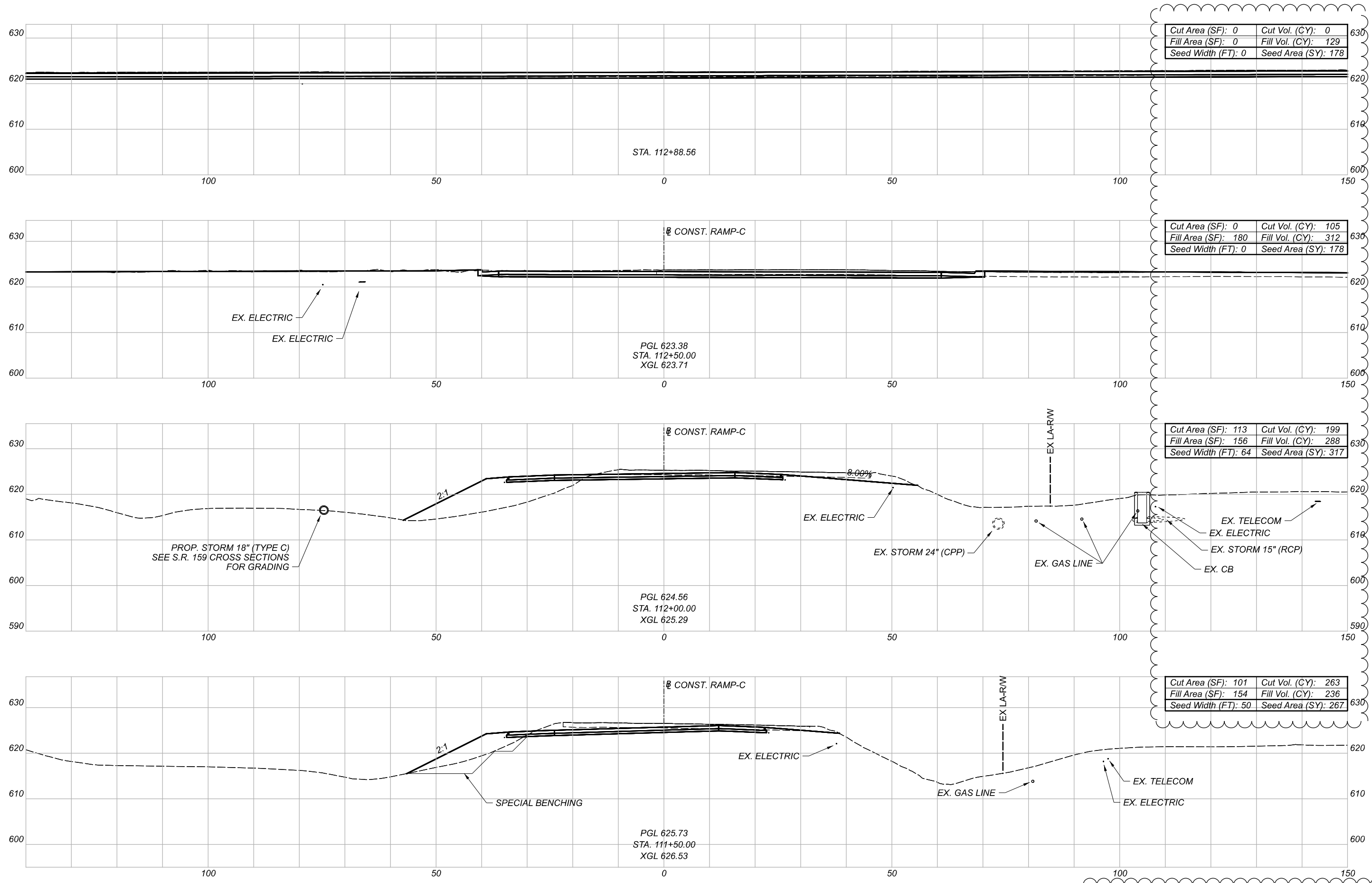


DESIGNER  
 NJL

REVIEWER  
 XXX 10/07/24

PROJECT ID  
 113013

Sheet Totals			SHEET	TOTAL
Seeding	Cut	Fill		
749	950	603	238	592



Cut Area (SF): 0	Cut Vol. (CY): 0
Fill Area (SF): 0	Fill Vol. (CY): 129
Seed Width (FT): 0	Seed Area (SY): 178

Cut Area (SF): 0	Cut Vol. (CY): 105
Fill Area (SF): 180	Fill Vol. (CY): 312
Seed Width (FT): 0	Seed Area (SY): 178

Cut Area (SF): 113	Cut Vol. (CY): 199
Fill Area (SF): 156	Fill Vol. (CY): 288
Seed Width (FT): 64	Seed Area (SY): 317

Cut Area (SF): 101	Cut Vol. (CY): 263
Fill Area (SF): 154	Fill Vol. (CY): 236
Seed Width (FT): 50	Seed Area (SY): 267

TOTALS CARRIED TO GENERAL NOTES			Sheet Totals		
ITEM 203 - EXCAVATION	ITEM 203 - EMBANKMENT	ITEM 659 - SEEDING & MULCHING	Seeding	Cut	Fill
4,571 CU. YD.	6,591 CU. YD.	5,463 SQ. YD.	762	567	965

CROSS SECTIONS - RAMP C  
 STA. 111+50.00 TO STA. 112+88.56

DESIGN AGENCY	<b>B&amp;N</b> burgessniple.com
DESIGNER	
REVIEWER	NJL
PROJECT ID	113013
SHEET	239
TOTAL	592

**625, LIGHT TOWER, MISC., INSTALLATION ONLY, AS PER PLAN**

THIS ITEM OF WORK SHALL CONSIST OF INSTALLING AN EXISTING LIGHT TOWER REMOVED FROM A PREVIOUS LOCATION ON THE PROJECT SITE OR SUPPLIED TO THE PROJECT BY OTHERS.

WHEN REQUIRED, ADDITIONAL LUMINAIRE BRACKET ARMS SHALL BE ADDED TO THE EXISTING LUMINAIRE BRACKETS RELOCATED ALONG WITH THE NECESSARY ADJUSTMENTS AND ADDITIONS TO THE LUMINAIRE WIRING TO ENABLE THE LUMINAIRES TO BE MOUNTED SYMMETRICALLY AROUND THE LUMINAIRE MOUNTING RING.

WHERE THE TOWER WILL BE INSTALLED ON A NEW FOUNDATION, NEW ANCHOR BOLTS SHALL BE FURNISHED.

THE TOWER AND LOWERING MECHANISM SHALL BE CLEANED AND LUBRICATED.

ANY REPAIRS AND ADJUSTMENTS NECESSARY TO RETURN THE TOWER AND MECHANISM TO GOOD OPERATING CONDITION SHALL BE MADE.

THE EXISTING LIGHT TOWER IDENTIFICATION DECAL SHALL BE REMOVED, AND A NEW DECAL FOR THE NEW IDENTIFICATION NUMBER FURNISHED AND INSTALLED.

DURING CONSTRUCTION, THE CONTRACTOR SHALL MAINTAIN THE LIGHTING IN VICINITY OF THE AREA WHERE THE TOWER IS TO BE REMOVED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING TEMPORARY LIGHTING, IF NECESSARY, OF THIS PORTION OF THE ROADWAY UNTIL THE NEW LIGHTING TOWER LOCATION IS OPERATIONAL.

PAYMENT SHALL BE MADE AT THE UNIT PRICE BID UNDER C&MS ITEM 625, "LIGHT TOWER, MISC., INSTALLATION ONLY, AS PER PLAN" FOR EACH TOWER RE-ERECTED WHICH SHALL INCLUDE ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER. THE WORK REQUIRED FOR THE REMOVAL OF THE EXISTING TOWER FOUNDATION SHALL ALSO BE INCLUDED UNDER THIS BID ITEM.

**CONDUIT EXPANSION AND DEFLECTION**

EXPANSION FITTINGS SHALL BE OZ TYPE AX, CROUSE HINDS TYPE XJG, OR EQUAL APPROVED BY THE ENGINEER. EACH EXPANSION FITTING SHALL PROVIDE EITHER 4 OR 8 INCHES TOTAL MOVEMENT AS SPECIFIED BY THE PLAN DETAILS AND SHALL HAVE AN EXTERNAL COPPER BONDING JUMPER, UNLESS SPECIFIED OTHERWISE BY THE PLAN DETAILS.

DEFLECTION COUPLINGS SHALL BE OZ TYPE DX, CROUSE HINDS TYPE XD, OR EQUAL APPROVED BY THE ENGINEER. EACH DEFLECTION COUPLING SHALL HAVE AN EXTERNAL COPPER BONDING JUMPER, UNLESS SPECIFIED OTHERWISE BY THE PLAN DETAILS. MINIMUM DEFLECTION CAPABILITY: 25 DEGREES.

EXPANSION AND DEFLECTION FITTINGS FULLY OR PARTIALLY EMBEDDED IN CONCRETE, SOIL, OR SIMILAR MATERIAL SHALL BE COMPLETELY WRAPPED IN A NEOPRENE SLEEVE OR SHEET OF 1/2-INCH MINIMUM THICKNESS. SECURE NEOPRENE WRAP WITH TIE-WRAP PRIOR TO EMBEDMENT OF THE FITTING.

**625, POWER SERVICE, AS PER PLAN**

IN ADDITION TO THE REQUIREMENTS OF THE SPECIFICATIONS, THE FOLLOWING IS ADDED.

THE POWER SUPPLYING AGENCY FOR THIS PROJECT IS:

POWER COMPANY AMERICAN ELECTRIC POWER OHIO  
 CONTACT NAME SCOTT ROTÉ  
 CONTACT EMAIL SAROTE@AEP.COM

POWER SERVICE INSTALLATION MUST CONSIST OF A WEATHERHEAD, CONDUIT AND FITTINGS, STAINLESS STEEL DISCONNECT SWITCH WITH ENCLOSURE, METER BASE, ATTACHMENT CLAMPS AND UNISTRUT MOUNTING POST(S) OR OTHER SUPPORT STRUCTURES NECESSARY FOR MOUNTING OF THE EQUIPMENT. AMERICAN ELECTRIC POWER (AEP) DOES NOT ALLOW DISCONNECTS AND METERS ATTACHED TO THEIR POLES, BUT REQUIRES THAT THE METER IS MOUNTED NEAR THE POWER SOURCE. DISCONNECT SWITCH SHALL BE MOUNTED NEAR THE LIGHTING CONTROL CABINET.

ALL EQUIPMENT MUST BE LABELED ACCORDING TO N.E.C. 110.16 AND N.E.C. 110.24 REQUIREMENTS. CONDUIT CONNECTIONS AT THE METER BASE AND ENCLOSURE MUST BE WATER-TIGHT BY USE OF CONDUIT HUBS LISTED ON THE ENCLOSURE UL LABEL. POWER CABLE RUNS SHALL NOT ENTER THE LIGHTING CONTROL CABINET BEFORE THE METER AND DISCONNECT SWITCH.

WHEN THE POWER CABLE IS IN PLACE AND THE NEW INSTALLATION IS READY FOR SERVICE, THE CONTRACTOR SHALL CONTACT AEP WHO WILL MAKE THE ELECTRICAL SERVICE CONNECTION. THE CONTRACTOR SHALL COORDINATE RELATED WORK WITH AEP AT LEAST 30 DAYS IN ADVANCE. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR SPLICE THE POWER CABLE INTO AEP'S CIRCUITRY. ANY FEES ASSOCIATED WITH OBTAINING POWER SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. POWER SUPPLIED SHALL BE 240 VOLTS. POWER SHALL BE SUPPLIED AT THE LOCATION SHOWN IN THE PLANS UNLESS OTHERWISE AGREED UPON BY AEP, THE CONTRACTOR AND THE ENGINEER.

PROPOSED POWER SERVICE QUANTITY INCLUDED FOR THE EXISTING US-35 INTERCHANGE HIGH MAST LIGHTING SHALL ONLY INCLUDE PROVIDING A METERED CONNECTION TO THE EXISTING CONTROLLER. CONTRACTOR SHALL COORDINATE WITH AEP TO COMPLETE THIS WORK. THE EXISTING CONTROLLER FOR THE HIGH MAST LIGHTING IS LOCATED AT APPROXIMATE STA. 728+96, 200' RT.

PAYMENT WILL BE MADE AT THE UNIT BID PRICE FOR EACH C&MS ITEM 625, "POWER SERVICE, AS PER PLAN" WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

**HIGH VOLTAGE TEST WAIVED**

THE HIGH VOLTAGE TEST SHALL NOT BE PERFORMED ON THE CIRCUITS CONSTRUCTED BY THIS PROJECT, SINCE THE TEST COULD DAMAGE THE PORTION OF THE COMPLETED CIRCUIT WHICH HAS BEEN IN SERVICE PRIOR TO THIS PROJECT.

**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 THE EXISTING LIGHTING CIRCUITS, REPRESENTATIVES OF ODOT, 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 EXISTING LIGHTING SHALL BE MADE BY ODOT'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 ODOT, 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 THE REPAIRS NECESSARY TO RETURN THE SYSTEM TO AN ACCEPTABLE CONDITION. FOLLOWING THESE REPAIRS, THE SYSTEM SHALL AGAIN BE INSPECTED AND A REPORT SHALL BE 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 DOWNED 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 IMPROVEMENT.

WHEN THE SEQUENCE OF CONSTRUCTION ACTIVITIES REQUIRES, OR SHOULD THE CONTRACTOR DESIRE, THE REMOVAL OF THE EXISTING LIGHTING BEFORE THE NEW LIGHTING IS OPERATIONAL, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING TEMPORARY LIGHTING OF THIS PORTION OF THE ROADWAY.

PRIOR TO INSTALLING SUCH LIGHTING, THE CONTRACTOR SHALL PREPARE AND SUBMIT FOUR SETS OF THE TEMPORARY LIGHTING PLAN TO THE ENGINEER FOR REVIEW AND APPROVAL.

THIS PLAN SHALL SHOW LOCATIONS OF POLES, LENGTHS OF BRACKET ARMS, STYLES OF LUMINAIRES, MOUNTING HEIGHTS, WIRING METHODS AND OTHER PERTINENT INFORMATION. THE TEMPORARY LIGHTING SHALL PROVIDE AN AVERAGE INITIAL INTENSITY OF 1.2 FOOTCANDLES WITH AN AVERAGE TO MINIMUM UNIFORMITY NOT TO EXCEED 3:1. MOUNTING HEIGHT OF TEMPORARY LUMINAIRES SHALL NOT BE LESS THAN 30 FEET, AND THE MINIMUM OVERHEAD CONDUCTOR CLEARANCE SHALL BE 20 FEET. TEMPORARY OVERHEAD CONSTRUCTION SHALL NOT BE LESS THAN GRADE "B" FOR STRENGTH REQUIREMENTS AS DEFINED BY THE NATIONAL ELECTRIC SAFETY CODE. WOOD POLES WITH OVERHEAD WIRING MAY BE USED. HOWEVER, TEMPORARY LIGHTING SHALL MEET FEDERAL AND STATE SAFETY CRITERIA. IF BREAKAWAY POLES ARE USED TO MEET THESE CRITERIA, THEN UNDERGROUND WIRING SHALL BE USED. RECONDITIONED OR USED MATERIALS MAY BE FURNISHED FOR TEMPORARY LIGHTING.

TO ENSURE LIGHTING IS PROVIDED THROUGHOUT THE DURATION OF CONSTRUCTION, THE NEW EAST SIDE LIGHTING SHALL BE TURNED ON AND OPERATIONAL BEFORE AEP DISCONNECTS POWER AND BEGINS LIGHTING WORK TO THE WEST SIDE OF THE ROADWAY.

ALL MATERIALS NECESSARY TO COMPLETE THE TEMPORARY LIGHTING SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR. WHEN NO LONGER NEEDED, THE TEMPORARY LIGHTING INSTALLATION SHALL BE REMOVED AND PROPERLY DISPOSED OF BY THE CONTRACTOR.

WHEN THE PROJECT BEGINS AND THE CONTRACTOR HAS TAKEN OVER MAINTENANCE OF THE EXISTING FACILITIES, THE CONTRACTOR IS RESPONSIBLE FOR ALL REQUIRED LAYOUTS AND LOCATIONS OF THE EXISTING AND PROPOSED ELECTRICAL CIRCUITS AND RELATED ITEMS WITHIN THE PROJECT LIMITS. THE CONTRACTOR SHALL LOCATE AND MARK ALL UNDERGROUND ELECTRICAL CIRCUITS (INCLUDING TRAFFIC LOOPS AND LOOP LEAD-INS) FOR THE DURATION OF THE PROJECT.

THE MAINTAINING AGENCY WILL PAY FOR ELECTRICAL ENERGY CONSUMED BY EXISTING POWER SERVICES AND BY PROPOSED PERMANENT POWER SERVICES AFTER ACCEPTANCE OF THE LIGHTING WORK. THE CONTRACTOR WILL PAY FOR ELECTRICAL ENERGY, INSTALLATION, REMOVAL AND MAINTENANCE OF ANY TEMPORARY POWER SERVICES.

THE LUMP SUM PRICE BID FOR ITEM SPECIAL "MAINTAIN EXISTING LIGHTING" SHALL INCLUDE PAYMENT FOR ALL LABOR, EQUIPMENT, 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 ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO PROVIDE A REPLACEMENT FOR SUCH UNIT.

**625, LUMINAIRE, CONVENTIONAL, SOLID STATE (LED), AS PER PLAN, (ROADWAY LUMINAIRES)**

IN ADDITION TO THE REQUIREMENTS OF ODOT'S CONSTRUCTION AND MATERIAL SPECIFICATIONS, LUMINAIRES FOR CONVENTIONAL LIGHTING UNITS (ROADWAY) SHALL BE AS FOLLOWS:

LUMINAIRES FOR CONVENTIONAL LIGHTING PROVIDE A SOLID STATE (LED) LUMINAIRE WITH A B-U-G UP-LIGHTING RATING OF U0. THE LUMINAIRE IS INTENDED FOR EXTERNAL ON/OFF CONTROL AND SHALL NOT INCLUDE A PHOTOCCELL SOCKET. ASSURE THE LUMINAIRE HAS A NOMINAL COLOR TEMPERATURE OF 3000K. UNITS SHALL HAVE AN IES TYPE III DISTRIBUTION AND BE 240 VOLTS.

PROVIDE A LUMINAIRE WITH FACTORY-APPLIED BLACK FINISH TO MATCH SIGNAL POLES, SIGNAL SUPPORTS, LIGHT POLES, LIGHT BRACKET ARMS, ETC.

SUPPLY ONE OF THE FOLLOWING LUMINAIRES FOR THE MAINLINE SR-159 CORRIDOR:

AMERICAN ELECTRIC "AUTOBAHN" SERIES WITH PHOTOMETRIC DISTRIBUTION ATBM P50 R2 3K, WITH INPUT WATTAGE OF 152W.

COOPER "VERDEON" SERIES PHOTOMETRIC DISTRIBUTION VERD CA2 140 730 U T3, WITH INPUT WATTAGE OF 142W.

GENERAL ELECTRIC "EVOLVE" WITH PHOTOMETRIC DISTRIBUTION ERL2 0240 19 C3 30, WITH INPUT WATTAGE OF 149W.

OR EQUAL AS APPROVED BY THE ENGINEER.

SUPPLY ONE OF THE FOLLOWING LUMINAIRES FOR STEWART RD, CONSUMER CENTER DR, THE PROPOSED ROUNDABOUT, NORTH PLAZA BLVD, AND MARIETTA RD CONNECTOR:

AMERICAN ELECTRIC "AUTOBAHN" SERIES WITH PHOTOMETRIC DISTRIBUTION ATBM P30 R2 3K, WITH INPUT WATTAGE OF 118W.

COOPER "VERDEON" SERIES PHOTOMETRIC DISTRIBUTION VERD CA2 110 730 U T3, WITH INPUT WATTAGE OF 114W.

GENERAL ELECTRIC "EVOLVE" WITH PHOTOMETRIC DISTRIBUTION ERL2 0240 16 C3 30, WITH INPUT WATTAGE OF 120W.

OR EQUAL AS APPROVED BY THE ENGINEER.

PAYMENT WILL BE MADE AT THE UNIT BID PRICE FOR EACH C&MS ITEM 625, "LUMINAIRE, CONVENTIONAL, SOLID STATE (LED), AS PER PLAN, (ROADWAY LUMINAIRES)" FOR EACH LUMINAIRE WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

REF NO.	SHEET NO.	STATION TO STATION	PARTICIPATION	625	625	625	625	625	625	625	625	625	625	625	625	625	625	625	625	625	625	625	625	625	
				CONNECTION, FUSED PULL APART	CONNECTION, UNFUSED BOLTED	CONNECTION, UNFUSED PERMANENT	TRANSFORMER BASE, TYPE AT-A, AS PER PLAN	LIGHT POLE (INSTALLATION ONLY), AS PER PLAN	LIGHT POLE FOUNDATION, 24" X 6' DEEP	LIGHT TOWER FOUNDATION, 36" X 25' DEEP	BRACKET ARM, AS PER PLAN, 4'	BRACKET ARM, 8', AS PER PLAN	BRACKET ARM, 12', AS PER PLAN	NO. 10 AWG POLE AND BRACKET CABLE	NO. 4 AWG 2400 VOLT DISTRIBUTION CABLE	CONDUIT, 2", 725.04	CONDUIT, 3", 725.04	CONDUIT, JACKED OR DRILLED, 725.04, (3')	LUMINAIRE, CONVENTIONAL, SOLID STATE (LED), AS PER PLAN, (ROADWAY LUMINAIRES)	LUMINAIRE, POST TOP, SOLID STATE (LED), AS PER PLAN, (SUP LUMINAIRES)	LUMINAIRE, POST TOP, SOLID STATE (LED), AS PER PLAN, (BRIDGE LUMINAIRES)	LUMINAIRE, UNDERPASS, SOLID STATE (LED), AS PER PLAN	TRENCH, 24" DEEP	JUNCTION BOX	
				EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	FT	FT	FT	FT	FT	EACH	EACH	EACH	EACH	FT	EACH
		SUBTOTAL FROM SHEET	469	01/SAF/21	60	0	33	19	19	19	0	8	4	18	1330	16830	566	3900	624	30	0	0	12	3770	30
		SUBTOTAL FROM SHEET	469	03/S5K/28	0	0	0	0	32	0	0	0	0	0	736	0	0	0	0	0	32	2	0	0	0
		SUBTOTAL FROM SHEET	470	01/SAF/21	30	0	45	9	9	9	0	2	5	8	669	9855	0	1503	967	15	0	0	0	1503	0
		SUBTOTAL FROM SHEET	471	01/SAF/21	48	0	46	15	15	15	0	4	9	11	1060	12231	0	2607	950	24	0	0	0	2607	0
		SUBTOTAL FROM SHEET	472	01/SAF/21	37	1	27	18	18	18	1	8	10	0	842	11331	0	2741	706	18	0	0	0	2741	0
		SUBTOTAL FROM SHEET	472	04/SAF/28	12	0	2	0	6	6	0	0	0	0	90	1248	0	386	0	6	0	0	386	0	
		SUBTOTAL FROM SHEET	473	05/NFP/21	16	0	15	0	0	8	0	0	0	0	120	1035	0	160	75	0	0	0	160	0	
TOTALS CARRIED TO GENERAL SUMMARY					203	1	168	61	99	75	1	22	28	37	4847	52530	566	11297	3322	87	6	32	14	11167	30

REF NO.	SHEET NO.	STATION TO STATION	PARTICIPATION	625	625	625	625	625	625	625	625	625	625	625	625	625	625	625	625	625	625	625	625	625
				PULL BOX, 725.08, 18"	PULL BOX, 725.08, 24"	POWER SERVICE, AS PER PLAN	LUMINAIRE REMOVED	LIGHT TOWER, MISC., INSTALLATION ONLY, AS PER PLAN	LIGHT POLE, MISC., (POCKET PARKS, 15' MTG HT), AS PER PLAN	LUMINAIRE, POST TOP, SOLID STATE (LED), AS PER PLAN, (POCKET PARK LUMINAIRES)														
				EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH
		SUBTOTAL FROM SHEET	469	01/SAF/21	27	0	1	9	0	0	0													
		SUBTOTAL FROM SHEET	469	03/S5K/28	0	0	0	0	0	0	0													
		SUBTOTAL FROM SHEET	470	01/SAF/21	31	4	1	2	0	0	0													
		SUBTOTAL FROM SHEET	471	01/SAF/21	44	0	0	7	0	0	0													
		SUBTOTAL FROM SHEET	472	01/SAF/21	22	1	1	0	1	0	0													
		SUBTOTAL FROM SHEET	472	04/SAF/28	1	0	0	0	0	0	0													
		SUBTOTAL FROM SHEET	473	05/NFP/21	9	0	0	0	0	8	8													
TOTALS CARRIED TO GENERAL SUMMARY					134	5	3	18	1	8	8													

LIGHTING SUBSUMMARY

DESIGN AGENCY  
**Palmer**  
 ENGINEERING  
 8350 EAST KEMPER ROAD  
 SUITE B  
 CINCINNATI, OH 45249  
 (513) 469-1600

DESIGNER  
 RGS

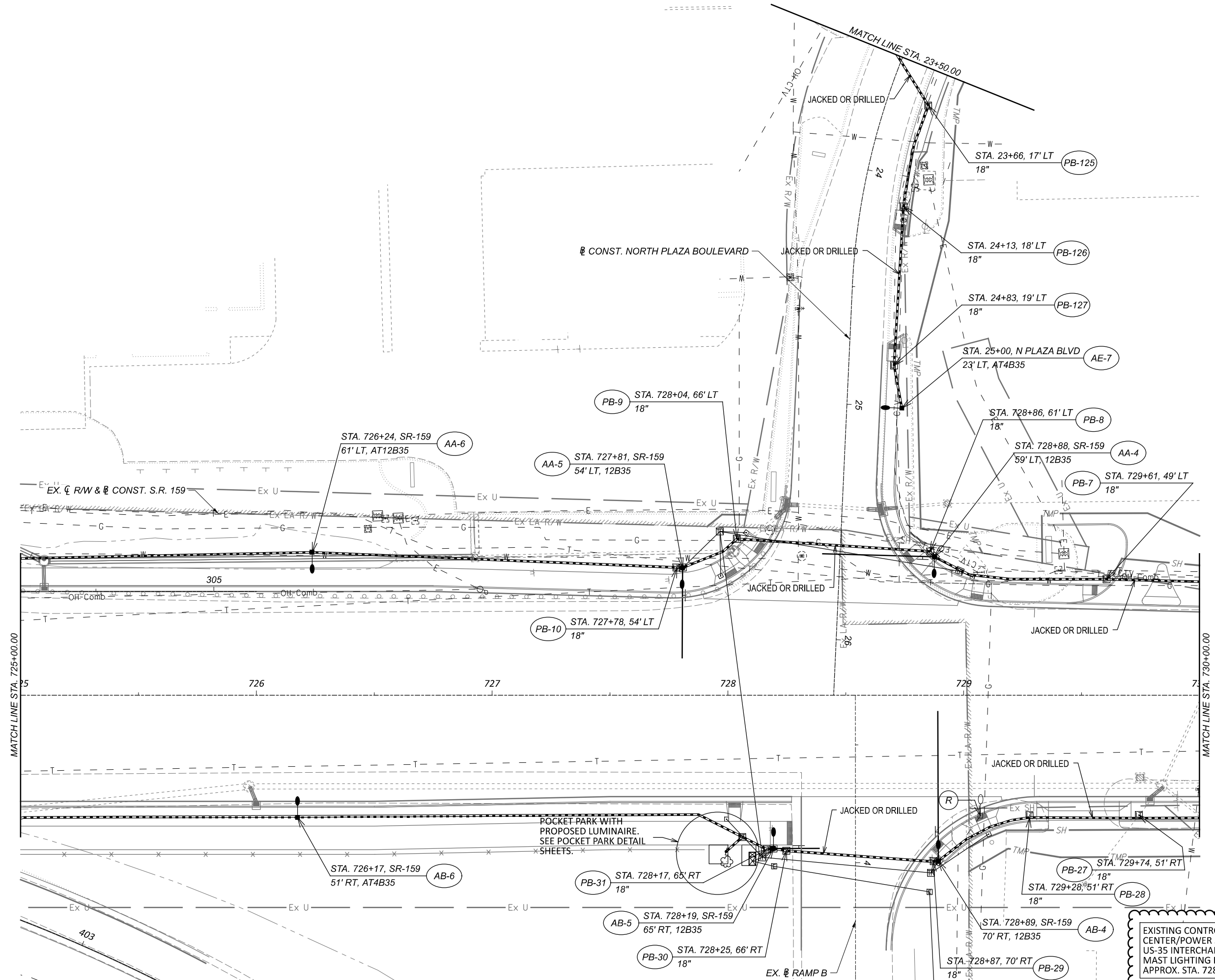
REVIEWER  
 MAM 10/07/24

PROJECT ID  
 113013

SHEET TOTAL  
 468 | 592







LIGHTING PLAN  
S.R. 159 STA. 725+00.00 TO STA. 730+00.00

DESIGN AGENCY

**Palmer**  
ENGINEERING  
8350 EAST KEMPER ROAD  
SUITE B  
CINCINNATI, OH 45249  
(513) 469-1600

DESIGNER

RGS

REVIEWER

MAM 10/07/24

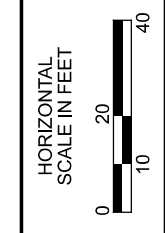
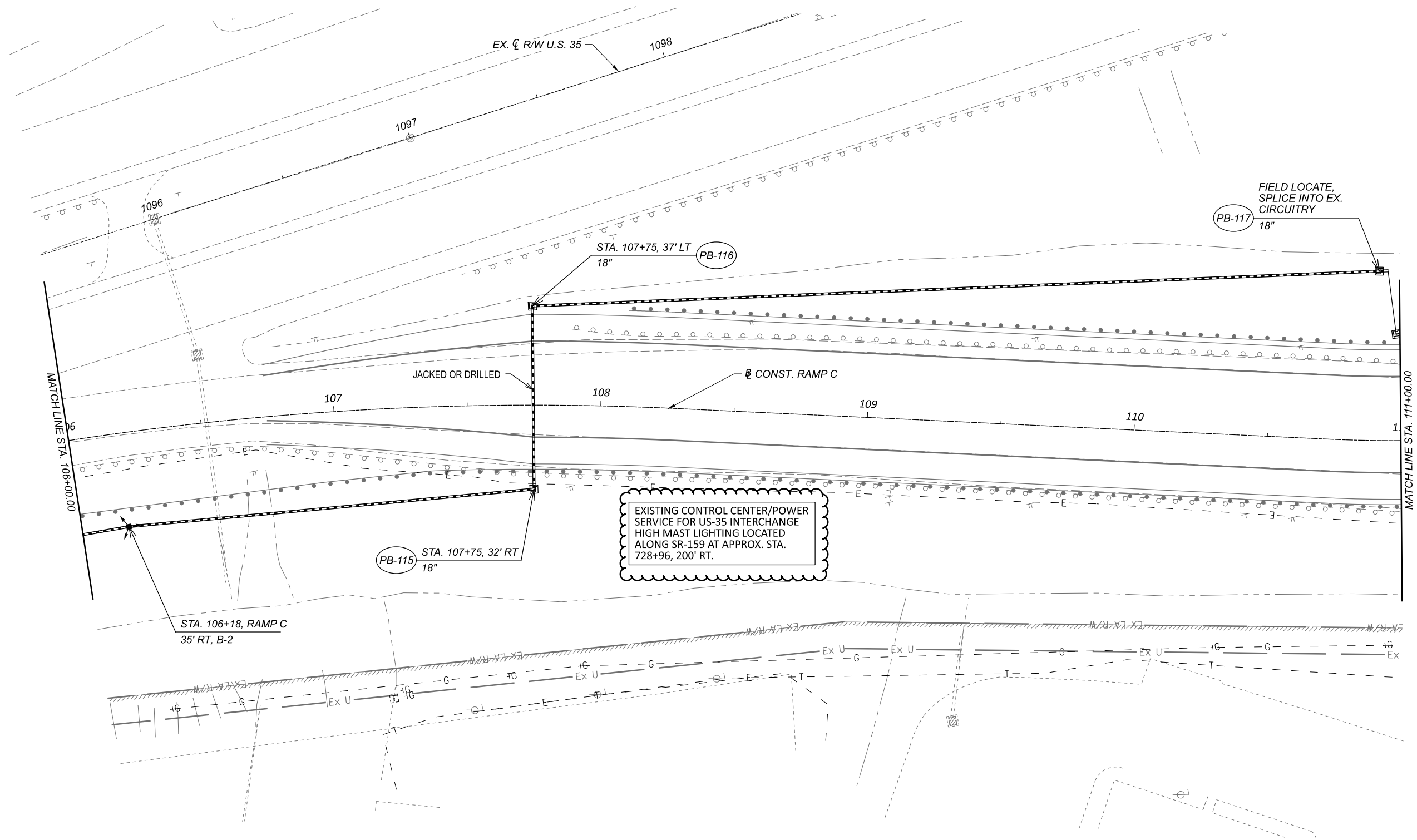
PROJECT ID

113013

SHEET TOTAL

484 592

EXISTING CONTROL CENTER/POWER SERVICE FOR US-35 INTERCHANGE HIGH MAST LIGHTING LOCATED AT APPROX. STA. 728+96, 200' RT.



LIGHTING PLAN  
RAMP C STA. 106+00.00 TO STA. 111+00.00

DESIGN AGENCY



DESIGNER  
RGS

REVIEWER  
MAM 10/07/24

PROJECT ID  
113013

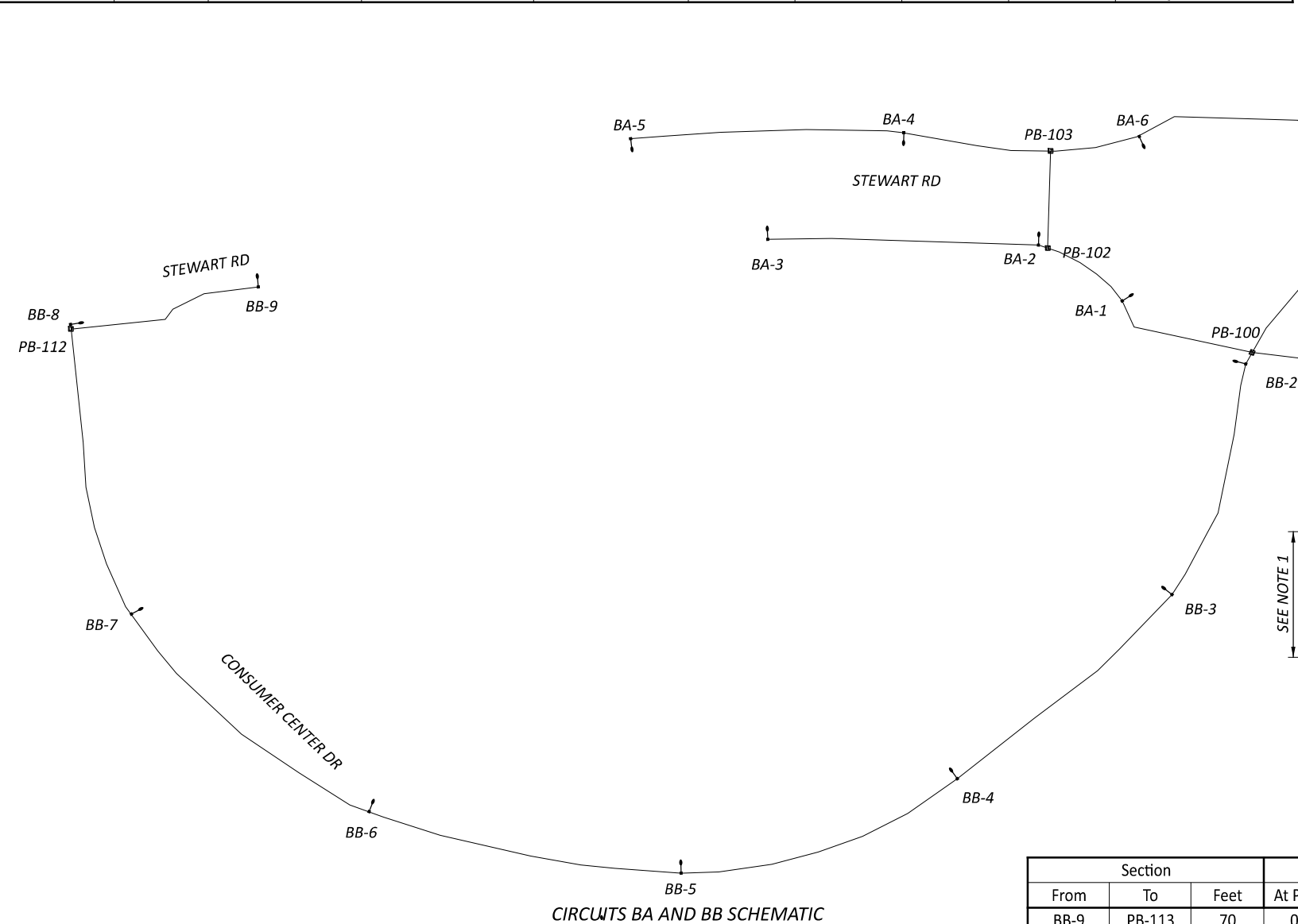
SHEET	TOTAL
492	592

MODEL: Sheet CIRCUITS BA, BB, CA PAPER SIZE: 17x11 (in.) DATE: 2/10/2025 TIME: 4:19:42 PM USER: soroka  
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CONTROL CENTER DATA									
CONTROL CENTER DESIGNATION	LINE VOLTS	CONNECTED LOAD (KVA)	SERVICE ENTRANCE CONDUCTOR SIZE (AWG)	ENCLOSURE RATING (AMPS)	CIRCUIT NO.	CIRCUIT LOAD (AMPS)	CIRCUIT FUSE SIZE (AMPS)	CIRCUIT CABLE SIZE (AWG)	MAINTAINING AGENCY
CCB	240	2.7	4	60	BA	4.90	10	4	City of Chillicothe
					BB	6.30	10	4	
EX CC	240	0.6	4	60	CA	2.44	10	4	City of Chillicothe

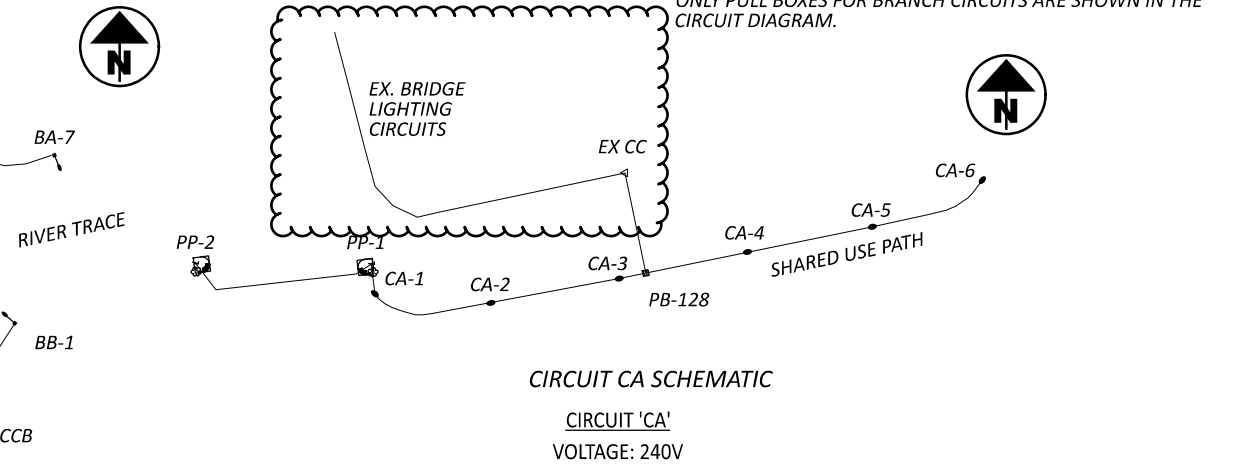
PROP.	LEGEND
—○—	LIGHT POLE W/LED CONVENTIONAL LUMINAIRE
▲	POWER SERVICE
□	PULL BOX WITH SPLICES *
●	LIGHT POLE, POST TOP

\* ONLY PULL BOXES FOR BRANCH CIRCUITS ARE SHOWN IN THE CIRCUIT DIAGRAM.



CIRCUIT 'BA'  
VOLTAGE: 240V

Section	From	To	Feet	Amperes		Ampere-Feet	AWG	Wire Factor	Voltage Drop		% Drop	At Point
				At Point	Accum.				In Section	Accum.		
BA-7	PB-105	40		0.7	0.7	28.00	4	0.5164	0.01	0.61	0.25	BA-7
PB-105	PB-104	80		0	0.7	56.00	4	0.5164	0.03	0.60	0.25	PB-105
PB-104	BA-6	30		0	0.7	21.00	4	0.5164	0.01	0.57	0.24	PB-104
BA-6	PB-103	60		0.7	1.4	84.00	4	0.5164	0.04	0.56	0.23	BA-6
BA-5	BA-4	180		0.7	0.7	126.00	4	0.5164	0.07	0.65	0.27	BA-5
BA-4	PB-103	100		0.7	1.4	140.00	4	0.5164	0.07	0.59	0.24	BA-4
PB-103	PB-102	65		0	2.8	182.00	4	0.5164	0.09	0.51	0.21	PB-103
BA-3	BA-2	180		0.7	0.7	126.00	4	0.5164	0.07	0.49	0.20	BA-3
BA-2	PB-102	10		0.7	1.4	14.00	4	0.5164	0.01	0.43	0.18	BA-2
PB-102	BA-1	65		0	4.2	273.00	4	0.5164	0.14	0.42	0.17	PB-102
BA-1	PB-101	20		0.7	4.9	98.00	4	0.5164	0.05	0.28	0.12	BA-1
PB-101	PB-100	80		0	4.9	392.00	4	0.5164	0.20	0.23	0.09	PB-101
PB-100	CCB	10		0	4.9	49.00	4	0.5164	0.03	0.03	0.01	PB-100



CIRCUIT 'CA'  
VOLTAGE: 240V

Section	From	To	Feet	Amperes		Ampere-Feet	AWG	Wire Factor	Voltage Drop		% Drop	At Point
				At Point	Accum.				In Section	Accum.		
CA-6	CA-5	65		0.35	0.35	22.75	4	0.5164	0.01	0.14	0.06	CA-6
CA-5	CA-4	70		0.35	0.7	49.00	4	0.5164	0.03	0.12	0.05	CA-5
CA-4	PB-128	55		0.35	1.05	57.75	4	0.5164	0.03	0.10	0.04	CA-4
Pocket Park-2	PB-131	5		0.17	0.17	0.85	4	0.5164	0.00	0.15	0.06	Pocket Park-2
PB-131	PB-130	80		0	0.17	13.60	4	0.5164	0.01	0.15	0.06	PB-131
PB-130	Pocket Park-1	5		0	0.17	0.85	4	0.5164	0.00	0.14	0.06	PB-130
Pocket Park-1	PB-129	15		0.17	0.34	5.10	4	0.5164	0.00	0.14	0.06	Pocket Park-1
PB-129	CA-1	5		0	0.34	1.70	4	0.5164	0.00	0.14	0.06	PB-129
CA-1	CA-2	65		0.35	0.69	44.85	4	0.5164	0.02	0.14	0.06	CA-1
CA-2	CA-3	70		0.35	1.04	72.80	4	0.5164	0.04	0.12	0.05	CA-2
CA-3	PB-128	15		0.35	1.39	20.85	4	0.5164	0.01	0.08	0.03	CA-3
PB-128	EX CC	55		0	2.44	134.20	4	0.5164	0.07	0.07	0.03	PB-128

NOTE 1: ITEMS IN THESE ROWS ARE ASSOCIATED WITH PROPOSED POCKET PARKS.

CIRCUIT 'BB'  
VOLTAGE: 240V

Section	From	To	Feet	Amperes		Ampere-Feet	AWG	Wire Factor	Voltage Drop		% Drop	At Point
				At Point	Accum.				In Section	Accum.		
BB-9	PB-113	70		0.7	0.7	49.00	4	0.5164	0.03	1.97	0.82	BB-9
PB-113	PB-112	65		0	0.7	45.50	4	0.5164	0.02	1.94	0.81	PB-113
BB-8	PB-112	5		0.7	0.7	3.50	4	0.5164	0.00	1.92	0.80	BB-8
PB-112	PB-111	95		0	1.4	133.00	4	0.5164	0.07	1.92	0.80	PB-112
PB-111	PB-110	85		0	1.4	119.00	4	0.5164	0.06	1.85	0.77	PB-111
PB-110	BB-7	25		0	1.4	35.00	4	0.5164	0.02	1.79	0.75	PB-110
BB-7	PB-109	110		0.7	2.1	231.00	4	0.5164	0.12	1.77	0.74	BB-7
PB-109	PB-108	95		0	2.1	199.50	4	0.5164	0.10	1.65	0.69	PB-109
PB-108	BB-6	5		0	2.1	10.50	4	0.5164	0.01	1.55	0.65	PB-108
BB-6	BB-5	210		0.7	2.8	588.00	4	0.5164	0.30	1.55	0.64	BB-6
BB-5	BB-4	195		0.7	3.5	682.50	4	0.5164	0.35	1.24	0.52	BB-5
BB-4	PB-107	140		0.7	4.2	588.00	4	0.5164	0.30	0.89	0.37	BB-4
PB-107	PB-106	50		0	4.2	210.00	4	0.5164	0.11	0.59	0.24	PB-107
PB-106	BB-3	5		0	4.2	21.00	4	0.5164	0.01	0.48	0.20	PB-106
BB-3	BB-2	160		0.7	4.9	784.00	4	0.5164	0.40	0.47	0.19	BB-3
BB-2	PB-100	10		0.7	5.6	56.00	4	0.5164	0.03	0.06	0.03	BB-2
BB-1	PB-100	80		0.7	0.7	56.00	4	0.5164	0.03	0.06	0.03	BB-1
PB-100	CCB	10		0	6.3	63.00	4	0.5164	0.03	0.03	0.01	PB-100

**ITEM 690 - SPECIAL - POCKET PARK WITH BENCH**

THIS ITEM INCLUDES THE CONSTRUCTION OF POCKET PARKS AS DETAILED ON THIS SHEET AND AT LOCATIONS SHOWN IN THE PLANS. ALL ITEMS, UNLESS OTHERWISE NOTED, SPECIFIED IN THIS NOTE SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR "ITEM 690 - SPECIAL - POCKET PARK WITH BENCH" AND INCLUDE ALL MATERIALS, LABOR, AND EQUIPMENT NECESSARY TO FURNISH A COMPLETED POCKET PARK.

POCKET PARKS SHALL BE ORIENTED AS SHOWN ON THE PLAN SHEETS WITH THE EDGE OF THE STAMPED CONCRETE SURFACE ABUTTING DIRECTLY AGAINST THE ADJACENT SIDEWALK OR SHARED USE PATH SURFACE WITH A 1/2 INCH PREFORMED EXPANSION JOINT. IF IT IS DETERMINE A POCKET PARK NEEDS TO MOVE FOR ANY REASON, CONTRACTOR SHALL VERIFY NEW LOCATION WITH ENGINEER PRIOR TO PERFORMING ANY WORK. LOCATIONS SHALL NOT MOVE GREATER THAN 15 FEET FROM THE LOCATION SPECIFIED IN THE PLANS.

SURFACE OF POCKET PARKS SHALL BE ITEM 452 - 4" NON-REINFORCED CONCRETE PAVEMENT ON TOP OF COMPACTED SUBGRADE AND 6" OF 304 AGGREGATE BASE. THE SURFACE OF THE CONCRETE SHALL BE FINISHED WITH THE SAME STAMPED SURFACE PATTERN AND COLOR AS THE ROUNDABOUT TRUCK APRON AND SPLITTER ISLANDS STAMPED AND STAINED CONCRETE. CONTRACTOR SHALL VERIFY THE FINAL COLOR AND PATTERN WITH THE ENGINEER PRIOR TO CONSTRUCTING THE POCKET PARK SURFACE. ALL OTHER REQUIREMENTS OF THE ROUNDABOUT ITEM 452 STAMPED AND STAINED CONCRETE ITEM SHALL APPLY. ENSURE SURFACE HAS A MINIMUM CROSS SLOPE OF 0.5% IN ANY DIRECTION AND A MAXIMUM CROSS SLOPE OF 1.56%.

POCKET PARK BENCH SHALL BE A 90 DEGREES CURVED STEEL SLATTED BENCH MATCHING CARNIVAL CURVED BENCH BY GRABER MANUFACTURING, INC. OR APPROVED EQUAL HAVING SIMILAR DIMENSIONS TO THE BENCH DETAIL SHOWN ON THIS SHEET. BENCH SHALL HAVE A BLACK POWDER COATED FINISH. THE BENCH SHALL BE FASTENED TO THE CONCRETE SURFACE USING THE MANUFACTURER'S MOUNTING SPECIFICATIONS AND USING STAINLESS STEEL HARDWARE. ALL OTHER MANUFACTURER SPECIFICATIONS AND REQUIREMENTS SHALL BE FOLLOWED.

THE FOLLOWING QUANTITY TABLE INCLUDES THE QUANTITIES FOR EACH POCKET PARK AND IS PROVIDED FOR ESTIMATING PURPOSES. ALL ITEMS SHALL BE INCLUDED IN THE CONTRACT PRICE FOR ITEM 690 - SPECIAL - POCKET PARK WITH BENCH. ALL OTHER CMS SPECIFICATIONS APPLICABLE TO THESE ITEMS APPLY. THE LIGHT POLE AND ASSOCIATED WORK IS INCLUDED IN THE LIGHTING PLANS. THE TREE DETAILS AND PAY ITEM IS INCLUDED IN THE LANDSCAPING NOTES.

ITEM NO.	DESCRIPTION	UNIT	QUANTITY
204	SUBGRADE COMPACTION	SY	6
304	AGGREGATE BASE	CY	1
452	4" STAMPED & STAINED CONCRETE	SY	6
690	BLACK CURVED BENCH	EACH	1

**ITEM 690 - SPECIAL - POCKET PARK WITHOUT BENCH**

THIS ITEM SHALL INCLUDE ALL MATERIALS AND FOLLOW ALL REQUIREMENTS SPECIFIED IN "ITEM 690 - SPECIAL - POCKET PARK WITH BENCH" EXCEPT THAT THE BENCH SHALL NOT BE INCLUDED.

**POCKET PARK EARTHWORK**

THE FOLLOWING QUANTITIES ARE CARRIED TO THE GENERAL SUMMARY AS A CONTINGENCY TO BE USED FOR THE CONSTRUCTION OF THE POCKET PARKS. ALL

ITEM 203 - EXCAVATION, AS PER PLAN	50 CY
ITEM 203 - EMBANKMENT, AS PER PLAN	100 CY

**POCKET PARK LOCATION TABLE**

REF. NO.	ORIGIN POINT	SHEET	TYPE	NOTES
PP-1	690+99.10, 47.56' RT	158	W/ BENCH	ORIENT POCKET PARK TO FACE TOWARDS RIVER
PP-2	691+08.64, 45.24' LT	158	W/ BENCH	ORIENT POCKET PARK TO FACE TOWARDS RIVER
PP-3	710+36.98, 51.38' LT	162	W/OUT BENCH	EXTEND STAMPED CONCRETE TO BACK OF WALK
PP-4	710+37.78, 70.06' RT	162	W/OUT BENCH	EXTEND STAMPED CONCRETE TO BACK OF WALK
PP-5	728+00.00, 63.50' RT	165	W/OUT BENCH	PLACE ADJACENT TO END OF BIKE RAIL/FENCE
PP-6	746+00.00, 55.50' RT	169	W/ BENCH	-
PP-7	754+49.48, 59.53' RT	170	W/ BENCH	EXTEND STAMPED CONCRETE TO BACK OF WALK

TOTALS CARRIED TO THE GENERAL SUMMARY (ALL ITEMS INCLUDED IN PLAN SPLIT 05/NFP/21)

ITEM 690 - SPECIAL - POCKET PARK WITH BENCH	4 EACH
ITEM 690 - SPECIAL - POCKET PARK WITHOUT BENCH	3 EACH

