

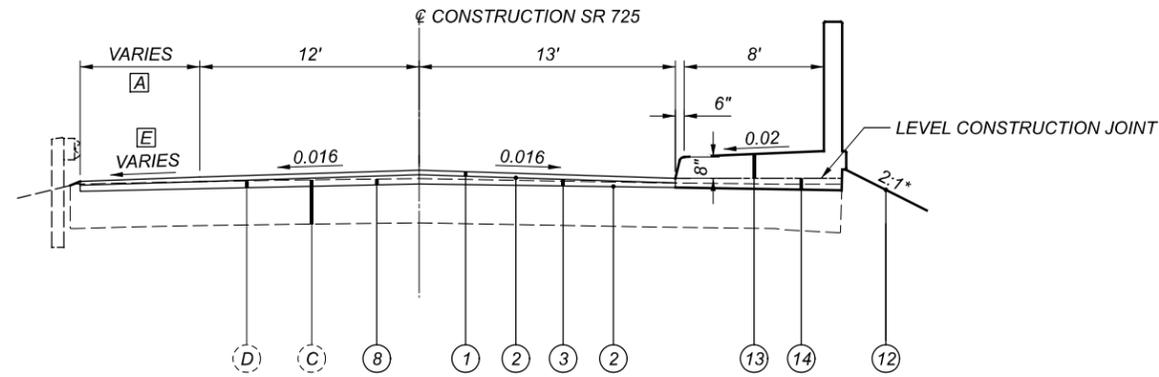
- A** MATCH EXISTING SHOULDER WIDTH
 STA. 7+38.59 LT TO STA. 7+58.52 LT

 VARIES 5.00' TO 5.08'
 STA. 8+17.60 LT TO STA. 8+24.91 LT

 VARIES 5.08' TO 6.18'
 STA. 8+20.55 LT TO STA. 8+24.91 LT

 VARIES 6.18' TO 6.00'
 STA. 8+24.91 LT TO STA. 8+37.60 LT
- E** VARIES 0.037 TO 0.016
 STA. 7+37.93 LT TO STA. 7+57.60 LT

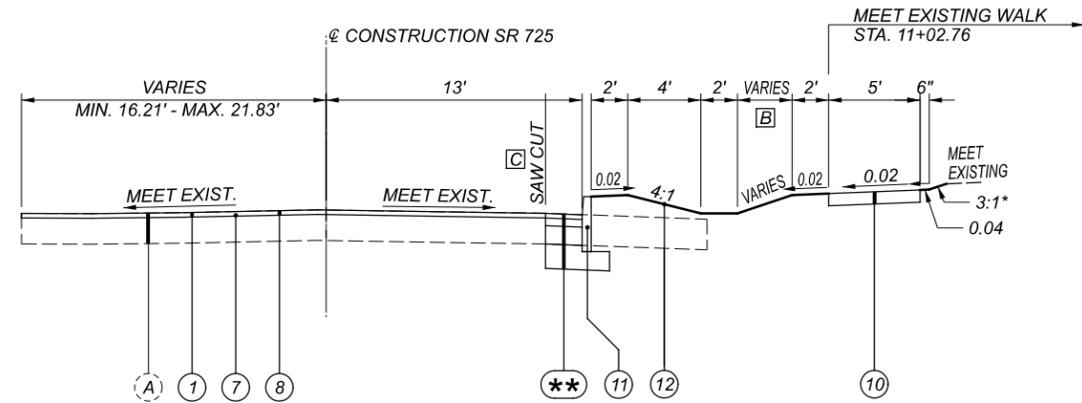
 VARIES 0.016 TO 0.04
 STA. 8+15.69 LT TO 8+35.36 LT



SR 725 APPROACH SLAB SECTION

STA. 7+37.93 LT TO STA. 7+57.60 LT
 STA. 7+38.91 RT TO STA. 7+59.20 RT
 STA. 8+15.69 LT TO STA. 8+35.36 LT
 STA. 8+19.20 RT TO STA. 8+39.54 RT

- B** VARIES 4.21' TO 6.27'
 STA. 10+52.56 RT TO 10+97.76 RT
- C** THE EXISTING PAVEMENT EDGES SHALL BE SAW CUT EITHER 1 FT INTO THE EXISTING PAVEMENT OR 2 FT FROM THE PROPOSED CURB, WHICHEVER IS GREATER, TO LOCATE A SOUND PAVEMENT EDGE. FOR ESTIMATING PURPOSES, QUANTITIES INCLUDED IN THE PLAN INDICATE AN AVERAGE WIDTH OF 1 FT OF EXISTING PAVEMENT BEING REPLACED.

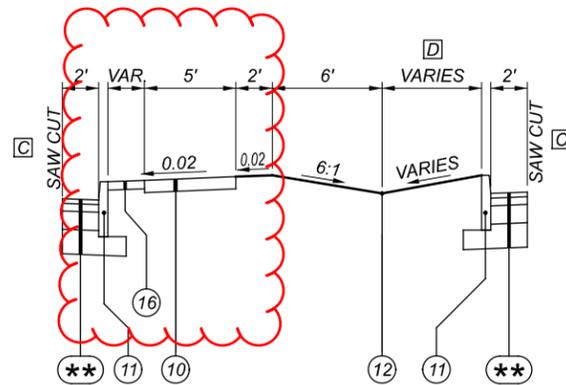


SR 725 CURB, WALK AND DITCH SECTION

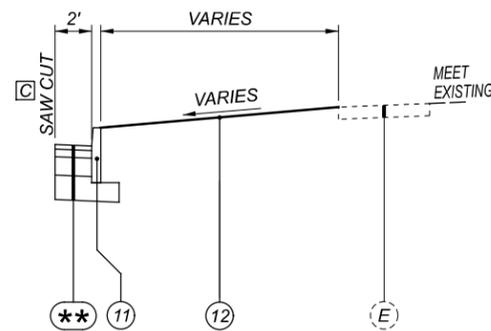
STA. 9+66.61 RT TO STA. 11+22.26
 STA. 9+41.59 LT TO STA. 11+22.26

- D** VARIES 5.67' TO 5.46'
 STA. 9+28.83 RT TO STA. 9+43.44 RT

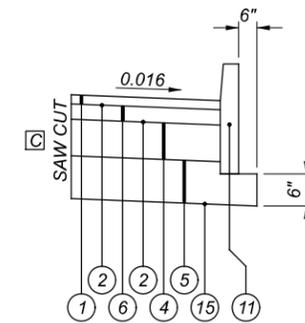
 VARIES 5.46' TO 5.12'
 STA. 9+43.44 RT TO STA. 9+66.61 RT



SR 725 GRADING DETAIL
 STA. 9+28.83 RT TO 9+66.61 RT



SR 725 CURB AND TREE LAWN DETAIL
 STA. 10+97.76 RT TO 11+22.26 RT



FULL DEPTH PAVEMENT BUILD UP DETAIL
 (NOT TO SCALE)



DESIGNER	BMG
REVIEWER	DWS
PROJECT ID	110612
SHEET	3
TOTAL	56

* OR AS SHOWN IN CROSS SECTIONS
 ** SEE FULL DEPTH PAVEMENT BUILD UP DETAIL

UTILITIES

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

SANITARY

GREENE COUNTY SANITARY
667 DAYTON-XENIA ROAD
XENIA, OHIO 45385

MARISSA RAGLIN
(937) 562-7461
MRAGLIN@CO.GREENE.OH.US

ELECTRIC

DAYTON POWER AND LIGHT
1900 DRYDEN ROAD
DAYTON, OHIO 45439

BILL WARD
(937) 554-9063
WILLIAM.WARD@AES.COM

WATER

CITY OF BELLBROOK
15 EAST FRANKLIN STREET
BELLBROOK, OHIO

RYAN PASLEY
(937) 848-4666
R.PASLEY@CITYOFBELLBROOK.ORG

COMMUNICATIONS

AT&T
3233 WOODMAN DRIVE
DAYTON, OHIO 45420

HOWARD LAUDERMILK
(937) 296-3588
HL1596@ATT.COM

LEVEL 3 COMMUNICATIONS
9490 MERIDIAN WAY
WEST CHESTER, OHIO 45069

TERRY SPAW
(513) 644-8933
TERRY.SPAW@CENTURYLINK.COM

CHARTER COMMUNICATIONS
3691 TURNER ROAD
DAYTON, OHIO 45415

CHRISTOPER BOOKSH
(937) 425-6854
CHRISTOPHER.BOOKSH@CHARTER.COM

WORK LIMITS

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

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.

GRADING BEHIND GUARDRAIL END TREATMENTS

WHILE NOT EXPLICITLY SHOWN ON THE TYPICAL SECTION OR CROSS SECTIONS, CONTRACTOR TO ENSURE GRADING BEHIND GUARDRAIL END TREATMENTS, INCLUDING ITEM 606 - ANCHOR ASSEMBLY, MGS TYPE E AND ITEM 606 - MGS BTA, TYPE 1, MEET THE REQUIREMENTS AND ARE IN COMPLIANCE WITH ANY AND ALL ODOT STANDARD CONSTRUCTION DRAWINGS OR MANUFACTURER SHOP DRAWINGS. THE ODOT STANDARD CONSTRUCTION DRAWINGS FOR ANCHOR ASSEMBLY, MGS TYPE E AND MGS BTA, TYPE 1 INCLUDE MGS-5.3 AND MGS-3.1 RESPECTIVELY.

SURVEYING PARAMETERS

PRIMARY PROJECT CONTROL MONUMENTS GOVERN ALL POSITIONING ON ODOT PROJECTS. SEE TABLE BELOW PLANS FOR A TABLE CONTAINING PROJECT CONTROL INFORMATION.

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

PROJECT CONTROL

POSITIONING METHOD: ODOT VRS
MONUMENT TYPE: SEE TABLE BELOW

VERTICAL POSITIONING

ORTHOMETRIC HEIGHT DATUM: NAVD88
GEOID: GEOID12B

HORIZONTAL POSITIONING

REFERENCE FRAME: NAD83 (2011)
ELLIPSOID: GRS80
MAP PROJECTION: LAMBERT CONFORMAL CONIC TWO PARALLEL
COORDINATE SYSTEM: OHIO STATE PLANE, SOUTH ZONE
COMBINED SCALE FACTOR: 1.00008708 (GRID TO GROUND)
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.

CROSSINGS AND CONNECTIONS TO EXISTING PIPES AND UTILITIES

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

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

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

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

ITEM 606 - ANCHOR ASSEMBLY, MGS TYPE E

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

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

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

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

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

SEEDING AND MULCHING

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

659, TOPSOIL	171	CU. YD.
659, SEEDING AND MULCHING	1535	SQ. YD.
659, REPAIR SEEDING AND MULCHING	77	SQ. YD.
659, INTER-SEEDING	77	SQ. YD.
659, COMMERCIAL FERTILIZER	0.22	TON
659, LIME	0.32	ACRES
659, WATER	9	M. GAL

SEEDING AND MULCHING SHALL BE APPLIED TO ALL AREAS OF EXPOSED SOIL BETWEEN THE RIGHT-OF-WAY LINES, AND WITHIN THE CONSTRUCTION LIMITS FOR AREAS OUTSIDE THE RIGHT-OF-WAY LINES COVERED BY WORK AGREEMENT OR SLOPE EASEMENT. QUANTITY CALCULATIONS FOR SEEDING AND MULCHING ARE BASED ON THESE LIMITS.

SOLE SOURCE AQUIFER

THIS PROJECT IS LOCATED WITHIN THE GREATER MIAMI SOLE SOURCE AQUIFER AND BELLBROOK WATER WORKS DRINKING WATER PROTECTION AREA. USE PROPER CONTAINMENT AND DIKING IN REFUELING AREAS. DO NOT STORE FUELS, TOXIC/HAZARDOUS MATERIALS, AND CHEMICALS NEAR DRAINAGE WAYS, DITCHES, OR STREAMS. MAINTAIN A SPILL KIT ON-SITE THROUGHOUT CONSTRUCTION ACTIVITIES. IMMEDIATELY MITIGATE ANY EVENT, SUCH AS A SPILL OF FUELS, OILS, OR CHEMICALS, THAT COULD THREATEN TO CONTAMINATE THE DRINKING WATER SUPPLY. REPORT ALL SPILLS OR EVENTS TO THE SERVICE DIRECTOR, RYAN PASLEY, AT 937-848-8415. IF THE SPILL IS A REPORTABLE AMOUNT (PER OHIO EPA'S RELEASE REPORTING REQUIREMENTS), CONTACT FIRE CHIEF, ANTHONY BIZZARRO, AT 937-848-3272 OR THE OHIO EPA'S SPILLS HOTLINE AT 1-800-282-9378 FOR CLEAN-UP OF THE SPILL.

NO INSTREAM WORK PERMITTED

PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL MARK THE ORDINARY HIGH WATER MARK THROUGH CONSTRUCTION FENCING AND ALERT ON-SITE STAFF TO THE LOCATION OF THE ORDINARY HIGH WATER MARK. THE CONTRACTOR SHALL NOT PLACE TEMPORARY FILL OR PERMANENT FILL WITHIN ANY WETLAND OR BELOW THE ORDINARY HIGH WATER MARK OF ANY WATERWAY, INCLUDING SCAFFOLDING OR BRACING. THE CONTRACTOR SHALL NOT PLACE EQUIPMENT BELOW ORDINARY HIGH WATER MARK. IF DEBRIS ENTERS THE WATERWAY DURING CONSTRUCTION, THE CONTRACTOR SHALL REMOVE THE DEBRIS IMMEDIATELY, UTILIZING EQUIPMENT STAGED ABOVE THE ORDINARY HIGH WATER MARK.

PROJECT CENTERLINE COORDINATES - GROUND			
CENTERLINE OF CONSTRUCTION - SR 725			
NORTHING	EASTING	STATION	DESCRIPTION
599777.962	1524488.982	3+00.00	POT
599845.492	1524900.158	7+25.57	PC
599863.639	1525022.069	8+39.93	PI
599854.612	1525136.073	9+53.20	PT
599827.235	1525481.785	13+00.00	POT
CENTERLINE OF RIGHT OF WAY - SR 725			
NORTHING	EASTING	STATION	DESCRIPTION
599774.312	1524491.507	3+00.00	POT
599838.031	1524858.010	6+72.00	PC
599862.566	1524999.131	8+15.24	PI
599851.609	1525141.950	9+57.00	PT
599838.757	1525309.458	11+25.00	POT

CONTROL COORDINATES						
POINT #	GRID	GROUND	GROUND	ELEVATION	DESCRIPTION	
1	599719.65	1524508.80	599771.89	1524641.56	789.21	Conc Mon w/LJB Disk
2	599751.89	1525295.75	599804.12	1525428.58	797.62	Conc Mon w/LJB Disk
3	599835.74	1524996.28	599887.98	1525129.08	792.40	Iron Pin w/LJB Disk

DESIGN AGENCY



DESIGNER

BMG

REVIEWER

DWS 10/28/21

PROJECT ID

110612

SHEET

TOTAL

4 | 56

ITEM SPECIAL MISC.: CONSULTANT FOR CONCRETE QUALITY CONTROL INCLUDING TESTING AND INSPECTION

ALL CONCRETE SHALL BE TESTED. ALL TESTING, INSPECTION AND QUALITY CONTROL FOR CONCRETE, NOT INCLUDED UNDER QC/QA PAY ITEMS, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL PROVIDE A CONCRETE TESTING CONSULTANT WITH PREVIOUS EXPERIENCE AND FAMILIARITY IN ODOT PROCEDURES, CONCRETE TESTING REQUIREMENTS AND CONCRETE TESTING DOCUMENTATION. AT LEAST 30 DAYS PRIOR TO CONCRETE PLACEMENT, SUBMIT TO THE ENGINEER FOR APPROVAL, THE PROPOSED CONCRETE TESTING CONSULTANT ALONG WITH THE RESUMES OF THE PROPOSED TESTING PERSONNEL.

TESTING CONCRETE FOR STRUCTURES AND PORTLAND CEMENT CONCRETE PAVEMENT SHALL BE PERFORMED AS OUTLINED IN CMS SPECIFICATIONS 455 RESPECTIVELY.

THROUGH THE CONTRACTOR, THE CONSULTANT SHALL BE RESPONSIBLE FOR ENSURING THAT ALL CONCRETE PLACED IS IN ACCORDANCE WITH THE SPECIFICATIONS. SUCH WORK SHALL BE IN ACCORDANCE WITH THE APPLICABLE CONSTRUCTION AND MATERIAL SPECIFICATIONS AND THE ODOT CONSTRUCTION INSPECTION MANUAL OF PROCEDURES FOR CONCRETE. THE CONCRETE CONSULTANT SHALL PROVIDE THE NECESSARY TRAINED TECHNICIAN(S), ALL EQUIPMENT, AND SHALL FURNISH THE PROJECT ENGINEER WITH TWO (2) COPIES OF ALL TEST RESULTS WITHIN 24 HOURS AFTER COMPLETION OF CONCRETE PLACEMENT.

THE TECHNICIAN SHALL BE ACI LEVEL 1 CERTIFIED AND WILL BE REQUIRED TO DEMONSTRATE HIS/HER COMPETENCE AND EXPERIENCE LEVELS TO THE ENGINEER PRIOR TO BEGINNING WORK. THE ENGINEER WILL ORDER THE CONTRACTOR TO REPLACE ANY TECHNICIAN THAT IS NOT VERSED IN THE REQUIRED TESTING PROCEDURE.

THE TECHNICIAN SHALL VERBALLY NOTIFY THE ODOT PROJECT ENGINEER OF ANY FAILING TEST AND SHALL SUBMIT FOLLOW-UP WRITTEN NOTIFICATION TO THE PROJECT ENGINEER OF REMEDIAL ACTION(S) TAKEN. TESTS SHALL BE TAKEN AS SPECIFIED WITHIN THE CONSTRUCTION AND MATERIAL SPECIFICATIONS, CONCRETE MANUAL OR APPROPRIATE SUPPLEMENTAL SPECIFICATION AS LISTED IN THE PROPOSAL GOVERNING THE PROJECT. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO MAKE IMMEDIATE CORRECTIONS OR ADJUSTMENTS TO THE CONCRETE MIX VIA DIRECT COMMUNICATION WITH THE CONCRETE SUPPLIER'S PLANT PERSONNEL TO MAINTAIN UNINTERRUPTED COMPLIANCE WITH THE SPECIFICATIONS UPON NOTIFICATION OF CONCRETE MIX NON-COMPLIANCE BY THE CONSULTANT TECHNICIAN. THE PROJECT ENGINEER MAY REQUIRE MORE FREQUENT TESTING AS CONDITIONS WARRANT.

UPON COMPLETION OF DAILY CONCRETE PLACEMENT(S), THE CONCRETE CONSULTANT SHALL PROVIDE THE PROJECT ENGINEER WITH DAILY TEST REPORTS, TE-45'S, INSPECTORS DAILY REPORT AND SUPPORTING DOCUMENTATION FOR EACH ITEM OF CONCRETE WORK PERFORMED SEPARATED BY MIX DESIGN. SUBSEQUENTLY, UPON COMPLETION OF AN ENTIRE CONCRETE SPECIFICATION ITEM, THE CONCRETE CONSULTANT SHALL ALSO PROVIDE THE PROJECT ENGINEER WITH TWO (2) COPIES OF AN ADDITIONAL INSPECTION REPORT BY A REGISTERED PROFESSIONAL ENGINEER, STATE OF OHIO, WHICH CONTAINS THE TESTING-RESULTS SUMMARY FOR EACH ITEM BY CONTRACT REFERENCE NUMBER AND THE CONSULTANT'S CONCLUSIONS RELATIVE TO SPECIFICATION COMPLIANCE FOR ALL CONCRETE-TESTING WORK.

THE ODOT PROJECT ENGINEER RESERVES THE RIGHT TO MAKE UNANNOUNCED QUALITY-CONTROL TESTS TO VERIFY PROCEDURES USED AND RESULTS BEING OBTAINED BY THE CONTRACTOR.

ITEM SPECIAL MISC.: CONSULTANT FOR CONCRETE QUALITY CONTROL INCLUDING TESTING AND INSPECTION CONT.

THE CONCRETE TECHNICIAN SHALL WORK UNDER THE DIRECTION OF A REGISTERED PROFESSIONAL ENGINEER, STATE OF OHIO, WHO WILL MONITOR THE CONCRETE TEST RESULTS. THE FINAL INSPECTION REPORTS FOR EACH COMPLETED ITEM SHALL BE SIGNED BY A REGISTERED PROFESSIONAL ENGINEER, STATE OF OHIO, CERTIFYING THAT ALL CONCRETE TESTS PROVIDED BY THE CONTRACTOR MET APPLICABLE CONTRACT REQUIREMENTS. A FINAL REPORT ISSUED BY THE CONSULTING FIRM SHALL CONTAIN A CERTIFIED STATEMENT OF COMPLIANCE WITH ODOT SPECIFICATIONS AND ANY OTHER CONCLUSIONS REGARDING THE CONCRETE MATERIALS INCORPORATED INTO THE PROJECT. SUCH STATEMENT SHALL BE SIGNED BY A REGISTERED PROFESSIONAL ENGINEER, STATE OF OHIO. AND, THE CONCRETE CONSULTANT SHALL BE REQUIRED TO ATTEND MONTHLY PROGRESS MEETINGS AS REQUIRED BY THE PROJECT ENGINEER.

ADDITIONALLY, THE CONTRACTOR SHALL BE REQUIRED TO KEEP A POSTED LIST OF BEAM AND CYLINDER IDENTIFICATION NUMBERS FOR THE PURPOSE OF IDENTIFYING THE CORRESPONDING PLACEMENT LOCATION AND CONCRETE SPECIFICATION ITEM.

PAYMENT SHALL BE BID AS LUMP SUM FOR ITEM SPECIAL MISC.: CONSULTANT FOR CONCRETE QUALITY CONTROL INCLUDING TESTING AND INSPECTION. THE ITEM WILL BE PAID FOR AS FOLLOWS:

- UPON APPROVAL OF CONSULTANT 20%
- PROGRESSIVE EQUIVALENT PAYMENTS 50%
- UPON SUBMISSION OF FINAL REPORT 30%.

THE TECHNICIAN SHALL HAVE THE FULL EFFECT AND AUTHORITY OF AN ODOT PROJECT INSPECTOR IN DETERMINING ACCEPTABILITY OF MATERIAL AND CONCRETE PLACEMENT PRACTICES.

NO ASBESTOS OR ASBESTOS BELOW REGULATORY LIMITS

AN ASBESTOS SURVEY FOR THE EXISTING STRUCTURE OVER LITTLE SUGAR CREEK SCHEDULED FOR REHABILITATION WORK WAS CONDUCTED BY A LICENSED ASBESTOS HAZARD EVALUATION SPECIALIST. A COPY OF THE ASBESTOS INSPECTION REPORT FOR THE STRUCTURE IS INCLUDED IN THE PLAN PACKAGE FOR THIS PROJECT. THE ASBESTOS INSPECTION REPORT DID NOT IDENTIFY THE PRESENCE OF ANY ASBESTOS CONTAINING MATERIALS ABOVE REGULATORY LIMITS.

ELECTRONIC SUBMISSION:

SUBMIT A COMPLETED ELECTRONIC NOTIFICATION OF DEMOLITION AND RENOVATION FORM (NDRF), APPLICABLE FEES, AND THE ASBESTOS INSPECTION REPORT TO THE OEPA AT LEAST 10 DAYS PRIOR TO ANY DEMOLITION ACTIVITY, RENOVATION ACTIVITY, OR BOTH. SUBMIT THE NDRF AND PAYMENT ALONG WITH THE ASBESTOS INSPECTION REPORT USING THE OEPA BUSINESS CENTER. SUBMIT ONE ELECTRONIC PDF COPY AND ONE HARD COPY OF THE NDRF TO THE ENGINEER. THE ENGINEER WILL PROVIDE ONE COPY TO THE DISTRICT ENVIRONMENTAL STAFF.

HARD COPY SUBMISSION:

THE CONTRACTOR MAY SUBMIT A HARD COPY OF THE COMPLETED NDRF AND PAYMENT ALONG WITH THE ASBESTOS INSPECTION REPORT. FOLLOW THE MAILING INSTRUCTIONS ON THE NDRF. CHECK WITH GREENE COUNTY HEALTH DEPARTMENT (PHONE: 937-374-5600) TO DETERMINE IF THEY REQUIRE A HARD COPY SUBMITAL.

NO ASBESTOS OR ASBESTOS BELOW REGULATORY LIMITS (CONT.)

SUBMIT THE COMPLETED NDRF TO OEPA AT LEAST 10 DAYS PRIOR TO DEMOLITION ACTIVITY, RENOVATION ACTIVITY, OR BOTH. RETAIN TWO HARD COPIES OF THE NDRF AND SUBMIT ONE COPY TO THE ENGINEER AND ONE COPY TO DISTRICT ENVIRONMENTAL STAFF (KEITH SMITH, DISTRICT ENVIRONMENTAL COORDINATOR, PHONE: 513-933-6590).

BASIS OF PAYMENT:

SUBMIT ALL DOCUMENTATION RELATED TO THE SURVEY, ABATEMENT, TRANSPORT, AND DISPOSAL OF ASBESTOS CONTAINING MATERIALS TO THE ENGINEER WITHIN TWO WEEKS OF COMPLETION. THE ENGINEER WILL PROVIDE A COPY OF THE DOCUMENTATION TO DISTRICT ENVIRONMENTAL STAFF. PAYMENT FOR THIS WORK SHALL BE MADE AT THE BID PRICE OF THE LUMP SUM.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE WORK NOTED ABOVE:

ITEM 690 - SPECIAL - ASBESTOS ABATEMENT LUMP SUM

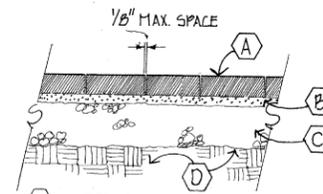
ITEM 608 - WALKWAY, MISC: SIDEWALK PAVERS

PAVING BRICK PAVER SHALL BE NOMINALLY 4" X 8" X 2 1/4" BRICK, SOLID (UNCORED) COMPLYING WITH REQUIREMENTS OF ASTM C902, CLASS SX, TYPE I STANDARD SPECIFICATIONS FOR PEDESTRIAN AND LIGHT TRAFFIC.

FINAL PAVER APPROVAL SHALL BE MADE ON SITE. CONTRACTOR SHALL PERFORM MOCKUP WITH A FIELD SAMPLE FOR REVIEW AND APPROVAL OF PAVERS PRIOR TO INSTALLATION OF UNIT PAVERS. THE FOLLOWING COLOR SHOULD BE USED IN PAVER INSTALLATION:

"LIGHT COLOR" - "CLEAR RED (RUSTIC) #30" PER WG, OR APPROVED EQUAL.

WG = WHITAKER GREER PAVERING BRICK CO., 1400 S. MAHONING AVE., AFFIANCE, OH 44601, 800-947-2837

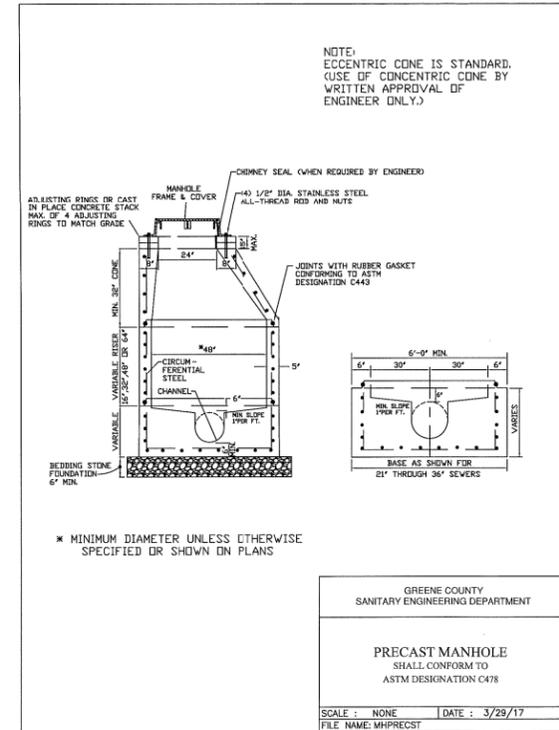


- NOTES FOR DETAIL
- A PAVERS
 - B PLACE 1/2" LEVELING SAND WHICH SHALL BE COMPACTED TO 1" THICKNESS
 - C 4" 304 AGG REGATE BASE
 - D COMPACTED SUBGRADE PER 205.13

4 TYPICAL PAVER CROSS-SECTION
SCALE: NONE

ITEM 611 - MANHOLE RECONSTRUCTED TO GRADE, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF ITEM 611, REMOVE EXISTING MANHOLE TOP WITH ECCENTRIC CONE AND ROTATE TO PLACE MANHOLE CASTING EITHER ALL IN GREEN SPACE OR ALL IN PAVEMENT. REPLACE JOINT SEALS PER MANHOLE STANDARD CONSTRUCTION DRAWING. ADJUST CASTING TO BE FLUSH WITH PROPOSED GRADE. ADDITIONALLY, ALL MANHOLES DISTURBED/ROTATED SHALL HAVE CASTINGS BOLTED TO THE ECCENTRIC CONE, SEE DETAIL BELOW. WORK UNDER THIS ITEM SHALL BE PAID FOR PER THE UNIT PRICE BID FOR ITEM 611 - MANHOLE RECONSTRUCTED TO GRADE, AS PER PLAN, EACH.



GENERAL NOTES

DESIGN AGENCY



DESIGNER
BMG

REVIEWER
DWS 10/28/21

PROJECT ID
110612

SHEET TOTAL
5 56

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. DRAWINGS AND GENERAL PROVISIONS OF THE CONTRACT, INCLUDING GENERAL AND SUPPLEMENTARY CONDITIONS AND DIVISION 01 SPECIFICATION SECTIONS, APPLY TO THIS SECTION.

1.2 RELATED SECTIONS

1. SECTION {321216} - "ASPHALT PAVING" FOR NEW ASPHALT PAVEMENT.
2. SECTION {321723} PLASTIC PAVEMENT MARKINGS

1.3 SUMMARY

A. DECORATIVE IMPRESSED ASPHALT SHALL CONSIST OF A DURABLE IMPRESSED AGGREGATE REINFORCED PREFORMED THERMOPLASTIC PAVEMENT MARKING SYSTEM (HEREIN "SYSTEM") THAT PROVIDES A TEXTURED, HIGHLY ATTRACTIVE AND DURABLE TOPICAL TREATMENT TO THE SURFACE OF THE ASPHALT PAVEMENT.

B. THE SYSTEM IS INTENDED FOR USE ON ASPHALT PAVEMENTS TO CREATE TRAFFIC CALMING SOLUTIONS FOR DECORATIVE CROSSWALKS, MEDIANS, AND INTERSECTIONS. IT IS APPLIED OVER PAVEMENT TO CREATE FUNCTIONAL AND DECORATIVE CROSSWALKS AND INTERSECTIONS, AS SHOWN ON THE CONTRACT DRAWINGS.

C. ALL SYSTEM MATERIALS SHALL BE PRODUCED UNDER A QUALITY SYSTEM AS SPECIFIED IN THIS SECTION AND DESIGNED TO PROVIDE DURABILITY, LOAD CARRYING CAPACITY AND ARCHITECTURAL COMPATIBILITY WITH THE ENVIRONMENT. ALL RAW MATERIALS SHALL BE CAREFULLY GRADED FOR CONSISTENCY AND QUALITY TO OBTAIN THE HIGHEST STANDARDS.

D. THE SYSTEM SHALL BE INSTALLED TO THE EXISTING SUBSTRATE.

E. ONLY ACCREDITED DECORATIVE IMPRESSED ASPHALT SYSTEM INSTALLERS AUTHORIZED BY THE MANUFACTURERS OF THE DECORATIVE IMPRESSED ASPHALT PRODUCT MAY PERFORM THIS WORK.

1.4 UNIT PRICES

A. WORK OF THIS SECTION IS BASED ON LABOR AND MATERIALS PER PROJECT.

B. METHOD OF MEASUREMENT: THE WORK WILL BE MEASURED BY THE INSTALLED AREA OF SQUARE FEET, MEASURED AND ACCEPTED IN PLACE. NO DEDUCTION WILL BE MADE FOR THE AREA(S) OCCUPIED BY MANHOLES, INLETS, DRAINAGE STRUCTURES, BOLLARDS OR BY ANY PUBLIC UTILITY APPURTENANCES WITHIN THE AREA.

C. BASIS OF PAYMENT: THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT FOR "DECORATIVE IMPRESSED ASPHALT PAVEMENT MARKING" AND ACCEPTED IN PLACE. PRICE SHALL INCLUDE ALL MATERIALS, EQUIPMENT, TOOLS AND LABOR INCIDENTAL THERETO. THERE WILL BE NO DIRECT PAYMENT FOR SURFACE PREPARATION; BUT THE COST OF THIS WORK SHALL BE CONSIDERED AS INCLUDED IN THE GENERAL COST OF THE WORK.

1.5 PREINSTALLATION MEETINGS

A. PREINSTALLATION CONFERENCE: CONDUCT CONFERENCE AT PROJECT SITE (INSERT LOCATION).
B. CONFERENCE SHALL CONSIST OF OWNER, OWNERS REPRESENTATIVE, ENGINEER, LANDSCAPE ARCHITECT CERTIFIED APPLICATOR, MANUFACTURER'S REPRESENTATIVE.

1.6 DEFINITIONS

A. "HMA PAVEMENT" IS HOT MIX ASPHALT PAVEMENT.

B. "PCC PAVEMENT" IS PORTLAND CEMENT CONCRETE PAVEMENT.

C. "OWNER" MEANS THE OWNER AND REFERS TO THE REPRESENTATIVE PERSON OF THE CERTIFIED APPLICATOR WHO HAS DECISION MAKING AUTHORITY FOR THE WORK.

D. "ACCREDITED INSTALLER" REFERS TO A CONTRACTOR AUTHORIZED BY THE SYSTEM MANUFACTURER TO INSTALL THE DECORATIVE IMPRESSED ASPHALT (SYSTEM).

1.7 SUBMITTALS

A. PRODUCT DATA: FOR EACH TYPE OF PRODUCT PER MANUFACTURER'S OFFERING.

B. MANUFACTURER DATA: SYSTEM TYPE AND PRODUCT TYPE

C. SAMPLES FOR INITIAL SELECTION: FOR EACH TYPE OF PRODUCT REQUIRING COLOR SELECTION. SAMPLES FOR VERIFICATION: FOR EACH PATTERN AND COLOR IN MANUFACTURER'S STANDARD SIZES.

D. THE ACCREDITED INSTALLER SHALL PROVIDE WRITTEN PROOF OF THEIR ACCREDITATION.

E. THE ACCREDITED INSTALLER SHALL GAIN CONFIRMATION OF CORRECT STAMPING PATTERN(S) AND COLORS FROM THE CITY OF BELLBROOK PRIOR TO STARTING THE WORK.

F. THE ACCREDITED INSTALLER SHALL SUPPLY THREE REFERENCES OF WORK OF A SIMILAR NATURE PROVIDED TO THE CITY OF BELLBROOK WITHIN THE STATE OF OHIO.

G. CONSTRUCTION OF MOCK-UP (SHALL BE A MINIMUM OF A 6'X6' SECTION FOR EACH COLOR AND STAMP PATTERN SPECIFIED).

H. THE SYSTEM MANUFACTURER MUST BE ISO9001:2015 CERTIFIED FOR DESIGN, DEVELOPMENT AND MANUFACTURING OF PREFORMED THERMOPLASTIC, AND PROVIDE PROOF OF CURRENT CERTIFICATION.

I. SHOP DRAWINGS: INDICATE IMPRESSED PATTERNS, COLORS, AND DIMENSIONS TO ADJACENT WORK

1.8 QUALITY ASSURANCE

A. INSTALLER QUALIFICATIONS: IMPRESSED-ASPHALT MANUFACTURER'S AUTHORIZED INSTALLER WHO IS TRAINED AND APPROVED FOR INSTALLATION OF IMPRESSED ASPHALT REQUIRED FOR THIS PROJECT.

B. REGULATORY REQUIREMENTS: COMPLY WITH MATERIALS, WORKMANSHIP, AND OTHER APPLICABLE REQUIREMENTS OF THE ODOT CMS FOR IMPRESSED ASPHALT WORK.

1. MEASUREMENT AND PAYMENT PROVISIONS AND SAFETY PROGRAM SUBMITTALS INCLUDED IN STANDARD SPECIFICATIONS DO NOT APPLY TO THIS SECTION.

1.9 FIELD CONDITIONS

A. ENVIRONMENTAL LIMITATIONS: PROCEED WITH IMPRESSED PAVEMENT ONLY WHEN AIR TEMPERATURE IS AT LEAST 45 DEG F (7.2 DEG C) AND RISING. PROCEED ONLY IF NO PRECIPITATION IS EXPECTED. ENSURE THERE IS NO MOISTURE IN THE SUBSTRATE PRIOR TO APPLICATION. GROUND SHOULD NOT HAVE ANY FROST OR MOISTURE PRESENT. HIGH WINDS COULD ALSO AFFECT THE INSTALLATION OF THE IMPRESSED MATERIAL.

PART 2 - PRODUCTS

2.1 MATERIALS

A. MANUFACTURER - BASIS OF DESIGN ENNIS-FLINT, INC. TRAFFICPATTERNSXD@IMPRESSED SURFACE SYSTEM
1. CONTACT WWW.ENNISFLINTAMERICAS.COM

B. DECORATIVE IMPRESSED ASPHALT MATERIAL

1. PREFORMED THERMOPLASTIC MATERIAL: MUST BE COMPOSED OF AN ESTER MODIFIED ROSIN IMPERVIOUS TO DEGRADATION BY MOTOR FUELS, LUBRICANTS, ETC. IN CONJUNCTION WITH AGGREGATES, PIGMENTS, BINDERS, AND ANTI-SKID/ANTI-SLIP ELEMENTS. PIGMENTS AND ANTI-SKID/ANTI-SLIP ELEMENTS MUST BE UNIFORMLY DISTRIBUTED THROUGHOUT THE MATERIAL. THE MATERIAL CONFORMS TO AASHTO DESIGNATION M249, WITH THE EXCEPTION OF THE RELEVANT DIFFERENCES DUE TO THE MATERIAL BEING SUPPLIED IN A PREFORMED STATE, BEING NON-REFLECTIVE, AND POTENTIALLY BEING OF A COLOR DIFFERENT FROM WHITE OR YELLOW.

2. THE SYSTEM SHALL UTILIZE A RESILIENT, AGGREGATE REINFORCED PREFORMED THERMOPLASTIC PRODUCT WHICH CONTAINS A MINIMUM OF THIRTY PERCENT (30%) INTERMIXED ANTI-SKID/ANTI-SLIP ELEMENTS AND WHERE THE TOP SURFACE CONTAINS ANTI-SKID/ANTI-SLIP ELEMENTS. THESE ANTI-SKID/ANTI-SLIP ELEMENTS MUST HAVE A MINIMUM HARDNESS OF 6 (MOHS SCALE).

3. THE SYSTEM MUST BE RESISTANT TO THE DETRIMENTAL EFFECTS OF MOTOR FUELS, ANTIFREEZE, LUBRICANTS, HYDRAULIC FLUIDS, ETC.

4. PIGMENTS:

A. WHITE: THE MATERIAL SHALL BE MANUFACTURED WITH SUFFICIENT TITANIUM DIOXIDE PIGMENT TO MEET FHWA DOCKET NO. FHWA-99-6190 TABLE 5 AND TABLE 6 AS REVISED AND CORRECTED.

B. OTHER COLORS: THE PIGMENT SYSTEM MUST NOT CONTAIN HEAVY METALS NOR ANY CARCINOGEN, AS DEFINED IN 29 CFR 1910.1200 IN AMOUNTS EXCEEDING PERMISSIBLE LIMITS AS SPECIFIED IN RELEVANT FEDERAL REGULATIONS.

5. SKID RESISTANCE: THE SURFACE OF THE MATERIAL SHALL CONTAIN FACTORY APPLIED ANTI-SKID/ANTI-SLIP ELEMENTS WITH A MINIMUM HARDNESS OF 6 (MOHS SCALE). UPON APPLICATION THE MATERIAL SHALL PROVIDE A MINIMUM SKID RESISTANCE VALUE OF 60 BPN WHEN TESTED ACCORDING TO ASTM E 303.

6. SLIP RESISTANCE: THE SURFACE OF THE MATERIAL SHALL CONTAIN FACTORY APPLIED ANTI-SKID/ANTI-SLIP ELEMENTS WITH A MINIMUM HARDNESS OF 6 (MOHS SCALE). UPON APPLICATION THE MATERIAL SHALL PROVIDE A MINIMUM STATIC FRICTION OF COEFFICIENT OF 0.6 WHEN TESTED ACCORDING TO ASTM C 1028 (WET AND DRY), AND A MINIMUM STATIC COEFFICIENT OF FRICTION OF 0.6 WHEN TESTED ACCORDING TO ASTM D 2047.

7. THICKNESS: THE MATERIAL MUST BE SUPPLIED AT A MINIMUM THICKNESS OF 150 MIL (3.8MM).

8. ENVIRONMENTAL RESISTANCE: THE MATERIAL MUST BE RESISTANT TO DETERIORATION DUE TO EXPOSURE TO SUNLIGHT, WATER, SALT OR ADVERSE WEATHER CONDITIONS AND IMPERVIOUS TO OIL AND GASOLINE.

C. DECORATIVE IMPRESSED ASPHALT MATERIAL STAMPING GRID: A WIRE ROPE GRID IS REQUIRED IN THE EXECUTION OF THE SYSTEM. THE GRID IS USED FOR IMPRESSING THE DEFINED PATTERNS ONCE THE PREFORMED THERMOPLASTIC HAS BEEN APPLIED. THE WIRE ROPE DIAMETER FOR THE IMPRESSING TEMPLATE USED FOR THE SPECIFIED PATTERN IS 3/8 IN. (9.5MM). THE STAMPING GRIDS ARE DISTRIBUTED BY THE SYSTEM MANUFACTURER.

D. HEATING EQUIPMENT: SYSTEM-SPECIFIC RECIPROCATING INFRARED HEATING EQUIPMENT IS DESIGNED SPECIFICALLY TO ELEVATE THE TEMPERATURE OF THE PREFORMED THERMOPLASTIC MATERIAL AND ASPHALT PAVEMENT WITHOUT ADVERSELY AFFECTING IT. THE PRIMARY HEATING UNIT MUST EMPLOY A BANK OF PROPANE-FIRED INFRARED HEATERS, MOUNTED ON A TRACK DEVICE THAT ALLOWS THE HEATER BANK TO RECIPROCATATE BACK AND FORTH OVER A DESIGNATED AREA, THEREBY ALLOWING THE OPERATOR TO MONITOR THE TEMPERATURE OF THE PREFORMED THERMOPLASTIC AT ALL TIMES DURING THE PAVEMENT HEATING PROCESS. A SMALLER, MOBILE INFRARED HEATER IS DESIGNED SPECIFICALLY TO HEAT AREAS SUCH AS BORDERS AND NARROW AREAS THAT ARE INACCESSIBLE TO THE PRIMARY HEATERS. THIS SECONDARY HEATER ALSO ALLOWS THE OPERATOR TO MONITOR THE TEMPERATURE OF THE PREFORMED THERMOPLASTIC AT ALL TIMES DURING THE HEATING PROCESS.

E. MATERIALS SEALER: A TWO-PART EPOXY SEALER SPECIFIED AND DISTRIBUTED BY THE SYSTEM MANUFACTURER MUST BE APPLIED TO THE SUBSTRATE PRIOR TO MATERIAL APPLICATION TO ENSURE PROPER ADHESION, AND TO PROVIDE REINFORCEMENT FOR LARGER AREAS OF MATERIAL.

F. MATERIALS AGGREGATE: SUPPLEMENTAL ANTI-SKID/ANTI-SLIP ELEMENTS TO BE APPLIED TO THE SURFACE OF THE MOLTEN PREFORMED THERMOPLASTIC AS NEEDED, IF THE FACTORY APPLIED ANTI-SKID/ANTI-SLIP ELEMENTS EMBED TOO DEEPLY INTO THE SURFACE OF THE MOLTEN PREFORMED THERMOPLASTIC MATERIAL DURING THE HEATING PROCESS. (EMBEDDED AGGREGATE IS EXPOSED UPON WEAR FOR EXTENDED SKID RESISTANCE.) THE AGGREGATE IS DISTRIBUTED BY THE SYSTEM MANUFACTURER.

G. PATTERNS & COLORS

1. PATTERNS AND COLORS ARE DESCRIBED BELOW:

A. DECORATIVE IMPRESSED ASPHALT - TYPE A
**DIAGONAL HERRINGBONE PATTERN (12-101)
COLONIAL BRICK COLOR
LIMITS SHOWN ON SHEET 23**

2. CONTRACTOR SHALL VERIFY ALL COLORS AND PATTERNS WITH OWNER'S REPRESENTATIVE PRIOR TO PLACEMENT.

H. SHELF LIFE AND STORAGE THE SHELF LIFE OF DECORATIVE IMPRESSED ASPHALT MATERIALS IS TWO YEARS PROVIDED IT IS PROTECTED FROM THE WEATHER, SPECIFICALLY UV DEGRADATION AND RAIN. THE MATERIALS ARE TO BE STORED IN THEIR ORIGINAL PACKAGING AND KEPT DRY UNDER COVER AND OR AS PER MANUFACTURER'S SPECIFICATIONS

PART 3- EXECUTION

3.1 EXAMINATION

A. VERIFY THAT PAVEMENT IS DRY AND IN SUITABLE CONDITION TO BEGIN THE IMPRESSING PROCESS ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS.

B. PROCEED WITH ASPHALT IMPRESSING ONLY AFTER UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED.

C. VERIFY THAT UTILITIES, TRAFFIC LOOP DETECTORS, AND OTHER ITEMS REQUIRING A CUT AND INSTALLATION BENEATH THE ASPHALT SURFACE HAVE BEEN COMPLETED AND THAT ASPHALT SURFACE HAS BEEN REPAIRED FLUSH WITH ADJACENT ASPHALT PRIOR TO BEGINNING INSTALLATION OF IMPRESSED ASPHALT.

3.2 IMPRESSING ASPHALT

A. GENERAL: IMPRESS ASPHALT ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS, USING MANUFACTURER'S RECOMMENDED EQUIPMENT.

B. PRE-CONDITIONS: DECORATIVE IMPRESSED ASPHALT SHALL BE INSTALLED OVER NEW PAVEMENT. THE PAVEMENT MUST BE FIRM, STABLE AND IN EXCELLENT CONDITION; IT MUST BE FREE FROM DEFECTS SUCH AS CRACKS, SETTLEMENT, VISIBLE SEAMS, RUTS, BIRD BATHS AND SPALLING.

1. CRACKING, SETTLEMENT AND OTHER DEFICIENCIES OF THE SUBSTRATE WILL LIKELY REFLECT THROUGH THE DECORATIVE PREFORMED THERMOPLASTIC. GOOD AND PROPER CONSTRUCTION PROCEDURES FOR THE INSTALLATION OF THE SUBSTRATE MUST BE FOLLOWED IN ORDER TO MITIGATE CRACKING OF DECORATIVE PREFORMED THERMOPLASTIC.

2. SURFACES WITH A HIGH DEGREE OF POROSITY SHOULD BE AVOIDED DUE TO THE PROBLEMS ASSOCIATED WITH ENTRAPPED WATER.

3. SURFACES THAT MAY BE SUBJECT TO UNCONTROLLED MOVEMENT IN EITHER A HORIZONTAL OR VERTICAL DIRECTION SHALL BE AVOIDED AS THERE MAY BE A RISK OF REFLECTIVE CRACKING THROUGH TO THE DECORATIVE PREFORMED THERMOPLASTIC. NOTIFY THE ENGINEER IF THESE CONDITIONS ARE PRESENT BEFORE INSTALLING DECORATIVE PREFORMED THERMOPLASTIC.

D. PREPARING OF THE SUBSTRATE: ALL PAVEMENT SUBSTRATES MUST BE OF HIGH QUALITY AND STABLE FOR THE INSTALLATION OF DECORATIVE IMPRESSED ASPHALT.

THIS SECTION IS TO BE USED AS A GUIDE TO ENSURE A HIGH-QUALITY PAVEMENT SUBSTRATE IS PROVIDED AND READY FOR THE INSTALLATION OF THE DECORATIVE SYSTEM. IT DOES NOT SUPERSEDE OTHER SPECIFICATIONS PERTAINING TO THIS WORK, NOR DOES IT REPLACE RECOMMENDATIONS MADE BY THE ENGINEER OF RECORD FOR THIS WORK.

1. THE BASE AND SUB-GRADE OVER WHICH NEW PAVEMENT IS INSTALLED MUST BE FIRM AND STABLE.

2. THE PAVEMENT MIX MUST BE DESIGNED FOR THE INTENDED USE.

3. THE PAVEMENT MUST BE INSTALLED IN ACCORDANCE WITH PROPER PLACEMENT PRACTICES AND THESE SPECIFICATIONS.

4. THE ASPHALT PAVEMENT MUST BE PERMITTED TO CURE PROPERLY BEFORE INSTALLING DECORATIVE IMPRESSED ASPHALT.

E. SURFACE PREPARATION: THE PAVEMENT SURFACE SHALL BE DRY AND CLEAN; FREE OF ALL DIRT, DEBRIS, SALTS, CONCRETE ADMIXTURES AND ANY CHEMICAL RESIDUES.

1. BITUMINOUS RESIDUE MUST BE REMOVED FROM NEW ASPHALT PAVEMENT SURFACE PRIOR TO INSTALLATION OF DECORATIVE IMPRESSED ASPHALT.

2. REMOVAL OF CONTAMINANTS MAY BE DONE BY BROOMING, COMPRESSED AIR, PRESSURE WASHING (MOISTURE MUST BE REMOVED AND THE SURFACE DRY AS NOTED ABOVE) OR, IF NECESSARY, LIGHT-GRIT BLASTING. WIRE BRUSH MAY BE USED TO REMOVE LOOSE OR POWDERY MATERIALS.

F. INSTALLATION OF DECORATIVE IMPRESSED ASPHALT: DECORATIVE IMPRESSED ASPHALT SYSTEM IS TO BE INSTALLED ONLY BY AN ACCREDITED INSTALLER.

1. THE SYSTEM MUST BE ABLE TO BE APPLIED TO ASPHALT SURFACES WITHOUT PRE-HEATING THE APPLICATION SURFACE TO A SPECIFIC TEMPERATURE.

2. THE SYSTEM IS APPLIED TO ASPHALT PAVEMENT PRIMARILY USING RECIPROCATING INFRARED HEATING EQUIPMENT. AN APPROVED HAND-HELD PROPANE HEAT TORCH DISTRIBUTED BY THE SYSTEM MANUFACTURER SHALL BE USED TO HEAT ISOLATED AREAS OF THE PREFORMED THERMOPLASTIC.

3. A SPECIALIZED SEALER DISPENSING GUN, HANDHELD FINISHING TOOL, AGGREGATE AND VIBRATORY PLATE COMPACTORS ARE USED AS PART OF THE INSTALLATION PROCESS

4. THE AGGREGATE REINFORCED PREFORMED THERMOPLASTIC IS TYPICALLY SUPPLIED IN PANELS MEASURING 2 FT. X 2 FT. (±1/8" IN.) (.61M X .61M (±3MM)).

5. THE SYSTEM IS AVAILABLE IN A VARIETY OF STANDARD COLORS AND PATTERNS. COLOR CAN BE USED TO CREATE PATTERNS WITHIN THE CROSSWALK AREA TO REFLECT THE TYPICAL WHITE 'CONTINENTAL' CROSSWALK BARS FOR ADDITIONAL VISIBILITY AND AWARENESS.

6. THE MATERIAL MUST BE ABLE TO BE APPLIED AT AMBIENT AND ROAD TEMPERATURES WITH A MINIMUM TEMPERATURE OF 45°F (7°C) AND RISING.

7. A TWO-PART EPOXY SEALER SPECIFIED BY THE MANUFACTURER MUST BE APPLIED TO THE SUBSTRATE PRIOR TO PREFORMED THERMOPLASTIC APPLICATION. IMMEDIATELY FOLLOWING SEALER APPLICATION, THE PANELS OF AGGREGATE REINFORCED PREFORMED THERMOPLASTIC ARE POSITIONED PROPERLY ON THE ASPHALT SUBSTRATE WITH THE AGGREGATE SIDE FACING UP. THE PREFORMED THERMOPLASTIC IS THEN HEATED TO THE REQUIRED MELTING TEMPERATURE. ADDITIONAL AGGREGATE MAY BE APPLIED TO THE PREFORMED THERMOPLASTIC SURFACE AS NEEDED FOLLOWING THE MELTING PROCESS.

8. AS THE MATERIAL COOLS TO 160 DEGREES FAHRENHEIT, IT IS IMPRESSED WITH A STAMPING GRID MADE FROM 3/8 IN. (9.5 MM) FLEXIBLE WIRE ROPE IN THE REQUIRED DESIGN USING A VIBRATORY PLATE COMPACTOR.

9. THE PREFORMED THERMOPLASTIC MATERIAL IS THEN ALLOWED TO COOL THOROUGHLY BEFORE BEING OPENED TO VEHICLE OR PEDESTRIAN TRAFFIC. (CONSULT THE MANUFACTURER'S PUBLISHED APPLICATION PROCEDURES FOR COMPLETE INFORMATION.) THE TIMING OF OPENING TRAFFIC WILL BE SUBJECT TO EXTERIOR TEMPERATURE CONDITIONS. MORE TIME MAY BE REQUIRED IN HOT WEATHER. THE ACCREDITED INSTALLER CAN ADVISE WHEN THE WORK IS READY FOR TRAFFIC.

10. INSTALL PREMARK@WHITE 125MIL PREFORMED THERMOPLASTIC MATERIAL WITH GLASS BEADS AS THE TRANSVERSE LINES ON THE OUTSIDE AREAS OF THE INSTALLED TRAFFICPATTERNSXD@MARKING SYSTEM AS REQUIRED TO MEET MUTCD REQUIREMENTS.

DESIGN AGENCY



DESIGNER

BMG

REVIEWER

DWS 03/10/23

PROJECT ID

110612

SHEET TOTAL

5A 56

SHEET NUM.										PART.	ITEM	ITEM	GRAND	UNIT	DESCRIPTION	SEE SHEET NO.
OFFICE CALCS	4		20	21		23		30		01/MPO/28	EXT	TOTAL				
			770							770	202	23000	770	SY	ROADWAY PAVEMENT REMOVED	
			429							429	202	30000	429	SF	WALK REMOVED	
			196							196	202	32000	196	FT	CURB REMOVED	
			79							79	202	35100	79	FT	PIPE REMOVED, 24" AND UNDER	
			178							178	202	38000	178	FT	GUARDRAIL REMOVED	
			1							1	202	58100	1	EACH	CATCH BASIN REMOVED	
								209		209	203	10000	209	CY	EXCAVATION	
								67		67	203	20000	67	CY	EMBANKMENT	
387										387	204	10000	387	SY	SUBGRADE COMPACTION	
			75							75	606	15100	75	FT	GUARDRAIL, TYPE MGS WITH LONG POSTS	
			1							1	606	26150	1	EACH	ANCHOR ASSEMBLY, MGS TYPE E, MASH 2016	
			1							1	606	35002	1	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1	
			2,092							2,092	608	10000	2,092	SF	4" CONCRETE WALK	
			499							499	608	52000	499	SF	CURB RAMP	5
			153							153	608	98000	153	SF	WALKWAY, MISC.: SIDEWALK PAVERS	5
										LS	878	25000	LS		INSPECTION AND COMPACTION TESTING OF UNBOUND MATERIALS	
				2						2	601	32200	2	CY	EROSION CONTROL ROCK CHANNEL PROTECTION, TYPE C WITH FILTER	
	171									171	659	00300	171	CY	TOPSOIL	
	1,535									1,535	659	10000	1,535	SY	SEEDING AND MULCHING	
	77									77	659	14000	77	SY	REPAIR SEEDING AND MULCHING	
	77									77	659	15000	77	SY	INTER-SEEDING	
	0.22									0.22	659	20000	0.22	TON	COMMERCIAL FERTILIZER	
	0.32									0.32	659	31000	0.32	ACRE	LIME	
	9									9	659	35000	9	MGA	WATER	
										7,500	832	30000	7,500	EACH	EROSION CONTROL	
				1						1	602	20000	1	CY	DRAINAGE CONCRETE MASONRY	
				218						218	611	04400	218	FT	12" CONDUIT, TYPE B	
				132						132	611	04600	132	FT	12" CONDUIT, TYPE C	
				5						5	611	98180	5	EACH	CATCH BASIN, NO. 3A	
				1						1	611	98370	1	EACH	CATCH BASIN, NO. 6	
				2						2	611	98470	2	EACH	CATCH BASIN, NO. 2-2B	
				2						2	611	99574	2	EACH	MANHOLE, NO. 3	
															PAVEMENT	
2,961										2,961	254	01000	2,961	SY	PAVEMENT PLANING, ASPHALT CONCRETE (T = 1.5")	
65										65	301	56000	65	CY	ASPHALT CONCRETE BASE, PG64-22, (449)	
86										86	304	20000	86	CY	AGGREGATE BASE	
334										334	407	10000	334	GAL	TACK COAT	
27										27	441	50200	27	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (448)	
140										140	441	70000	140	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), PG64-22	
96										96	441	70300	96	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (449) (VARIABLE DEPTH)	
			469							469	609	26000	469	FT	CURB, TYPE 6	
	LS									LS	SPECIAL	69098400	LS		SPECIAL - CONSULTANT FOR CONCRETE QUALITY CONTROL INC. TESTING AND INSPECTION	5
															PAVEMENT ALTERNATES	
						33				33	441	91000	33	SY	ASPHALT CONCRETE, MISC.: TRAFFIC PATTERNSXD STAMPED CROSSWALK DIAGONAL HERRINGBONE PATTERN (12-101), COLONIAL BRICK	5A

GENERAL SUMMARY

DESIGN AGENCY



DESIGNER
BMG

REVIEWER
DWS 10/28/21

PROJECT ID
110612

SHEET TOTAL
18 | 56

REF NO.	SHEET NO.	STATION TO STATION						202	202	202	202	202	202	606	606	606	608	608	609	608				
								PAVEMENT REMOVED	WALK REMOVED	CURB REMOVED	PIPE REMOVED, 24" AND UNDER	GUARDRAIL REMOVED	CATCH BASIN REMOVED		GUARDRAIL, TYPE MGS WITH LONG POSTS	ANCHOR ASSEMBLY, MGS TYPE E	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1		4" CONCRETE WALK	CURB RAMP		CURB, TYPE 6		WALKWAY, MISC.: SIDEWALK PAVERS
							SY	SF	FT	FT	FT	EACH		FT	EACH	EACH		SF	SF		FT	SF		
SR 725 (FRANKLIN STREET)																								
R-1	22	5+31.60	RT	TO	6+06.72	RT	47																	
R-2	22	5+54.93	RT	TO	7+38.88	RT	157																	
R-3	22	6+05.77	RT	TO	7+38.88	RT						133												
R-4	22	8+40.84	RT	TO	8+84.50	RT					45													
R-5	NOT USED																							
R-6	22 - 23	8+39.54	RT	TO	11+26.25	RT	553																	
R-7	23	9+19.28	RT	TO	9+69.71	RT			107															
R-8	23	8+56.17	RT	TO	9+38.26	RT				79		1												
R-9	23	10+41.15	RT	TO	11+22.00	RT			89															
R-10	NOT USED																							
R-11	23	10+41.59	RT	TO	11+02.81	RT		281																
R-12	23	10+87.73	LT	TO	11+17.76	LT		148																
R-13	23	10+96.76	LT	TO	11+03.76	LT	13																	
W-1	22	5+31.60	RT	TO	7+38.91	RT																		
W-2	22	8+39.54	RT	TO	8+81.08	RT																		
W-3	23	9+15.39	RT	TO	9+79.50	RT																		
W-4	23	10+29.45	RT	TO	11+02.81	RT																		
W-5	23	10+96.76	RT	TO	11+03.74	RT																		
W-6	23	10+87.73	LT	TO	11+17.76	LT																		
W-7	22	8+44.54	RT	TO	8+81.08	RT																		
W-8	23	9+15.39	RT	TO	9+79.50	RT																		
W-9	23	10+36.89	RT	TO	10+47.59	RT																		
C-1	22	5+54.93	RT	TO	7+38.88	RT																		
C-2	22	8+39.54	RT	TO	8+65.90	RT																		
C-3	22	8+64.23	RT	TO	8+84.00	RT																		
C-4	23	9+13.63	RT	TO	9+80.96	RT																		
C-5	23	9+28.87	RT	TO	9+66.88	RT																		
C-6	23	10+27.90	RT	TO	10+52.55	RT																		
C-7	23	10+42.59	RT	TO	10+96.79	RT																		
C-8	NOT USED																							
C-9	23	11+03.76	RT	TO	11+22.27	RT																		
GR-1	22	5+88.86	RT	TO	7+38.91	RT							75	1	1									
TOTALS CARRIED TO GENERAL SUMMARY							770	429	196	79	178	1	75	1	1			2092	499		469		153	

SUB-SUMMARY

DESIGN AGENCY



DESIGNER

BMG

REVIEWER

DWS 10/28/21

PROJECT ID

110612

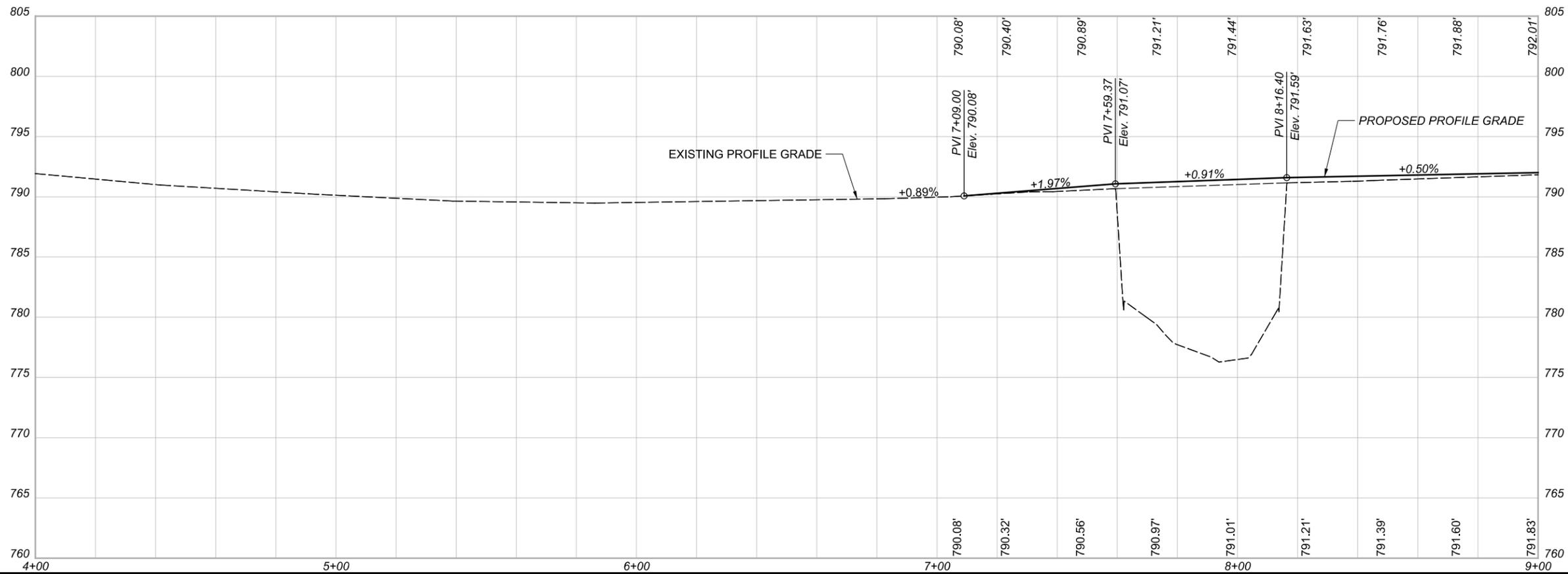
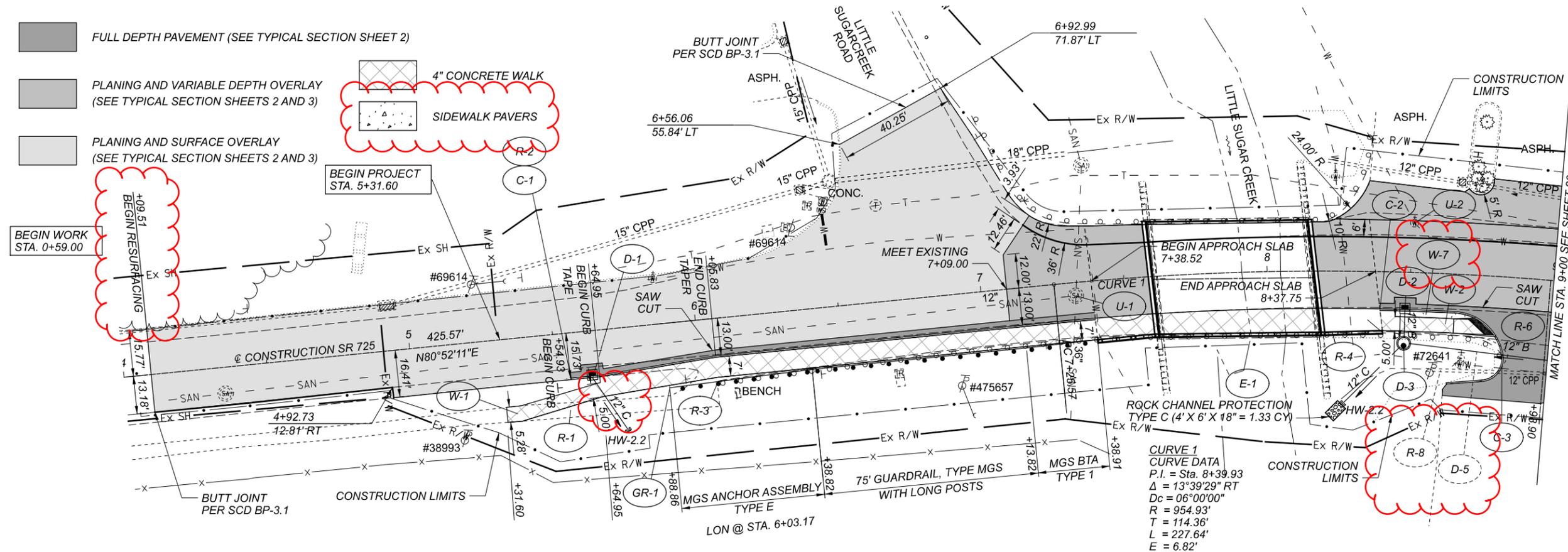
SHEET

TOTAL

20 | 56

PAVEMENT LEGEND

-  FULL DEPTH PAVEMENT (SEE TYPICAL SECTION SHEET 2)
-  PLANING AND VARIABLE DEPTH OVERLAY (SEE TYPICAL SECTION SHEETS 2 AND 3)
-  PLANING AND SURFACE OVERLAY (SEE TYPICAL SECTION SHEETS 2 AND 3)
-  4" CONCRETE WALK
-  SIDEWALK PAVERS

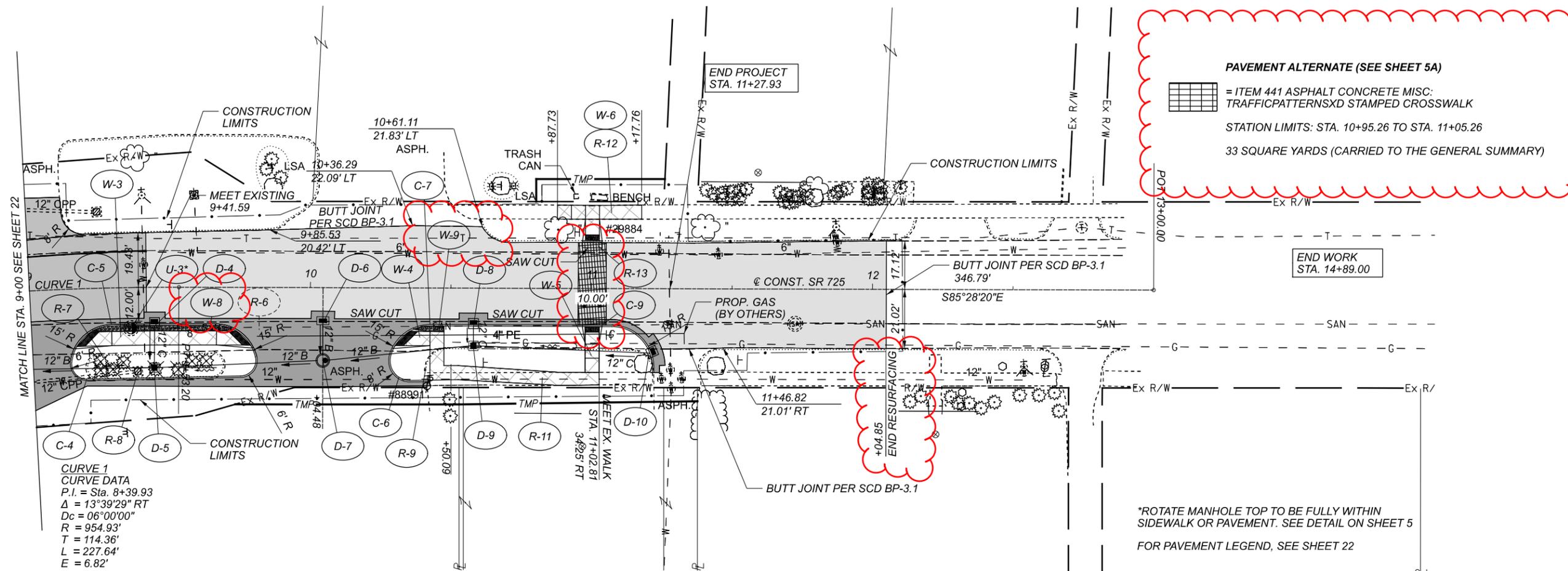


PLAN AND PROFILE
STA. 5+16.82 TO STA. 9+00.00

GRE-SR 725-1.91

MODEL: Plan [Sheet1] PAPER SIZE: 11x17 (in.) DATE: 3/16/2023 TIME: 5:44:55 PM USER: bgressel
 O:\City of Belbrook\1016387A.01 - GRE-SR725-19\101612-400-Engineer\Ing\Roadway\Sheet\101612_GPO01.dgn

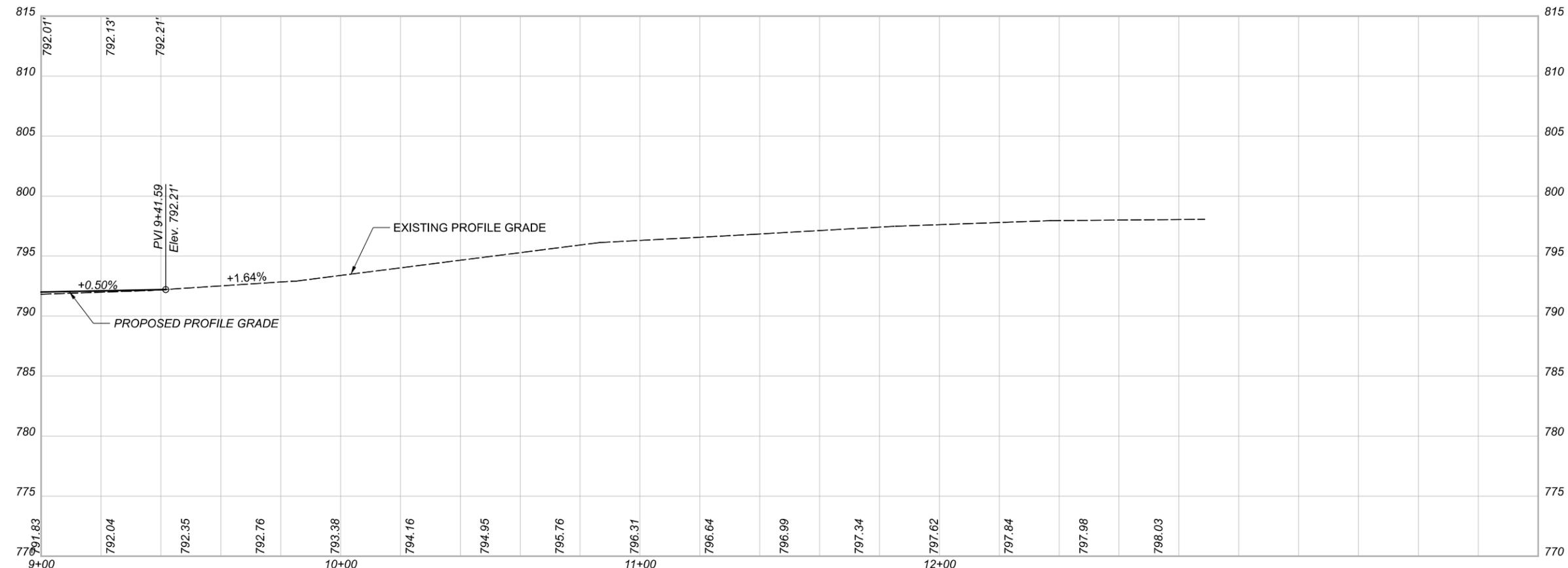
DESIGN AGENCY	
	
DESIGNER	BMG
REVIEWER	DWS
PROJECT ID	110612
SHEET	TOTAL
22	56



**CURVE 1
 CURVE DATA**
 P.I. = Sta. 8+39.93
 $\Delta = 13^\circ 39' 29''$ RT
 $D_c = 06^\circ 00' 00''$
 $R = 954.93'$
 $T = 114.36'$
 $L = 227.64'$
 $E = 6.82'$

PAVEMENT ALTERNATE (SEE SHEET 5A)
 = ITEM 441 ASPHALT CONCRETE MISC;
 TRAFFIC PATTERNS XD STAMPED CROSSWALK
 STATION LIMITS: STA. 10+95.26 TO STA. 11+05.26
 33 SQUARE YARDS (CARRIED TO THE GENERAL SUMMARY)

*ROTATE MANHOLE TOP TO BE FULLY WITHIN
 SIDEWALK OR PAVEMENT. SEE DETAIL ON SHEET 5
 FOR PAVEMENT LEGEND, SEE SHEET 22



PLAN AND PROFILE
 STA. 9+00.00 TO STA. 11+52.12

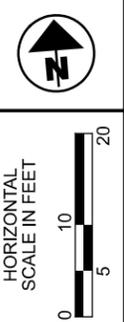
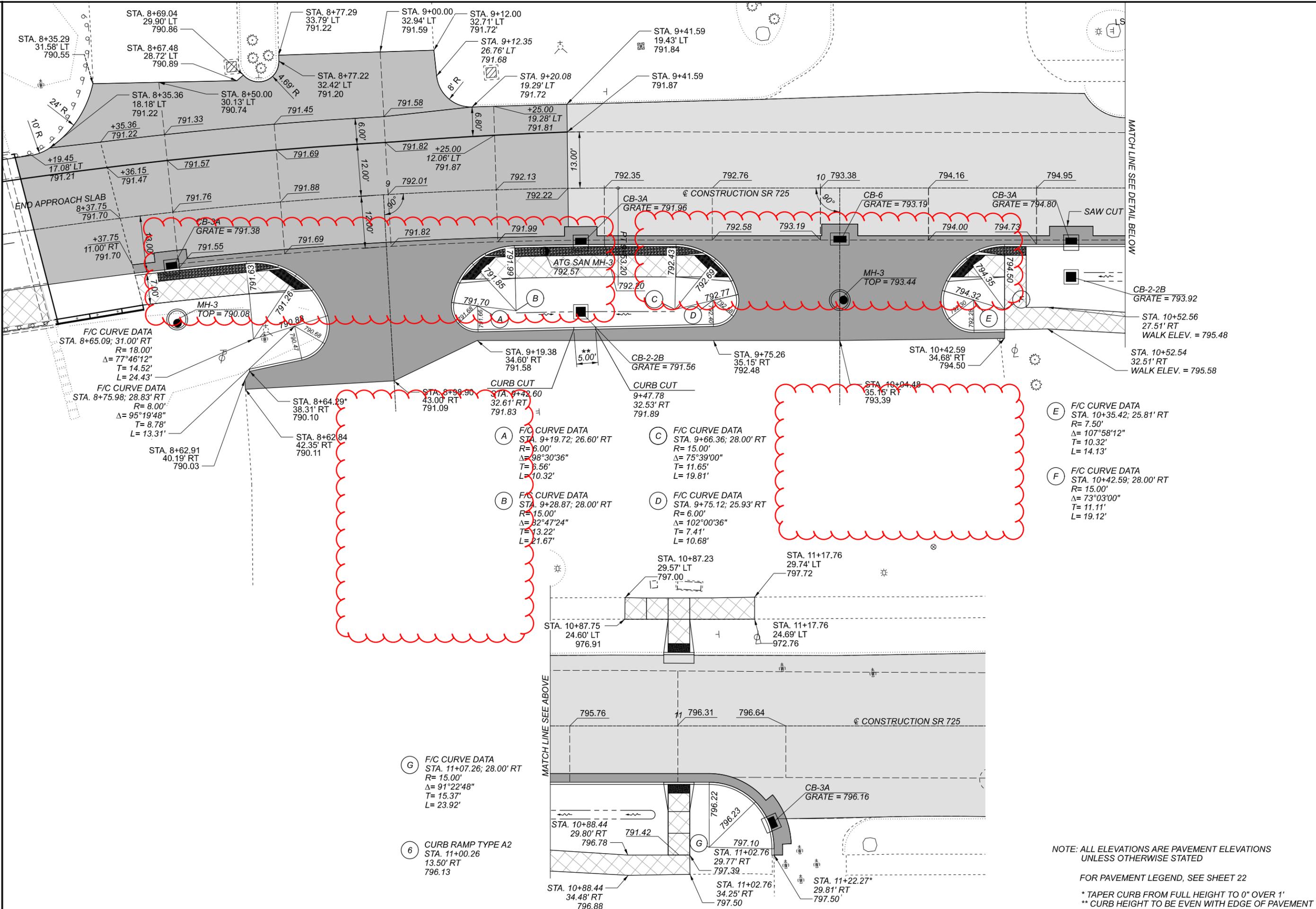
DESIGN AGENCY

DESIGNER
 BMG

REVIEWER
 DWS 10/28/21

PROJECT ID
 110612

SHEET TOTAL
 23 56



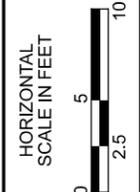
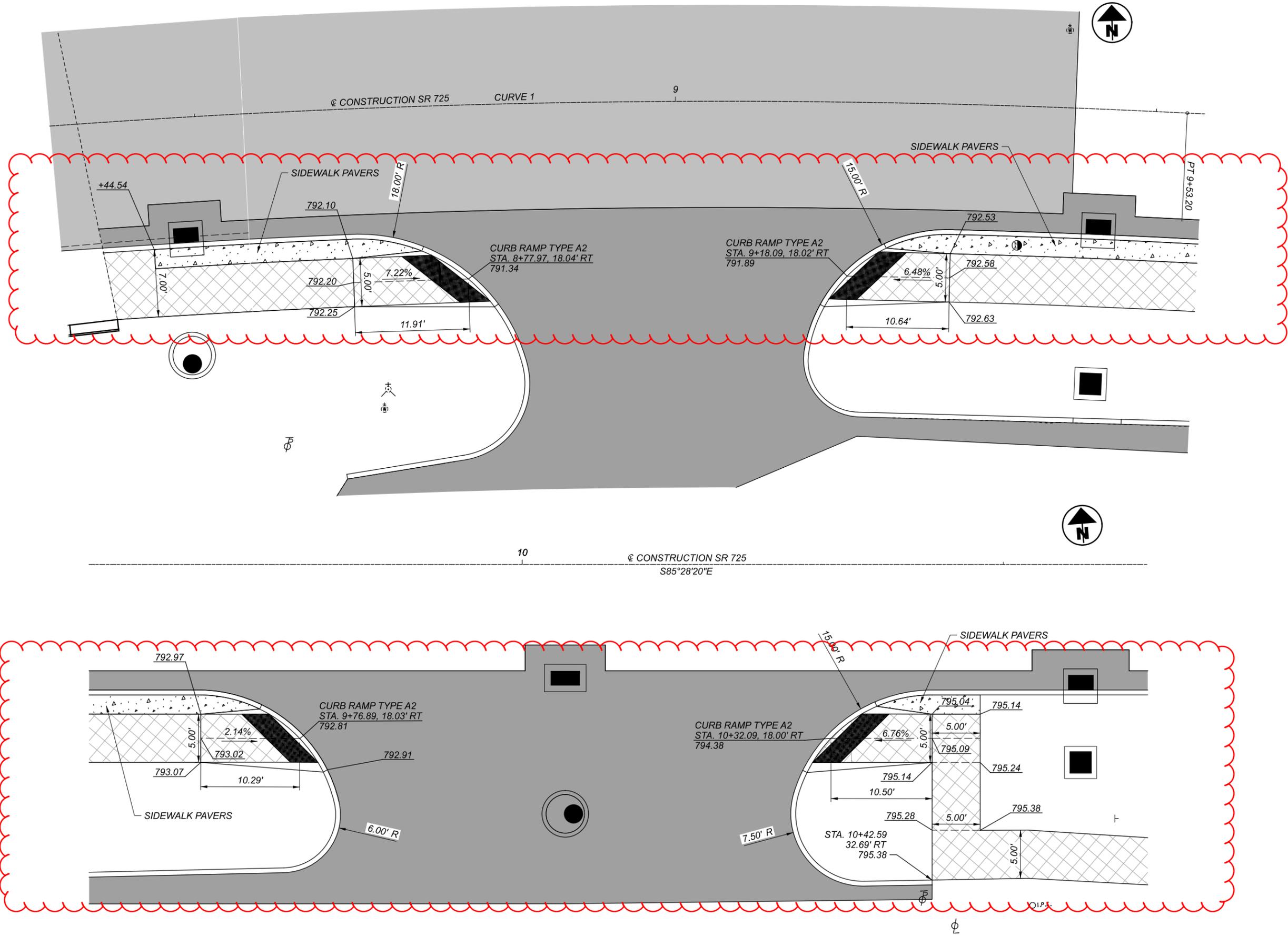
INTERSECTION DETAIL
STA. 8+19.45 TO STA. 11+27.26

- (G) F/C CURVE DATA
STA. 11+07.26; 28.00' RT
R= 15.00'
Δ= 91°22'48"
T= 15.37'
L= 23.92'
- (6) CURB RAMP TYPE A2
STA. 11+00.26
13.50' RT
796.13

- (A) F/C CURVE DATA
STA. 9+19.72; 26.60' RT
R= 6.00'
Δ= 98°30'36"
T= 6.56'
L= 10.32'
- (B) F/C CURVE DATA
STA. 9+28.87; 28.00' RT
R= 15.00'
Δ= 32°47'24"
T= 13.22'
L= 21.67'
- (C) F/C CURVE DATA
STA. 9+66.36; 28.00' RT
R= 15.00'
Δ= 75°39'00"
T= 11.65'
L= 19.81'
- (D) F/C CURVE DATA
STA. 9+75.12; 25.93' RT
R= 6.00'
Δ= 102°00'36"
T= 7.41'
L= 10.68'
- (E) F/C CURVE DATA
STA. 10+35.42; 25.81' RT
R= 7.50'
Δ= 107°58'12"
T= 10.32'
L= 14.13'
- (F) F/C CURVE DATA
STA. 10+42.59; 28.00' RT
R= 15.00'
Δ= 73°03'00"
T= 11.11'
L= 19.12'

NOTE: ALL ELEVATIONS ARE PAVEMENT ELEVATIONS UNLESS OTHERWISE STATED
FOR PAVEMENT LEGEND, SEE SHEET 22
* TAPER CURB FROM FULL HEIGHT TO 0" OVER 1'
** CURB HEIGHT TO BE EVEN WITH EDGE OF PAVEMENT

DESIGN AGENCY	
DESIGNER	BMG
REVIEWER	DWS
PROJECT ID	110612
SHEET	33
TOTAL	56

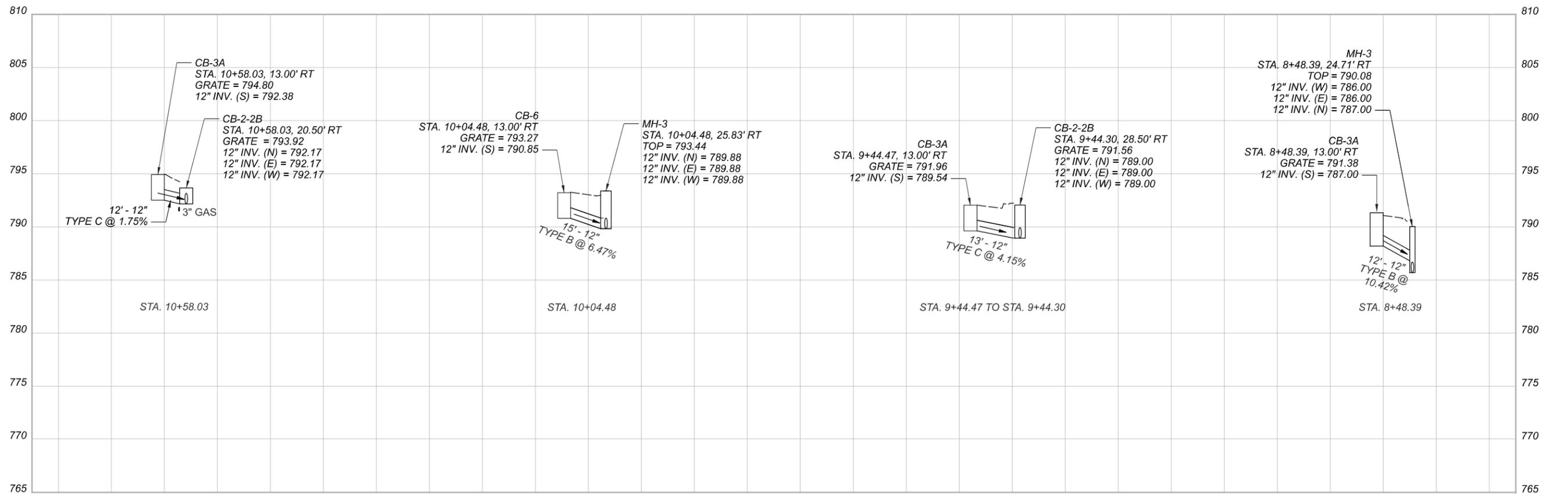
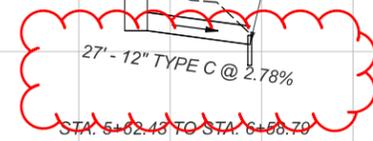
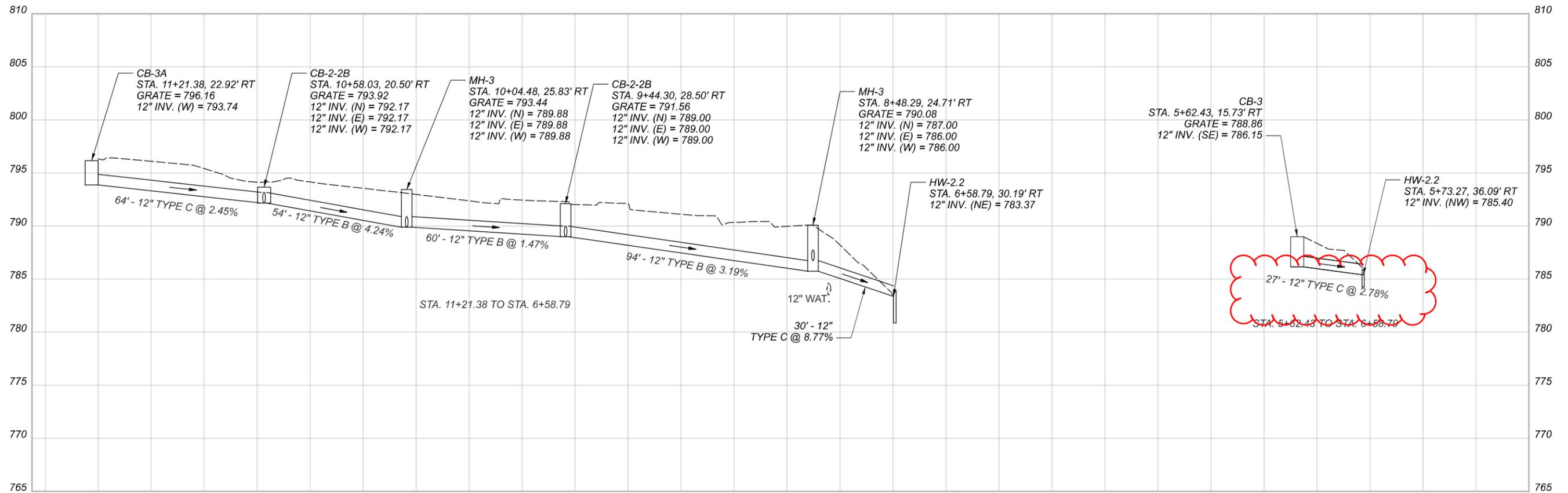


CURB RAMP DETAILS
 STA. 3+90.00 TO STA. 6+50.00

DESIGN AGENCY



DESIGNER	BMG
REVIEWER	DWS
DATE	10/28/21
PROJECT ID	110612
SHEET	34
TOTAL	56



STORM SEWER PROFILES
 STA. 6+58.78 TO STA. 11+21.38

DESIGN AGENCY



DESIGNER	BMG
REVIEWER	
DWS	10/28/21
PROJECT ID	110612
SHEET	TOTAL
36	56

REF NO.	SHEET NO.	STATION TO STATION				644	644	644	644	644	644	644	644	644	646	646								
						EDGE LINE, 4"	CENTER LINE, (DOUBLE SOLID)	CHANNELIZING LINE, 8"	STOP LINE	CROSSWALK LINE, 12"	CROSSWALK LINE, 24"	TRANSVERSE/DIAGONAL LINE	LANE ARROW	DOTTED LINE, 4"	YIELD LINE		EDGE LINE, 4"	CENTER LINE, (DOUBLE SOLID)						
					MILE	MILE	FT	FT	FT	FT	FT	FT	EACH	FT	FT		MILE	MILE						
SR 725 (FRANKLIN STREET)																								
D1	39	4+90.00	TO	6+26.00		0.04																		
E1	39	4+90.00	TO	7+42.00	0.07																			
E2	39	4+90.00	TO	5+96.00	0.04																			
O1	39	6+26.00	TO	6+89.00										106										
S1	39	6+26.00						12																
S2	39	6+26.00	TO	6+89.00				48																
A1	39	6+66.00										1												
A2	39	6+66.00										1												
C1	39	6+70.00	TO	6+79.00			21																	
D2	39	6+80.00	TO	6+89.00		0.01																		
E3	39	6+91.00	TO	7+59.00	0.02																			
S3	39	7+43.00						12																
D3	39	7+43.00	TO	7+60.00																				
EL4	39	7+59.00	TO	8+15.00													0.01							
EL5	39	7+61.00	TO	8+17.00													0.01							
DL4	39	7+60.00	TO	8+16.00														0.01						
E6	39	8+15.00	TO	8+77.00	0.01																			
E7	39	8+17.00	TO	8+66.00	0.01																			
D5	39 - 40	8+16.00	TO	10+94.00		0.05																		
S4	39	8+92.00						16																
E8	40	9+12.00	TO	9+98.00	0.02																			
T1	40	9+51.00	TO	9+74.00								50												
E9	40	9+29.00	TO	9+66.00	0.01																			
E10	40	10+43.00	TO	10+94.00	0.01																			
E11	40	10+51.00	TO	10+94.00	0.01																			
Y1	40	10+67.00	TO	10+67.00											12									
X1	40	10+94.00	TO	10+94.00				59	50															
E12	40	11+06.00	TO	11+25.00	0.02																			
E13	40	11+06.00	TO	11+31.00	0.02																			
Y2	40	11+31.00	TO	11+31.00											12									
D6	40	11+06.00	TO	12+05.00		0.02																		
TOTALS CARRIED TO GENERAL SUMMARY					0.24	0.12	21	88	59	50	50	2	106	24.00	0.02	0.01								

PAVEMENT MARKING SUB-SUMMARY

DESIGN AGENCY

 DESIGNER
 BMG
 REVIEWER
 DWS 10/28/21
 PROJECT ID
 110612
 SHEET TOTAL
 37 56



ESTIMATED QUANTITIES					
ITEM	ITEM EXTENSION	TOTAL	UNIT	DESCRIPTION	AS PER PLAN SHEET NO.
202	11203	LUMP		PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN	2/12
202	23501	441	SQ YD	WEARING COURSE REMOVED, AS PER PLAN	2/12
509	10000	11793	LB	EPOXY COATED REINFORCING STEEL	
509	40000	3369	LB	REINFORCING STEEL, MISC.: GALVANIZED REINFORCEMENT	2/12
510	10001	1484	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT, AS PER PLAN	2/12
511	31610	60	CU YD	CLASS QC2 CONCRETE, SUPERSTRUCTURE	
511	45710	4	CU YD	CLASS QC1 CONCRETE, ABUTMENT	
511	51510	25	CU YD	CLASS QC2 CONCRETE, SIDEWALK	
512	10050	104	SQ YD	SEALING OF CONCRETE SURFACES (NON-EPOXY)	
512	10101	104	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN	2/12
512	10300	14	SQ YD	SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN	
516	11210	80	FT	STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL	
517	75120	99	FT	RAILING (CONCRETE PARAPET WITH TWIN STEEL TUBE RAILING)	
517	75600	63	FT	DEEP BEAM BRIDGE RETROFIT RAILING	
SPECIAL	51822300	70	FT	STEEL DRIP STRIP	

QUANTITIES CALCULATED BY: AMT APRIL 2021
 QUANTITIES CHECKED BY: NRP APRIL 2021

ESTIMATED QUANTITIES
 BRIDGE NO. GRE-SR725-193
 SR 725 OVER LITTLE SUGAR CREEK

SFN	2902788
DESIGN AGENCY	
DESIGNER	AMT
CHECKER	NRP
REVIEWER	DWS
DATE	10/28/21
PROJECT ID	110612
SUBSET	3
TOTAL	12
SHEET	43
TOTAL	56